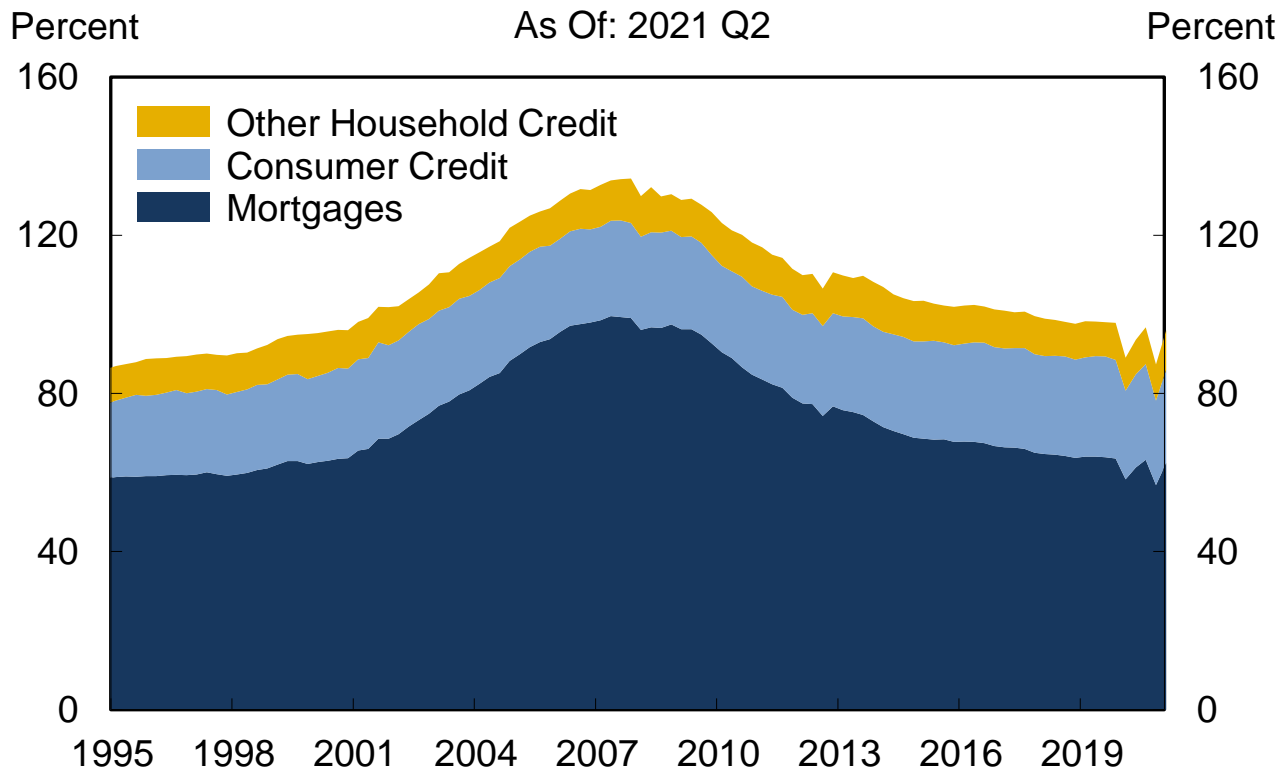


### 3.1.1 Household Debt as a Percent of Disposable Personal Income

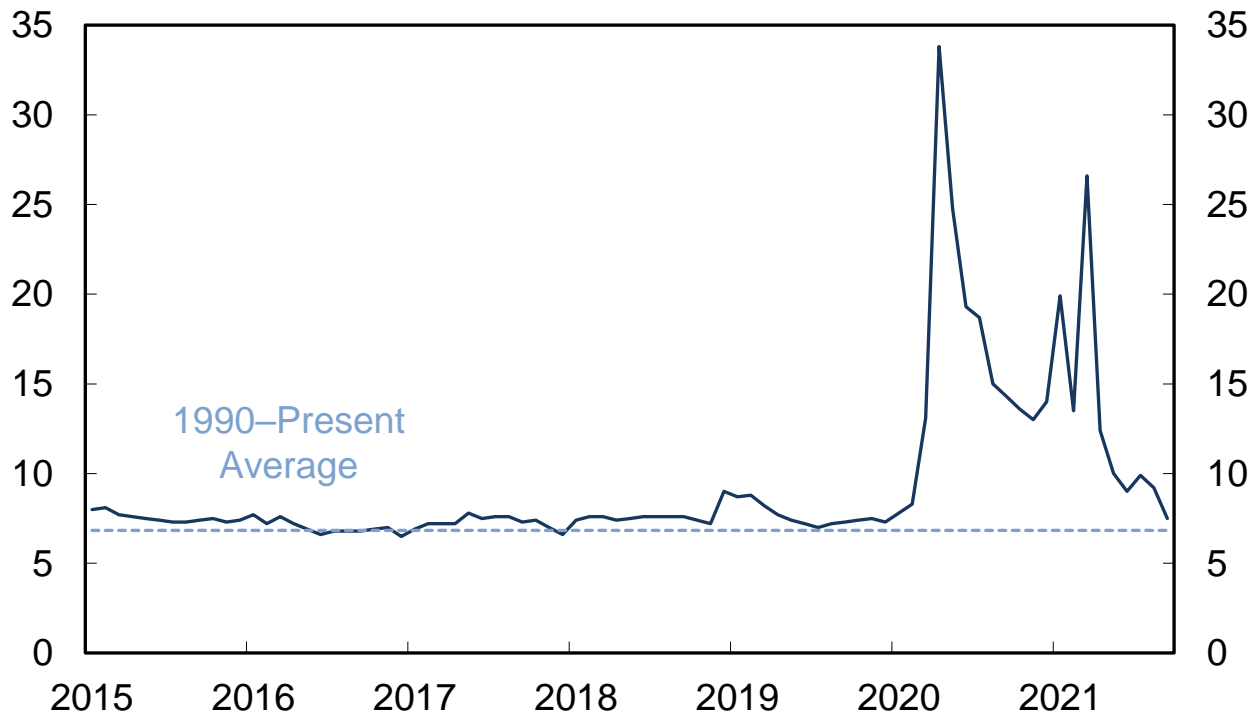


Source: BEA, Federal Reserve, Haver Analytics

Note: Other Household Credit includes debts of both households and nonprofits.

# 3.1.2 Household Personal Savings Rate

Percent As Of: Sep-2021 Percent

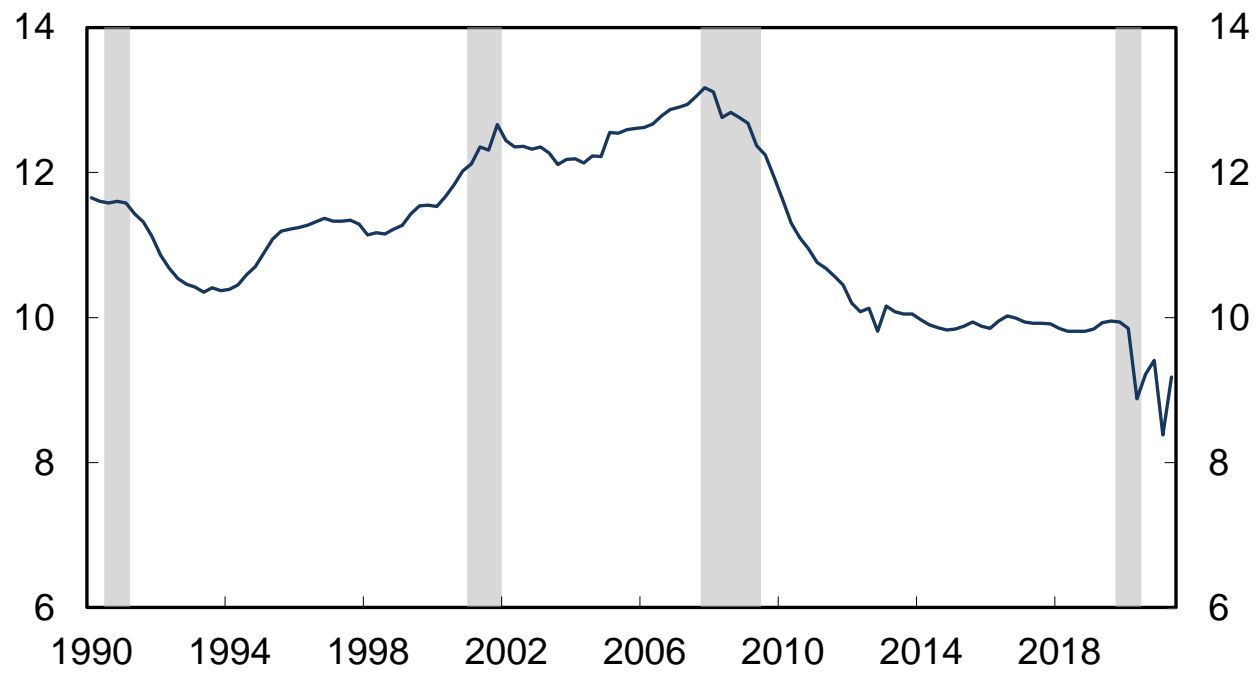


Note: Ratio of personal saving to disposable personal income.

Source: BEA, FRED

### 3.1.3 Household Debt Service Ratio

Percent As Of: 2021 Q2 Percent

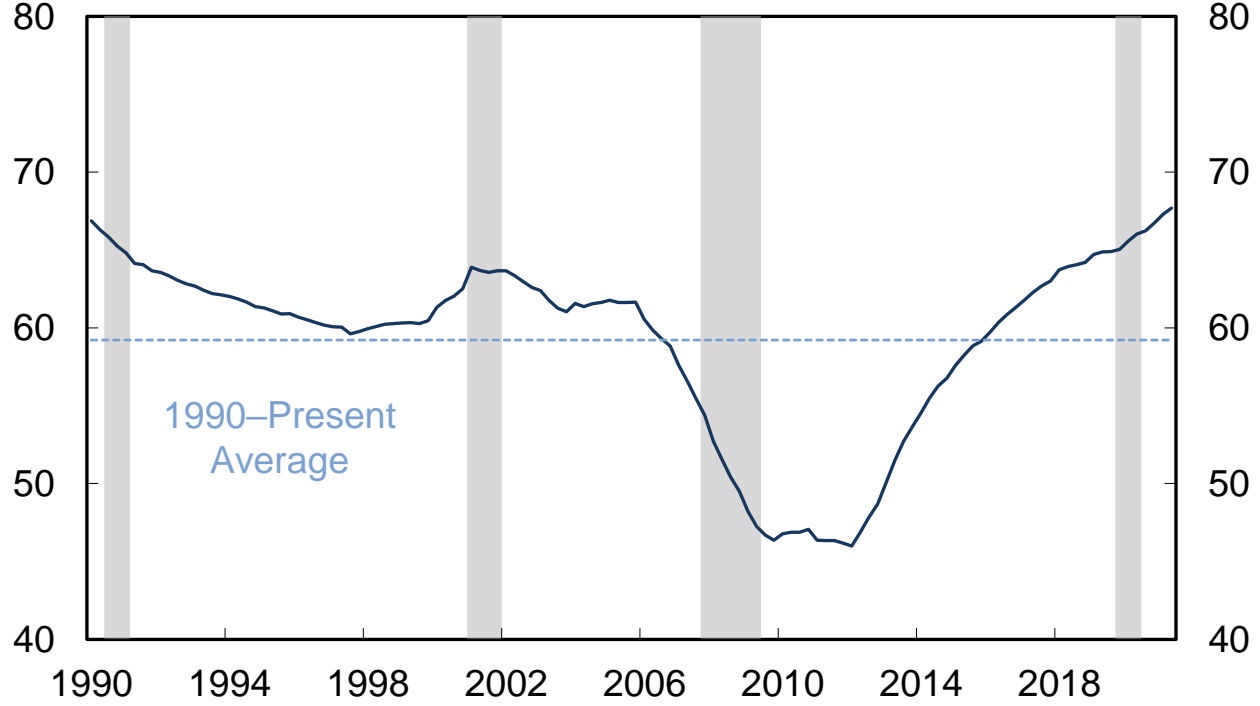


Source: Federal Reserve,  
Haver Analytics

Note: Ratio of debt service payments to disposable personal income. Seasonally adjusted. Gray bars signify NBER recessions.

# 3.1.4 Owners' Equity as Share of Household Real Estate

Percent As Of: 2021 Q2 Percent



Source: Federal Reserve, Haver Analytics

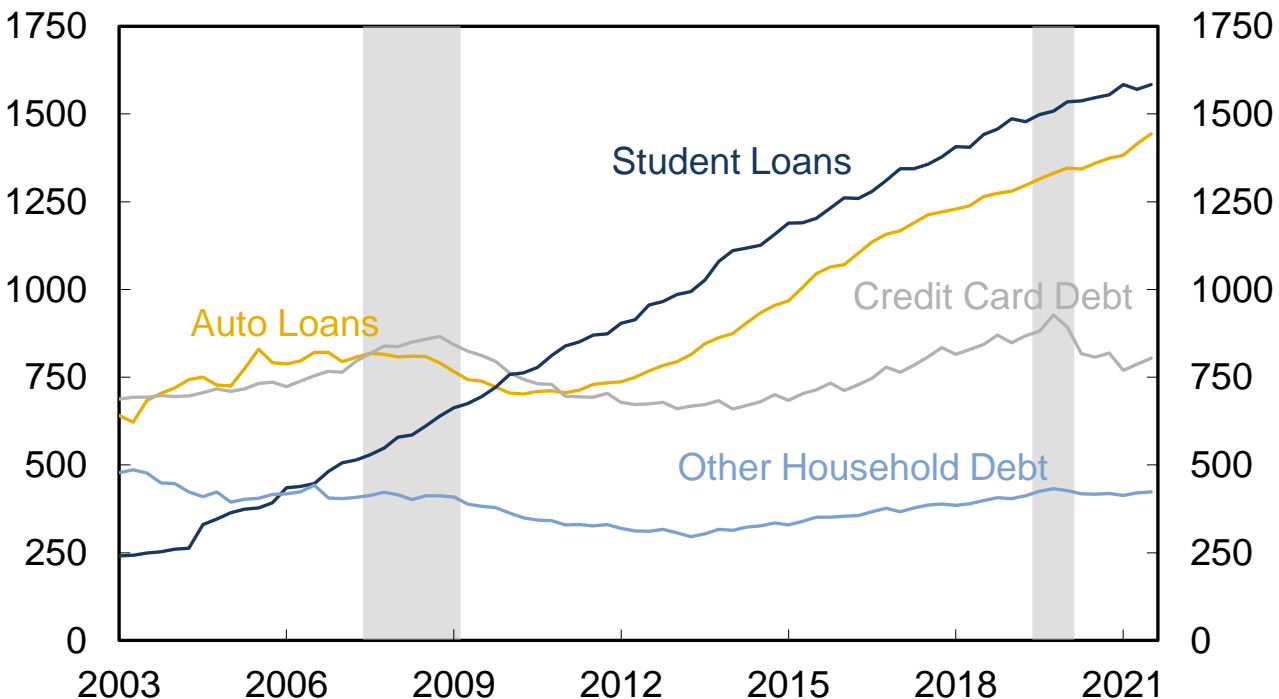
Note: Gray bars signify NBER recessions.

# 3.1.5 Components of Consumer Credit

Billions of US\$

As Of: 2021 Q3

Billions of US\$

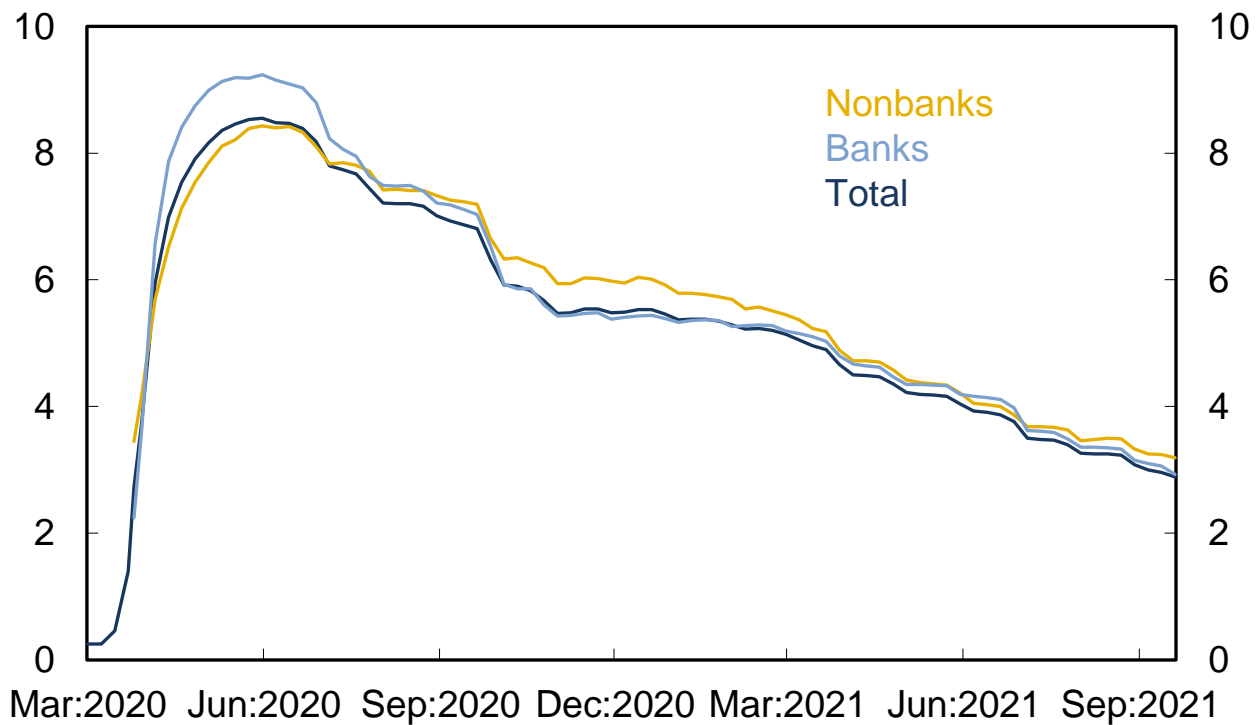


Source: FRBNY Consumer Credit Panel/Equifax, Haver Analytics

Note: Other includes consumer finance and retail loans. Gray bars signify NBER recessions.

# 3.1.6 Percentage of Mortgages in Forbearance

Percent As Of: 26-Sep-2021 Percent



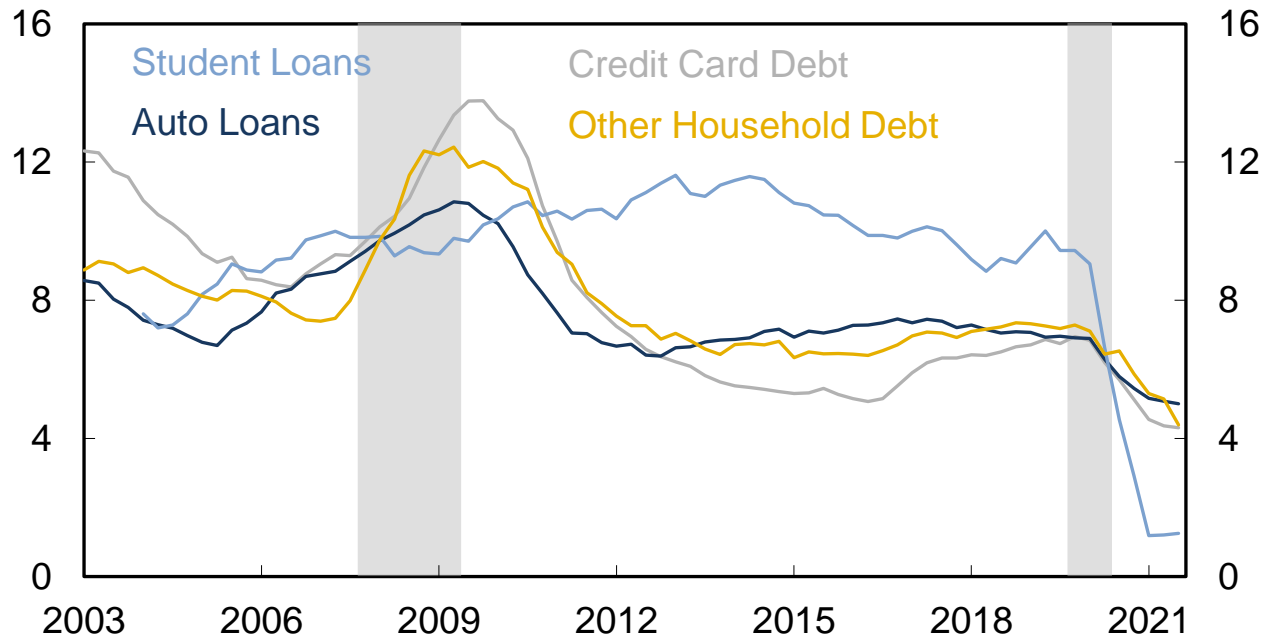
Source: Mortgage Bankers Association

### 3.1.7 Transition to Delinquency (30+ Days) by Loan Type

Percent

As Of: 2021 Q3

Percent

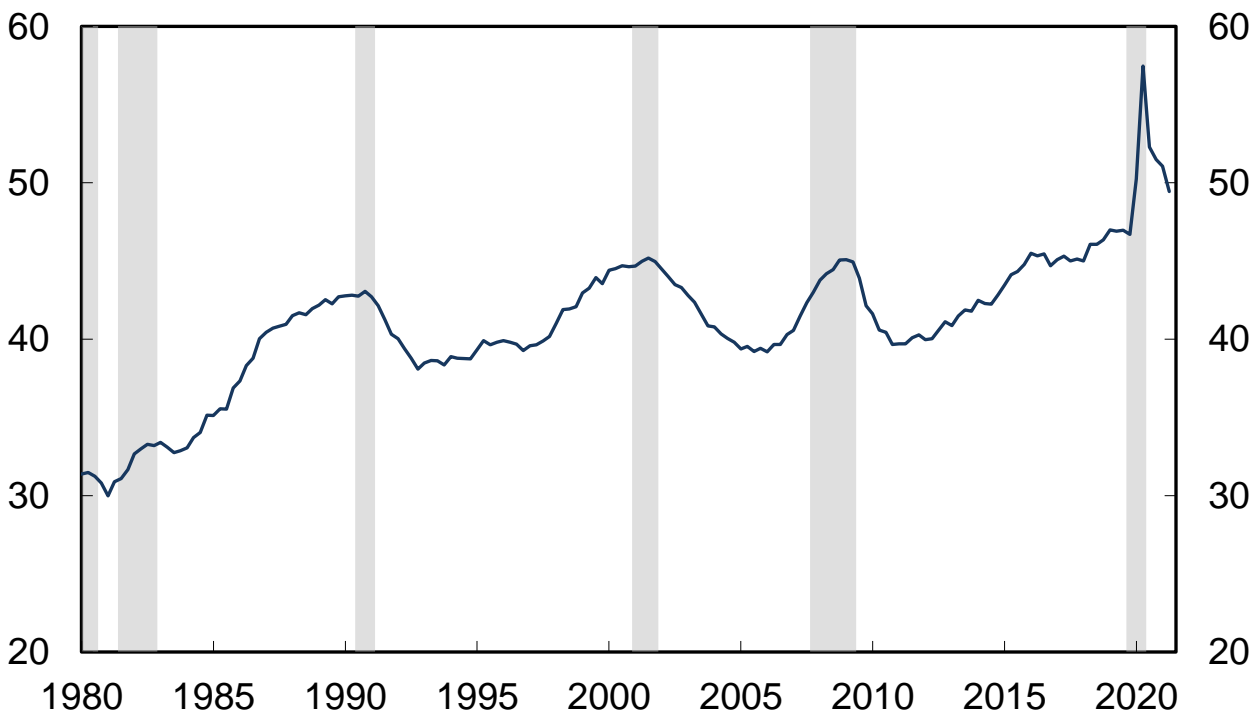


Source: FRBNY Consumer Credit Panel/Equifax, Haver Analytics

Note: Four-quarter moving sum. Student loan data are not reported prior to 2004 due to uneven reporting. Other includes consumer finance and retail loans. Gray bars signify NBER recessions.

# 3.2.1.1 Nonfinancial Corporate Credit as Percent of GDP

Percent As Of: 2021 Q2 Percent



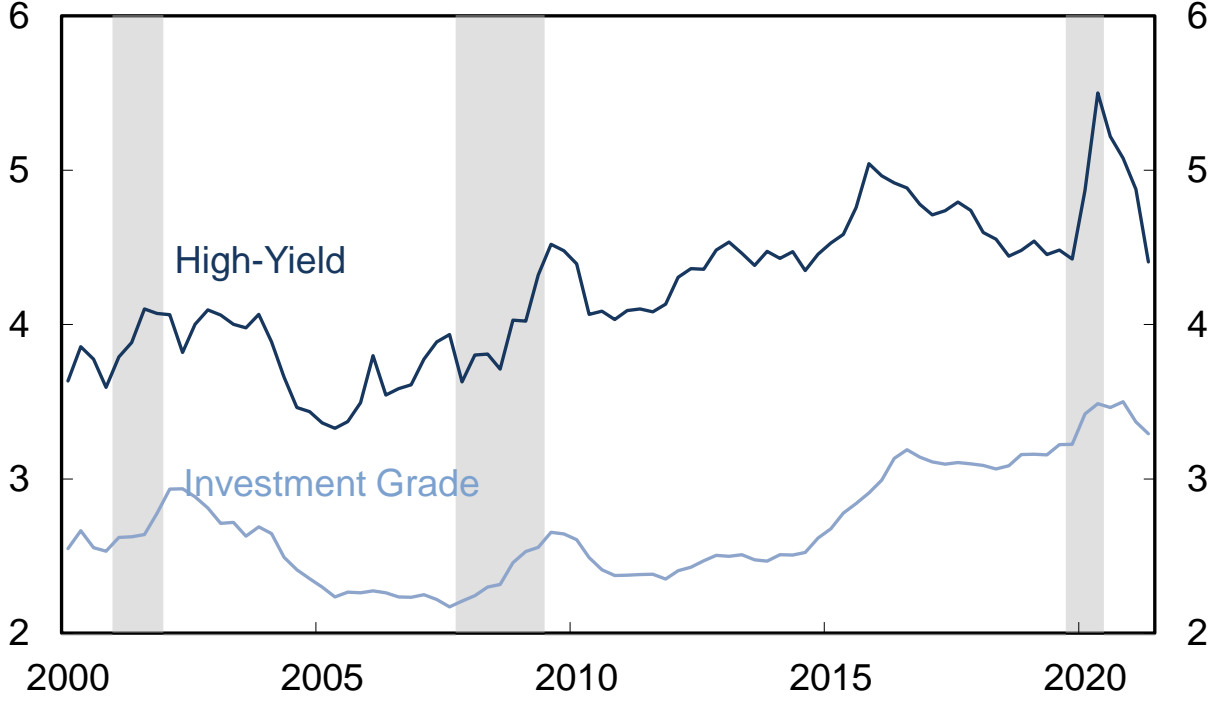
Source: Federal Reserve,  
Haver Analytics

Note: Gray bars signify NBER recessions.



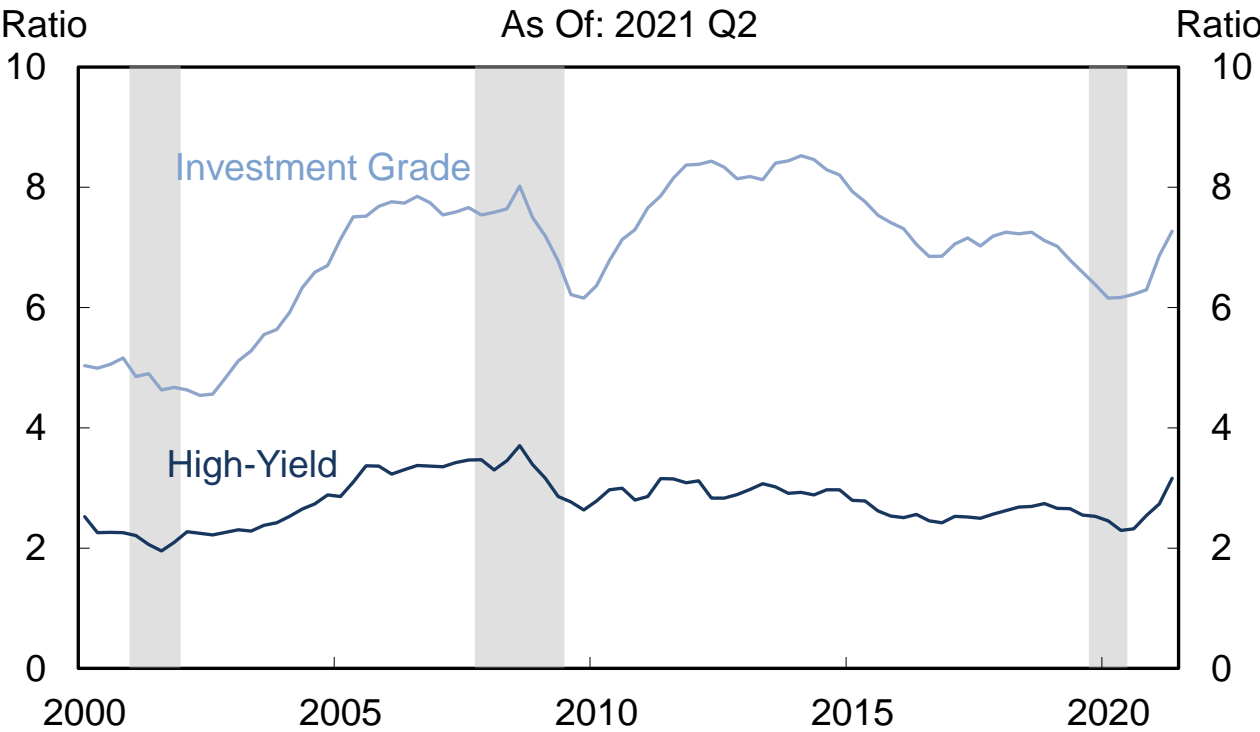
# 3.2.1.2 Corporate Leverage: Debt / EBITDA

Ratio As Of: 2021 Q2 Ratio



Note: Ratio of debt-to-EBITDA for companies included in Bloomberg Barclays Investment Grade and High-Yield Indices. Gray bars signify NBER recessions.

# 3.2.1.3 Interest Coverage Ratios

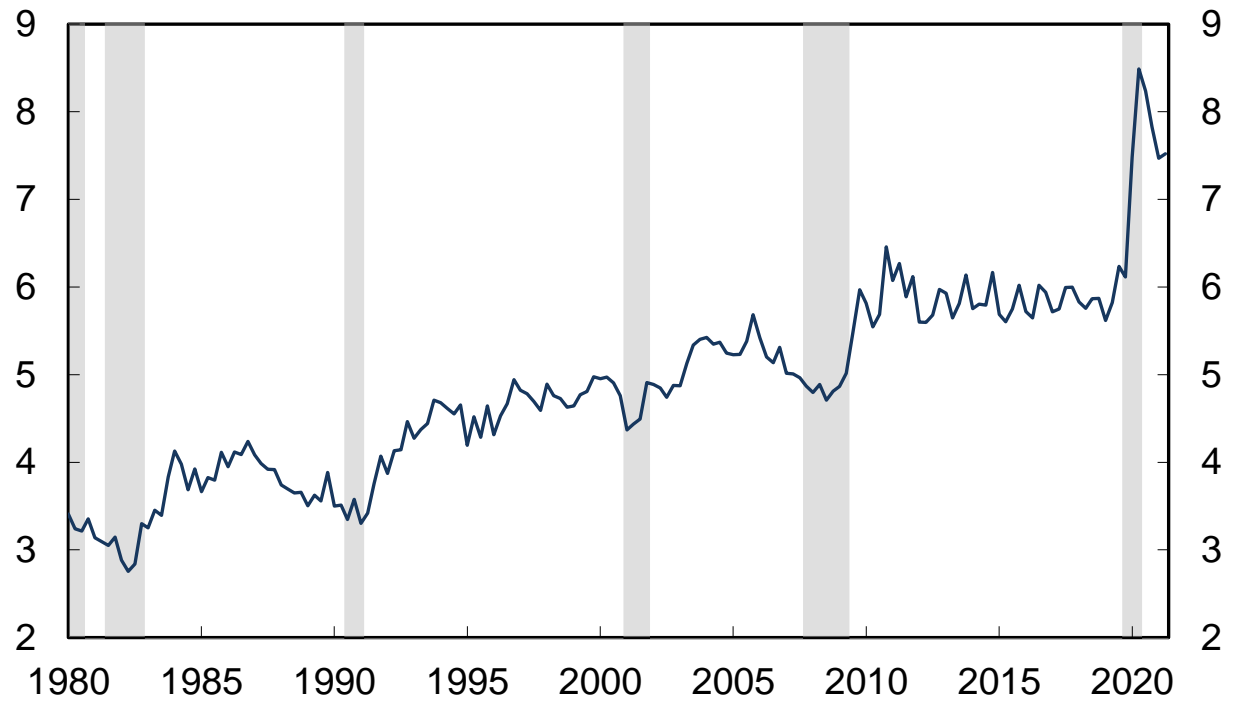


Source: Bloomberg, L.P.

Note: Ratio of earnings-to-interest expenses for companies included in Bloomberg Barclays Investment Grade and High-Yield Indices. Gray bars signify NBER recessions.

# 3.2.1.4 Nonfinancial Corporations Liquid Assets

Percent of Total Assets                      As Of: 2021 Q2                      Percent of Total Assets



Source: Federal Reserve,  
Haver Analytics

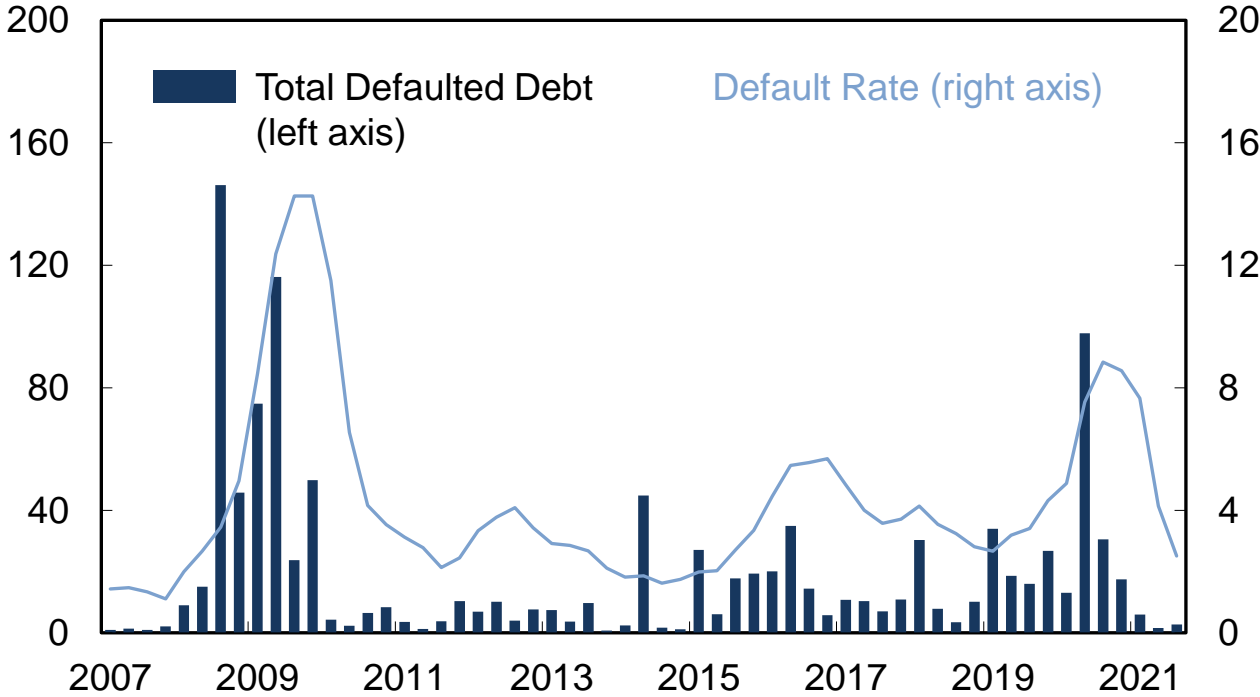
Note: Liquid assets includes foreign deposits, checkable deposits and currency, time and savings deposits, money market fund shares, security repurchase agreements, debt securities, and mutual fund shares. Gray bars signify NBER recessions.

# 3.2.1.5 U.S. Corporate Defaults

Billions of US\$

As Of: 2021 Q3

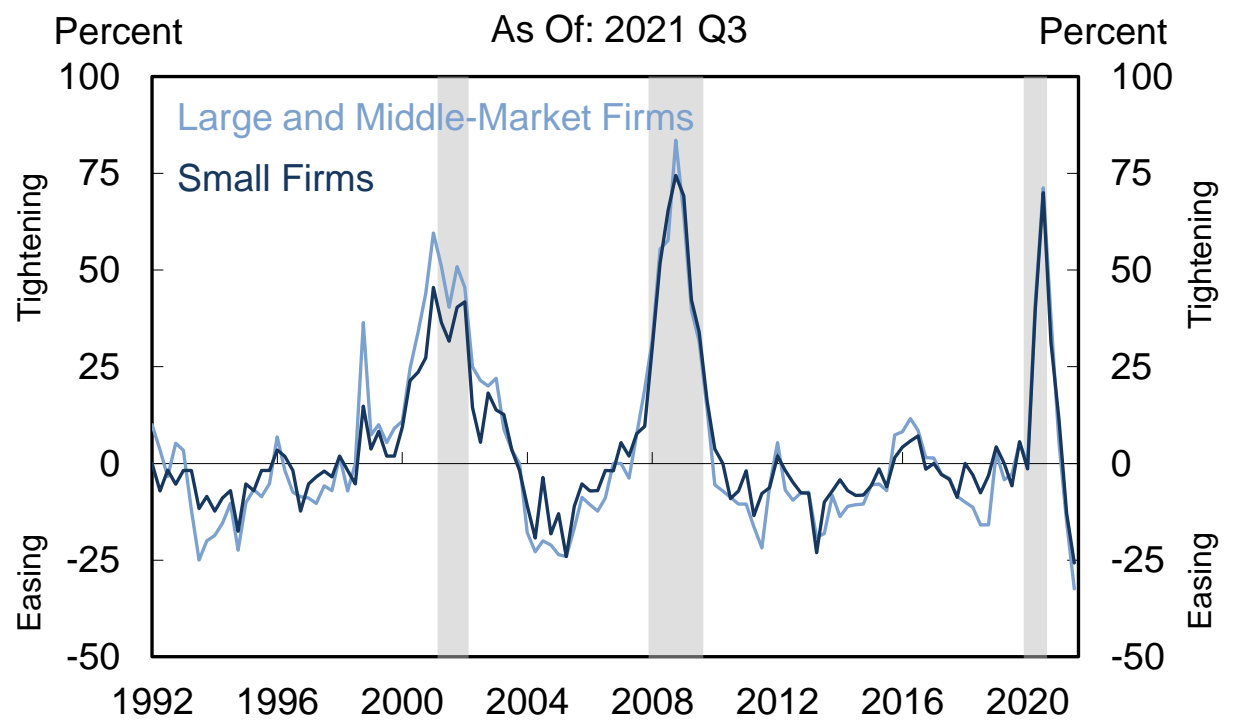
Percent



Source: Moody's Investors Service, OFR

Note: Issuer weighted 12-month trailing default rate for speculative grade U.S. corporates.

# 3.2.1.6 Bank Business Lending Standards



Source: Federal Reserve Senior Loan Officer Opinion Survey

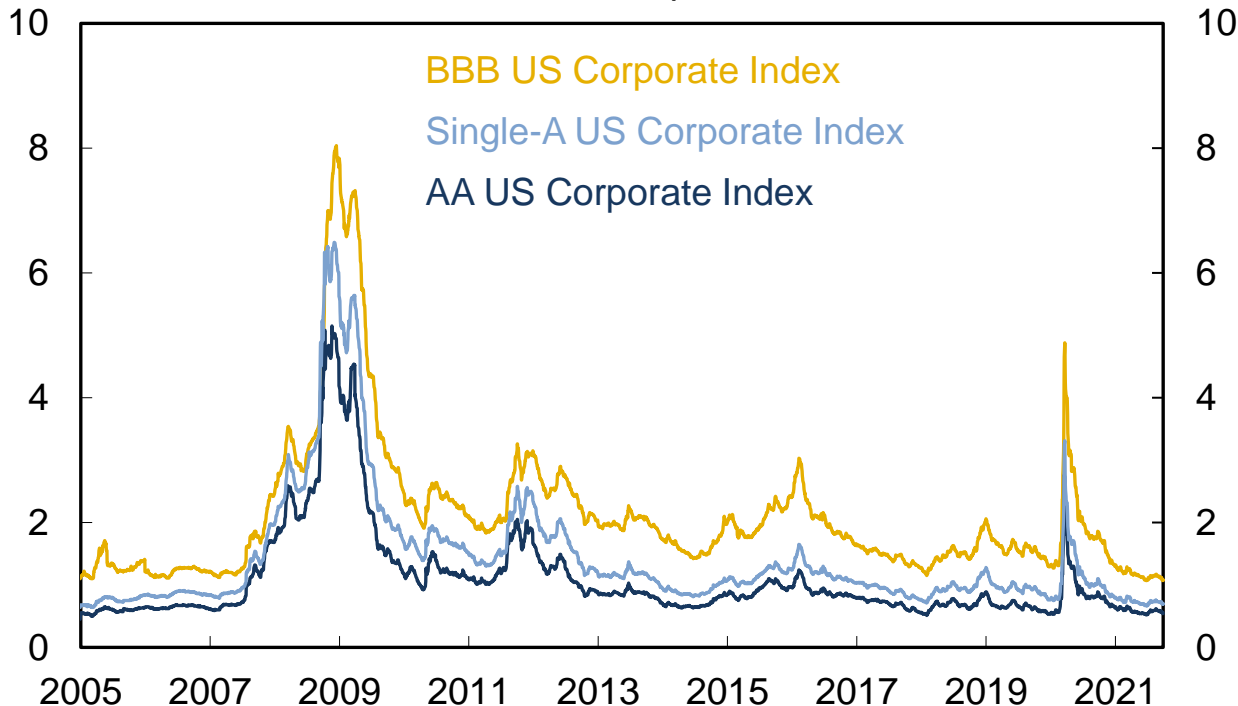
Note: Represents net percentage of banks reporting tightening standards for C&I loans. Large and middle-market firms are those with annual sales of \$50 million or more. Gray bars signify NBER recessions.

### 3.2.1.7 Investment Grade Corporate Bond Spreads

Percent

As Of: 30-Sep-2021

Percent



Source: ICE Data Indices,  
ICE BofA US, FRED

Note: The ICE BofA Option-Adjusted Spreads (OASs) are the calculated spreads between a computed OAS index of all bonds in a given rating category and a spot Treasury curve.

### 3.2.1.8 High-Yield Corporate Bond Spreads

Percent

As Of: 30-Sep-2021

Percent



Source: ICE Data Indices,  
ICE BofA US, FRED

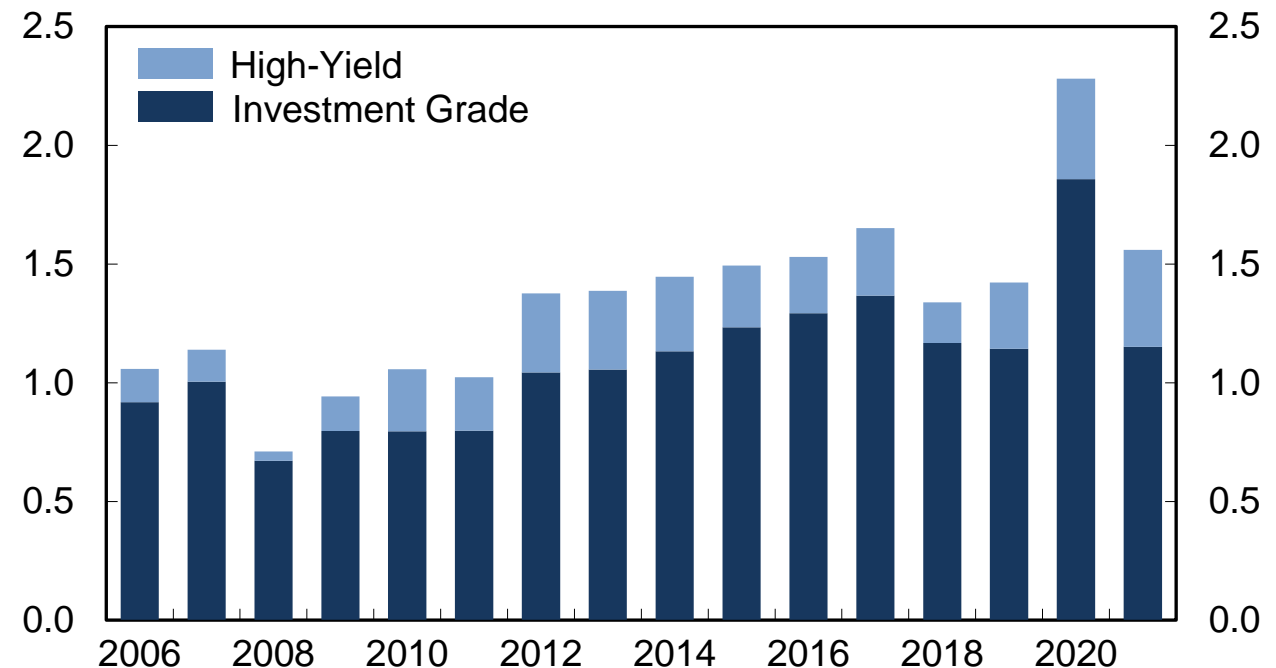
Note: The ICE BofA Option-Adjusted Spreads (OASs) are the calculated spreads between a computed OAS index of all bonds in a given rating category and a spot Treasury curve.

### 3.2.1.9 Gross Issuance of Corporate Bonds

Trillions of US\$

As Of: Sep-2021

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. 2021 figures are through September.



### 3.2.1.10 Leveraged Loan Spreads

Percent

As Of: 30-Sep-2021

Percent



Source: S&P LCD

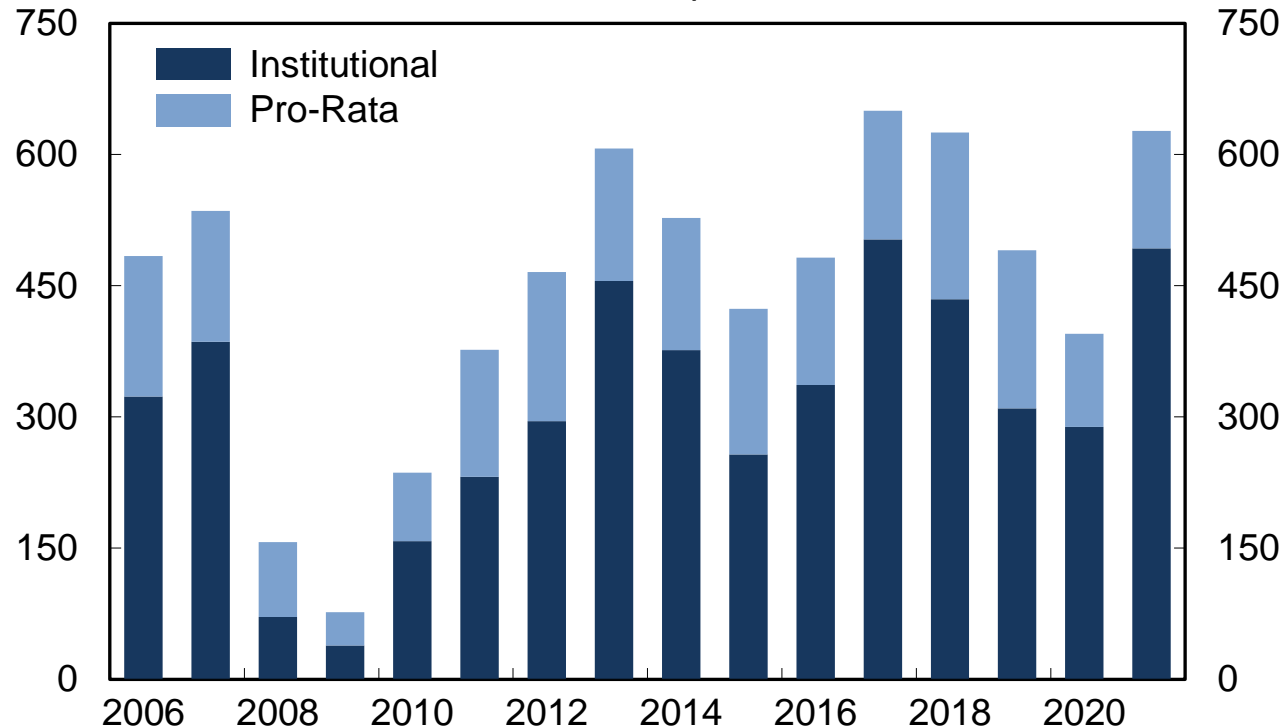
Note: Spread-to-maturity for syndicated loans included in the S&P LCD Leveraged Loan Index.

### 3.2.1.11 Leveraged Loan Issuance

Billions of US\$

As Of: 30-Sep-2021

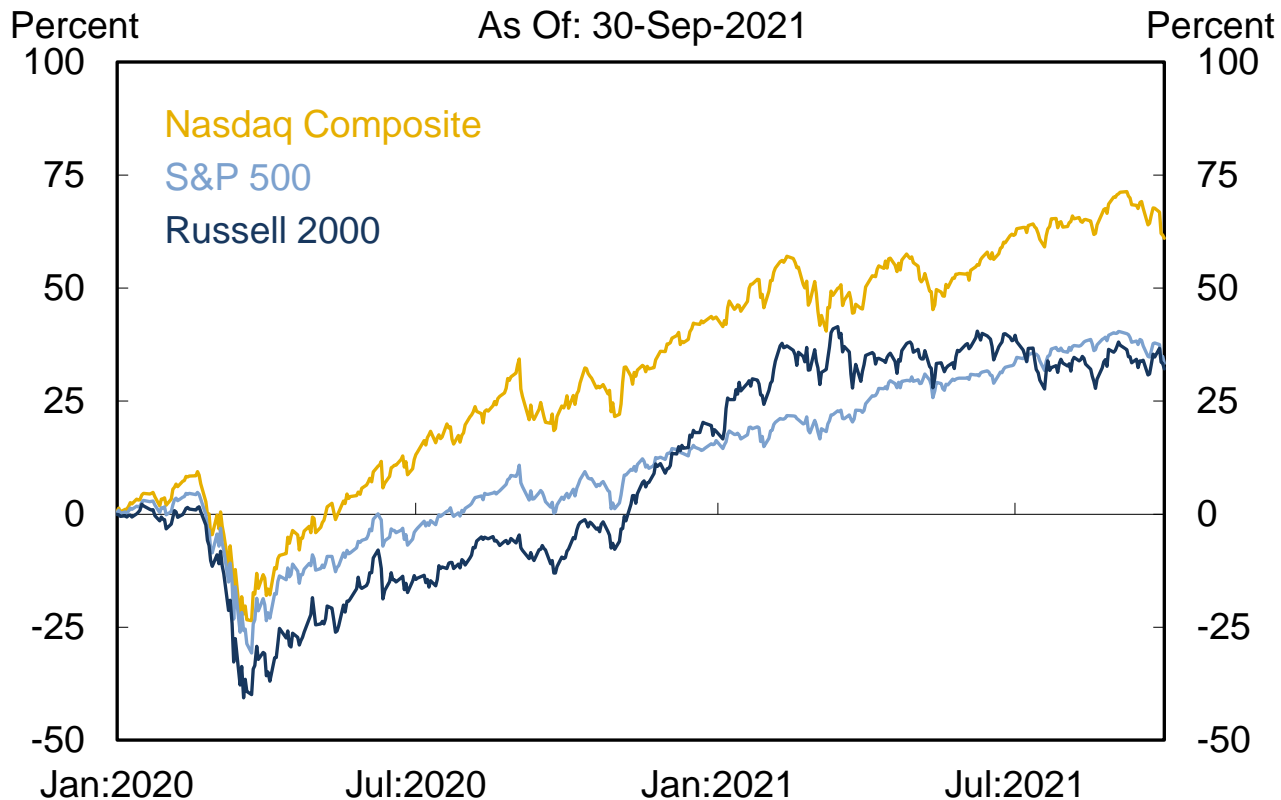
Billions of US\$



Source: S&P LCD

Note: 2021 figures are through September.

### 3.2.3.1 Performance of U.S. Stock Indices



Source: Bloomberg, L.P.

Note: Indexed to 31-Dec-2019.

### 3.2.3.2 S&P 500 Forward Price-to-Earnings

P/E

As Of: 30-Sep-2021

P/E

30

30

25

25

20

20

15

15

10

10

2017

2018

2019

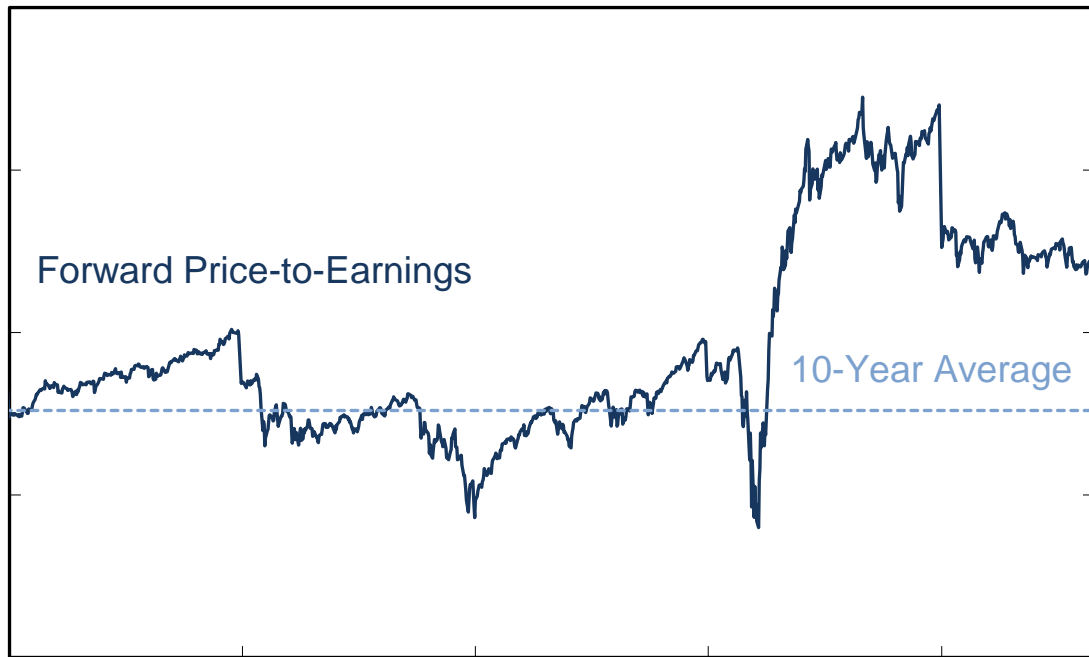
2020

2021

Forward Price-to-Earnings

10-Year Average

Source: Bloomberg, L.P.



### 3.2.3.3 S&P 500 Volatility

Index

As Of: 24-Sep-2021

Index

100

100

80

80

60

60

40

40

20

20

0

0

2006

2008

2010

2012

2014

2016

2018

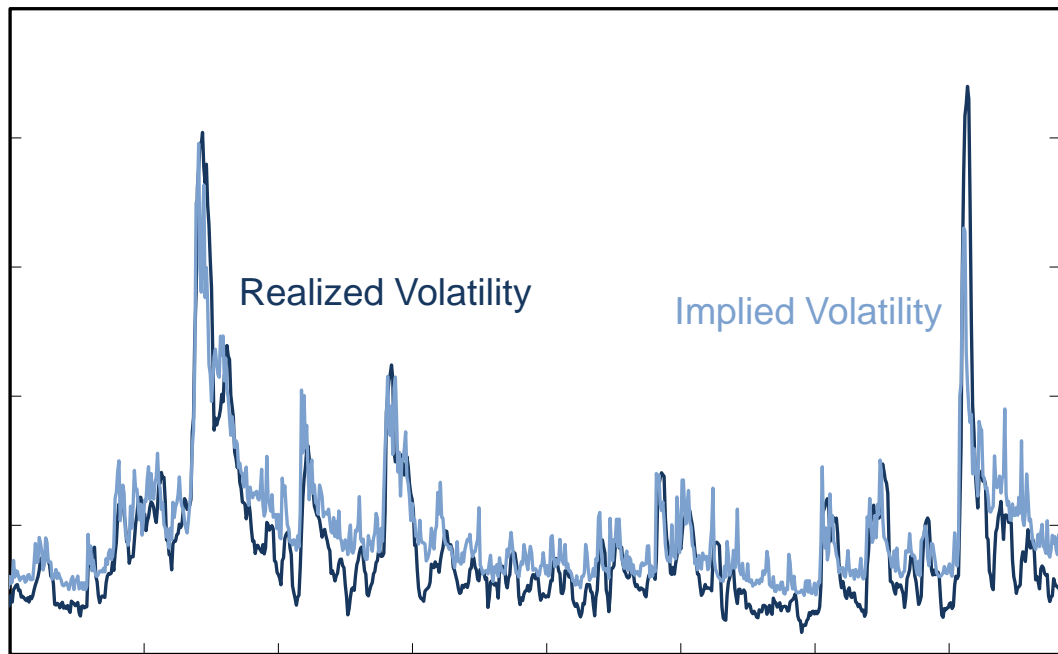
2020

Realized Volatility

Implied Volatility

Source: Bloomberg, L.P.

Note: 30-day realized and implied volatility.

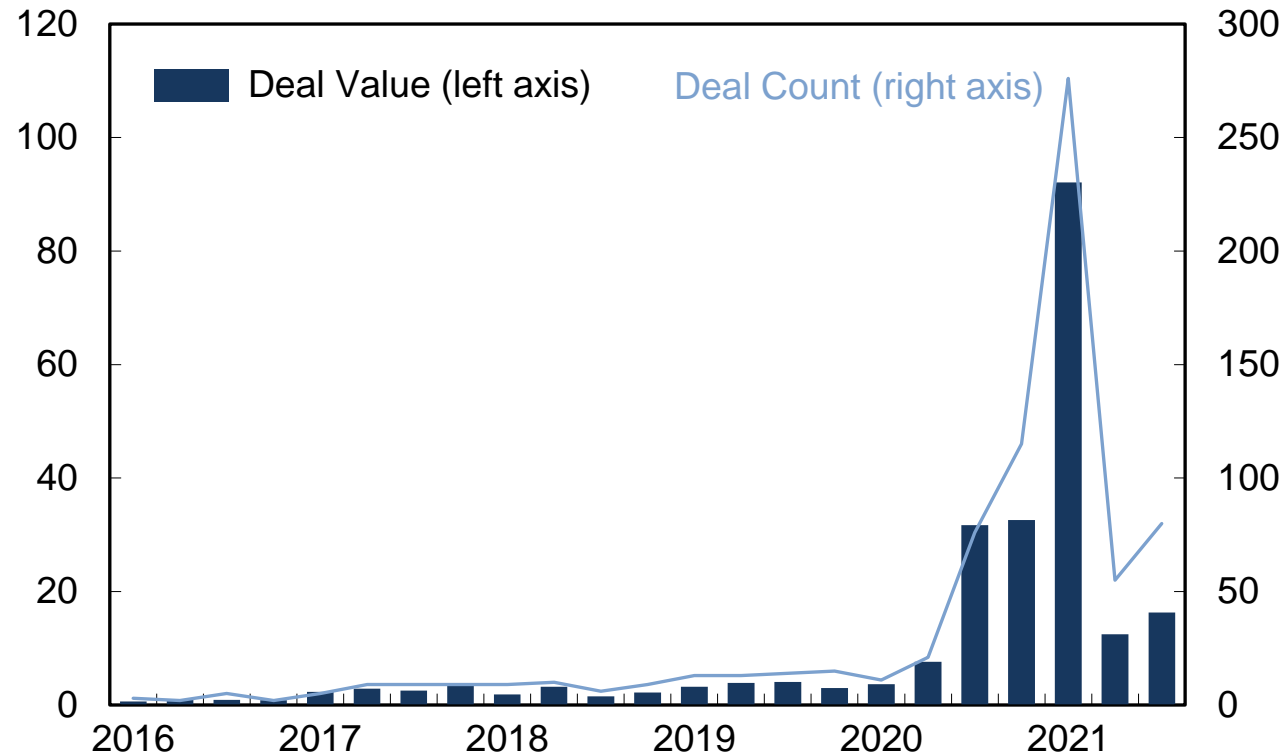


### 3.2.3.4 SPAC Issuances

Billions of US\$

As Of: 2021 Q3

Count



Source: Bloomberg, L.P.

## 3.2.3.5 Returns in Selected Equities Indices

As Of: 30-Sep-2021

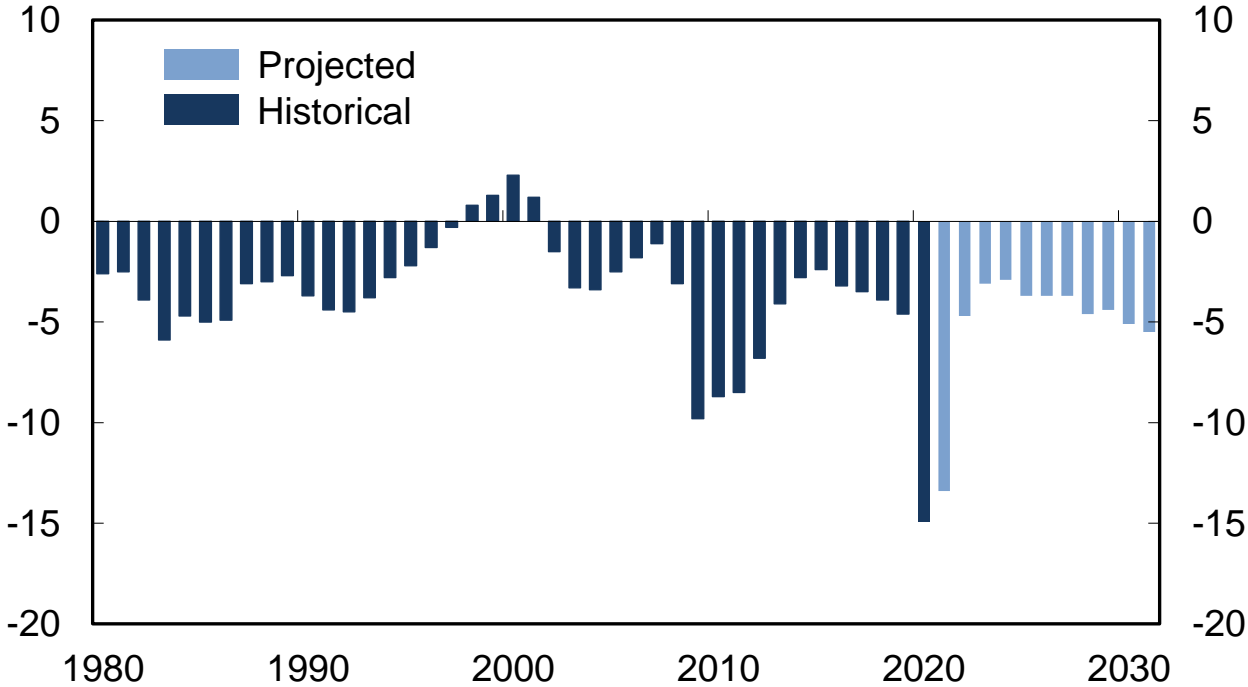
	<u>YTD</u>	<u>Since YE 2019</u>	<u>5 Year (Annualized)</u>
<b>U.S. Indices</b>			
S&P 500	14.7%	33.3%	14.7%
Nasdaq Composite	12.1%	61.0%	22.1%
Russell 2000	11.6%	32.1%	12.0%
<b>Other Major Indices</b>			
Topix	12.5%	17.9%	8.9%
FTSE 100	9.7%	-6.0%	0.5%
Euro Stoxx 50	13.9%	8.1%	6.2%
DAX	11.2%	15.2%	7.7%
<b>Emerging Markets</b>			
MSCI Emerging Market Index	-3.0%	12.4%	6.8%
Brazil (Bovespa)	-6.8%	-4.0%	13.7%
India (S&P BSE Sensex)	23.8%	43.3%	16.2%
MSCI China	-17.4%	4.6%	7.3%
Onshore China (CSI 300)	-6.6%	18.8%	8.4%
Taiwan (TAIEX)	14.9%	41.2%	13.1%
South Korea (KOSPI)	7.2%	39.6%	8.5%

Source: Bloomberg, L.P.

# 3.3.1.1 Federal Budget Surplus/Deficit

Percent of GDP

Percent of GDP



Source: CBO, Haver Analytics

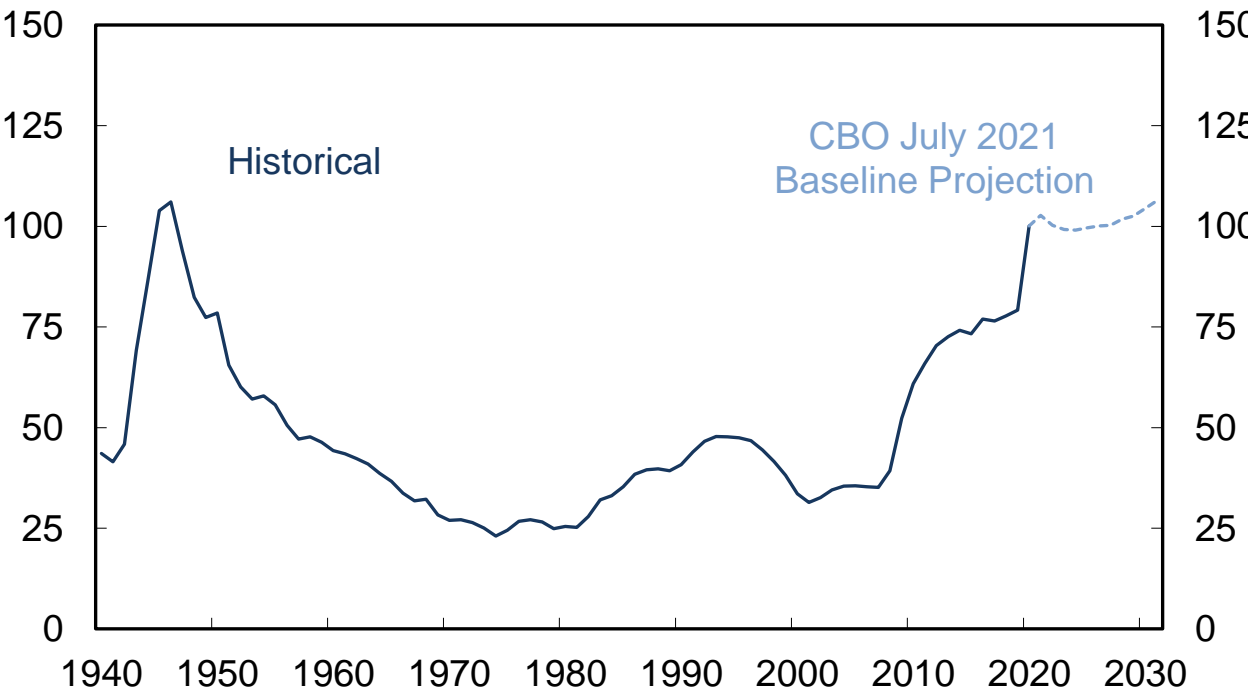
Note: Data for fiscal years. Years after 2020 are projected as of July 2021.



# 3.3.1.2 Federal Debt Held by the Public

Percent of GDP

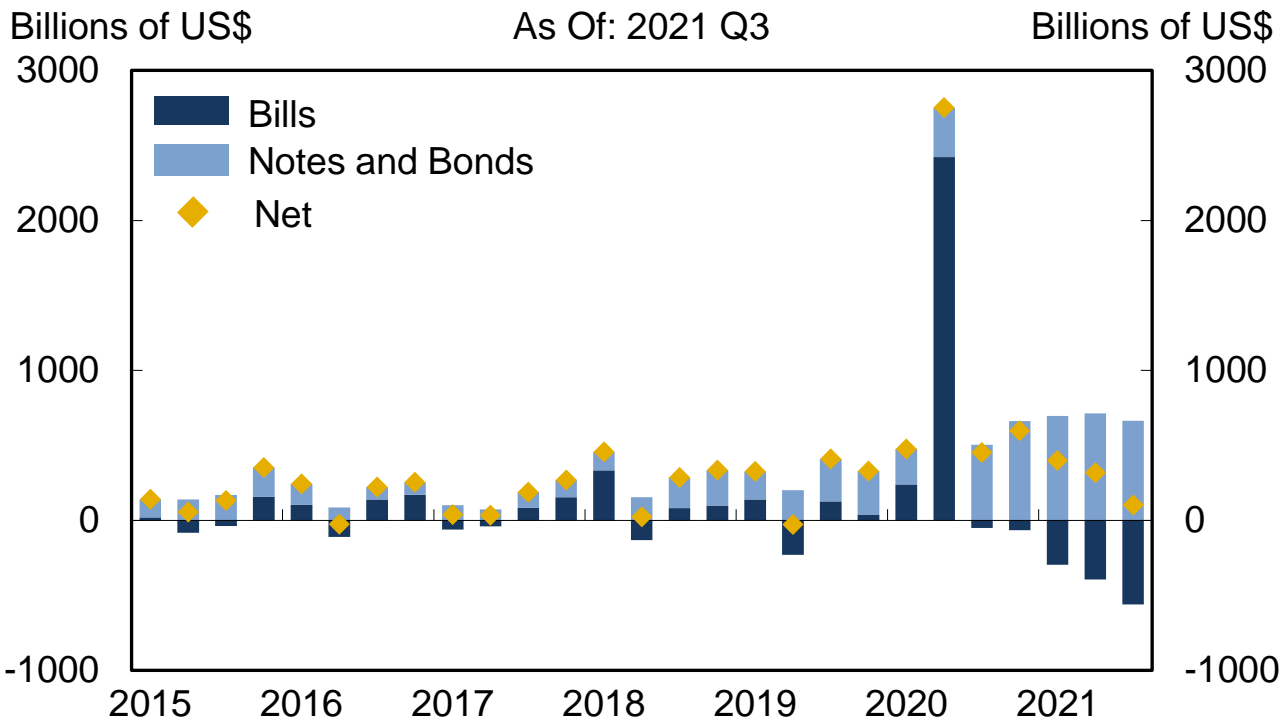
Percent of GDP



Source: CBO, Haver Analytics

Note: Data for fiscal years.  
Years after 2020 are projected.

### 3.3.1.3 Net Issuance of Treasury Securities



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

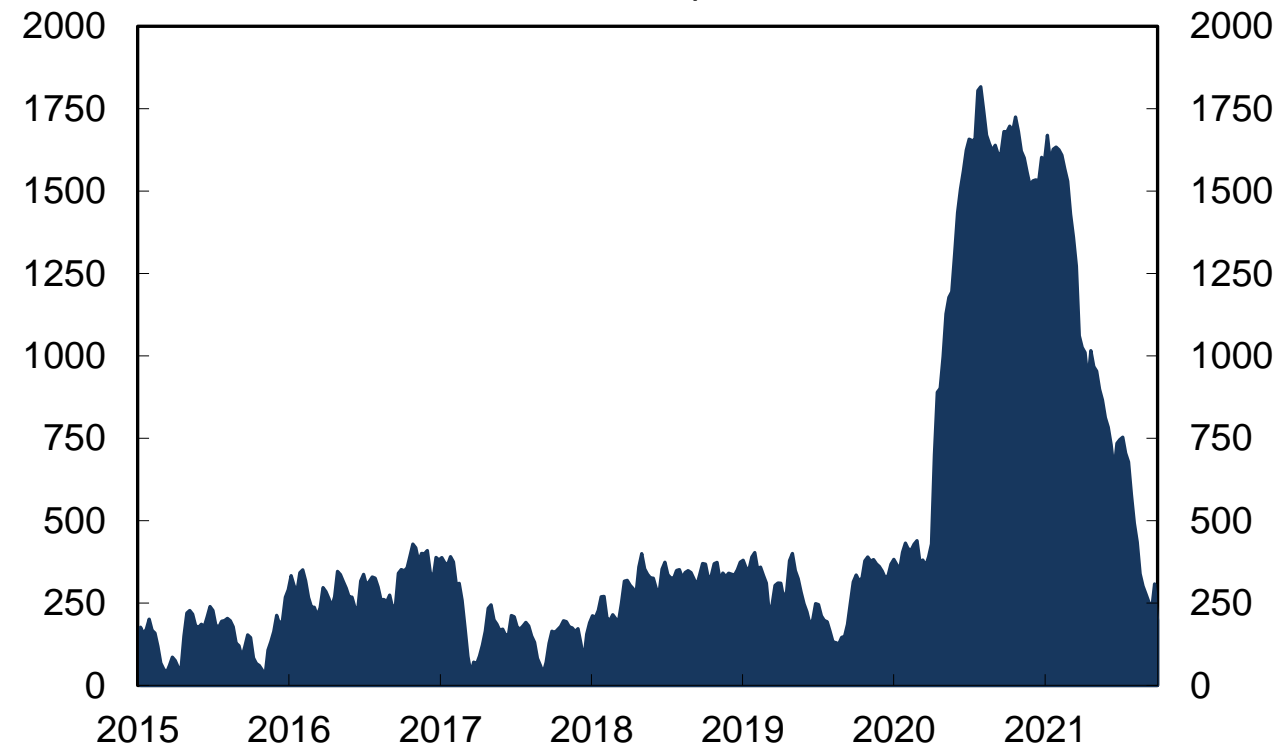
Note: Includes marketable securities only.

