



CITY AND COUNTY OF DENVER, COLORADO MASTER DERIVATIVES POLICY

1. Introduction

The purpose of this Master Derivatives Policy is to provide a set of guidelines for the Department of Finance of the City and County of Denver, Colorado (the “City”) in regard to the use of waps, caps, floors, collars, options on swaps (swaptions) and other derivative financial products (collectively referred to herein as “Swaps”) in conjunction with the City’s management of its assets and liabilities. The policy is intended to serve as a source of information and guidance for the Finance Working Group, as well as financial institutions wishing to do business with the City.

2. Definitions

Certain terms contained in this policy will have the meanings described in the “Glossary of Terms.”

3. Scope and Authority

The policy describes the circumstances and methods by which Swaps will be used, the guidelines to be employed when Swaps are used, and who is responsible for proper implementation. The City’s authority for using Swaps is based on Article XX of the Constitution of the State of Colorado and the City Charter and ordinances adopted by the City Council from time to time. Under this authority, the City may enter into Swaps in connection with the planned issuance of certain financing obligations before or concurrently with or after the actual issuance of such obligations.

The terms and provisions of any Swap will be developed by the Manager of Finance, ex officio Treasurer, and will provide for, among other matters, the procedures, permitted uses, counterparty credit standards, method of procurement, risk management, and reporting requirements. The Manager of Finance, ex officio Treasurer, will present any Swap proposal to City Council for approval through the adoption of a Swap Ordinance. The Swap Ordinance (or amended Swap Ordinance) will also establish authorized parameters for notional amount, Swap maturity, source of payment, and other relevant requirements.

The Swap Ordinance will specify the appropriate City officials to whom relevant authority is delegated to carry out the necessary steps to enter into, monitor and administer the Swap, and the parameters within which their delegated authority may function. In the event of a conflict between a Swap Ordinance and this Master Derivatives Policy, the terms and conditions of the Swap Ordinance will govern.

4. Procedure

Recommendations to enter into Swaps will be made based on analyses performed by the Finance Working Group. The City will secure advice from its financial advisors or a swap advisor to assist in the process of structuring, documenting and pricing the transaction, and to verify that a fair price was obtained. Recommendations should analyze the following elements:

- (i) The appropriateness of the transaction for the City based on the balance of risks and rewards presented by the proposed transaction, including a detailed description of the transactional structure, a description of the risks it presents, and risk mitigation measures;
- (ii) The legal framework for the transaction within the context of Colorado statutes, City ordinances, and relevant indenture and contractual requirements (including those contained in credit enhancement agreements), as well as any implications of the transaction under federal tax regulations;
- (iii) Potential effects that the transaction may have on the credit ratings of any City obligations;
- (iv) The potential impact of the transaction on any areas where the City's capacity is limited, now or in the future, including the use of variable-rate debt, bank liquidity facilities or letters of credit, and bond insurance;
- (v) The ability of the City to handle any administrative burden that may be imposed by the transaction, including accounting and financial reporting requirements; and,
- (vi) In the event of a counterparty credit event the City will promptly act to manage any increased credit risk, utilizing such tools as collateralization, letters of credit, or other guarantees;
- (vii) If the Swap is going to be integrated with tax exempt debt, the City will obtain suitable documentation which is acceptable to the City and bond counsel;
- (viii) The City will consider other implications of the proposed transaction as warranted.

5. Derivative Uses

Because of the effects of continual innovation in the financial markets, this Master Derivatives Policy recognizes that the reasons for use of Swaps may change over time, taking advantage of market developments as they evolve and are tested. Among the strategies which the City will consider in applying Swaps are:

- (i) Managing the City's exposure to floating and fixed interest rates through interest rate swaps, caps, floors, collars, and other swaption products;
- (ii) Hedging floating rate risk with caps, collars, basis swaps, and other instruments;
- (iii) Locking in fixed rates in current markets for use at a later date through the use of forward swaps, swaptions, rate locks, options, and forward delivery products;
- (iv) Reducing the cost of fixed or floating rate debt through swaps and related products to create "synthetic" fixed or floating rate debt;
- (v) More rapidly accessing the capital markets than may be possible with conventional debt instruments;
- (vi) Managing the City's exposure to the risk of changes in the legal and regulatory treatment of tax-exempt debt;
- (vii) Other applications to enable the City to lower costs or strengthen the City's balance sheet.

