



SIFMA Research Quarterly – 1Q21

Primary Market: US Equity Capital Formation

Secondary Markets: US Cash Equities, ETFs and Multi-Listed Options

April 2021

The SIFMA Research Quarterlies contain data and statistics on U.S. markets. The equity related report – cash equities, ETFs, listed options and capital formation – includes information on: volumes, volatility, total equity issuance, IPOs, market shares, exchange landscapes, etc.

All reports, including the two fixed income quarterlies (issuance and trading; outstanding), and corresponding databases can be found at: www.sifma.org/research



Contents

Executive Summary	4
Quarterly Highlights	5
Chart Book: US Equity Capital Formation	6
IPO Issuance and Other Statistics	6
Chart Book: US Cash Equities	10
Volumes and Other Statistics	10
Exchange and Parent Group Market Share.....	13
Chart Book: US Multi-Listed Options.....	14
Volumes and Other Statistics	14
Exchange and Parent Group Market Share.....	15
Chart Book: US Exchange-Traded Funds	16
Volumes and Other Statistics	16
Exchange and Provider Market Share.....	17
Appendix: Exchange Landscape	18
US Cash Equities	18
US Multi-Listed Options.....	19
Appendix: Terms to Know	20
Authors	23

Associated Reports

Please also see SIFMA Research Quarterly Reports: US Fixed Income – Issuance and Trading and US Fixed Income – Outstanding, which can be found at: <https://www.sifma.org/research>

SIFMA Insights Primers: The SIFMA Insights primer series is a reference tool that goes beyond a typical 101 series. By illustrating important technical and regulatory nuances, SIFMA Insights primers provide a fundamental understanding of the marketplace and set the scene to address complex issues arising in today's markets. The SIFMA Insights market structure primer series includes: Global Capital Markets & Financial Institutions; Electronic Trading; U.S. Fixed Income; SOFR, the Transition from LIBOR; U.S. Equity; U.S. Multi-Listed Options; U.S. ETFs; U.S. Capital Formation and Listings Exchanges; and Evolution of the Fintech Narrative. The primers and other Insights reports can be found at: <https://www.sifma.org/primers>

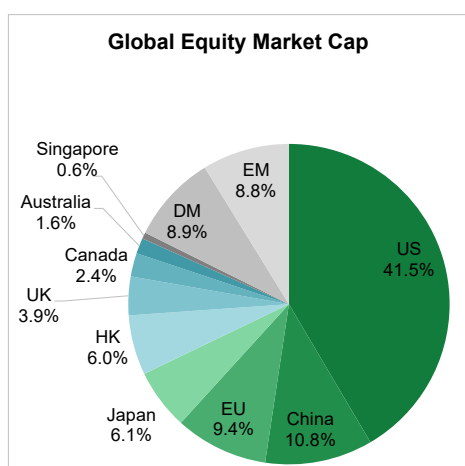
SIFMA is the leading trade association for broker-dealers, investment banks and asset managers operating in the U.S. and global capital markets. On behalf of our industry's nearly 1 million employees, we advocate on legislation, regulation and business policy, affecting retail and institutional investors, 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 © 2021

Executive Summary

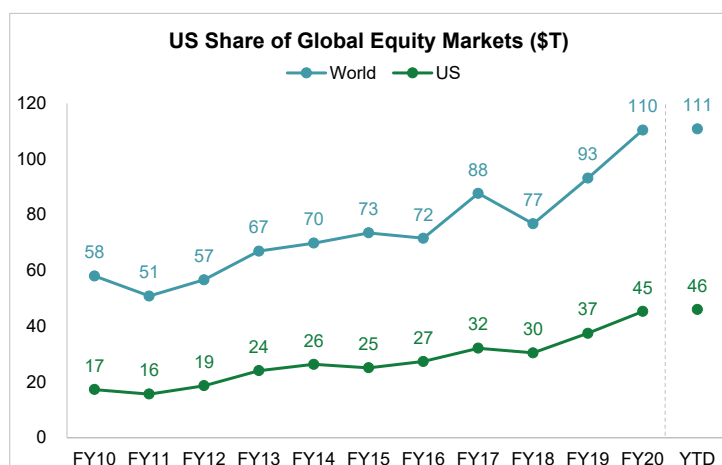
The U.S. equity markets are the largest in the world and continue to be among the deepest, most liquid and most efficient, representing 41.5% of the \$111 trillion global equity market cap, or \$46 trillion. This is 3.8x the next largest market, China. U.S. market share has averaged 36.5% over the last 10 years, troughing at 29.8% in 2010 and peaking in 1Q21.

US Market Share



Source: World Federation of Exchanges, SIFMA estimates
 Note: EM = emerging markets, DM = developed markets; YTD data is preliminary

US Market Share – Historical Trends



Source: World Federation of Exchanges, SIFMA estimates (YTD = Mar 2021)
 Note: YTD data is preliminary

Quarterly Highlights

The S&P 500 index averaged 3,865.71 for the quarter and 3,910.51 for March, 1Q21 +26.5% Y/Y (peak 3,974.54, trough 3,700.65); the DJIA averaged 31,550.58 and 32,373.29, 1Q21 +18.8% Y/Y (peak 33,171.37, trough 29,982.62); the Nasdaq averaged 13,351.46 and 13,168.81, 1Q21 +52.2% Y/Y (peak 14,095.47, trough 12,609.16); and the Russell 2000 averaged 2,198.73 and 2,244.19, 1Q21 +46.6% Y/Y (peak 2,360.17, trough 1,945.91). The VIX declined to averaging 23.20 for the quarter and 21.84 for March, 1Q21 -25.7% Y/Y (peak 37.21, trough 18.86).

ADVs were up Y/Y for equity and ETFs but it was down for options. Equity ADV was 14.7B shares for the quarter, +33.5% Y/Y (peak 24.5, trough 10.5B). Options ADV was 42.0M contracts for the quarter, +49.8% Y/Y (peak 60.0M, trough 28.1M). ETF ADV was 1.94B shares for the quarter, -25.4% Y/Y (peak 3.64B, trough 1.30B).

For capital formation, total equity issuance was \$140.0B for the quarter (+151.4% Y/Y) and the total IPO value was \$41.3B (+470.1% Y/Y). The number of IPOs was up 308.3% Y/Y. Private equity deal value fell 19.4% Y/Y.

In this report, we recap statistics for U.S. primary and secondary markets (cash equities, multi-listed options, ETFs). Highlights include:

	1Q21	4Q20	1Q20	Y/Y	Q/Q	2020	2019	Y/Y
Primary Markets								
Total Equity Issuance (\$B)	140.0	109.2	55.7	151.4%	28.1%	390.0	228.1	71.0%
Total IPO Value (\$B)	41.3	29.7	7.3	470.1%	39.1%	85.3	48.8	74.7%
# IPOs	98	69	24	308.3%	42.0%	209	151	38.4%
Small Cap as % Total IPOs	65%	72%	83%	-18.0%	-6.8%	73%	78%	-5.1%
# Listed Companies	4,916	4,771	4,648	5.8%	3.0%	4,734	4,771	-0.8%
Private Equity Deal Value (\$B)	135.4	245.0	168.0	-19.4%	-44.7%	649.4	763.7	-15.0%
Secondary Markets								
Equity ADV (B)	14.7	10.5	11.0	33.5%	40.1%	10.9	7.0	55.4%
ETF ADV (B)	1.9	1.5	2.6	-25.4%	28.4%	2.0	1.4	44.1%
ETFs as % Equity ADV	13.2%	14.4%	23.6%	-10.4%	-1.2%	18.2%	19.7%	-1.4%
Options ADV (M)	42.0	32.2	28.0	49.8%	30.4%	29.5	19.4	51.8%
Market Performance (Price)								
S&P 500	3,865.71	3,554.50	3,055.87	26.5%	8.8%	3,217.86	2,913.36	10.5%
DJIA	31,550.58	29,091.59	26,554.48	18.8%	8.5%	26,890.67	26,379.59	1.9%
Nasdaq	13,351.46	11,954.43	8,771.73	52.2%	11.7%	10,201.51	7,939.98	28.5%
Russell 2000	2,198.73	1,760.79	1,499.42	46.6%	24.9%	1,523.90	1,546.18	-1.4%
VIX	23.20	25.62	31.22	-25.7%	-9.4%	29.25	15.39	90.1%