### 3.3.1.4 Treasury General Account Balance

Billions of US\$

As Of: 29-Sep-2021

Billions of US\$



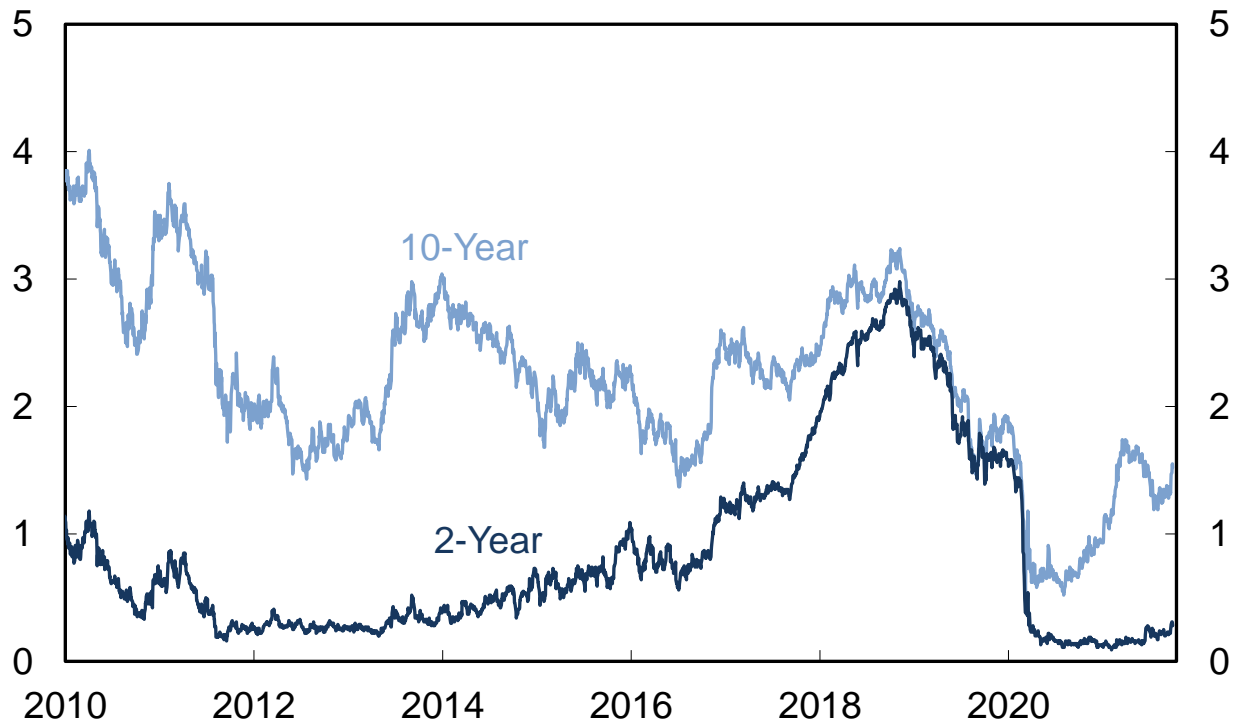
Source: Federal Reserve, Haver Analytics

### 3.3.1.5 U.S. Treasury Yields

Percent

As Of: 30-Sep-2021

Percent



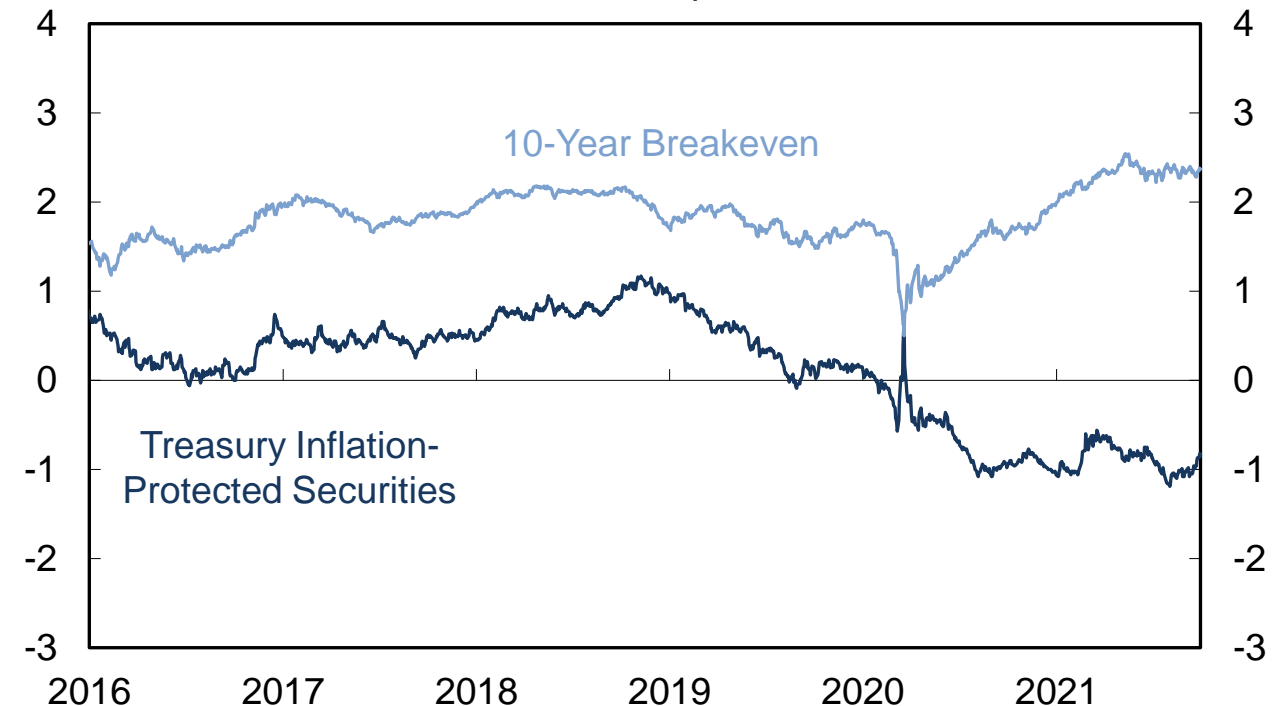
Source: U.S. Department of the Treasury

### 3.3.1.6 10-Year TIPS Yield and Breakeven

Percent

As Of: 30-Sep-2021

Percent



Source: U.S. Department  
of the Treasury

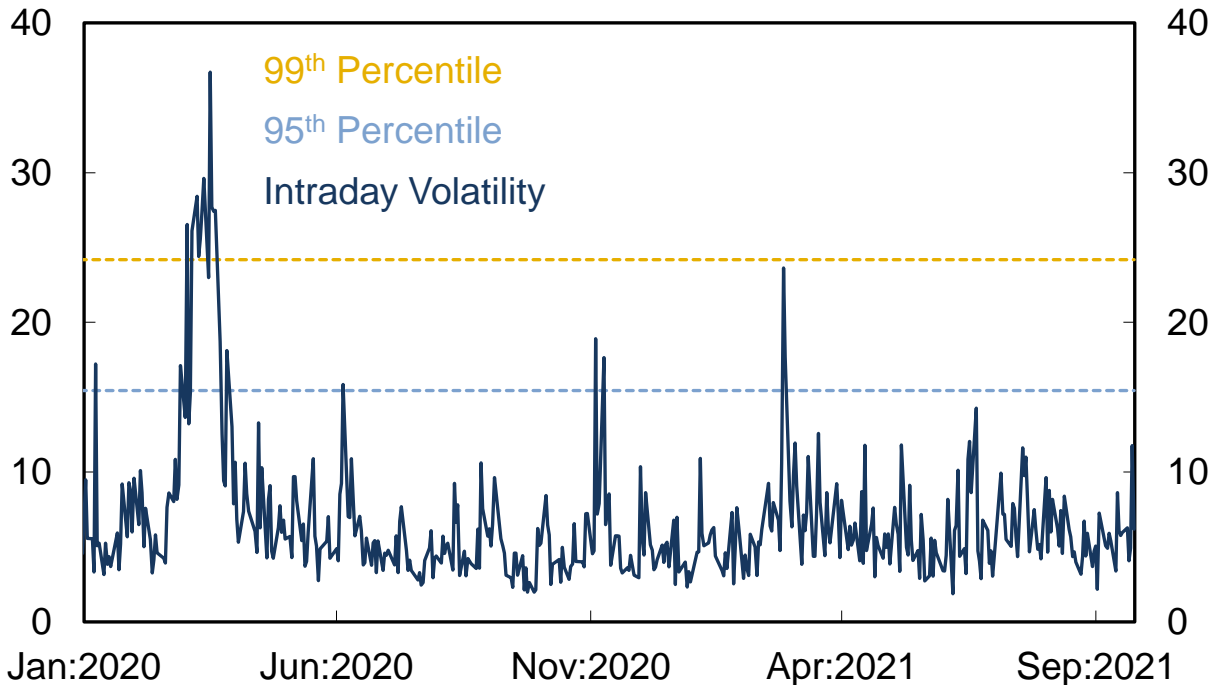
Note: Breakeven represents the difference  
between the nominal and TIPS yield.

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

## Basis Points

As Of: 24-Sep-2021

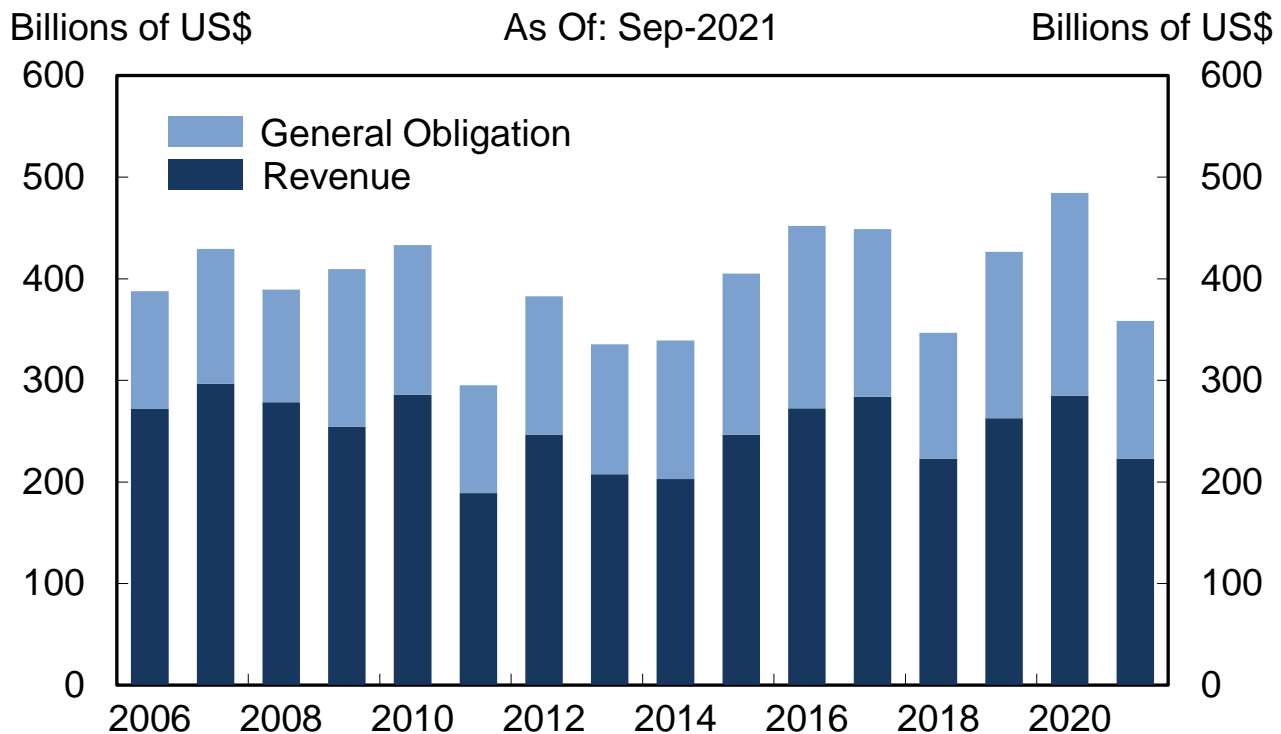
## Basis Points



Note: Intraday volatility calculated as daily high yield minus daily low yield on 10-year Treasury notes. Percentiles based on January 2005–September 2021.

Source: Bloomberg, L.P.

### 3.3.2.1 Municipal Bond Issuance



Source: Refinitiv,  
SIFMA

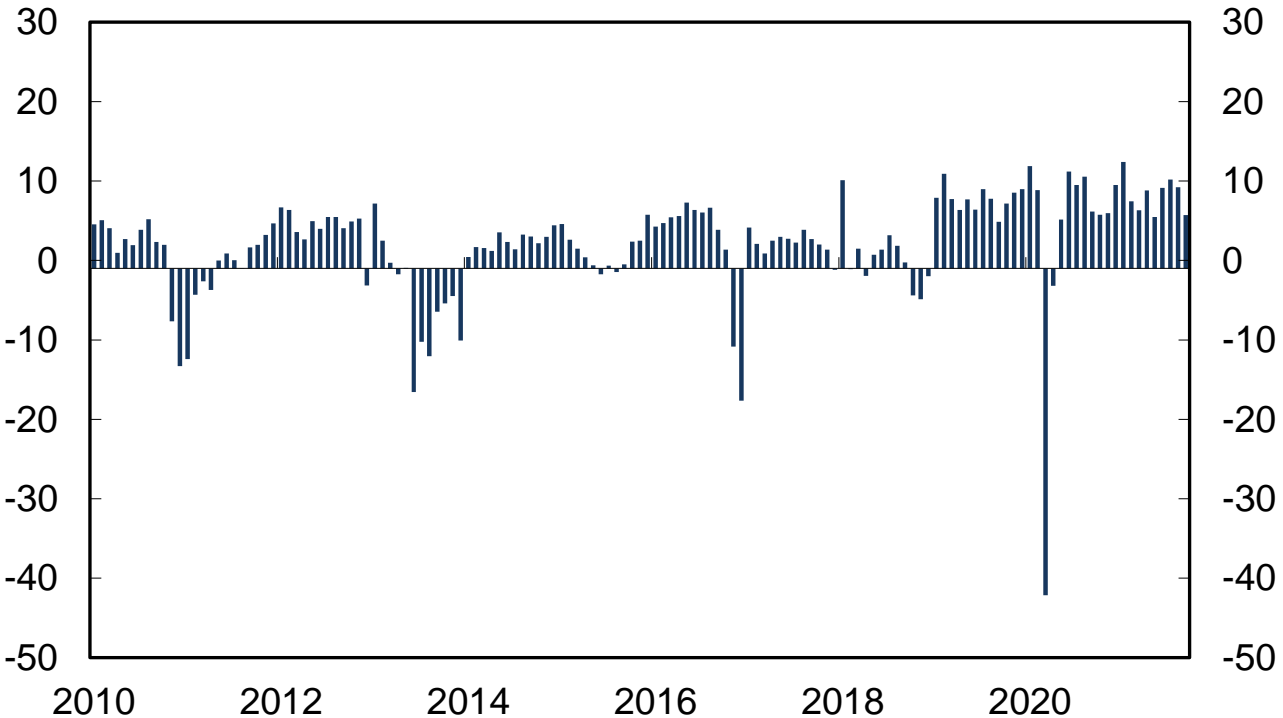
Note: Excludes maturities of less than 13 months. 2021 figures are through September.

### 3.3.2.2 Monthly Municipal Bond Mutual Fund Flows

Billions of US\$

As Of: Sep-2021

Billions of US\$

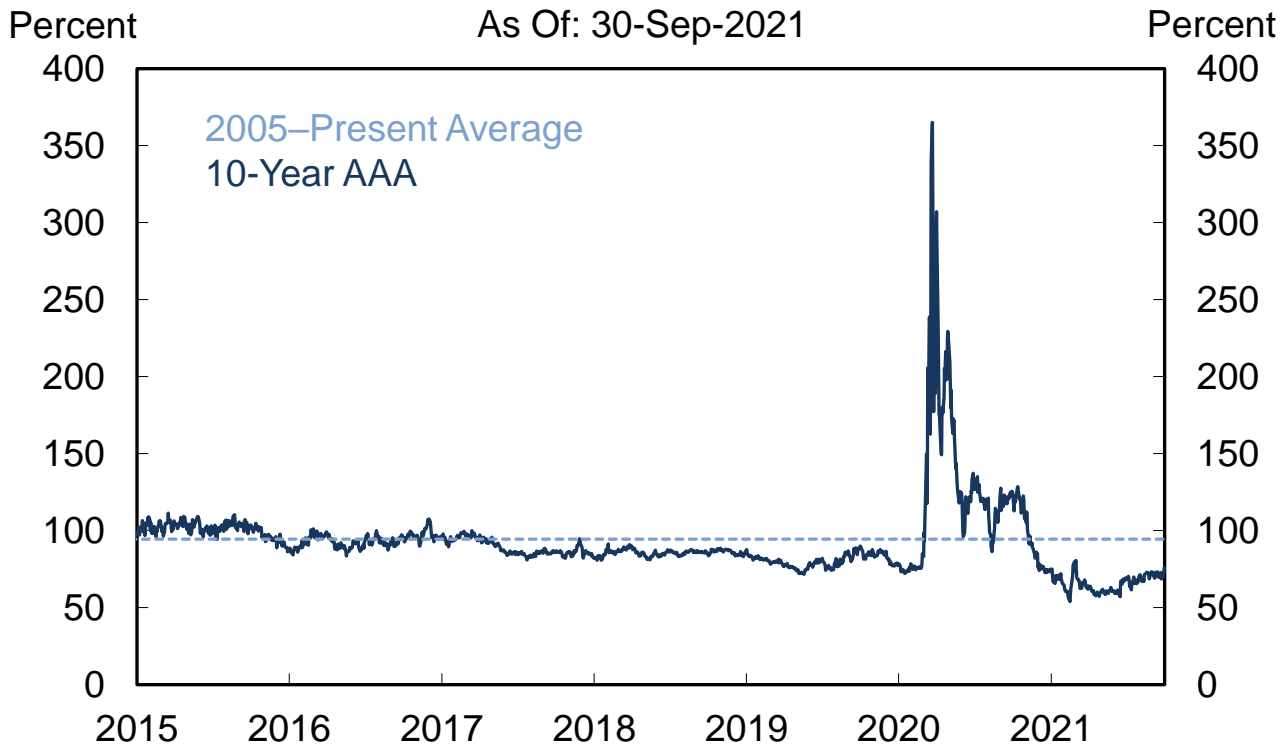


Source: ICI, Haver Analytics

Note: Net fund flows.



### 3.3.2.3 Municipal Bonds to U.S. Treasuries

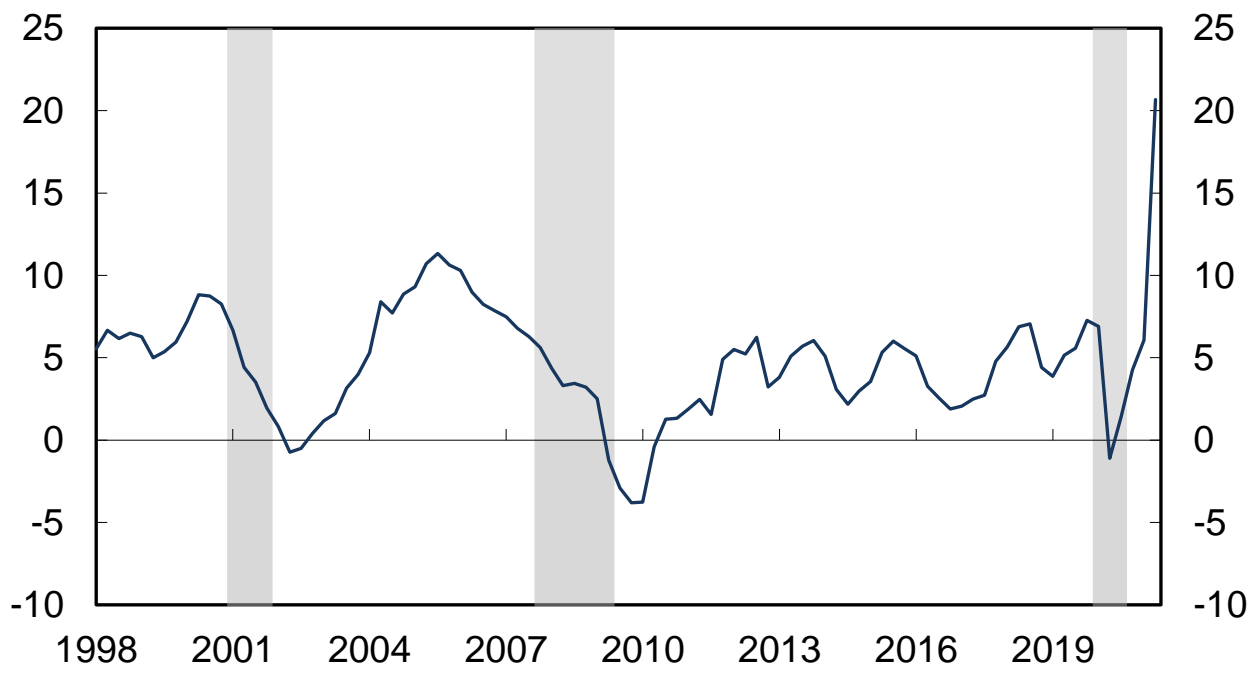


Source: Municipal Market  
Advisors, Bloomberg, L.P.

Note: Percentage of municipal yields against equivalent Treasury yields. Bloomberg's BVAL AAA Benchmark replaced MMA as the provider for municipal yields on September 1, 2010.

# 3.3.2.4 Changes in State and Local Government Tax Revenues

Percent As Of: 2021 Q2 Percent



Source: U.S. Census Bureau, Haver Analytics

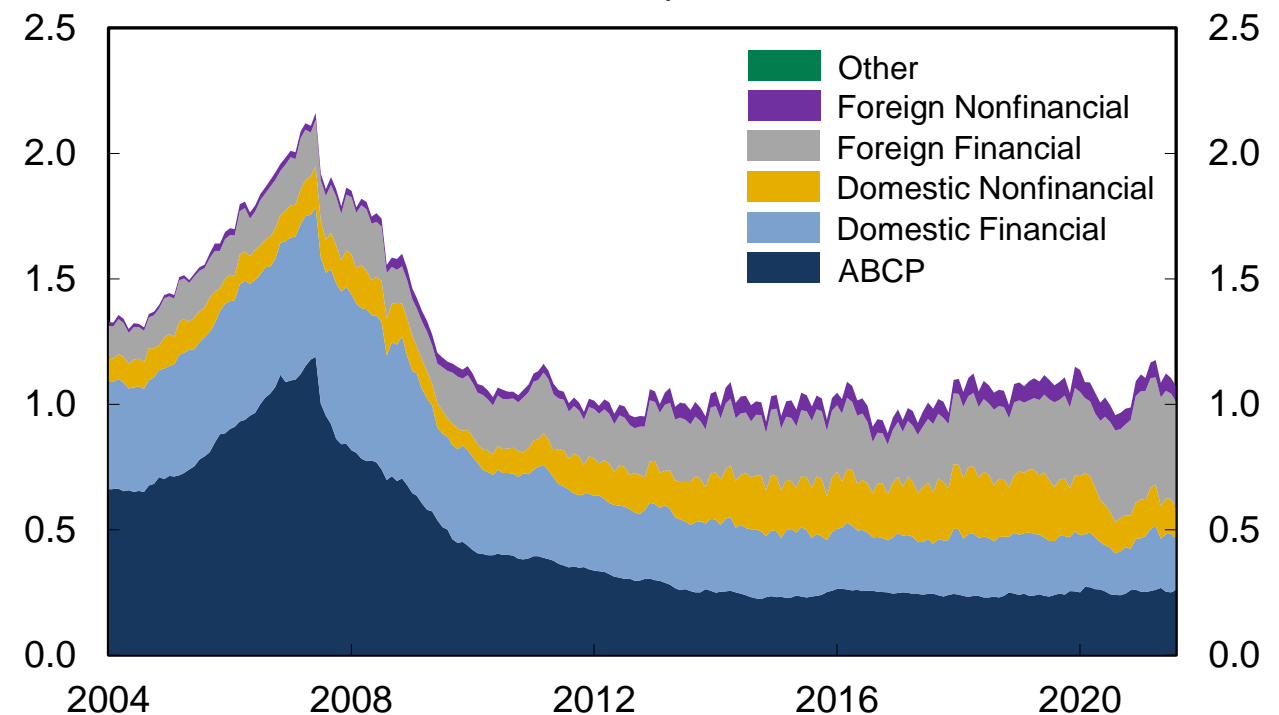
Note: Data represents year-over-year percentage change. Revenue measures includes revenues from property, individual income, corporate income, and sales taxes. Gray bars signify NBER recessions.

### 3.4.1.1 CP Outstanding by Issuer Type

Trillions of US\$

As Of: Sep-2021

Trillions of US\$



Source: Federal Reserve,  
Haver Analytics

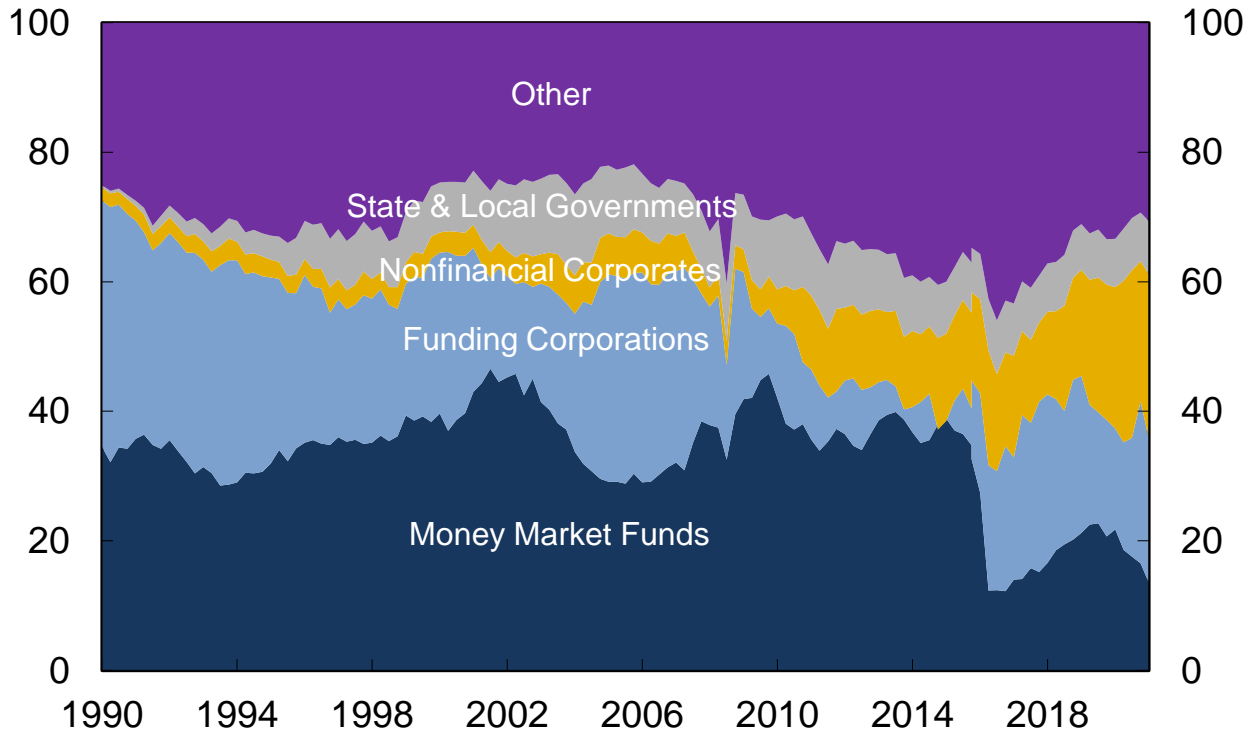
Note: Not seasonally adjusted. Domestic includes  
CP issued in the U.S. by entities with foreign parents.

### 3.4.1.2 CP Investors

Percent

As Of: 2021 Q2

Percent



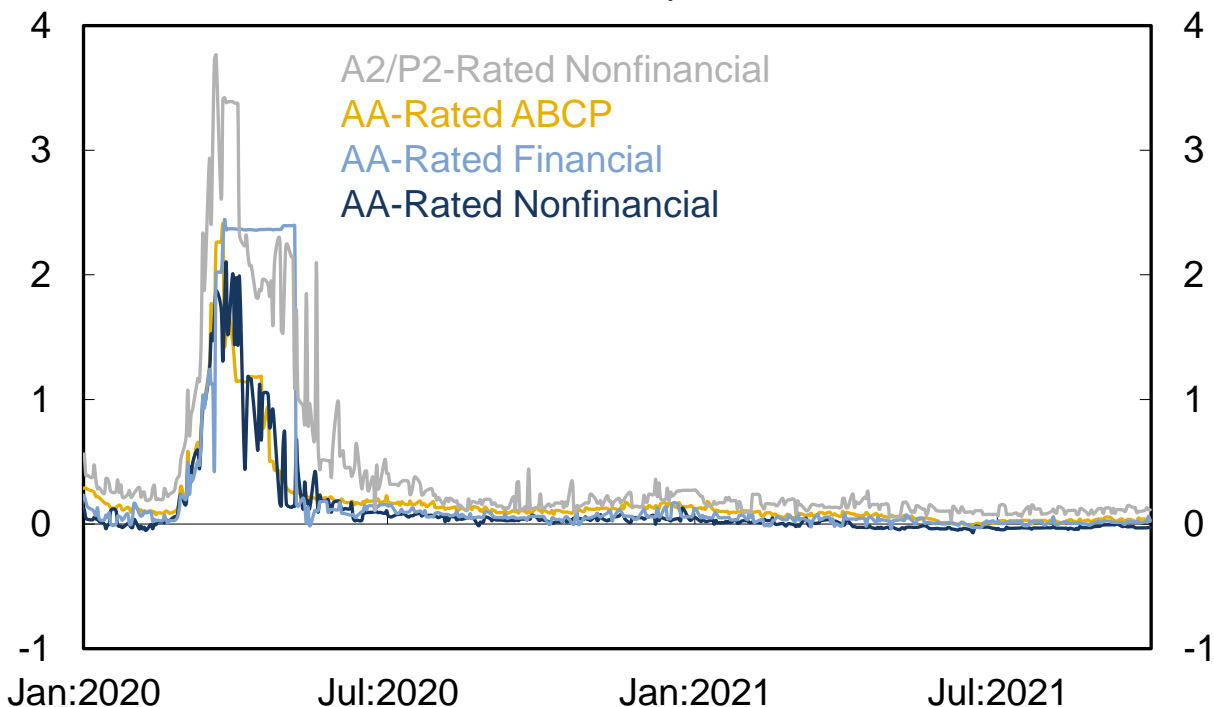
Source: Federal Reserve, Haver Analytics

### 3.4.1.3 3-Month CP Interest Rate Spreads

Percent

As Of: 30-Sep-2021

Percent



Source: Federal Reserve,  
Bloomberg, L.P.

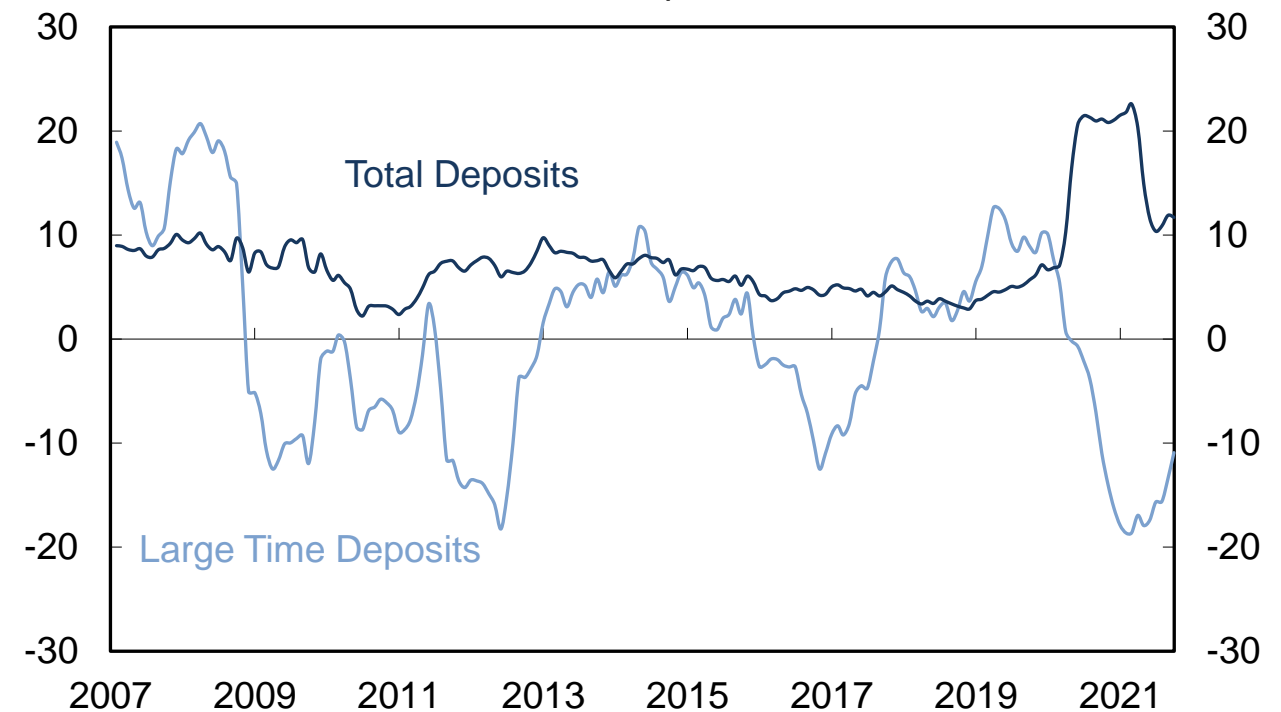
Note: Spread to 3-Month  
Overnight Index Swap (OIS) rate.

### 3.4.1.4 Commercial Bank Deposit Growth

Percent

As Of: Sep-2021

Percent



Source: Federal Reserve

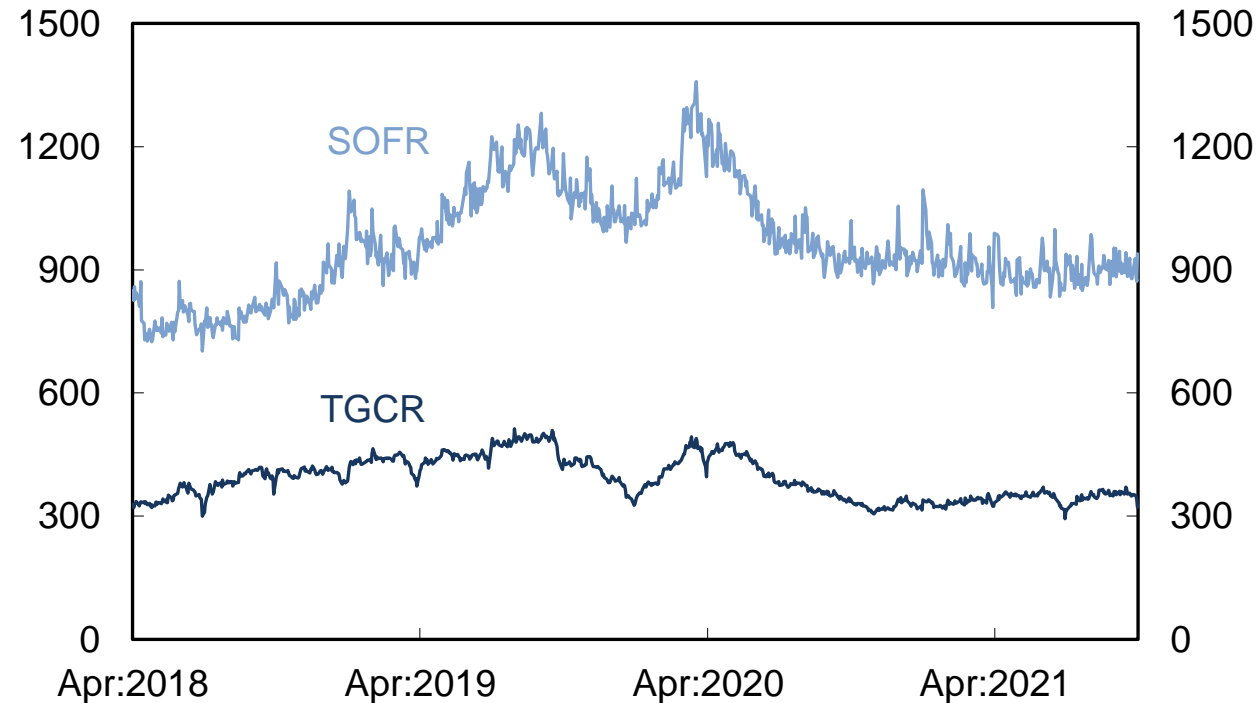
Note: Year-over-year percentage change.

### 3.4.2.1 Repo Volumes

Billions of US\$

As Of: 30-Sep-2021

Billions of US\$



Source: FRBNY

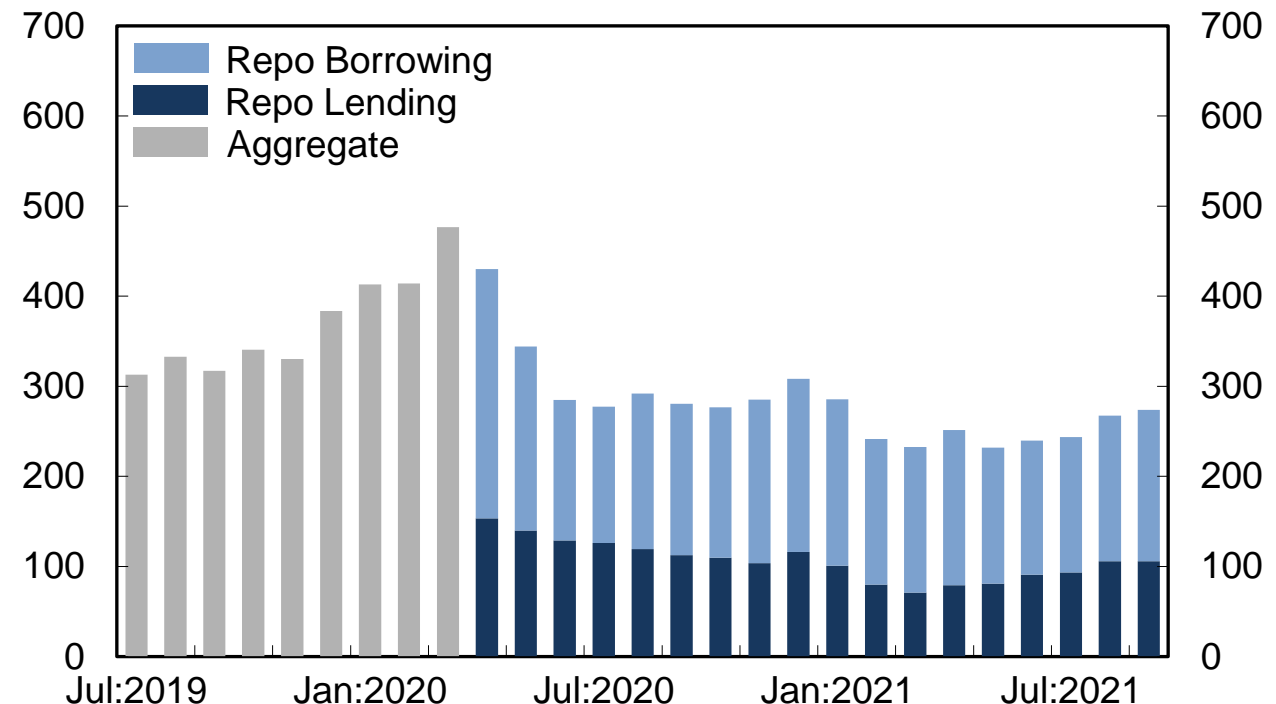
Note: TGCR = Tri-Party General Collateral Rate;  
SOFR = Secured Overnight Financing Rate.

### 3.4.2.2 Sponsored Repo Activity

Billions of US\$

As Of: Sep-2021

Billions of US\$



Source: DTCC

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

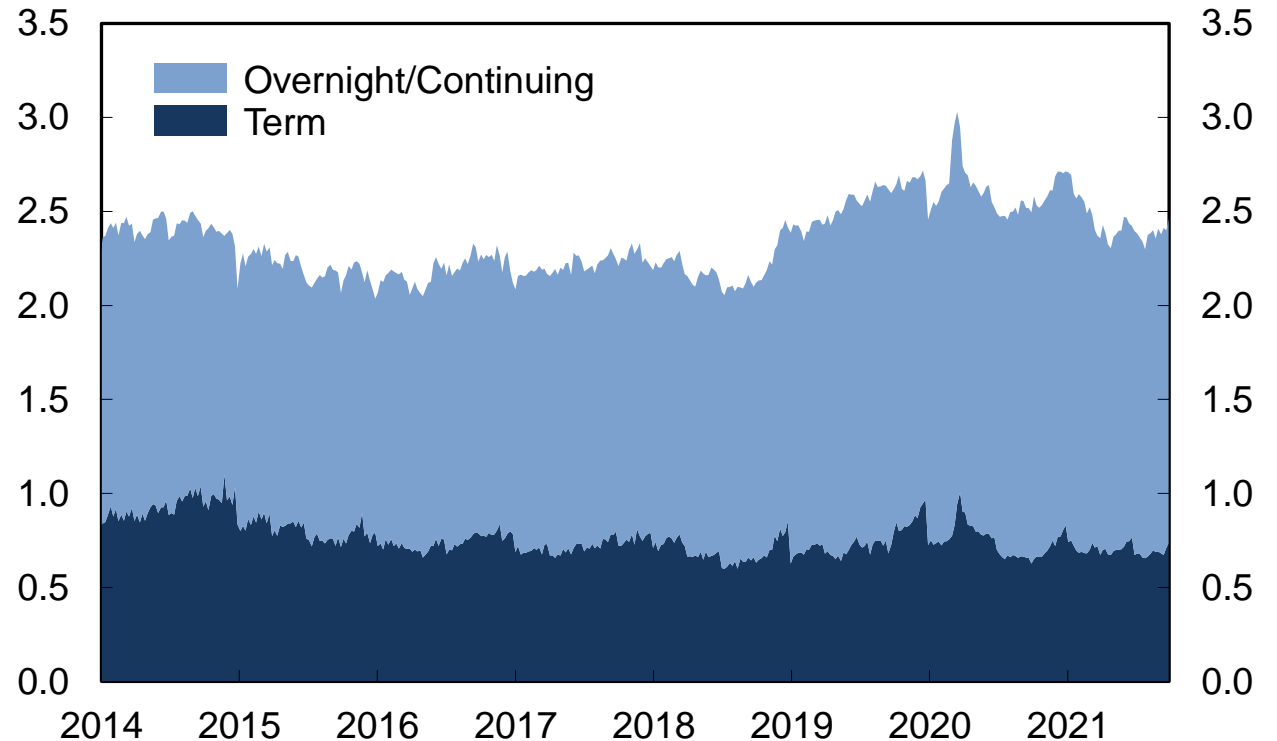


### 3.4.2.3 Primary Dealer Repo Agreements

Trillions of US\$

As Of: 29-Sep-2021

Trillions of US\$



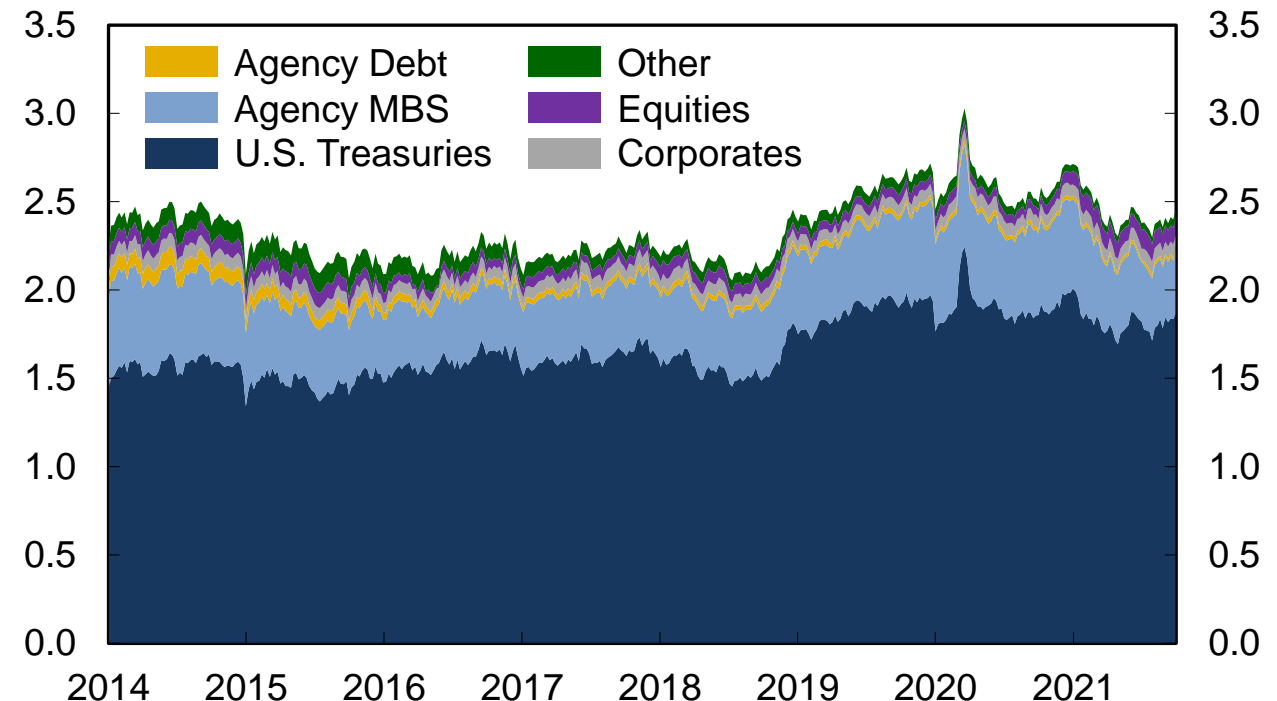
Source: FRBNY, Haver Analytics

### 3.4.2.4 Primary Dealer Repo Collateral

Trillions of US\$

As Of: 29-Sep-2021

Trillions of US\$



Note: U.S. Treasuries includes TIPS. Other includes ABS.

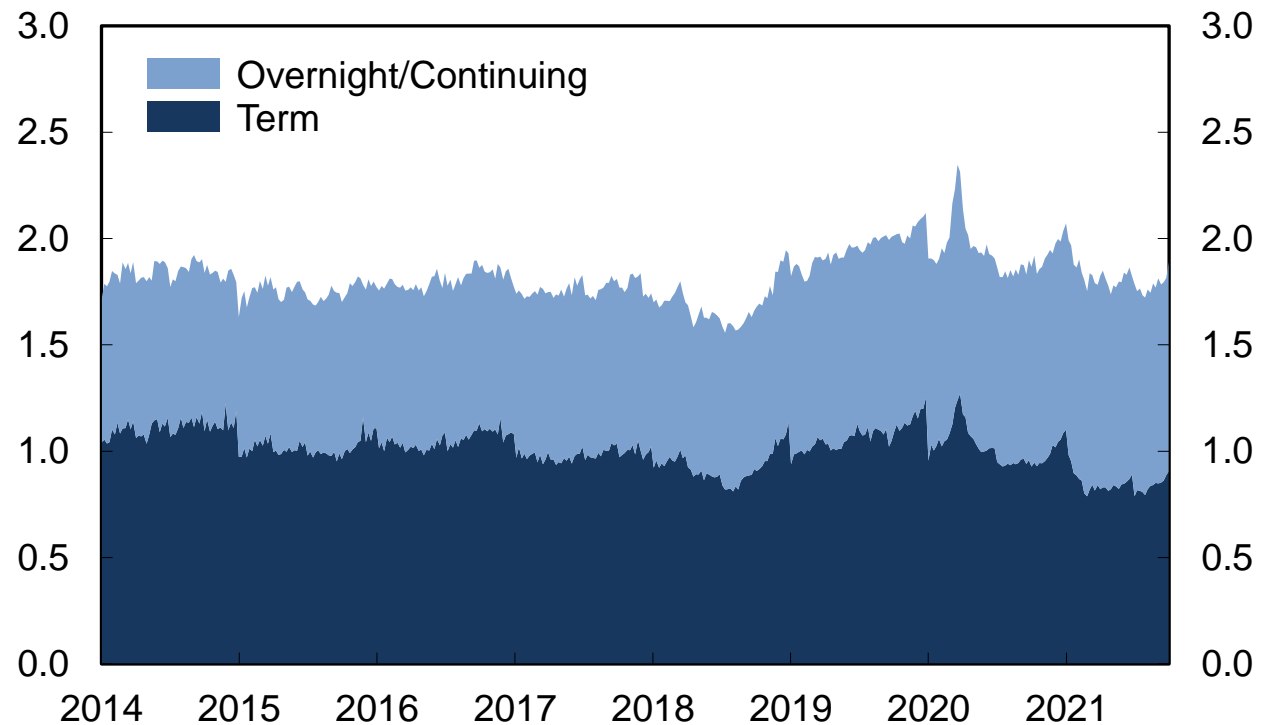
Source: FRBNY, Haver Analytics

### 3.4.2.5 Primary Dealer Reverse Repo Agreements

Trillions of US\$

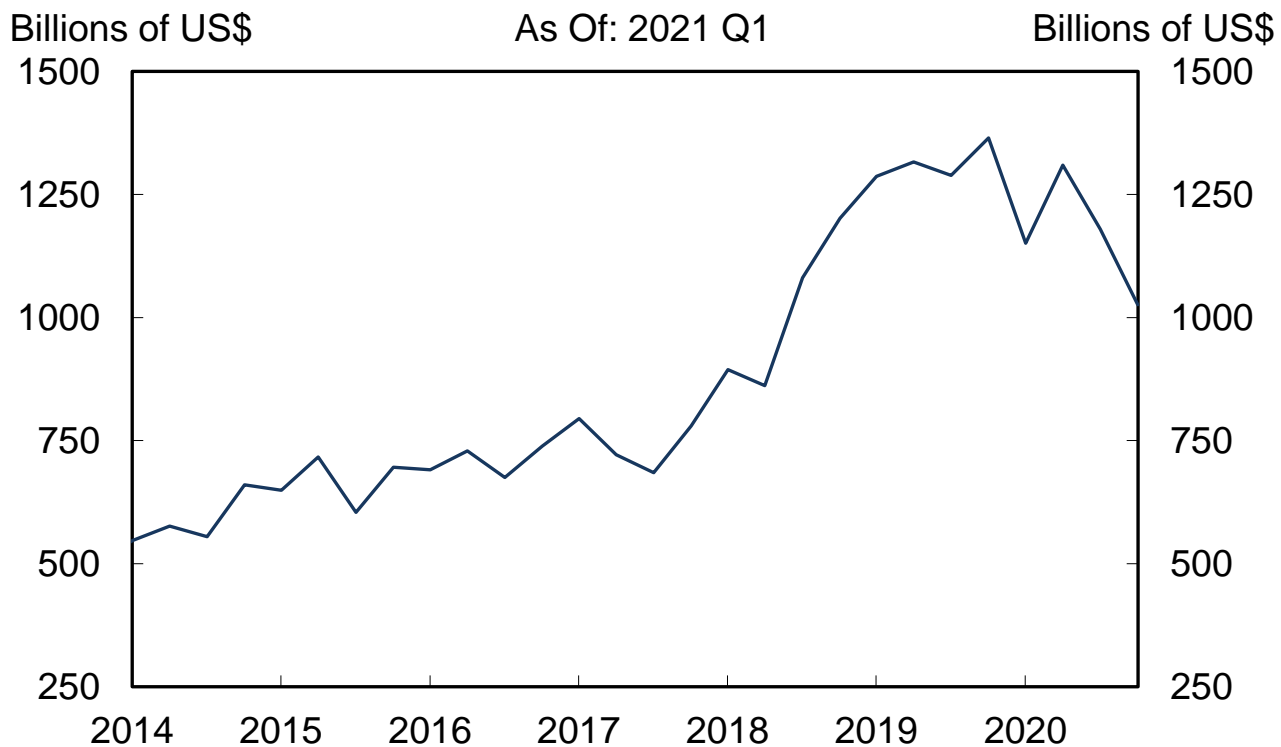
As Of: 29-Sep-2021

Trillions of US\$



Source: FRBNY, Haver Analytics

### 3.4.2.6 Repo Borrowing of Qualifying Hedge Funds

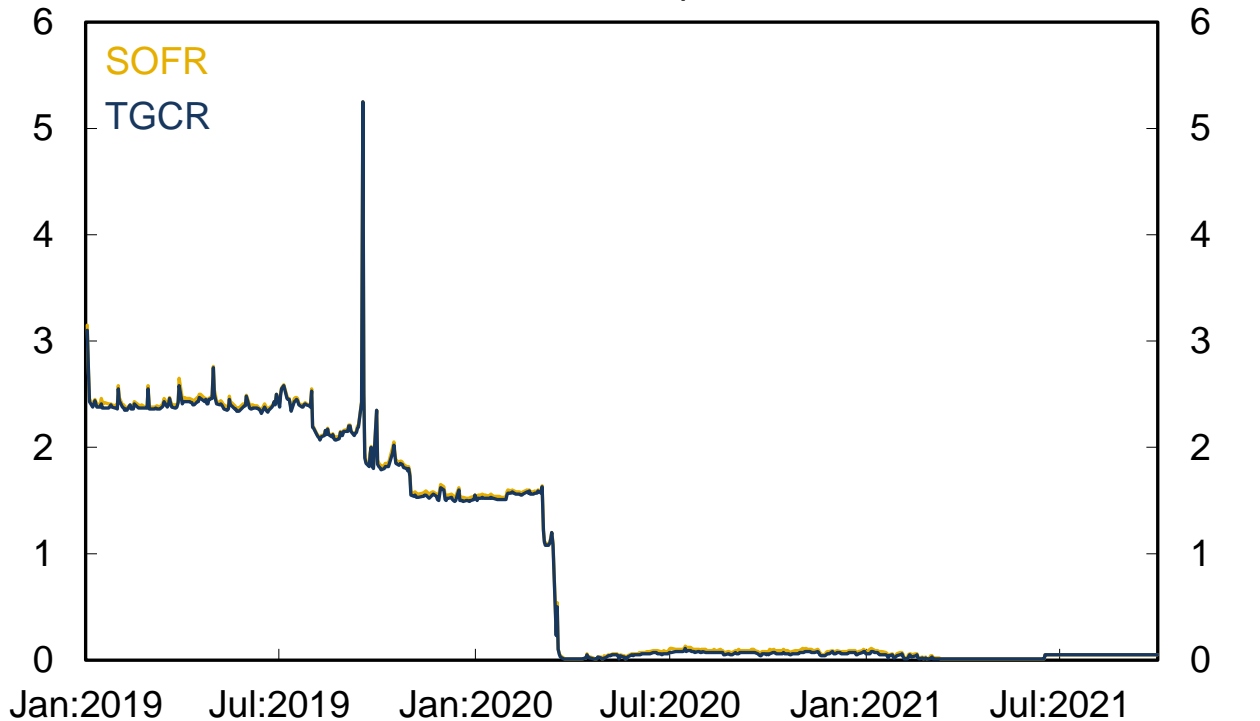


Source: SEC Form PF  
Statistics Report

Note: Repo borrowing as reported on  
Question 43 of Form PF.

# 3.4.2.7 Repo Rates

Percent As Of: 30-Sep-2021 Percent

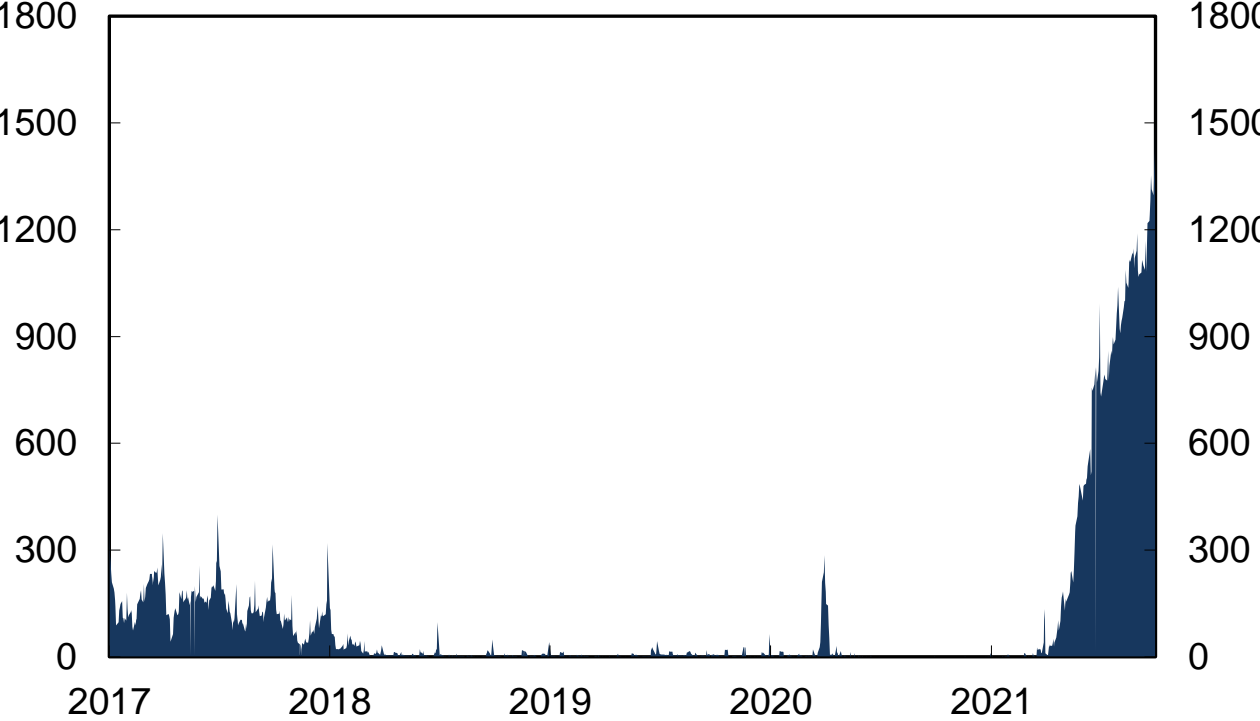


Source: FRBNY

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

# 3.4.2.8 ON-RRP Participation

Billions of US\$                      As Of: 30-Sep-2021                      Billions of US\$



Source: FRBNY

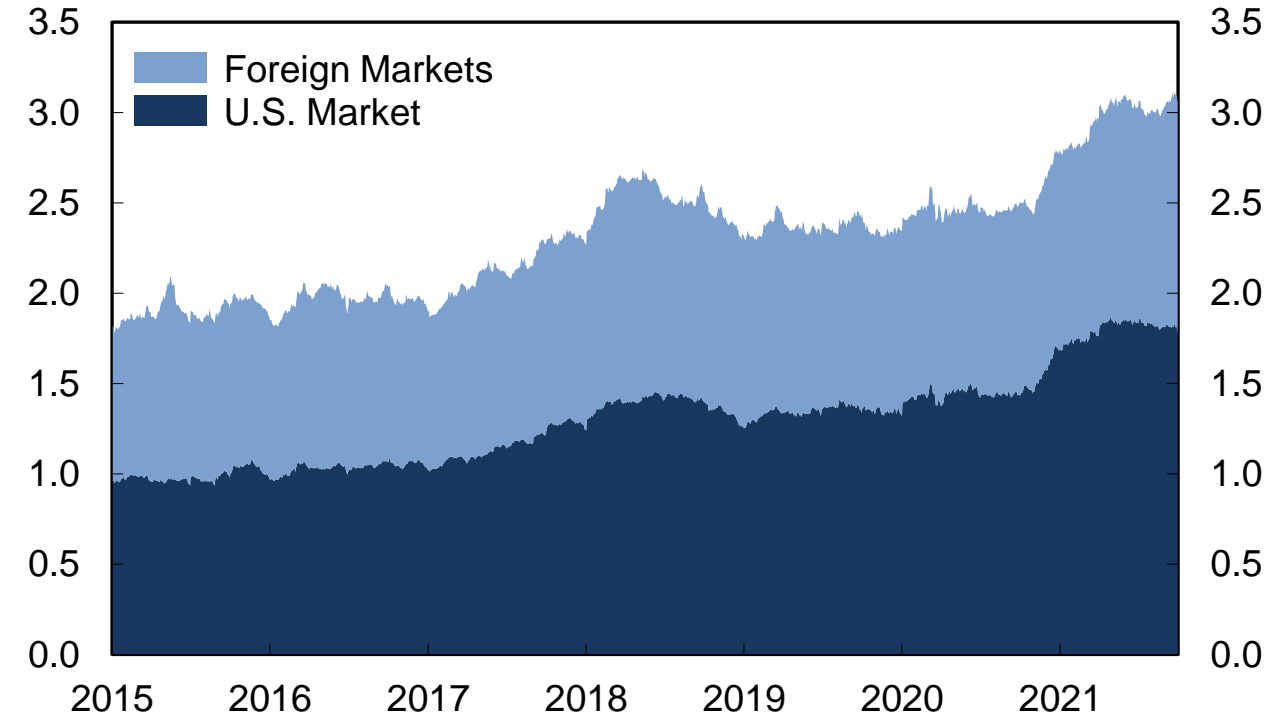
Note: Overnight Reverse Repurchase Agreement Facility.

### 3.4.2.9 Value of Securities on Loan

Trillions of US\$

As Of: 30-Sep-2021

Trillions of US\$



Note: Data is based on a survey of agent-based lenders.

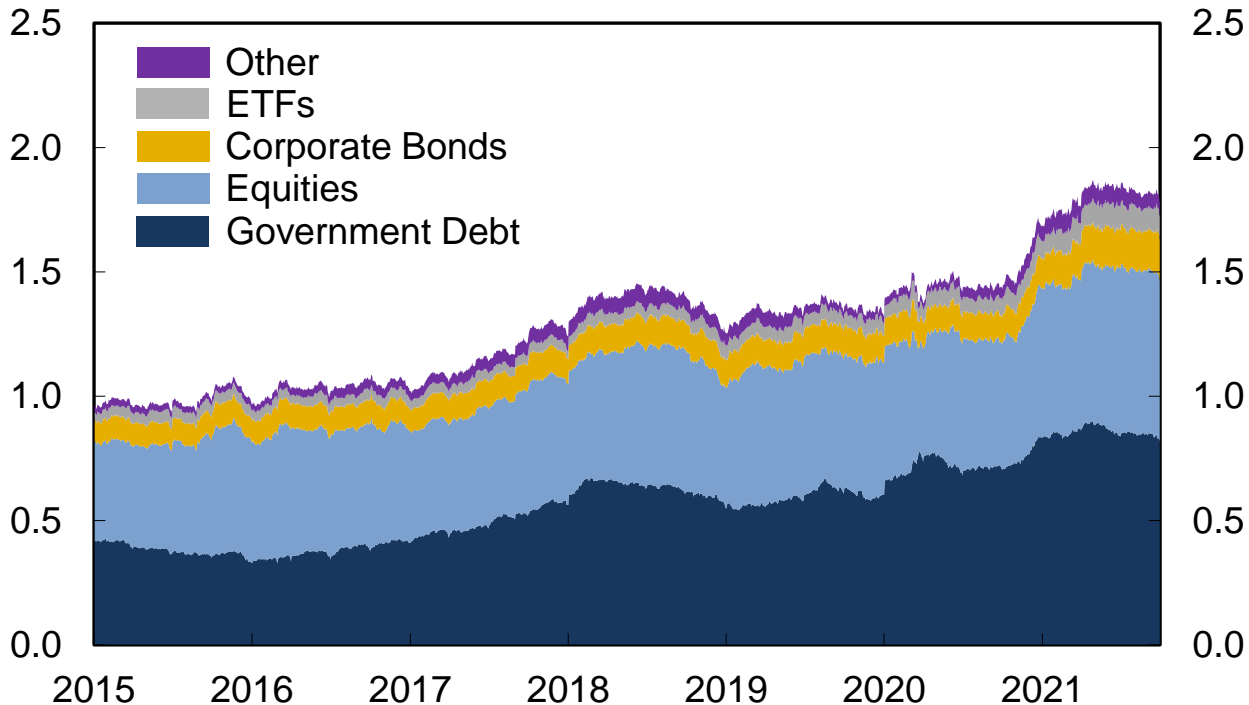
Source: Markit

### 3.4.2.10 Value of U.S. Securities on Loan

Trillions of US\$

As Of: 30-Sep-2021

Trillions of US\$



Note: Data is based on a survey of agent-based lenders.

Source: Markit

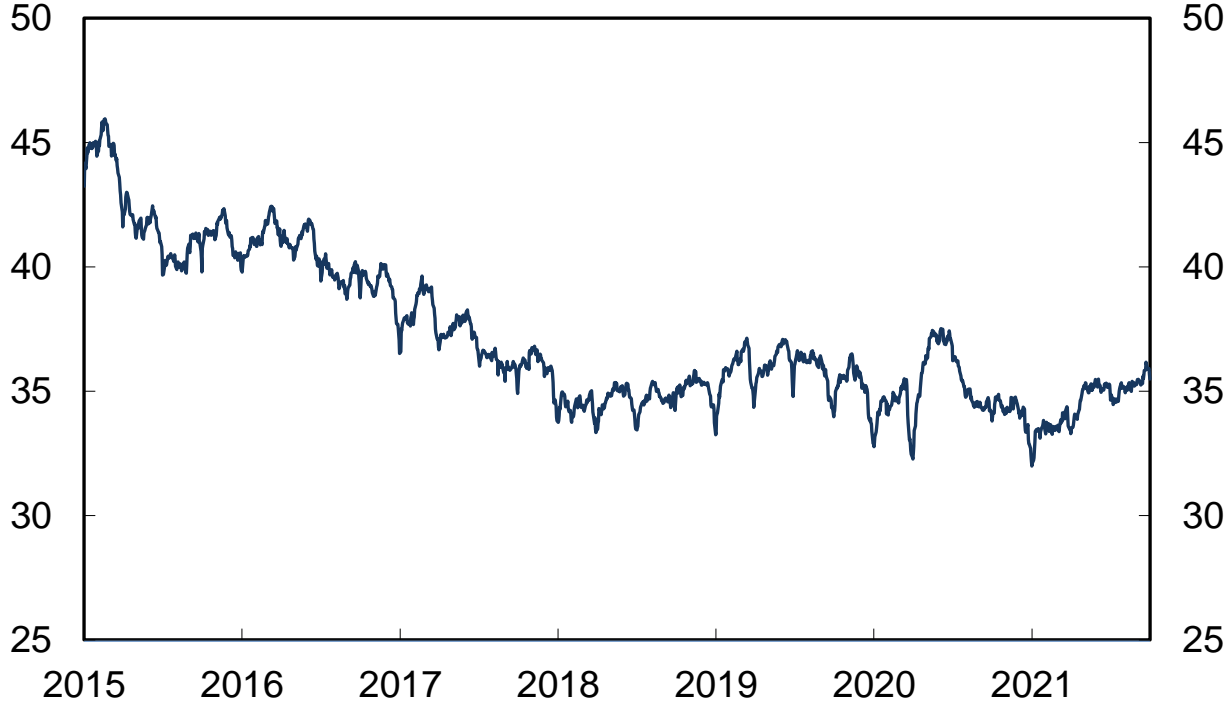


### 3.4.2.11 Securities Lending Cash Collateral

Percent

As Of: 30-Sep-2021

Percent



Note: Data is based on a survey of agent-based lenders.

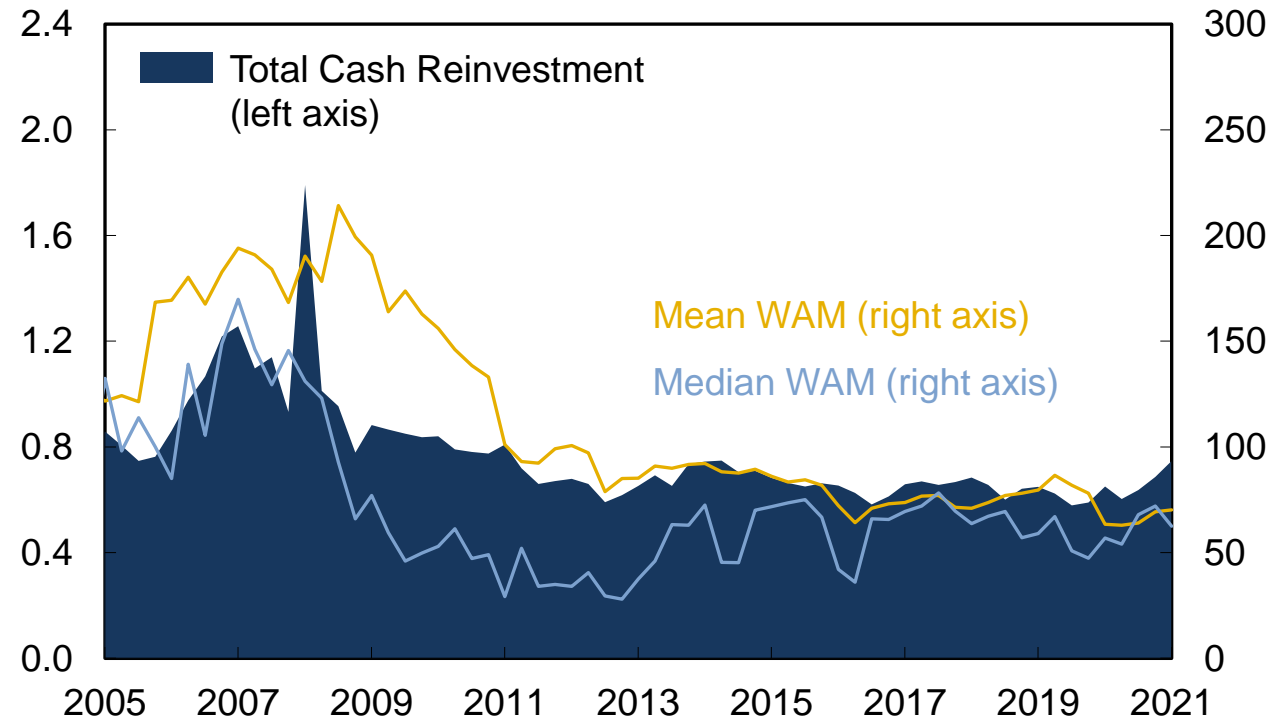
Source: Markit

### 3.4.2.12 U.S. Securities Lending Cash Reinvestment

Trillions of US\$

As Of: 2021 Q2

Days



Source: The Risk Management Association

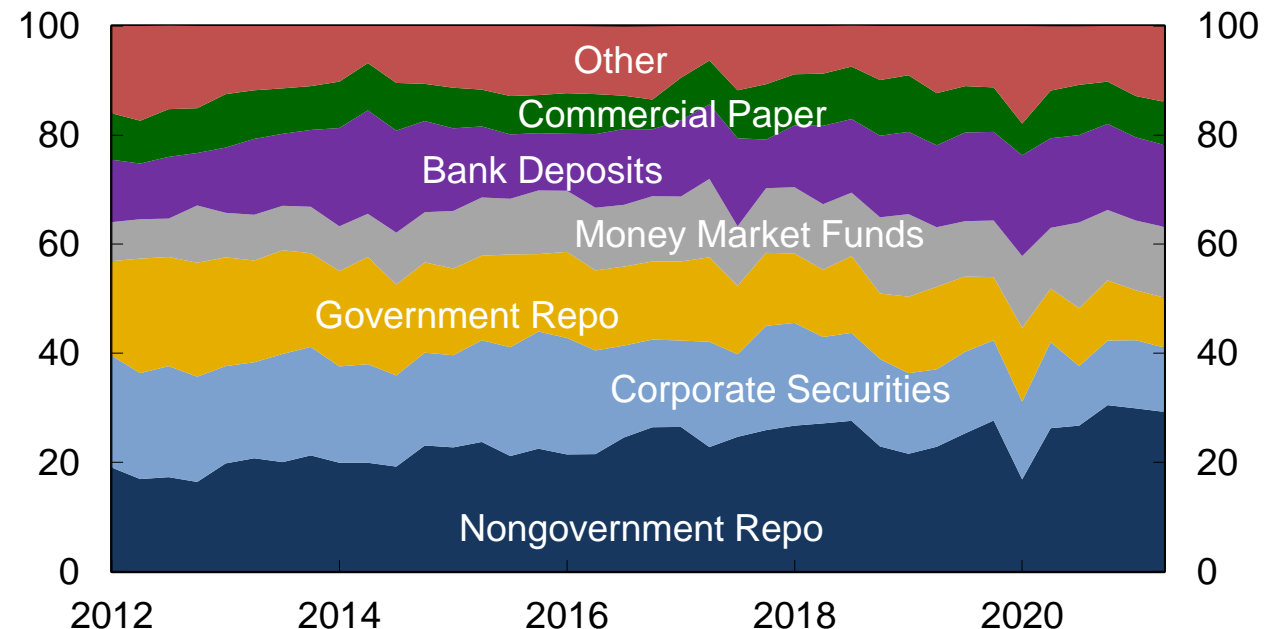
Note: Data is based on a survey of agent-based lenders.

### 3.4.2.13 U.S. Securities Lending Cash Reinvestment Collateral

Percent of Total

As Of: 2021 Q2

Percent of Total

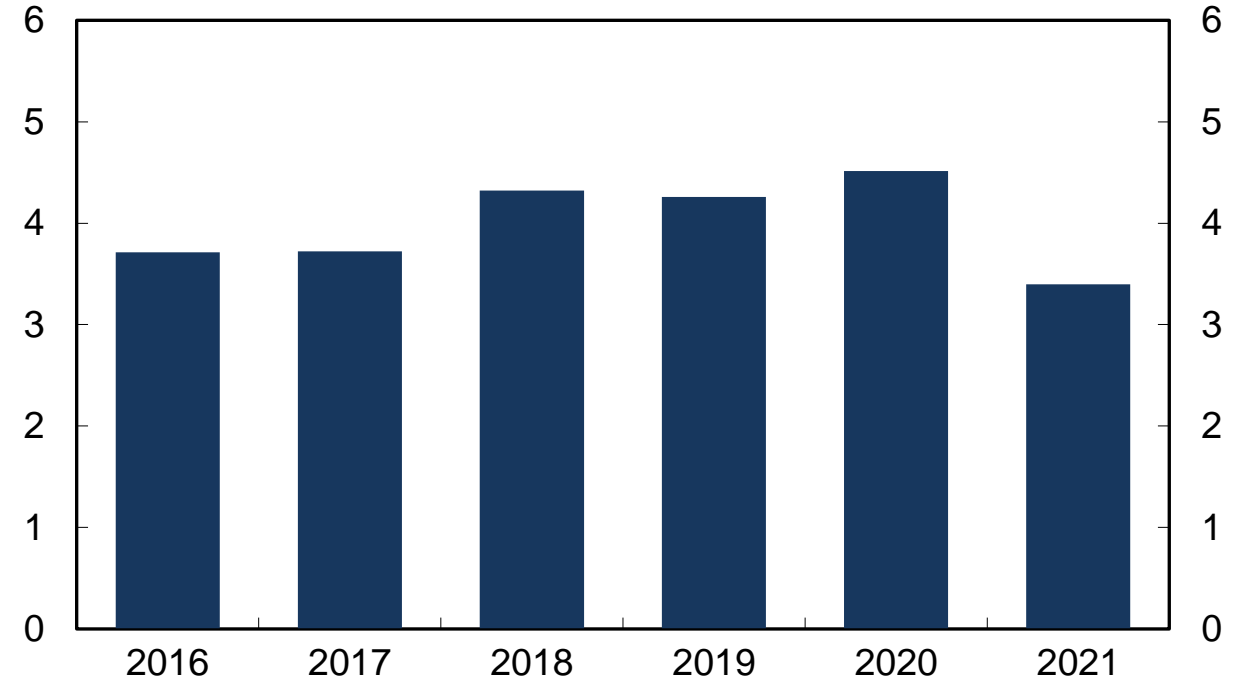


Source: The Risk Management Association, OFR

Note: Nongovernment repos have collateral of whole loans, equity, and corporate debt. Other includes ABS, funding agreements, other funds, and other vehicles. Data is based on a survey of agent-based lenders.

