

KENTUCKY ASSET/LIABILITY COMMISSION

DERIVATIVES POLICY

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KENTUCKY ASSET/LIABILITY COMMISSION

DERIVATIVES POLICY

I. Introduction

The purpose of the Derivatives Policy of the Kentucky Asset/Liability Commission (“ALCo” or “Commission”) is to establish guidelines for the use and management of Derivative Transactions including Interest Rate Swaps and related instruments. The Policy was adopted by the Commission on April 16, 2007 and supersedes any previous policy statement involving the use of derivatives. The Derivatives Policy is prepared in accordance with the recommended practices of the Government Finance Officers Association (“GFOA”) regarding the development of a Derivatives Policy as approved by their Executive Board on October 11, 2005.

II. Scope and Authority

ALCo’s enabling legislation, KRS 56.860-869, provides specific authority for the Commission to enter into financial agreements, which may be Derivative Transactions. Additionally, 200 KAR 23:010 provides general guidelines and limits for the use and integration of financial agreements in debt transactions.

This Policy shall govern the use and management by the Commission of all Derivative Transactions under the enabling statutes and regulations. While adherence to this policy is required in applicable circumstances, the Commission recognizes that changes in the capital markets, agency programs and other unforeseen circumstances may from time to time produce situations that are not covered by the Policy. Modifications or exceptions may be required to achieve policy goals. In these cases, management flexibility is appropriate provided specific authorization is obtained at the next Commission meeting.

The Executive Director of the Office of Financial Management (“OFM”) is the designated administrator of this Policy and with the Deputy Executive Directors shall have the day-to-day responsibility and authority for structuring, implementing, executing and managing Derivative Transactions on a competitive or negotiated basis as may be deemed reasonable under prevailing market conditions for a particular derivative or related transaction

The Commission shall approve any debt program that involves the use of a Derivative Transaction prior to execution of the Derivative Transaction. The Commission intends to enter into Derivative Transactions only with qualified Counterparties, preferably those pre-qualified to serve as an underwriter to the Commission or other bond issuing authority under KRS 45A.840 et sequence, and that meet the minimum rating criteria as established in 200 KAR 23:010. ALCo and OFM will not knowingly undertake any actions under this Policy which are prohibited by the Internal Revenue Service regarding the proceeds of any related federal tax-exempt bond issue, and shall undertake appropriate measures to assure that no violations occur.

III. Objectives for the Use of Derivative Transactions

Derivatives can be an important interest rate management tool when used properly. When used in conjunction with the issuance of debt, Derivatives can increase financial flexibility, provide opportunities for interest rate savings, obtain lower cost funding, alter the pattern of debt service payments, hedge variable rate payments as well as manage tax, inflation and credit among other types of risk. Derivative Transactions can also hedge the future issuance of bonds, whether new money or refunding, to meet budgetary goals through the use of interest rate swaps, rate lock agreements and forward delivery purchase agreements. Finally, Derivative Transactions can also hedge interest rate risk for asset/liability matching purposes and can be used to manage the Commission's credit exposure to financial institutions and other entities. For purposes of this policy, the term "swaps" will refer to interest rate swaps and options, including rate locks and forward delivery agreements, CAPS, floors and collars. Not considered here are investment related transactions which are, however, governed by the State Investment Commission under a separate policy.

IV. Conditions for the Use of Derivative Transactions

A. Allowable Instruments and Purposes

1. Fixed Payer Interest Rate Swaps (immediate or forward delivery) used in conjunction with the current or future issuance of variable rate debt, against outstanding variable rate debt, or against an existing swap.
2. Fixed Receiver Interest Rate Swaps (immediate or forward delivery) used to convert existing fixed rate debt to a variable rate, or for asset/liability management strategies, or against an existing swap. Fixed receiver swaps may also include Total Rate of Return Swaps against existing liabilities. Cash flow borrowing transactions, such as Tax and Revenue Anticipation Notes, often use such strategies to lock in spreads versus funding cost.
3. Basis Swaps used to synthetically convert from one index to another or for managing exposure to different points along the yield curve to hedge particular risks.
4. Options, Swaptions, Interest Rate Caps, Floors and/or Collars used to synthetically cap the rate on existing or new variable rate debt, or to hedge future debt issuance, or to synthetically modify or replicate the call option in existing or new debt.

