City of Philadelphia
Debt Management Policy
August 2015

I. INTRODUCTION

While the issuance of debt is often an appropriate method of financing capital projects and major equipment acquisition, it needs to be monitored to maintain financial integrity, flexibility, and credit strength. The City of Philadelphia (the "City") recognizes that the foundation of a well-managed debt program is a comprehensive debt management policy. This policy will address appropriate ways to structure debt issuances, prudent uses for different types of debt financings, and guidelines for bond sales.

The debt program managed by the City includes general obligation debt, tax-supported service agreement and lease debt issued by related authorities (including, but not limited to the Philadelphia Authority for Industrial Development, the Philadelphia Municipal Authority, the Philadelphia Redevelopment Authority, and other similar entities), debt of the Water Department, Division of Aviation, and debt of the Philadelphia Gas Works ("PGW"). Debt of the Pennsylvania Intergovernmental Cooperation Authority ("PICA"), School District of Philadelphia (SDP), and the Philadelphia Parking Authority ("PPA") is managed by those governmental entities respectively. While the guidelines contained within relate mainly to the City's issuance of tax-supported debt, there is applicability to revenue bond issuance as well.

The Director of Finance has overall responsibility for City debt issuance. Day-to-day debt management is the responsibility of the City Treasurer, including supervision of debt issuance and management of staff responsible for debt service payment. The Office of the City Treasurer and the City Solicitor's Office coordinate their activities to ensure that all debt is issued in compliance with federal, state, and local laws.

II. OBJECTIVES

The City's General Obligation bond ratings are currently A2 / A+ / A- by Moody's, S&P, and Fitch, respectively. While these credit ratings have recently improved, they are still below average for a major municipality and consequently, the City pays a higher interest rate on amounts borrowed than its peers. It is the goal of the City to continue to maintain and, if possible, improve its bond ratings, which would result in lower interest costs and a reduced burden on the City's General Fund. This policy will assist the City in this goal through the maintenance of sound debt practices. In addition, this policy will set forth appropriate guidelines for bond sales.

The Office of the City Treasurer will use these policies to determine appropriate uses of debt, parameters for debt issuance, and the method of bond sale. This policy will be used in conjunction with the City's Swap Policy dated April 2014. In addition, this policy will be reviewed periodically and updated as needed.

III. TYPES OF LONG TERM DEBT

General Obligation Debt The City can issue general obligation debt, backed by the full faith, credit and taxing power of the City, subject to voter approval and subject to adherence to the Commonwealth Constitution. The Constitution limits the amount of the City's outstanding general obligation debt to 13.5% of the immediately preceding 10-year average of assessed value of taxable real property, with debt greater than 3% of the immediately preceding 10-year average of assessed value of taxable real property having to get voter approval. This limitation does not include self-supporting general obligation bonds, which are defined as general obligation debt incurred for revenue producing facilities that are expected to produce excess revenues sufficient to cover debt service on the bonds. Because (i) and the implementation of the Assessed Value Initiative will cause a substantial increase in the City's debt limit over the coming years, and (ii) property taxes are not one of the largest sources of revenue, this Constitutional limitation does not provide a meaningful restriction.

Service Agreement and Lease Debt

In addition to general obligation debt, the City issues general fund-supported obligations through its related authorities. Debt issued by related authorities is secured by long-term contracts called "service agreements" or "lease agreements" whereby the City covenants to budget and appropriate annual payments from the City's general fund to the related authorities are sufficient to cover debt service as long as the debt is outstanding. The City's covenant to budget and appropriate each fiscal year for these payments and the City's obligation to make these payments are unconditional. Because of this, each rating agency views the City's service agreement and lease debt with the same credit strength as the General Obligation bonds and have assigned the same credit ratings to both.

The primary authorities that are used to issue general fund supported debt are: Philadelphia Authority for Industrial Development (PAID), the Philadelphia Municipal Authority (PMA), and the Philadelphia Redevelopment Authority (PRA). In addition to general fund supported debt, some city enterprise funds such as the Aviation Department have occasionally issued debt through the City's related authorities.

