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## **University of California**

### **Governmental Accounting Standards Board (GASB) Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*.**

*(Issued: April 13, 2010)*

#### **Issues Resolution Memo No. 53.7**

#### **Assessing Whether the University's TBA's (When, As and If Issued Contracts, or To be Announced) are Investment Derivatives or Hedging Derivatives**

### **Background**

In applying GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, the University must determine whether its TBA trades are derivative instruments, as defined by the GASB, and if so, whether they are investment derivatives or hedging derivatives.

TBA is a term used to describe a forward mortgage-backed securities trade. Pass-through securities issued by Freddie Mac, Fannie Mae and Ginnie Mae trade in the TBA market. The term TBA is derived from the fact that the actual mortgage-backed security that will be delivered to fulfill a TBA trade is not designated at the time the trade is made. The securities are "to be announced" 48 hours prior to the established trade settlement date.

### **Define Issues**

The University must review the disclosure requirements contained in GASB Statement No. 53 to determine how its TBA trades may affect the financial reporting for the University's financial statements, the separate financial statements of the medical centers, the University of California Retirement Plan, University of California Retirement Savings Plan, campus foundation financial statements, or the University of California Retiree Health Benefit Trust (UCRHBT) financial statements.

The University must identify and review TBA trades that may exist in:

- Internal investment pools managed by the Chief Investment Officer,
- An investment pool consisting only of UC funds managed by an external manager, as agent for the University.

TBA trades held in external investment pools, as defined in GASB Statement No. 33, that commingle funds from many legal entities are not required to disclose or report derivative investments.

There are several questions that need to be answered and documented:

- Are the TBA trades derivative instruments, as defined by the GASB? If so,
- Was the derivative instrument entered primarily for the purpose of obtaining income or profit? If so, this is automatically an investment derivative, and if not,
- Is there a hedgeable item in place? If not, this defaults to an investment derivative, and if so,
- Is the hedging derivative an effective hedge? If so, this results in an effective fair value hedge, and if not
- The hedging derivative is an ineffective hedge and is treated as if it is an investment derivative.

## **Authoritative Guidance**

### ***Are the TBA trades derivative instruments, as defined by the GASB?***

With respect to the first question, the authoritative guidance as to whether there is a derivative instrument under Statement No. 53 is as follows:

Paragraph 7. A derivative instrument is a financial instrument or other contract that has all of the following characteristics:

- a. Settlement factors. It has (1) one or more reference rates and (2) one or more notional amounts or payment provisions, or both. Those terms determine the amount of the settlement or settlements and, in some cases, whether or not a settlement is required. Settlement factors are more fully described in paragraphs 9 and 10.
- b. Leverage. It requires no initial net investment or an initial net investment that is smaller than would be required for other types of contracts that would be expected to have a similar response to changes in market factors. Leverage is more fully described in paragraphs 11 and 12.
- c. Net settlement. Its terms require or permit net settlement, it can readily be settled net by a means outside the contract, or it provides for delivery of an asset that puts the recipient in a position not substantially different from net settlement. Net settlement is more fully described in paragraph 13.

### ***Settlement Factors***

Paragraph 9. Settlement factors that are relevant to the definition of a derivative instrument include the reference rate, notional amount, and payment provisions. A reference rate is a specified interest rate, security price, commodity price, foreign exchange rate, index of prices or rates, or other variable (including the occurrence or nonoccurrence of a specified event such as a scheduled payment under a contract). A reference rate may be a price or rate of an asset or liability but is not the asset or liability itself and may be any variable that has changes that are observable or otherwise objectively verifiable, such as:

- a. A security price or security price index
- b. A commodity price or commodity price index
- c. An interest rate or interest rate index
- d. A credit rating or credit index
- e. An exchange rate or exchange rate index
- f. An insurance index or catastrophe loss index
- g. A climatic or geological condition (such as temperature, earthquake severity, or rainfall), another physical variable, or a related index.

Common reference rates are the London Interbank Offered Rate (LIBOR), the Securities Industry and Financial Markets Association (SIFMA) swap index, the AAA general obligations index published by Municipal Market Data, or a commodity pricing point. For example, a commodity swap's variable payment may be linked to the price of No. 2 heating oil at the New York City harbor pricing point.

Paragraph 10. Another settlement factor is the notional amount. The notional amount is the number of currency units, shares, bushels, pounds, or other units specified in the derivative instrument. The notional amount and reference rate are key factors of a derivative instrument's settlement payment. Other factors, such as the change in a reference rate over time also may enter the calculation of a settlement payment. Finally, a payment provision may specify a payment to be made if the reference rate behaves in a specified manner, such as the three-month average of fuel prices at a certain pricing point that exceeds a certain price.