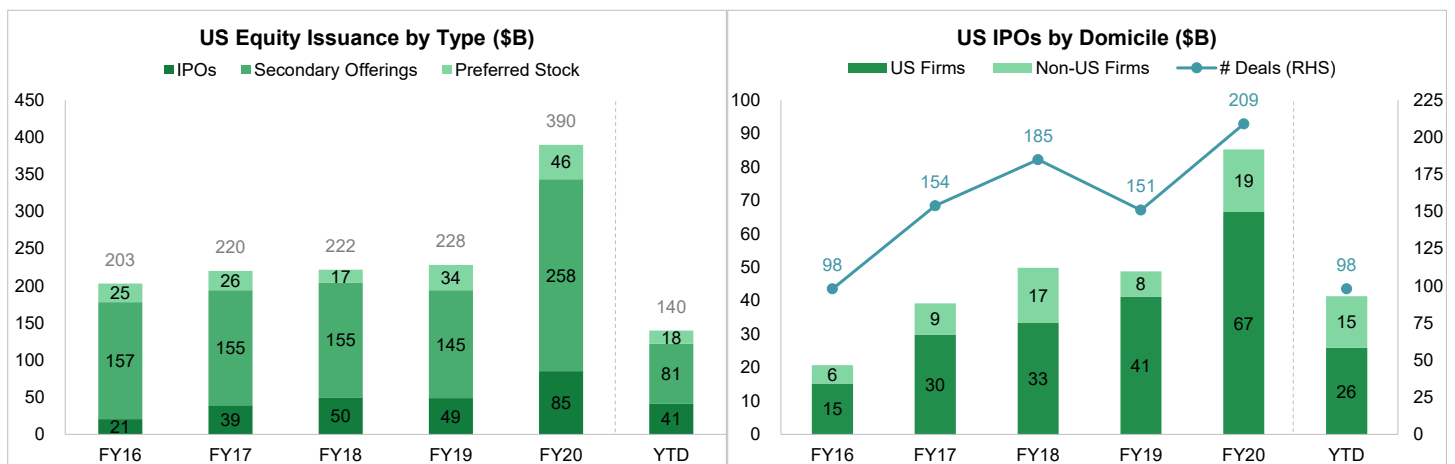
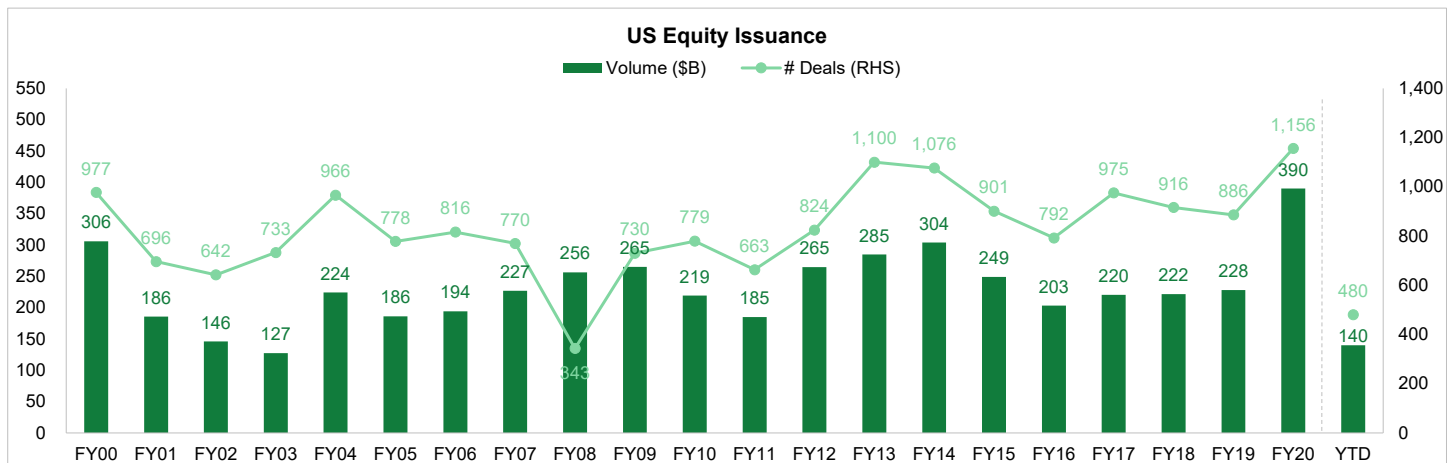
Source: Dealogic, The World Federation of Exchanges, Cboe Global Markets, Options Clearing Corporation, SIFMA estimates

Note: 1Q21 number of listed companies and 1Q21 and 4Q20 private equity deal value data are preliminary

Chart Book: US Equity Capital Formation

Companies need capital for various business purposes: invest in growth, fund mergers and acquisitions, etc. Firms have several ways to generate this capital, including initial public offerings (IPOs). IPOs allow businesses to grow, innovate and better serve their customers.

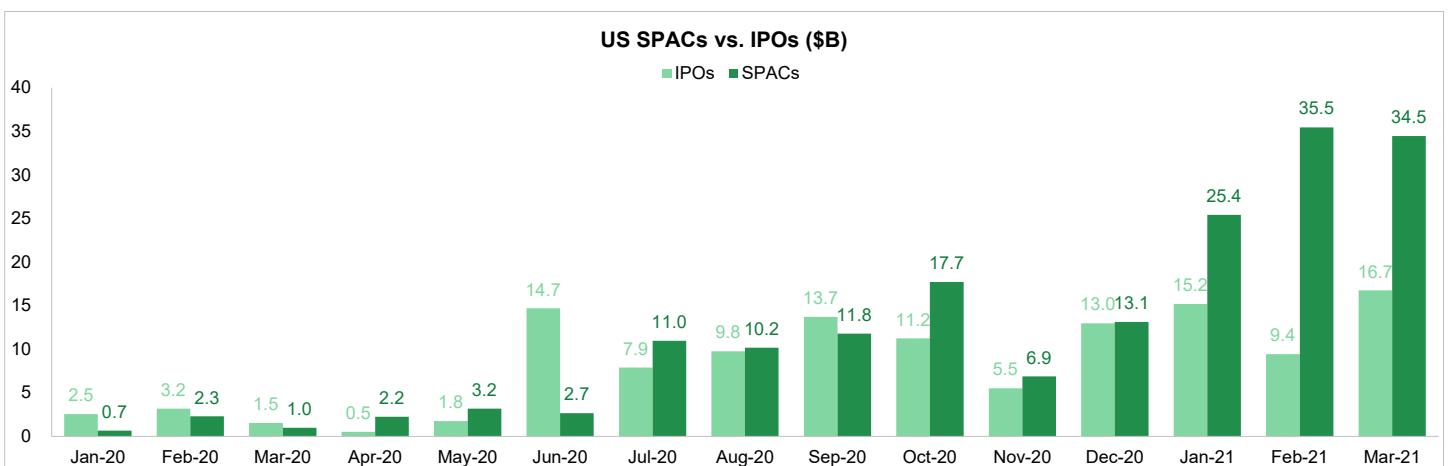
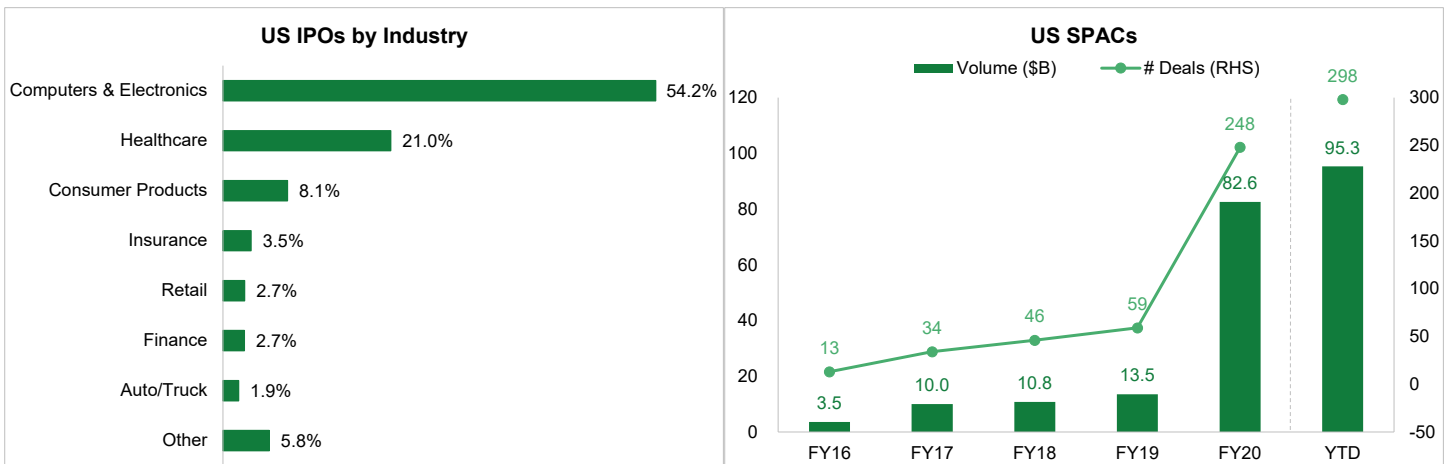
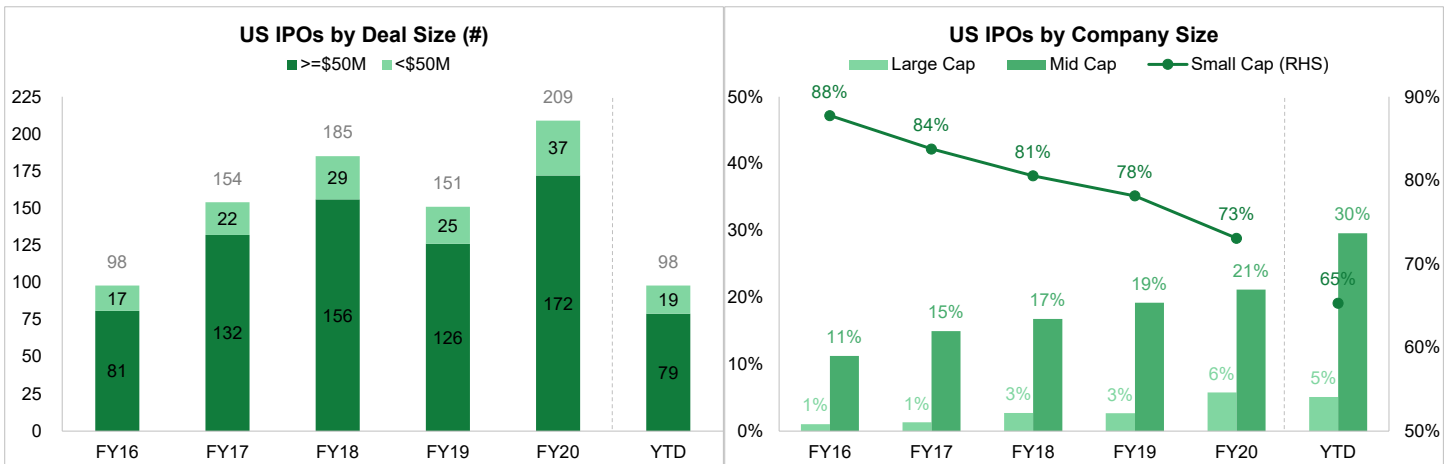
IPO Issuance and Other Statistics



Source: Dealogic

Note: Equity data includes rank eligible deals, excludes BDCs, SPACs, ETFs, CLEFs and rights offers (YTD = Mar 2021)

