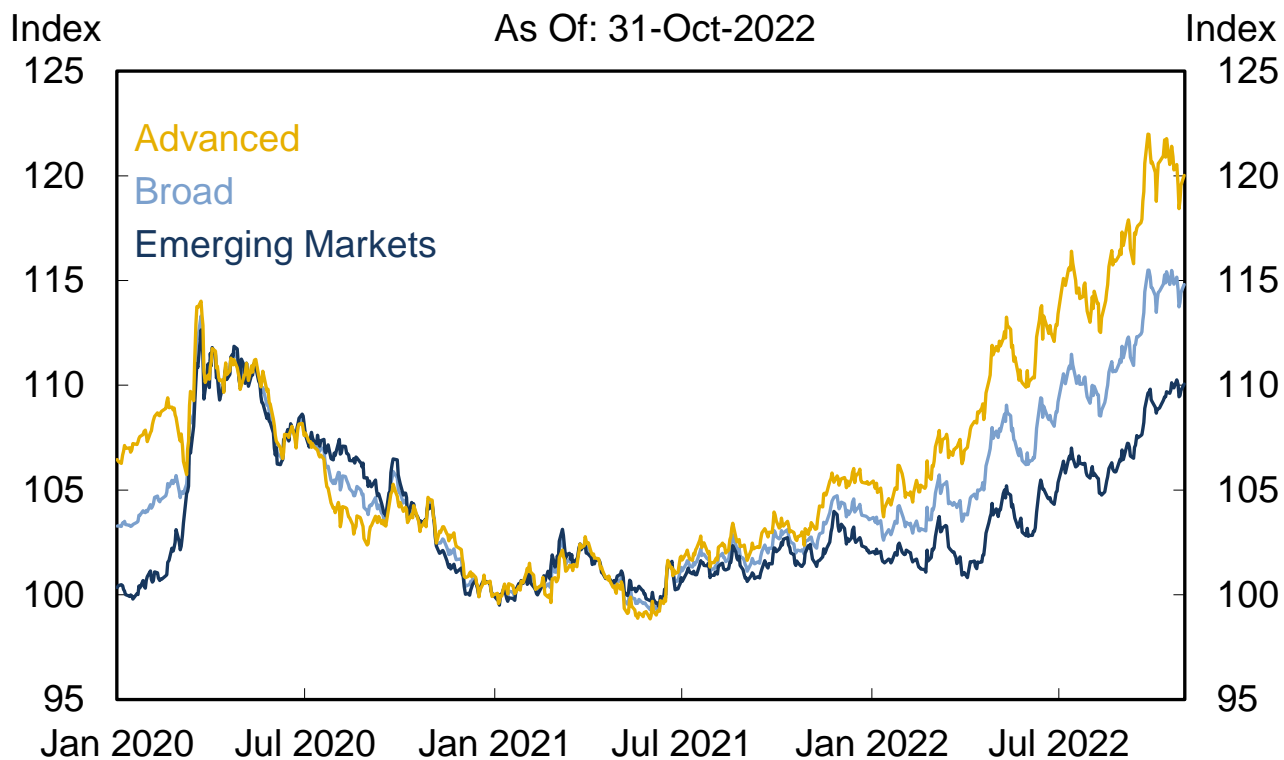


# A.1 Nominal Trade-Weighted U.S. Dollar Index



Source: Federal Reserve,  
Haver Analytics

Note: Indexed to 100 as of Dec. 31, 2020.

# A.2 Portfolio Flows to EMEs

Basis Points

As Of: Oct-2022

Percent of Assets

800

0.75

600

0.25

400

-0.25

200

-0.75

0

-1.25

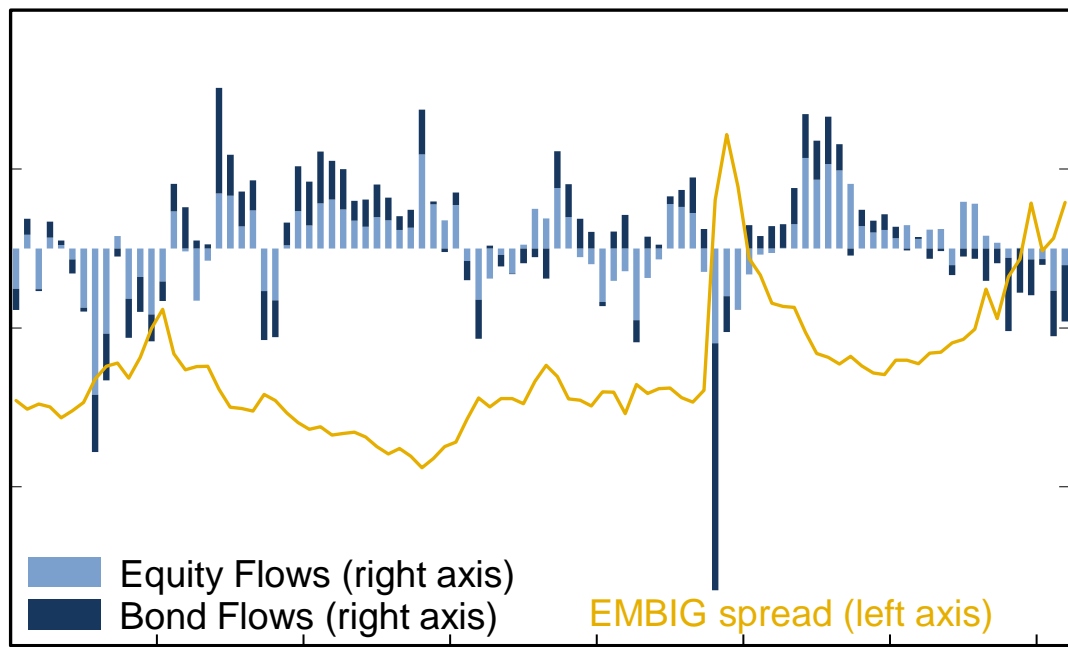
Equity Flows (right axis)  
Bond Flows (right axis)

EMBIG spread (left axis)

2015 2016 2017 2018 2019 2020 2021 2022

Source: EPFR,  
Bloomberg, L.P.

Note: Bars show monthly averages of weekly flow data,  
line shows monthly average of daily Spread data.

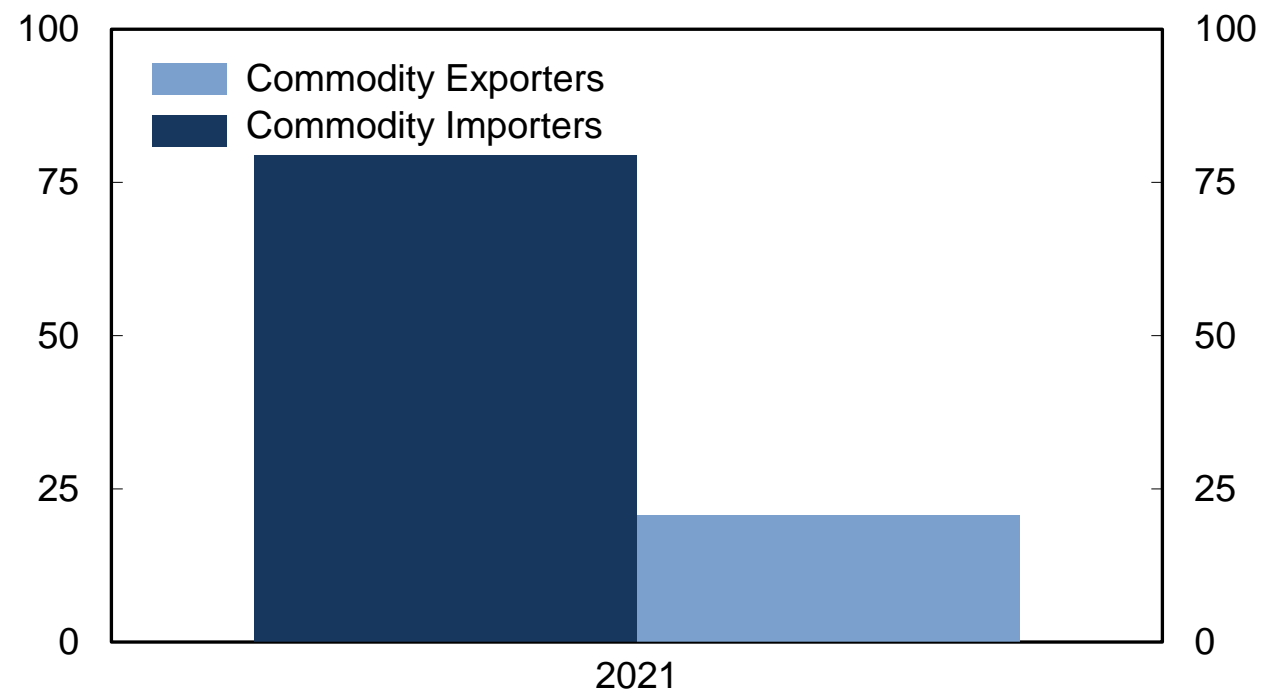


# A.3 Shares of Commodity Importers and Exporters

Percent

As Of: 2021

Percent



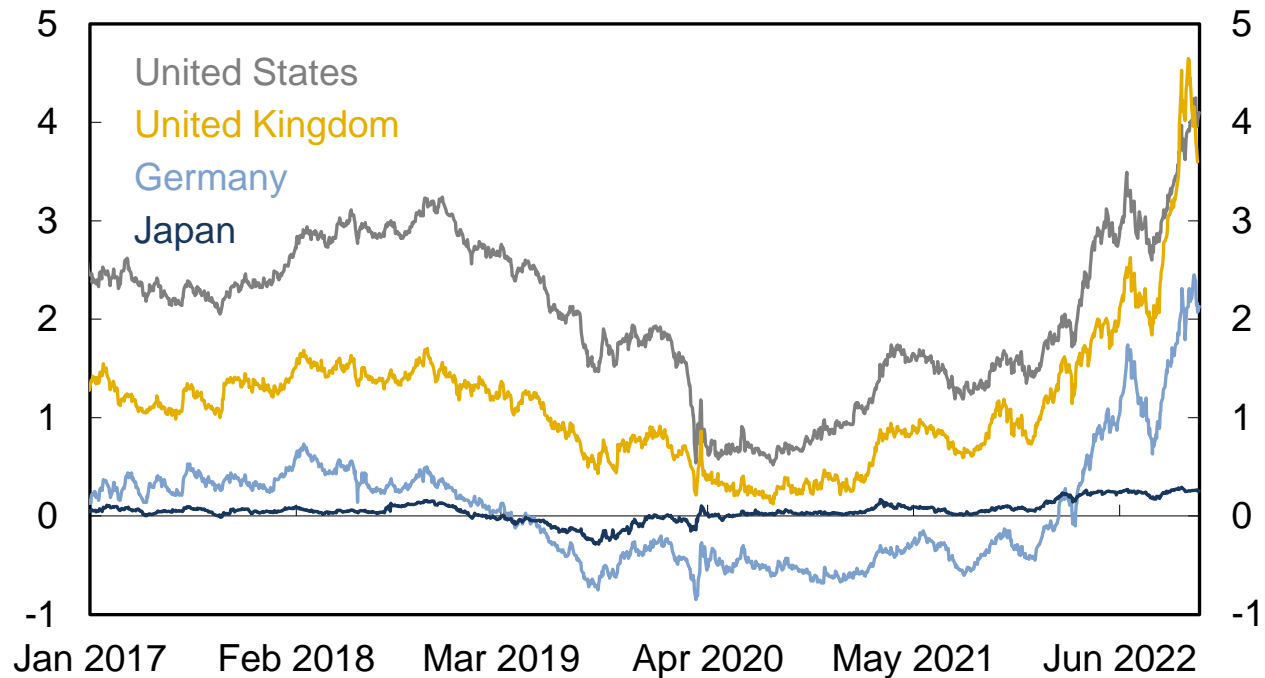
Source: UN Comtrade, Haver Analytics, FSOC calculations

# A.4 Advanced Economies 10-Year Sovereign Yields

Percent

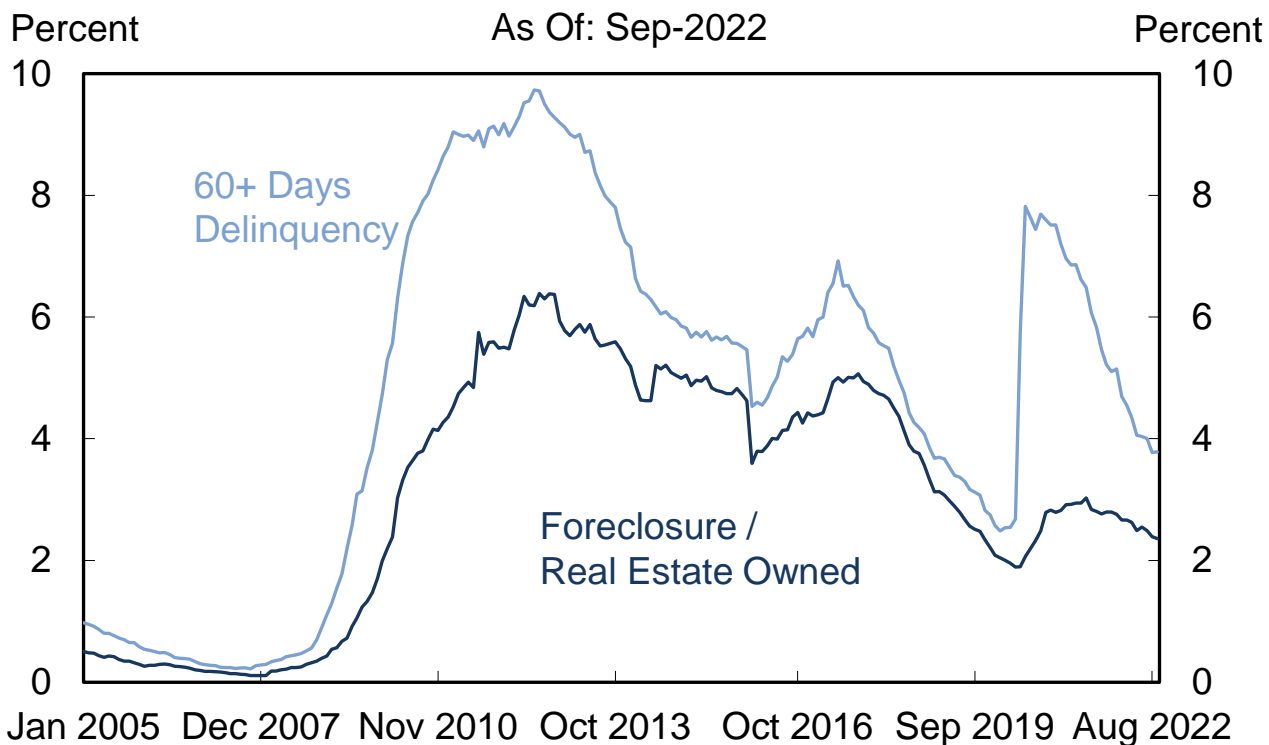
As Of: 31-Oct-2022

Percent



Source: U.S. Treasury, Deutsche Bundesbank, Ministry of Finance Japan, Bank of England, Haver Analytics

### 3.1.1.1 Conduit CMBS Delinquency and Foreclosure Rate



Source: JPMorgan, Trepp

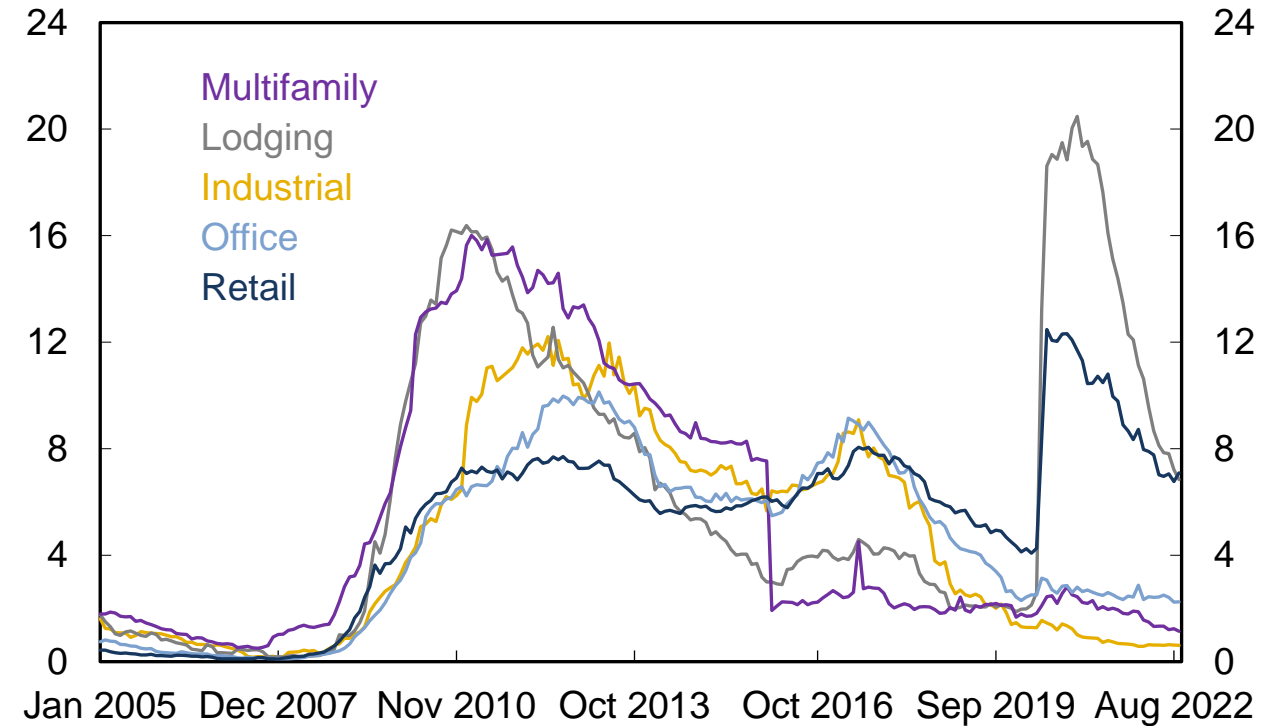
Note: 60+ Days Delinquent includes Foreclosure/Real Estate Owned.

### 3.1.1.2 Delinquency Rate by Property Type

Percent

As Of: Sep-2022

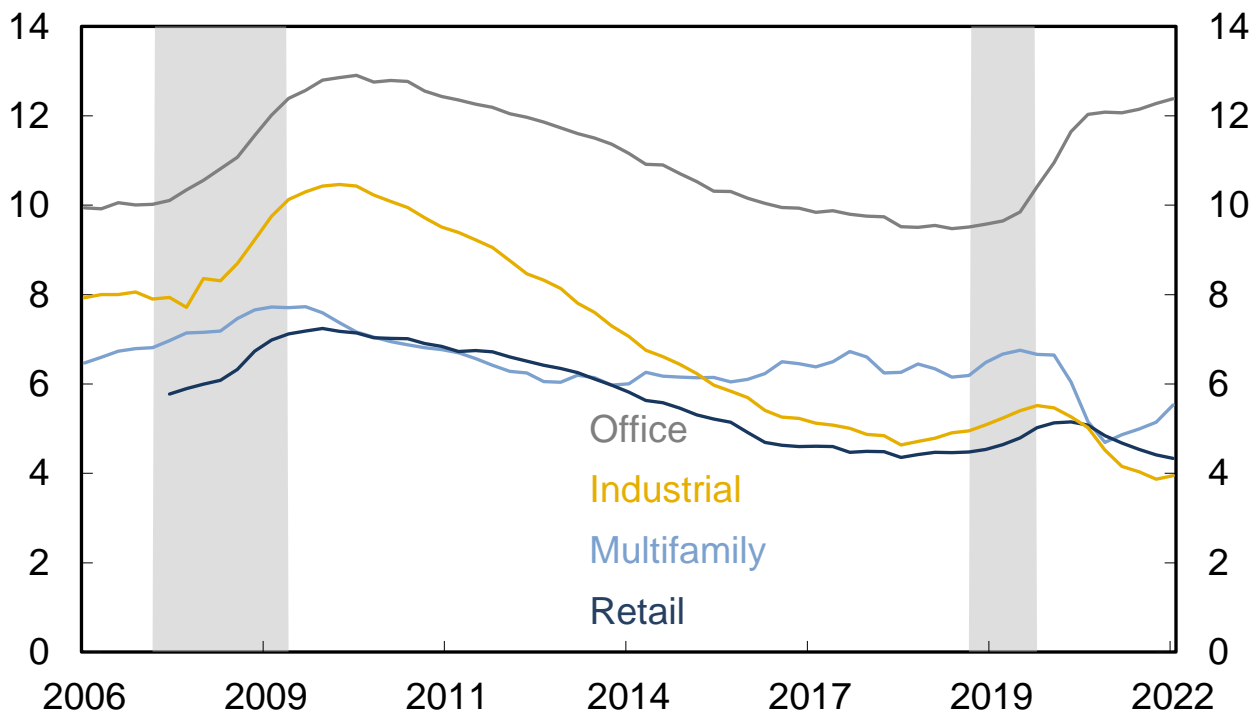
Percent



Source: JPMorgan, Trepp

# 3.1.1.3 Vacancy Rate by Property Type

Percent As Of: 2022 Q3 Percent

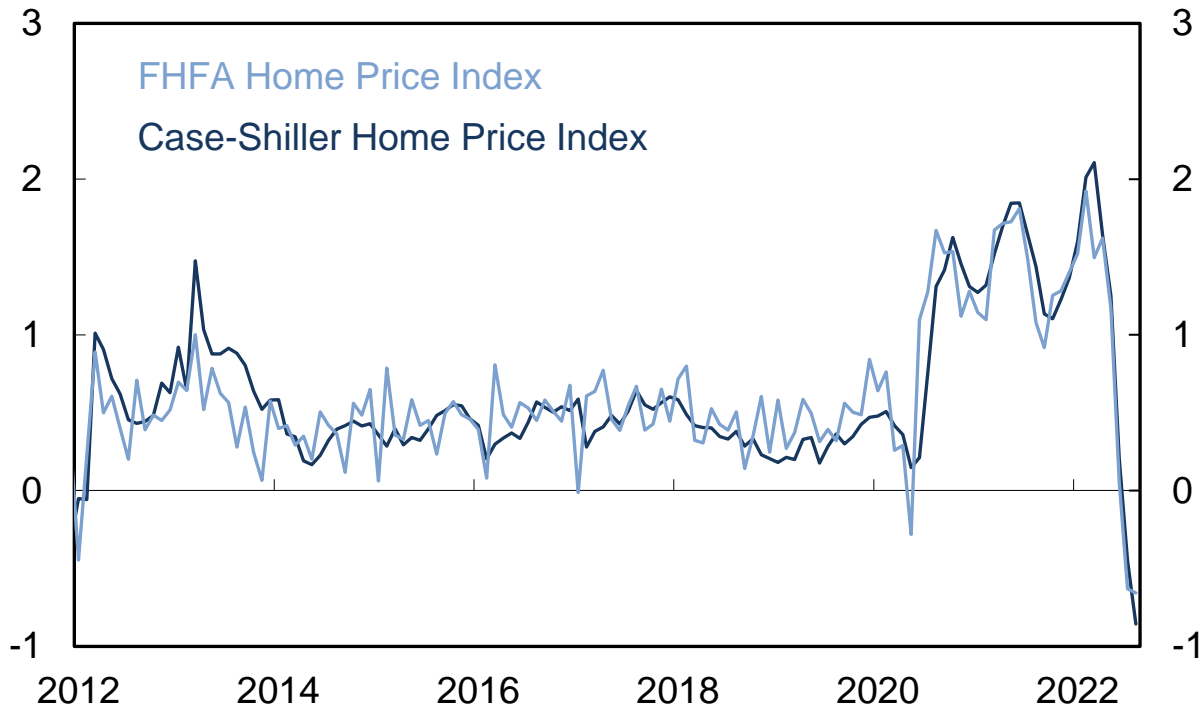


### 3.1.2.1 Monthly House Price Growth

Percent

As of: Aug-2022

Percent



Source: S&P CoreLogic Real Estate Data, FHFA, Haver Analytics

Note: SA. Month-over-month percentage change.



