

Interest Rate Risk Statistics Report

Office of the Comptroller of the Currency
Washington, D.C.

Fall 2020

Contents

- About This Report1
- All Banks.....2
- Asset Size – Banks With Less Than \$100 Million in Assets3
- Asset Size – Banks With \$100 Million to Less Than \$250 Million in Assets4
- Asset Size – Banks With \$250 Million to Less Than \$500 Million in Assets5
- Asset Size – Banks With \$500 Million to Less Than \$1 Billion in Assets6
- Asset Size – Banks With \$1 Billion to \$10 Billion in Assets7
- Asset Size – Banks With Over \$10 Billion in Assets8
- Charter Type: National Banks9
- Charter Type: Stock FSAs10
- Charter Type: Mutual FSAs11
- Minority Depository Institutions12
- Appendix A: Glossary13
- Appendix B: Technical Information on Statistical Populations and Calculations15
- Index of Tables17

About This Report

The Office of the Comptroller of the Currency's (OCC) semiannual *Interest Rate Risk Statistics Report* presents interest rate risk (IRR) data gathered during examinations of OCC-supervised midsize and community banks and federal savings associations (collectively, banks).¹ The OCC's supervisory process includes a review of bank-reported IRR data, including exposures, risk limits, and non-maturity deposit (NMD) assumptions. The OCC compiles these data and breaks them down into statistics for different populations of banks and publishes semiannually to establish the range of exposures and risk limits across midsize and community banks. The statistics are for informational purposes only and do not represent OCC-suggested limits or exposures.

This is the first edition of the OCC's *Interest Rate Risk Statistics Report*. Please send comments or feedback on this report to IRRData@occ.treas.gov.

This report provides statistics for different bank populations. The OCC calculated exposures and risk limits for the most commonly modeled target accounts in different interest rate stress scenarios. The OCC also calculated key NMD assumptions for different NMD types. This report provides tables with statistics on

- projected changes in 12-month net interest income (NII) in parallel interest rate shock scenarios ranging from –200 basis points to +400 basis points.
- projected changes in economic value of equity (EVE) in parallel interest rate shock scenarios ranging from –200 basis points to +400 basis points.
- banks' policy limits for changes in NII and EVE in parallel interest rate shock scenarios ranging from –200 basis points to +400 basis points.
- NMD repricing and decay rates for different account types.

This report also provides tables with statistics for different bank populations, including

- all OCC-supervised midsize and community banks with reported data.
- midsize and community banks of the following asset size groups:
 - Less than \$100 million
 - \$100 million to less than \$250 million
 - \$250 million to less than \$500 million
 - \$500 million to less than \$1 billion
 - \$1 billion to \$10 billion
 - More than \$10 billion
- banks with different charter types, that is, national banks or FSAs (stock and mutual).
- minority depository institutions.

The statistics in this report are based on data from 942 banks. The as-of date of the data ranges from December 31, 2018, to June 30, 2020. For the statistical methodologies and a glossary of definitions used in this report, refer to appendixes A and B.

¹ For purposes of this report, "banks" refers collectively to national banks and federal savings associations that are supervised by the OCC's Midsize and Community Bank Supervision department.

All Banks

| Table 1a: All Banks – Earnings at Risk: 12 Month, Net Interest Income, Parallel Shocks | | | | | |
|--|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -41% | -13% | -8% | -4% | 7% |
| -100 | -23% | -6% | -3% | -1% | 4% |
| +100 | -7% | 0% | 2% | 4% | 22% |
| +200 | -14% | -1% | 3% | 9% | 41% |
| +300 | -21% | -3% | 5% | 12% | 58% |
| +400 | -28% | -4% | 4% | 14% | 72% |

| Table 1b: All Banks – Economic Value of Equity, Parallel Shocks | | | | | |
|---|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -68% | -16% | -6% | 2% | 34% |
| -100 | -29% | -7% | -2% | 1% | 14% |
| +100 | -14% | -4% | 0% | 4% | 27% |
| +200 | -28% | -9% | -1% | 6% | 47% |
| +300 | -44% | -14% | -3% | 7% | 62% |
| +400 | -62% | -20% | -5% | 7% | 75% |

| Table 1c: All Banks – Policy Risk Limits for Parallel Shocks | | | | | | |
|--|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Scenario | 12 Month, net interest income | | | Economic value of equity | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -15% | -12% | -10% | -25% | -20% | -15% |
| -100 | -10% | -9% | -5% | -15% | -10% | -10% |
| +100 | -10% | -8% | -5% | -15% | -10% | -10% |
| +200 | -15% | -12% | -10% | -25% | -20% | -15% |
| +300 | -20% | -15% | -15% | -32% | -30% | -23% |
| +400 | -25% | -20% | -20% | -40% | -35% | -30% |

| Table 1d: All Banks – Non Maturity Deposit Assumptions | | | | | | | | | |
|--|--------------------------|--------|-----------------|--------------------------|--------|-----------------|-----------------|--------|-----------------|
| Deposit type | -100 BPs repricing rates | | | +100 BPs repricing rates | | | Average lives | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market deposit account | 23% | 35% | 53% | 25% | 38% | 52% | 2.08 | 3.13 | 4.81 |
| NOW/ interest checking | 10% | 20% | 33% | 15% | 21% | 30% | 3.09 | 4.00 | 5.89 |
| Savings | 10% | 20% | 34% | 15% | 21% | 30% | 3.50 | 4.69 | 6.50 |
| Non-interest bearing | Not applicable | | | | | | 3.51 | 4.84 | 6.10 |