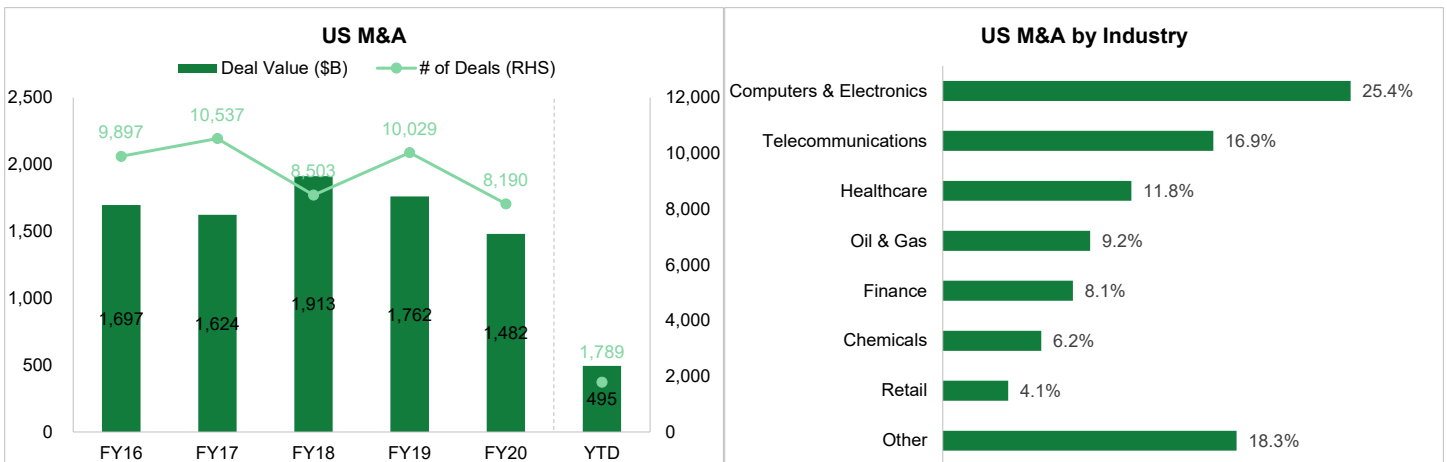
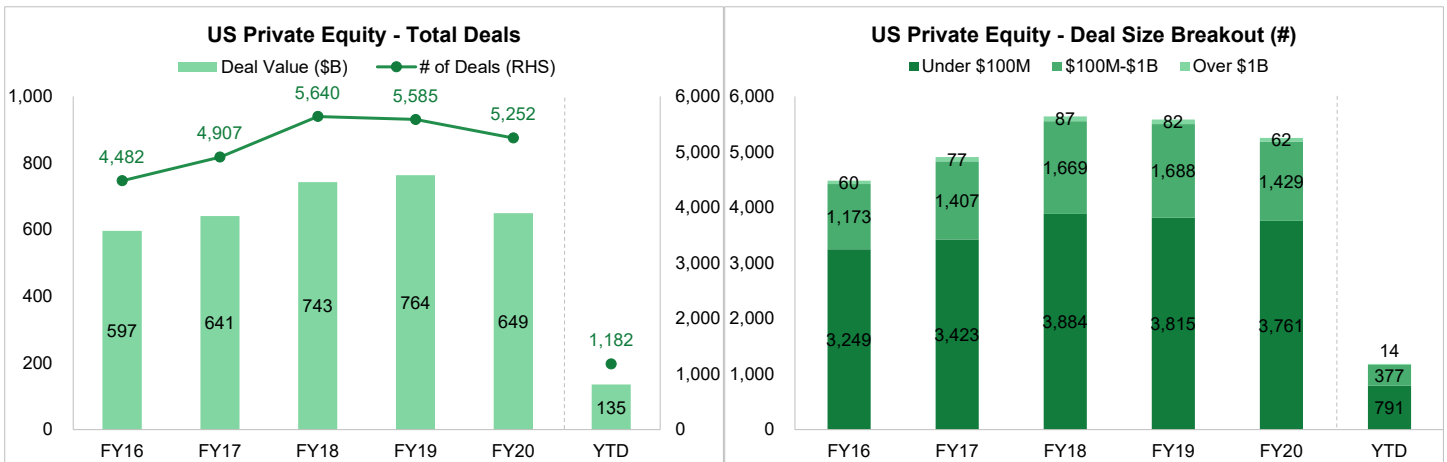
Chart Book: US Equity Capital Formation



Source: Dealogic

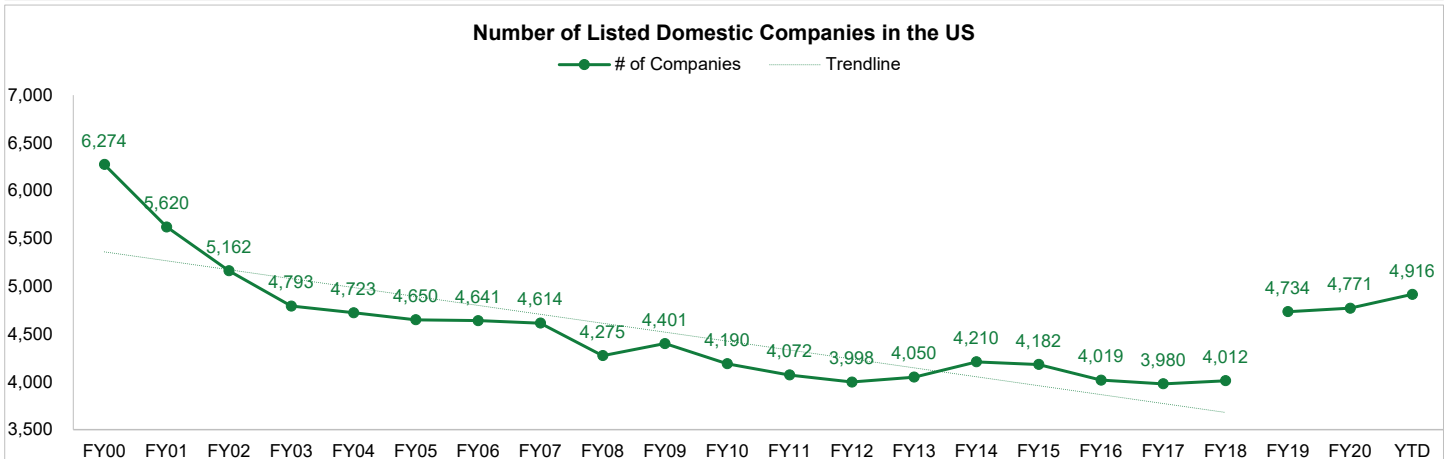
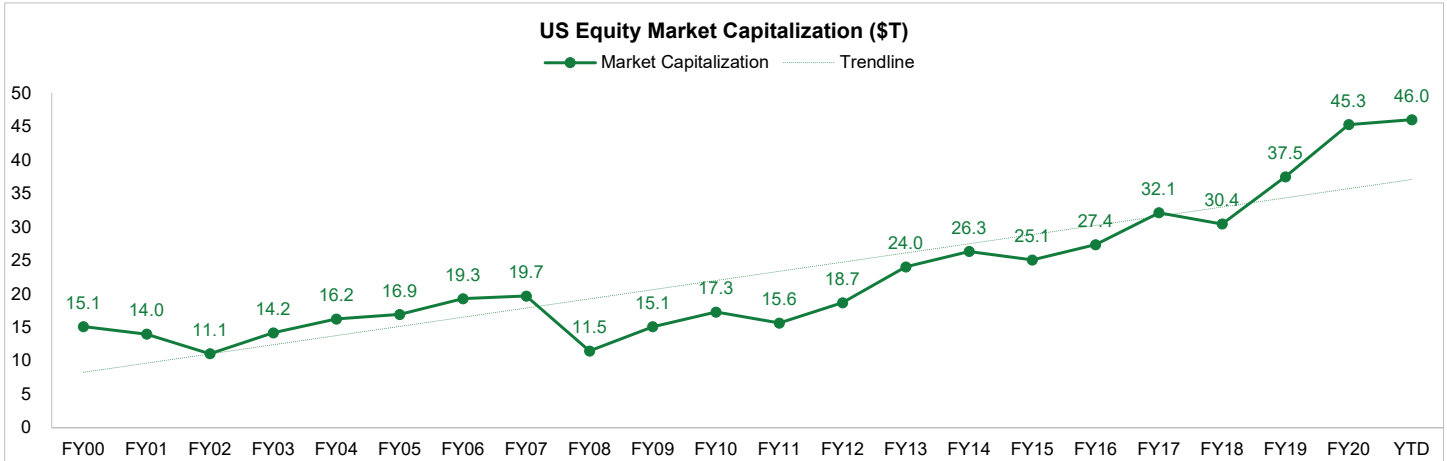
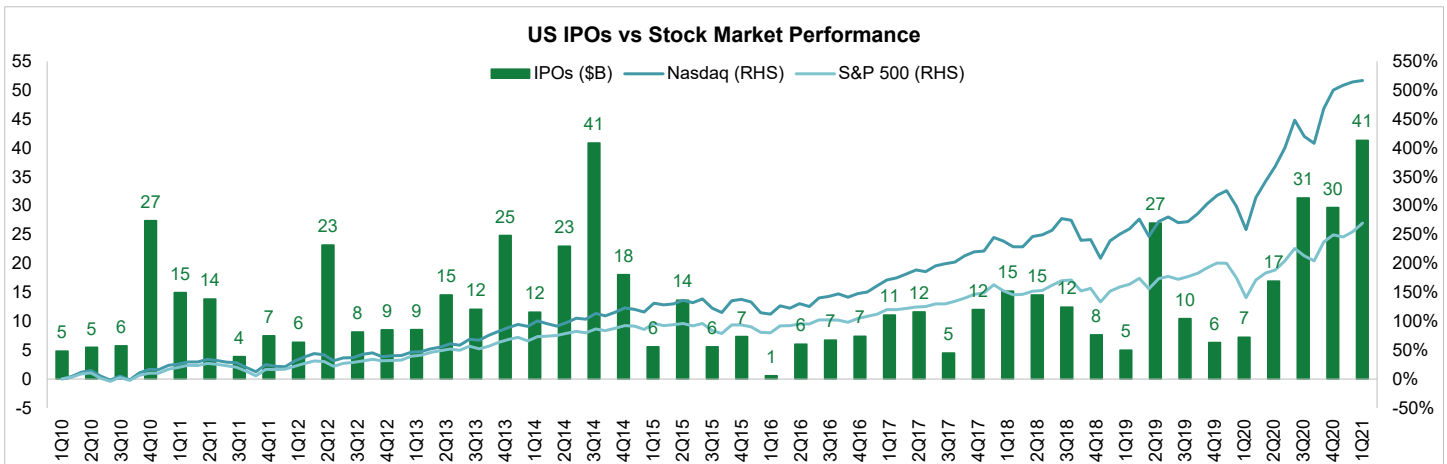
Note: IPOs include rank eligible deals, exclude BDCs, SPACs, ETFs, CLEFs and rights offers (YTD = Mar 2021)

Chart Book: US Equity Capital Formation



Source: Dealogic, PitchBook

Note: Private equity data for 2020 and YTD is preliminary (YTD = Mar 2021)



