



RESEARCH

Statistics

Quarterly Report: US Fixed Income, 2Q23

Issuance & Trading Statistics for US Treasuries, Mortgage-Backed Securities, Corporate Bonds, Municipal Bonds, Agency Securities, & Asset-Backed Securities

August 2023

Key Takeaways from the Quarter

- **Total**
 - Issuance \$2,489.4B, +8.7% Y/Y
 - Trading \$1,016.9B, +3.7% Y/Y
- **UST**
 - Issuance \$1,256.5B, +20.6% Y/Y
 - Trading \$715.2B, +4.4% Y/Y
- **MBS**
 - Issuance \$352.9B, -39.0% Y/Y
 - Trading \$242.3B, +4.1% Y/Y
- **Corporates**
 - Issuance \$391.2B, +26.5% Y/Y
 - Trading \$40.7B, -1.5% Y/Y
- **Agency**
 - Issuance \$318.8B, +118.1% Y/Y
 - Trading \$3.6B, +38.1% Y/Y
- **Munis**
 - Issuance \$102.2B, -11.0% Y/Y
 - Trading \$12.4B, -21.8% Y/Y
- **ABS**
 - Issuance \$67.8B, -32.4% Y/Y
 - Trading \$1.6B, -4.9% Y/Y
- **ESG**
 - Global Issuance \$237.0B, +27.6% Y/Y
 - US Issuance \$33.9B, +133.9% Y/Y

Contents

Executive Summary	4
US Fixed Income Markets Are the Largest in the World	4
Quarter & Annual Highlights	5
Total US Fixed Income	6
Total US Fixed Income: Review of Quarterly Statistics	6
Total US Fixed Income: Monthly Trends	7
Total US Fixed Income: Annual Statistics Update	7
US Treasury Securities (UST)	8
UST: Review of Quarterly Statistics	8
UST: Monthly Trends	10
UST: Annual Statistics Update	11
Mortgage-Backed Securities (MBS)	12
MBS: Review of Quarterly Statistics	12
MBS: Monthly Trends	13
MBS: Annual Statistics Update	13
Corporate Bonds (Corporates)	14
Corporates: Review of Quarterly Statistics	14
Corporates: Monthly Trends	16
Corporates: Annual Statistics Update	16
Federal Agency Securities (Agency)	17
Agency: Review of Quarterly Statistics	17
Agency: Monthly Trends	18
Agency: Annual Statistics Update	18
Municipal Bonds (Munis)	19
Munis: Review of Quarterly Statistics	19
Munis: Monthly Trends	21
Munis: Annual Statistics Update	21
Asset-Backed Securities (ABS)	22
ABS: Review of Quarterly Statistics	22
ABS: Monthly Trends	23
ABS: Annual Statistics Update	23
Environmental, Social & Governance (ESG)	24
ESG: Review of Quarterly Issuance Statistics	24

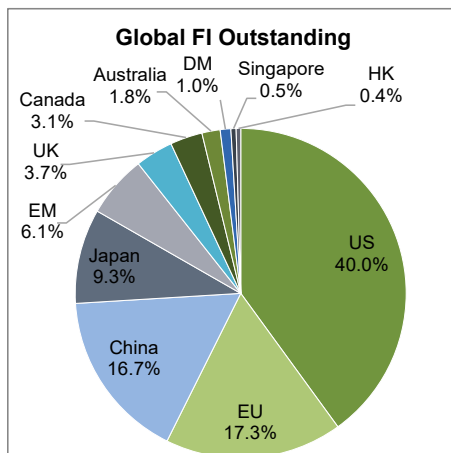
ESG: Monthly Issuance Trends	25
ESG: Annual Issuance Update	25
Quarterly Rates Review	26
Volatility (MOVE Index)	26
UST Rates	27
Other Rates	30
Curves & Spreads	31
Appendix: Historical Trends	32
Total Fixed Income Securities	32
US Treasury Securities	33
Mortgage-Backed Securities	34
Corporate Bonds	35
Federal Agency Securities	36
Municipal Bonds	37
Asset-Backed Securities	38
Environmental, Social, and Governance (ESG)	39
Appendix: Definitions & Purpose	40
Appendix: Terms to Know	42
Appendix: SIFMA Research Reports	43
Authors	44

Executive Summary

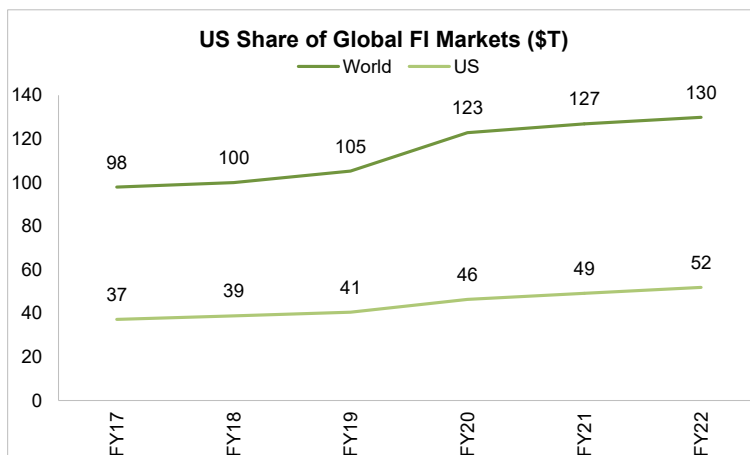
US Fixed Income Markets Are the Largest in the World

The U.S. fixed income markets are the largest in the world, comprising 40.0% of the \$130 trillion securities outstanding across the globe, or \$52 trillion (as of FY22). This is 2.3x the next largest market, the EU. U.S. market share has averaged 38.9% over the last 10 years, troughing at 37.5% in 2013 and peaking at 40.4% in 2016.

US Fixed Income Market Share – Year End



US Fixed Income Market Share – Historical Trends



Source: Bank for International Settlements (4Q22, BIS data for all countries has a lag)

Note: Country classification based on World Bank list of economies, DM = developed markets, EM = emerging markets, EU = 27 member states, HK = Hong Kong, UK = United Kingdom

Quarter & Annual Highlights

In this report, we utilized SIFMA Research's comprehensive fixed income and securitized products databases (www.sifma.org/statistics) to recap statistics for total U.S. fixed income markets, U.S. Treasuries (UST), mortgage-backed securities (MBS), corporate bonds (corporates), municipal securities (munis), federal agency securities (agency), asset-backed securities (ABS), money markets (MM), repurchase agreements (repos) and the secured overnight financing rate (SOFR). We also analyze trends in ESG issuance for green, social, and sustainability bonds.

We highlight the following for quarterly and annual metrics:

	2Q23	1Q23	2Q22	Q/Q	Y/Y	YTD23	YTD22	Y/Y
Issuance (\$B)								
Total Market	2,489.4	2,352.1	2,291.0	5.8%	8.7%	4,680.5	5,381.6	-13.0%
UST	1,256.5	986.2	1,041.5	27.4%	20.6%	1,859.5	2,191.8	-15.2%
MBS	352.9	272.6	578.8	29.4%	-39.0%	748.2	1,508.1	-50.4%
Corporates	391.2	454.4	309.4	-13.9%	26.5%	845.6	841.5	0.5%
Agency	318.8	497.3	146.2	-35.9%	118.1%	872.3	378.8	130.3%
Munis	102.2	78.6	114.8	29.9%	-11.0%	207.6	246.5	-15.8%
ABS	67.8	62.8	100.4	7.9%	-32.4%	147.3	214.9	-31.4%
Trading (ADV, \$B)								
Total Market	1,016.9	1,124.0	980.4	-9.5%	3.7%	1,070.1	1,052.0	1.7%
UST	715.2	804.1	684.8	-11.1%	4.4%	759.7	734.5	3.4%
MBS - Agency	242.3	251.3	232.7	-3.6%	4.1%	246.8	255.4	-3.4%
MBS - Non Agency	1.2	1.7	1.5	-33.1%	-21.1%	1.5	1.5	-0.6%
Corporates	40.7	48.3	41.3	-15.8%	-1.5%	44.5	42.3	5.2%
Agency	3.6	3.8	2.6	-4.6%	38.1%	3.7	2.6	43.8%
Munis	12.4	12.9	15.8	-4.0%	-21.8%	12.2	14.0	-12.7%
ABS	1.6	1.8	1.7	-12.1%	-4.9%	1.7	1.7	-2.3%

Source: Bloomberg, Federal Reserve Bank of New York, FINRA, Municipal Securities Rulemaking Board, Refinitiv, US Agencies, US Treasury, SIFMA estimates

Note: Issuance = Long-term securities only, UST = U.S. Treasury securities, MBS = mortgage-backed securities, Corporates = corporate bonds, Agency = federal agency securities, Munis = municipal bonds, ABS = asset-backed securities

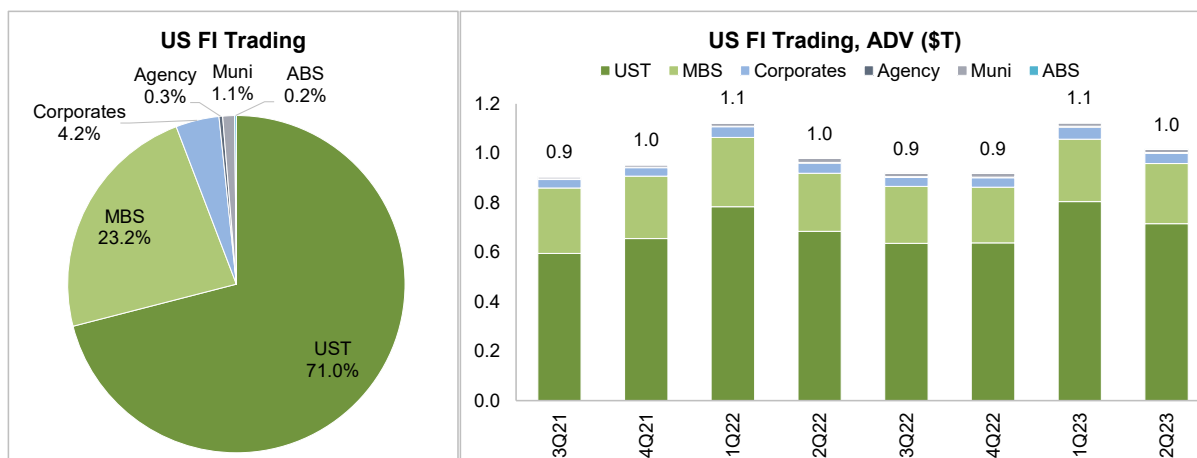
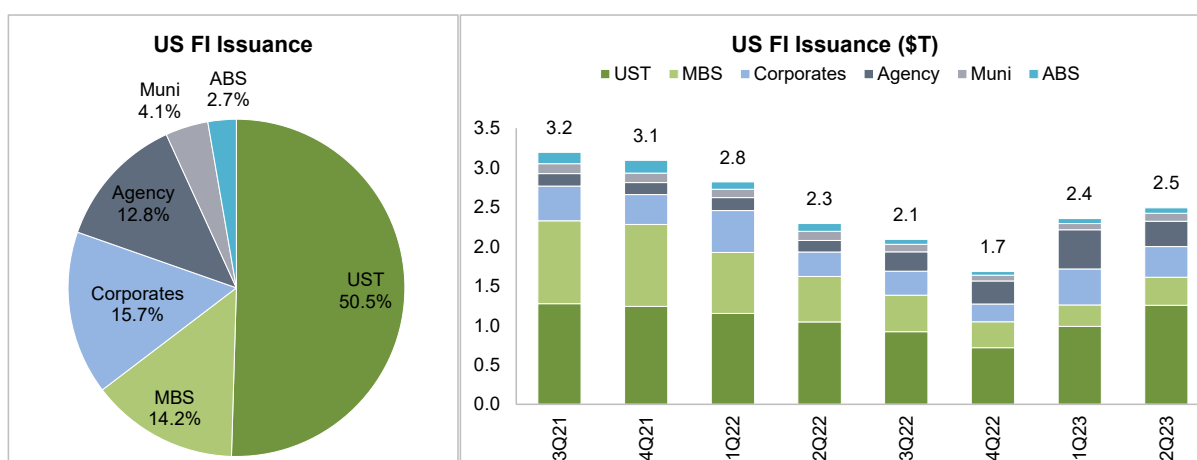
	2Q23	1Q23	2Q22	Q/Q	Y/Y	YTD23	YTD22	Y/Y
ESG Issuance (\$B)								
Global	237.0	224.2	185.8	5.7%	27.6%	461.2	391.3	17.9%
Green	165.2	145.5	127.5	13.5%	29.5%	310.8	247.5	25.6%
Social	32.2	36.0	26.5	-10.6%	21.4%	68.2	62.8	8.6%
Sustainability	39.6	42.6	31.7	-7.1%	24.9%	82.3	81.0	1.5%
US	33.9	26.8	14.5	26.4%	133.9%	60.7	50.9	19.2%
Green	15.3	11.1	3.5	38.0%	335.6%	26.4	16.0	65.3%
Social	0.6	0.4	1.5	30.3%	-63.0%	1.0	5.9	-83.1%
Sustainability	18.0	15.3	9.4	17.8%	90.6%	33.2	29.0	14.8%

Source: Dealogic, SIFMA estimates

Total US Fixed Income

Total US Fixed Income: Review of Quarterly Statistics

- Issuance: \$2.5T; +5.6% Q/Q, +8.4% Y/Y
- ADV \$1,016.9B; -9.5% Q/Q, +3.7% Y/Y

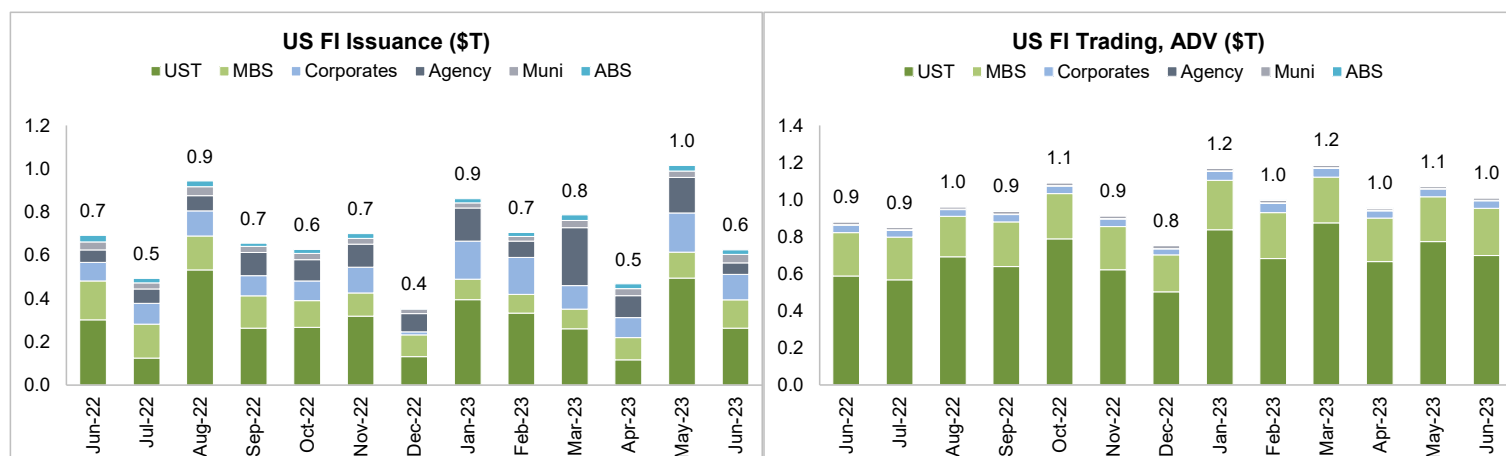


Source: Bloomberg, Federal Reserve Bank of New York, FINRA, Municipal Securities Rulemaking Board, Refinitiv, US Agencies, US Treasury, SIFMA estimates

Note: Issuance = Long-term securities only, UST = U.S. Treasury securities, MBS = mortgage-backed securities, Corporates = corporate bonds, Agency = federal agency securities, Munis = municipal bonds, ABS = asset-backed securities

Total US Fixed Income: Monthly Trends

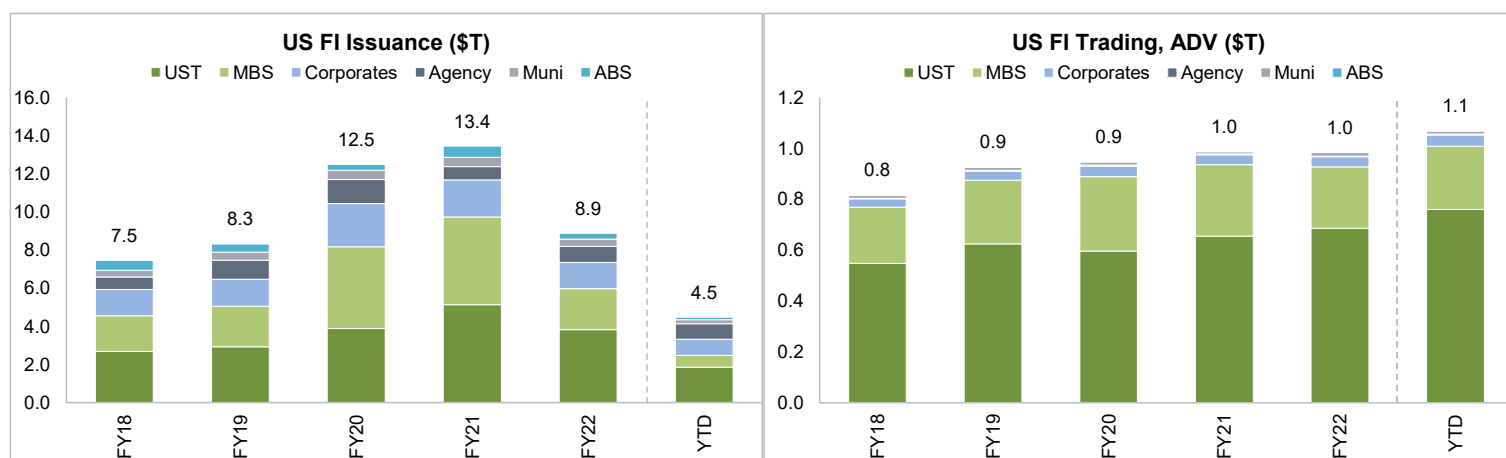
- Issuance: \$0.6T; -39.0% M/M, -10.5% Y/Y
- ADV: \$1,003.0B; -7.2% M/M, +10.0% Y/Y



Source: Bloomberg, Federal Reserve Bank of New York, FINRA, Municipal Securities Rulemaking Board, Refinitiv, US Agencies, US Treasury, SIFMA estimates
 Note: Issuance = Long-term securities only, UST = U.S. Treasury securities, MBS = mortgage-backed securities, Corporates = corporate bonds, Agency = federal agency securities, Munis = municipal bonds, ABS = asset-backed securities

