



2022 Capital Markets Fact Book

July 2022

The SIFMA Research Capital Markets Fact Book provides a comprehensive look at U.S. capital markets, as well as a look into global markets. Inside this report, we analyze:

- **Global Capital Markets:** Equity and fixed income markets (outstanding, issuance, volumes); investment banking landscape; international securities transactions; etc.
- **U.S. Capital Markets:** Equity, fixed income, derivatives and private placement markets (outstanding, issuance, volumes, index prices); investment banking landscape; mutual fund and ETF statistics; etc.
- **U.S. Investor Participation:** Household liquid financial asset breakout; household equity ownership; and holders of equities
- **U.S. Savings & Investment:** Retirement asset breakout and mix across asset classes; savings rates and other economic indicators; and federal balance sheet overview
- **U.S. Securities Industry:** Number of broker-dealers, registered representatives, registered investment advisors, and branch offices; industry financial overview; and state maps showing number firms/ reps

Contents

Introduction.....	6
Capital Markets Fuel Economies.....	6
US Capital Markets Are the Largest in the World	7
Highlights.....	8
Global Capital Markets	8
US Capital Markets	8
US Investor Participation.....	8
Savings & Investment.....	9
US Securities Industry	9
Section I: Global Capital Markets	10
Global Fixed Income Markets Outstanding and Global Equity Market Capitalization – Charts.....	10
Global Fixed Income Markets Outstanding – Value	11
Global Fixed Income Markets Outstanding – Share of Total	12
Global Equity Market Capitalization – Value.....	13
Global Equity Market Capitalization – Share of Total	14
Global Derivatives Market Outstanding – Notional Principal	15
Global Fixed Income and Equity Issuance – Charts.....	16
Global Long-Term Fixed Income Issuance – Value.....	17
Global Equity Issuance – Value.....	18
International Security Offerings by Non-US Issuers – Value	19
International Security Offerings by Non-US Issuers – Number of Issues	20
International Security Offerings by US Issuers – Value	21
International Security Offerings by US Issuers – Number of Issues	22
Major Global Stock Market Index Prices.....	23
Foreign Exchange Rates.....	24
American Depositary Receipts (ADRs)	25
US Holdings of Foreign Securities.....	26
US Gross Activity in Foreign Securities	27
US Net Purchases of Foreign Securities	28
US Gross Activity in Foreign Equities by Region/Country	29
US Net Purchases of Foreign Equities by Region/Country.....	30
Foreign Holdings of US Securities.....	31
Foreign Gross Activity in US Securities	32
Foreign Net Purchases of US Securities	33
Foreign Gross Activity in US Equities by Region/Country	34
Foreign Net Purchases of US Equities by Region/Country.....	35
Global Investment Banking Revenues by Product – Charts	36

Global Investment Banking Revenues by Region	37
Global Mergers and Acquisitions – Announced and Completed.....	38
Section II: US Capital Markets.....	39
US Equity and Debt Outstanding.....	39
US Equity Market Capitalization	40
US Fixed Income Securities Issuance – Chart	41
US Fixed Income Securities Issuance – Value.....	42
US Fixed Income Securities Issuance – Number of Issues.....	43
US Long-Term Municipal Bond Issuance – Value	44
US Long-Term Municipal Bond Issuance – Number of Issues	45
US Long-Term Municipal Bond Issuance – Number of Issuers	46
US Municipal Bond Issuance – Bank Qualified	47
US Corporate Bonds and Equity Issuance – Charts.....	48
US Corporate Bonds and Equity Issuance – Value	49
US Equity Issuance – Chart	50
US Equity Issuance – Value	51
US Equity Issuance – Number of Issues: Chart	52
US Equity Issuance – Number of Issues - Value.....	53
US Private Placements – Value	54
US Private Placements – Number of Issues.....	55
US Fixed Income Securities Average Daily Trading Volume (ADV)	56
US Municipal Bond Average Daily Trading – Dollar Volume	57
US Municipal Bond Average Daily Trading – Number of Trades.....	58
US Equity Markets Average Daily Trading Volume (ADV) – Charts	59
US Equity Markets Average Daily Trading Volume (ADV) – Dollar Volume	60
US Equity Markets Average Daily Trading Volume (ADV) – Share Volume	61
US Equity Markets Average Daily Trading Volume (ADV) – NYSE Listed	62
US Equity Markets Average Daily Trading Volume (ADV) – Nasdaq Listed.....	63
Futures Contracts Traded on US Exchanges.....	64
Options Contracts Traded on US Exchanges.....	65
US Equity Market Index Prices.....	66
US Interest Rates and Bond Yields	67
US Mutual Funds: Total Net Assets – Chart.....	68
US Mutual Funds: Total Net Assets – Value	69
US Mutual Funds: Net New Cash Flows	70
US Exchange-Traded Funds (ETFs): Net Assets and Number – Chart	71
Exchange-Traded Funds (ETFs): Net Assets and Number – Values	72
US Investment Banking Revenues by Product – Charts	73
US Mergers and Acquisitions – Announced and Completed.....	74
Section III: US Investor Participation	75
US Holdings of Equities – Value.....	75

US Households Owning Stocks.....	76
US Household Equity Ownership – Value	77
US Household Liquid Financial Assets – Value.....	78
US Household Liquid Financial Assets – Share of Total	79
US Holdings of Equities by Type of Holder – Value	80
US Holdings of Equities by Type of Holder – Share of Total	81
US Net Acquisitions of Corporate Equities by Type of Holder	82
Section IV: US Savings & Investment	83
US Retirement Assets – Charts.....	83
US Retirement Assets – Value	84
US Retirement Assets – Share of Total	85
US Private Pension Funds: Total Assets.....	86
US Private Pension Funds: Asset Mix	87
US Defined Benefit Plans: Asset Mix	88
US Defined Contribution Plans: Asset Mix	89
US Individual Retirement Account (IRA) Assets.....	90
US 401(K) Assets	91
US Household Saving Rates versus Other Major Nations.....	92
US Economic Indicators	93
US Federal Receipts, Outlays, Deficit, and Debt – Value.....	94
US Federal Receipts, Outlays, Deficit, and Debt – % of GDP	95
Section V: US Securities Industry.....	96
FINRA Registered Firms and Representatives – Charts	96
FINRA Registered Firms and Registered Representatives – Values	97
US Securities Industry Employment	98
FINRA Registered Broker-Dealers by State – Map	99
FINRA Registered Representatives by State – Map	100
SEC and State Registered Investment Advisors by State – Map	101
FINRA Registered Broker-Dealer Financial Results – Chart	102
FINRA Registered Broker-Dealer Financial Results – Value.....	103
NYSE Member Firms Aggregate Financial Results.....	104
NYSE Member Firms Aggregate Total and Equity Capital – Charts.....	105
NYSE Member Firms Aggregate Total and Equity Capital – Value	106
Authors	107

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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>.

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Introduction

Capital markets recognize and drive funds to the best ideas and enterprises. Coupled with the free flow of capital, innovation is an integral component of job creation, economic development, and prosperity. Markets facilitate the transfer of funds from those who seek a return on their assets to those who need capital to expand.

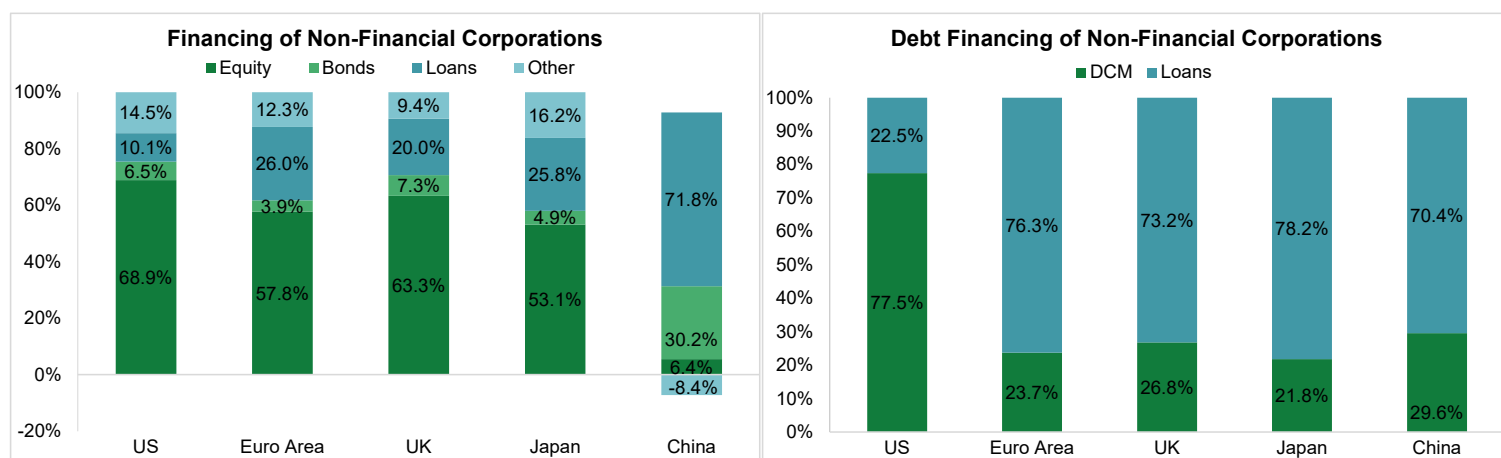
Clients benefiting from healthy capital markets include not just individual investors but also institutional investors, governments, and corporations. Capital, raised through equity and debt, can be used to grow businesses, finance investments in new property, equipment, technology, and fund infrastructure projects. This funding creates jobs and pours money into the economy. Additionally, individuals and businesses can invest in securities to generate wealth.

In short, U.S. capital markets are the bedrock of our nation's economy.

Capital Markets Fuel Economies

In the U.S., capital markets fuel the economy, providing 75.4% of equity and debt financing for non-financial corporations. Capital markets enable debt issuance, a more efficient, stable, and less restrictive form of lending for corporations. Debt capital markets are more dominant in the U.S. at 77.5% of total financing, whereas bank lending is more dominant in other regions, at 25.5% on average.

On the equities side, companies need capital for various business purposes – invest in growth, fund mergers and acquisitions, etc. Firms have several ways to generate capital, including issuing IPOs. IPOs allow businesses to grow, innovate and better serve their customers.



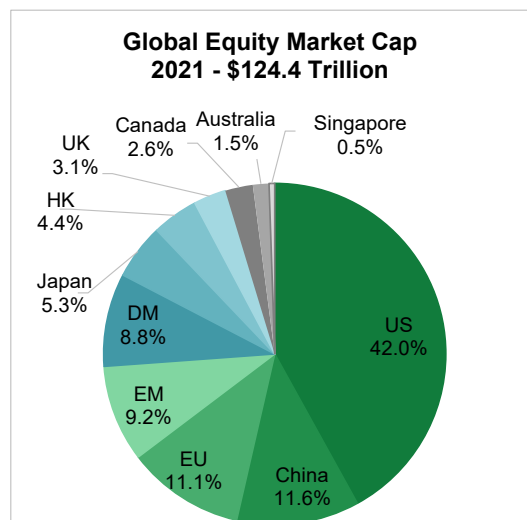
Source: OECD, Federal Reserve, ECB, Bank of Japan, National Bureau of Statistics of China

Note: As of 2021, China 2019; Economic activity defined as financing of non-financial corporations. Euro Area = 19 EU-member states using the Euro. Other financing, ex-China = insurance reserves, trade credits and trade advances; other financing, China = bankers' acceptances, FDI, other foreign A/D, misc. and errors; DCM = debt capital markets, corporate bonds only

US Capital Markets Are the Largest in the World

The U.S. capital markets are the largest in the world and continue to be among the deepest, most liquid, and most efficient.

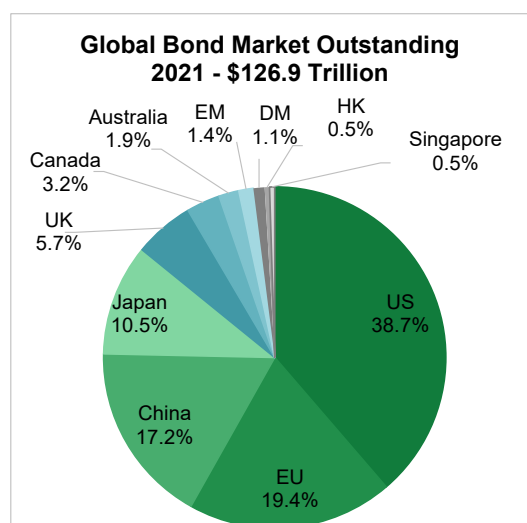
Equities: U.S. equity markets represent 42.0% of the \$124.4 trillion in global equity market cap, or \$52.2 trillion; this is 3.6x the next largest market, China.



Source: World Federation of Exchanges

Note: Market capitalization of listed domestic companies. DM = developed markets, EM = emerging markets, DM/EM exclude countries listed in the chart. HK = Hong Kong

Fixed Income: U.S. fixed income markets comprise 38.7% of the \$126.9 trillion securities outstanding across the globe, or \$49.1 trillion; this is 2.0x the next largest market, the EU.



Source: Bank of International Settlements (BIS)

Note: DM = developed markets, EM = emerging markets, DM/EM exclude countries listed in the chart. HK = Hong Kong

Highlights

Global Capital Markets

Global fixed income markets outstanding increased 3.3% Y/Y to \$126.9 trillion in 2021, while global long-term fixed income issuance decreased 3.7% to \$26.8 trillion.

Global equity market capitalization increased 16.6% Y/Y to \$124.4 trillion in 2021, as global equity issuance rose to \$1.0 trillion, an increase of 25.6% Y/Y.

U.S. gross activity (purchases and sales) in foreign securities increased to \$52.8 trillion in 2021, +14.6% Y/Y, while foreign gross activity in U.S. securities grew to \$126.7 trillion (+28.9% Y/Y) in 2021.

US Capital Markets

In 2021, U.S. Treasury securities issuance reached \$5.1 trillion, a 31.9% increase from the prior year. Long-term fixed income issuance rose 7.7% Y/Y to \$13.4 trillion, while mortgage-backed securities (MBS) issuance increased 7.3% Y/Y to \$4.6 trillion. However, corporate bonds fell 13.9% Y/Y to \$2.0 trillion. U.S. long-term municipal bond issuance decreased 0.9% Y/Y to \$480.4 billion, while federal agency securities decreased 44.6% Y/Y to \$692.9 billion. Meanwhile, asset-backed securities issuance volume rose 91.2% Y/Y to \$581.9 billion.

Initial public offering (IPO) volume¹ was \$153.5 billion, up 79.7% from the previous year. Follow-on, or secondary, issuance totaled \$224.7 billion, down 13.0% Y/Y. Altogether, equity issuance, including common and preferred shares, totaled \$436.2 billion in 2021, an 11.7% increase Y/Y. Announced U.S. merger and acquisition deals totaled \$2.6 trillion in 2021, a 76.2% Y/Y increase, while the value of completed M&A deals increased 17.8% Y/Y to \$10.1 trillion.

U.S. stock markets set record highs in 2021: the Dow Jones Industrial Average (DJIA) rose 18.7% Y/Y, ending the year at 36,338.30; the S&P 500 Index closed 2021 up 26.9% Y/Y at 4,766.81; the Nasdaq Composite Index increased 26.6% Y/Y to close the year at 16,320.08; while the Russell 2000 Index gained 13.7% Y/Y to end the year at 2,245.31. In 2021, the average daily trading volume for equities was 11.4 billion shares, +4.4% Y/Y.

US Investor Participation

Federal Reserve Board data showed the value of U.S. households' liquid assets increased 13.8% Y/Y to \$65.7 trillion. Of the total liquid assets held by U.S. households, 48.7% were in equities, 23.5% in bank deposits and CDs, and 19.4% in mutual funds, with the remaining 8.4% split between U.S. Treasury securities, agency & GSE securities, municipal bonds, money market funds, and corporate bonds. Of note, 52.6% of households own equities².

¹ Excludes BDCs, SPACs, ETFs, CLEFs, and rights issues

² Includes direct and indirect holdings; as of 2019, as this survey occurs every three years

Savings & Investment

The total value of U.S. retirement assets increased 8.3% Y/Y to \$45.8 trillion in 2021. Total pension assets rose 6.4% Y/Y to \$31.9 trillion, while assets held in individual retirement accounts (IRAs) increased 12.8% Y/Y to \$13.9 trillion. Of total U.S. retirement assets, 30.4% were in IRAs, followed by 28.8% in private pensions (defined benefit and contribution plans).

