

Where ALM Falls Short: A Data-Driven Look at DDA Behavior

Behavioral insights from 20M+ checking accounts

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The Role of Checking in Bank Funding

- Core deposits remain the **primary funding engine** for community banks
- Non-maturity deposits often represent **50–70% of total funding**
- DDA balances are typically forced into two categories
 - NOW/Interest Checking – 15–23% repricing median on -100bps; 4–5.25 year life*
 - Non-interest bearing – 4.17–5.04 year life*

*OCC Interest Rate Risk Statistics Report – Spring 2024

The Modeling Gap

What Models Assume

- Static decay assumptions
- Historical deposit beta estimates
- Limited portfolio averages
- Asset-based behavioral segmentation

How Customers Behave

- Digital banking enables instant transfers
- Faster payment rails (FedNow, RTP)
- Unprecedented rate transparency
- Increased liquidity mobility

“The assumptions we inherited may no longer match how depositors actually behave.”

The Average Checking Account Doesn't Exist

Behaviorally, checking deposits are three very different funding sources. To test that, we analyzed data from 20M+ accounts nationwide.

Behavioral Dataset: 20M+ Checking Accounts

Multi-year observation window across community financial institutions nationwide. Fully anonymized and aggregated. Instead of modeling deposits by product type, we modeled them by behavior.

Transaction Velocity

Outflows vs. stable balances

Rate Sensitivity

Runoff after rate changes

Dormancy

90-day inactivity patterns

Payroll Anchoring

Relationship stickiness

Account Lifespan

Balance persistence over time

"Instead of modeling deposits by product type, we modeled them by behavior."

Transaction Velocity: Defining Stability

$$\text{Velocity} = \text{Monthly Outflows} / \text{Average Balance}$$

High Velocity

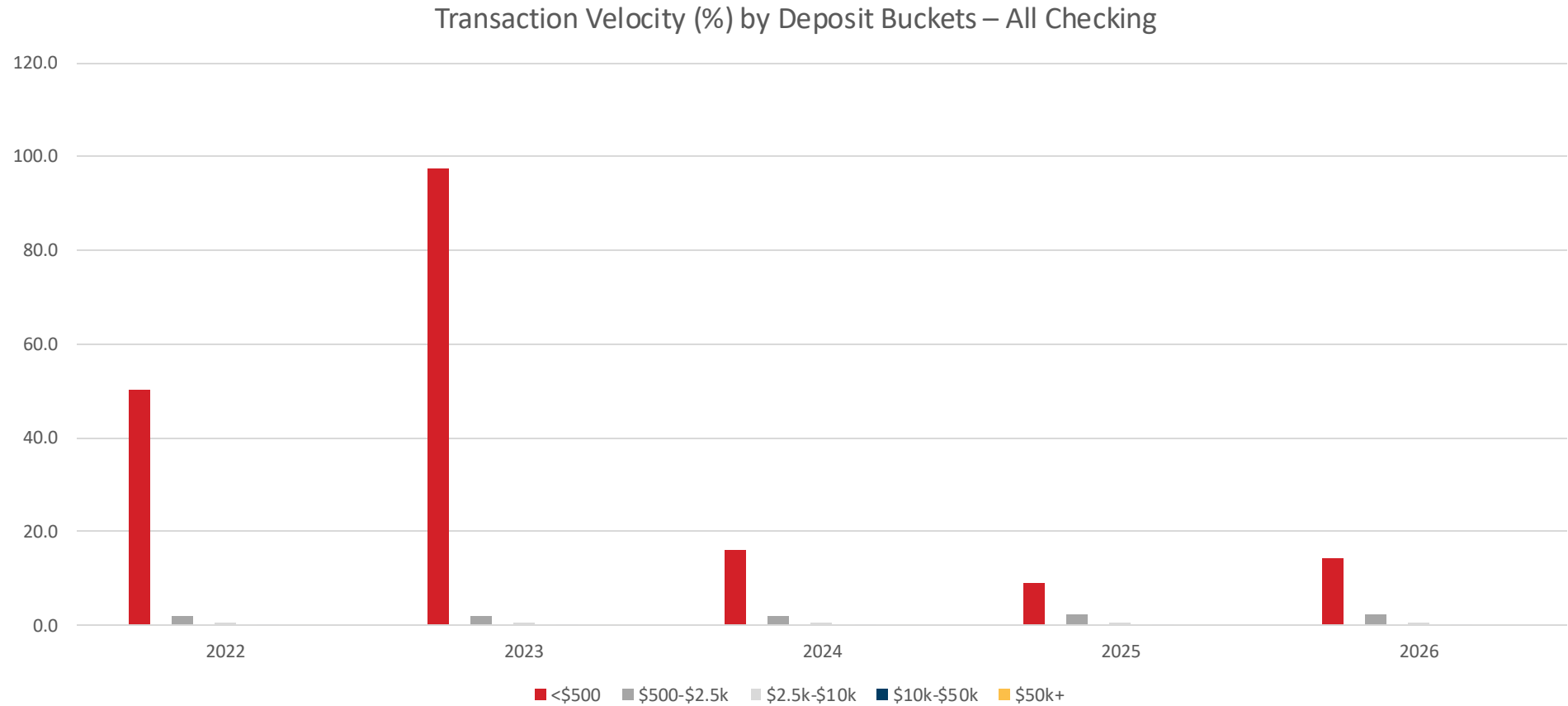
Operating cash / transactional balances
Lower funding stability

