

# What Were They Thinking?!! (Supplemental Material)

## 2008 Fall Workshop

Savannah

November 3, 2008

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Campus Strategies*

## GASB Topics

- GASB Statement No. 45 (OPEB)
- GASB Statement No. 45 (sales and pledges of receivables and future revenues)
- GASB Statement No. 49 (pollution remediation obligations)
- GASB Statement No. 50 (pension disclosures)
- GASB Statement No. 51 (intangible assets)
- GASB Statement No. 53 (derivatives)

## GASB Supplement

## GASB 45 Other Postemployment Benefits (OPEB)

## OPEB

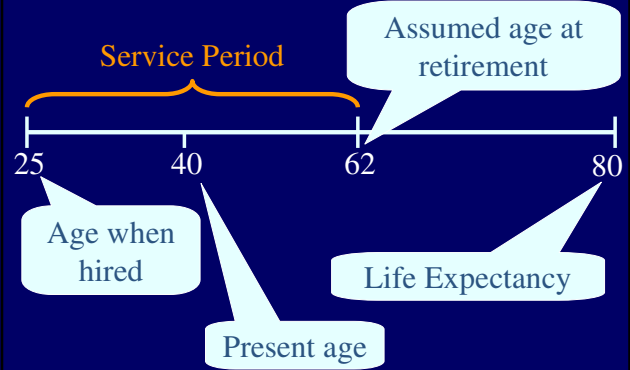
- Scope
  - Employer reporting for benefits other than pensions
  - Postemployment healthcare benefits (e.g., medical, dental, vision, hearing)
  - Other postemployment benefits when separate from pension plan (e.g., life insurance, long-term care, cash stipends if compensation for services)...

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## Employee Age Timeline



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## OPEB

- Substance of transaction
  - Postemployment benefits (pensions and OPEB) are compensation for services rendered by employees
  - Benefits are earned and obligations accrue during employment
  - Payment is deferred until after employment...

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## OPEB

- Termination offers and benefits
  - Special termination benefits; early retirement incentive programs
    - Not compensation for services but payments to induce or result from termination
  - Covered by GASB 47 (termination benefits)...

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## OPEB

- Current practices
  - Financed on pay-as-you-go basis
  - Measurement focus on contributions or benefits paid—outflows of current financial resources
  - Long-term financial implications generally not reported or even estimated...

## OPEB

- General measurement approach
  - Project cash outflows for benefits
  - Discount projected benefits to present value (PV)
  - Allocate the PV of projected benefits to periods using an acceptable actuarial method...

## OPEB

- Employer reporting similar to GASB 27
  - Characterized as a “funding-based” approach—harmonizes financial reporting with funding for accrual accounting purposes
  - Most OPEB plans not funded but approach is “funding friendly”—doesn’t force differing treatment if funded...

## OPEB

- Projection of future benefit payments based on
  - Types of benefits provided under the plan at time of valuation, including any changes made and announced to members
  - Established pattern of sharing of benefit costs between the employer and members to that point...

## OPEB

- Actuarial methods and assumptions
  - Projection of benefits based on
    - Demographics
    - Economic assumptions (e.g., healthcare cost trend rate)
- Frequency of valuations
  - Biennially for plans with 200 or more participants (i.e., employees, retirees)...

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## OPEB

- Recognition in entity-wide statements
  - Annual OPEB cost should be recognized as expense, regardless of amounts actually paid
  - Cumulative difference between amounts expensed and contributions (or benefits paid) is the *net OPEB obligation*...

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## OPEB

- Measurement of OPEB annual cost is based on the *annual required contribution* (ARC)
- ARC is actuarially computed amount including
  - Normal cost
  - Amortization of unfunded actuarial accrued liability (*UAAL*) over a maximum period of 30 years...

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## OPEB

- Qualifying contributions limited to
  - Direct payments of benefits
  - Insurance premiums to cover future payment of benefits
  - Irrevocable transfers of assets to fund benefits as they come due in the future
- Assets only earmarked for OPEB excluded...

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## OPEB

- Implicit rate subsidies arise when retirees' rates based on current employees' rates
  - Costs for retirees generally significantly higher than for current employees
- Difference between "common" premium charged and actual rate needed if retirees' rate calculated as separate group is a subsidy
  - Even if employer does not otherwise contribute to retirees' benefits...

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## OPEB

- Implementation
  - Prospective
    - Option to report initial net OPEB obligation at zero
  - Staggered implementation in three phases based on revenues to ensure availability of actuarial services

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## Implicit Rate Subsidy Example

Employees	Number	Monthly Cost	Age-adjusted Premium	Blended Premium
Active	400	\$80,000	\$200	
Retired	100	\$40,000	\$400	
Total	500	\$120,000		\$240

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## GASB 48 Sales and Pledges of Receivables and Future Revenues

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## Sales and Pledges

- Institution receives current proceeds in exchange for rights to future cash flows
  - In higher education, typically from transfer of student loans
  - Also could occur with future revenues
- Standard addresses whether sale or borrowing
  - Default is borrowing, unless criteria are met...

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## Sales and Pledges

- Future revenues and transfers
  - No continuing involvement (or control) by transferor (i.e., institution)
    - Transferor has no *active* involvement in future generation of revenues
    - Transferee can sell or pledge
    - Transferor's creditors are precluded from accessing transferred amounts...

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## Sales and Pledges

- Receivables
  - No continuing involvement (or control) by transferor (i.e., institution)
    - Transferee can sell or pledge
    - Transferor's creditors are precluded from accessing transferred amounts
    - Transferor cannot replace or repurchase
  - If all are true, it's a sale...

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## Sales and Pledges

- If contractual revenues are involved, there is no language prohibiting transfer
- If all are true, it's a sale

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## GASB 49 Pollution Remediation Obligations

## Pollution Remediation Obligations

- Recognition threshold
  - Assess whether one or more components of an obligation are recognizable
    - Institution knows or reasonably believes that a site is polluted
    - Obligating event occurs...