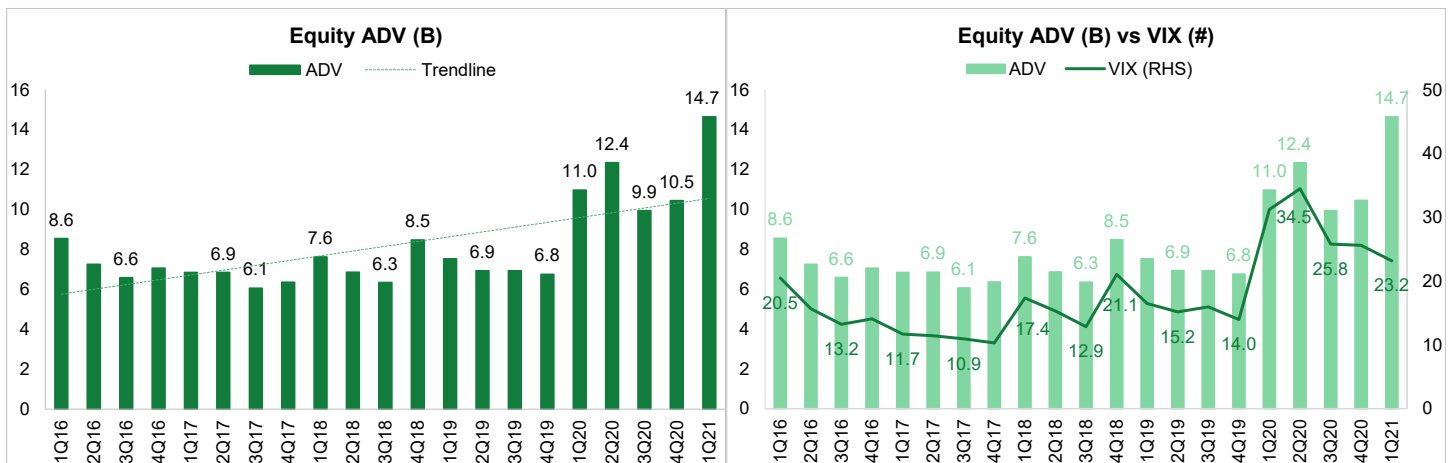
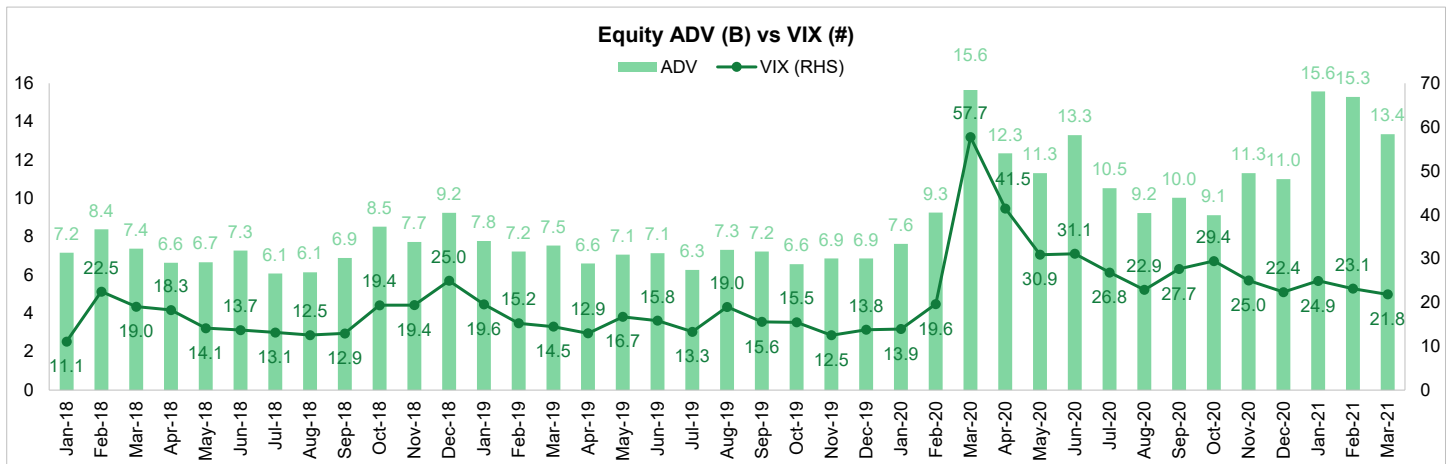
Source: Bloomberg, Dealogic, World Federation of Exchanges

Note: IPO data includes rank eligible deals, excludes BDCs, SPACs, ETFs, CLEFs and rights offers; Large increase in number of listed companies in 2019 caused by change in methodology by NYSE in January 2019; YTD number of listed companies is preliminary (YTD = Mar 2021)

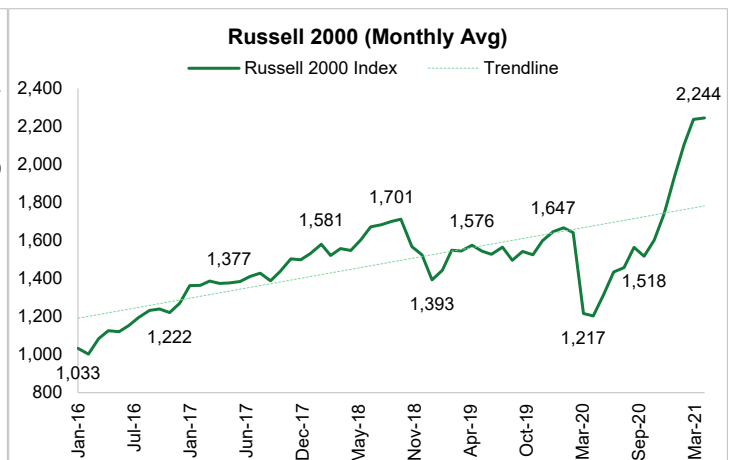
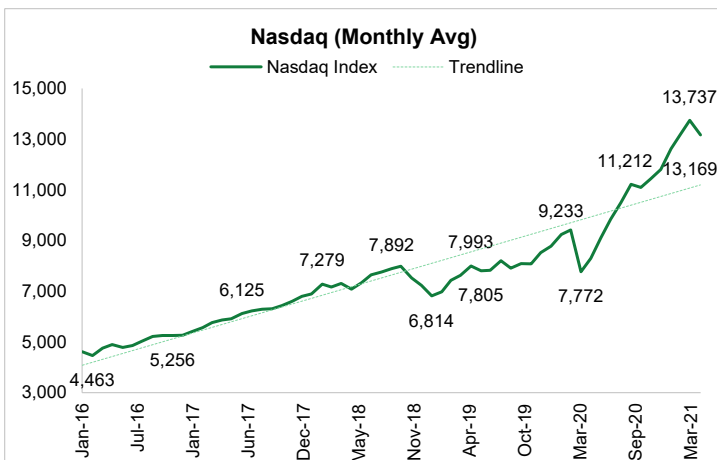
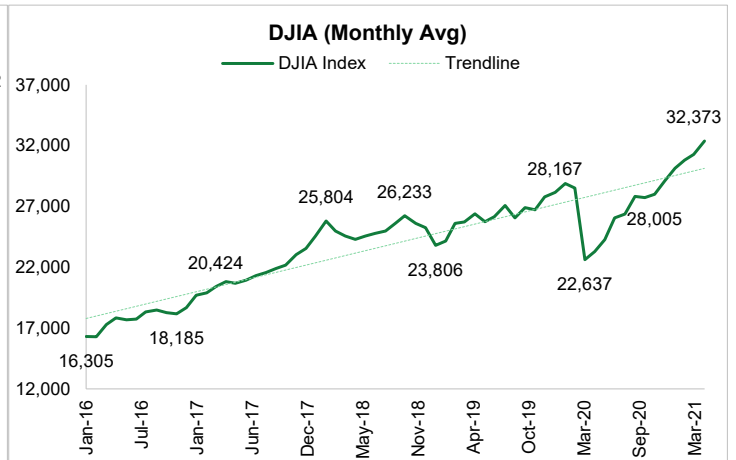
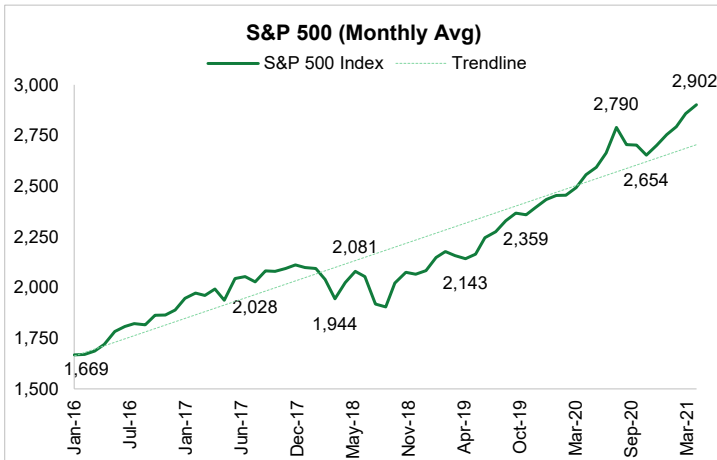
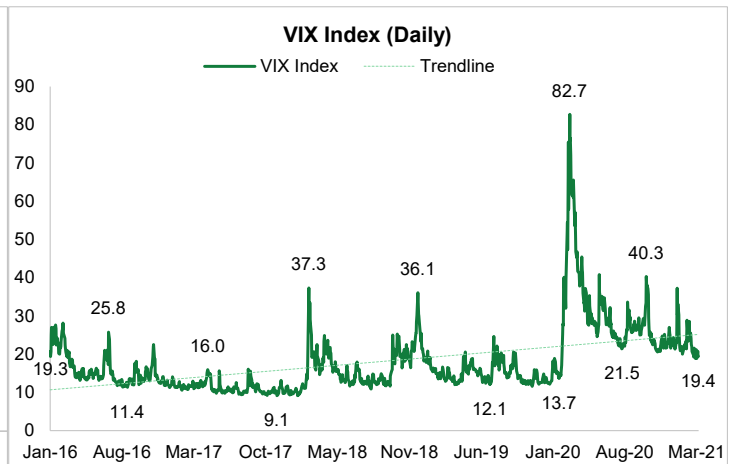
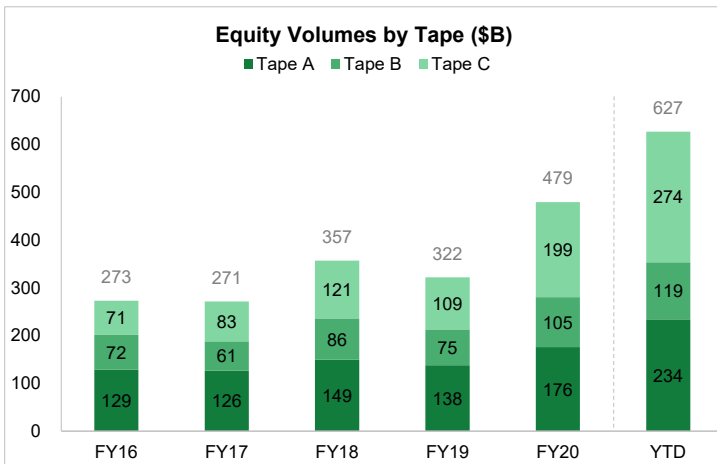
Chart Book: US Cash Equities

On average for the quarter, around 14.7 billion shares are traded on U.S. equity markets every day, making them among the deepest, most liquid and most efficient in the world. Investors enjoy narrow spreads, low transaction costs and fast execution speeds, with plenty of opportunity for price improvement, especially for individual investors.