### 3.1.2.2 Residential Purchase and Refinance Levels

Percent

As Of: 2022 Q1

Billions of US\$

6

Purchase (right axis)  
Refinance (right axis)

30 Year Mortgage  
Rate (left axis)

5

4

3

2

1500

1200

900

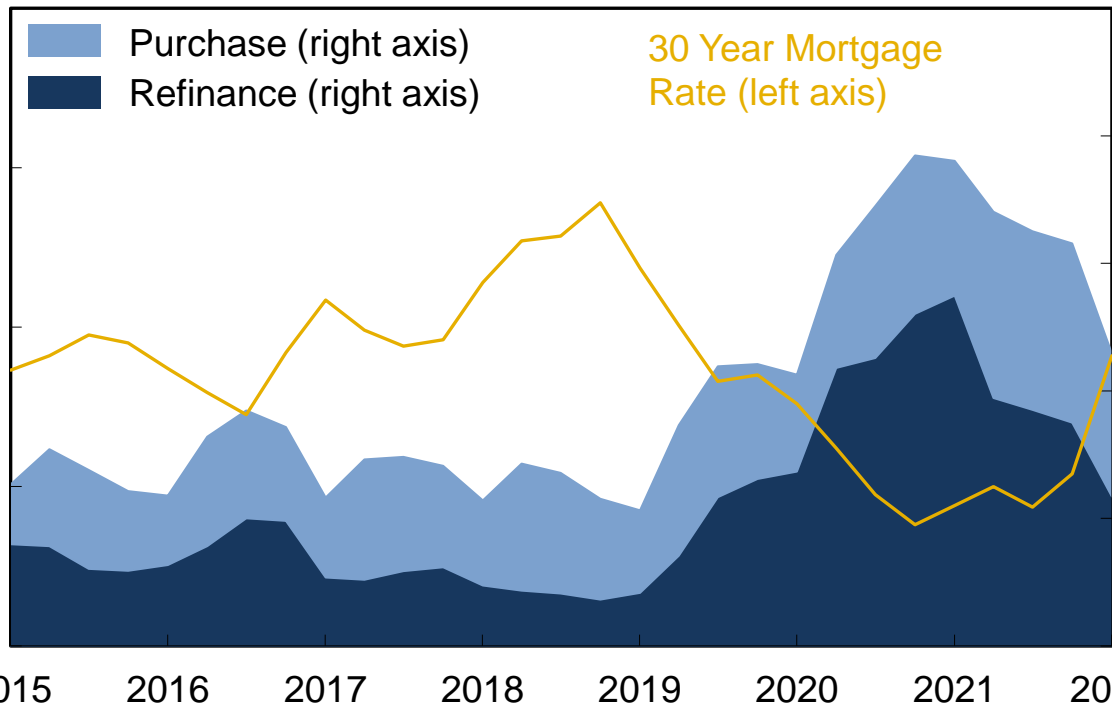
600

300

0

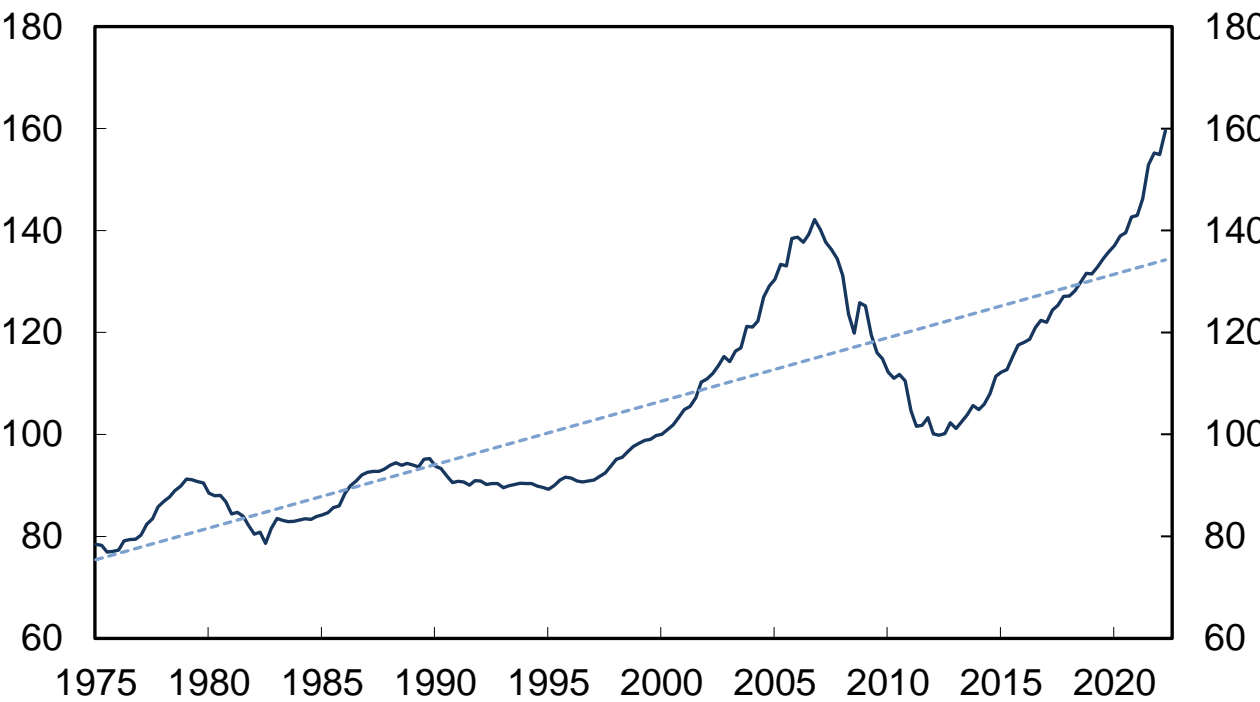
2015 2016 2017 2018 2019 2020 2021 2022

Source: NMDB®, Freddie Mac Primary  
Mortgage Survey



# 3.1.2.3 Real House Prices Relative to Long-Term Trend

Index As Of: 2022 Q2 Index



Source: FHFA, BLS, FRED

Note: Not seasonally adjusted, real terms. Trend is estimated using data from 1975 Q3 through 2012 Q2 (trough-to-trough).

### 3.1.2.4 30-Year MBS Spread

Percent

As Of: 31-Oct-2022

Percent



Source: Bloomberg, L.P.

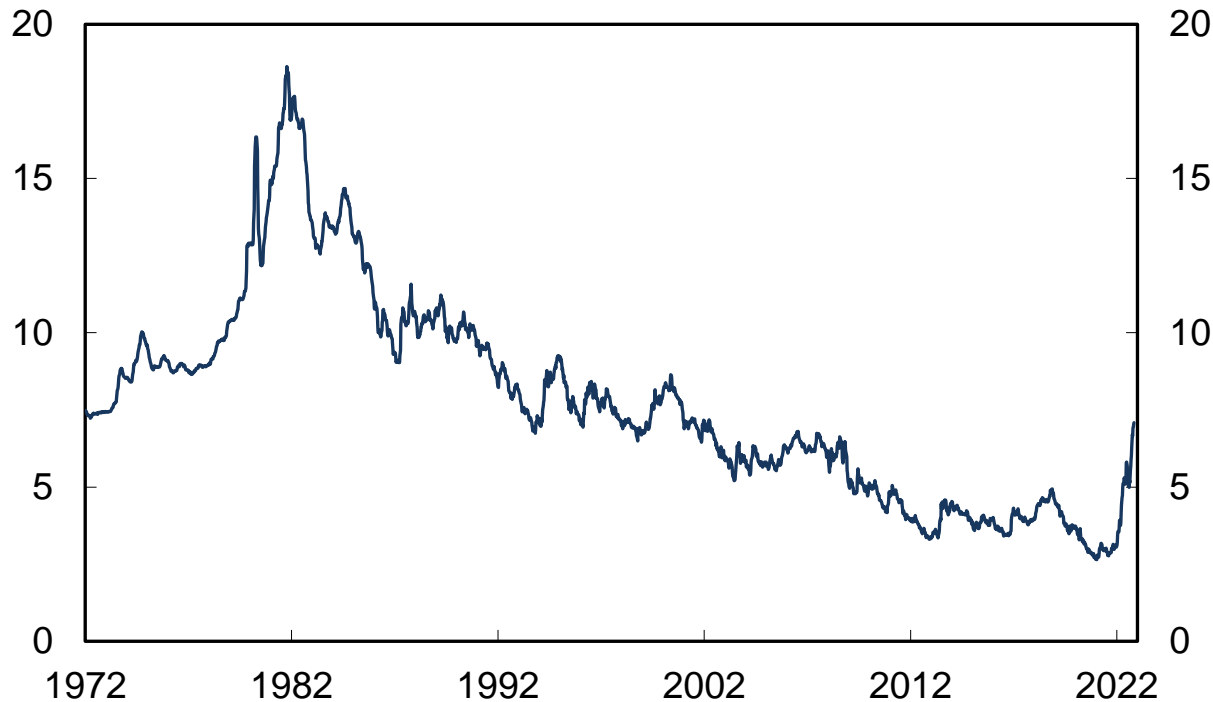
Note: Spread to 10-Year Treasury.

# B.1 Mortgage Rate (30-Year Fixed-Rate Average)

Percent

As Of: 27-Oct-2022

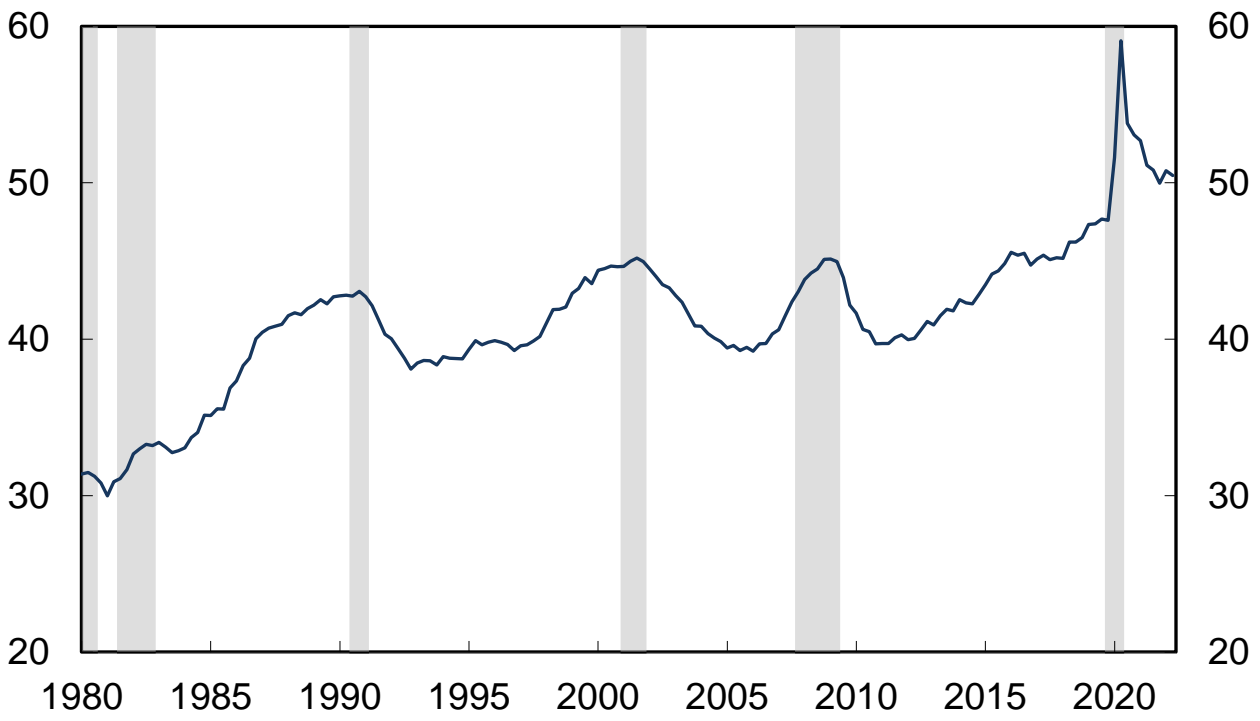
Percent



Source: Freddie Mac Primary  
Mortgage Market Survey, FRED

# 3.1.3.1 Nonfinancial Corporate Debt as Percent of GDP

Percent As Of: 2022 Q2 Percent



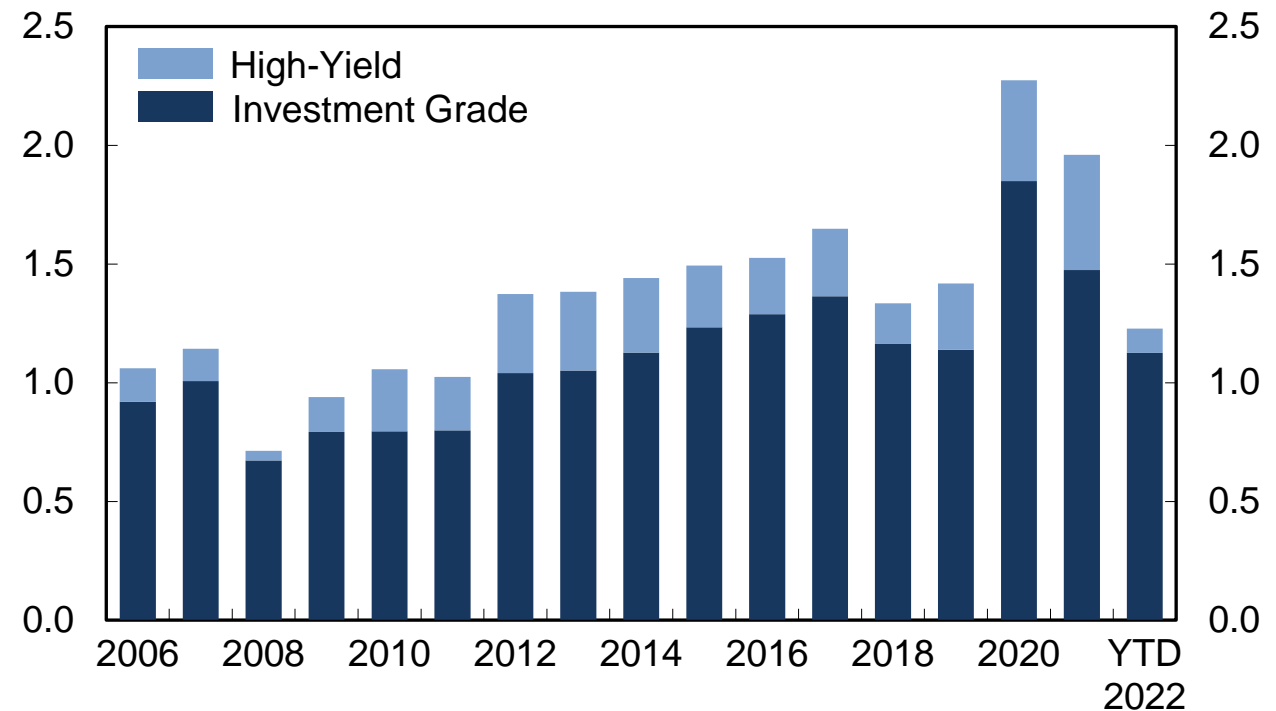
Source: Federal Reserve, Haver Analytics  
Note: Gray bars signify NBER recessions.

### 3.1.3.2 Gross Issuance of Corporate Bonds

Trillions of US\$

As Of: Oct-2022

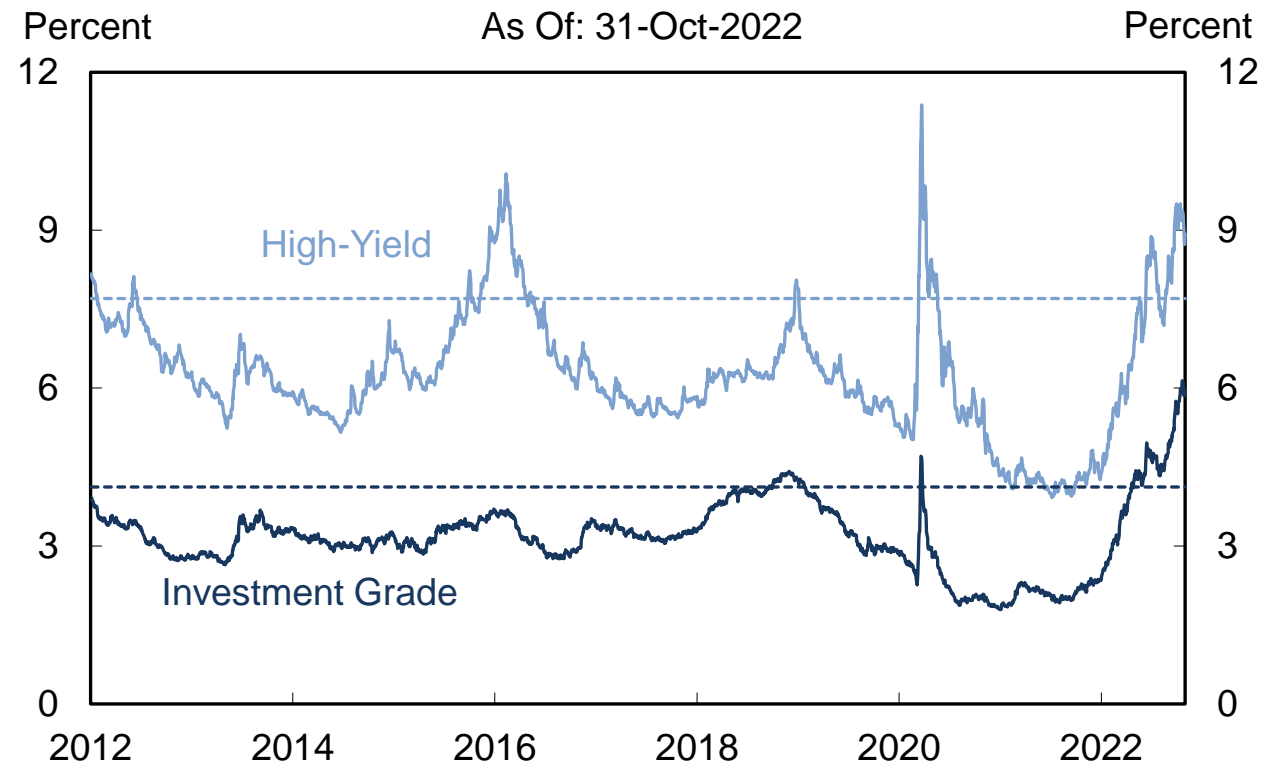
Trillions of US\$



Source: Refinitiv,  
SIFMA

Note: Includes all non-convertible corporate debt, MTNs, and Yankee bonds, but excludes all issues with maturities of one year or less and CDs. 2022 figures are through October.

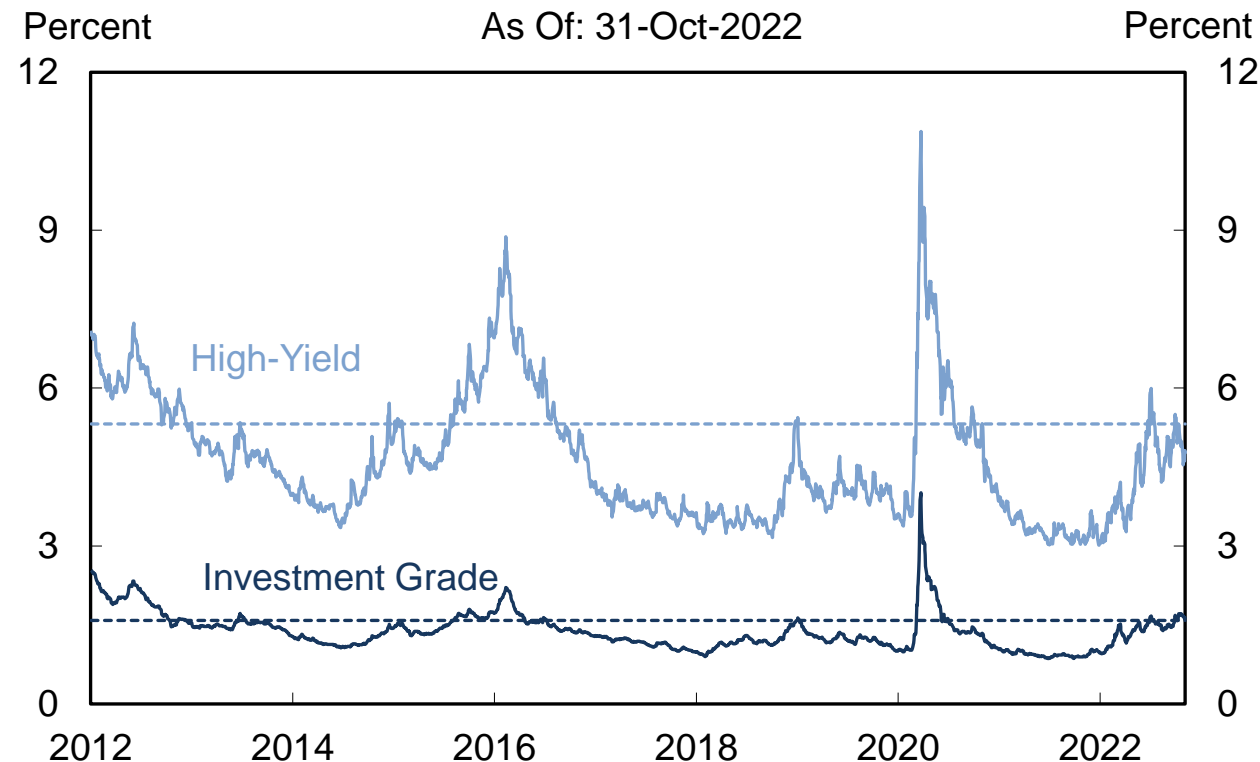
### 3.1.3.3 Corporate Bond Yields



Source: ICE Data Indices, FRED

Note: Dotted lines represent 20-year average.

### 3.1.3.4 Corporate Bond Spreads



Source: ICE Data Indices,  
FRED

Note: Dotted lines represent 20-year average.

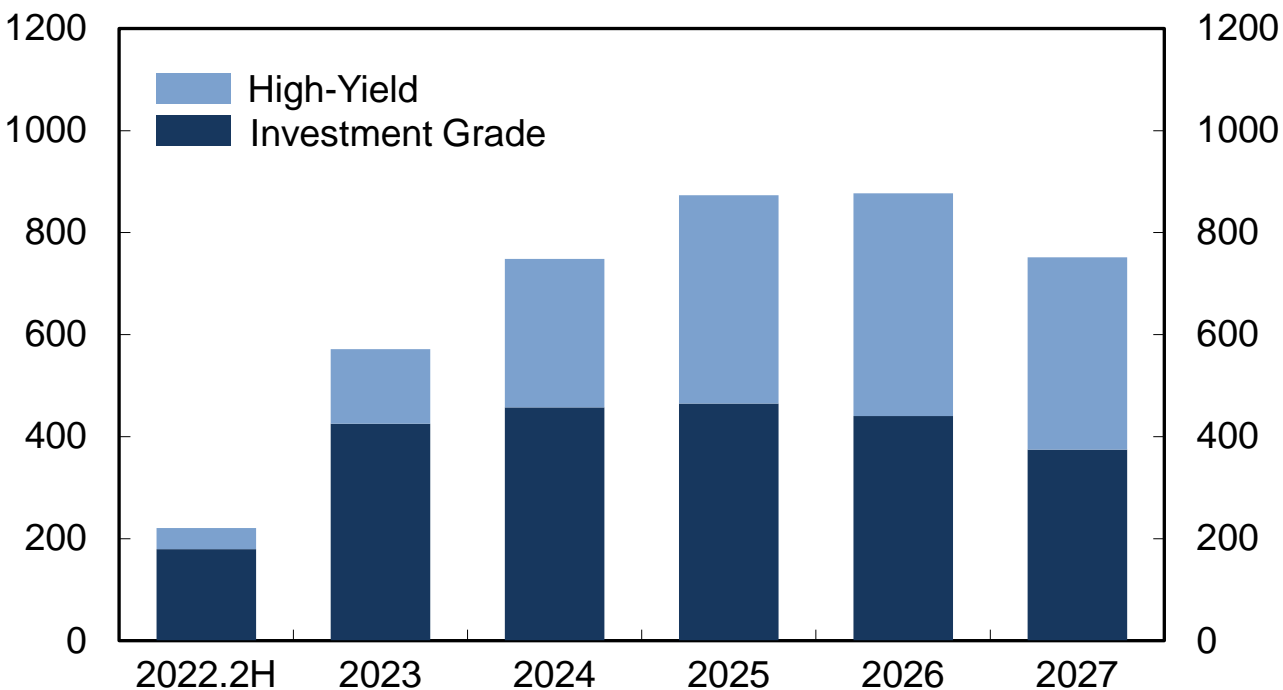


### 3.1.3.5 Maturity Profile of U.S. Nonfinancial Corporate Debt

Billions of US\$

As Of: 01-Jul-2022

Billions of US\$



Source: S&P Global  
Ratings Research

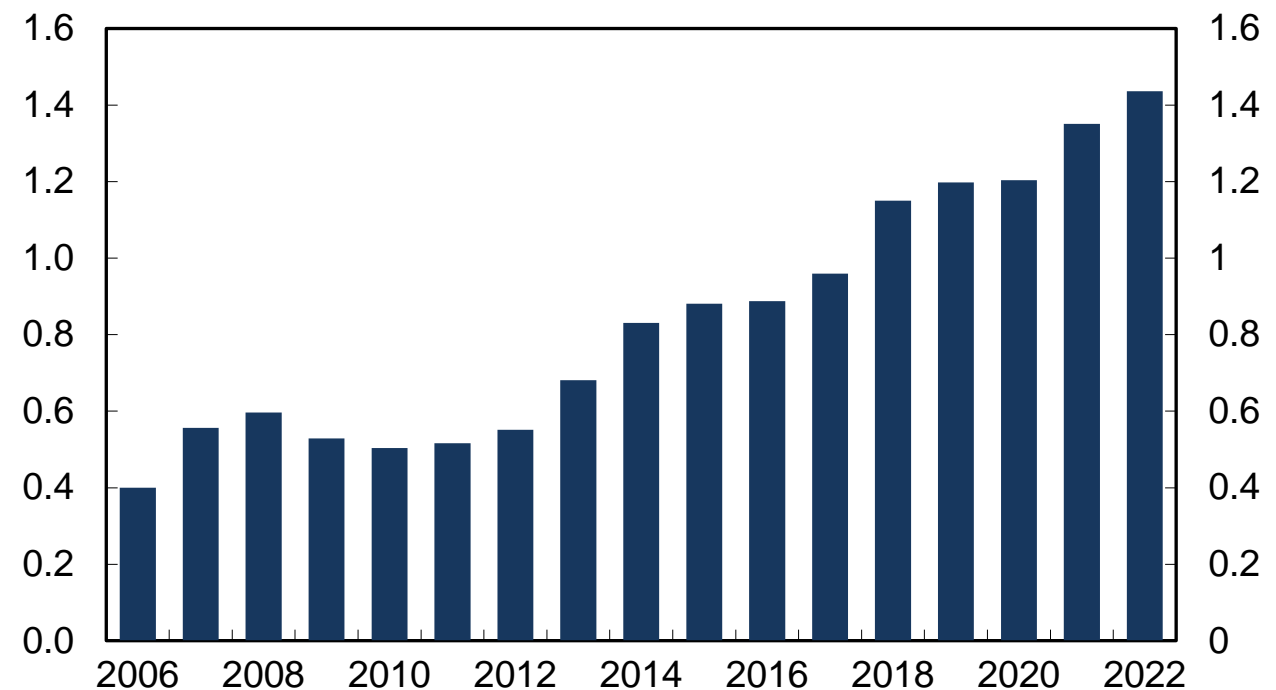
Note: Includes bonds, loans, and revolving credit facilities that are rated by S&P Global Ratings. Excludes debt maturing after 2027.