Revenue Bonds

The City Treasurer also oversees the issuance of revenue bonds for the Water Department, the Aviation Department, and PGW. The Airport Revenue Bonds are rated A2 / A / A by Moody's, S&P, and Fitch, respectively. The Water and Wastewater Revenue Bonds are rated A1 / A / A+ and the Gas Works Revenue Bonds are rated Baa1 / A- / BBB+ (1998 Senior Ordinance) by Moody's, S&P, and Fitch, respectively. These revenue bonds are not included in the City's calculations in Section V. General Fund Fixed Cost Affordability because they are paid from non-general fund revenue sources.

IV. GENERAL PRINCIPLES FOR DEBT ISSUANCE

General guidelines which the City intends to follow are:

- Debt to fund capital projects should only be issued if the capital projects are authorized and included in the City's six-year Capital Program.

- The average life of debt should be no greater than the projected average life of the assets being financed and the final maturity should be limited to 30 years. The City may consider final maturities longer than 30 years when the useful lives of the assets to be financed are considerably longer than 30 years, as may be the case with certain revenue bonds.

- Principal should generally be amortized to achieve approximately level debt service; however, principal repayment can be structured to result in more rapid amortization (front-loaded debt service). In addition, the repayment structure from prior bond issues may warrant consideration when structuring principal and interest payments. An example of this is the series 1999 pension obligation bonds which were structured with a substantially higher debt service payment in fiscal 2029. The administration should take this into consideration when structuring future debt to minimize adding to the already high debt service burden in fiscal 2029.

- For tax supported debt, principal amortization should generally be structured to reach a target of 50% of all outstanding principal scheduled to be repaid within 10 years. This provides increased financial flexibility and debt capacity in future years. However, consideration for a longer scheduled principal repayment percentage should be given if asset life is significantly longer than 30 years.

- Long-term debt obligations should generally be callable in no later than 10 years. This provides flexibility to refund bonds if interest rates decline.

- Debt should generally be limited to serial and term maturities but can be sold in the form of capital appreciation bonds (CABs) or other forms if market conditions warrant. Interest on a capital appreciation bond is compounded over time and paid at maturity. Because of this, interest payments are delayed until future years which can constrain future financial flexibility. However, it may be advisable to issue CABs if market demand is strong for CABs and overall debt service for the bond issue is still level.

- Any premium above par received from the sale of bonds (after downsizing the issue to meet the required proceeds, if applicable) should be used to pay the costs of issuance or be deposited into the Sinking Fund Account for payment of debt service.

- The City will aim to fund a portion of routine capital projects in each year's capital program with pay-as-you-go financing.

V. GENERAL FUND FIXED COST AFFORDABILITY

In order for the City to maintain a balance between fixed costs and available resources, certain self-imposed limitations should be set. These limitations will be reviewed annually to determine continued applicability and appropriateness.

The ratios that are the most applicable to monitor the City's debt levels relate to debt service and other fixed costs as a percentage of budget. The City looks at fixed costs as a percentage of the general fund budget because it is a good measure of financial flexibility. The higher the fixed costs as a percentage of budget, the less financial flexibility the City has. It is important to note that debt as a percentage of market value is less applicable to the City than it is to other municipalities because of the relatively low percentage of the City's revenues derived from property taxes. For this reason, a ratio of debt to market value is not considered an appropriate target for the City's debt policy.

The largest fixed cost in the City's general fund budget is the payment to amortize the City's unfunded pension liability. The City is currently paying the Minimum Municipal Obligation (MMO) annually which is the lowest amount that the City is statutorily allowed to fund. There is limited flexibility to lower this payment as the Commonwealth of Pennsylvania's approval is required.

The first ratio that the City uses to monitor its debt levels is:

	Target
Tax Supported Debt Service plus Long Term Obligations as a Percentage of General Fund Expenditures.	15% maximum

Tax Supported Debt Service is defined as debt service on general obligation bonds and other tax-supported debt less any self-supporting general obligation debt. For purposes of this calculation and the calculation of the ratios below, it does not include PICA debt service. Long Term Obligations include the MMO (excluding Normal Costs), ongoing payments to the School District, amounts payable by the City under the Convention Center Operating Agreement between the City, the State, and the Pennsylvania Convention Center Authority once the agreement has been signed ($15 million annually), and other fixed costs such as the Eagles Stadium Operating and Expense Reimbursement ($7 million to $12 million annually), but does not include other leases, or facilities that the City has or may enter into. This figure also includes costs to enter into Letters of Credit and Remarketing Agreements to support the City's variable rate debt program.