Total US Fixed Income: Annual Statistics Update

- Issuance: \$4.5T; -12.7% Y/Y
- ADV: \$1,070.1B; +1.7% Y/Y

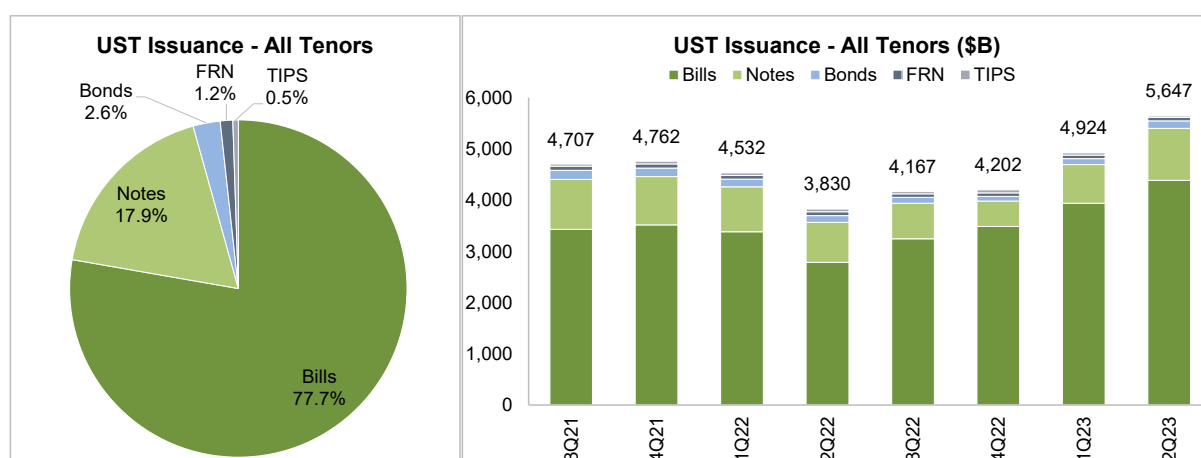
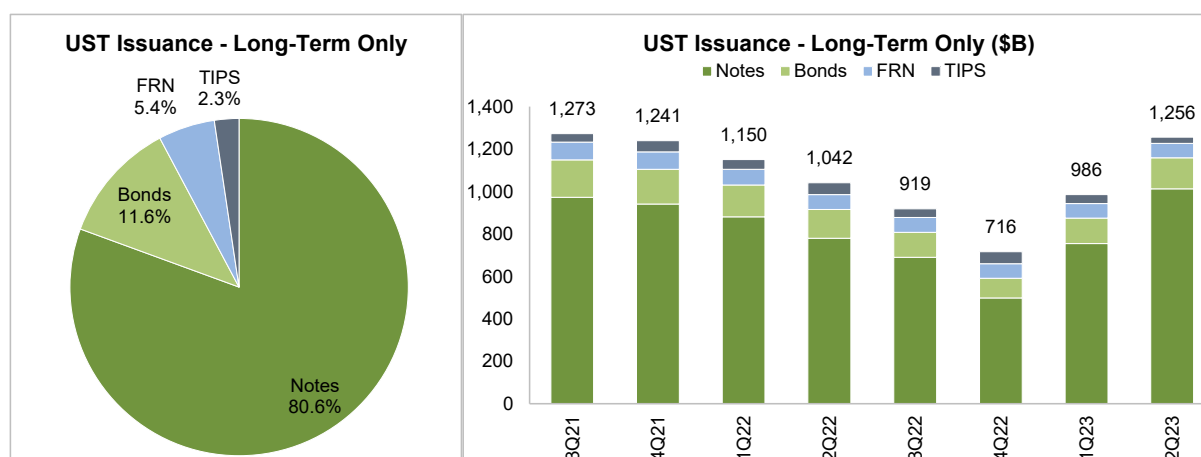


Source: Bloomberg, Federal Reserve Bank of New York, FINRA, Municipal Securities Rulemaking Board, Refinitiv, US Agencies, US Treasury, SIFMA estimates
 Note: Issuance = Long-term securities only, UST = U.S. Treasury securities, MBS = mortgage-backed securities, Corporates = corporate bonds, Agency = federal agency securities, Munis = municipal bonds, ABS = asset-backed securities

US Treasury Securities (UST)

UST: Review of Quarterly Statistics

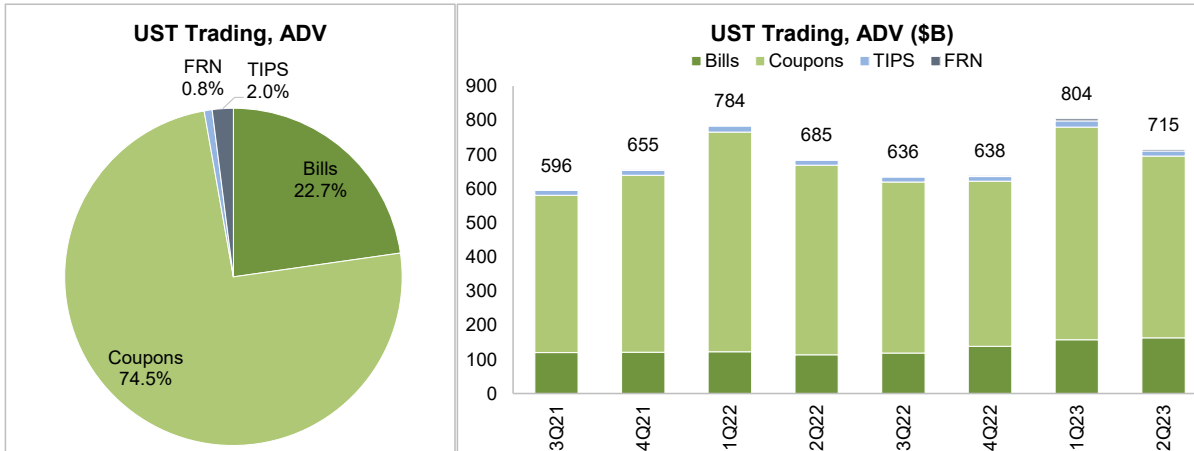
- Issuance
 - Long Term: \$1,256.5B; +27.4% Q/Q, +20.6% Y/Y
 - All: \$5,646.5; +14.7% Q/Q, +47.4% Y/Y



Source: US Treasury, SIFMA estimates

Note: FRN = floating rate note, TIPS = Treasury inflation-protected securities

- ADV \$715.2B; -11.1% Q/Q, +4.4% Y/Y

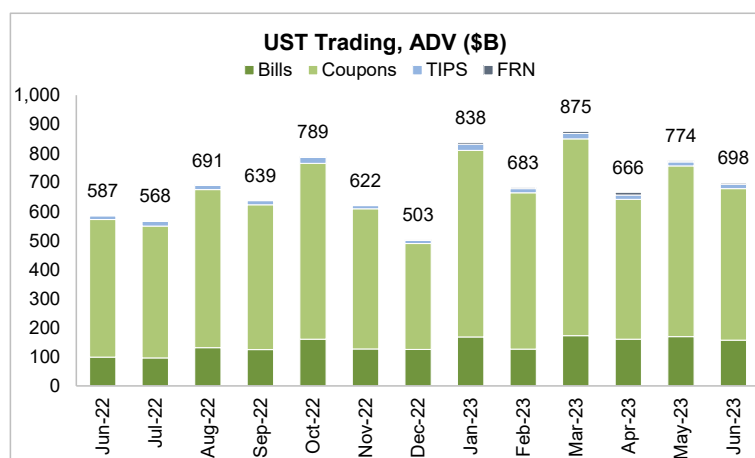
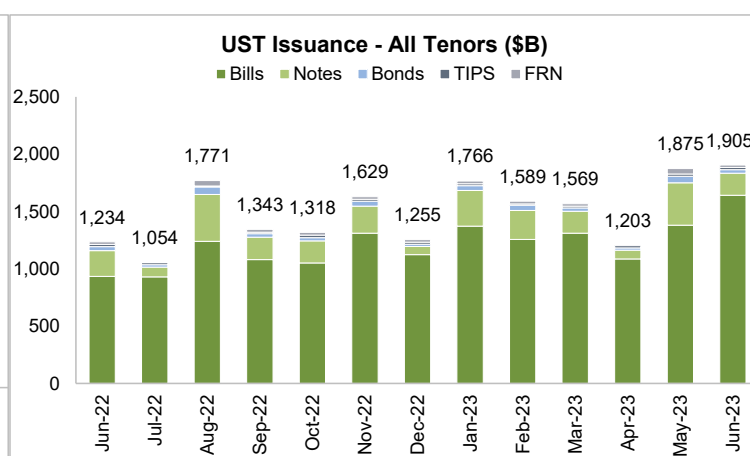
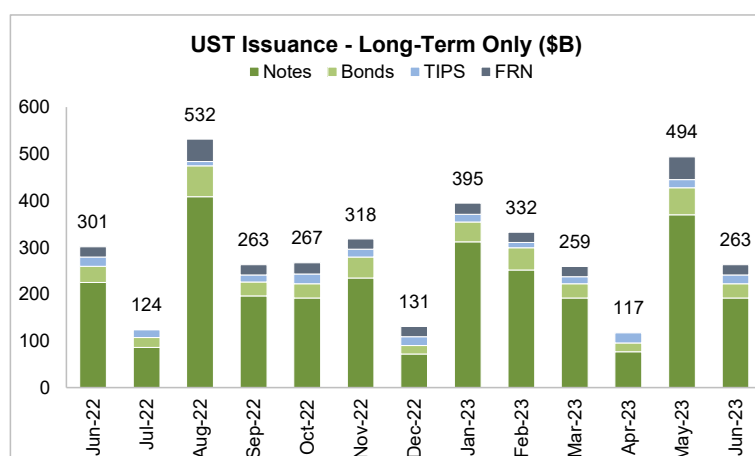


Source: FINRA, SIFMA estimates

Note: FRN = floating rate note, TIPS = Treasury inflation-protected securities

UST: Monthly Trends

- Issuance
 - Long Term: \$263.0B; -46.7% M/M, -12.7% Y/Y
 - All: \$1,905.2; +1.6% M/M, +54.4% Y/Y
- ADV \$698.0; -9.9% M/M, +18.8% Y/Y

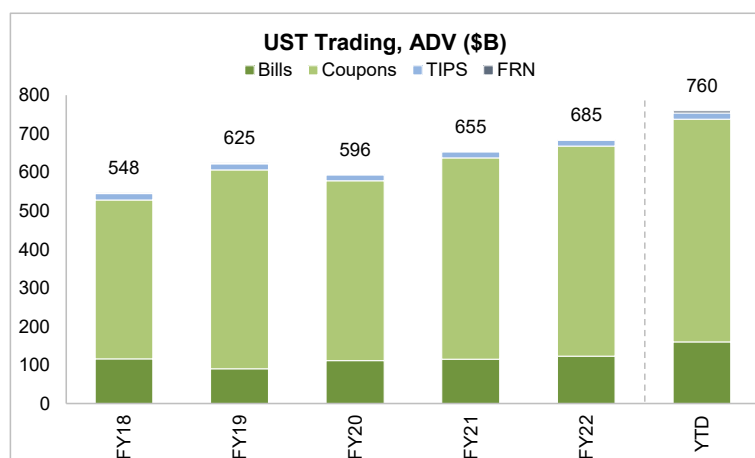
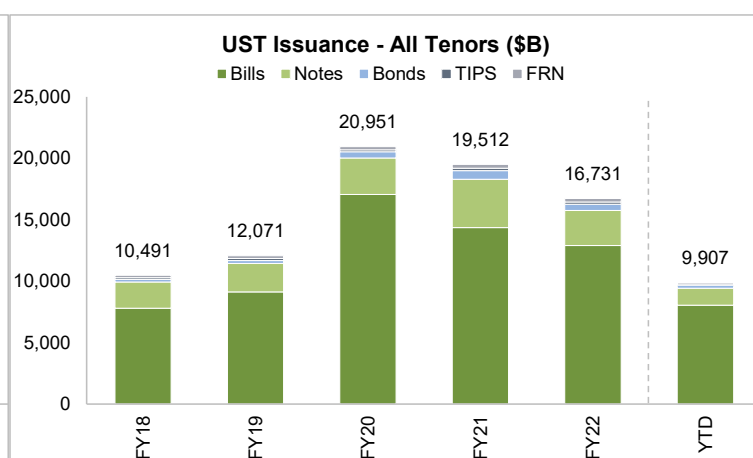
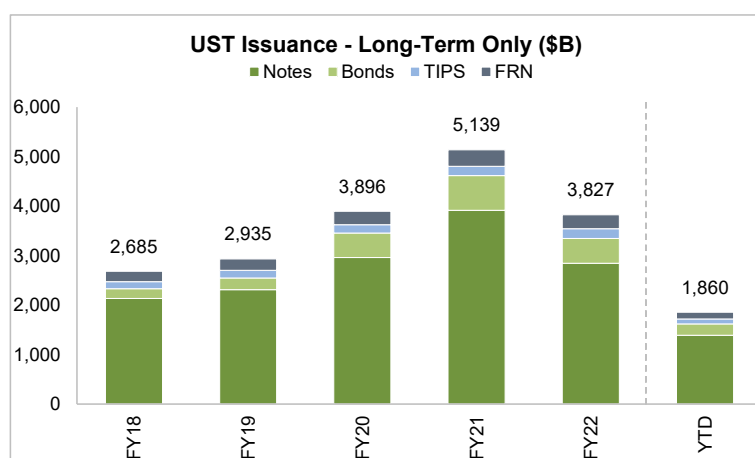


Source: FINRA, US Treasury, SIFMA estimates

Note: FRN = floating rate note, TIPS = Treasury inflation-protected securities

UST: Annual Statistics Update

- Issuance
 - Long Term: \$1,859.5B; -15.2% Y/Y
 - All: \$9,907.0B; +18.5% Y/Y
- ADV \$759.7B; +3.4% Y/Y



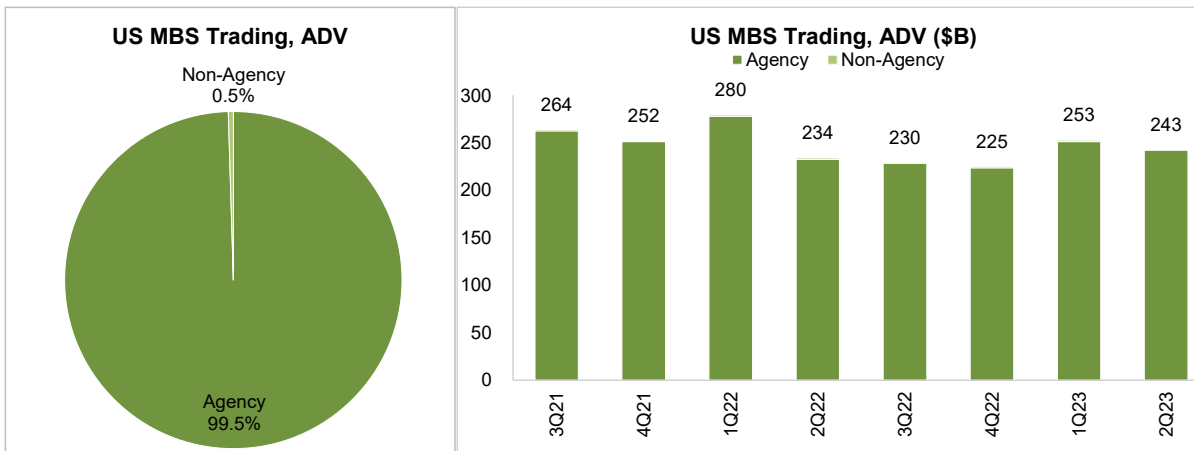
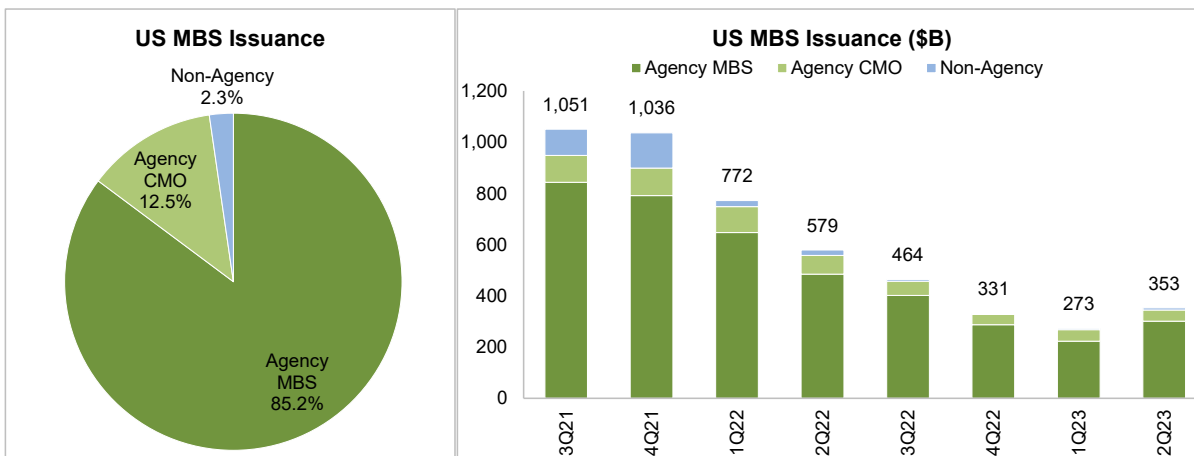
Source: FINRA, NY Fed, US Treasury, SIFMA estimates

Note: FRN = floating rate note, TIPS = Treasury inflation-protected securities, FY18 UST trading is sourced from the NY Fed primary dealer reporting, data for FY19 to present is sourced from FINRA

Mortgage-Backed Securities (MBS)

MBS: Review of Quarterly Statistics

- Issuance: \$352.9B; +29.4% Q/Q, -39.0% Y/Y
- ADV: \$243.5B; -3.8% Q/Q, +3.9% Y/Y

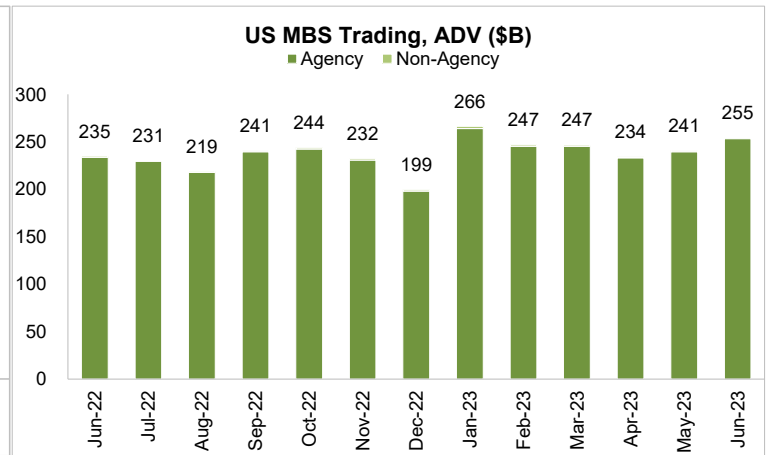
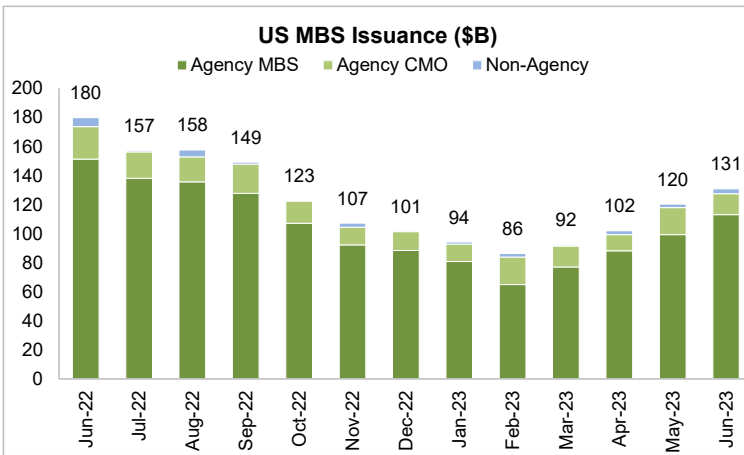