### 3.1.3.6 Institutional Leveraged Loans Outstanding

Trillions of US\$

As Of: 2022 Q3

Trillions of US\$



Source: S&P LCD

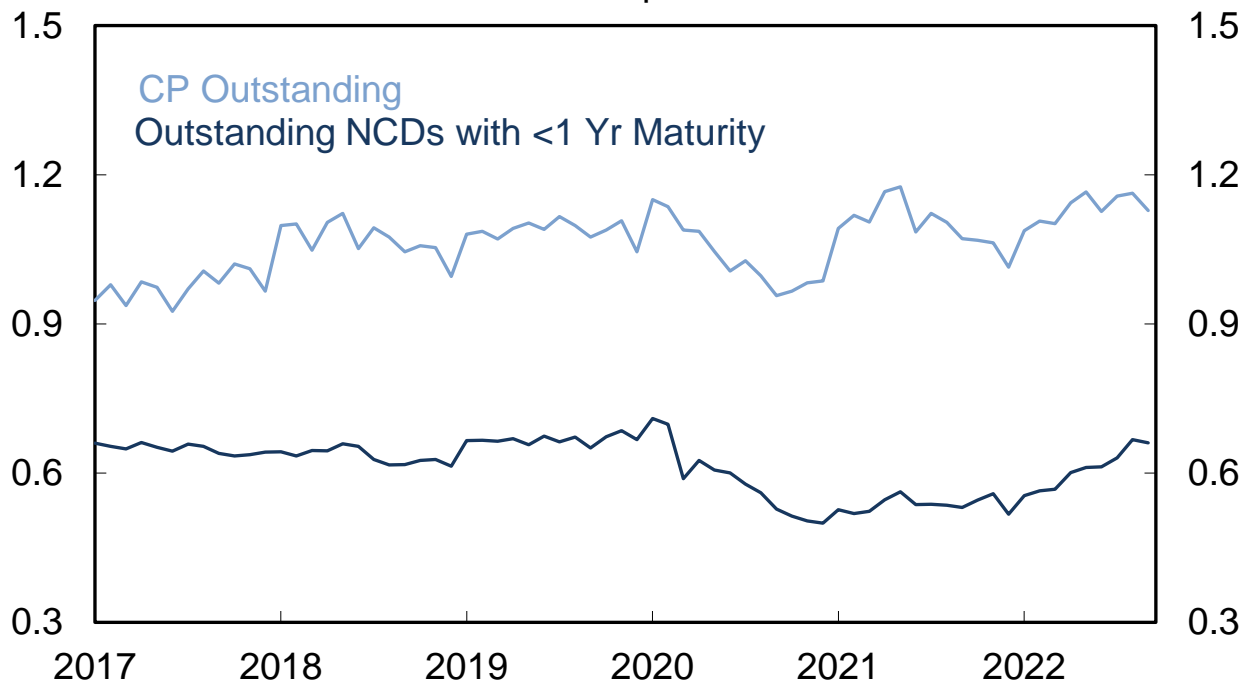
Note: Includes all loans including those not included in the LSTA/TRLPC mark-to-market service. Primarily institutional tranches.

### 3.1.4.1 CP and NCDs Outstanding

Trillions of US\$

As Of: Sep-2022

Trillions of US\$



Source: Federal Reserve, Haver Analytics, DTCC Solutions LLC

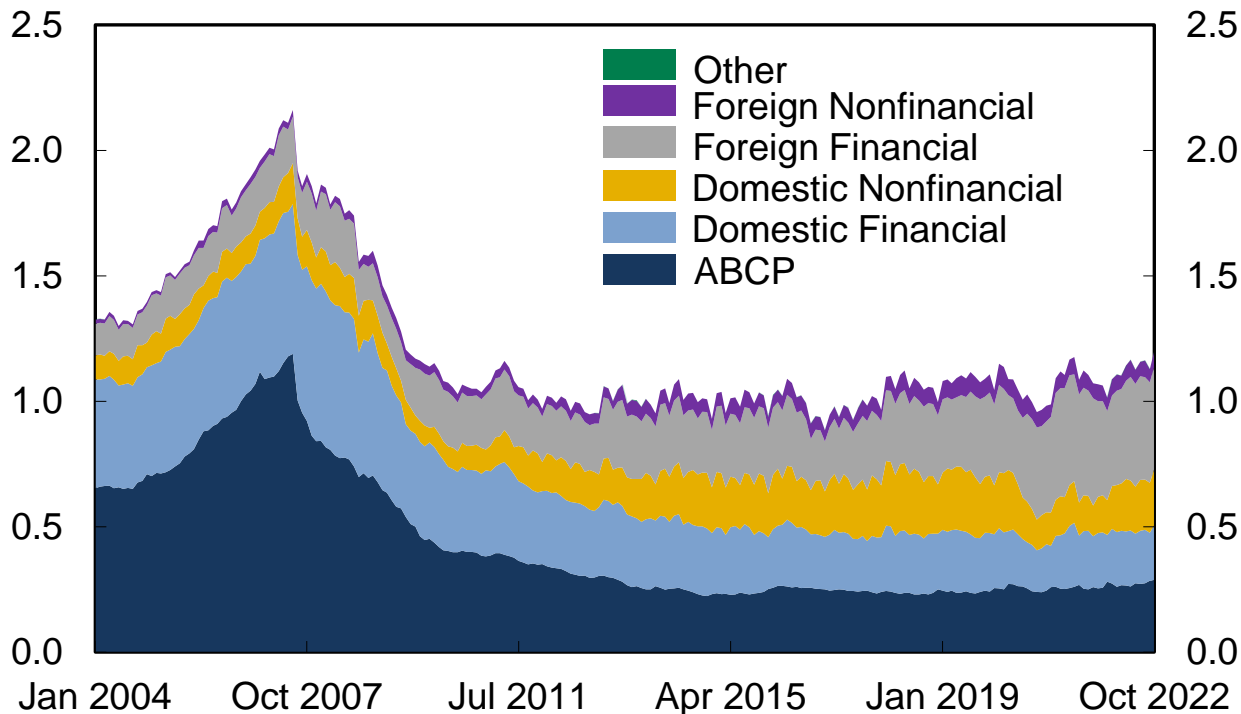
Note: Not seasonally adjusted. Domestic includes CP issued in the U.S. by entities with foreign parents.

### 3.1.4.2 CP Outstanding by Issuer Type

Trillions of US\$

As Of: Oct-2022

Trillions of US\$



Source: Federal Reserve,  
Haver Analytics

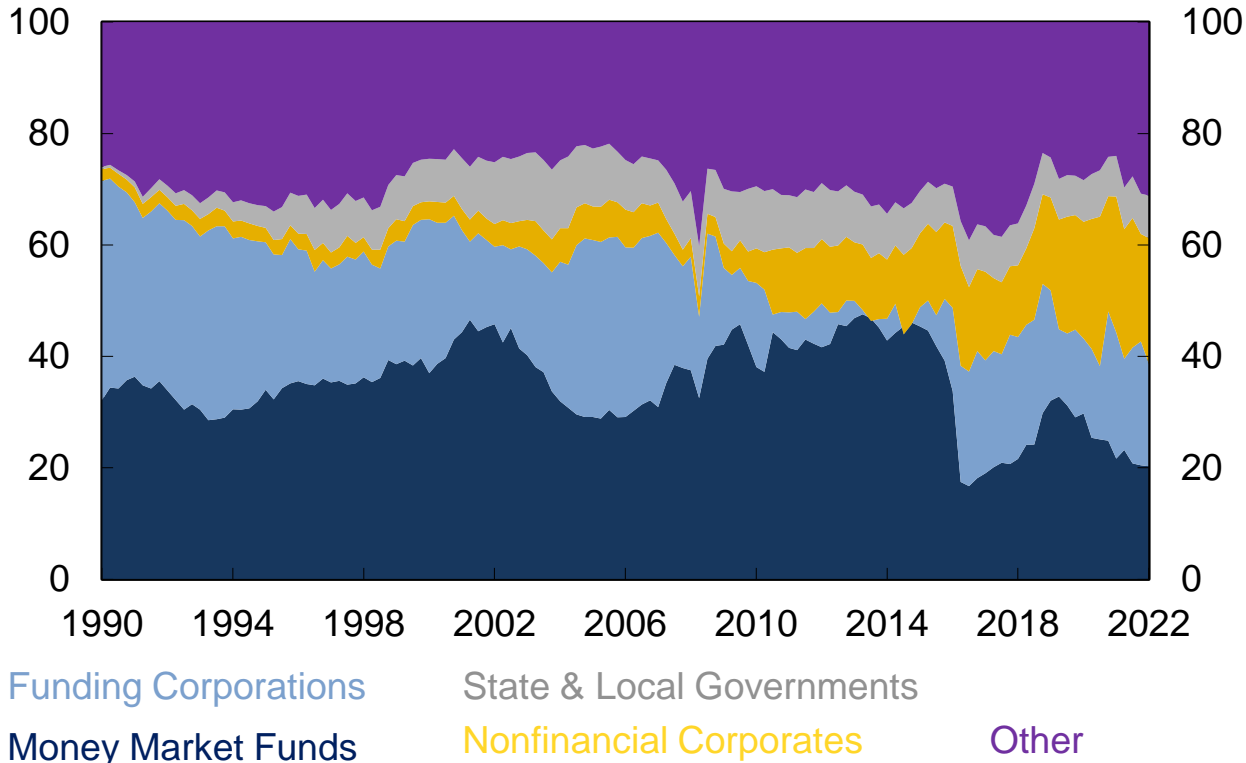
Note: Not seasonally adjusted. Domestic includes  
CP issued in the U.S. by entities with foreign parents.

### 3.1.4.3 CP Investors

Percent

As Of: 2022 Q2

Percent



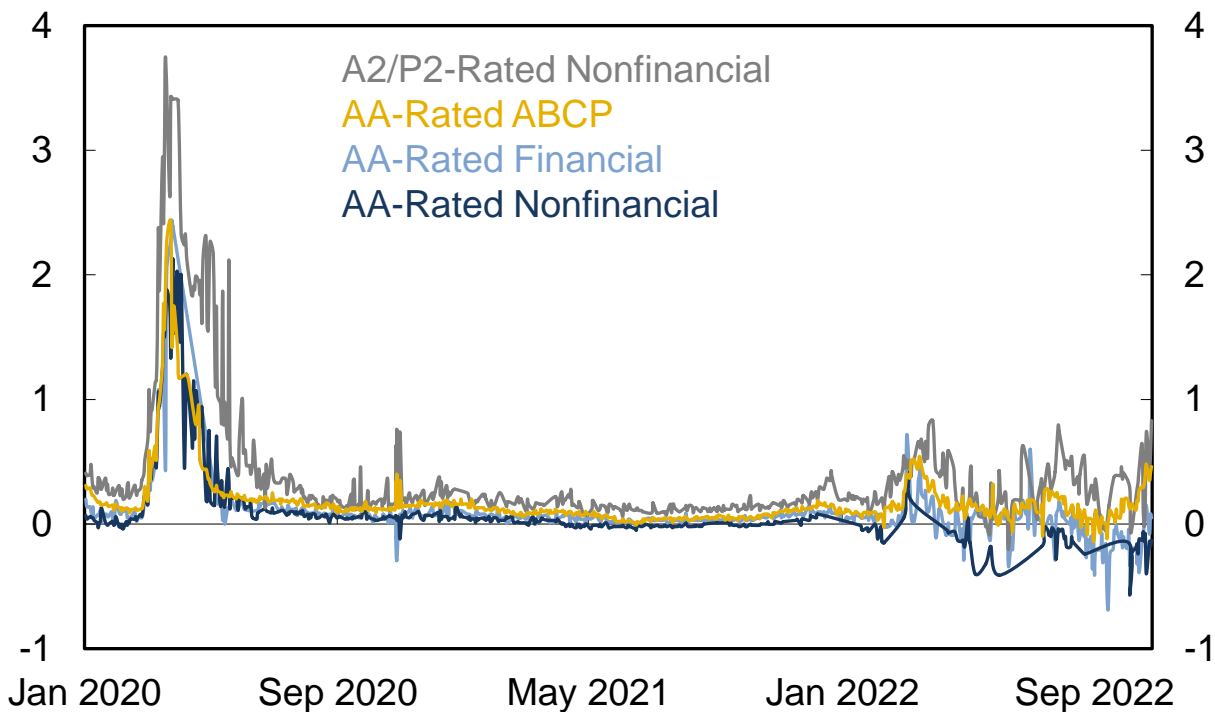
Source: Federal Reserve, Haver Analytics

### 3.1.4.4 3-Month CP Interest Rate Spreads

Percent

As Of: 31-Oct-2022

Percent

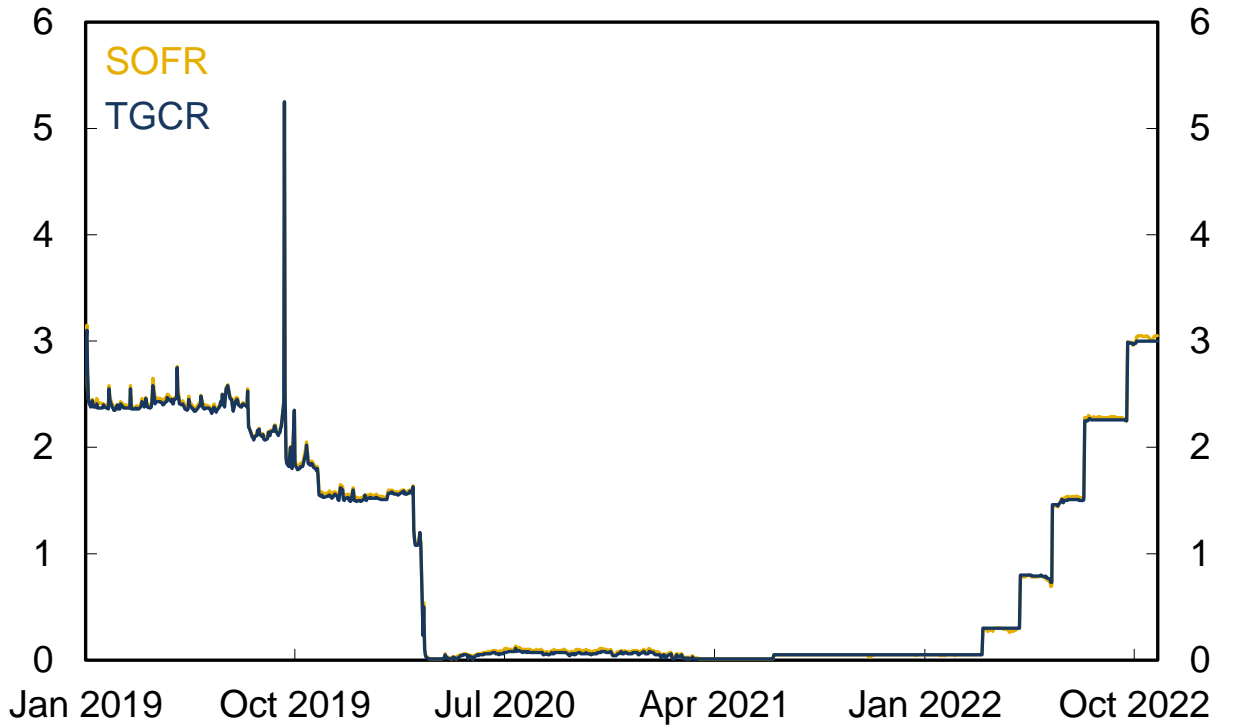


Source: Federal Reserve,  
Refinitiv, Haver Analytics

Note: Spread to 3-Month  
Overnight Index Swap (OIS) rate.

# 3.1.4.5 Repo Rates

Percent As Of: 31-Oct-2022 Percent



Source: FRBNY

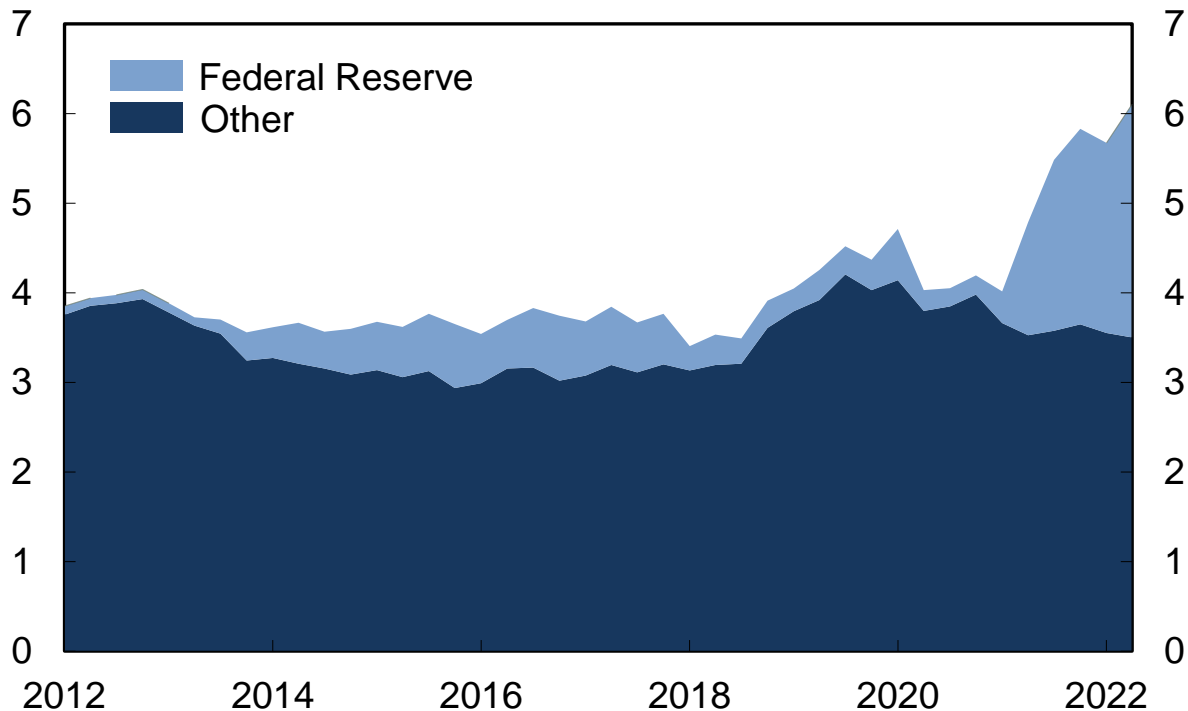
Note: TGCR = Tri-party General Collateral Rate;  
SOFR = Secured Overnight Financing Rate.

### 3.1.4.6 Repo Borrowing Outstanding

Trillions of US\$

As Of: 2022 Q2

Trillions of US\$



Source: Federal Reserve,  
Haver Analytics

Note: Federal Reserve repo borrowing  
primarily consists of ON-RRP facility.

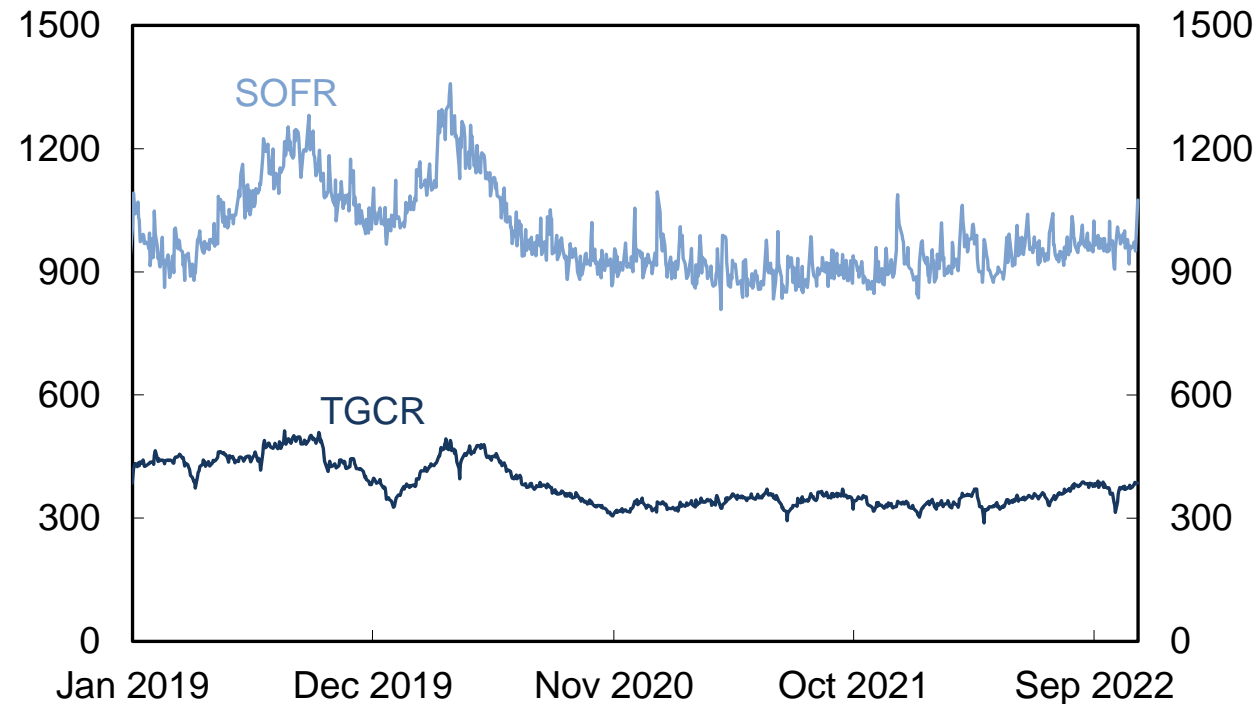


### 3.1.4.7 Repo Volumes

Billions of US\$

As Of: 31-Oct-2022

Billions of US\$



Source: FRBNY

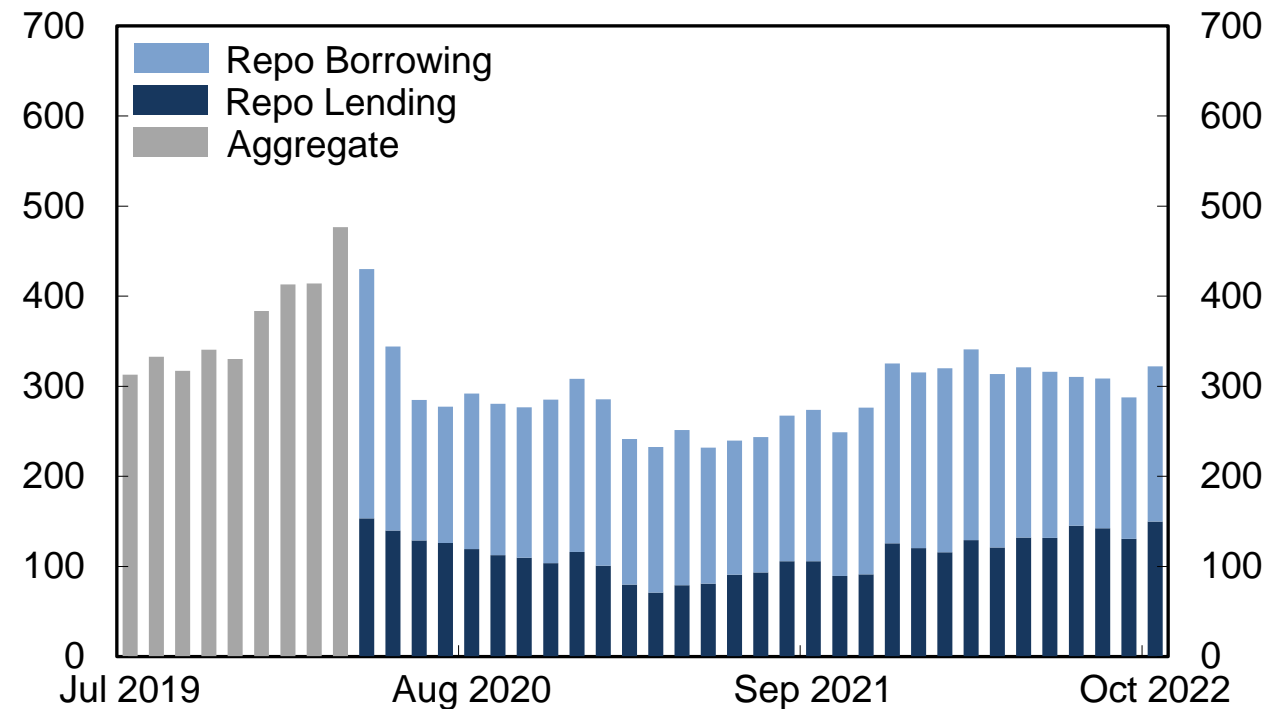
Note: TGCR = Tri-Party General Collateral Rate;  
SOFR = Secured Overnight Financing Rate.

### 3.1.4.8 Sponsored Repo Activity

Billions of US\$

As Of: Oct-2022

Billions of US\$



Note: Average daily volume. Breakdown of repo lending and repo borrowing unavailable prior to April 2020.