Asset Size – Banks With Less Than \$100 Million in Assets

| Table 2a: Banks With Less Than \$100 Million in Assets – Earnings at Risk: 12 Month, Net Interest Income, Parallel Shocks | | | | | |
|---|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -53% | -14% | -8% | -3% | 28% |
| -100 | -26% | -6% | -3% | -2% | 5% |
| +100 | -8% | 0% | 3% | 6% | 15% |
| +200 | -15% | -1% | 4% | 11% | 36% |
| +300 | -24% | -3% | 5% | 15% | 56% |
| +400 | -31% | -4% | 6% | 17% | 57% |

| Table 2b: Banks With Less Than \$100 Million in Assets – Economic Value of Equity, Parallel Shocks | | | | | |
|--|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -63% | -12% | -3% | 5% | 42% |
| -100 | -46% | -5% | 1% | 3% | 19% |
| +100 | -15% | -5% | -1% | 2% | 23% |
| +200 | -28% | -11% | -3% | 2% | 35% |
| +300 | -42% | -18% | -5% | 2% | 49% |
| +400 | -62% | -24% | -7% | 2% | 67% |

| Table 2c: Banks With Less Than \$100 Million in Assets – Policy Risk Limits for Parallel Shocks | | | | | | |
|---|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Scenario | 12 Month, net interest income | | | Economic value of equity | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -15% | -12% | -10% | -25% | -20% | -15% |
| -100 | -10% | -7% | -5% | -15% | -10% | -10% |
| +100 | -10% | -8% | -5% | -15% | -10% | -10% |
| +200 | -15% | -10% | -10% | -25% | -20% | -15% |
| +300 | -23% | -15% | -15% | -35% | -30% | -25% |
| +400 | -30% | -20% | -20% | -40% | -35% | -30% |

| Table 2d: Banks With Less Than \$100 Million in Assets – Non Maturity Deposit Assumptions | | | | | | |
|---|--------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Deposit Type | -100 BPs repricing rates | | | +100 BPs repricing rates | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market demand account | 20% | 35% | 54% | 21% | 35% | 44% |
| NOW/ interest checking | 10% | 15% | 30% | 14% | 16% | 25% |
| Savings | 10% | 18% | 36% | 15% | 20% | 27% |
| Non-interest bearing | Not applicable | | | | | |

Asset Size – Banks With \$100 Million to Less Than \$250 Million in Assets

| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
|----------|--------------|-----------------|--------|-----------------|--------------|
| -200 | -40% | -13% | -8% | -3% | 6% |
| -100 | -29% | -6% | -3% | -1% | 4% |
| +100 | -7% | 1% | 3% | 5% | 23% |
| +200 | -15% | 0% | 5% | 9% | 44% |
| +300 | -18% | 0% | 6% | 13% | 58% |
| +400 | -28% | -2% | 5% | 14% | 72% |

| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
|----------|--------------|-----------------|--------|-----------------|--------------|
| -200 | -49% | -16% | -6% | 3% | 37% |
| -100 | -36% | -7% | -2% | 1% | 18% |
| +100 | -14% | -4% | 0% | 4% | 25% |
| +200 | -29% | -9% | -1% | 6% | 45% |
| +300 | -44% | -14% | -2% | 8% | 67% |
| +400 | -63% | -19% | -4% | 10% | 92% |

| Scenario | 12 month, net interest income | | | Economic value of equity | | |
|----------|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -15% | -12% | -10% | -25% | -20% | -15% |
| -100 | -10% | -8% | -5% | -15% | -10% | -10% |
| +100 | -10% | -8% | -5% | -15% | -10% | -10% |
| +200 | -15% | -10% | -10% | -25% | -20% | -15% |
| +300 | -21% | -15% | -15% | -30% | -30% | -23% |
| +400 | -30% | -20% | -20% | -40% | -35% | -25% |

| Deposit type | -100 BPs repricing rates | | | +100 BPs repricing rates | | |
|-----------------------------|--------------------------|--------|-----------------|--------------------------|--------|-----------------|
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market demand account | 21% | 35% | 50% | 25% | 35% | 50% |
| NOW/ interest checking | 11% | 18% | 28% | 15% | 20% | 27% |
| Savings | 12% | 19% | 30% | 15% | 20% | 29% |
| Non-interest bearing | Not applicable | | | | | |