# 3.4.3.1 U.S. Futures Markets Volume

Billions of Contracts                      As Of: 2021 Q3                      Billions of Contracts



Note: 2016–2020 figures represent full year volumes. 2021 figure represents year-to-date volume through September 30, 2021.

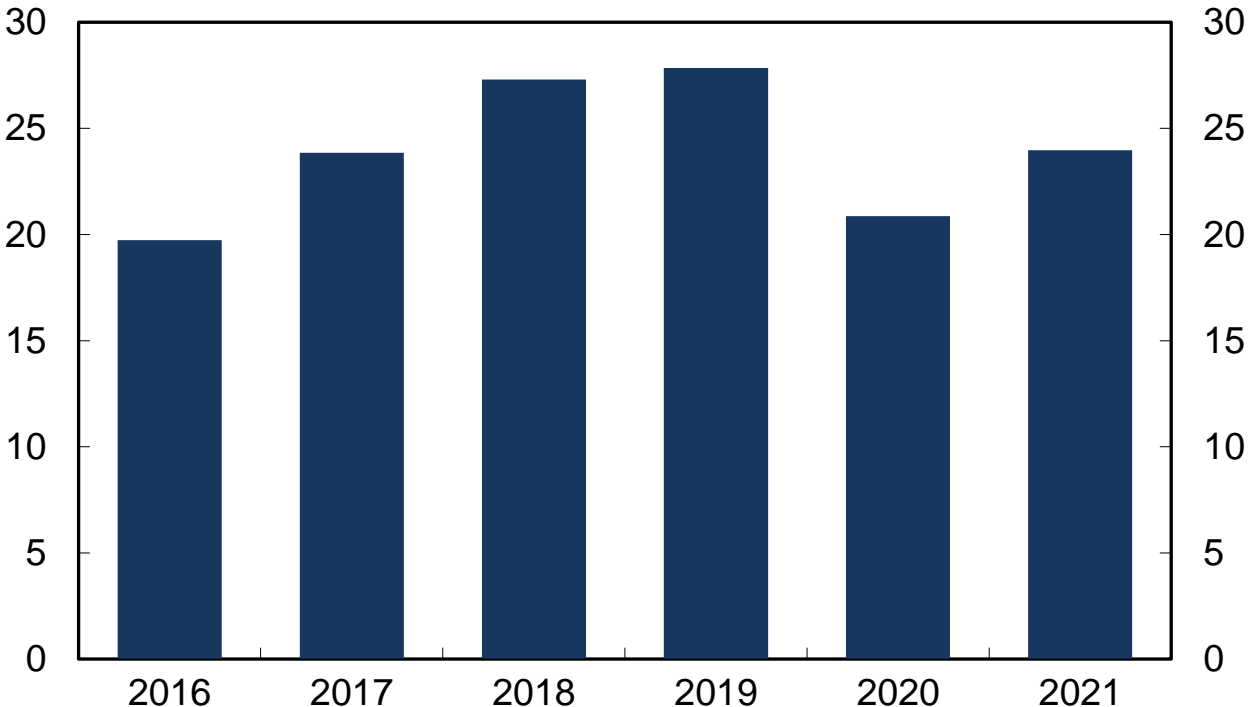
Source: CFTC

### 3.4.3.2 U.S. Futures Markets Open Interest

Trillions of US\$

As Of: 30-Sep-2021

Trillions of US\$

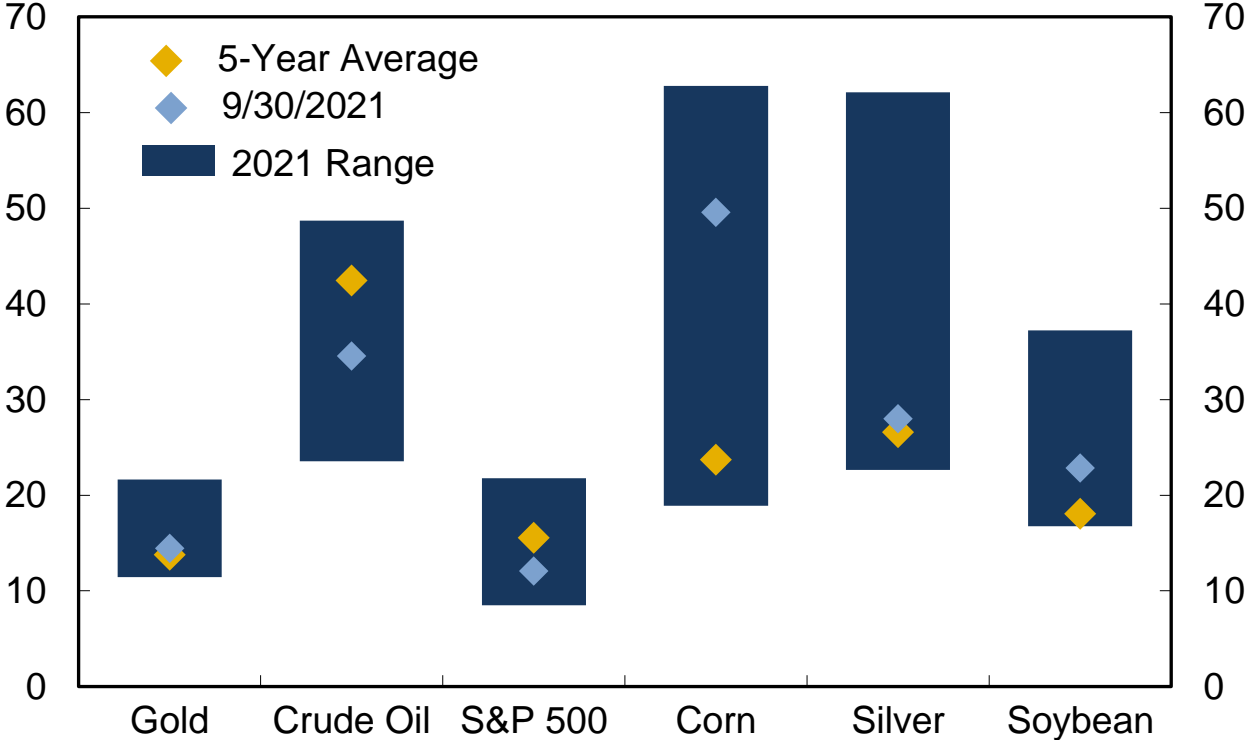


Note: Open interest as of September 30 for all years.

Source: CFTC

# 3.4.3.3 Futures 60-Day Historical Volatility

Percent As Of: 30-Sep-2021 Percent



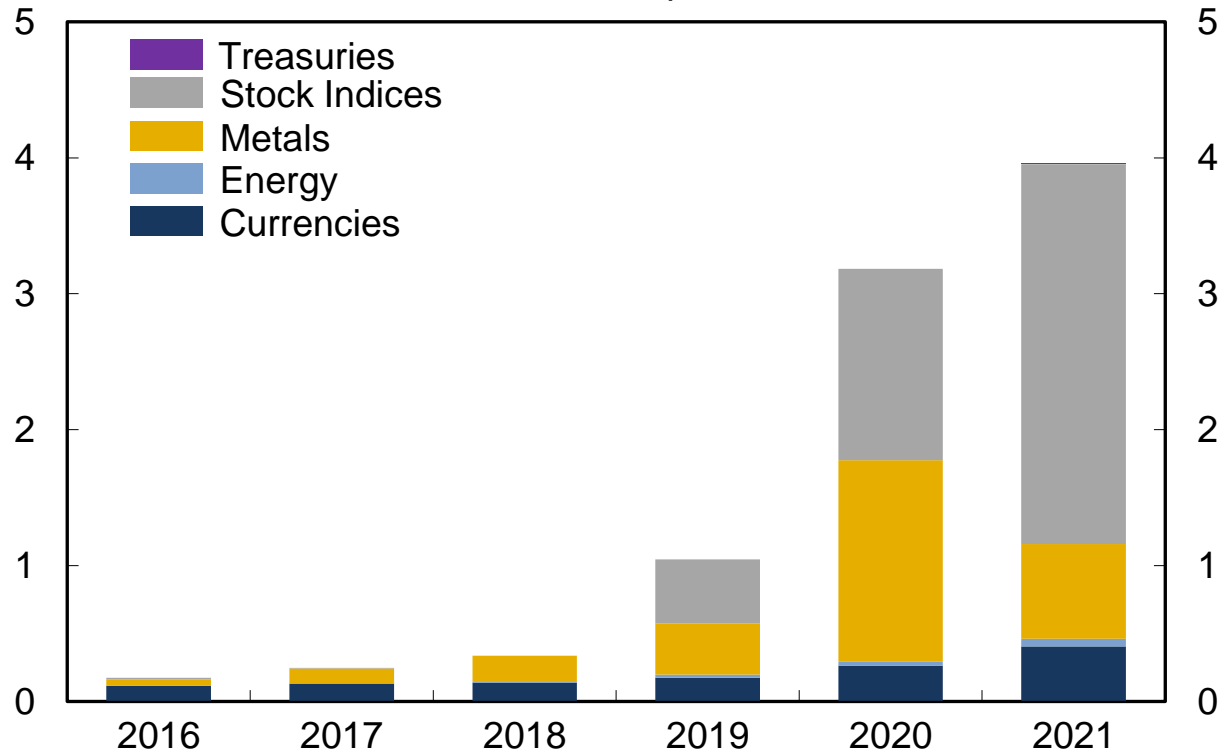
Source: Bloomberg, L.P.

### 3.4.3.4 Micro Futures Contracts Open Interest

Billions of US\$

As Of: 30-Sep-2021

Billions of US\$



Source: CFTC

Note: Open interest as of September 30 for all years.

### 3.4.3.5 Futures Transaction Volume – Leaderboard

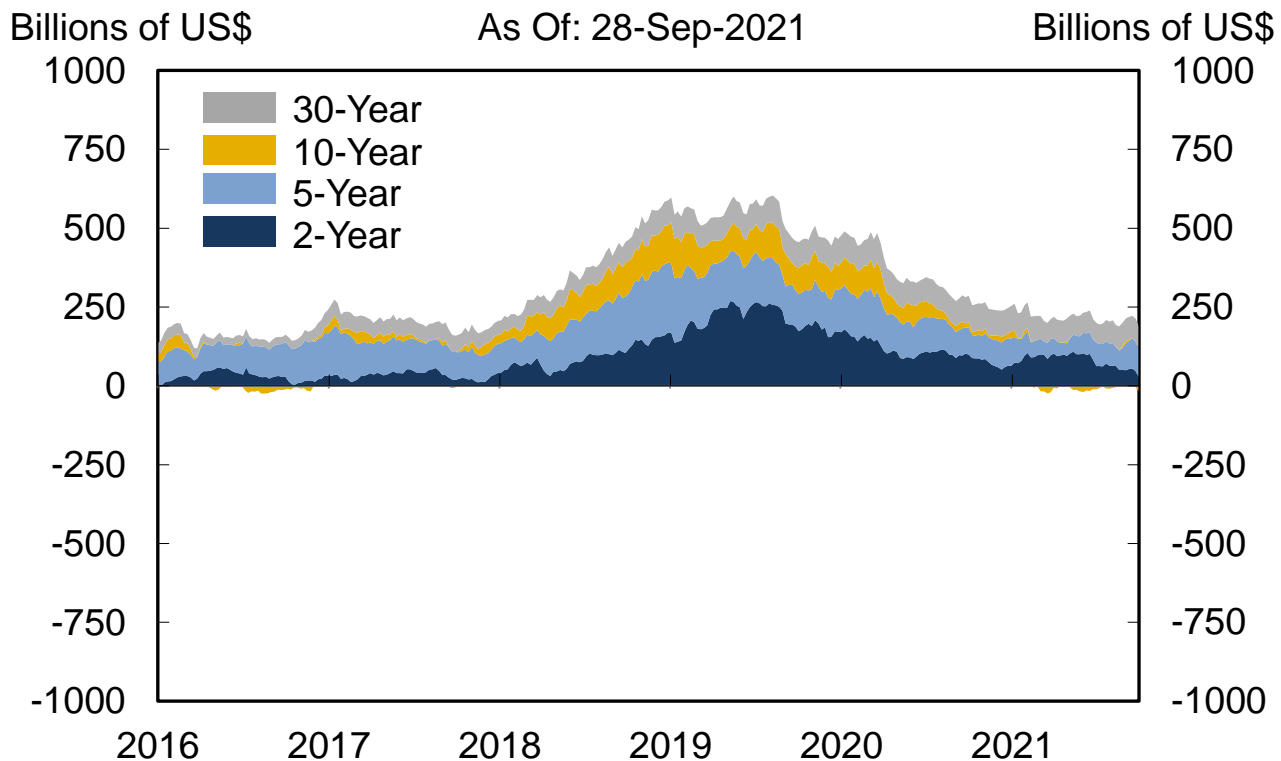
<b>Futures Contract</b>		<b>Number of Contracts (YTD)</b>
1.	3-Month Eurodollars	439 Million
2.	10-Year Treasury Notes	357 Million
3.	E-Mini S&P 500 Stock Index	300 Million
4.	5-Year Treasury Notes	209 Million
5.	WTI Crude Oil	183 Million
6.	Micro E-Mini NASDAQ 100	174 Million
7.	Micro E-Mini S&P 500 Index	161 Million
8.	E-mini NASDAQ 100 Index	103 Million
9.	U.S. Treasury Bonds	86 Million
10.	2-Year U.S. Treasury Notes	82 Million

Source: CFTC

Note: Total futures volume through September 30, 2021.



### 3.4.3.6 U.S. Treasury Futures Open Interest: Asset Manager

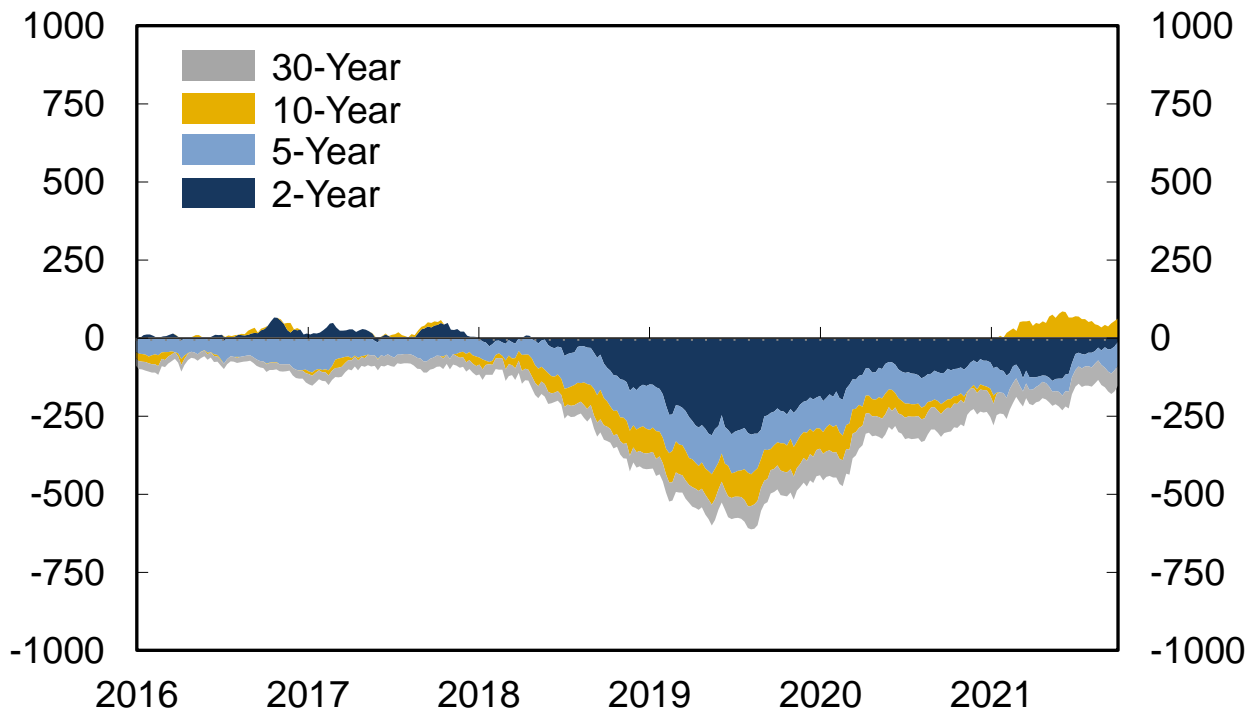


Source: CFTC,  
Haver Analytics

Note: Note: Net notional amount of open interest. 10-Year includes 10-Year and 10-Year Ultra Treasury Note Futures; 30-Year includes Treasury Bond and Ultra Treasury Bond Futures.

### 3.4.3.7 U.S. Treasury Futures Open Interest: Leveraged Funds

Billions of US\$ As Of: 28-Sep-2021 Billions of US\$

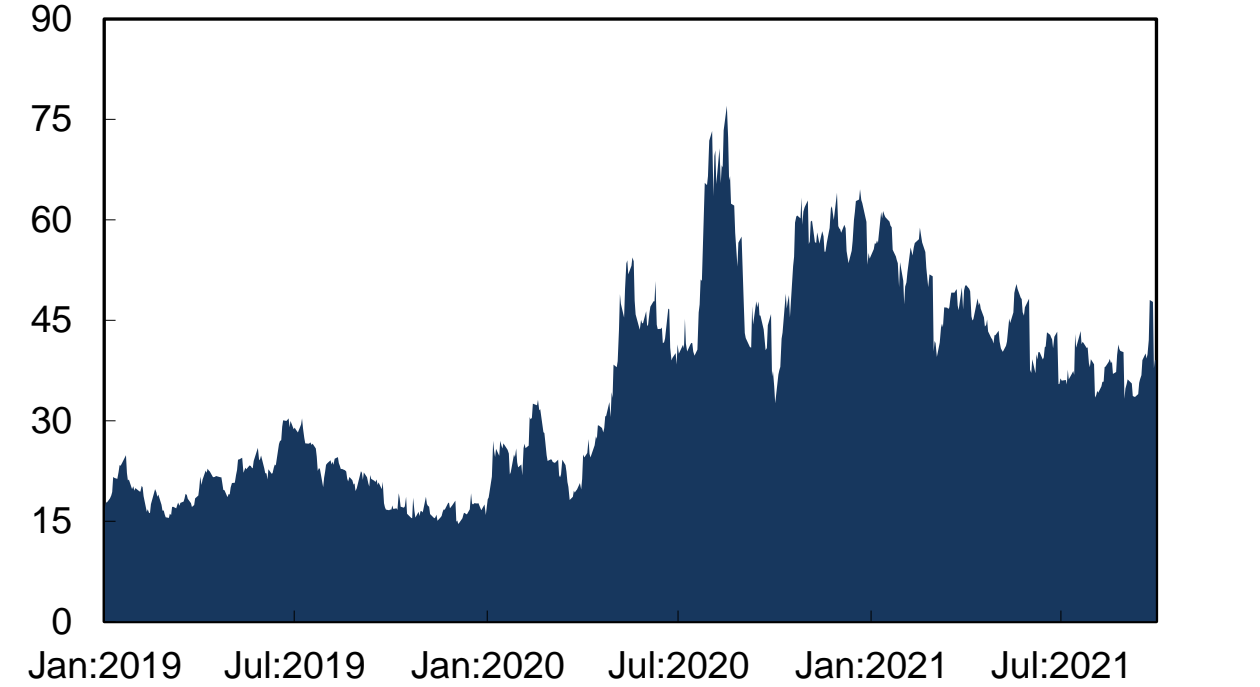


Source: CFTC,  
Haver Analytics

Note: Net notional amount of open interest. 10-Year includes 10-Year and 10-Year Ultra Treasury Note Futures; 30-Year includes Treasury Bond and Ultra Treasury Bond Futures.

# 3.4.3.8 CME Bitcoin Futures Open Interest

Thousands of Bitcoin      As Of: 30-Sep-2021      Thousands of Bitcoin



Note: Includes Bitcoin Futures and Micro Bitcoin Futures contracts. Open interest converted into Bitcoin equivalents using respective futures contract units.

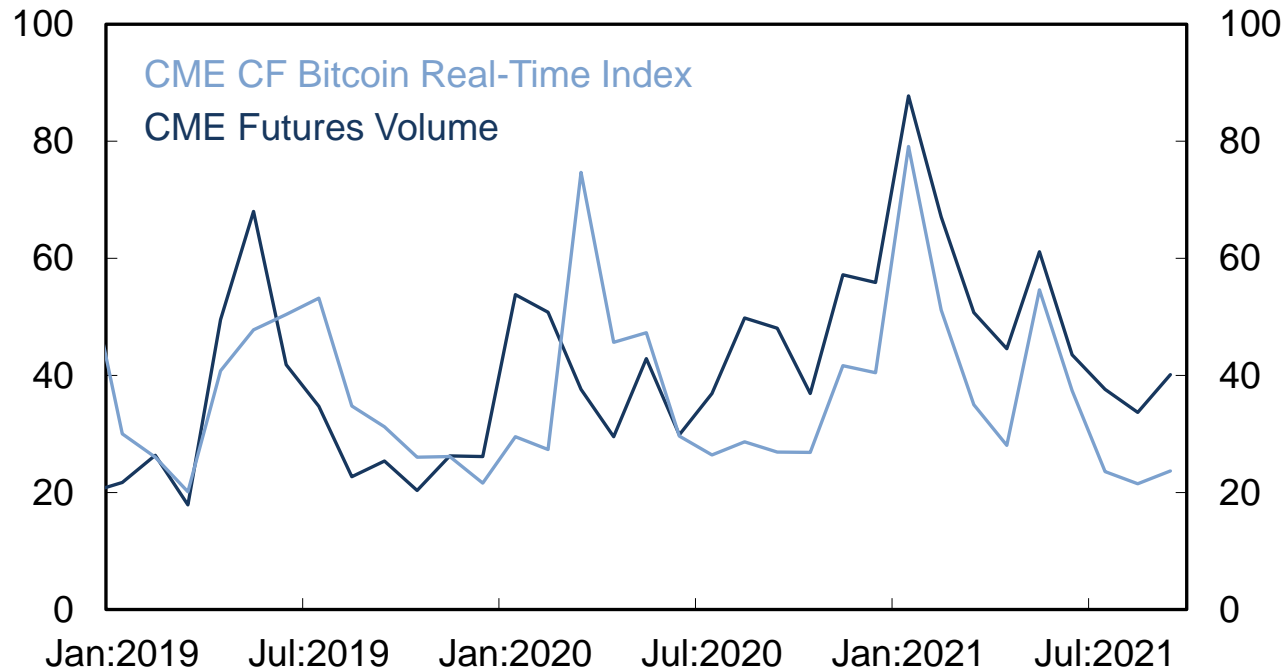
Source: Bloomberg, L.P.

### 3.4.3.9 Bitcoin Futures and Reference Index Volume

Thousands of Bitcoin

As Of: Sep-2021

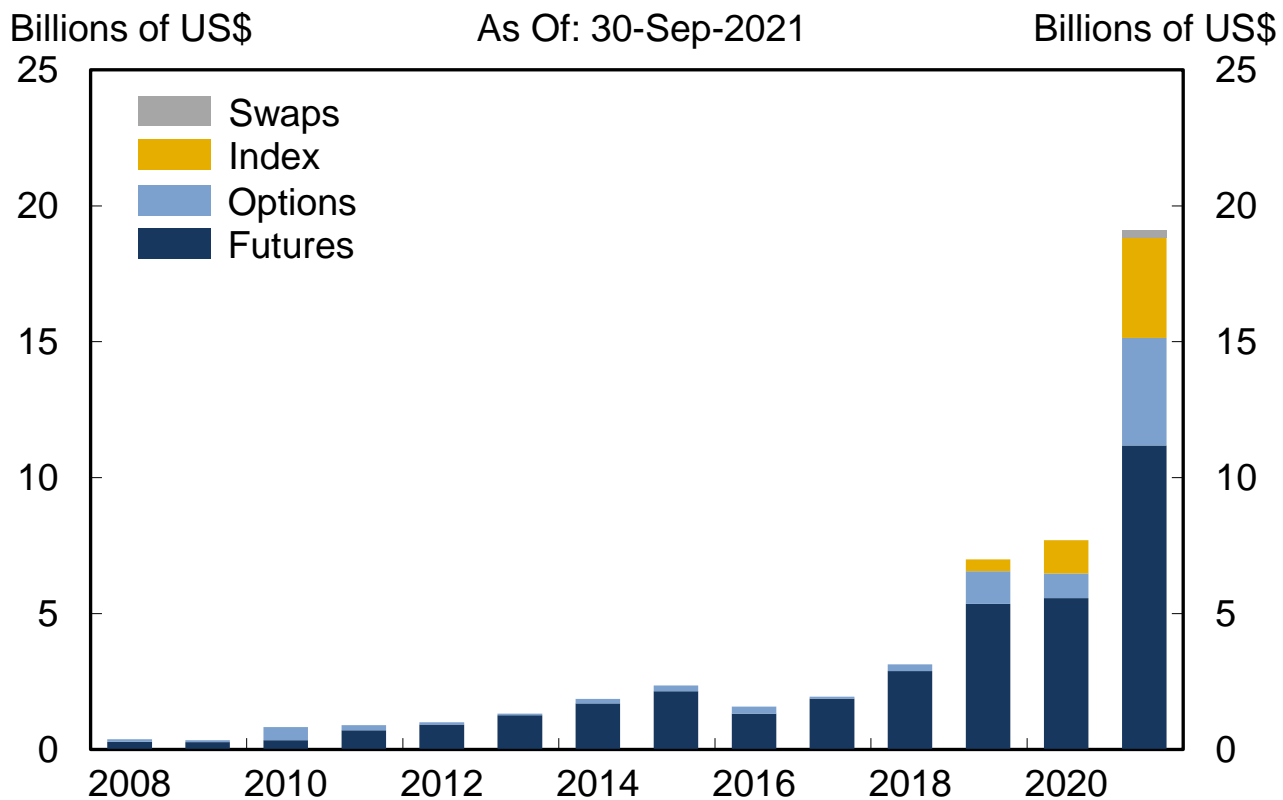
Thousands of Bitcoin



Source: Bloomberg L.P.,  
Bitcoinity.org

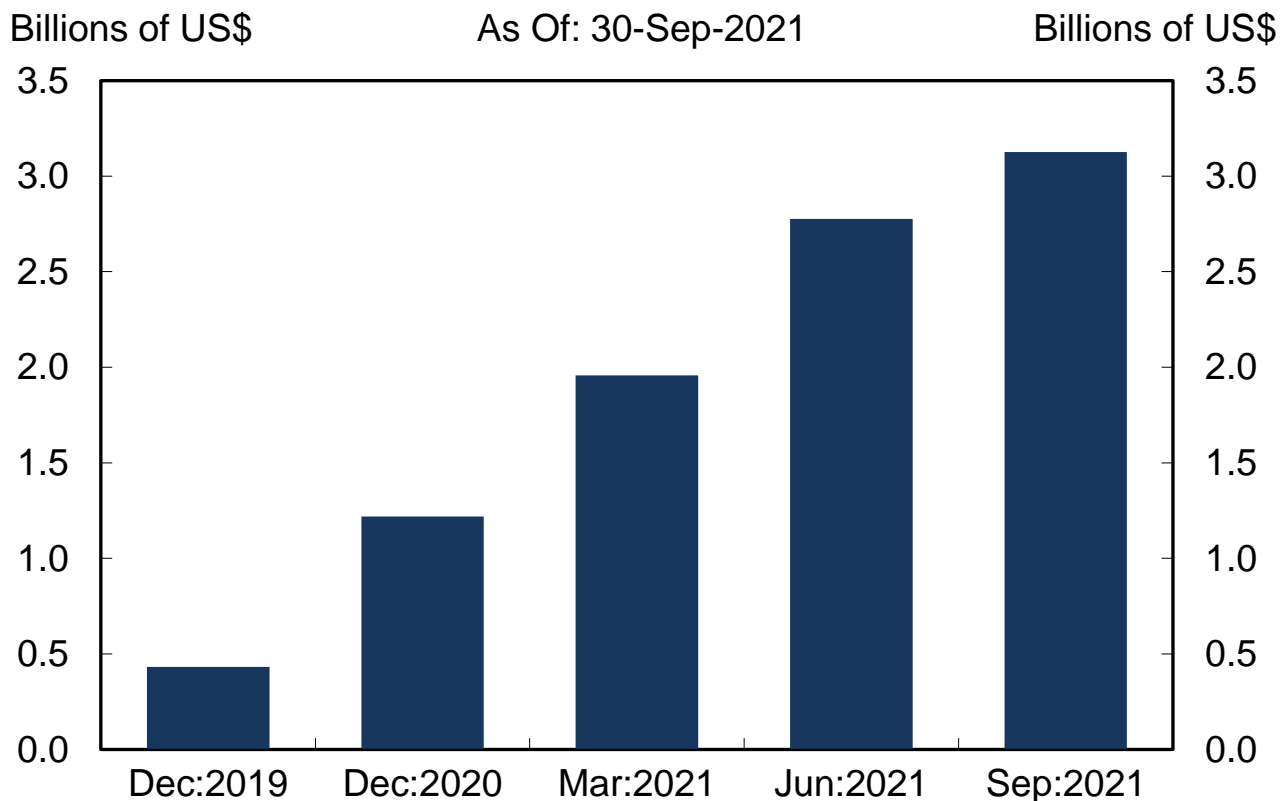
Note: Average daily volume. Includes CME Bitcoin and Micro Bitcoin volumes converted into bitcoin equivalents. Spot volumes are Bitcoin/USD pairs from underlying spot exchanges referenced by the CME CF Bitcoin Real-Time Index.

### 3.4.3.10 Growth of USD ESG and Emissions Derivatives Markets



Source: CFTC

### 3.4.3.11 Growth of the ESG Indices Futures Markets



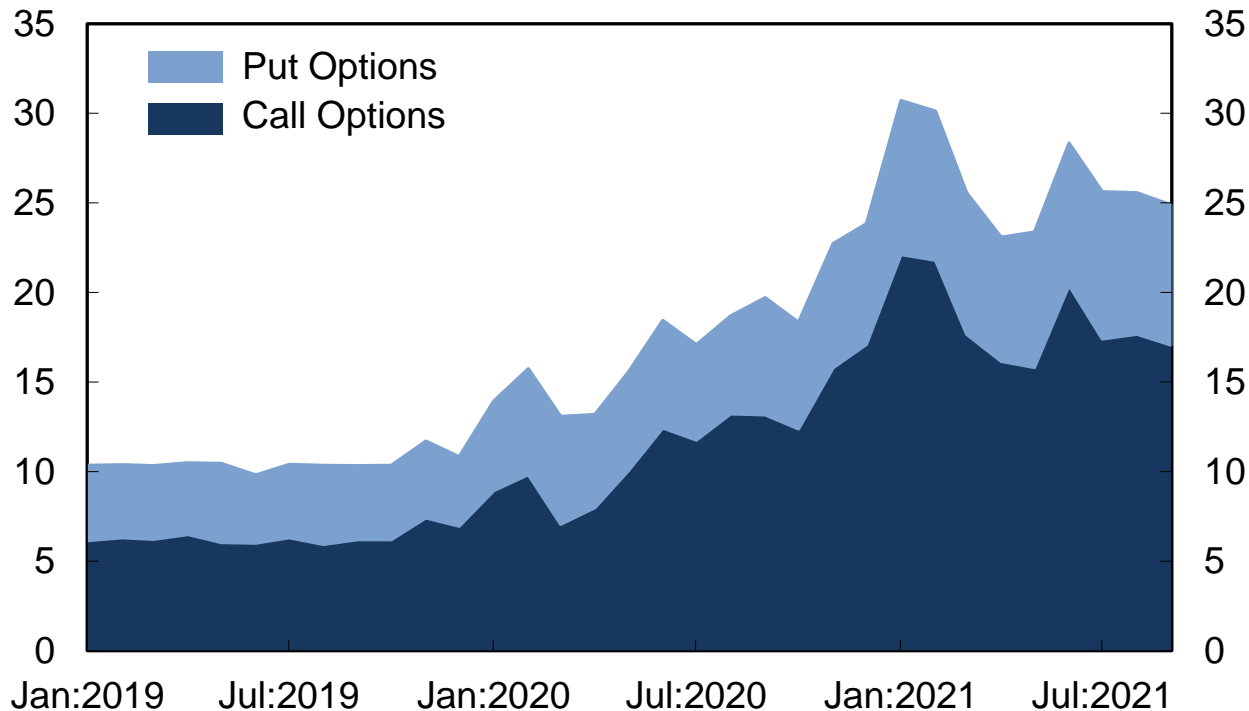
Source: CFTC

### 3.4.3.12 Exchange-Traded Equity Option Volume

Millions of Contracts

As Of: Sep-2021

Millions of Contracts



Note: Average daily volume. Includes FLEX, excludes index and ETF options.

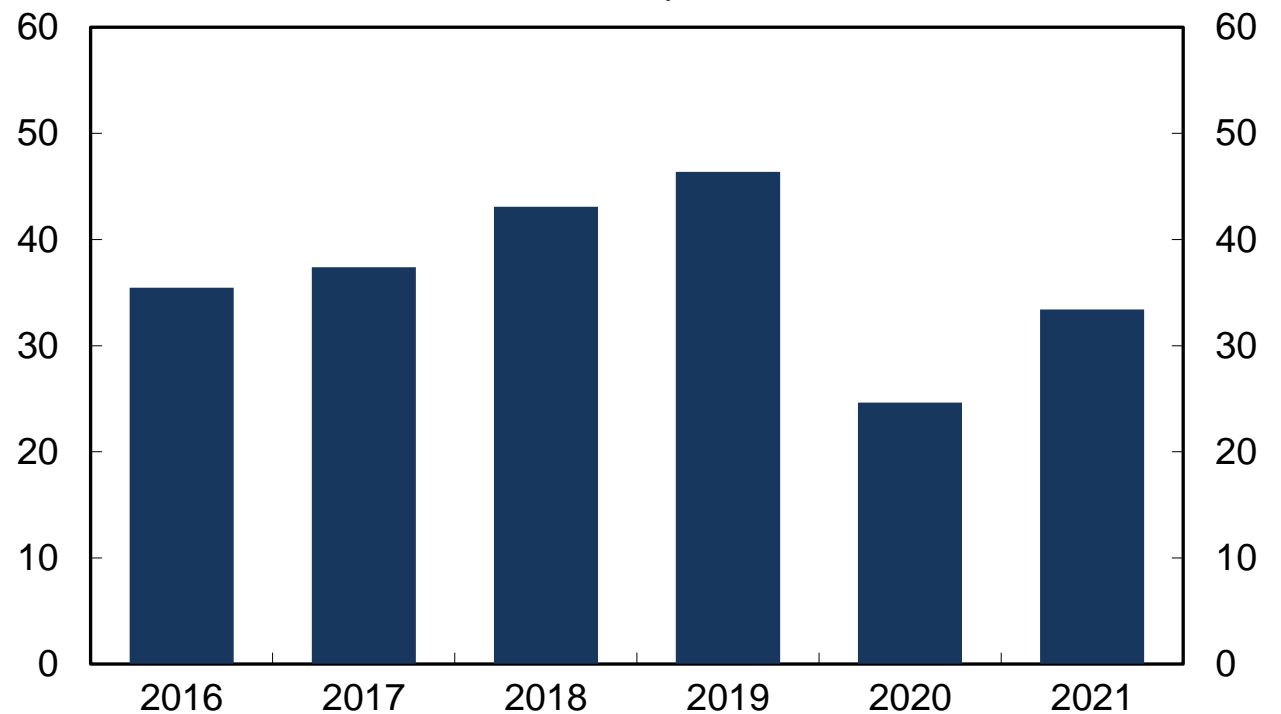
Source: Options Clearing Corp.

### 3.4.3.13 Options on Futures: Open Interest

Trillions of US\$

As Of: Sep-2021

Trillions of US\$

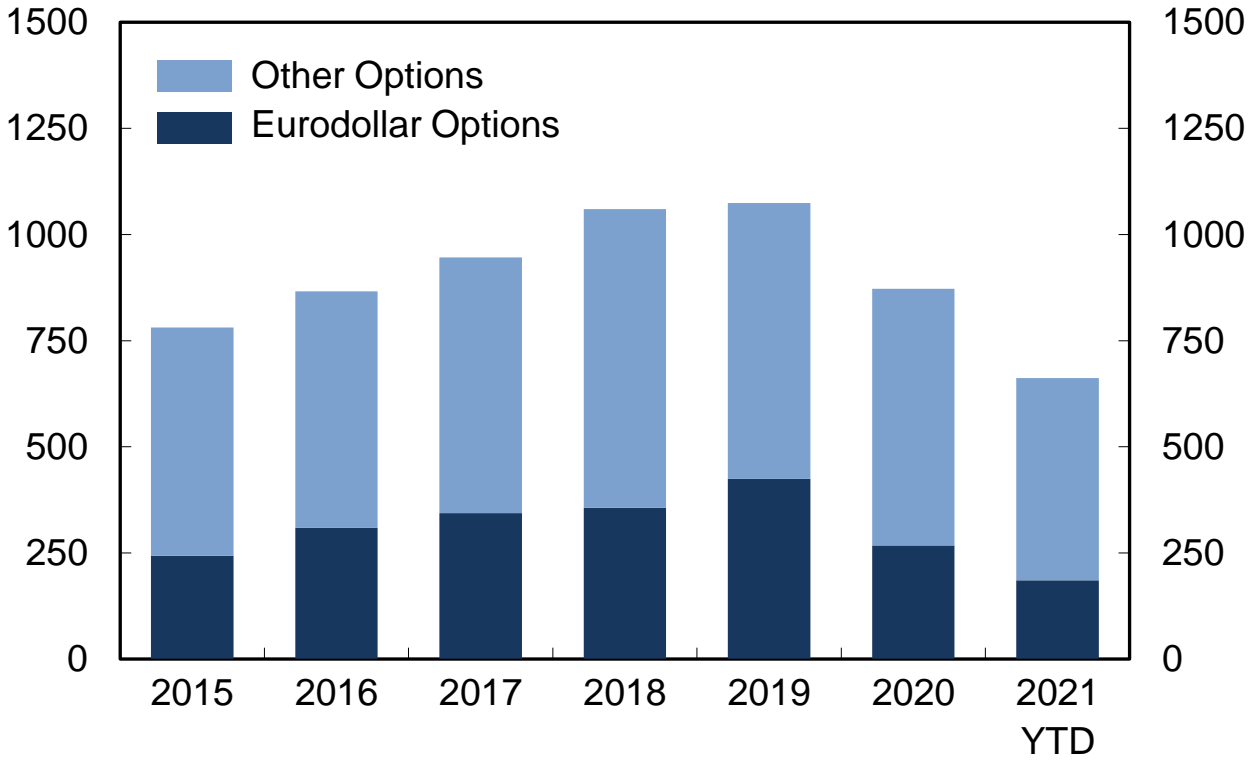


Source: CFTC

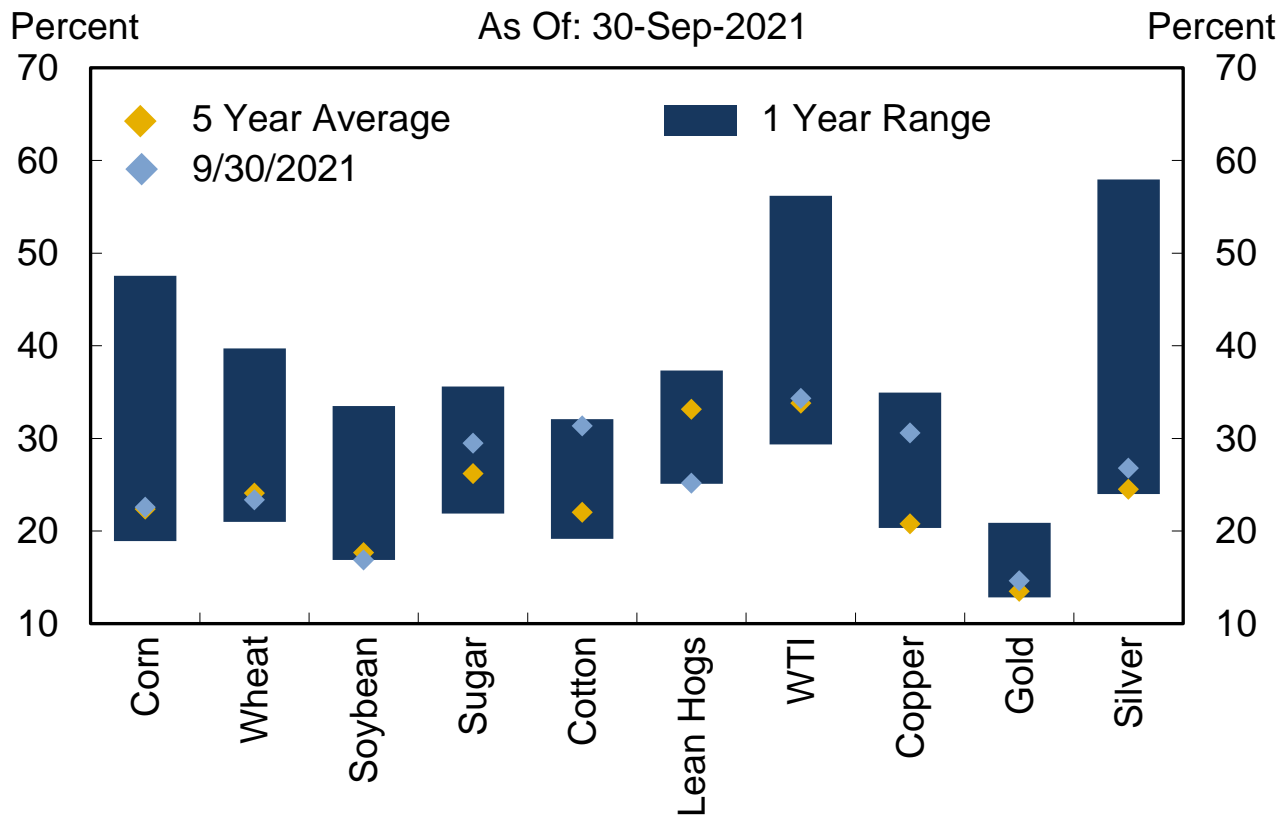


# 3.4.3.14 Options on Futures: Volume

Millions of Contracts                      As Of: Sep-2021                      Millions of Contracts



### 3.4.3.15 3-Month Implied Volatility for Select Commodities Options



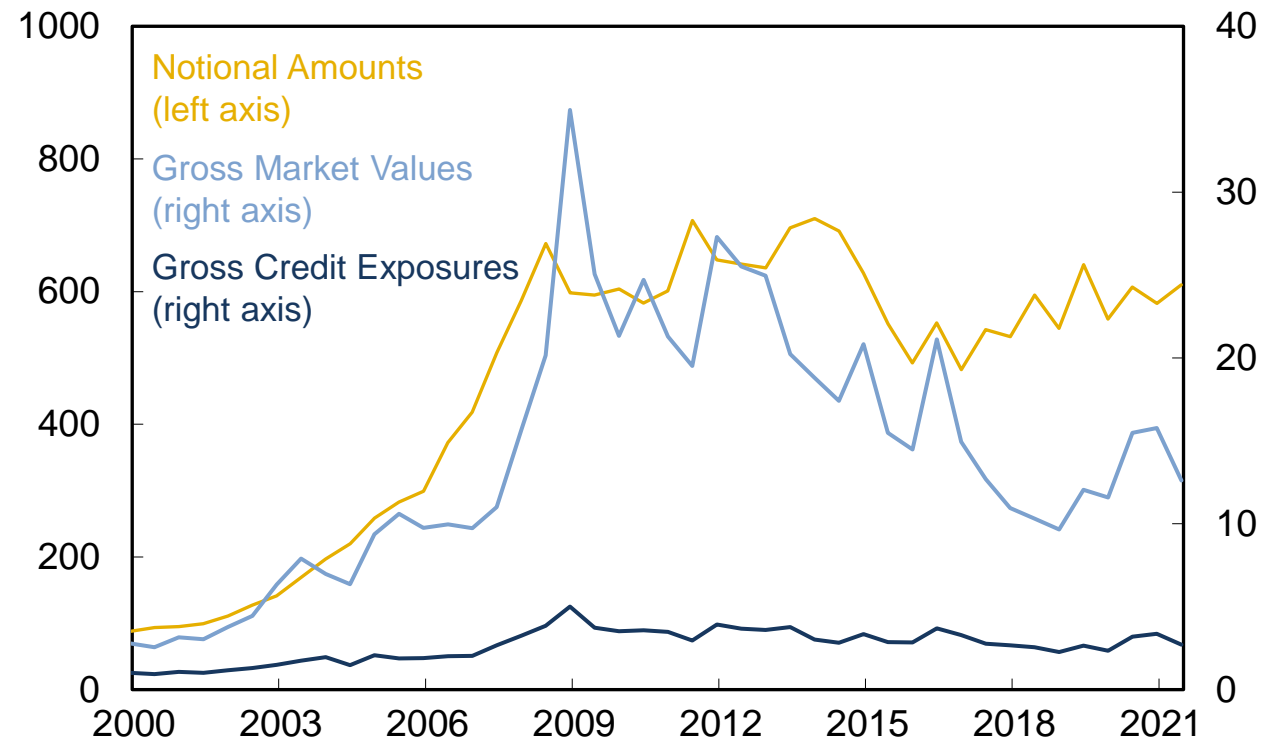
Source: Bloomberg, L.P.

### 3.4.3.16 Global OTC Positions

Trillions of US\$

As Of: 2021 Q2

Trillions of US\$



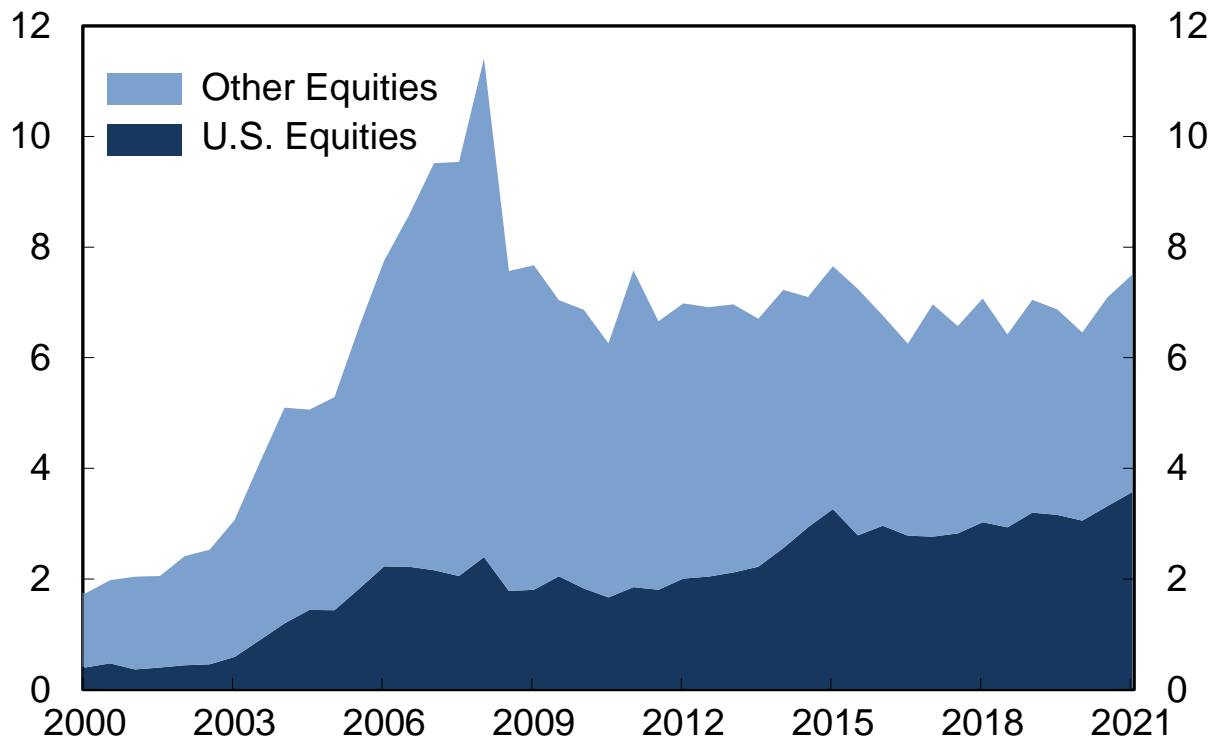
Source: BIS, Haver Analytics

### 3.4.3.17 Global OTC Equity Derivatives Outstanding

Trillions of US\$

As Of: 2021 Q2

Trillions of US\$



Source: BIS, Haver Analytics

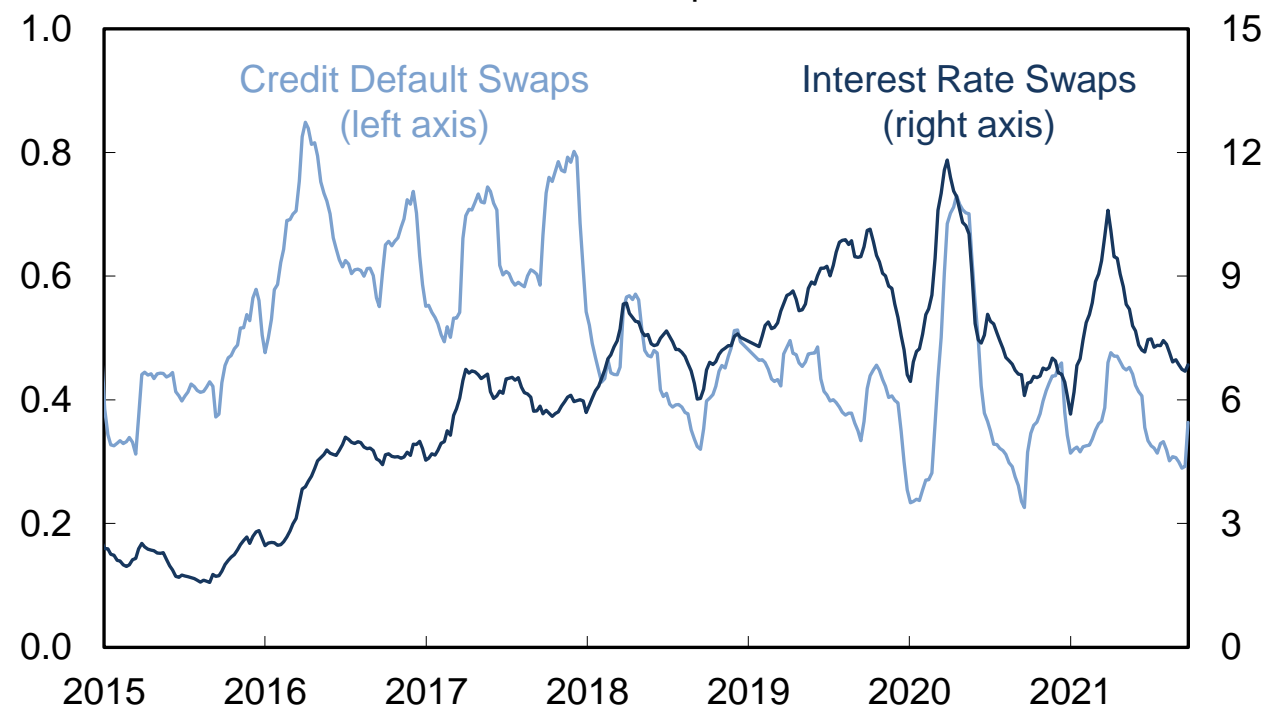
Note: Gross notional amounts outstanding.

### 3.4.3.18 Derivatives Notional Volume

Trillions of US\$

As Of: 24-Sep-2021

Trillions of US\$



Note: 12-week moving-averages. Excludes security-based swaps. ISDA adjusted numbers since Nov 2020.

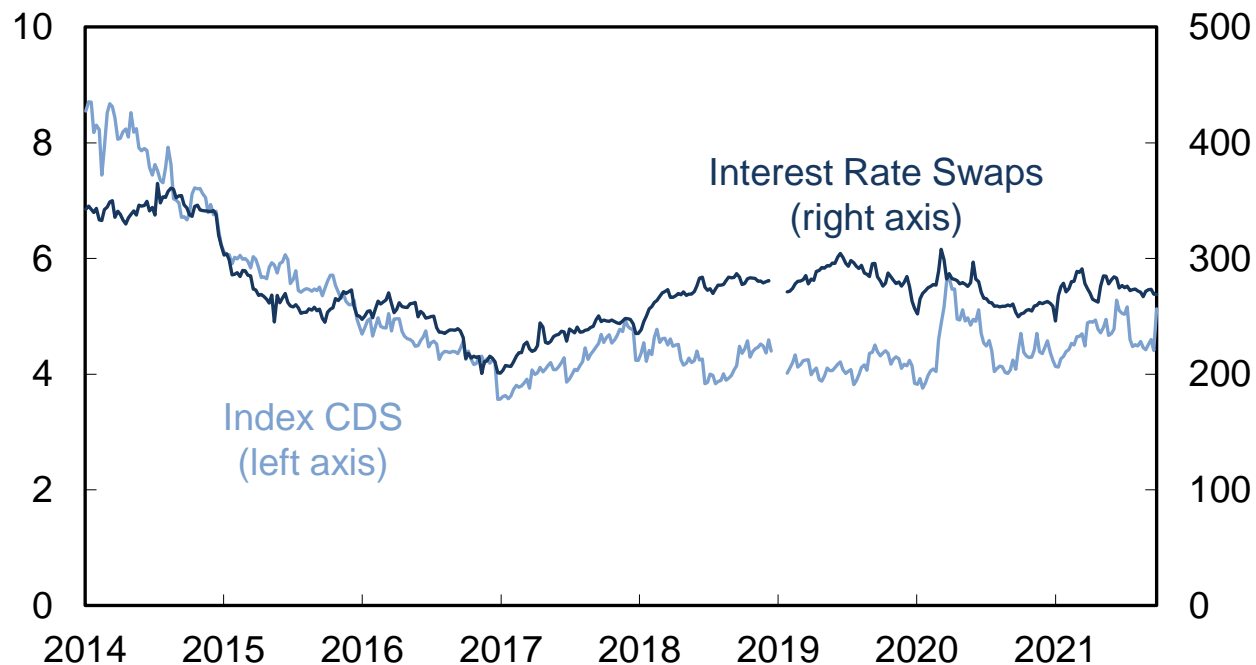
Source: CFTC, ISDA

### 3.4.3.19 Derivatives Notional Amount Outstanding

Trillions of US\$

As Of: 24-Sep-2021

Trillions of US\$



Note: Weekly Swaps Report not issued between Dec. 22, 2018 and Jan. 26, 2019 due to a lapse in government funding. Excludes security-based swaps.

Source: CFTC

Billions of US\$

As Of: Sep-2021

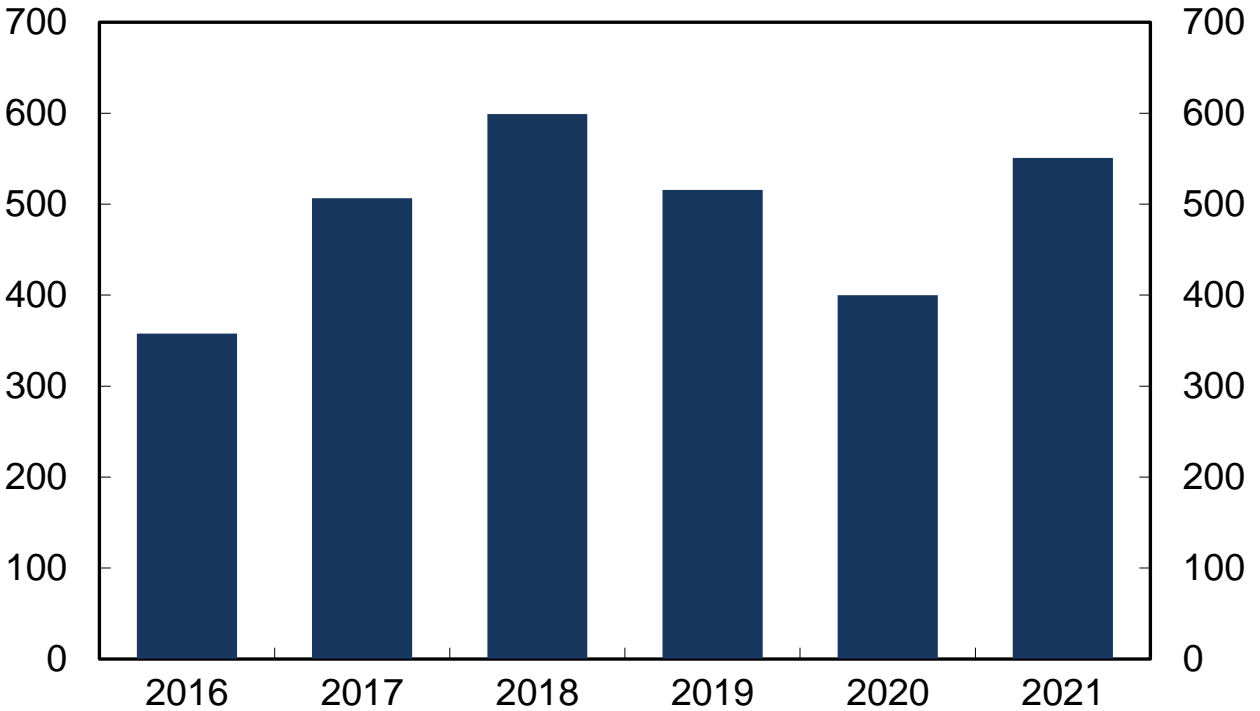
Billions of US\$



Note: Estimated notional value.  
Figures as of end of September.

# 3.4.3.21 Commodity Index Swaps Gross Notional Value

Billions of US\$ As Of: Sep-2021 Billions of US\$



Source: CFTC

Note: Estimated notional value.  
Figures as of end of September.

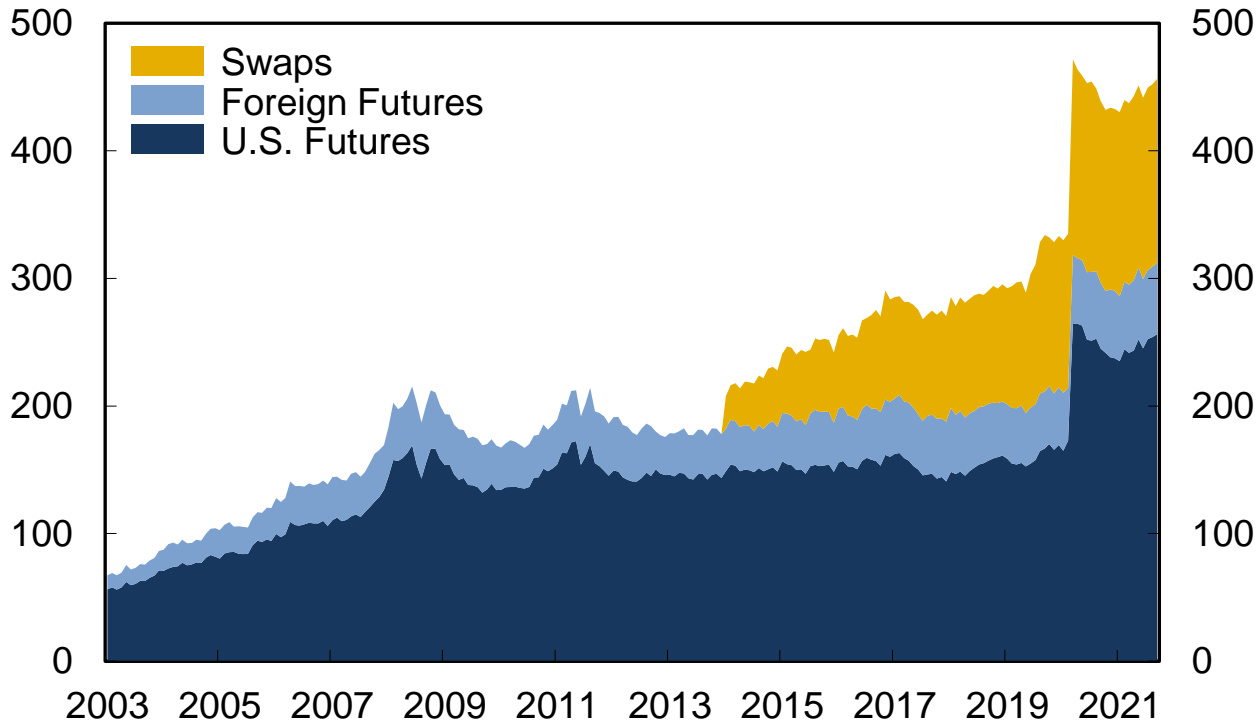


### 3.4.3.22 Customer Margin Funds Held at FCMs

Billions of US\$

As Of: Sep-2021

Billions of US\$



Source: CFTC

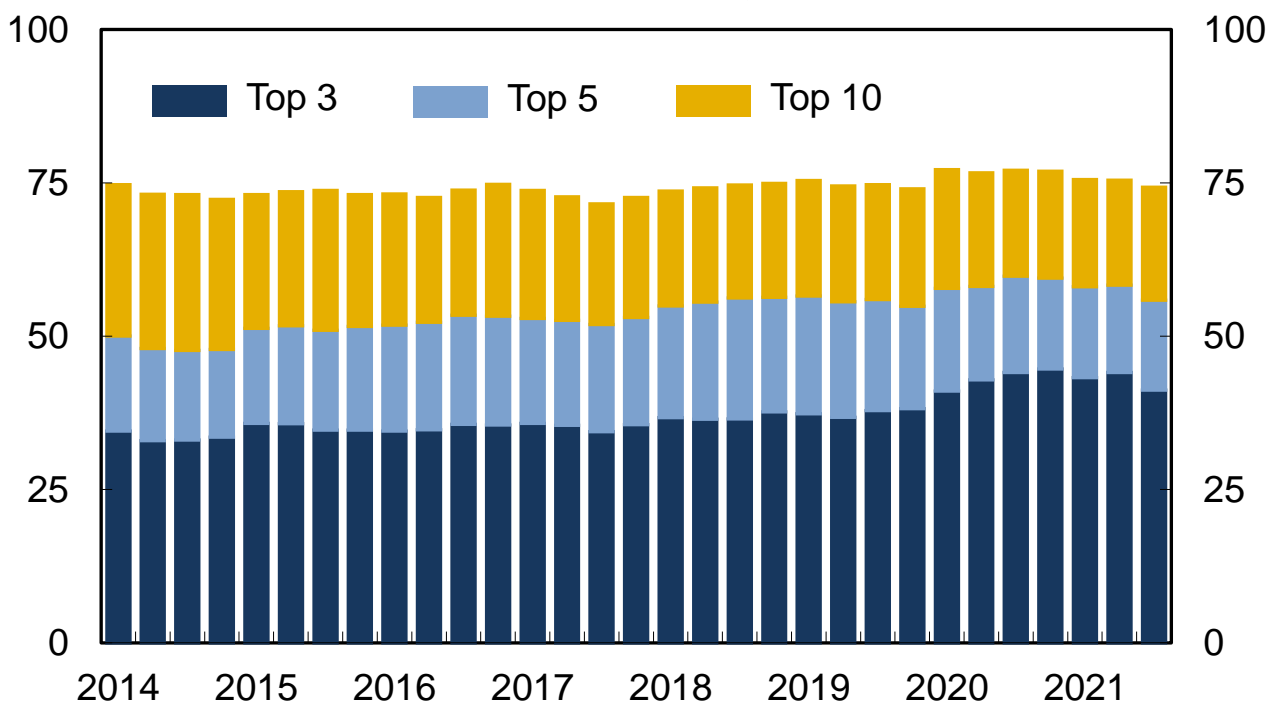
Note: Includes CFTC registered FCMs.

### 3.4.3.23 FCM Concentration: Customer Futures Balances

Percent

As Of: 2021 Q3

Percent

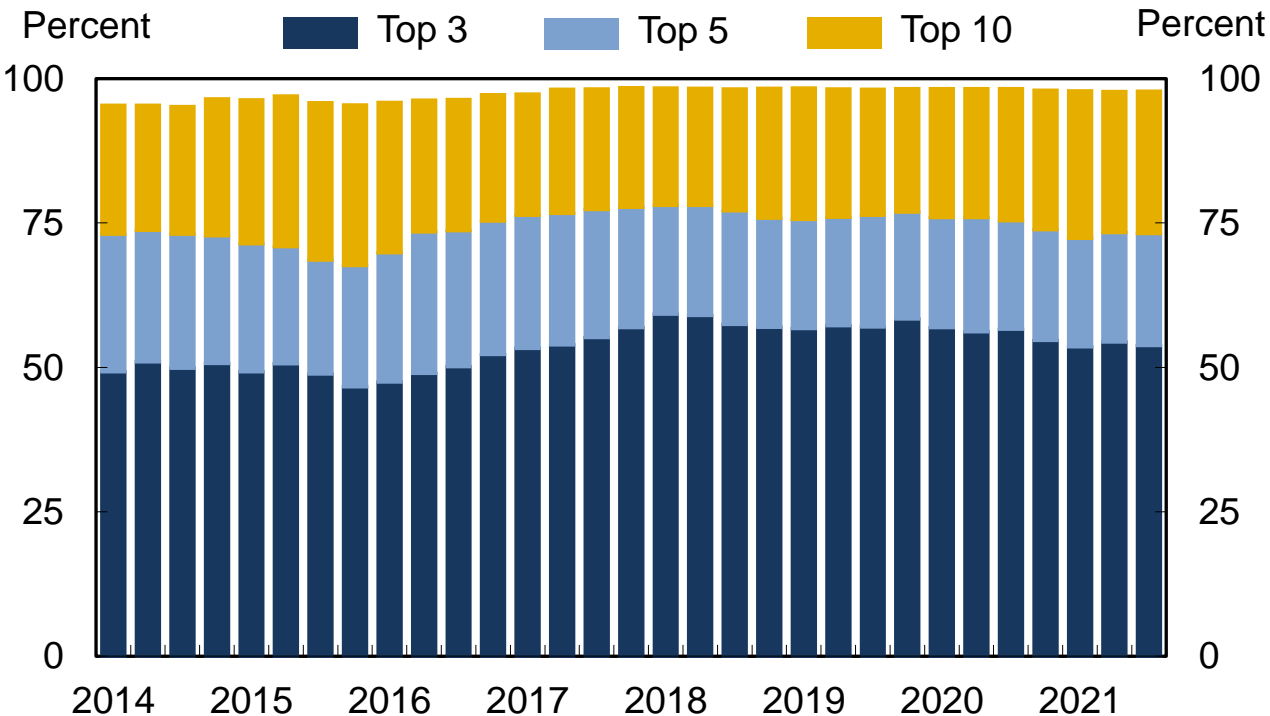


Note: Represents total amount of funds that an FCM is required to segregate on behalf of customers who are trading futures and options on futures at US exchanges.

Source: CFTC

### 3.4.3.24 FCM Concentration: Customer Swap Balances

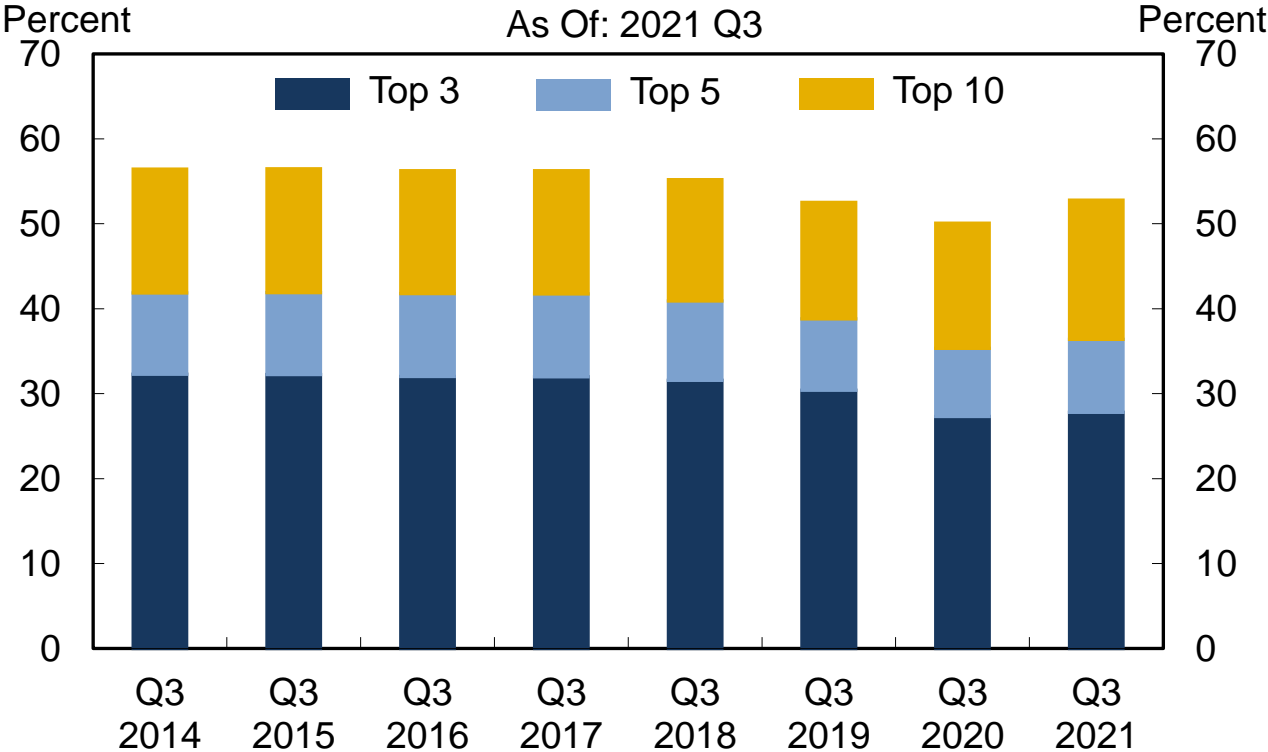
As Of: 2021 Q3



Source: CFTC

Note: Represents the amount of funds an FCM is required to segregate for customers who trade cleared swaps.

### 3.4.3.25 Concentration of Swap Positions for Registered SDs



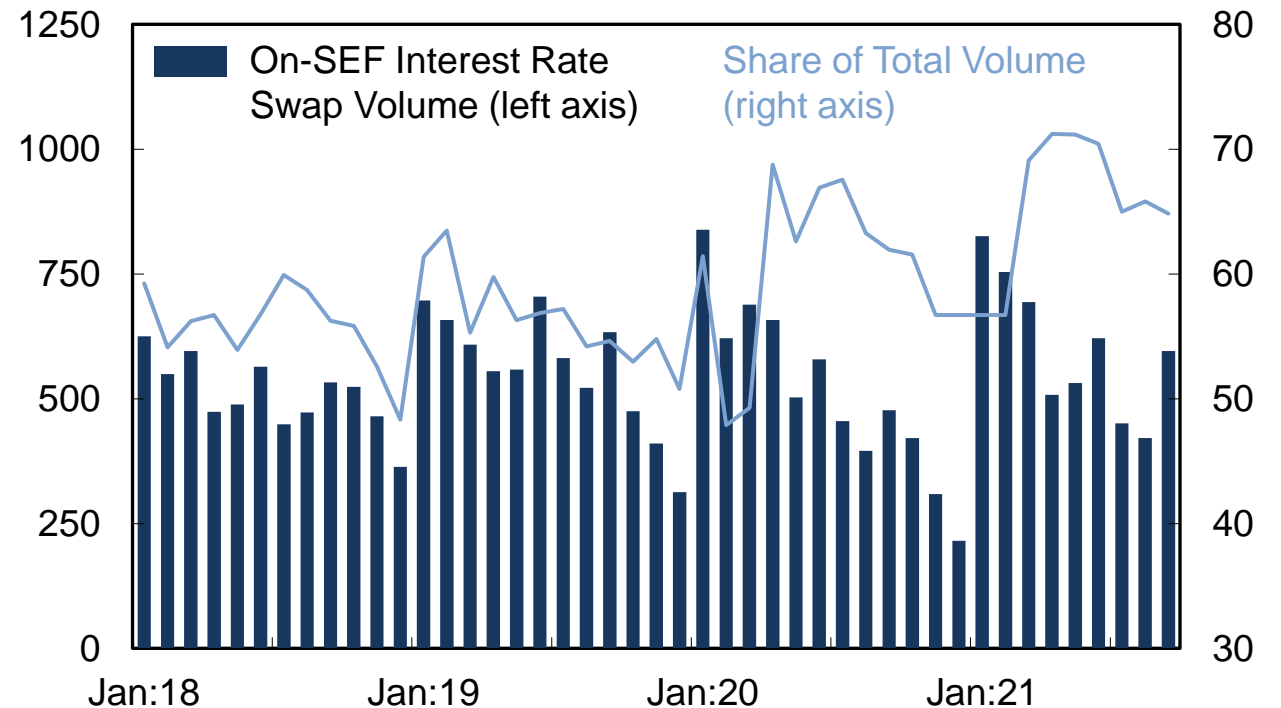
Note: Positions between two Swap Dealers (SDs) in the same category (e.g., Top 3 or Top 5) are double-counted (i.e., a trade between the #1 SD and #3 SD would be counted twice).

# 3.4.3.26 SEF Trading Volumes: Interest Rate Swaps

Billions of US\$

As Of: Sep-2021

Percent



Source: CFTC

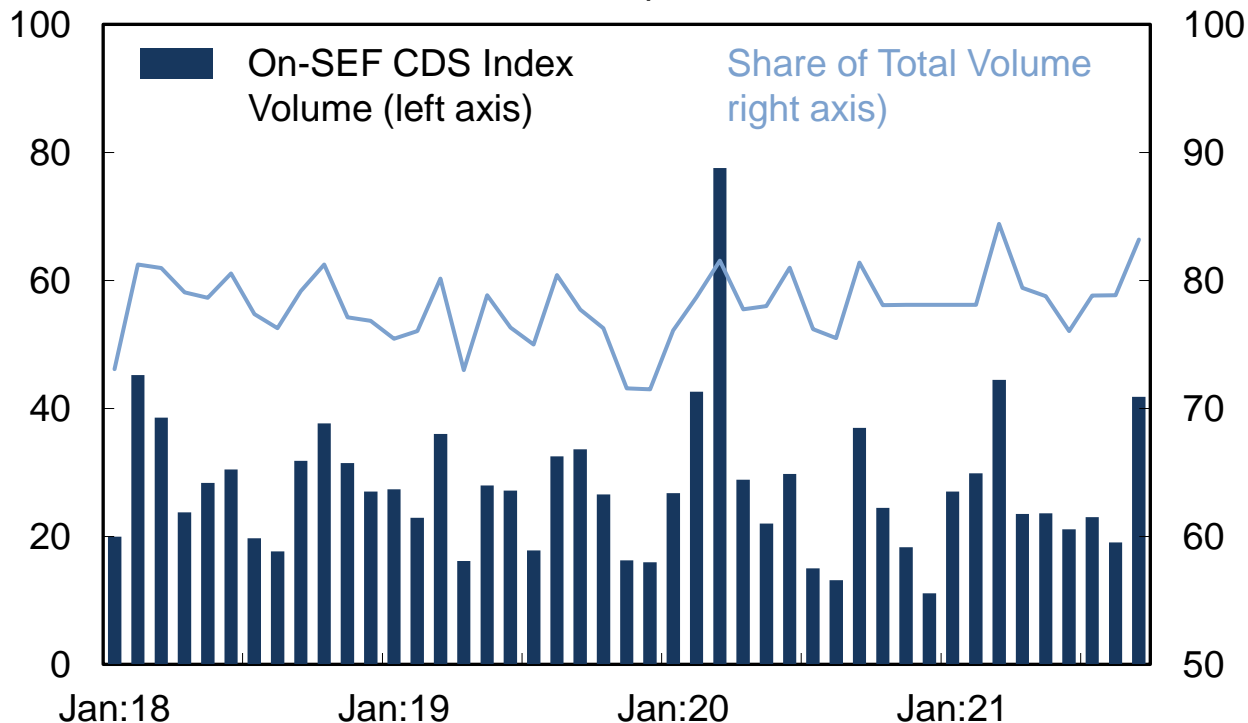
Note: Average daily notional volume. Data have been adjusted to correct a DDR data issue.