In fiscal 2014, this ratio was 20.5%, and in FY 15 it is expected to be 22.0%. The 15% limit reflects the City's desire to reduce the percentage of its budget which is fixed in future years to assist with financial flexibility.

In addition to the above ratio, it is useful to look at the City's debt service costs as a percentage of general governmental expenses as this ratio can easily be compared to the same ratio of municipalities across the country. The credit rating agencies often cite this ratio in their reports and analysis. The ratio is as follows:

	Target
Net Direct Debt as a Percentage of Full Value (total taxable value)	3.5% maximum

This ratio is looked at both with and without pension obligation debt service because by issuing pension obligation bonds, the City is substituting one fixed liability (pension costs) for another (debt service).

The metric of debt to full value is a measure of how much of a burden debt service payments could be to a future tax base, and usually includes underlying and overlapping debt that is not under direct control of the City (i.e. debt of the Philadelphia School District). Prior to the implementation of AVI, this calculation would have been difficult to compare the City to other peer issuers. According to Moody's, net direct debt as a percentage of full value ranges from 1.75% to 4% to indicate an "A" category rating, and between 4% and 10% to indicate a "Baa" category rating.[1] The City's FY15 expected percentage is 5.9% (excluding pension bonds) and 7.3% (including pension bonds).

VI. REFINANCING OUTSTANDING DEBT

Refunding opportunities should be monitored on an ongoing basis to evaluate potential savings. A present value analysis should be prepared to analyze the potential savings and all costs of the refinancing should be taken into account. The present value analysis should be calculated on the transaction as a whole and on a maturity-by-maturity basis. To proceed with the refinancing, the present value savings should be at least three percent of the principal amount of the refunded debt incorporating all costs of issuance. In addition, for advance refundings, the City will consider the following criteria in making its decision to select individual bonds on a maturity by maturity basis:

<table>
<tr><th><u>Refunding Test</u></th><th><u>Criteria</u></th><th><u>Criteria</u></th></tr>
<tr><td>1. PV Savings Grid</td><td>Grid</td><td>A refunding candidate passes the PV Savings Grid if present value savings generate at least the following:
<table>
<tr><td></td><td colspan="4">Years to Call Date</td></tr>
<tr><td rowspan="5">Years from call date to maturity date</td><td></td><td>0 to 2</td><td>3 to 7</td><td>8 to 10</td></tr>
<tr><td>0 to 5</td><td>0.5%</td><td>1.0%</td><td>2.0%</td></tr>
<tr><td>6 to 10</td><td>1.0%</td><td>2.5%</td><td>4.0%</td></tr>
<tr><td>11 to 15</td><td>3.0%</td><td>4.0%</td><td>5.0%</td></tr>
<tr><td>16 to 20</td><td>4.0%</td><td>5.0%</td><td>5.5%</td></tr>
</table>
</td></tr>
<tr><td>2. Option Value</td><td>>65%</td><td>The Option Value Test selects refunding candidates by measuring refunding savings against the theoretical value of the call option for each refunding candidate; A refunding candidate passes the Option Value test if the refunding savings are greater than 65% of theoretical</td></tr>
</table>

[1] Moody's Investors Service, "US Local Government General Obligation Debt", issued January 15, 2014

		Option Value.
3. Negative Arbitrage Efficiency	<75%	A refunding candidate passes the Negative Arbitrage Efficiency Test if negative arbitrage is less than 75% of present value savings.
4. Rate Efficiency	<40%	A refunding candidate passes the Rate Efficiency Test if the increase in present value savings (vs currently achievable savings) under a 25 bps lower rate scenario is less than 40%.

If variable rate bonds are being issued with an associated swap, the present value savings should be at least five percent of the principal amount of the refunded debt to account for the additional interest rate and credit risk associated with these transactions.

For variable rate bonds, a present value savings cannot be reliably computed since interest rate pricing varies from week to week. However, the City should analyze the estimated savings from a refunding of variable rate debt based on historical interest rates to determine whether to determine whether to proceed.