Source: Bloomberg, US Agencies, FINRA, SIFMA estimates

Note: CMO = collateralized mortgage obligation

MBS: Monthly Trends

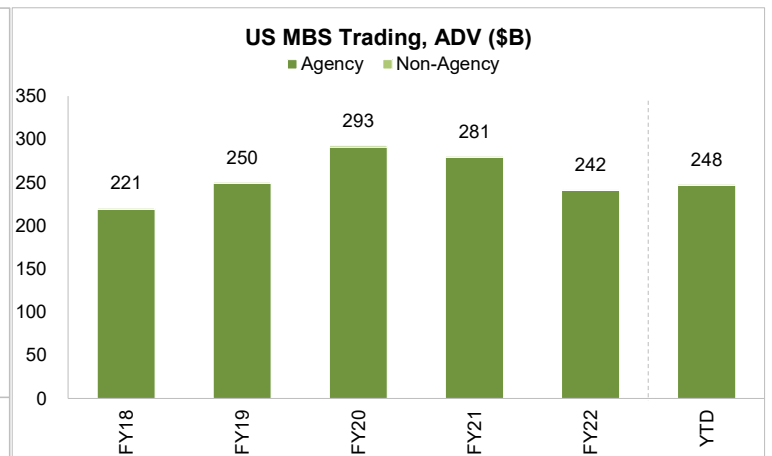
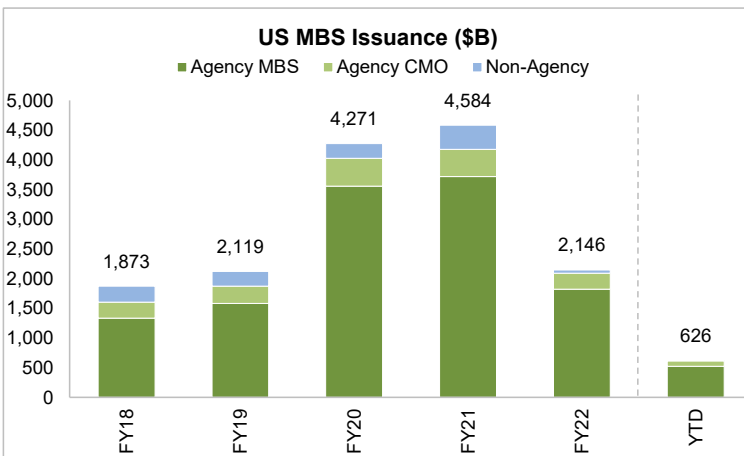
- Issuance: \$130.8B; +8.8% M/M, -27.2% Y/Y
- ADV: \$254.6B; +5.8% M/M, +8.3% Y/Y



Source: Bloomberg, US Agencies, FINRA, SIFMA estimates
 Note: CMO = collateralized mortgage obligation

MBS: Annual Statistics Update

- Issuance: \$625.5B; -53.7% Y/Y
- ADV: \$248.2B; -3.4% Y/Y

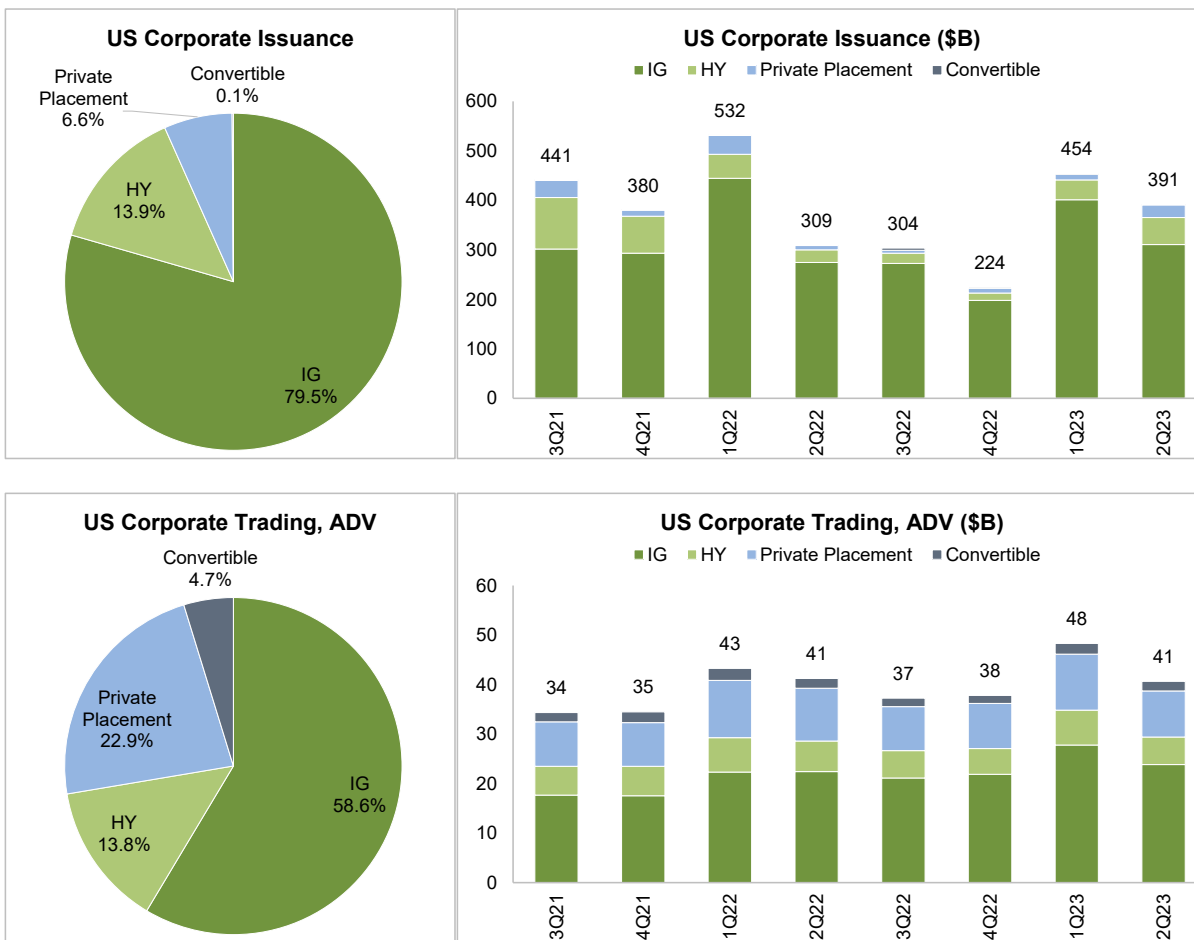


Source: Bloomberg, US Agencies, FINRA, SIFMA estimates
 Note: CMO = collateralized mortgage obligation

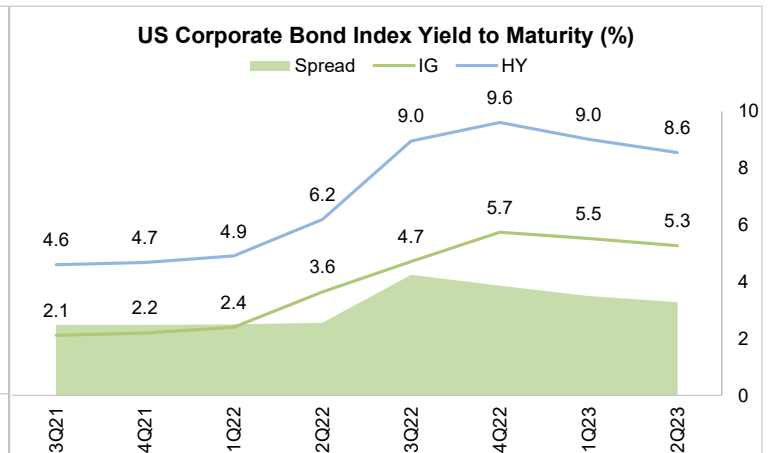
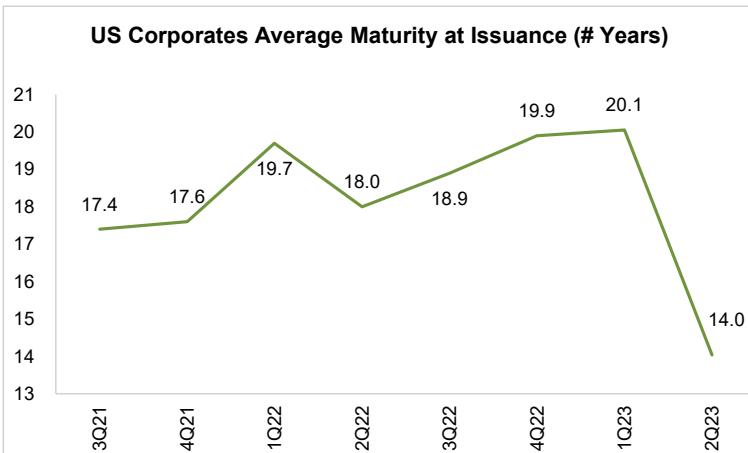
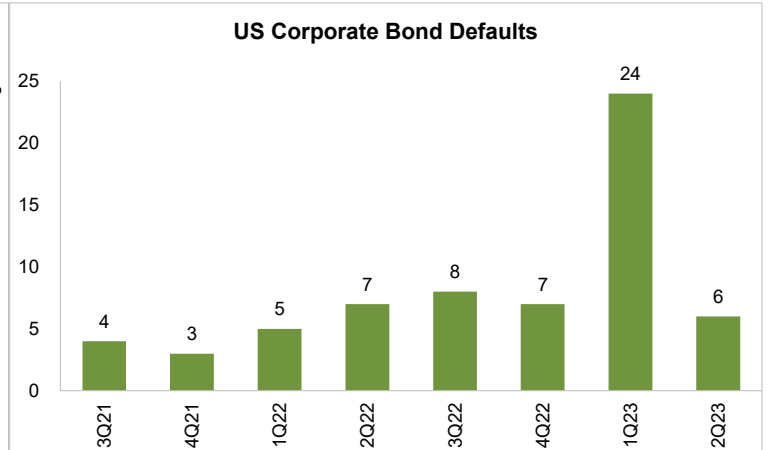
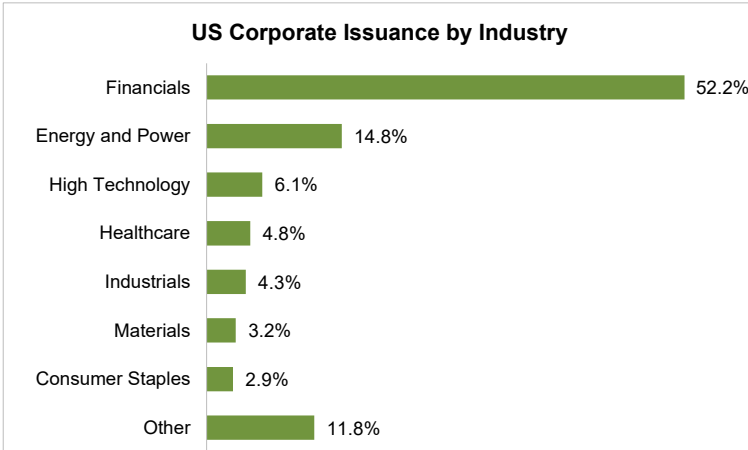
Corporate Bonds (Corporates)

Corporates: Review of Quarterly Statistics

- Issuance: \$391.2B; -13.9% Q/Q, +26.5% Y/Y
- ADV: \$40.7B; -15.8% Q/Q, -1.5% Y/Y



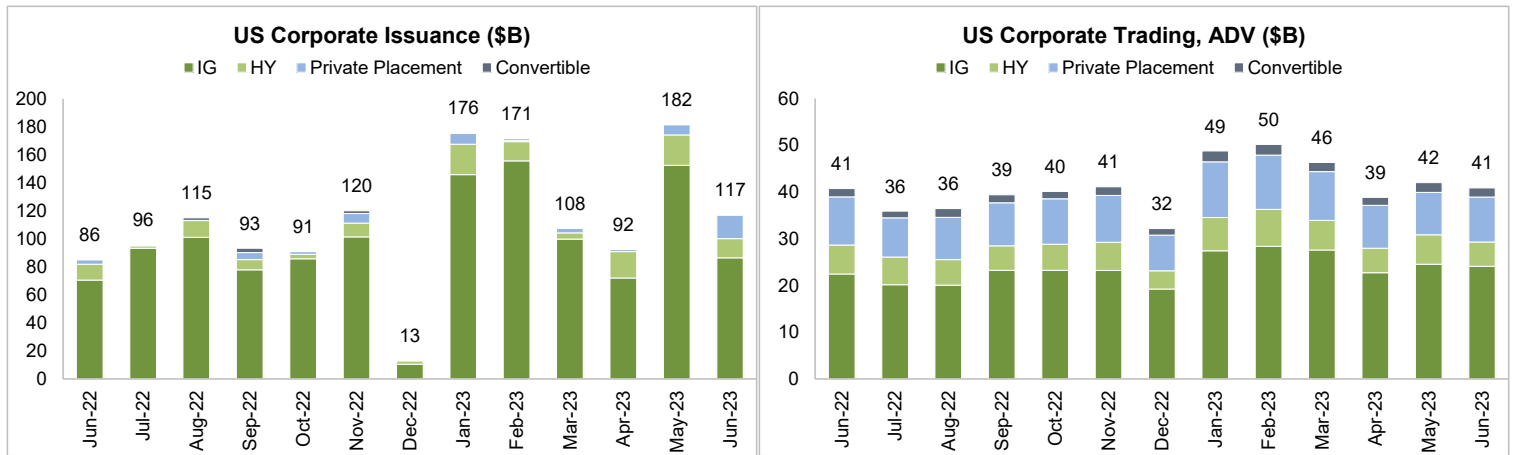
Source: Refinitiv, FINRA, SIFMA estimates
 Note: IG = investment grade, HY = high yield



Source: ICE Data Indices, Refinitiv, S&P Global Ratings, SIFMA estimates
 Note: IG = investment grade, HY = high yield

Corporates: Monthly Trends

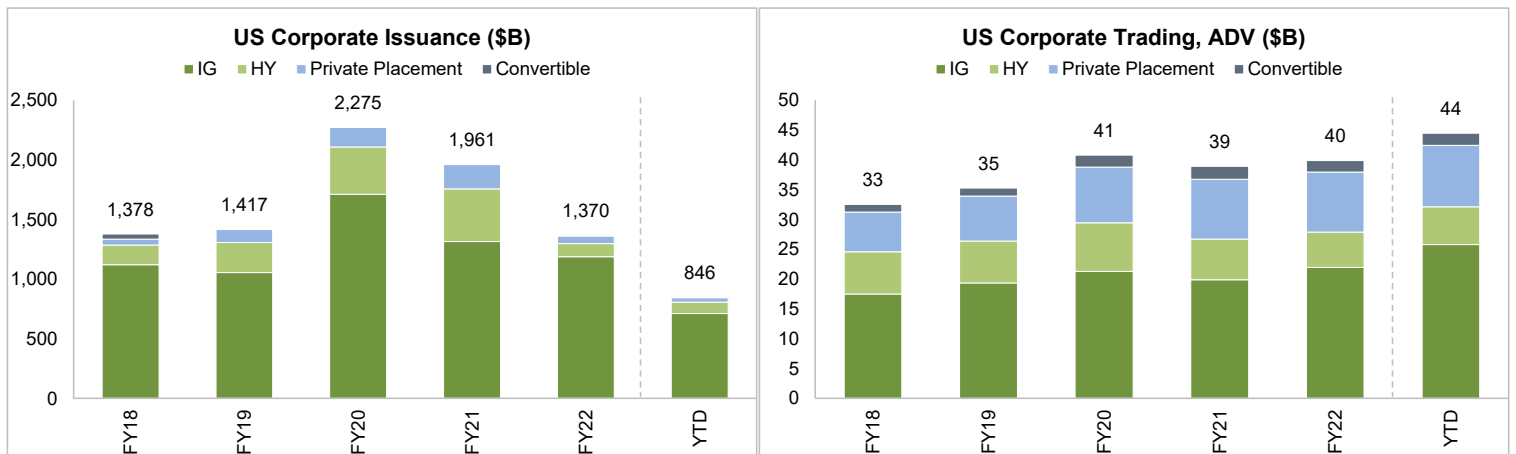
- Issuance: \$117.2B; -35.4% M/M, +37.0% Y/Y
- ADV: \$40.9B; -2.6% M/M, +0.4% Y/Y



Source: Refinitiv, FINRA, SIFMA estimates
 Note: IG = investment grade, HY = high yield

Corporates: Annual Statistics Update

- Issuance: \$845.6B; +0.5% Y/Y
- ADV: \$44.5B; +5.2% Y/Y

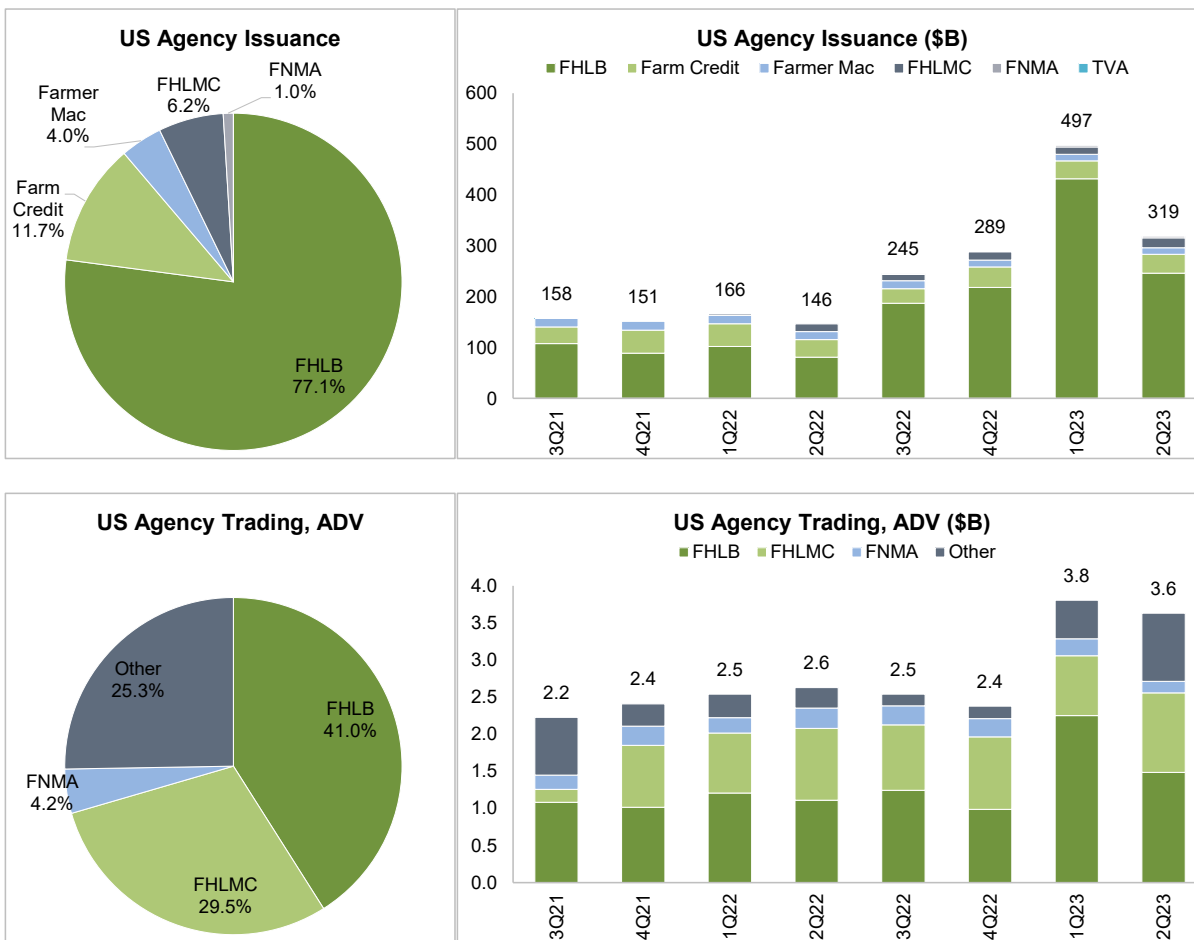


Source: Refinitiv, FINRA, SIFMA estimates
 Note: IG = investment grade, HY = high yield