B. Maximum Notional Amount

ALCo and OFM will limit the total notional amount as established in the applicable regulation or as expressed in this Policy. The following limits are set forth in 200 KAR 23:010, Section 2 (3)-(7):

1. Financial agreements resulting in variable rate obligations for the Commonwealth shall be entered into only if the aggregate of all variable rate obligations under financial agreements does not exceed a net exposure of more than ten (10) percent of state obligations outstanding which are supported by appropriations by the General Assembly at the time the agreement is executed. Financial agreements utilized related to the issuance of tax and revenue anticipation notes shall be excluded from this limitation;
2. Financial agreements utilized for the purpose of refunding or aiding in the refunding of obligations of the Commonwealth shall be limited to a notional amount not to exceed the par amount and stated final maturity of the refunding obligations;
3. Financial agreements utilized as part of a debt service reserve fund investment strategy shall be limited to a notional amount not to exceed the maximum required debt service reserve fund amount required under the resolution, trust indenture, or agreement establishing the debt service reserve fund;
4. Financial agreements utilized for the purpose of maximizing investment income and alleviating mismatches between an advance refunding escrow and debt service payments due on an obligation shall be limited to a notional amount not to exceed the par amount of the securities held in the escrow plus interest; and
5. No more than ten (10) percent of the Commonwealth's investment portfolio shall be subject to financial agreements utilized for the purpose of managing the net interest margin. Financial agreements based on the Commonwealth's interest-sensitive assets shall be coordinated with the State Investment Commission.

While this regulation applies to “financial agreements” as defined in KRS 56.8605, the same limits shall also be applied to Derivatives as defined in this Policy statement.

Additionally, the total notional amount of derivatives executed by each borrowing authority shall not exceed 50% of the obligations for the respective borrowing authority, considering outstanding and authorized but unissued debt.

C. Market Access Considerations

OFM shall consider the availability and cost of liquidity support for the new and existing ALCo variable rate debt obligations when evaluating the issuance of variable rate bonds requiring liquidity support. OFM recognizes that there is a limited supply of letter of credit or liquidity facility support for ALCo variable rate obligations, and the usage of liquidity support in connection with a Derivative Transaction may result in higher overall costs. Alternative structures such as put bonds, auction rate securities or floating rate notes may mitigate these concerns, but their costs should be evaluated against traditional structures.

D. Call Option Value Considerations

When considering the relative advantage of a Derivative Transaction to fixed rate bonds, OFM will consider the value of the call options on fixed rate bonds (particularly the yield kick to maturity of callable premium bonds) relative to the present value savings of a Derivative. The bulk of the value derived from a Derivative may be due to the non-callable nature of the obligation; however options can be purchased to enhance flexibility and opportunity for future debt service savings.

Typically, ALCo and other state appropriation supported issuers sell tax-exempt notes or bonds that are callable after ten years to preserve the change in use safe harbor in the Internal Revenue Code (“IRC”). Generally, these obligations can be refunded one time in advance of the call date within IRC Regulations and on or after the call date at any time. Under certain market conditions, callable premium bonds effectively eliminate much of the benefit of the advance refunding opportunity. The issuance of noncallable premium bonds diminishes the ability to determine true debt service savings until the final maturity date. OFM will evaluate the cost of a call option when practical in order to retain future financial flexibility, including the ability to subsequently refinance the bonds for savings.

V. Derivative Transaction Features

A. International Swap and Derivatives Association Agreements

OFM will use terms and conditions as set forth in the International Swap and Derivatives Association, Inc. (“ISDA”) Master Agreement. The swap agreement between ALCo and each counterparty shall include collateral, default, remedy, termination, and other terms, conditions, provisions and safeguards as OFM, in consultation with bond counsel and its financial advisors, deems necessary or desirable. Subject to the provisions contained herein, the terms of any ALCo swap agreement shall use the following guidelines:

- i. The provisions triggering a contract termination due to a downgrade in the Commonwealth’s bond rating shall be superior to the provisions affecting the Counterparty based upon recent credit analysis concerning corporate equivalent ratings.
- ii. Governing law for ISDA’s will be either New York (for matters affecting swap positions) or Kentucky (for matters affecting the Commission and state law).
- iii. The specified indebtedness related to credit events in any ISDA should be narrowly defined and refers only to indebtedness of the particular appropriation fund source, e.g. General Fund or Road Fund.
- iv. Collateral thresholds stipulating when collateral will be required to be posted by the Counterparty is to be designated in the ISDA and are

based on credit ratings of the Counterparty. The collateral thresholds for the Counterparty shall be at least as restrictive as Section B.2 below.