### *Leverage*

Paragraph 11. Leverage is achieved by either a small or no initial net investment that allows for the derivative instrument to have changing cash flows or fair values that replicate an instrument that normally would require a much larger investment. For example, an interest rate swap may require no initial net investment. The swap's fair value, however, will change as if the holder of the swap had made an initial net investment in a fixed-rate instrument with a principal amount equal to the swap's notional value.

Paragraph 12. Derivative instruments do not require initial net investments that are equal to the notional amounts (or the notional amounts plus a premium or minus a discount) or that are determined by applying the notional amount to the reference rate. Many derivative instruments require no initial net investment. Some derivative instruments require an initial net investment as compensation for the time value of an option (for example, a premium on an option) or for terms that are more or less favorable than market conditions (for example, a premium on a forward purchase contract with a price less than the current forward price). Other derivative instruments require a mutual exchange of currencies or other assets at inception, in which case the net investment is the difference between the fair values of the assets exchanged.

### *Net Settlement*

Paragraph 13. A financial instrument or other contract meets the net settlement characteristic if its settlement provisions meet one of the following criteria:

- a. Neither party is required to deliver an asset that is associated with the reference rate and that has a principal amount, stated amount, face value, number of shares, or other denomination that is equal to the notional amount (or the notional amount plus a premium or minus a discount) of the financial instrument. For example, most interest rate swaps do not require that either party deliver cash or interest-bearing assets with a principal amount equal to the notional amount of the contract.

- b. One of the parties is required to deliver an asset of the type described in paragraph 13a, but there is a market mechanism that facilitates net settlement. An example of that type of market mechanism is a futures exchange that offers a ready opportunity to enter into an offsetting contract.
- c. One of the parties is required to deliver an asset of the type described in paragraph 13a, but that asset is readily convertible to cash or is itself a derivative instrument. An example of that type of contract is a forward contract that requires delivery of a bond. Another example is a swaption—an option to require delivery of a swap contract, which is a derivative instrument.

***If the TBA trade is a derivative instrument, as defined by the GASB, was the derivative instrument entered primarily for the purpose of obtaining income or profit?***

The authoritative guidance is in Paragraph 20 “...Changes in fair values of **investment derivative instruments**, including derivative instruments that are determined to be ineffective, should be reported within the investment revenue classification on the flow of resources statement.”

An **investment derivative instrument** is defined as a derivative instrument that is entered primarily for the purpose of obtaining income or profit, or a derivative instrument that does not meet the criteria of a hedging derivative instrument.

***If the TBA trade is a derivative instrument, as defined by the GASB, and not entered into for the purpose of obtaining income or profit, is there a hedgeable item in place?***

The authoritative guidance as to whether the derivative instrument is an investment derivative or a hedging derivative depends, in part, on whether a hedgeable item is in place as follows:

*Hedging Derivative Instruments*

Paragraph 26. There are a number of assets, liabilities, and expected transactions that expose a government to the risk of adverse changes in cash flows and fair values. Hedging is one method that governments employ to reduce identified financial risks (for example, to counter increases in interest costs, to offset price increases in the acquisition of commodities, or to protect against fair value losses). Derivative instruments utilized in hedging relationships are designed to reduce identified financial risks by offsetting changes in cash flows or fair values of the associated item.

Paragraph 27. A hedging derivative instrument is established if **both** of the following criteria are met:

- a. **The derivative instrument is associated with a hedgeable item.** Association is established by consideration of the facts and circumstances of the derivative instrument, including whether:
  - (1) The notional amount of the derivative instrument is consistent with the principal amount or quantity of the hedgeable item.
  - (2) The derivative instrument will be reported in the same fund, if applicable, as the hedgeable item.
  - (3) The term or time period of the derivative instrument is consistent with the term or time period of the hedgeable item.

Hedgeable items are further described in paragraphs 28–30. A derivative instrument that is associated with a hedgeable item but has yet to be determined effective in significantly reducing the identified financial risk (paragraph 27b) is referred to in this Statement as a potential hedging derivative instrument.

- b. **The potential hedging derivative instrument is effective in significantly reducing the identified financial risk.** Effectiveness is established if the changes in cash flows or fair values of the potential hedging derivative instrument substantially offset the changes in cash flows or fair values of the hedgeable item. The evaluation of effectiveness is further described in paragraphs 31–62.

### *Hedgeable Items*

Paragraph 28. Hedgeable items expose a government to identified financial risks that can be expressed in terms of exposure to adverse changes in cash flows or fair values. Hedgeable items can be all or a specific portion of:

- a. **A single asset** or liability, for example, an entire bond issue or a specific portion of a bond issue.
- b. **Groups of similar assets** or liabilities. If similar assets or similar liabilities are aggregated and hedged as a group, all of the individual assets or individual liabilities in the group are required to be exposed to the same identified financial risk that is being hedged.
- c. **An expected transaction** (paragraph 29).