Federal Agency Securities (Agency)

Agency: Review of Quarterly Statistics

- Issuance: \$318.8B; -35.9% Q/Q, +118.1% Y/Y
- ADV: \$3.6B; -4.6% Q/Q, +38.1% Y/Y

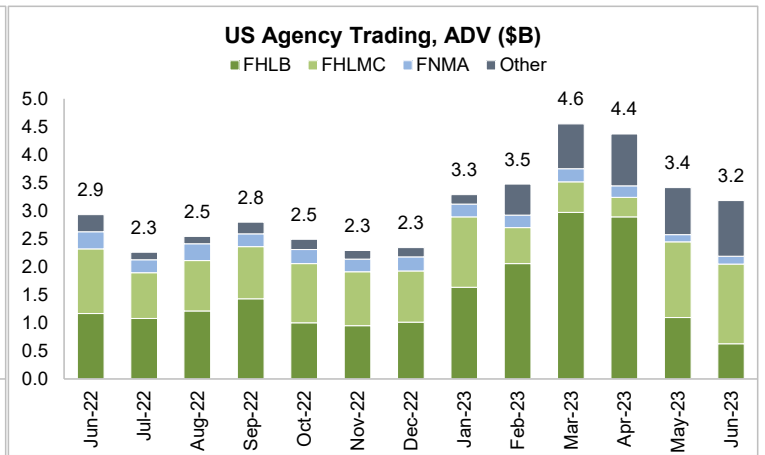
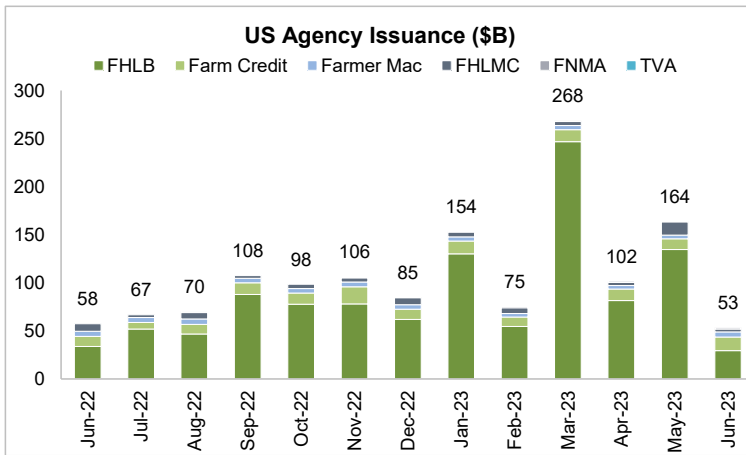


Source: FINRA, US Agencies, SIFMA estimates

Note: FHLB = The Federal Home Loan Banks, FHLMC = The Federal Home Loan Mortgage Corporation (Freddie Mac), FNMA = The Federal National Mortgage Association (Fannie Mae), TVA = The Tennessee Valley Authority

Agency: Monthly Trends

- Issuance: \$53.2B; -67.5% M/M, -7.5% Y/Y
- ADV: \$3.2B; -6.7% M/M, +8.5% Y/Y

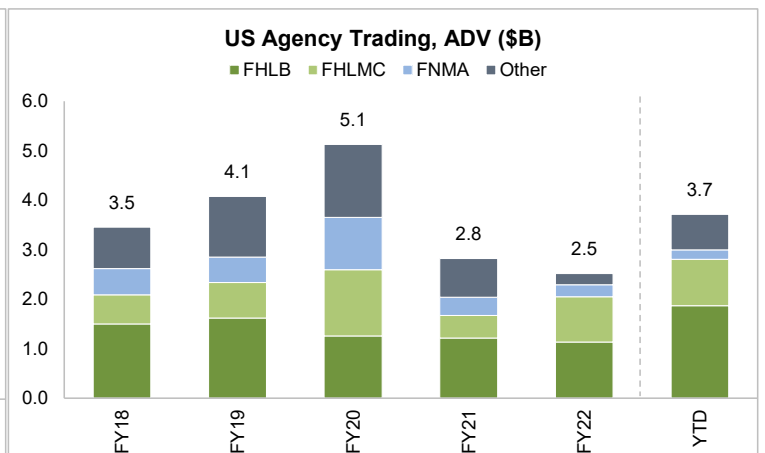
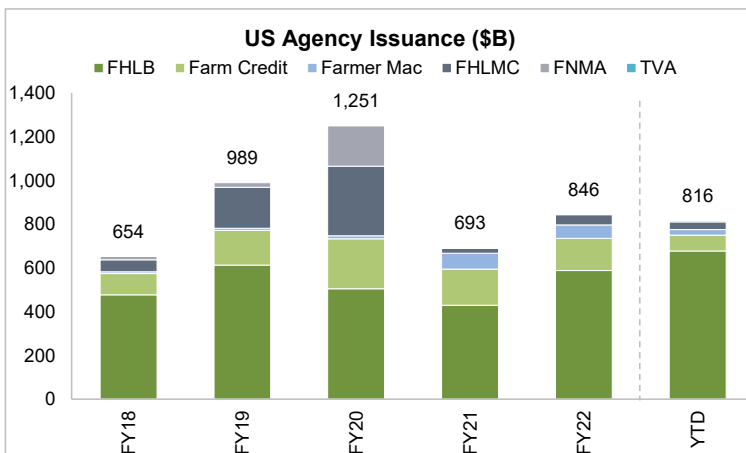


Source: FINRA, US Agencies, SIFMA estimates

Note: FHLB = The Federal Home Loan Banks, FHLMC = The Federal Home Loan Mortgage Corporation (Freddie Mac), FNMA = The Federal National Mortgage Association (Fannie Mae), TVA = The Tennessee Valley Authority

Agency: Annual Statistics Update

- Issuance: \$816.1B; +161.6% Y/Y
- ADV: \$3.7B; +43.8% Y/Y



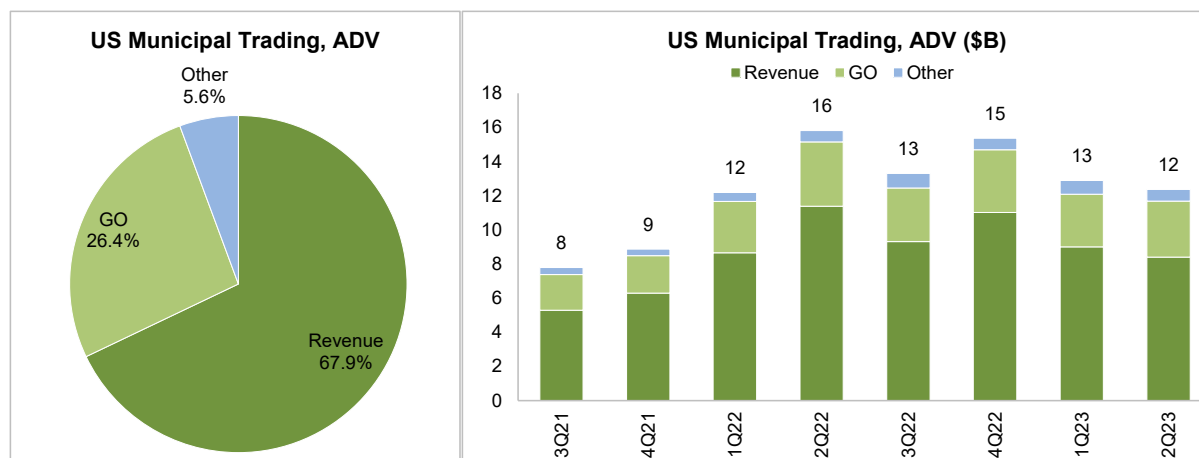
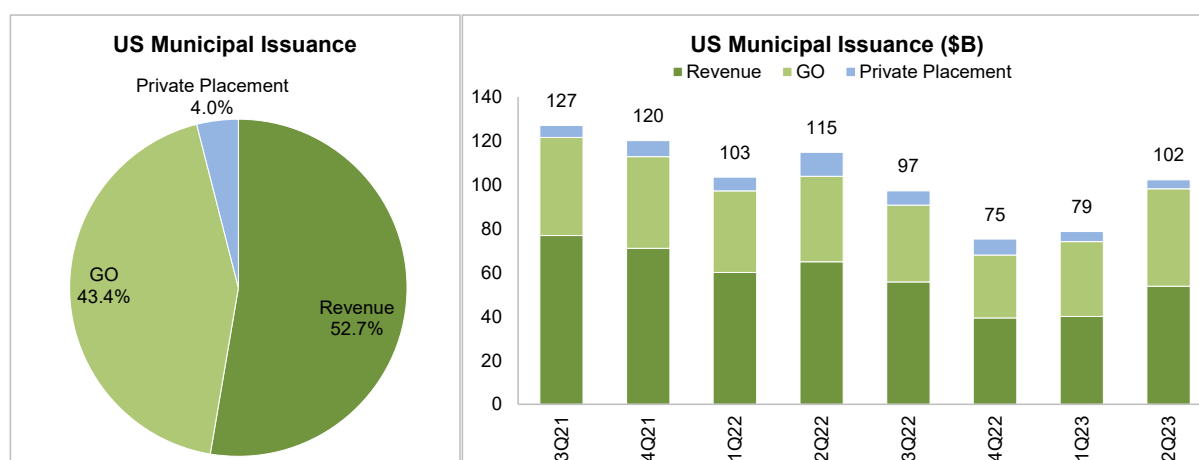
Source: FINRA, US Agencies, SIFMA estimates

Note: FHLB = The Federal Home Loan Banks, FHLMC = The Federal Home Loan Mortgage Corporation (Freddie Mac), FNMA = The Federal National Mortgage Association (Fannie Mae), TVA = The Tennessee Valley Authority

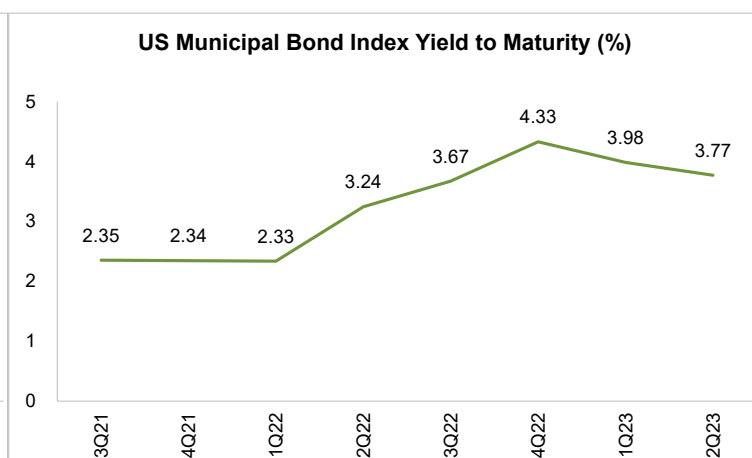
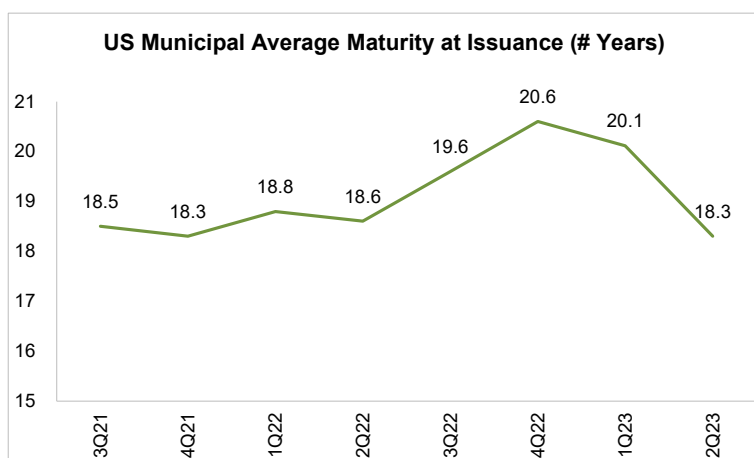
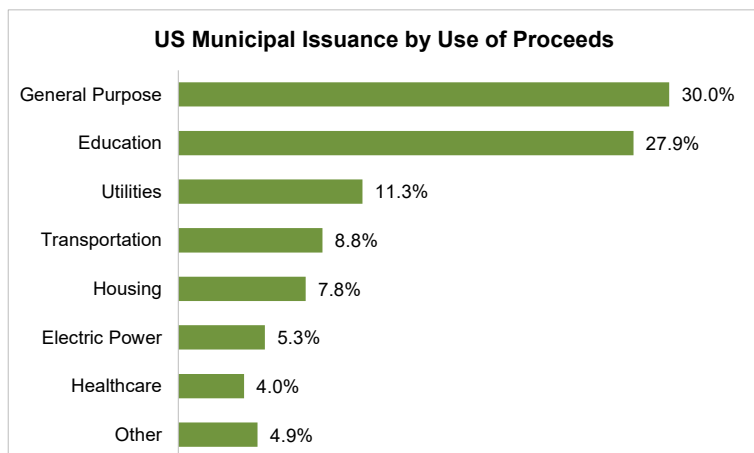
Municipal Bonds (Munis)

Munis: Review of Quarterly Statistics

- Issuance: \$102.2B; +29.9% Q/Q, -9.0% Y/Y
- ADV: \$12.4B; -4.0% Q/Q, -21.8% Y/Y



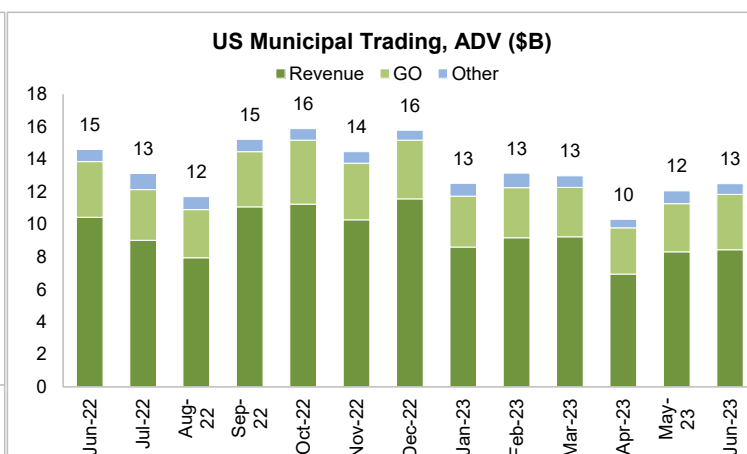
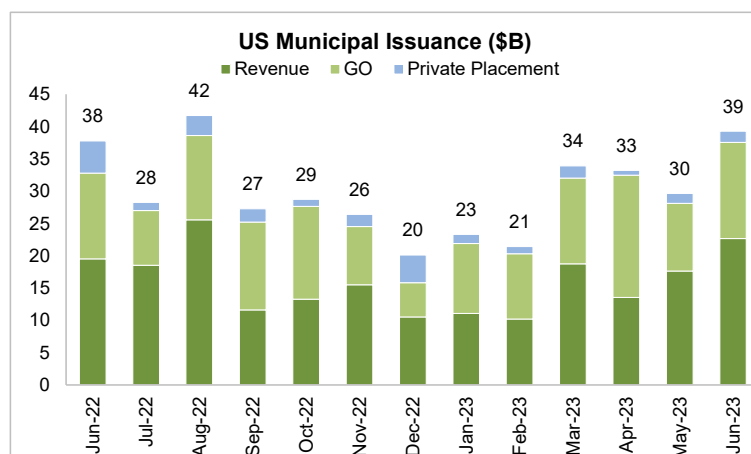
Source: Municipal Securities Rulemaking Board, Refinitiv, SIFMA estimates
 Note: GO = general obligation



Source: ICE Data Indices, Refinitiv, SIFMA estimates

Munis: Monthly Trends

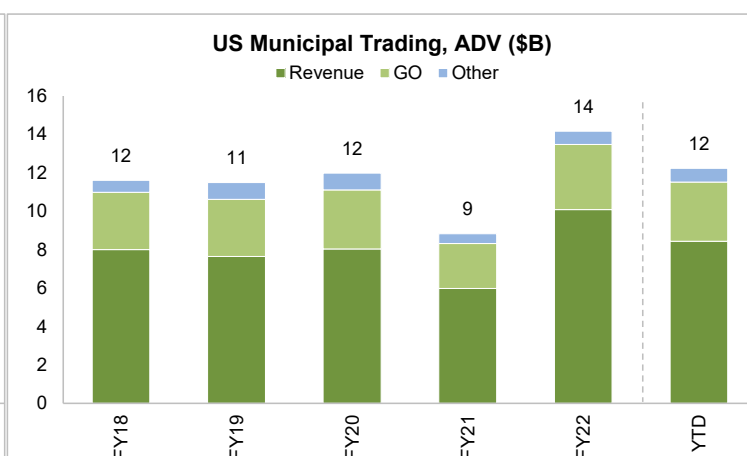
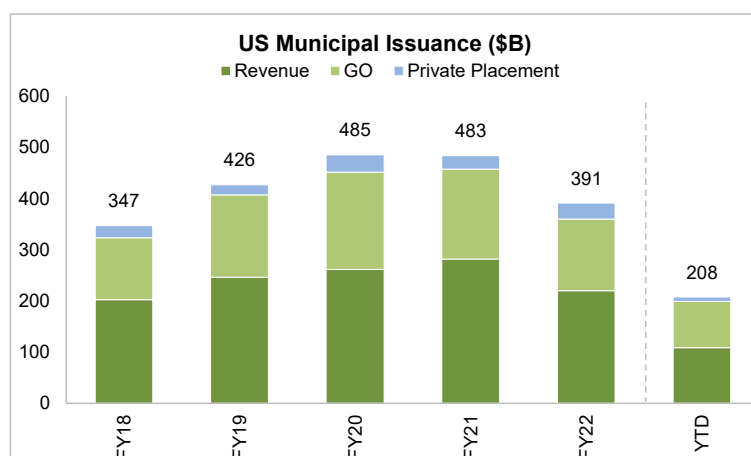
- Issuance: \$39.3B; +32.4% M/M, +4.0% Y/Y
- ADV: \$12.5B; +3.8% M/M, -14.4% Y/Y



Source: Municipal Securities Rulemaking Board, SIFMA estimates
 Note: GO = general obligation