Volumes and Other Statistics

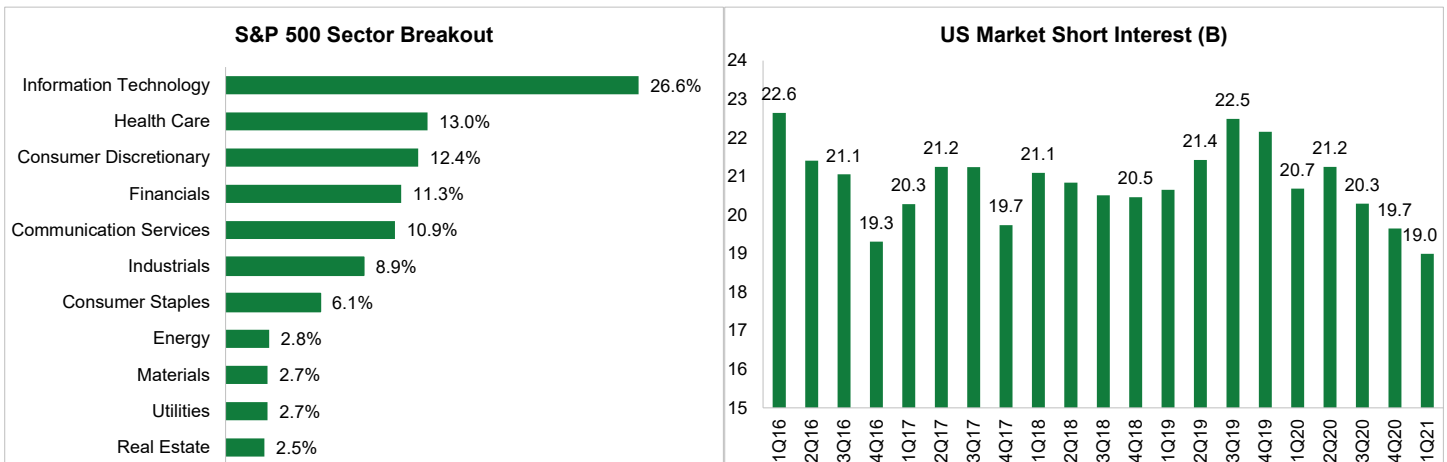
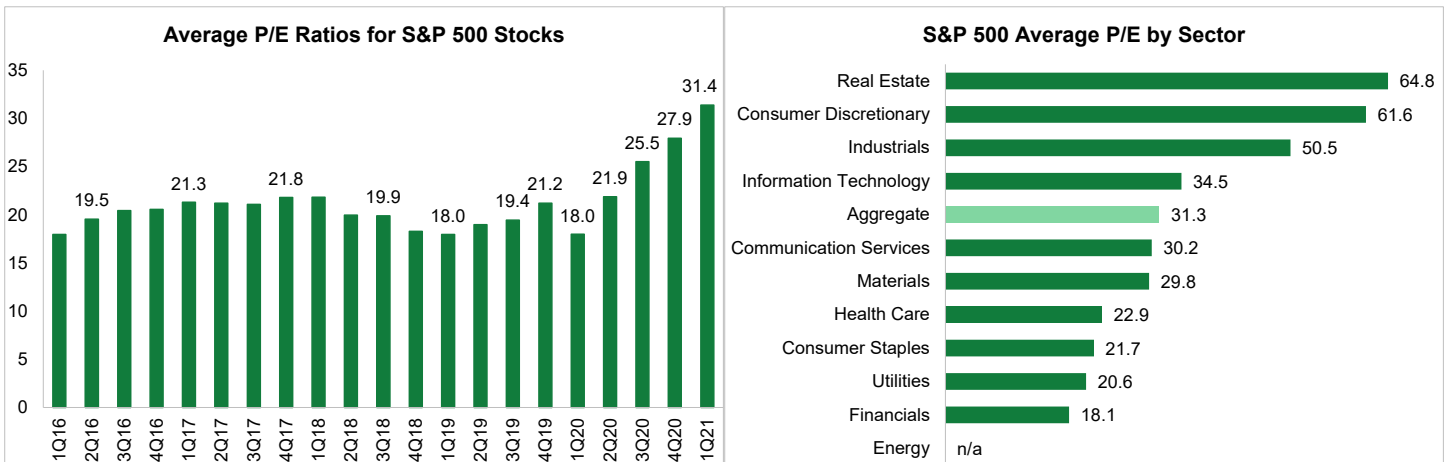


Source: Bloomberg, Cboe Global Markets, SIFMA estimates



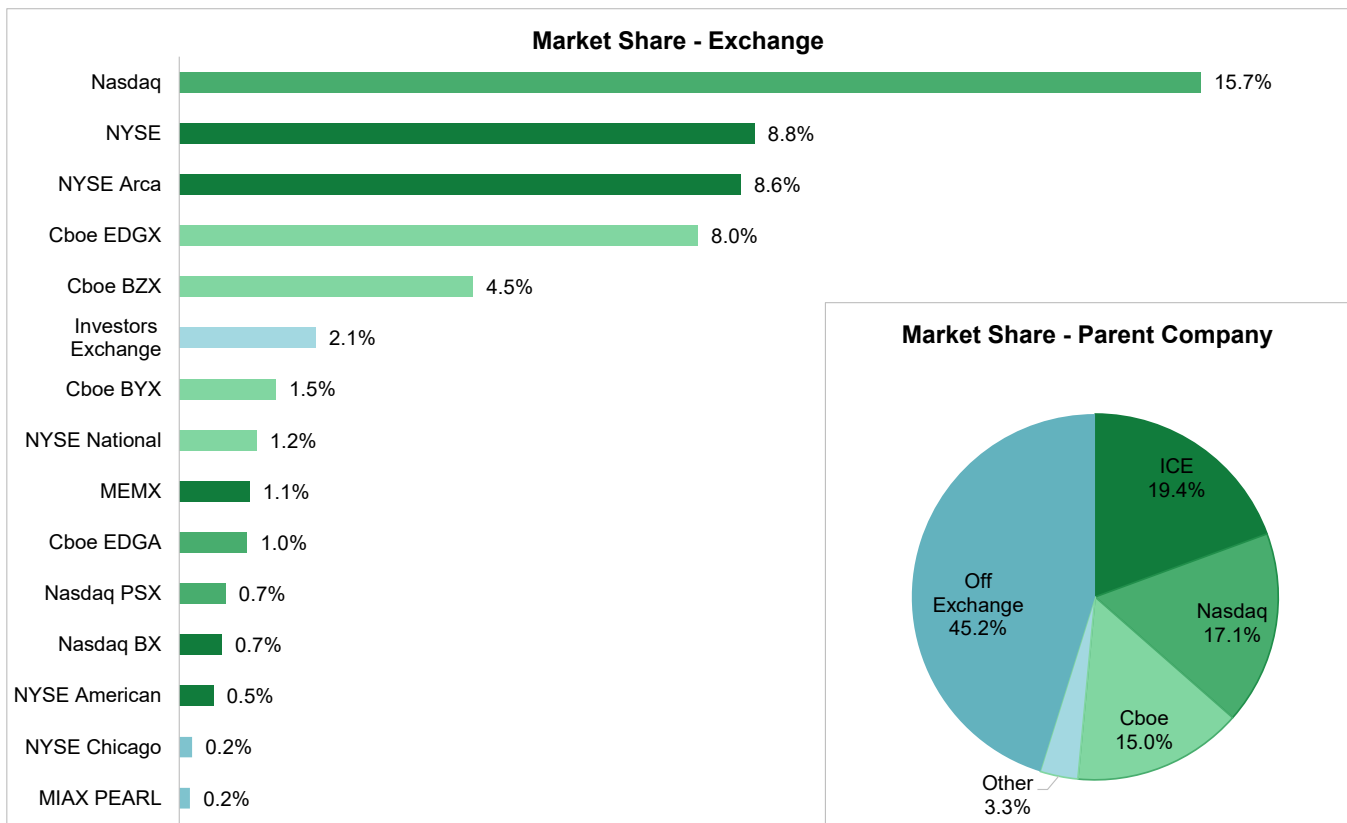
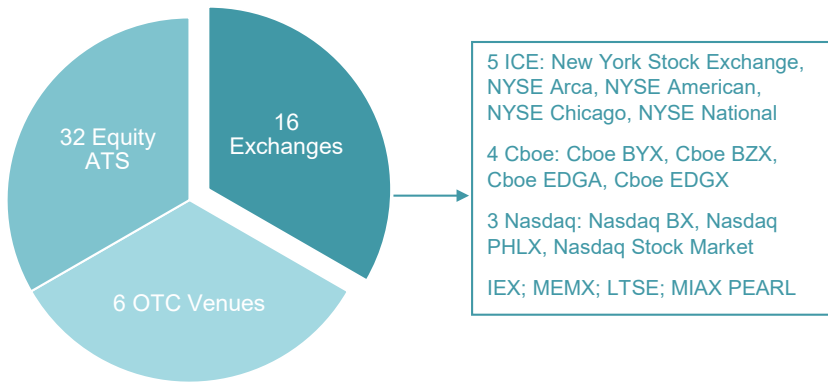
Source: Bloomberg, SIFMA estimates

Note: Tape A = NYSE listed stocks; Tape C = Nasdaq listed stocks; Tape B = formerly regionals, now mostly NYSE Arca (YTD = Mar 2021)



Source: Bloomberg, S&P Dow Jones Indices, SIFMA estimates
 Note: 1Q21 short interest data as of 3/15/2021 (most recent data available at time of publication)

