ORLANDO MAY 5-8, 2024

2024 BAFT Global Annual Meeting

BUILDING BRIDGES AMID A CHANGING GLOBAL LANDSCAPE

BAFT

Tightening Bank Regulations – What it Means for Banks

Ana Arsov
MD, Global Co-head of Financial Institutions
and Global Head of Private Credit
Moody's Ratings

2024 BAFT **Global Annual Meeting** ORLANDO MAY 5-8, 2024

MOODY'S RATINGS

BAFT

Agenda

1 Regional Banking Under Pressure

2 Rise of Private Credit

MOODY'S
RATINGS

BAFT

Regional Banking Under Pressure

2023 key takeaways

→ Inflation forecasts were wrong -significant Fed tightening needed to try to get back to 2% target
- Banks with short-dated liabilities/deposits most subject to repricing and most exposed to higher for longer interest rates
- Fed QT also added pressure to US banks' liabilities

→ IRR poorly regulated and supervised; some banks were focused on it despite limited regulation; others were not
- Banks that over-focused on NII measures ended up with high levels of residential mortgages, fixed rate CRE and/or fixed rate securities and, in turn, negative EVE/economic exposure when rates rose
- Significant unrealized economic losses not captured in most US banks' regulatory capital

→ Several important risk management lessons learned
- Recency bias – over-focus on GFC/credit stress in some bank management teams
- Over-reliance on the forward curve that had suggested rate cuts throughout all of 2023 – didn't materialize
- Contingent funding plans not a focus for all banks despite historic Fed monetary policy tightening
- Additional layer of operational risk with lack of system/process readiness to promptly deal with changing circumstances
- For some banks, economic capital became and remains a challenge

2024 key banking sector risks

→ Last mile on inflation may be the hardest; US inflation and interest rates continue to surprise to the upside

→ Long-term Treasury rates could rise due to non-Fed factors / Treasury market disruption

→ Further bank shocks – interest rates/profitability challenges/CRE losses - could erode deposit confidence at banks with similar business models

→ Macro factors could pressure deposits again – QT pressure on deposit resumes once ON RRP balances are drained/FOMC slow to stop QT

→ Greater tension between Fed policy objectives – bringing inflation down vs banking sector stability

→ Banks' loss forecasting models could be limited due to a lack of data on loan performance in higher interest rate environments

→ More impactful cybersecurity threats

US banking system outlook remains negative

Overview of key drivers 2024

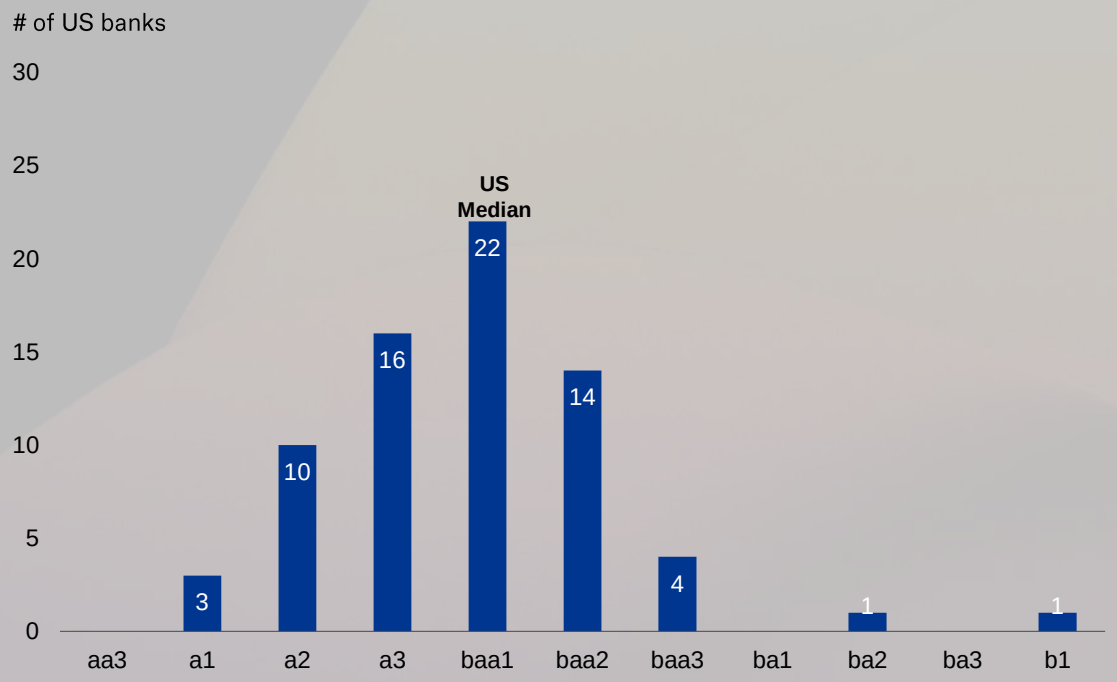
Operating environment	●	+	Inflation will retreat to level consistent with Fed target; economic growth will moderate to around 2.0% in 2024 from 2.5% in 2023, consistent with full-employment non-recessionary economy.
		–	Average US unemployment rate projected to rise to around 4.0% in 2024, up only slightly from 3.7%, modestly weakening households' debt-repayment capacity and asset quality.
Asset risk	●	–	CRE asset quality will continue to deteriorate along with pandemic-driven structural shifts, higher interest rates and tighter underwriting standards.
		–	C&I asset quality will weaken because of elevated debt-servicing costs, tighter underwriting standards and modestly slowing economy.
		–	Credit card and auto loan delinquencies and charge-offs will continue to rise above pre-pandemic levels as the economy cools and as poorly underwritten 2021-22 originations reach peak losses.
Capital	●	+	Banks are likely to continue building capital because of asset quality erosion, their high levels of low-yielding assets and, for the largest banks, some tightening of capital rules.
		–	Two-tiered US bank regulation credit negative for banks with assets below $100 billion and subject to less stringent regulation.
Profitability and efficiency	●	–	Profitability will remain below long-term averages in 2024, driven largely by declining net interest income and rising loan-loss provisions.
		–	NIMs will decline modestly – with funding costs rising a bit faster than assets reprice – but should gradually improve once the Fed funds rate declines materially.
		–	Loan growth will be very modest in 2024 as banks look to increase capitalization.
Funding and liquidity	●	–	Still tight monetary policy will keep pressure on system deposit levels; deposit costs will continue modest rise.
		–	There is increased uncertainty around access to FHLB funding for banks under financial stress.
		–	Bouts of Treasury market disruption could potentially place stress on bank funding.
		+	Banks continue to reduce reliance on uninsured deposits and are keeping increased levels of liquidity, driven in part by tighter regulations. Largest banks have strong retail deposit franchises.
Government support	●	=	We maintain our assumption of a moderate probability of government support for certain debt classes of only eight large US banks and no government support notching uplift for regional and community banks.