## Pollution Remediation Obligations

- Types of obligations covered
  - Pre-cleanup activities such as site assessment, feasibility study, design
  - Cleanup activities such as neutralization, containment, disposal activities
  - Oversight and enforcement costs
  - Operation and maintenance of remedy and monitoring...

## Pollution Remediation Obligations

- Obligating events
  - Compelled to take remediation action because of imminent danger
  - Violate pollution-prevention permit
  - Named or evidence suggests institution will be named as responsible party or *potentially responsible party* (PRP) for remediation...

## Pollution Remediation Obligations

- Named or evidence suggests institution will be named in lawsuit to participate in remediation
  - Exclude lawsuits without merit
- Institution commences or legally obligates itself to commence remediation...

## Pollution Remediation Obligations

- Issuance of authorization to proceed
- Remediation design and implementation
- Cost accumulation, not fair value
- Current value versus present value
- Expected cash flow technique versus FASB 5...

## Pollution Remediation Obligations

- Recognition
  - Recognize components of liability as they become reasonably estimable
- Benchmarks
  - Receipt of administrative order
  - Participation as responsible party or PRP
  - Completion of corrective measure feasibility study...

## Pollution Remediation Obligations

- Capitalization permitted in limited circumstances
  - Cleanup to prepare for sale
  - Polluted property bought and cleaned for use
  - Asset impaired and cleanup restores lost service utility
  - Acquired capital assets have alternative use •

## GASB 50 Pension Disclosures

## GASB 51 Intangible Assets

### Pension Disclosures

- Driven by new OPEB standards
- Amends GASB 25 (pension plans) and GASB 27 (accounting for pensions by employers)
- Extends new disclosure requirements related to OPEB to pensions
- Removes inconsistencies between original pension disclosures and OPEB disclosures

### Intangible Assets

- Assets that possess following characteristics
  - Lack physical substance
  - Nonfinancial nature
  - Initial useful life extending beyond a single reporting period...

## Intangible Assets

- Examples
  - Patents, copyrights, trademarks
  - Easements and land use rights
  - Computer software
    - Purchased or licensed
    - Internally generated...

## Intangible Assets

- Exceptions
  - Capital leases
  - Goodwill resulting from a combination transaction (e.g., merger, acquisition)
  - Intangible assets acquired or created primarily to generate income or profit
    - Special note—although reported as investments, must be reported at cost...

## Intangible Assets

- Intangible assets must be classified and reported as *capital* assets
  - Existing authoritative guidance related to capital assets extends to intangible assets
- But there are exceptions...

## Intangible Assets

- Recognition—only if asset is identifiable
  - Asset is separable (i.e., capable of being separated and sold, transferred, licensed, etc.) *or*
  - Asset arises from contractual or other legal rights, regardless of whether rights are separable...

## Intangible Assets

- Internally generated intangible assets (IGIA)
  - Created or produced by institution or entity contracted by institution *or*
  - Acquired from a third party and requiring more than minimal incremental effort to achieve expected service capacity...

## Intangible Assets

3. Demonstration of current intention, ability, and presence of effort to complete project
  - If multiyear project, requirement for continuing satisfaction of this criterion
- Outlays incurred prior to meeting criteria should be expensed as incurred...

## Intangible Assets

- IGIA costs capitalized only when all three criteria met
  1. Specific objective for project determined, including establishment of expected service capacity upon completion
  2. Demonstration of technical or technological feasibility for completing project...

## Intangible Assets

- Standard includes guidance on applying the specified-conditions approach for recognition of computer software
  - Guidance closely follows requirements of AICPA SOP 98-1, *Accounting for the Costs of Computer Software Developed or Obtained for Internal Use...*

## Intangible Assets

- Amortization
  - Existing guidance for depreciating capital assets generally applies to amortizing intangible assets
  - Not required for intangible assets with indefinite useful lives
    - Indefinite useful lives exist when there are no factors that limit useful life...

## Intangible Assets

- Recognition required for all other intangible assets acquired in fiscal years ending after June 30, 1980 by phase 1 or 2 governments
- Phase 3 governments are encouraged but not required to report other intangible assets

## Intangible Assets

- Transition
  - Provisions generally should be applied retroactively
  - Exceptions permitted for IGIA and intangible assets with indefinite useful lives at transition...

## GASB 53 Derivatives

(Special thanks to Randy Finden of the GASB)

## What is a Derivative Instrument?

- A derivative instrument has
  - One or more reference rates (underlyings) and one or more notional amounts
  - Leverage
  - Net settlement

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## Futures Contracts

- Exchange-traded
- Standard terms—notional amount, reference rate / underlying, settlement dates
- Always at the market
- Always enter and leave at no cost
- Accounts are adjusted daily
- Margin—collateral—is required

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## Common Derivative Instruments

- Futures contracts
- Some forward contracts
- Options—exchange-traded and others
- Swaps

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## Futures Contracts—Standard Terms

- Commodity or financial instrument
- Notional: Gallons, pounds, dollars, bonds
- Maturity date

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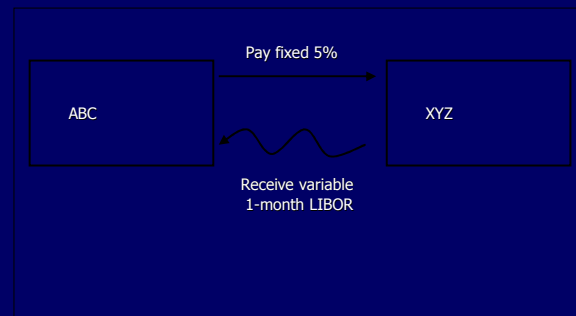
## Forward Contracts

- Swaps are forward contracts
- Forward contracts are common
- Not all forwards are derivative instruments