Munis: Annual Statistics Update

- Issuance: 207.6B; -19.2% Y/Y
- ADV: \$12.2B; -12.7% Y/Y

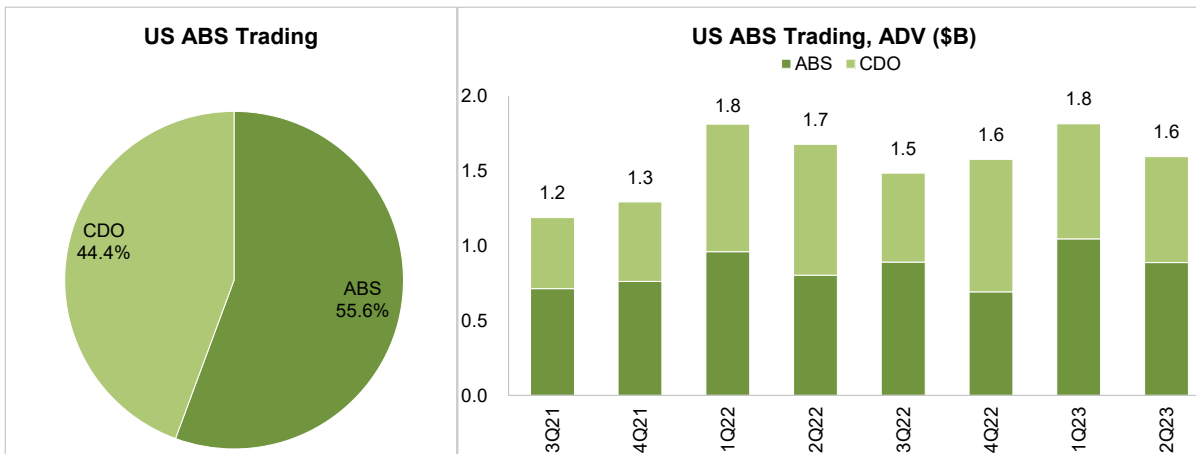
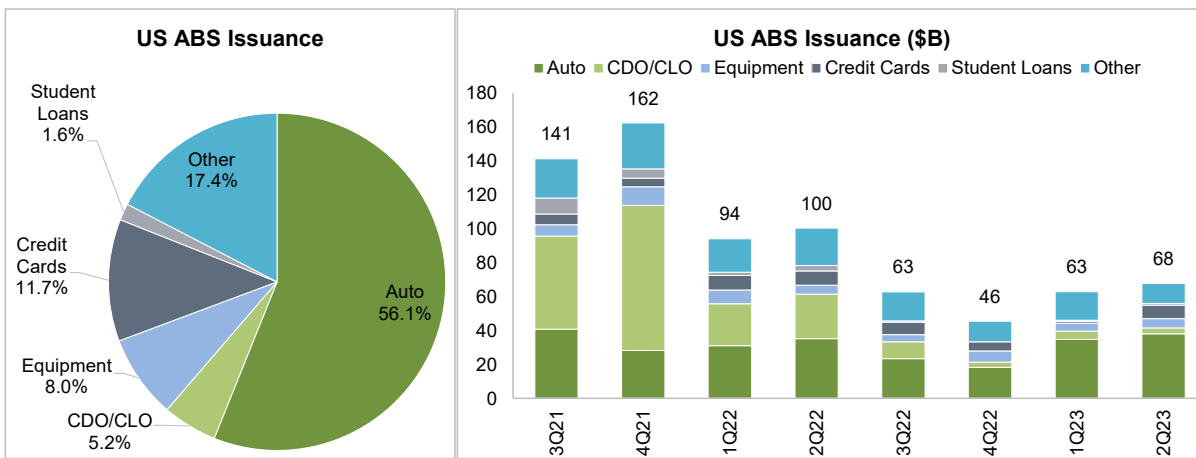


Source: Municipal Securities Rulemaking Board, SIFMA estimates
 Note: GO = general obligation

Asset-Backed Securities (ABS)

ABS: Review of Quarterly Statistics

- Issuance: \$67.8B; +7.9% Q/Q, -32.4% Y/Y
- ADV: \$1.6B; -12.1% Q/Q, -4.9% Y/Y

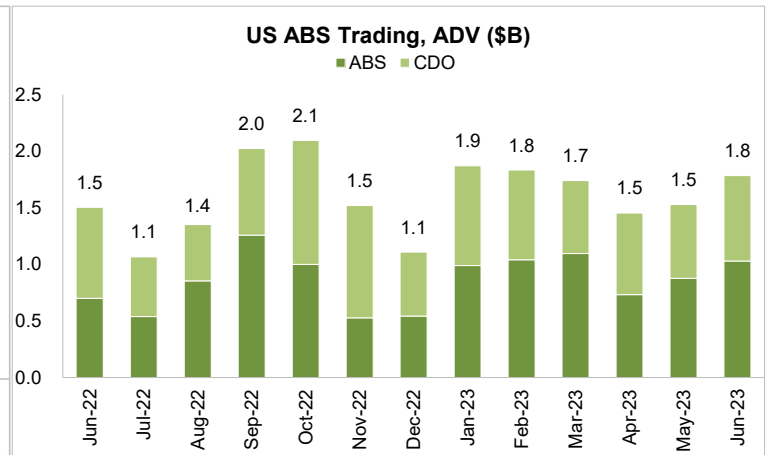
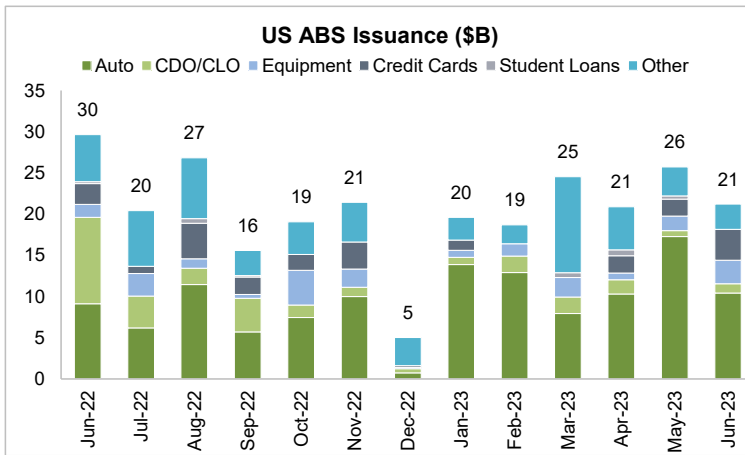


Source: Bloomberg, FINRA, Refinitiv, SIFMA estimates

Note: CDO = collateralized debt obligation, CLO = collateralized loan obligation

ABS: Monthly Trends

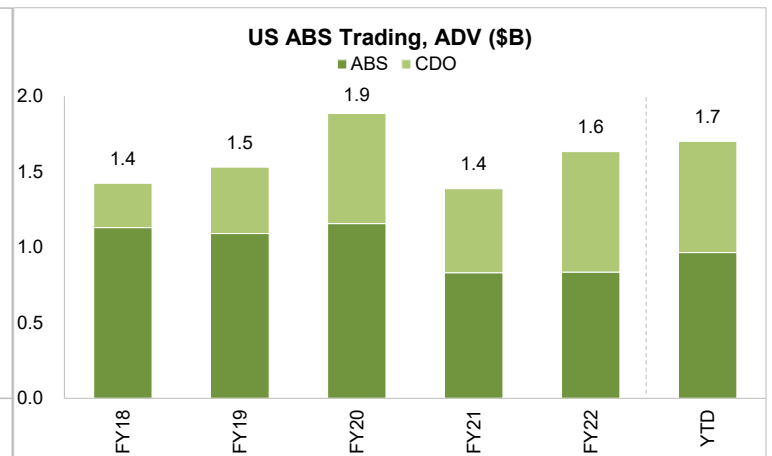
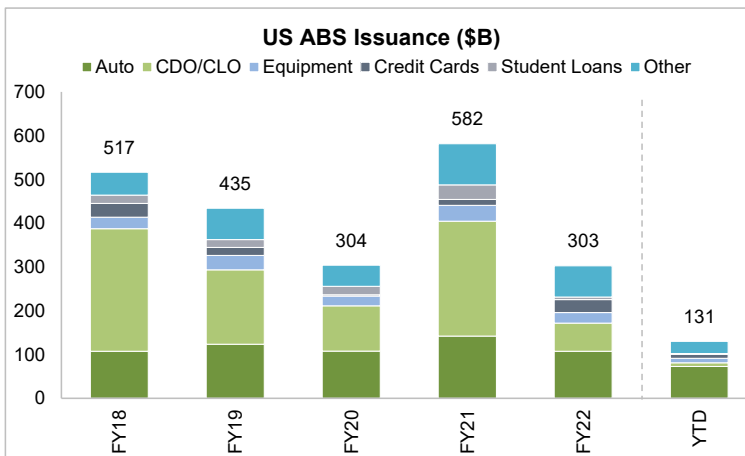
- Issuance: \$21.2B; -17.6% M/M, -28.4% Y/Y
- ADV: \$1.8B; +16.9% M/M, +18.6% Y/Y



Source: Bloomberg, FINRA, Refinitiv, SIFMA estimates
 Note: CDO = collateralized debt obligation, CLO = collateralized loan obligation

ABS: Annual Statistics Update

- Issuance: \$130.6B; -32.8% Y/Y
- ADV: \$1.7B; -2.3% Y/Y

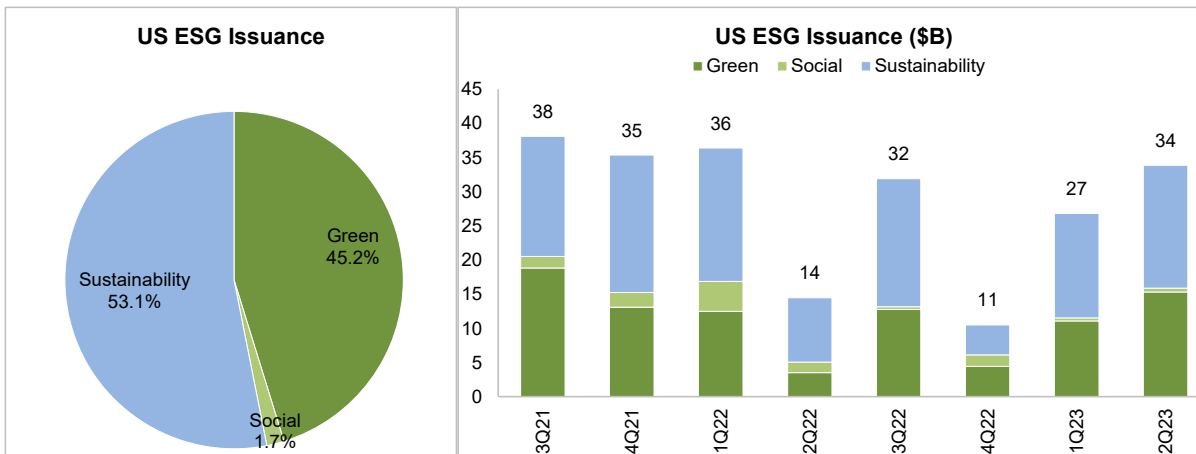
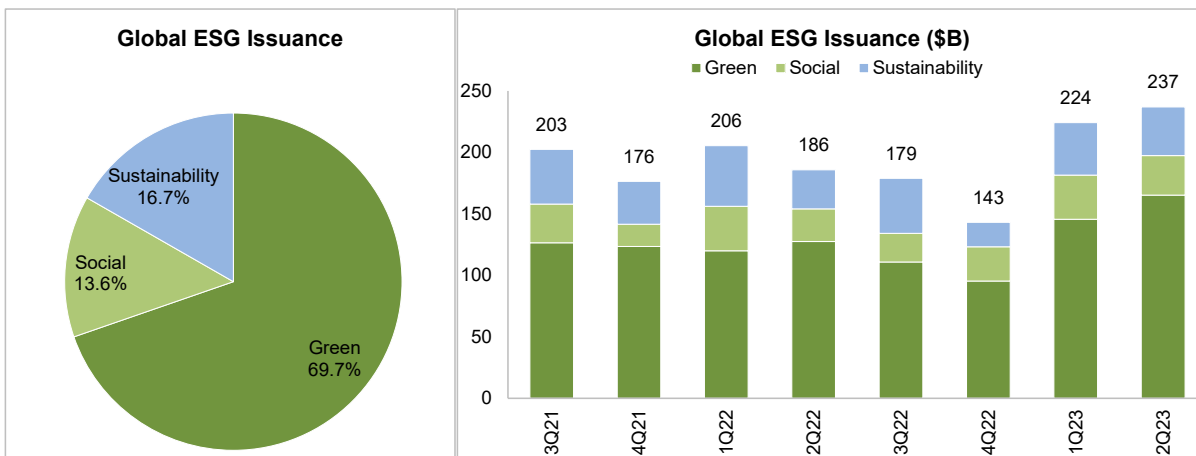


Source: Bloomberg, FINRA, Refinitiv, SIFMA estimates
 Note: CDO = collateralized debt obligation, CLO = collateralized loan obligation

Environmental, Social & Governance (ESG)

ESG: Review of Quarterly Issuance Statistics

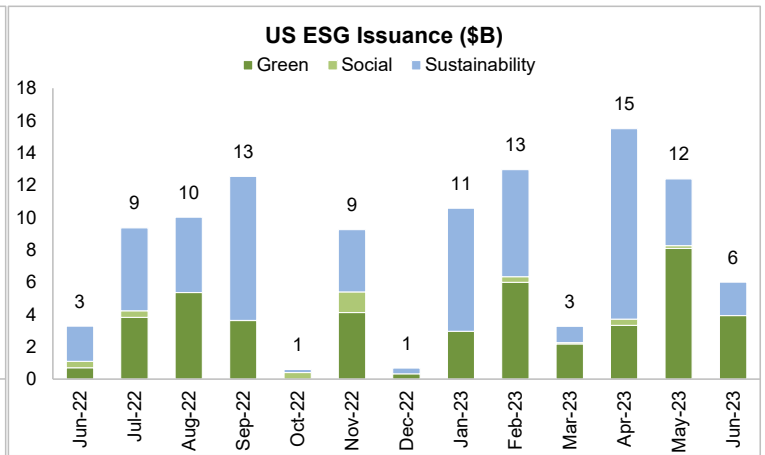
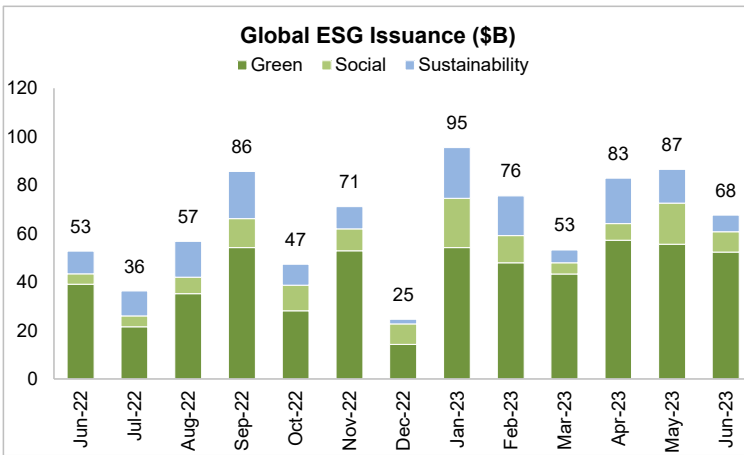
- Global: \$237.0B; +5.7% Q/Q, +27.6% Y/Y
- US: \$33.9B; +26.4% Q/Q, 133.9% Y/Y



Source: Dealogic, SIFMA estimates

ESG: Monthly Issuance Trends

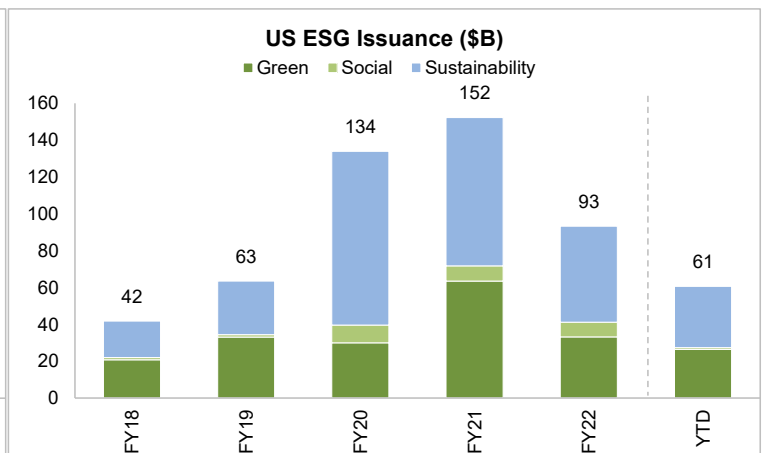
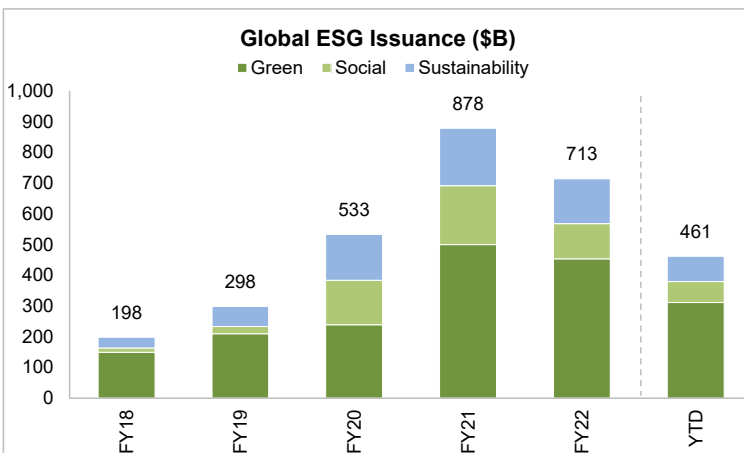
- Global: \$67.6B; -21.9% M/M, +28.1% Y/Y
- US: \$6.0B; -51.6% M/M, +83.1% Y/Y



Source: Dealogic, SIFMA estimates

ESG: Annual Issuance Update

- Global: \$461.2B; +17.9% Y/Y
- US: \$60.7B; +19.2% Y/Y

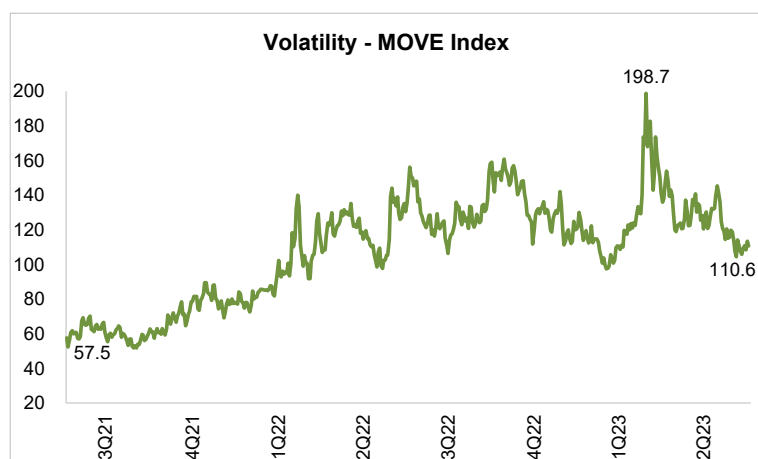


Source: Dealogic, SIFMA estimates

Quarterly Rates Review

Volatility (MOVE Index)

- Quarter end: 110.64
- Quarter average: 125.08
- Quarter Peak: 153.90 on 4/5/23

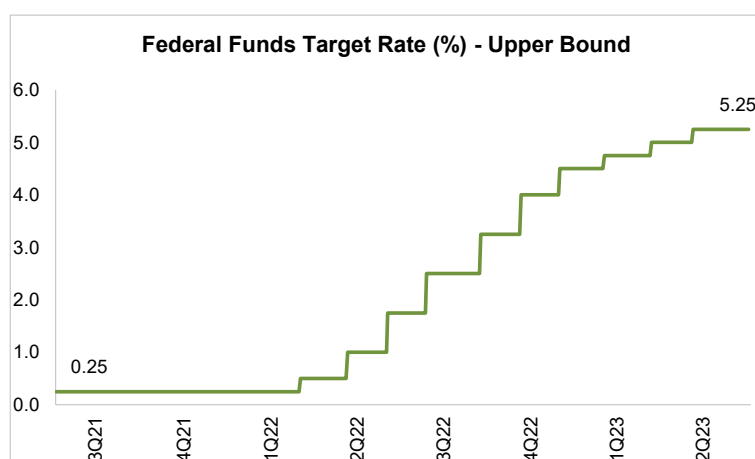


Source: Bloomberg, SIFMA estimates

UST Rates

Federal Funds Rate (Fed Funds)