● IMPROVING ● STABLE ● DETERIORATING

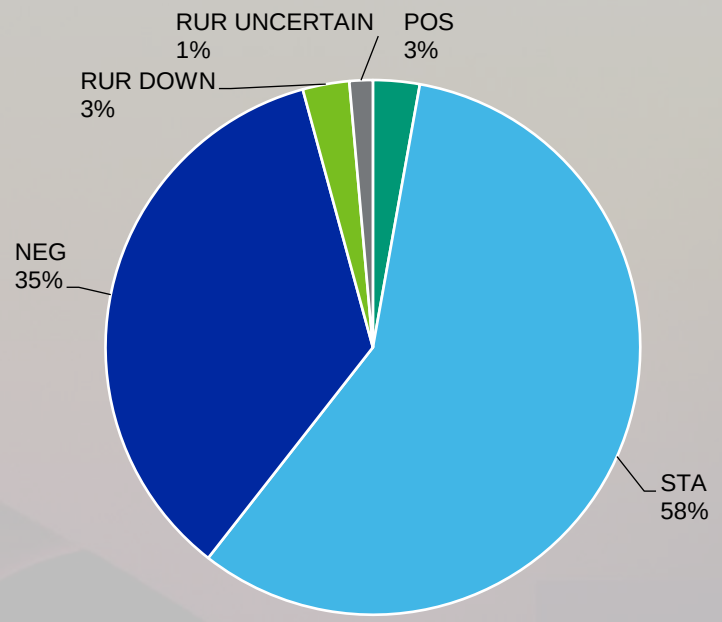
Source: Moody's Ratings

Median US bank BCA is baa1; more than 1/3 have negative outlooks

Baseline Credit Assessments (BCA) of US Banks



Current Debt Rating Outlooks of US Banks



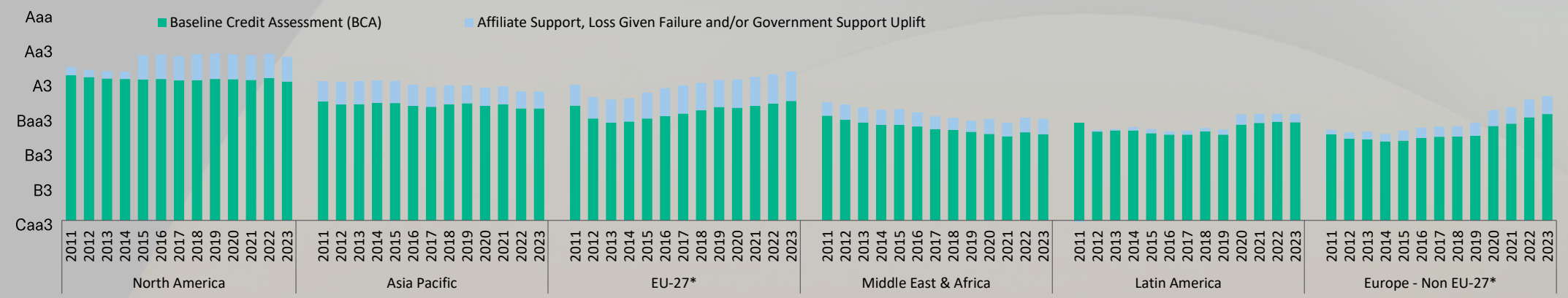
1) The BCAs and rating outlooks are as of 26 April 2024.

Source: Moody's Ratings

Average bank Baseline Credit Assessment (BCA) in North America declined over past decade

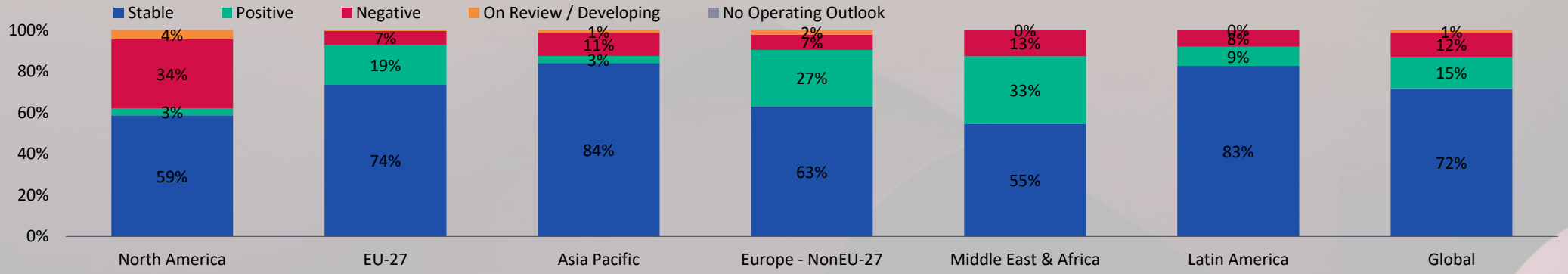
North America is also the region with the most negative bank issuer outlooks

Moody's Simple Average Long-Term Bank Deposit Ratings by Region



Note: Prior to 2020- EU-27 & Europe - Non EU-27 were EU-28 & Europe - Non EU-28 respectively; Source: Moody's Ratings