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## A Swap



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## Swaps

- Investments
  - Foreign currency swaps
  - Interest rate swaps
  - Exchange-traded options

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## Components of a Swap

- Time: Beginning and end
- Reference rate or underlying event
- Notional amount
- Payment frequency
- As an over-the-counter product, special terms and options agreed to by both parties

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## Swaps

- Interest rate swaps
  - Variable-rate to fixed-rate
  - Fixed-rate to variable-rate
- Caps and collars

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## Options

- An option gives the holder the right but not the obligation to buy or sell a financial instrument, commodity, or other transaction
- Options may be sold and purchased
  - An option purchaser is long
  - An option seller is short
- Call—the right to buy something at a specified price
- Put—the right to sell something at a specified price

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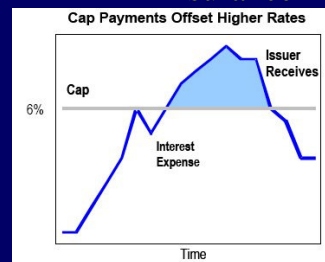
## Common Swaps

- Basis swaps, e.g., constant maturity swap—exchange payments based on the changes of two variable rates
- Swaptions—give the purchaser of the option the right, but not the obligation, to enter into an interest rate swap
- Commodity swaps—reduce exposure to a commodity's price risk

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## CAPS Think Insurance

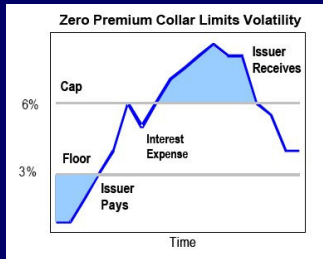


Priced by payment of premium

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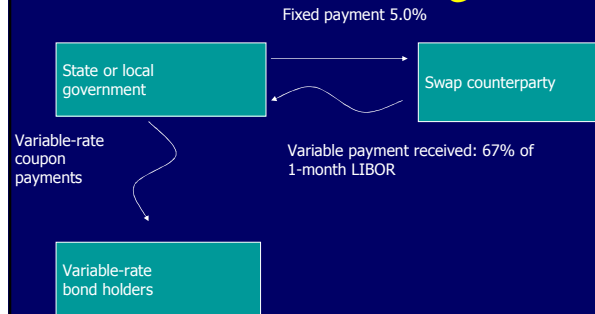
## Collar



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## Cash Flow Hedge



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## Why Governments Enter Swaps

Conventional 30-year, fixed coupon bond 5.85%

Structured financing

- Issue variable coupon bonds
- Enter into pay-fixed, receive variable interest rate swap

Fixed payment interest rate 5.00%

Difference 0.85%

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## What is it?



<u>Traditional</u>	<u>Derivative instrument</u>
Insurance for weather damages	Weather derivative
Financial guarantee	Credit default swap
Debt	Off-market interest swap
Purchase and sale contracts	Futures contracts, forward contracts, and swaps

## Fair Value

Based on either

- Market-observed prices
- Models, such as from a Bloomberg terminal

## A 4-Year Swap, 2 Years Forward

Period	Receive Variable	Pay Fixed	Net
1			
2			
3	3.40	(3.55)	\$(0.05)
4	3.50	(3.55)	0.05
5	3.60	(3.55)	0.15
6	<u>3.70</u>	<u>(3.55)</u>	<u>0.25</u>
Total	<u>\$14.20</u>	<u>\$(14.20)</u>	<u>\$0.00</u>

## Developing a Swap's Fair Value Payments

Period	Receive Variable	Pay Fixed	Net
1	\$3.20	\$(3.45)	\$(0.25)
2	3.30	(3.45)	(0.15)
3	3.40	(3.45)	(0.05)
4	3.50	(3.45)	.05
5	3.60	(3.45)	0.15
6	<u>3.70</u>	<u>(3.45)</u>	<u>0.25</u>
Total	<u>\$20.70</u>	<u>\$(20.70)</u>	<u>\$0.00</u>

## Excluded Instruments

- Normal purchases & normal sales contracts
  - Commodity (e.g., gas or electricity)
  - Government intends to and has practice of taking delivery or selling the commodity
  - Quantity is consistent with volume used
- Traditional insurance contracts
- Traditional financial guarantee contracts
- Non exchange-traded climate contracts, liquidated damages, etc.

## Accounting for Derivative Instruments

### Fair value with hedge accounting

- Derivative instruments are measured on the statement of net assets at fair value
- Fair value changes are reported on the SRECNA as investment income

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## Sources of Fair Values

- Market-observed prices, such as futures contracts, exchange-traded options
- Formula-based prices, such as fair values based on the zero-coupon method, the Black-Scholes-Merton option pricing model

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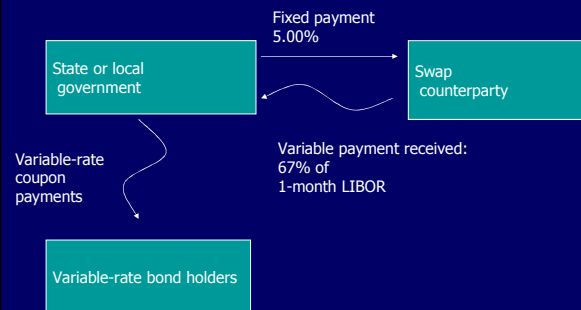
## Accounting for Derivative Instruments

- Exception: HEDGES!
  - Changes in fair value of derivative instruments are reported on the balance sheet as deferrals—either deferred charges or deferred credits
  - Swap asset, deferred inflows
  - Swap liability, deferred outflows

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## Cash Flow Hedge



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## Financial Statement Presentation

	<u>Year 1</u>	<u>Year 2</u>
Statement of net assets		
Cash		(\$6,000)
Deferred outflow	\$5,000	\$0
Swap liability	\$5,000	\$0
Change statement		
Interest expenditure/expense	\$0	\$6,000