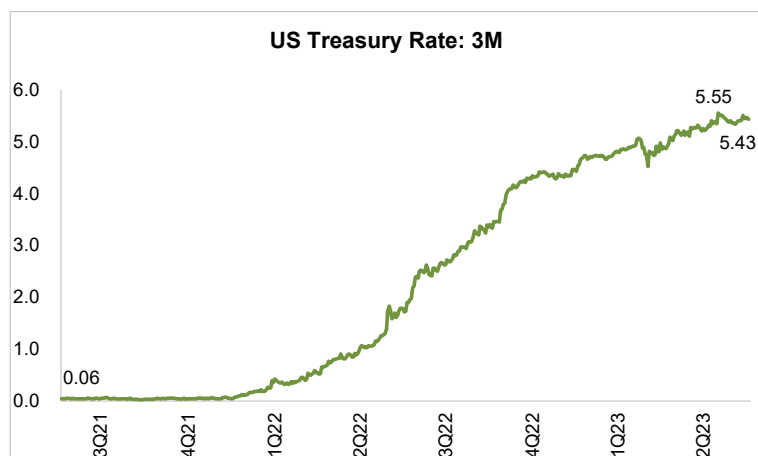
- Current: 5.00% (Lower Bound) - 5.25% (Upper Bound, shown in the chart)
(The chart is as of 2Q23 and does not depict the 25 bps hike at the July FOMC meeting; current rate 5.25-5.50%)
- Next FOMC meeting: September 19-20, 2023

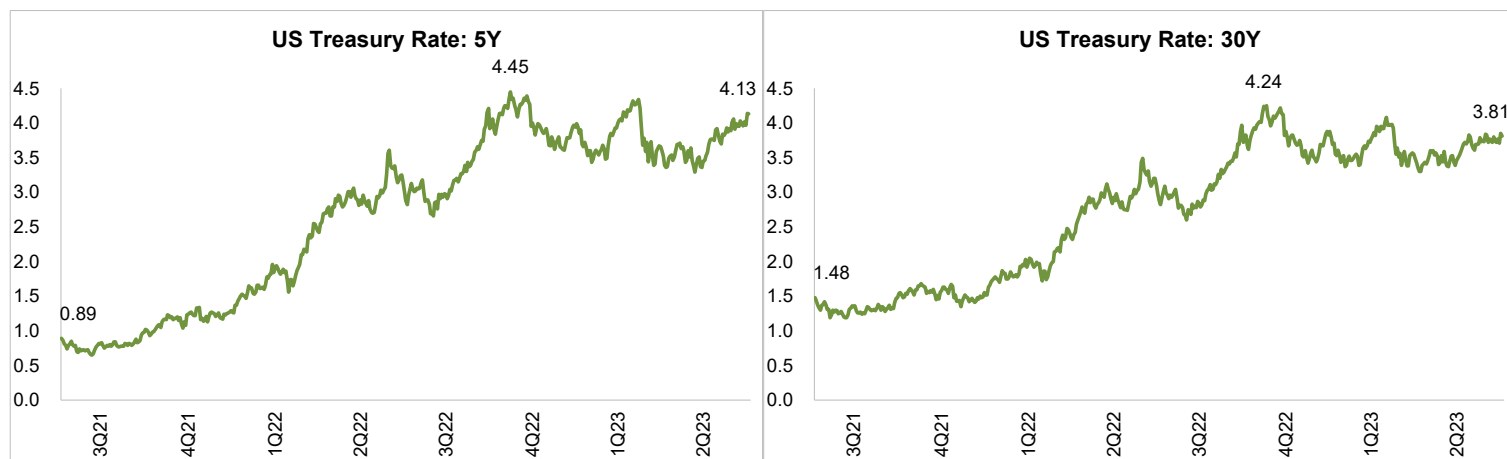


Source: Bloomberg, SIFMA estimates

UST by Tenor

- 10 Year Benchmark
 - Quarter end: 3.81%
 - Quarter average: 3.60%
 - Quarter Peak: 3.85% on 6/29/23



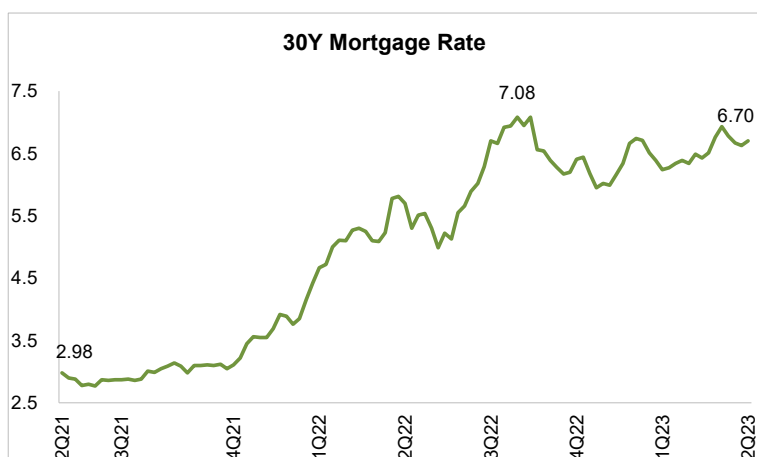


Source: Bloomberg, SIFMA estimates

Other Rates

30-Year Mortgage Rate

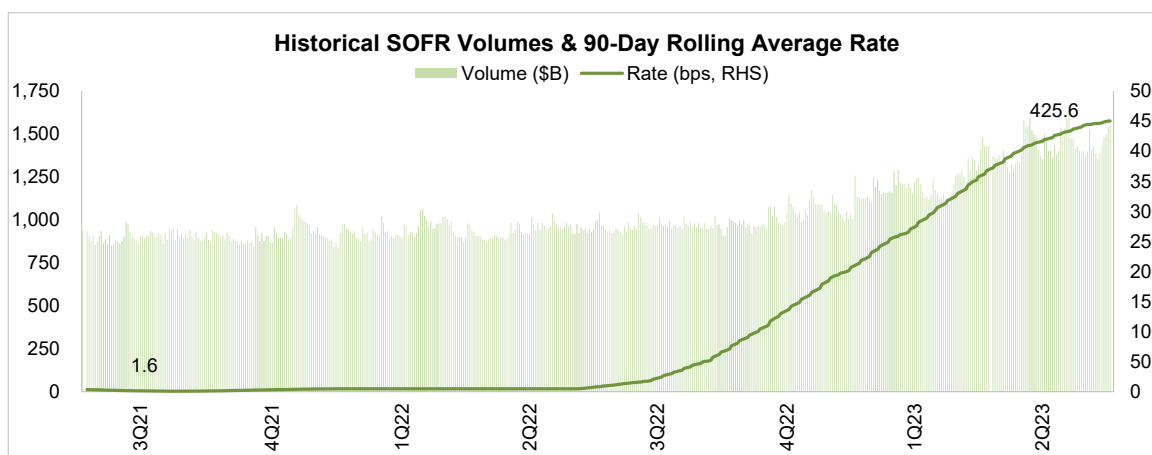
- Quarter end: 6.70%
- Quarter average: 6.56%
- Quarter Peak: 6.93% week of 6/1/23



Source: Bloomberg, SIFMA estimates

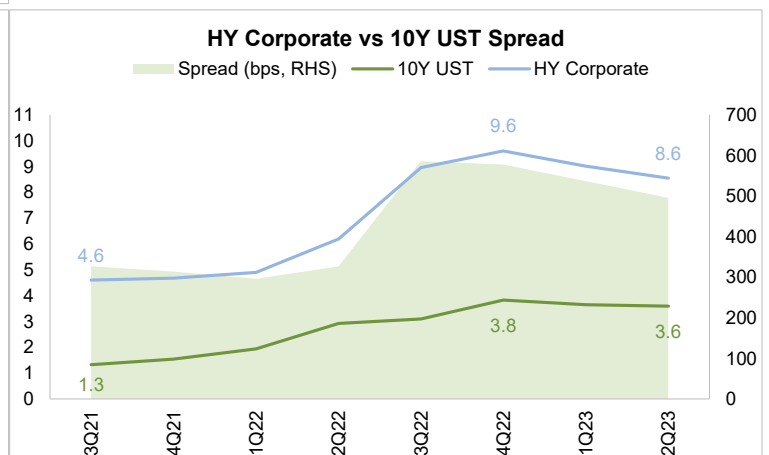
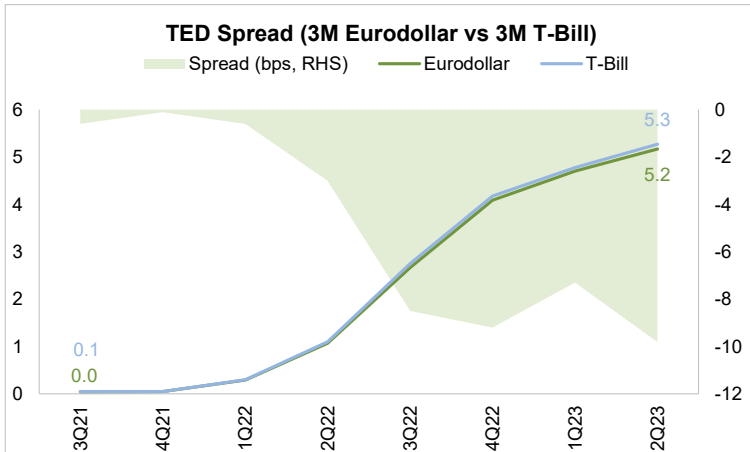
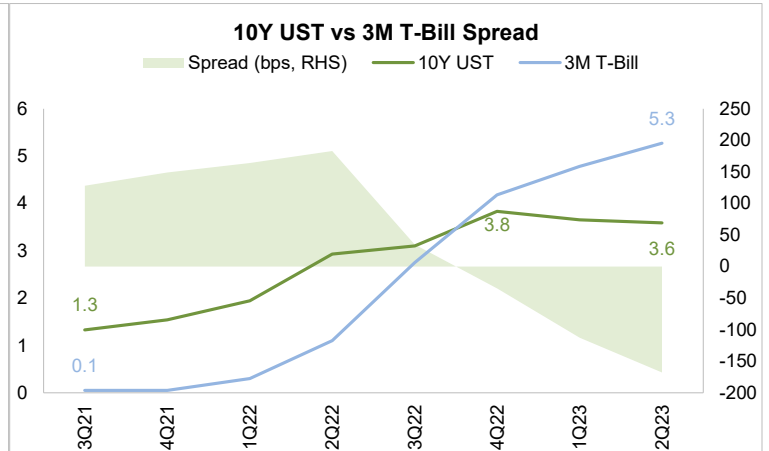
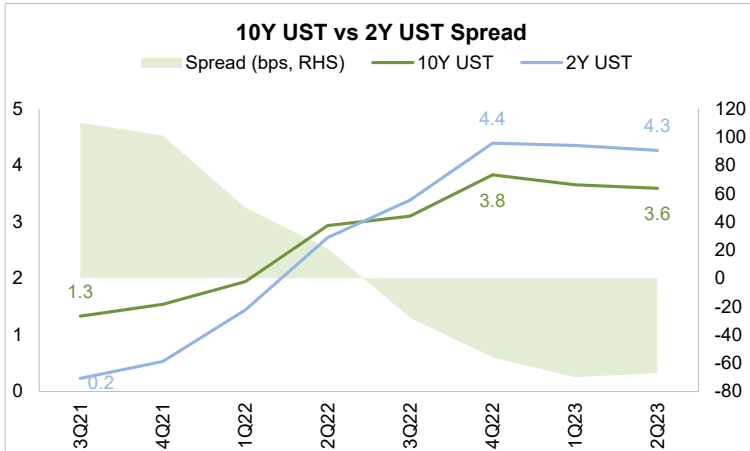
Secured Overnight Financing Rate (SOFR)

- Quarter end (90 day rolling average): 417.22bps
- Fed Volumes: \$1,549B



Source: Federal Reserve Bank of New York, SIFMA estimates

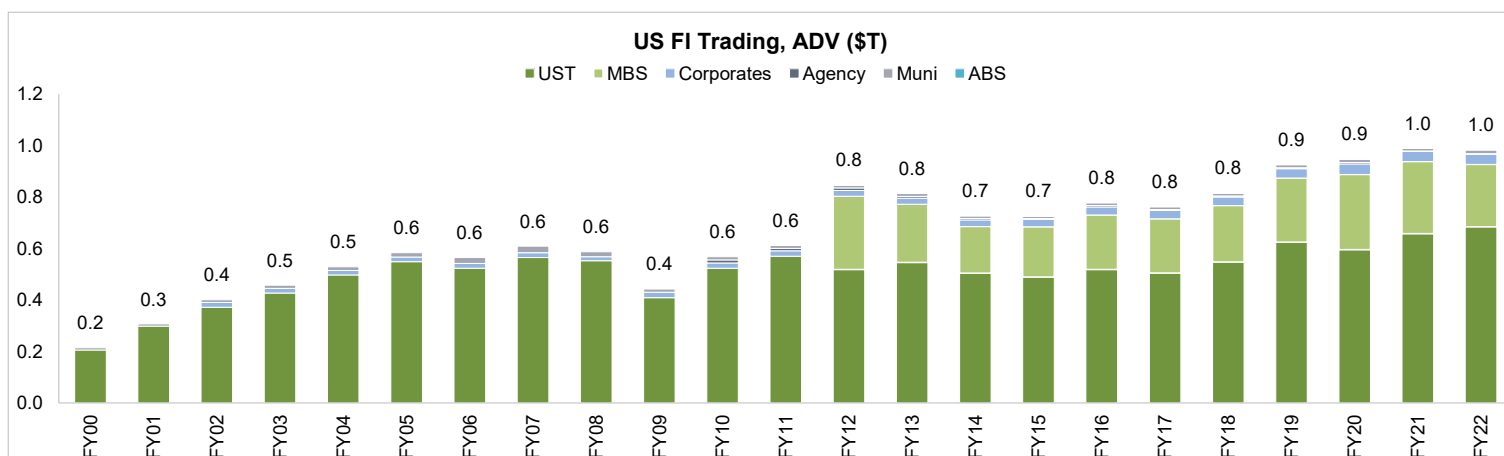
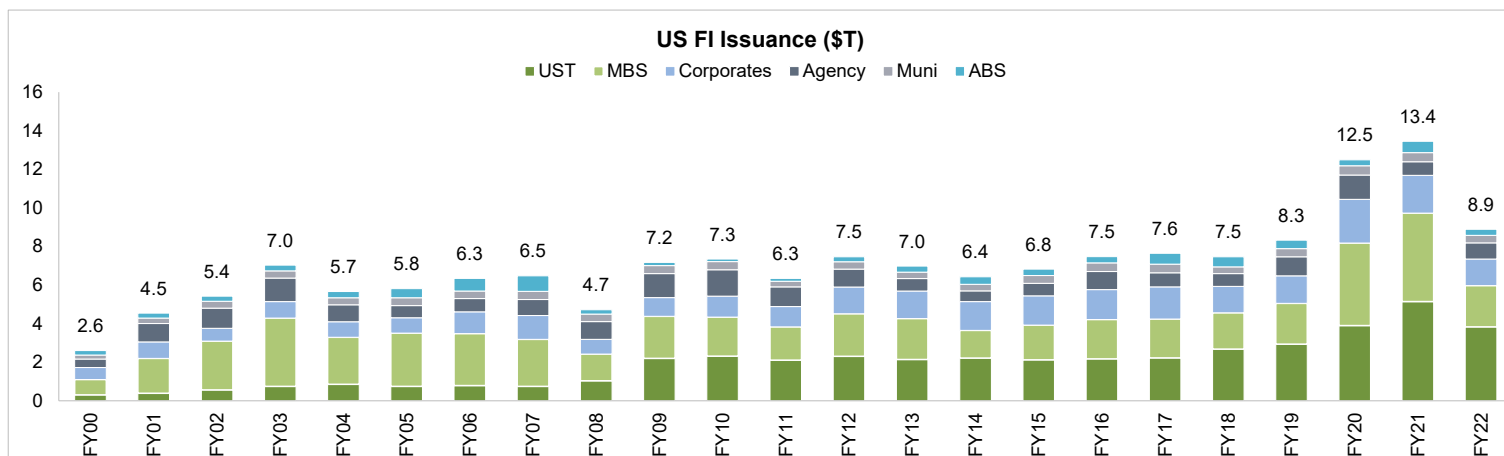
Curves & Spreads



Source: Bloomberg, SIFMA estimates

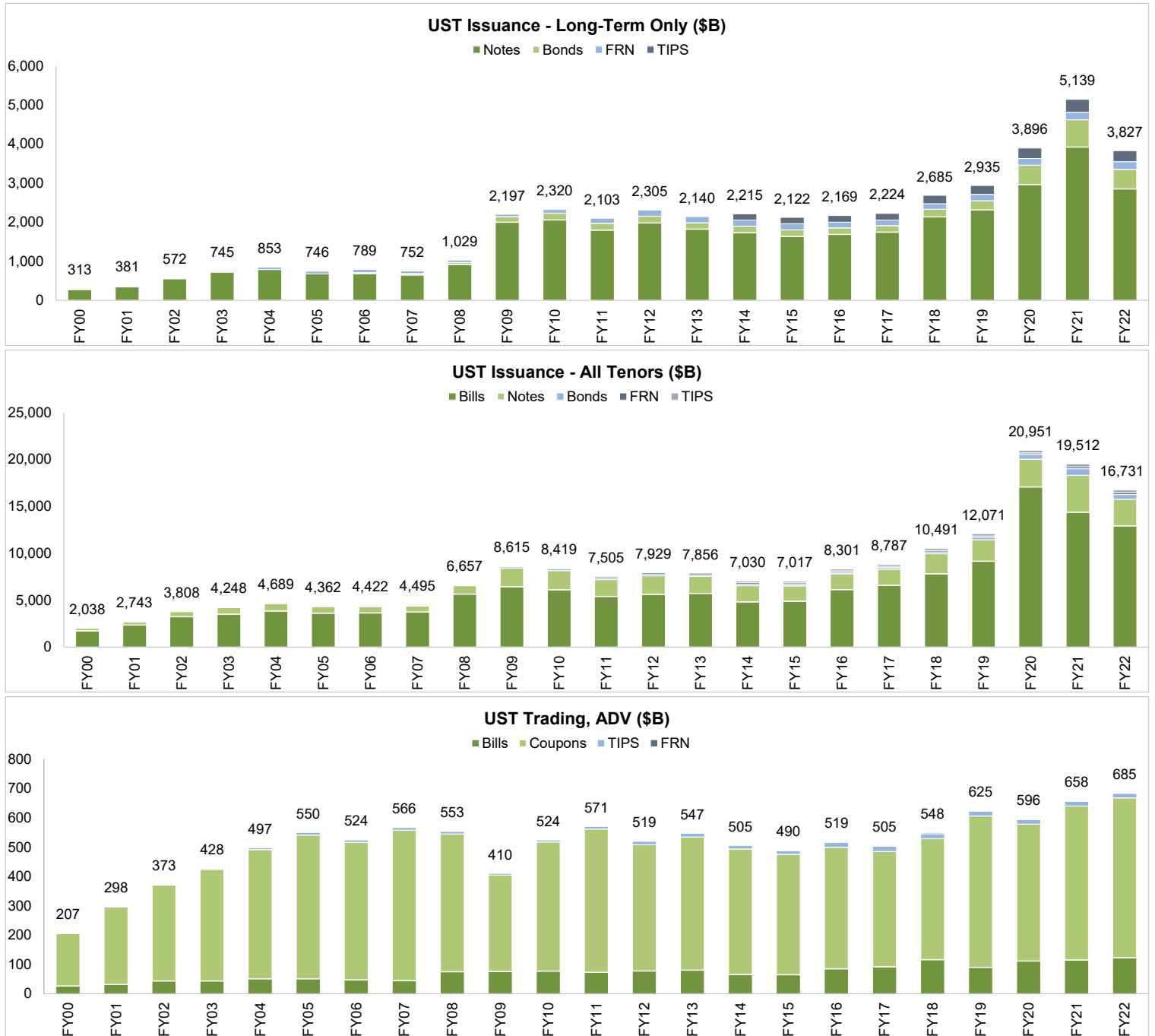
Appendix: Historical Trends

Total Fixed Income Securities



Source: Bloomberg, Federal Reserve Bank of New York, FINRA, Municipal Securities Rulemaking Board, Refinitiv, US Agencies, US Treasury, SIFMA estimates
 Note: Issuance = Long-term securities only, UST = U.S. Treasury securities, MBS = mortgage-backed securities, Corporates = corporate bonds, Agency = federal agency securities, Munis = municipal bonds, ABS = asset-backed securities