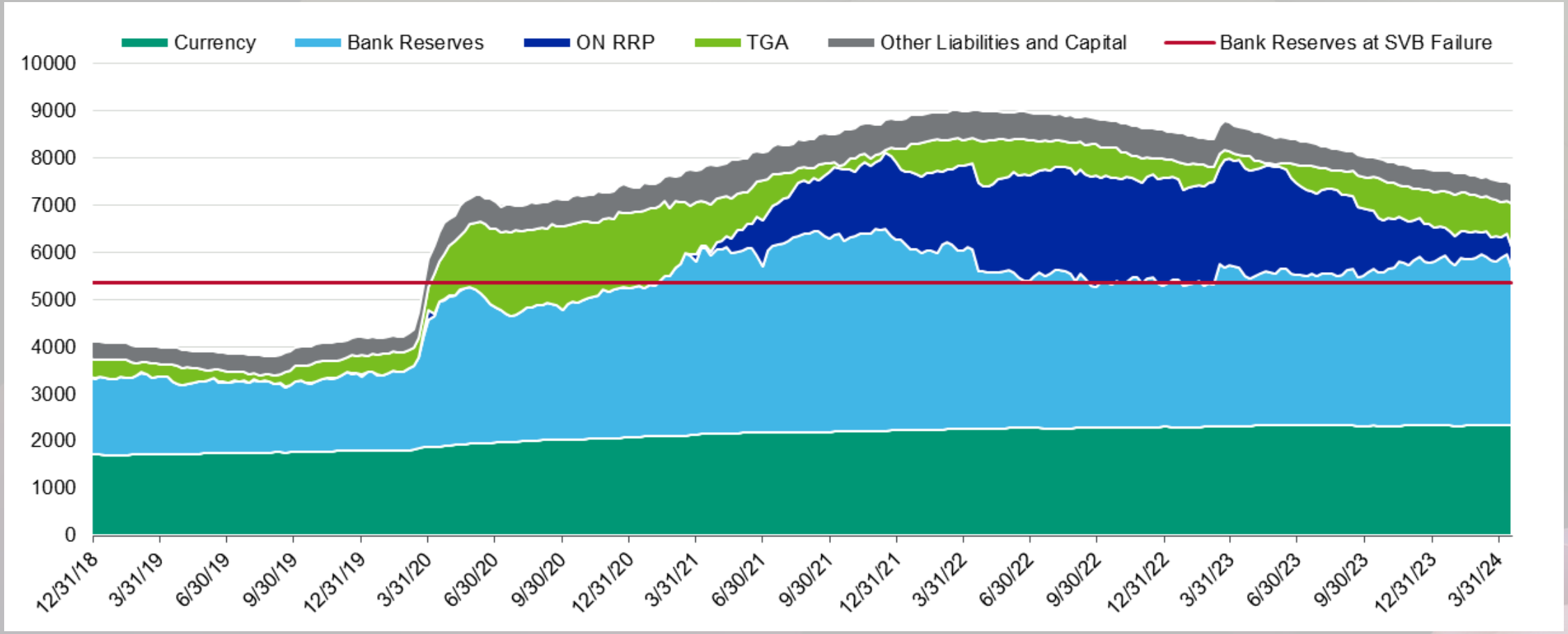
Moody's Simple Average Bank Issuer Outlooks per Region



Note: Ratings & Outlooks as of 28 March 2024; Universe includes all banks assigned a publicly available BCA; Source: Moody's Ratings

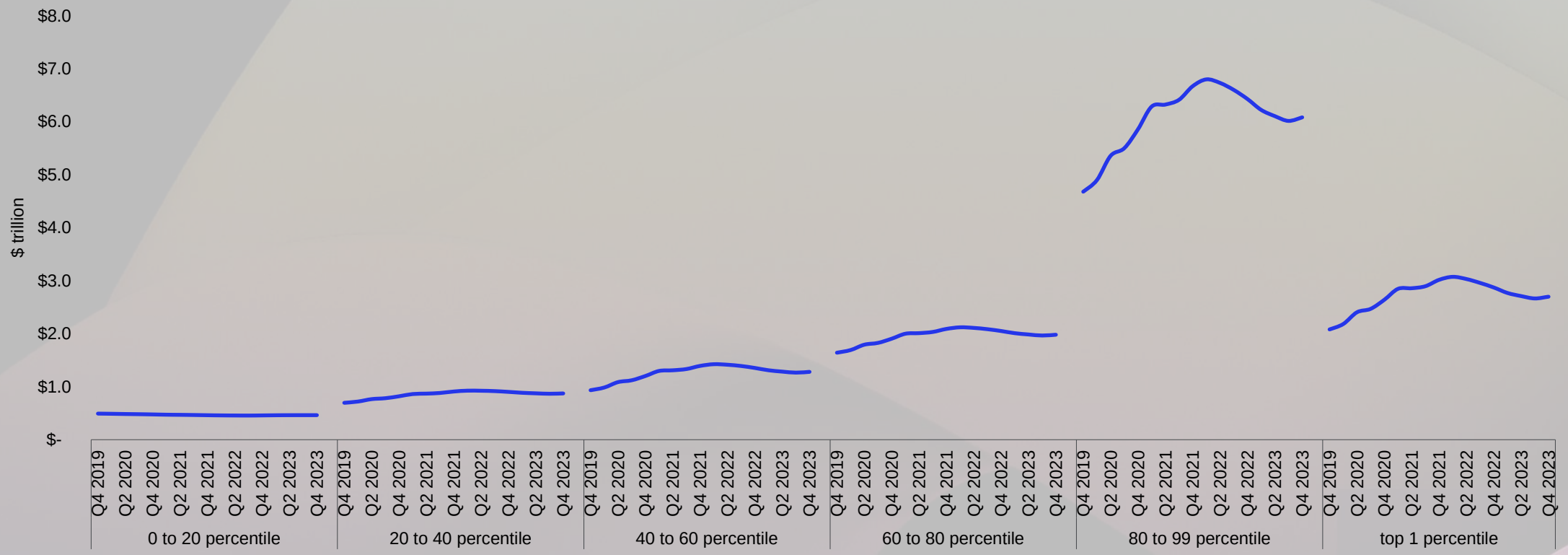
Shrinking Fed balance sheet absorbed by declining ON RRP