Asset Size – Banks With \$250 Million to Less Than \$500 Million in Assets

| Table 4a: Banks With \$250 Million to Less Than \$500 Million in Assets – Earnings at Risk: 12 Month, Net Interest Income, Parallel Shocks | | | | | |
|--|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -29% | -12% | -7% | -4% | 7% |
| -100 | -16% | -6% | -3% | -1% | 5% |
| +100 | -6% | -1% | 2% | 4% | 10% |
| +200 | -13% | -2% | 3% | 8% | 19% |
| +300 | -18% | -5% | 4% | 11% | 28% |
| +400 | -28% | -7% | 5% | 13% | 37% |

| Table 4b: Banks With \$250 Million to Less Than \$500 Million in Assets – Economic Value of Equity, Parallel Shocks | | | | | |
|---|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -108% | -17% | -7% | 1% | 28% |
| -100 | -45% | -8% | -3% | 1% | 13% |
| +100 | -12% | -4% | 0% | 4% | 26% |
| +200 | -34% | -9% | -1% | 5% | 42% |
| +300 | -49% | -15% | -3% | 6% | 55% |
| +400 | -63% | -20% | -5% | 6% | 62% |

| Table 4c: Banks With \$250 Million to Less Than \$500 Million in Assets – Policy Risk Limits for Parallel Shocks | | | | | | |
|--|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Scenario | 12 month, net interest income | | | Economic value of equity | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -15% | -15% | -10% | -25% | -20% | -15% |
| -100 | -10% | -10% | -5% | -15% | -10% | -10% |
| +100 | -10% | -10% | -5% | -15% | -10% | -10% |
| +200 | -15% | -13% | -10% | -25% | -20% | -15% |
| +300 | -20% | -15% | -15% | -35% | -30% | -20% |
| +400 | -25% | -20% | -20% | -40% | -35% | -25% |

| Table 4d: Banks With \$250 Million to Less Than \$500 Million in Assets – Non Maturity Deposit Assumptions | | | | | | |
|--|--------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Deposit type | -100 BPs repricing rates | | | +100 BPs repricing rates | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market demand account | 16% | 35% | 50% | 25% | 40% | 50% |
| NOW/ interest checking | 10% | 15% | 29% | 15% | 20% | 30% |
| Savings | 9% | 15% | 30% | 13% | 20% | 30% |
| Non-interest bearing | Not applicable | | | | | |

Asset Size – Banks With \$500 Million to Less Than \$1 Billion in Assets

| Table 5a: Banks With \$500 Million to Less Than \$1 Billion in Assets – Earnings at Risk: 12 Month, Net Interest Income, Parallel Shocks | | | | | |
|--|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -22% | -11% | -8% | -4% | 5% |
| -100 | -13% | -5% | -3% | -1% | 3% |
| +100 | -8% | -1% | 2% | 4% | 10% |
| +200 | -14% | -2% | 3% | 7% | 18% |
| +300 | -21% | -4% | 4% | 10% | 27% |
| +400 | -30% | -5% | 5% | 13% | 37% |

| Table 5b: Banks With \$500 Million to Less Than \$1 Billion in Assets – Economic Value of Equity, Parallel Shocks | | | | | |
|---|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -76% | -18% | -7% | -1% | 23% |
| -100 | -40% | -8% | -3% | 1% | 12% |
| +100 | -13% | -3% | 1% | 3% | 27% |
| +200 | -34% | -8% | -1% | 5% | 47% |
| +300 | -60% | -14% | -4% | 6% | 62% |
| +400 | -87% | -21% | -6% | 7% | 73% |

| Table 5c: Banks With \$500 Million to Less Than \$1 Billion in Assets – Policy Risk Limits for Parallel Shocks | | | | | | |
|--|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Scenario | 12 month, net interest income | | | Economic value of equity | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -15% | -13% | -10% | -25% | -20% | -18% |
| -100 | -10% | -8% | -5% | -15% | -10% | -10% |
| +100 | -10% | -8% | -5% | -15% | -10% | -10% |
| +200 | -15% | -11% | -10% | -25% | -20% | -18% |
| +300 | -20% | -15% | -15% | -35% | -30% | -24% |
| +400 | -25% | -20% | -20% | -40% | -35% | -30% |

| Table 5d: Banks With \$500 Million to Less Than \$1 Billion in Assets – Non Maturity Deposit Assumptions | | | | | | |
|--|--------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Deposit type | -100 BPs repricing rates | | | +100 BPs repricing rates | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market demand account | 25% | 40% | 55% | 25% | 44% | 55% |
| NOW/ interest checking | 12% | 24% | 40% | 15% | 25% | 37% |
| Savings | 10% | 24% | 33% | 15% | 25% | 35% |
| Non-interest bearing | Not applicable | | | | | |