### 3.4.3.27 SEF Trading Volumes: CDS Index

Billions of US\$

As Of: Sep-2021

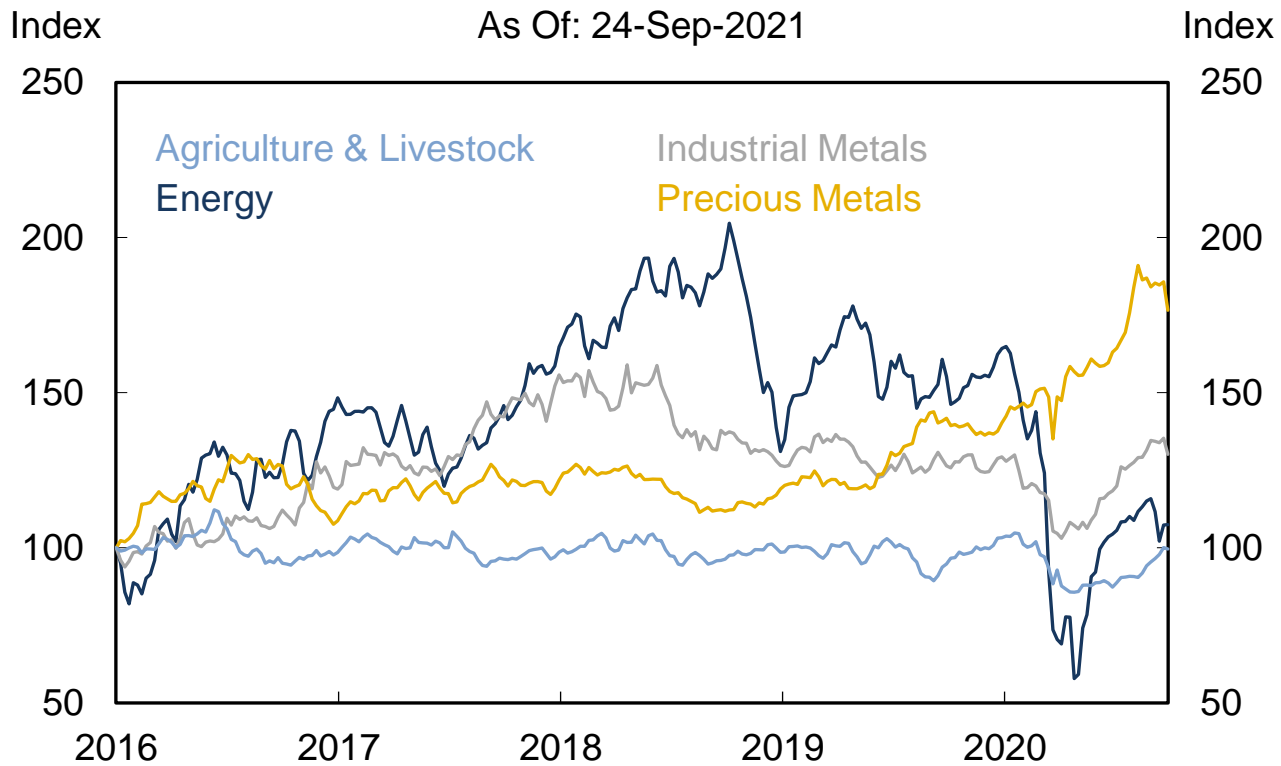
Percent



Source: CFTC

Note: Average daily notional volume. Excludes security-based swaps. Data have been adjusted to correct a DDR data issue.

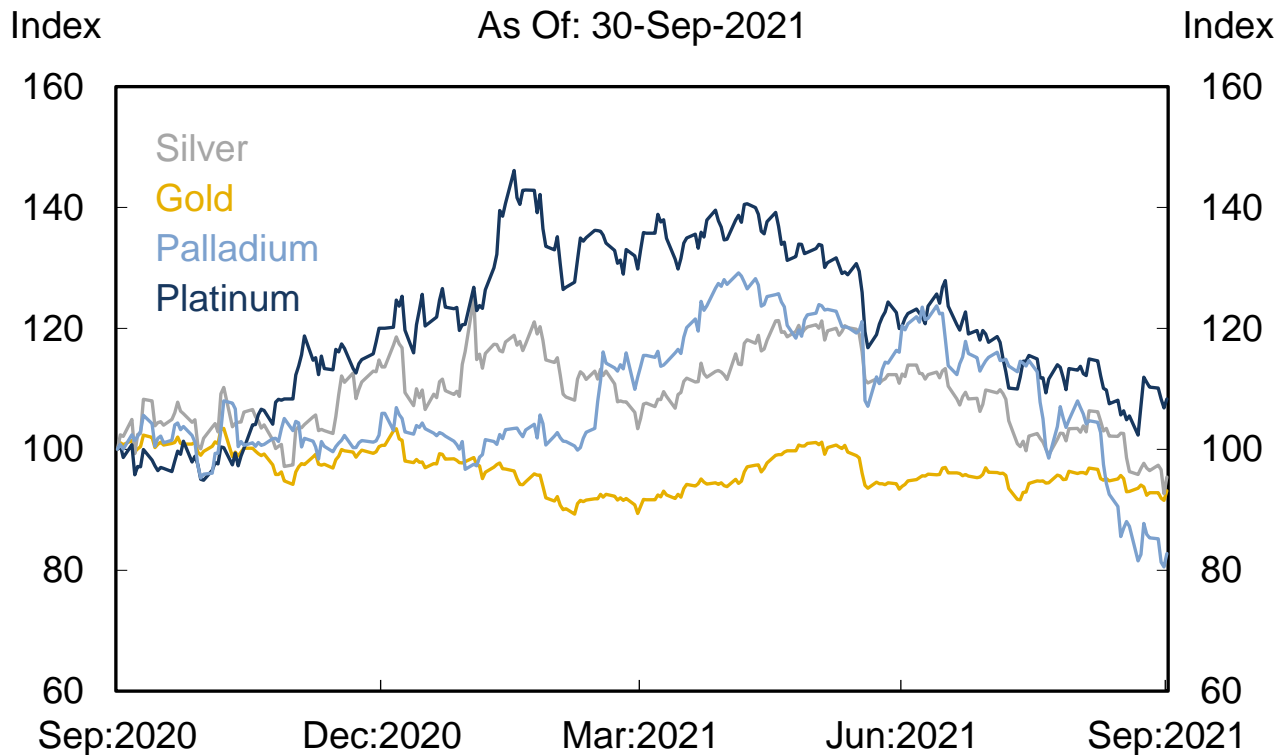
### 3.4.4.1 Relative Performance of Commodity Indices



Note: S&P GSCI Spot Indices.  
Indexed to 100 as of January 1, 2016.

Source: S&P GSCI, Haver Analytics

### 3.4.4.2 Relative Performance of Precious Metals

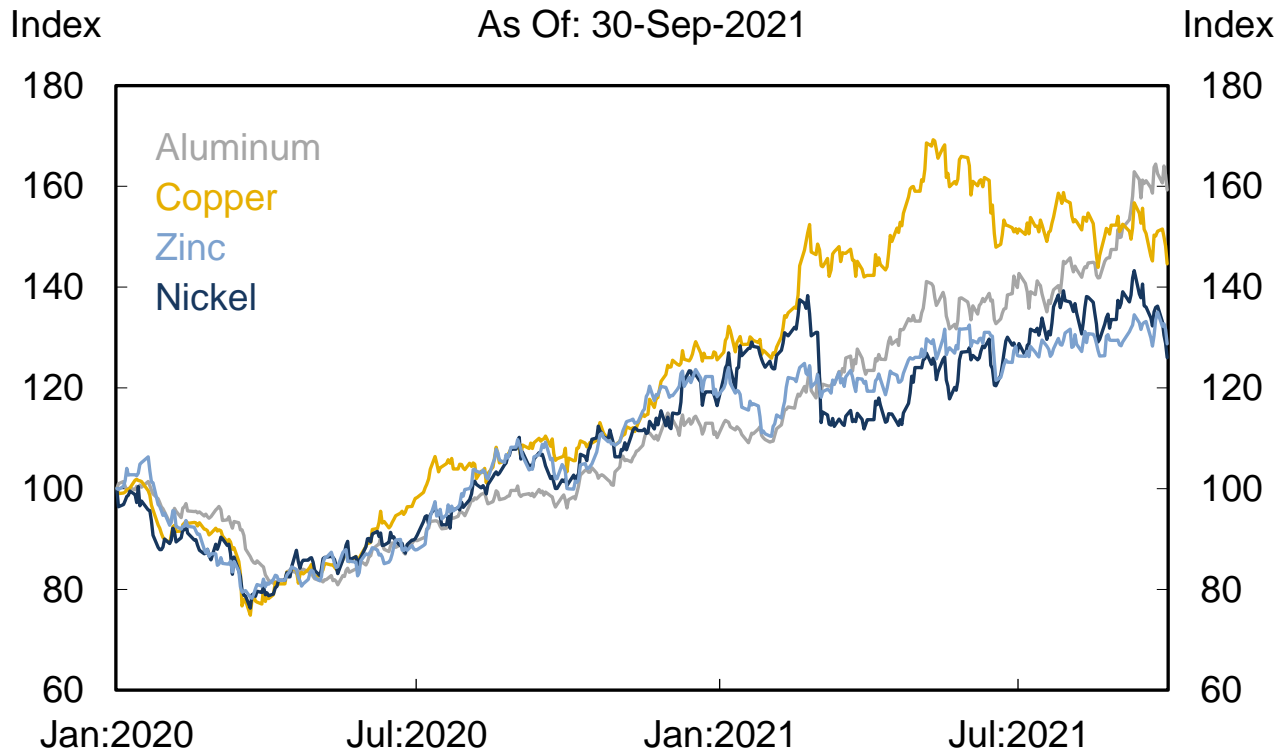


Source: Bloomberg, L.P.

Note: Indexed to 100 as of September 30, 2020.



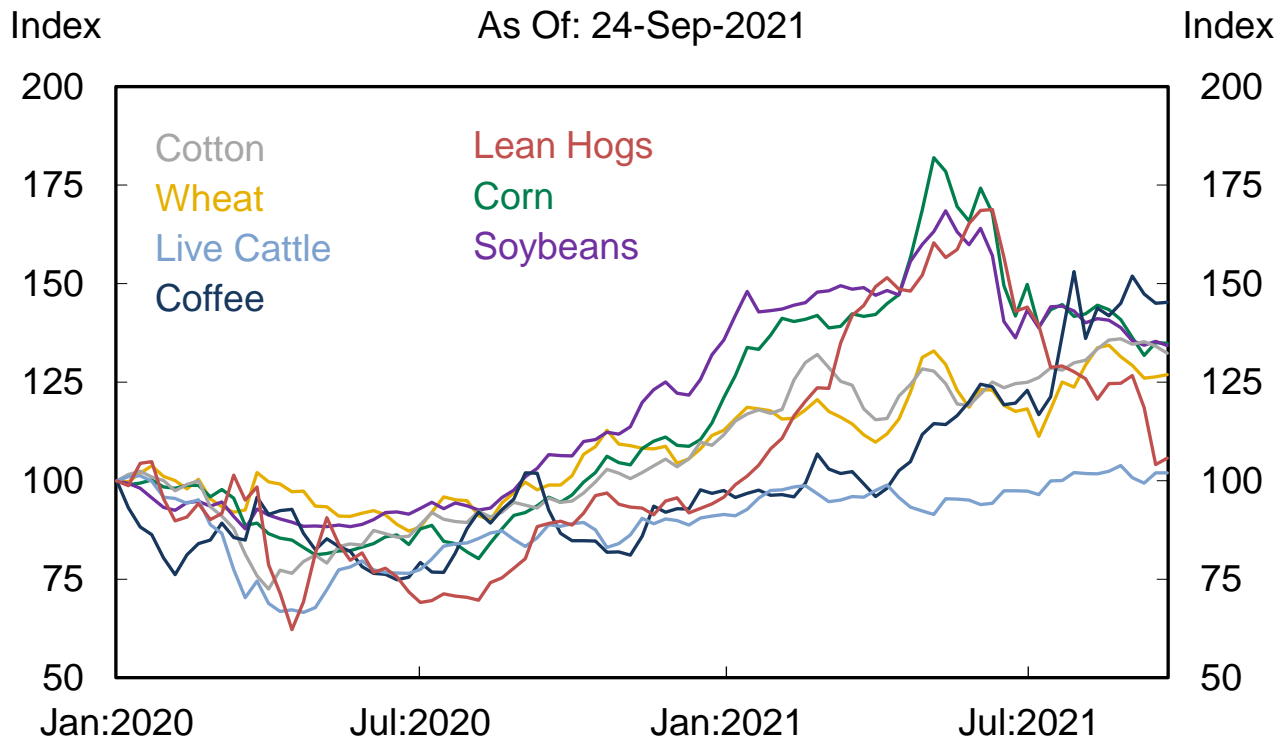
### 3.4.4.3 Relative Performance of Industrial Metals



Note: S&P GSCI Spot Indices.  
Indexed to 100 as of January 2, 2020.

Source: S&P GSCI, Haver Analytics

### 3.4.4.4 Relative Performance of Agriculture Products



Source: S&P GSCI, Haver Analytics

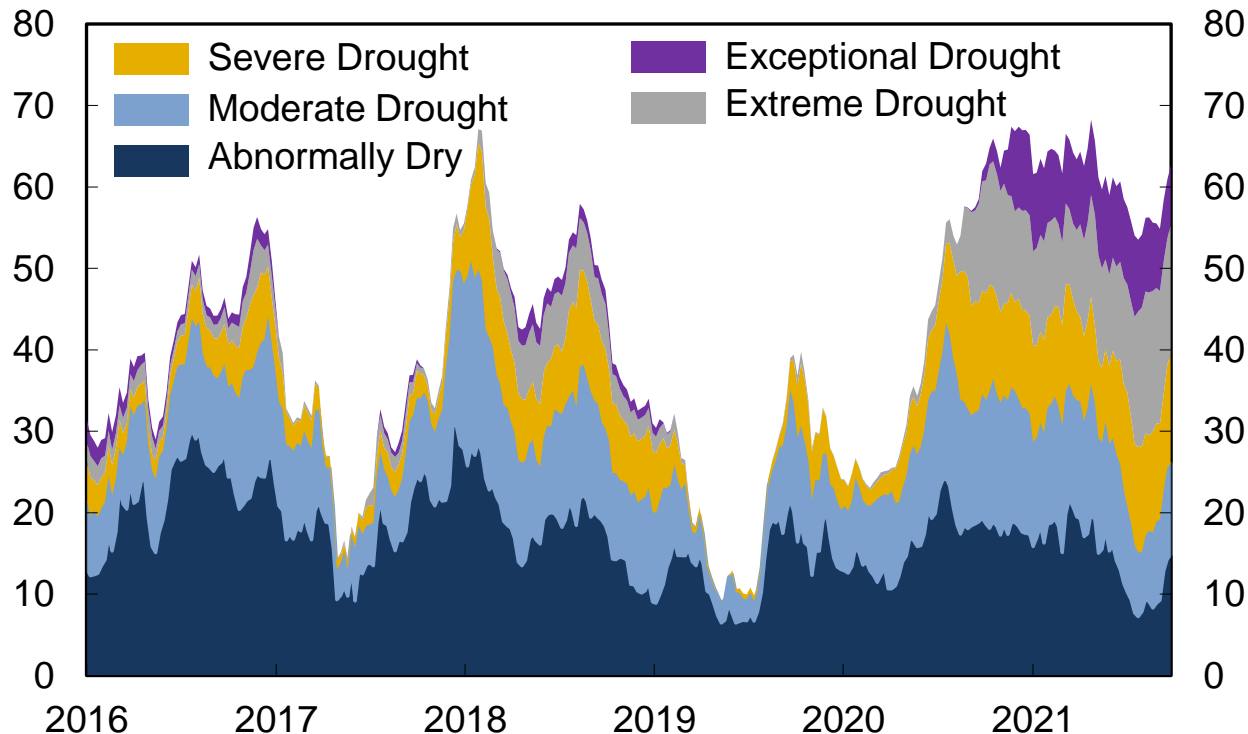
Note: S&P GSCI Spot Indices.  
Indexed to 100 as of January 3, 2020.

### 3.4.4.5 U.S. Drought Conditions

Percent

As Of: 28-Sep-2021

Percent



Source: University of Nebraska-Lincoln

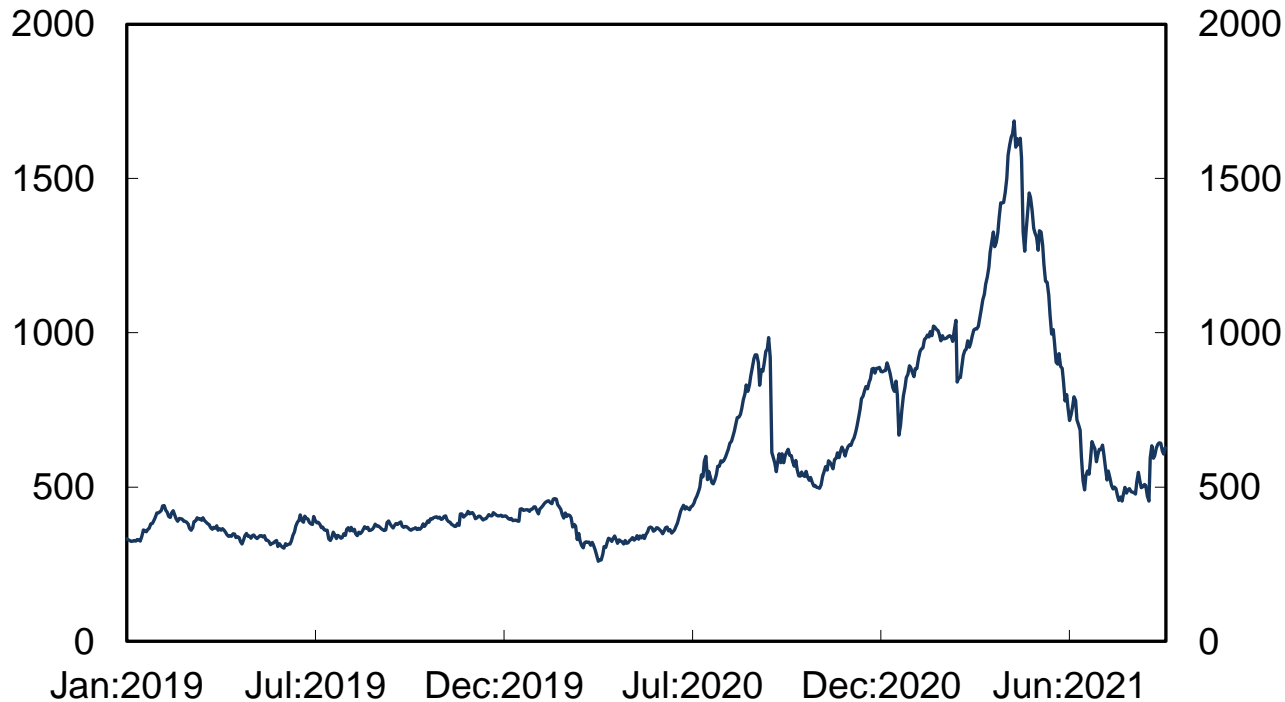
Note: Limited to Continental U.S.

### 3.4.4.6 CME Lumber Futures

Contract Price, US\$

As Of: 30-Sep-2021

Contract Price, US\$



Source: CME, Haver Analytics

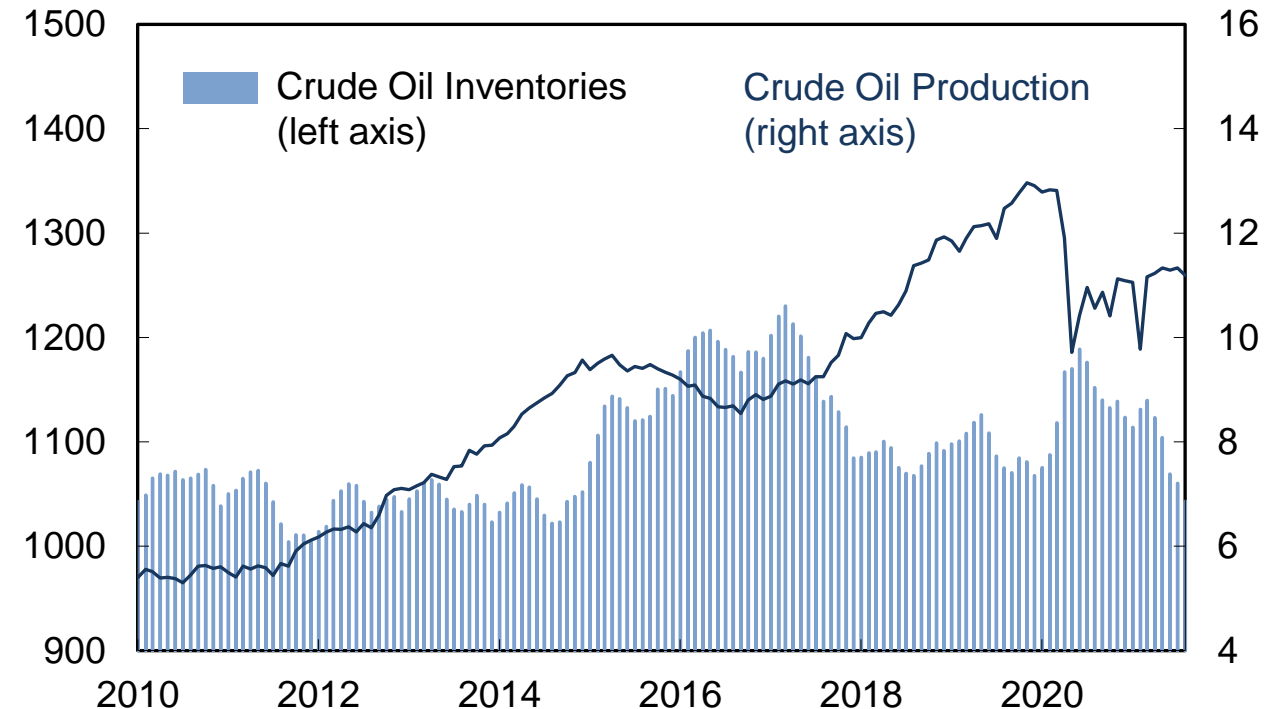
Note: US\$ per 1,000 Board Feed.

### 3.4.4.7 U.S. Crude Oil Production & Inventories

Millions of Barrels

As Of: Aug-2021

Millions of Barrels



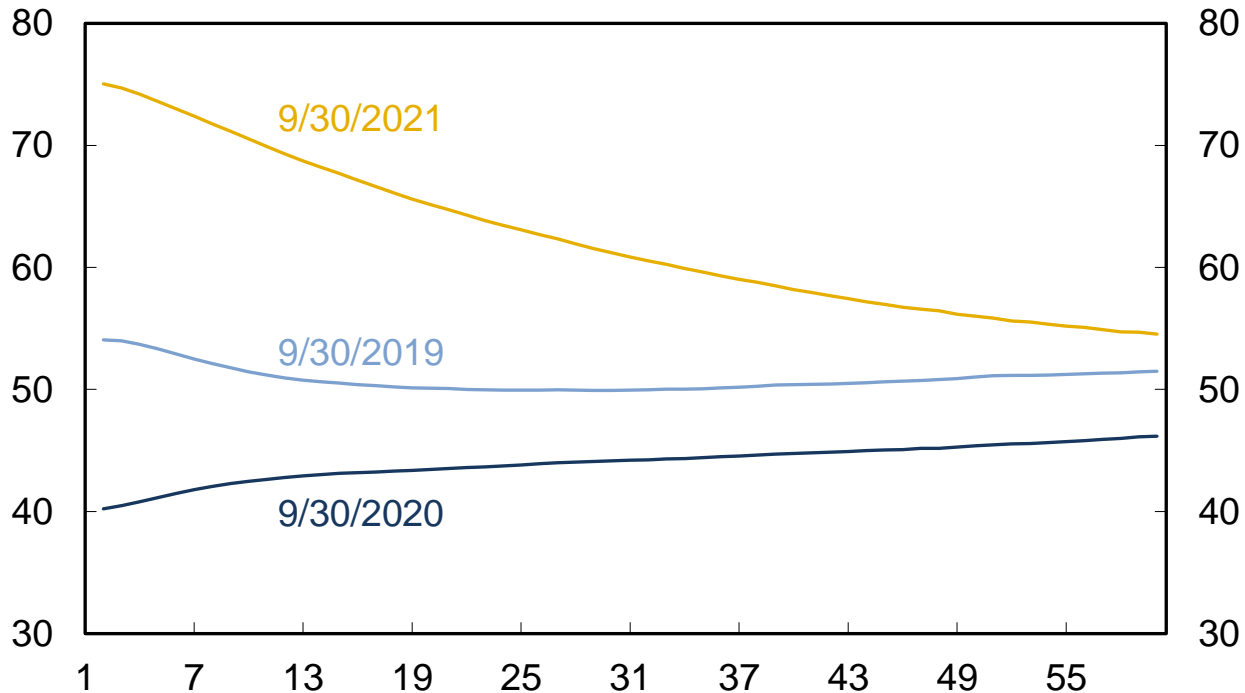
Note: Crude oil production presented as millions of barrels per day.

Source: EIA, Haver Analytics

### 3.4.4.8 WTI Crude Oil Futures Curve

Price Per Barrel (\$)

Price Per Barrel (\$)



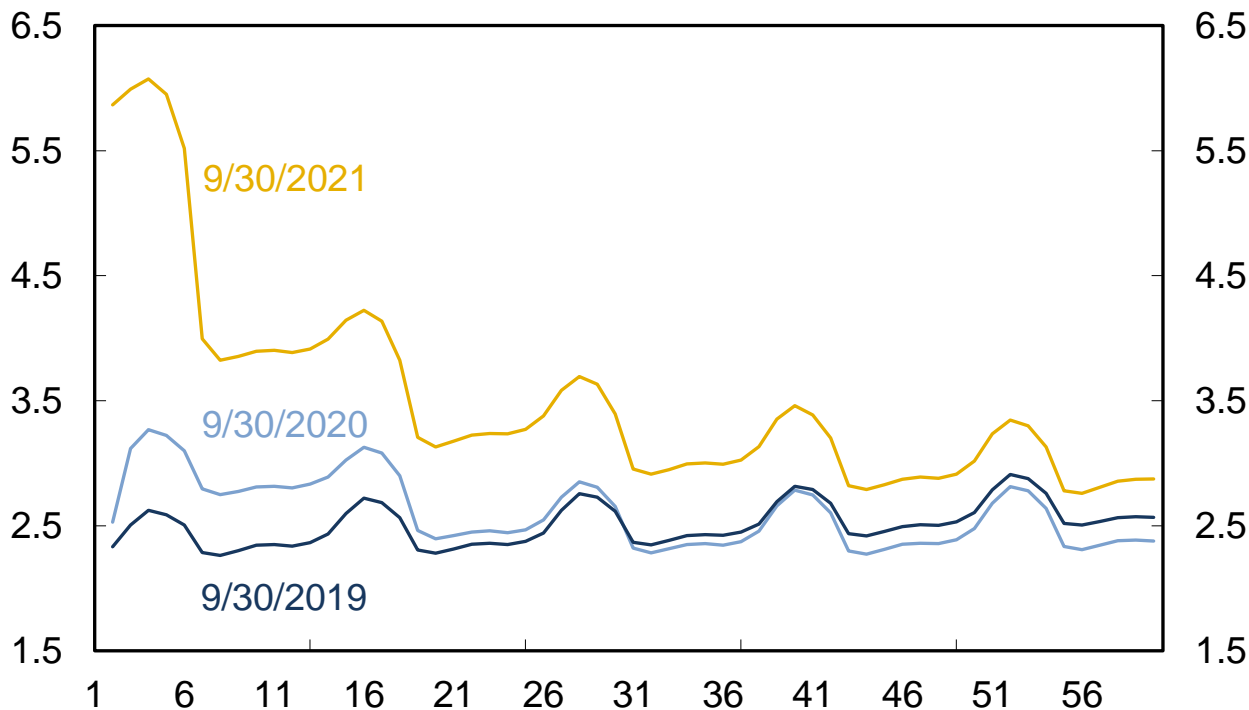
Note: CME WTI Crude Oil Futures. X axis represents the number of months until expiry.

Source: Bloomberg, L.P.

### 3.4.4.9 Natural Gas Futures Curve

US\$ Per MMBtu

US\$ Per MMBtu



Source: Bloomberg, L.P.

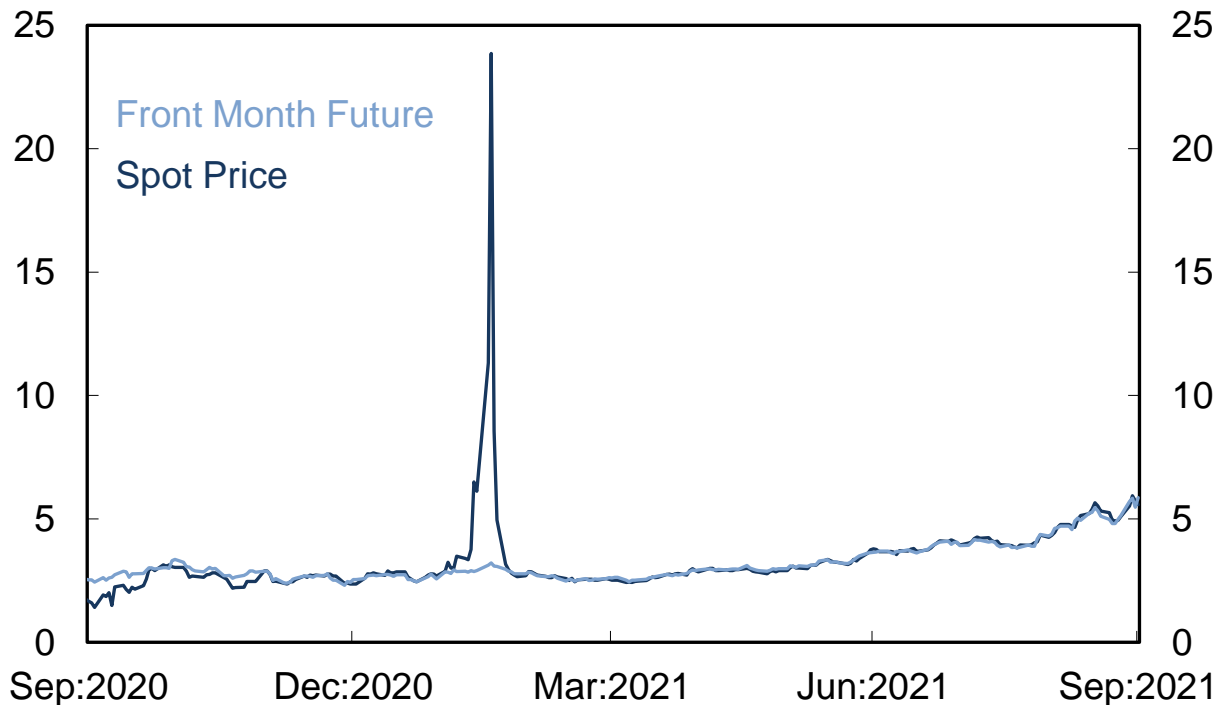
Note: NYMEX Henry Hub Natural Gas Futures. X axis represents the number of months until expiry.

### 3.4.4.10 U.S. Natural Gas Prices

Contract Price, US\$

As Of: 30-Sep-2021

Contract Price, US\$



Source: Bloomberg, L.P.

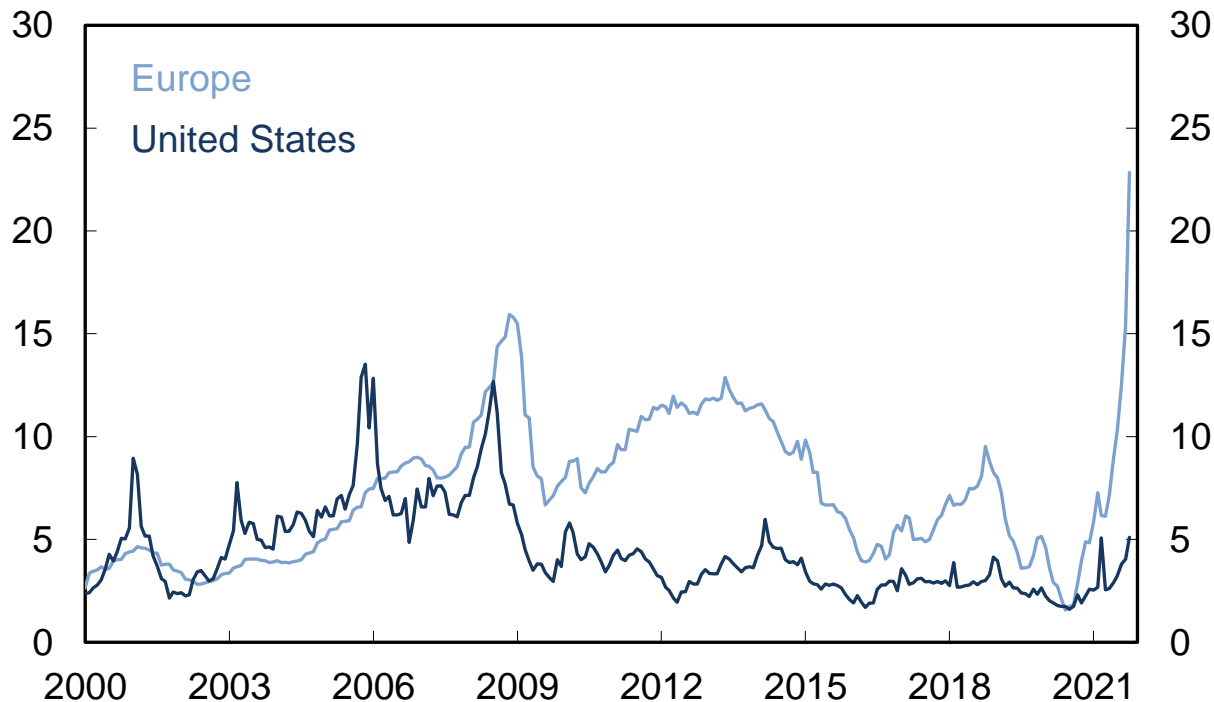


### 3.4.4.11 European & U.S. Natural Gas Prices

US\$ Per MMBtu

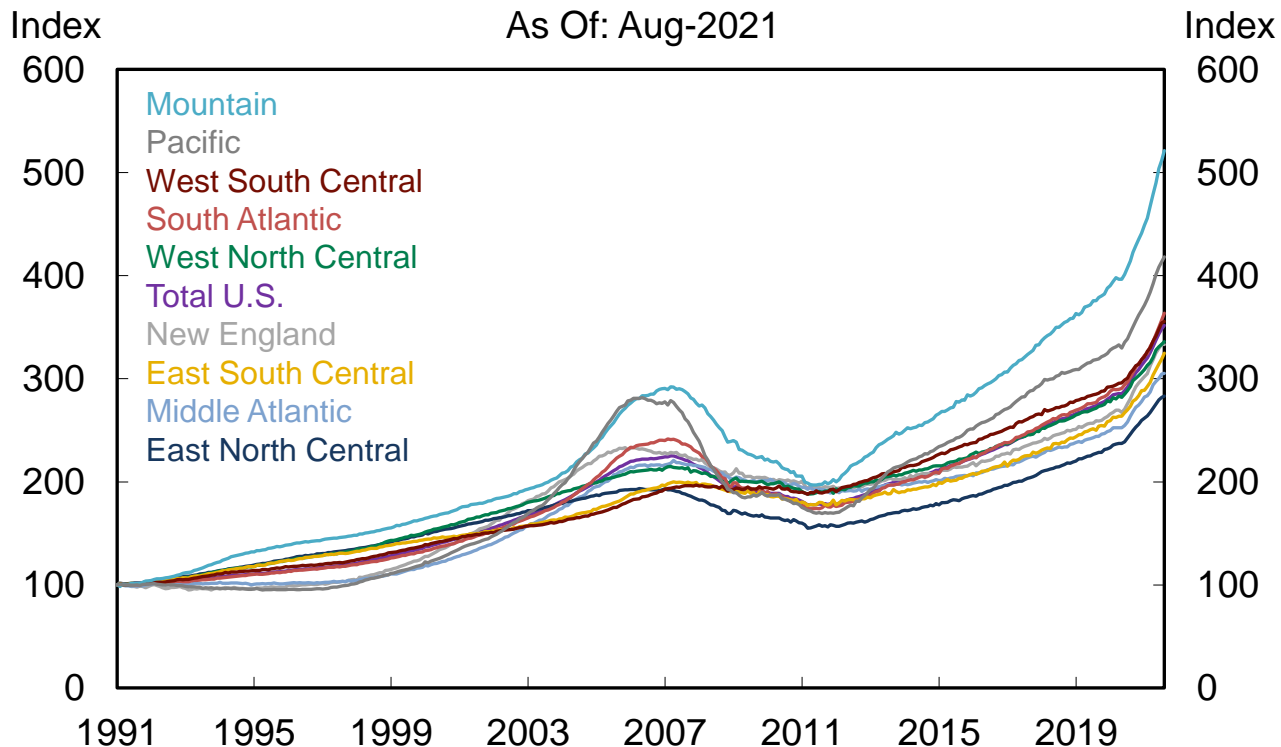
As Of: Sep-2021

US\$ Per MMBtu



Source: World Bank Group, Bloomberg, L.P.

### 3.4.5.1 House Prices by Census Division



Source: FHFA

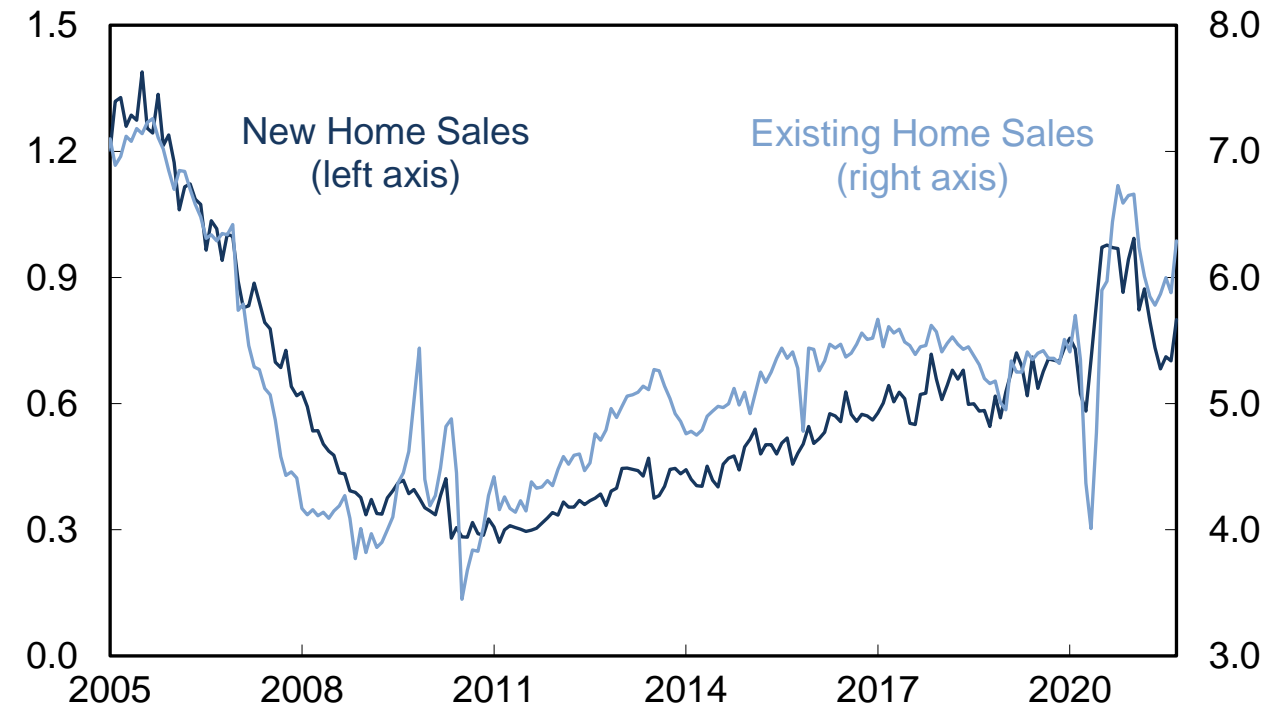
Note: Purchase-only, seasonally adjusted, nominal, constant-quality price index. Indexed to January 1991.

# 3.4.5.2 Home Sales

Millions of Units

As Of: Sep-2021

Millions of Units



Source: NAR, Census Bureau,  
Haver Analytics

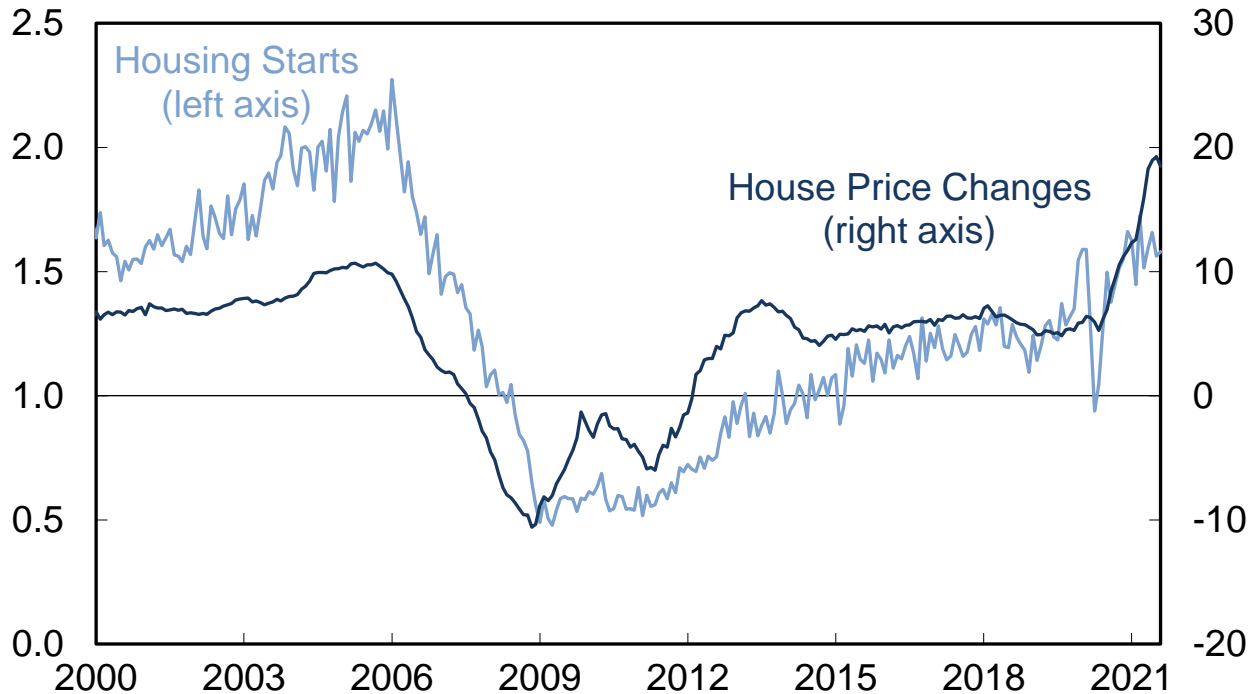
Note: Series are seasonally adjusted annual rates and are expressed in millions of single-family housing units.

### 3.4.5.3 New Housing Starts and Price Changes

Millions of Housing Units

As Of: Aug-2021

Percentage Change



Source: U.S. Census Bureau,  
FHFA, Haver Analytics

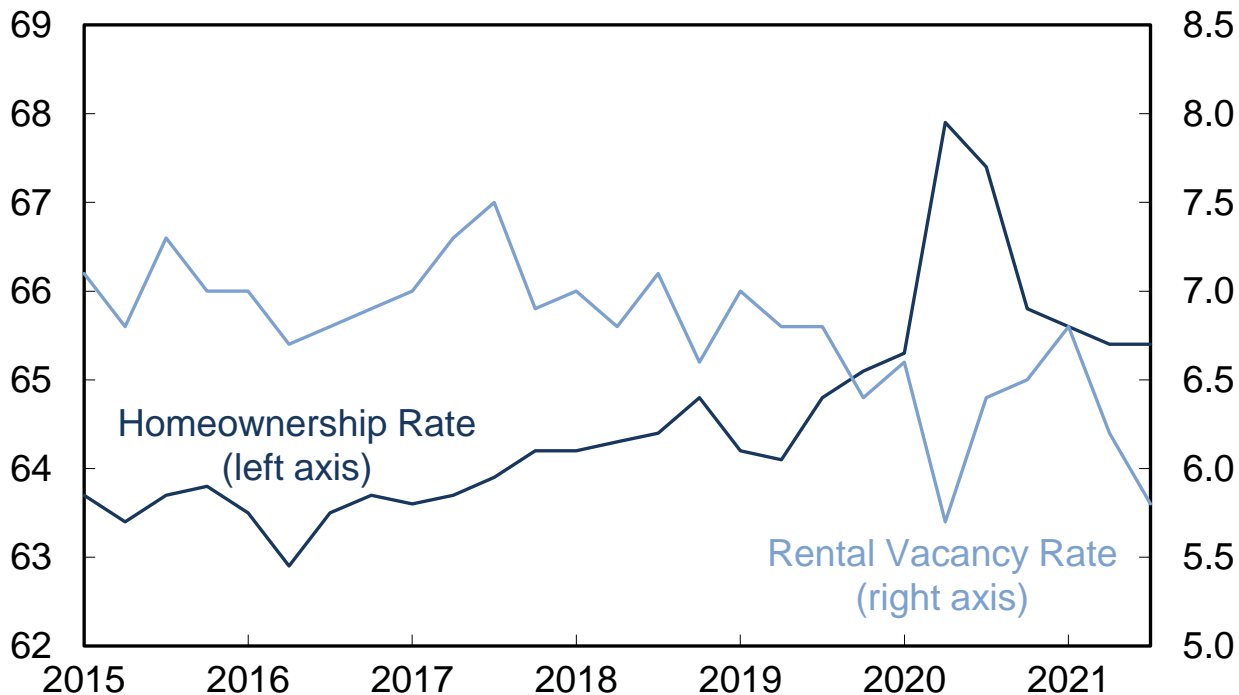
Note: Data are seasonally adjusted annual rates. House Price Changes series is the year-over-year percentage change of the FHFA National House Price Index.

# 3.4.5.4 Homeownership and Vacancy Rates

Percent

As Of: 2021 Q3

Percent



Source: U.S. Census Bureau, Current Population Survey/Housing Vacancy Survey

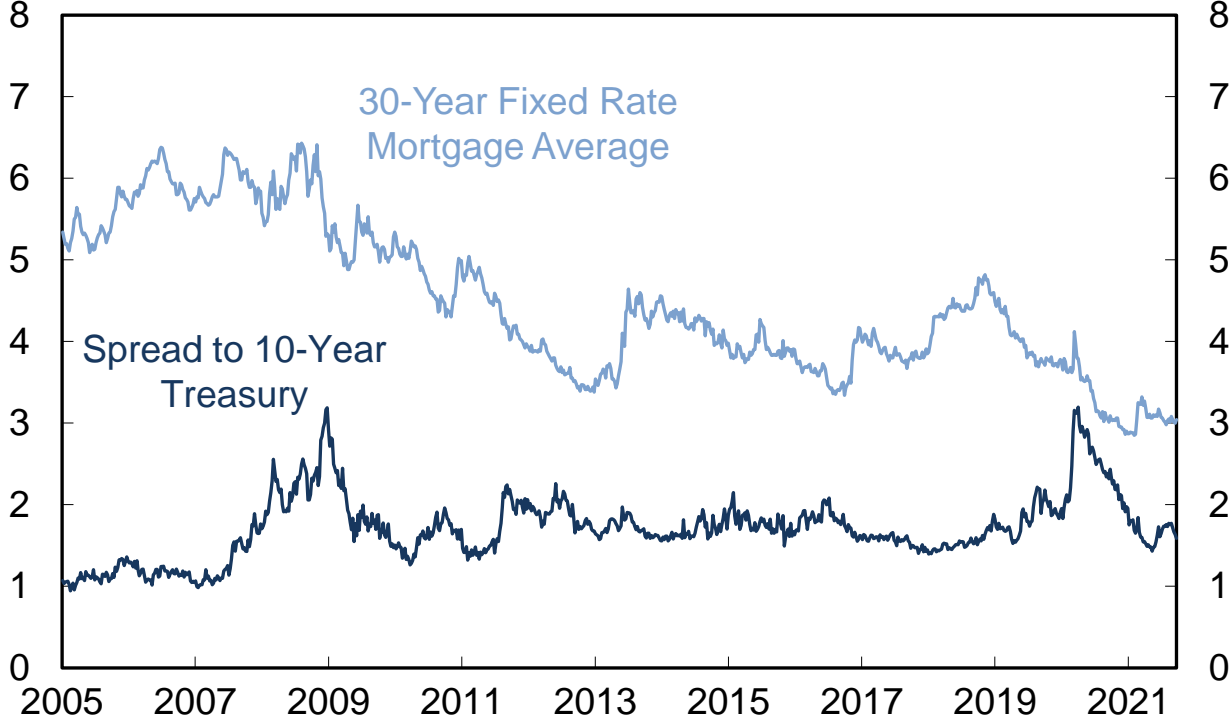
Note: Data are non-seasonally adjusted quarterly percentages.

# 3.4.5.5 30-Year Fixed Rate Mortgage Rate and Spread

Percent

As Of: 24-Sep-2021

Percent



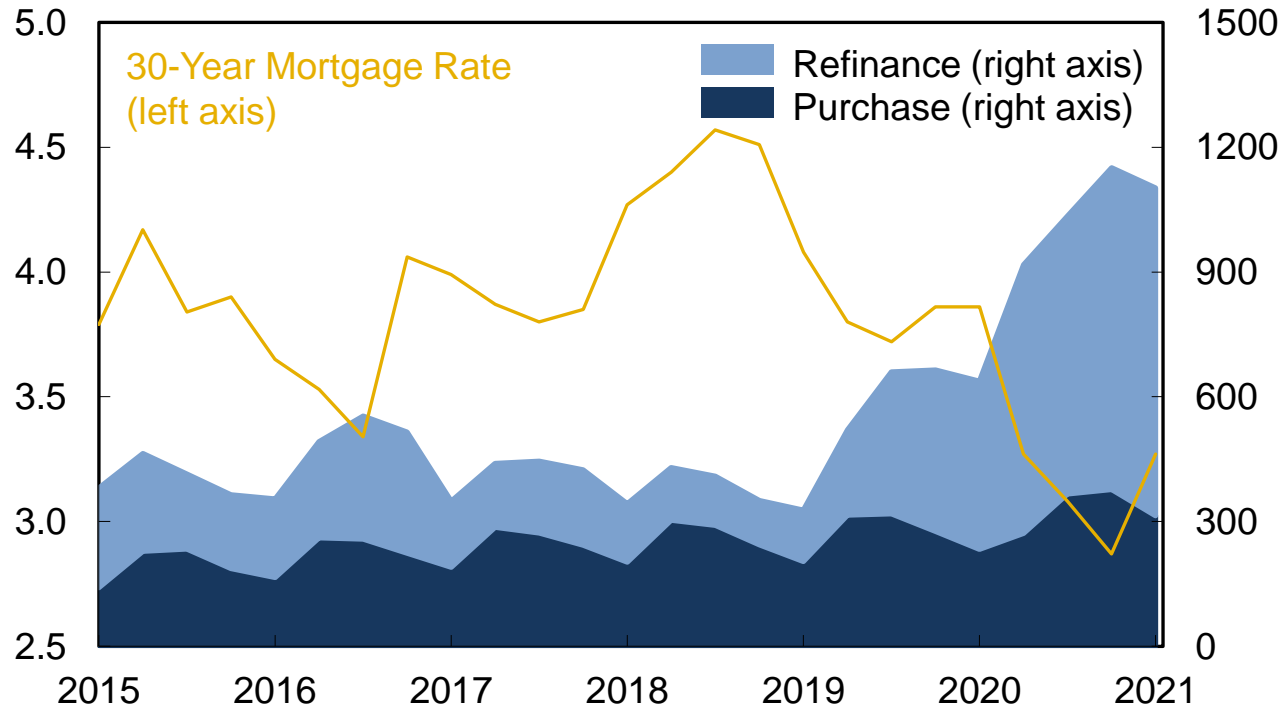
Source: Bankrate.com, Bloomberg, L.P.

# 3.4.5.6 Mortgage Originations and Rates

Percent

As Of: 2021 Q1

Billions of US\$



Source: NMDB®,  
Bankrate.com

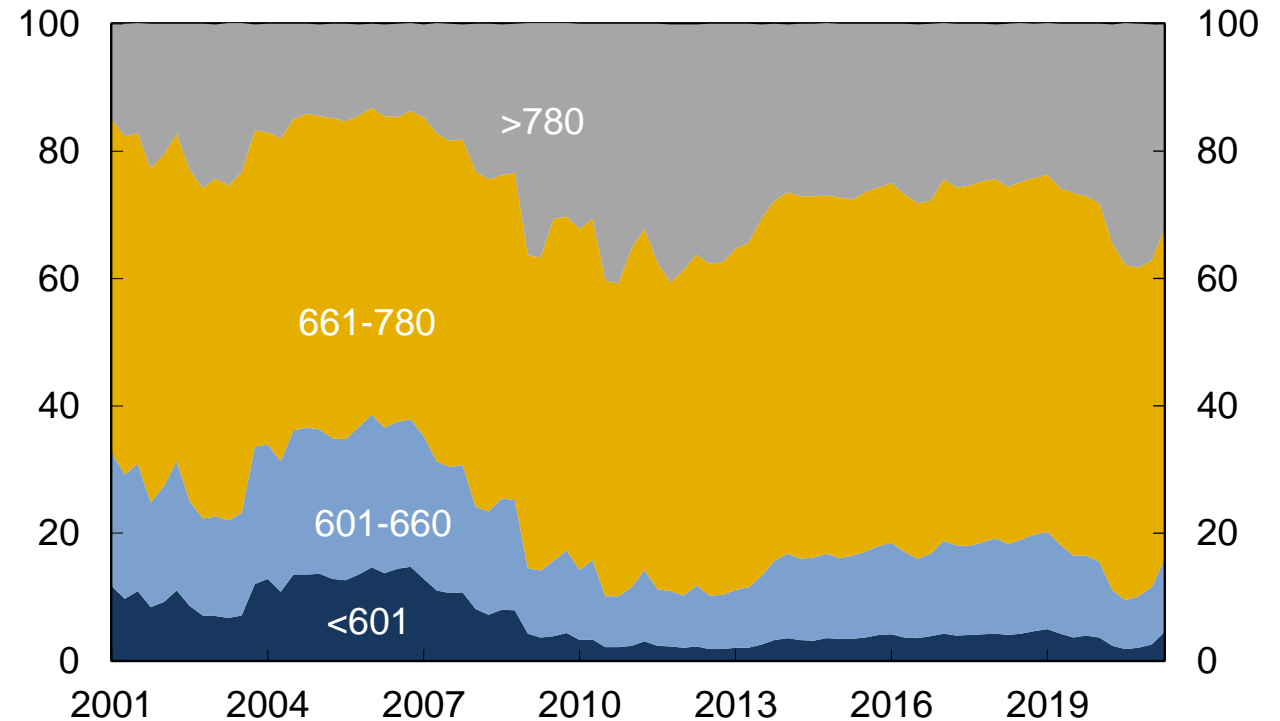
Note: Quarterly originations represent all 1-4 family homes with first-lien, closed-end residential mortgages.

# 3.4.5.7 Purchase Origination Volume by Credit Score

Percent of Originations

As Of: 2021 Q2

Percent of Originations



Source: NMDB®

Note: Based on all-borrower VantageScore 3.0 for first-lien, closed-end residential purchase mortgages; excludes territories.

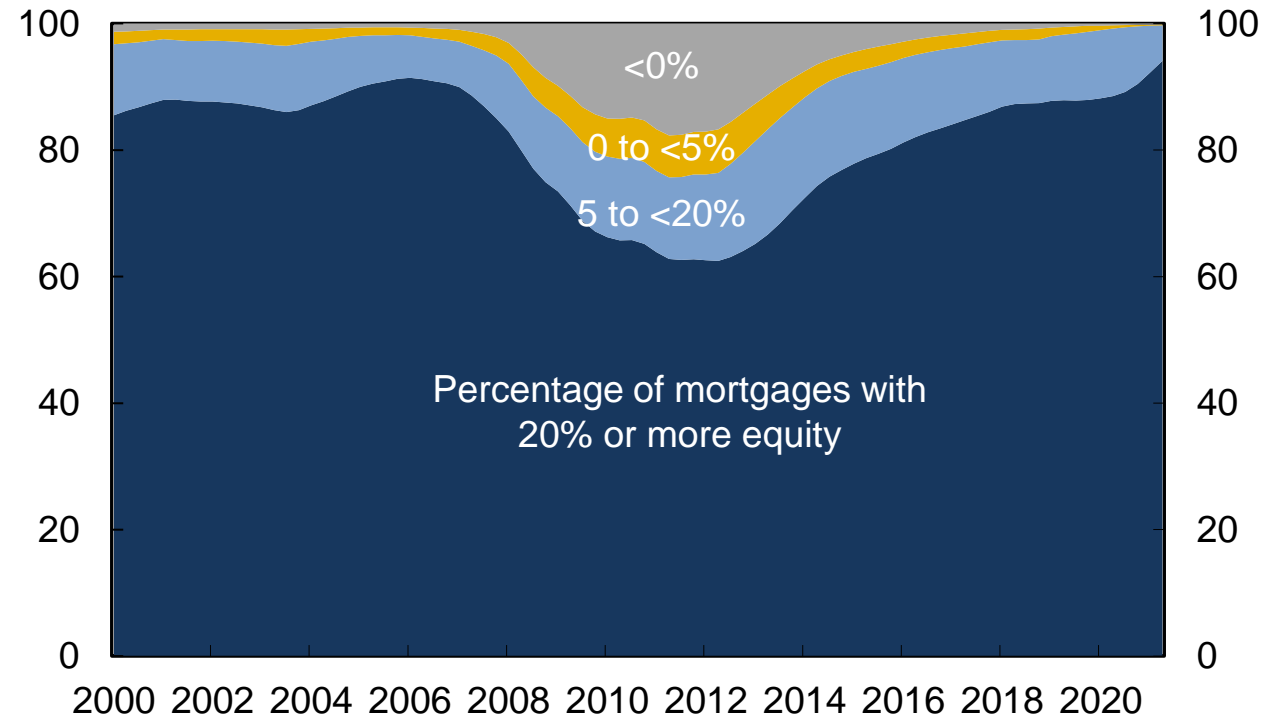


# 3.4.5.8 Shares of Mortgages by Equity Percentage

Percent

As Of: 2021 Q2

Percent



Source: NMDB®

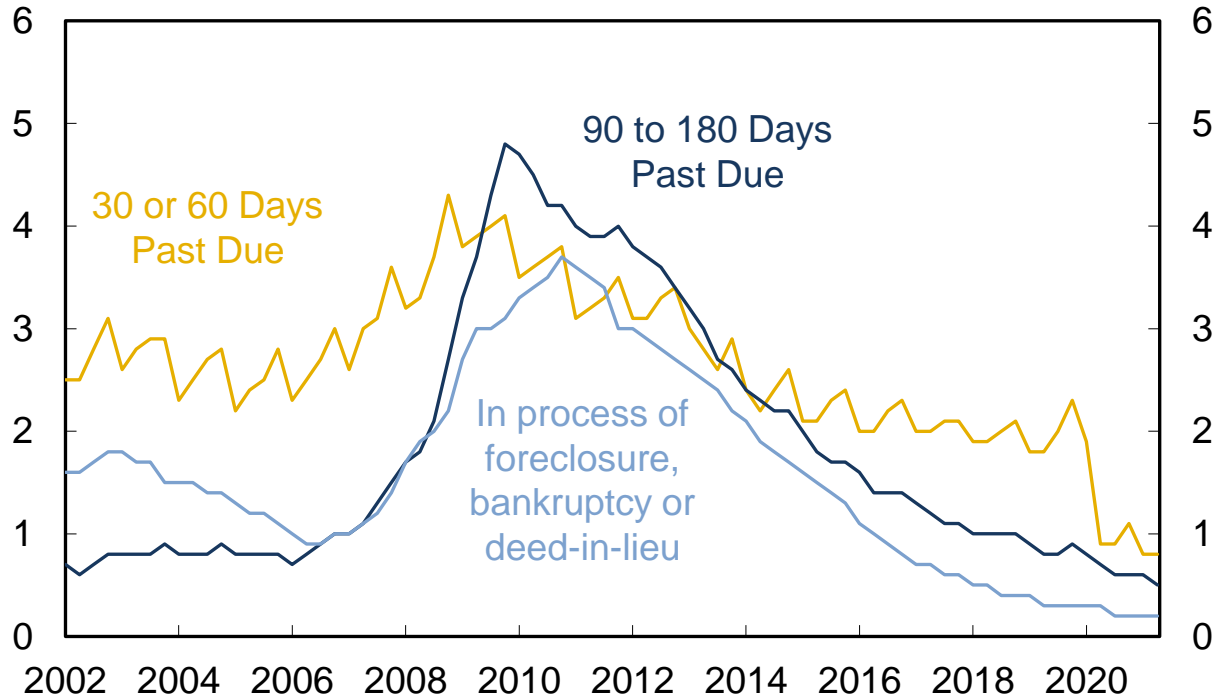
Note: Quarterly percentage of all mortgage loans that are not closed or terminated.

# 3.4.5.9 Mortgage Delinquency

Percent

As Of: 2021 Q2

Percent



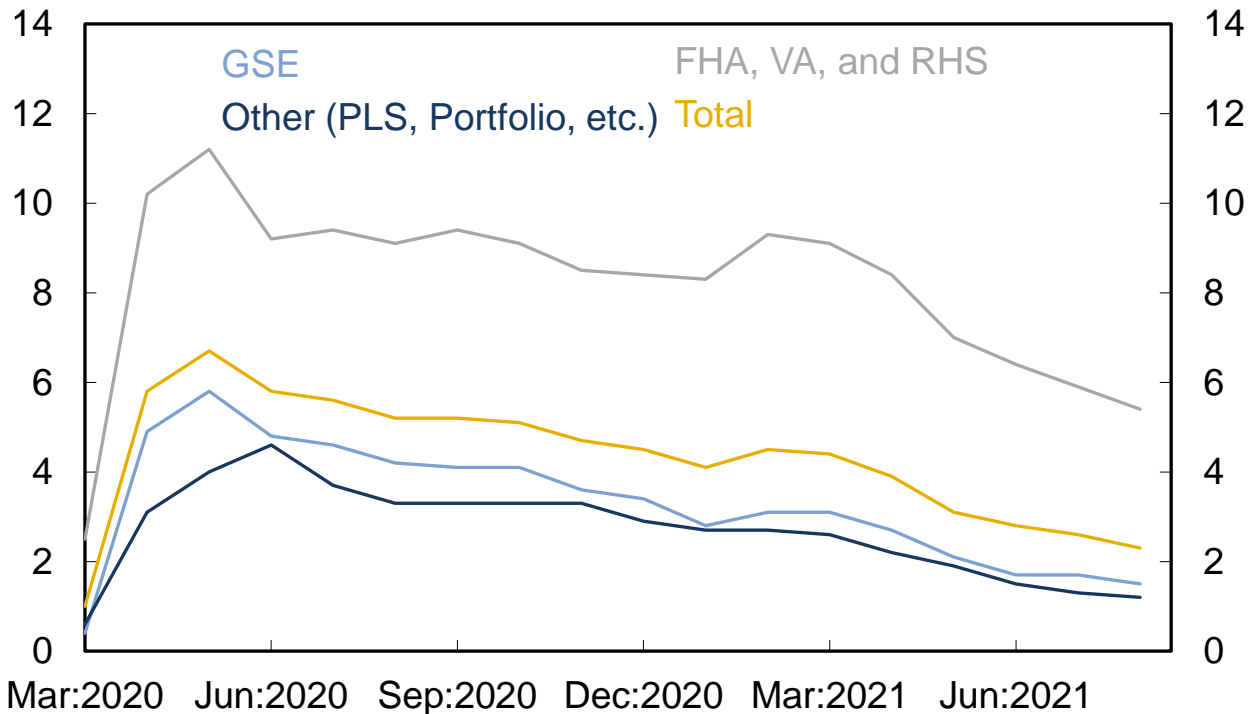
Note: Quarterly percentage of all mortgage loans that are not closed or terminated.

# 3.4.5.10 Forbearance Rates by Investor Type

Percent

As Of: Aug-2021

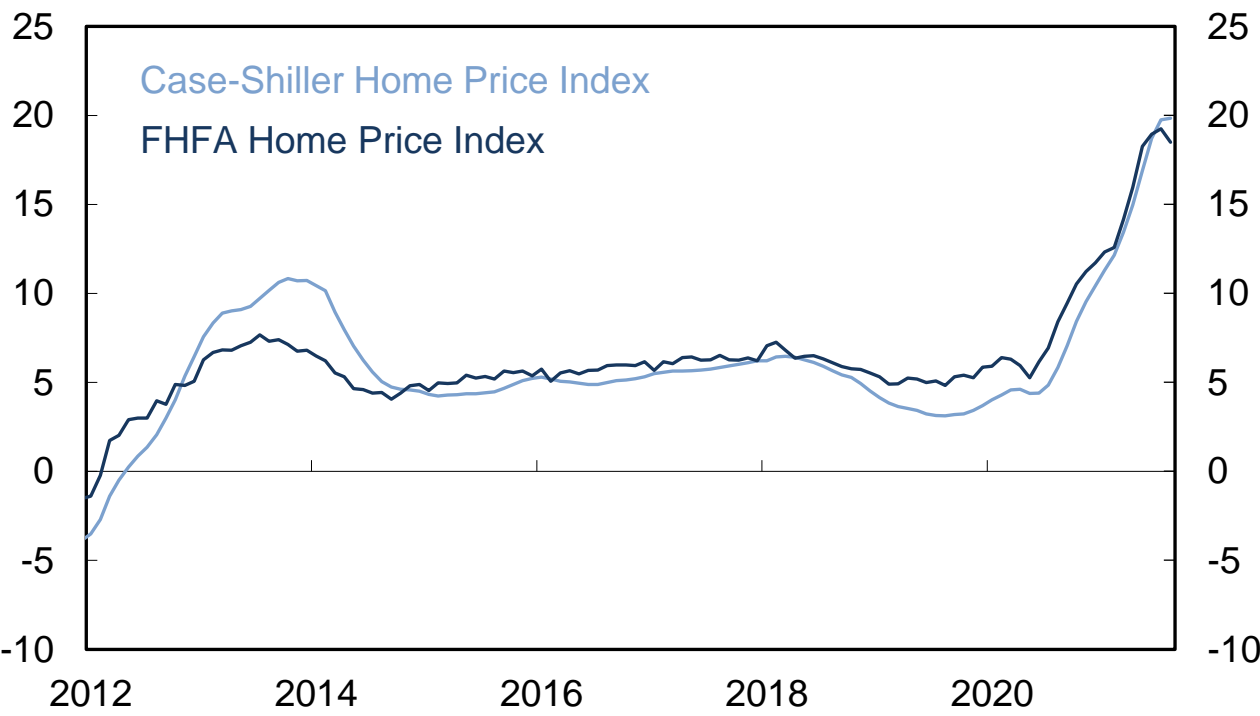
Percent



Note: Rates are the weekly percentage of servicing portfolio volume in forbearance by investor type over time.

# B.1 House Price Growth

Percent As of: Aug-2021 Percent



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

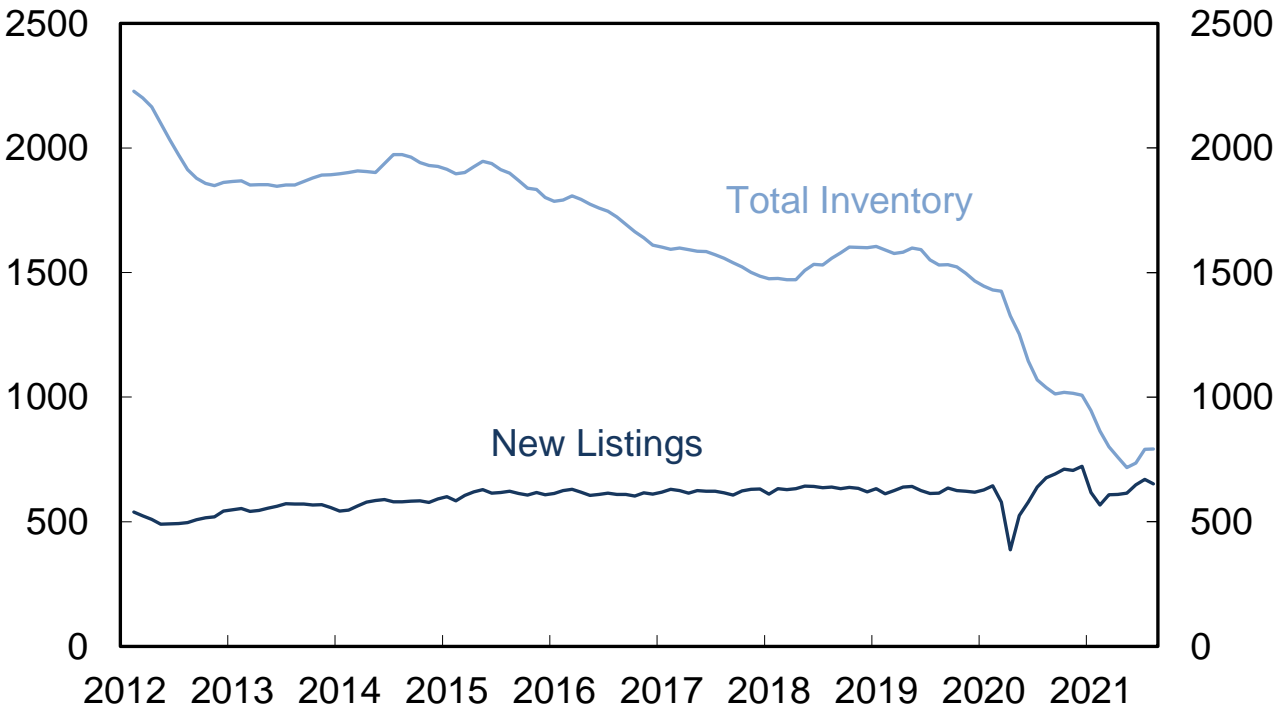
Note: Year-over-year percentage change.

# B.2 Inventory of Homes Listed for Sale

Thousands

As of: Aug-2021

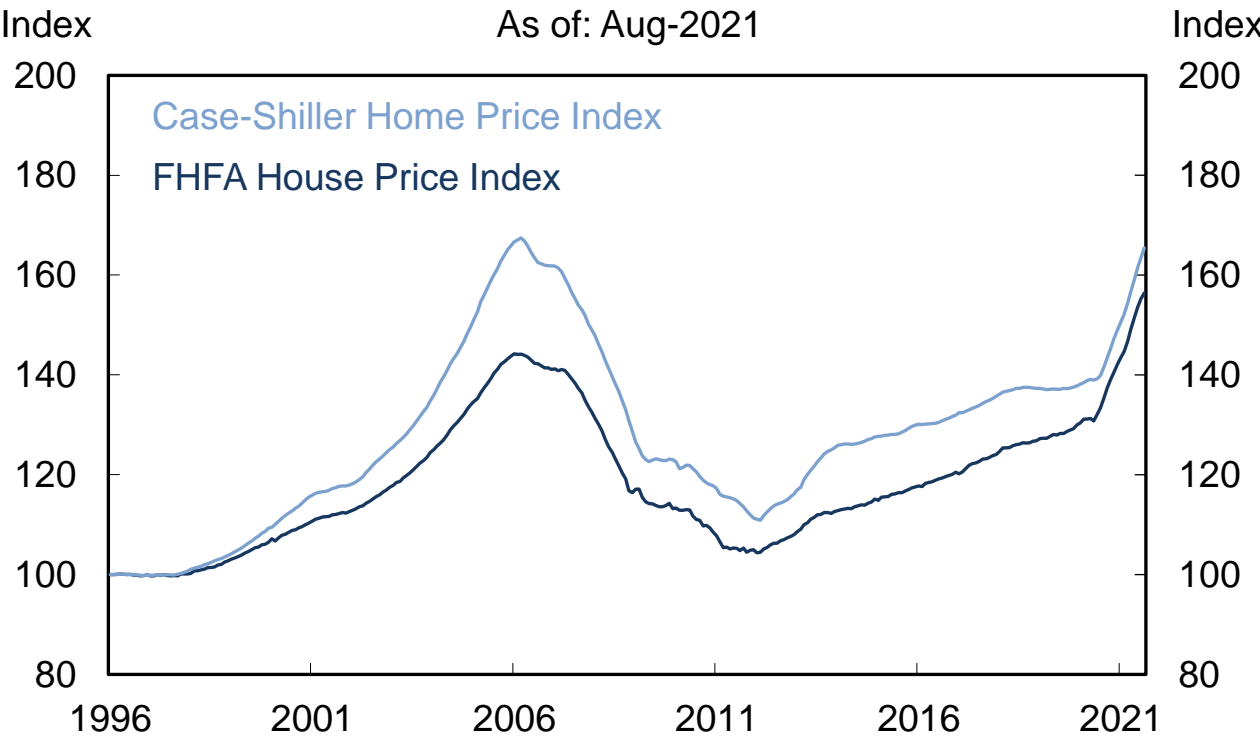
Thousands



Source: Redfin, Haver Analytics

Note: Seasonally adjusted.