Low Velocity

Persistent, stable funding
Higher ALM value

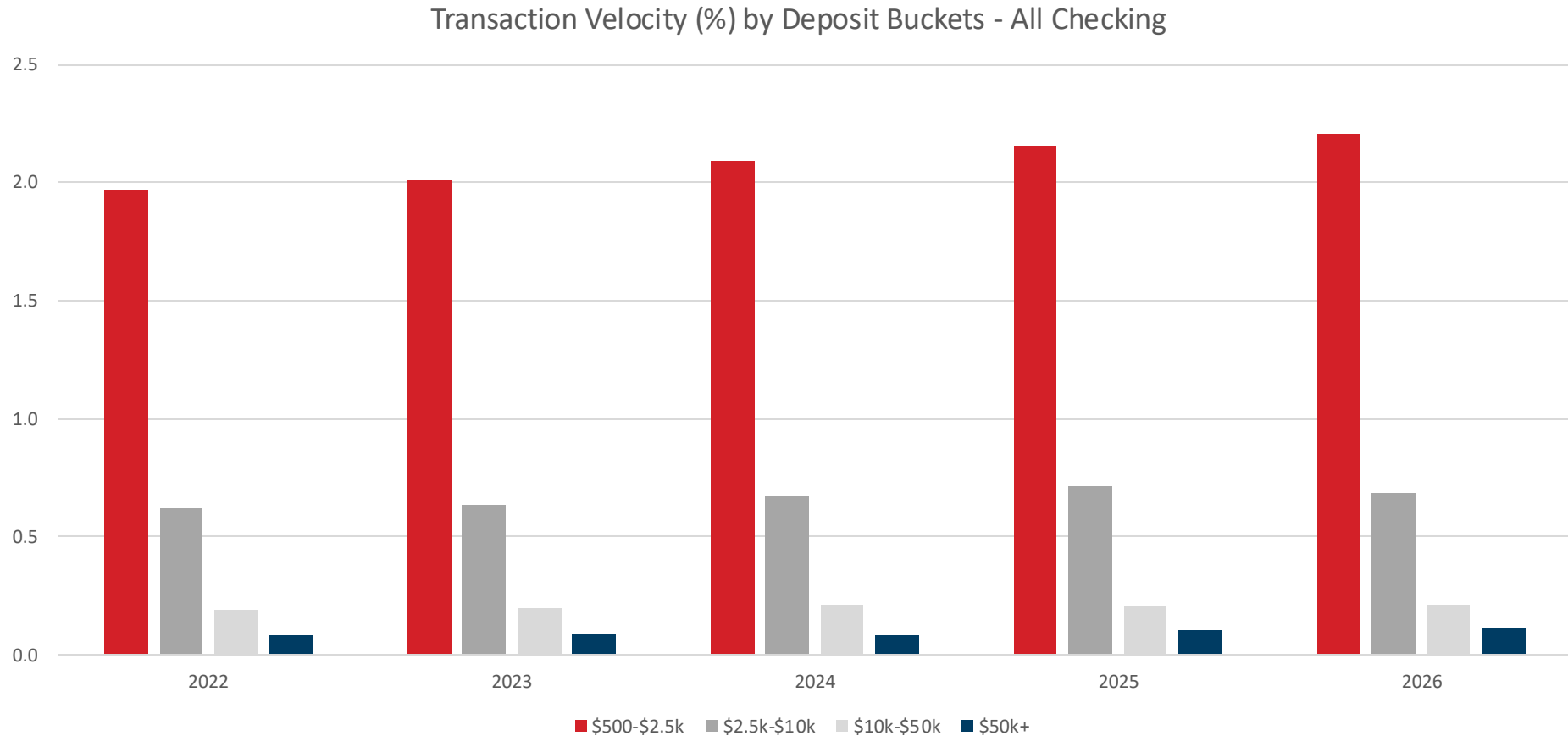
Checking accounts contain both operational and stable balances – often within the same account type. Velocity helps us separate them.

Velocity Distribution



Transaction velocity is dominated by sub-\$500 accounts.

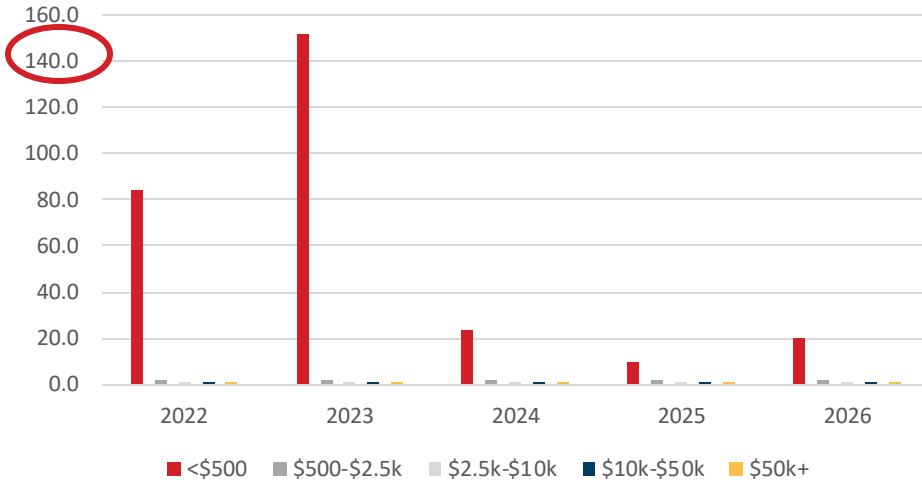
Velocity Distribution – Greater than \$500 Balances



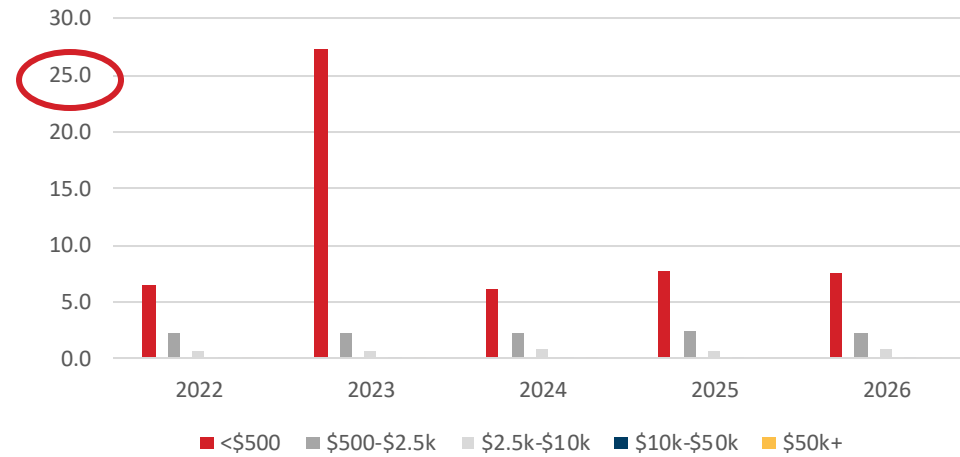
Transaction velocity is negligible above \$500 balance.