Exchange and Parent Group Market Share



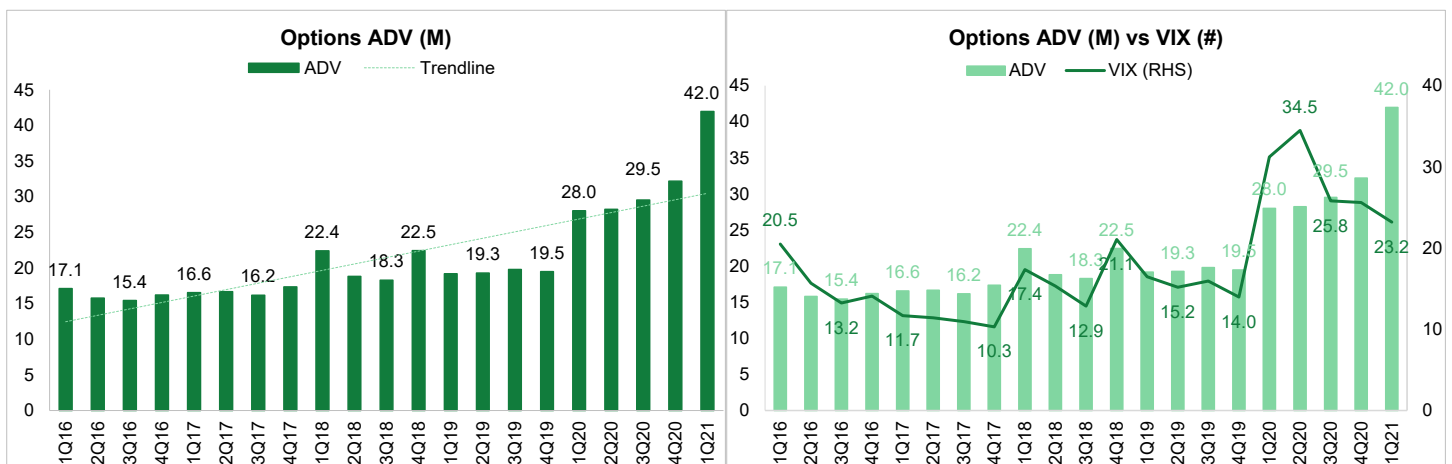
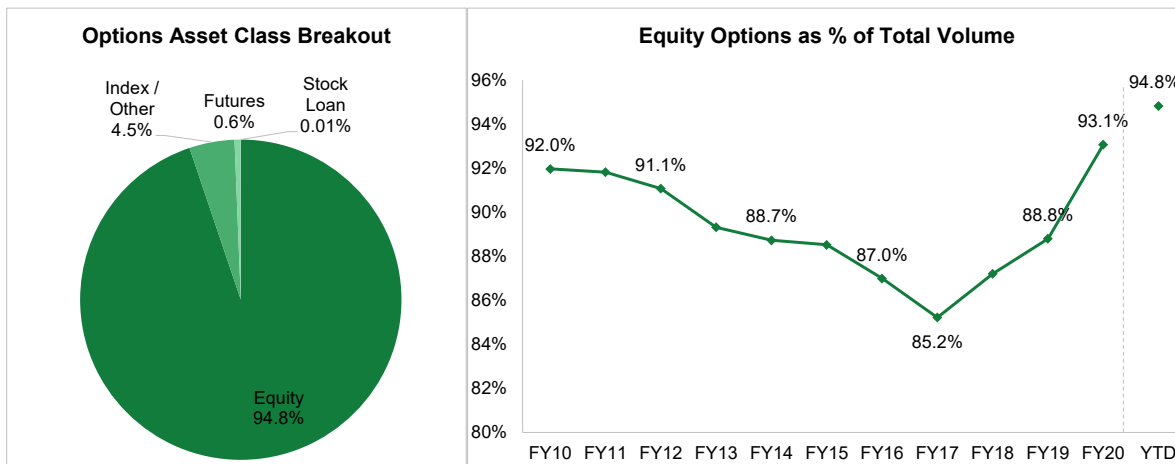
Source: Cboe Global Markets, FINRA, SIFMA estimates

Note: Intercontinental Exchange (ICE) owns the NYSE exchanges; ATS and OTC venues diagram as of 4Q20

Chart Book: US Multi-Listed Options

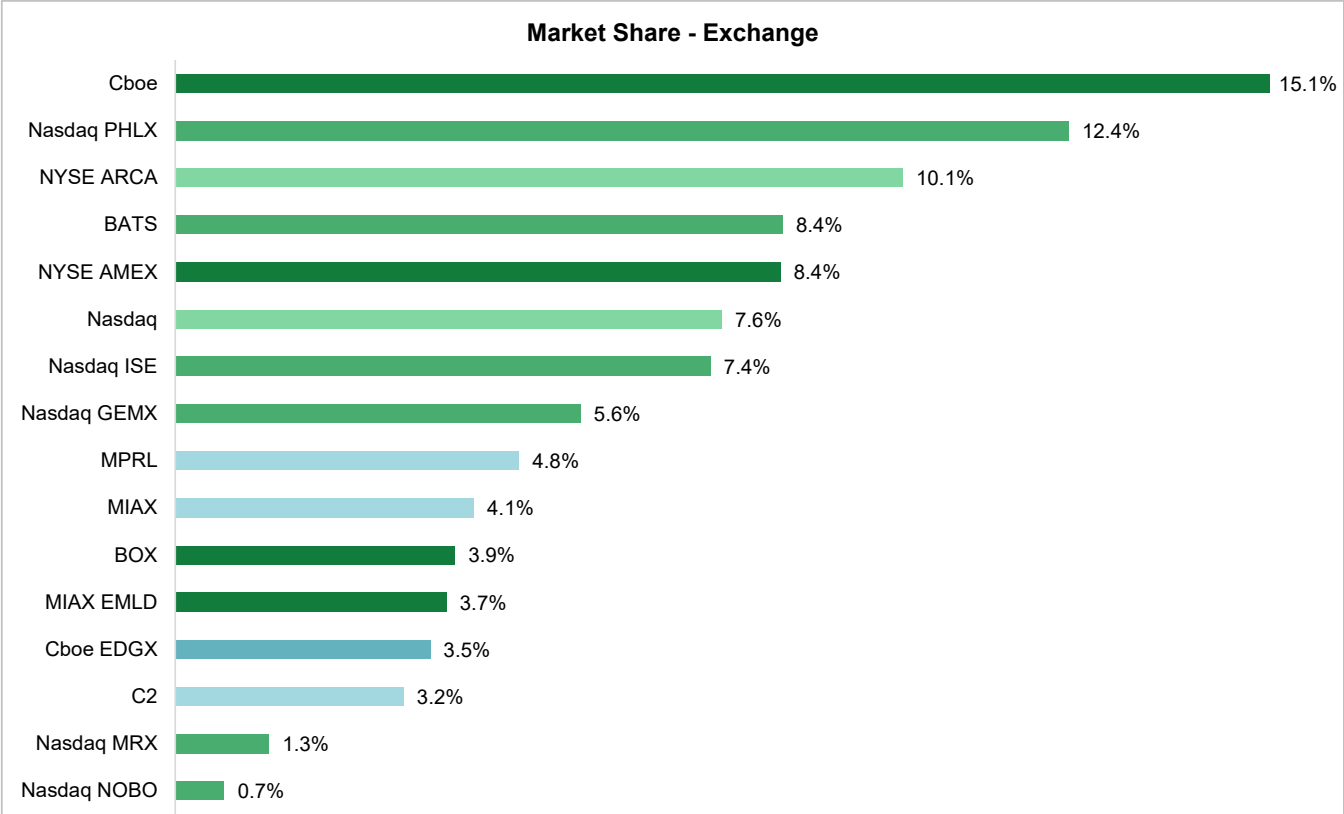
Options, or a contract to buy or sell an underlying security (stocks, ETFs, etc.) at a specified price on or before a given date, are frequently used as risk management tools by investors to hedge positions and limit portfolio losses. They also provide flexibility, enabling an investor to tailor their portfolio to investment objectives and market environment.

Volumes and Other Statistics



Source: The Options Clearing Corporation (OCC), Bloomberg, SIFMA estimates
 Note: YTD = Mar 2021