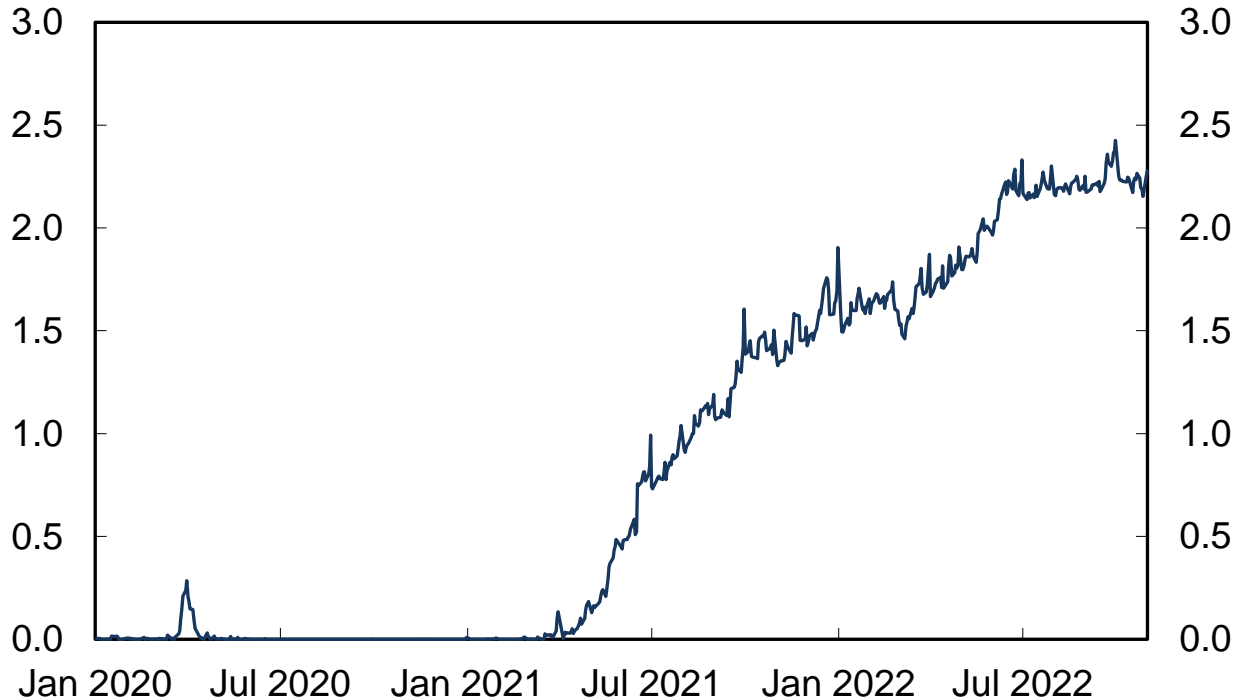
Source: DTCC

### 3.1.4.9 Overnight Reverse Repo Facility

Trillions of US\$

As Of: 31-Oct-2022

Trillions of US\$



Source: FRED, FRBNY

### 3.1.5.1 Bitcoin Price

Thousands of US\$

As Of: 30-Nov-2022

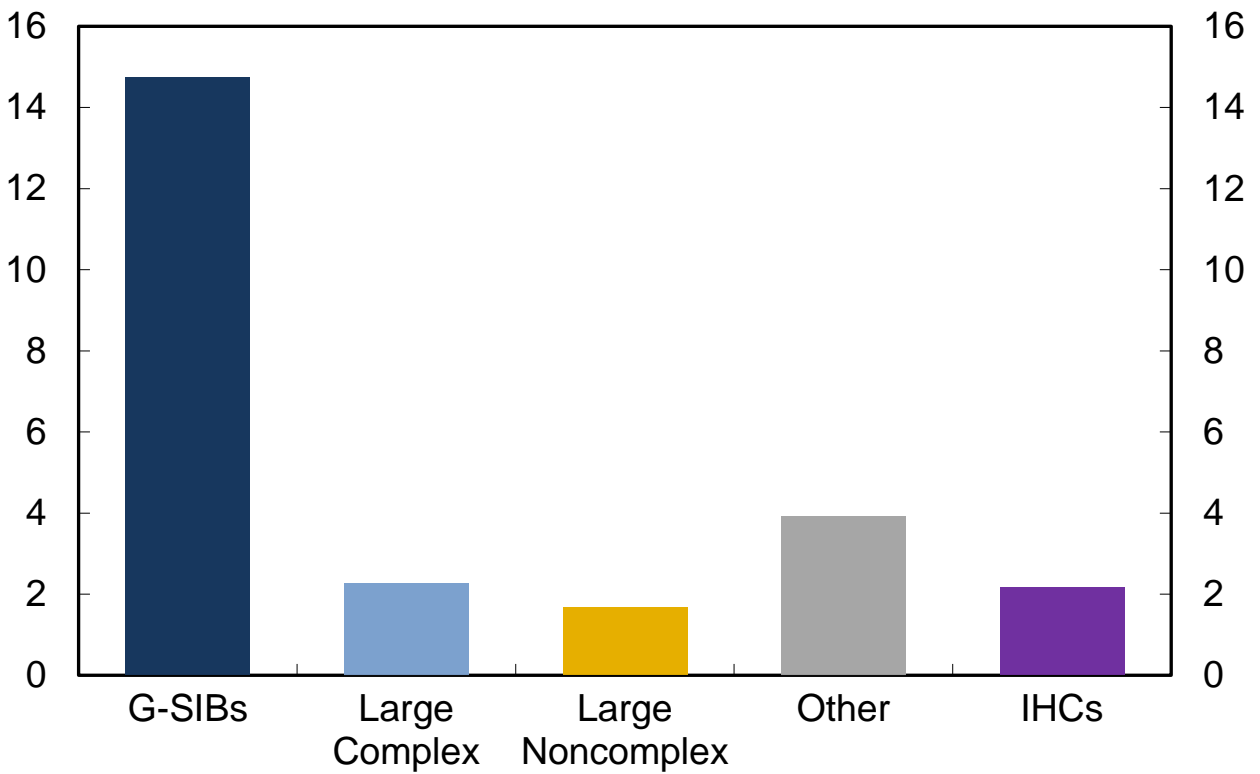
Thousands of US\$



Source: Bloomberg, L.P.

# 3.2.1.1 Total Assets by BHC Type/IHC

Trillions of US\$ As Of: 2022 Q2 Trillions of US\$



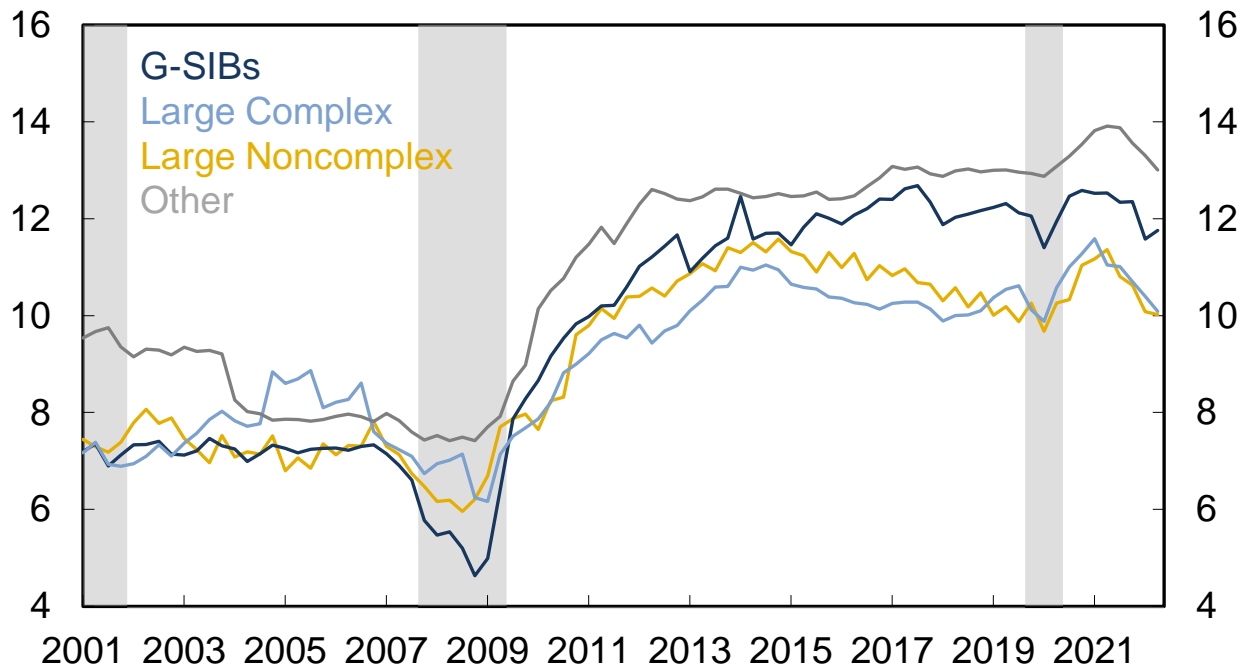
Source: FR Y-9C

### 3.2.1.2 Common Equity Tier 1 Ratios

Percent of RWA

As Of: 2022 Q2

Percent of RWA



Source: FR Y-9C,  
Haver Analytics

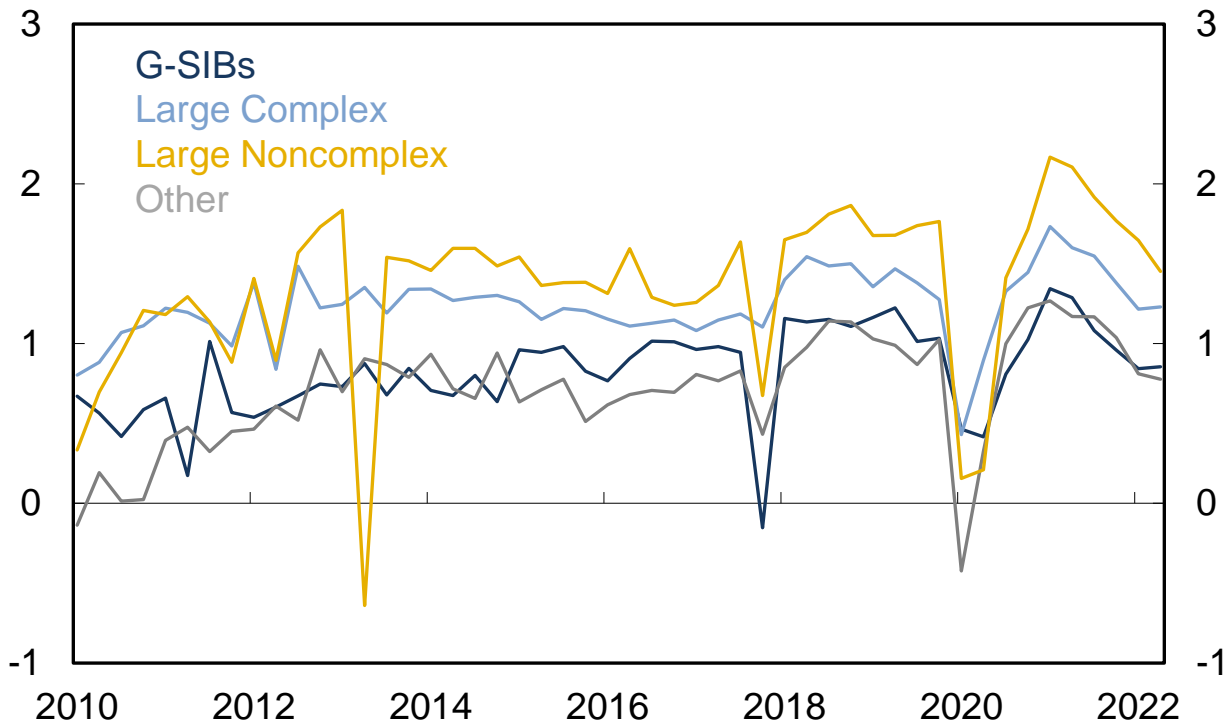
Note: Tier 1 common capital is used as the numerator of the CET1 ratio prior to 2014:Q1 for G-SIBs and large complex BHCs, and prior to 2015:Q1 for large noncomplex and other BHCs. The denominator is risk-weighted assets (RWA). Shaded areas indicate NBER recessions.

### 3.2.1.3 Return on Assets

Percent

As Of: 2022 Q2

Percent



Source: FR Y-9C

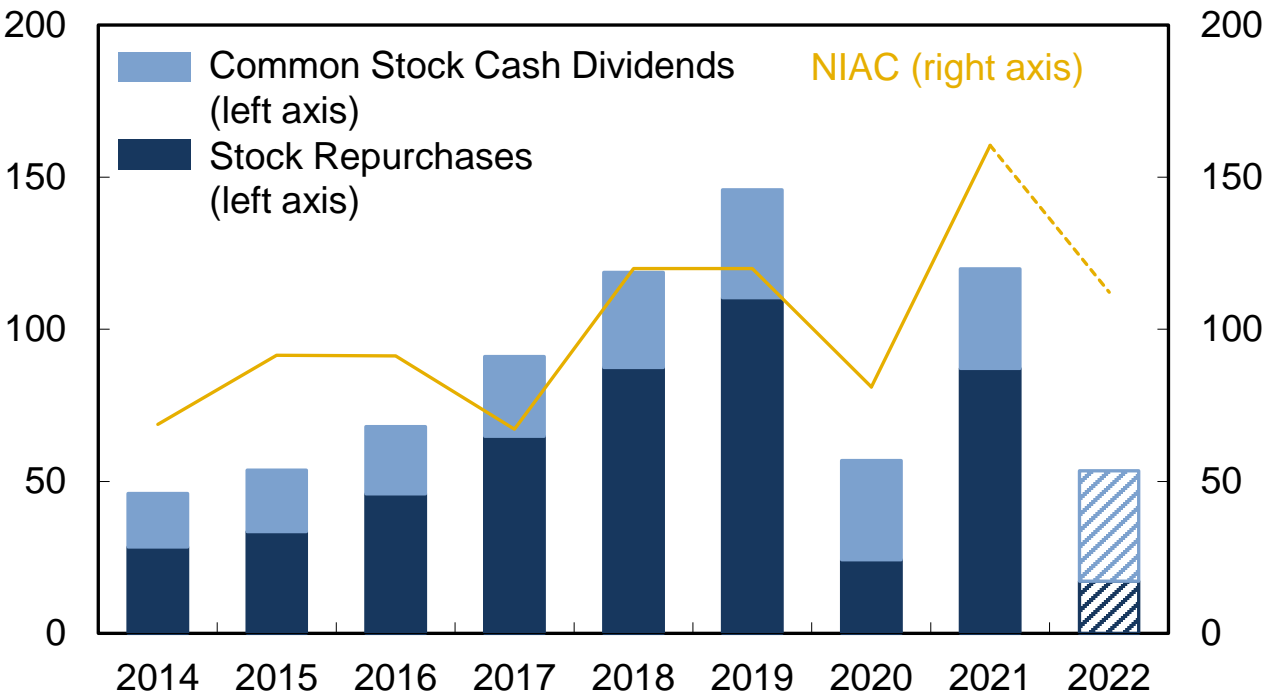
Note: Quarterly, seasonally-adjusted annual rate. Return on assets is equal to net income divided by average assets.

### 3.2.1.4 Payout Rates at U.S. G-SIBs

Percent of NIAC

As Of: 2022 Q2

Billions of US\$

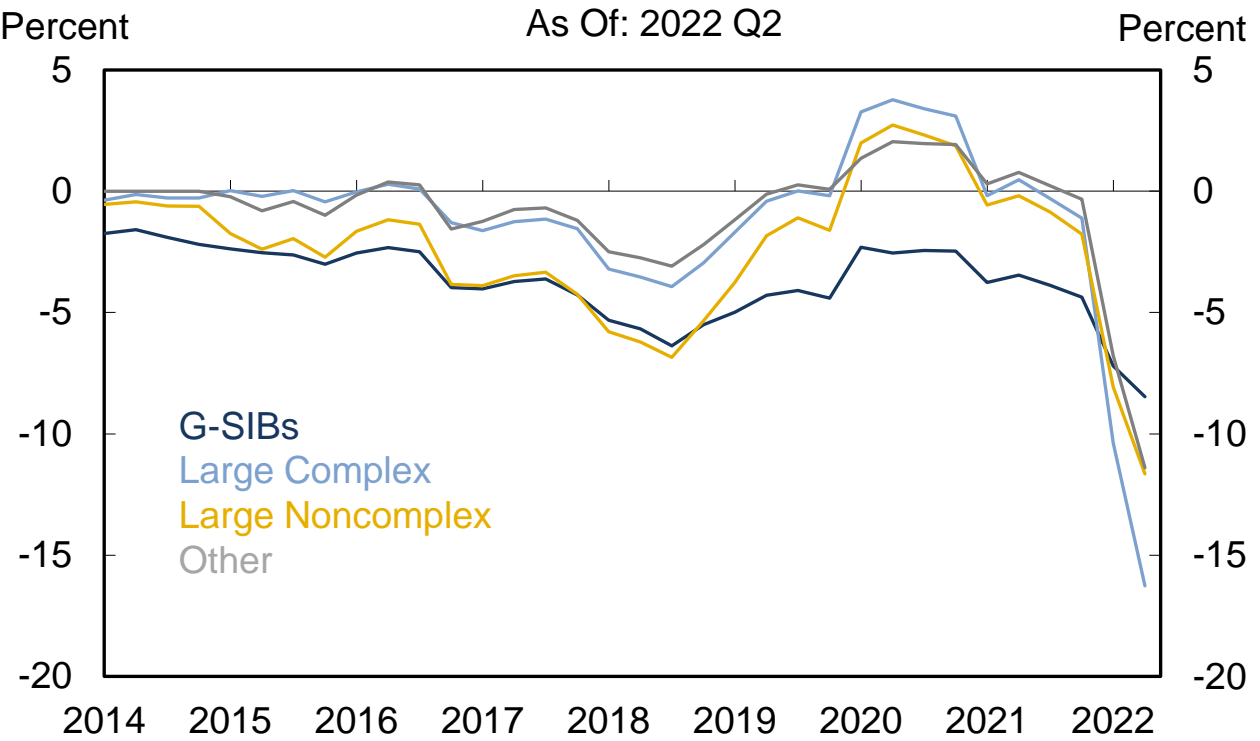


Note: Payout rates are the ratios of stock repurchases plus cash dividends to net income available to common shareholders (NIAC). NIAC is net income minus preferred dividends. 2022 data represents YTD data through Q2.

Source:  
FR Y-9C



# 3.2.1.5 AOCI as a Percent of Equity

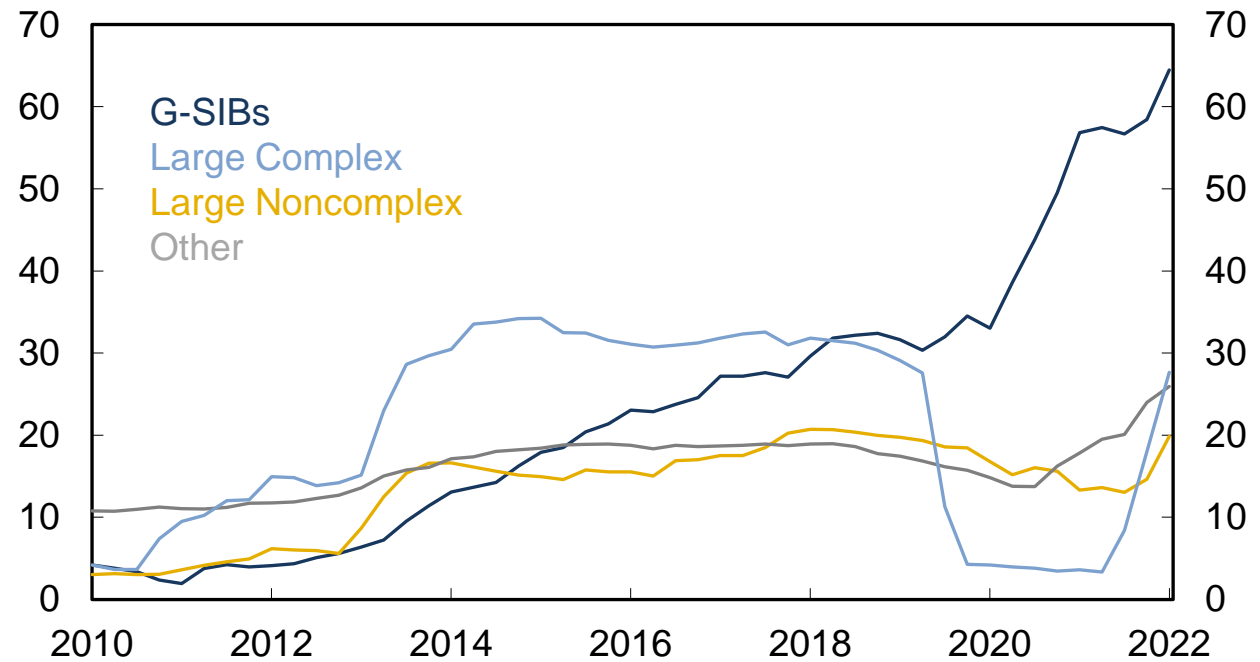


Source: FR Y-9C

Note: Accumulated other comprehensive income (AOCI).

# 3.2.1.6 Held-to-Maturity Securities

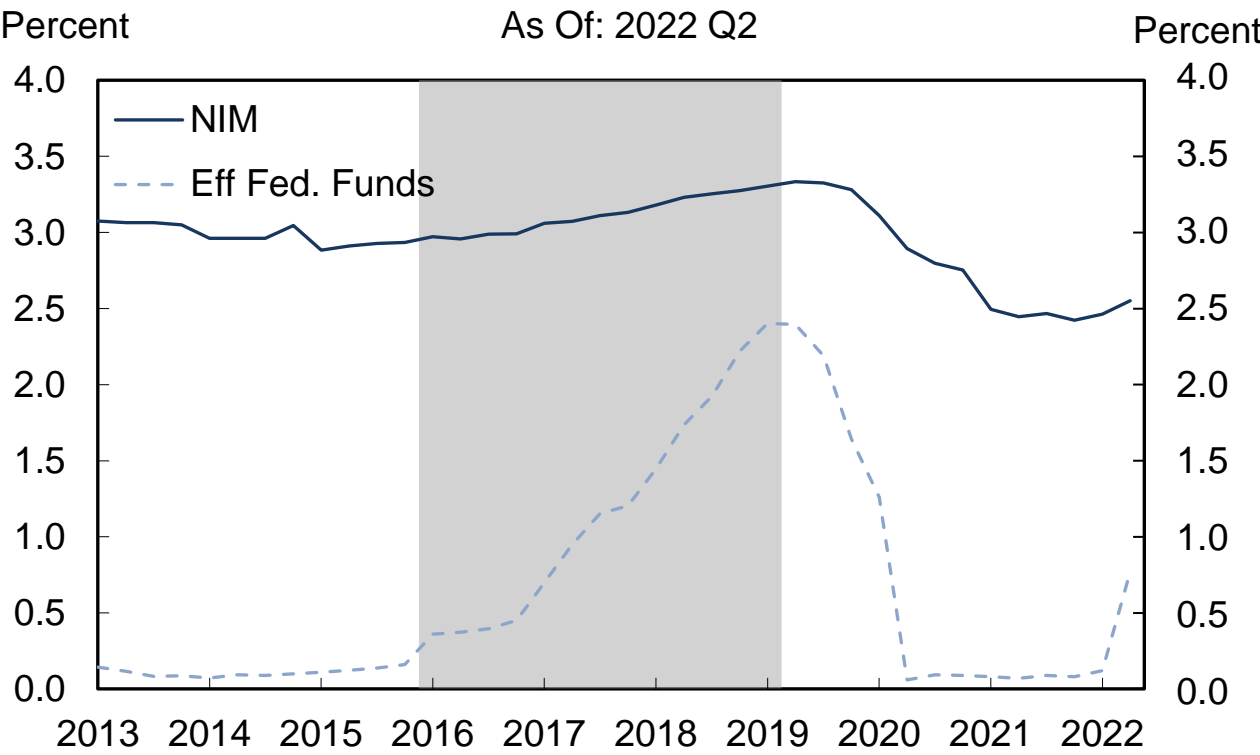
Percent of Investment Securities  
As Of: 2022 Q2



Source: Call Report

Note: Investment securities are held-to-maturity securities plus available-for-sale securities.

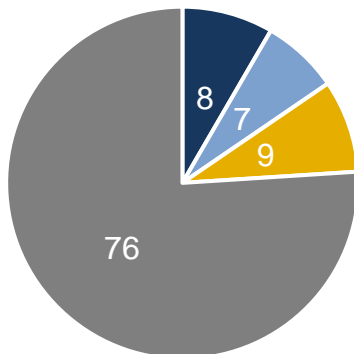
# C.1 Bank NIM and Fed Funds Rates: 2013 - 2022



Source: Call Report, Federal Reserve

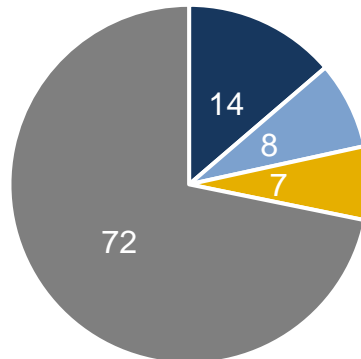
## C.2 Bank Asset Composition: 2014 and 2022

2014 Q2



■ Long-term securities   ■ Other securities  
■ RRE   ■ Other

2022 Q2



■ Long-term securities   ■ Other securities  
■ RRE   ■ Other

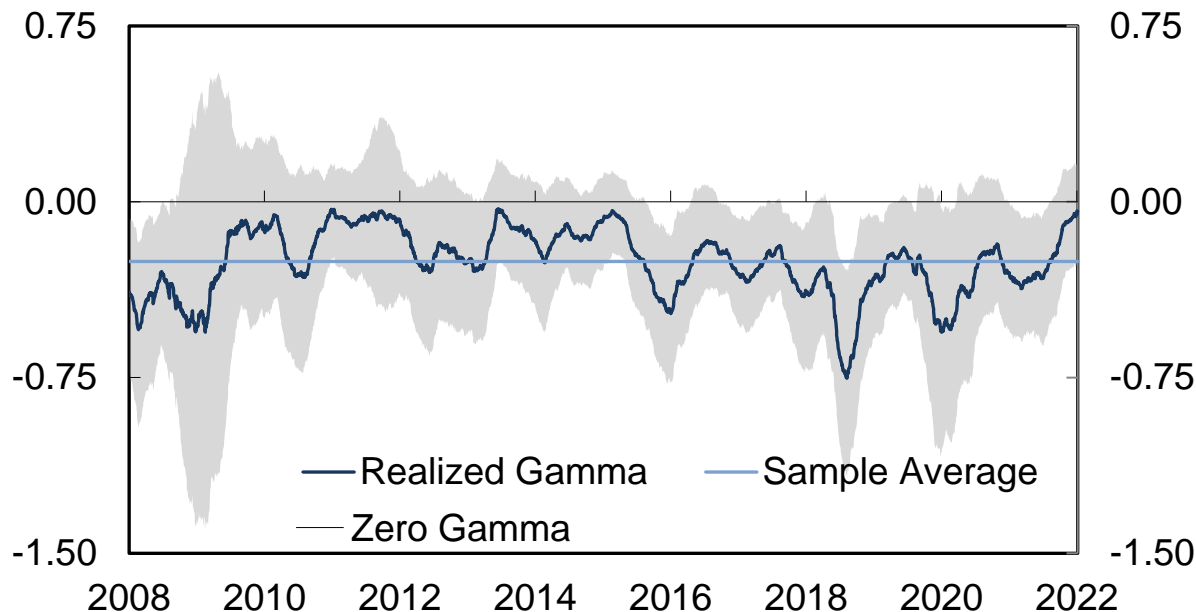
Note: Long-term securities are defined as securities that mature or reprice in more than five years. RRE loans include first and junior lien mortgage loans.