**Assets and liabilities, regardless of whether a single asset or a group of similar assets, that are measured at fair value—such as investments in many debt securities—DO NOT qualify as hedgeable items.**

Paragraph 29. Hedges of expected transactions. For an expected transaction to be a hedgeable item, the occurrence of the expected transaction should be probable, supported by observable facts such as:

- a. The frequency, volume, and amount of past transactions
- b. The financial, operational, and legal ability of the government to carry out the transaction (for example, whether the voters have approved a bond issue or tax levy)
- c. The extent of loss or disruption to a government’s activities that could result if the transaction does not occur
- d. The government’s budget or other planning documents.

If an expected transaction is a hedgeable item, the evaluation of effectiveness should consider the probable terms of the expected transaction compared to the terms of the potential hedging derivative instrument.

Additional guidance is found in the Guide to Implementation of GASB Statement No. 53 in Q & A No. 44:

- Q** A pension plan expects to purchase a foreign currency denominated debt security. Is this expected transaction a hedgeable item?
- A** Yes. An expected transaction is a hedgeable item, provided that the occurrence of the expected transaction is probable as described in paragraph 29 of Statement No. 53.

If a hedgeable item is not in place, then the derivative instrument is an investment derivative. If a hedgeable item is in place, then the next effort is to determine whether the derivative instrument is an investment derivative or a hedging derivative.

***Is the hedging derivative an effective hedge? Assuming there is a hedgeable item in place, then an evaluation of effectiveness, as follows, must be completed:***

Paragraph 39. Forward contracts. A forward contract is effective under the consistent critical terms method if all of the following criteria are met:

- a. The forward contract is for the purchase or sale of the same quantity or notional amount and at the same time as the hedgeable item.
- b. Upon association with the hedgeable item, the forward contract has a zero fair value.
- c. The reference rate of the forward contract is consistent with the reference rate of the hedgeable item.

The change in the discount or premium on the forward contract should be excluded from the assessment of effectiveness and included within the investment revenue classification pursuant to paragraph 20, or the change in expected cash flows of the expected transaction should be based on the forward price of the hedgeable item.

***Is there a requirement to “look through” investments in external investment pools to report derivative instruments?***

**Q.46.1** A public university’s endowment fund indirectly holds derivative instruments as part of the investment assets reported by an external investment pool. Should the public university "look through" the investment pool to these derivative instruments and make the required derivative instrument disclosures? (Q&A53-98)

**A.46.1** No. A position in an external investment pool is in itself an investment type (paragraph 4 of Statement 40).

## **Discussion**

***For the University of California, University of California Retirement Plan, University of California Retirement Savings Plans and UCRHBT***

The University must identify and review TBA trades that may exist in:

- Internal investment pools managed by the Chief Investment Officer,
- An investment pool consisting only of UC funds managed by an external manager, as agent for the University.

As discussed below and documented in the appendix, the University’s TBA trades are derivative instruments.

TBA trades held in external investment pools, as defined in GASB Statement No. 33, that commingle funds from many legal entities are not required to disclose or report derivative investments.

*Are the TBA trades derivative instruments, as defined by the GASB?*

**True** – TBA trades are derivative instruments as defined by the GASB. It meets the following three criteria:

*Settlement factors.* The TBA trade has one or more notional amounts.

*Leverage.* The TBA trade does not have an initial investment and therefore is substantially less than the notional amount.

*Net Settlement.* Neither the University or the counterparty is required to deliver an asset that is associated with the reference rate and that has a principal amount, stated amount, face value, number of shares, or other denomination that is equal to the notional amount (or the notional amount plus a premium or minus a discount) of the financial instrument.

Per Question 10.3.3 in the Implementation Guide:

**Q** Some governments enter into contracts to purchase or sell securities that do not yet exist—"when issued" and "to-be-announced" securities. Are these contracts derivative instruments and within the scope of Statement No. 53, Accounting and Financial Reporting for Derivative Instruments? (Q&A53-3)

**A** Yes. When-issued securities are available on a "when-, as-, or if-issued" basis. For example, U.S. Treasury securities may be purchased on a when-issued basis. That is, these securities are authorized for issuance and sold before the securities are ready for delivery. Payment is not required until the investor receives the security, enabling the investor to take a position on interest rates without making a payment. To-be-announced securities are forward contracts to purchase or sell mortgage-backed securities. The to-be-announced term is necessary because the actual mortgage-backed security that will be delivered to complete a to-be-announced transaction is not designated at the time the government enters into the transaction. Contracts to purchase or sell when-issued and to-be-announced securities are derivative instruments because there are settlement factors—the reference rates or interest rates the securities will bear and notional amounts in the form of the principal amount of the future securities. There is leverage because there is little or no initial net investment. Finally, the contracts may be net settled because neither party is required to deliver an asset—the to-be-announced or when-issued security—to settle the contract. Therefore, these contracts are within the scope of Statement 53.