Some refundings may take place for reasons other than for present value savings in which case these refundings do not need to meet the savings test. Reasons for issuing refunding bonds other than present value savings could be to restructure debt or to change bond covenants contained in an indenture. For all refunding bonds, maturities should not extend beyond the final maturity of the refunded bonds and savings should be taken on a level basis for the life of the debt.

When contemplating a general obligation bond refunding transaction, the impact on the City's legal debt limit should be calculated. A transaction with a greater par amount, even if it is expected to meet the present value savings tests detailed above, will use general obligation debt capacity that might be needed in the future. This comes up most frequently with advance refunding transactions.

Current Refundings

For current refundings, the refunding escrow may not exceed 90 days.

Advance Refundings

For advance refundings, the refunding escrow exceeds 90 days. Because municipal tax exempt bonds issued after 1985 cannot be advance refunded more than once, the City should carefully consider the benefits and opportunity costs of moving forward on an advance refunding.

VII. VARIABLE RATE AND SHORT TERM DEBT

Variable rate debt can be used for several purposes, including achieving a lower cost of borrowing by accepting a degree of interest rate risk, offsetting the risks associated with variable rate short term assets, or for short-term financing needs. Variable rate debt most often can be redeemed on short notice without penalty so the use of variable rate debt increases financing flexibility if a debt prepayment is expected. In addition, variable rate debt can act as a hedge to short term cash investments.

Criteria for Use of Variable Rate Debt

Variable rate debt must be managed prudently as the City needs to have the financial wherewithal to handle the fluctuations in interest rates which occur over time. Because of this, the proportional amount of total variable rate debt to debt should be limited.

	Target
Amount of Total Variable Rate Debt as a percentage of Debt	35% Maximum

While 35% is the target, efforts should be made to keep this percentage well below this for bonds rated below the ‘A’ category. This limitation should be calculated separately for general fund supported debt (currently 9.1%), Airport Revenue Bonds (11.0%), Water and Wastewater Revenue Bonds (5.6%) and Gas Works Revenue Bonds (25.7%).

Another ratio which needs to be taken into consideration is the amount of unhedged variable rate debt as a percentage of all debt. Unhedged variable rate debt refers to variable rate debt not hedged through the use of interest rate swaps.

Description	**Target**
Amount of Unhedged Variable Rate Debt as a percentage of Debt.	15% Maximum

This limitation should be calculated separately for general fund supported debt (currently none), Airport Revenue Bonds (none), Water and Wastewater Revenue Bonds (3.0%), and Gas Works Revenue Bonds (3.0%).

When deciding whether to issue any variable rate debt, historic averages of cash balances should be evaluated to confirm that the financial flexibility is available if interest rates rise or in the case of hedged variable rate debt, if there is a dislocation between the swap rate and the bond rate. This is explained in more detail in the City’s Swap Policy dated April 2014. For any contemplation of hedged variable rate debt, provisions set forth in the City’s Swap Policy should be adhered to.

Main Types of Short Term Debt

- Tax and Revenue Anticipation Notes (TRANs) – TRANs are short term notes secured by a pledge of taxes and other general fund revenues. The City has issued TRANs annually since 1972 (with a single exception) to manage the timing mismatch between general fund revenues and expenditures during the year. TRANs in recent years have generally been sized around $100 million, and the City aims to maintain future TRANs at this level. TRANs must be repaid in full by the end of the fiscal year in which they are issued.

Commercial Paper (CP) – CP has maturities of up to 270 days and is commonly used to finance project construction. It can be issued incrementally as funds are needed and then refunded with a long-term financing once the project is completed to take advantage of lower short-term rates. Both the Airport and PGW have capital CP programs. PGW may also issue CP for the financing of working capital related to receivables.

- Bond Anticipation Notes (BANs) – BANs are short term obligations, repayment of which is backed by proceeds of an upcoming authorized bond issue.

VIII. BOND SALE GUIDELINES

Selection of Bond Professionals

In selecting bond professionals, including financial advisor and bond counsel services, the City and its related agencies must comply with Chapter 17-1400 of the Philadelphia Code, the City's Contract Reform Legislation. This sets forth provisions regulating the process by which the City awards professional service contracts and other noncompetitively bid contracts. While the Contract Reform Legislation is not applicable to the selection of bond underwriters, the City will choose underwriters for a negotiated sale through a Request for Qualifications ("RFQ") to select underwriting pools, and a Request for Expressions of Interest ("REI") to select managers for a specific transaction, a process similar to that for bond professionals covered under the Contract Reform Legislation except for in emergency situations. In circumstances where an underwriter has presented a unique and actionable idea, the City may at its discretion take this factor into consideration when selecting underwriters.