- v. Collateral, if required, should be held by an independent third party such as the Commonwealth's custodian bank or as mutually agreed upon by OFM and the Counterparty.
- vi. Eligible collateral will be limited to securities and amounts authorized in KRS 42.500. Preferably, securities will be limited to U.S. Treasury or Agency Securities.
- vii. ALCo shall have the right to optionally terminate a Derivative Transaction at "market," at any time over the term of the agreement. The Counterparty shall have no such right, except in the event of Default or if a Termination Event is triggered
- viii. Termination value should be set by a "market quotation second method" methodology, unless OFM deems an alternate methodology appropriate.

B. Derivative Transaction Counterparties

1. Credit Criteria

Administrative regulations only permit Counterparties with credit ratings in one of the three highest categories by a nationally recognized rating agency. Preferably, qualified Counterparties will have a general unenhanced long term credit ratings of at least "A1" or "A+" by two of the nationally recognized rating organizations. Alternatively, in the case of a special purpose vehicle established for the purpose of entering into swaps a rating of "AAA" by at least one of the nationally recognized rating organizations is acceptable. Currently, the nationally recognized rating organizations are Moody's Investors Services, Inc.; Standard and Poor's Rating Services; and Fitch Ratings.

For Counterparties whose highest rating is below that of the Commonwealth appropriation supported debt ratings, the Commonwealth may seek credit enhancement in the form of:

- i. Credit support or enhancement;
- ii. Collateral consistent with the policies contained herein;
- iii. Ratings downgrade triggers (may be non-symmetrical); and/or
- iv. Guarantee of parent, if any

2. Counterparty Termination Exposure

In order to diversify Counterparty credit risk, and to limit credit exposure to a Counterparty, OFM will compute the Market Value Exposure prior to executing a Derivative Transaction.

The Market Value Exposure is the sum of the aggregate termination payment for all existing and projected Derivative Transactions that would be paid by or received from a specific Counterparty, parent or guarantor.

The following chart shows the maximum Market Value Exposure to any single Counterparty based on the lowest credit rating assigned by any of the three nationally recognized rating agencies. Collateral posting requirements of any ISDA as discussed in Section A above shall be at least as restrictive as the Maximum Net Uncollateralized Market Value Exposure below. OFM may, at its discretion, require more restrictive collateral requirements in any ISDA.

Credit Rating	Maximum Net Collateralized Market Value Exposure	Maximum Net Uncollateralized Market Value Exposure
AAA	Not Applicable	\$100 million
AA	\$50 million	\$50 million
A	\$40 million	\$10 million
Below A	\$10 million	\$0

Any Derivative with an original term to maturity of less than 12 months with a counterparty rating of at least AA- by Fitch, or AA- from Standard & Poor's or Aa3 by Moody's shall not require collateral.

C. Term

In connection with the issuance or carrying of bonds, the term of the Derivative Transaction shall not extend beyond the final maturity date of the related bonds.

D. Collateral Requirements

As part of any Derivative transaction, OFM will seek to include terms imposing collateral requirements based on credit ratings of the counterparty, requiring collateralization or other forms of credit enhancements to secure any or all payment obligations. OFM will determine the collateral requirements, in consultation with bond counsel and/or financial advisor(s), and may require the counterparty to post securities, insurance, surety bonds, letters of credit or other credit enhancement if the highest credit rating of the counterparty, its parent, or its guarantor falls below a rating of "A3" or "A-." Additional collateral for further decreases in credit ratings of the counterparty shall be posted in accordance with the provisions contained in the applicable credit support annex of the swap agreement.

Threshold collateral amounts shall be determined by OFM on a case-by-case basis. Collateral shall be deposited with a third party trustee or as mutually agreed upon between OFM 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 ISDA with each counterparty. The market value of both the collateral and the swap shall be determined weekly or more frequently if OFM determines it is in its best interest given the specific nature of the Derivative(s) and/or collateral security. Collateral requirements shall be at least as restrictive as Section B.2 above.

E. Security and Source of Repayment

OFM will generally use the same security and appropriation fund source of repayment for the bonds and associated Derivative(s). Additionally, ALCo may pledge funds held in a related Derivative account in the state accounting system, which have not been appropriated for another purpose. ALCo has no other assets that may be used as collateral to secure such transactions.

F. Prohibited Derivative Transaction Features

ALCo will not use interest rate swaps that: (i) are speculative or create extraordinary leverage or risk, (ii) lack adequate liquidity to terminate without incurring a significant bid/ask spread or (iii) provide insufficient price transparency to allow reasonable valuation.