# C.3 Realized Interest Rate Risk Hedging by Life Insurers: 2008 - 2022

Gamma

As Of: Sept 2022

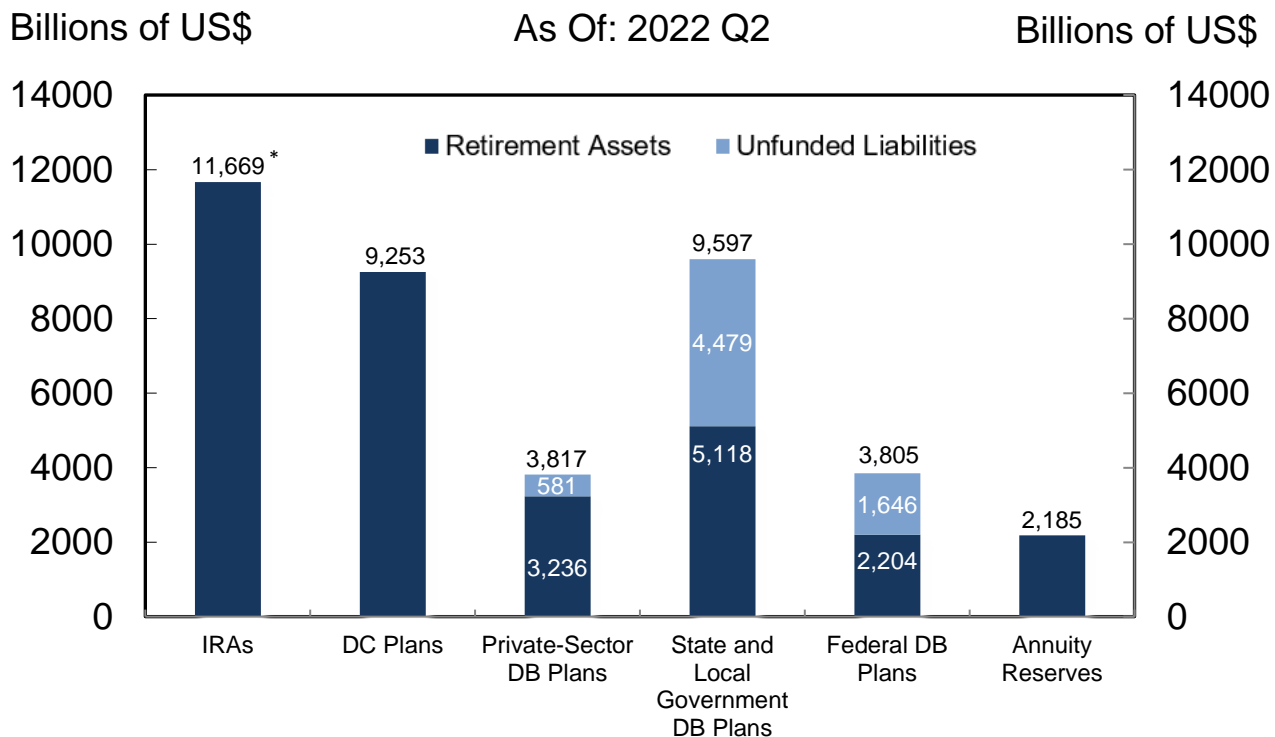
Gamma



Note: Realized gamma is the daily coefficient from a regression of five-minute returns on a market capitalization-weighted index of life insurers on five-minute return on a 10Y Treasury Index controlling for five-minute returns on the S&P500 index. See Brunetti, Foley-Fisher and Verani (2022) "What Do High-Frequency Insurer Stock Prices Tell Us About Their Interest Rate Risk Management?", mimeo for more details. Confidence intervals are constructed by subsampling returns within each day. A gamma below zero indicates that insurance companies did not hedge the change in interest rates and would benefit from rising long-term interest rates.

Source:  
Thomson  
Reuters Tick  
History

# C.4 U.S. Total Retirement Entitlements



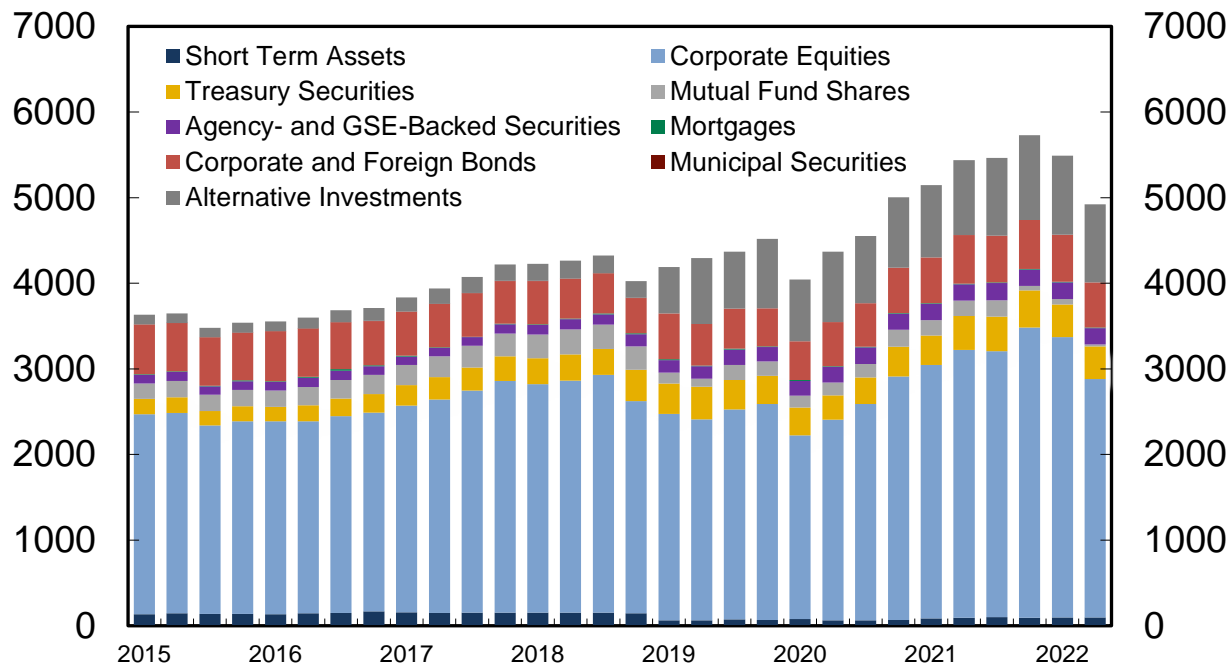
Note: For definitions of categories, see Table 1 and 2 in the US Retirement Market, Second Quarter 2022 ICI statistical report. Components may not add to the total because of rounding. Data are estimated.

# C.5 State and Local DB Total Assets by Z.1 Category

Billions of US\$

As Of: 2022 Q2

Billions of US\$



Source: Financial  
Accounts of the  
United States

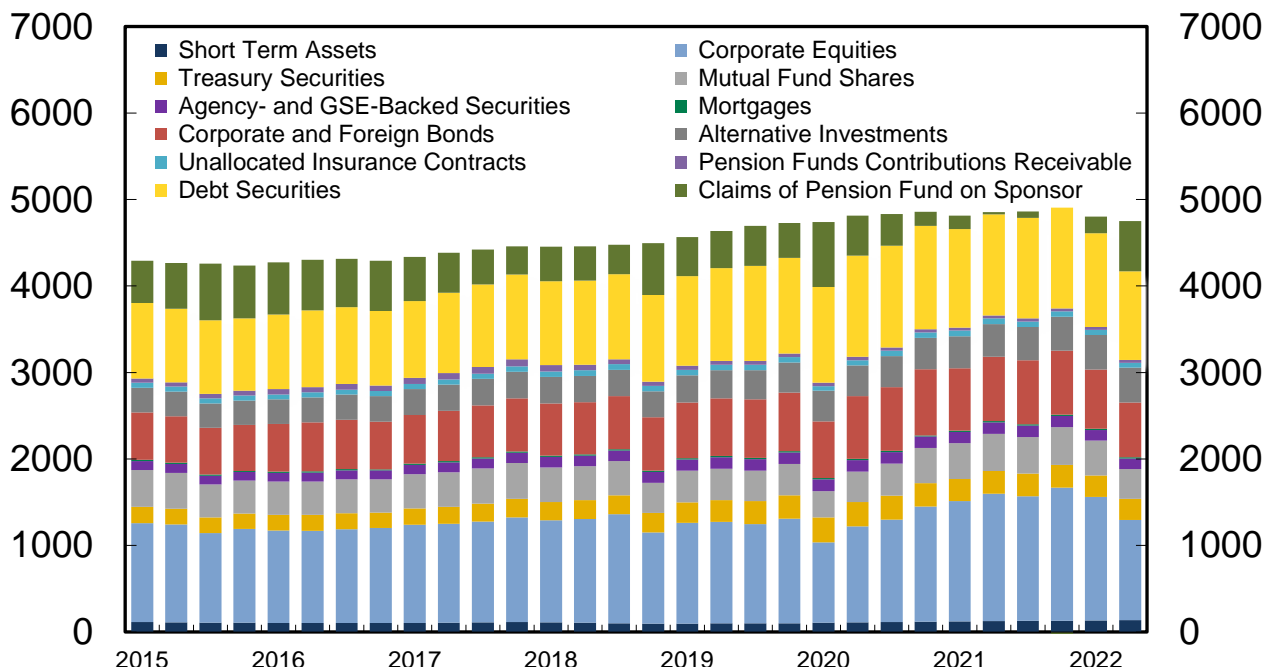
Note: Alternative investments include hedge funds, private funds, and other unclassified assets as reported in the Census QSP. Short term assets include checkable deposits and currency, time and savings deposits, money market fund shares, security repurchase agreements, and open market paper. Private equity is included in corporate equities.

# C.6 Private DB Total Assets by Z.1 Category

Billions of US\$

As Of: 2022 Q2

Billions of US\$



Source: Financial  
Accounts of the  
United States

Note: Alternative investments include hedge funds, private funds, and other unclassified assets as reported in the Census QSP. Short term assets include checkable deposits and currency, time and savings deposits, money market fund shares, security repurchase agreements, and open market paper. Private equity is included in corporate equities.

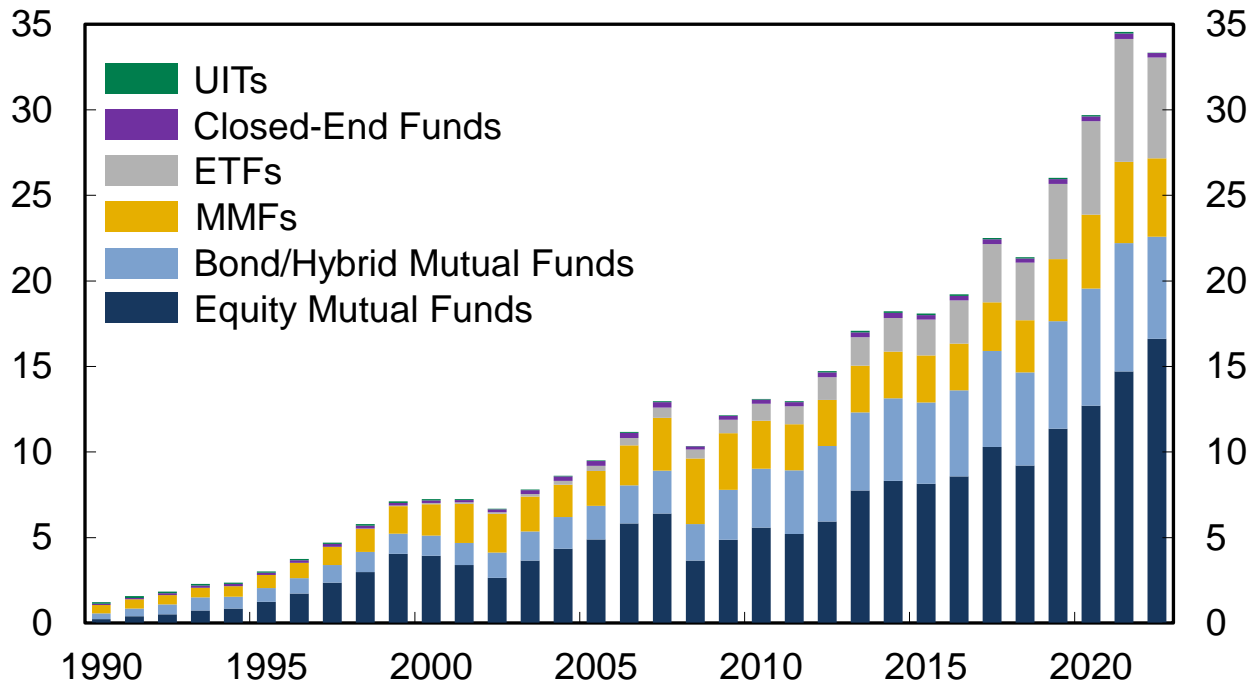


### 3.2.2.1 Investment Company Asset Growth

Trillions of US\$

As Of: 2022 Q2

Trillions of US\$



Source: ICI

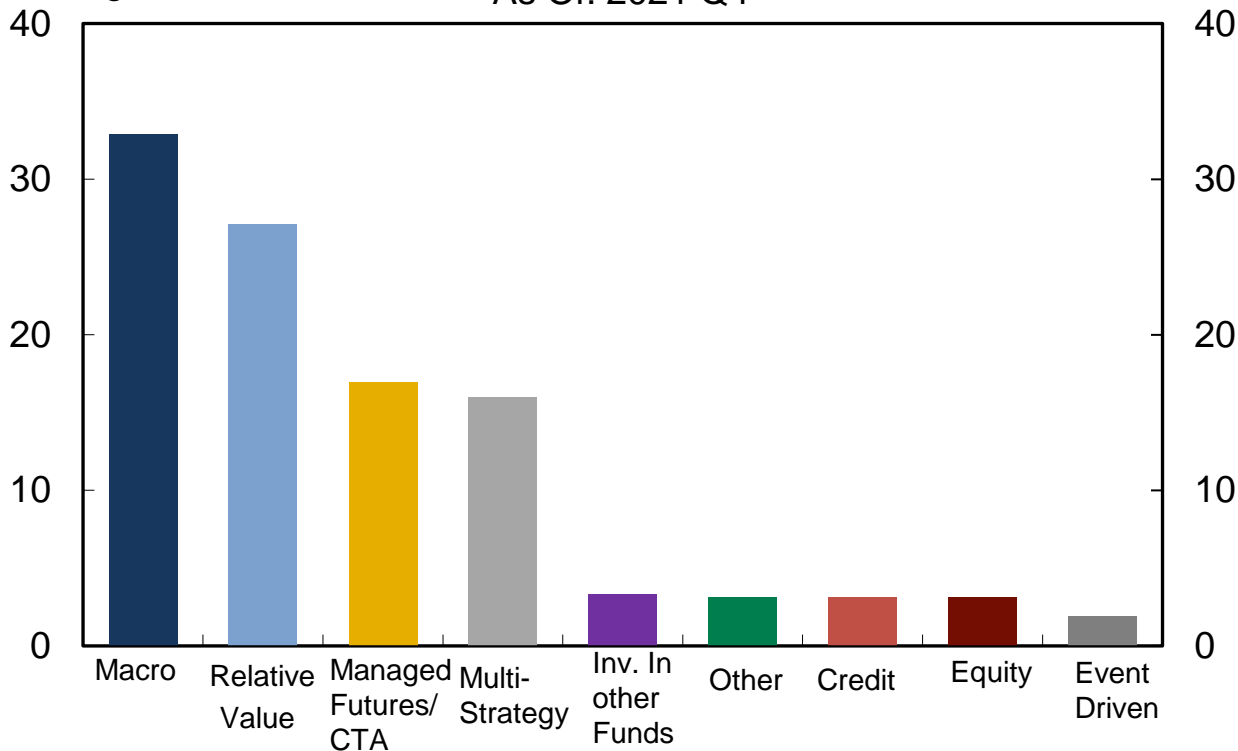
Note: Excludes non '40 Act ETPs.

### 3.2.2.2 GNE/NAV

Leverage

As Of: 2021 Q4

Leverage



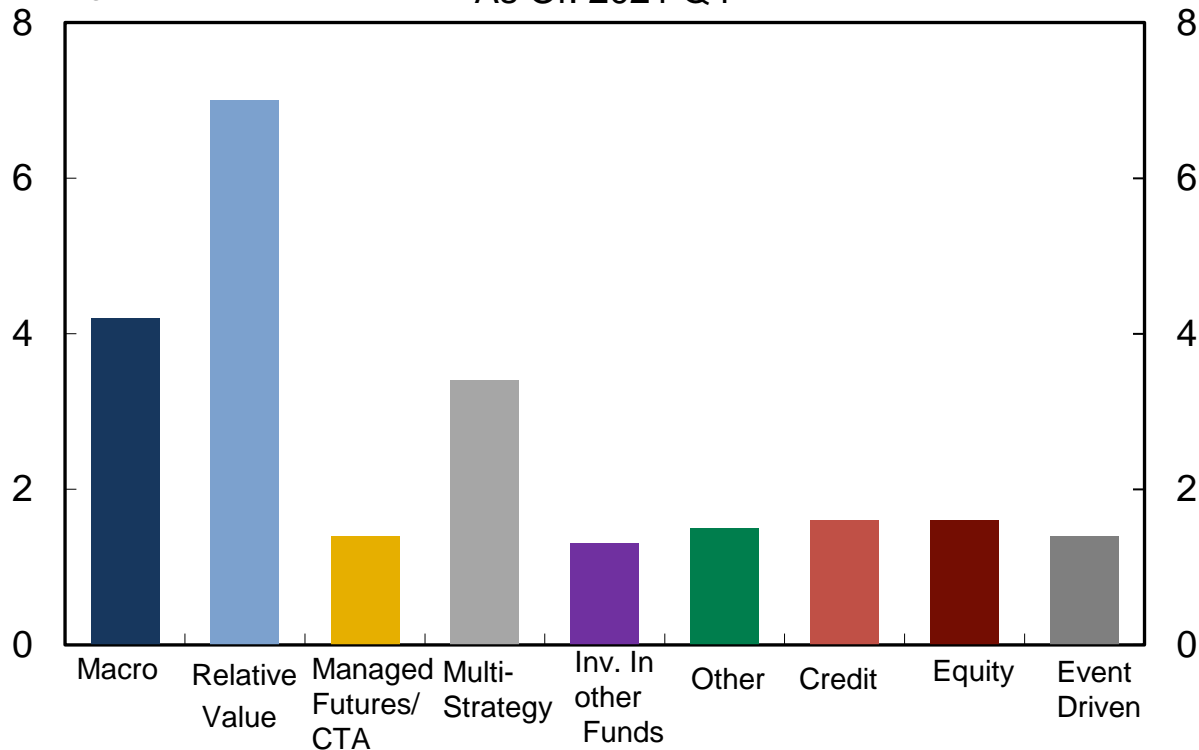
Source: SEC Form PF  
Statistics Report

### 3.2.2.3 GAV/NAV

Leverage

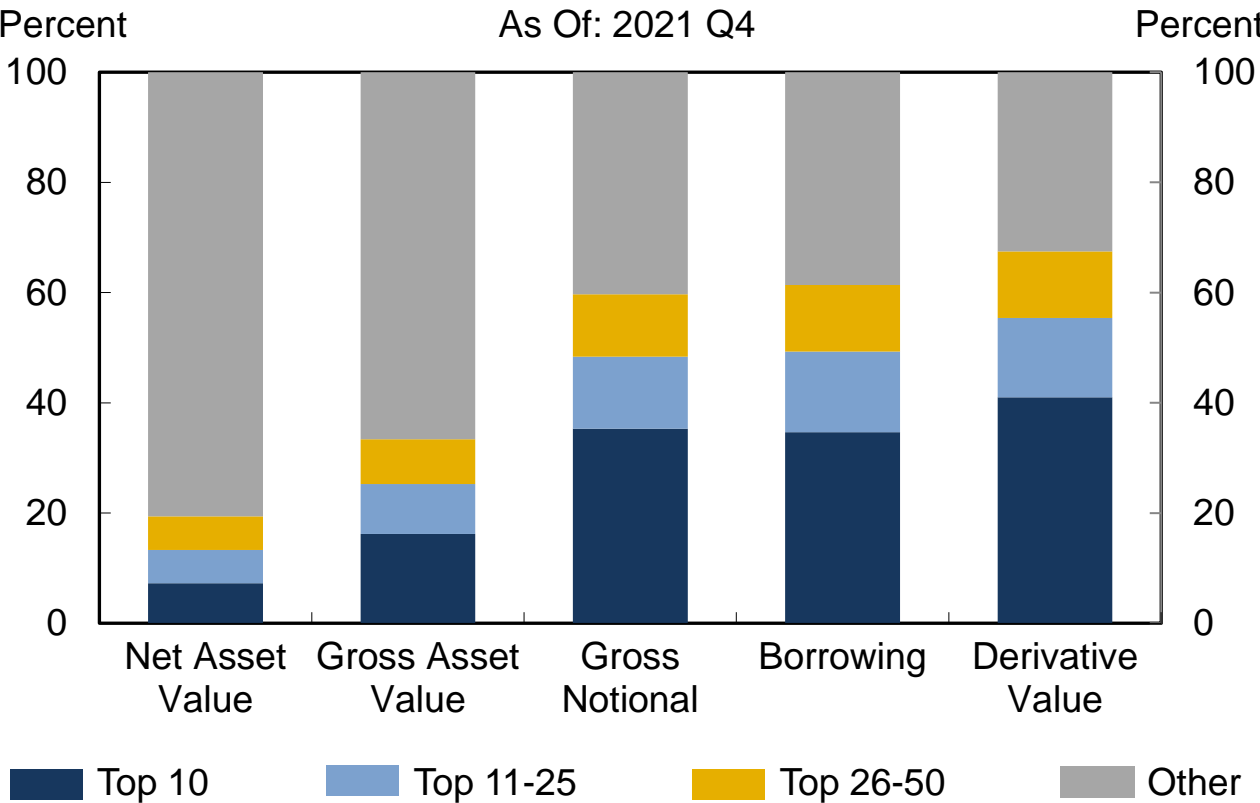
As Of: 2021 Q4

Leverage



Source: SEC Form PF  
Statistics Report

# 3.2.2.4 Hedge Fund Industry Concentration



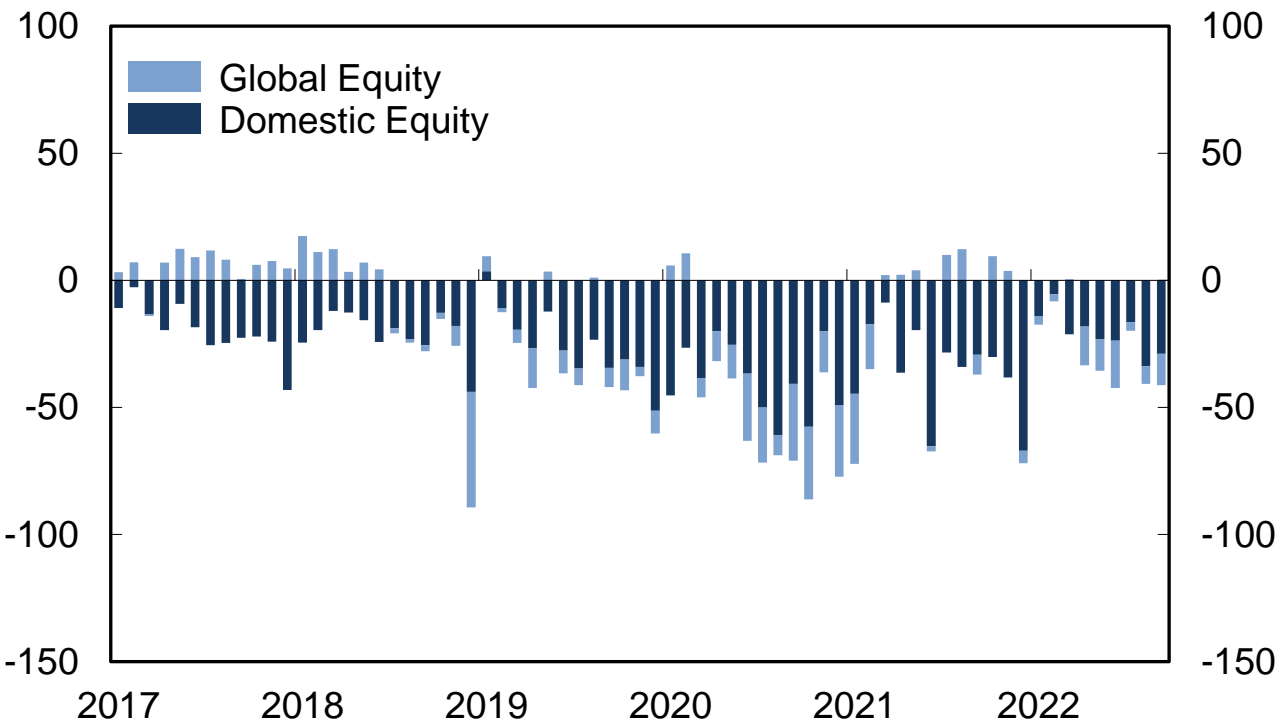
Source: SEC Form PF Statistics Report

### 3.2.2.5 Monthly Equity Mutual Fund Flows

Billions of US\$

As Of: Sep-2022

Billions of US\$



Source: ICI, Haver Analytics

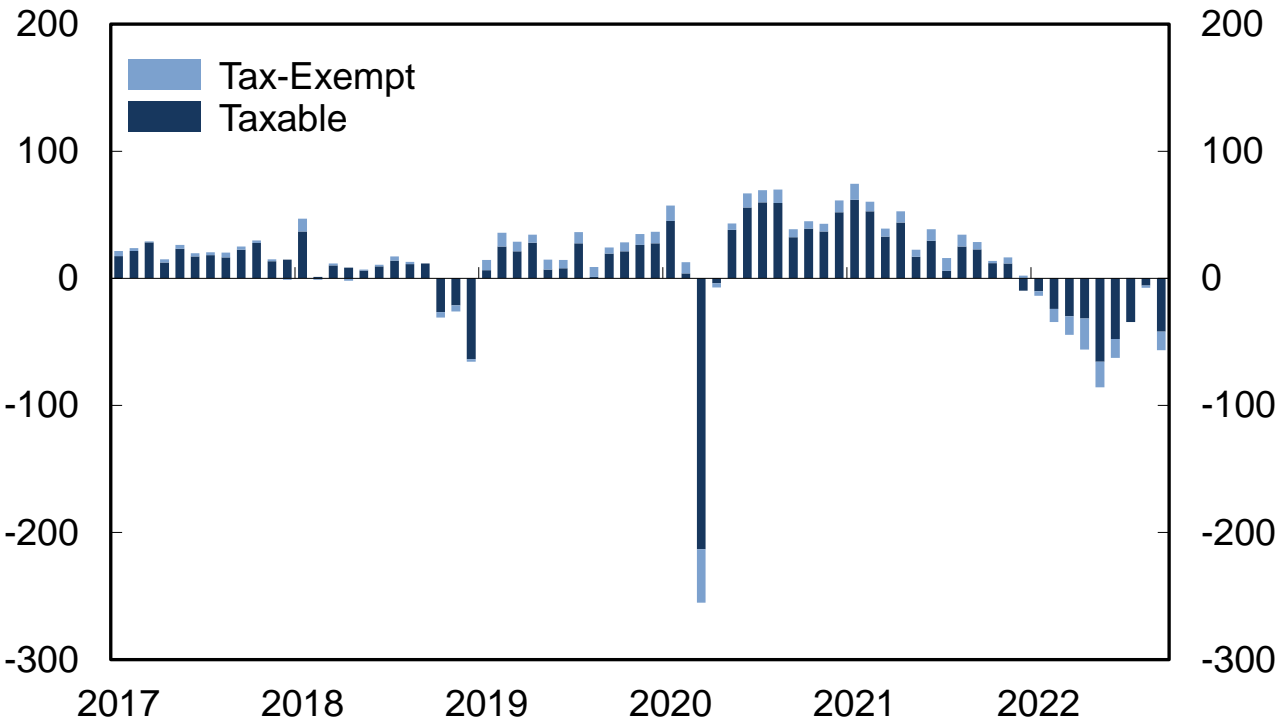
Note: Net fund flows.