Exchange and Parent Group Market Share

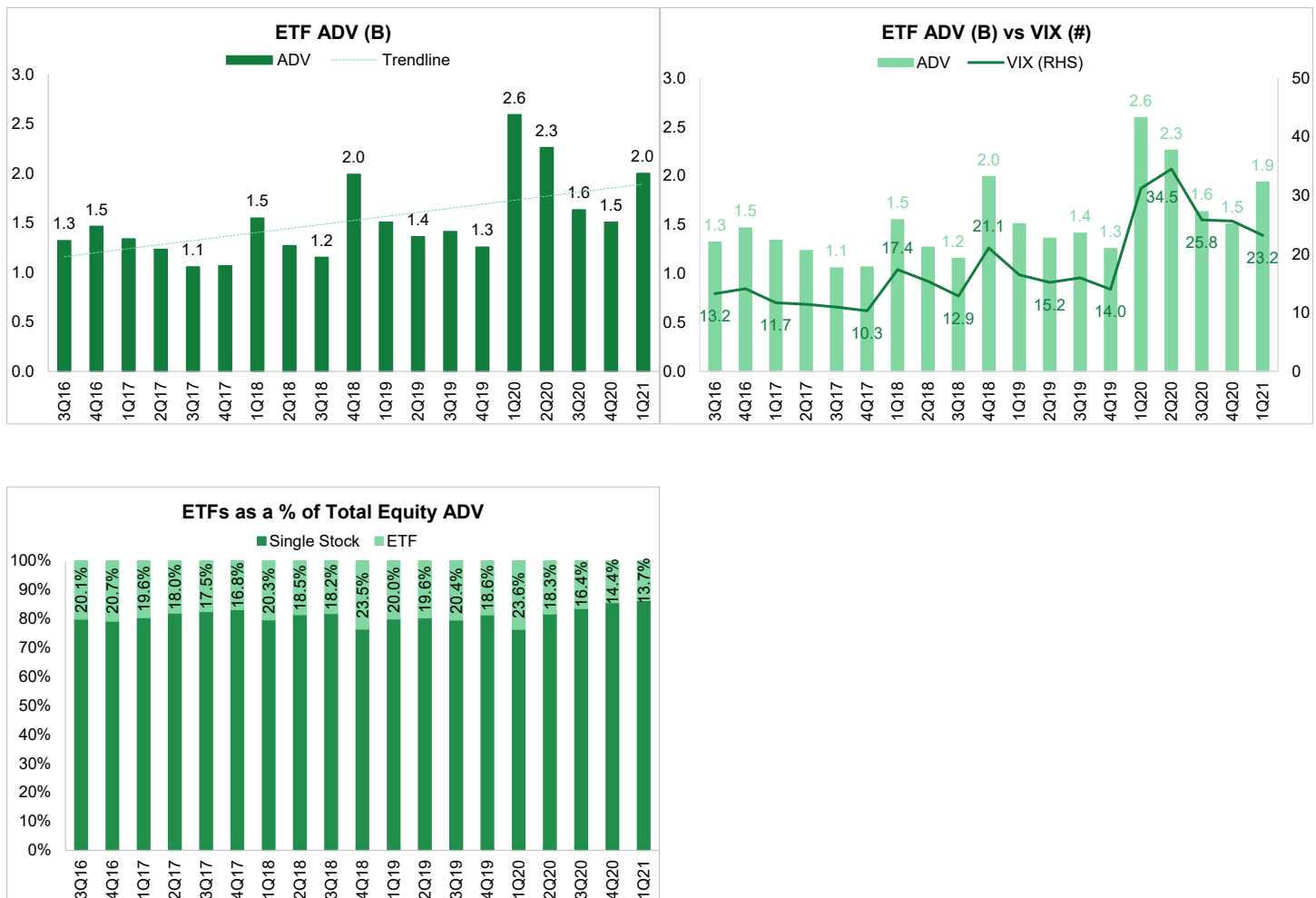


Source: The Options Clearing Corporation (OCC), SIFMA estimates
Note: Intercontinental Exchange (ICE) owns the NYSE exchanges

Chart Book: US Exchange-Traded Funds

Exchange-traded funds (ETFs), or pooled investment vehicles holding an underlying basket of securities (equities, bonds, commodities, currencies), provide investors a multitude of choices to meet different investment objectives.

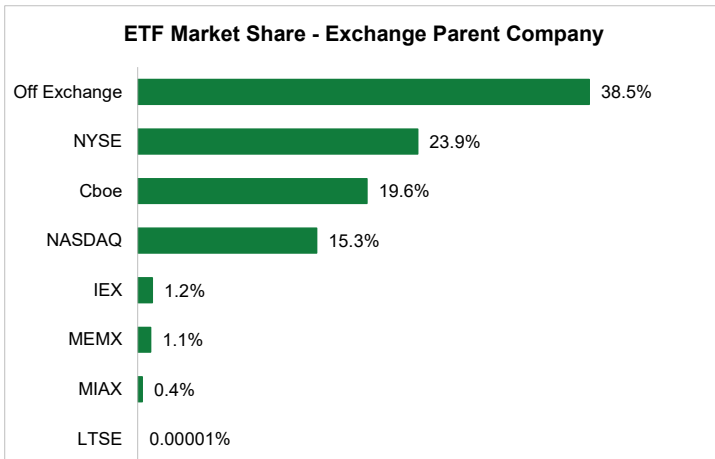
Volumes and Other Statistics



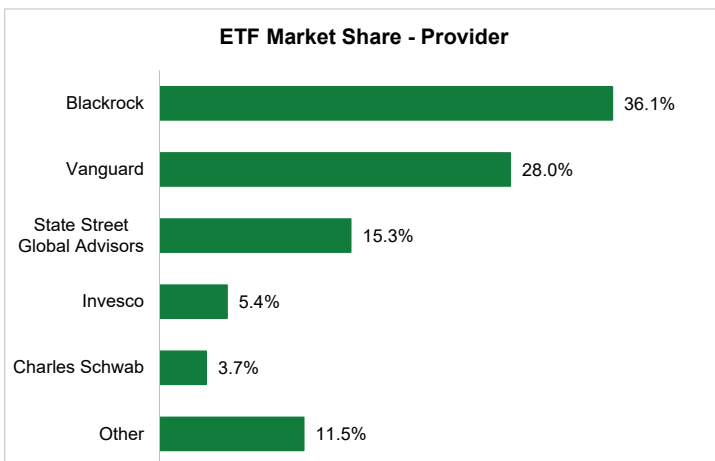
Source: Cboe Global Markets, Bloomberg, SIFMA estimates

Exchange and Provider Market Share

Exchange Market Share



Provider Market Share

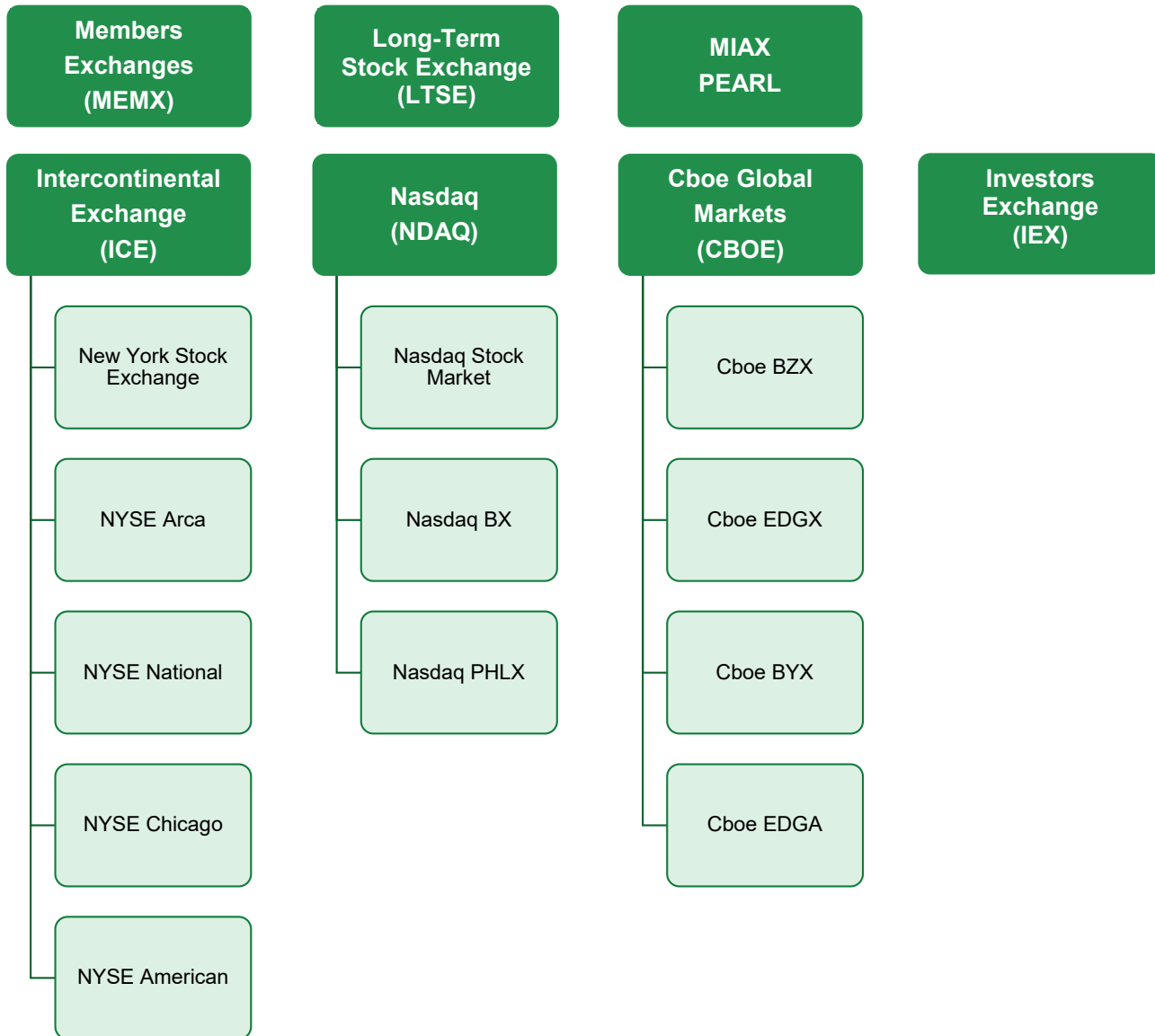


Source: Cboe Global Markets, etf.com, SIFMA estimates

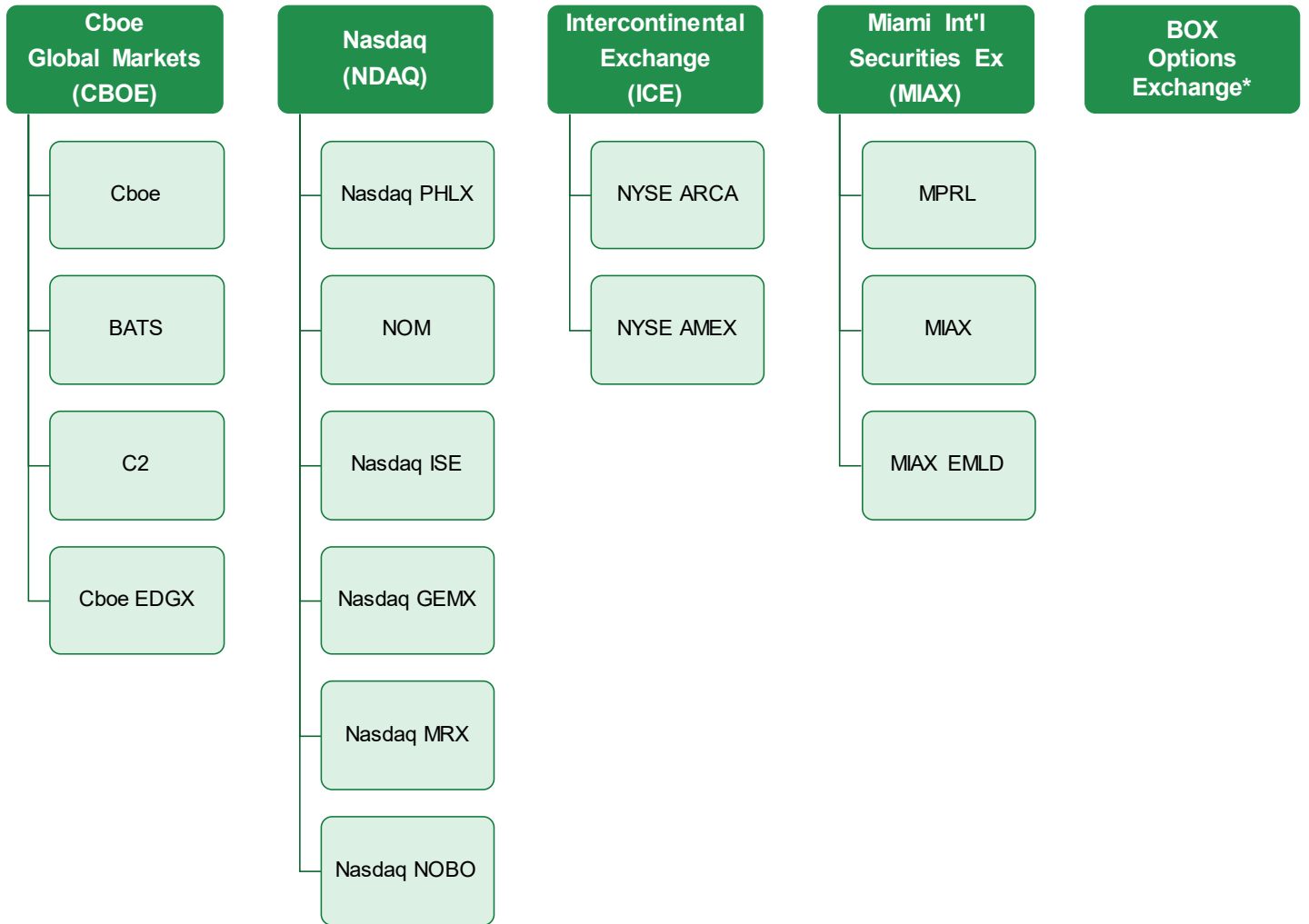
Note: Intercontinental Exchange (ICE) owns the NYSE exchanges