*Was the derivative instrument entered primarily for the purpose of obtaining income or profit?*

If the University enters into a TBA trade for the purpose of obtaining income or profit, it must be reported and classified as an **investment derivative instrument**.

**No**, UC is buying the pass-through security issued by Freddie Mac, Fannie Mae and Ginnie Mae in the TBA market. While the security is certainly for the purpose of making a profit, the forward contract TBA portion isn't entered into to make a profit. The term TBA is derived from the fact that the actual mortgage-backed security that will be delivered to fulfill a TBA trade is not designated at the time the trade is made.

*(Note: This response may be updated based on further discussion with PwC.)*

*Given the TBA trade is a derivative instrument, as defined by the GASB, is there a hedgeable item in place?*

**True**, as an expected transaction, if the University enters into a TBA trade for the purpose of hedging an expected transaction, such as the future purchase of a security, and the future purchase is "probable" and in accordance with the observable facts as outlined below, then a hedgeable item DOES exist that is NOT an "asset that is measured at fair value" on the SRECNA. In this circumstance, an evaluation of effectiveness will need to be undertaken.

Paragraph 29. Hedges of expected transactions. For an expected transaction to be a hedgeable item, the occurrence of the expected transaction should be probable, supported by observable facts such as:

- a. The frequency, volume, and amount of past transactions
- b. The financial, operational, and legal ability of the government to carry out the transaction (for example, whether the voters have approved a bond issue or tax levy)
- c. The extent of loss or disruption to a government's activities that could result if the transaction does not occur
- d. The government's budget or other planning documents.

If an expected transaction is a hedgeable item, the evaluation of effectiveness should consider the probable terms of the expected transaction compared to the terms of the potential hedging derivative instrument.

*Is the derivative instrument that hedges an expected transaction an effective hedge?*

**True** - In most all cases, the TBA trade will be an effective hedge of an expected transaction as defined by the GASB.

Paragraph 39. Forward contracts. A forward contract is effective under the consistent critical terms method if all of the following criteria are met:

- a. The forward contract is for the purchase or sale of the same quantity or notional amount and at the same time as the hedgeable item.
- b. Upon association with the hedgeable item, the forward contract has a zero fair value.



- c. The reference rate of the forward contract is consistent with the reference rate of the hedgeable item.

The change in the discount or premium on the forward contract should be excluded from the assessment of effectiveness and included within the investment revenue classification pursuant to paragraph 20, or the change in expected cash flows of the expected transaction should be based on the forward price of the hedgeable item.

### ***For the Campus Foundations***

The principles for TBA trades apply to the campus foundations. Each will need to perform their own review to determine the nature and extent of the disclosure required.

From the perspective of the campus foundations, their investment in the University's STIP or GEP is considered to be an investment in an external investment pool, therefore they are not required to report or disclose derivative instruments in these pools, such as futures contracts.

Similarly, if a campus foundation invests in a State Street CAM pool, there is no derivative instrument disclosure required by the campus foundation since it is also an external investment pool from the perspective of the campus foundation.

Since the campus foundations are included in the UC financial statements and footnotes, if there are direct investments consisting of TBA trades outside of external investment pools, information for any TBA trades consistent with the UC level of detail will need to be accumulated by updating the templates in the GASB 39 Campus Foundation Financial Reporting Package.

### ***For the Medical Centers, UC Press, etc.***

The principles for TBA trades also apply to the separately audited statements of the Medical Centers, UC Press, CEB, etc. However, from their perspective, their investment in the University's STIP is considered to be an investment in an external investment pool, therefore they are not required to report or disclose derivative instruments in these pools.

## Next Steps—Required Actions

<b>Responsibility</b>	<b>Required Completion Date</b>	<b>Action Item/Task</b>
UCOP	Jan-10	Develop a year end checklist for use in evaluating TBA trades outstanding at year end.
UCOP/CF	Jan-10	Determine whether any outstanding TBA trades as of June 30, 2009 are investment derivatives or hedging derivatives, and if they are hedging derivatives, whether they are effective hedges.
UCOP/CF	Mar-10	Add a closing step to the year end closing procedures to evaluate any outstanding TBA trades to determine if they are investment derivatives or hedging derivatives, and if they are hedging derivatives, whether they are effective hedges.