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## Hybrid Instruments

- Criteria
  - The companion instrument is not measured at fair value
  - A separate instrument as the embedded derivative instrument would be a derivative instrument
  - The economic characteristics and risks of the derivative instrument are closely related to the economic characteristics and risks of the companion instrument

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## Hybrid Instruments

- Composed of an embedded derivative instrument and a companion instrument
- Example: In an interest rate swap, a government agrees to pay an above-market fixed rate, generating an up-front payment to the government

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## Hybrid Instruments

- Application
  - Swaps with off-market terms
  - Swaptions sold that are in-the-money
  - Inconsistent reference rates, such as bond with a variable coupon based on the S&P 500

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## Hybrid Instruments

- Debt with a potential negative yield, such as a bond with a coupon that resets to zero if a reference rate exceeds a certain level
- Debt with leveraged yield, such as terms that provide the possibility of doubling the bond's yield

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## Hybrid Instrument: Up-Front Payments

- Often in substance borrowings because a government has agreed to pay an above-market fixed rate.
- Example:
  - An at-the-market, 10-year swap would have a fixed rate of 5%—a zero fair value
  - If the government agrees to pay a fixed rate of 6%, an up-front payment is generated
  - That payment is the present value of 1% (6%-5%), times the notional, over 10-years

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## Accounting for Hybrid Instruments

- Bifurcate the embedded derivative from the companion instrument
  - The embedded derivative instrument should be measured at fair value
  - The companion instrument should be measured and reported consistent with its substance, such as debt

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## Hybrid Instrument—Swaptions

- A swaption gives its holder (buyer) the right but not the obligation to put the issuer (the government) into a swap

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## Swaptions & Synthetic Refundings

- Swaptions are often associated with synthetic refunding
- The government receives an up-front payment for the value of the swaption
- The government is indifferent as to whether the holder of the option puts them into the swap

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## Traditional Refundings

- Fixed coupon bonds were issued, but rates have fallen
- New bonds, with lower fixed coupons, are issued to retire the old bonds
- Thereafter, the government enjoys lower interest costs

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## Swaptions & Synthetic Refundings

- Components of the payment
  - Time value
  - Intrinsic value because the option is in the money

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## Swaption Example

- Old bonds
  - \$100 million principal
  - 10 years remaining maturity
  - 2 years to call
  - Have a fixed coupon of 5%—
  - Current rates are now 4%

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## Swaption Example

- Refunding bonds
  - Would be issued in two years
  - \$100 million principal
  - Variable rate

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## There are 2 Outcomes

In 2 years, interest rates are below 5%, a synthetic refunding occurs

- Refunding bonds are issued
- Old bonds are retired with proceeds
- Counterparty exercises its option to put the government into a swap

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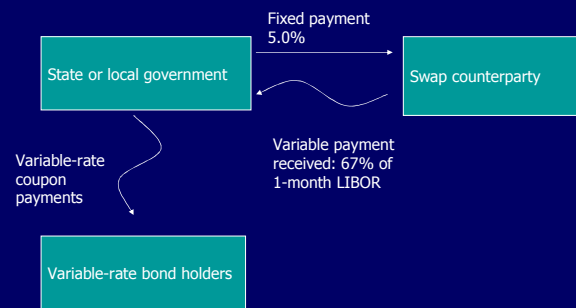
## Swaption Example

- The swaption
  - \$100 million notional
  - 2-years forward; option is exercisable in 2 years
  - 5% fixed leg
  - Government receives an up-front payment of \$10 million made up of:
    - Time value \$2 million
    - Intrinsic value \$8 million

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## Cash Flow Hedge



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## Outcome 2

In 2 years, interest rates are above 5%

- The option expires worthless
- A refunding does not happen
- Government keeps the up-front payment, but continues paying the old, 5% rate

## Accounting for Swaptions

- If the option is exercised, the debt is repaid and the swap is handled as any other potential hedging derivative instrument
- If the option expires worthless, the government has had a debt forgiveness

## Accounting for Swaptions

- The government has entered into a hybrid instrument
  - The borrowing, \$8 million, treat as a borrowing
  - Deferred revenue, \$2 million, measure using fair value

## On-Behalf Payments

- On-behalf payments are amounts paid by a counterparty on behalf of a government
- For example, an underwriter makes a payment to a swap advisor on behalf of the government
- On-behalf payments should be recognized as expenditures and expenses by the government

## Synthetic Guaranteed Investment Contracts

- SGICs consist of a portfolio of investments supported by wrap contract, the combination of which provide a given rate of return
- SGICs can be found in
  - Deferred compensation plans
  - Defined benefit plans
  - College saving plans
- Benefit-responsive SGICs are measured at contract value.

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## Hedges and Hedge Accounting

- Two requirements
  - Derivative instrument is associated with a hedgeable item
  - Derivative instrument is effective in providing changes in cash flows or fair values that substantially offset the cash flow or fair value changes of the hedgeable item

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## Benefit-Responsive SGICs

- The possibility that the interest crediting rate may be less than zero is remote
  - Portfolio of investments are
    - High credit quality
    - May be settled at the amount that supports contract value
  - Rate adjustments are provided by a financially responsible third party
- Participants have reasonable access to their investments

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## Hedges and Hedge Accounting

- If the above requirements are met, hedge accounting must be applied
- Accounting is not dependent on documentation

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## Hedgeable Items

- Single asset or liability
- Groups of similar assets or liabilities must have same risk exposure
- Expected transaction—occurrence should be probable
- Specific risks of financial instruments, such as interest rate risk, is hedgeable
- Do not need hedge accounting for investments

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## Consistent Critical Terms Method

- Notional and principal amounts must be the same
- Fair value of derivative instrument must be zero at date of inception
- Benchmark rates based on the same index such as SIFMA to SIFMA
- Additional requirements based on whether it is a fair value hedge or a cash flow hedge

