

#### **Non-maturity Deposit Assumptions are Critical**



### **Modeling Non-maturity Deposits**





- Measures deposit rate changes relative to market rate changes
- Beta = Change in Product Rate Change in Market Rate = 40 bps = 40% 100 bps
- Betas can differ depending on the current level of rates, as well as the direction and magnitude of rate changes modeled

# Betas May Vary Based on Magnitude of Rate Changes



### **Consider and Adjust for Qualitative Factors**

- Flight to quality / yield differentials (surge deposits)
- Consumer behavior (parked funds)
- Non-deposit alternatives for cash
- Diminished impact of early withdrawal penalties
- Changing technology, demographics, competition, etc.

## Surge Deposits & Parked Funds



# Sensitivity Analysis is Integral to IRR Management

Scenario	20% Beta		35% Beta	
	Net Interest Income	Percent Change	Net Interest Income	Percent Change
Up 300 bps	\$85	-15%	\$75	-25%
Base Case	\$100	-	\$100	-

Focus on verifying the most influential assumptions

Identify where key assumptions break down or IRR is exacerbated

Note: Dollar figures in thousands

## Developing Weighted Average Life & Decay Rate Assumptions

- Track individual account openings & closings
  - Insufficient because changes in dollar volume are not addressed

#### Track balances at product / account level

- Determine level of non-rate sensitive vs. rate sensitive balances
- Decay Rate = Run-off ÷ Total Deposits
- Determine decay rates and average life

#### Adjust for Qualitative Factors

### **Decay Rate Example**

Scenario	PV of Deposits at 20% Decay Rate	PV of Deposits at 50% Decay Rate
Up 300 bps	\$83	\$93
Base Case	\$89	\$96
Down 100 bps	\$90	\$97

- Reflects the impact of deposit decay rates and average life assumptions on EVE results
- Illustrates a sensitivity analysis of a critical assumption
- Is the NMD deposit premium reasonable given customer behavior and deposit lives?

Notes: Book Value = \$100. Beta in Up 300 bps scenario: 25%. Beta used in Down 100 bps scenario: 75%. Dollar figures in thousands.

#### Summary

- Interest rate risk measurement relies heavily on deposit assumptions
  - Beta
  - Weighted Average Life / Decay Rates
- Analyze historical data and adjust for qualitative factors to support assumptions
- Perform sensitivity analyses