Asset Size – Banks With \$1 Billion to \$10 Billion in Assets

| Table 6a: Banks With \$1 Billion to \$10 Billion in Assets – Earnings at Risk: 12 Month, Net Interest Income, Parallel Shocks | | | | | |
|---|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -45% | -13% | -8% | -3% | 5% |
| -100 | -39% | -6% | -3% | -1% | 3% |
| +100 | -12% | -1% | 2% | 4% | 28% |
| +200 | -18% | -2% | 3% | 7% | 56% |
| +300 | -28% | -3% | 3% | 10% | 83% |
| +400 | -37% | -6% | 2% | 8% | 111% |

| Table 6b: Banks With \$1 Billion to \$10 Billion in Assets – Economic Value of Equity, Parallel Shocks | | | | | |
|--|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -87% | -18% | -10% | -3% | 21% |
| -100 | -28% | -9% | -4% | -1% | 10% |
| +100 | -12% | -3% | 1% | 5% | 20% |
| +200 | -26% | -7% | 1% | 8% | 33% |
| +300 | -38% | -12% | 0% | 11% | 43% |
| +400 | -49% | -19% | -4% | 9% | 95% |

| Table 6c: Banks With \$1 Billion to \$10 Billion in Assets – Policy Risk Limits for Parallel Shocks | | | | | | |
|---|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Scenario | 12 month, net interest income | | | Economic value of equity | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -20% | -15% | -10% | -25% | -20% | -20% |
| -100 | -12% | -10% | -7% | -15% | -10% | -10% |
| +100 | -12% | -10% | -6% | -15% | -10% | -10% |
| +200 | -15% | -15% | -10% | -25% | -20% | -20% |
| +300 | -21% | -19% | -15% | -30% | -30% | -25% |
| +400 | -30% | -25% | -20% | -40% | -35% | -30% |

| Table 6d: Banks With \$1 Billion to \$10 Billion in Assets – Non Maturity Deposit Assumptions | | | | | | |
|---|--------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Deposit type | -100 BPs repricing rates | | | +100 BPs repricing rates | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market demand account | 25% | 45% | 60% | 32% | 50% | 65% |
| NOW/ interest checking | 12% | 24% | 38% | 15% | 25% | 37% |
| Savings | 10% | 25% | 39% | 15% | 25% | 32% |
| Non-interest bearing | Not applicable | | | | | |

Asset Size – Banks With Over \$10 Billion in Assets

| Table 7a: Banks With Over \$10 Billion in Assets – Earnings at Risk: 12 Month, Net Interest Income, Parallel Shocks | | | | | |
|---|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -90% | -10% | -5% | -3% | 3% |
| -100 | -40% | -5% | -2% | -1% | 4% |
| +100 | -4% | 0% | 2% | 4% | 22% |
| +200 | -6% | 0% | 4% | 7% | 30% |
| +300 | -9% | -2% | 5% | 10% | 19% |
| +400 | -13% | -5% | 4% | 13% | 24% |

| Table 7b: Banks With Over \$10 Billion in Assets – Economic Value of Equity, Parallel Shocks | | | | | |
|--|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -28% | -20% | -11% | -6% | 15% |
| -100 | -29% | -9% | -5% | -1% | 7% |
| +100 | -18% | -2% | 1% | 4% | 48% |
| +200 | -23% | -7% | -1% | 5% | 56% |
| +300 | -37% | -12% | -2% | 5% | 33% |
| +400 | -47% | -16% | -2% | 4% | 37% |

| Table 7c: Banks With Over \$10 Billion in Assets – Policy Risk Limits for Parallel Shocks | | | | | | |
|---|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Scenario | 12 month, net interest income | | | Economic value of equity | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -15% | -10% | -8% | -25% | -20% | -15% |
| -100 | -10% | -8% | -5% | -15% | -10% | -8% |
| +100 | -10% | -7% | -5% | -10% | -10% | -8% |
| +200 | -15% | -10% | -9% | -20% | -16% | -15% |
| +300 | -20% | -15% | -12% | -30% | -25% | -18% |
| +400 | -25% | -19% | -16% | -40% | -30% | -25% |

| Table 7d: Banks With Over \$10 Billion in Assets – Non Maturity Deposit Assumptions | | | | | | |
|---|--------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Deposit type | -100 BPs repricing rates | | | +100 BPs repricing rates | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market demand account | 23% | 48% | 63% | 30% | 49% | 60% |
| NOW/ interest checking | 10% | 25% | 39% | 10% | 25% | 40% |
| Savings | 7% | 20% | 36% | 10% | 28% | 42% |
| Non-interest bearing | Not applicable | | | | | |