Breakdown of Federal Reserve balance sheet, Dec 2018 – Apr 2024



Deposit growth resurgence in Q4 2023 is largely among top earners

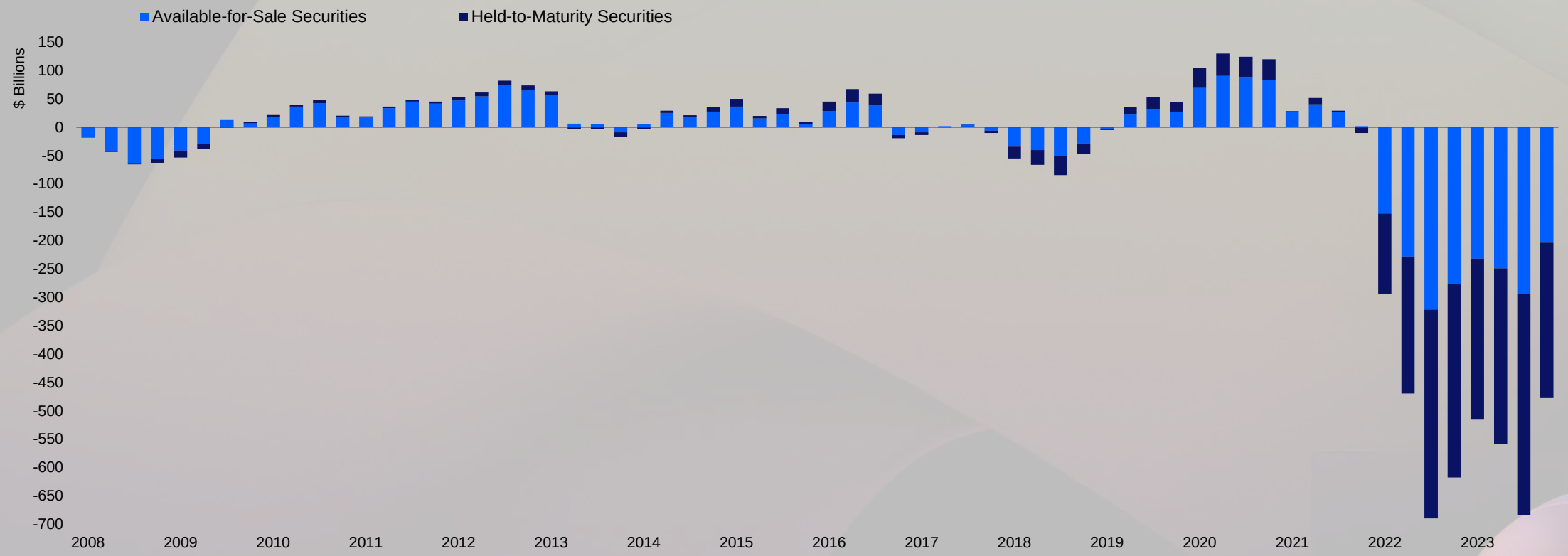
Deposits held by income category throughout the pandemic



Source: Federal Reserve Board, Moody's Ratings

Only Cat. I-II bank capital is adjusted for unrealized AFS losses

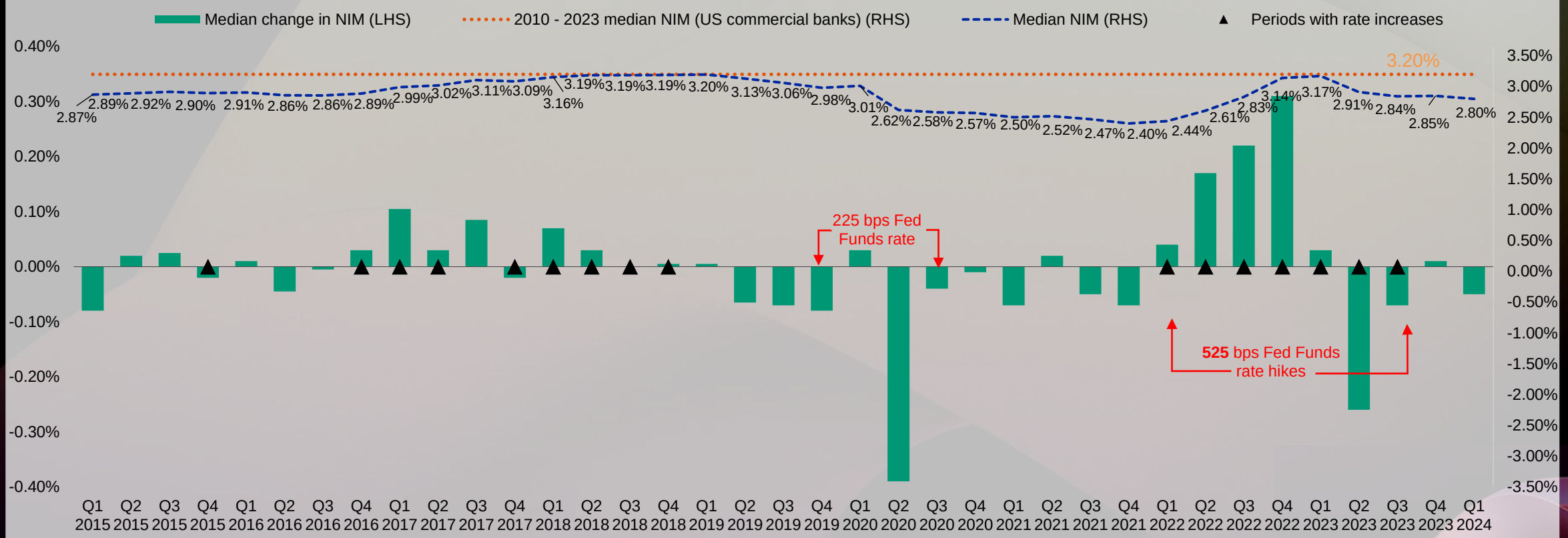
Pre-tax unrealized gains (losses) on US banks' securities holdings



1) Insured Call Report filers only. 2) Unrealized losses on securities solely reflect the difference between the market value as of quarter end and the book value of non-equity securities.; Source: FDIC

Median NIM declined 5 bps in Q1 2024

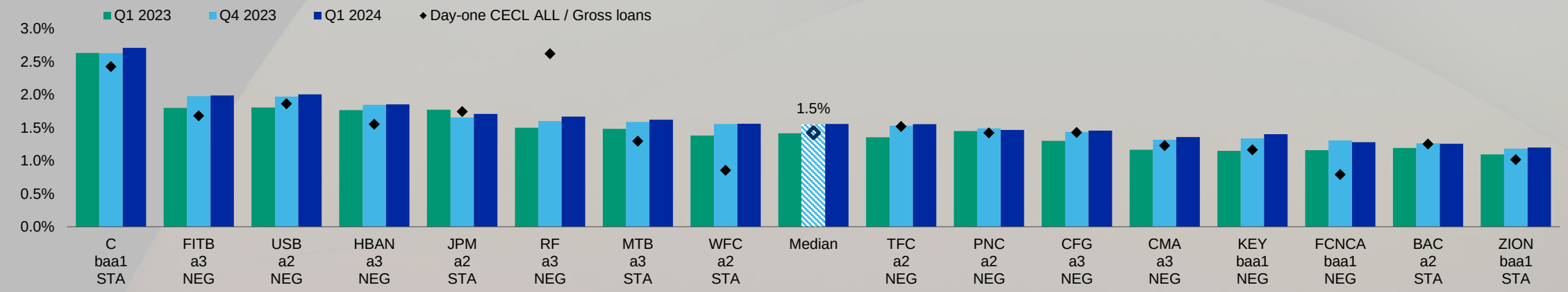
Quarterly change in banks' median net interest margin, Q1 2015 – Q1 2024