6. Method of Procurement

The City and County of Denver, Colorado will choose counterparties for entering into Swap contracts on either a negotiated or competitive basis. Negotiated procurement may be used for original or proprietary products, for original ideas of applying a specified product to a City's need to avoid market pricing effects that would be detrimental to the City's interests, or on a discretionary basis in conjunction with other business purposes. Consideration may be given in negotiated transactions to those counterparties who have demonstrated their willingness to participate in competitive transactions and have performed well. To provide safeguards on negotiated transactions, the City will seek advice from its financial advisors or swap advisor to assist in the process of structuring, documenting and pricing the transaction, and to verify that a fair price was obtained. In any negotiated transactions, the counterparty will be required to disclose all payments to third parties including brokers, lobbyists, and consultants in assisting the counterparty in procuring business with the City.

7. Counterparty Credit Standards

The City will make its best efforts to work with qualified Swap counterparties that (i) have a general credit rating of: at least "Aa3" or "AA-" by two of the nationally recognized rating agencies, or (ii) are a triple-A rated derivative products subsidiary as rated by at least two nationally recognized credit rating agencies, but not a terminating structure (continuation structures may be approved). The nationally recognized rating agencies are Moody's Investors Services, Standard and Poor's Rating Services, and Fitch Ratings.

For lower rated counterparties, the City will require credit enhancement consistent with the policies contained herein. In cases where the counterparty's obligations are rated based on a guarantee or specialized structure to achieve the required credit rating, the City will thoroughly investigate

the nature and legal structure of the guarantee or structure in order to determine that it fully meets the City's requirements.

If the City is seeking innovative Swap structures, qualified Swap counterparties must have a demonstrated record of successfully creating and implementing innovative ideas in the Swap market.

(i) Counterparty Termination Exposure. In order to limit the City's counterparty risk, the City shall seek to avoid excessive concentration of exposure to a single counterparty or guarantor by diversifying its counterparty exposure over time. Exposure to any counterparty shall be measured based on the termination value of any Swap contracts entered into with the Counterparty. Termination value shall be determined semi annually, based on a mark-to-market calculation of the cost of terminating the Swap contract given the market conditions on the valuation date. Aggregate Swap termination value of each counterparty should take into account netting of offsetting transactions (i.e. fixed-to-floating and floating-to-fixed). As a matter of general principle, the City may require counterparties to provide regular mark-to-market valuations of Swaps they have entered into with the City, and may also seek independent valuations from third party professionals.

(ii) Term and Notional Amount: In connection with the issuance or carrying of bonds, the term of the Swap agreement shall not extend beyond the final maturity date of the related bonds. The total "net notional amount" of all Swaps related to a bond issue should not exceed the amount of outstanding bonds. For purposes of calculating the net notional amount, credit shall be given to Swaps that offset for a specific bond transaction, with due consideration to any increased exposure to multiple counterparties. The City will not consider leveraged transactions.

(iii) Collateral Requirements: As part of any Swap agreement, the City may, based on credit ratings of the counterparty, require collateralization or other forms of credit enhancements to secure any or all Swap payment obligations. As appropriate, the City, in consultation with its counsel and financial advisor or Swap advisor, may require collateral or other credit enhancement to be posted by any Swap counterparty if the credit rating of the counterparty or parent falls below the "Aa3 or AA-" credit rating category by any two rating agencies. Additional collateral for further decreases in credit ratings of each counterparty will be posted by each counterparty in accordance with the provisions contained in the collateral support agreement of each counterparty with the City.

Threshold collateral amounts shall be determined by the City on a case-by-case basis. The City will determine the reasonable threshold limits for the initial deposit and for increments of collateral posting thereafter. Collateral shall be deposited with a third party trustee, or as mutually agreed upon between the City and the counterparty. A list of acceptable securities that may be posted as collateral and the valuation of such collateral will be determined and mutually agreed upon during negotiation of the Swap agreement with each Swap counterparty. The market value of the collateral shall be determined on a monthly basis, or more frequently if the City determines it is in its best interest given the specific collateral security. The City will not post collateral.

(iv) **Security and Source of Repayment:** If the City grants security as a source of repayment (pledged revenues) for interest rate Swaps, it may grant security either on a parity with the security for the bonds that are hedged or carried by the Swap or a source subordinate to the security for the bonds.

(v) If a counterparty's credit is downgraded below a second (lower) threshold, even with collateralization, the City may exercise a right to terminate the transaction prior to its scheduled termination date. The City will require, whenever possible, that terminations triggered by a counterparty credit downgrade shall occur on the side of the bid-offered spread which is most beneficial to the City, and which would allow the City to go back into the market to replace the downgraded party with another suitable counterparty at no out-of-pocket cost to the City.

8. Risk Management

Prior to the execution of any Swap transaction the Finance Working Group will evaluate the proposed transaction. Such a review shall include the identification of the proposed benefit and potential risks. As part of this evaluation, the City shall compute the Maximum Net Termination Exposure to the proposed Swap counterparty.