Charter Type: National Banks

| Table 8a: National Banks – Earnings at Risk: 12 Month, Net Interest Income, Parallel Shocks | | | | | |
|---|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -41% | -13% | -8% | -4% | 6% |
| -100 | -23% | -6% | -3% | -2% | 4% |
| +100 | -6% | 0% | 2% | 5% | 22% |
| +200 | -10% | 0% | 4% | 9% | 36% |
| +300 | -17% | -1% | 6% | 14% | 65% |
| +400 | -25% | -2% | 6% | 15% | 57% |

| Table 8b: National Banks – Economic Value of Equity, Parallel Shocks | | | | | |
|--|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -68% | -17% | -8% | 0% | 32% |
| -100 | -34% | -8% | -3% | 0% | 14% |
| +100 | -13% | -2% | 1% | 5% | 25% |
| +200 | -26% | -5% | 1% | 8% | 45% |
| +300 | -40% | -9% | 0% | 10% | 61% |
| +400 | -48% | -13% | -1% | 11% | 72% |

| Table 8c: National Banks – Policy Risk Limits for Parallel Shocks | | | | | | |
|---|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Scenario | 12 month, net interest income | | | Economic value of equity | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -15% | -12% | -10% | -25% | -20% | -15% |
| -100 | -10% | -9% | -5% | -15% | -10% | -10% |
| +100 | -10% | -8% | -5% | -15% | -10% | -10% |
| +200 | -15% | -12% | -10% | -25% | -20% | -15% |
| +300 | -20% | -16% | -15% | -30% | -30% | -22% |
| +400 | -26% | -20% | -20% | -40% | -32% | -25% |

| Table 8d: National Banks – Non Maturity Deposit Assumptions | | | | | | |
|---|--------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Deposit type | -100 BPs repricing rates | | | +100 BPs repricing rates | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market demand account | 22% | 35% | 53% | 25% | 40% | 53% |
| NOW/ interest checking | 10% | 20% | 35% | 15% | 24% | 32% |
| Savings | 10% | 20% | 33% | 15% | 20% | 30% |
| Non-interest bearing | Not applicable | | | | | |

Charter Type: Stock FSAs

| Table 9a: Stock FSAs – Earnings at Risk: 12 Month, Net Interest Income, Parallel Shocks | | | | | |
|---|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -41% | -12% | -6% | -2% | 7% |
| -100 | -39% | -5% | -3% | 0% | 5% |
| +100 | -9% | -1% | 1% | 3% | 28% |
| +200 | -18% | -3% | 2% | 5% | 56% |
| +300 | -28% | -5% | 1% | 7% | 83% |
| +400 | -37% | -7% | 1% | 9% | 111% |

| Table 9b: Stock FSAs – Economic Value of Equity, Parallel Shocks | | | | | |
|--|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -76% | -19% | -5% | 3% | 37% |
| -100 | -46% | -8% | -1% | 2% | 17% |
| +100 | -15% | -6% | -2% | 2% | 32% |
| +200 | -29% | -12% | -5% | 1% | 54% |
| +300 | -46% | -21% | -11% | 1% | 75% |
| +400 | -65% | -29% | -16% | 1% | 95% |

| Table 9c: Stock FSAs – Policy Risk Limits for Parallel Shocks | | | | | | |
|---|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Scenario | 12 month, net interest income | | | Economic value of equity | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -16% | -15% | -10% | -25% | -20% | -20% |
| -100 | -11% | -10% | -5% | -15% | -10% | -10% |
| +100 | -10% | -9% | -5% | -15% | -10% | -10% |
| +200 | -15% | -14% | -10% | -25% | -20% | -20% |
| +300 | -20% | -20% | -15% | -35% | -30% | -25% |
| +400 | -25% | -20% | -20% | -40% | -40% | -30% |

| Table 9d: Stock FSAs – Non Maturity Deposit Assumptions | | | | | | |
|---|--------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Deposit type | -100 BPs repricing rates | | | +100 BPs repricing rates | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market demand account | 20% | 40% | 55% | 24% | 41% | 50% |
| NOW/ interest checking | 10% | 16% | 31% | 11% | 17% | 29% |
| Savings | 10% | 22% | 40% | 15% | 22% | 30% |
| Non-interest bearing | Not applicable | | | | | |

Charter Type: Mutual FSAs

| Table 10a: Mutual FSAs – Earnings at Risk: 12 Month, Net Interest Income, Parallel Shocks | | | | | |
|---|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -47% | -11% | -6% | -2% | 6% |
| -100 | -31% | -5% | -2% | 0% | 5% |
| +100 | -12% | -1% | 1% | 3% | 10% |
| +200 | -17% | -4% | 1% | 4% | 20% |
| +300 | -23% | -7% | 1% | 7% | 30% |
| +400 | -31% | -12% | -1% | 8% | 38% |

| Table 10b: Mutual FSAs – Economic Value of Equity, Parallel Shocks | | | | | |
|--|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -30% | -7% | 0% | 7% | 28% |
| -100 | -20% | -3% | 1% | 4% | 14% |
| +100 | -16% | -8% | -5% | -1% | 12% |
| +200 | -37% | -17% | -11% | -5% | 25% |
| +300 | -63% | -25% | -18% | -10% | 40% |
| +400 | -87% | -34% | -24% | -9% | 56% |