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## Methods of Evaluating Effectiveness

- Effectiveness is determined by using an acceptable method of evaluating hedges
- Qualitative method
  - Consistent critical terms method
- Quantitative methods
  - Synthetic instrument method
  - Linear regression method
  - Dollar offset method
  - Other method

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## Consistent Critical Terms Method

	Hedged <u>Debt</u>	Hedging <u>Derivative</u>
Principal/notional	\$1,000	\$1,000
Term	10 years	10 years
Payments, Every	6 months	6 months
Variable payment	SIFMA	SIFMA

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## Synthetic Instrument Method

- Based on notion that the combined cash flows of a swap and hedged debt create a third instrument—a synthetic fixed-rate instrument
- Comes from consistent critical terms method, but used when benchmark rates are not the same, such as a percentage of LIBOR swap

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## Dollar Offset Method

- The change in fair values or cash flows of the hedging derivative instrument is divided by the same changes of the hedged item
  - Result should be within the range of 80 to 125 percent
  - This method is similar to the economic notion of elasticity

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## Synthetic Instrument Method

- Uses the rate in the fixed-leg of the swap as the fixed rate
- As long as *actual* payments travel within a range of 90% to 111% of the fixed rate, the derivative instrument is effective
  - Swap-based hedge use the fixed payment of the swap
  - Commodity hedges use the fixed rate established by the hedge

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## Dollar Offset Example

<u>Changes</u>	<u>Fair Value</u> <u>Change</u>
Hedged debt	\$1,000
Interest rate swap	(1,150)
 (\$1,000/\$1,150)	 86.96%

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## Regression Method

- Evaluation of effectiveness should indicate that the hedged item and the hedging derivative instrument regress such that
  - R-squared statistic is at least 0.80
  - F-statistic is at least 95 percent confidence interval
  - Slope coefficient is between  $-1.25$  and  $-0.80$

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## Hedge Terminations

- Recognize deferral amount in income if
  - The hedging derivative instrument is no longer effective
  - The government is re-exposed to the hedged risk
  - The likelihood of the expected transaction is no longer probable
  - The hedging derivative instrument is terminated

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## Other Evaluation Methods

Method must

- Be consistent with fair value
- Demonstrate that the changes in cash flows or fair values of the derivative instrument substantially offset the changes in cash flows or fair value of the hedgeable item

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## Hedge Terminations

- If hedged transaction occurs, recognize deferral amount as part of the hedged transaction
- Examples
  - A futures contract is hedging the purchase of natural gas
  - An interest rate lock is hedging interest rate risk in anticipation of the issuance of bonds and the bonds are issued

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## Hedge Terminations

- Defer and amortize the deferral amount if the hedging derivative instrument is hedging debt that is refunded

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## Disclosures

- Similar derivatives instruments may be aggregated
  - Summary of derivative instrument activity by government activities, business-type activities, and fiduciary activities
  - Then by fair value hedges, cash flow hedges, and investment derivative instruments

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## Hedge Accounting Requirements

- Effectiveness must be evaluated at end of every reporting period
- If in later reporting periods a method finds a derivative instrument to be ineffective, another method may be used

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## Disclosures

- Then by type
  - Notional amount
  - Fair value and changes in fair value and where reported (i.e., statement of net assets or SRECNA)
  - Fair values and amounts reclassified from hedge to investment

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## Disclosures

- Disclosures for *HEDGING* derivative instruments
  - Application of TB-2003 disclosures
  - Significant terms
  - Risks: credit, interest rate, basis, termination, Rollover, market-access, foreign currency
  - If an “other” evaluation method is used, the identity of that method and its critical values

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## Disclosures

- Contingencies (e.g., collateral postings)
  - Fair value of derivative instruments with feature
  - Amount of all potential settlements
  - Amounts posted
- Hedged debt

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## Disclosures

- No disclosure of hedge ineffectiveness
- Disclosures for *INVESTMENT* derivative instruments
  - Risks: credit, interest rate, foreign currency

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## Disclosures

- Synthetic guaranteed investment contracts
  - Description and nature
  - Fair values
    - Wrap contract
    - Underlying investments

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## More Information

- Citigroup, *Derivatives in the Public Sector*
- Ernst & Young, *Financial Reporting Developments, Accounting for Derivative Instruments and Hedging Activities*, December 2006
- Standard & Poor's, *U.S. Public Finance Swap Activity is Primed for Growth In Second-Half '07*

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## Resource

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## More Information

- PricewaterhouseCoopers, *Guide to Accounting for Derivative Instruments and Hedging Activities*, 2007
- Deloitte & Touche, *Accounting Manual—Derivative Instruments and Hedging Activities*, January 11, 2002
- Moody's Investors Service, *Evaluating the Use of Interest Rate Swaps by U.S. Public Finance Issuers*, October 2007

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## FASB Supplement

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## FASB Topics

- FASB Interpretation No. 48 (uncertainty in income taxes)
- FASB Statement No. 157 (fair value)
- FASB Statement No. 158 (pension / postretirement accounting)
- FASB Statement No. 159 (fair value option)

## FIN 48 Uncertainty in Income Taxes

## FASB Topics

- NFP Mergers & Acquisitions ED *and* NFP Goodwill and Other Intangible Assets Acquired in a Merger or Acquisition ED

## Income Taxes

- Interpretation of FASB 109 (income taxes)
- Applies to all entities, including NFPs
- Assumes all tax positions eventually will be examined by knowledgeable authorities
- Recognize tax benefit only if more likely than not to be sustained upon examination
  - Measure as maximum amount that is more likely than not to be sustained...