### 3.2.2.6 Monthly Bond Mutual Fund Flows

Billions of US\$

As Of: Sep-2022

Billions of US\$



Source: ICI, Haver Analytics

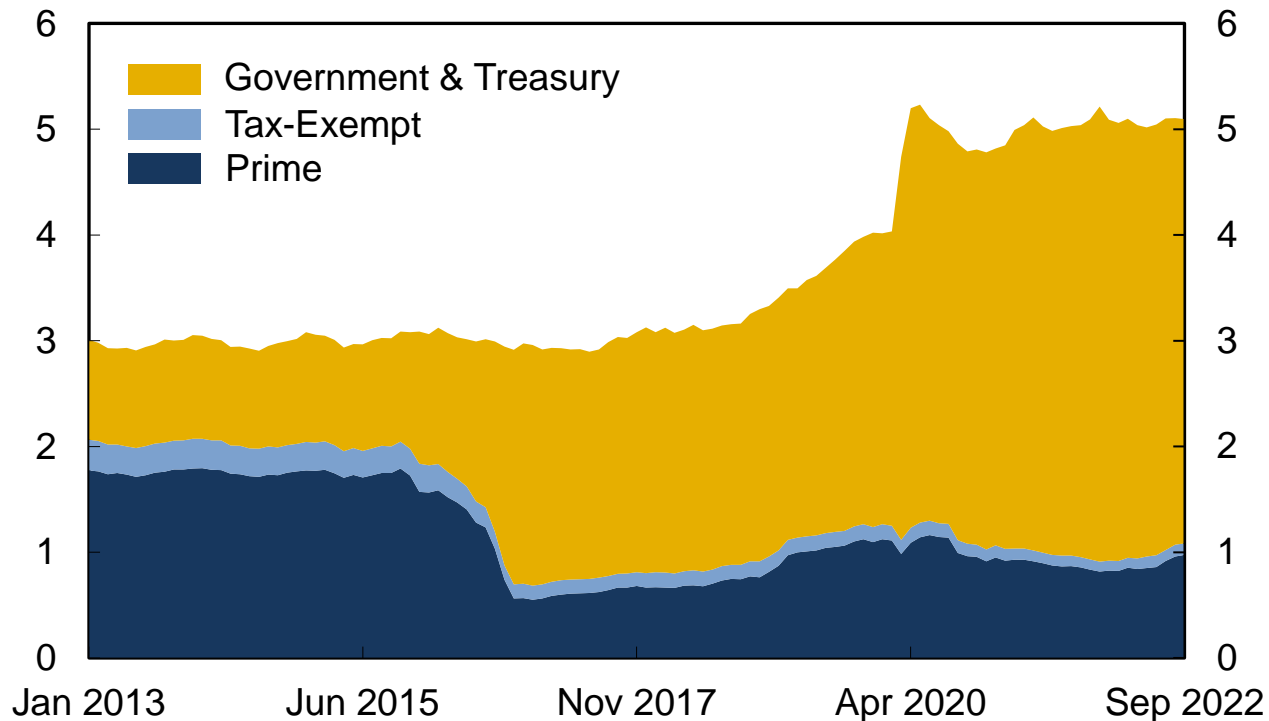
Note: Net fund flows.

### 3.2.2.7 MMFs Total Net Assets by Fund Type

Trillions of US\$

As Of: Sep-2022

Trillions of US\$



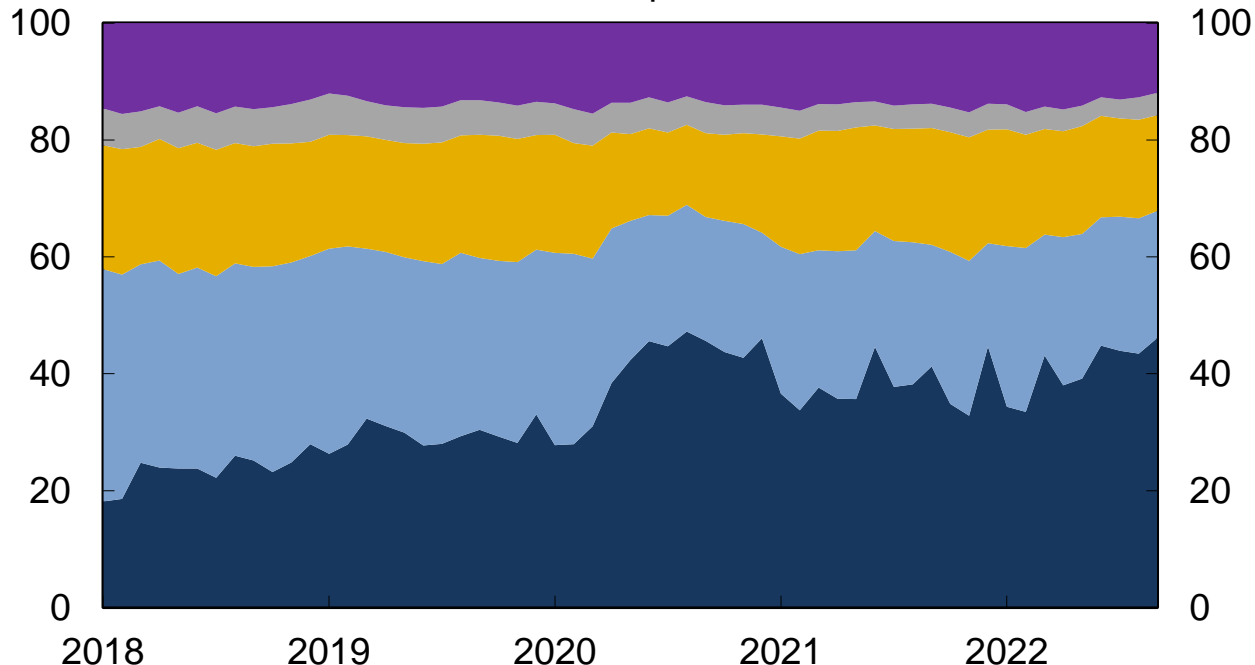
Source: SEC Form N-MFP

### 3.2.2.8 Prime MMF Exposures

Percent of Assets

As Of: Sep-2022

Percent of Assets

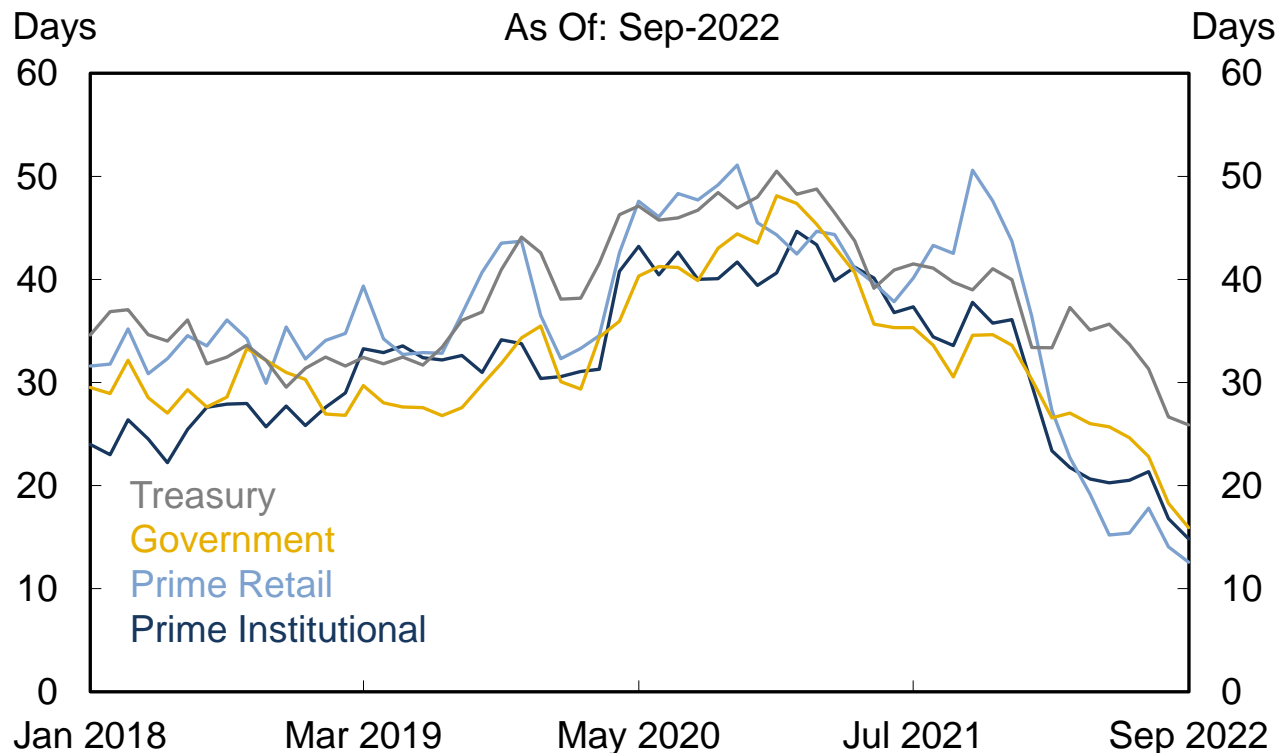


Source: SEC  
Form N-MFP





### 3.2.2.9 MMF Weighted Average Maturity



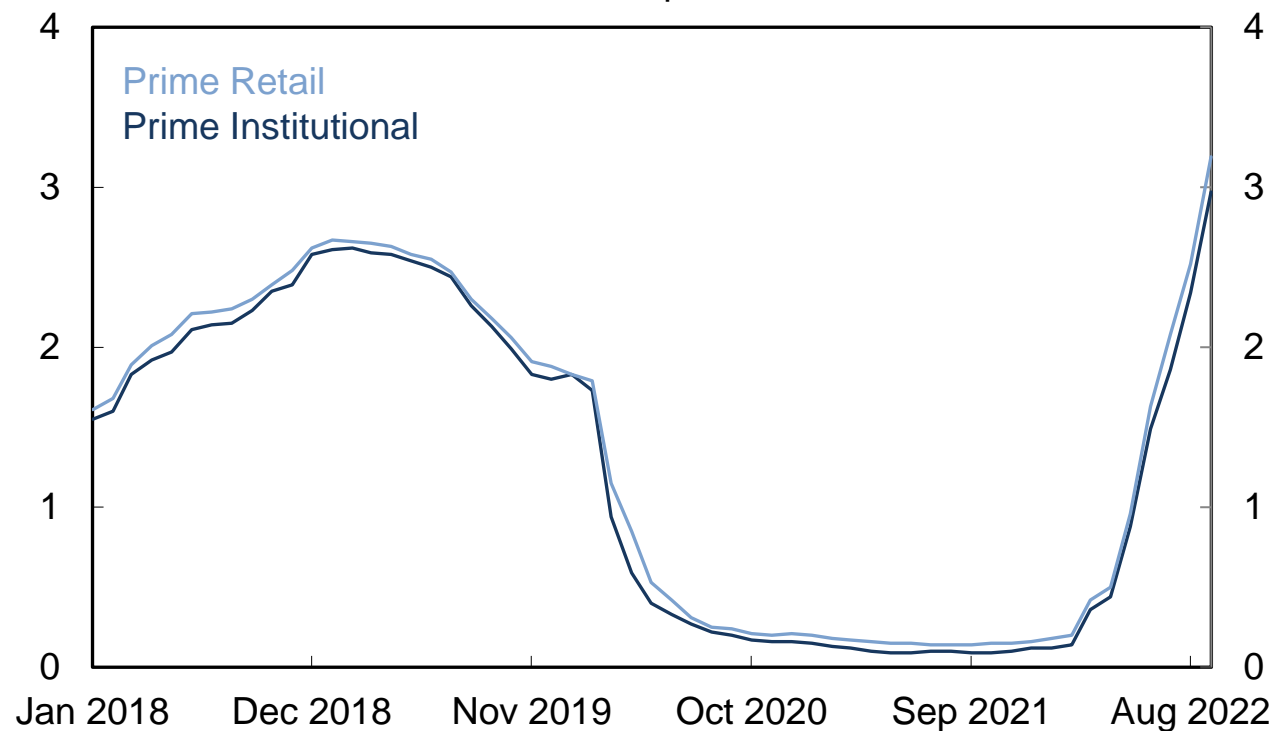
Source: SEC Form N-MFP

### 3.2.2.10 Prime MMF Gross Yields

Percent

As Of: Sep-2022

Percent



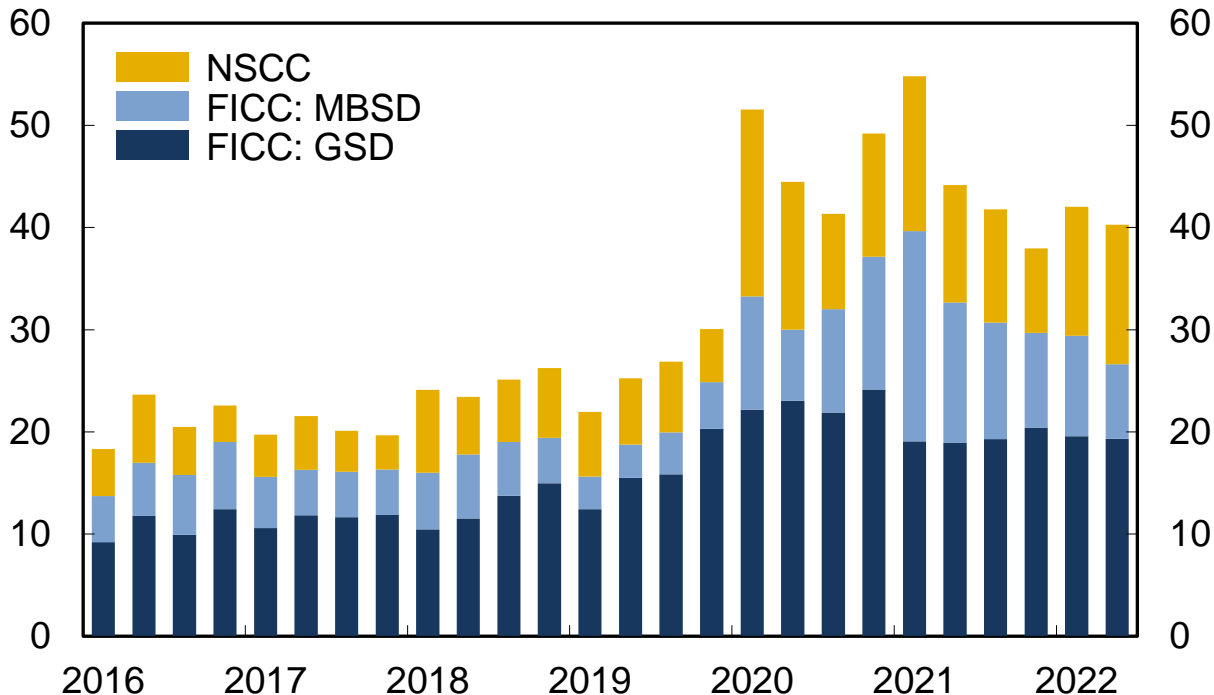
Source: SEC Form N-MFP

### 3.2.3.1 DTCC Clearing Fund Requirements

Billions of US\$

As Of: 2022 Q2

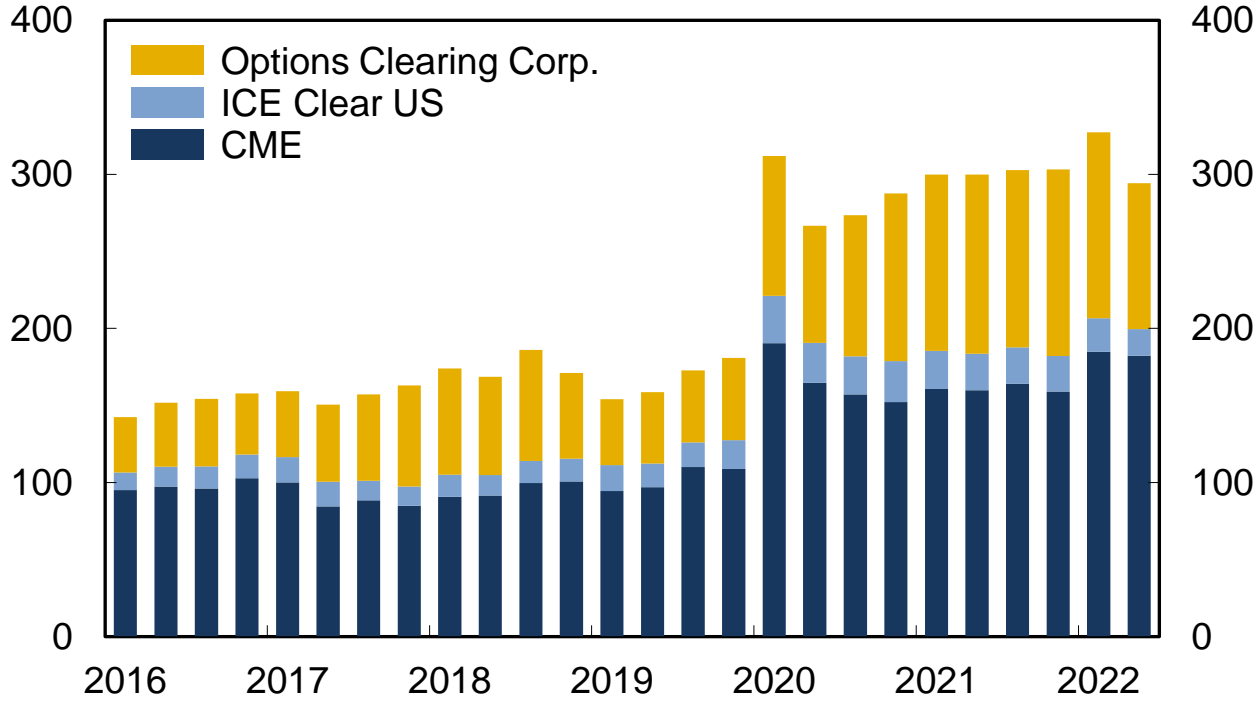
Billions of US\$



Source: PFMI Quantitative Disclosures, Clarus FT

# 3.2.3.2 Initial Margin: U.S. Exchange Traded Derivatives

Billions of US\$ As Of: 2022 Q2 Billions of US\$

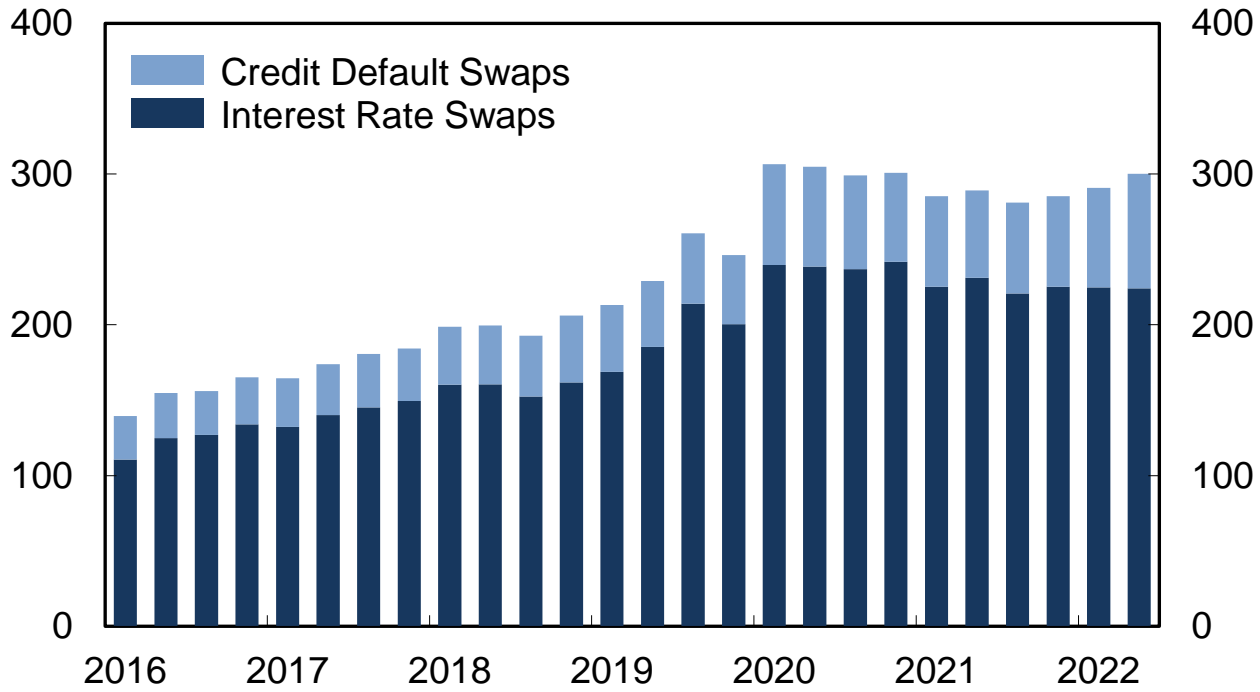


Source: PFMI Quantitative Disclosures, Clarus FT

Note: Initial margin required as reported in quantitative disclosures; includes house and client accounts.

# 3.2.3.3 Initial Margin: Centrally Cleared OTC Derivatives

Billions of US\$ As Of: 2022 Q2 Billions of US\$

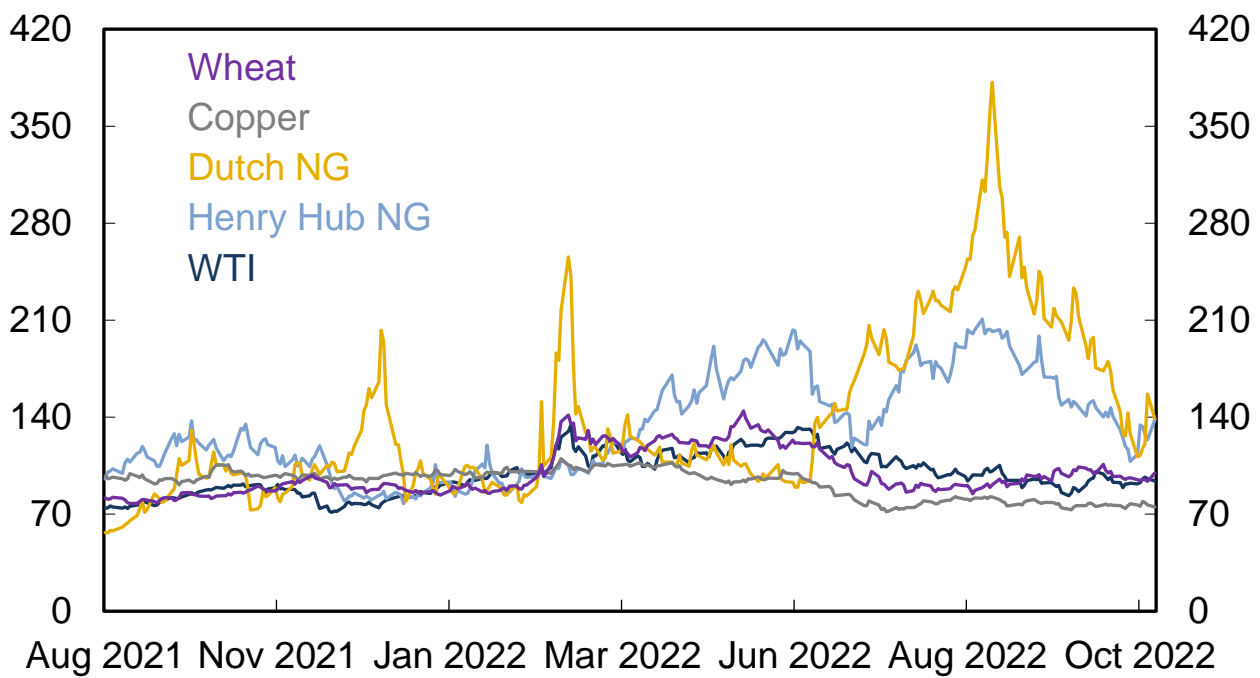


Source: PFMI Quantitative Disclosures, Clarus FT

Note: Initial margin required as reported in quantitative disclosures; includes house and client accounts. Interest rate swaps margin includes LCH Ltd. and CME. CDS margin include CME, ICC, ICEU, and LCH SA). CME ceased clearing CDS in March 2018.