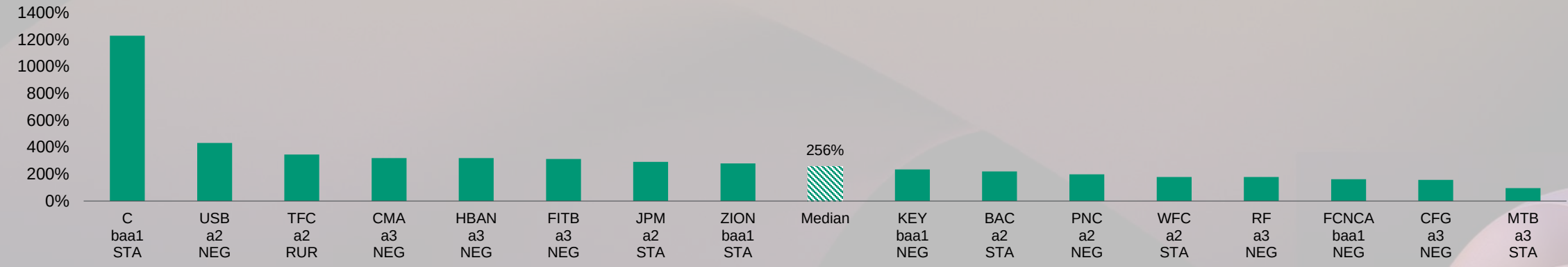
1) The blue dashed line represents the median net interest margin of the following banks: BAC, BK, C, CFG, CMA, FCNCA, FITB, HBAN, JPM, KEY, MTB, NTRS, PNC, RF, STI, STT, TFC, USB, WFC, and ZION. From Q1 2015 – Q3 2019, the peer group included BBT and STI, but not TFC. 2) The orange dotted line represents the median net interest margin of aggregate US commercial banks from 2010 – 2023.
Source: Company reports, US Federal Reserve, Moody's Ratings

Reserve build slows, but banks have ample coverage for nonperforming loans

Allowance for loan losses % gross loans

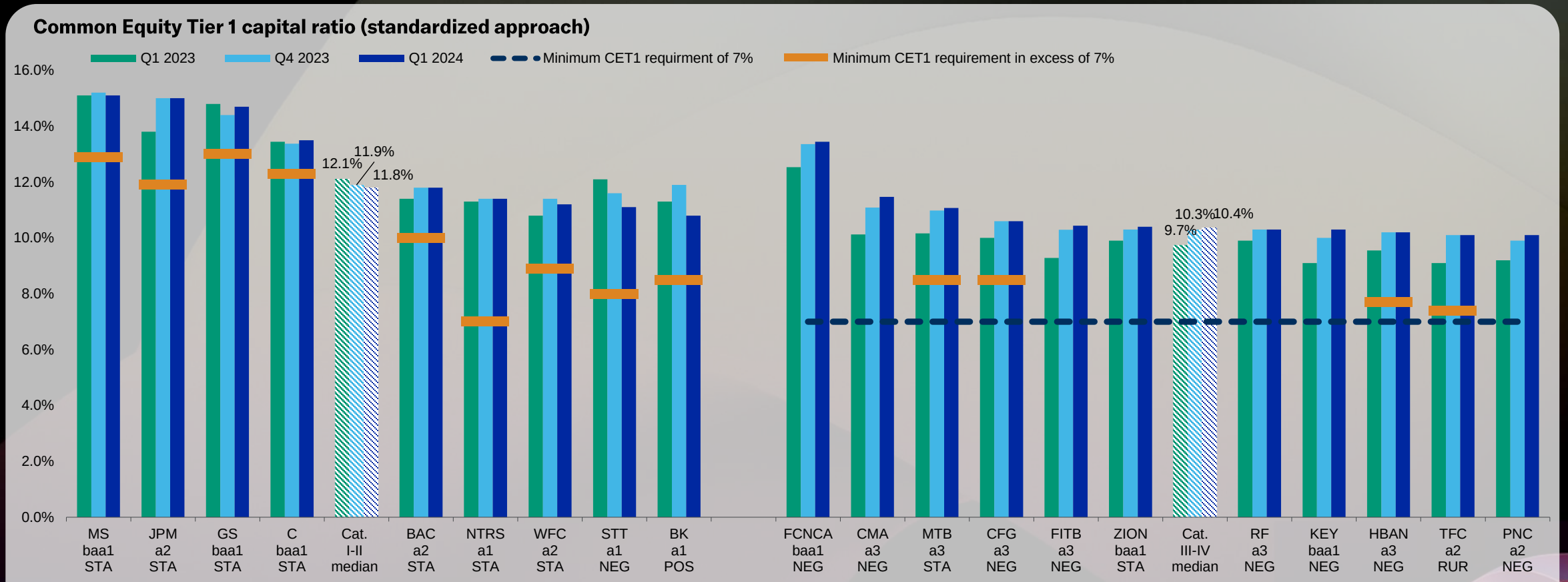


Allowance for loan losses % nonperforming loans, 1Q 2024



1) The x-axis labels include the lead banks' standalone BCAs and outlooks. 2) Day-one CECL allowance for loan losses indicates the ALL on January 1, 2020, post adoption to CECL; Source: Company reports, Moody's Ratings

Regional bank capital build has largely plateaued



1) The x-axis labels include the lead banks' standalone BCAs and outlooks. 2) The CET1 ratios for all banks were derived using the U.S. Basel III standardized framework. 3) The CET1 capital requirements are based on the Federal Reserve Large Bank Capital Requirements as of 1 Oct 2023. The requirement is made up of several components, including a minimum CET1 capital ratio requirement of 4.5 percent, the stress capital buffer (SCB) requirement determined from the supervisory stress test results and if applicable, a capital surcharge for global systemically important banks (G-SIBs).
Source: Company reports, Moody's Ratings