Velocity Distribution – By Checking Product Type

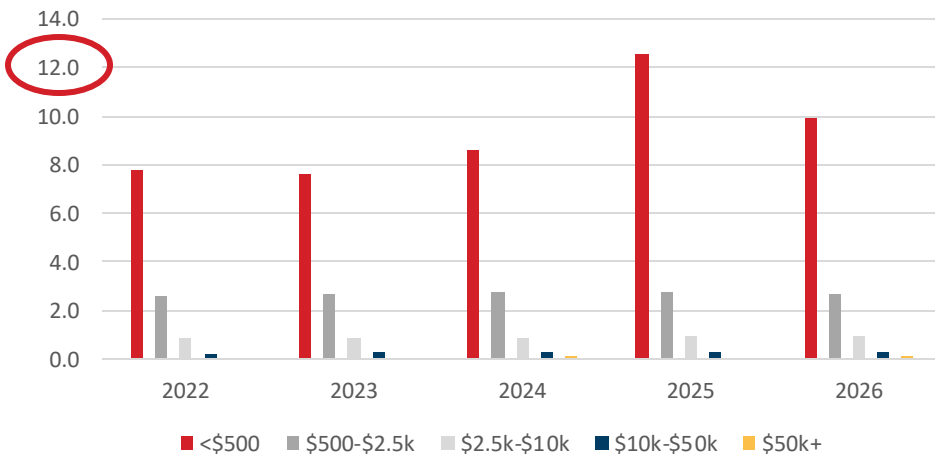
Transaction Velocity (%) by Deposit Buckets – Free Checking



Transaction Velocity (%) by Deposit Buckets – High Interest Checking



Transaction Velocity (%) by Deposit Buckets – Non-Interest Rewards



Transaction velocity declines significantly in rewards-based checking accounts.

Rate Sensitivity: Beyond Deposit Beta

Traditional ALM focuses on:

- Deposit beta (pricing elasticity)
- Repricing rate assumptions

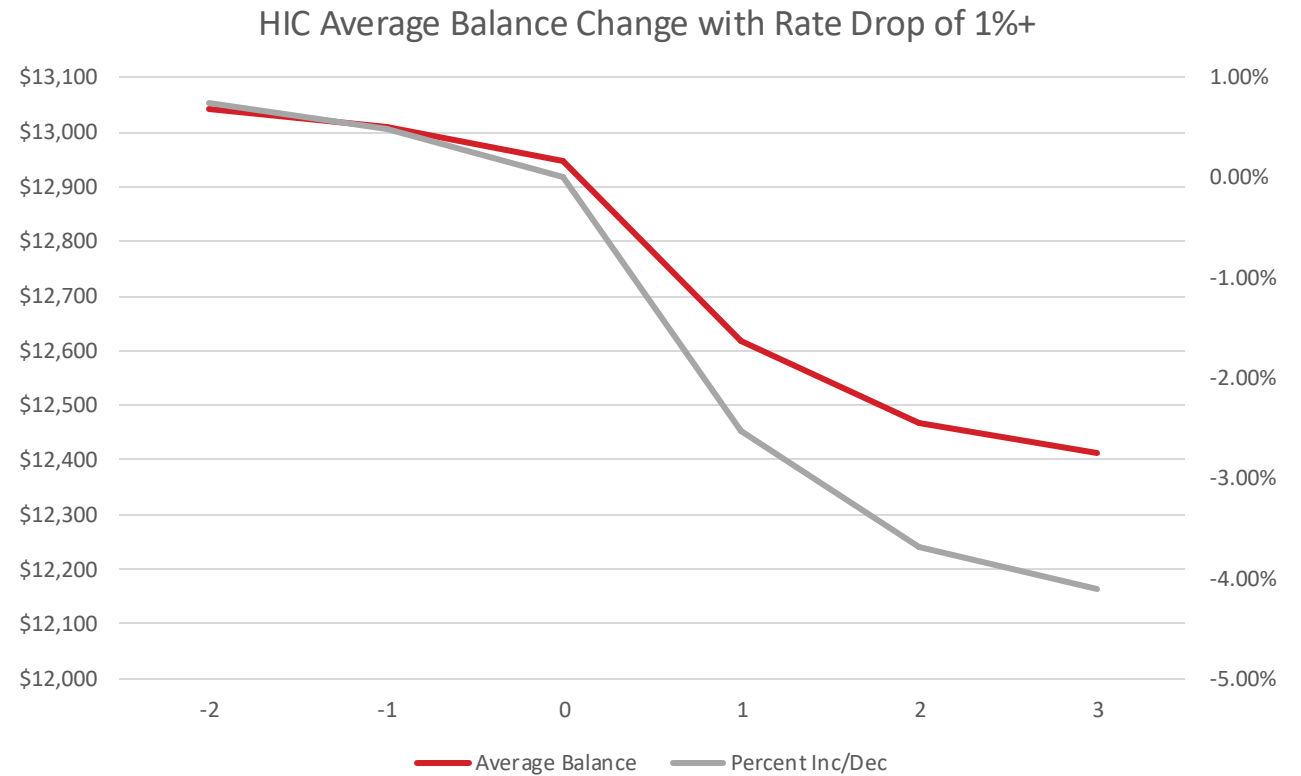
But behaviorally:

- Customers respond through **balance movement**

Our metric:

- Deposit runoff in 3 months after a rate reduction, as % of total deposits

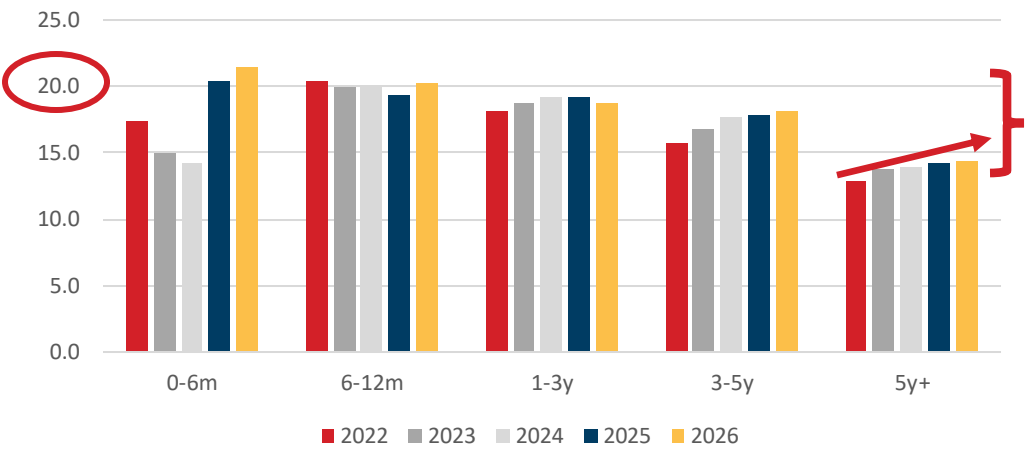
“Funding risk is minimal.”



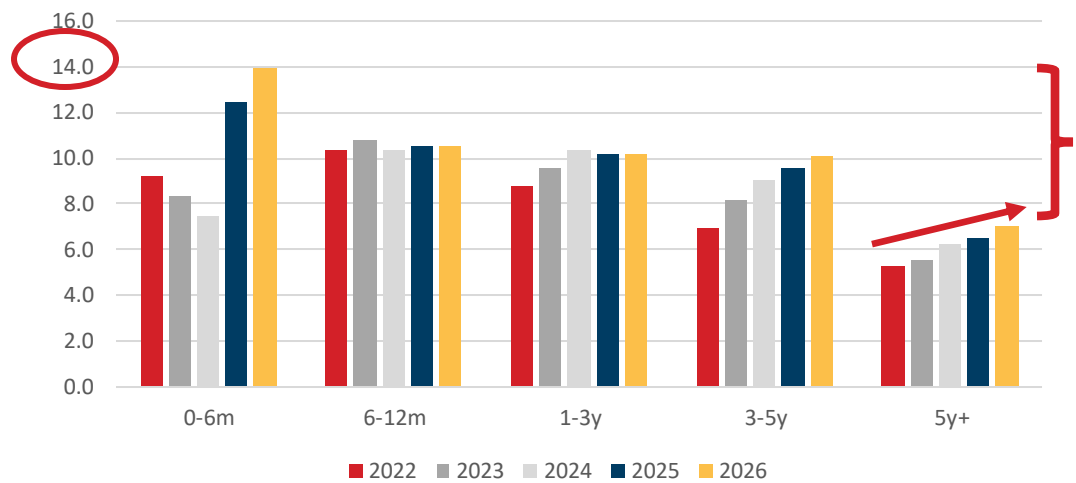
Dormancy: Hidden Risk or Stored Value?

Dormancy = 90 days with no ACH or POS activity, as a % of overall average deposits