VI. Evaluation and Management of Derivative Transactions

Prior to the execution of any Derivative Transaction, OFM, bond counsel and financial advisor(s), as applicable, shall evaluate the proposed transaction. This evaluation shall subsequently be reported to the Commission. Such a review shall include the identification of the proposed benefit and potential risks. As part of this evaluation, OFM shall compute the Market Value Exposure to the proposed counterparty.

A. Evaluation Methodology

OFM will review the following areas of potential risk for new and existing derivatives:

Type of Risk	Description	Evaluation Methodology
Basis risk	The mismatch between variable rate debt service and variable rate indices used to determine derivative payments.	Review of historical trading differentials between the variable rate bonds and the index.
Tax risk	The risk created by potential tax events that could affect the relationship of derivative payments to the associated obligation.	Review of the tax events in proposed derivative transactions and evaluation of the impact of potential changes in tax law on the relationship between tax-exempt and taxable financial instruments.
Counterparty risk	The failure of the counterparty to make required payments or otherwise comply with the terms of the derivative agreement.	Review existing counterparty rating and last history date. Compute termination exposure for all existing and proposed derivatives at market value and under a projected worst-case scenario. A contingency plan would entail funding such payments from any termination payments received, existing or future debt service appropriations, refinancing the existing obligation, funding from related investment income or agency receipts, or classification as a necessary governmental expense as may be applicable.
Termination risk	The risk that there will be a mandatory termination of the derivative. A termination will almost always result in ALCo either paying or receiving a termination payment.	Compute termination exposure for all existing and proposed derivatives at market value and under a projected worst-case scenario. A contingency plan would entail funding such payments from existing or future debt service appropriations, refinancing the existing obligation, funding from related investment income or agency receipts, or classification as a necessary governmental expense as may be applicable.
Amortization risk	The mismatch of the maturity of the derivative and the maturity of the underlying bonds.	Determine the ability to issue additional variable rate debt or apply existing un-hedged variable rate debt that may be outstanding after the maturity of the derivative, and/or ALCo's capacity to cover derivative payments that may be due after bonds have been retired.
Liquidity risk	The inability to continue or renew a liquidity facility supporting the variable rate bonds that are being hedged.	Evaluate the expected availability and cost of liquidity or alternative bond structures that do not require liquidity support.
Credit risk	The occurrence of an event modifying the credit quality or credit rating of the issuer or its counterparty.	Monitor the ratings of its counterparties, insurers, guarantors and termination triggers as applicable.

B. Managing Derivative Transaction Risks

1. Semiannual Report to Commission

OFM will evaluate the risks associated with outstanding derivatives at least semiannually and will provide a written semi-annual report to the Commission as required by KRS 56.863(11). This evaluation will include the following information:

- i. A description of all outstanding derivative transactions, including related bond series, types of derivative, rates paid and received, existing notional amount, and remaining term of each agreement, the current termination value and optionality of all outstanding derivatives.
- ii. Separately for each derivative, if applicable, the actual debt service requirements versus the projected debt service on the derivative transaction; and for any derivatives used as part of a refunding, the actual cumulative savings versus the projected savings at the time the derivative was executed.
- iii. The credit rating of each counterparty, parent, guarantor, and credit enhancer insuring payments, if any.
- iv. Actual collateral posting by counterparty, if any, per agreement and in total by counterparty.
- v. Information concerning any material event involving outstanding derivative transactions, including a default by a counterparty, counterparty downgrade, or termination.
- vi. An updated contingency plan to replace or fund a termination payment in the event an outstanding derivative is terminated.
- vii. The status of any liquidity support used in connection with derivative transactions, including the remaining term and current fee.

2. Value at Risk

OFM shall compute the Value at Risk for all Derivative Transactions at least quarterly. In this valuation, OFM shall compute the current market value of each derivative, the market value if the general level of interest rates rises and falls by 100, 200 and 300 basis points, and the market value if the treasury yield curve steepens by 200 basis points and flattens/inverts by 200 basis points. The Value at Risk as the worst case scenario shall be reported to the Commission at least semi-annually.

3. Contingency Plan for Mandatory Termination

OFM shall compute the termination exposure of each of its derivatives and its total derivative termination payment exposure at least semi-annually. OFM shall assess its ability to obtain replacement derivatives and identify revenue sources to fund potential termination payments. It shall also prepare a contingency plan to either replace the derivatives or fund the termination payments, if any, in the event that one or more outstanding derivatives are terminated.