US Securities Industry

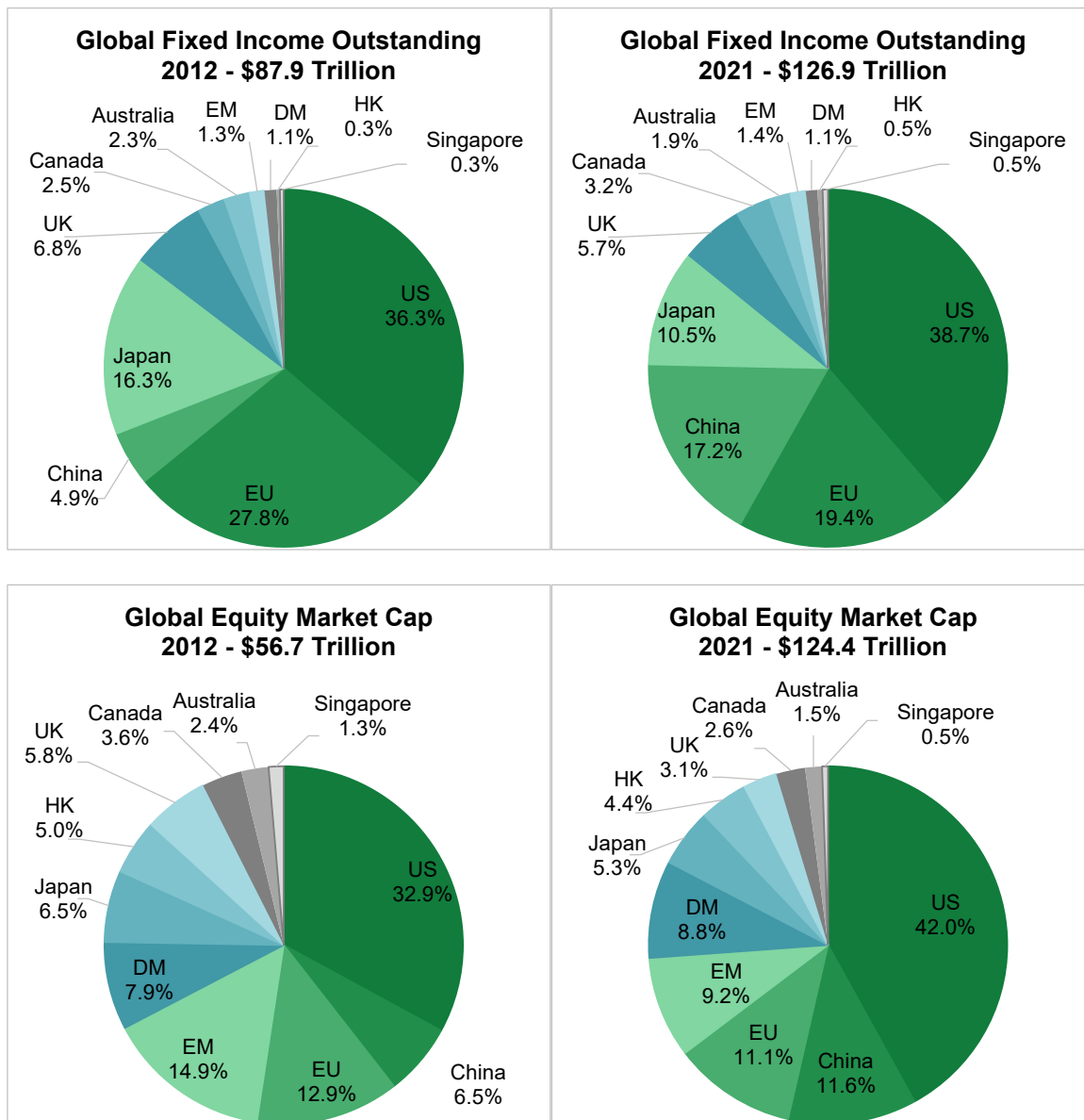
The number of FINRA registered broker-dealers decreased 1.2% Y/Y to 3,394 in 2021.

Gross revenues for FINRA registered broker-dealers totaled \$398.6 billion in 2021, +10.1% Y/Y, while total expenses increased 7.8% Y/Y to \$306.8 billion. As such, pre-tax net income rose to \$91.8 billion in 2021, +18.8% Y/Y.

National securities industry employment reached 1,016,900 jobs in 2021, an increase of 4.6% Y/Y.

Section I: Global Capital Markets

Global Fixed Income Markets Outstanding and Global Equity Market Capitalization – Charts



Source: Bank of International Settlements (BIS), World Federation of Exchanges

Note: Market capitalization of listed domestic companies. DM = developed markets, EM = emerging markets, HK = Hong Kong. DM/EM exclude countries listed in the chart

Global Fixed Income Markets Outstanding – Value

\$ Billions

	Australia	Canada	China	EU	HK	Japan	Singapore	UK	US	DM	EM	Total
2007	1,251.4	1,542.9	1,704.5	19,303.5	108.2	9,852.1	166.3	4,706.8	26,154.9	601.1	808.9	66,200.7
2008	1,145.3	1,369.7	2,228.0	20,246.4	105.6	12,329.9	167.6	4,098.4	28,038.7	602.5	749.0	71,081.1
2009	1,529.5	1,671.6	2,577.9	24,098.0	154.2	12,268.5	185.0	5,280.3	28,684.8	775.9	840.7	78,066.5
2010	1,749.0	1,866.6	3,065.3	23,312.7	186.7	14,604.1	219.0	5,209.8	29,765.3	833.3	991.9	81,803.7
2011	1,879.8	1,963.4	3,528.4	23,453.7	214.0	15,809.1	240.9	5,587.2	30,506.7	837.2	1,001.7	85,022.1
2012	2,045.6	2,173.5	4,294.1	24,301.4	253.4	14,253.3	294.8	5,928.8	31,695.6	951.2	1,140.0	87,331.7
2013	1,885.9	2,241.9	4,960.8	24,993.7	306.8	11,906.2	331.4	5,851.0	32,682.1	960.9	1,100.9	87,221.6
2014	1,923.8	2,206.1	5,835.4	22,097.1	345.2	10,551.7	349.3	6,169.5	33,705.6	890.5	1,150.4	85,224.5
2015	1,827.2	2,767.5	7,752.5	19,884.9	374.1	10,633.4	322.3	5,891.4	34,712.7	858.0	1,199.2	86,223.2
2016	1,825.7	2,943.5	9,408.8	19,381.9	405.8	11,239.5	326.4	5,439.2	36,061.9	936.0	1,272.1	89,240.6
2017	1,997.8	3,267.4	11,757.1	22,133.1	474.0	11,912.1	412.2	6,078.4	37,268.9	1,034.1	1,497.8	97,832.9
2018	1,892.9	3,151.0	12,906.9	21,440.5	513.5	12,461.7	441.1	5,787.1	38,816.6	1,002.3	1,501.9	99,915.5
2019	1,943.0	3,371.7	14,725.9	21,790.4	534.5	12,816.5	492.9	6,331.0	40,534.2	1,110.9	1,599.6	105,250.5
2020	2,490.5	3,913.5	18,555.6	25,286.2	559.1	14,669.9	542.8	7,252.8	46,444.2	1,323.9	1,758.9	122,797.3
2021	2,408.1	4,041.9	21,816.4	24,657.9	582.4	13,371.1	613.4	7,189.7	49,106.3	1,337.8	1,740.5	126,865.5
Average	1,853.0	2,566.1	8,341.2	22,425.4	341.2	12,578.6	340.4	5,786.8	34,945.2	937.0	1,223.6	91,338.5
Y/Y % Change	-3.3%	3.3%	17.6%	-2.5%	4.2%	-8.9%	13.0%	-0.9%	5.7%	1.0%	-1.1%	3.3%
5-Year CAGR	3.8%	4.3%	13.2%	2.2%	4.2%	2.3%	8.3%	3.4%	5.7%	5.3%	3.0%	5.3%
10-Year CAGR	1.6%	6.4%	17.6%	0.1%	8.7%	-0.6%	7.6%	1.9%	4.5%	3.5%	4.3%	3.8%

% Change Y/Y

	Australia	Canada	China	EU	HK	Japan	Singapore	UK	US	DM	EM	Total
2008	-8.5%	-11.2%	30.7%	4.9%	-2.5%	25.2%	0.8%	-12.9%	7.2%	0.2%	-7.4%	7.4%
2009	33.5%	22.0%	15.7%	19.0%	46.1%	-0.5%	10.4%	28.8%	2.3%	28.8%	12.2%	9.8%
2010	14.4%	11.7%	18.9%	-3.3%	21.1%	19.0%	18.4%	-1.3%	3.8%	7.4%	18.0%	4.8%
2011	7.5%	5.2%	15.1%	0.6%	14.6%	8.3%	10.0%	7.2%	2.5%	0.5%	1.0%	3.9%
2012	8.8%	10.7%	21.7%	3.6%	18.4%	-9.8%	22.4%	6.1%	3.9%	13.6%	13.8%	2.7%
2013	-7.8%	3.1%	15.5%	2.8%	21.1%	-16.5%	12.4%	-1.3%	3.1%	1.0%	-3.4%	-0.1%
2014	2.0%	-1.6%	17.6%	-11.6%	12.5%	-11.4%	5.4%	5.4%	3.1%	-7.3%	4.5%	-2.3%
2015	-5.0%	25.4%	32.9%	-10.0%	8.4%	0.8%	-7.7%	-4.5%	3.0%	-3.6%	4.2%	1.2%
2016	-0.1%	6.4%	21.4%	-2.5%	8.5%	5.7%	1.3%	-7.7%	3.9%	9.1%	6.1%	3.5%
2017	9.4%	11.0%	25.0%	14.2%	16.8%	6.0%	26.3%	11.8%	3.3%	10.5%	17.7%	9.6%
2018	-5.3%	-3.6%	9.8%	-3.1%	8.3%	4.6%	7.0%	-4.8%	4.2%	-3.1%	0.3%	2.1%
2019	2.6%	7.0%	14.1%	1.6%	4.1%	2.8%	11.7%	9.4%	4.4%	10.8%	6.5%	5.3%
2020	28.2%	16.1%	26.0%	16.0%	4.6%	14.5%	10.1%	14.6%	14.6%	19.2%	10.0%	16.7%
2021	-3.3%	3.3%	17.6%	-2.5%	4.2%	-8.9%	13.0%	-0.9%	5.7%	1.0%	-1.1%	3.3%

Source: Bank of International Settlements (BIS)

Note: EU = European Union, HK = Hong Kong, DM = developed markets, EM = emerging markets. DM/EM exclude countries listed in the chart

Global Fixed Income Markets Outstanding – Share of Total

	% of Total										
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	US	DM	EM
2007	1.9%	2.3%	2.6%	29.2%	0.2%	14.9%	0.3%	7.1%	39.5%	0.9%	1.2%
2008	1.6%	1.9%	3.1%	28.5%	0.1%	17.3%	0.2%	5.8%	39.4%	0.8%	1.1%
2009	2.0%	2.1%	3.3%	30.9%	0.2%	15.7%	0.2%	6.8%	36.7%	1.0%	1.1%
2010	2.1%	2.3%	3.7%	28.5%	0.2%	17.9%	0.3%	6.4%	36.4%	1.0%	1.2%
2011	2.2%	2.3%	4.2%	27.6%	0.3%	18.6%	0.3%	6.6%	35.9%	1.0%	1.2%
2012	2.3%	2.5%	4.9%	27.8%	0.3%	16.3%	0.3%	6.8%	36.3%	1.1%	1.3%
2013	2.2%	2.6%	5.7%	28.7%	0.4%	13.7%	0.4%	6.7%	37.5%	1.1%	1.3%
2014	2.3%	2.6%	6.8%	25.9%	0.4%	12.4%	0.4%	7.2%	39.5%	1.0%	1.3%
2015	2.1%	3.2%	9.0%	23.1%	0.4%	12.3%	0.4%	6.8%	40.3%	1.0%	1.4%
2016	2.0%	3.3%	10.5%	21.7%	0.5%	12.6%	0.4%	6.1%	40.4%	1.0%	1.4%
2017	2.0%	3.3%	12.0%	22.6%	0.5%	12.2%	0.4%	6.2%	38.1%	1.1%	1.5%
2018	1.9%	3.2%	12.9%	21.5%	0.5%	12.5%	0.4%	5.8%	38.8%	1.0%	1.5%
2019	1.8%	3.2%	14.0%	20.7%	0.5%	12.2%	0.5%	6.0%	38.5%	1.1%	1.5%
2020	2.0%	3.2%	15.1%	20.6%	0.5%	11.9%	0.4%	5.9%	37.8%	1.1%	1.4%
2021	1.9%	3.2%	17.2%	19.4%	0.5%	10.5%	0.5%	5.7%	38.7%	1.1%	1.4%
Average	2.0%	2.7%	8.3%	25.1%	0.4%	14.1%	0.4%	6.4%	38.3%	1.0%	1.3%
Y/Y Change	-0.13%	0.00%	2.1%	-1.2%	0.0%	-1.4%	0.04%	-0.2%	0.9%	0.0%	-0.1%

Source: Bank of International Settlements (BIS)

Note: EU = European Union, HK = Hong Kong, DM = developed markets, EM = emerging markets. DM/EM exclude countries listed in the chart

Global Equity Market Capitalization – Value

	\$ Billions											
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	US	DM	EM	Total
2007	1,298.3	2,186.6	4,478.9	11,755.1	2,654.4	4,543.1	539.2	3,846.5	19,922.3	4,167.0	8,173.2	63,564.4
2008	683.9	1,033.7	1,778.8	5,754.1	1,328.8	3,263.3	265.0	1,868.2	11,590.3	2,379.3	3,725.8	33,670.9
2009	1,261.9	1,677.4	3,573.2	7,717.4	2,305.1	3,444.4	481.2	2,796.4	15,077.3	3,811.9	8,251.2	50,397.5
2010	1,454.5	2,171.2	4,027.8	7,747.3	2,711.3	4,099.6	647.2	2,686.9	17,283.5	4,617.6	10,592.1	58,038.9
2011	1,198.2	1,912.9	3,412.1	6,443.8	2,258.0	3,540.8	598.3	2,932.2	15,640.7	3,908.2	8,970.4	50,815.6
2012	1,386.9	2,060.0	3,697.4	7,328.9	2,831.9	3,681.0	765.1	3,291.6	18,668.3	4,497.0	8,464.7	56,672.8
2013	1,366.0	2,113.8	3,949.1	9,248.5	3,100.8	4,781.5	744.4	3,946.9	24,034.9	5,346.2	8,286.4	66,918.4
2014	1,288.8	2,095.4	6,004.9	8,431.6	3,233.0	4,378.0	752.8	3,570.9	26,330.6	5,315.0	8,415.7	69,816.7
2015	1,187.2	1,593.5	8,188.0	7,580.0	3,184.9	9,716.8	640.0	3,878.8	25,067.5	5,203.7	7,253.0	73,493.3
2016	1,316.9	2,041.5	7,320.7	7,669.6	3,193.2	5,061.5	649.5	3,467.4	27,352.2	5,274.7	8,202.6	71,549.9
2017	1,508.6	2,367.1	8,711.3	9,787.6	4,350.5	6,222.8	787.3	4,455.4	32,120.7	6,436.3	10,926.7	87,674.2
2018	1,262.8	1,937.9	6,324.9	8,136.0	3,819.2	5,296.8	687.3	3,638.0	30,436.3	5,664.1	9,624.3	76,827.5
2019	1,487.6	2,409.1	8,569.5	9,733.6	4,899.2	6,191.1	697.3	4,182.9	34,085.7	8,709.3	8,827.6	89,793.0
2020	1,720.6	2,608.4	12,276.8	11,148.1	6,130.4	6,718.2	652.6	4,045.6	41,569.9	9,756.0	10,087.0	106,713.5
2021	1,887.4	3,264.1	14,437.4	13,811.0	5,434.2	6,544.3	663.4	3,799.5	52,244.0	10,965.0	11,399.2	124,449.5
Average	1,354.0	2,098.2	6,450.1	8,819.5	3,429.0	5,165.5	638.0	3,493.8	26,094.9	5,736.7	8,746.6	72,026.4
Y/Y % Change	9.7%	25.1%	17.6%	23.9%	-11.4%	-2.6%	1.7%	-6.1%	25.7%	12.4%	13.0%	16.6%
5-Year CAGR	4.6%	6.6%	10.6%	7.1%	4.5%	1.0%	-3.4%	-3.1%	10.2%	11.2%	0.9%	7.3%
10-Year CAGR	3.1%	4.7%	14.6%	6.5%	6.7%	5.9%	-1.4%	1.4%	10.8%	9.3%	3.0%	8.2%

	% Change Y/Y											
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	US	DM	EM	Total
2008	-47.3%	-52.7%	-60.3%	-51.0%	-49.9%	-28.2%	-50.9%	-51.4%	-41.8%	-42.9%	-54.4%	-47.0%
2009	84.5%	62.3%	100.9%	34.1%	73.5%	5.6%	81.6%	49.7%	30.1%	60.2%	121.5%	49.7%
2010	15.3%	29.4%	12.7%	0.4%	17.6%	19.0%	34.5%	-3.9%	14.6%	21.1%	28.4%	15.2%
2011	-17.6%	-11.9%	-15.3%	-16.8%	-16.7%	-13.6%	-7.6%	9.1%	-9.5%	-15.4%	-15.3%	-12.4%
2012	15.7%	7.7%	8.4%	13.7%	25.4%	4.0%	27.9%	12.3%	19.4%	15.1%	-5.6%	11.5%
2013	-1.5%	2.6%	6.8%	26.2%	9.5%	29.9%	-2.7%	19.9%	28.7%	18.9%	-2.1%	18.1%
2014	-5.7%	-0.9%	52.1%	-8.8%	4.3%	-8.4%	1.1%	-9.5%	9.6%	-0.6%	1.6%	4.3%
2015	-7.9%	-24.0%	36.4%	-10.1%	-1.5%	121.9%	-15.0%	8.6%	-4.8%	-2.1%	-13.8%	5.3%
2016	10.9%	28.1%	-10.6%	1.2%	0.3%	-47.9%	1.5%	-10.6%	9.1%	1.4%	13.1%	-2.6%
2017	14.6%	15.9%	19.0%	27.6%	36.2%	22.9%	21.2%	28.5%	17.4%	22.0%	33.2%	22.5%
2018	-16.3%	-18.1%	-27.4%	-16.9%	-12.2%	-14.9%	-12.7%	-18.3%	-5.2%	-12.0%	-11.9%	-12.4%
2019	17.8%	24.3%	35.5%	19.6%	28.3%	16.9%	1.5%	15.0%	12.0%	53.8%	-8.3%	16.9%
2020	15.7%	8.3%	43.3%	14.5%	25.1%	8.5%	-6.4%	-3.3%	22.0%	12.0%	14.3%	18.8%
2021	9.7%	25.1%	17.6%	23.9%	-11.4%	-2.6%	1.7%	-6.1%	25.7%	12.4%	13.0%	16.6%

Source: World Federation of Exchanges

Note: Market capitalization of listed domestic companies. EU = European Union, HK = Hong Kong, DM = developed markets, EM = emerging markets, DM/EM exclude countries listed in the table