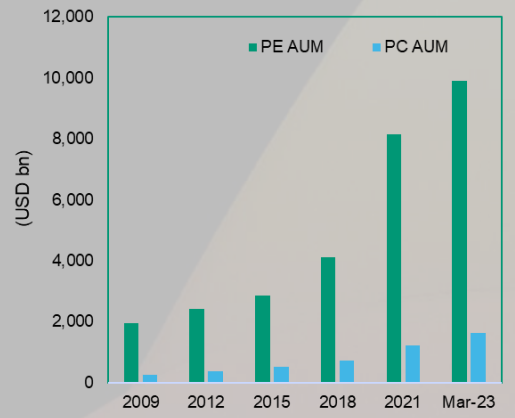
MOODY'S
RATINGS

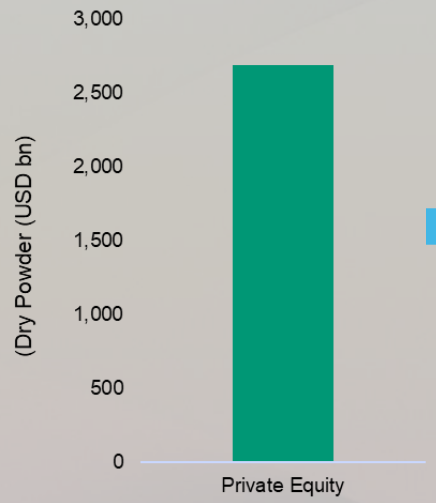
BAFT

Rise of Private Credit

Private credit moves center stage in fixed income markets

Where it's coming from...





Where it's going...

- Private credit market estimated to reach **$2.7 trillion** by 2027* driven principally by LBO financings
- Changes to bank capital regs will constrain bank's ability to lend, creating **more opportunities** for private **credit lenders**
- **Asset- backed finance** will drive **next phase of private credit market's evolution.** Apollo estimates that asset-backed finance represents a **$40 trillion addressable market**

Stages of private credit market evolution*

Post GFC	2012-2017	2018-2021	Today
•Bank Regulation & Shrinking Balance Sheets	•Middle Market Direct Lending •Specialty Finance Disintermediation	•Large Cap Direct Lending •Bank Syndication Disintermediation	•Asset-Backed Finance Disintermediation

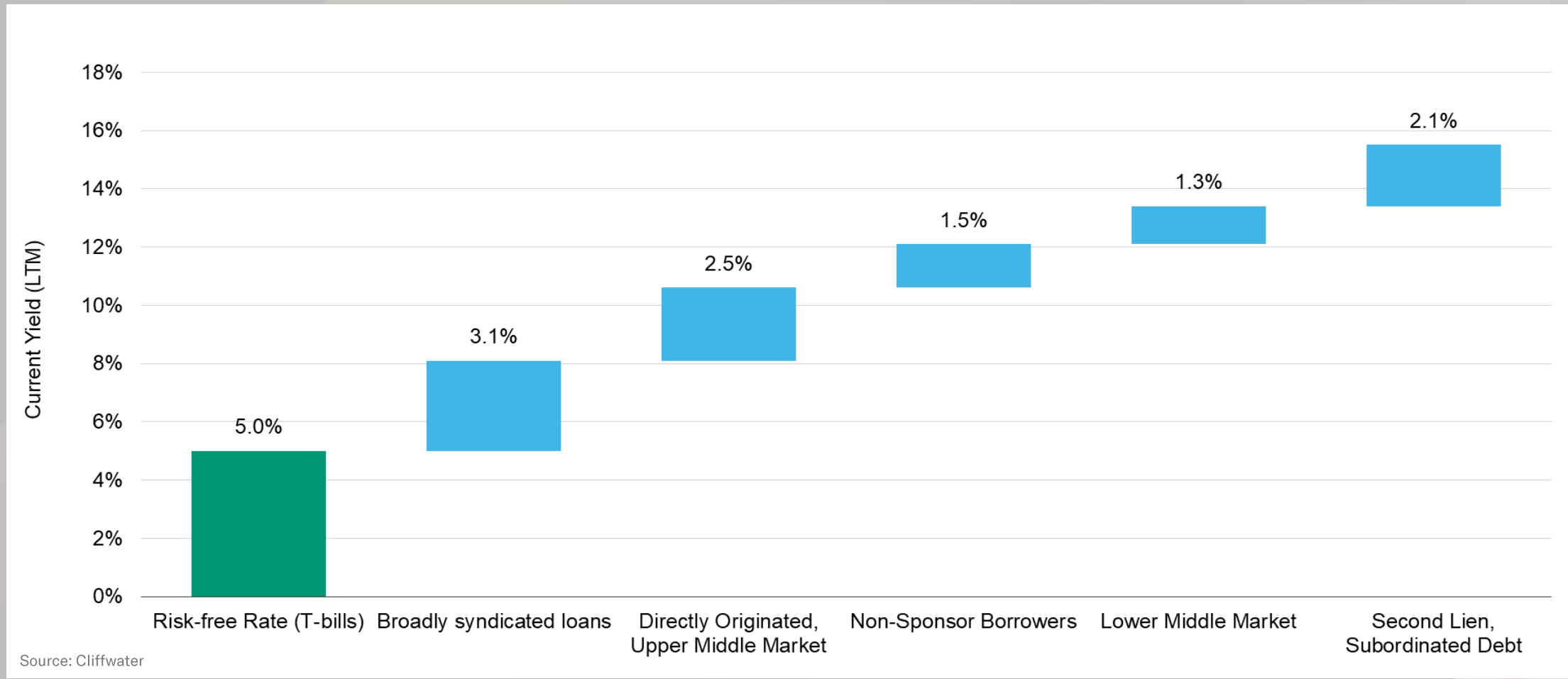
Sources: *BlackRock estimate; Apollo, AUM data from Preqin;

Why do borrowers choose private credit?