# B.3 Price-to-Rent Ratios



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

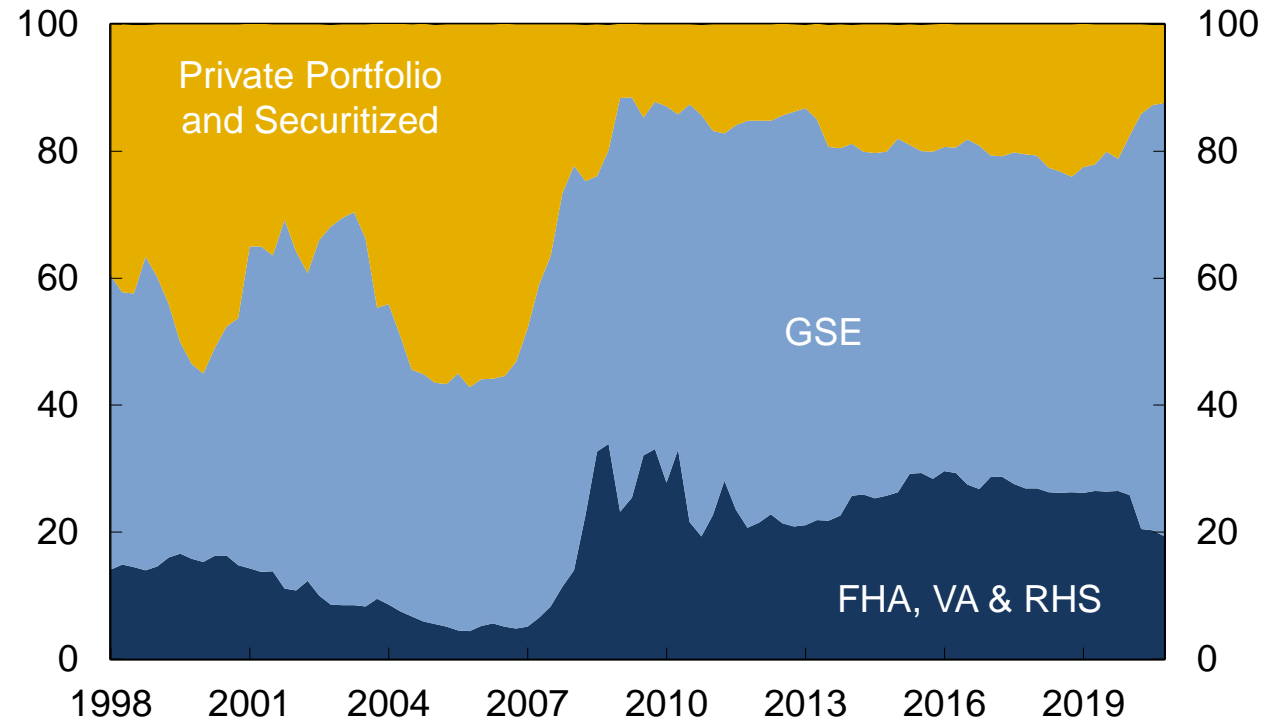
Note: Seasonally adjusted; indexed to January 1996. Rental data are owners' equivalent rent.

### 3.4.5.11 Mortgage Originations by Product

Percent of Originations

As Of: 2020 Q4

Percent of Originations



Source: NMDB®

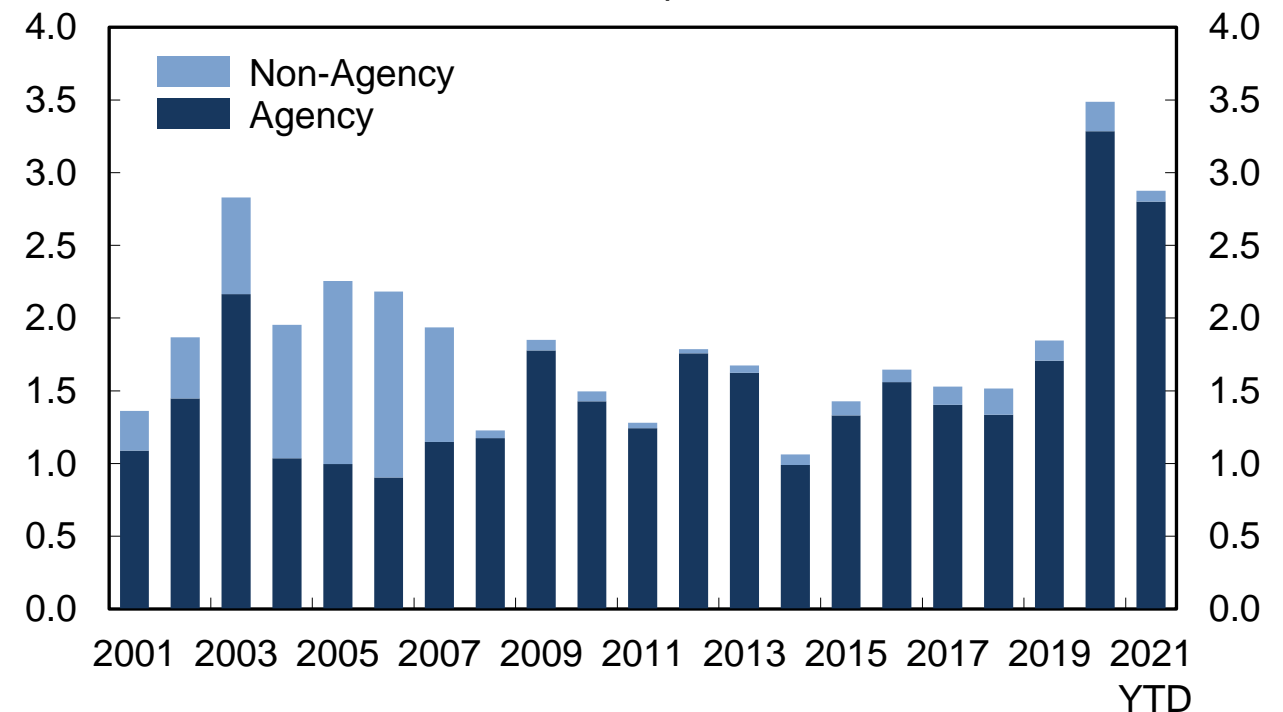
Note: Quarterly data for first-lien, closed-end residential mortgages.

# 3.4.5.12 RMBS Issuance

Trillions of US\$

As Of: Sep-2021

Trillions of US\$



Source: FHLMC, FNMA, GNMA, NCUA, FDIC, Bloomberg, L.P., Dealogic, Thomson Reuters, SIFMA

Note: 2021 figures are through September.

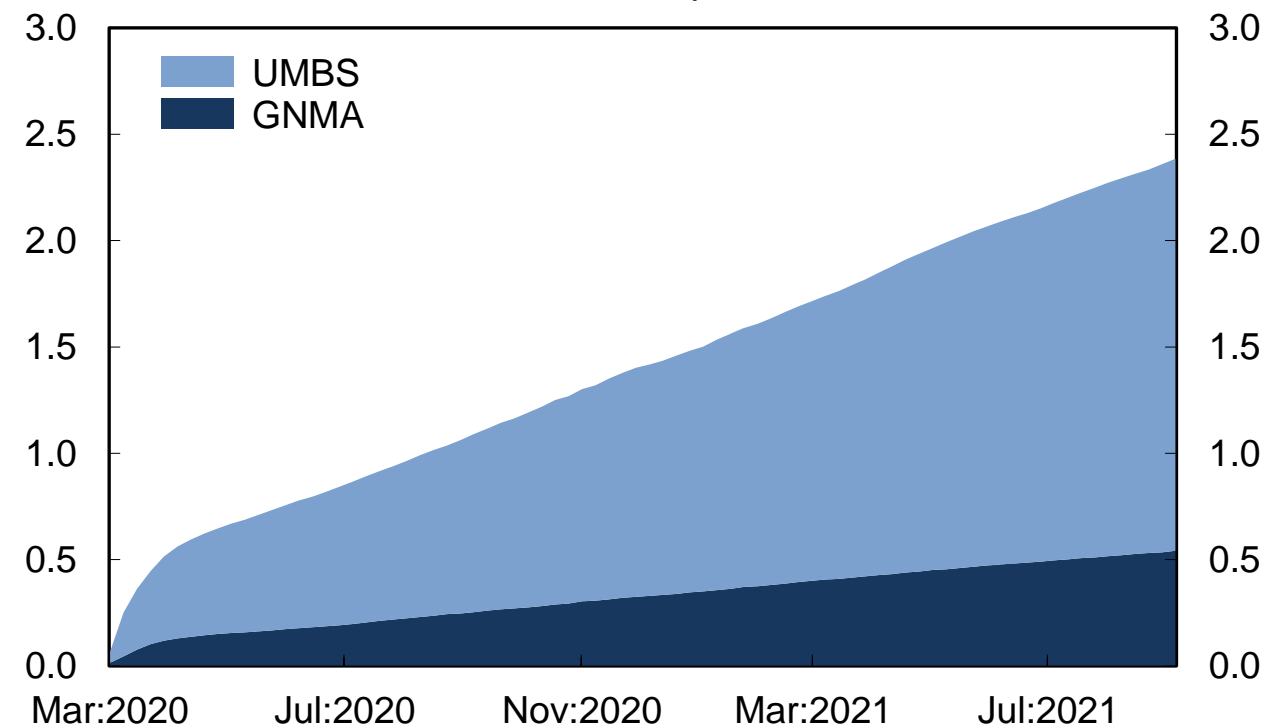


### 3.4.5.13 Cumulative MBS Purchases by the Federal Reserve

Trillions of US\$

As Of: 24-Sep-2021

Trillions of US\$



Source: FRBNY

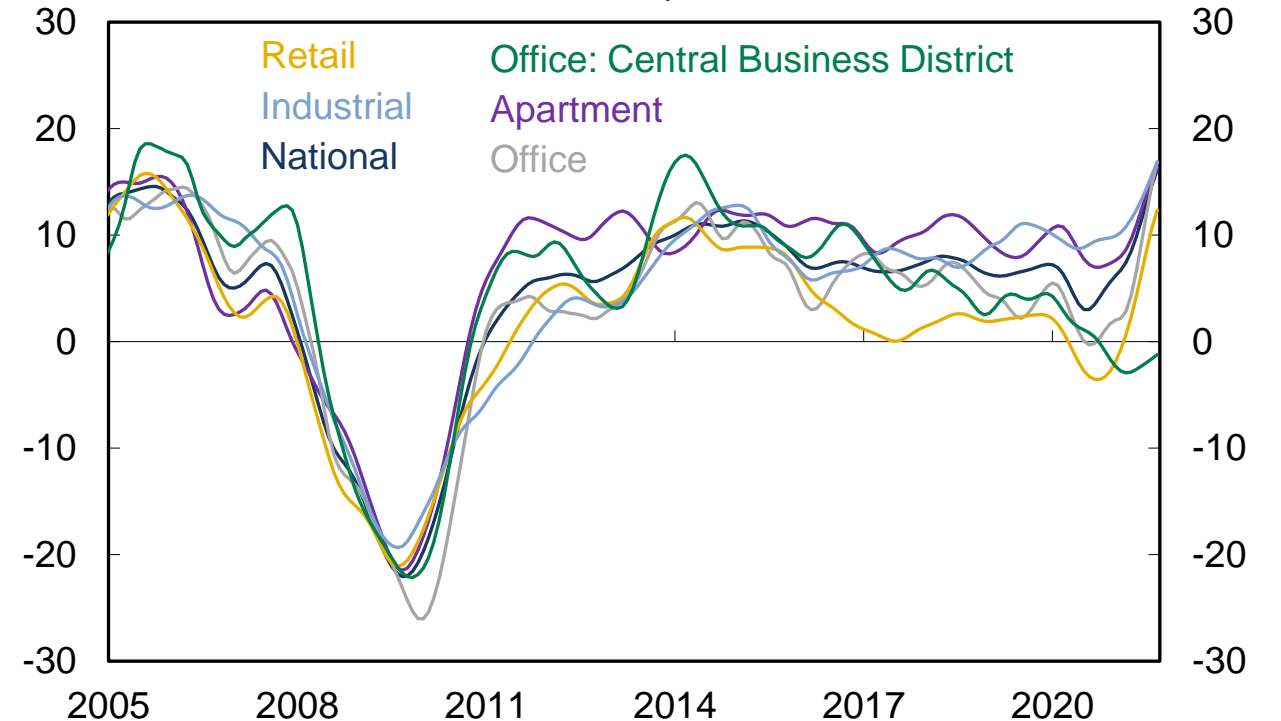
Note: Cumulative purchases beginning in March 2020. Weekly series are aggregated from daily Agency MBS operations in the TBA pool.

### 3.4.6.1 Commercial Property Price Growth

Percent

As Of: Sep-2021

Percent



Source: Real Capital Analytics,  
Bloomberg, L.P.

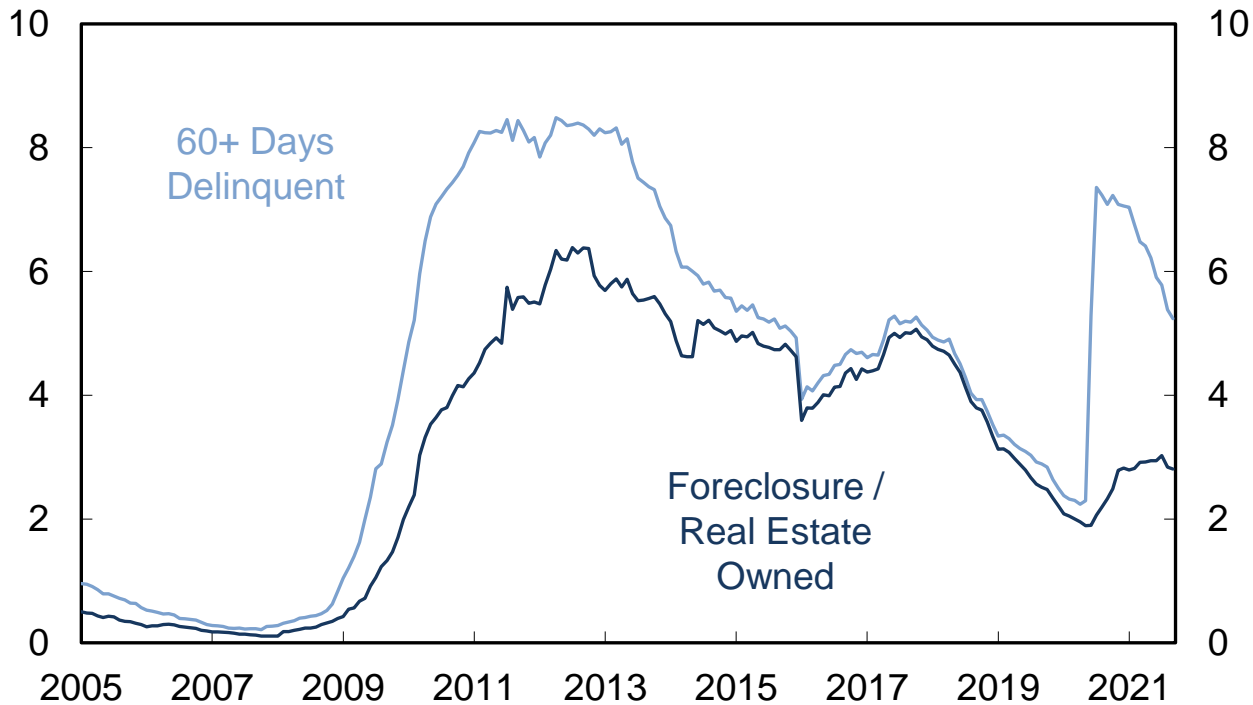
Note: Year-over-year price change.

### 3.4.6.2 Conduit CMBS Delinquency and Foreclosure Rate

Percent

As Of: Sep-2021

Percent



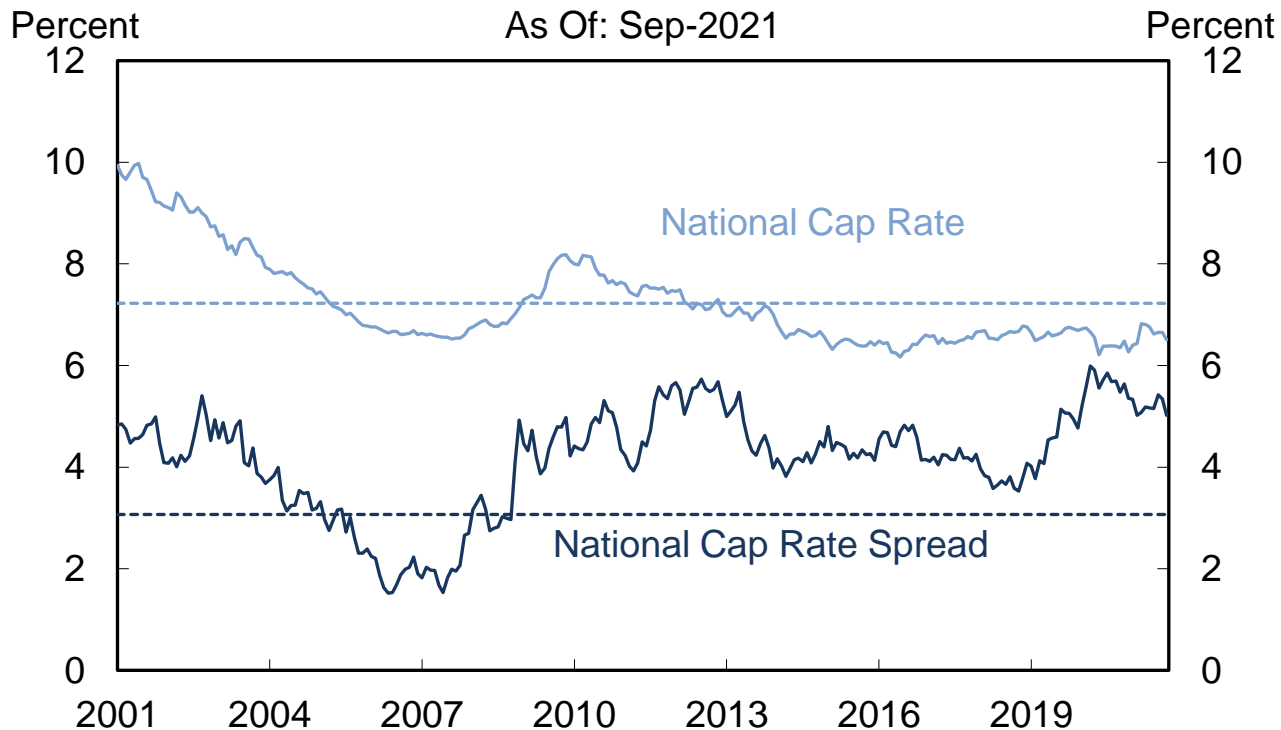
Foreclosure /  
Real Estate  
Owned

60+ Days  
Delinquent

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

Source: JPMorgan, Trepp

### 3.4.6.3 Average Capitalization Rates and Spreads

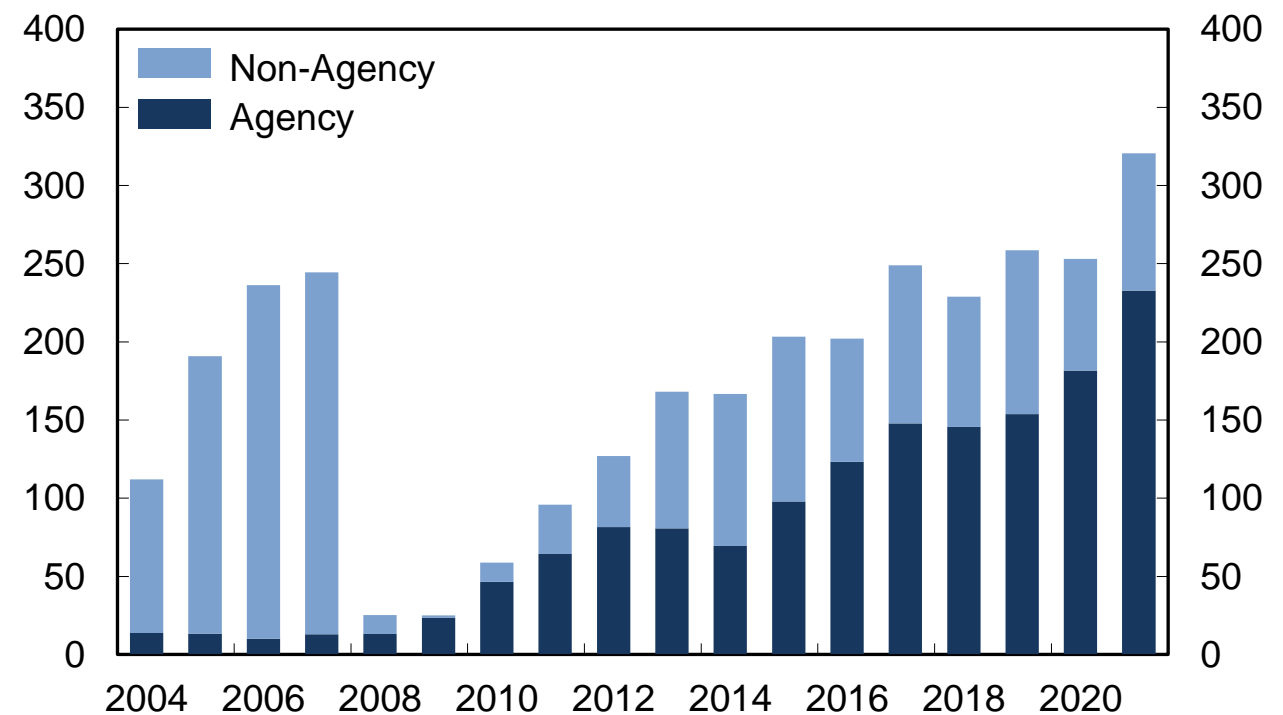


Source: Real Capital Analytics,  
Bloomberg, L.P.

Note: Dotted lines represent  
2001–present averages.

### 3.4.6.4 CMBS Issuance

Billions of US\$ As Of: Sep-2021 Billions of US\$



Source: Inside  
Mortgage Finance

Note: 2021 figures are through September.  
Agency includes multifamily CMBS.

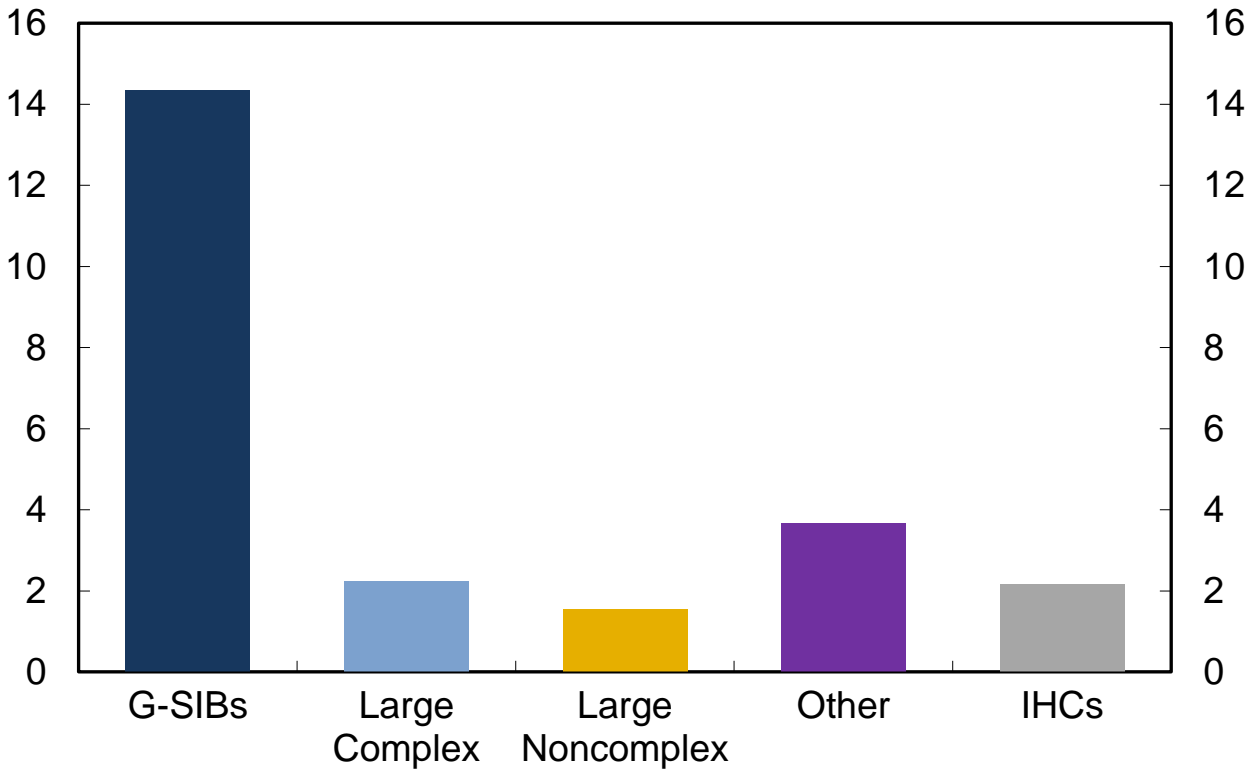
### 3.5.1.1 Categorization of Large U.S. BHCs

Description	U.S. Domestic Banking Org.
<p><b>Category I</b> (U.S. G-SIBs)</p>	<p>Bank of America      JPMorgan Chase  Bank of New York Mellon      Morgan Stanley  Citigroup      State Street  Goldman Sachs      Wells Fargo</p>
<p><b>Category II</b> (Large complex, ≥\$700b Total assets, or ≥ \$75b in Cross-Jurisdictional Activity)</p>	<p>Northern Trust</p>
<p><b>Category III</b> (Large complex, ≥\$250b Total assets or ≥ \$75b in NBA, wSTWF, or Off-balance sheet exposure)</p>	<p>Capital One      Truist Financial  Charles Schwab      U.S. Bancorp  PNC Financial</p>
<p><b>Category IV</b> (Large noncomplex, other firms with \$100b to \$250b Total assets)</p>	<p>Ally Financial      Huntington  American Express      KeyCorp  Citizens Financial      M&amp;T Bank  Discover      Regions Financial  Fifth Third</p>

Note: Northern Trust is in Category II due to its cross-jurisdictional activity.  
Synchrony Financial dropped out of Category IV in 2021:Q2 and did not participate in the 2020 or 2021 stress tests.

# 3.5.1.2 Total Assets by BHC Type/IHC

Trillions of US\$ As Of: 2021 Q2 Trillions of US\$



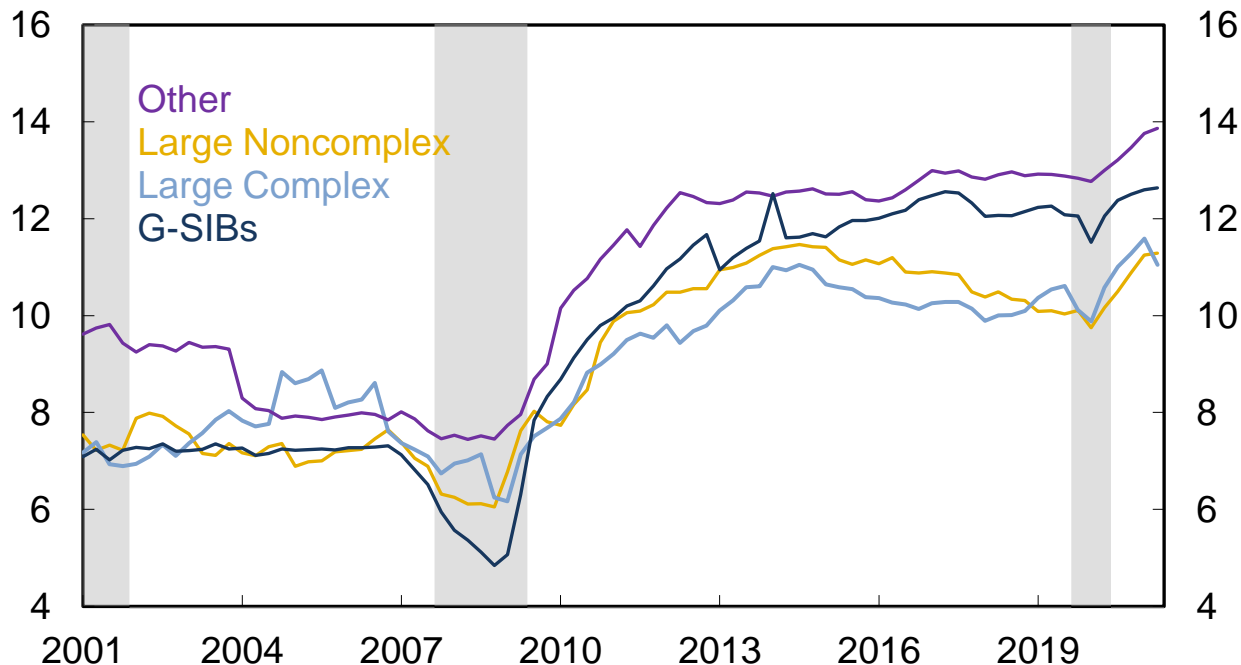
Source: FR Y-9C

### 3.5.1.3 Common Equity Tier 1 Ratios

Percent of RWA

As Of: 2021 Q2

Percent of RWA



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.

Source: FR Y-9C,  
Haver Analytics

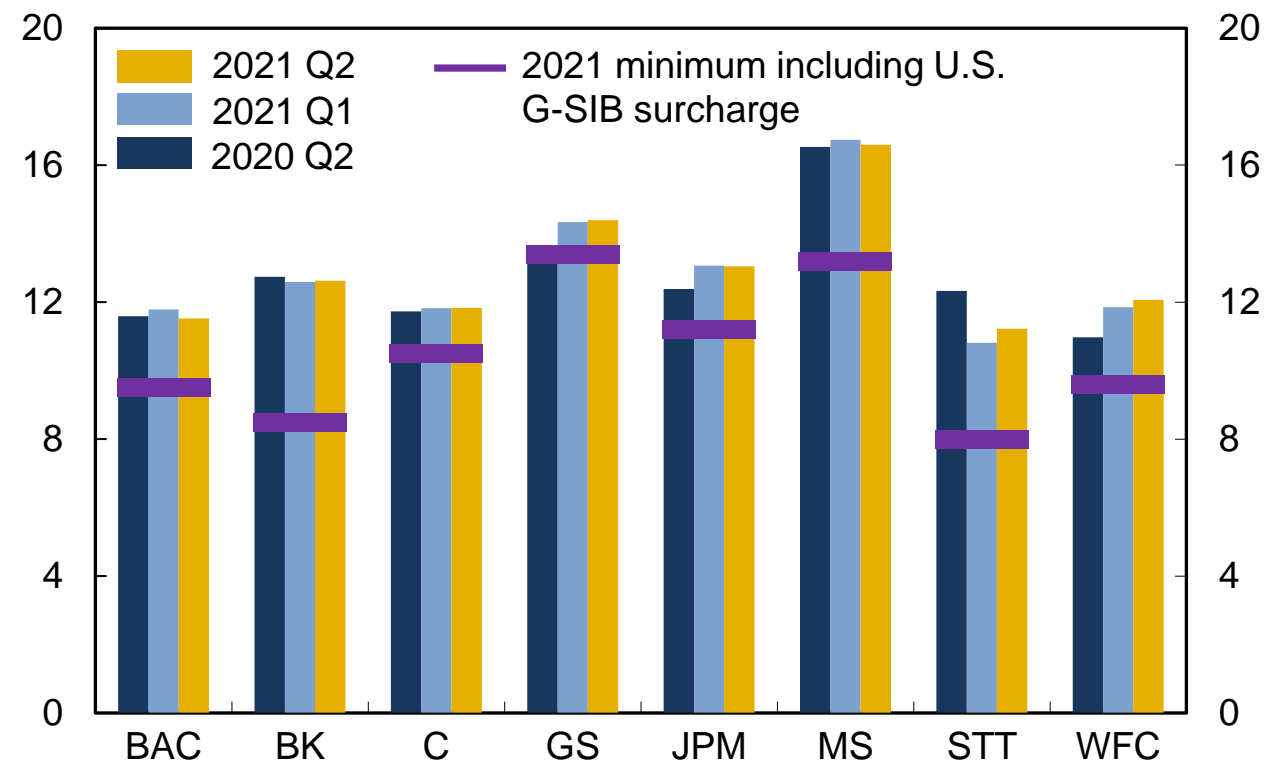


### 3.5.1.4 Common Equity Tier 1 Ratios at U.S. G-SIBs

Percent of RWA

As Of: 2021 Q2

Percent of RWA



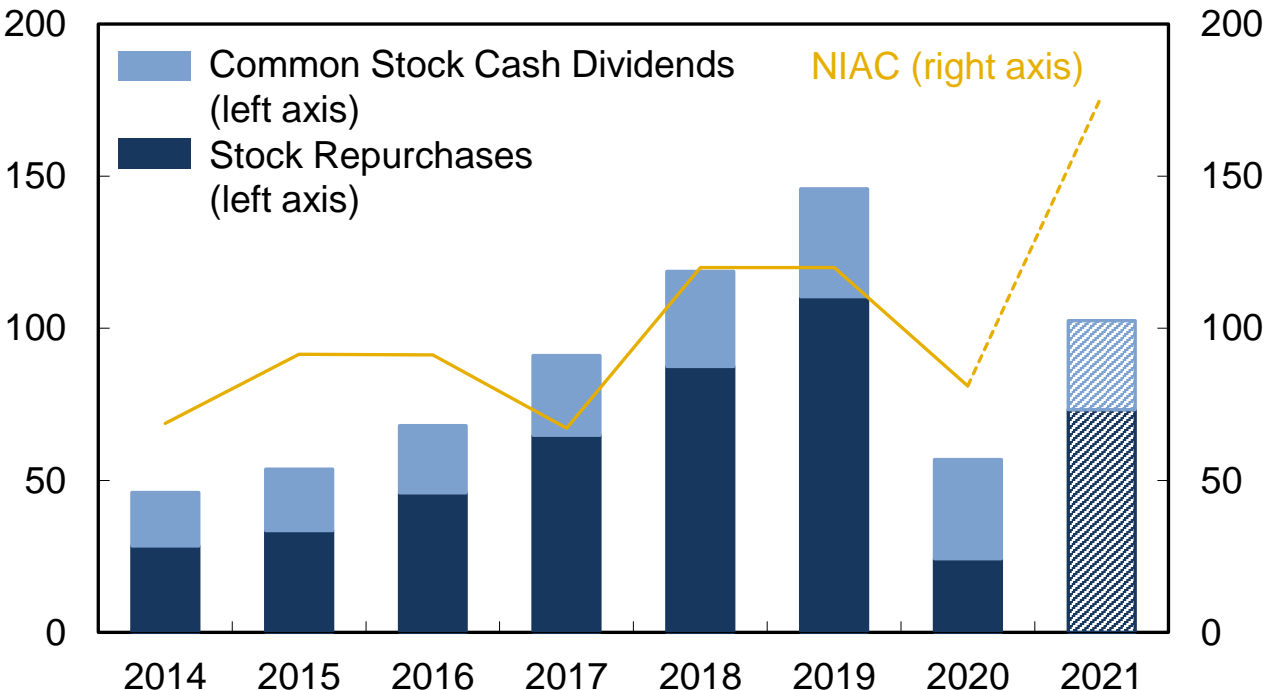
Source: FR-Y9C

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

Percent of NIAC

As Of: 2021 Q2

Billions of US\$



Note: Net income available to common shareholders (NIAC) is net income minus preferred dividends. 2021 data represents YTD data through Q2.

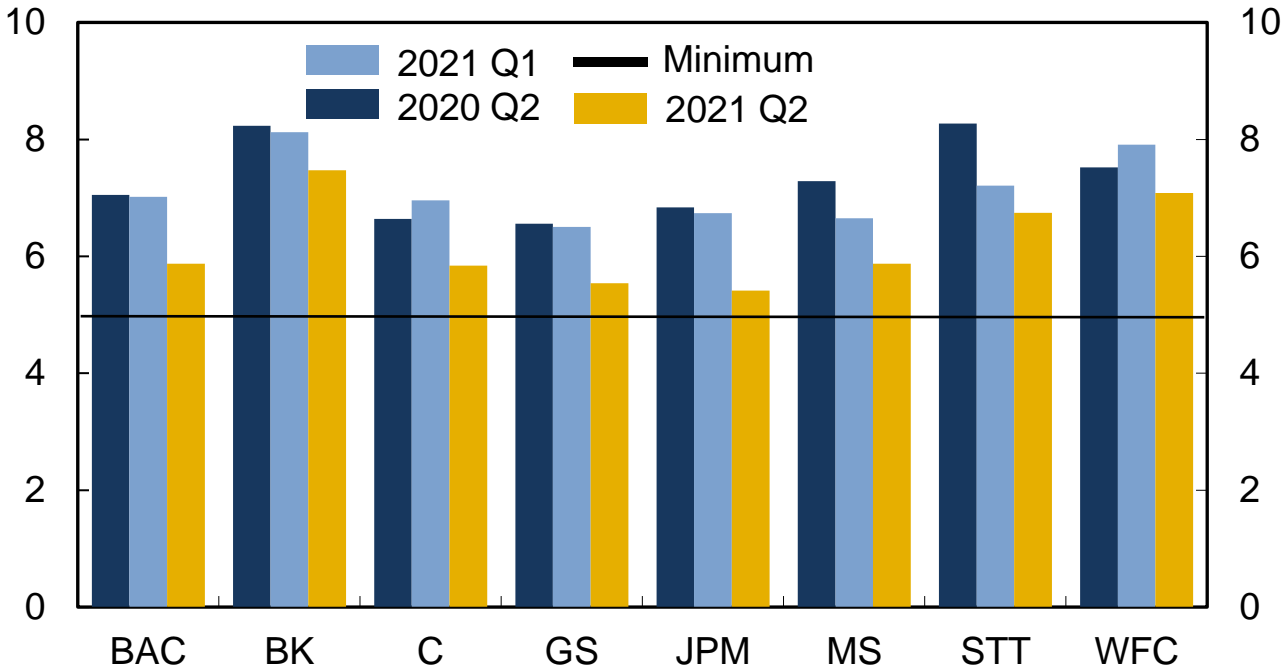
Source: FR Y-9C

### 3.5.1.6 Supplementary Leverage Ratios at U.S. G-SIBs

Percent

As Of: 2021 Q2

Percent

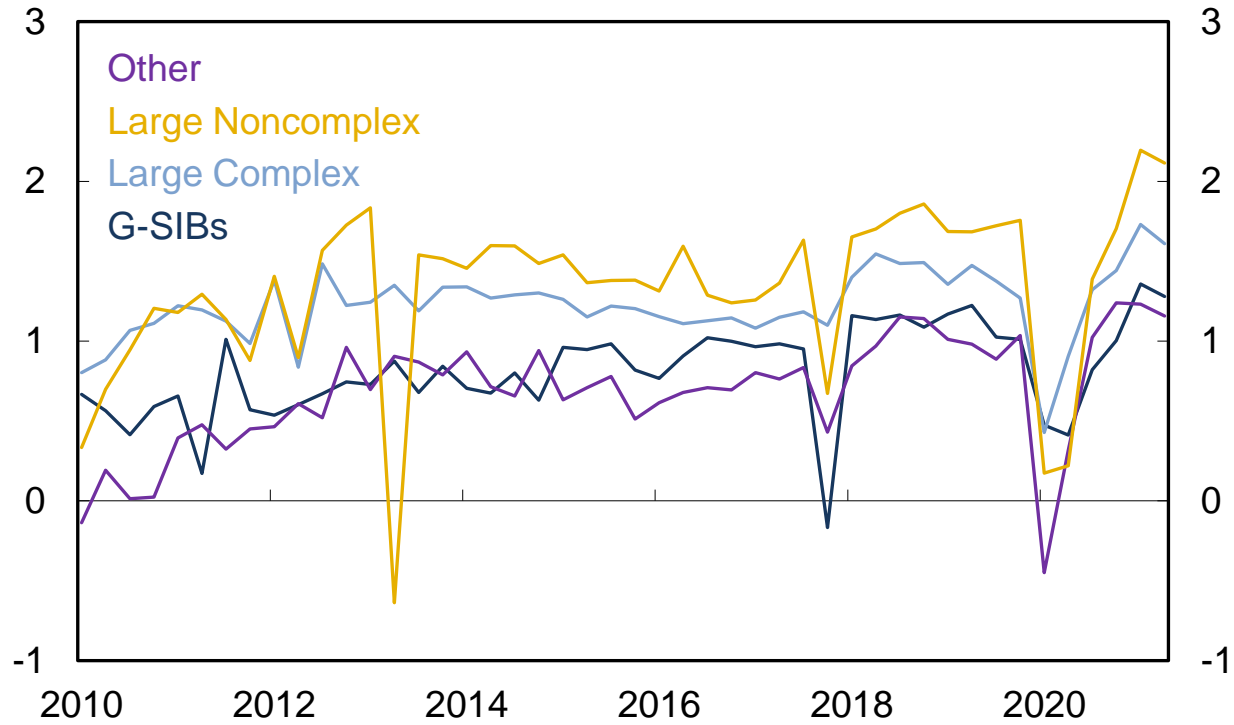


Note: Enhanced SLR is only required for the G-SIBs. The ratio is equal to tier 1 capital divided by total assets plus off-balance sheet exposures. The ratio excludes Treasury securities and reserves from the denominator during 2020:Q2 and 2021:Q1, reflecting a temporary change to the SLR rule to ease strains in the Treasury market resulting from the COVID-19 pandemic.

Source: FR Y-9C,  
Call Report

# 3.5.1.7 Return on Assets

Percent As Of: 2021 Q2 Percent

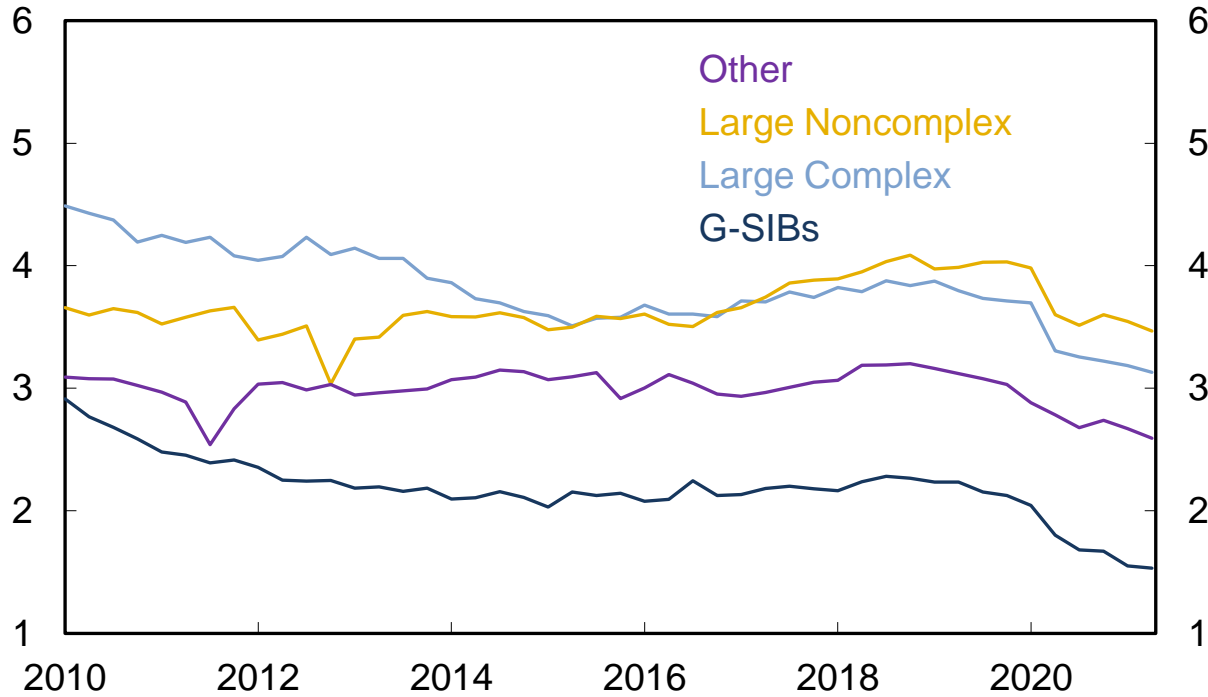


Source: FR Y-9C

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

# 3.5.1.8 Net Interest Margins

Percent As Of: 2021 Q2 Percent



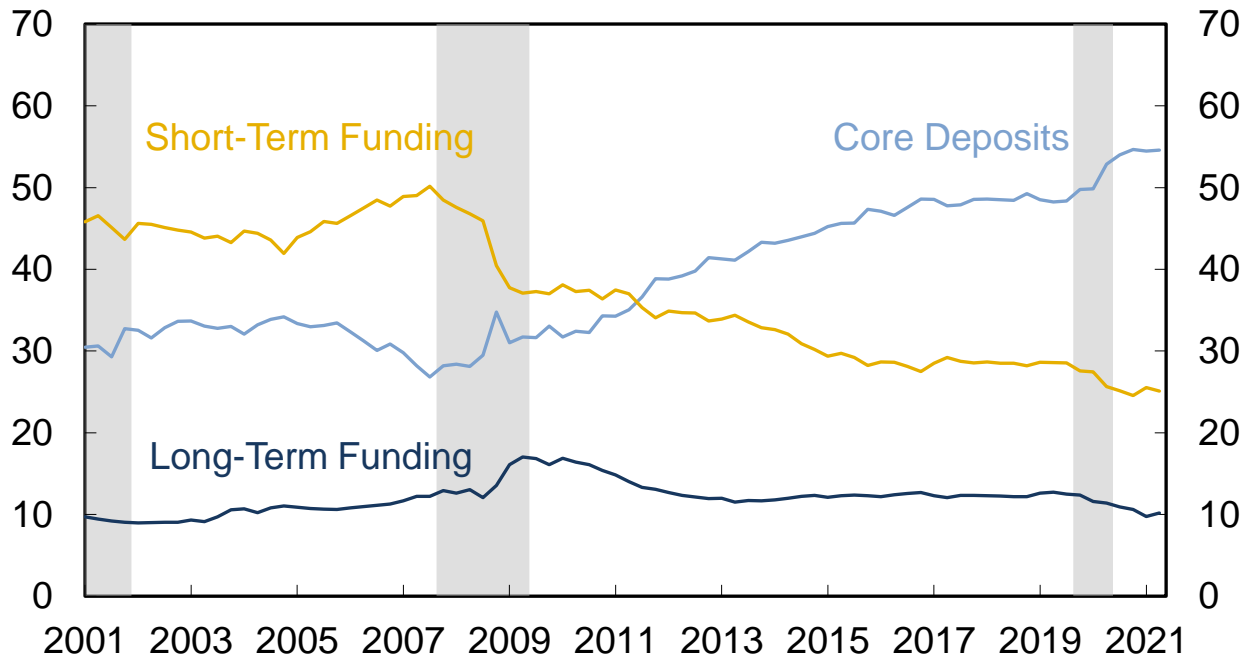
Note: Quarterly, seasonally-adjusted annual rate. Net interest margin is equal to net interest income divided by the quarterly average of interest-earning assets.

### 3.5.1.9 Sources of Funding at G-SIBs and Large-Complex

Percent of Total Liabilities

As Of: 2021 Q2

Percent of Total Liabilities



Source:  
FR Y-9C

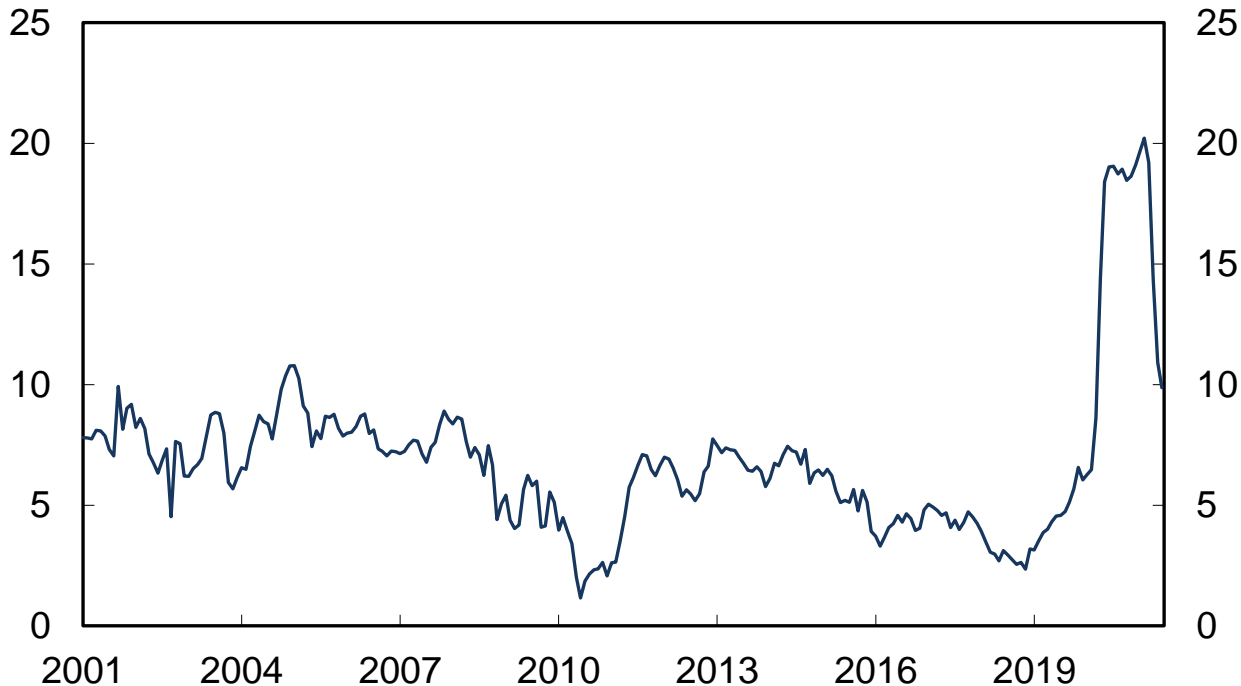
Note: ST funding: liabilities with maturities  $\leq 1$  yr, trading liabilities, repos, CP, and foreign deposits. LT funding: other borrowed money, subordinated notes and large time deposits with maturities  $> 1$  yr. Core deposits: demand deposits, noninterest-bearing balances, transaction accounts, money market deposits and time deposits  $< \$250,000$ . Gray bars signify NBER recessions.

### 3.5.1.10 Deposit Growth, All Commercial Banks

Percent

As Of: Jun-2021

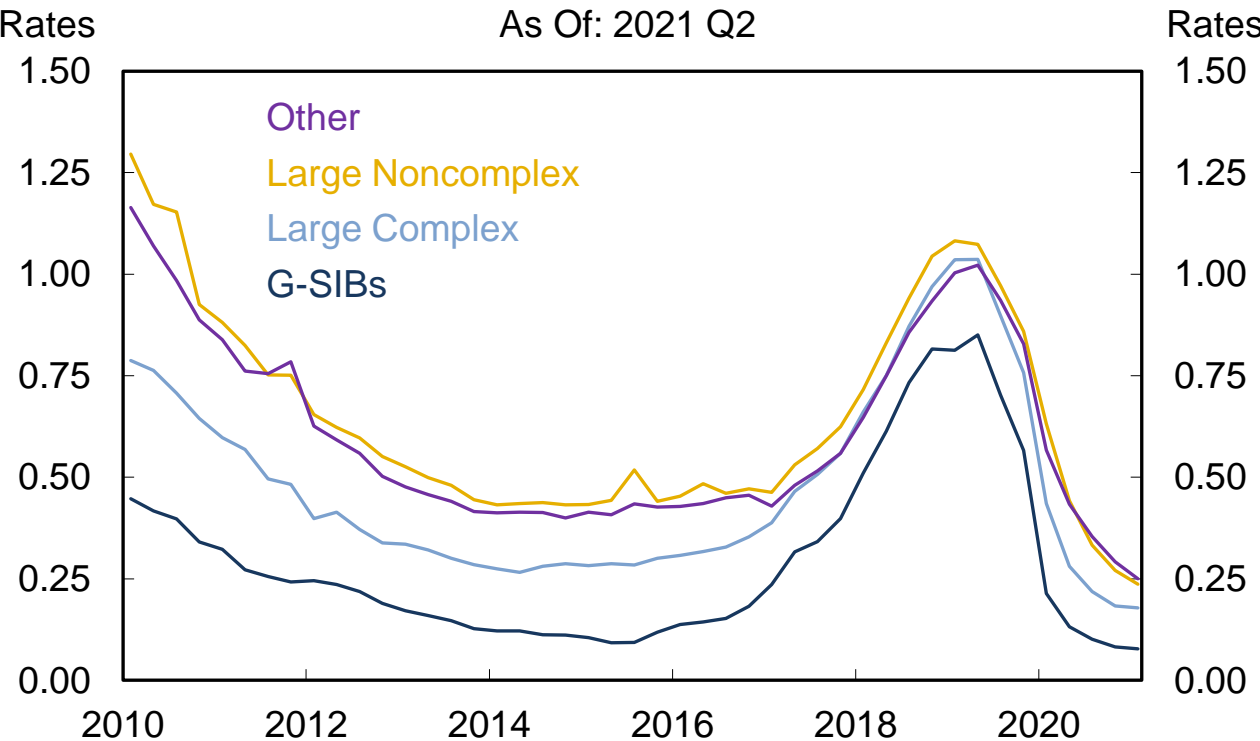
Percent



Source: Federal Reserve,  
Haver Analytics

Note: Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States." Seasonally adjusted values. Year-over-year percentage change.

# 3.5.1.11 Effective Deposit Rates by BHC Category

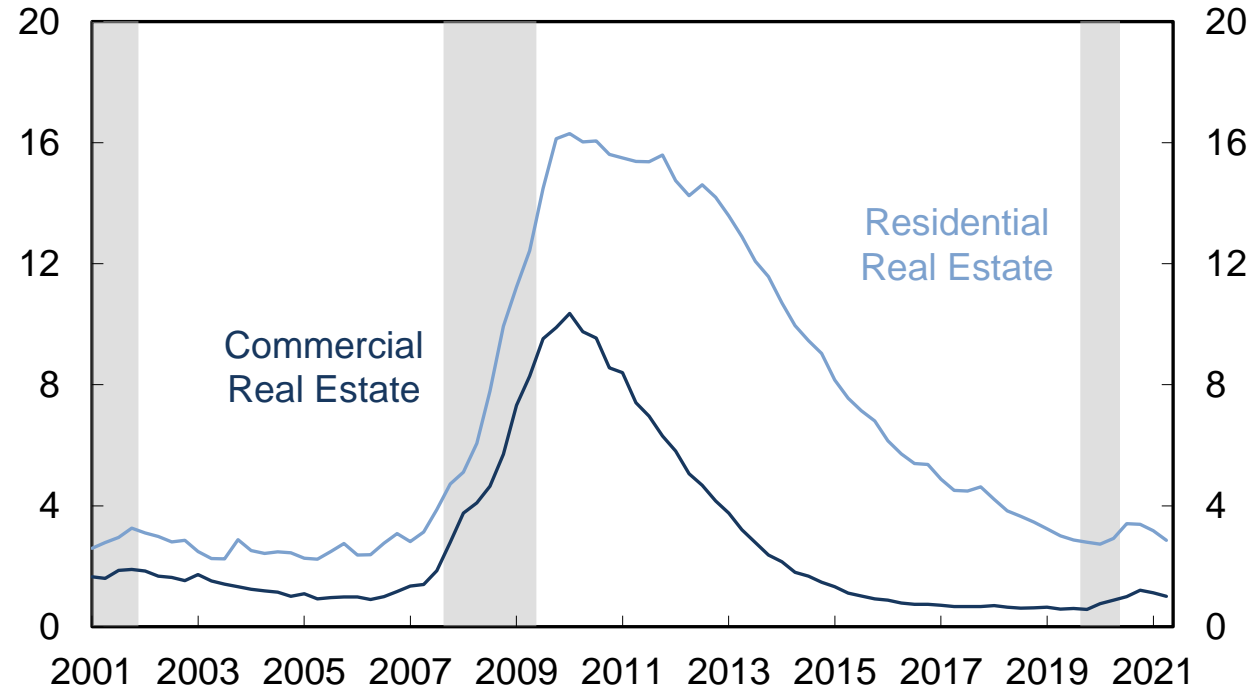


Note: Effective deposit rates are defined as the ratio of the annualized quarterly-average interest expense on deposits and the one-quarter lag of the quarterly-average deposit balances.



# 3.5.1.12 Delinquency Rates on Real Estate Loans

Percent As Of: 2021 Q2 Percent



Source: FR Y-9C

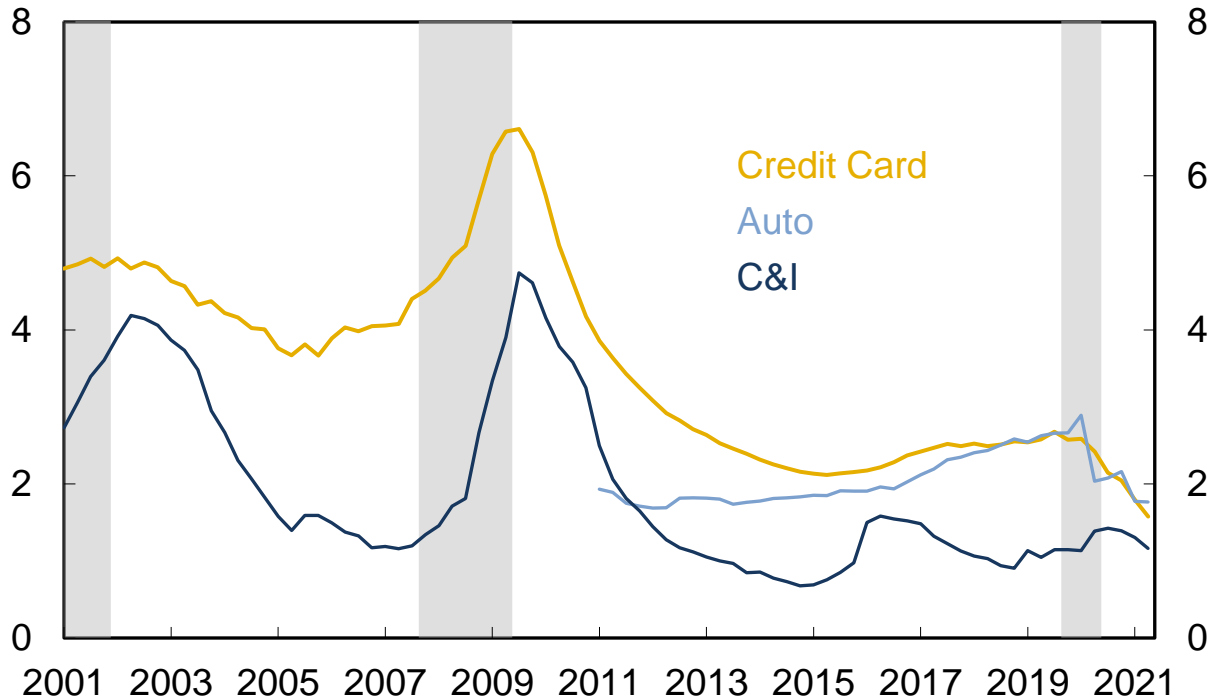
Note: Includes all loans in domestic and foreign offices. Gray bars signify NBER recessions.

### 3.5.1.13 Delinquency Rates on Selected Loans

Percent

As Of: 2021 Q2

Percent

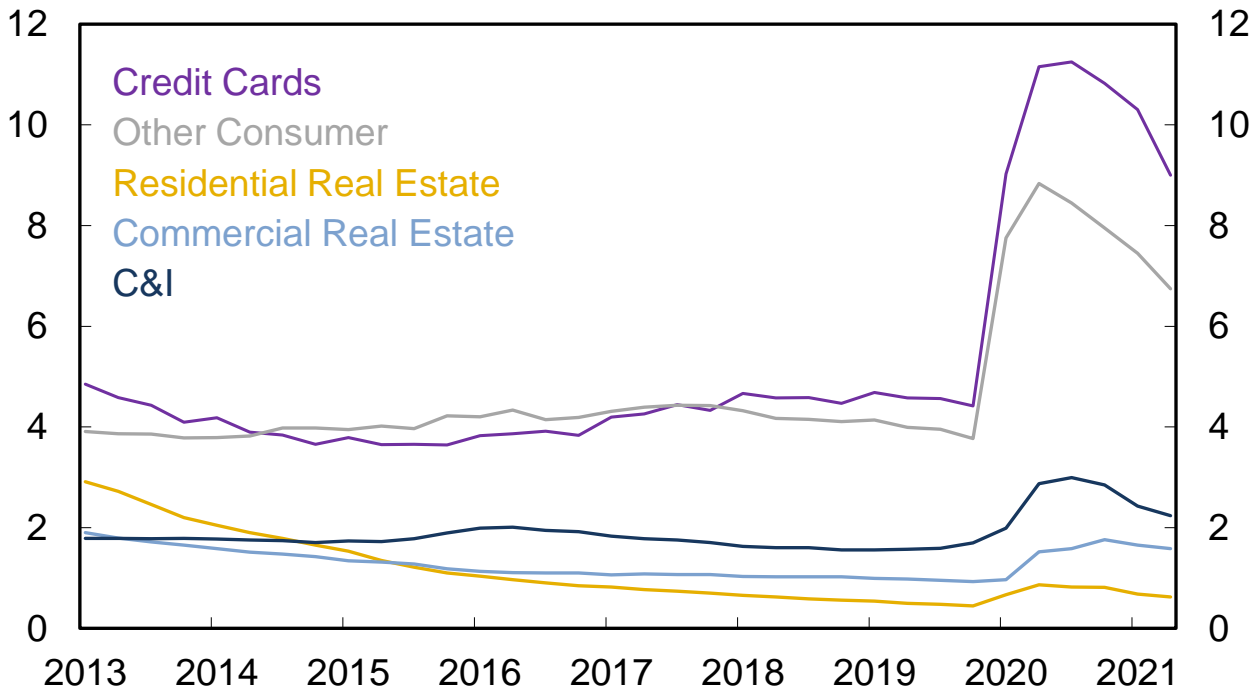


Source: FRY-9C,  
Call Report

Note: Seasonally adjusted. Includes all loans in domestic and foreign offices. Auto loans became available in 2011 Q1. Gray bars signify NBER recessions.

# 3.5.1.14 Provisions to Loans Ratios at BHCs

Percent As Of: 2021 Q2 Percent

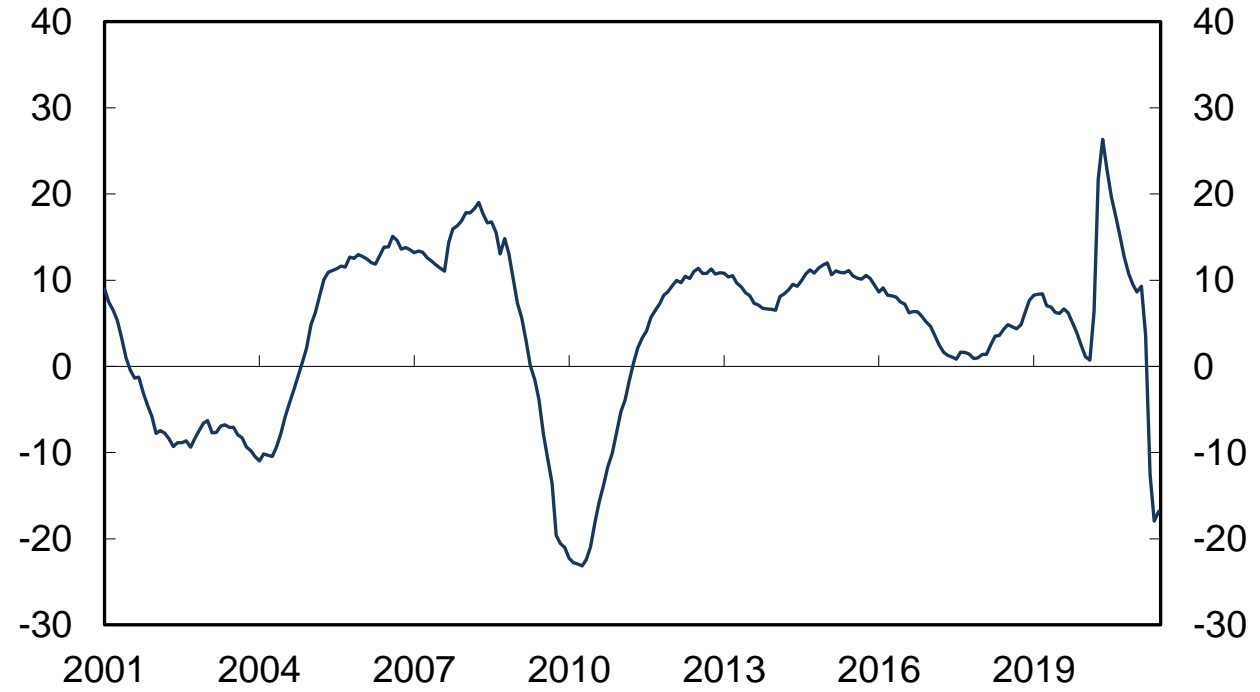


Source: FR Y-9C

Note: Excludes Barclays, Credit Suisse, Deutsche Bank, and UBS.

# 3.5.1.15 C&I Loan Growth, All Commercial Banks

Percent As Of: Jun-2021 Percent



Source: Federal Reserve,  
Haver Analytics

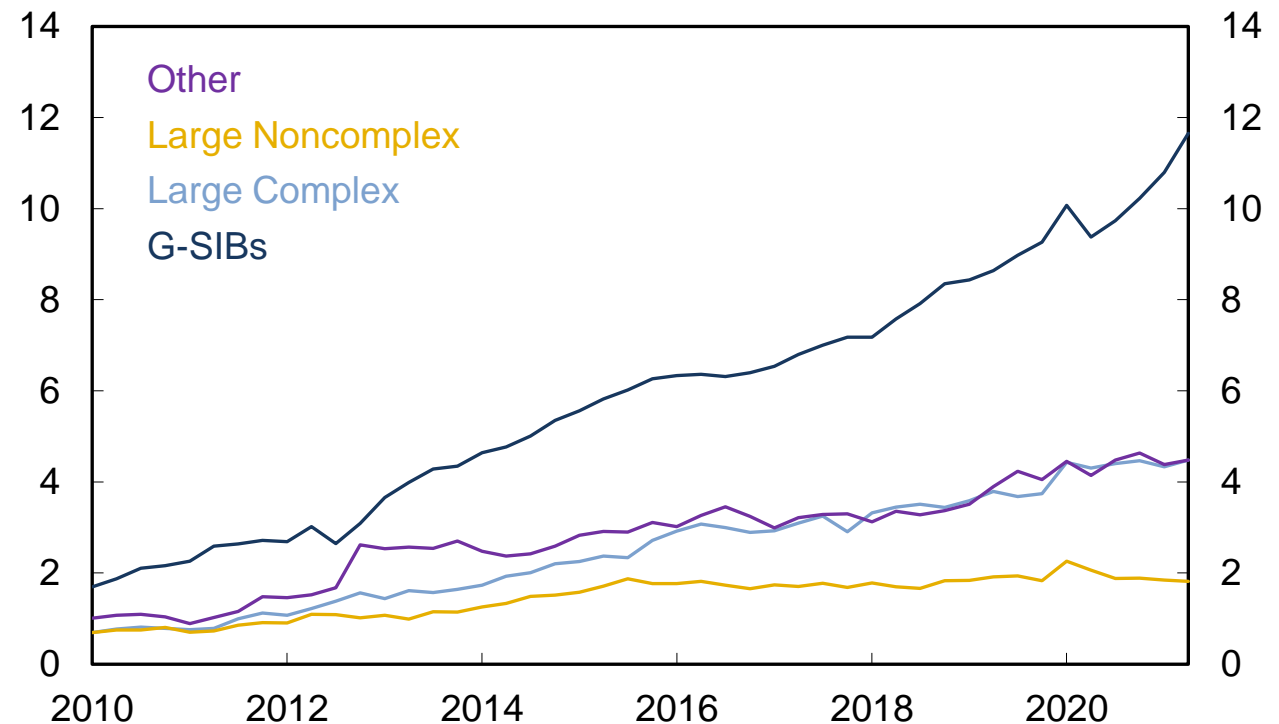
Note: Statistical Release H.8, "Assets and Liabilities of Commercial Banks in the United States." Year-over-year percentage change.

# 3.5.1.16 Loans to Nondepository Financial Institutions

Percent of Total Loans

As Of: 2021 Q2

Percent of Total Loans



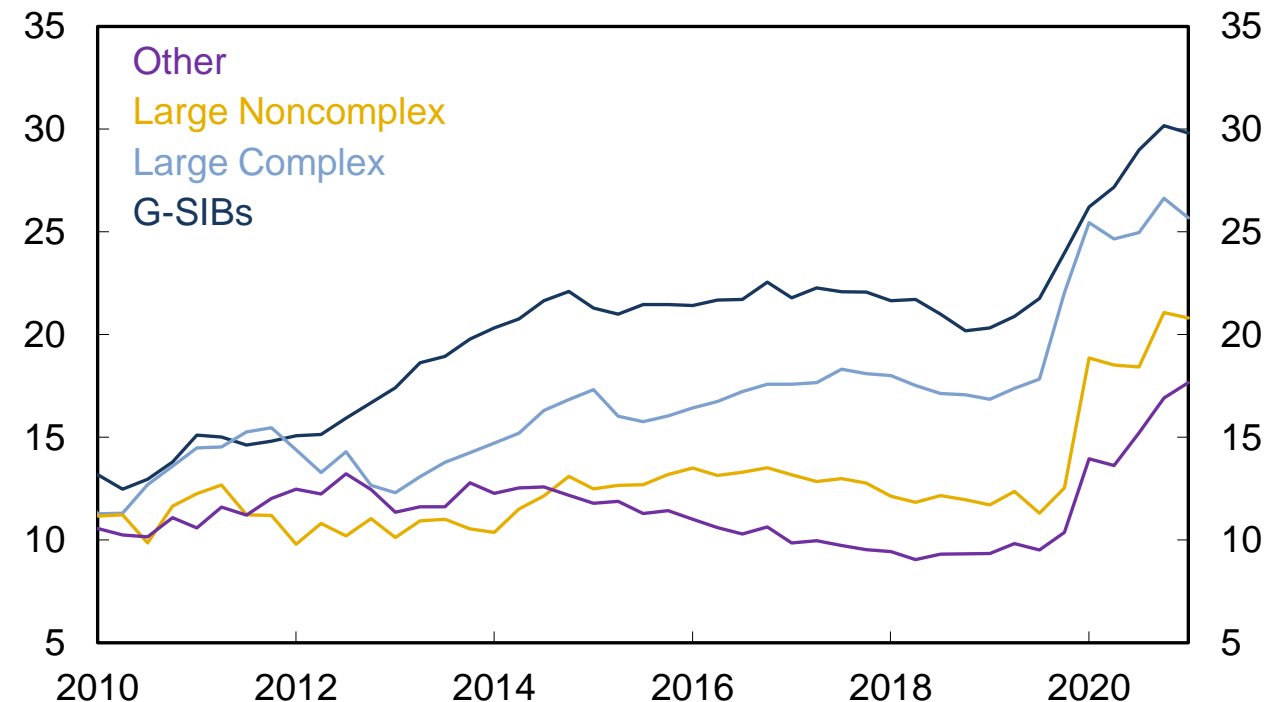
Source: FR Y-9C

### 3.5.1.17 High-Quality Liquid Assets by BHC Type

Percent of Assets

As Of: 2021 Q2

Percent of Assets



Note: HQLA is estimated by adding excess reserves to an estimate of securities that qualify for HQLA. Haircuts and level 2 asset limitations are incorporated into the estimate.

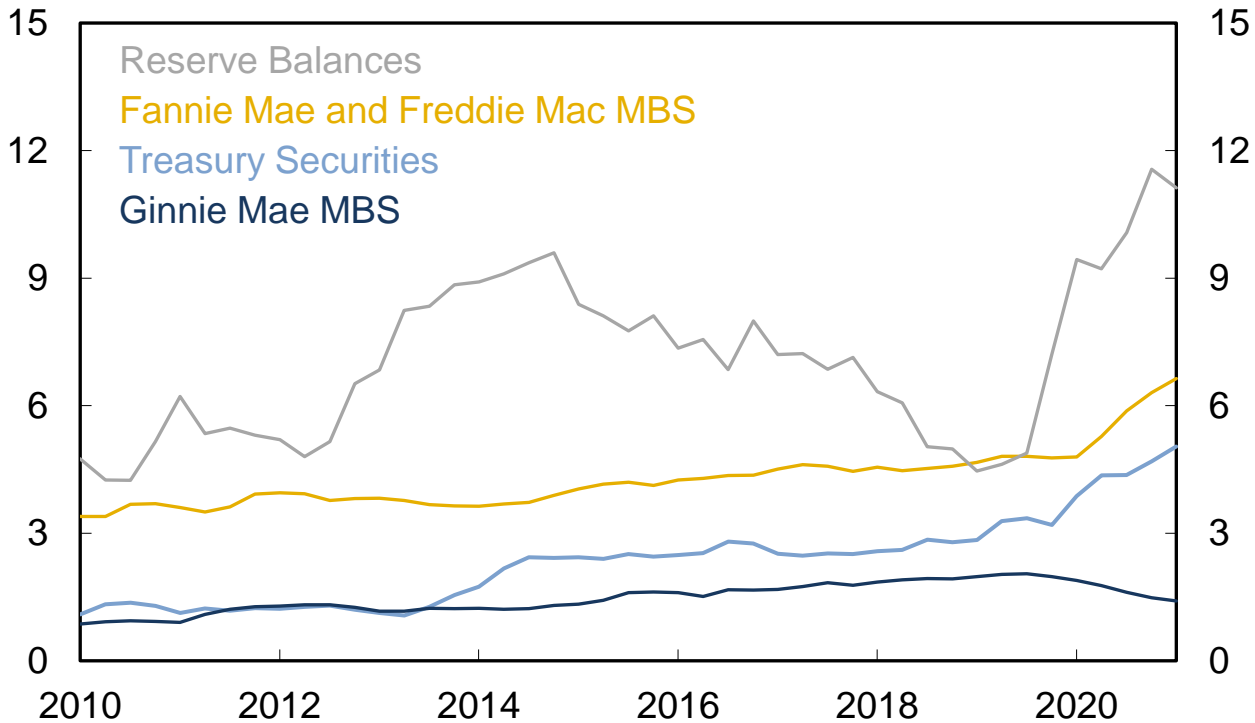
Source: FR Y-9C

### 3.5.1.18 Selected Liquid Assets at All BHCs

## Percent of Assets

As Of: 2021 Q2

## Percent of Assets



Source: FR Y-9C, FR 2900

Note: Not seasonally adjusted.