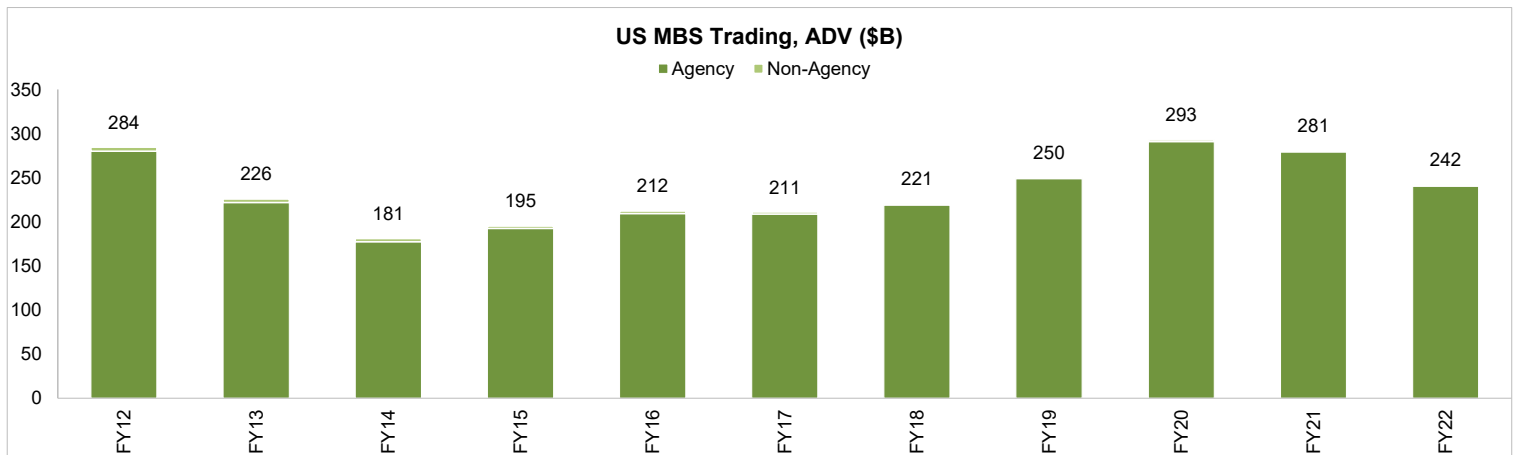
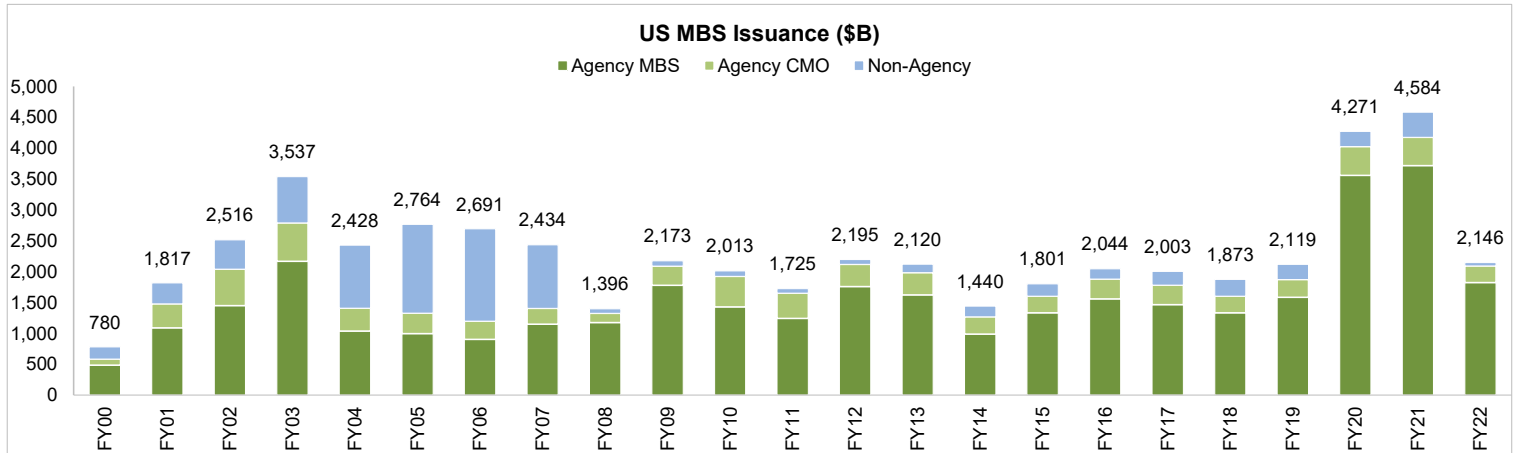
US Treasury Securities



Source: FINRA, NY Fed, US Treasury, SIFMA estimates

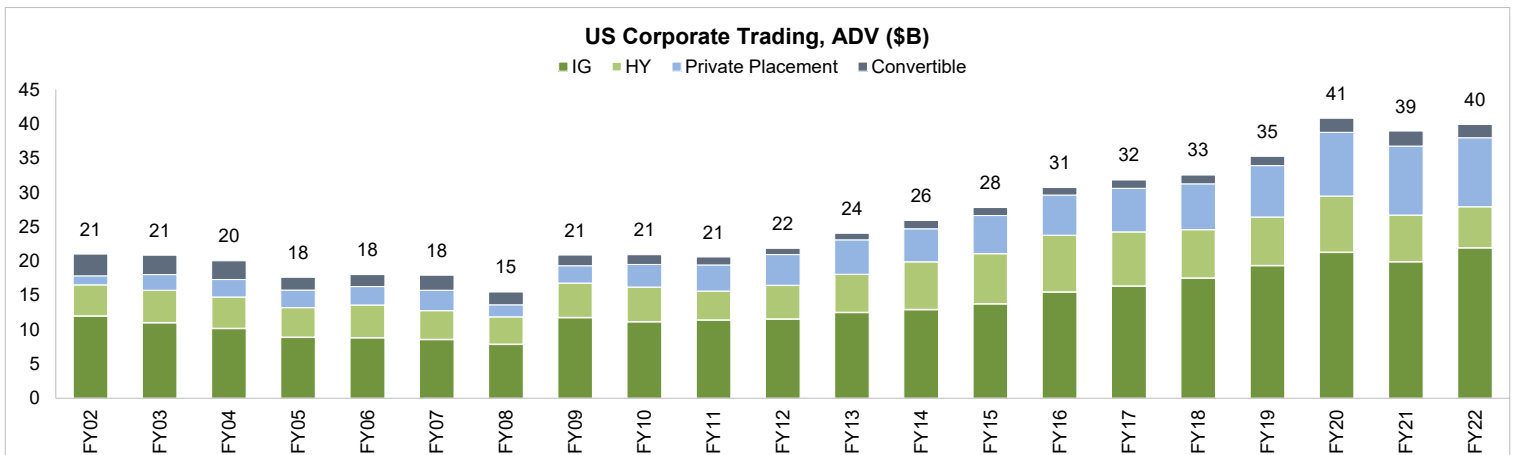
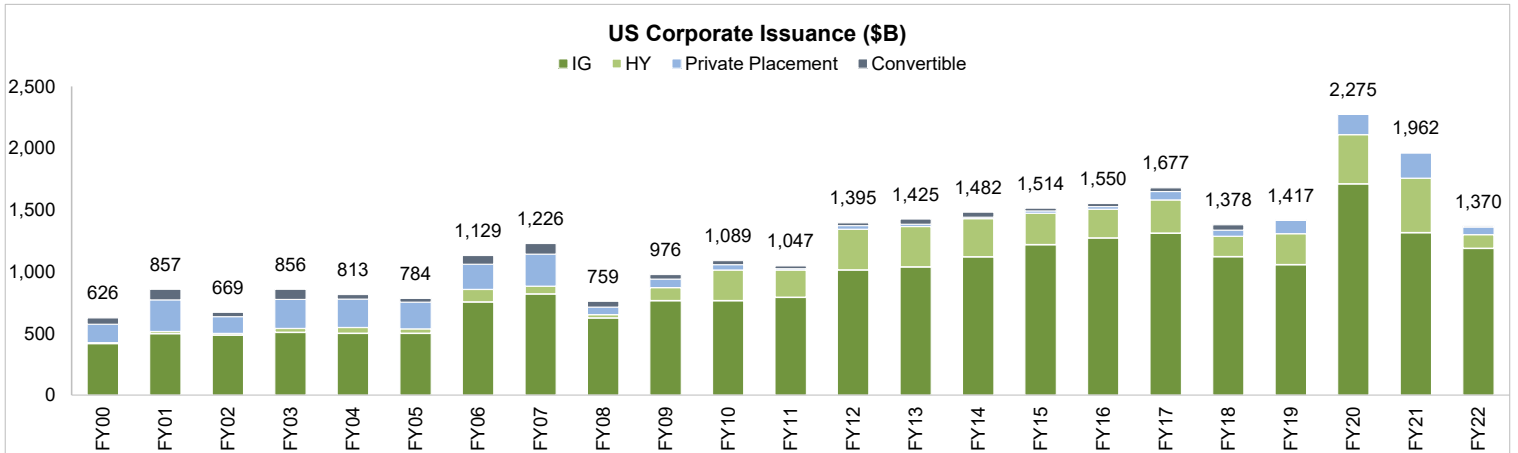
Note: FRN = floating rate note, TIPS = Treasury inflation-protected securities, UST Trading data pre-FY19 sourced from NY Fed (primary dealer reporting), data for FY19 and on sourced from FINRA

Mortgage-Backed Securities



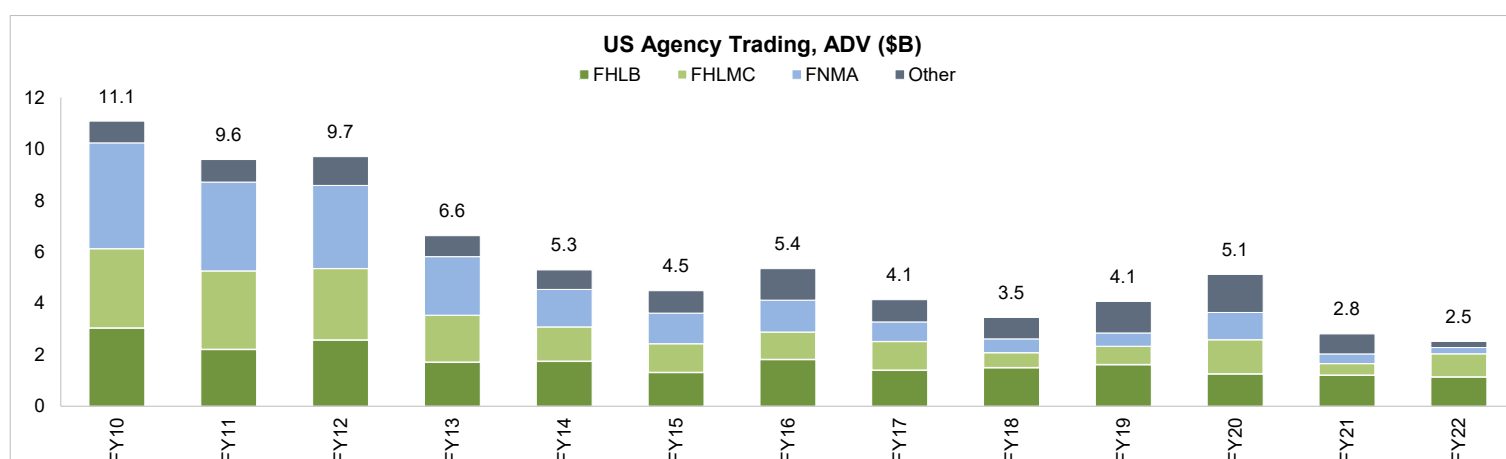
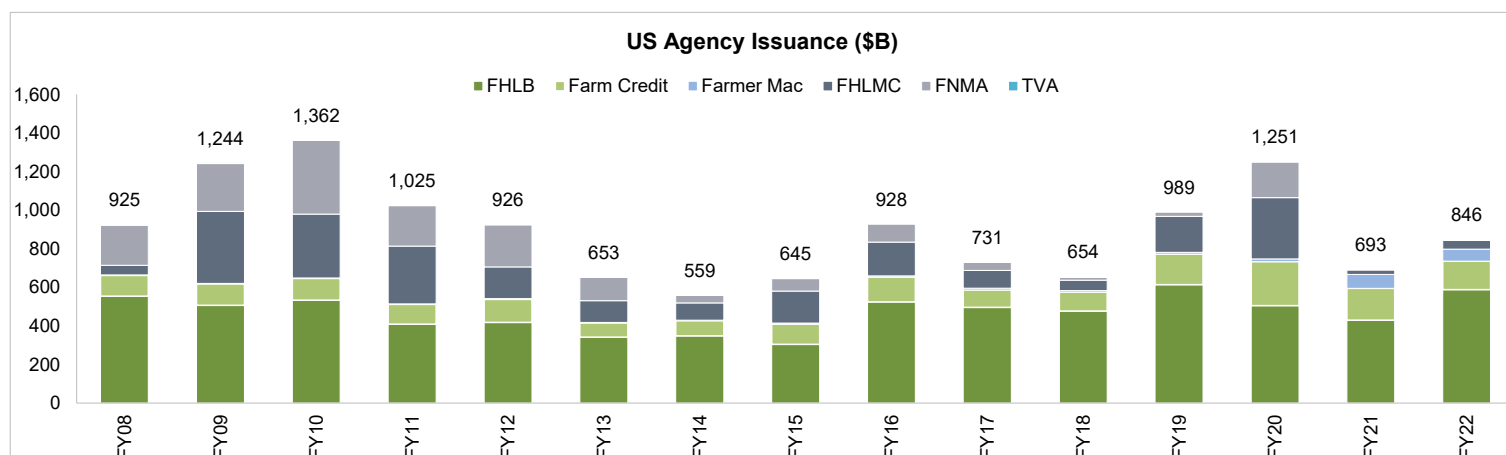
Source: Bloomberg, FINRA, Refinitiv, SIFMA estimates
 Note: CMO = collateralized mortgage obligation

Corporate Bonds



Source: Refinitiv, FINRA, SIFMA estimates
 Note: IG = investment grade, HY = high yield

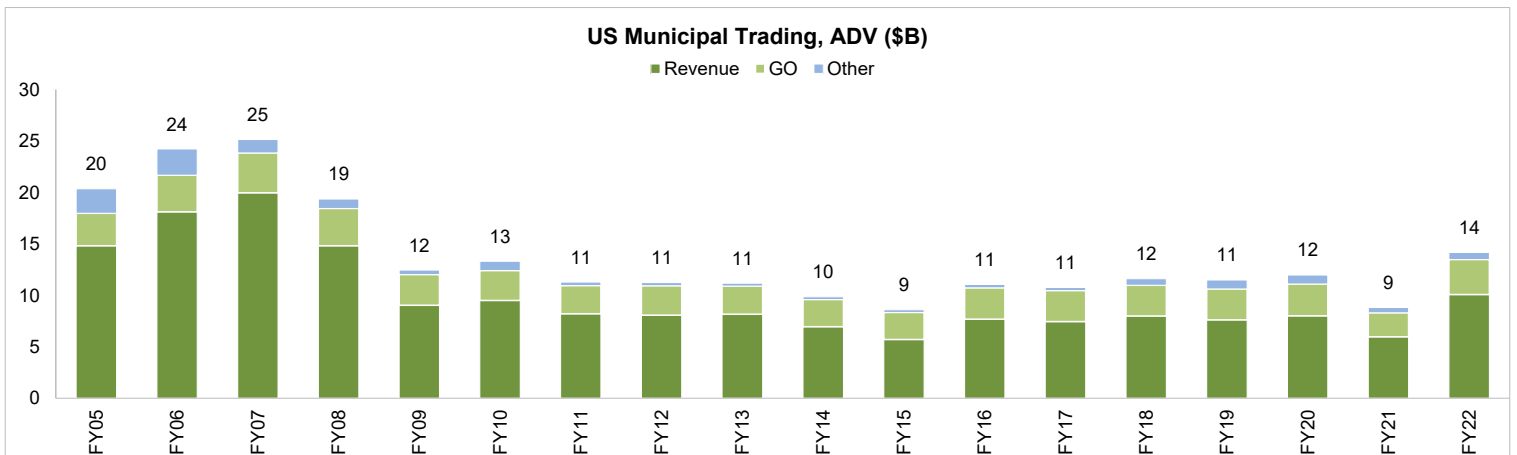
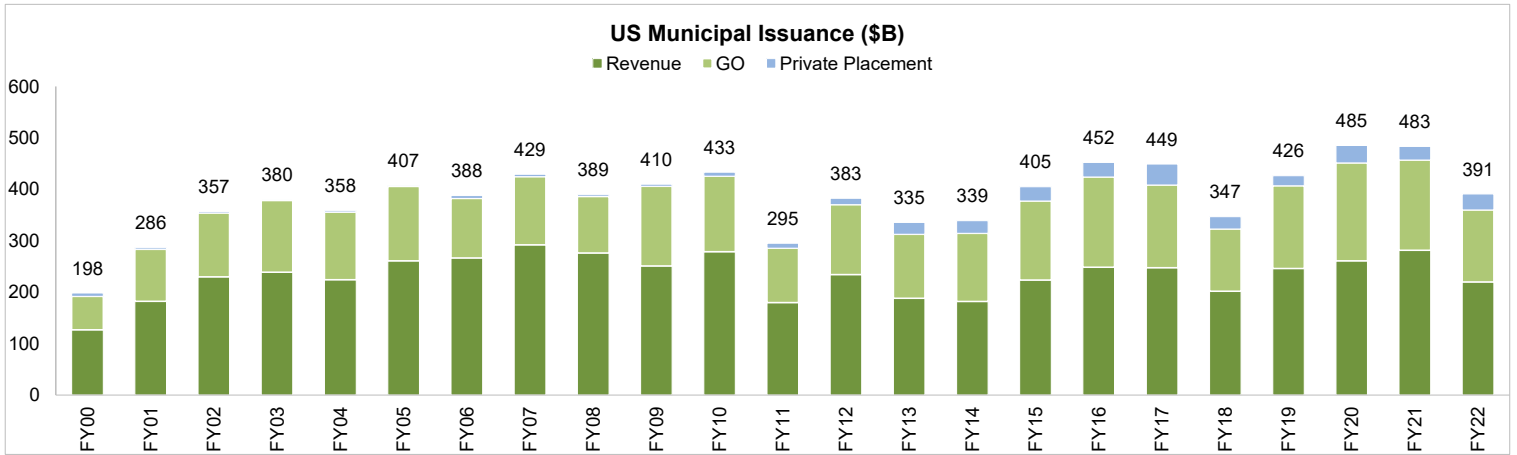
Federal Agency Securities



Source: FINRA, US Agencies, SIFMA estimates

Note: FHLB = The Federal Home Loan Banks, FHLMC = The Federal Home Loan Mortgage Corporation (Freddie Mac), FNMA = The Federal National Mortgage Association (Fannie Mae), TVA = The Tennessee Valley Authority

