FDIC

FEDERAL DEPOSIT INSURANCE CORPORATION

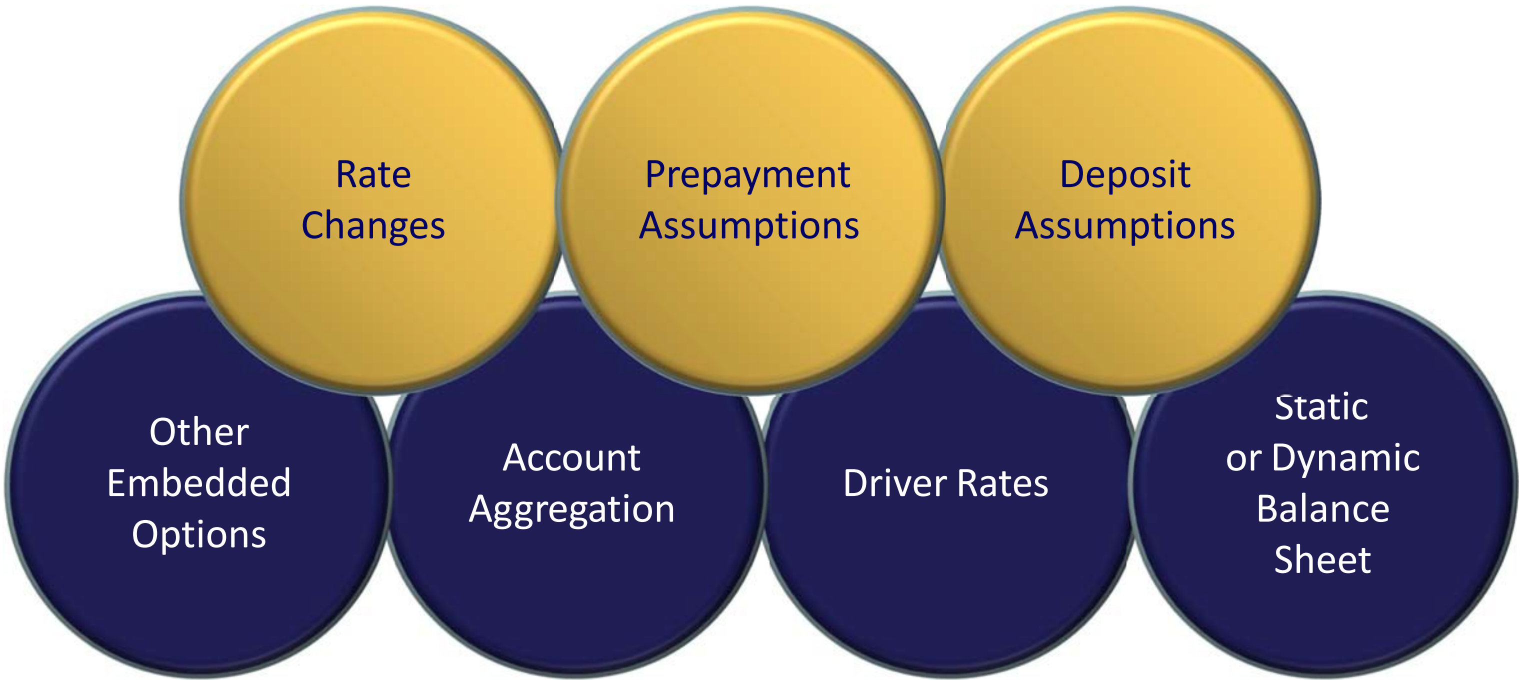
Interest Rate Risk

IV. Rate Changes and Prepayment Assumptions

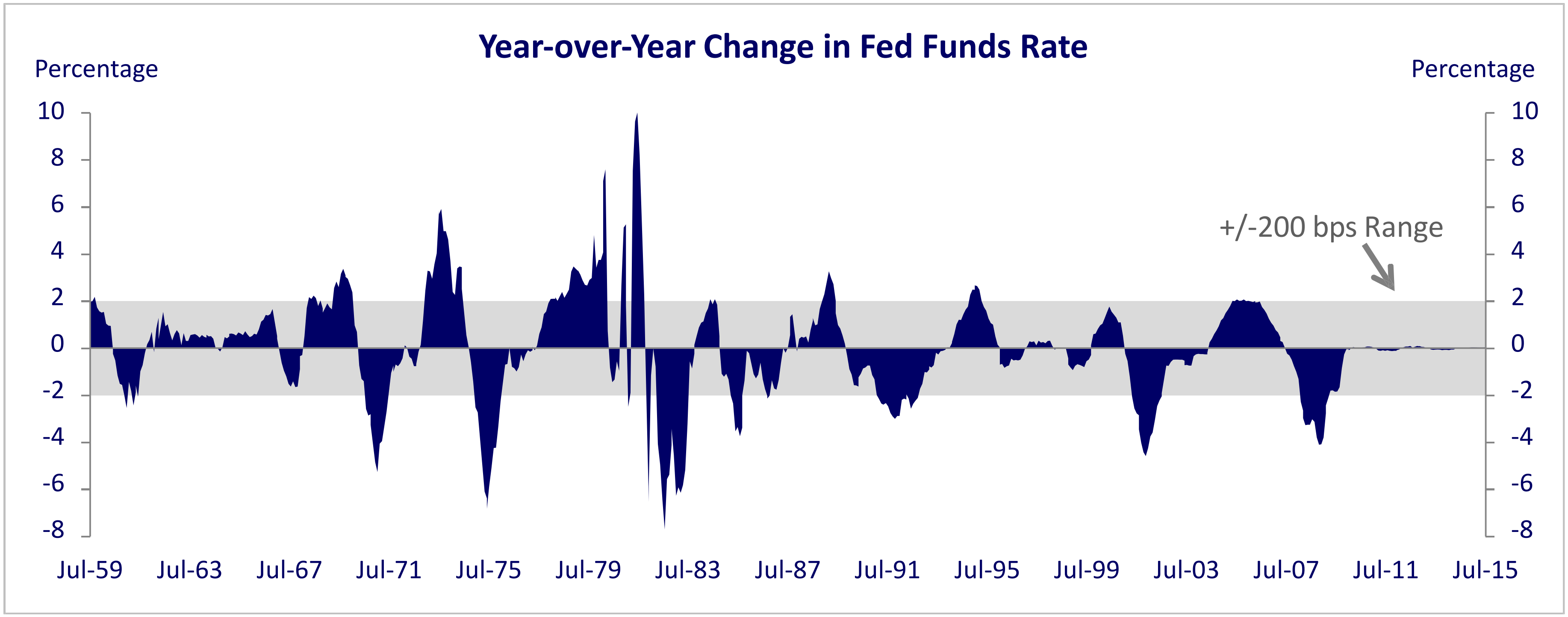
Management Responsibilities

- **Ensure that the IRR model reasonably captures volatility of income and cash flows from assets, liabilities, and off-balance sheet items**
- **Ensure that assumptions are understood, documented, updated regularly, and reported to the Board**