- → Efficiency of execution
- → Flexible structuring
- → Confidentiality
- → Greater certainty of terms
- → Fewer public disclosure requirements

Source: Blackstone

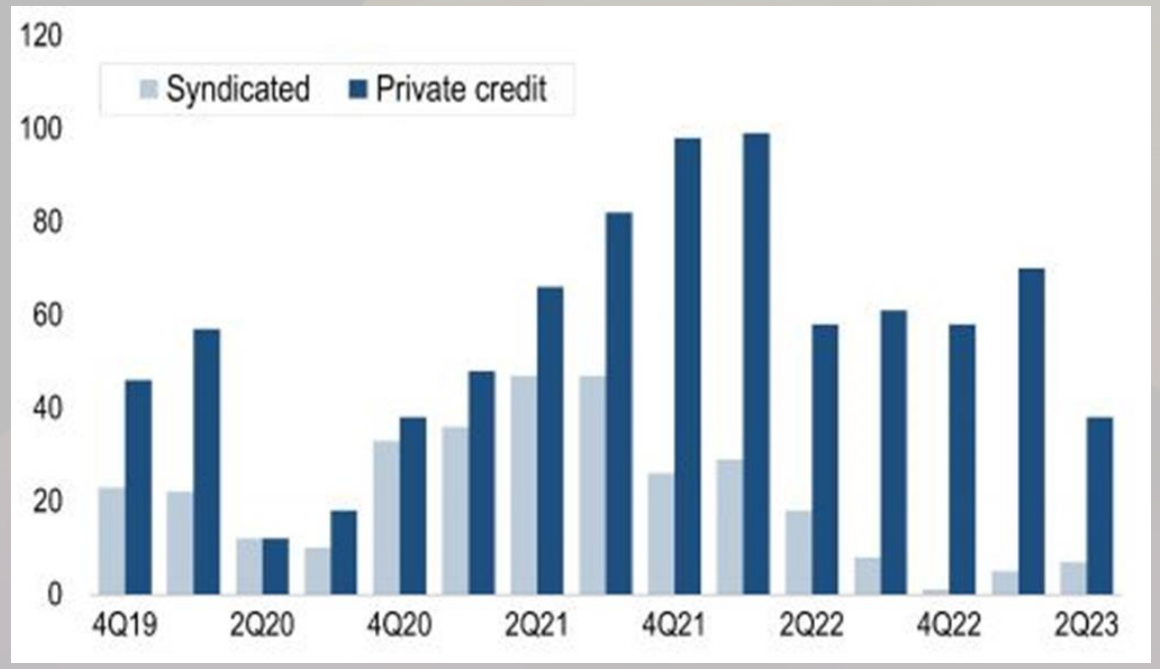
...but borrowers pay up for private financings



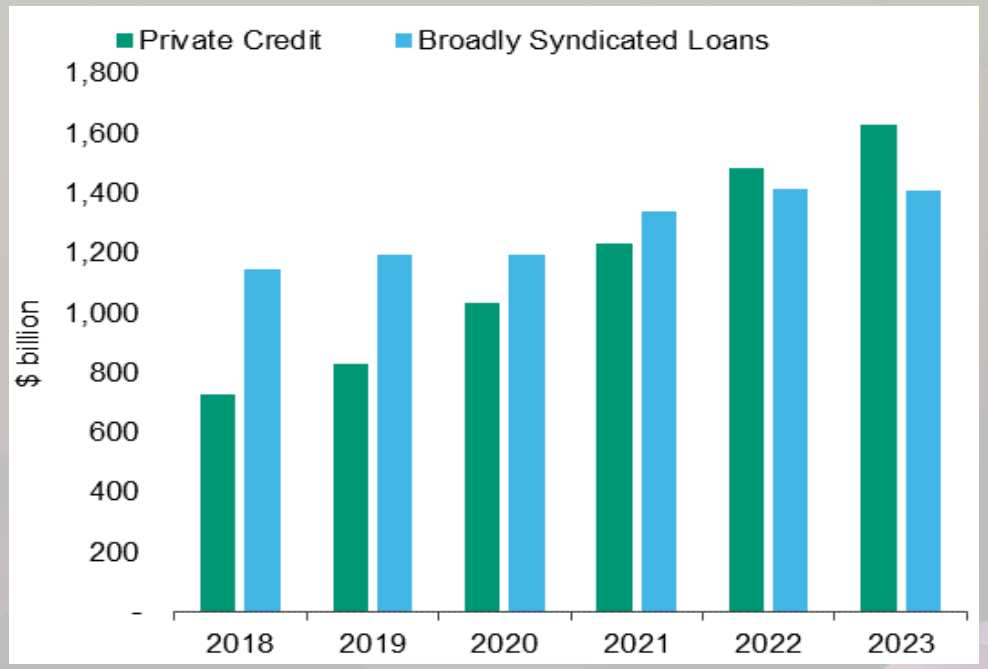
Source: Cliffwater

Direct lenders have taken market share from BSL market

Private credit is primary source of debt capital in LBO market



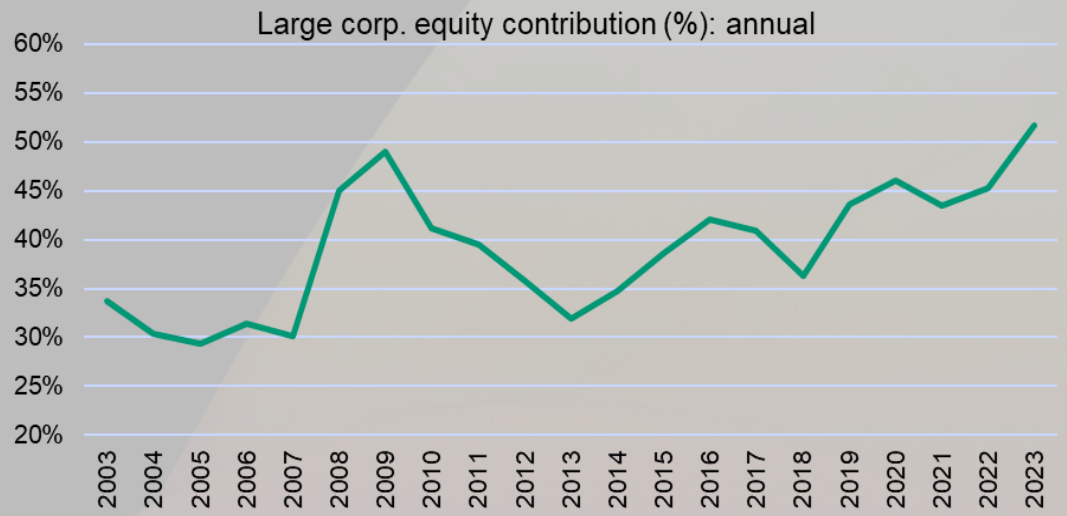
Private credit market now larger than BSL market