Method of Sale – Competitive v. Negotiated

There are two methods of issuing bonds, a competitive sale and a negotiated sale. In a competitive sale, underwriters submit sealed bids and the sale is awarded to the underwriter syndicate with the lowest all-in True Interest Cost (TIC). In a negotiated sale, the underwriter(s) are chosen through a REI process and the interest rate and underwriter's fees are negotiated prior to sale.

Each proposed sale of bonds should be evaluated to determine if it is in the City's best interest to issue the bonds by competitive or negotiated sale. Competitive sales usually result in lower costs of borrowing to municipal borrowers; however certain factors might make a negotiated sale result in a lower cost of borrowing. The factors to be considered include the following:

- Volatility of market conditions: It is generally thought that during volatile market conditions, it is best to issue bonds by negotiated sale so that the underwriters can help determine the timing of the bond sale

- Size of the bond deal: The bond size is an important determinant of market demand. Transactions that are very big or very small might benefit from a negotiated sale's increased marketing. A small bond transaction might not attract enough market attention without a sales effort while the market might have a difficult time absorbing a large bond deal without pre-sale activity.

  Source of security for the bonds: Bond transactions with complex or new types of securities might benefit from a negotiated sale as the market is often reluctant to accept new innovations without a pricing penalty. New types of debt instruments might require an education process that lends itself better to a negotiated process. As the market becomes more familiar with a certain type of debt instrument, the need for a negotiated sale for this reason diminishes.

- Credit Strength: Issuers with higher credit ratings might fare better in competitive bidding than those with credit ratings on the weaker end of the spectrum due to the demand for high rated municipal paper. Lower rated bonds can benefit from the sales effort that comes with a negotiated sale. However, if a lower rated borrower comes to the market frequently, the need for a negotiated sale for this reason diminishes because the market is more familiar with the credit.

- Syndicate Composition: A Competitive sale does not provide the City with influence over choosing the underwriting syndicate. If influencing the composition of the syndicate to obtain disadvantaged business participation is important, then a negotiated sale might be the best method. If a negotiated sale is chosen for this reason, the criteria and rational for the selection should be clearly stated to avoid appearances of favoritism.

Allocation of Bonds

The book-running senior manager is responsible for ensuring that the overall allocation of bonds meets the City's goals of obtaining the best price for the issue and providing firms with allocations that are commensurate with work performed. The City reviews and approves bond allocations prior to their release. The most common priority for assigning orders is:

- Retail orders, especially those from Pennsylvania, should be given first priority.
- Net designated institutional orders should be given second priority.
- Group net orders and member orders should be given the lowest priority.

Priority Policy

It is typical for the City to have six to eight firms on a long-term fixed rate bond deal. The standard priority policy for net designated orders is as follows:

1. At least four firms must be designated.
2. No firm may receive more than 50% of any designation.
3. At least one minority firm must be designated.
4. Each designee must receive a minimum of 10% for each priority order.

Liability

Liability for the transaction is typically set at 50% for the book runner and the remainder is split evenly between the co-seniors and co-managers.

In some recent years, the City's TRANs have been sold competitively.

IX. INVESTOR AND RATING AGENCY COMMUNICATION

Continuing Disclosure

The City will comply with Securities and Exchange Commission (SEC) Rule 15c2-12 which requires an annual filing with the MSRB's Electronic Municipal Market Access (EMMA), which provides financial information and operating data relevant to investors in City and related authority obligations. The City files its Comprehensive Annual Financial Report, the Annual Report of Bonded Indebtedness, the Airport Department's Annual Report, the Water and Sewer Department's Annual Report, and PGW's Annual Report. In addition, the City files material event notices when required under Rule 15c2-12. The items which constitute material events are listed in the Continuing Disclosure Agreement in each bond series Offering Statement.