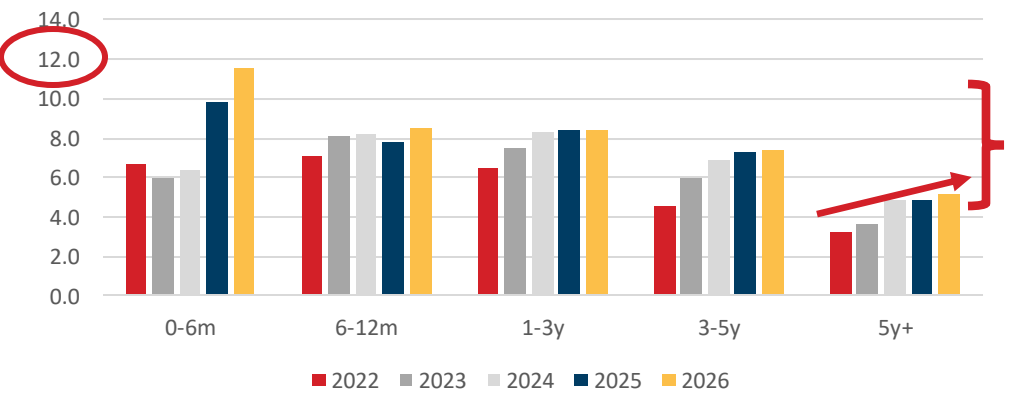
Dormancy (%) by Tenure - Free Checking



Dormancy (%) by Tenure - High Interest Checking



Dormancy (%) by Tenure - Non Interest Rewards

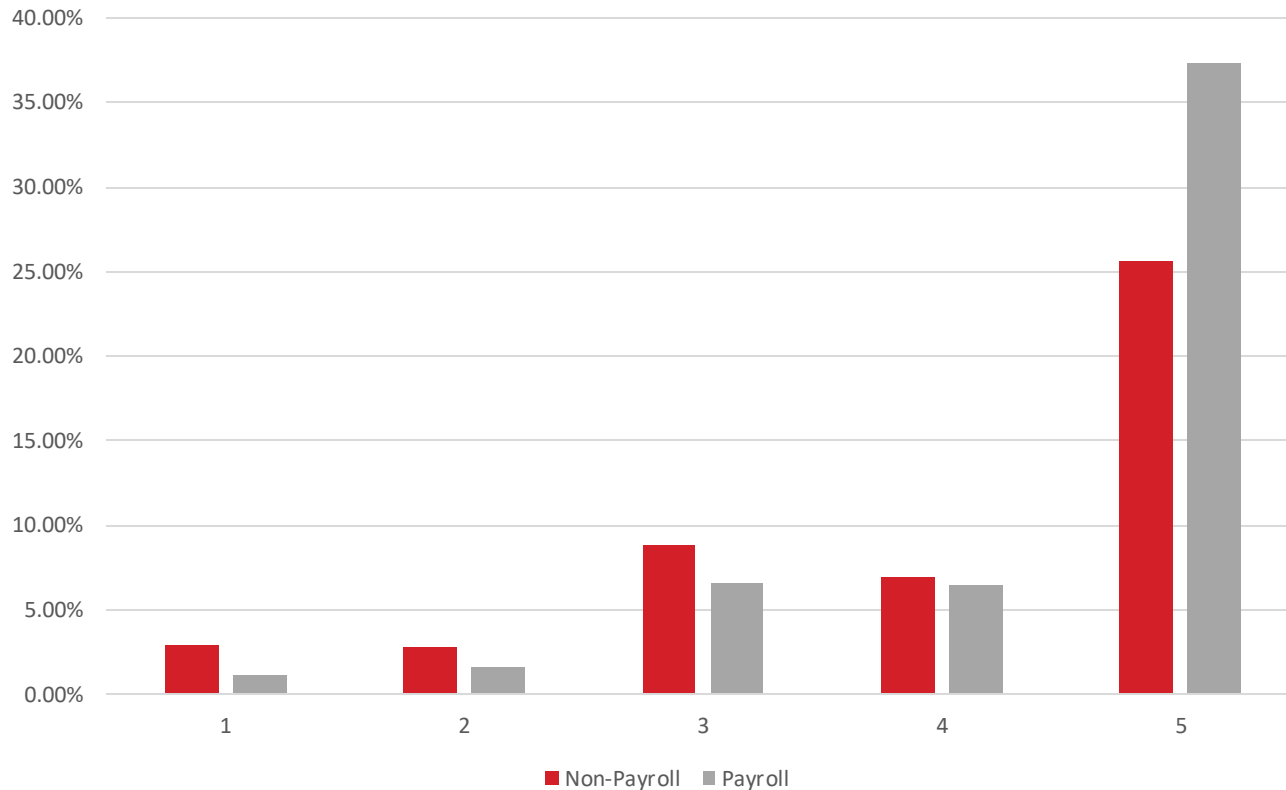


*Dormant balances often represent **stored value**, not active liquidity.*

Payroll as a Relationship Anchor

Payroll = \$200+ ACH credit at least once every 30 days

Payroll Distribution - All Checking



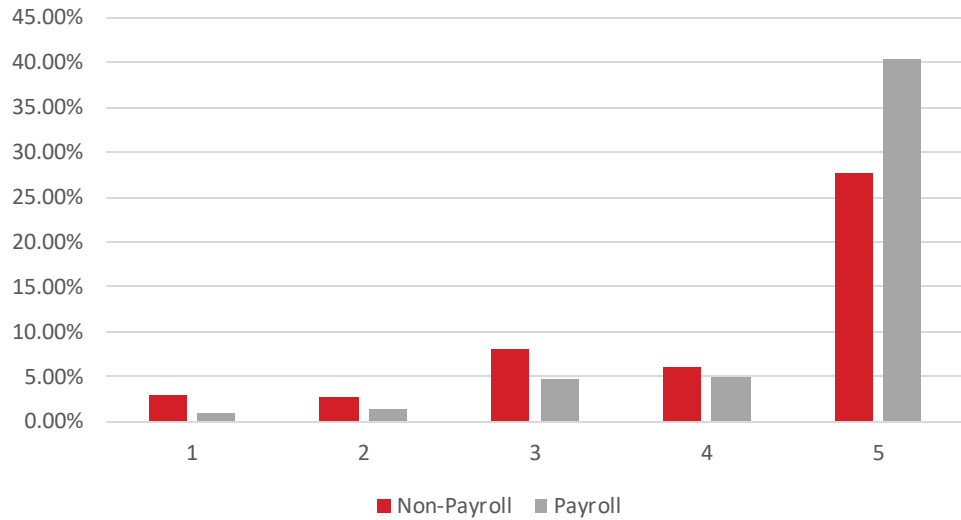
Key Findings

- Payroll accounts show **higher retention**
- Stronger **relationship stickiness**
- Materially **lower runoff risk**

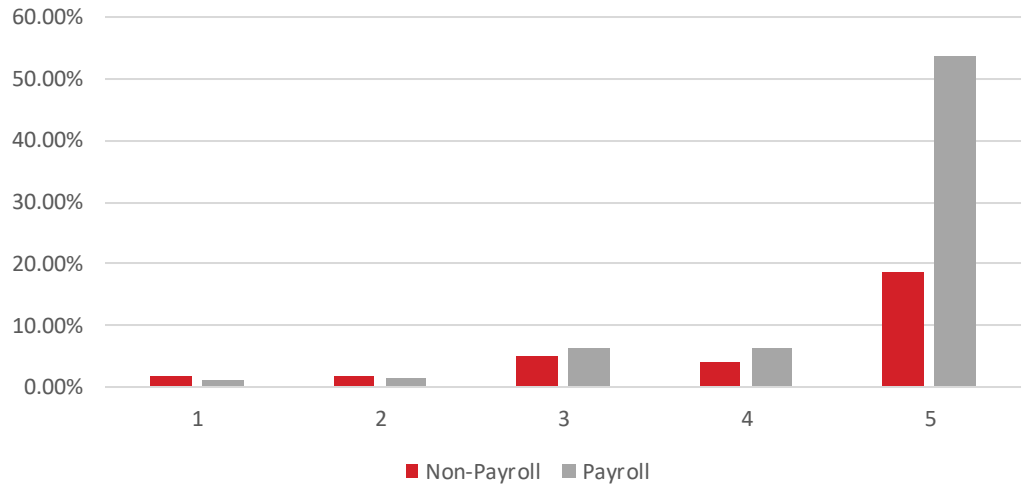
“Behaviorally, payroll relationships behave more like long-term funding.”