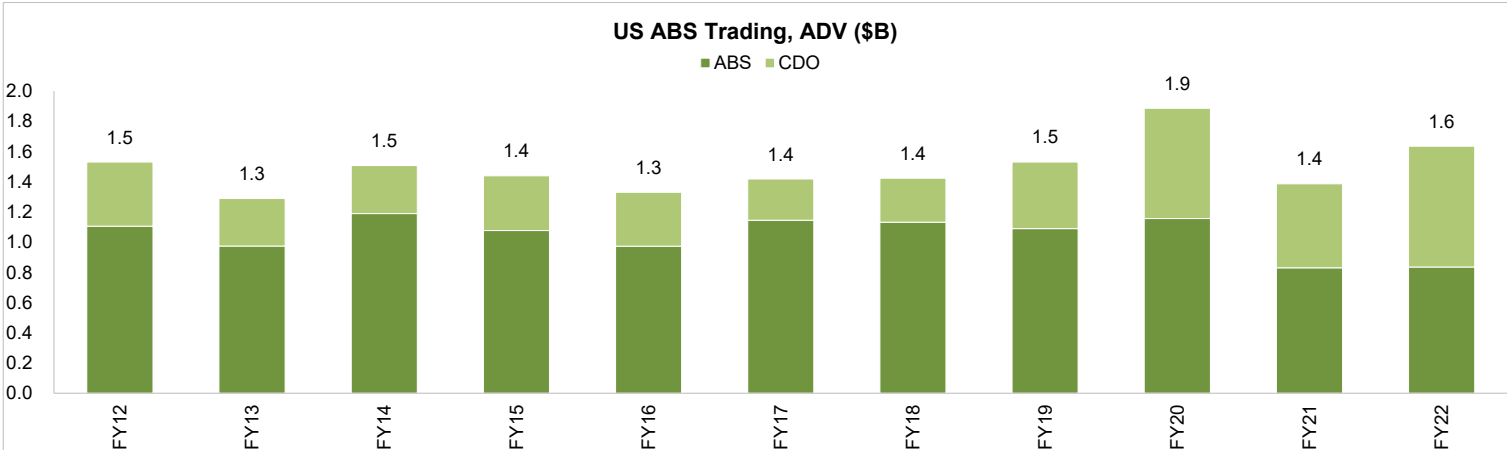
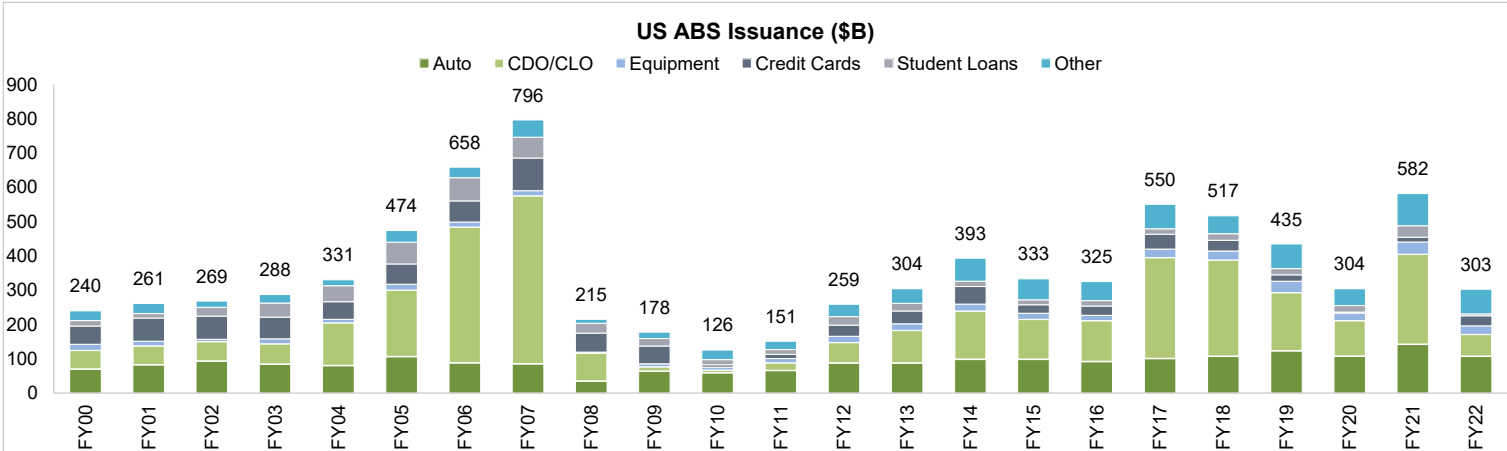
Municipal Bonds



Source: Municipal Securities Rulemaking Board, Refinitiv, SIFMA estimates

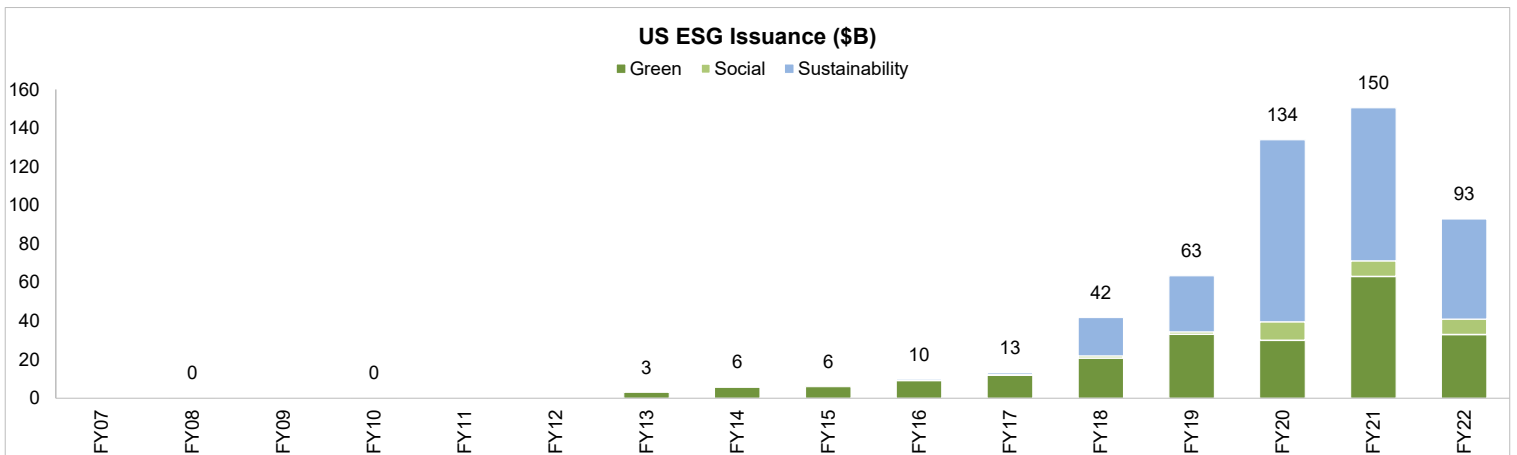
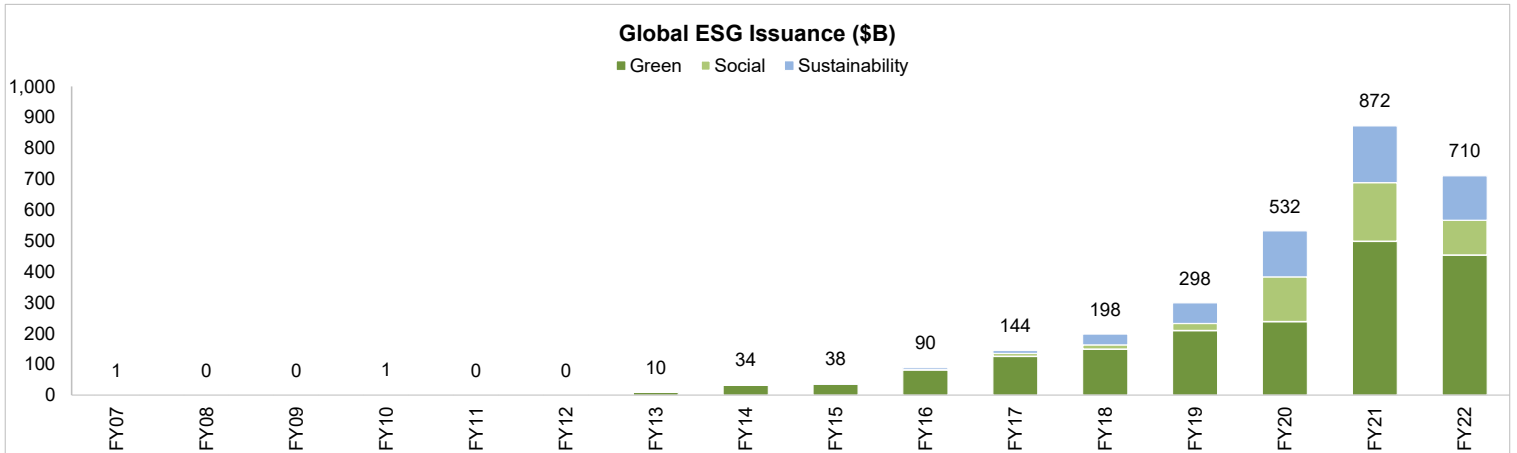
Note: GO = general obligation

Asset-Backed Securities



Source: Bloomberg, FINRA, Refinitiv, SIFMA estimates
 Note: CDO = collateralized debt obligation, CLO = collateralized loan obligation

Environmental, Social, and Governance (ESG)



Source: Dealogic, SIFMA estimates

Appendix: Definitions & Purpose

In general, fixed income securities are borrowed capital for the issuer to fund government operations, public projects or corporate investments, thereby fueling economic growth. The diversity of fixed income products both increases the amount of funds available to borrow and spreads credit risk across multiple market participants.

- **U.S. Treasury Securities (UST)** – UST are debt obligations of the federal government used to fund its operations. Since UST are backed by the full faith and credit of the U.S. government, these securities are considered by market participants as the benchmark credit. The U.S. government has a AAA rating, meaning it has essentially no credit risk and can easily meet its financial obligations on time and in full. In light of this, UST show a diversity of holders, in both institutional type and foreign holders.
- **Mortgage-Backed Securities (MBS)** – Since mortgages (a debt instrument collateralized by a specified real estate property) are less liquid than other investment vehicles, they can be securitized into MBS, whether in pass-throughs or collateralized mortgage obligations (CMOs).
- **Corporate Bonds (Corporates)** – Corporates are debt securities issued by public and private corporations. They are issued to raise money to fund investments or expansion plans. Corporates are considered riskier than UST, and receive ratings by credit ratings agencies to determine creditworthiness, i.e. probability of repayment of debt in a timely manner.
- **Municipal Bonds (Munis)** – Munis are debt securities issued by state/local governments or government agencies and public entities (utilities, school districts) to fund public projects, predominantly infrastructure related. Efficient muni markets enable states and municipalities to borrow at low rates and finance capital expenditures over a longer time period.
- **Federal Agency Securities (Agency)** – Agency securities are issued by quasi-governmental agencies (federal government, government sponsored enterprises) to fund operations. Unlike UST or munis, these securities are not always fully guaranteed by the U.S. or a municipal government. As such, they can hold credit and default risk.
- **Asset-Backed Securities (ABS)** – ABS are financial securities collateralized by a pool of typically illiquid assets such as auto loans, student loans, credit cards, etc. Pooling these assets creates a more liquid investment vehicle, with a valuation based on the cash flows of the underlying and the structure of the transaction.
- **Money Markets (MM)** – MMs involve highly liquid, short maturity (typically overnight to less than one year) financial instruments (certificates of deposit/CDs, bankers' acceptances, commercial paper/CP, etc.), used by investors to borrow and lend in the short term. Transactions in the money markets are wholesale, taking place only between institutional investors (no individual investors) and for large denominations.

- **Repurchase Agreements (Repos)** – Repos are financial transactions in which one party sells an asset to another party with a promise to repurchase the asset at a pre-specified later date (a reverse repo is the same transaction seen from the perspective of the security buyer). Repos can be overnight (duration one day) or term (duration up to one year, albeit some are up to two years and the majority are three months or less). The repo market enables market participants to provide collateralized loans to one another, and financial institutions predominantly use repos to manage short-term fluctuations in cash holdings, rather than general balance sheet funding. Repos aid secondary market liquidity for the cash markets (ex: UST), allowing dealers to act as market makers in a very efficient manner.
- **Secured Overnight Financing Rate (SOFR)** – In the U.S., the transition away from London Interbank Offered Rate (LIBOR) to its chosen alternative reference rate, SOFR, is underway. While LIBOR is not fully transaction based, SOFR is based on the overnight repo markets with ~ \$1 trillion transactions per day. Publication of the SOFR rate began in April 2018. Trading and clearing of SOFR based swaps and futures began in May 2018.
- **Environmental, Social, and Governance (ESG)** – Dealogic classifies ESG bonds by:
 - Green – Any type of bond instrument where the proceeds will be exclusively applied to finance or refinance, in part or in full, new and/or existing eligible Green Projects and which are aligned with the four core components of the Green Bond Principles (GBP)
 - Social – Any type of bond instrument where the proceeds will be exclusively applied to finance or refinance in part or in full new and/or existing eligible Social Projects and which are aligned with the four core components of the Social Bond Principles (SBP)
 - Sustainability – Bonds where the proceeds are exclusively applied to finance or refinance a combination of both Green and Social Projects
 - Region – Deal nationality is a calculated nationality that looks at the business nationality of the issuing entity with the exception of securitizations that are categorized using the nationality of business of the originator or if undisclosed the nationality of risk

Appendix: Terms to Know

Y/Y	Year-over-Year
Q/Q	Quarter-over-Quarter
YTD	Year-to-Date
BPS	Basis Points
PPS	Percentage Points
CAGR	Compound Annual Growth Rate
CUSIP	Committee on Uniform Securities Identification Procedures

CFTC	Commodity Futures Trading Commission
SEC	Securities and Exchange Commission
Fed	Federal Reserve System
FRB	Federal Reserve Bank
NY Fed	Federal Reserve Bank of New York
ARRC	Alternative Reference Rates Committee

ADV	Average Daily Trading Volume
Algo	Algorithm (algorithmic trading)
AT	Automated Trading
ATS	Alternative Trading System
AUM	Assets Under Management
Best Ex	Best Execution
CLOB	Central Limit Order Book
D2C	Dealer-to-Client
D2D	Dealer-to-Dealer
ECN	Electronic Communications Network
ETP	Electronic Trading Platforms
ETD	Exchange Traded Derivative
FI	Fixed Income
FICC	Fixed Income, Currencies and Commodities
GCF	General Collateral Financing
IDB	Inter-Dealer Broker
IIV	Intraday Indicative Value
IOI	Indication of Interest
MM	Market Maker
OI	Open Interest
OTC	Over-the-Counter
VWAP	Volume Weighted Average Price

IBOR	Interbank Offered Rate
LIBOR	London Inter-bank Offered Rate
RFR	Risk Free Rate
SOFR	Secured Overnight Financing Rate
DV01	Dollar Value of Basis Point
DVP	Delivery-versus-Payment
EFFR	Effective Fed Funds Rate
PAI	Price Alignment Interest
Repo	Repurchase Agreement

UST	U.S. Treasury Securities
MBS	Mortgage-Backed Security
Corporates	Corporate Bonds
Munis	Municipal Securities
Agency	Federal Agency Securities
ABS	Asset-Backed Securities
MM	Money Markets

FRN	Floating Rate Note
FRA	Forward Rate Agreement
T-Bill	U.S. Treasury Bill
T-Note	U.S. Treasury Note
T-Bond	U.S. Treasury Bond
TIPS	Treasury Inflation Protected Securities

ABS	Asset-Backed Security
CMO	Collateralized Mortgage Obligation
MBS	Mortgage-Backed Security
CMBS	Commercial MBS
RMBS	Residential MBS

HY	High Yield Bond
IG	Investment Grade Bond

GO	General Obligation Bond
Revenue	Revenue Bond

CD	Certificate of Deposit
CDO	Collateralized Debt Obligation
CLO	Collateralized Loan Obligation
CP	Commercial Paper
ABCP	Asset-Backed Commercial Paper
MMF	Money Market Mutual Funds

FAMC	Farmer Mac/Federal Agricultural Mortgage Corporation
FCS	Farm Credit System
FHLB	Federal Home Loan Banks
FHLMC	Freddie Mac/Federal Home Loan Mortgage Corporation
FNMA	Fannie Mae/Federal National Mortgage Association
GNMA	Ginnie Mae/Government National Mortgage Association
TVA	Tennessee Valley Authority

IR	Interest Rate
IRS	Interest Rate Swap
OIS	Overnight Index Swap
TRS	Total Return Swap
STIR	Short-Term Interest Rate

Appendix: SIFMA Research Reports

SIFMA Research: www.sifma.org/research

- **Quarterly Reports**
 - Equity and related: capital formation (IPOs, other issuance statistics); market performance (index prices); volatility (VIX); cash equities, ETFs, and multi-listed options volumes; exchange market shares and landscapes; equity market cap and number of listed companies
 - Fixed Income – Issuance & Trading: issuance and trading metrics for U.S. Treasuries, mortgage-backed securities, corporate bonds, municipal securities, federal agency securities, asset-backed securities, and secured overnight financing rate (SOFR), as well as statistics on fixed income ESG issuance for green, social, and sustainability bonds
 - Fixed Income – Outstanding: outstanding balances for U.S. Treasuries, mortgage-backed securities, corporate bonds, municipal securities, federal agency securities, asset-backed securities, money markets, repurchase agreements, and secured overnight financing rate (SOFR)
 - Financial Institutions: financial (income statement and balance sheet metrics) and regulatory (ratios such as capital levels) data for CCAR firms, essentially a proxy for the financial services industry
- **Capital Markets Fact Book:** a comprehensive look at capital markets, including
 - Global equity and fixed income markets (outstanding, issuance, volumes); investment banking landscape; international securities transactions
 - U.S. equity, fixed income, derivatives and private placement markets (outstanding, issuance, volumes, index prices); investment banking landscape; mutual fund and ETF statistics
 - U.S. investor participation showing household liquid financial asset breakout; household equity ownership; and holders of equities
 - U.S. savings & investment metrics on retirement asset breakout and mix across asset classes; savings rates and other economic indicators; and federal balance sheet overview
 - U.S. securities industry statistics on number of broker-dealers, registered representatives, registered investment advisors, and branch offices; industry financial overview; and state maps showing number firms/ reps
- **U.S. Repo Market Chart Book:** a detailed description of the U.S. repurchase agreement (repo) markets and outstanding and collateral statistics for repo and reverse repo securities in the bilateral, general collateral finance (GCF), and tri-party repo markets

Authors

SIFMA Research

Katie Kolchin, CFA, Managing Director, Head of Research

Justyna Podziemska

Dan Song

research@sifma.org

Disclaimer: This document is intended for general informational purposes only and is not intended to serve as investment advice to any individual or entity. The views in this report and interpretation of the data are that of SIFMA, not necessarily its member firms.

SIFMA is the leading trade association for broker-dealers, investment banks and asset managers operating in the U.S. and global capital markets. On behalf of our industry's one million employees, we advocate on legislation, regulation and business policy affecting retail and institutional investors, equity and fixed income markets and related products and services. We serve as an industry coordinating body to promote fair and orderly markets, informed regulatory compliance, and efficient market operations and resiliency. We also provide a forum for industry policy and professional development. SIFMA, with offices in New York and Washington, D.C., is the U.S. regional member of the Global Financial Markets Association (GFMA). For more information, visit <http://www.sifma.org>.

This report is subject to the Terms of Use applicable to SIFMA's website, available at <http://www.sifma.org/legal>. Copyright © 2023