



University of Virginia
Interest Rate Risk Management Policy
Approved February 19, 2015

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I. Overview

Purpose

1. Provide background on the purpose of derivatives.

Overview

The University maintains a Debt Policy which provides guidelines on the authorization and management of debt. The University manages its debt portfolio on a consolidated basis and makes debt management decisions to achieve the lowest cost of debt capital and maximize its portfolio objectives. The use of derivatives can play a key role in managing the University's debt portfolio.

In certain circumstances, derivatives are an effective way for the University to adjust its mix of fixed- and floating-rate debt and manage interest rate exposures. Derivatives may also be an effective way to manage liquidity risks. The University's philosophy is to use derivatives strategically to achieve asset and liability portfolio objectives and hedge existing exposures. Derivatives will not be used to create leverage or to speculate on the movement of interest rates.

II. Scope and Objectives

Purpose

1. Define what activities are subject to the policy
2. Define the objectives of the Interest Rate Risk Management Policy
3. Establish interest rate risk management goals

Scope

The Interest Rate Risk Management Policy applies to any derivatives used for the purpose of hedging interest rate exposures. This policy does not apply to derivatives used by the University of Virginia Investment Management Company in its management of the University's endowment and assets or any University-related foundations.

Additionally, any decisions made regarding the use of derivatives must take into consideration the resulting impact under the University's Debt Policy.

Objectives

This policy is intended to:

- (i) Outline the University's philosophy on derivatives
- (ii) Provide guidelines on the use of derivatives
- (iii) Identify approved derivative instruments
- (iv) Establish a control framework related to the use of derivatives

The University views derivatives as a tool to achieve its asset and liability management objectives. As a result, it is the University's philosophy to use derivatives strategically in support of this cause. It is also the University's philosophy to not use derivatives to create leverage or speculate on interest rate movements. The University recognizes that the prudent and selective use of derivatives may help it to lower its cost of debt capital and manage its interest rate exposure.

This policy provides guidelines on the use of derivatives including the



circumstances under which they may be used and the factors that are considered in deciding whether to use them. Derivatives may be used to achieve the following objectives:

- (i) Reduce the cost for debt financing when compared to conventional debt structures
- (ii) Manage interest rate volatility
- (iii) Manage fixed- and variable-rate debt mix
- (iv) Help match the cash flows from assets with those from liabilities
- (v) Hedge future debt issues or synthetically advance refund bonds

The policy also outlines a control framework to ensure that an appropriate discipline is in place regarding the use of derivatives. Controls exist to address both operational risks and exposure risks.

III. Oversight

<p>Purpose</p> <ol style="list-style-type: none"> 1. Provide mechanism for Board of Visitors oversight and review on periodic basis. 2. Provide management flexibility to make ongoing financing decisions within the framework of the Policy. 	<p>The Office of the Vice President & Chief Operating Officer (“VP & COO”) is responsible for implementing this policy and for all interest rate risk management activities of the University. Daily management of interest rate risk management activities rests with the University’s Treasury Department. The policy and any subsequent, material changes to the policy are approved by the University’s Board of Visitors (“BOV”).</p>
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IV. Derivative Use Guidelines

<p>Purpose</p> <ol style="list-style-type: none"> 1. Explain the objective of interest rate risk management and provide guidelines on the use of derivatives. 	<p>The University may use derivatives to achieve the lowest possible cost of debt funding, manage its exposure to interest rate volatility, and/or match the timing and nature of cash flows associated with its assets and liabilities. The University may accomplish this by hedging the interest rate volatility of projected debt issuances or by using derivatives to adjust its exposure to floating interest rates.</p> <p>To determine its portfolio exposure, the University looks at the composition of its outstanding assets and liabilities (adjusted for any hedges) and the change in this composition over a predetermined planning</p>
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horizon. Taking into account the potential for future uncertainty, the University determines what, if any, action should be taken to keep its portfolio exposures at desirable levels over this period.

In determining when to hedge, the University monitors its interest rate exposure, the capital markets, and its future funding and liquidity requirements. Special attention is paid to the relative level of interest rates, the shape of the yield curve, and signals of interest rate increases or decreases from the Federal Reserve.

The University analyzes and quantifies the cost/benefit of any derivative instrument relative to achieving desirable long-term capital structure objectives. Before entering into a derivative, the University evaluates its risks including, but not limited to: tax risk, interest rate risk, liquidity risk, credit risk, basis risk, rollover risk, termination risk, counterparty risk, and amortization risk. The University also evaluates the impact the hedge will have on its debt portfolio at the inception of the hedge and over the planning period.

When evaluating its hedging options, the University generally prefers the lowest cost, most liquid, and most flexible hedging strategy available. In instances where no one hedging strategy meets all these needs, the University prioritizes these requirements to decide on an optimal strategy.

At their inception, derivatives are chosen to closely match the exposures being hedged. As time passes, the University's debt management objectives may change and any decisions will be made with the best information available at that time regardless of hedges that may be in place. For instance, the University may use derivatives to hedge future interest rates associated with a fixed-rate bond issuance. If at the time of issuance it is deemed more beneficial to issue floating-rate bonds, then the University will not let its past hedging decisions constrain its current bond issuance decisions.

In addition, management discloses the impact of all derivatives on the University's financial statements per GASB requirements and includes their effects in calculating the Debt Policy ratios.