### 3.5.1.19 Liquidity Coverage Ratios at U.S. G-SIBs

Percent

As Of: 2021 Q2

Percent

200

200

150

150

100

100

50

50

0

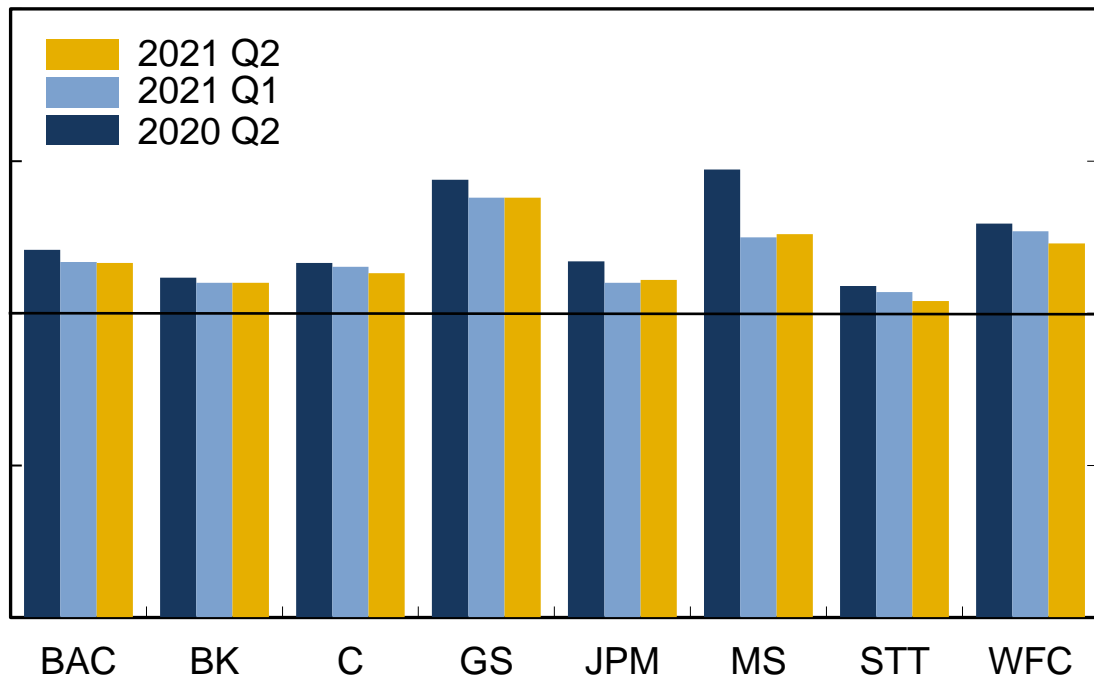
0

2021 Q2  
2021 Q1  
2020 Q2

BAC BK C GS JPM MS STT WFC

Source: LCR Disclosures  
from each banks' websites

Note: The solid line represents the  
regulatory minimum.



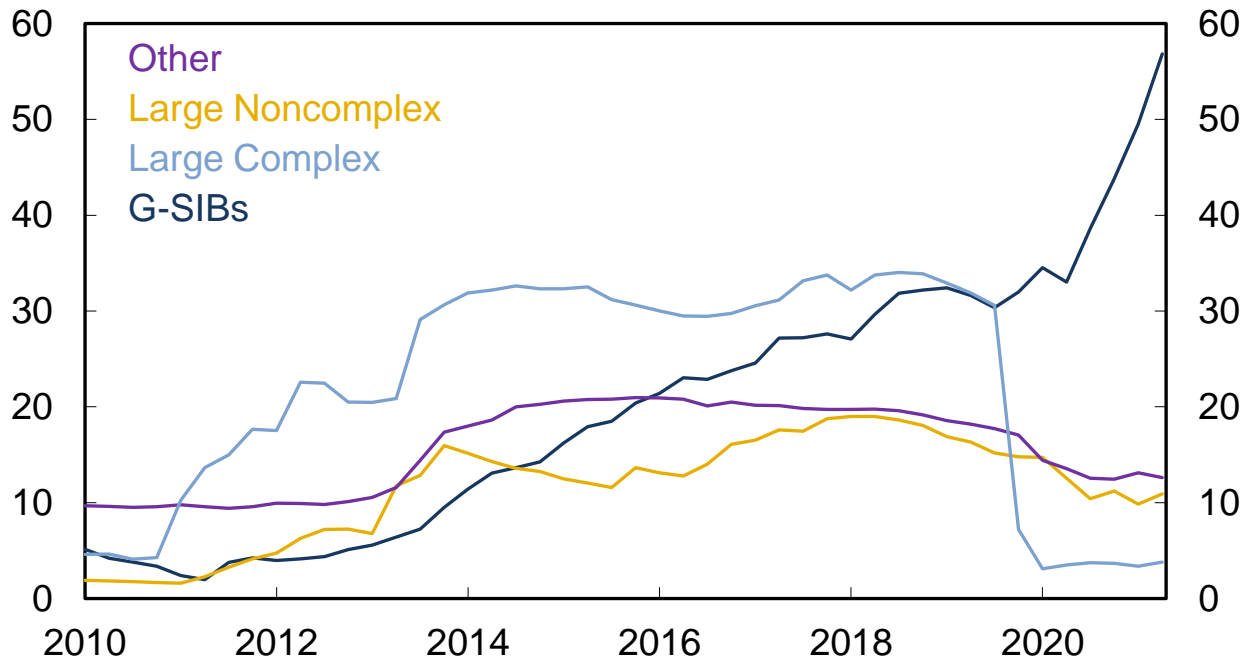


### 3.5.1.20 Held-to-Maturity Securities

Percent of Investment  
Securities

As Of: 2021 Q2

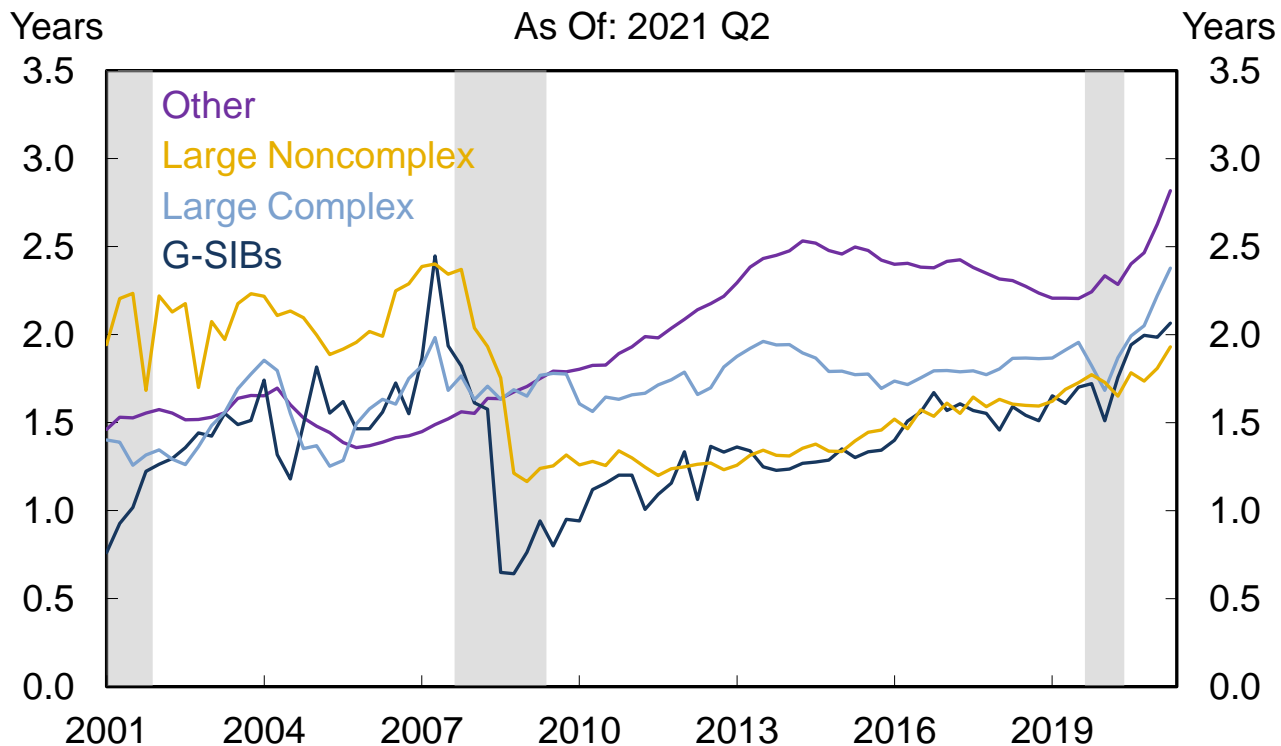
Percent of Investment  
Securities



Source: Call Report,  
Haver Analytics

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

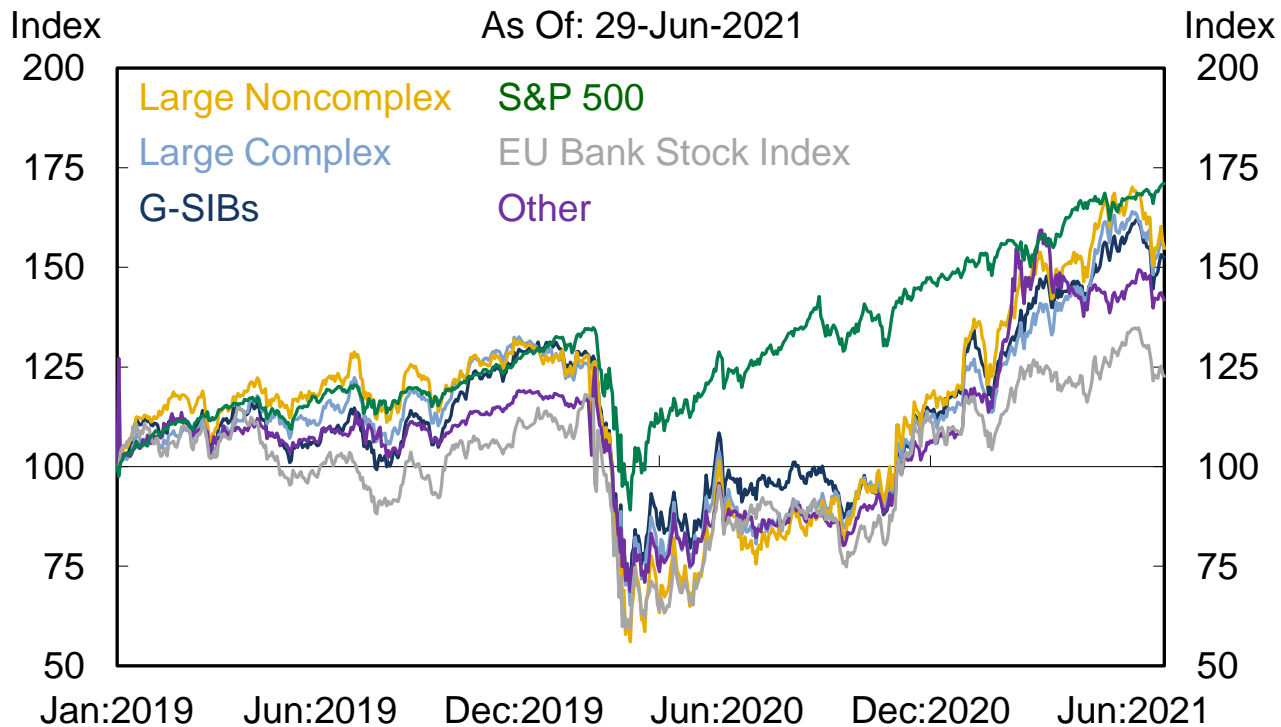
### 3.5.1.21 Duration Gap



Source: Call Report,  
Haver Analytics

Note: Duration gap is the approximate weighted-average time of cash inflows less the approximate weighted-average time of cash outflows. Gray bars signify NBER recessions.

### 3.5.1.22 Bank Stock Performance



Source: Yahoo! Finance,  
Bloomberg, L.P.

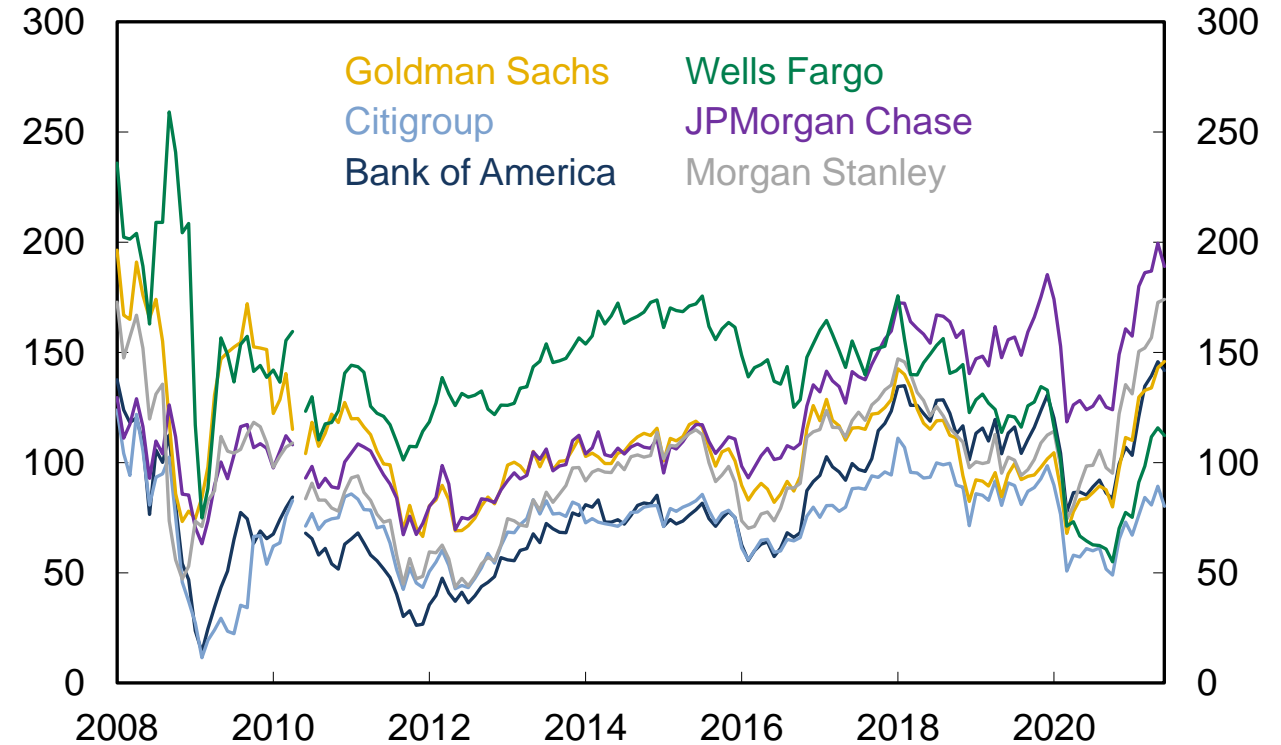
Note: January 2, 2019 = 100. EU Bank Stock Index created from stock prices for the following banks: BCS, BNPQY, CS, ACA, DB, SAN, UBS. All indexes are created by equally weighting banks.

### 3.5.1.23 Price-to-Book for Select U.S. G-SIBs

Percent

As Of: Jun-2021

Percent



Source: SNL

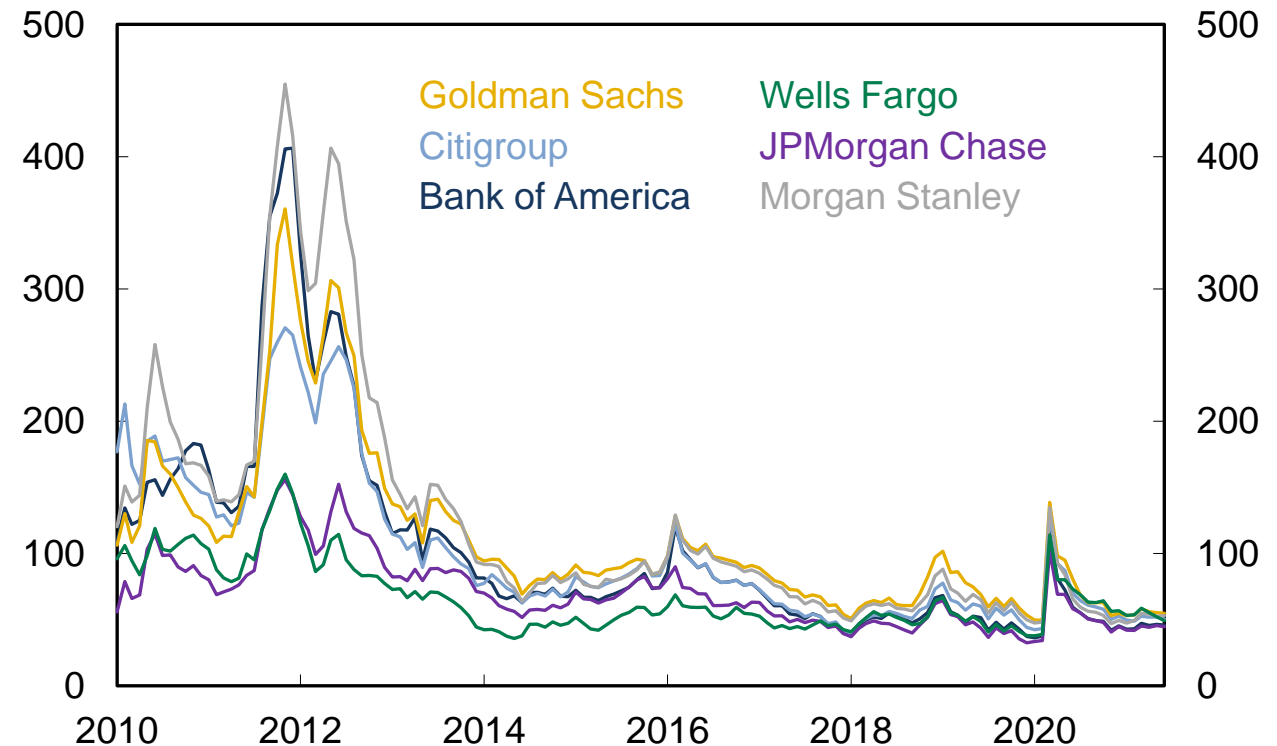
Note: Month-end values.

# 3.5.1.24 5-Year CDS Premiums Select U.S. G-SIBs

Basis Points

As Of: Jun-2021

Basis Points



Source: Markit

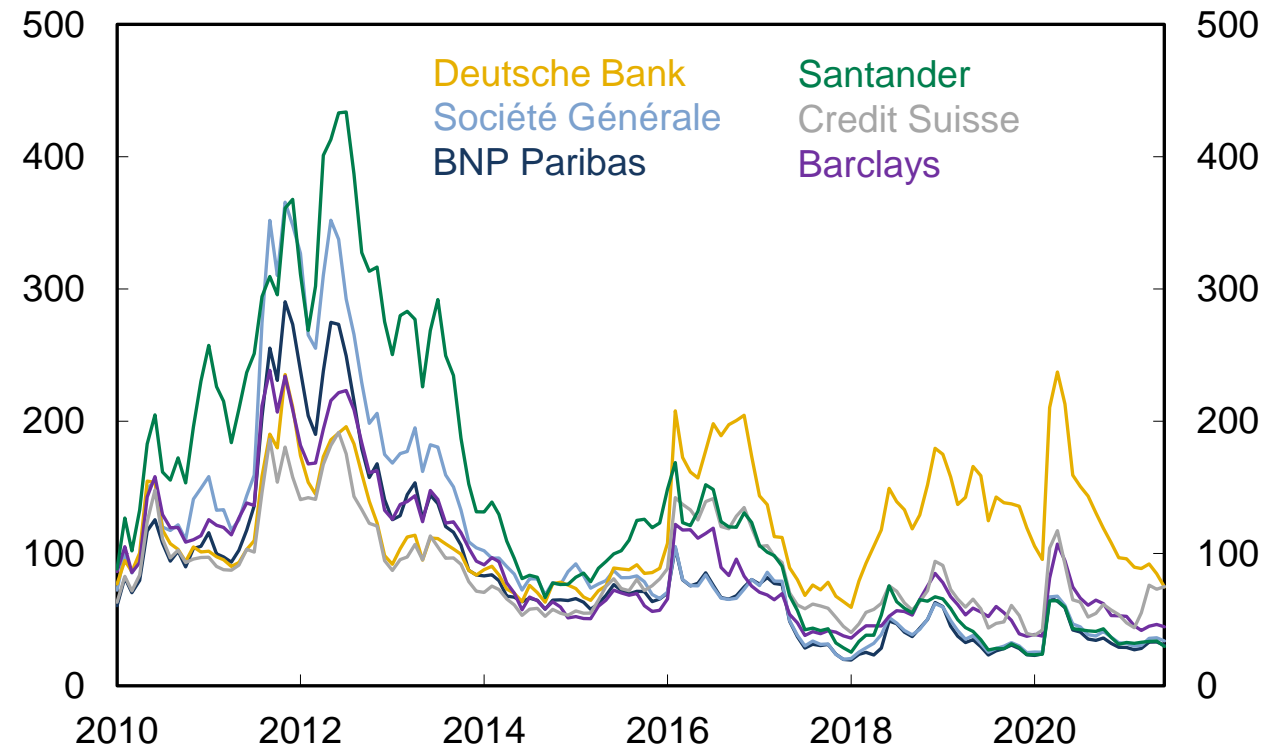
Note: Monthly averages.

# 3.5.1.25 5-Year CDS Premiums Select Foreign Banks

Basis Points

As Of: Jun-2021

Basis Points



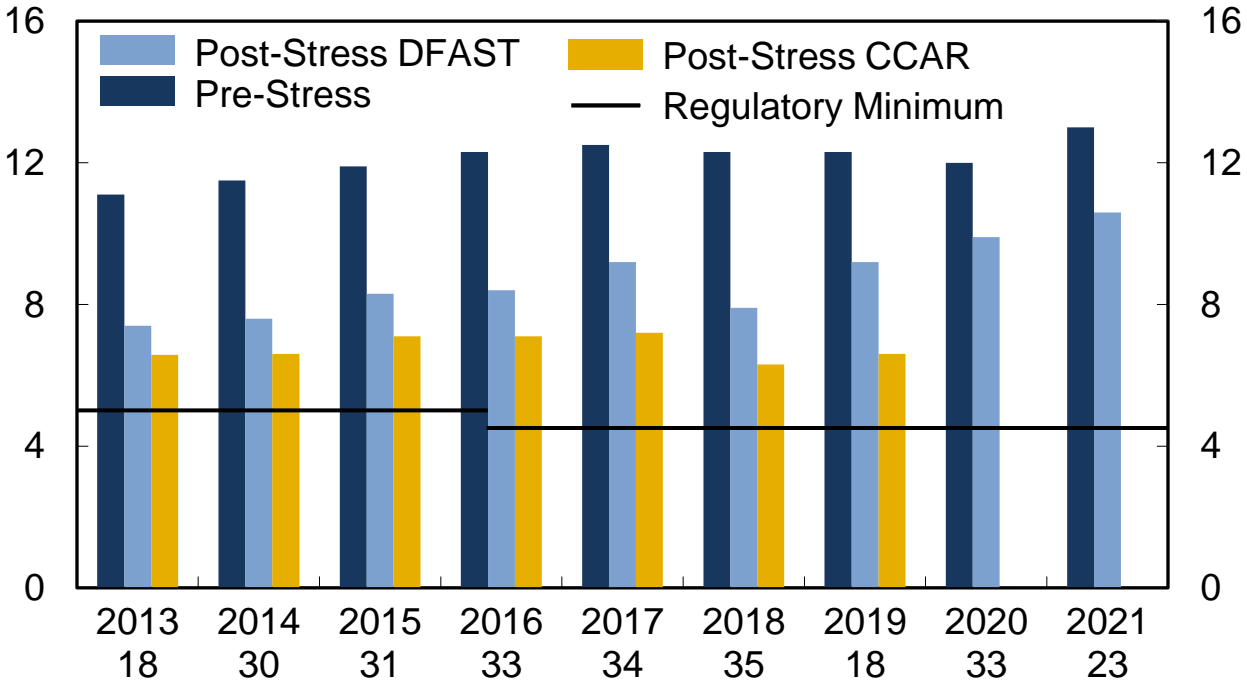
Source: Markit

Note: Monthly averages.

# 3.5.1.26 Initial and Stressed Capital Ratios

Percent of RWA

Percent of RWA



Source: Federal Reserve

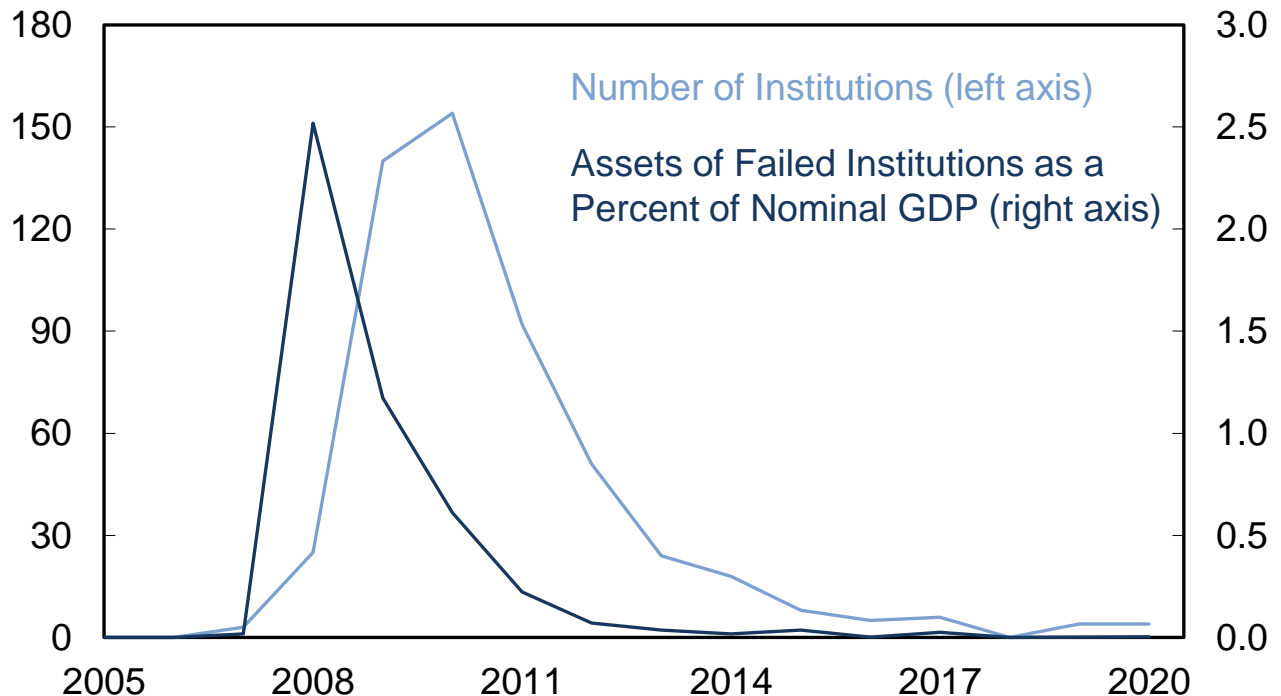
Note: Regulatory minimum is 5% pre-2016 and 4.5% from 2016 onwards. For DFAST 2013-2015, bars show Tier 1 Common Capital Ratio. DFAST 2016-2021 bars show Common Equity Tier 1 Ratio. The x-axis labels represent the number of banks tested within a given year.

### 3.5.1.27 FDIC-Insured Failed Institutions

Number of Institutions

As Of: 2020

Percent



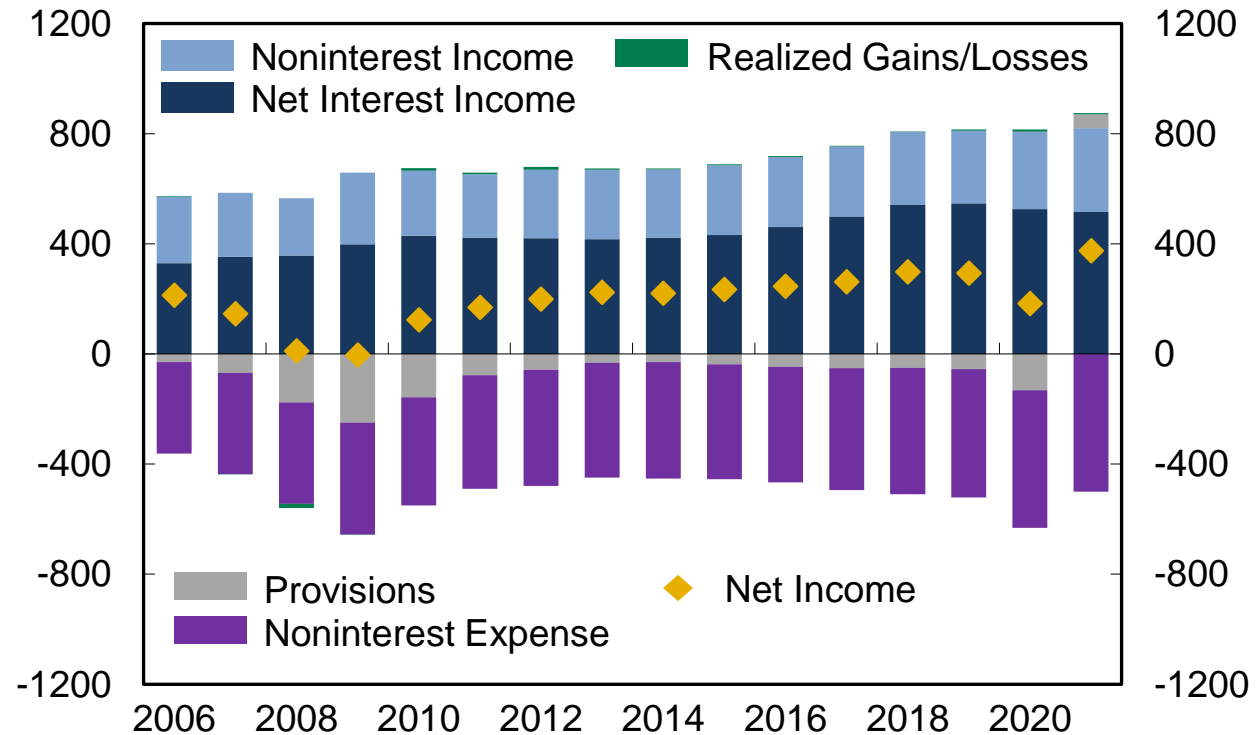
Source: BEA, FDIC,  
Haver Analytics

Note: No FDIC-insured institutions  
failed during 2005, 2006, and 2018.



# 3.5.1.28 Commercial Bank and Thrift Net Income

Billions of US\$ As Of: 2021 Q2 Billions of US\$



Source: FDIC

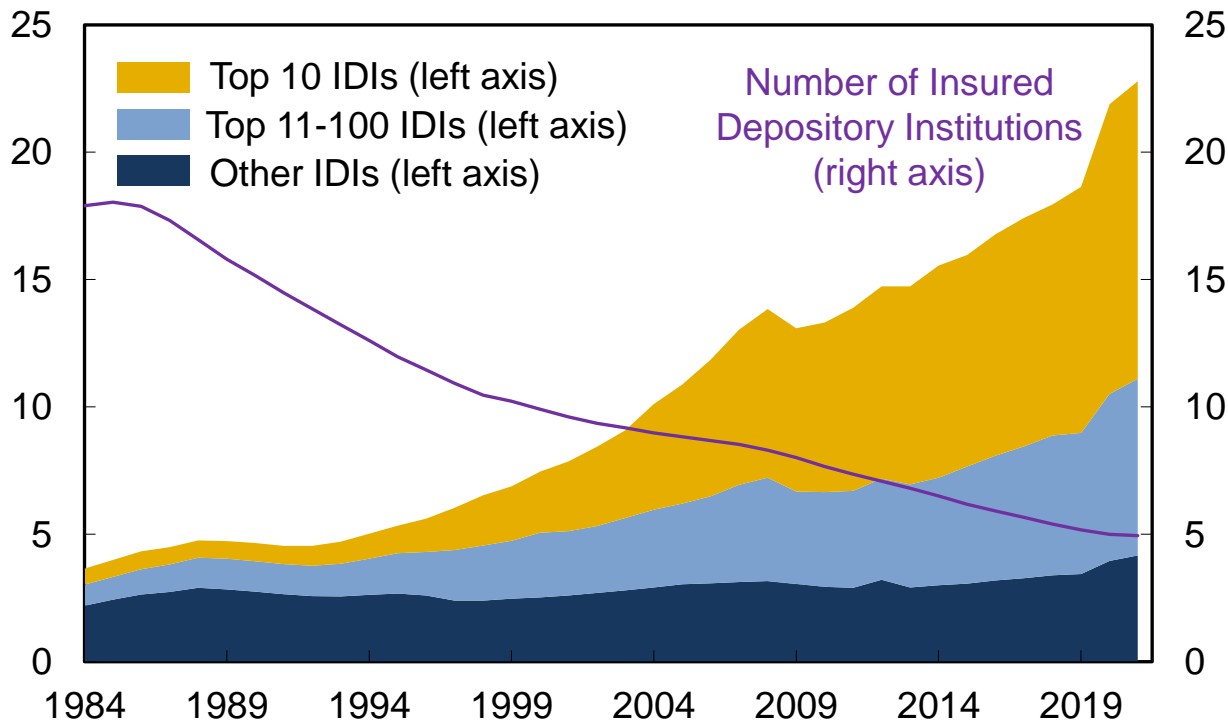
Note: Includes all commercial banks and thrift institutions. All items are annualized.

### 3.5.1.29 Total Assets of Largest Insured Depository Institutions

Trillions of US\$

As Of: 2021 Q2

Count ('000s)



Source: FFIEC Call Report

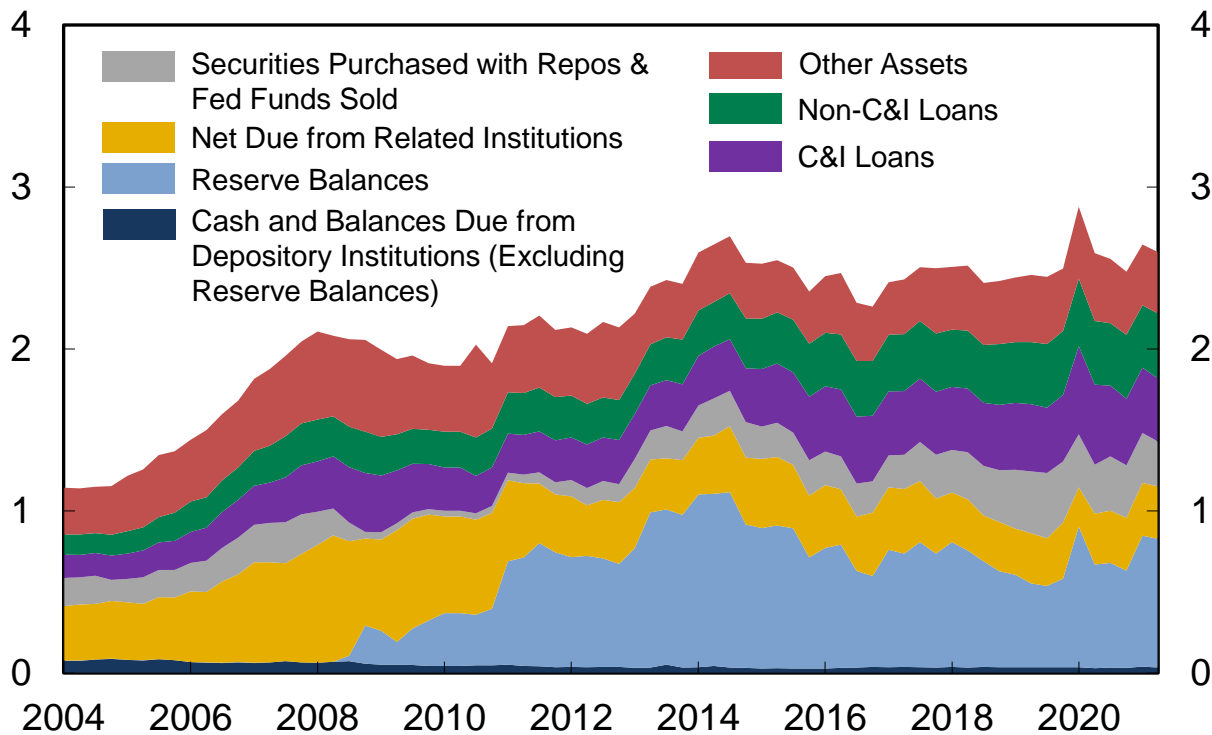
Note: Fourth quarter data was used for years 1984-2020 and second quarter data was used for 2021.

### 3.5.1.30 U.S. Branches and Agencies of Foreign Banks: Assets

Trillions of US\$

As Of: 2021 Q2

Trillions of US\$



Source: Federal Reserve,  
Haver Analytics

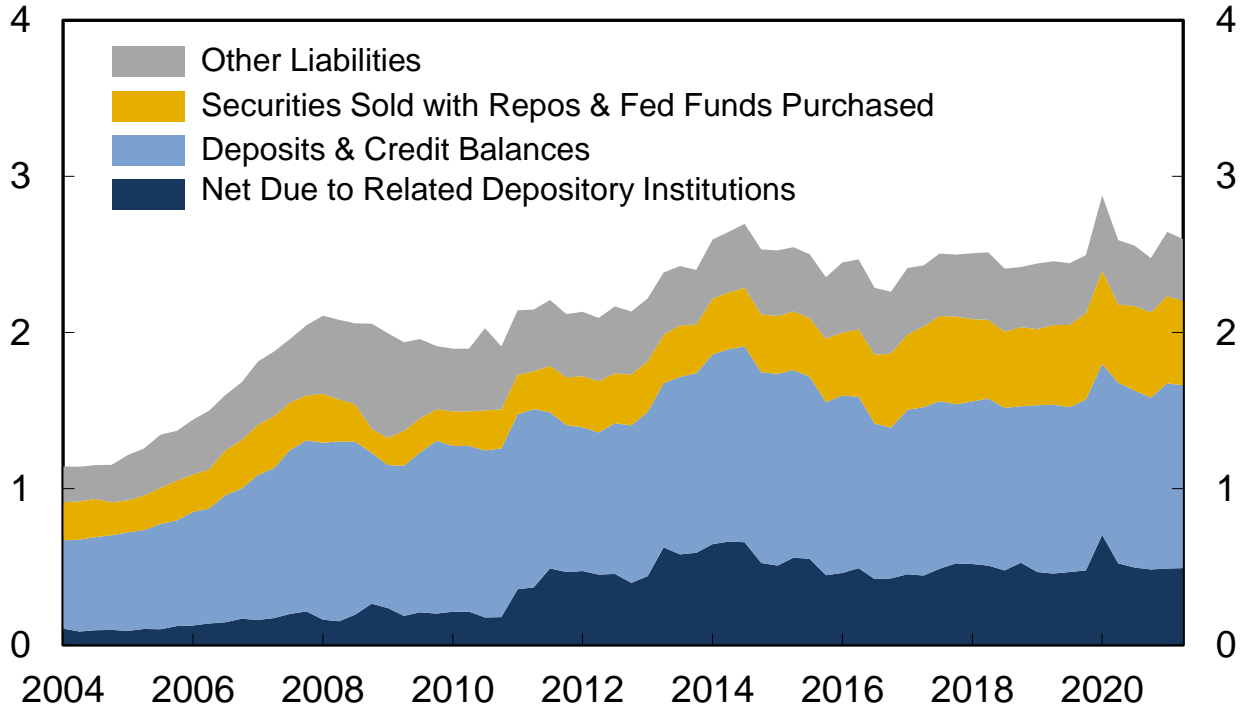
Note: Other assets includes government securities, ABS, and other trading assets.

### 3.5.1.31 U.S. Branches and Agencies of Foreign Banks: Liabilities

Trillions of US\$

As Of: 2021 Q2

Trillions of US\$



Source: Federal Reserve,  
Haver Analytics

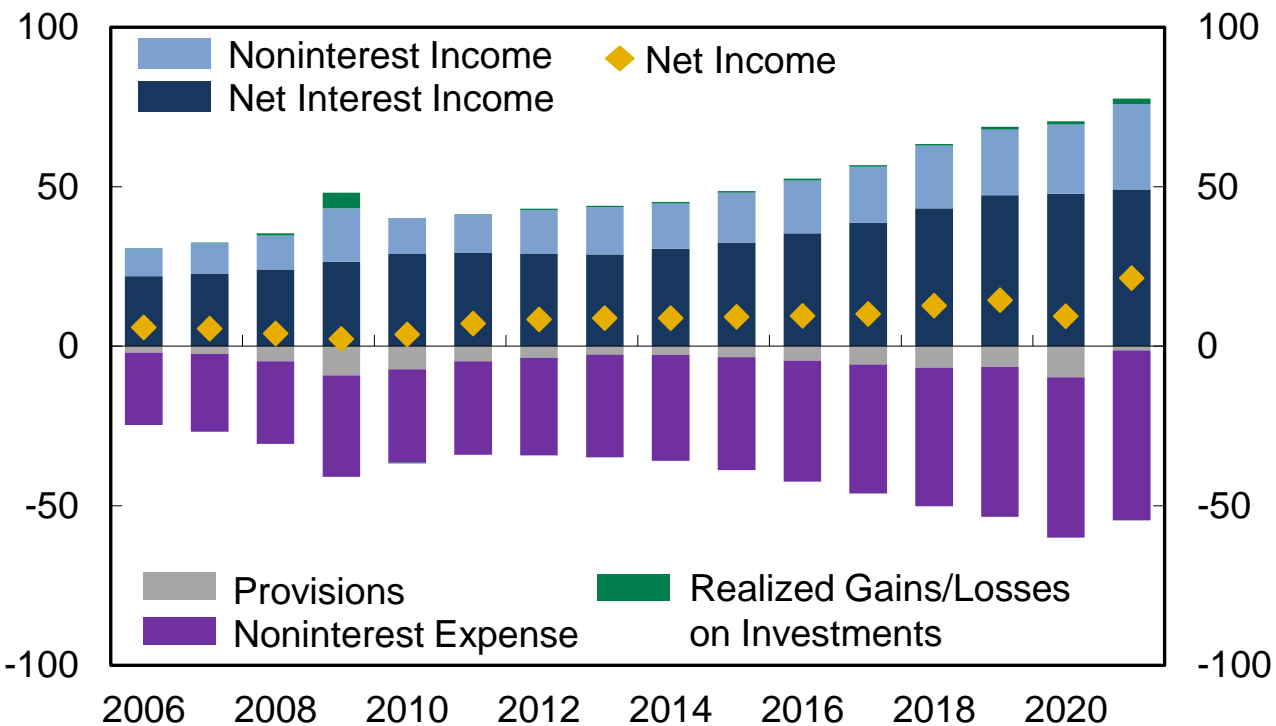
Note: Other liabilities includes transaction accounts,  
non-transaction accounts, and other borrowed money.

### 3.5.1.32 Credit Union Income

Billions of US\$

As Of: 2021 Q2

Billions of US\$



Source: NCUA

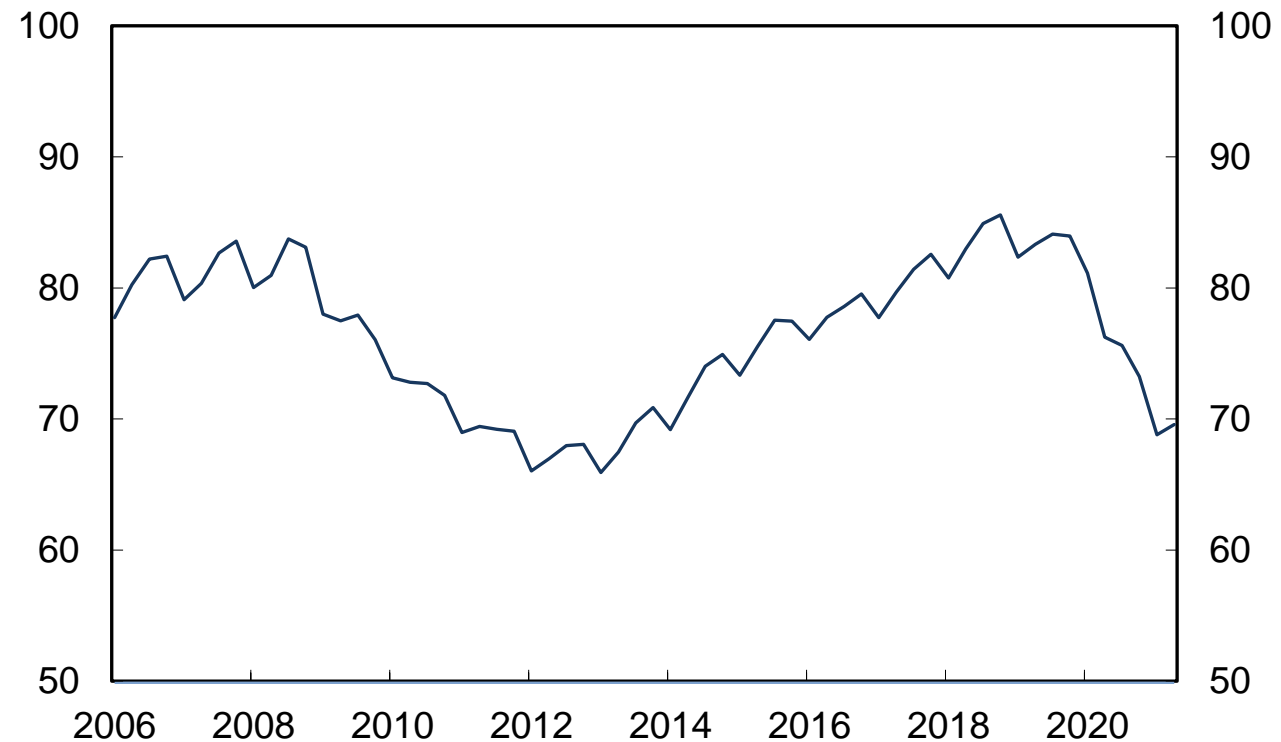
Note: Federally-insured credit unions. Values are annualized.

### 3.5.1.33 Loans as a Percent of Total Deposits

Percent of Total Assets

As Of: 2021 Q2

Percent of Total Assets



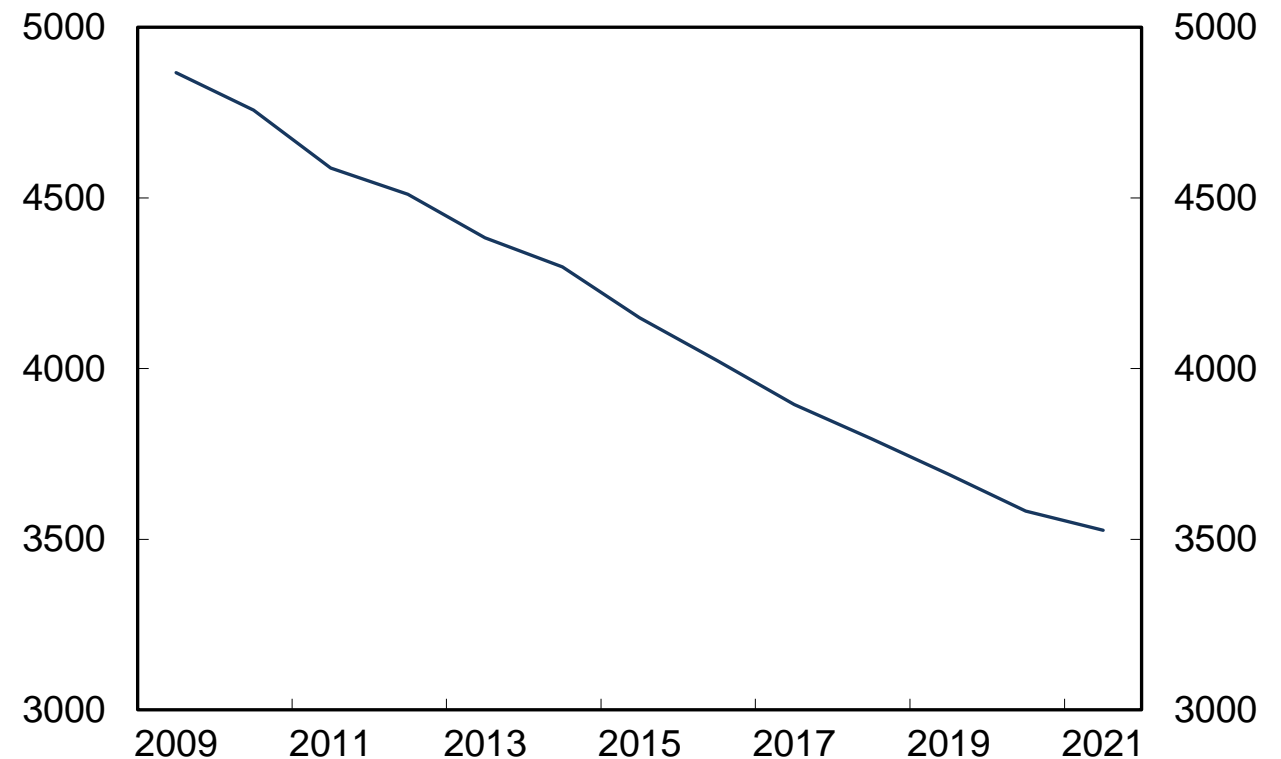
Source: NCUA

### 3.5.2.1 Number of Broker-Dealers

Number of Firms

As Of: 2021 Q2

Number of Firms



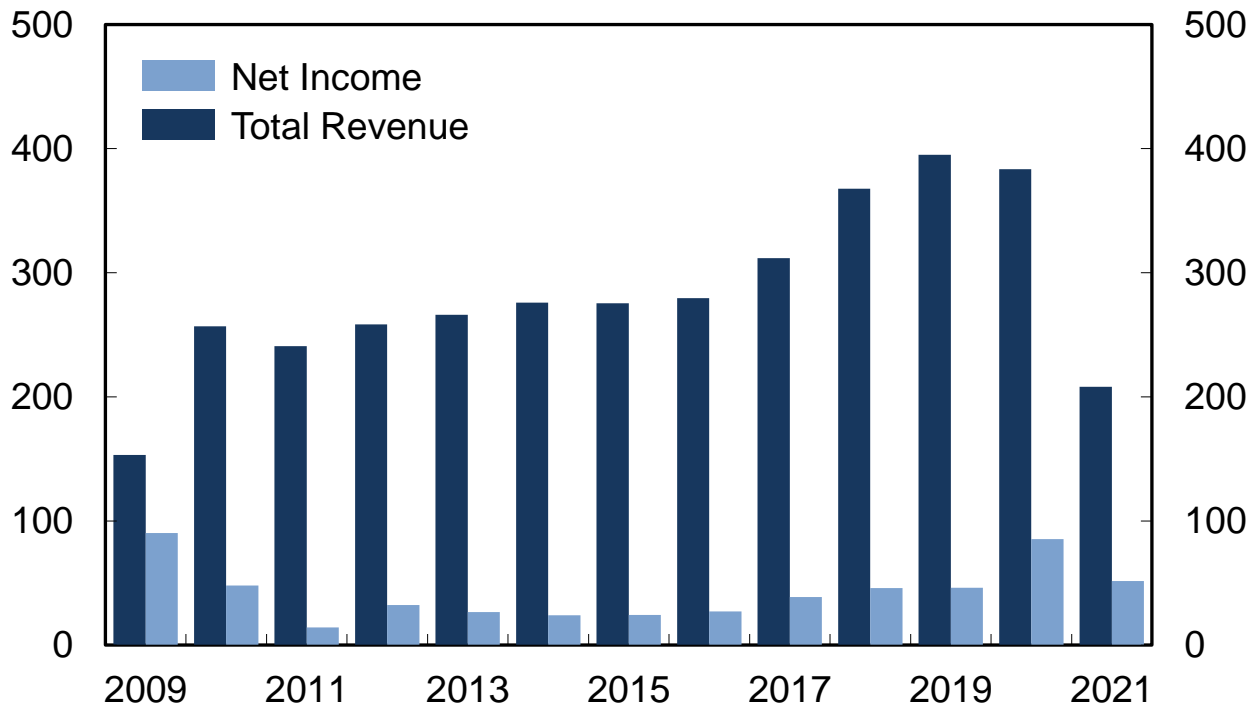
Source: FINRA

### 3.5.2.2 Broker-Dealer Revenues and Net Income

Billions of US\$

As Of: 2021 Q2

Billions of US\$



Source: FINRA

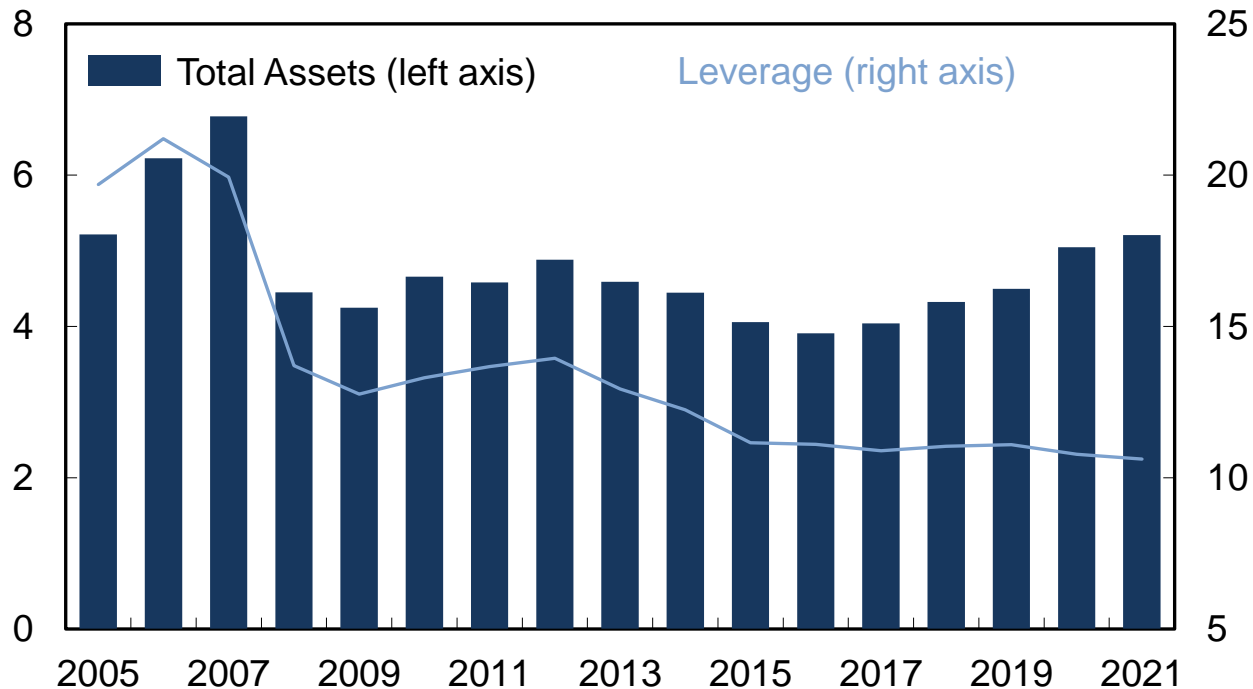


### 3.5.2.3 Broker-Dealer Assets and Leverage

Trillions of US\$

As Of: 2021 Q2

Ratio



Note: Leverage is the ratio of total assets to total regulatory capital.

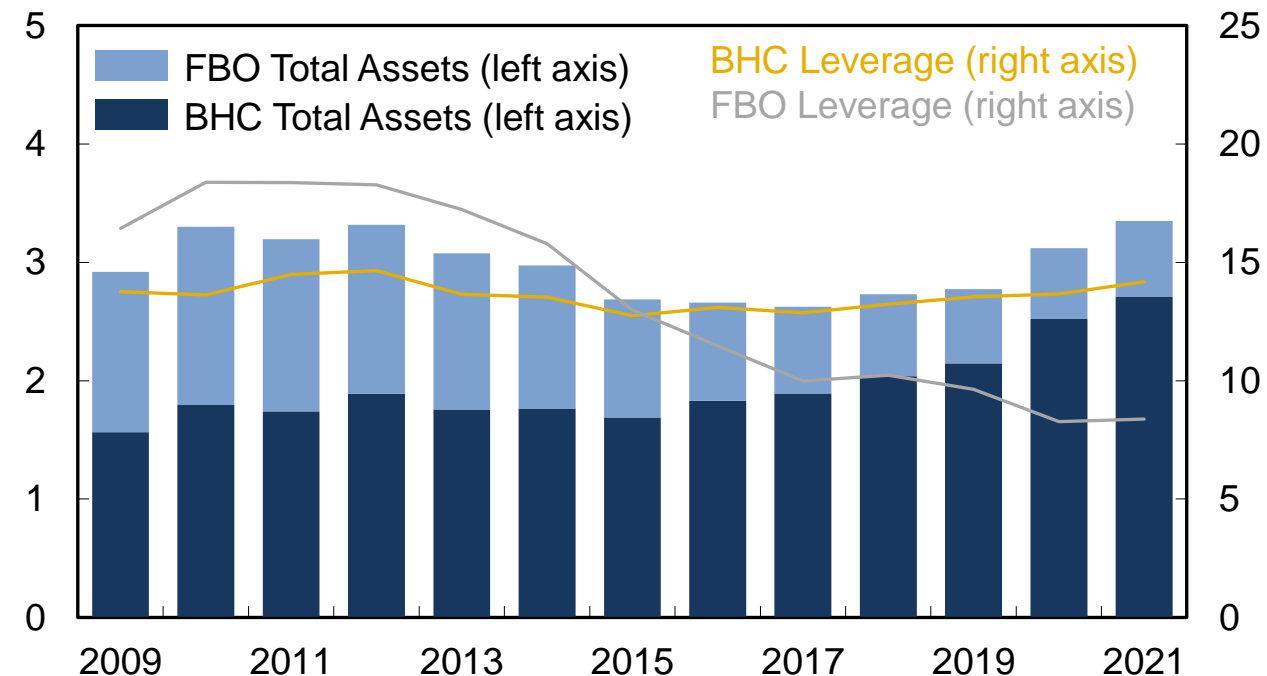
Source: FINRA

### 3.5.2.4 Broker-Dealer Assets and Leverage by Affiliation

Trillions of US\$

As Of: 2021 Q2

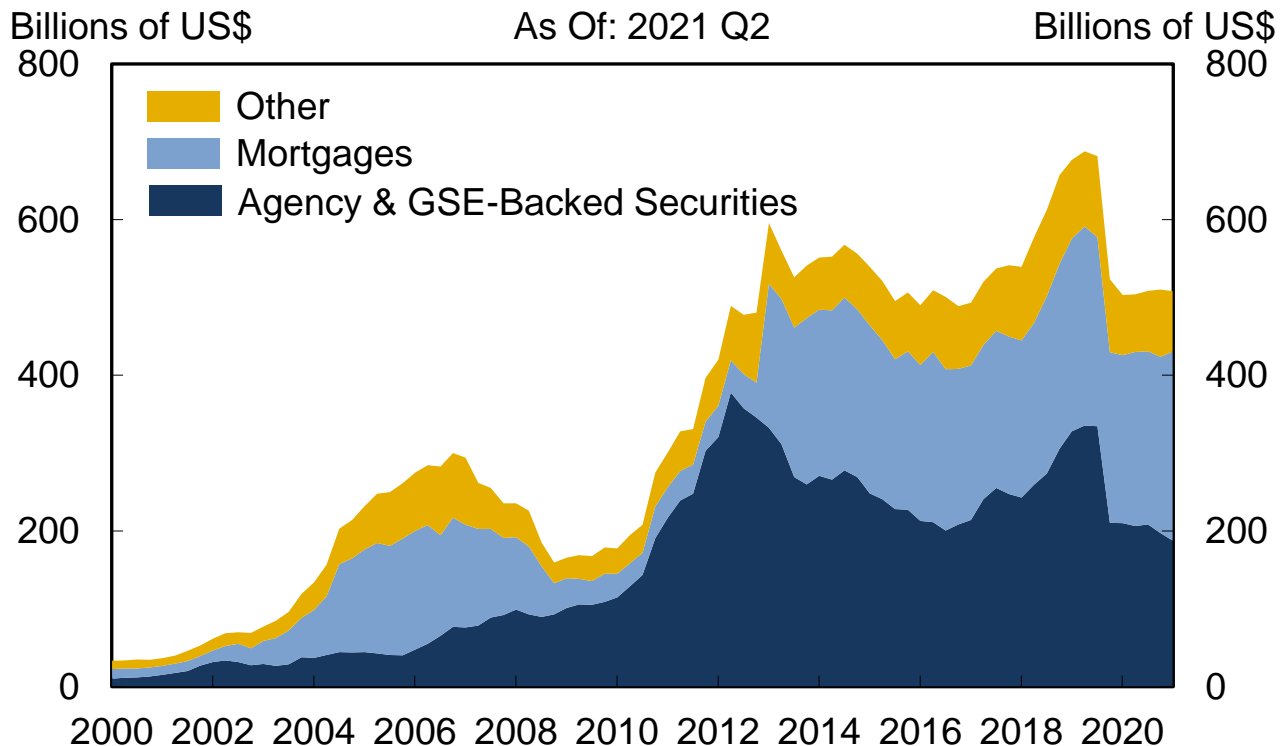
Ratio



Note: Data covers BHC and FBO-affiliated broker-dealers that are among the 25 largest broker-dealers by assets at year-end 2020.

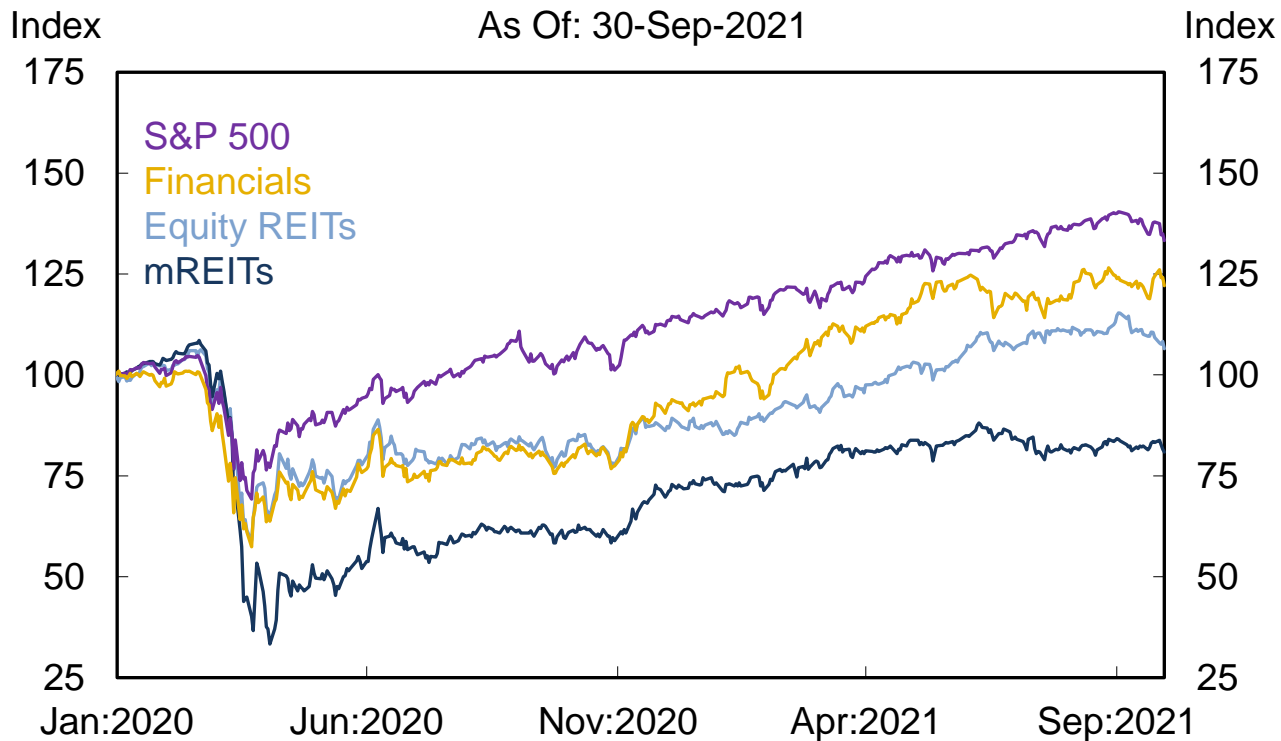
Source: FINRA

### 3.5.2.5 mREIT Financial Assets



Source: Federal Reserve,  
Haver Analytics

### 3.5.2.6 REIT Stock Performance



Source: NAREIT,  
Bloomberg, L.P.

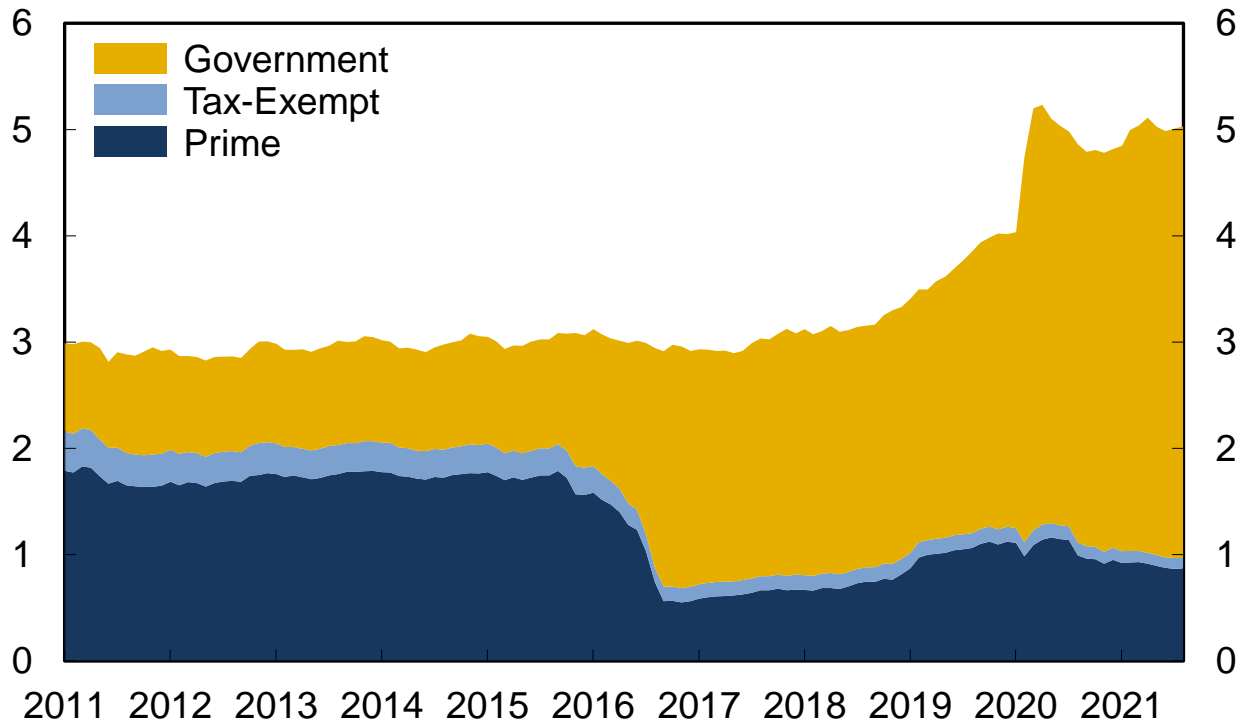
Note: Indexed to 100 as of year-end 2019; mREITs represents the FTSE Nareit Mortgage REITs Index; Equity REITs represents the FTSE Nareit Equity REITs Index; Financials represents the S&P 500 Financials Subindex.

### 3.5.2.7 MMF Assets by Fund Type

Trillions of US\$

As Of: Sep-2021

Trillions of US\$



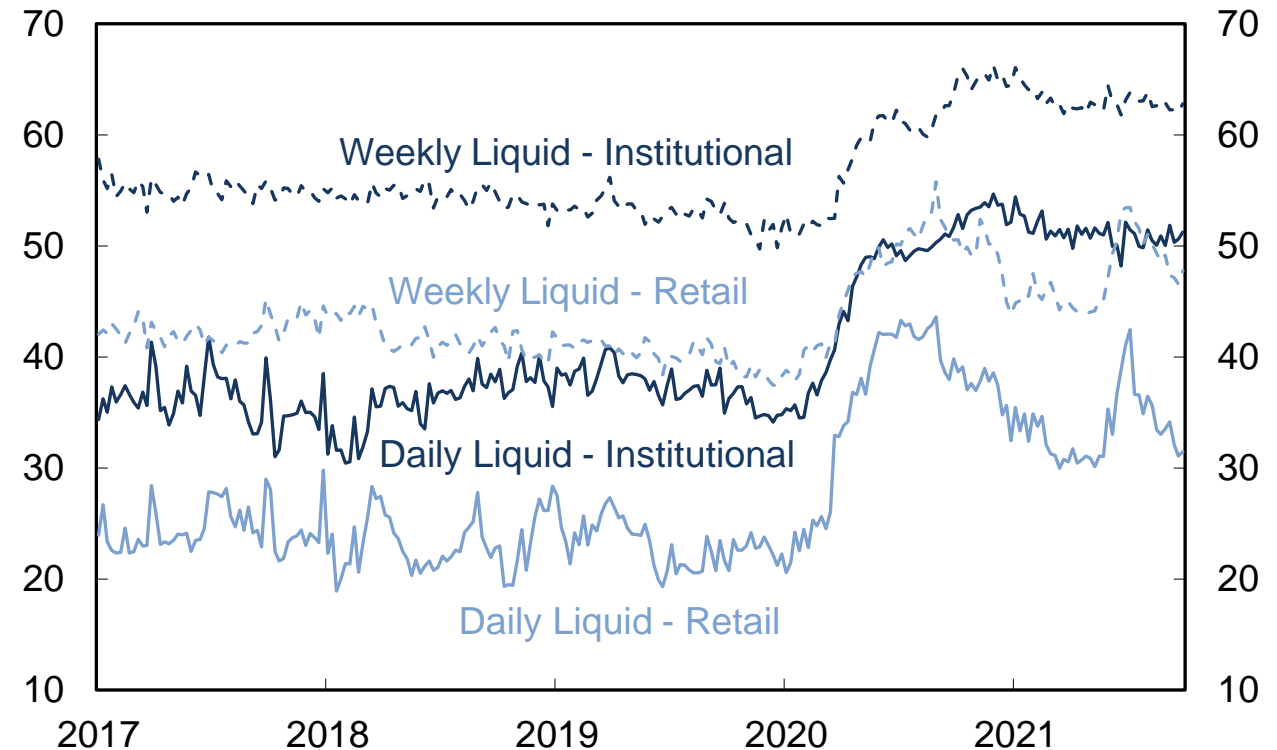
Source: SEC

### 3.5.2.8 Liquid Asset Shares of Prime MMFs

Percent of Total Assets

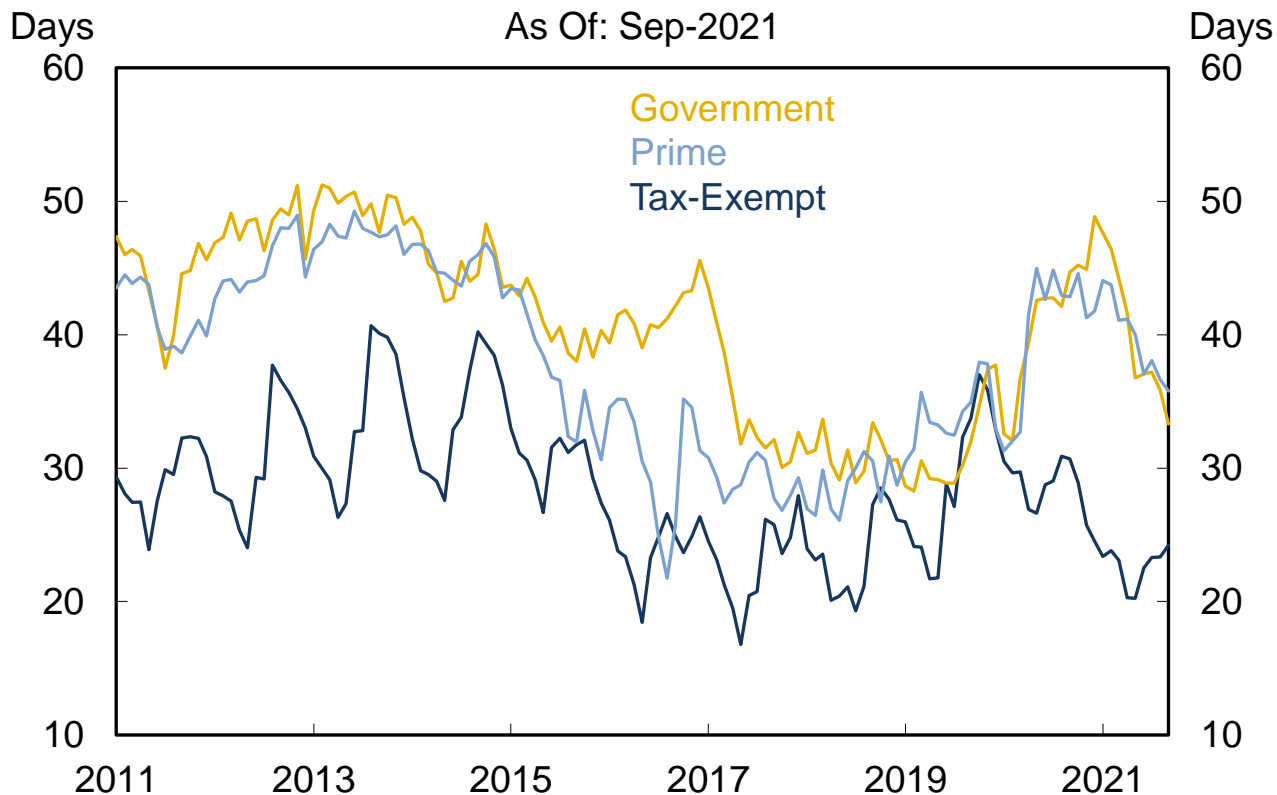
As Of: Sep-2021

Percent of Total Assets



Source: SEC

### 3.5.2.9 Weighted Average Maturities by Fund Type



Source: SEC

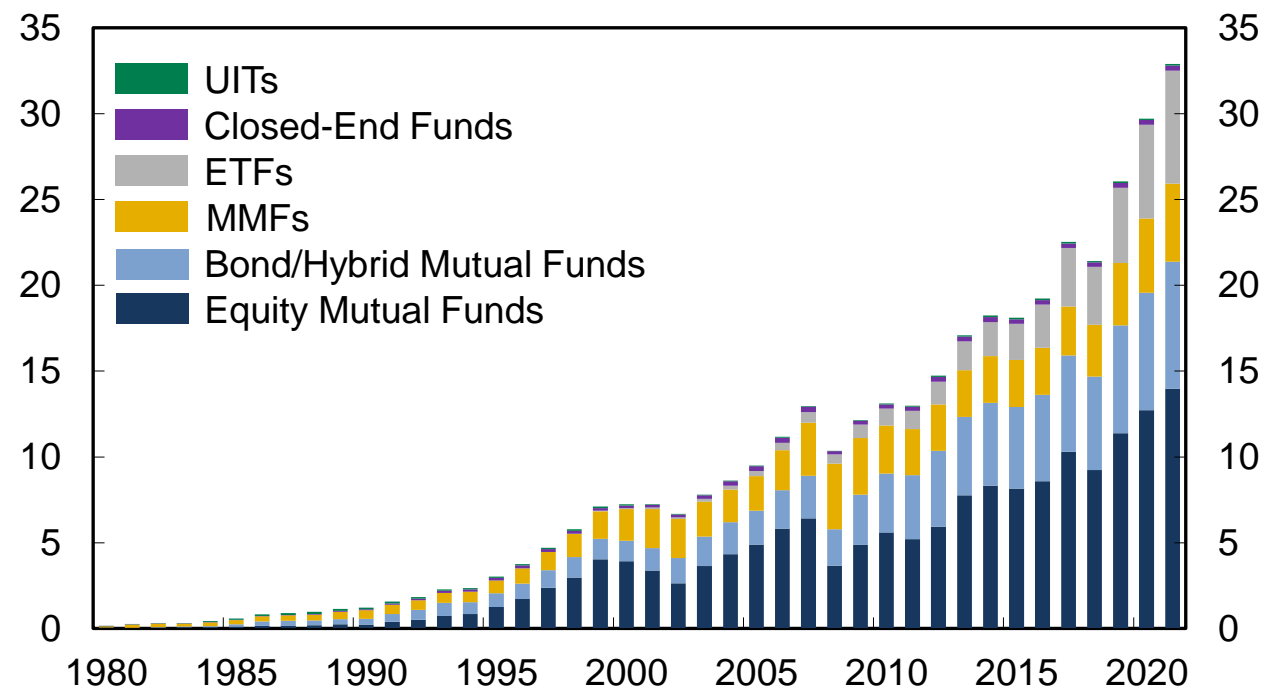
Note: Weighted by fund size.