The City will review the following areas of potential risk for new and existing interest rate Swaps:

Type of Risk	Description	Evaluation Methodology
Basis risk	The mismatch between actual variable rate debt service and variable rate indices used to determine Swap payments.	The City will review historical trading differentials between the variable rate bonds and the index.
Tax risk	The risk created by potential tax events that could affect Swap payments.	The City will review the tax events in proposed Swap agreements. The City will evaluate the impact of potential changes in tax law on LIBOR indexed Swaps.
Counterparty risk	The failure of the counterparty to make required payments. Multiple off-setting Swaps compounds counterparty risk.	The City will monitor exposure levels, ratings thresholds, and collateralization requirements.
Termination risk	The need to terminate the transaction in a market that dictates a termination payment by the issuer.	The City will compute its termination exposure for all existing and proposed Swaps at market value and under a worst-case scenario.

Type of Risk	Description	Evaluation Methodology
Amortization risk	The mismatch of the maturity of the Swap and the maturity of the underlying bonds.	The City will determine, in accordance with its Debt Policy, its capacity to issue variable rate bonds that may be outstanding after the maturity of the Swap.
Liquidity risk	The inability to continue or renew a liquidity facility.	The City will evaluate the expected availability of liquidity support for swapped and unhedged variable rate debt.
Credit risk	The occurrence of an event modifying the credit rating of the issuer or its counterparty.	The City will monitor the ratings of its counterparties and insurers.

9. Termination

The mechanics for determining termination values at various times and upon various occurrences must be explicit in the Swap agreement, and the City should obtain estimates from its financial advisors or Swap advisors of the potential termination costs.

(i) Optional Termination: The City may terminate a Swap if it is determined that it is financially or structurally advantageous;

(ii) Mandatory Termination: In the event a Swap is terminated as a result of a termination event, such as a default or a decrease in credit rating of either the City or the counterparty, the City will evaluate whether it is financially advantageous to obtain a replacement Swap, or, depending on market value, make or receive a termination payment or on interest payment dates.

The City shall also evaluate the economic costs and benefits of incorporating a provision into the Swap agreement that will allow the City to make termination payments over time.

10. Reporting and Disclosure

External Disclosure:

The City will take steps annually to provide full and complete disclosure of all interest rate Swaps to rating agencies, and will consider appropriate disclosure in its documents. With respect to its financial statements, the City will adhere to the guidelines for the financing reporting of interest rate Swaps, as set forth by the Government Accounting Standards Board, including GASB Technical Bulletin No. 2003-1.

Internal Disclosure

The City and County of Denver, Colorado shall track and regularly report on the financial implications of the Swaps it enters into. A report shall include:

- (i) A summary of key terms of the agreements, including notional amounts, interest rates and expiration dates, any scheduled amortized amounts, and any changes to Swap agreements since the last reporting period;
- (ii) The mark-to-market value (termination value) of its Swaps, as measured by the economic cost or benefit of terminating outstanding contracts at specified intervals;
- (iii) The amount of exposure that the City has to each specific counterparty, as measured by aggregate mark-to-market value, netted for offsetting transactions;
- (iv) The credit ratings of each counterparty (or guarantor, if applicable) and any changes in the credit rating since the last reporting period; and,
- (v) Any collateral posted or received as a result of requirements in the Swap documents.

Derivatives products include swaps, caps, floors, collars, options on swaps (swaptions) and other derivative financial products will be collectively referred to herein as “Swaps.” The City’s authority for using Swaps is based on Article XX of the Constitution of the State of Colorado and the City Charter and ordinances adopted by the City Council from time to time. Under this authority, the City may enter into Swaps in connection with the planned issuance of certain financing obligations before or concurrently with or after the actual issuance of such obligations.

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5. The ability of the City to handle any administrative burden that may be imposed by the transaction, including accounting and financial reporting requirements; and,
6. In the event of a counterparty credit event the City will promptly act to manage any increased credit risk, utilizing such tools as collateralization, letters of credit, or other guarantees;
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1. **Optional Termination:** The City may terminate a Swap if it is determined that it is financially or structurally advantageous;
2. **Mandatory Termination:** In the event a Swap is terminated as a result of a termination event, such as a default or a decrease in credit rating of either the City or the counterparty, the City will evaluate whether it is financially advantageous to obtain a replacement Swap, or, depending on market value, make or receive a termination payment or on interest payment dates.

G. Reporting and Disclosure

1. **External Disclosure**

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 - c. The amount of exposure that the City has to each specific counterparty, as measured by aggregate mark-to-market value, netted for offsetting transactions;
 - d. The credit ratings of each counterparty (or guarantor, if applicable) and any changes in the credit rating since the last reporting period; and,
 - e. Any collateral posted or received as a result of requirements in the Swap documents.