Payroll as a Relationship Anchor by Product Type

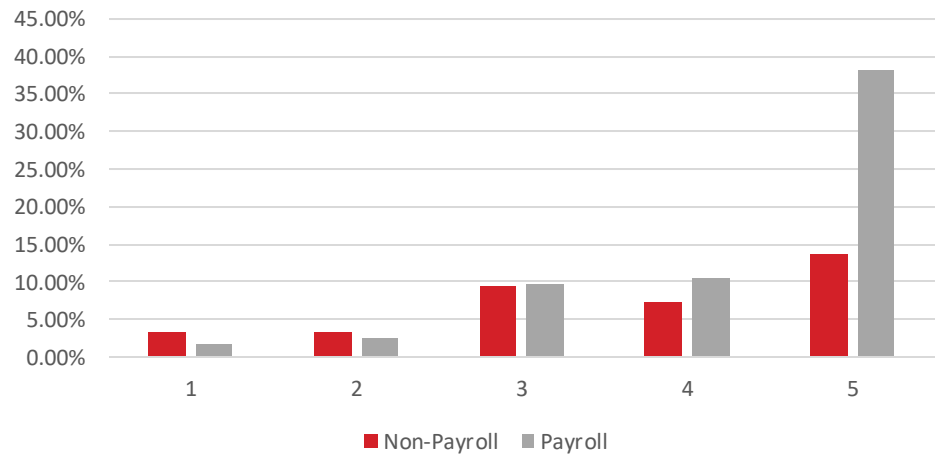
Payroll Distribution - Free Checking



Payroll Distribution - High Interest Checking

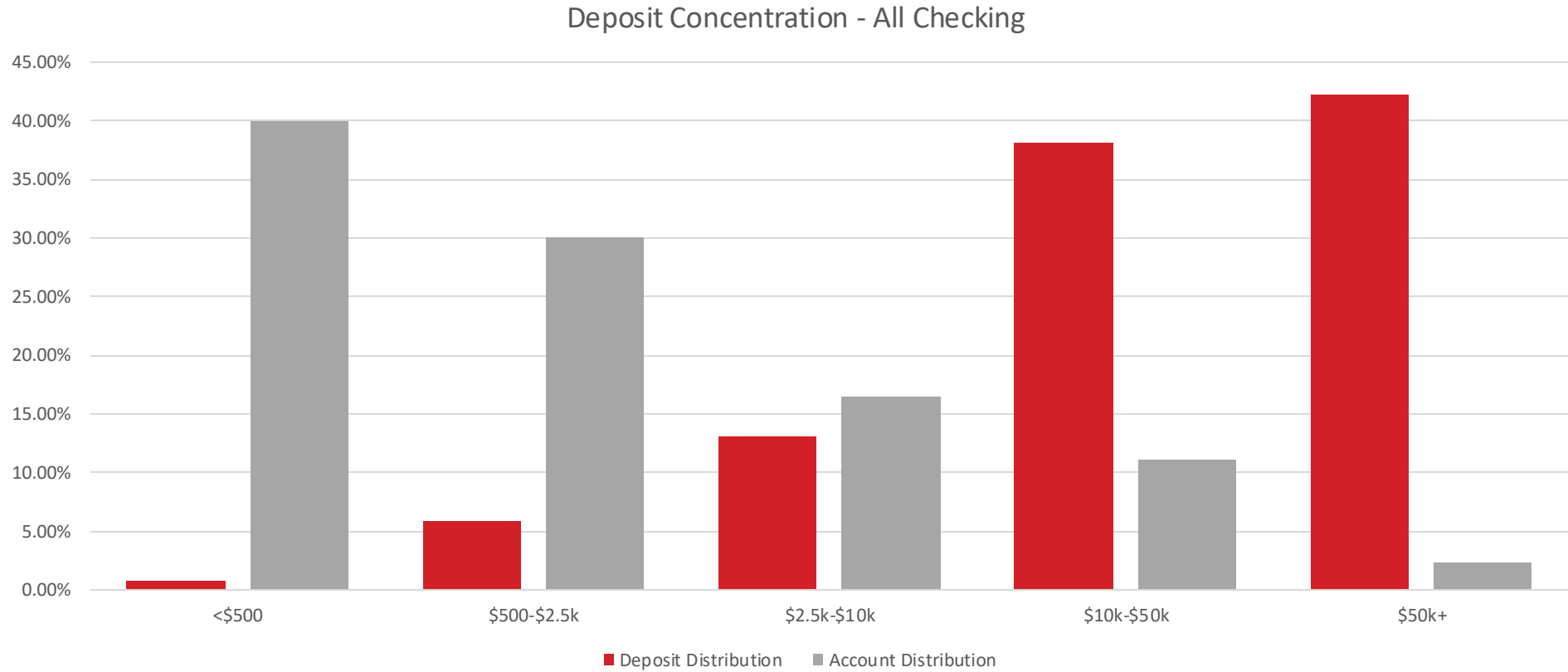


Payroll Distribution - Non-Interest Rewards



HIC accounts drive significantly higher payroll-associated retention, which NIR trails Free Checking.

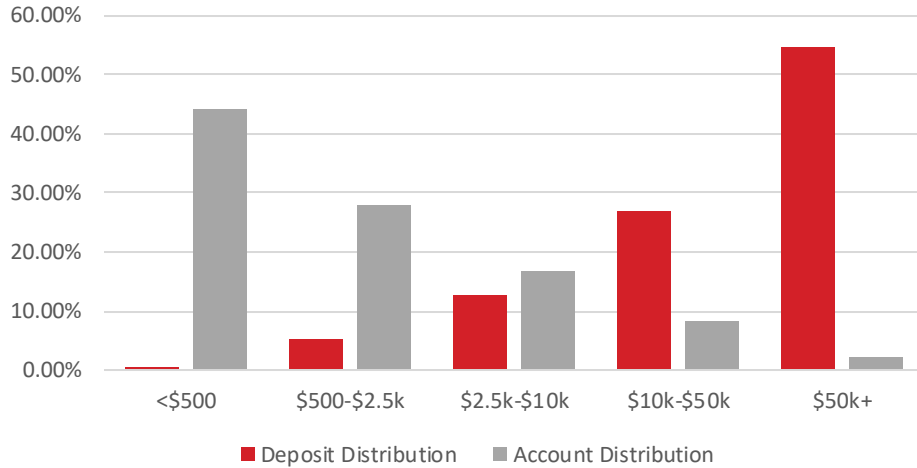
Balance Distribution: Concentration Risk