| Table 10c: Mutual FSAs – Policy Risk Limits for Parallel Shocks | | | | | | |
|---|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Scenario | 12 month, net interest income | | | Economic value of equity | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -18% | -15% | -10% | -25% | -20% | -15% |
| -100 | -10% | -8% | -5% | -15% | -10% | -10% |
| +100 | -10% | -8% | -5% | -15% | -10% | -10% |
| +200 | -15% | -10% | -10% | -25% | -20% | -20% |
| +300 | -20% | -15% | -15% | -35% | -30% | -30% |
| +400 | -25% | -20% | -20% | -40% | -40% | -35% |

| Table 10d: Mutual FSAs – Non Maturity Deposit Assumptions | | | | | | |
|---|--------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Deposit type | -100 BPs repricing rates | | | +100 BPs repricing rates | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market demand account | 28% | 35% | 53% | 25% | 35% | 50% |
| NOW/ interest checking | 9% | 15% | 29% | 10% | 20% | 25% |
| Savings | 10% | 17% | 33% | 10% | 22% | 29% |
| Non-interest bearing | Not applicable | | | | | |

Minority Depository Institutions

| Table 11a: Minority Depository Institutions – Earnings at Risk: 12 Month, Net Interest Income, Parallel Shocks | | | | | |
|--|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -32% | -15% | -9% | -3% | 31% |
| -100 | -16% | -7% | -3% | -1% | 6% |
| +100 | -5% | 0% | 3% | 5% | 15% |
| +200 | -9% | 1% | 6% | 10% | 36% |
| +300 | -13% | 1% | 9% | 15% | 56% |
| +400 | -18% | 1% | 12% | 20% | 76% |

| Table 11b: Minority Depository Institutions – Economic Value of Equity, Parallel Shocks | | | | | |
|---|--------------|-----------------|--------|-----------------|--------------|
| Scenario | Largest loss | 25th percentile | Median | 75th percentile | Largest gain |
| -200 | -43% | -13% | -3% | 8% | 33% |
| -100 | -16% | -6% | 0% | 4% | 12% |
| +100 | -12% | -4% | -1% | 3% | 9% |
| +200 | -18% | -8% | -2% | 5% | 16% |
| +300 | -22% | -12% | -4% | 6% | 20% |
| +400 | -30% | -16% | -6% | 6% | 24% |

| Table 11c: Minority Depository Institutions – Policy Risk Limits for Parallel Shocks | | | | | | |
|--|-------------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Scenario | 12 month, net interest income | | | Economic value of equity | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| -200 | -20% | -15% | -10% | -20% | -15% | -15% |
| -100 | -10% | -10% | -8% | -15% | -10% | -10% |
| +100 | -10% | -10% | -8% | -15% | -10% | -10% |
| +200 | -20% | -15% | -10% | -25% | -20% | -15% |
| +300 | -25% | -20% | -15% | -35% | -25% | -20% |
| +400 | -30% | -25% | -20% | -40% | -30% | -20% |

| Table 11d: Minority Depository Institutions – Non Maturity Deposit Assumptions | | | | | | |
|--|--------------------------|--------|-----------------|--------------------------|--------|-----------------|
| Deposit type | -100 BPs repricing rates | | | +100 BPs repricing rates | | |
| | 25th percentile | Median | 75th percentile | 25th percentile | Median | 75th percentile |
| Money market demand account | 25% | 40% | 50% | 25% | 40% | 50% |
| NOW/ interest checking | 15% | 25% | 29% | 15% | 25% | 30% |
| Savings | 16% | 25% | 38% | 19% | 25% | 30% |
| Non-interest bearing | Not applicable | | | | | |

Appendix A: Glossary

Asset-sensitive balance sheet: Banks with assets repricing quicker than liabilities are considered asset-sensitive. An asset-sensitive bank's earnings generally increase when rates rise and decrease when rates fall.

Basis point (BP): One basis point is equal to 0.01 percent.

Charter types: The OCC charters and regulates national banks and FSAs. An FSA may be organized as a stock entity (stock FSA) or may be in the mutual form of organization (mutual FSA). There are no equity interests in a mutual FSA; however, a mutual FSA's members have specific rights established in the charter. The charters of national banks and FSAs have different statutory and regulatory requirements that may result in inherently different IRR profiles. For more information on charter types, refer to the "Charters" booklet of the *Comptroller's Licensing Manual*.

Earnings at risk (EAR): EAR models, also referred to as earnings simulation models, use data on the bank's current financial position combined with managerial assumptions to forecast future earnings under differing interest rate scenarios. EAR models measure short-term IRR and typically focus on the risk to earnings over the next one or two years. For more information, refer to the "Interest Rate Risk" booklet of the *Comptroller's Handbook*.

Economic value of equity (EVE): EVE models measure the degree to which the economic values of a bank's positions change under different interest rate scenarios. Economic value models focus on a long-term time horizon by capturing future cash flows expected from existing assets, liabilities, and off-balance-sheet items. For more information, refer to the "Interest Rate Risk" booklet of the *Comptroller's Handbook*.