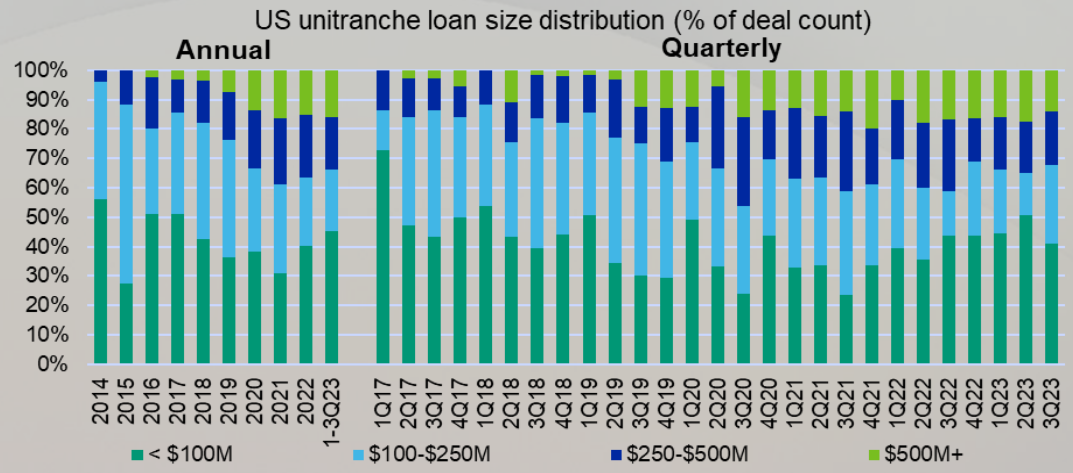
Sources: Pitchbook / LCD, Preqin

Competition between BSL & direct lending markets to intensify in 2024

Higher equity contribution will constrain PE returns

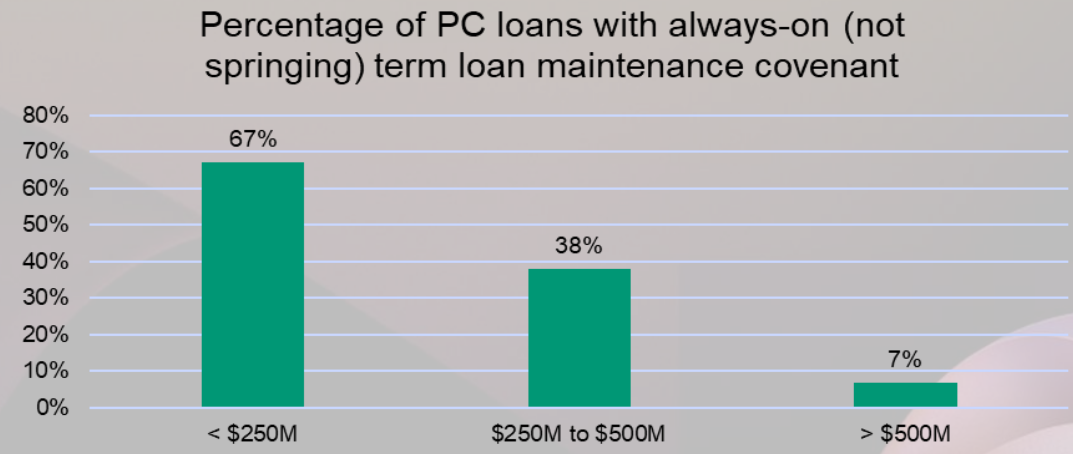


Rates and spreads are contracting – limiting returns for credit investors



Private credit loan protections

- The smaller the deal, the greater the protection
- Private credit loans are strikingly more protective than BSLs, differences will narrow as competition with BSL market intensifies
- Private credit make borrowers pay for PIK, delayed draw and other flexibility with wider spreads, costlier calls, higher floors
- Credit terms are converging between mega tranche loans in direct lending and broadly syndicated loans
- Maintenance covenants go away as private credit deals get larger



MOODY'S
RATINGS

BAFT

Thank you

Ana Arsov
Global Co-Head Financial Institutions Group, Head of Private Credit

Banking Strains and the Rise of Private Credit
May 2024

2024 BAFT **Global Annual Meeting** ORLANDO MAY 5-8, 2024

© 2024 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED OR OTHERWISE MADE AVAILABLE BY MOODY'S (COLLECTIVELY, "MATERIALS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S MATERIALS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S MATERIALS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES OR OTHERWISE MAKES AVAILABLE ITS MATERIALS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND MATERIALS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR MATERIALS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT. FOR CLARITY, NO INFORMATION CONTAINED HEREIN MAY BE USED TO DEVELOP, IMPROVE, TRAIN OR RETRAIN ANY SOFTWARE PROGRAM OR DATABASE, INCLUDING, BUT NOT LIMITED TO, FOR ANY ARTIFICIAL INTELLIGENCE, MACHINE LEARNING OR NATURAL LANGUAGE PROCESSING SOFTWARE, ALGORITHM, METHODOLOGY AND/OR MODEL.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND MATERIALS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the credit rating process or in preparing its Materials.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service, Inc. and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Charter Documents - Director and Shareholder Affiliation Policy."

Moody's SF Japan K.K., Moody's Local AR Agente de Calificación de Riesgo S.A., Moody's Local BR Agência de Classificação de Risco LTDA, Moody's Local MX S.A. de C.V, I.C.V., Moody's Local PE Clasificadora de Riesgo S.A., and Moody's Local PA Calificadora de Riesgo S.A. (collectively, the "Moody's Non-NRSRO CRAs") are all indirectly wholly-owned credit rating agency subsidiaries of MCO. None of the Moody's Non-NRSRO CRAs is a Nationally Recognized Statistical Rating Organization.

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for India only: Moody's credit ratings, Assessments, other opinions and Materials are not intended to be and shall not be relied upon or used by any users located in India in relation to securities listed or proposed to be listed on Indian stock exchanges.

Additional terms with respect to Second Party Opinions (as defined in Moody's Investors Service Rating Symbols and Definitions): Please note that a Second Party Opinion ("SPO") is not a "credit rating". The issuance of SPOs is not a regulated activity in many jurisdictions, including Singapore. JAPAN: In Japan, development and provision of SPOs fall under the category of "Ancillary Businesses", not "Credit Rating Business", and are not subject to the regulations applicable to "Credit Rating Business" under the Financial Instruments and Exchange Act of Japan and its relevant regulation. PRC: Any SPO: (1) does not constitute a PRC Green Bond Assessment as defined under any relevant PRC laws or regulations; (2) cannot be included in any registration statement, offering circular, prospectus or any other documents submitted to the PRC regulatory authorities or otherwise used to satisfy any PRC regulatory disclosure requirement; and (3) cannot be used within the PRC for any regulatory purpose or for any other purpose which is not permitted under relevant PRC laws or regulations. For the purposes of this disclaimer, "PRC" refers to the mainland of the People's Republic of China, excluding Hong Kong, Macau and Taiwan.