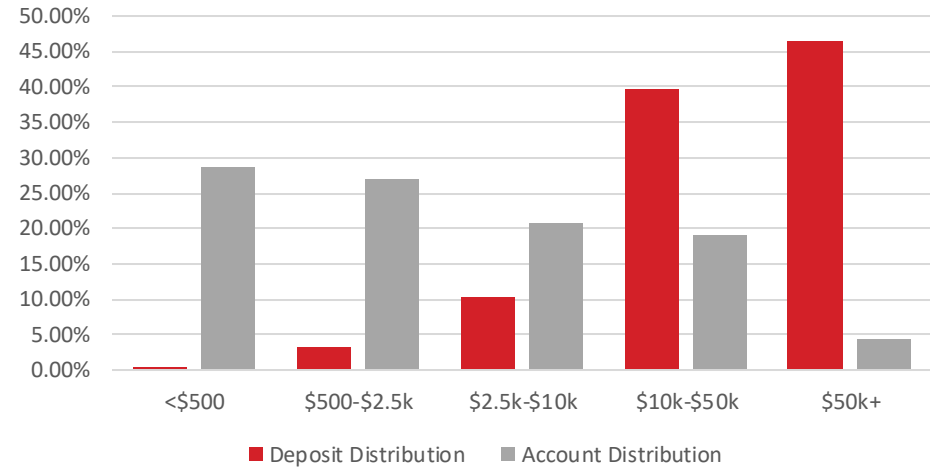
Majority of accounts are small. Majority of balances are concentrated. This creates concentration risk in funding stability.