### 3.5.2.10 Net Assets of the Investment Company Industry

Trillions of US\$

As Of: 2021 Q3

Trillions of US\$



Source: ICI, Federal Reserve, SEC

Note: Excludes non '40 Act ETPs.

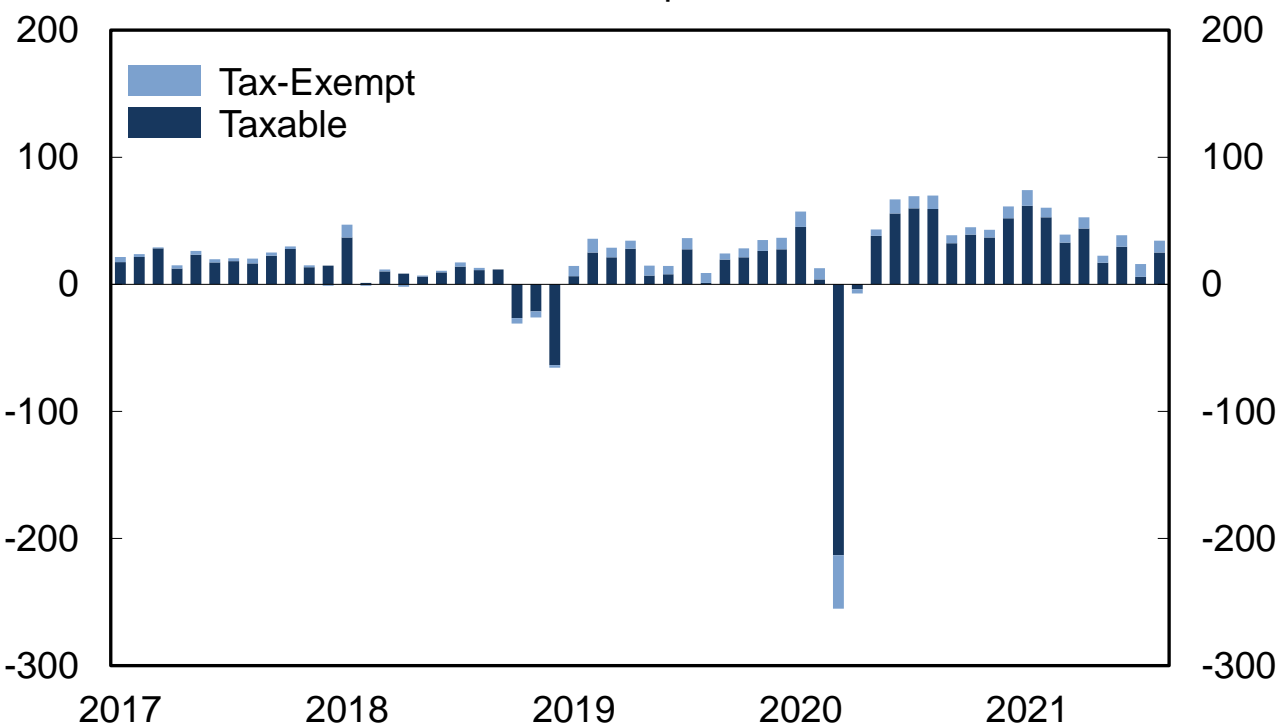


### 3.5.2.11 Monthly Bond Mutual Fund Flows

Billions of US\$

As Of: Sep-2021

Billions of US\$



Source: ICI, Haver Analytics

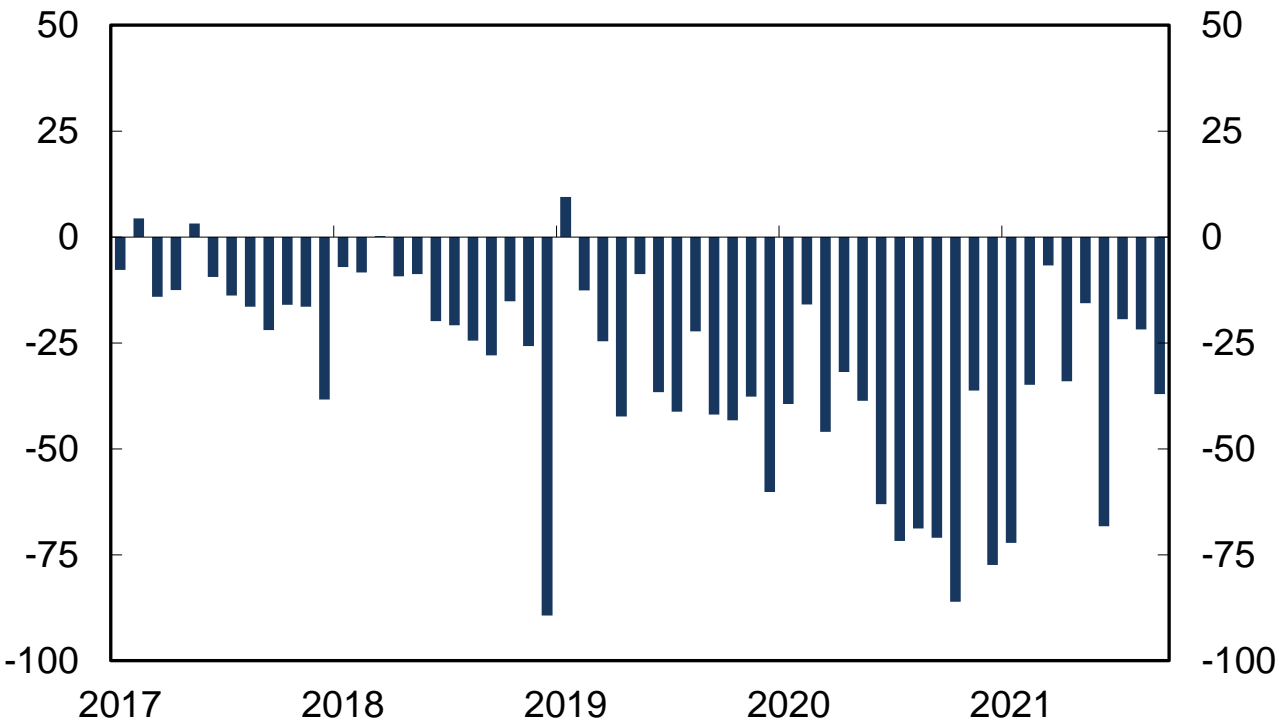
Note: Net fund flows.

### 3.5.2.12 Monthly Equity Mutual Fund Flows

Billions of US\$

As Of: Sep-2021

Billions of US\$

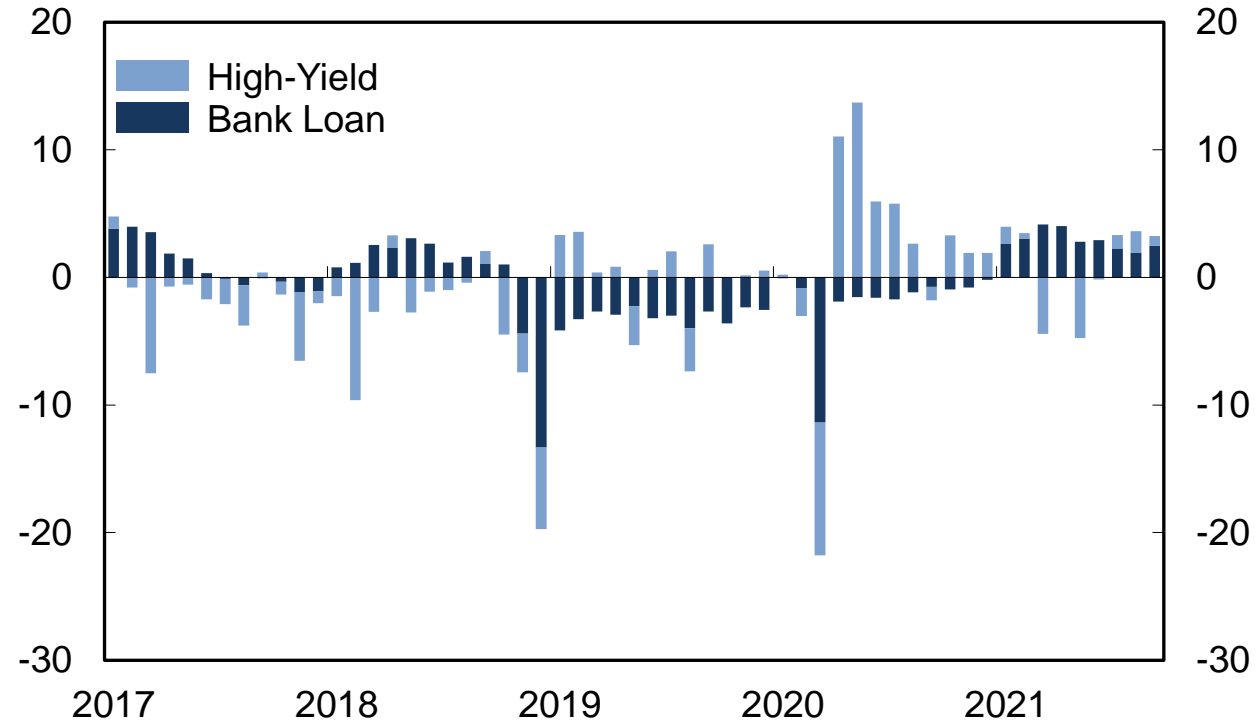


Source: ICI, Haver Analytics

Note: Net fund flows.

### 3.5.2.13 Monthly Bank Loan and High-Yield Mutual Fund Flows

Billions of US\$ As Of: Sep-2021 Billions of US\$

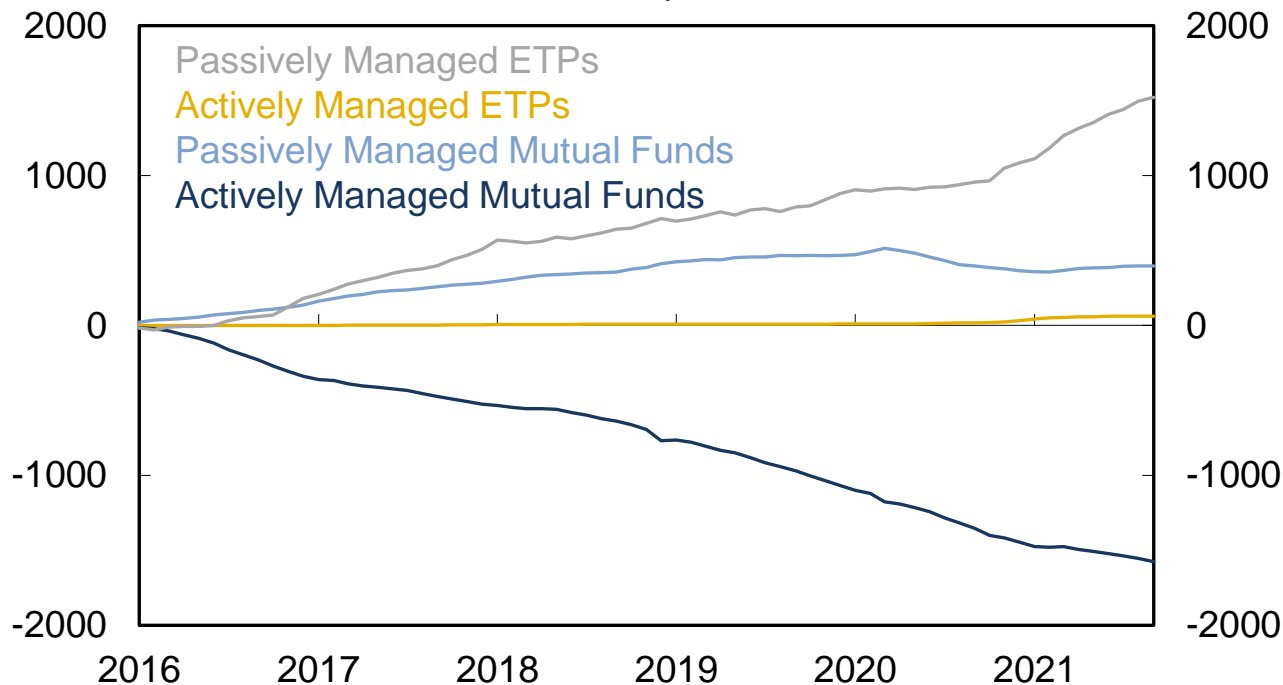


### 3.5.2.14 Cumulative Equity Fund Flows

Billions of US\$

As Of: Sep-2021

Billions of US\$



Note: Cumulative net fund flows. Includes U.S., international, sector, and nontraditional equity funds.

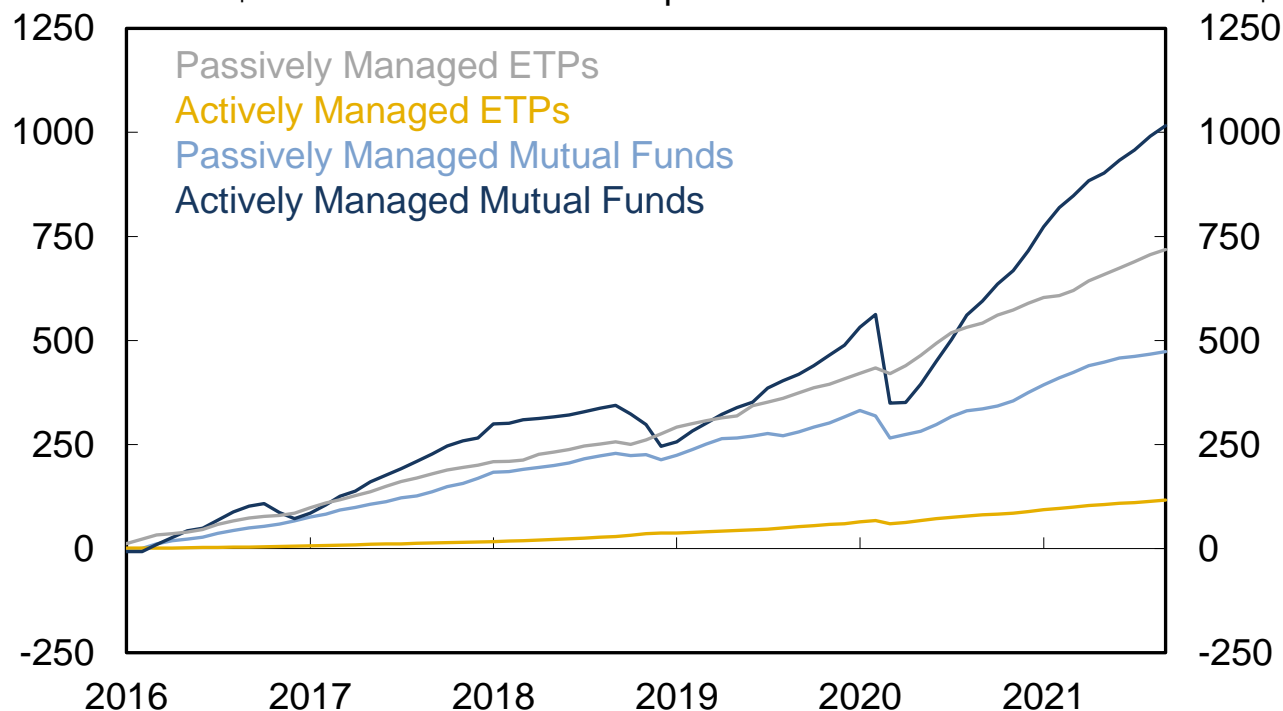
Source: Morningstar, Inc.

### 3.5.2.15 Cumulative Fixed Income Fund Flows

Billions of US\$

As Of: Sep-2021

Billions of US\$



Source: Morningstar, Inc.

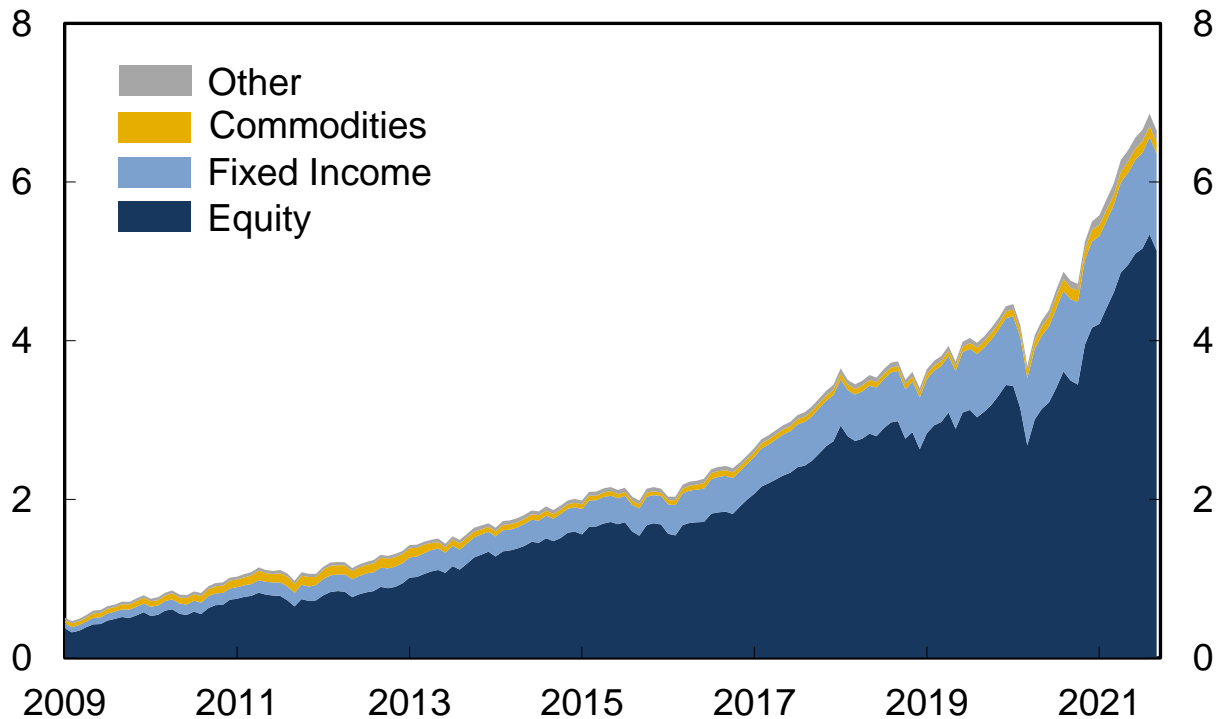
Note: Cumulative net fund flows. Includes taxable and municipal bond funds.

### 3.5.2.16 ETP Assets by Category of Investment

Trillions of US\$

As Of: Sep-2021

Trillions of US\$



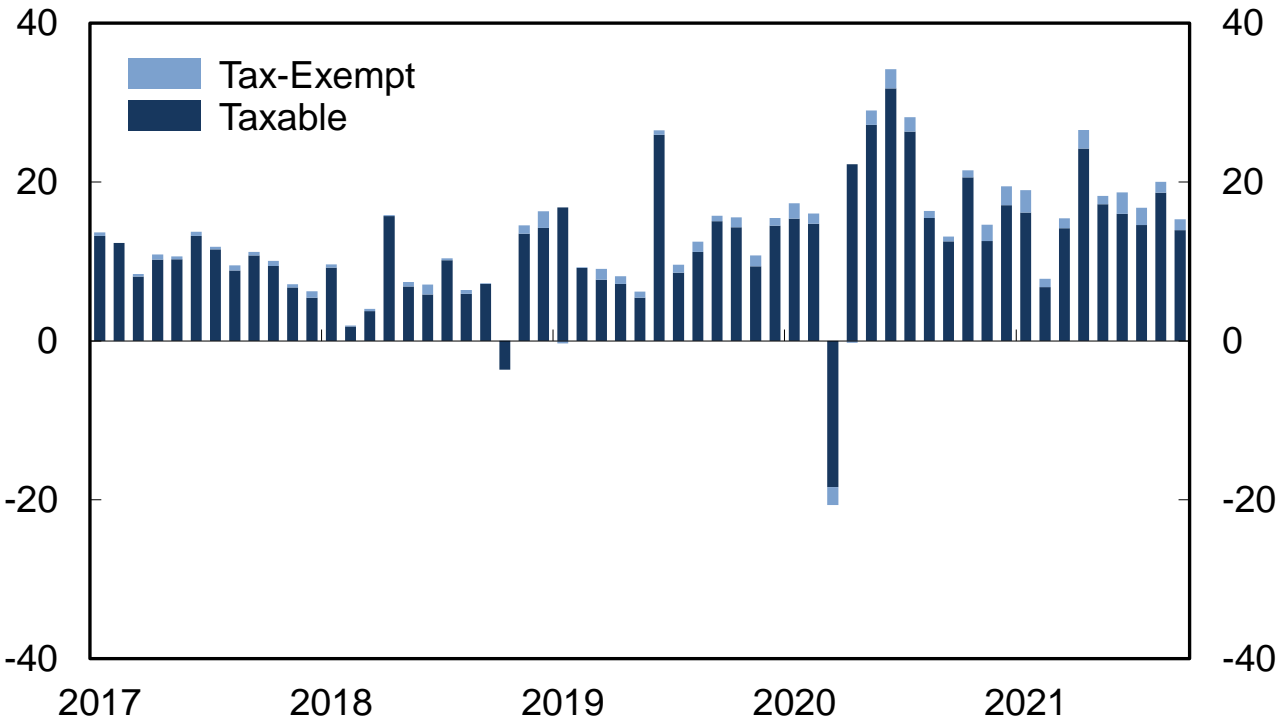
Source: Morningstar, Inc.

### 3.5.2.17 Monthly ETP Flows: Fixed Income Funds

Billions of US\$

As Of: Sep-2021

Billions of US\$



Source: Morningstar, Inc.

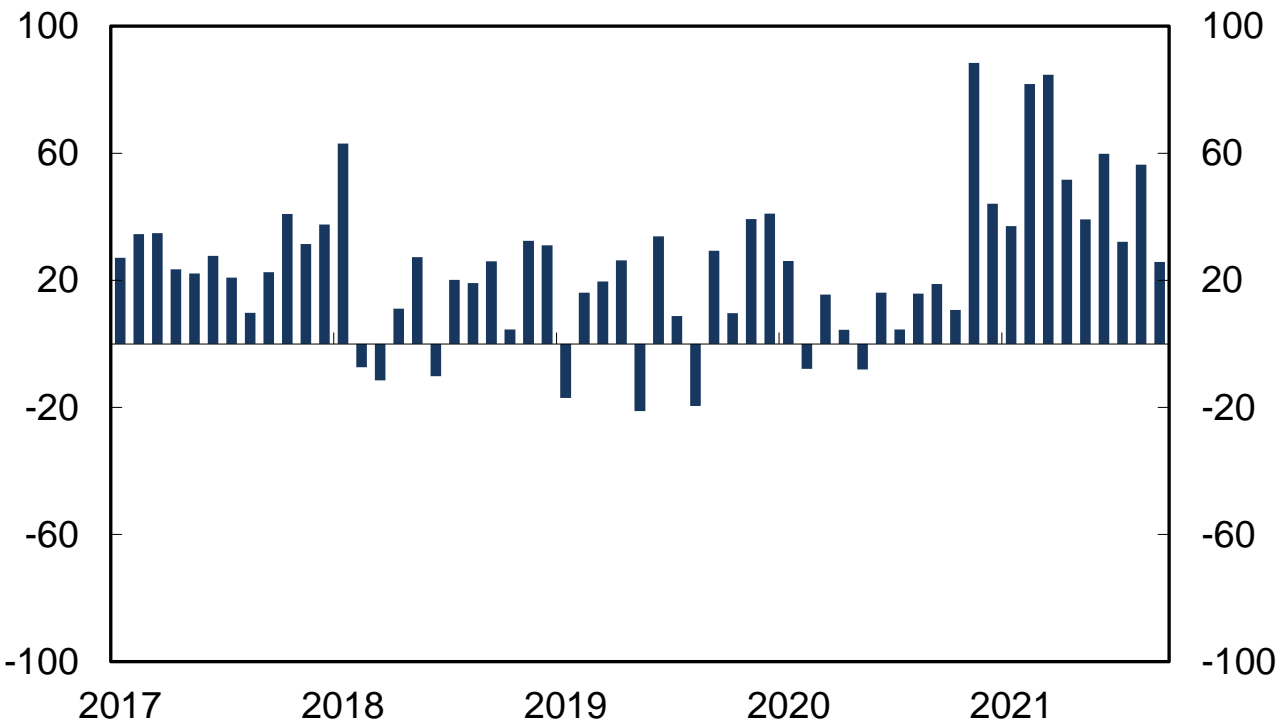
Note: Net fund flows.

### 3.5.2.18 Monthly ETP Flows: Equity Funds

Billions of US\$

As Of: Sep-2021

Billions of US\$



Source: Morningstar, Inc.

Note: Net fund flows.

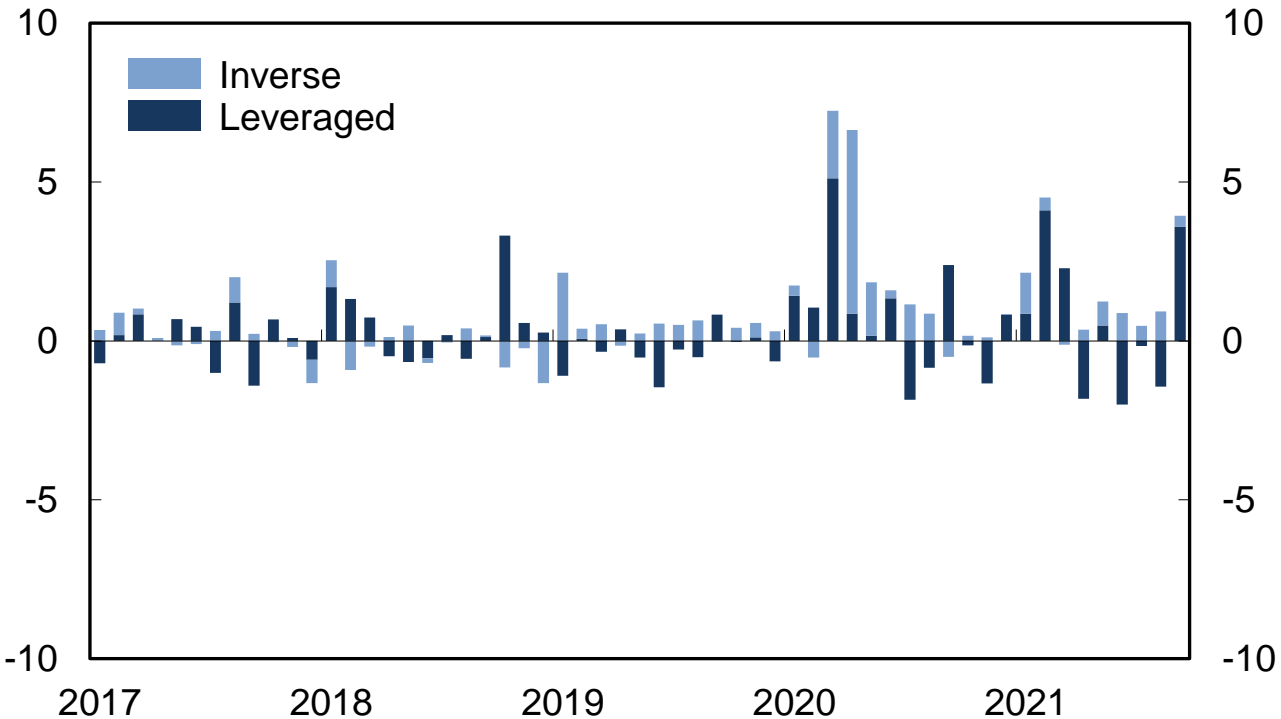


### 3.5.2.19 Monthly Inverse and Leveraged ETP Flows

Billions of US\$

As Of: Sep-2021

Billions of US\$



Source: Morningstar, Inc.

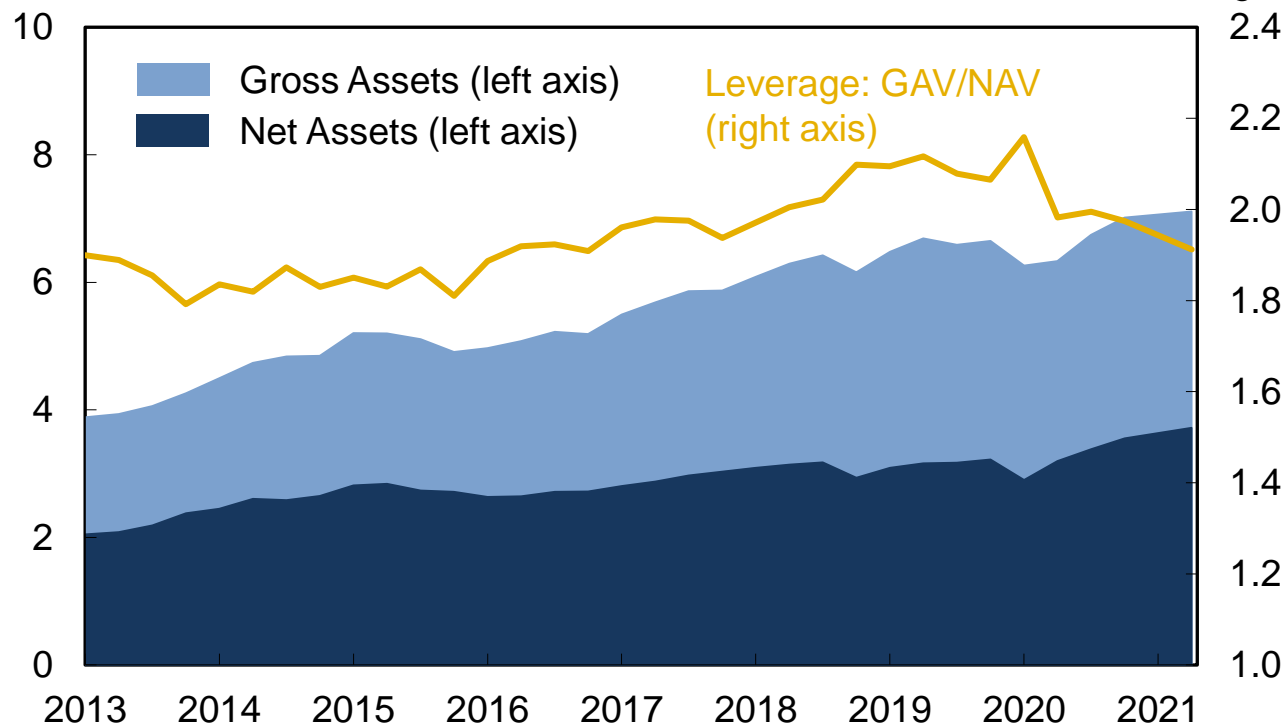
Note: Net fund flows.

### 3.5.2.20 Hedge Fund Gross and Net Assets

Trillions of US\$

As Of: 2021 Q1

Leverage



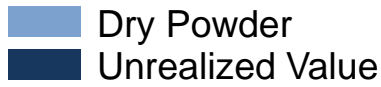
Note: Qualifying Hedge Fund gross and net assets as reported on Form PF Questions 8 and 9.

Source: SEC Form PF, OFR

Billions of US\$	As Of: 31-Dec-2020	Billions of US\$
------------------	--------------------	------------------

As Of: 31-Dec-2020

Billions of US\$



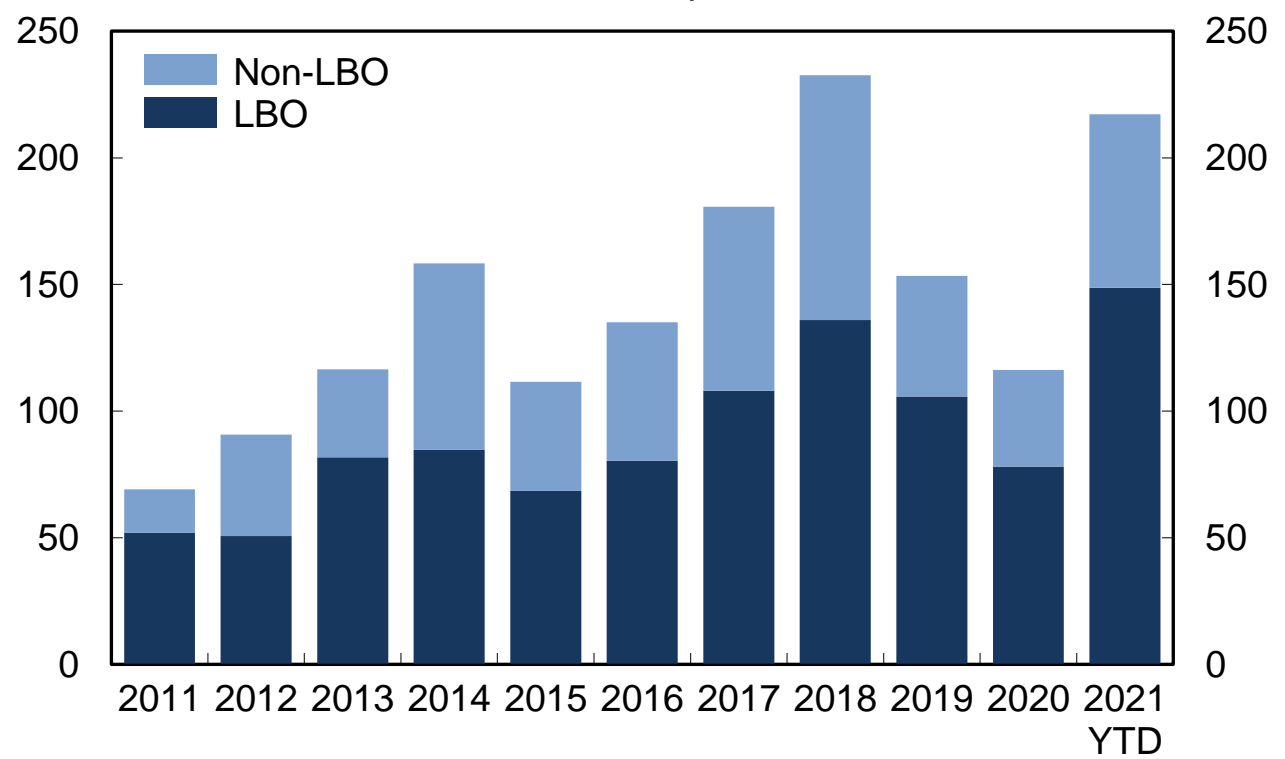
Source: Preqin

# 3.5.2.22 M&A Loan Volume for Private Equity-Backed Issuers

Billions of US\$

As Of: 30-Sep-2021

Billions of US\$



Source: S&P LCD

# D.1 Static Margin Model Example

US\$

160

120

80

40

0

Share Price at Inception

\$40 Increase in Share Price

**Position size: \$100**

**Financed: \$80**

**Initial margin**  
**\$20 = 20%**

**\$40 variation  
margin paid**

**Position size: \$140**

**Financed: \$120**

**Initial margin**  
**\$20 = 14.3%**

US\$

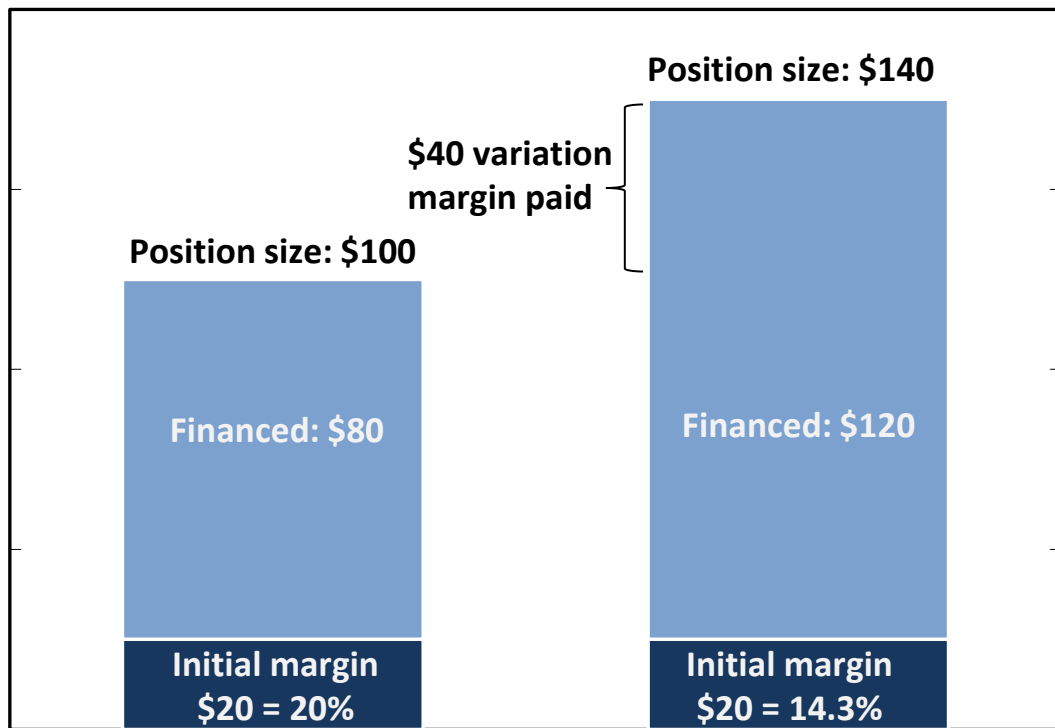
160

120

80

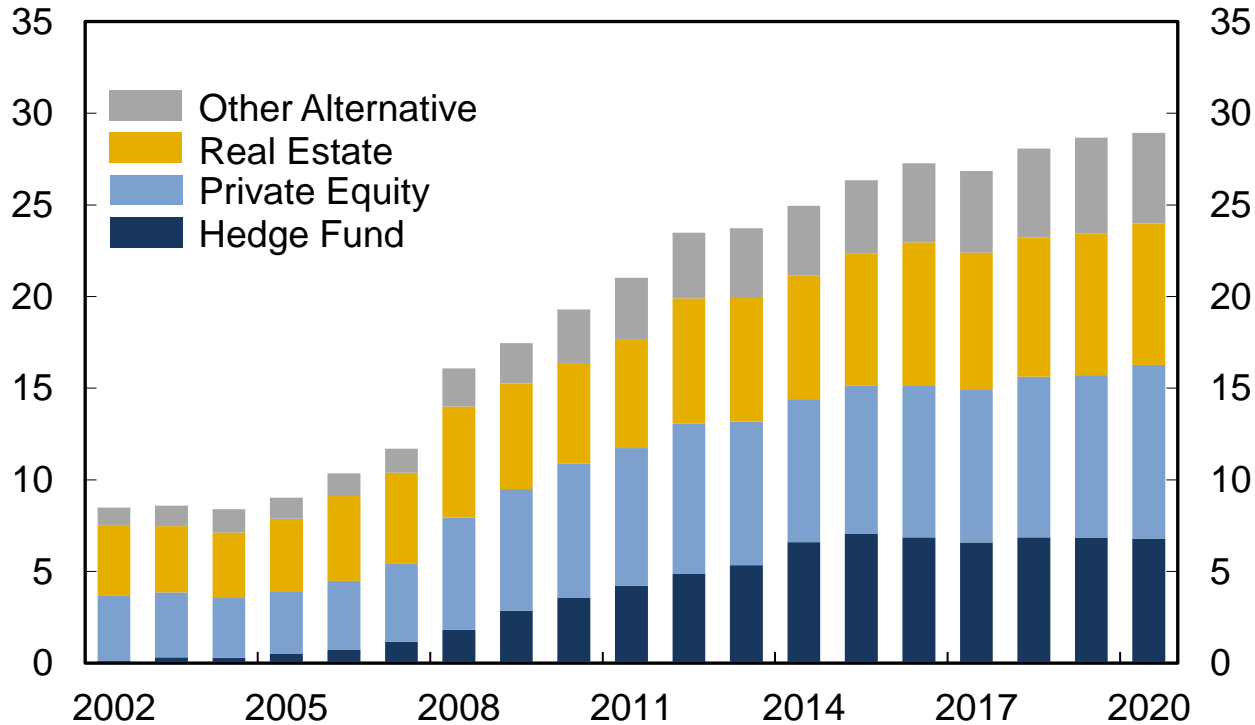
40

0



# 3.5.2.23 Public Plan Allocation to Alternative Assets

Percent As Of: 2020 Percent



Source: publicplansdata.org

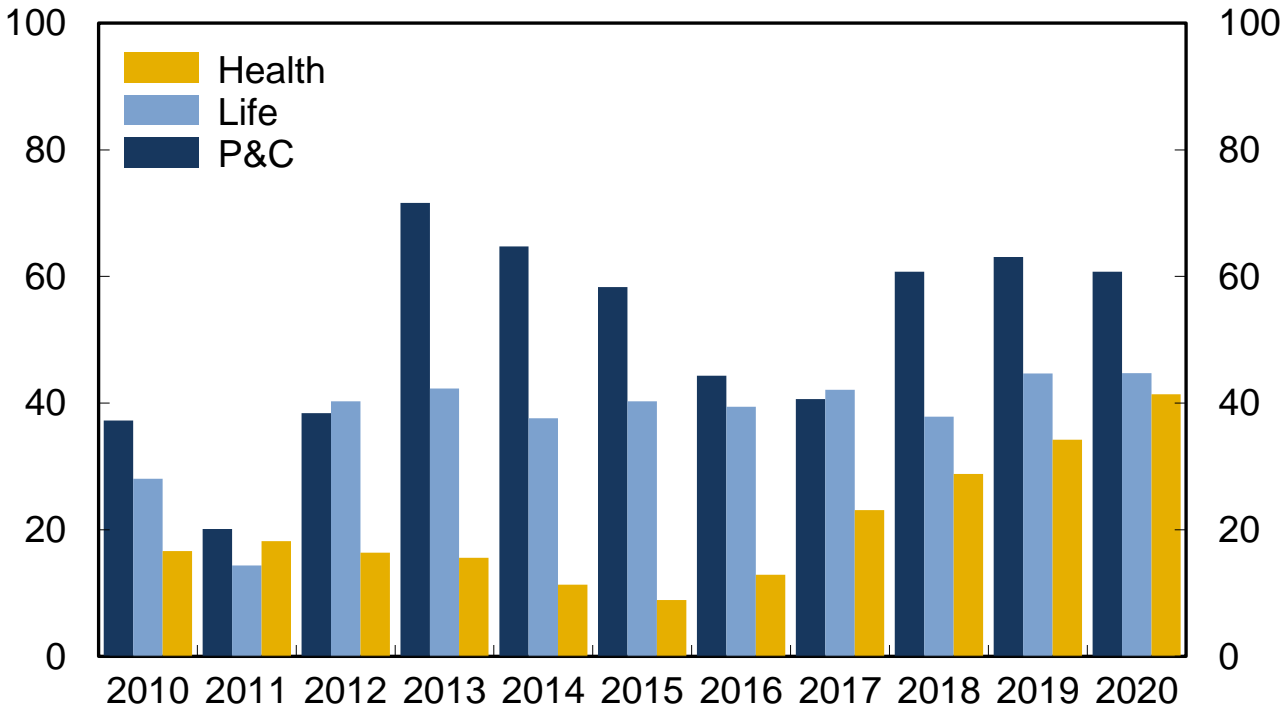
Note: Includes public plans that reported investment allocations from 2002-2020. Simple average.

### 3.5.2.24 Insurance Industry Net Income

Billions of US\$

As Of: 2020

Billions of US\$



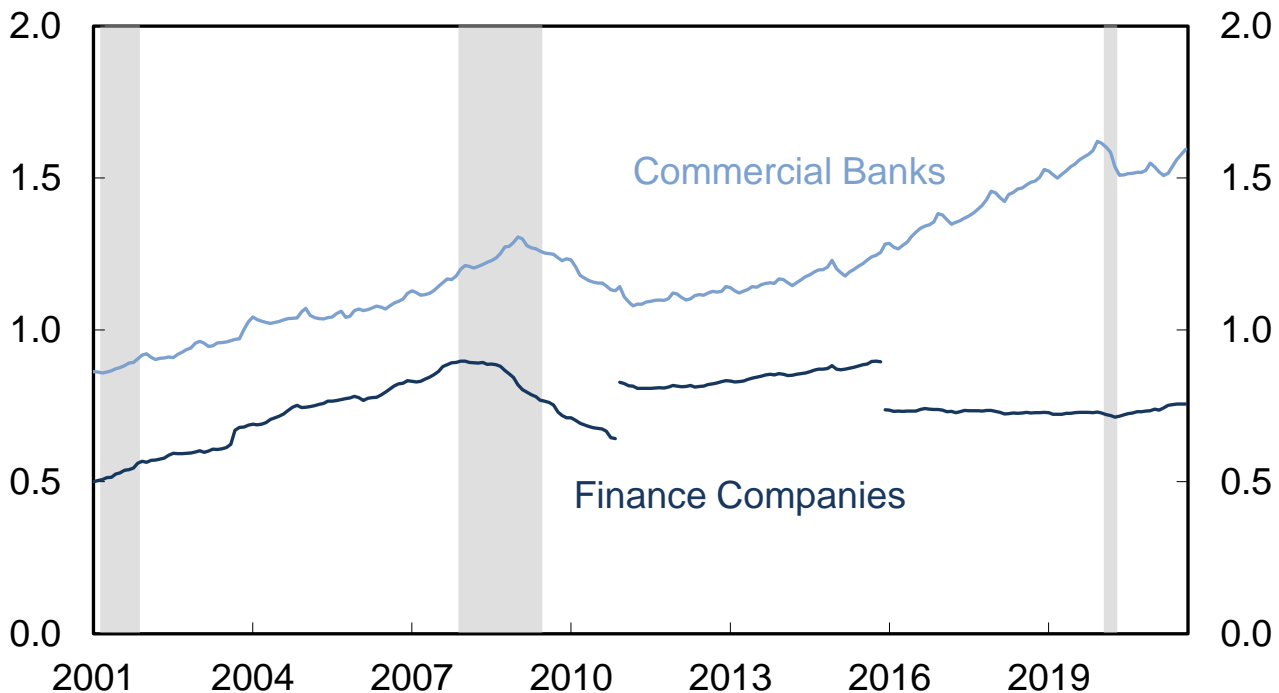
Source: NAIC

### 3.5.2.25 Consumer Loans and Leases Outstanding

Trillions of US\$

As Of: Aug-2021

Trillions of US\$



Source: Federal Reserve,  
Haver Analytics

Note: Loans and leases owned and securitized. Series breaks in December 2010 and December 2015 due to change in data collection methodology. Gray bars signify NBER recessions.

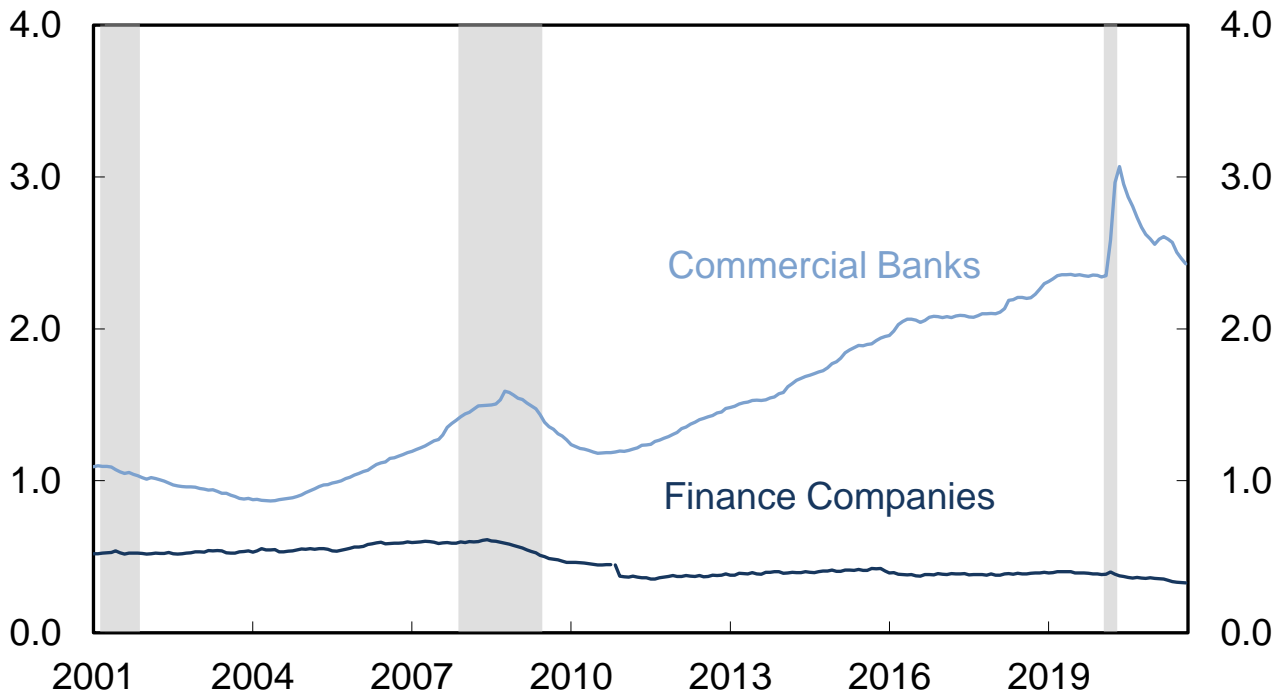


### 3.5.2.26 Business Loans and Leases Outstanding

Trillions of US\$

As Of: Aug-2021

Trillions of US\$



Source: Federal Reserve,  
Haver Analytics

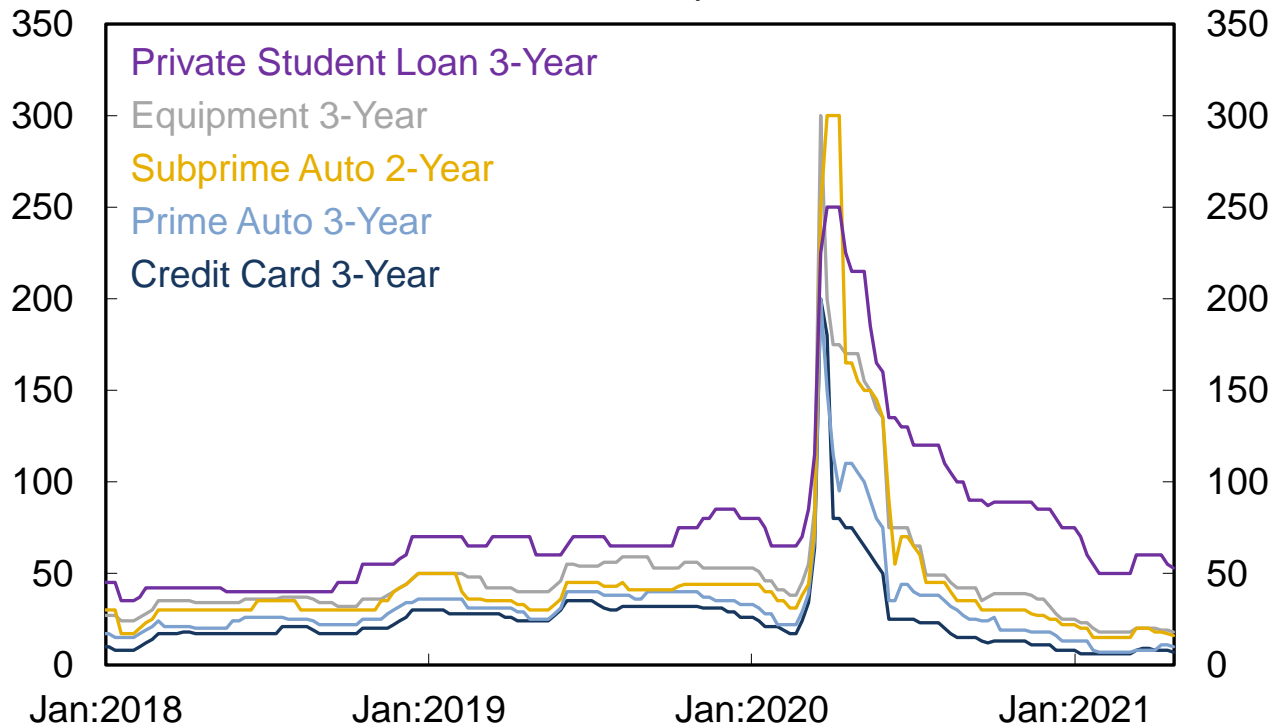
Note: Loans and leases owned and securitized. Series break in December 2010 due to change in data collection methodology. Gray bars signify NBER recessions.

### 3.5.2.27 AAA Securitization Spreads

## Basis Points

As Of: 30-Sep-2021

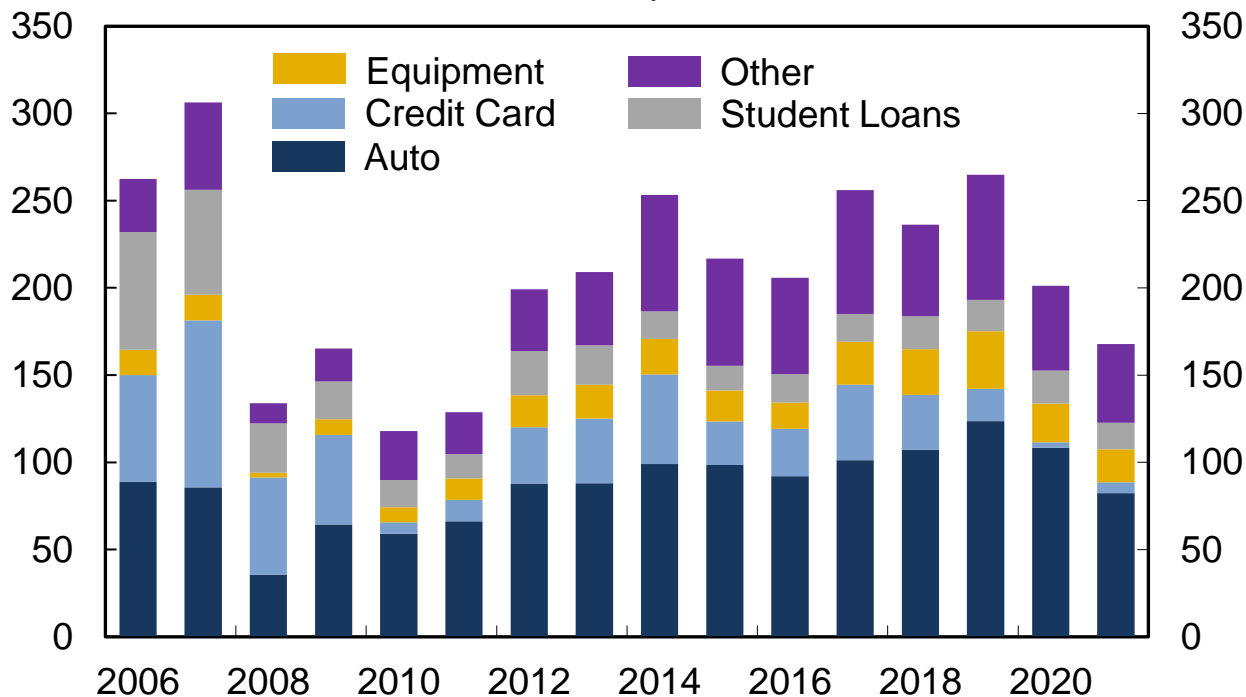
## Basis Points



Source: JPMorgan

### 3.5.2.28 ABS Issuance

Billions of US\$ As Of: Sep-2021 Billions of US\$



Source: Thomson Reuters, SIFMA

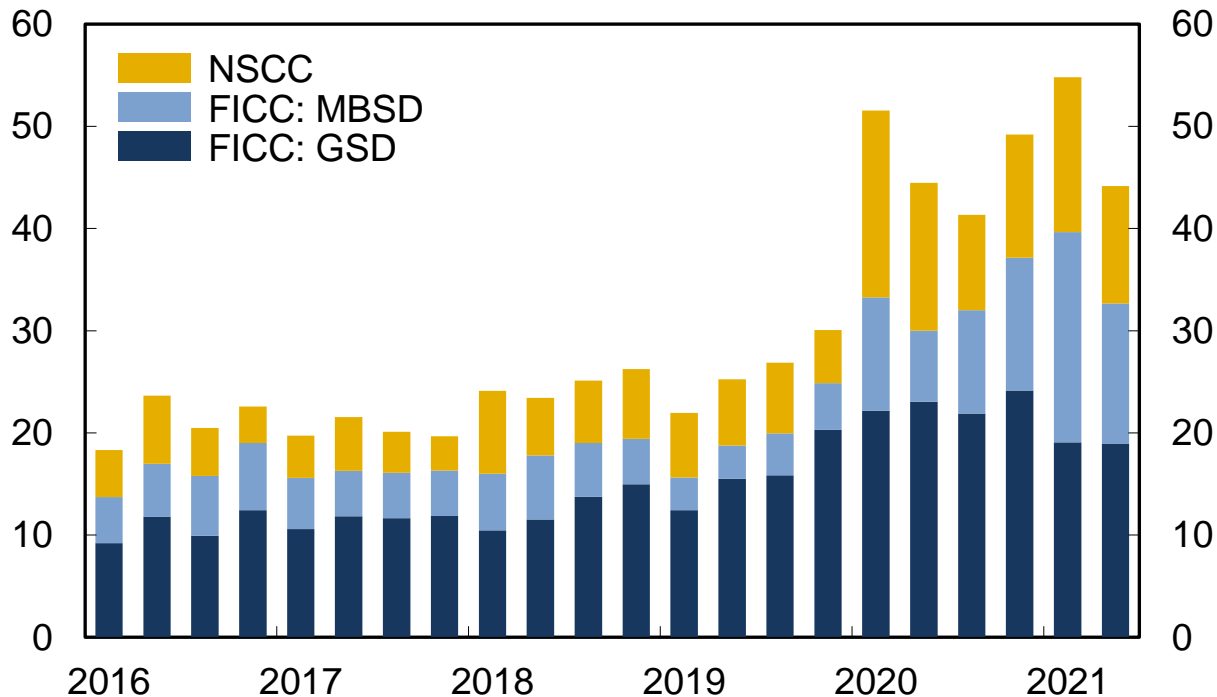
Note: Figures are as of year end through 2020.  
2021 figures are through September.

### 3.6.1.1 DTCC Clearing Fund Requirements

Billions of US\$

As Of: 2021 Q2

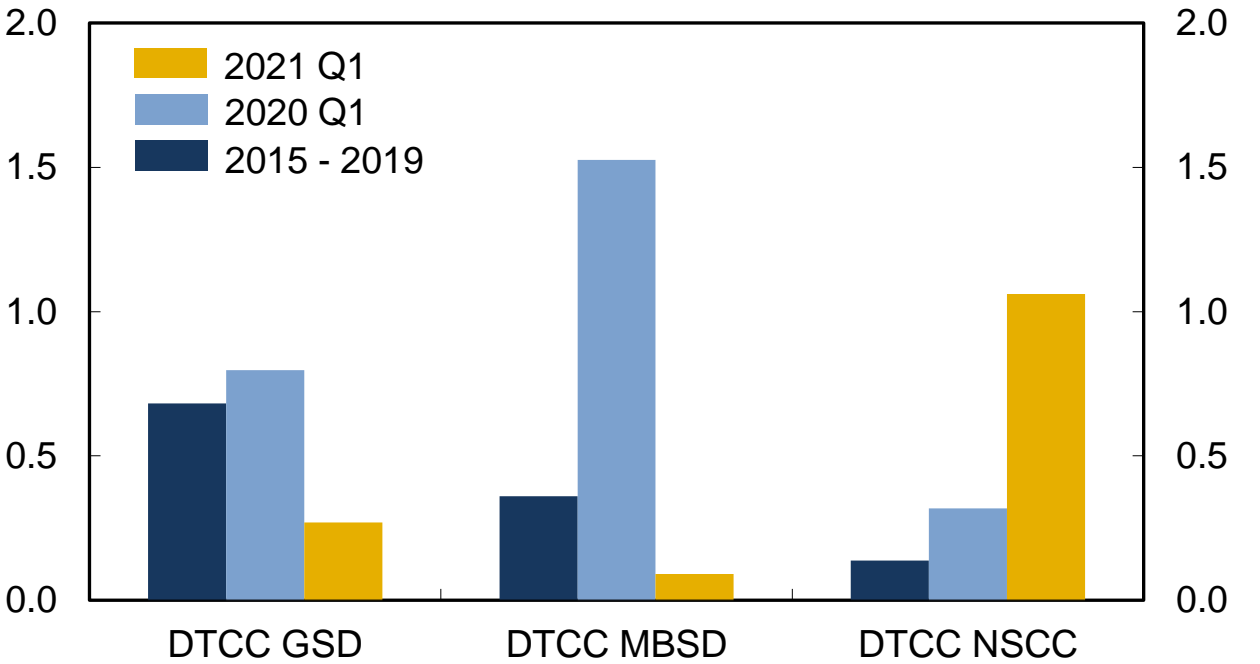
Billions of US\$



Source: PFMI Quantitative Disclosures, Clarus FT

# 3.6.1.2 Maximum Uncovered Exposure for DTCC

Billions of US\$ As Of: 2021 Q1 Billions of US\$

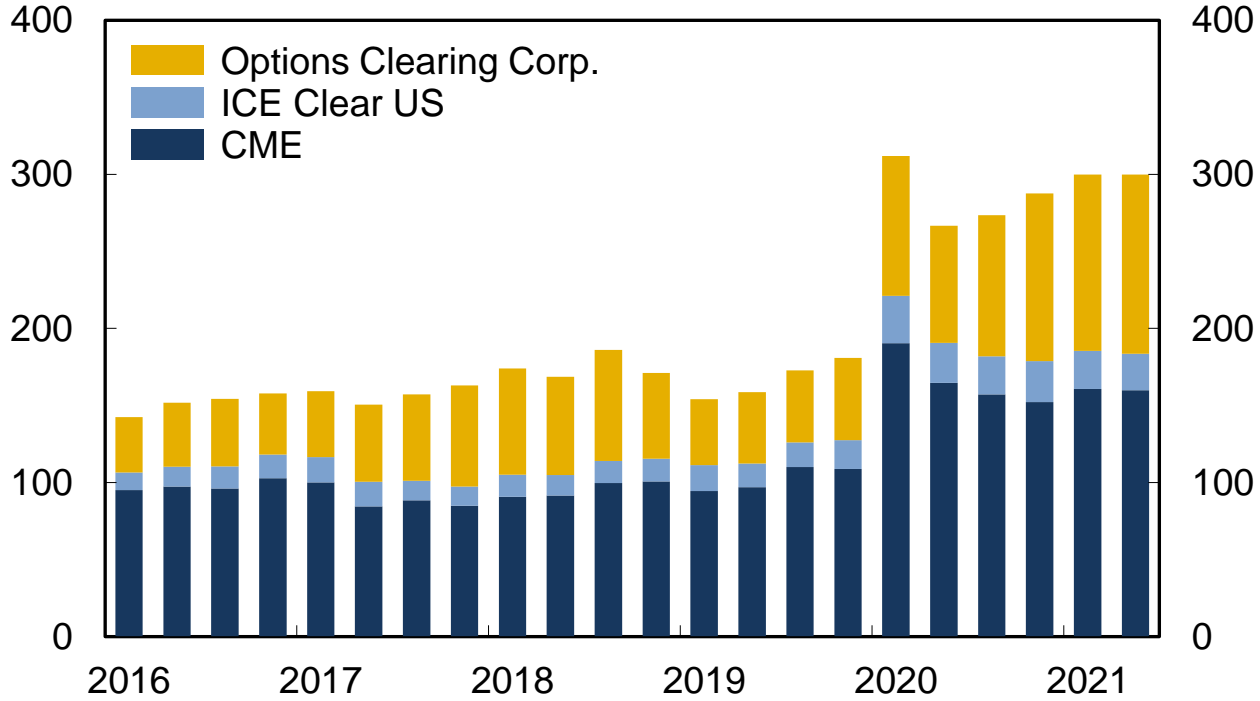


PFMI Quantitative Disclosures, Clarus FT

Note: Peak uncovered exposure for preceding 12 months as reported on question 6.5.4 of PFMI quarterly disclosures.

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

Billions of US\$ As Of: 2021 Q2 Billions of US\$

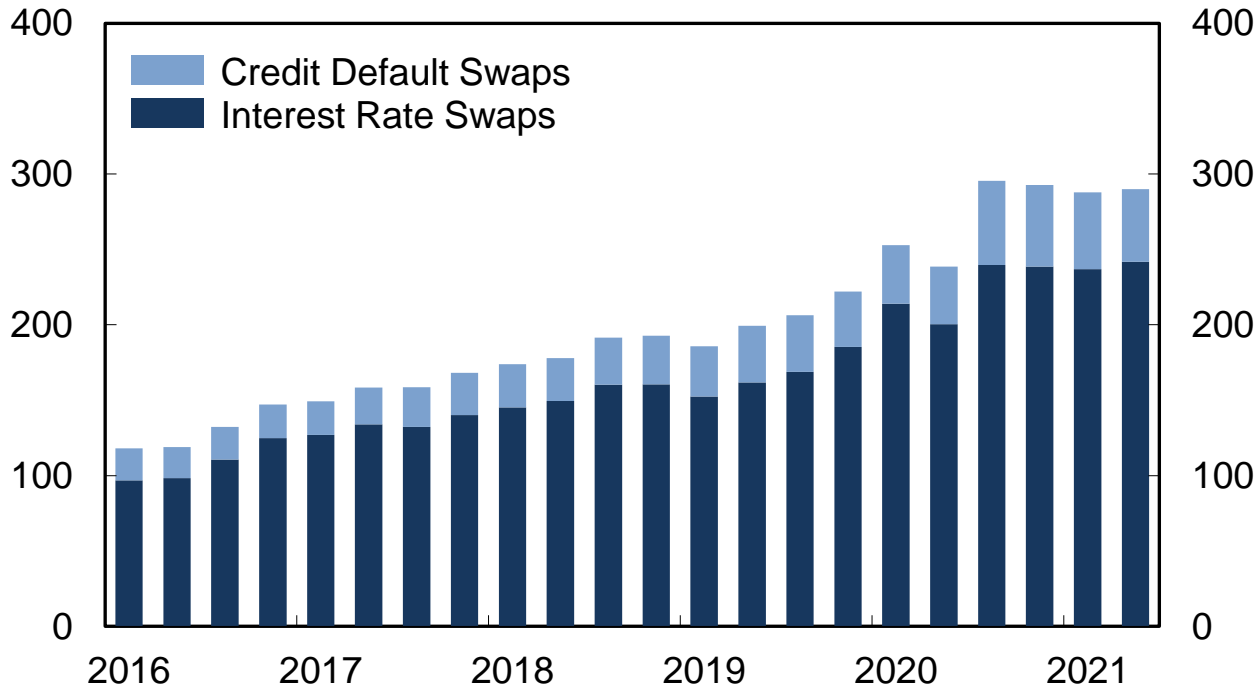


Source: PFMI Quantitative Disclosures, Clarus FT

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

# 3.6.1.4 Initial Margin: Centrally Cleared OTC Derivatives

Billions of US\$ As Of: 2021 Q2 Billions of US\$



Source: PFMI Quantitative Disclosures, Clarus FT

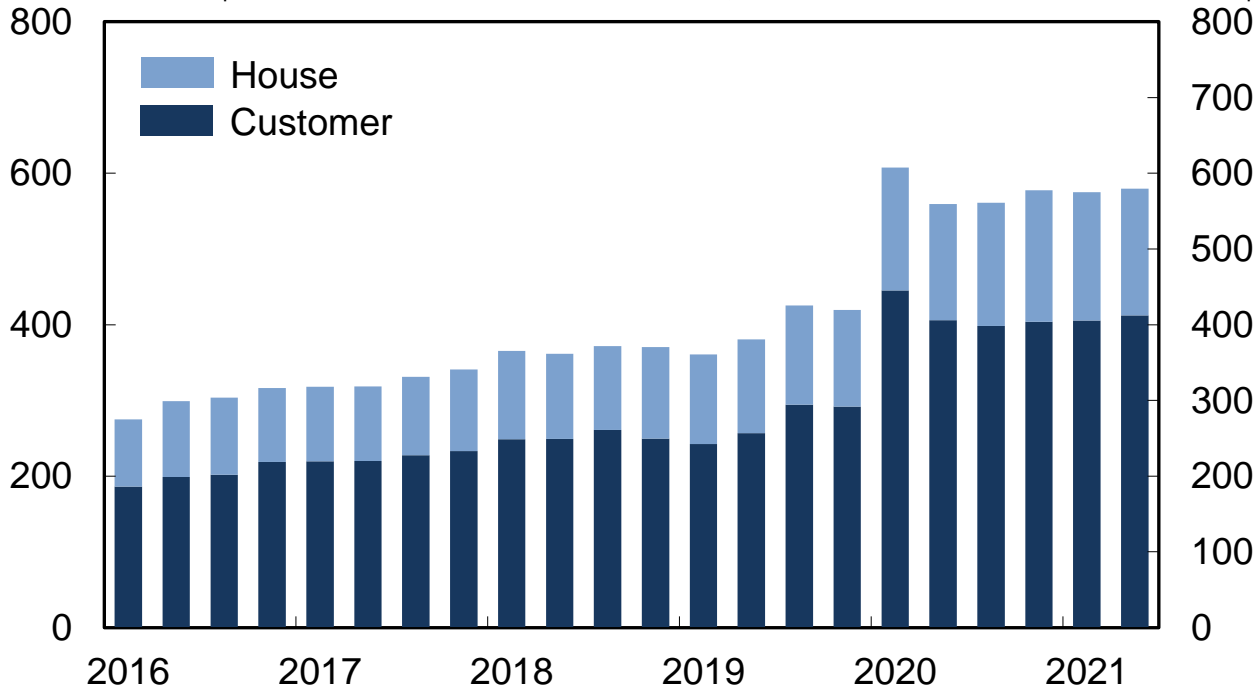
Note: Initial margin required as reported in quantitative disclosures; includes house and client accounts. Interest rate swaps margin includes LCH Ltd. and CME. CDS margin include CME, ICC, ICEU, and LCH SA). CME ceased clearing CDS in March 2018.

### 3.6.1.5 Initial Margin by Segregation Type

Billions of US\$

As Of: 2021 Q2

Billions of US\$



Source: PFMI Quantitative Disclosures, Clarus FT

Note: Initial margin required as reported in quantitative disclosures; includes exchange-traded derivatives (Options Clearing Corp., CME, and ICUS), interest rate swaps (LCH Ltd. and CME), and CDS (CME, ICC, ICEU, and LCH SA). CME ceased clearing CDS in March 2018.

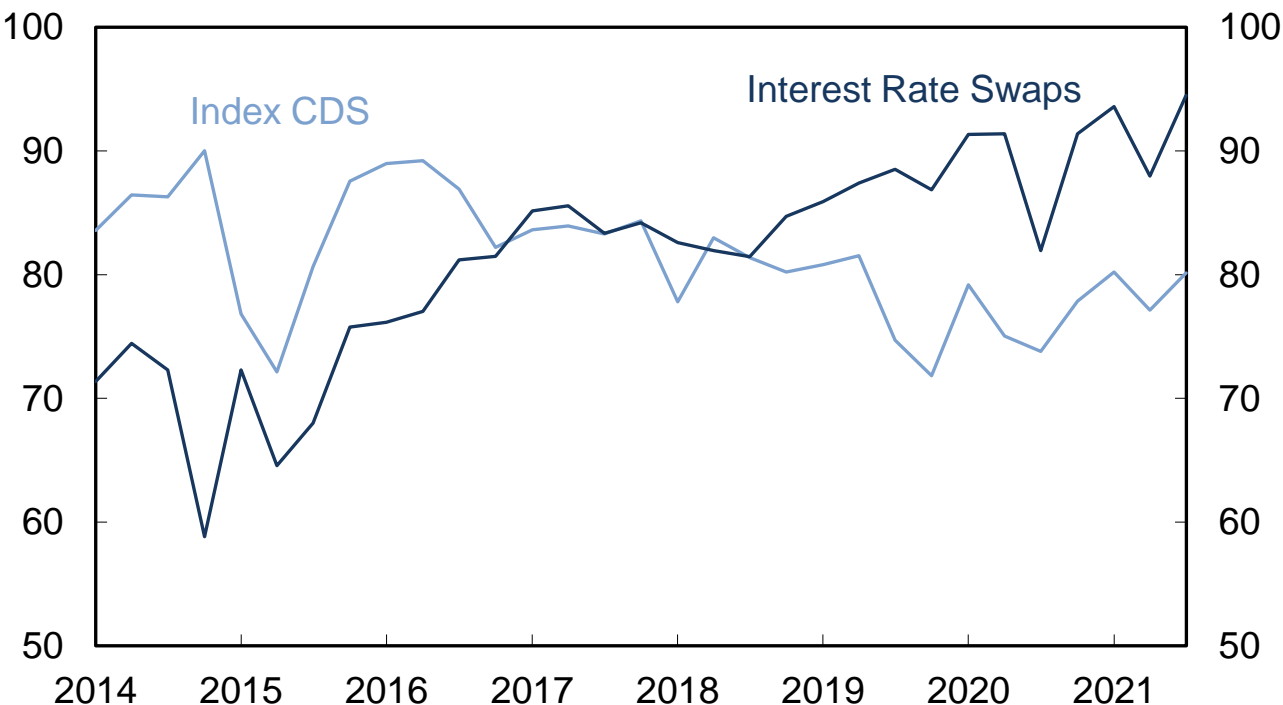


### 3.6.1.6 Average Clearing Rates for OTC Trading

Percent

As Of: 2021 Q3

Percent



Source: CFTC

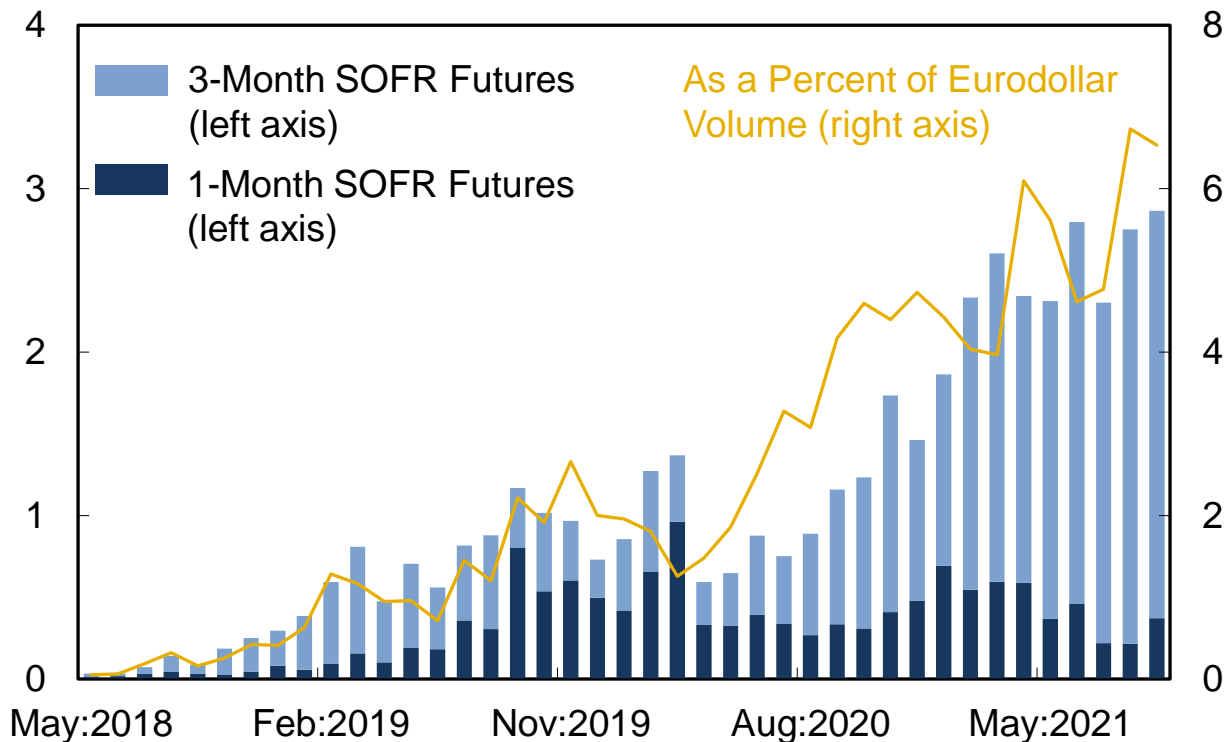
Note: Gross notional of new transactions.  
Excludes security-based swaps.

