ASSET LIABILITY MANAGEMENT TOOLS AND STRATEGIES

BILL WHITEHEAD

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Asset Liability Management Tools and Strategies

Bill Whitehead

Federal Farm Credit Banks Funding Corporation
Hedging
- Database Systems
- Simulation Models
- Funding Strategy Development
- Loan Product Development
- A/L Management Policy

A/L Management Tools
Accountability Measurement Tools & System

Interest Rate Risk

Philosophy on Managing
Accountability Measurement Tools & System

Risk Loading
- Corporate structure does not provide many incentives for
- Cooperative structure / GSE charter
- Overall, very conservative
- Approaches to HR management vary
- System institutions are independently managed and their

Retail Loan Pricing
- Association + Credit Risk
- Bank Interest Rate Risk + Liquidity Risk

Separation of Banking Risks

Bank / Association Relationship
Accountability Measurement Tools & System

Direct Loan Pricing
- Borrowed spread + Interest rate + Credit Risk

Retail Loan Pricing
- Borrowed spread + Interest rate + Credit Risk
Sources of Interest Rate Risk
Funding Corporation

Agricultural Credit Bank (CoBank), 228 Associations
Six Farm Credit Banks, one Bank for Cooperatives, one
Government Sponsored Enterprise (GSE)
An agricultural finance cooperative

Tools & Strategies
Asset/Liability Management

- Pricing Risk
- Basis Risk
- Exposure on Anticipated Debt Issuance
- Commitments and Loan "Pricing"
- Structural Risk: Asset Structure ≠ Debt Structure
- Market Risk

System Resource
Financial Performance & Debt Security-Specific
Disclosure
Design, Issue, Market, Process
Fiscal Agent

NC-207 Annual Meeting, September 9, 1996
Federal Farm Credit Banks Funding Corporation
Bill Whitehead
single-period CMIT-indexed put options
look back hedge for funding rollover
Hedging ARM resets
Unhedged ARMs: Spotting off Periodic and Lifetime Caps
"Synthetic" ARM FRNs
ARM Floating-rate Notes (FRNs)
Advisable Rate Mortgages

Asset / Investment Strategies

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Debt (Liability) Strategies

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Derivative Strategies

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Derivative Strategies

Commitment and "Pipeline" Risk
"Retail" Cap Risk
Hedging ARM resets
Unhedged ARMs: Spotting off Periodic and Lifetime Caps
"Synthetic" ARM FRNs
Advisable Rate Mortgages
Prepayment Risk
Prepayment Risk
Prepayment Risk
Prepayment Risk
Prepayment Risk
Increasing use in mortgage loan relationships
Upfront fees
Adding a standard caps protection to a variable rate loan

Their customers

"Retail" Cap Risk

Asset / Investment Strategies

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Uncapping ARM's

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**AMR Floaters**

<table>
<thead>
<tr>
<th>Floating corridor limit</th>
<th>Committed amount</th>
<th>Minimum interest payment $100,000 or more</th>
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</thead>
<tbody>
<tr>
<td>10bps</td>
<td>1.00%</td>
<td>1.00%</td>
</tr>
<tr>
<td>25bps</td>
<td>0.00%</td>
<td>5.00%</td>
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</tbody>
</table>

**AMR Floater Structure**

<table>
<thead>
<tr>
<th>Periodic Cap &amp; Floor</th>
<th>Semi-annual Interest Payments $300,000 or more</th>
<th>Committed Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>10bps</td>
<td>1.00%</td>
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**DCM Strategy AMR Floaters**

**Customized Debt Securities Strategies**

- Hedging
- Structuring

**Pipeline**

- Better tracking and tighter controls on commitments
- Loan commitment fees
- System banks are using option pricing models to establish
- Commitment risk

**Option Based Commitment Fee**

Asset / Investment Strategies continued
Debt (Liability) Strategies

- Anticipated debt issuance hedges
- CDS
- Duration-matched hedges
- Symmetrical forwards (and asymmetrical options)

Debt (Liability) Strategies continued

- Synthetic Floating Rate Note
- ARM Floater

- Swap: These debt issuances into a structure that can be useful.
- Callable Bonds: Short call protection periods
- Swapped Notes: Inverse FRNs, indexed amortizing Notes, etc.
- Structured trades: Issuing FRNs, indexed amortizing Notes, etc.
- "Cheap" (inexpensive) funding:
- Securities tailored to their needs.
- Investors often approach GSE to purchase debt

Inventor Accommodation / Reverse Inquiry

ARM Floater's continued

- Fixed reset: 3-month LIBOR - 25 bps
- Lookback on assets
- Perpetual reset
- Stable amortization
- Life-time cap risk

ARM Floater does not offer these characteristics:

- 3-Year Symmetrical ARM Floating Rate Note
- ARM Floating "ARM"

"Synthetic" ARM FRN

- 3-Year Symmetrical ARM Floating Rate Note
- ARM Floater
- Lookback on assets
- Perpetual reset
- Stable amortization
- Life-time cap risk
Evaluating Risk Management Performance

Funding Corp

- A/L Policy Targets: NI, $MV
- Bank Level: Treasury Income
- Investment Portfolio Targets
- Specific Hedge Transactions

System Institutions

- Asymmetrical (options-based) hedges: pay fixed-swaps
- Symmetrical hedges: Libor and forward swaps
- Overnight (unswapped) unmatchable callable debt issuance
- Options that have moved into-the-money are
- Objective is to "lock-in" or protect value of embedded call

Call Option Value Preservation Hedge

Debt (Liabilities) Strategies continued