## Income Taxes

- Potential impacts for NFPs
  - For-profit subsidiaries
  - Unrelated business income
    - Activities reported
    - Activities deemed not reportable
  - Excess benefit transactions
  - General tax-exempt status •

## Summary of FASB 157

- What it does
  - Provides definition of fair value
  - Provides framework used to measure fair value
  - Requires additional disclosures
- What it doesn't do
  - No new requirements to use fair value measures

## FASB Statement No. 157 Fair Value Measurement

(Adapted from NACUBO's  
Webcast on FASB 157)

## Summary of FASB 157

- Effective for FY beginning after 11/15/07
  - Nonfinancial assets—beginning after 11/15/08 if not measured at fair value on a recurring basis

## Definition of Fair Value

The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date

## Valuation Techniques

- To measure fair value use one of the following
  - Market approach – uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

## What does price mean?

- Price is determined in the “principal market,” meaning the market with the greatest volume and level of activity. If there is no principal market, then the “most advantageous market” is used. Price does not include transaction costs.
- Price to be used is an “exit price,” which is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction.

## Valuation Techniques

- Income approach – uses valuation techniques to convert future amounts (e.g., cash flows) to a single present amount (discounted).
- Cost approach – based on the amount currently required to replace the service capacity of an asset (replacement cost). Generally not applicable to investments in funds.

## The Role of Inputs

- Inputs are market participant assumptions that are included in valuation models.
  - Observable inputs are developed based on *market data* obtained from sources *independent* of the reporting entity
  - Unobservable inputs reflect the reporting entity's *own assumptions* about market inputs *based on its own data*. Must be consistent with market participant assumptions.

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## Framework to Measure FV

- A hierarchy based upon inputs
  - Level 1: transactions for the identical item in an active market

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## The Role of Inputs

- Valuation techniques should maximize the use of observable inputs
- Cannot disregard market-based information that is reasonably available

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## Framework to Measure FV

- Level 2: observable market inputs
  - Transactions for similar items in active market
  - Transactions for identical item in inactive market
  - Market-based indexes, rates, and similar indices
- Level 3: no observable market

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## New Disclosures

- Recurring measures
  - What is measured at fair value
    - Level 1, level 2, level 3
  - Valuation techniques used and whether they changed

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## New Disclosures

- Nonrecurring measures
  - Fair value measures recorded in the period
  - Why fair value measures were used
  - Valuation techniques used and whether they changed
  - If Level 3 measures are used
    - Description of the inputs
    - Information used to develop the inputs

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## New Disclosures

- If Level 3 measures are used
  - Reconcile beginning to ending balances
  - Identify the amount of gains/losses for assets and liabilities still held at year end
  - Identify line(s) in the statement of activities

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## New Disclosures

- The extent of disclosures is determined by
  - Frequency of measurement at fair value
  - Level of the framework in which measure falls
- Tabular format required
- Encouraged to combine with other required fair value disclosures
  - FASB 107
  - FASB 124

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## What Is Measured at FV?

- Initial measures
  - All noncash contributions
  - Financial assets held as agent
  - Split-interest agreements
- Occasional measures
  - Impairment of long-lived assets
  - Asset retirement obligations
  - Exit and disposal costs

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## Investments

- Many investments are relatively easy to measure using
  - Level 1
  - Level 2
- Alternative Investments
  - Fair value challenges
  - Net Asset Value (NAV)?

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## What Is Measured at FV?

- Recurring measures
  - Beneficial interests in trusts
  - Most investments
  - Derivative instruments
  - Certain financial assets or liabilities if elected
    - FASB 155—hybrid financial instruments
    - FASB 159—financial assets / liabilities
- Note disclosures

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## Does NAV Represent Fair Value Under FASB 157?

- Net asset value (NAV) is generally the most appropriate *starting point* when determining fair value measurement for investments in investment funds

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## Does NAV Represent Fair Value Under FASB157?

- Consider other factors such as
  - Attributes of the interest held including any restrictions or illiquidity on the disposition of the interest
  - Management's requirement to understand and accept the valuations provided by investee fund or modify them as appropriate

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## Does NAV Represent Fair Value Under FASB157?

- For open ended mutual funds, producing daily NAV that is validated with sufficient level of observable activity (purchases and sales at NAV) should support classification of the fair value measurement as Level 1 or Level 2.

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## Does NAV Represent Fair Value Under FASB157?

- Investor entity is not required to re-value individual underlying portfolio securities
- NAV may need to be adjusted depending upon the rights and obligations of ownership interest and/or other factors
- Need to consider the assumptions market participants would consider in pricing the investment

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## Does NAV Represent Fair Value Under FASB157?

- For hedge funds, to the extent that there is an adequate level of observable activity (subscriptions and redemptions at NAV) to support a determination that NAV represents an exit value, *may* support classification of the fair value as Level 2 or Level 3.

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## Does NAV Represent Fair Value Under FASB157?

- For private equity or real estate funds, the sale or transfer price between parties may or may not be indicative of fair value. Considering the specific facts and circumstances of the sales or transfers is necessary.

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## Does NAV Represent Fair Value Under FASB157?

- Notice Periods (specified prior written notice to submit a redemption request after any lock up period)
- Side Pockets (fund investment in illiquid securities in which investor owns an interest)
- Holdbacks (percentage (e.g., 10%) of investor proceeds not currently distributed)
- Gates (fund restriction on redemptions)

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## Does NAV Represent Fair Value Under FASB157?

- Key fund terms that should be considered:
  - Structure of fund – (open ended vs. limited life)
  - Lock up Provisions (restrictions on the investor's ability to redeem the fund interest for a specified period of time)
  - Redemption Fees (fees imposed on withdrawal or redemption of interest by investor)

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## Other Assets and Liabilities

Fair value measurement of:	<u>Initial</u>	<u>Recurring</u>
Noncash contributions	✓	
Beneficial interests in trusts	✓	✓
Unconditional promises to give	✓	✓ (if elected)
Split-interest gifts	✓	✓ (if elected)

## Noncash Contributions

- Good news
  - No new disclosure requirements
  - Probably no change in source of fair value
- Bad news
  - Nature of these items is limited only by donor's imagination and gift acceptance policy
  - Many of these are unique items
  - Documentation is key!