V. Allowable Derivative Instruments

Purpose

1. List and define the derivatives that may be used for interest rate hedging.

The University recognizes that there are numerous derivatives of varying degrees of complexity. The University attempts to avoid structural complexity in its use of derivatives and believes the following instruments, used alone or in combination with each other, allow for sufficient flexibility to help the University meet its interest rate risk management objectives.

Interest Rate Swaps – Swaps are contracts to exchange payments based on different interest rate indices, generally with one such index based on interest rates that are fixed at a specific rate for the term of the contract and the other based on interest rates that are to be adjusted from time to time throughout the term of the contract. The University may utilize these contracts to change its mix of fixed rates and floating rates. They may also be used as a means to hedge future financings.



Interest Rate Call or Put Options – An option gives the holder a right, but not an obligation, to buy or sell a security at or by a specified date(s) at an agreed upon price in exchange for the payment of a premium. Interest rate options, typically in the form of interest rate caps or floors, are designed to provide protection against interest rates being above a certain cap rate or below a certain floor rate. Options may be used when the purchaser faces an asymmetrical risk profile, for instance, the risk that interest rates may rise prior to a new debt issuance. Options to enter into swaps, or swaptions, give the buyer the right to enter into a swap as a fixed-rate or floating-rate payer depending on the buyer’s interest rate exposure.

The University will not sell options, except to the extent they are sold to better hedge an underlying exposure that contains an offsetting option position. For example, a bond with a call option held by the University may be hedged better by entering into a derivative with an offsetting sold call option.

Interest Rate Locks – A rate lock is a forward contract that represents a sale of a specific benchmark security (e.g., U.S. Treasuries, LIBOR, or tax-exempt indices) or other appropriate benchmark security at an agreed price or interest rate. The University may utilize these contracts to help lock in a future financing rate.

Before entering into a derivative transaction, the University first gains a full understanding of the transaction and performs appropriate due diligence, such as (i) a quantification of potential risks and benefits, and (ii) an analysis of the impact on University’s debt portfolio.

VI. Policy Controls

<p>Purpose</p> <ol style="list-style-type: none"> 1. Identify operating controls related to trading, authorizing, confirming and accounting for transactions. 2. To identify exposure controls in place to keep the University from being overexposed to certain market risks. 	<p>The University has established both operating and exposure controls to address program risks.</p> <p><i>Operating Controls</i></p> <hr/> <p>When utilizing derivatives, it is important for operating controls to be in place to provide for adequate segregation of duties and management oversight. The University has controls addressing trade initiation, approval, confirmation, and accounting.</p> <p>Appendix A to this Policy lists the individuals who may enter into derivatives on behalf of the University. These individuals may not approve their own transactions, unless explicitly stated in Appendix A. Initiators may not confirm transactions with counterparties and may not enter the accounting related to a trade. These controls are in place to assure trades are fully disclosed, accounted for, and approved by appropriate parties.</p> <p>Appendix A also contains a list of individuals with authority to approve transactions. In all instances, unless provided for in Appendix A, an approver may not also be the initiator for a specific transaction. Confirmations serve the purpose of confirming the details of a trade as understood by the University and its counterparty. Trade confirmations are done by an individual who does not have authority to either initiate or</p>
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approve transactions.

Transactions are recorded for accounting purposes by an individual who is neither the initiator nor approver. This segregation helps to assure that trades are accounted for correctly and are recorded and valued correctly on an ongoing basis.

Exposure Controls

The University manages its derivatives exposure by looking at its derivatives portfolio independently and also in the context of its overall asset and liability portfolios. Prior to entering into a derivative transaction, the University will examine the impact of such trade independently and on the asset and liability portfolios as a whole.

Appendix B to the policy establishes limits related to counterparty credit ratings, and the maximum allowable percentage of floating rate debt.

Exposure controls are in place to limit the University's exposure to the various market risks associated with derivatives.



OPERATING CONTROLS

Authorized Initiators - The individuals holding the following positions are hereby authorized to execute and terminate interest rate derivative transactions on behalf of the University:

- Associate Vice President and Treasurer
- Director of Capital Markets Finance

Authorized Approvers – The individuals holding the following positions are hereby authorized to approve all interest rate derivative transactions on behalf of the University:

- Executive Vice President and Chief Operating Officer and his/her designee(s)

In all instances, one person may not act as both authorized initiator and authorized approver for the same transaction.



EXPOSURE CONTROLS

Maximum Percentage of Floating Rate Debt – The University’s outstanding debt portfolio will have no more than 50% of the principal amount in floating rate debt, as described in its Debt Policy. This percentage is calculated to factor in the effects of interest rate derivatives.

Counterparty Credit Exposure – At the time of execution, all derivative counterparties will be rated A3 or better by Moody’s or A- or better by Standard & Poors. Once executed, the maximum allowable credit exposure, determined by the net mark-to-market (including any collateral provided by the counterparty) exposure to the University of all trades with a single counterparty, will be \$10 million for counterparties rated Aa3 by Moody’s or AA- by S&P or below.

The University may takes steps to reduce its exposure to a counterparty by either (i) requiring the counterparty to post collateral in the full amount of the exposure (all the while abiding by the terms of any Credit Support Annex between the University and the counterparty), (ii) terminating all or a portion of its outstanding contract(s) with the counterparty, or (iii) requiring the counterparty to obtain swap insurance or provide another form of third-party security agreeable to the University.