Model Assumptions



Dramatic Rate Changes are Fairly Common



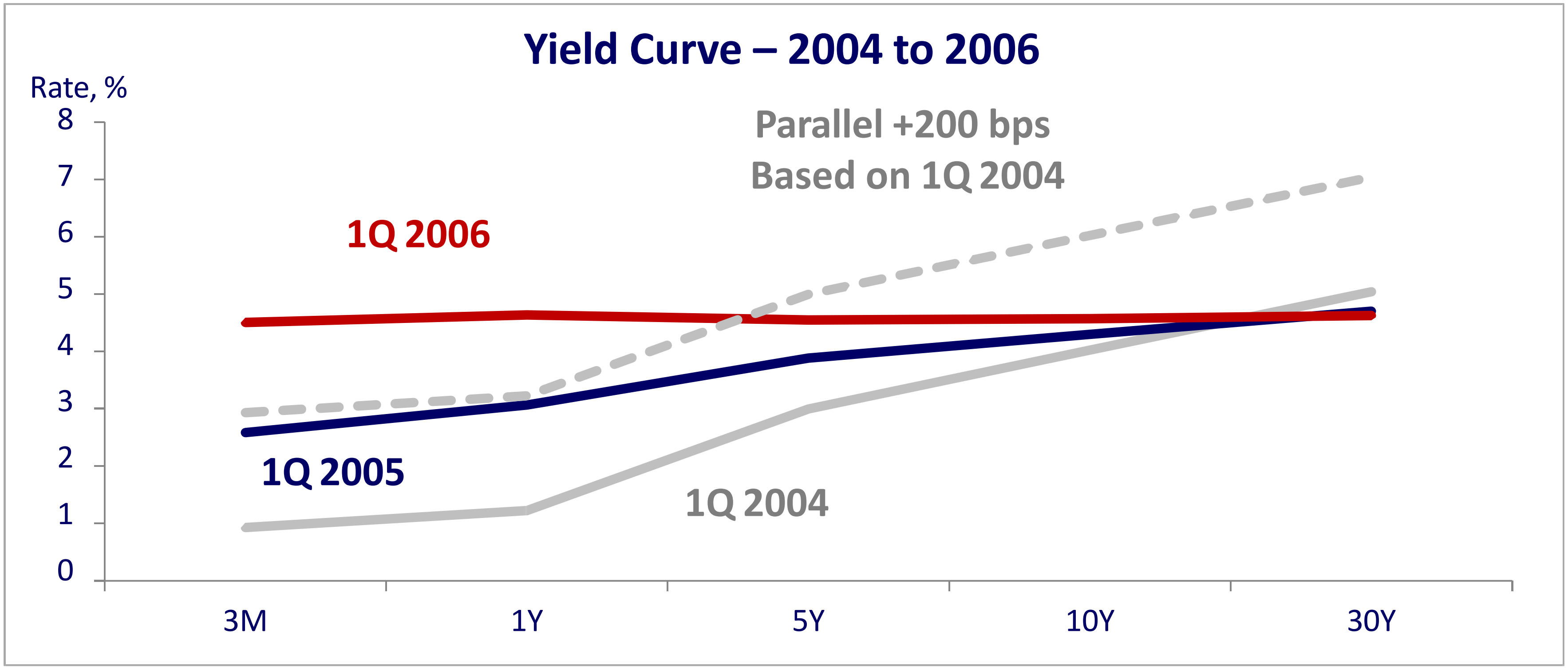
Source: Federal Reserve Board

Timing of Rate Change

Immediate Shock

Gradual Ramp

Yield Curve Shapes Change Over Time



Source: Federal Reserve Board / Haver Analytics

Factors Impacting Prepayment Estimates

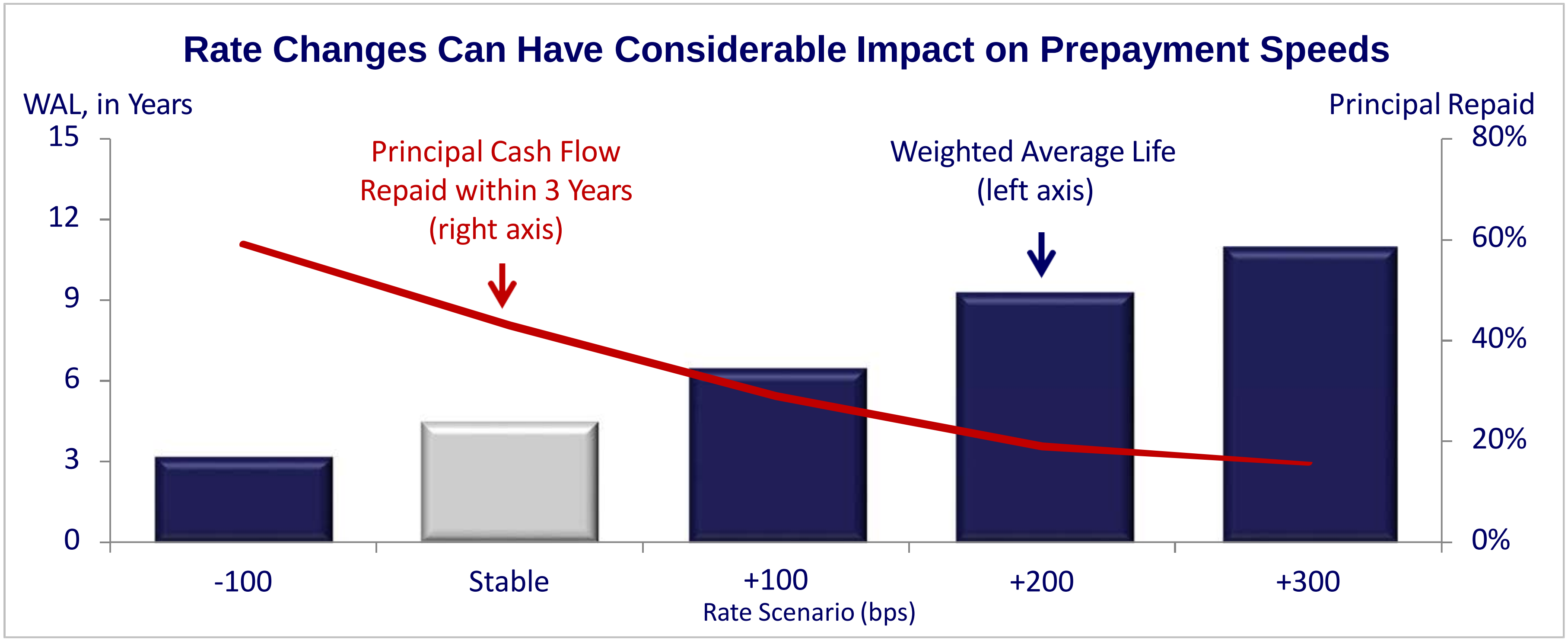
- Market rates
- Underwriting standards
- Loan size
- Consumer mobility
- Delinquency and foreclosure
- Events such as death and natural disaster
- Loan “seasoning”

Prepayment Assumption Sources & Considerations

- **Sources**
  - National Market Proxies
  - Third-Party Models
  - Internally Generated
  - Blended Approach

- **Considerations**
  - Proper Aggregation
  - Proxy Selection
  - Product Type, Coupon Band, Maturity, and Reset Features
  - Periodic Review

Prepayment Speeds



Validation of Assumptions – Sensitivity Analysis

- **Helps determine which assumptions have the most influence on model output**
- **Determines when a change in an assumption results in a breach of policy limits and/or elevated risk exposure**
- **Rerun model changing one assumption at a time**

Summary

- Management should ensure assumptions are appropriate, supported, and updated
- Rate Changes: ensure sufficient magnitude, timing, and yield curve shifts
- Prepayment Estimates: ensure proper aggregation and proxies are used
- Perform sensitivity analyses