# E.1 Relative Price of Selected Futures Contracts

Index As Of: 31-Oct-2022 Index

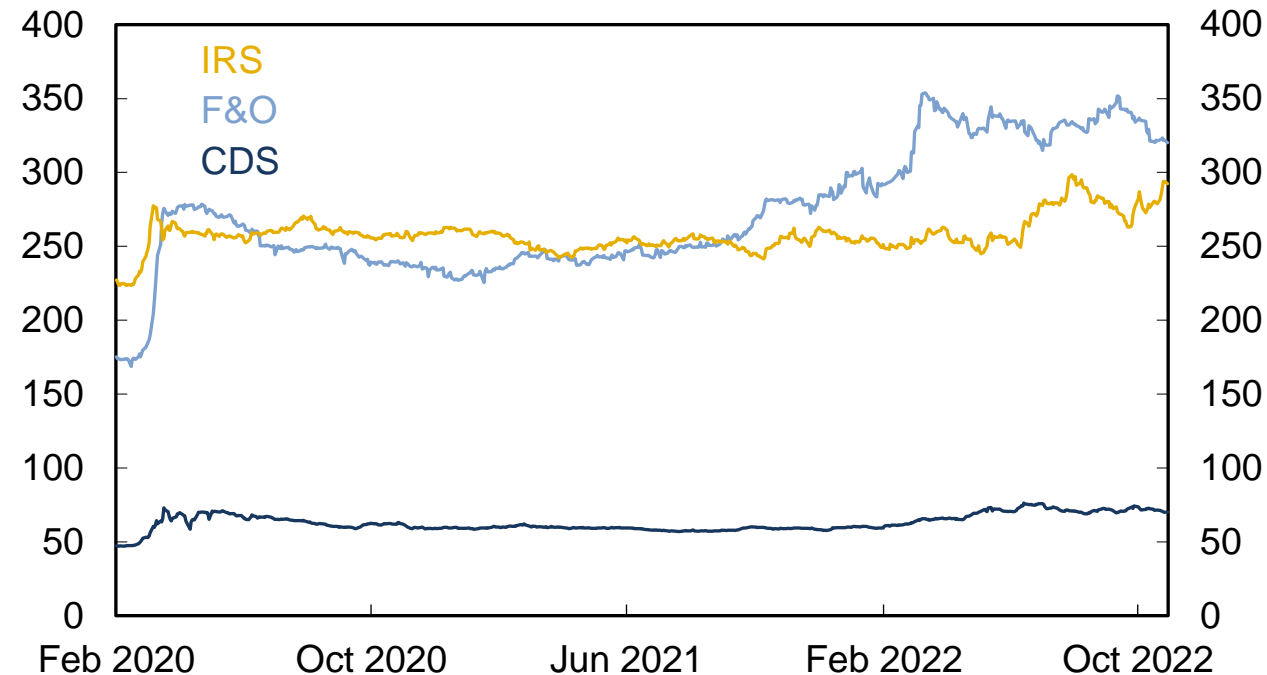


# E.2 Aggregate Initial Margin by Asset Class

Billions of US\$

As Of: 31-Oct-2022

Billions of US\$



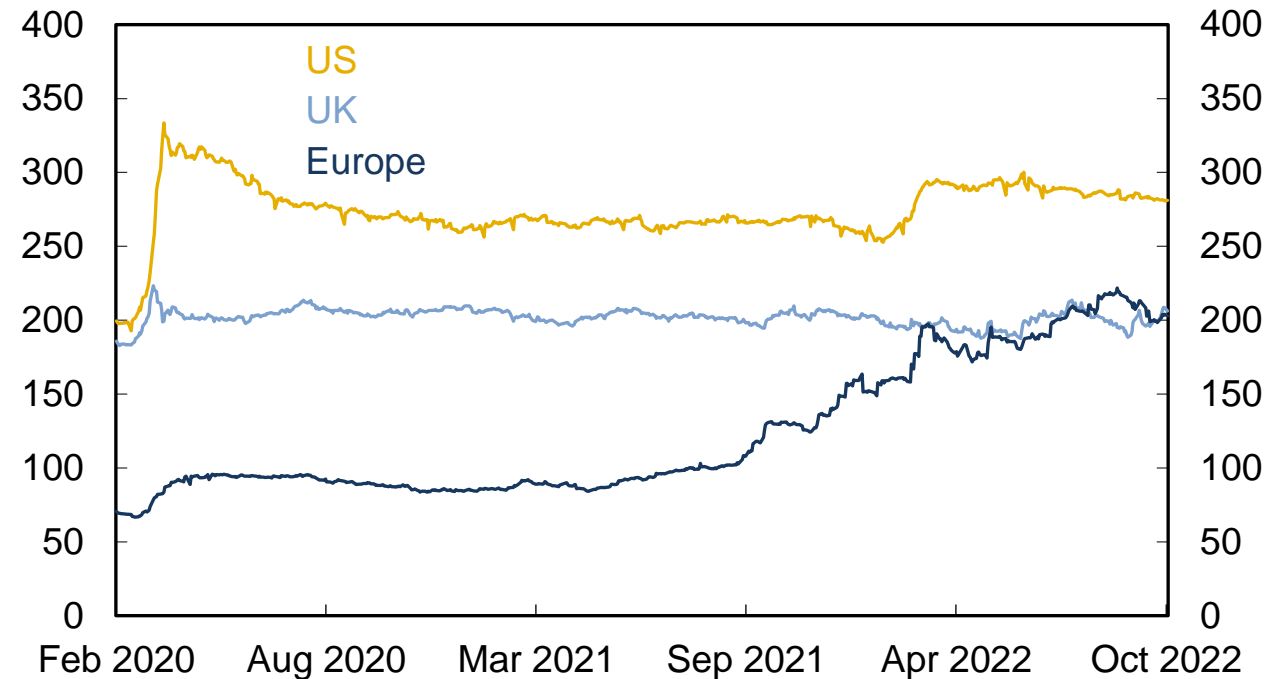
Source: CFTC

# E.3 Aggregate Initial Margin by Region

Billions of US\$

As Of: 31-Oct-2022

Billions of US\$

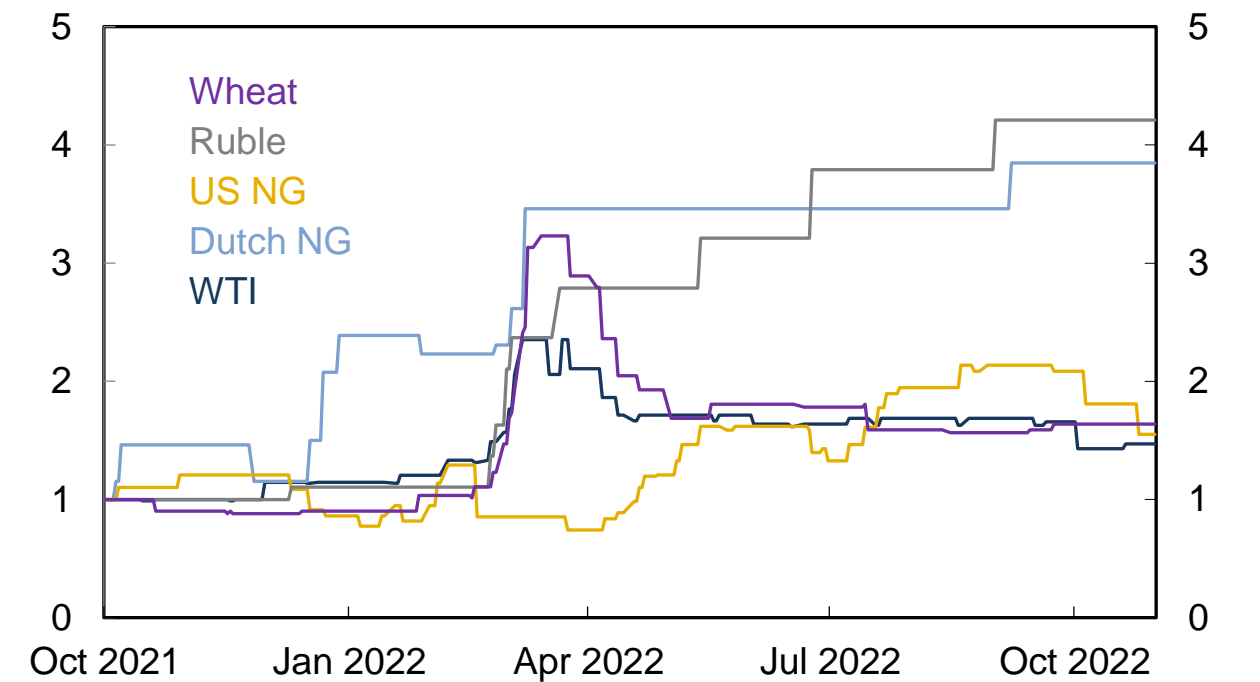


Source: CFTC

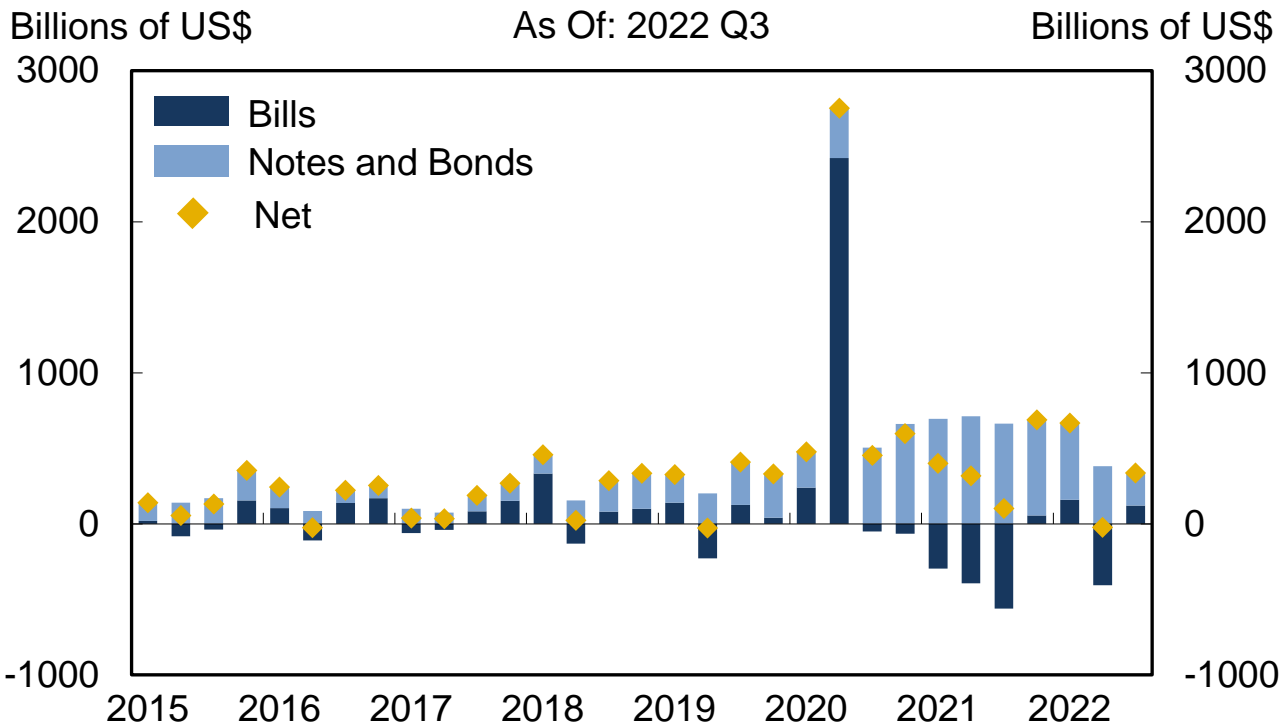


# E.4 Normalized Margin of Futures Contracts

Index As Of: 31-Oct-2022 Index



### 3.3.1.1 Net Issuance of Treasury Securities



Source: U.S. Department of the Treasury, Bureau of the Fiscal Service, SIFMA, Haver Analytics

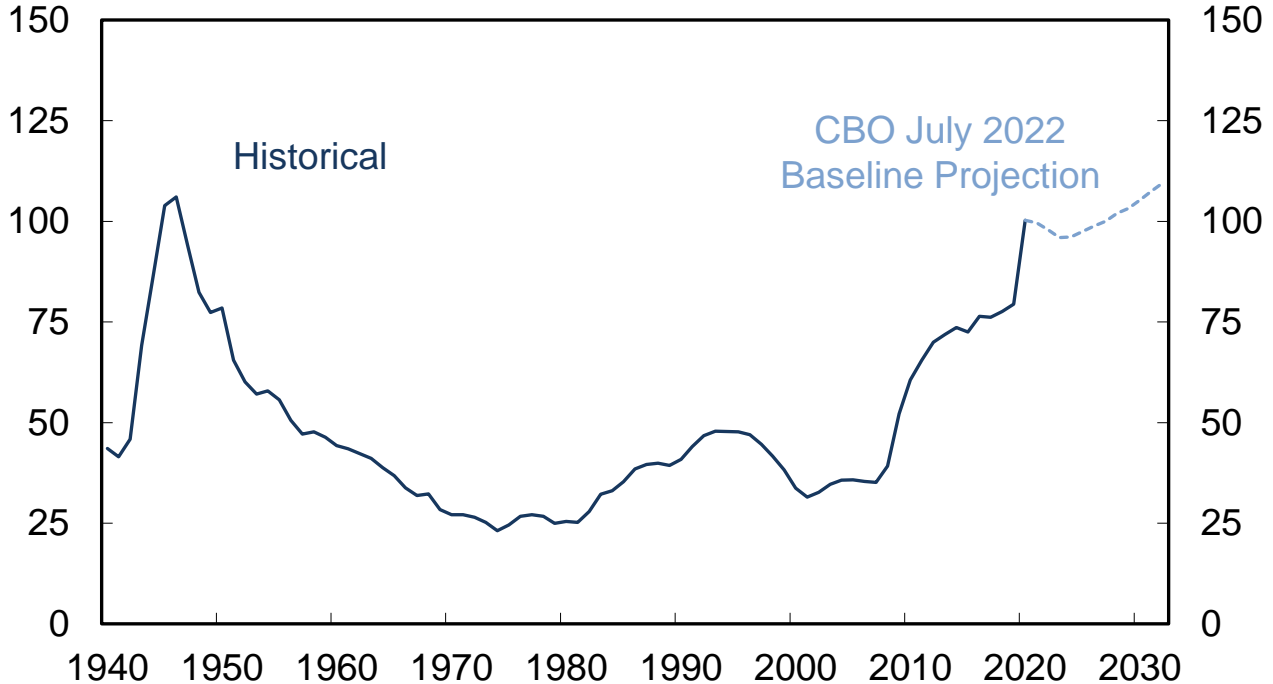
Note: Includes marketable securities only.

### 3.3.1.2 Federal Debt Held by the Public

## Percent of GDP

As Of: 2022

## Percent of GDP



Note: Data for fiscal years.  
Years after 2021 are projected.

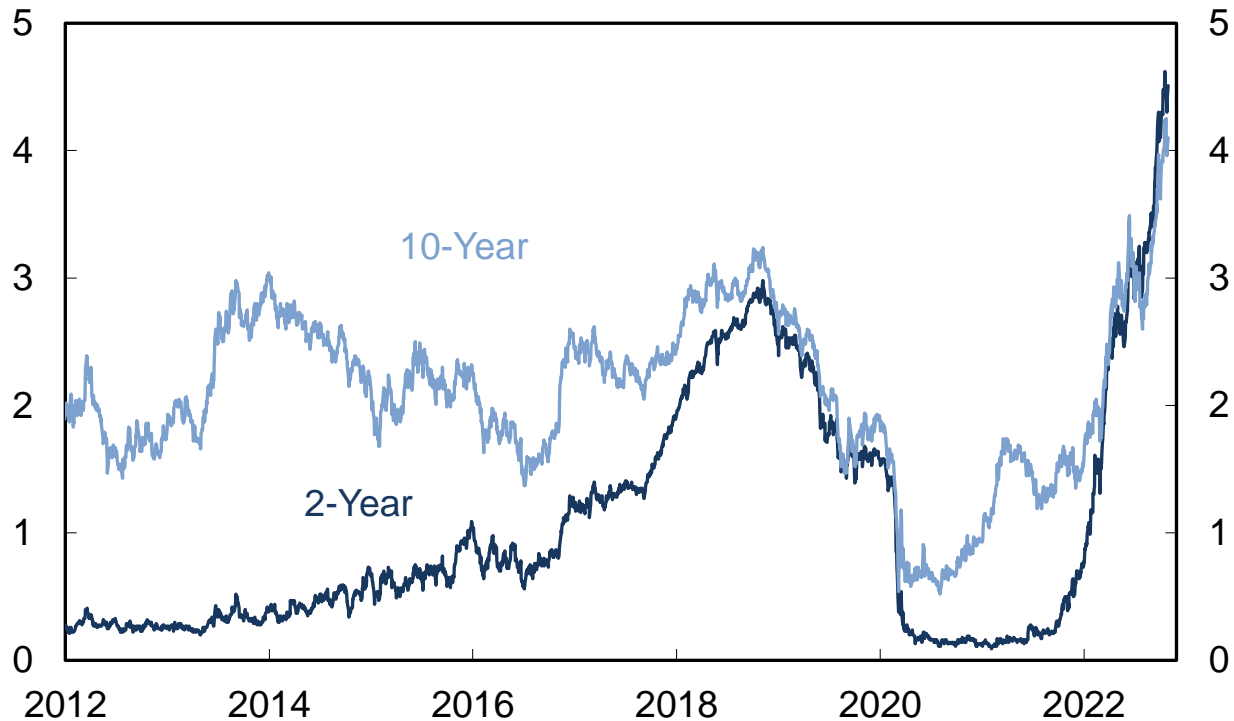
Source: CBO, Haver Analytics

### 3.3.1.3 U.S. Treasury Yields

Percent

As Of: 31-Oct-2022

Percent



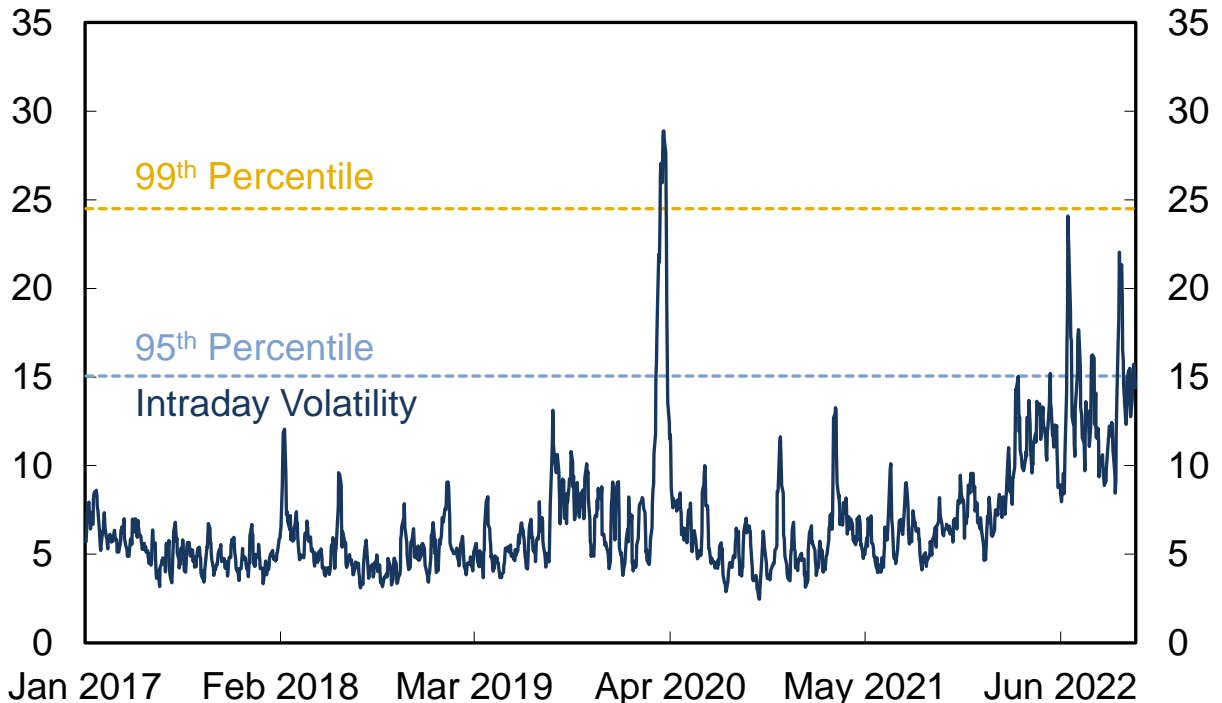
Source: U.S. Department of the Treasury

### 3.3.1.4 Intraday Volatility for 10-Year Treasury Yields

Basis Points

As Of: 31-Oct-2022

Basis Points



Note: 5-day moving average. Intraday volatility calculated as daily high yield minus daily low yield on 10-year Treasury notes. Percentiles based on January 2005–October 2022. Dec. 5, 2018 is included in the data despite the market being closed.

Source: Bloomberg,  
L.P.

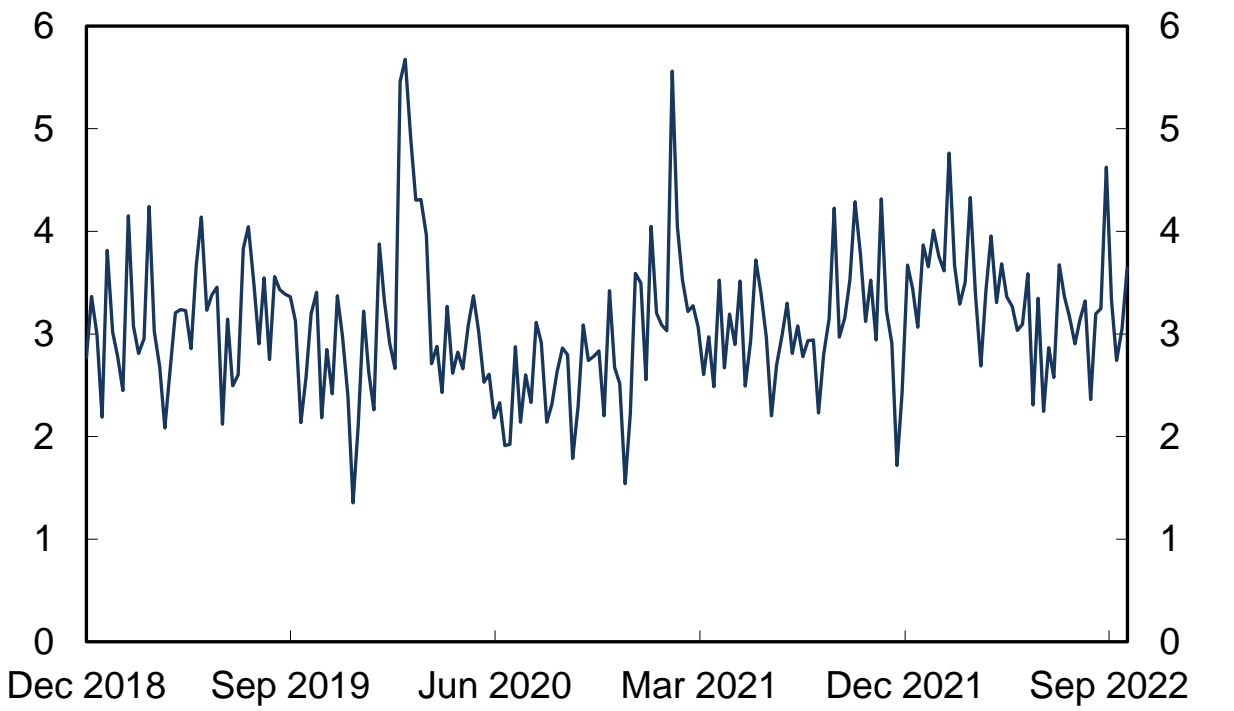
### 3.3.1.5 MOVE Index and 2-Year Treasury Yield



Source: FRED, Bloomberg, L.P.