Global Equity Market Capitalization – Share of Total

	% of Total										
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	US	DM	EM
2007	2.0%	3.4%	7.0%	18.5%	4.2%	7.1%	0.8%	6.1%	31.3%	6.6%	12.9%
2008	2.0%	3.1%	5.3%	17.1%	3.9%	9.7%	0.8%	5.5%	34.4%	7.1%	11.1%
2009	2.5%	3.3%	7.1%	15.3%	4.6%	6.8%	1.0%	5.5%	29.9%	7.6%	16.4%
2010	2.5%	3.7%	6.9%	13.3%	4.7%	7.1%	1.1%	4.6%	29.8%	8.0%	18.2%
2011	2.4%	3.8%	6.7%	12.7%	4.4%	7.0%	1.2%	5.8%	30.8%	7.7%	17.7%
2012	2.4%	3.6%	6.5%	12.9%	5.0%	6.5%	1.3%	5.8%	32.9%	7.9%	14.9%
2013	2.0%	3.2%	5.9%	13.8%	4.6%	7.1%	1.1%	5.9%	35.9%	8.0%	12.4%
2014	1.8%	3.0%	8.6%	12.1%	4.6%	6.3%	1.1%	5.1%	37.7%	7.6%	12.1%
2015	1.6%	2.2%	11.1%	10.3%	4.3%	13.2%	0.9%	5.3%	34.1%	7.1%	9.9%
2016	1.8%	2.9%	10.2%	10.7%	4.5%	7.1%	0.9%	4.8%	38.2%	7.4%	11.5%
2017	1.7%	2.7%	9.9%	11.2%	5.0%	7.1%	0.9%	5.1%	36.6%	7.3%	12.5%
2018	1.6%	2.5%	8.2%	10.6%	5.0%	6.9%	0.9%	4.7%	39.6%	7.4%	12.5%
2019	1.7%	2.7%	9.5%	10.8%	5.5%	6.9%	0.8%	4.7%	38.0%	9.7%	9.8%
2020	1.6%	2.4%	11.5%	10.4%	5.7%	6.3%	0.6%	3.8%	39.0%	9.1%	9.5%
2021	1.5%	2.6%	11.6%	11.1%	4.4%	5.3%	0.5%	3.1%	42.0%	8.8%	9.2%
Average	2.0%	3.0%	8.4%	12.7%	4.7%	7.4%	0.9%	5.1%	35.4%	7.8%	12.7%
Y/Y Change	-0.1%	0.2%	0.1%	0.7%	-1.4%	-1.0%	-0.1%	-0.7%	3.0%	-0.3%	-0.3%

Source: World Federation of Exchanges

Note: Market capitalization of listed domestic companies. EU = European Union, HK = Hong Kong, DM = developed markets, EM = emerging markets, DM/EM exclude countries listed in the table

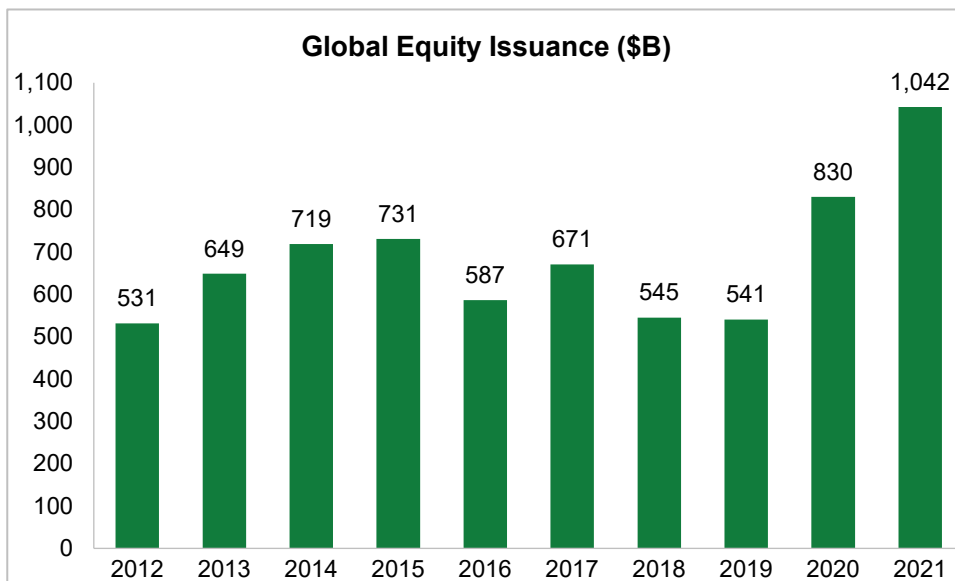
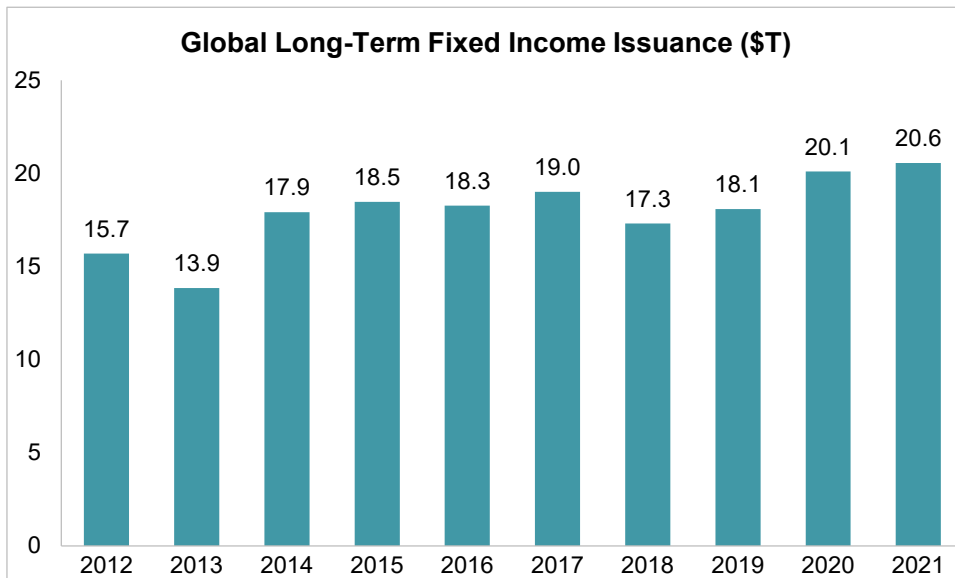
Global Derivatives Market Outstanding – Notional Principal

	\$ Billions			% Change Y/Y		
	Exchange Traded	Over-the-Counter	Total	Exchange Traded	Over-the-Counter	Total
2007	71,532.0	585,925.9	657,458.0			
2008	52,963.0	598,141.0	651,103.9	2008	-26.0%	2.1%
2009	67,416.4	603,893.3	671,309.7	2009	27.3%	1.0%
2010	62,309.9	601,042.8	663,352.7	2010	-7.6%	-0.5%
2011	53,692.9	647,807.0	701,499.9	2011	-13.8%	7.8%
2012	49,033.2	635,681.0	684,714.1	2012	-8.7%	-1.9%
2013	57,459.4	710,092.3	767,551.7	2013	17.2%	11.7%
2014	57,594.2	627,786.0	685,380.2	2014	0.2%	-11.6%
2015	63,485.8	492,536.2	556,022.0	2015	10.2%	-21.5%
2016	67,244.9	482,421.1	549,665.9	2016	5.9%	-2.1%
2017	80,984.1	531,911.1	612,895.1	2017	20.4%	10.3%
2018	94,849.7	544,383.3	639,233.0	2018	17.1%	2.3%
2019	95,812.8	558,512.7	654,323.9	2019	1.0%	2.6%
2020	65,949.7	582,055.3	648,008.2	2020	-31.2%	4.2%
2021	80,090.5	598,416.0	678,506.4	2021	21.4%	2.8%
Average	68,027.9	586,707.0	654,735.0			
Y/Y % Change	21.4%	2.8%	4.7%			
5-Year CAGR	-0.2%	2.4%	2.1%			
10-Year CAGR	5.0%	-0.6%	-0.1%			

Source: Bank for International Settlements (BIS)

Note: Includes interest rates, foreign exchange, equity linked, commodities, credit, and credit default swaps

Global Fixed Income and Equity Issuance – Charts



Source: Bloomberg, Refinitiv, Dealogic

Note: Long-term includes securities with maturity >13 months; global equity issuance includes non-convertible IPOs and follow-on equity deals, excludes preferred shares, rights issues, closed-end funds, business development companies, and special purpose acquisition companies

Global Long-Term Fixed Income Issuance – Value

	\$ Billions											
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	US	DM	EM	Total
2007	161.2	316.1	788.0	3,407.5	13.2	2,596.6	30.0	1,056.5	5,449.5	415.9	1,462.5	15,697.1
2008	175.7	382.0	524.7	3,429.7	10.5	2,433.8	21.1	1,122.1	4,500.8	384.0	867.8	13,852.3
2009	265.8	439.8	524.5	4,337.1	25.4	3,239.6	26.9	1,208.9	6,162.9	450.6	1,243.6	17,925.0
2010	321.0	472.9	704.5	3,664.3	30.2	3,596.5	37.6	685.2	6,726.0	470.1	1,759.3	18,467.7
2011	336.4	554.2	900.8	3,701.2	33.1	4,049.6	33.1	734.9	5,656.0	524.4	1,753.3	18,277.1
2012	345.0	516.9	791.8	3,735.5	46.9	4,291.0	42.2	743.6	6,067.3	540.6	1,894.9	19,015.9
2013	318.3	575.5	978.1	3,606.1	38.4	3,752.1	43.7	660.4	5,056.2	531.8	1,745.3	17,305.9
2014	317.2	550.0	1,607.8	3,691.5	53.2	3,474.3	39.6	651.6	5,277.1	563.2	1,867.6	18,093.1
2015	240.5	502.7	2,440.9	2,959.7	45.3	3,227.9	32.0	511.8	7,798.7	561.8	1,791.0	20,112.4
2016	299.7	500.4	3,670.6	2,922.8	63.8	3,441.7	52.9	507.2	6,328.9	547.0	2,220.2	20,555.2
2017	302.3	596.3	2,805.3	3,010.3	65.0	3,242.4	36.0	476.2	5,635.4	549.7	2,075.9	18,794.6
2018	261.7	524.8	2,928.5	2,848.5	46.5	3,032.9	52.6	560.7	5,492.2	550.2	1,896.3	18,194.9
2019	229.3	539.7	3,811.3	3,005.6	88.4	3,131.3	54.3	425.4	8,613.2	579.3	2,440.8	22,918.5
2020	464.3	748.0	5,154.1	3,873.7	82.2	3,374.5	37.9	788.5	9,486.5	716.7	3,069.7	27,796.0
2021	256.8	732.3	5,441.4	3,496.0	107.2	3,655.6	59.0	581.4	9,085.8	671.2	2,682.4	26,769.1
Average	286.3	530.1	2,204.8	3,446.0	50.0	3,369.3	39.9	714.3	6,489.1	537.1	1,918.0	19,585.0
Y/Y % Change	-44.7%	-2.1%	5.6%	-9.8%	30.5%	8.3%	55.6%	-26.3%	-4.2%	-6.3%	-12.6%	-3.7%
5-Year CAGR	-3.2%	4.2%	14.2%	3.0%	10.5%	2.4%	10.4%	4.1%	10.0%	4.1%	5.3%	7.3%
10-Year CAGR	-2.9%	3.5%	21.3%	-0.7%	8.6%	-1.6%	3.4%	-2.4%	4.1%	2.2%	3.5%	3.5%

	% Change Y/Y											
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	US	DM	EM	Total
2008	9.0%	20.8%	-33.4%	0.7%	-20.1%	-6.3%	-29.8%	6.2%	-17.4%	-7.7%	-40.7%	-11.8%
2009	51.3%	15.1%	0.0%	26.5%	141.0%	33.1%	27.7%	7.7%	36.9%	17.3%	43.3%	29.4%
2010	20.8%	7.5%	34.3%	-15.5%	19.0%	11.0%	39.8%	-43.3%	9.1%	4.3%	41.5%	3.0%
2011	4.8%	17.2%	27.9%	1.0%	9.6%	12.6%	-12.1%	7.3%	-15.9%	11.6%	-0.3%	-1.0%
2012	2.6%	-6.7%	-12.1%	0.9%	41.7%	6.0%	27.8%	1.2%	7.3%	3.1%	8.1%	4.0%
2013	-7.7%	11.3%	23.5%	-3.5%	-18.2%	-12.6%	3.5%	-11.2%	-16.7%	-1.6%	-7.9%	-9.0%
2014	-0.3%	-4.4%	64.4%	2.4%	38.5%	-7.4%	-9.4%	-1.3%	4.4%	5.9%	7.0%	4.5%
2015	-24.2%	-8.6%	51.8%	-19.8%	-15.0%	-7.1%	-19.0%	-21.5%	47.8%	-0.2%	-4.1%	11.2%
2016	24.6%	-0.5%	50.4%	-1.2%	41.0%	6.6%	65.2%	-0.9%	-18.8%	-2.6%	24.0%	2.2%
2017	0.9%	19.2%	-23.6%	3.0%	1.9%	-5.8%	-32.1%	-6.1%	-11.0%	0.5%	-6.5%	-8.6%
2018	-13.4%	-12.0%	4.4%	-5.4%	-28.5%	-6.5%	46.4%	17.7%	-2.5%	0.1%	-8.7%	-3.2%
2019	-12.4%	2.8%	30.1%	5.5%	90.3%	3.2%	3.1%	-24.1%	56.8%	5.3%	28.7%	26.0%
2020	102.5%	38.6%	35.2%	28.9%	-7.1%	7.8%	-30.2%	85.3%	10.1%	23.7%	25.8%	21.3%
2021	-44.7%	-2.1%	5.6%	-9.8%	30.5%	8.3%	55.6%	-26.3%	-4.2%	-6.3%	-12.6%	-3.7%

Source: Bloomberg, Refinitiv

Note: Long-term includes securities with maturity >13 months; includes corporate, municipal and sovereign issuance. EU = European Union, HK = Hong Kong, DM = developed markets, EM = emerging markets. DM/EM exclude countries listed in the table

Global Equity Issuance – Value

	\$ Billions											
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	US	DM	EM	Total
2007	20.9	28.4	3.9	109.8	46.7	19.4	10.2	81.0	153.1	19.3	119.3	611.9
2008	16.8	18.2	2.1	28.3	12.8	8.4	1.7	21.8	189.3	3.7	43.7	346.6
2009	22.3	32.0	30.2	34.0	50.4	58.7	4.2	28.8	241.4	16.2	56.8	575.0
2010	20.3	38.7	73.1	50.9	78.3	56.0	8.2	26.4	188.6	8.2	108.1	656.9
2011	10.9	28.6	42.1	56.1	44.7	17.9	10.2	25.9	174.1	4.6	59.2	474.3
2012	10.5	29.0	40.2	47.1	51.0	22.4	6.1	19.9	226.8	7.5	70.6	531.1
2013	21.3	25.7	29.7	95.2	41.2	42.8	9.2	41.8	251.2	15.7	74.9	648.7
2014	20.2	27.6	111.0	122.2	70.0	35.3	1.3	54.9	214.7	9.7	51.8	718.6
2015	27.5	33.2	66.1	114.6	56.8	31.0	4.5	56.1	261.8	10.3	68.7	730.7
2016	14.1	33.7	159.0	62.9	35.3	20.9	2.6	28.5	176.5	7.4	45.7	586.6
2017	13.1	26.8	114.7	95.6	31.5	44.9	4.4	38.0	191.5	16.5	93.9	670.9
2018	10.9	16.2	49.7	59.7	57.0	46.7	3.7	31.7	203.8	10.1	55.9	545.2
2019	17.8	13.2	48.0	49.8	51.5	20.0	5.3	31.9	191.7	12.0	99.3	540.7
2020	27.1	15.4	107.5	68.1	83.1	37.7	3.8	44.7	337.7	20.0	84.9	830.0
2021	28.6	20.4	171.0	114.7	95.3	36.2	3.9	51.1	373.4	20.1	127.8	1,042.2
Average	18.8	25.8	69.9	73.9	53.7	33.2	5.3	38.8	225.0	12.1	77.4	634.0
Y/Y % Change	5.7%	32.1%	59.0%	68.3%	14.7%	-4.0%	1.1%	14.2%	10.5%	0.2%	50.6%	25.6%
5-Year CAGR	16.9%	-5.3%	8.3%	3.7%	24.8%	-4.2%	-2.7%	6.1%	14.3%	4.0%	6.4%	9.2%
10-Year CAGR	10.5%	-3.5%	15.6%	9.3%	6.4%	4.9%	-4.5%	9.9%	5.1%	10.3%	6.1%	7.0%

	% Change Y/Y											
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	US	DM	EM	Total
2008	-19.9%	-36.0%	-46.6%	-74.3%	-72.5%	-56.7%	-83.3%	-73.1%	23.6%	-80.9%	-63.4%	-43.4%
2009	33.3%	76.3%	1356.8%	20.3%	292.3%	598.4%	147.0%	32.3%	27.5%	342.3%	29.9%	65.9%
2010	-9.3%	20.7%	142.4%	49.8%	55.5%	-4.7%	94.7%	-8.1%	-21.8%	-49.2%	90.5%	14.2%
2011	-46.2%	-26.1%	-42.4%	10.1%	-42.9%	-68.1%	24.8%	-2.2%	-7.7%	-43.7%	-45.2%	-27.8%
2012	-3.4%	1.5%	-4.7%	-16.0%	14.1%	25.3%	-40.3%	-22.9%	30.3%	62.0%	19.2%	12.0%
2013	102.7%	-11.6%	-25.9%	102.2%	-19.2%	91.2%	50.4%	109.9%	10.8%	109.0%	6.2%	22.2%
2014	-5.4%	7.5%	273.2%	28.3%	69.9%	-17.4%	-85.4%	31.4%	-14.5%	-38.3%	-30.9%	10.8%
2015	36.6%	20.2%	-40.5%	-6.2%	-18.9%	-12.2%	238.7%	2.1%	22.0%	6.8%	32.7%	1.7%
2016	-48.7%	1.5%	140.7%	-45.1%	-37.9%	-32.6%	-43.4%	-49.3%	-32.6%	-28.4%	-33.5%	-19.7%
2017	-7.4%	-20.3%	-27.9%	51.9%	-10.7%	114.6%	72.6%	33.4%	8.5%	122.6%	105.3%	14.4%
2018	-16.6%	-39.8%	-56.7%	-37.6%	81.1%	4.0%	-16.1%	-16.5%	6.4%	-38.6%	-40.5%	-18.7%
2019	63.4%	-18.0%	-3.5%	-16.6%	-9.6%	-57.1%	43.4%	0.8%	-5.9%	18.9%	77.7%	-0.8%
2020	51.7%	16.4%	124.1%	36.9%	61.2%	88.2%	-28.4%	39.9%	76.1%	66.6%	-14.5%	53.5%
2021	5.7%	32.1%	59.0%	68.3%	14.7%	-4.0%	1.1%	14.2%	10.5%	0.2%	50.6%	25.6%