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## Noncash Contributions

- Are there active observable markets for identical items?
  - If yes, lucky you—document those trading prices!

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## Noncash Contributions

- Highest and best use
- Restrictions
  - Characteristic of the item (buyer can observe)
    - Generally requires adjustment of price
  - Entity specific (purpose and time restrictions)
    - No adjustment of price
    - Net asset classification

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## Noncash Contributions

- Are there inactive markets for identical items or active markets for similar items?
  - If yes, get appraisals or document trading prices
  - Adjust price if item is not identical
- Are there cash flows generated by the item?
  - If yes, consider present value techniques

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## Noncash Contributions

- Appraisals (often a level 2 measure)
  - Donor obtains
    - Use skepticism
  - University obtains
    - Request one or more of FASB 157's methods of determining fair value (market, replacement, income)

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## Noncash Contributions

- Present value techniques (primer)
- Cash flows
  - Contractual cash flows are observable (level 2)
  - Estimated cash flows are entity specific (level 3)

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## Noncash Contributions

- Present value techniques
  - Income approach
- Appendix B of FASB 157
  - Discount rate adjusted (traditional)
  - Expected present value (probability based)

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## Noncash Contributions

- Discount rate
  - Consistent with the cash flow assumptions
  - Market for similar risks, NOT opportunity forgone

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## Noncash Contributions

- Documentation is key
  - Contemporaneous with contribution
  - Reconstruction at year end or when the auditor arrives will be difficult, if not impossible

## Beneficial Interests In Trusts

- Good news
  - For perpetual trusts, Audit Guide has practical measure
  - FV of beneficial interest = FV of the trust assets
    - Unless evidence indicates otherwise
  - Probably no change in source of fair value

## Noncash Contributions

- Unanswered questions
  - How to distinguish restrictions that require adjustment from those that do not
  - How much to adjust fair values for restrictions

## Beneficial Interests In Trusts

- Bad news
  - Measure often depends on present value techniques using unobservable (level 3) inputs
  - Required reconciliation of beginning and ending fair values if level 3 measures are used
  - Documentation is key!

## Beneficial Interests In Trusts

- Possibility of level 2 measures
  - Use the Audit Guide practical measure
    - All the trust assets can be measured with level 1 measures
    - Trustee is so creditworthy that risk of default is low

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## Beneficial Interests In Trusts

- Generally level 3 measures using present value techniques
  - Income approach
  - Estimated cash flows
    - Percentage of value of trust assets and/or
    - Trustee discretion in determining distribution
  - Discount rate
    - Creditworthiness of the trustee may not be observable or rate is observable for only part of the trust's term

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## Beneficial Interests In Trusts

- Use present value techniques
  - Cash flows are a fixed amount and contractual
  - Observable source of the trustee's creditworthiness over the term of the trust, and thus, discount rate

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## Beneficial Interests In Trusts

- Documentation is key—updated annually
  - Trust agreement
  - Trust assets
  - Trustee creditworthiness
- Unanswered questions
  - Sometimes difficult to get information from trustees
  - Uncertainties in many aspects of measure

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## Unconditional Promises to Give

- Good news
  - Probably no change in source of fair value
  - Net realizable value if due in less than one year

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## Unconditional Promises to Give

- Few level 2 measures
  - Contractual cash flows (level 2)
  - Discount rate
    - Donor is government (level 2)
    - Donor is a corporation or corporate foundation (maybe level 2)

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## Unconditional Promises to Give

- Bad news
  - No longer can automatically use the risk-free rate
  - Measure often depends on present value techniques using unobservable (level 3) inputs
  - If FASB 159 election, required reconciliation of beginning and ending fair values if level 3 measures are used
  - Documentation is key!

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## Unconditional Promises to Give

- Probably level 3 measures
  - Estimated cash flows (level 3)
  - Discount rate
    - Donor is individual, foundation, or another not-for-profit organization
    - Rate is higher than the risk-free rate
    - Rate is lower than the donor's borrowing rate (because estimated, rather than contractual, cash flows are used)

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## Unconditional Promises to Give

- Suggestion: Stratify your promises
  - By term
    - Less than one year
    - One to five years
    - More than five years

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## Unconditional Promises to Give

- Put your time and effort where it will pay off
  - Large dollars
  - Likelihood of developing level 2 measures
- Consider FASB 159 election
  - May simplify the calculations
    - No amortization of discounts
    - No tracking of historical rates
  - Required reconciliation of beginning and ending fair values if level 3 measures are used

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## Unconditional Promises to Give

- By type of donor
  - Corporate and corporate foundation
  - Individual, and so forth
- By size: Large (top 2%?) vs. smaller

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## Unconditional Promises to Give

- Unanswered questions
  - Unconditional promises to give noncash assets
  - What other factors needs to be considered for an *exit* price when few, if any, sell unconditional promises to give?

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## Unconditional Promises to Give

- Do the cash flows from unconditional promises to give have similar risks as the cash flows from the donor's other receivables?
  - Is the donor's borrowing rate a valid surrogate?

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## Split-interest Gifts

- Bad news
  - Uncertainty about what is required
    - Commercially available annuity/variable annuity contracts—do they provide market inputs?
    - Institutions can transfer the obligation to pay to a third party—is that information available to use?

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## Split-interest Gifts

- Good news—Three FV opportunities
  - $FV \text{ of assets received} = FV \text{ of the split-interest obligation} + FV \text{ of the contribution received}$

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## Split-interest Gifts

- Good news
  - Haven't yet heard of an auditor who will require use of inputs from commercially available contracts or determination of amount to transfers the obligations

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## Split-interest Gifts

- More bad news
  - Measure may depend on present value techniques using unobservable (level 3) inputs
  - If FASB 159 election, required reconciliation of beginning and ending fair values if level 3 measures are used
  - Documentation is key!