C. Terminating Derivative Transactions

1. Optional Termination

OFM, in consultation with bond counsel and/or financial advisor(s), may terminate or modify a derivative if it is determined that it is financially advantageous, or will further other policy objectives, such as a reduction in basis risk or limit or increase exposure to derivatives or variable rate debt.

2. Mandatory Termination

In the event a derivative is terminated as a result of a termination event, such as a default or a decrease in credit rating of either ALCo, a related state debt issuing authority or the counterparty, OFM will evaluate whether it is financially advantageous to replace or terminate the derivative.

In the event it is necessary for ALCo to make a derivative termination payment, ALCo shall attempt to follow the process identified in its contingency plan for mandatory termination. OFM shall also evaluate the economic costs and benefits of incorporating a provision into the ISDA agreement that will allow ALCo to make or receive termination payments over time, subject to future appropriations.

VII. Disclosure and Financial Reporting

OFM will take steps to ensure that there is full and complete disclosure of all derivative transactions to the Commission, to the Legislature, the rating agencies and in any applicable disclosure documents. Any disclosure in offering documents shall provide a clear summary of the special risks involved with derivatives and any potential exposure to interest rate volatility or unusually large and rapid changes in

market value. With respect to its financial statements, the Commonwealth will adhere to the guidelines for the financial reporting of derivatives, as set forth by the Governmental Accounting Standards Board.

OFM shall review this Derivatives Policy periodically and submit any updates to the Commission for consideration.

GLOSSARY OF TERMS

Asset/Liability Matching. Assuring that the term and amount of assets and liabilities match in order to mitigate the impact of changes in interest rates.

The Bond Market Association (“BMA”) BMA merged with the Securities Industry Association to form the Securities Industry and Financial Markets Association (“SIFMA”). BMA still operates as a subset of SIFMA and is the principal benchmark for the floating rate payments for tax-exempt issues. The index is a national rate based on a market basket of high grade, seven day, tax-exempt variable rate bond issues. It is often used as an index to compute the variable rate on tax-exempt interest rate swaps.

Bid/Ask Spread. The difference between the bid price (at which a market maker is willing to buy) and the ask price (at which a market maker is willing to sell).

Call Option. The right, but not the obligation, to buy an underlying asset (e.g., a municipal bond) at a future time and at a certain price. A call option is frequently embedded in a municipal bond, giving the issuer the right to buy or redeem the bonds at a certain price.

Collateral. Assets pledged to secure an obligation. The assets are potentially subject to seizure in the event of default.

Counterparty. A principal in a swap or other derivatives agreement who exchanges payments based on interest rates or other criteria with another counterparty.

Derivative/Derivative Transaction. A derivative is a financial agreement which derives its value from changes in some other financial instrument or index. Derivatives include Interest Rate Swaps, Interest Rate Swaptions, other types of options, futures, forwards, and Forward Rate Agreements.

Downgrade. A negative change in credit ratings.

Forward Starting Swap. Interest rate swaps that start at some time in the future. Generally these are used to lock-in current interest rates.

Hedge. A transaction that reduces the interest rate risk and exposure to market value fluctuations of an underlying financial position.

Interest Rate Swap. An agreement governed by the International Swap Dealers Association Master Contract between two parties to exchange, or have the conditional right to exchange, specified cash flows.

ISDA Master Agreement. The International Swaps and Derivatives Association, Inc. (“ISDA”) is the global trade association for the derivatives industry. The ISDA Master Agreement is the basic governing document that serves as a framework for all interest rate swaps, swap enhancement, and derivative transactions between counterparties. It is a standard form used throughout the industry. It will include negotiated Schedules, Credit Support Agreements, and other supplements which govern all subsequent transactions.

Liquidity Support. An agreement by a bank to make payment on a variable rate security to assure investors that the security can be sold.

LIBOR. The London Interbank Offered Rate. The rate of interest at which banks borrow funds from other banks in the London interbank market. It is a commonly used benchmark for interest rate transactions ranging from one week to one year. It is frequently used as an index to compute the variable rate on taxable interest rate swaps.

Mark-to-Market. Calculation of the value of a financial instrument (such as an interest rate swap) based on the current market rates or prices of the underlying indices.

Notional Amount. The size of the interest rate swap and the dollar amount used to calculate interest payments.

Securities Industry and Financial Markets Association (“SIFMA”). The Securities Industry Association and the Bond Market Association (BMA) merged to form SIFMA under a comprehensive management structure.

Termination Payment. A payment made by a counterparty that is required to terminate the swap. The payment is commonly based on the market value of the swap, which is computed using the rate on the initial swap and the rate on a replacement swap.