Source: Dealogic

Note: By exchange nationality. Includes rank eligible, non-convertible IPOs and follow-on equity deals; excludes preferred shares, rights issued, closed-end funds, business development companies, and special purpose acquisition companies. Developed/Emerging Markets excludes countries listed in the table. EU = European Union, HK = Hong Kong, DM = developed markets, EM = emerging markets. DM/EM exclude countries listed in the table

International Security Offerings by Non-US Issuers – Value

\$ Billions

	Straight Debt	Convertible Debt	Total Debt	Common Stock	Preferred Stock	Total Equity	Total
2007	2,982.5	90.0	3,072.4	384.6	21.7	406.3	3,478.7
2008	1,804.3	53.6	1,858.0	272.3	10.7	283.0	2,140.9
2009	2,567.6	55.6	2,623.2	395.9	13.7	409.5	3,032.7
2010	2,335.1	51.9	2,387.0	365.6	6.6	372.2	2,759.3
2011	2,263.4	36.4	2,299.8	235.1	10.5	245.7	2,545.5
2012	2,671.4	44.0	2,715.4	236.2	15.6	251.8	2,967.2
2013	2,707.5	54.8	2,762.3	307.2	8.3	315.4	3,077.7
2014	3,067.9	55.6	3,123.4	351.0	15.6	366.6	3,490.0
2015	2,537.1	38.4	2,575.5	393.9	14.3	408.3	2,983.7
2016	2,634.6	42.3	2,676.9	225.1	7.3	232.4	2,909.3
2017	3,170.9	35.6	3,206.5	345.0	24.1	369.0	3,575.5
2018	2,733.6	31.8	2,765.4	292.6	8.2	300.8	3,066.3
2019	3,024.3	70.4	3,094.7	286.0	6.2	292.2	3,386.9
2020	3,564.0	131.7	3,695.7	390.1	6.3	396.4	4,092.1
2021	3,728.2	136.3	3,864.5	524.7	10.5	535.2	4,399.7
Average	2,786.2	61.9	2,848.0	333.7	12.0	345.7	3,193.7
Y/Y % Change	4.6%	3.5%	4.6%	34.5%	65.7%	35.0%	7.5%
5-Year CAGR	3.3%	30.8%	3.8%	8.8%	-15.3%	7.7%	4.2%
10-Year CAGR	3.4%	12.0%	3.6%	8.3%	-3.9%	7.8%	4.0%

% Change Y/Y

	Straight Debt	Convertible Debt	Total Debt	Common Stock	Preferred Stock	Total Equity	Total
2008	-39.5%	-40.4%	-39.5%	-29.2%	-50.6%	-30.3%	-38.5%
2009	42.3%	3.6%	41.2%	45.4%	27.7%	44.7%	41.7%
2010	-9.1%	-6.6%	-9.0%	-7.7%	-51.4%	-9.1%	-9.0%
2011	-3.1%	-29.8%	-3.7%	-35.7%	58.5%	-34.0%	-7.7%
2012	18.0%	20.8%	18.1%	0.5%	47.7%	2.5%	16.6%
2013	1.3%	24.6%	1.7%	30.0%	-46.7%	25.3%	3.7%
2014	13.3%	1.4%	13.1%	14.3%	88.1%	16.2%	13.4%
2015	-17.3%	-30.8%	-17.5%	12.2%	-8.0%	11.4%	-14.5%
2016	3.8%	10.1%	3.9%	-42.8%	-49.3%	-43.1%	-2.5%
2017	20.4%	-16.0%	19.8%	53.2%	231.5%	58.8%	22.9%
2018	-13.8%	-10.6%	-13.8%	-15.2%	-65.9%	-18.5%	-14.2%
2019	10.6%	121.4%	11.9%	-2.3%	-24.5%	-2.9%	10.5%
2020	17.8%	87.1%	19.4%	36.4%	2.3%	35.7%	20.8%
2021	4.6%	3.5%	4.6%	34.5%	65.7%	35.0%	7.5%

Source: Refinitiv

Note: Foreign entity issuing securities outside of its domestic market.

International Security Offerings by Non-US Issuers – Number of Issues

# Issues							
	Straight Debt	Convertible Debt	Total Debt	Common Stock	Preferred Stock	Total Equity	Total
2007	6,312	316	6,628	1,775	46	1,821	8,449
2008	3,518	130	3,648	857	47	904	4,552
2009	3,596	201	3,797	1,514	64	1,578	5,375
2010	4,613	444	5,057	1,820	44	1,864	6,921
2011	4,159	429	4,588	1,439	57	1,496	6,084
2012	5,142	273	5,415	1,584	99	1,683	7,098
2013	5,132	316	5,448	1,908	91	1,999	7,447
2014	5,694	257	5,951	2,052	95	2,147	8,098
2015	4,695	127	4,822	2,192	60	2,252	7,074
2016	4,916	112	5,028	2,053	37	2,090	7,118
2017	5,723	102	5,825	2,583	56	2,639	8,464
2018	5,003	155	5,158	2,301	42	2,343	7,501
2019	5,321	245	5,566	2,395	25	2,420	7,986
2020	5,505	310	5,815	3,022	18	3,040	8,855
2021	6,068	307	6,375	3,682	37	3,719	10,094
Average	5,026	248	5,275	2,078	55	2,133	7,408
Y/Y % Change	10.2%	-1.0%	9.6%	21.8%	105.6%	22.3%	14.0%
5-Year CAGR	1.2%	24.7%	1.8%	7.3%	-8.0%	7.1%	3.6%
10-Year CAGR	1.7%	1.2%	1.6%	8.8%	-9.4%	8.3%	3.6%

% Change Y/Y							
	Straight Debt	Convertible Debt	Total Debt	Common Stock	Preferred Stock	Total Equity	Total
2008	-44.3%	-58.9%	-45.0%	-51.7%	2.2%	-50.4%	-46.1%
2009	2.2%	54.6%	4.1%	76.7%	36.2%	74.6%	18.1%
2010	28.3%	120.9%	33.2%	20.2%	-31.3%	18.1%	28.8%
2011	-9.8%	-3.4%	-9.3%	-20.9%	29.5%	-19.7%	-12.1%
2012	23.6%	-36.4%	18.0%	10.1%	73.7%	12.5%	16.7%
2013	-0.2%	15.8%	0.6%	20.5%	-8.1%	18.8%	4.9%
2014	11.0%	-18.7%	9.2%	7.5%	4.4%	7.4%	8.7%
2015	-17.5%	-50.6%	-19.0%	6.8%	-36.8%	4.9%	-12.6%
2016	4.7%	-11.8%	4.3%	-6.3%	-38.3%	-7.2%	0.6%
2017	16.4%	-8.9%	15.9%	25.8%	51.4%	26.3%	18.9%
2018	-12.6%	52.0%	-11.5%	-10.9%	-25.0%	-11.2%	-11.4%
2019	6.4%	58.1%	7.9%	4.1%	-40.5%	3.3%	6.5%
2020	3.5%	26.5%	4.5%	26.2%	-28.0%	25.6%	10.9%
2021	10.2%	-1.0%	9.6%	21.8%	105.6%	22.3%	14.0%

Source: Refinitiv

Note: Foreign entity issuing securities outside of its domestic market.

International Security Offerings by US Issuers – Value

\$ Billions

	Straight Debt	Convertible Debt	Total Debt	Common Stock	Preferred Stock	Total Equity	Total
2007	335.7	1.3	337.0	4.3	2.4	6.7	343.6
2008	190.1	0.0	190.2	20.0	2.1	22.2	212.3
2009	235.9	0.2	236.1	1.8	1.1	2.9	239.0
2010	316.2	0.0	316.2	1.9	0.0	1.9	318.1
2011	250.4	1.1	251.5	0.9	1.8	2.7	254.2
2012	421.5	4.0	425.4	2.2	1.8	4.0	429.5
2013	450.3	4.8	455.1	1.6	1.7	3.4	458.4
2014	586.0	4.1	590.1	1.7	0.1	1.9	591.9
2015	621.1	1.9	623.0	1.3	3.4	4.7	627.7
2016	604.3	0.4	604.7	1.2	0.1	1.3	606.0
2017	747.8	0.4	748.2	4.4	0.8	5.2	753.5
2018	559.0	1.8	560.8	1.8	3.4	5.3	566.1
2019	685.2	33.9	719.1	1.6	3.1	4.7	723.8
2020	833.9	74.7	908.6	2.0	2.7	4.6	913.3
2021	1,024.9	73.7	1,098.6	4.5	3.3	7.8	1,106.4
Average	524.2	13.5	537.6	3.4	1.9	5.3	542.9
Y/Y % Change	22.9%	-1.3%	20.9%	128.0%	24.3%	68.3%	21.2%
5-Year CAGR	6.5%	186.6%	8.0%	0.3%	32.0%	8.3%	8.0%
10-Year CAGR	9.3%	34.0%	10.0%	7.5%	6.1%	6.9%	9.9%

% Change Y/Y

	Straight Debt	Convertible Debt	Total Debt	Common Stock	Preferred Stock	Total Equity	Total
2008	-43.4%	-97.0%	-43.6%	367.9%	-10.5%	232.2%	-38.2%
2009	24.1%	536.1%	24.2%	-90.9%	-47.6%	-86.7%	12.6%
2010	34.1%	-91.5%	33.9%	4.4%	-97.7%	-34.4%	33.1%
2011	-20.8%	5202.9%	-20.5%	-51.7%	6636.6%	39.0%	-20.1%
2012	68.3%	262.7%	69.2%	136.5%	4.5%	49.7%	69.0%
2013	6.8%	20.4%	7.0%	-24.3%	-6.7%	-16.2%	6.7%
2014	30.1%	-13.9%	29.7%	4.2%	-91.8%	-44.8%	29.1%
2015	6.0%	-52.7%	5.6%	-27.3%	2329.3%	151.4%	6.0%
2016	-2.7%	-79.0%	-2.9%	-6.9%	-96.7%	-72.7%	-3.5%
2017	23.8%	-6.7%	23.7%	279.2%	637.8%	310.8%	24.3%
2018	-25.3%	384.9%	-25.0%	-58.5%	312.2%	0.2%	-24.9%
2019	22.6%	1738.0%	28.2%	-14.6%	-8.2%	-10.5%	27.9%
2020	21.7%	120.0%	26.4%	25.9%	-14.8%	-1.3%	26.2%
2021	22.9%	-1.3%	20.9%	128.0%	24.3%	68.3%	21.2%

Source: Refinitiv

Note: U.S. entity issuing securities outside of U.S.

International Security Offerings by US Issuers – Number of Issues

Number of Issues							
	Straight Debt	Convertible Debt	Total Debt	Common Stock	Preferred Stock	Total Equity	Total
2007	699	10	709	38	7	45	754
2008	459	7	466	13	7	20	486
2009	399	5	404	34	8	42	446
2010	700	7	707	40	3	43	750
2011	570	40	610	31	17	48	658
2012	837	79	916	30	33	63	979
2013	873	70	943	34	41	75	1,018
2014	1,060	51	1,111	28	24	52	1,163
2015	1,003	8	1,011	24	14	38	1,049
2016	1,083	2	1,085	24	3	27	1,112
2017	1,278	3	1,281	37	6	43	1,324
2018	1,021	10	1,031	51	11	62	1,093
2019	1,064	99	1,163	50	6	56	1,219
2020	1,260	150	1,410	60	2	62	1,472
2021	1,651	136	1,787	67	5	72	1,859
Average	930	45	976	37	12	50	1,025
Y/Y % Change	31.0%	-9.3%	26.7%	11.7%	150.0%	16.1%	26.3%
5-Year CAGR	5.3%	114.4%	6.9%	12.6%	-3.6%	10.9%	7.0%
10-Year CAGR	7.0%	5.6%	6.9%	8.4%	-17.2%	1.3%	6.6%

% Change Y/Y							
	Straight Debt	Convertible Debt	Total Debt	Common Stock	Preferred Stock	Total Equity	Total
2008	-34.3%	-30.0%	-34.3%	-65.8%	0.0%	-55.6%	-35.5%
2009	-13.1%	-28.6%	-13.3%	161.5%	14.3%	110.0%	-8.2%
2010	75.4%	40.0%	75.0%	17.6%	-62.5%	2.4%	68.2%
2011	-18.6%	471.4%	-13.7%	-22.5%	466.7%	11.6%	-12.3%
2012	46.8%	97.5%	50.2%	-3.2%	94.1%	31.3%	48.8%
2013	4.3%	-11.4%	2.9%	13.3%	24.2%	19.0%	4.0%
2014	21.4%	-27.1%	17.8%	-17.6%	-41.5%	-30.7%	14.2%
2015	-5.4%	-84.3%	-9.0%	-14.3%	-41.7%	-26.9%	-9.8%
2016	8.0%	-75.0%	7.3%	0.0%	-78.6%	-28.9%	6.0%
2017	18.0%	50.0%	18.1%	54.2%	100.0%	59.3%	19.1%
2018	-20.1%	233.3%	-19.5%	37.8%	83.3%	44.2%	-17.4%
2019	4.2%	890.0%	12.8%	-2.0%	-45.5%	-9.7%	11.5%
2020	18.4%	51.5%	21.2%	20.0%	-66.7%	10.7%	20.8%
2021	31.0%	-9.3%	26.7%	11.7%	150.0%	16.1%	26.3%

Source: Refinitiv

Note: U.S. entity issuing securities outside of U.S.

Major Global Stock Market Index Prices

	Local Currency Price						
	US: S&P 500	Canada: S&P/TSX	France: CAC 40	Germany: DAX	Hong Kong: Hang Seng	Japan: Nikkei 225	UK: FTSE 100
2007	1,468.36	13,833.06	5,614.08	8,067.32	27,812.65	15,307.78	6,456.90
2008	903.25	8,987.70	3,217.97	4,810.20	14,387.48	8,859.56	4,434.17
2009	1,115.10	11,746.11	3,936.33	5,957.43	21,872.50	10,546.44	5,412.88
2010	1,257.64	13,443.22	3,804.78	6,914.19	23,035.45	10,228.92	5,899.94
2011	1,257.61	11,955.09	3,159.81	5,898.35	18,434.39	8,455.35	5,572.28
2012	1,426.19	12,433.53	3,641.07	7,612.39	22,656.92	10,395.18	5,897.81
2013	1,848.36	13,621.55	4,295.95	9,552.16	23,306.39	16,291.31	6,749.09
2014	2,058.90	14,632.44	4,272.75	9,805.55	23,605.04	17,450.77	6,566.09
2015	2,043.94	13,009.95	4,637.06	10,743.01	21,914.40	19,033.71	6,242.32
2016	2,238.83	15,287.59	4,862.31	11,481.06	22,000.56	19,114.37	7,142.83
2017	2,673.61	16,209.13	5,312.56	12,917.64	29,919.15	22,764.94	7,687.77
2018	2,506.85	14,322.86	4,730.69	10,558.96	25,845.70	20,014.77	6,728.13
2019	3,230.78	17,063.43	5,978.06	13,249.01	28,189.75	23,656.62	7,542.44
2020	3,756.07	17,433.36	5,551.41	13,718.78	27,231.13	27,444.17	6,460.52
2021	4,766.81	21,222.84	7,153.03	15,884.86	23,397.67	28,791.71	7,384.54
Average	2,170.15	14,346.79	4,677.86	9,811.39	23,573.95	17,223.71	6,411.85
Y/Y % Change	26.9%	21.7%	28.9%	15.8%	-14.1%	4.9%	14.3%
5-Year CAGR	12.3%	5.5%	6.1%	4.2%	-4.8%	4.8%	-0.8%
10-Year CAGR	12.8%	5.5%	7.0%	7.6%	0.3%	10.7%	2.3%

	% Change Y/Y						
	US: S&P 500	Canada: S&P/TSX	France: CAC 40	Germany: DAX	Hong Kong: Hang Seng	Japan: Nikkei 225	UK: FTSE 100
2008	-38.5%	-35.0%	-42.7%	-40.4%	-48.3%	-42.1%	-31.3%
2009	23.5%	30.7%	22.3%	23.8%	52.0%	19.0%	22.1%
2010	12.8%	14.4%	-3.3%	16.1%	5.3%	-3.0%	9.0%
2011	0.0%	-11.1%	-17.0%	-14.7%	-20.0%	-17.3%	-5.6%
2012	13.4%	4.0%	15.2%	29.1%	22.9%	22.9%	5.8%
2013	29.6%	9.6%	18.0%	25.5%	2.9%	56.7%	14.4%
2014	11.4%	7.4%	-0.5%	2.7%	1.3%	7.1%	-2.7%
2015	-0.7%	-11.1%	8.5%	9.6%	-7.2%	9.1%	-4.9%
2016	9.5%	17.5%	4.9%	6.9%	0.4%	0.4%	14.4%
2017	19.4%	6.0%	9.3%	12.5%	36.0%	19.1%	7.6%
2018	-6.2%	-11.6%	-11.0%	-18.3%	-13.6%	-12.1%	-12.5%
2019	28.9%	19.1%	26.4%	25.5%	9.1%	18.2%	12.1%
2020	16.3%	2.2%	-7.1%	3.5%	-3.4%	16.0%	-14.3%
2021	26.9%	21.7%	28.9%	15.8%	-14.1%	4.9%	14.3%