Interest rate risk (IRR): IRR is the risk to the bank's current or projected financial condition and resilience arising from movements in interest rates. For more information, refer to the "Bank Supervision Process" and "Interest Rate Risk" booklets of the *Comptroller's Handbook*.

Interest rate risk policy limits: These are limits approved by a bank's board of directors that define IRR tolerance over a range of possible interest rate scenarios.

Liability-sensitive balance sheet: Banks with liabilities repricing quicker than assets are considered liability-sensitive. A liability-sensitive bank's earnings generally increase when rates fall and decrease when rates rise.

Midsized and community banks: For supervisory purposes, the OCC designates banks as community, midsized, or large. These designations are based on a bank's asset size and factors that affect its risk profile and complexity. The OCC's community bank supervision focuses on banks that conduct traditional banking activities. Community banks generally have up to \$10 billion in total assets, midsized banks generally have up to \$50 billion in total assets, and large banks generally have over \$50 billion in total assets.

Negotiable order of withdrawal (NOW) accounts: Interest-bearing deposits (1) on which the depository institution has reserved the right to require at least seven days' written notice before withdrawal or transfer of any funds in the account and (2) that can be withdrawn or transferred to third parties by issuance of a negotiable or transferable instrument.

Net interest income (NII): Interest income minus interest expense.

Non-maturity deposit (NMD) account types: NMD account types used in this report are consistent with the Federal Financial Institutions Examination Council's Consolidated Reports of Condition and Income instruction definitions.

Non-maturity deposit assumptions: NMD assumptions are one of the most vital assumptions in an IRR model because NMDs usually represent a large portion of the bank's funding base and depositors' behavior can vary considerably. NMD assumptions are needed because changes in deposit pricing and balance are not contractually defined. As a result, models must incorporate behavioral assumptions for deposit accounts including

- NMD repricing rates, which estimate of the change in a deposit's pricing versus the change in market rates.
- NMD average lives, which represent the level of deposit runoff over a given time period.

Parallel shocks: This type of interest rate stress scenario has two characteristics. The change in interest rates is a parallel shift. In a parallel shift, all points on all yield curves in the model are changed by the same amount in an interest rate scenario. In an instantaneous shock scenario, the full change in interest rates in a scenario is applied immediately in the calculation.

Appendix B: Technical Information on Statistical Populations and Calculations

Age of data: Examiners collect IRR data for each midsize and community bank at least once each supervisory cycle. Supervisory cycles range from 12 to 18 months depending on the bank's size and condition. The most recent data available for some banks may be up to 24 months old, depending on the supervisory cycle and lag time between the examination and availability of IRR model reports.

Covered savings associations (CSA): On May 24, 2019, the OCC issued a final rule to allow FSAs with total consolidated assets of \$20 billion or less to elect to operate as a CSA.² A CSA is able to engage in national bank powers. Because an FSA retains its charter type after making the election to operate as a CSA, the OCC continues to include CSAs in the applicable mutual or stock FSA category for the purpose of this report. As of the date of this report, there were 20 CSAs. In future reporting periods, if the OCC determines that the IRR profiles of CSAs becomes materially different than their peer group of stock or mutual FSAs, this report will analyze them separately.

Details of data underlying calculations: The statistics in this report are based on data from 942 banks. Only the most recent observation from each bank, for each modeled item, and interest rate scenario were used to calculate statistics in this report. The as-of date of data ranges from December 31, 2018, to June 30, 2020. Fifty-five percent of the observations have an as-of date between June 30, 2019, and June 30, 2020.

NMD average lives: NMD average lives are only reported in table 1d, "All Banks – Non-Maturity Deposit Assumptions." At the beginning of 2020, the OCC switched from collecting annual decay rates for NMDs to average lives. As a result, the number of observations of average lives is much smaller than the number of NII and EVE exposures and risk limits. Future editions of this report will include statistics and observation on average lives for additional populations of banks.

Population of banks included in statistics: Statistics only include information on midsize and community banks. Information on IRR exposures and assumptions is also collected for large banks; however, large banks' data are not included in this report because it is difficult to anonymously aggregate exposure information. In addition, as federal financial regulatory agencies implement Principle 8 of the Basel Committee on Banking Supervision's "Interest Rate Risk in the Banking Book," large banks will publicly report information on their IRR exposures and modeling practices.

Statistics: These include multiple data points segmented by different populations. For each statistic, for each population of banks, the highest and lowest 1 percent of values for that group were removed from the data before the statistical measures were calculated.

Statistical measures reported: The OCC reports quartiles of data from each data set:

- Lowest loss: The minimum observation in each data set, after 1 percent trim.
- Largest gain: The maximum observation in each data set, after 1 percent trim.
- Median: The number for the observation that is in the middle of the data set, not the average.

² Refer to OCC Bulletin 2019-31, "Covered Savings Associations Implementation: Covered Savings Associations" for additional information.