# E.1 SOFR Futures Volume

Millions of Contracts

As Of: Sep-2021

Percent



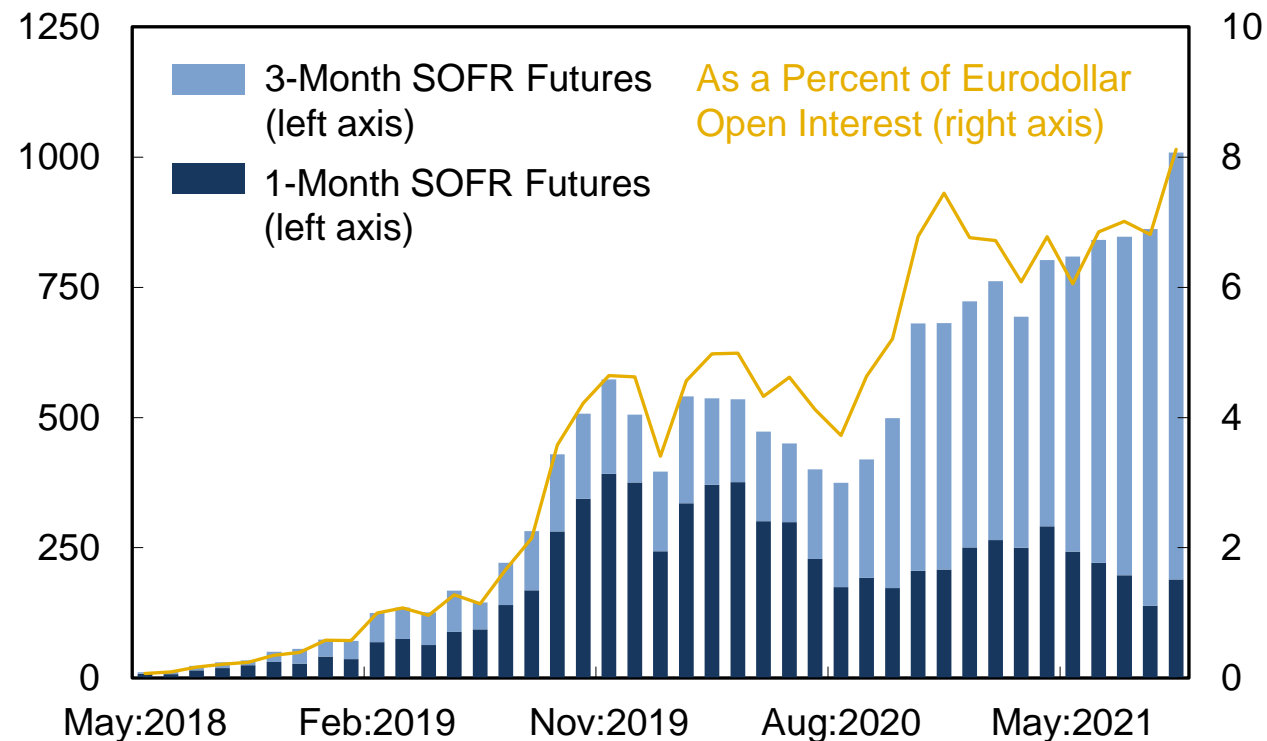
Source: CME, Bloomberg, L.P.

# E.2 SOFR Futures Open Interest

Millions of Contracts

As Of: Sep-2021

Percent



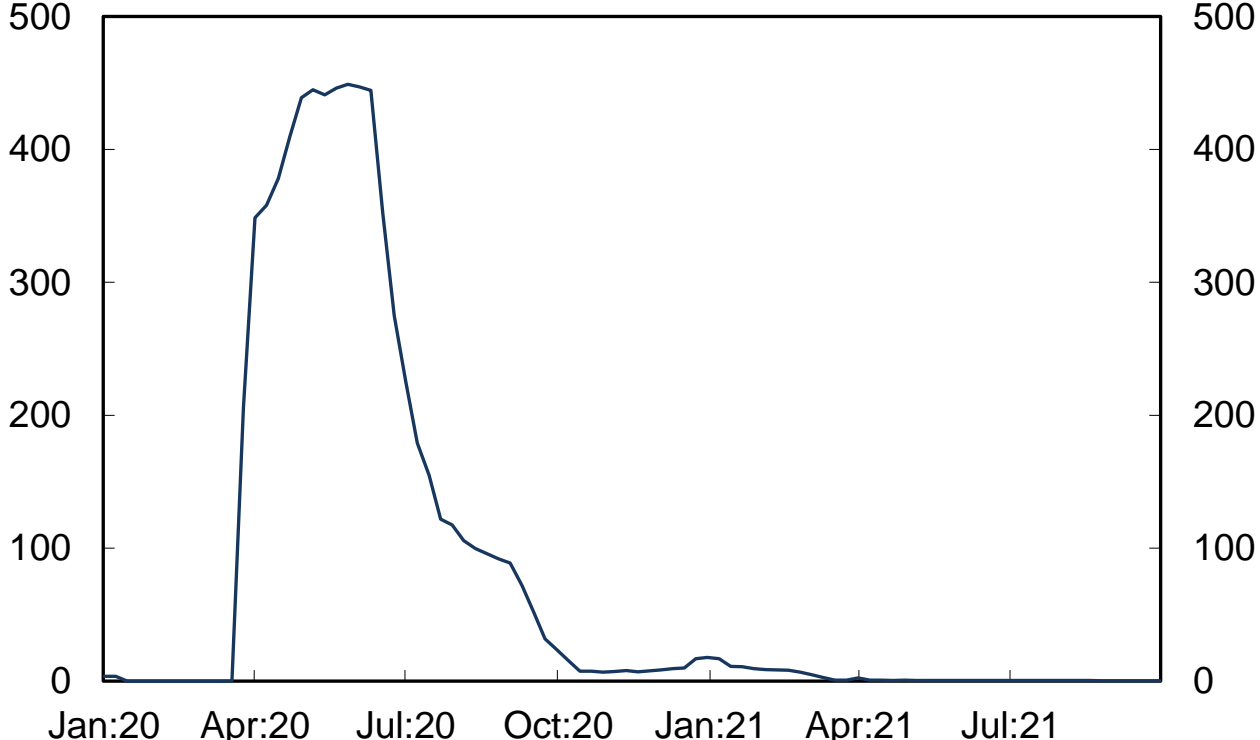
Source: CME, Bloomberg, L.P.

### 3.7.1.1 Federal Reserve Swap Lines

Billions of US\$

As Of: 29-Sep-2021

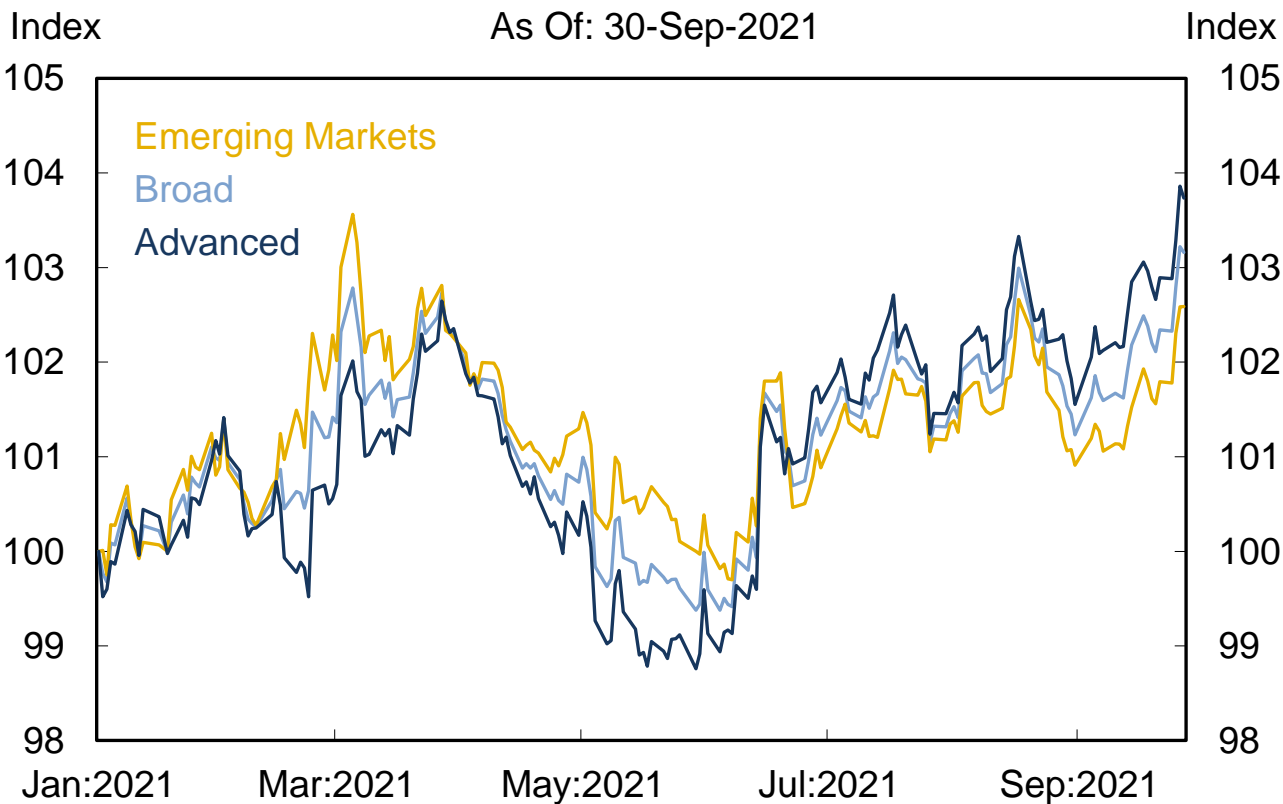
Billions of US\$



Source: Federal Reserve

Note: Wednesday levels.

### 3.7.1.2 Nominal U.S. Dollar Trade-Weighted Index



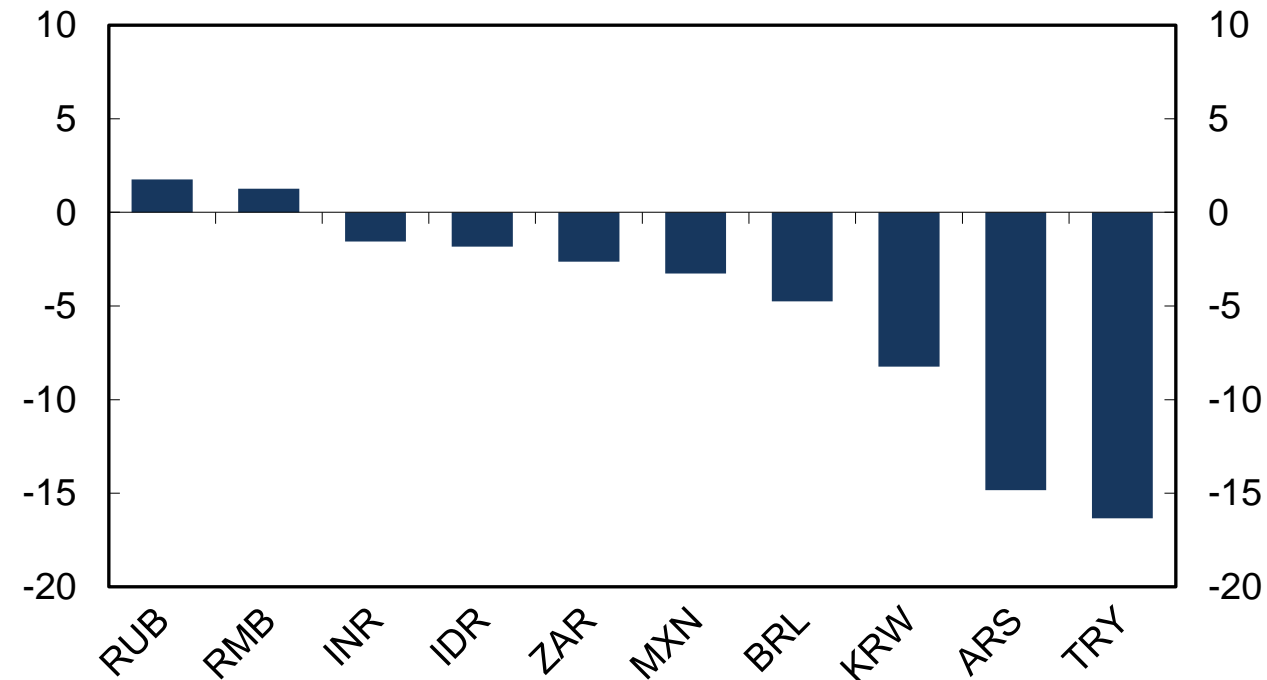
Source: Federal Reserve, Haver Analytics

### 3.7.1.3 YTD Change in USD Exchange Rates, EMEs

Percent

As Of: 30-Sep-2021

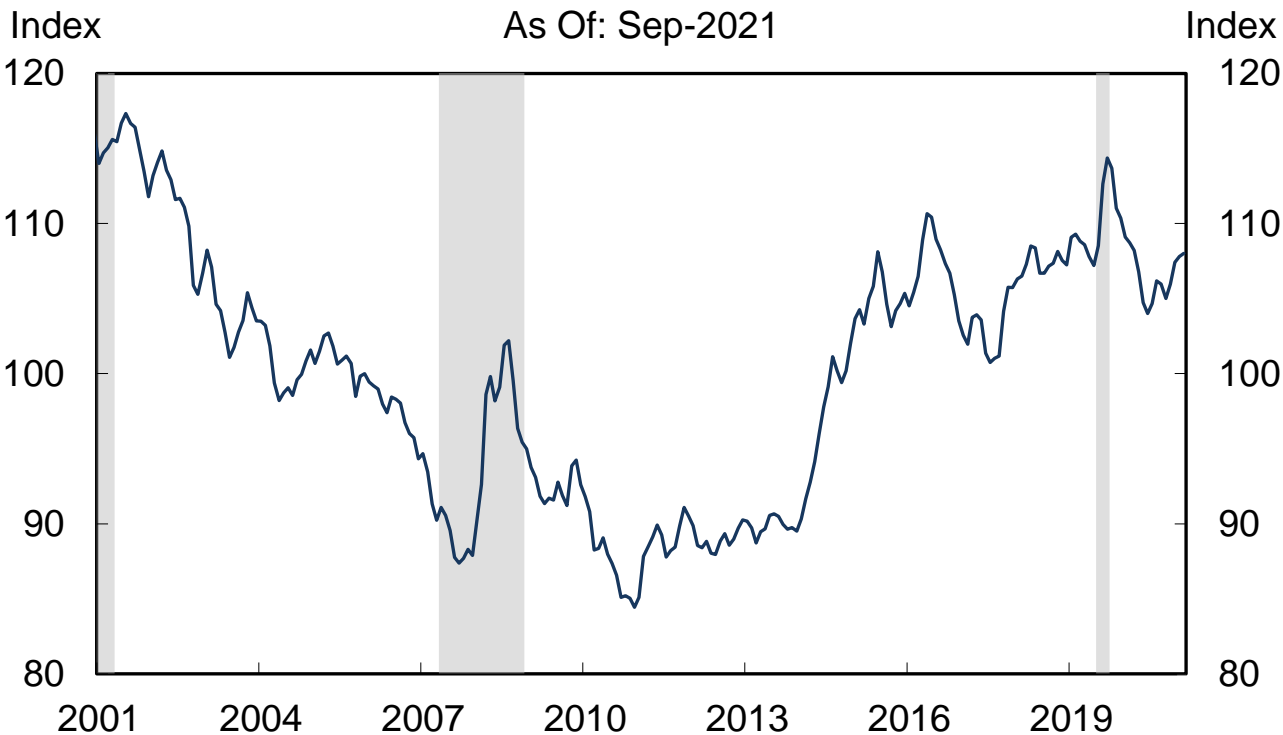
Percent



Source: Federal Reserve, Wall Street Journal, Haver Analytics

Note: Percent change relative to end-2020. Chinese renminbi (RMB), Korean won (KRW), Indian rupee (INR), Indonesian rupiah (IDR), Mexican peso (MXN), South African rand (ZAR), Russian ruble (RUB), Argentine peso (ARS), Turkish lira (TRY), Brazilian real (BRL). Positive indicates appreciation of listed currency.

### 3.7.1.4 Real U.S. Dollar Trade-Weighted Index



Source: Federal Reserve,  
Haver Analytics

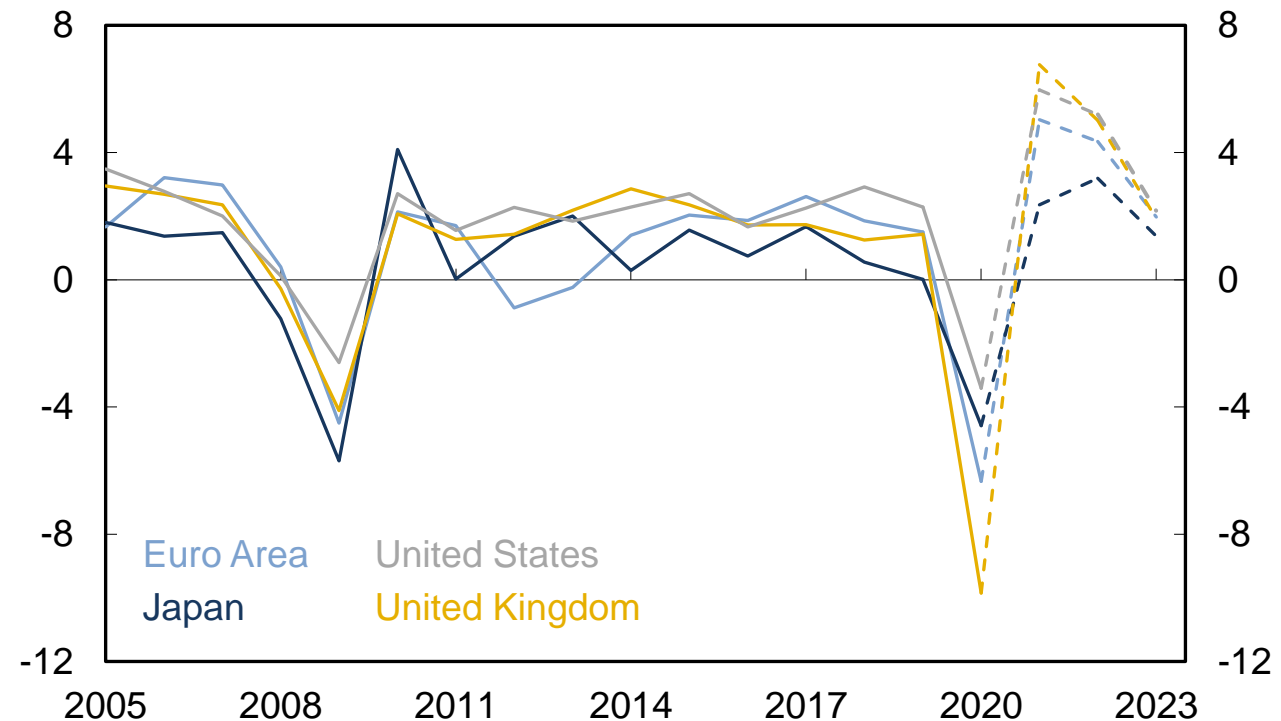
Note: Index shown as a share of its 20-year average. Real USD Trade-Weighted Index is a weighted average of the FX value of the USD against the currencies of a broad group of major U.S. trading partners. Gray bars signify NBER recessions.

### 3.7.2.1 Advanced Economies Real GDP Growth

Percent

As Of: Oct-2021

Percent



Source: IMF WEO,  
Haver Analytics

Note: Annual change in GDP, constant prices. Dotted lines  
represent the October 2021 projections for 2021-2023.

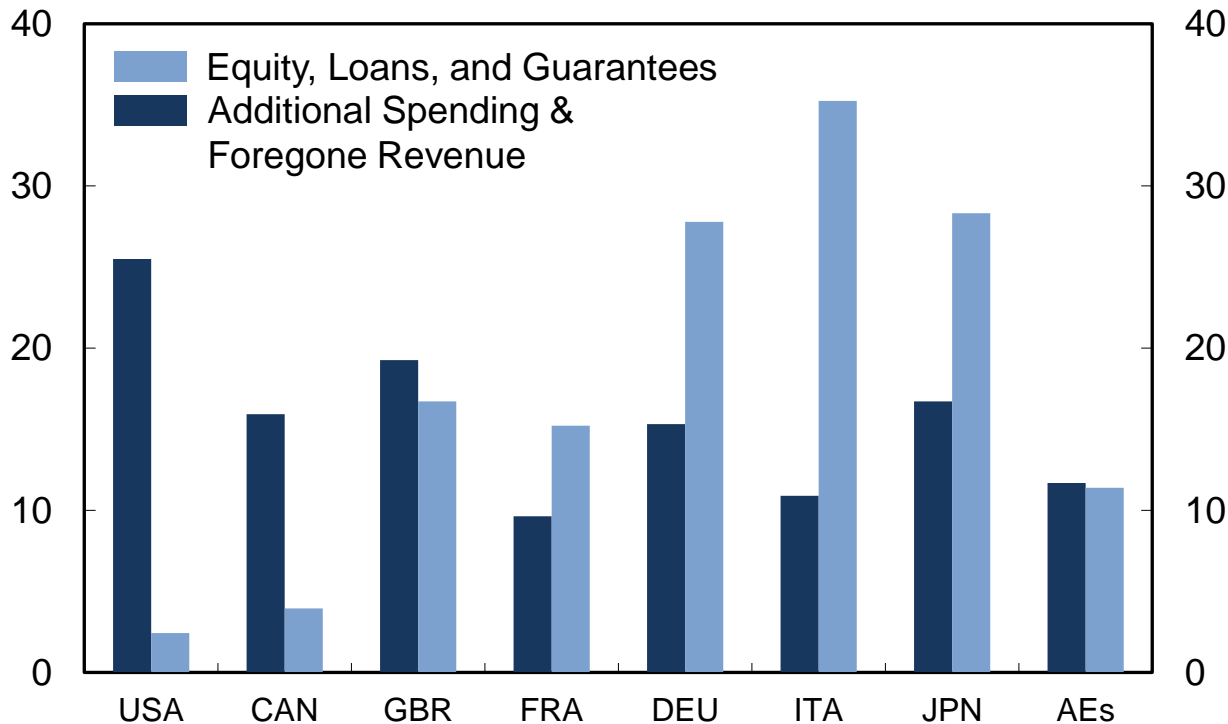


### 3.7.2.2 Discretionary Fiscal Response to the COVID-19 Pandemic

Percent of GDP

As Of: Oct-2021

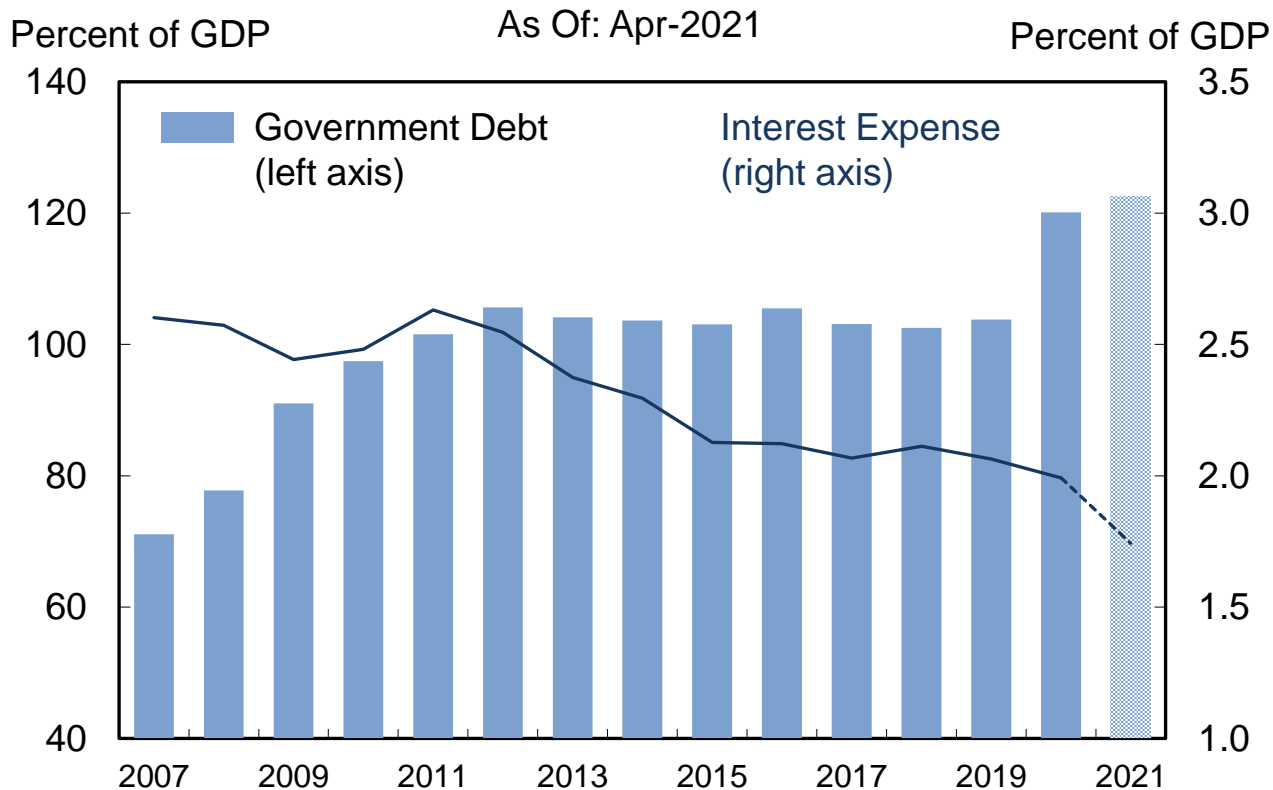
Percent of GDP



Source: IMF

Note: IMF Database of Country Fiscal Measures in Response to the COVID-19 Pandemic.

### 3.7.2.3 Advanced Economy Interest Expense and Government Debt

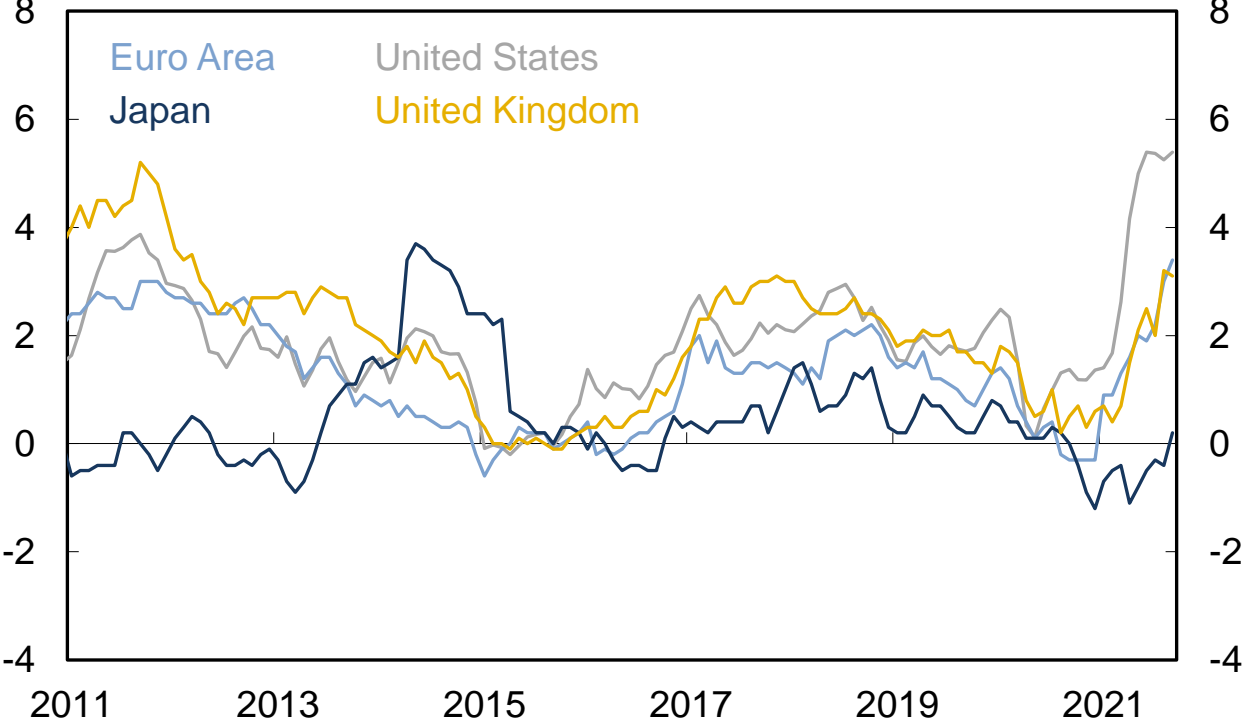


Source: IMF Fiscal Monitor

Note: 2021 projected.

# 3.7.2.4 Advanced Economy Headline Inflation Rate

Percent As Of: Sep-2021 Percent



Source: Bloomberg, L.P.

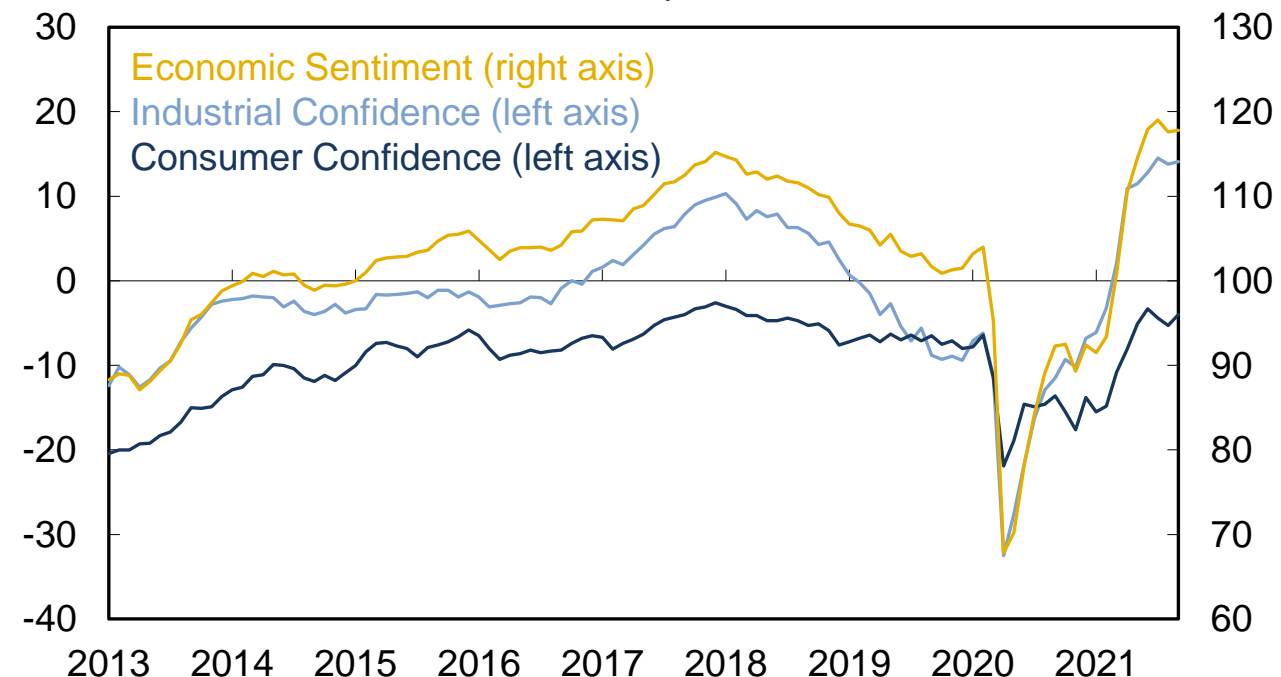
Note: Data represents year-over-year percentage change in headline inflation.

### 3.7.2.5 Euro Area Business and Consumer Surveys

Percent

As Of: Sep-2021

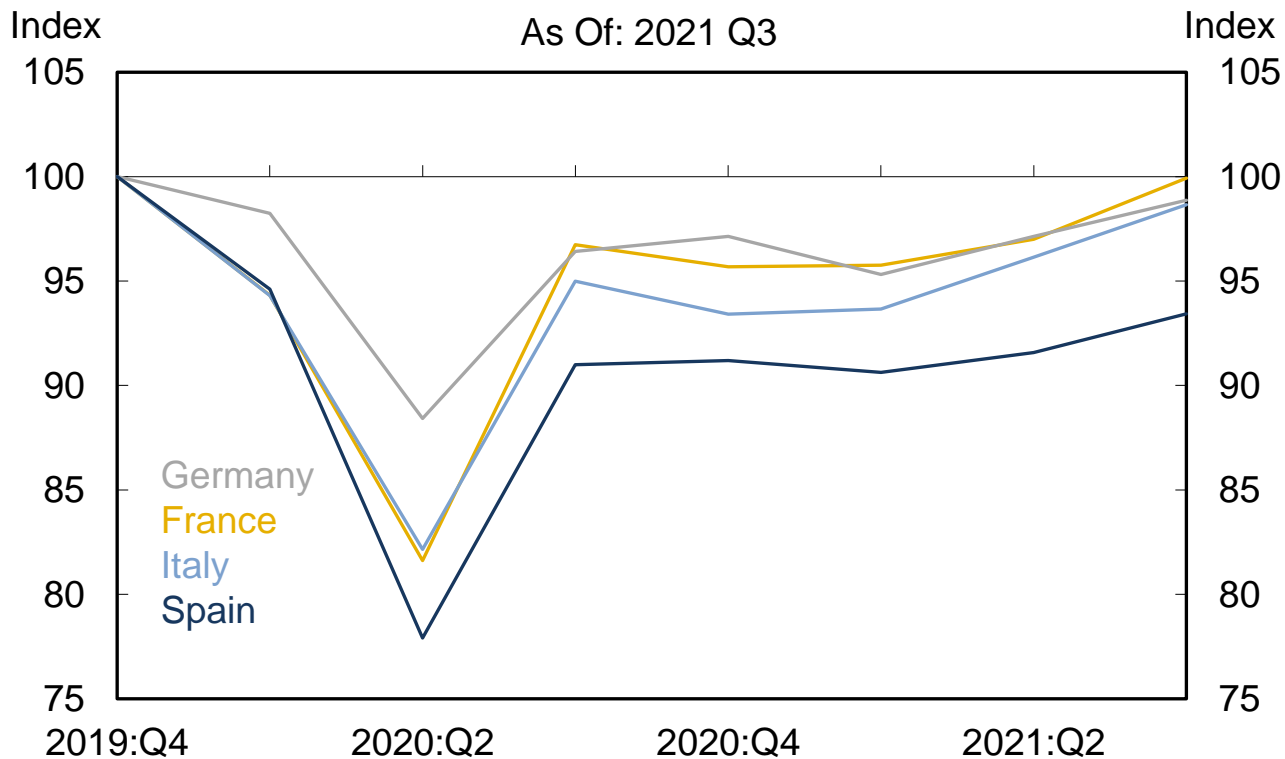
Index



Source: European  
Commission, Haver Analytics

Note: Confidence surveys calculated by subtracting the percentage of negative responses from the percentage of favorable responses. For economic sentiment index, 100 = long-term average.

### 3.7.2.6 Real GDP for Select Euro Area Economies



Source: European Commission,  
Haver Analytics

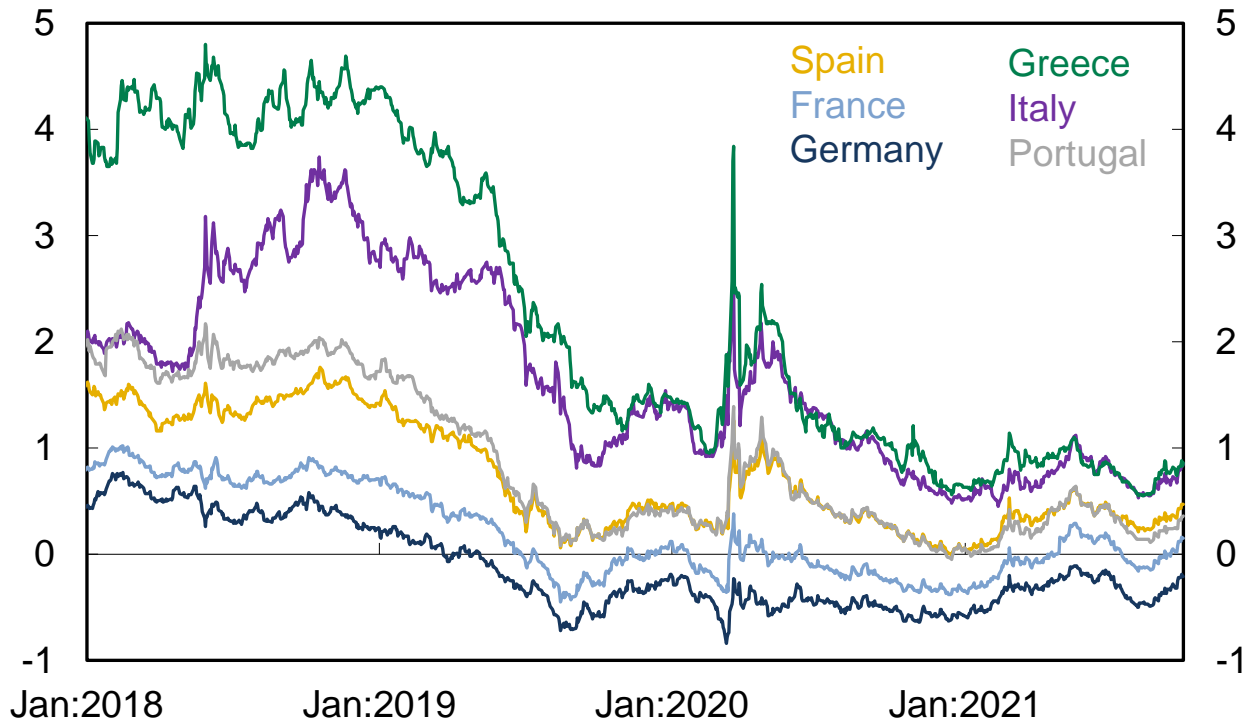
Note: Seasonally adjusted real GDP.  
Indexed to 100 as of 2019:Q4.

### 3.7.2.7 Euro Area 10-Year Sovereign Yields

Percent

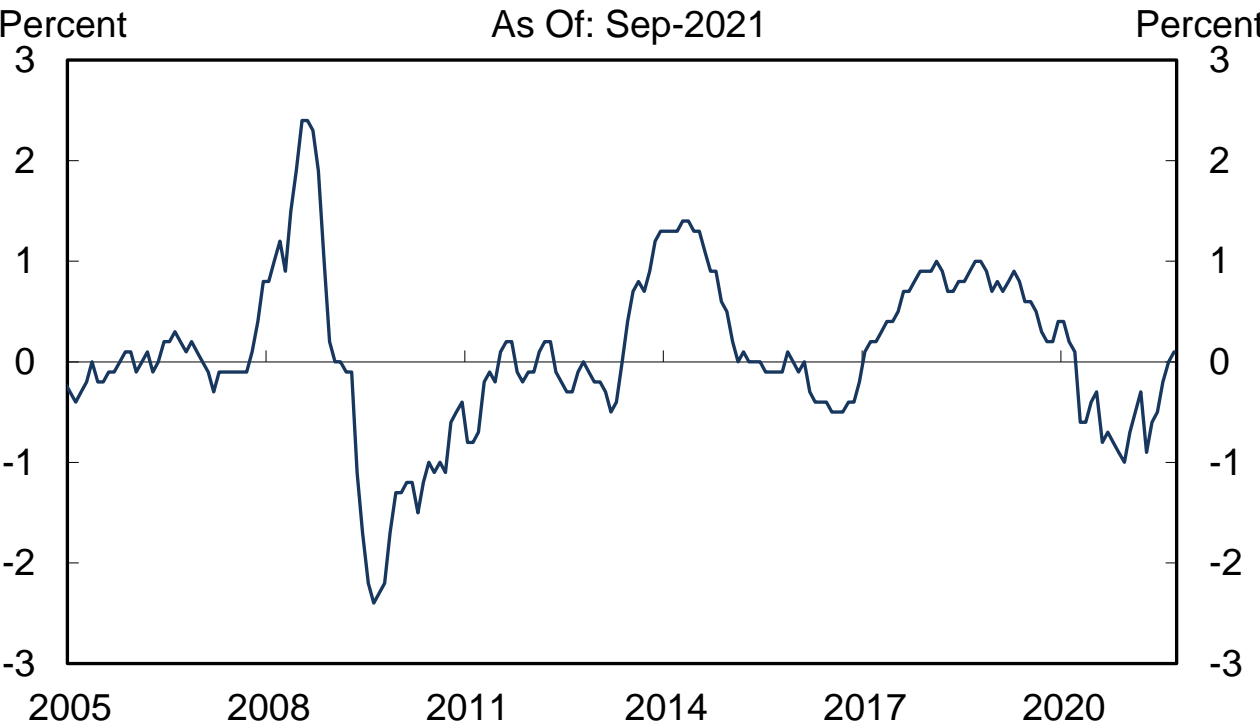
As Of: 30-Sep-2021

Percent



Source: Reuters, Haver Analytics

# 3.7.2.8 Japanese Consumer Price Inflation



Source: Bank of Japan,  
Haver Analytics

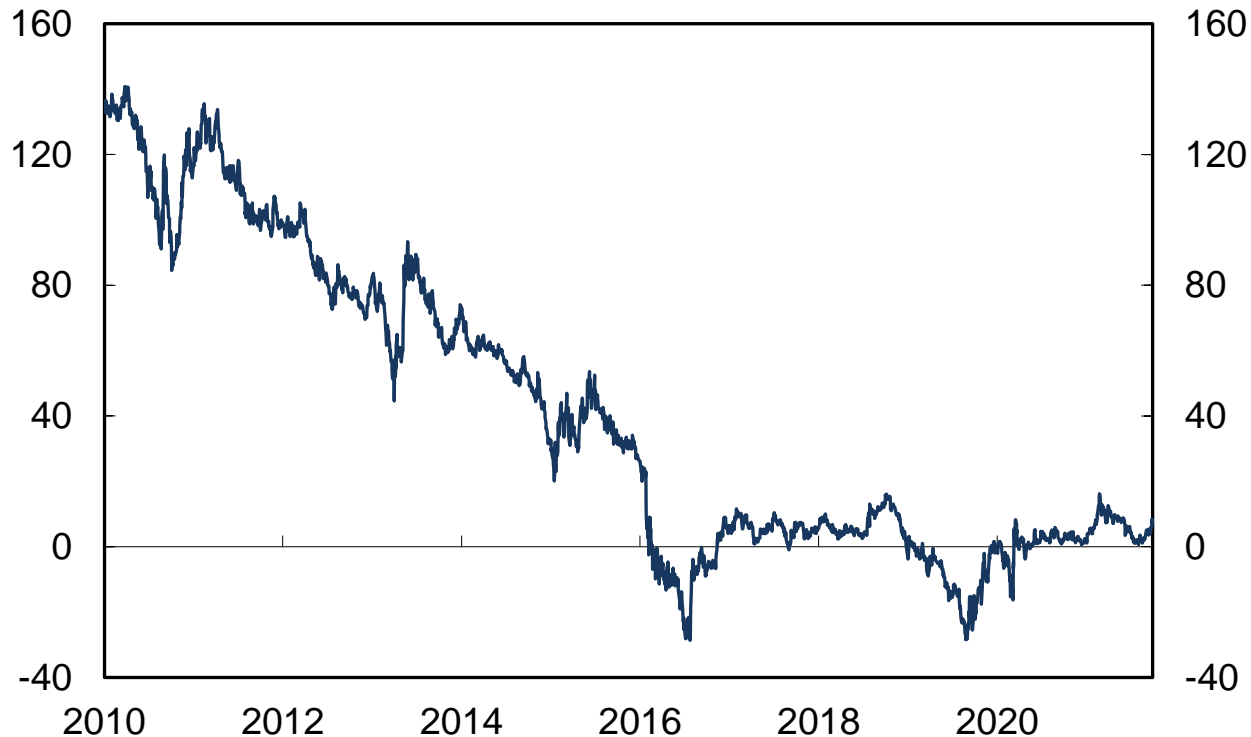
Note: Data represents year-over-year percentage change. CPI excludes fresh food and is adjusted for the consumption tax increase that took effect in April 2014.

### 3.7.2.9 Japan 10-Year Government Bond Yield

## Basis Points

As Of: 30-Sep-2021

## Basis Points



Source: Bloomberg, L.P.

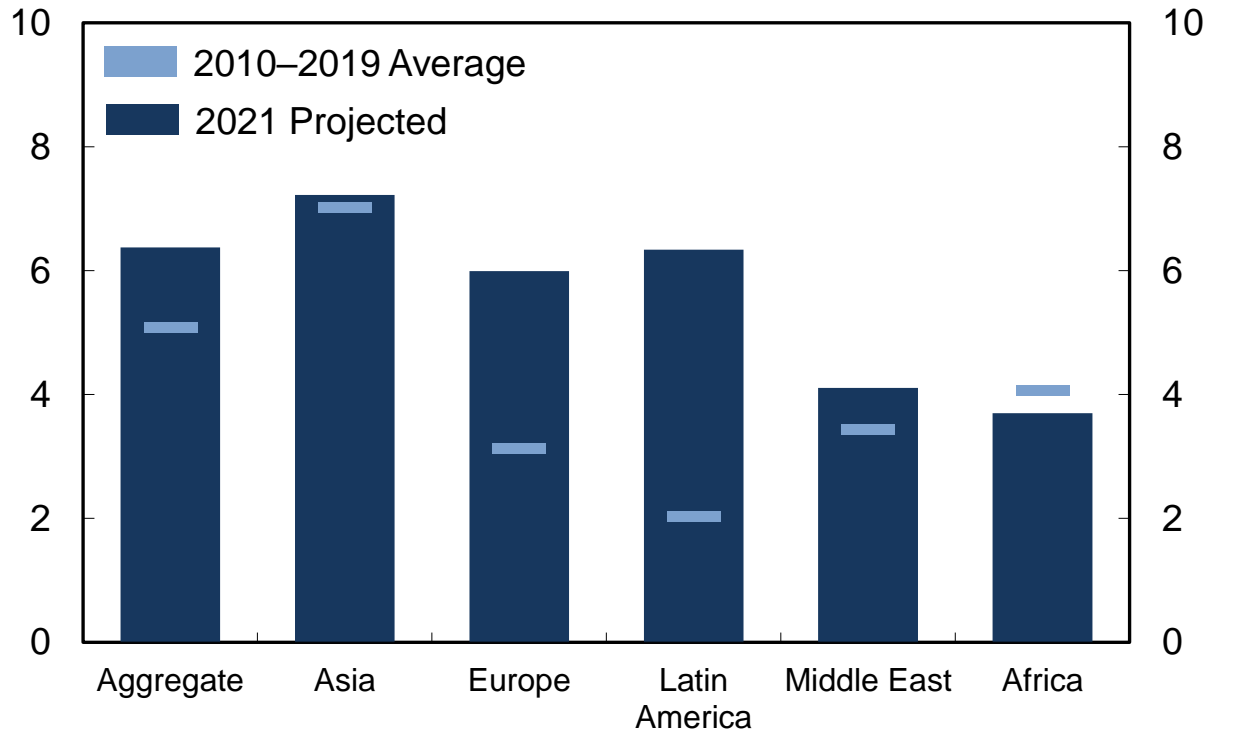


### 3.7.3.1 EME GDP Growth

Percent

As Of: Oct-2021

Percent



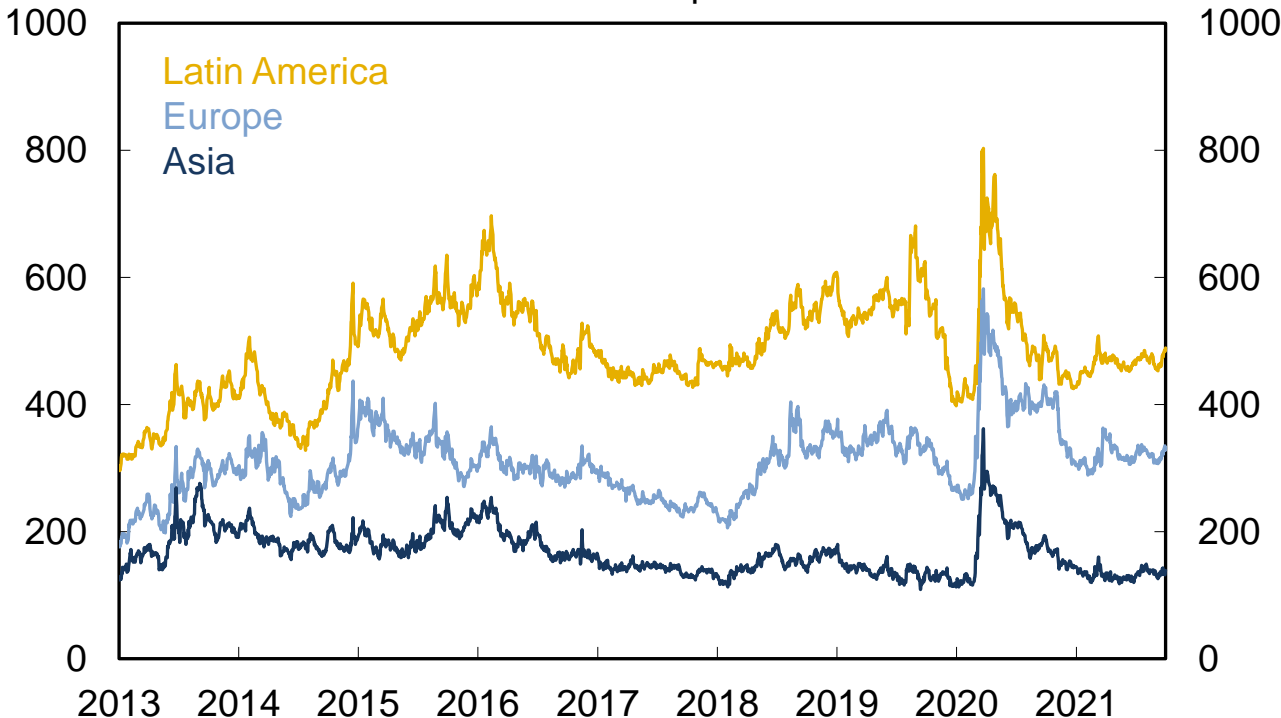
Source: IMF WEO

### 3.7.3.2 Emerging Market Sovereign Bond Spreads

Basis Points

As Of: 30-Sep-2021

Basis Points



Note: JP Morgan EMBI+ Sovereign Spreads indices for each region.

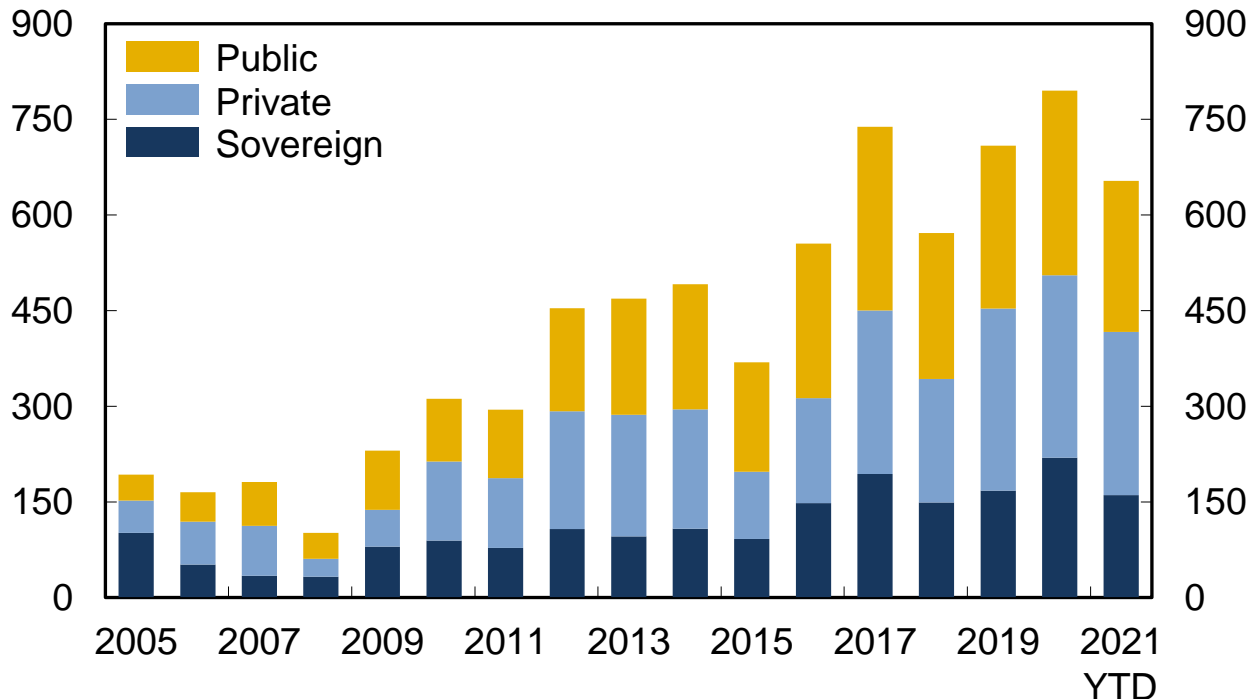
Source: JP Morgan, Haver Analytics

### 3.7.3.3 Emerging Market Non-Local Bond Issuance

Billions of US\$

As Of: 30-Sep-2021

Billions of US\$



Note: Bonds have maturities greater than one-year and have been internationally marketed or placed. "Public" includes issuance by municipal and state-owned enterprises. 2021 figures are through September.

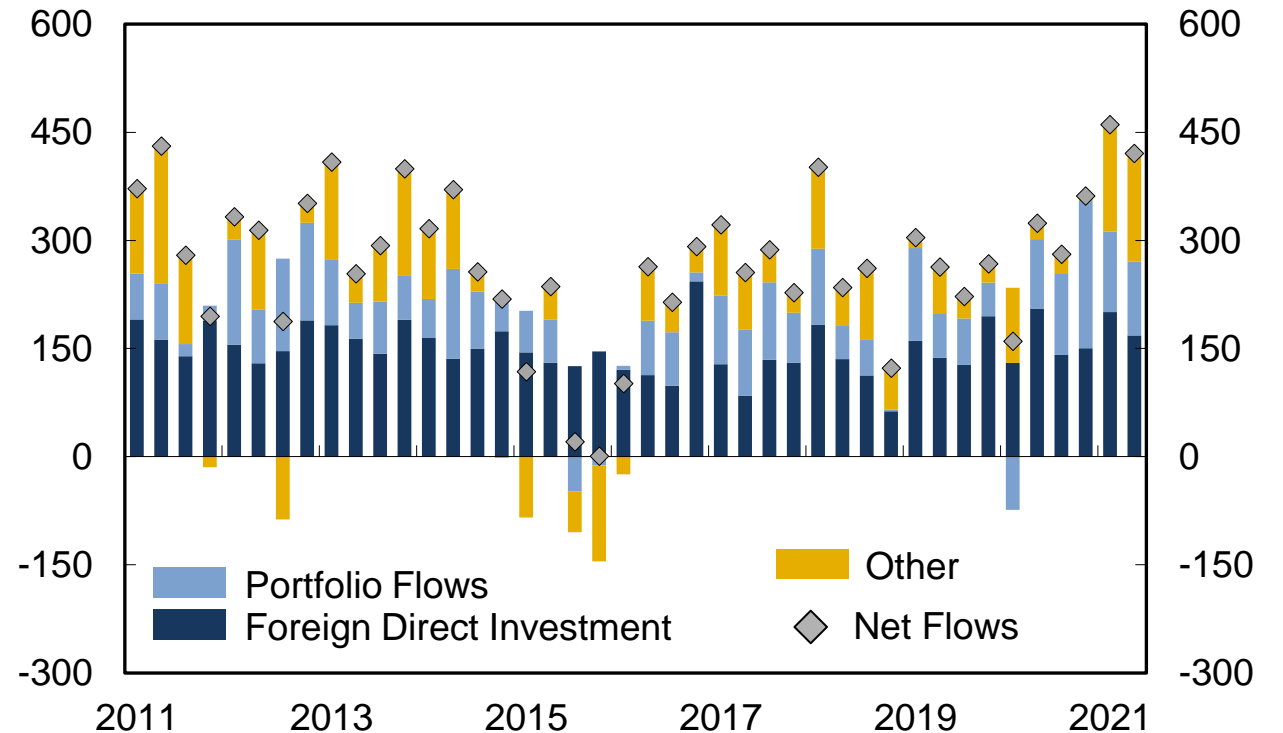
Source: Dealogic

### 3.7.3.4 Foreign Investor Inflows to EMEs

Billions of US\$

As Of: 2021 Q2

Billions of US\$



Source: IMF, Haver Analytics

### 3.7.3.5 Foreign Investor Portfolio Inflows to EMEs, by Region

Billions of US\$

As Of: 2021 Q2

Billions of US\$



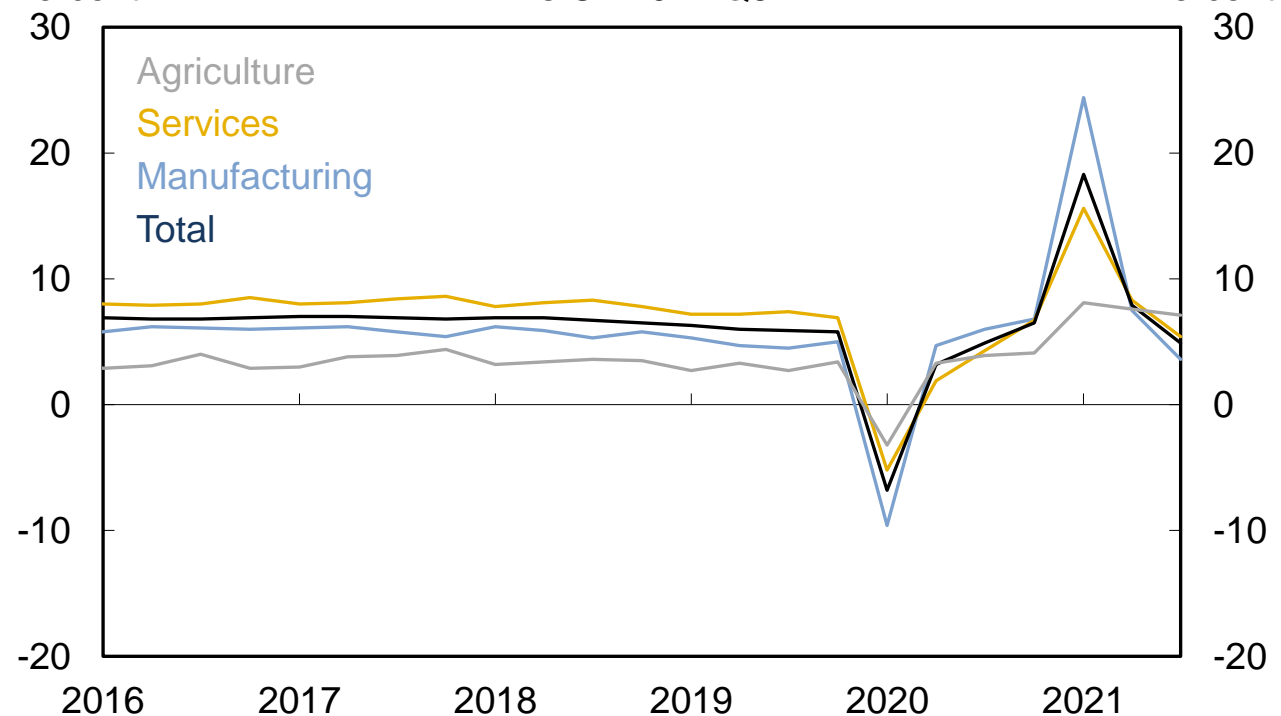
Source: IMF, Haver Analytics

### 3.7.3.6 Chinese Real GDP Growth and its Components

Percent

As Of: 2021 Q3

Percent



Source: China National Bureau of Statistics, Haver Analytics

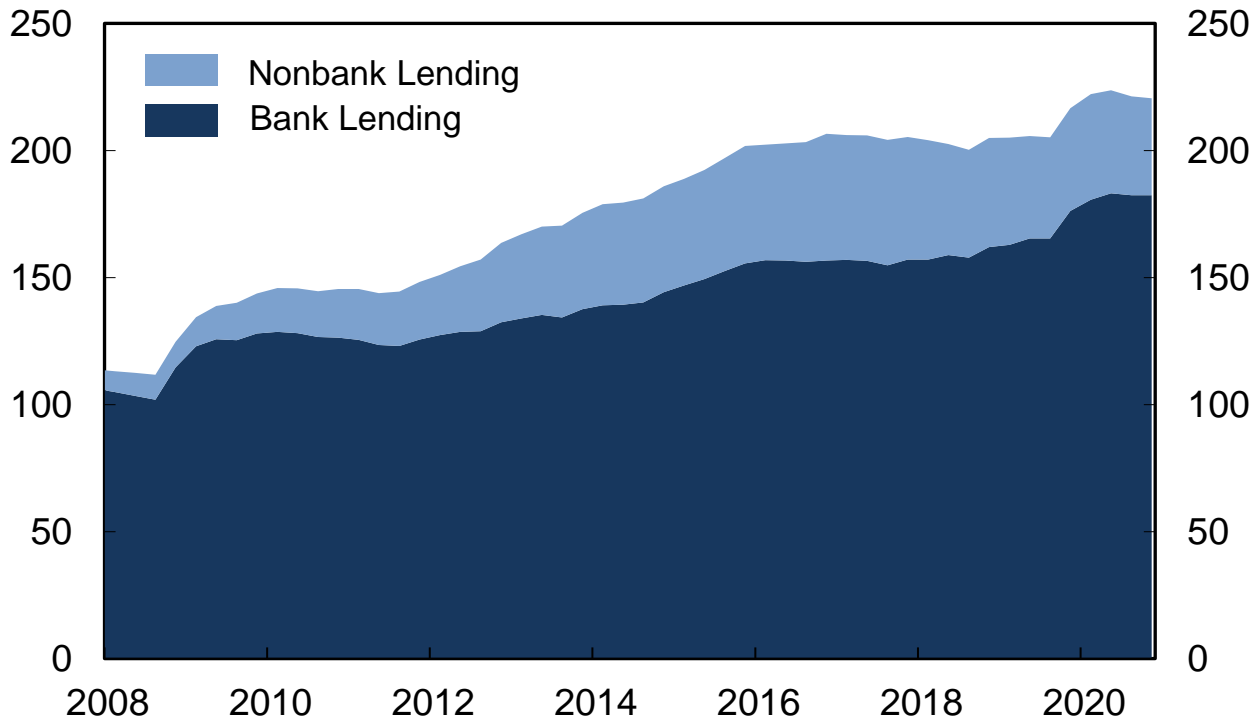
Note: Year-over-year percentage change.

### 3.7.3.7 Credit to the Chinese Nonfinancial Private Sector

Percent of GDP

As Of: 2021 Q1

Percent of GDP



Source: China National Bureau of Statistics, BIS, Haver Analytics

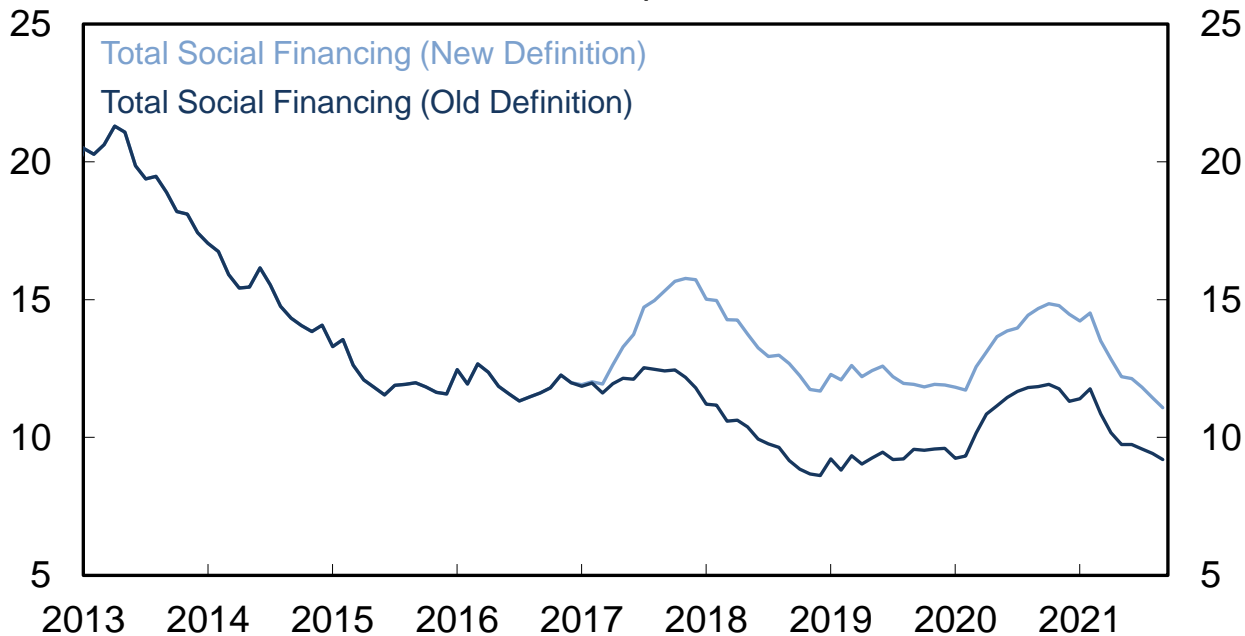
Note: Rolling 4-quarter sum of GDP.

### 3.7.3.8 Chinese Credit Growth

Percent

As Of: Sep-2021

Percent



Source: PBOC, CCDC,  
Haver Analytics, Staff  
Calculations

Note: Calculated as the year-over-year percentage change in total social financing (TSF) flows since 2002. TSF refers to the total volume of financing provided by the financial system to the real economy. TSF (old definition) excludes loan write-offs, ABS of depository institutions, and local government special bonds.

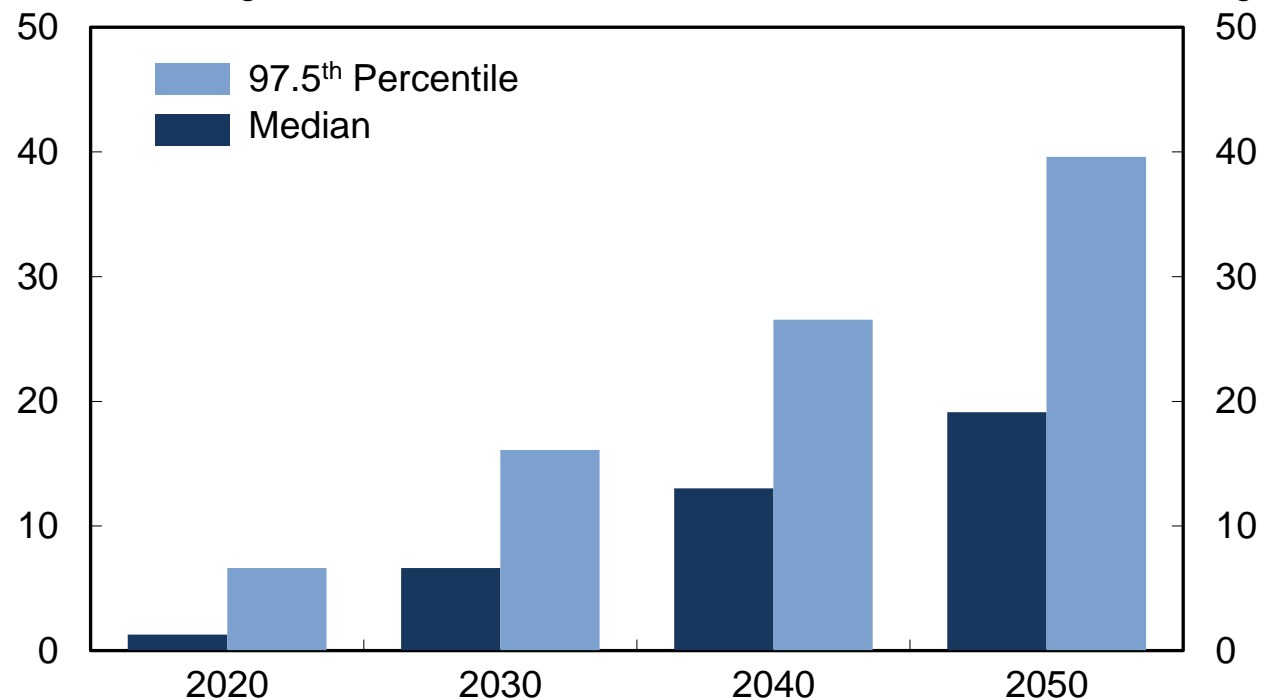


# F.1 Annual Expected Damage from Tropical Cyclones

Percent Change

As Of: Jun-2021

Percent Change



Source: NGFS CA  
Climate Impact Explorer

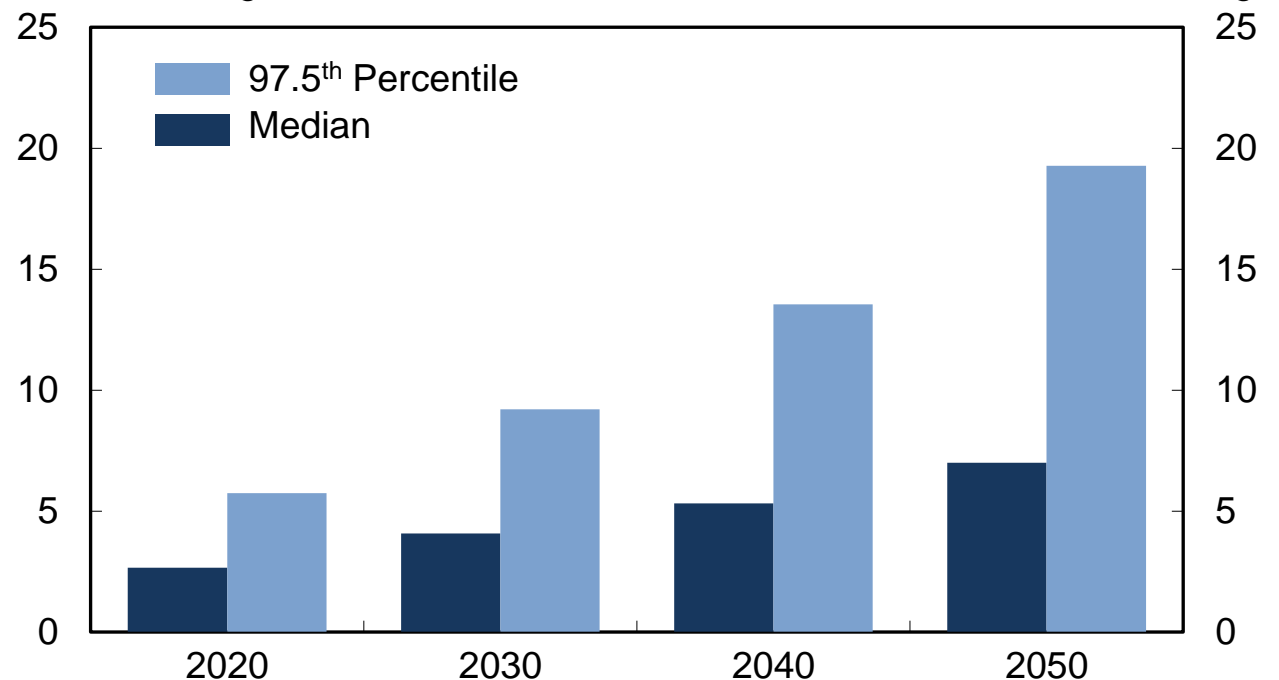
Note: Percent change in annual damages under  
NGFS current policies scenario; relative to 2020.

# F.2 Fraction of Population Exposed to Heatwaves

Percent Change

As Of: Jun-2021

Percent Change



Source: NGFS CA  
Climate Impact Explorer

Note: Change in fraction of U.S. population annually exposed to heatwaves under NGFS current policies scenario. Percent change relative to 1986-2006 average.