Source: Bloomberg (end of year closing price)

Foreign Exchange Rates

	Foreign Currency Units Per US						% Change Y/Y				
	Canadian Dollar	Euro	Japanese Yen	British Pound	Index		Canadian Dollar	Euro	Japanese Yen	British Pound	Index
2007	1.0740	0.7305	117.7865	0.4997	93.8100						
2008	1.0670	0.6832	103.3681	0.5456	90.8801	2008	-0.7%	-6.5%	-12.2%	9.2%	-3.1%
2009	1.1405	0.7189	93.6037	0.6405	96.7509	2009	6.9%	5.2%	-9.4%	17.4%	6.5%
2010	1.0302	0.7553	87.7331	0.6475	93.0541	2010	-9.7%	5.1%	-6.3%	1.1%	-3.8%
2011	0.9891	0.7189	79.7018	0.6236	88.7767	2011	-4.0%	-4.8%	-9.2%	-3.7%	-4.6%
2012	0.9996	0.7781	79.8385	0.6310	91.6361	2012	1.1%	8.2%	0.2%	1.2%	3.2%
2013	1.0300	0.7531	97.6297	0.6395	92.7611	2013	3.0%	-3.2%	22.3%	1.3%	1.2%
2014	1.1046	0.7540	105.9190	0.6074	95.5876	2014	7.2%	0.1%	8.5%	-5.0%	3.0%
2015	1.2790	0.9013	121.0446	0.6544	108.1699	2015	15.8%	19.5%	14.3%	7.7%	13.2%
2016	1.3248	0.9039	108.7770	0.7407	113.0656	2016	3.6%	0.3%	-10.1%	13.2%	4.5%
2017	1.2982	0.8868	112.1547	0.7765	112.8097	2017	-2.0%	-1.9%	3.1%	4.8%	-0.2%
2018	1.2961	0.8477	110.4630	0.7500	112.0058	2018	-0.2%	-4.4%	-1.5%	-3.4%	-0.7%
2019	1.3268	0.8935	109.0333	0.7837	115.7339	2019	2.4%	5.4%	-1.3%	4.5%	3.3%
2020	1.3409	0.8771	106.7661	0.7796	117.7882	2020	1.1%	-1.8%	-2.1%	-0.5%	1.8%
2021	1.2537	0.8459	109.8543	0.7271	113.1306	2021	-6.5%	-3.5%	2.9%	-6.7%	-4.0%
Average	1.1703	0.8032	102.9116	0.6698	102.3974						
Y/Y % Change	-6.5%	-3.5%	2.9%	-6.7%	-4.0%						
5-Year CAGR	-0.7%	-0.9%	-0.4%	-1.3%	0.1%						
10-Year CAGR	2.3%	0.8%	3.2%	1.4%	2.1%						

Source: The Federal Reserve

Note: Averages used. Index = Nominal Advanced Foreign Economies Dollar Index, includes trade-weighted (goods only) value of the dollar

American Depositary Receipts (ADRs)

			Share	Dollar
	Sponsored	Un-sponsored	Volume (B)	Volume (\$B)
2007	2,084	N/A	76	3,000
2008	2,157	N/A	118	3,700
2009	2,110	1,060	135	2,700
2010	2,217	1,116	147	3,500
2011	2,289	1,229	175	3,800
2012	2,287	1,391	157	2,790
2013	2,230	1,532	143	2,569
2014	2,152	1,600	159	3,300
2015	1,976	1,626	160	3,100
2016	1,876	1,516	152	2,900
2017	1,652	1,613	136	3,300
2018	1,579	1,461	162	4,280
2019	1,449	1,497	162	3,510
2020	1,442	1,449	250	5,881
2021	1,403	1,475	299	8,003
Average	1,926.9	1,428.1	162.1	3,755.6
Y/Y % Change	-2.7%	1.8%	19.9%	36.1%
5-Year CAGR	-3.2%	-1.8%	17.1%	19.4%
10-Year CAGR	-4.8%	0.6%	6.7%	11.1%

% Change Y/Y				
			Share	Dollar
	Sponsored	Un-sponsored	Volume (B)	Volume (\$B)
2008	3.5%	N/A	55.3%	23.3%
2009	-2.2%	N/A	14.4%	-27.0%
2010	5.1%	5.3%	8.9%	29.6%
2011	3.2%	10.1%	19.0%	8.6%
2012	-0.1%	13.2%	-10.3%	-26.6%
2013	-2.5%	10.1%	-8.8%	-7.9%
2014	-3.5%	4.4%	11.0%	28.4%
2015	-8.2%	1.6%	0.6%	-6.1%
2016	-5.1%	-6.8%	-4.9%	-6.5%
2017	-11.9%	6.4%	-10.6%	13.8%
2018	-4.4%	-9.4%	19.1%	29.7%
2019	-8.2%	2.5%	-0.1%	-18.0%
2020	-0.5%	-3.2%	54.3%	67.6%
2021	-2.7%	1.8%	19.9%	36.1%

Source: Deutsche Bank

Note: Trading volume includes both sponsored and unsponsored ADRs global traded amounts

US Holdings of Foreign Securities

	\$ Billions				% Change Y/Y		
	Stocks	Bonds	Total		Stocks	Bonds	Total
2007	5,248.0	1,734.6	6,982.5				
2008	2,748.4	1,341.9	4,090.3	2008	-47.6%	-22.6%	-41.4%
2009	3,995.3	1,693.0	5,688.3	2009	45.4%	26.2%	39.1%
2010	4,900.2	1,903.1	6,803.3	2010	22.7%	12.4%	19.6%
2011	4,501.4	2,107.5	6,609.0	2011	-8.1%	10.7%	-2.9%
2012	5,321.9	2,366.7	7,688.6	2012	18.2%	12.3%	16.3%
2013	6,472.9	2,383.8	8,856.7	2013	21.6%	0.7%	15.2%
2014	6,770.6	2,592.3	9,362.9	2014	4.6%	8.7%	5.7%
2015	6,756.2	2,424.1	9,180.2	2015	-0.2%	-6.5%	-2.0%
2016	7,146.3	2,531.1	9,677.4	2016	5.8%	4.4%	5.4%
2017	9,118.1	2,982.0	12,100.1	2017	27.6%	17.8%	25.0%
2018	7,899.6	3,037.7	10,937.3	2018	-13.4%	1.9%	-9.6%
2019	9,478.0	3,347.6	12,825.6	2019	20.0%	10.2%	17.3%
2020	10,535.9	3,546.3	14,082.2	2020	11.2%	5.9%	9.8%
2021	11,990.9	3,858.9	15,849.8	2021	13.8%	8.8%	12.6%
Average	6,858.9	2,523.4	9,382.3				
Y/Y % Change	13.8%	8.8%	12.6%				
5-Year CAGR	5.6%	5.3%	5.5%				
10-Year CAGR	8.5%	5.0%	7.5%				

Source: The Federal Reserve - Financial Accounts of the United States

Note: Holding of foreign corporate equities, investment shares, and bonds by U.S. residents; includes American Depository Receipts (ADR)

US Gross Activity in Foreign Securities

	\$ Billions				% Change Y/Y		
	Stocks	Bonds	Total		Stocks	Bonds	Total
2007	10,522.2	6,062.7	16,584.9				
2008	10,860.9	4,465.8	15,326.8	2008	3.2%	-26.3%	-7.6%
2009	6,396.3	3,991.9	10,388.2	2009	-41.1%	-10.6%	-32.2%
2010	7,404.1	7,320.3	14,724.4	2010	15.8%	83.4%	41.7%
2011	8,000.5	7,054.9	15,055.4	2011	8.1%	-3.6%	2.2%
2012	6,909.5	7,824.3	14,733.8	2012	-13.6%	10.9%	-2.1%
2013	7,850.7	8,609.6	16,460.3	2013	13.6%	10.0%	11.7%
2014	8,892.2	9,287.3	18,179.4	2014	13.3%	7.9%	10.4%
2015	9,694.7	11,501.0	21,195.7	2015	9.0%	23.8%	16.6%
2016	8,805.5	11,104.5	19,910.0	2016	-9.2%	-3.4%	-6.1%
2017	9,798.2	17,387.2	27,185.3	2017	11.3%	56.6%	36.5%
2018	11,907.8	21,865.7	33,773.5	2018	21.5%	25.8%	24.2%
2019	11,082.2	25,856.9	36,939.0	2019	-6.9%	18.3%	9.4%
2020	14,437.1	31,616.3	46,053.3	2020	30.3%	22.3%	24.7%
2021	16,967.2	35,792.1	52,759.3	2021	17.5%	13.2%	14.6%
Average	9,968.6	13,982.7	23,951.3				
Y/Y % Change	17.5%	13.2%	14.6%				
5-Year CAGR	11.6%	15.5%	14.2%				
10-Year CAGR	9.4%	16.4%	13.6%				

Source: U.S. Treasury, Treasury International Capital (TIC) System

Note: Gross activity = purchases + sales

US Net Purchases of Foreign Securities

	\$ Billions				% Change Y/Y		
	Stocks	Bonds	Total		Stocks	Bonds	Total
2007	94.8	150.3	245.1				
2008	-20.2	-42.5	-62.7	2008	-121.3%	-128.3%	-125.6%
2009	59.6	123.9	183.5	2009	395.2%	391.7%	392.8%
2010	59.9	75.4	135.3	2010	0.5%	-39.1%	-26.3%
2011	69.8	88.8	158.6	2011	16.5%	17.8%	17.2%
2012	41.3	1.4	42.7	2012	-40.8%	-98.5%	-73.1%
2013	174.0	76.4	250.4	2013	321.1%	5517.4%	486.7%
2014	107.7	-94.0	13.8	2014	-38.1%	-223.0%	-94.5%
2015	114.0	-251.3	-137.3	2015	5.8%	-167.5%	-1097.5%
2016	55.8	-233.2	-177.4	2016	-51.0%	7.2%	-29.2%
2017	106.3	-217.8	-111.5	2017	90.3%	6.6%	37.2%
2018	-44.0	-291.7	-335.6	2018	-141.4%	-33.9%	-201.1%
2019	-50.0	-113.6	-163.6	2019	-13.8%	61.1%	51.3%
2020	-109.1	-178.0	-287.1	2020	-118.0%	-56.7%	-75.5%
2021	54.2	-299.4	-245.2	2021	149.7%	-68.2%	14.6%
Average	47.6	-80.4	-32.7				
Y/Y \$ Change	163.3	-121.4	41.9				

Source: U.S. Treasury, Treasury International Capital (TIC) System

Note: Net purchases = purchases - sales

US Gross Activity in Foreign Equities by Region/Country

	\$ Billions								
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	Total
2007	208.4	447.1	11.7	974.8	655.1	910.4	128.4	3,453.1	10,522.2
2008	230.7	613.3	11.6	1,092.0	648.9	784.7	150.2	3,520.8	10,860.9
2009	157.4	425.9	19.5	627.1	508.5	366.5	86.0	1,992.1	6,396.3
2010	153.7	490.8	22.5	673.2	612.4	374.2	89.6	2,289.6	7,404.1
2011	135.2	581.3	25.1	724.4	638.2	390.7	104.6	2,552.0	8,000.5
2012	106.2	487.1	17.1	657.1	545.3	304.7	99.7	2,274.4	6,909.5
2013	111.0	526.4	26.2	634.7	719.3	504.9	116.8	2,456.1	7,850.7
2014	97.7	750.8	28.0	751.6	707.1	361.6	137.8	2,760.2	8,892.2
2015	115.1	846.2	46.4	861.9	728.3	390.0	171.7	2,616.6	9,694.7
2016	110.3	679.5	30.5	1,013.1	614.7	417.3	180.3	2,510.4	8,805.5
2017	114.5	744.2	32.9	1,149.3	705.4	459.0	188.2	2,811.3	9,798.2
2018	127.0	878.5	51.8	1,369.8	886.4	565.4	249.1	3,768.8	11,907.8
2019	129.6	818.4	53.1	1,204.5	832.4	441.7	231.6	3,356.3	11,082.2
2020	159.3	1,080.1	84.6	1,668.0	1,179.7	474.9	325.7	4,450.2	14,437.1
2021	201.3	1,346.2	96.7	1,868.2	1,349.6	468.7	389.0	5,210.7	16,967.2
Average	143.8	714.4	37.2	1,018.0	755.4	481.0	176.6	3,068.2	9,968.6
Y/Y % Change	26.4%	24.6%	14.2%	12.0%	14.4%	-1.3%	19.4%	17.1%	17.5%
5-Year CAGR	12.0%	12.6%	24.0%	10.2%	13.9%	0.4%	15.6%	13.1%	11.6%
10-Year CAGR	6.6%	10.7%	18.9%	11.0%	9.5%	4.4%	14.6%	8.6%	9.4%

Source: U.S. Treasury, Treasury International Capital (TIC) System

Note: Gross activity = purchases + sales. EU = European Union, HK = Hong Kong

US Net Purchases of Foreign Equities by Region/Country

	\$ Billions								
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	Total
2007	2.3	5.6	-0.6	1.4	-6.7	1.7	4.0	66.8	94.8
2008	0.8	2.2	0.3	-16.5	-12.1	-21.7	-5.6	1.7	-20.2
2009	5.9	7.2	-2.4	-11.7	9.5	2.5	-0.8	24.0	59.6
2010	0.2	2.8	-0.6	-6.9	26.0	13.0	-2.2	-3.8	59.9
2011	-0.3	1.4	5.4	12.1	0.2	-4.1	2.2	3.0	69.8
2012	0.1	0.8	-1.2	2.0	15.6	9.2	-4.6	13.1	41.3
2013	4.0	6.4	-4.0	30.3	6.7	32.9	-5.0	96.8	174.0
2014	7.9	9.9	0.2	6.3	15.3	1.2	5.8	47.8	107.7
2015	4.6	7.7	2.5	6.0	20.8	-2.4	4.5	40.9	114.0
2016	7.4	3.2	0.2	5.8	1.8	-14.2	0.0	23.3	55.8
2017	-1.2	-17.3	-0.4	-0.5	29.2	2.5	0.8	95.1	106.3
2018	-0.2	-35.6	-3.2	14.6	25.6	-10.0	-8.4	-2.5	-44.0
2019	-2.0	-28.9	-1.5	-16.9	29.9	-1.2	-1.2	16.9	-50.0
2020	-1.8	-39.6	-2.4	-32.4	-26.4	-16.4	2.8	31.3	-109.1
2021	7.5	8.1	0.0	-12.8	2.1	-5.5	-9.3	52.4	54.2
Average	2.3	-4.4	-0.5	-1.3	9.2	-0.8	-1.1	33.8	47.6
Y/Y \$ Change	9.3	47.8	2.4	19.6	28.5	10.9	-12.2	21.1	163.3

Source: U.S. Treasury, Treasury International Capital (TIC) System

Note: Net purchases = purchases - sales; EU = European Union, HK = Hong Kong

Foreign Holdings of US Securities

\$ Billions					
	Stocks	Corporates	UST	Agency & MBS	Total
2007	2,954.0	2,775.0	2,376.4	1,576.8	9,682.3
2008	1,929.9	2,383.9	3,253.0	1,402.2	8,968.9
2009	2,657.4	2,483.5	3,670.6	1,150.0	9,961.5
2010	3,213.5	2,523.1	4,458.8	1,095.8	11,291.2
2011	3,397.2	2,491.0	5,004.4	1,078.2	11,970.8
2012	3,953.0	2,617.6	5,571.5	1,001.2	13,143.2
2013	5,205.4	2,732.9	5,792.6	883.8	14,614.7
2014	5,920.6	2,928.0	6,158.0	899.6	15,906.2
2015	5,500.9	3,083.3	6,146.2	916.5	15,647.0
2016	5,782.7	3,431.7	6,002.8	991.6	16,208.8
2017	7,019.4	3,881.7	6,211.3	1,012.2	18,124.6
2018	6,629.5	3,604.4	6,270.1	1,087.0	17,591.1
2019	8,199.2	3,964.3	6,844.2	1,203.8	20,211.5
2020	10,449.2	4,445.8	7,070.8	1,195.7	23,161.5
2021	13,318.0	4,440.6	7,739.4	1,250.3	26,748.3
Average	5,742.0	3,185.8	5,504.7	1,116.3	15,548.8
Y/Y % Change	27.5%	-0.1%	9.5%	4.6%	15.5%
5-Year CAGR	13.7%	2.7%	4.5%	4.3%	8.1%
10-Year CAGR	12.9%	5.4%	3.3%	2.2%	7.4%

% Change Y/Y					
	Stocks	Corporates	UST	Agency & MBS	Total
2008	-34.7%	-14.1%	36.9%	-11.1%	-7.4%
2009	37.7%	4.2%	12.8%	-18.0%	11.1%
2010	20.9%	1.6%	21.5%	-4.7%	13.3%
2011	5.7%	-1.3%	12.2%	-1.6%	6.0%
2012	16.4%	5.1%	11.3%	-7.1%	9.8%
2013	31.7%	4.4%	4.0%	-11.7%	11.2%
2014	13.7%	7.1%	6.3%	1.8%	8.8%
2015	-7.1%	5.3%	-0.2%	1.9%	-1.6%
2016	5.1%	11.3%	-2.3%	8.2%	3.6%
2017	21.4%	13.1%	3.5%	2.1%	11.8%
2018	-5.6%	-7.1%	0.9%	7.4%	-2.9%
2019	23.7%	10.0%	9.2%	10.7%	14.9%
2020	27.4%	12.1%	3.3%	-0.7%	14.6%
2021	27.5%	-0.1%	9.5%	4.6%	15.5%

Source: The Federal Reserve - Financial Accounts of the United States

Note: UST = U.S. Treasuries, MBS = mortgage-backed securities, agency = federal agency debt. Corporates = corporate bonds, includes asset-backed securities (ABS) and MBS