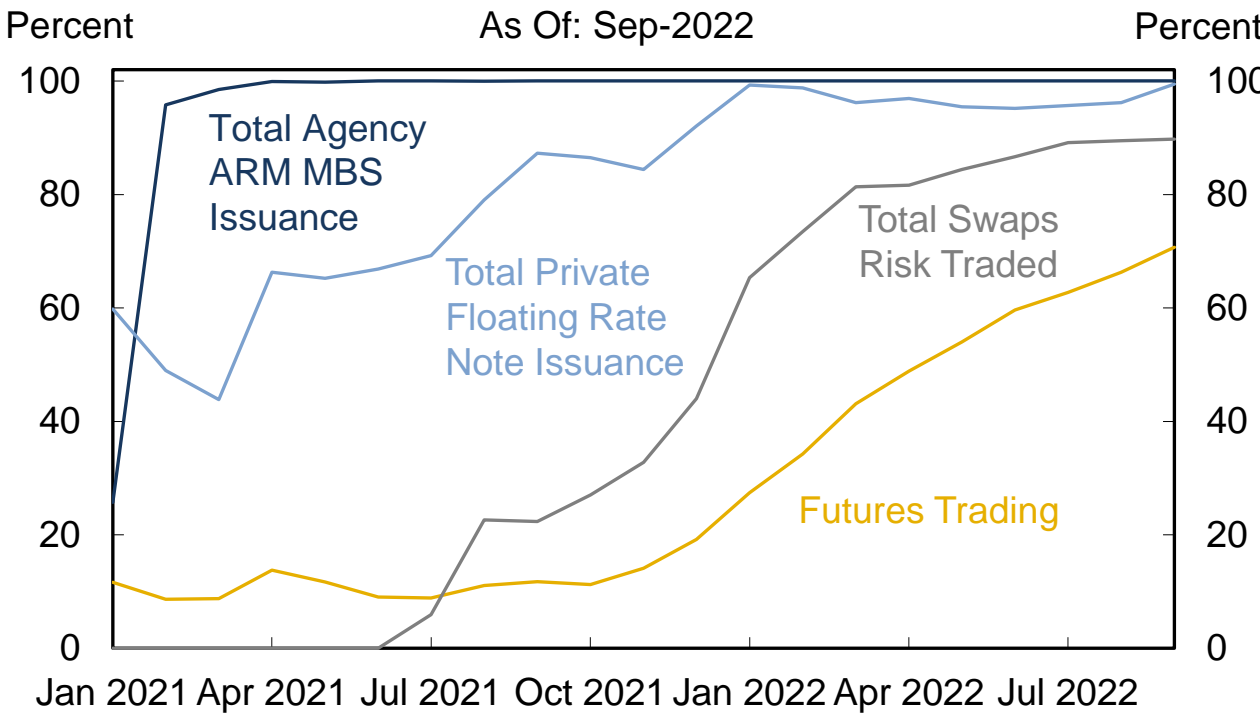
# 3.3.1.6 Total TRACE Treasury Weekly Trading Volumes

Trillions of US\$                      As Of: 31-Oct-2022                      Trillions of US\$



Source: FINRA

# 3.3.2.1 Progress in Transition to SOFR



Source: Black Knight-eMBS,  
Bloomberg Finance L.P., and Clarus  
Financial Technology

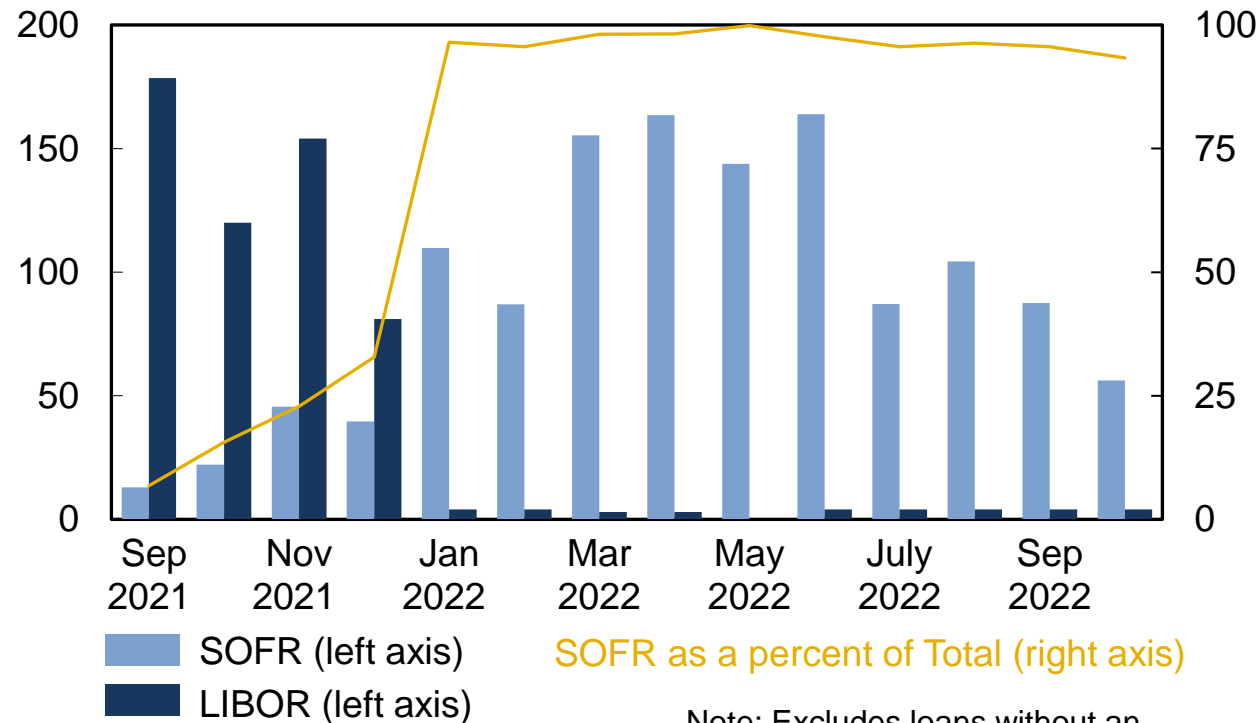


### 3.3.2.2 Syndicated Lending

Billions of US\$

As Of: Oct-2022

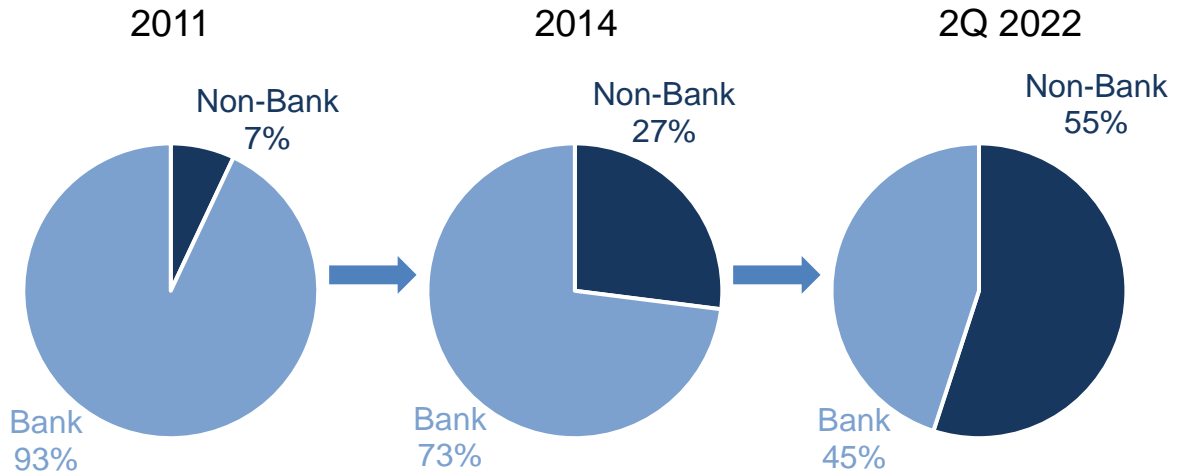
Percent



Source: LCD, an offering of PitchBook Data, and Refinitiv LLC

Note: Excludes loans without an identical base rate, foreign currency, and prime loans.

### 3.3.3.1 Transition of Mortgage Servicing Assets from Banks to Nonbanks: 2011 – Q2 2022



Source: Inside Mortgage Finance; Federal Reserve, *Report to Congress on the Effect of Capital Rules on Mortgage Servicing Assets*, June 2016

### 3.3.3.2 Nonbank Mortgage Originators Number of Companies, Origination Volumes & Market Share: 2017 – 2021

	2017		2021		Change		
State Licenses	Companies Reporting	Market Share	Companies Reporting	Market Share	Origination Growth	Licensee Growth	Market Share Growth
1	9,542	21%	10,889	10%	-1%	14%	-52%
2-25	2,595	26%	4,338	24%	89%	67%	-9%
26-50	163	23%	230	22%	102%	41%	-3%
50+	63	30%	73	44%	205%	16%	46%
Total	12,363		15,530		109%	26%	

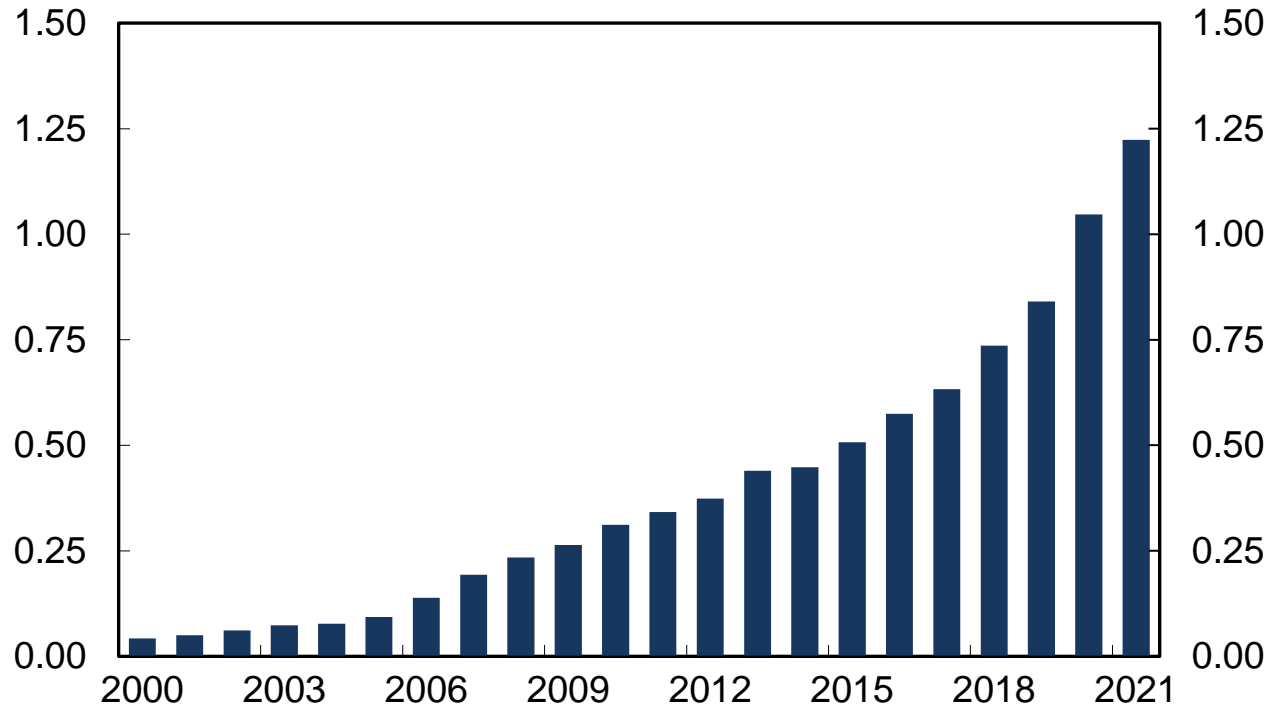
Source: NMLS MCR, CSBS

### 3.3.3.3 Global Private Debt AUM

Trillions of US\$

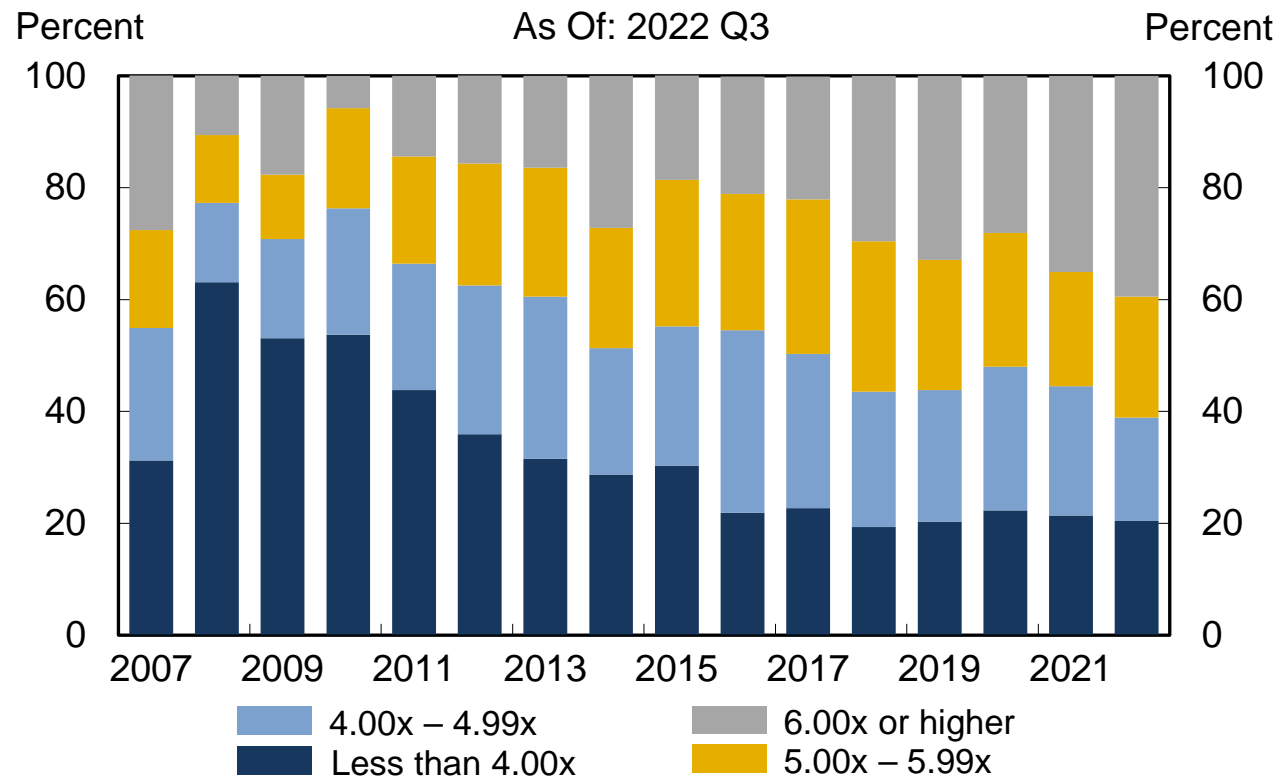
As Of: 2021

Trillions of US\$



Source: Preqin

### 3.3.3.4 Distribution of Leveraged Loan Debt/EBITDA Ratios



Source: S&P LCD

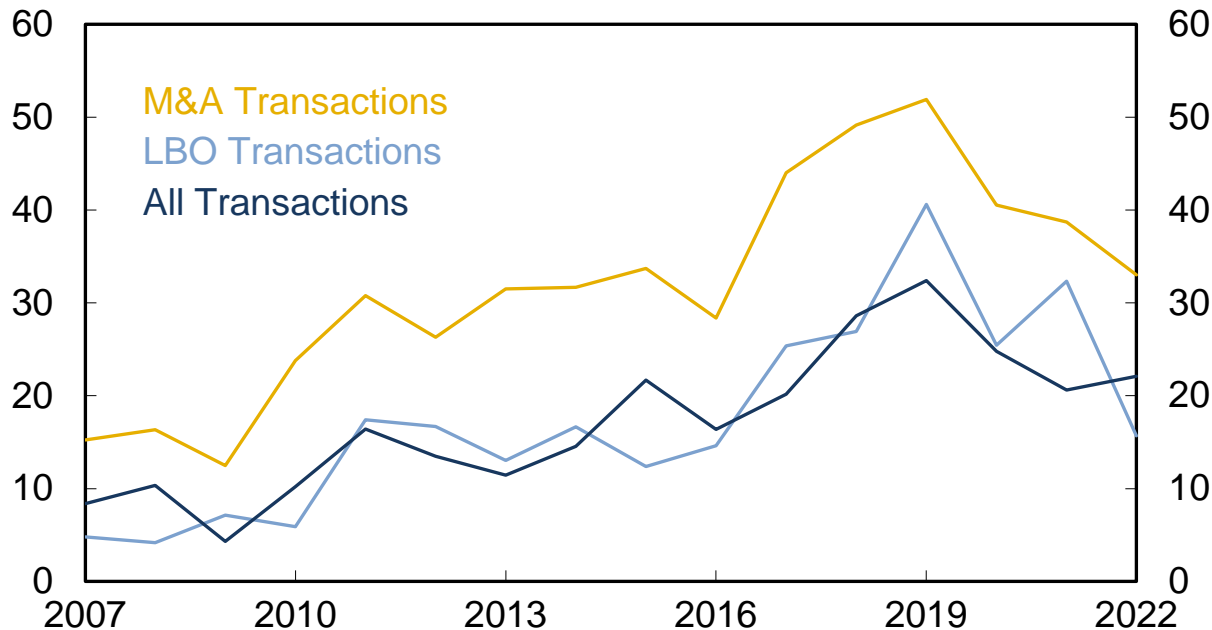
Note: Includes issuers with EBITDA > \$50M. Media and telecom loans excl. Prior to 2011, 2007-2021 data is annual; 2022 data is through Q3.

### 3.3.3.5 Leveraged Loan Transactions with EBITDA Adjustments

Percent

As Of: 2022 Q3

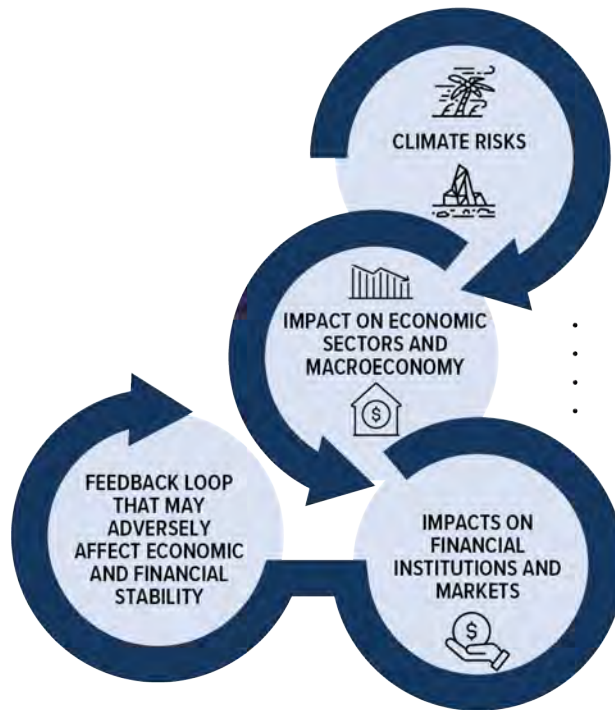
Percent



Note: Media and telecom loans excluded prior to 2011. Excludes existing tranches of add-ons, amendments & restatements with no new money, as well as DIPs, second liens and unsecured transactions. EBITDA adjusted for prospective cost savings or synergies.

Source: S&P LCD

# 3.5.1 Transmission Channels Linking Climate Risks to Financial Stability



## Transition risks

- Technological changes
- Policy shifts
- Changes in consumer preference

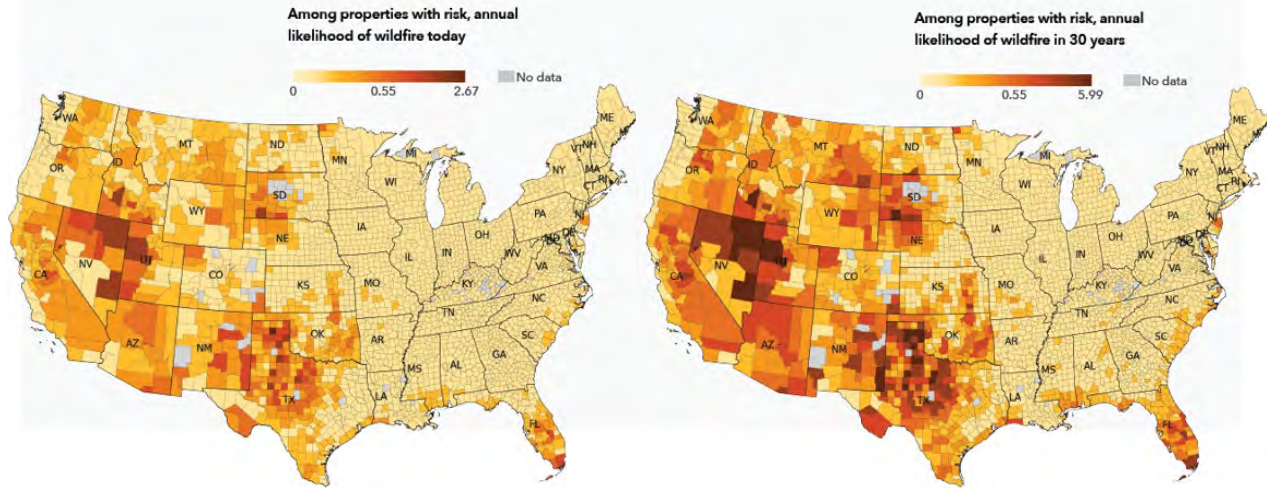
## Physical risks

- Chronic (e.g., sea level rise)
- Acute (e.g., hurricanes)

- Damages to property
- Business interruption
- Effects on household and business income
- Feedback across economy through product and labor markets

- Credit and market risks
- Liquidity risks
- Operational risks
- Legal risks
- Amplification through interconnections and correlated exposures

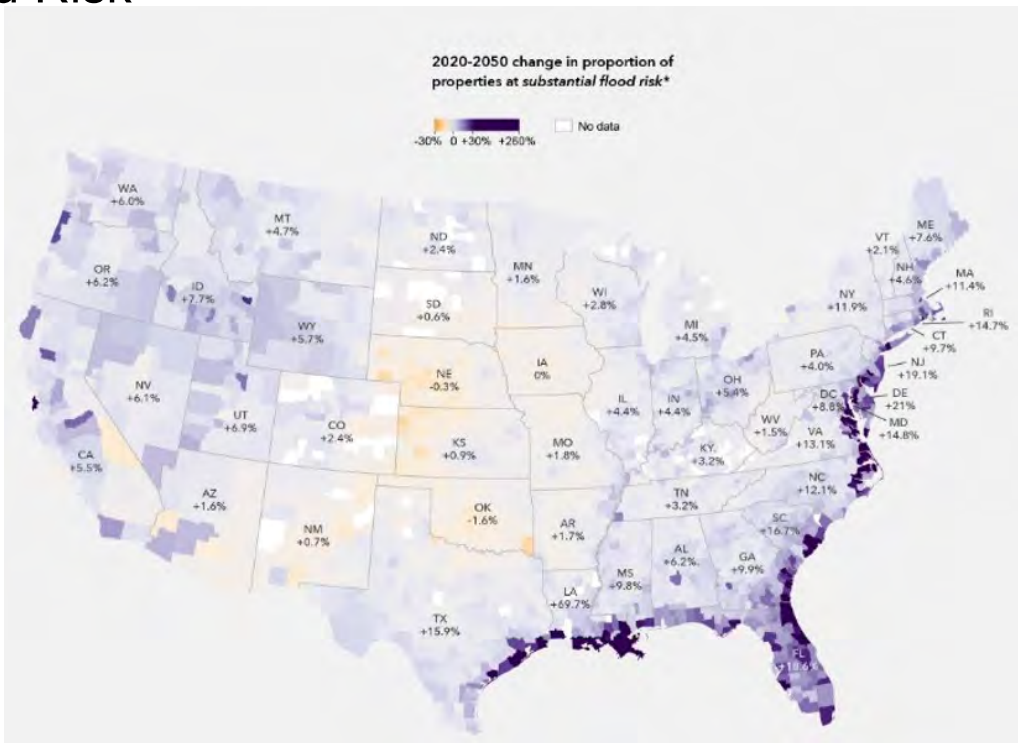
# 3.5.2 Residential Properties at Risk of Wildfire – Percent Increase in Annual Likelihood by 2050



Source: First Street Foundation, *The 5th National Risk Assessment*, 2022

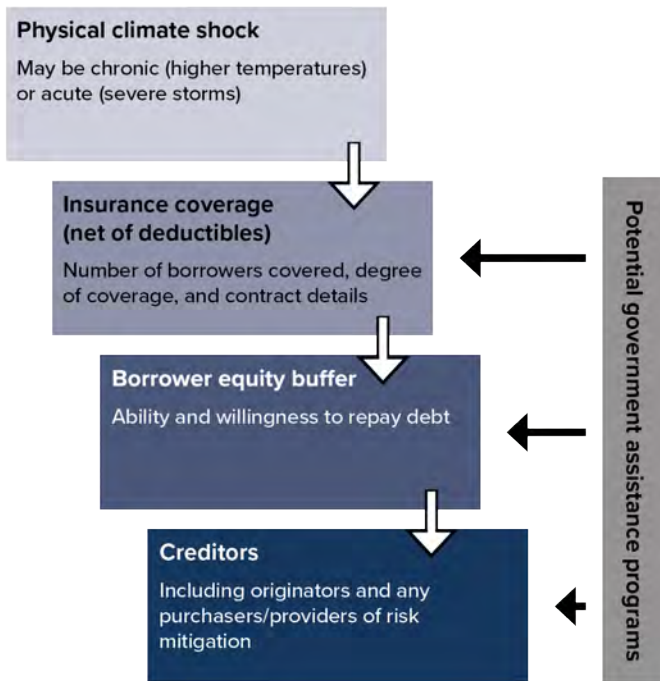


### 3.5.3 Projected Increase in Properties with Substantial Flood Risk



Source: First Street Foundation, *The First National Flood Risk Assessment*, 2020

### 3.5.4 Flow-of-Risk ‘Waterfall’



Source: FSOC

# Disclaimer

Chart 3.1.4.1 includes data licensed from DTCC Solutions LLC, an affiliate of The Depository Trust & Clearing Corporation.

Neither DTCC Solutions LLC nor any of its affiliates shall be responsible for any errors or omissions in any DTCC data included in this publication, regardless of the cause and, in no event, shall DTCC or any of its affiliates be liable for any direct, indirect, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or lost profit, trading losses and opportunity costs) in connection with this publication.