Balance Distribution: Concentration Risk

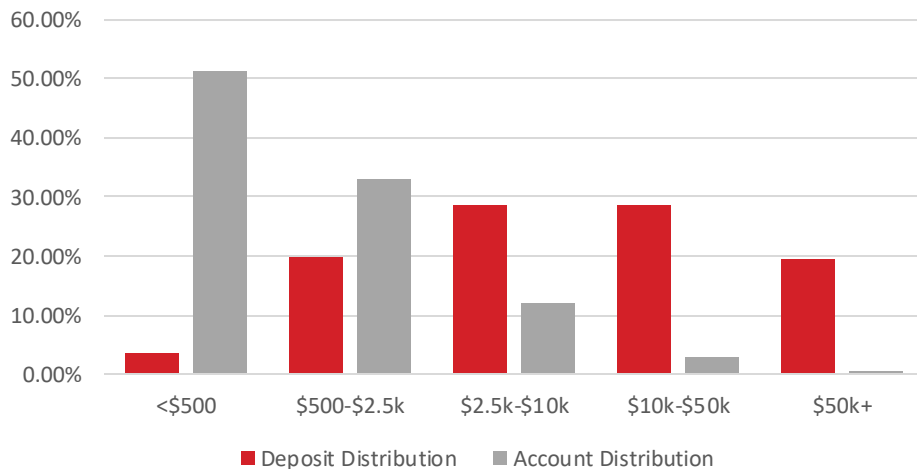
Deposit Concentration - Free Checking



Deposit Concentration - High Interest Checking

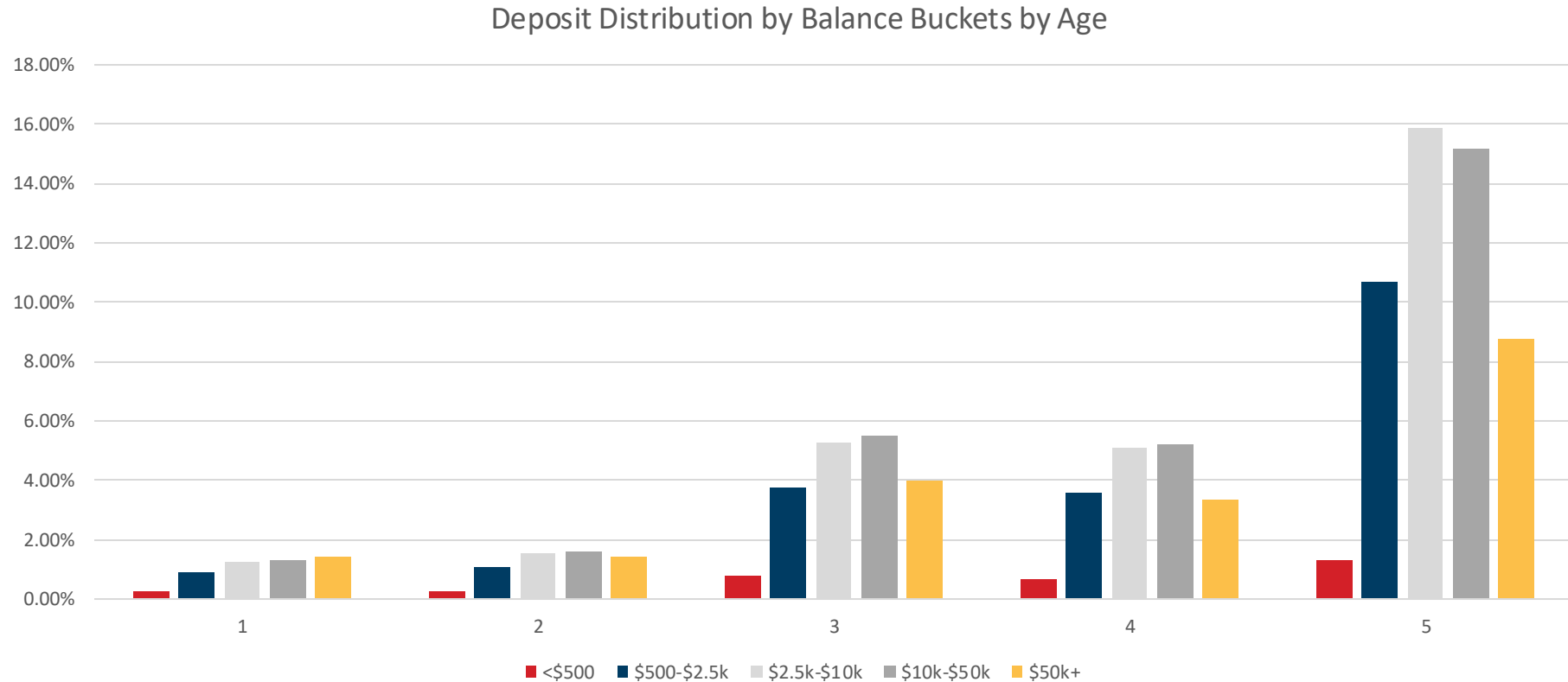


Deposit Concentration - Non-Interest Rewards



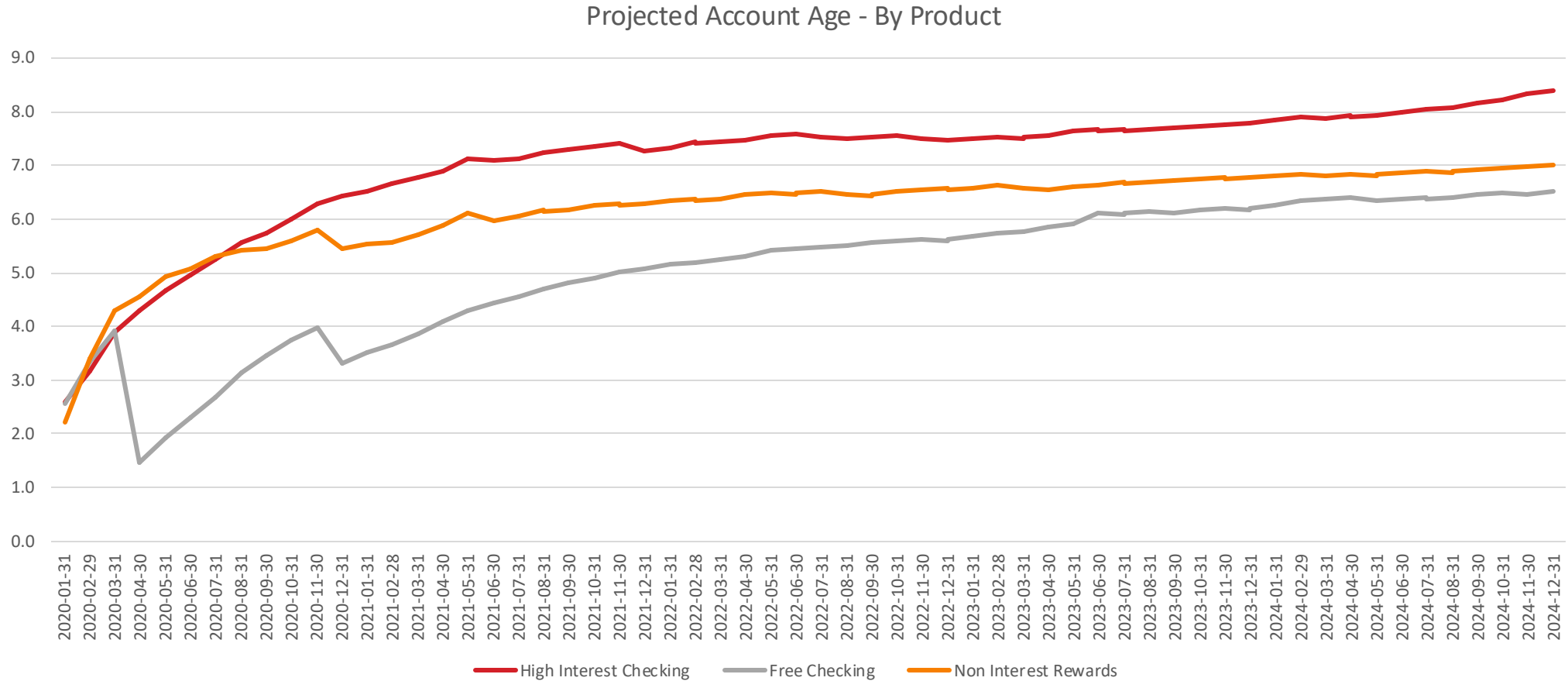
Deposit concentration risk reduced in rewards accounts.

Lifecycle: Balance by Account Age



Deposit stability tends to increase with tenure. Early lifecycle volatility gives way to long-term persistence.

Lifespan – Projected Age of Attrition



Free Checking lifespan is 6.4 years (not 5.0).
 NIR lifespan is 7.0 years (+9%).
 HIC lifespan is 8.4 years (+29.2%).

Not All DDAs Provide the Same Funding Value

ALM models that treat all DDAs equally may materially misestimate stability

Transactional

Velocity: High
Behavior: Operating cash
Funding: Low stability

Hybrid

Velocity: Moderate
Behavior: Mixed use
Funding: Medium stability

Stable

Velocity: Low
Behavior: Persistent balances
Funding: High funding value

Strategic Applications

1

ALM

More accurate decay assumptions and better segmentation of non-maturity deposits

2

Liquidity Planning

Identify volatile balances and distinguish operational from stable funding

3

Pricing Strategy

Avoid overpaying for inert deposits while protecting sensitive relationships

4

NIM Defense

Preserve low-cost core funding by understanding behavioral drivers

Three Take-Aways for Community Credit Unions

1 Behavior matters more than product type

Not all checking balances are equal. The same account type contains transactional, hybrid, and stable funding.

2 Funding stability is concentrated

A subset of accounts drives most deposit persistence. Rate sensitivity and runoff risk are not evenly distributed.

3 Behavioral segmentation improves ALM

Understanding deposit behavior doesn't replace ALM — it improves the inputs.

“Better deposit strategy starts with understanding how customers actually use accounts.”