Foreign Gross Activity in US Securities

\$ Billions

	Stocks	Corporates	UST	Agency	Total
2007	21,082.7	3,429.2	30,021.6	3,864.7	58,398.1
2008	24,030.8	2,838.1	28,924.7	5,209.1	61,002.6
2009	13,155.0	2,414.1	22,628.9	2,086.3	40,284.3
2010	13,384.6	1,951.7	31,653.7	2,095.9	49,086.0
2011	15,413.4	2,032.3	35,439.6	2,167.2	55,052.4
2012	14,706.1	1,759.7	29,075.0	2,890.1	48,430.8
2013	15,435.8	1,856.7	35,386.7	2,671.9	55,351.1
2014	17,861.9	2,145.2	33,243.8	2,143.0	55,393.9
2015	22,233.5	2,232.8	32,490.6	2,616.6	59,573.5
2016	23,065.8	2,298.8	30,510.3	3,260.2	59,135.1
2017	26,592.2	2,967.9	29,511.7	3,475.6	62,547.5
2018	36,291.1	2,776.4	30,100.6	3,633.4	72,801.5
2019	37,228.8	3,481.1	36,646.7	4,850.6	82,207.1
2020	48,547.7	5,224.6	38,020.1	6,539.4	98,331.8
2021	61,181.3	5,097.3	50,659.2	9,783.7	126,721.5
Average	26,014.0	2,833.7	32,954.2	3,819.2	65,621.2
Y/Y % Change	26.0%	-2.4%	33.2%	49.6%	28.9%
5-Year CAGR	18.1%	11.4%	11.4%	23.0%	15.2%
10-Year CAGR	15.3%	11.2%	5.7%	13.0%	10.1%

% Change Y/Y

	Stocks	Corporates	UST	Agency	Total
2008	14.0%	-17.2%	-3.7%	34.8%	4.5%
2009	-45.3%	-14.9%	-21.8%	-59.9%	-34.0%
2010	1.7%	-19.2%	39.9%	0.5%	21.8%
2011	15.2%	4.1%	12.0%	3.4%	12.2%
2012	-4.6%	-13.4%	-18.0%	33.4%	-12.0%
2013	5.0%	5.5%	21.7%	-7.5%	14.3%
2014	15.7%	15.5%	-6.1%	-19.8%	0.1%
2015	24.5%	4.1%	-2.3%	22.1%	7.5%
2016	3.7%	3.0%	-6.1%	24.6%	-0.7%
2017	15.3%	29.1%	-3.3%	6.6%	5.8%
2018	36.5%	-6.5%	2.0%	4.5%	16.4%
2019	2.6%	25.4%	21.7%	33.5%	12.9%
2020	30.4%	50.1%	3.7%	34.8%	19.6%
2021	26.0%	-2.4%	33.2%	49.6%	28.9%

Source: U.S. Treasury, Treasury International Capital (TIC) System

Note: Gross activity = purchases + sales. UST = U.S. Treasuries, agency = federal agency debt, corporates = corporate bonds

Foreign Net Purchases of US Securities

	\$ Billions				
	Stocks	Corporates	UST	Agency	Total
2007	195.6	392.1	199.0	218.6	1,005.3
2008	44.8	93.3	315.3	-37.7	415.7
2009	152.7	-39.7	538.3	-9.9	641.5
2010	109.8	-11.4	703.5	109.3	911.1
2011	24.7	-42.6	421.0	81.9	485.0
2012	107.8	-22.8	417.4	131.7	634.1
2013	-43.0	9.3	43.6	72.4	82.3
2014	-15.4	23.3	178.1	75.8	261.8
2015	-114.7	134.7	-15.0	158.2	163.2
2016	-6.3	125.0	-311.8	266.3	73.1
2017	119.4	132.3	25.0	136.4	413.1
2018	-129.8	56.9	8.8	230.5	166.3
2019	0.9	16.1	-131.4	299.9	185.4
2020	366.9	-145.3	-537.4	469.6	153.9
2021	47.8	146.7	82.4	321.5	598.6
Average	57.4	57.9	129.1	168.3	412.7
Y/Y % Change	-87.0%	201.0%	115.3%	-31.5%	289.0%

	% Change Y/Y				
	Stocks	Corporates	UST	Agency	Total
2008	-77.1%	-76.2%	58.4%	-117.2%	-58.6%
2009	241.2%	-142.5%	70.7%	73.8%	54.3%
2010	-28.1%	71.2%	30.7%	1207.3%	42.0%
2011	-77.5%	-273.2%	-40.2%	-25.1%	-46.8%
2012	336.1%	46.5%	-0.9%	60.8%	30.7%
2013	-139.9%	140.9%	-89.5%	-45.0%	-87.0%
2014	64.2%	149.8%	308.1%	4.7%	218.0%
2015	-644.9%	478.5%	-108.4%	108.7%	-37.7%
2016	94.5%	-7.2%	-1979.7%	68.3%	-55.2%
2017	1981.4%	5.8%	108.0%	-48.8%	465.0%
2018	-208.7%	-57.0%	-64.9%	69.0%	-59.7%
2019	100.7%	-71.7%	-1597.1%	30.1%	11.5%
2020	42265.1%	-1004.1%	-309.0%	56.6%	-17.0%
2021	-87.0%	201.0%	115.3%	-31.5%	289.0%

Source: U.S. Treasury, Treasury International Capital (TIC) System

Note: Net purchases = purchases – sales. UST = U.S. Treasuries, agency = federal agency debt, corporates = corporate bonds

Foreign Gross Activity in US Equities by Region/Country

	\$ Billions								
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	Total
2007	61.0	411.1	17.4	3,804.3	118.4	103.5	63.3	3,640.4	21,082.7
2008	74.7	765.4	32.1	5,517.5	128.7	104.4	105.5	3,689.5	24,030.8
2009	45.5	619.1	34.5	2,713.7	63.9	127.5	78.7	1,749.6	13,155.0
2010	53.6	731.5	38.0	2,394.0	73.8	132.7	79.8	1,843.2	13,384.6
2011	64.5	974.4	34.0	2,543.0	89.5	166.1	91.8	2,593.0	15,413.4
2012	62.4	1,176.5	44.1	2,457.6	88.0	154.7	99.1	2,388.4	14,706.1
2013	82.8	793.6	49.0	2,018.2	160.1	179.9	132.2	3,101.2	15,435.8
2014	89.2	867.2	46.8	1,852.9	207.0	158.7	126.2	3,589.9	17,861.9
2015	80.3	833.9	50.4	1,834.3	183.8	133.3	147.2	5,360.1	22,233.5
2016	72.5	985.1	32.6	2,126.1	185.1	124.5	145.6	6,637.3	23,065.8
2017	85.9	1,173.2	45.5	2,031.4	234.6	155.7	211.8	8,295.3	26,592.2
2018	98.6	1,549.7	110.5	3,203.8	377.2	193.1	380.4	12,978.0	36,291.1
2019	104.0	1,516.8	106.5	3,943.5	362.4	193.4	417.2	11,677.0	37,228.8
2020	164.6	2,536.3	159.7	5,510.4	651.1	347.8	597.1	12,483.0	48,547.7
2021	216.5	2,883.0	169.9	6,755.3	797.6	375.6	651.3	16,653.6	61,181.3
Average	90.4	1,187.8	64.7	3,247.1	248.1	176.7	221.8	6,445.3	26,014.0
Y/Y % Change	31.5%	13.7%	6.4%	22.6%	22.5%	8.0%	9.1%	33.4%	26.0%
5-Year CAGR	20.3%	19.7%	30.2%	27.2%	27.7%	19.3%	25.2%	15.0%	18.1%
10-Year CAGR	13.3%	9.4%	14.4%	10.6%	24.7%	9.3%	20.7%	21.4%	15.3%

Source: U.S. Treasury, Treasury International Capital (TIC) System

Note: Gross activity = purchases + sales. EU = European Union, HK = Hong Kong

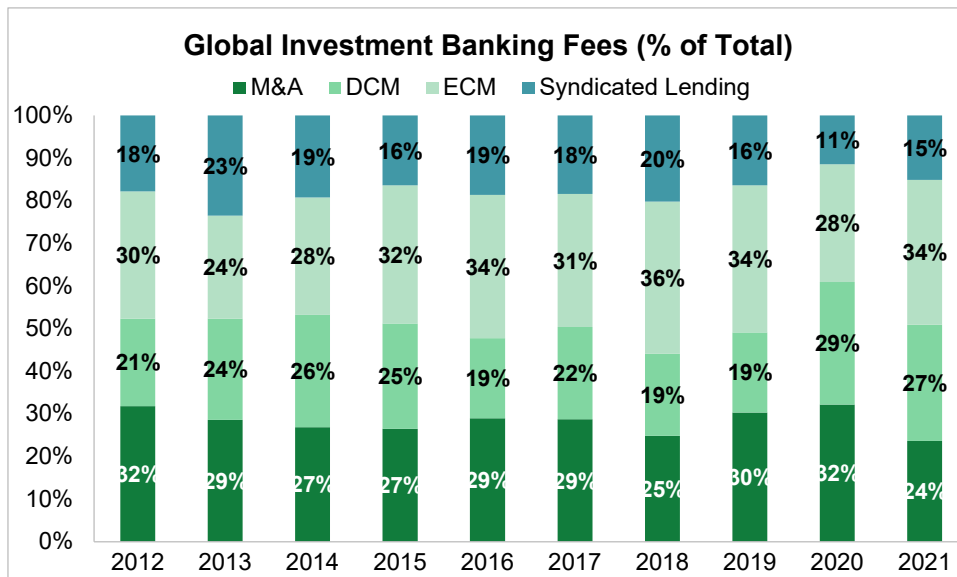
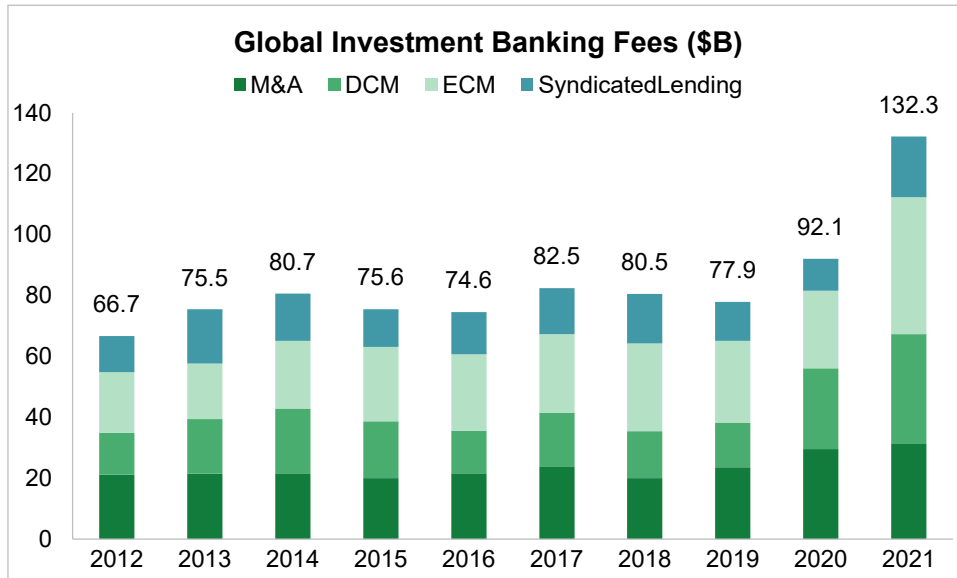
Foreign Net Purchases of US Equities by Region/Country

	\$ Billions								
	Australia	Canada	China	EU	HK	Japan	Singapore	UK	Total
2007	4.8	8.1	4.0	17.0	35.4	-5.0	-2.5	69.5	195.6
2008	0.1	7.2	-0.7	-32.7	27.4	23.0	7.1	30.9	44.8
2009	3.0	-1.6	4.0	15.7	6.3	13.8	12.0	33.7	152.7
2010	2.0	6.5	2.8	14.4	9.8	4.6	-4.4	27.8	109.8
2011	0.3	14.1	0.4	-35.0	6.5	3.4	-6.7	3.0	24.7
2012	1.0	14.7	-1.5	22.1	0.1	-8.1	-0.9	34.2	107.8
2013	-0.6	-3.2	2.8	11.7	-4.0	-26.4	-3.8	-0.3	-43.0
2014	0.9	10.2	-1.7	28.6	-6.6	-9.2	-11.0	-19.7	-15.4
2015	0.1	-12.2	-4.5	-25.3	-16.2	9.5	-5.5	-15.5	-114.7
2016	0.4	2.3	-3.3	-20.6	-12.3	9.1	-0.6	13.5	-6.3
2017	6.8	53.0	2.1	-2.6	-4.6	3.0	-7.3	33.5	119.4
2018	2.9	0.8	2.0	-4.8	-28.9	5.9	-2.9	-106.4	-129.8
2019	4.3	21.1	-3.5	17.7	7.0	0.0	16.6	-15.7	0.9
2020	-2.1	72.8	0.4	107.5	23.6	14.0	22.0	-20.3	366.9
2021	11.5	76.6	-7.0	72.1	-4.2	-24.2	14.9	-64.5	47.8
Average	2.4	18.0	-0.2	12.4	2.6	0.9	1.8	0.2	57.4
Y/Y % Change	657.2%	5.3%	-1682.8%	-33.0%	-117.8%	-273.0%	-32.2%	-217.2%	-87.0%

Source: U.S. Treasury, Treasury International Capital (TIC) System

Note: Net purchases = purchases - sales; EU = European Union, HK = Hong Kong

Global Investment Banking Revenues by Product – Charts



Source: Dealogic Investment Banking Revenue Analytics

Note: M&A = mergers & acquisition; DCM = debt capital markets; ECM = equity capital markets

Global Investment Banking Revenues by Region

\$ Billions										
	US	UK	Europe	Japan	BRICs	Can & Aus	Asia Pac	Lat Am	Other	Total
2017	40.6	4.3	14.1	3.6	10.0	5.5	2.3	0.9	1.3	82.5
2018	39.4	4.9	14.6	3.4	8.3	5.8	2.2	0.6	1.3	80.5
2019	39.3	4.0	13.0	3.0	9.5	4.9	2.2	0.6	1.5	77.9
2020	47.7	4.5	14.6	3.7	12.5	5.2	2.2	0.4	1.3	92.1
2021	70.6	7.0	21.8	3.9	15.0	7.8	3.3	0.7	2.1	132.3
Average	47.5	4.9	15.6	3.5	11.0	5.8	2.4	0.7	1.5	93.1
Y/Y % Change	48.0%	55.8%	49.1%	6.9%	20.1%	49.9%	49.1%	72.3%	62.7%	43.6%
5-Year CAGR	11.7%	10.2%	9.1%	1.9%	8.4%	7.3%	7.8%	-4.5%	10.4%	9.9%

% Change Y/Y										
	US	UK	Europe	Japan	BRICs	Can & Aus	Asia Pac	Lat Am	Other	Total
2018	-2.8%	13.2%	4.0%	-5.0%	-17.3%	5.0%	-1.6%	-32.6%	3.0%	-2.4%
2019	-0.2%	-19.5%	-11.2%	-11.0%	14.9%	-15.7%	-1.7%	1.3%	9.5%	-3.3%
2020	21.4%	14.3%	12.4%	21.5%	31.0%	7.3%	1.0%	-32.5%	-10.8%	18.2%
2021	48.0%	55.8%	49.1%	6.9%	20.1%	49.9%	49.1%	72.3%	62.7%	43.6%

% of Total										
	US	UK	Europe	Japan	BRICs	Can & Aus	Asia Pac	Lat Am	Other	
2017	49.2%	5.3%	17.1%	4.3%	12.1%	6.6%	2.7%	1.1%	1.6%	
2018	48.9%	6.1%	18.2%	4.2%	10.3%	7.1%	2.8%	0.8%	1.6%	
2019	50.5%	5.1%	16.7%	3.9%	12.2%	6.2%	2.8%	0.8%	1.9%	
2020	51.8%	4.9%	15.9%	4.0%	13.5%	5.7%	2.4%	0.5%	1.4%	
2021	53.4%	5.3%	16.5%	3.0%	11.3%	5.9%	2.5%	0.6%	1.6%	
Average	50.8%	5.3%	16.9%	3.9%	11.9%	6.3%	2.6%	0.8%	1.6%	
Y/Y % Change	1.6%	0.4%	0.6%	-1.0%	-2.2%	0.2%	0.1%	0.1%	0.2%	

Source: Dealogic Investment Banking Revenue Analytics

Note: Includes M&A, debt capital markets, equity capital markets, synd lend = syndicated lending. BRICs = Brazil, Russia, India, China. Can = Canada, Aus = Australia. Asia Pac excludes Japan, China, Australia, India. Lat Am excludes Brazil

Global Mergers and Acquisitions – Announced and Completed

Announced			Completed		
	Value (\$ Billions)	# of Deals		Value (\$ Billions)	# of Deals
2007	4,613.3	43,698	2007	4,746.4	43,492
2008	3,172.9	42,538	2008	3,568.6	43,305
2009	2,299.4	37,644	2009	2,370.1	37,173
2010	2,724.0	42,372	2010	2,491.3	41,996
2011	2,768.9	45,561	2011	2,911.0	45,536
2012	2,661.1	43,989	2012	2,558.9	43,933
2013	2,790.0	38,430	2013	2,751.7	38,622
2014	3,627.0	41,613	2014	3,055.8	41,255
2015	4,550.8	40,639	2015	4,130.8	40,534
2016	3,768.6	38,864	2016	3,907.4	39,278
2017	3,562.4	40,840	2017	3,697.3	41,142
2018	4,111.7	36,232	2018	4,308.8	36,262
2019	3,962.5	37,051	2019	3,830.4	37,077
2020	3,604.3	34,119	2020	3,516.2	33,843
2021	5,927.8	36,252	2021	5,400.9	35,830
Average	3,609.7	39,989.5	Average	3,549.7	39,951.9
Y/Y % Change	64.5%	6.3%	Y/Y % Change	53.6%	5.9%
5-Year CAGR	10.7%	-2.4%	5-Year CAGR	7.9%	-2.7%
10-Year CAGR	8.3%	-1.9%	10-Year CAGR	7.8%	-2.0%