The City is currently contracted with an outside firm, Digital Assurance Certification (DAC), to provide dissemination services to the City with respect to General Obligation Bonds, Airport Revenue Bonds, Gas Works Revenue Bonds, Water and Wastewater Revenue Bonds, and certain City-related service agreement and lease debt. The primary contact and responsible person for communication with DAC regarding continuing disclosure issues is the Executive Director of the Sinking Fund Commission; secondary responsibility lies with the Deputy Treasurer-Debt; and the City Treasurer has supervisory responsibility.

Rating Agency Communication

The City will make every reasonable effort to maintain and improve its bond ratings. To this goal, the City should keep a line of communications open with the rating agencies, informing them of major financial events in a timely manner. All communications should be made by the Finance Director or the City Treasurer or individuals they specifically designate. In addition to phone calls updating the rating agencies on financial events, in-person meetings should be scheduled at least once a year or more often as conditions warrant.

X. POST-ISSUANCE COMPLIANCE

On February 3, 2012 the City adopted Tax Compliance Procedures for Tax-Exempt Bonds. These procedures detail the policies and procedures that the City is taking to remain in compliance with the rules and regulations of the Internal Revenue Service in regards to the tax-exempt bonds that the City issues. These procedures apply to tax-exempt General Obligations bonds, Tax and Revenue Anticipation Notes, as well as other tax-supported debt issued by the Philadelphia Authority for Industrial Development, the Philadelphia Municipal Authority, the Philadelphia Parking Authority and the Philadelphia Redevelopment Authority. The policies and procedures also apply to the revenue bonds issued by the Philadelphia Gas Works, the Philadelphia Water Department and the Philadelphia Airport. Certain sections also apply to private activity bonds. This document is included in the Debt Management Policy as an appendix.

XI. OTHER

Arbitrage Requirements

The City will comply with all of its tax certificates for tax-exempt financings by monitoring the arbitrage earnings on bond proceeds on an interim basis and by rebating all positive arbitrage when due, pursuant to Internal Revenue Code Section 148. The City currently employs an arbitrage consultant to prepare these calculations.
Securities and Exchange Commission Municipal Advisor Rule – Notice of Representation by_ [2]Registered Municipal Advisor

(1)In response to SEC Rule 15Ba1-1(d)(3)(vi)(B) which exempts from the municipal advisor definition for purposes of the Securities Exchange Act of 1934, as amended, any persons providing recommendations on the issuance of municipal securities and municipal financial products that are particularized to the City's specific needs (hereinafter the "Recommendations") in a circumstance in which the City is otherwise represented by an independent registered municipal advisor with respect to the same aspects of a municipal financial product or issuance of municipal securities, the City, with respect to its various debt programs will provide a notice or notices of representation by registered municipal advisor (collectively, the "Notice of Representation") pursuant to SEC Rule 15Ba1-1(d)(3)(vi)(B). In accordance therewith, the Notice of Representation will state, in substance:

(1) The City notifies investment banking firms that it wishes such firms to continue to provide Recommendations;

(2) The City affirms that it is represented by one or more financial advisory firms identified therein (collectively, the "City Financial Advisor") which have been retained by the City to, among other things, provide advice to the City with respect to municipal financial products and the issuance of municipal securities with respect to each of the City's respective debt programs, including advice with respect to the structure, timing, terms and other similar matters concerning such financial products and issues;

(3) The City affirms that it will rely on the advice of the applicable City Financial Advisor(s) in evaluating any and all Recommendations with respect to the applicable City debt program;

has represented to the City that it is registered as a municipal advisor with the Securities and Exchange Commission and the Municipal Securities Rulemaking Board[3].

(5) The names of the City Financial Advisors currently under contract with the City and the personnel of such firms who will advise the City concerning the Recommendations with respect to the applicable City debt program[4]; and

have (6) Except as otherwise provided in the Notice of Representation, each City Financial Advisor has represented to the City that the applicable personnel listed in the Notice of

[2] Would not refer to "independent". A municipal advisor could be independent with respect to certain investment banks but not all.
[3] Deleted certification as to independence, as noted in (1) above.
[4] This will provide information that the respective investment banks can use to assess whether there are associated persons.

Representation have not been associated with an investment banking firm within the two years prior to the date of the Notice of Representation.

The City will post the Notice of Representation on its investor website and will update the Notice of Representation as necessary from time to time.