- Quartiles
 - 25th percentile: This is the first, or lower, quartile, which is the middle number between the smallest number and the median of the data set.
 - 75th percentile: This is the third, or upper, quartile, which is the middle number between the median and highest value in the data set.

Index of Tables

- Table 1a: All Banks – Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks2
- Table 1b: All Banks – Economic Value of Equity, Parallel Shocks.....2
- Table 1c: All Banks – Policy Risk Limits for Parallel Shocks2
- Table 1d: All Banks – Non-Maturity Deposit Assumptions2

- Table 2a: Banks With Less Than \$100 Million in Assets – Earnings at Risk: 12-Month, Net Interest
Income, Parallel Shocks.....3
- Table 2b: Banks With Less Than \$100 Million in Assets – Economic Value of
Equity, Parallel Shocks3
- Table 2c: Banks With Less Than \$100 Million in Assets – Policy Risk Limits for Parallel Shocks3
- Table 2d: Banks With Less Than \$100 Million in Assets – Non-Maturity Deposit Assumptions3

- Table 3a: Banks With \$100 Million to Less Than \$250 Million in Assets –
Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks4
- Table 3b: Banks With \$100 Million to Less Than \$250 Million in Assets –
Economic Value of Equity, Parallel Shocks4
- Table 3c: Banks With \$100 Million to Less Than \$250 Million in Assets –
Policy Risk Limits for Parallel Shocks4
- Table 3d: Banks With \$100 Million to Less Than \$250 Million in Assets –
Non-Maturity Deposit Assumptions4

- Table 4a: Banks With \$250 Million to Less Than \$500 Million in Assets –
Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks5
- Table 4b: Banks With \$250 Million to Less Than \$500 Million in Assets –
Economic Value of Equity, Parallel Shocks5
- Table 4c: Banks With \$250 Million to Less Than \$500 Million in Assets –
Policy Risk Limits for Parallel Shocks5
- Table 4d: Banks With \$250 Million to Less Than \$500 Million in Assets –
Non-Maturity Deposit Assumptions5

- Table 5a: Banks With \$500 Million to Less Than \$1 Billion in Assets –
Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks6
- Table 5b: Banks With \$500 Million to Less Than \$1 Billion in Assets –
Economic Value of Equity, Parallel Shocks6
- Table 5c: Banks With \$500 Million to Less Than \$1 Billion in Assets – Policy Risk Limits for Parallel
Shocks6
- Table 5d: Banks With \$500 Million to Less Than \$1 Billion in Assets – Non-Maturity Deposit
Assumptions.....6

- Table 6a: Banks With \$1 Billion to Less Than \$10 Billion in Assets –
Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks7
- Table 6b: Banks With \$1 Billion to Less Than \$10 Billion in Assets –
Economic Value of Equity, Parallel Shocks7
- Table 6c: Banks With \$1 Billion to Less Than \$10 Billion in Assets – Policy Risk Limits for Parallel
Shocks7
- Table 6d: Banks With \$1 Billion to Less Than \$10 Billion in Assets – Non-Maturity Deposit
Assumptions.....7

| | |
|--|----|
| Table 7a: Banks With Over \$10 Billion in Assets – Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks | 8 |
| Table 7b: Banks With Over \$10 Billion in Assets – Economic Value of Equity, Parallel Shocks | 8 |
| Table 7c: Banks With Over \$10 Billion in Assets – Policy Risk Limits for Parallel Shocks | 8 |
| Table 7d: Banks With Over \$10 Billion in Assets – Non-Maturity Deposit Assumptions..... | 8 |
| Table 8a: National Banks – Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks..... | 9 |
| Table 8b: National Banks – Economic Value of Equity, Parallel Shocks | 9 |
| Table 8c: National Banks – Policy Risk Limits for Parallel Shocks | 9 |
| Table 8d: National Banks – Non-Maturity Deposit Assumptions..... | 9 |
| Table 9a: Stock FSAs – Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks | 10 |
| Table 9b: Stock FSAs – Economic Value of Equity, Parallel Shocks..... | 10 |
| Table 9c: Stock FSAs – Policy Risk Limits for Parallel Shocks | 10 |
| Table 9d: Stock FSAs – Non-Maturity Deposit Assumptions | 10 |
| Table 10a: Mutual FSAs – Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks | 11 |
| Table 10b: Mutual FSAs – Economic Value of Equity, Parallel Shocks | 11 |
| Table 10c: Mutual FSAs – Policy Risk Limits for Parallel Shocks..... | 11 |
| Table 10d: Mutual FSAs – Non-Maturity Deposit Assumptions..... | 11 |
| Table 11a: Minority Depository Institutions – Earnings at Risk: 12-Month, Net Interest Income, Parallel Shocks | 12 |
| Table 11b: Minority Depository Institutions – Economic Value of Equity, Parallel Shocks..... | 12 |
| Table 11c: Minority Depository Institutions – Policy Risk Limits for Parallel Shocks | 12 |
| Table 11d: Minority Depository Institutions – Non-Maturity Deposit Assumptions | 12 |