% Change Y/Y				
	Announced Value	Announced # of Deals	Completed Value	Completed # of Deals
2008	-31.2%	-2.7%	-24.8%	-0.4%
2009	-27.5%	-11.5%	-33.6%	-14.2%
2010	18.5%	12.6%	5.1%	13.0%
2011	1.6%	7.5%	16.8%	8.4%
2012	-3.9%	-3.5%	-12.1%	-3.5%
2013	4.8%	-12.6%	7.5%	-12.1%
2014	30.0%	8.3%	11.1%	6.8%
2015	25.5%	-2.3%	35.2%	-1.7%
2016	-17.2%	-4.4%	-5.4%	-3.1%
2017	-5.5%	5.1%	-5.4%	4.7%
2018	15.4%	-11.3%	16.5%	-11.9%
2019	-3.6%	2.3%	-11.1%	2.2%
2020	-9.0%	-7.9%	-8.2%	-8.7%
2021	64.5%	6.3%	53.6%	5.9%

Source: Dealogic

Section II: US Capital Markets

US Equity and Debt Outstanding

	\$ Billions							
	Equity	UST	MBS	Corporates	Munis	ABS	Agency	MMs
2007	26,199.5	4,522.6	9,386.0	5,275.4	3,563.1	1,963.5	2,905.9	1,788.9
2008	16,263.5	5,783.6	9,467.4	5,366.5	3,677.4	1,829.5	3,208.5	1,599.8
2009	20,649.0	7,260.6	9,352.5	5,543.6	3,864.1	1,712.1	2,726.3	1,138.0
2010	24,077.2	8,853.0	9,258.4	6,192.6	3,981.6	1,507.8	2,537.5	1,057.6
2011	23,333.6	9,928.4	9,075.5	6,264.5	3,944.4	1,359.0	2,326.9	969.3
2012	26,833.5	11,046.1	8,838.1	6,706.8	3,953.2	1,280.3	2,095.8	952.3
2013	34,445.8	11,854.4	8,742.6	7,093.4	3,891.1	1,285.7	2,058.3	951.6
2014	38,096.4	12,504.8	8,842.0	7,429.4	3,854.4	1,349.4	2,028.7	930.4
2015	37,211.1	13,191.6	8,894.8	7,636.7	3,874.4	1,376.6	1,995.4	941.5
2016	40,168.0	13,908.2	9,023.2	7,910.5	3,923.0	1,391.8	1,971.7	884.9
2017	47,919.8	14,468.8	9,304.5	8,249.1	3,939.2	1,457.9	1,934.7	965.9
2018	43,715.3	15,608.0	9,732.3	8,481.0	3,894.0	1,615.6	1,841.6	996.0
2019	54,644.0	16,673.3	10,229.5	8,783.1	3,904.1	1,663.2	1,726.2	1,045.2
2020	65,444.1	20,973.1	11,214.0	9,684.6	3,988.2	1,535.5	1,688.6	986.9
2021	80,094.7	22,584.0	12,201.6	9,944.9	4,064.3	1,585.3	1,433.3	1,014.2
Average	38,606.4	12,610.7	9,570.8	7,370.8	3,887.8	1,527.6	2,165.3	1,081.5
Y/Y % Change	22.4%	7.7%	8.8%	2.7%	1.9%	3.2%	-15.1%	2.8%
5-Year CAGR	10.8%	9.3%	5.6%	3.8%	0.6%	1.7%	-5.8%	1.0%
10-Year CAGR	11.6%	7.4%	3.3%	4.0%	0.3%	2.2%	-3.7%	0.6%

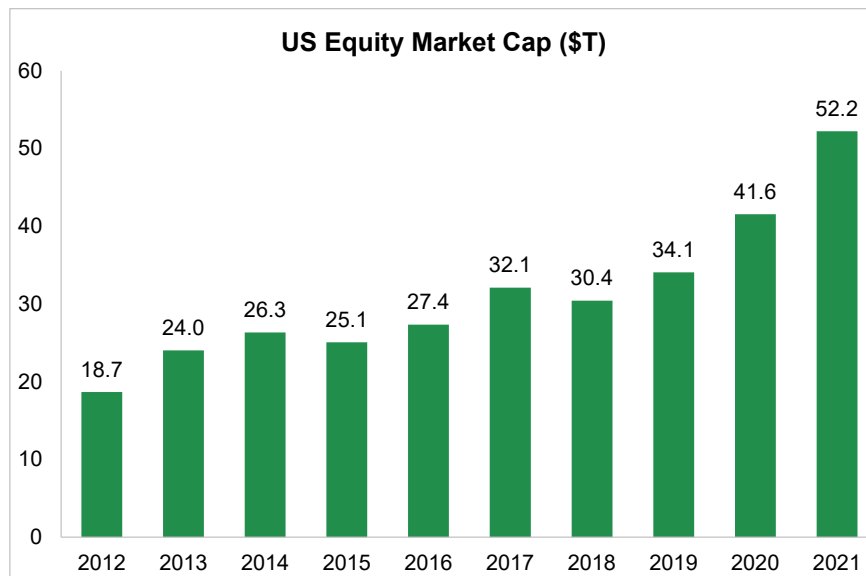
	% Change Y/Y							
	Equity	UST	MBS	Corporates	Munis	ABS	Agency	MMs
2008	-37.9%	27.9%	0.9%	1.7%	3.2%	-6.8%	10.4%	-10.6%
2009	27.0%	25.5%	-1.2%	3.3%	5.1%	-6.4%	-15.0%	-28.9%
2010	16.6%	21.9%	-1.0%	11.7%	3.0%	-11.9%	-6.9%	-7.1%
2011	-3.1%	12.1%	-2.0%	1.2%	-0.9%	-9.9%	-8.3%	-8.3%
2012	15.0%	11.3%	-2.6%	7.1%	0.2%	-5.8%	-9.9%	-1.7%
2013	28.4%	7.3%	-1.1%	5.8%	-1.6%	0.4%	-1.8%	-0.1%
2014	10.6%	5.5%	1.1%	4.7%	-0.9%	5.0%	-1.4%	-2.2%
2015	-2.3%	5.5%	0.6%	2.8%	0.5%	2.0%	-1.6%	1.2%
2016	7.9%	5.4%	1.4%	3.6%	1.3%	1.1%	-1.2%	-6.0%
2017	19.3%	4.0%	3.1%	4.3%	0.4%	4.8%	-1.9%	9.2%
2018	-8.8%	7.9%	4.6%	2.8%	-1.1%	10.8%	-4.8%	3.1%
2019	25.0%	6.8%	5.1%	3.6%	0.3%	2.9%	-6.3%	4.9%
2020	19.8%	25.8%	9.6%	10.3%	2.2%	-7.7%	-2.2%	-5.6%
2021	22.4%	7.7%	8.8%	2.7%	1.9%	3.2%	-15.1%	2.8%

Source: Bloomberg, Federal Agencies, Refinitiv, SIFMA, The Federal Reserve, US Department of Treasury

Note: Corporate equities include both listed on exchanges and closely held common and preferred shares issued by domestic corporations and US purchases of shares issued by foreign corporations; UST = US Treasuries, MBS = mortgage-backed securities, Corporates = corporate bonds, munis = municipal securities, agency = federal agency securities, ABS = asset-backed securities, MMs = money market funds

US Equity Market Capitalization

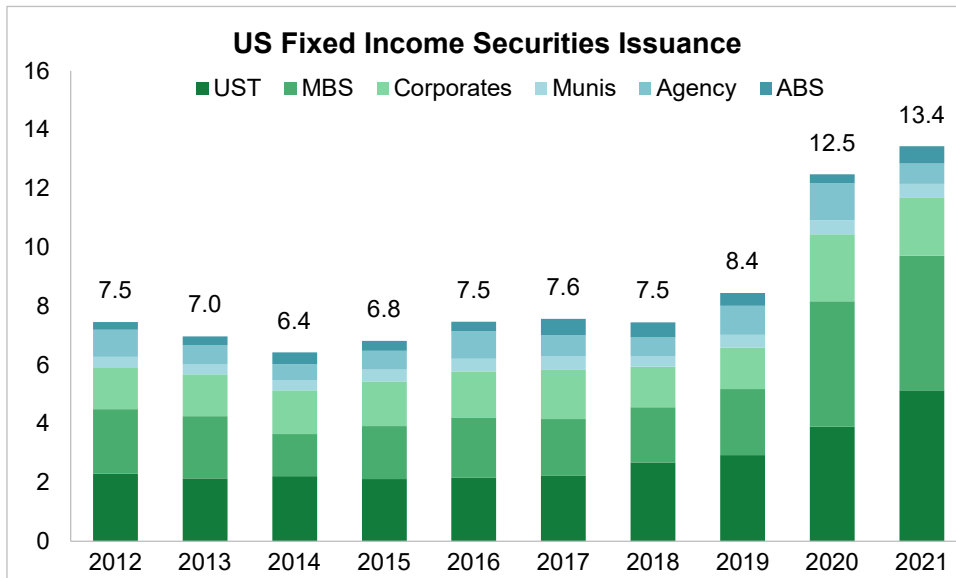
	\$ Billions				% Change Y/Y		
	NYSE	Nasdaq	Total		NYSE	Nasdaq	Total
2007	15,650.8	4,013.7	19,664.5				
2008	9,208.9	2,249.0	11,457.9	2008	-41.2%	-44.0%	-41.7%
2009	11,837.8	3,239.5	15,077.3	2009	28.5%	44.0%	31.6%
2010	13,394.1	3,889.4	17,283.5	2010	13.1%	20.1%	14.6%
2011	11,795.6	3,845.1	15,640.7	2011	-11.9%	-1.1%	-9.5%
2012	14,085.9	4,582.4	18,668.3	2012	19.4%	19.2%	19.4%
2013	17,949.9	6,085.0	24,034.9	2013	27.4%	32.8%	28.7%
2014	19,351.4	6,979.2	26,330.6	2014	7.8%	14.7%	9.6%
2015	17,786.8	7,280.8	25,067.5	2015	-8.1%	4.3%	-4.8%
2016	19,573.1	7,779.1	27,352.2	2016	10.0%	6.8%	9.1%
2017	22,081.4	10,039.3	32,120.7	2017	12.8%	29.1%	17.4%
2018	20,679.5	9,756.8	30,436.3	2018	-6.3%	-2.8%	-5.2%
2019	21,083.7	13,002.0	34,085.7	2019	2.0%	33.3%	12.0%
2020	22,509.5	19,060.4	41,569.9	2020	6.8%	46.6%	22.0%
2021	27,686.9	24,557.1	52,244.0	2021	23.0%	28.8%	25.7%
Average	17,645.0	8,423.9	26,068.9				
Y/Y % Change	23.0%	28.8%	25.7%				
5-Year CAGR	4.6%	19.6%	10.2%				
10-Year CAGR	7.0%	18.3%	10.8%				



Source: World Federation of Exchanges

Note: Includes market capitalization of domestic companies only

US Fixed Income Securities Issuance – Chart



Sources: Bloomberg, Refinitiv, Treasury, US Agencies

Note: UST = US Treasuries, MBS = mortgage-backed securities, Corporates = corporate bonds, munis = municipal securities, agency = federal agency securities, ABS = asset-backed securities. Includes long-term securities only

US Fixed Income Securities Issuance – Value

\$ Billions

	UST	MBS	Corporates	Munis	Agency	ABS	Total
2007	752.2	2,434.6	1,226.3	429.2	831.2	795.9	6,469.4
2008	1,029.4	1,394.0	759.3	389.3	924.8	215.2	4,712.0
2009	2,197.2	2,172.1	975.7	409.6	1,244.4	177.9	7,177.0
2010	2,319.8	2,012.6	1,088.6	433.3	1,362.1	125.9	7,342.4
2011	2,103.3	1,724.8	1,047.4	295.1	1,025.3	151.0	6,346.8
2012	2,304.6	2,195.1	1,394.7	382.7	925.5	259.0	7,461.6
2013	2,140.0	2,120.2	1,424.5	335.4	652.9	304.1	6,977.1
2014	2,215.2	1,439.6	1,481.1	339.1	558.7	393.4	6,427.1
2015	2,122.4	1,800.7	1,514.4	405.1	645.5	333.4	6,821.5
2016	2,169.4	2,044.2	1,550.7	451.9	927.9	325.4	7,469.6
2017	2,224.3	1,934.7	1,677.5	449.0	731.3	550.3	7,567.1
2018	2,684.7	1,874.7	1,377.6	346.8	653.6	516.9	7,454.2
2019	2,935.5	2,242.6	1,418.2	426.4	989.3	434.7	8,446.6
2020	3,895.8	4,271.0	2,275.3	484.7	1,251.3	304.3	12,482.3
2021	5,139.1	4,584.6	1,958.3	480.4	692.9	581.9	13,437.3
Average	2,415.5	2,283.0	1,411.3	403.9	894.5	364.6	7,772.8
Y/Y % Change	31.9%	7.3%	-13.9%	-0.9%	-44.6%	91.2%	7.7%
5-Year CAGR	18.2%	18.8%	3.1%	1.4%	-1.1%	1.1%	12.2%
10-Year CAGR	8.4%	7.6%	3.5%	2.3%	-2.9%	8.4%	6.1%

% Change Y/Y

	UST	MBS	ates	Munis	Agency	ABS	Total
2008	36.9%	-42.7%	-38.1%	-9.3%	11.2%	-73.0%	-27.2%
2009	113.4%	55.8%	28.5%	5.2%	34.6%	-17.3%	52.3%
2010	5.6%	-7.3%	11.6%	5.8%	9.5%	-29.2%	2.3%
2011	-9.3%	-14.3%	-3.8%	-31.9%	-24.7%	19.9%	-13.6%
2012	9.6%	27.3%	33.2%	29.7%	-9.7%	71.6%	17.6%
2013	-7.1%	-3.4%	2.1%	-12.3%	-29.5%	17.4%	-6.5%
2014	3.5%	-32.1%	4.0%	1.1%	-14.4%	29.3%	-7.9%
2015	-4.2%	25.1%	2.2%	19.5%	15.5%	-15.2%	6.1%
2016	2.2%	13.5%	2.4%	11.6%	43.7%	-2.4%	9.5%
2017	2.5%	-5.4%	8.2%	-0.7%	-21.2%	69.1%	1.3%
2018	20.7%	-3.1%	-17.9%	-22.8%	-10.6%	-6.1%	-1.5%
2019	9.3%	19.6%	2.9%	22.9%	51.4%	-15.9%	13.3%
2020	32.7%	90.4%	60.4%	13.7%	26.5%	-30.0%	47.8%
2021	31.9%	7.3%	-13.9%	-0.9%	-44.6%	91.2%	7.7%

Source: Bloomberg, Refinitiv, Treasury, US Agencies

Note: UST = US Treasuries, MBS = mortgage-backed securities, Corporates = corporate bonds, munis = municipal securities, agency = federal agency securities, ABS = asset-backed securities. Includes long-term securities only

US Fixed Income Securities Issuance – Number of Issues

				% Change Y/Y		
	Corporates	Munis	ABS	Corporates	Munis	ABS
2007	2,258	12,591	1,448			
2008	1,135	10,781	313	2008	-49.7%	-14.4%
2009	1,453	11,691	289	2009	28.0%	8.4%
2010	1,725	13,804	318	2010	18.7%	18.1%
2011	1,495	10,583	313	2011	-13.3%	-23.3%
2012	1,952	13,150	503	2012	30.6%	24.3%
2013	1,873	11,503	626	2013	-4.0%	-12.5%
2014	1,693	11,141	738	2014	-9.6%	-3.1%
2015	1,413	13,302	733	2015	-16.5%	19.4%
2016	1,520	13,556	740	2016	7.6%	1.9%
2017	1,781	12,059	1,166	2017	17.2%	-11.0%
2018	1,383	9,611	1,080	2018	-22.3%	-20.3%
2019	1,410	11,602	903	2019	2.0%	20.7%
2020	2,093	13,336	604	2020	48.4%	14.9%
2021	1,876	12,946	1,063	2021	-10.4%	-2.9%
Average	1,671	12,110	722			
Y/Y % Change	-10.4%	-2.9%	76.0%			
5-Year CAGR	4.3%	-0.9%	7.5%			
10-Year CAGR	2.3%	2.0%	13.0%			

Source: Bloomberg, Refinitiv

Note: Corporates = corporate bonds, munis = municipal securities, agency = federal agency securities, ABS = asset-backed securities. Includes long-term securities only. No data available for U.S. Treasuries or mortgage-backed securities.