Appendix: Exchange Landscape

US Cash Equities



US Multi-Listed Options



Note: BOX also opened an open outcry trading floor in August 2019

Appendix: Terms to Know

ADV	Average Daily Trading Volume	Y/Y	Year-over-Year
Algo	Algorithm (algorithmic trading)	Q/Q	Quarter-over-Quarter
AP	Authorized Participant	YTD	Year-to-Date
AT	Automated Trading	BPS	Basis Points
ATS	Alternative Trading System	PPS	Percentage Points
AUM	Assets Under Management	CAGR	Compound Annual Growth Rate
Best Ex	Best Execution		
CEF	Closed-End Fund	CFTC	Commodity Futures Trading Commission
CLOB	Central Limit Order Book	FINRA	Financial Industry Regulatory Authority
D2C	Dealer-to-Client	SEC	Securities and Exchange Commission
D2D	Dealer-to-Dealer	SRO	Self-Regulatory Organization
Dark Pool	Private trading venues	NMS	National Market System
ECN	Electronic Communication Network	Reg NMS	Regulation National Market System
EMS	Equity Market Structure	SIP	Security Information Processor
ETF	Exchange-Traded Fund		
ETP	Exchange-Traded Product		
HFT	High-Frequency Trading		
IDB	Inter-Dealer Broker		
IIV	Intraday Indicative Value		
IOI	Indication of Interest		
IPO	Initial Public Offering		
MF	Mutual Fund		
MM	Market Maker		
NAV	Net Asset Value		
OEF	Open-End Fund		
OTC	Over-the-Counter		
PCF	Portfolio Composition File		
PFOF	Payment For Order Flow		
SI	Systematic Internaliser		
Tick Size	Minimum price movement		
UIT	Unit Investment Trust		

Appendix: Terms to Know

Bid	An offer made to buy a security
Ask, Offer	The price a seller is willing to accept for a security
Spread	The difference between the bid and ask price prices for a security, an indicator of supply (ask) and demand (bid)
NBBO	National Best Bid and Offer
Locked Market	A market is locked if the bid price equals the ask price
Crossed Market	A bid is entered higher than the offer or an offer is entered lower than the bid
Opening Cross	To determine the opening price of a stock, accumulating all buy and sell interest a few minutes before the market open
Closing Cross	To determine the closing price of a stock, accumulating all buy and sell interest a few minutes before the market close

Order Types

AON	All or none; an order to buy or sell a stock that must be executed in its entirety, or not executed at all
Block	Trades with at least 10,000 shares in the order
Day	Order is good only for that trading day, else cancelled
FOK	Fill or kill; must be filled immediately and in its entirety or not at all
Limit	An order to buy or sell a security at a specific price or better
Market	An order to buy or sell a security immediately; guarantees execution but not the execution price
Stop	(or stop-loss) An order to buy or sell a stock once the price of the stock reaches the specified price, known as the stop price

Call	The right to buy the underlying security, on or before expiration
Put	The right to sell the underlying security, on or before expiration
Holder	The buyer of the contract
Writer	The seller of the contract
American	Option may be exercised on any trading day on or before expiration
European	Option may only be exercised on expiration
Exercise	To put into effect the right specified in a contract
Underlying	The instrument on which the options contract is based; the asset/security being bought or sold upon exercise notification
Expiration	The set date at which the options contract ends, or ceases to exist, or the last day it can be traded
Stock Price	The price at which the underlying stock is trading, fluctuates continuously
Strike Price	The set price at which the options contract is exercised, or acted upon
Premium	The price the option contract trades at, or the purchase price, which fluctuates constantly
Time Decay	Time value portion of option premium decreases as time passes; longer option's life, greater probability option will move in the money
Intrinsic Value	The in-the-money portion of an option's premium
Time Value	(Extrinsic value) Option premium (price) minus intrinsic value, given external factors (passage of time, volatility, interest rates, dividends)
In-the-Money	For a call option, when the stock price is greater than the strike price; reversed for put options
At-the Money	Stock price is identical to the strike price; the option has no intrinsic value
Out-of-the-Money	For a call option, when the stock price is less than the strike price; reversed for put options

Investors

Institutional	Organization, fewer protective regulations as assumed to be more knowledgeable and better able to protect themselves*
Retail	Individual, a non-professional investor
Accredited	Individual, income > \$200K (\$300K with spouse) in each of the prior 2 years or net worth >\$1M, excluding primary residence

*Types of institutional investors: endowment funds, commercial banks, mutual funds, hedge funds, pension funds and insurance companies

Appendix: Terms to Know

IPO	Initial Public Offering; private company raises capital buy offering its common stock to the public for the first time in the primary markets
SPAC	Special Purpose Acquisition Company; blank check shell corporation designed to take companies public without going through the traditional IPO process
Bought Deal	underwriter purchases a company's entire IPO issue and resells it to the investing public; underwriter bears the entire risk of selling the stock issue
Best Effort Deal	Underwriter does not necessarily purchase IPO shares and only guarantees the issuer it will make a best effort attempt to sell the shares to investors at the best price possible; issuer can be stuck with unsold shares
Secondary	(Follow-on) Issuance of shares to investors by a public company already listed on an exchange
Direct Listing	(Direct placement, direct public offering) Existing private company shareholders sell their shares directly to the public without underwriters. Often used by startups or smaller companies as a lower cost alternative to a traditional IPO. Risks include, among others, no support/guarantee for the share sale and no stock price stabilization after the share listing.
Underwriting	Guarantee payment in case of damage or financial loss and accept the financial risk for liability arising from such guarantee in a financial transaction or deal
Underwriter	Investment bank administering the public issuance of securities; determines the initial offering price of the security, buys them from the issuer and sells them to investors.
Bookrunner	The main underwriter or lead manager in the deal, responsible for tracking interest in purchasing the IPO in order to help determine demand and price (can have a joint bookrunner)
Lead Left Bookrunner	Investment bank chosen by the issuer to lead the deal (identified on the offering document cover as the upper left hand bank listed)
Syndicate	Investment banks underwriting and selling all or part of an IPO
Arranger	The lead bank in the syndicate for a debt issuance deal
Pitch	Sales presentation by an investment bank to the issuer, marketing the firm's services and products to win the mandate
Mandate	The issuing company selects the investment banks to underwrite its offering
Engagement Letter	Agreement between the issuer and underwriters clarifying: terms, fees, responsibilities, expense reimbursement, confidentiality, indemnity, etc.
Letter of Intent	Investment banks' commitment to the issuer to underwrite the IPO
Underwriting Agreement	Issued after the securities are priced, underwriters become contractually bound to purchase the issue from the issuer at a specific price
Registration Statement	Split into the prospectus and private filings, or information for the SEC to review but not distributed to the public, it provides investors adequate information to perform their own due diligence prior to investing
The Prospectus	Public document issued to all investors listing: financial statements, management backgrounds, insider holdings, ongoing legal issues, IPO information and the ticker to be used once listed
Red Herring Document	An initial prospectus with company details, but not inclusive of the effective date of offering price
Roadshow	Investment bankers take issuing companies to meet institutional investors to interest them in buying the security they are bringing to market.
Non-Deal Roadshow	Research analysts and sales personnel take public companies to meet institutional investors to interest them in buying a stock or update existing investors on the status of the business and current trends.
Pricing	Underwriters and the issuer will determine the offer price, the price the shares will be sold to the public and the number of shares to be sold, based on demand gauged during the road show and market factors
Stabilization	Occurs for a short period of time after the IPO if order imbalances exist, i.e. the buy and sell orders do not match; underwriters will purchase shares at the offering price or below to move the stock price and rectify the imbalance
Quiet Period	(Cooling off period) The SEC mandates a quiet period on research recommendations, lasting 10 days (formerly 25 days) after the IPO
Reg S-K	Regulation which prescribes reporting requirements for SEC filings for public companies
Reg S-X	Regulation which lays out the specific form and content of financial reports, specifically the financial statements of public companies
Form S-1	Registration statement for U.S. companies (described above)
Form F-1	Registration statement for foreign issuers of certain securities, for which no other specialized form exists or is authorized
Form 10-Q	Quarterly report on the financial condition and state of the business (discussion of risks, legal proceedings, etc.), mandated by the SEC
Form 10-K	More detailed annual version of the 10Q, mandated by the SEC
Form 8-K	Current report to announce major events shareholders should know about (changes to business & operations, financial statements, etc.)
Greenshoe	Allows underwriters to sell more shares than originally planned by the company and then buy them back at the original IPO price if the demand for the deal is higher than expected, i.e. an over-allotment option
Tombstone	An announcement that securities are available for sale. (Also a plaque awarded to celebrate the completion of a transaction or deal)
EGC	Emerging Growth Company

Authors

SIFMA Research

Katie Kolchin, CFA, Director of Research

Justyna Podziemska

Ali Mostafa

research@sifma.org