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## Split-interest Gifts

- Value obligation to the beneficiary
  - Annuity trust (probably level 2)
    - Contractual cash flows
    - Discount rate—institution's borrowing rate (level 2)
    - Life expectancy tables (level 2)

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## Split-interest Gifts

- Institution is not the trustee
  - See beneficial interest in trust guidance
- Institution is the trustee
  - Value assets received (generally cash or securities that have level 1 measures)
  - Value obligation to beneficiary (remainder)
  - Value income stream to institution (lead)
    - See beneficial interest in trust guidance

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## Split-interest Gifts

- Unitrust (probably level 3)
  - Estimated cash flows (level 3)
  - Discount rate—institution's borrowing rate (level 2)
  - Life expectancy tables (level 2)

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## Split-interest Gifts

- Consider FASB 159 election
  - May simplify the calculations
    - No tracking of historical rates
  - Required reconciliation of beginning and ending fair values if level 3 measures are used
- Unanswered questions
  - Development software?

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## Implementation Considerations

- Management of the investor entity should have a sufficient understanding of
  - The investment strategies and the manner in which they are employed
  - The underlying investment portfolio and the reasonableness and reliability of the inputs and methodologies used for their valuation.

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## Implementation Considerations

- AICPA Interpretation No.1 and AU 332 and the AICPA Practice Aid provide guidance to assess existence and valuation assertions associated with alternative investments.

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## Implementation Considerations

- Systems and infrastructure enhancements will be required to track / produce data
  - Define data quality up front (e.g., completeness, accuracy) – not after data has been collected.
  - Flexibility to handle changes should be considered since level assessments will change as market conditions change.

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## Implementation Considerations

- Where and how to capture data requirements
  - Investment management / trading systems
  - Portfolio accounting systems
  - Financial reporting systems
- Controls over data quality and integrity will be important for auditor testing.

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## Implementation Considerations

- Understanding the nature and content of the third party pricing service or broker / dealer valuation information will be the entity's responsibility
  - Methods and models used

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## Implementation Considerations

### Working with service providers

- Accounting agents, custodians, third party pricing services and broker / dealer will not take responsibility for making the judgments as to which level a security valuation or data will fall

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## Implementation Considerations

- Whether those methods and models will be impacted by changing market conditions
- How changes to methods and models will be communicated

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## Implementation Considerations

- Many have underestimated the scope, complexity, and time required.
- Learning curve exists regarding the valuation processes and nature of data used.
- Assumptions may need to be revisited in current market conditions.
- Meeting disclosure requirements is often more difficult than expected.

## FASB 158 Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans

## Implementation Considerations

- Active involvement of the investment management professionals is critical
- Attention needs to be focused on documentation, process, and governance
  - Documentation of general assignments
  - Documentation of the valuation data from fund managers, third party pricing services, and brokers (to the extent applicable)

## Pensions

- Phase one of long-term project
- Phase two with IASB
- Amends FASB 87, 88, 106, and 132(R)
- Requires recognition of funded status on balance sheet versus disclosure in notes...

## Pensions

- Aligns measurement date with balance sheet date
- Simplifies existing disclosures, while adding several new ones
- Clarifies discount rate guidance...

## Pensions

- In subsequent years reclassify to *net pension benefit costs* (NPBC)
- Eliminate any remaining FASB 87 or FASB 106 transition asset or obligation by adjusting beginning unrestricted net assets
- Discontinue amortization through NPBC...

## Pensions

- Additional guidance needed because NFPs do not report *comprehensive income*
  - How to account for actuarial gains and losses that for-profits recognize in other comprehensive income
  - Requires presentation on separate line either above or below the *operating measure* line...

## Pensions

- Separate effective dates
  - Recognition and disclosure changes already effective
  - Measurement changes effective for CY 2008 or FY 2009 •

## FASB 159 Fair Value Option

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## Fair Value Option

- Relevance to NFPs in particular is for split-interest agreements and contributions receivable
- Requires irrevocable election to measure using fair value at initial recognition and subsequent measurement dates (i.e., balance sheet dates)
- Changes in value are reported in statement of activities...

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## Fair Value Option

- FASB Statement No. 155, *Accounting for Certain Hybrid Instruments*, introduces the option to apply fair value measurement to financial instruments with embedded derivatives
- FASB 159 extends the option to additional instruments...

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## Fair Value Option

- Requires significant disclosures both at time of adoption of standard and each year thereafter
  - Purpose of ongoing disclosures is to facilitate comparison •

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## NFP Mergers & Acquisitions ED and NFP Goodwill and Other Intangible Assets Acquired in a Merger or Acquisition ED

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## NFP M&A & Goodwill EDs

- Requires recognition of assets and liabilities (with a few exceptions)
- Requires measurement of assets and liabilities at fair value (with a few exceptions)
- Requires recognition of
  - Goodwill if liabilities exceed assets
  - Contribution if assets exceed liabilities...

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## NFP M&A & Goodwill EDs

- Carve-out from business combinations (FASB 141) and goodwill (FASB 142)
- Definition
  - Any event that results in the initial recognition of another business or nonprofit activity in the financial statements of an NFP
- Continues consolidation guidance from SOP 94-3...

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## NFP M&A & Goodwill EDs

- General approach for acquisition
  - Identify acquirer (and acquiree)
  - Determine acquisition date
  - Measure consideration transferred (if any)
  - Recognize and measure assets acquired and liabilities assumed
  - Recognize goodwill or contribution...

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## NFP M&A & Goodwill EDs

- Requires subsequent impairment testing for goodwill
  - If income is from contributions, use trigger approach
  - If not, follow guidance in FASB 142
- Eliminates pooling method
- Introduces various disclosures
- No effective date indicated as of yet

## Accounting Update

### Supplemental Material

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