US Long-Term Municipal Bond Issuance – Value

\$ Billion								
	Revenue Competitive	Revenue Negotiated	Total Revenue	Gen Oblig Competitive	Gen Oblig Negotiated	Total Gen Oblig	Private Placements	Total
2007	21.7	270.7	292.4	51.0	80.8	131.8	5.0	429.2
2008	15.5	260.5	276.0	37.8	72.4	110.2	3.2	389.3
2009	11.8	239.3	251.1	46.1	108.7	154.8	3.7	409.6
2010	24.2	254.2	278.4	49.0	98.0	146.9	7.9	433.3
2011	18.7	161.4	180.1	40.8	64.2	105.1	9.9	295.1
2012	26.4	208.1	234.6	47.7	87.5	135.3	12.8	382.7
2013	18.1	170.1	188.2	51.3	73.3	124.6	22.7	335.4
2014	20.5	161.3	181.8	51.4	81.5	132.8	24.5	339.1
2015	23.3	200.3	223.6	63.9	89.8	153.8	27.8	405.1
2016	29.4	219.2	248.5	69.3	106.0	175.3	28.1	451.9
2017	29.4	218.3	247.6	68.9	91.9	160.8	40.6	449.0
2018	26.5	175.5	202.0	58.1	62.9	120.9	23.9	346.8
2019	27.2	219.0	246.2	72.0	88.6	160.6	19.6	426.4
2020	24.9	236.4	261.3	68.1	121.9	189.9	33.9	485.1
2021	28.8	252.9	281.6	70.8	104.6	175.4	24.8	481.8
Average	23.1	216.5	239.6	56.4	88.8	145.2	19.2	404.0
Y/Y % Change	15.8%	7.0%	7.8%	4.0%	-14.2%	-7.7%	-27.0%	-0.7%
5-Year CAGR	-0.4%	3.0%	2.6%	0.6%	2.6%	1.8%	-9.4%	1.4%
10-Year CAGR	0.9%	2.0%	1.8%	4.0%	1.8%	2.6%	6.8%	2.3%

% Change Y/Y								
	Revenue Competitive	Revenue Negotiated	Total Revenue	Gen Oblig Competitive	Gen Oblig Negotiated	Total Gen Oblig	Private Placements	Total
2008	-28.4%	-3.8%	-5.6%	-25.9%	-10.4%	-16.4%	-36.4%	-9.3%
2009	-23.9%	-8.1%	-9.0%	22.0%	50.2%	40.5%	15.9%	5.2%
2010	105.0%	6.2%	10.9%	6.2%	-9.9%	-5.1%	114.2%	5.8%
2011	-22.6%	-36.5%	-35.3%	-16.6%	-34.4%	-28.5%	25.2%	-31.9%
2012	41.2%	28.9%	30.2%	16.9%	36.2%	28.7%	29.6%	29.7%
2013	-31.5%	-18.3%	-19.8%	7.4%	-16.3%	-7.9%	76.7%	-12.3%
2014	13.0%	-5.1%	-3.4%	0.2%	11.1%	6.6%	8.2%	1.1%
2015	14.0%	24.2%	23.0%	24.5%	10.3%	15.8%	13.2%	19.5%
2016	25.9%	9.4%	11.2%	8.4%	18.0%	14.0%	1.2%	11.6%
2017	0.0%	-0.4%	-0.4%	-0.6%	-13.2%	-8.3%	44.4%	-0.7%
2018	-9.8%	-19.6%	-18.4%	-15.7%	-31.6%	-24.8%	-41.2%	-22.8%
2019	2.6%	24.8%	21.9%	24.0%	40.9%	32.8%	-17.8%	22.9%
2020	-8.5%	8.0%	6.1%	-5.4%	37.6%	18.3%	72.9%	13.8%
2021	15.8%	7.0%	7.8%	4.0%	-14.2%	-7.7%	-27.0%	-0.7%

Source: Refinitiv

Note: Includes securities issued by a state, territory, municipality, county, or certain non-profit organizations; excludes securities with maturities <13 months. Gen Oblig = general obligation

US Long-Term Municipal Bond Issuance – Number of Issues

	Number of Deals							
	Revenue Competitive	Revenue Negotiated	Total Revenue	Gen Oblig Competitive	Gen Oblig Negotiated	Total Gen Oblig	Private Placements	Total
2007	622	5,339	5,961	2,983	3,242	6,225	405	12,591
2008	482	4,240	4,722	2,870	2,825	5,695	364	10,781
2009	515	3,727	4,242	3,125	3,992	7,117	332	11,691
2010	791	4,434	5,225	3,437	4,769	8,206	373	13,804
2011	552	3,009	3,561	2,942	3,666	6,608	414	10,583
2012	760	3,541	4,301	3,530	4,731	8,261	588	13,150
2013	548	3,012	3,560	3,272	3,741	7,013	930	11,503
2014	559	2,821	3,380	3,257	3,527	6,784	977	11,141
2015	663	3,576	4,239	3,778	4,063	7,841	1,222	13,302
2016	790	3,650	4,440	3,847	3,984	7,831	1,285	13,556
2017	549	3,350	3,899	3,467	3,219	6,686	1,474	12,059
2018	516	2,759	3,275	3,201	2,073	5,274	1,062	9,611
2019	610	3,335	3,945	3,487	3,175	6,662	995	11,602
2020	601	3,519	4,120	3,761	3,968	7,729	1,492	13,341
2021	563	4,010	4,573	3,716	3,567	7,283	1,145	13,001
Average	608	3,621	4,230	3,378	3,636	7,014	871	12,114
Y/Y % Change	-6.3%	14.0%	11.0%	-1.2%	-10.1%	-5.8%	-23.3%	-2.5%
5-Year CAGR	0.5%	3.7%	3.2%	1.4%	2.1%	1.7%	-4.9%	1.5%
10-Year CAGR	-3.0%	1.3%	0.6%	0.5%	-2.8%	-1.3%	6.9%	-0.1%

	% Change Y/Y							
	Revenue Competitive	Revenue Negotiated	Total Revenue	Gen Oblig Competitive	Gen Oblig Negotiated	Total Gen Oblig	Private Placements	Total
2008	-22.5%	-20.6%	-20.8%	-3.8%	-12.9%	-8.5%	-10.1%	-14.4%
2009	6.8%	-12.1%	-10.2%	8.9%	41.3%	25.0%	-8.8%	8.4%
2010	53.6%	19.0%	23.2%	10.0%	19.5%	15.3%	12.3%	18.1%
2011	-30.2%	-32.1%	-31.8%	-14.4%	-23.1%	-19.5%	11.0%	-23.3%
2012	37.7%	17.7%	20.8%	20.0%	29.1%	25.0%	42.0%	24.3%
2013	-27.9%	-14.9%	-17.2%	-7.3%	-20.9%	-15.1%	58.2%	-12.5%
2014	2.0%	-6.3%	-5.1%	-0.5%	-5.7%	-3.3%	5.1%	-3.1%
2015	18.6%	26.8%	25.4%	16.0%	15.2%	15.6%	25.1%	19.4%
2016	19.2%	2.1%	4.7%	1.8%	-1.9%	-0.1%	5.2%	1.9%
2017	-30.5%	-8.2%	-12.2%	-9.9%	-19.2%	-14.6%	14.7%	-11.0%
2018	-6.0%	-17.6%	-16.0%	-7.7%	-35.6%	-21.1%	-28.0%	-20.3%
2019	18.2%	20.9%	20.5%	8.9%	53.2%	26.3%	-6.3%	20.7%
2020	-1.5%	5.5%	4.4%	7.9%	25.0%	16.0%	49.9%	15.0%
2021	-6.3%	14.0%	11.0%	-1.2%	-10.1%	-5.8%	-23.3%	-2.5%

Source: Refinitiv

Note: Includes securities issued by a state, territory, municipality, county, or certain non-profit organizations; excludes securities with maturities <13 months. Gen Oblig = general obligation

US Long-Term Municipal Bond Issuance – Number of Issuers

	Unique %				Unique %		
	Total	Unique	Total		Total	Unique	Total
2007	12,591	7,921	62.9%				
2008	10,781	6,849	63.5%	2008	-14.4%	-13.5%	0.6%
2009	11,691	7,358	62.9%	2009	8.4%	7.4%	-0.6%
2010	13,804	8,234	59.6%	2010	18.1%	11.9%	-3.3%
2011	10,583	7,143	67.5%	2011	-23.3%	-13.2%	7.8%
2012	13,150	8,838	67.2%	2012	24.3%	23.7%	-0.3%
2013	11,503	7,663	66.6%	2013	-12.5%	-13.3%	-0.6%
2014	11,141	7,396	66.4%	2014	-3.1%	-3.5%	-0.2%
2015	13,302	8,583	64.5%	2015	19.4%	16.0%	-1.9%
2016	13,556	8,889	65.6%	2016	1.9%	3.6%	1.0%
2017	12,059	7,574	62.8%	2017	-11.0%	-14.8%	-2.8%
2018	9,611	6,301	65.6%	2018	-20.3%	-16.8%	2.8%
2019	11,602	7,420	64.0%	2019	20.7%	17.8%	-1.6%
2020	13,341	8,366	62.7%	2020	15.0%	12.7%	-1.2%
2021	13,001	8,116	62.4%	2021	-2.5%	-3.0%	-0.3%
Average	12,114	7,777	64.3%				
Y/Y % Change	-2.5%	-3.0%	-0.5%				
5-Year CAGR	1.5%	1.4%	-0.1%				
10-Year CAGR	-0.1%	-0.8%	-0.7%				

Source: Refinitiv

Note: Includes securities issued by a state, territory, municipality, county, or certain non-profit organizations; excludes securities with maturities <13 months

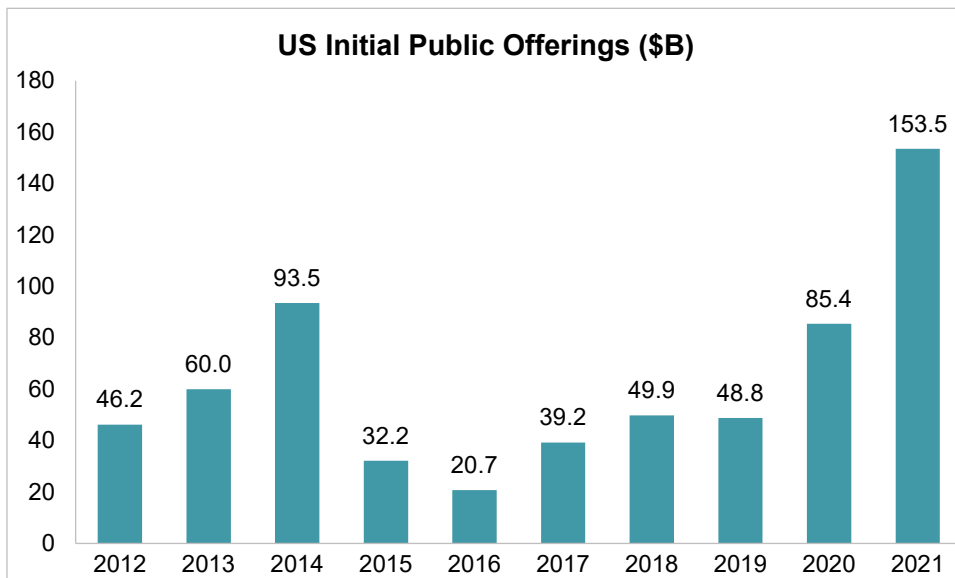
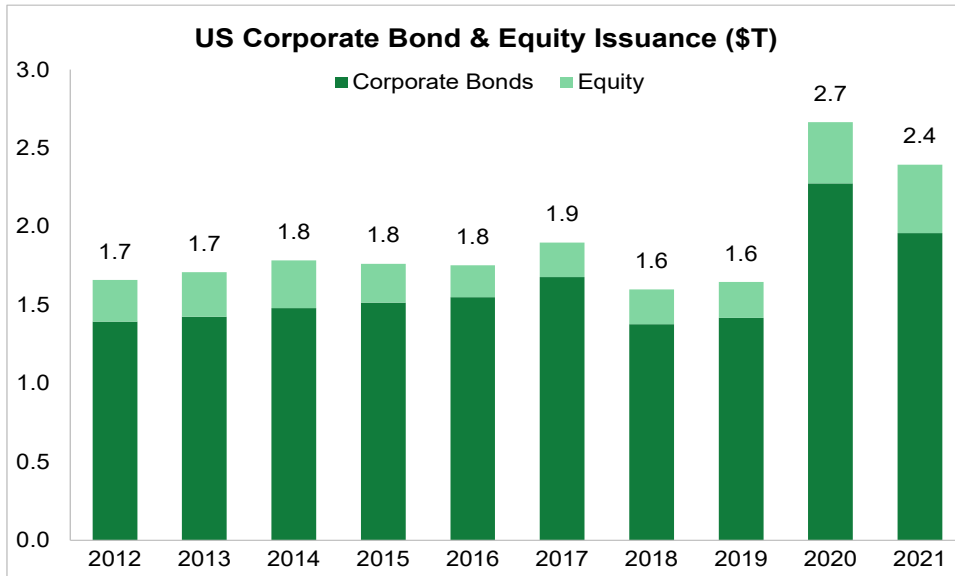
US Municipal Bond Issuance – Bank Qualified

	Issuance			% Change Y/Y		
	# Deals	Issuance (\$M)	Deal Size (\$M)	# Deals	Issuance (\$M)	Deal Size (\$M)
2007	4,469	16,233.0	3.6			
2008	4,169	15,267.6	3.7	2008	-6.7%	-5.9%
2009	5,992	33,028.6	5.5	2009	43.7%	116.3%
2010	6,712	36,792.9	5.5	2010	12.0%	11.4%
2011	5,155	18,827.8	3.7	2011	-23.2%	-48.8%
2012	6,352	25,120.9	4.0	2012	23.2%	33.4%
2013	5,247	20,249.1	3.9	2013	-17.4%	-19.4%
2014	4,941	20,013.3	4.1	2014	-5.8%	-1.2%
2015	5,422	22,670.7	4.2	2015	9.7%	13.3%
2016	5,358	22,838.8	4.3	2016	-1.2%	0.7%
2017	4,217	17,662.0	4.2	2017	-21.3%	-22.7%
2018	3,070	11,962.7	3.9	2018	-27.2%	-32.3%
2019	3,702	14,901.2	4.0	2019	20.6%	24.6%
2020	4,164	16,506.2	4.0	2020	12.5%	10.8%
2021	3,839	15,381.5	4.0	2021	-7.8%	-6.8%
Average	4,854	20,497	4			
Y/Y % Change	-7.8%	-6.8%	1.1%			
5-Year CAGR	-1.9%	-2.7%	-0.9%			
10-Year CAGR	-4.9%	-4.8%	0.1%			

Source: Refinitiv

Note: Deal size = average. Bank qualified municipal bonds are defined as short-term and long-term municipal bonds under the Tax Reform Act of 1986 (265b) where, when purchased by a commercial bank for its portfolio, the bank may deduct a portion of interest cost of carry for the position

US Corporate Bonds and Equity Issuance – Charts



Source: Bloomberg, Dealogic, Refinitiv

Note: Corporates include underwritten, privately placed, and medium-term notes; US IPOs include rank eligible deals, exclude BDCs, SPACs, ETFs, CLEFs and rights offers

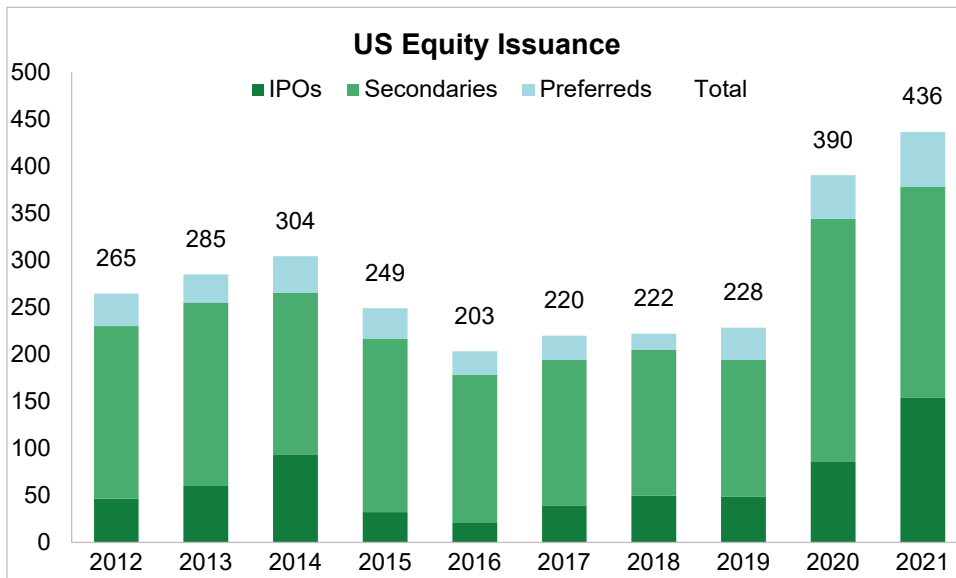
US Corporate Bonds and Equity Issuance – Value

\$ Billions				% Change Y/Y			
	Corporates	Equity	Total		Corporates	Equity	Total
2007	1,226.3	226.9	1,453.3				
2008	759.3	256.4	1,015.6	2008	-38.1%	13.0%	-30.1%
2009	975.7	264.9	1,240.6	2009	28.5%	3.3%	22.2%
2010	1,088.6	219.2	1,307.8	2010	11.6%	-17.3%	5.4%
2011	1,047.4	184.9	1,232.3	2011	-3.8%	-15.6%	-5.8%
2012	1,394.7	264.6	1,659.3	2012	33.2%	43.1%	34.6%
2013	1,424.5	285.0	1,709.4	2013	2.1%	7.7%	3.0%
2014	1,481.1	304.0	1,785.1	2014	4.0%	6.7%	4.4%
2015	1,514.4	248.8	1,763.2	2015	2.2%	-18.1%	-1.2%
2016	1,550.7	203.0	1,753.7	2016	2.4%	-18.4%	-0.5%
2017	1,677.5	219.8	1,897.2	2017	8.2%	8.3%	8.2%
2018	1,377.6	221.6	1,599.2	2018	-17.9%	0.8%	-15.7%
2019	1,418.2	228.1	1,646.3	2019	2.9%	2.9%	2.9%
2020	2,275.3	390.4	2,665.6	2020	60.4%	71.1%	61.9%
2021	1,958.3	436.2	2,394.5	2021	-13.9%	11.7%	-10.2%
Average	1,411.3	263.6	1,674.9				
Y/Y % Change	-13.9%	11.7%	-10.2%				
5-Year CAGR	3.1%	14.7%	4.8%				
10-Year CAGR	3.5%	5.1%	3.7%				

Source: Bloomberg, Dealogic, Refinitiv

Note: Corporates include underwritten, privately placed, and medium-term notes; US IPOs include rank eligible deals, exclude BDCs, SPACs, ETFs, CLEFs and rights offers

US Equity Issuance – Chart



Source: Dealogic

Note: Includes rank eligible deals, excludes BDCs, SPACs, ETFs, CLEFs and rights offers. IPO = initial public offering, secondaries = secondary offerings or follow-ons, CS = common stock, preferreds = preferred stock

US Equity Issuance – Value

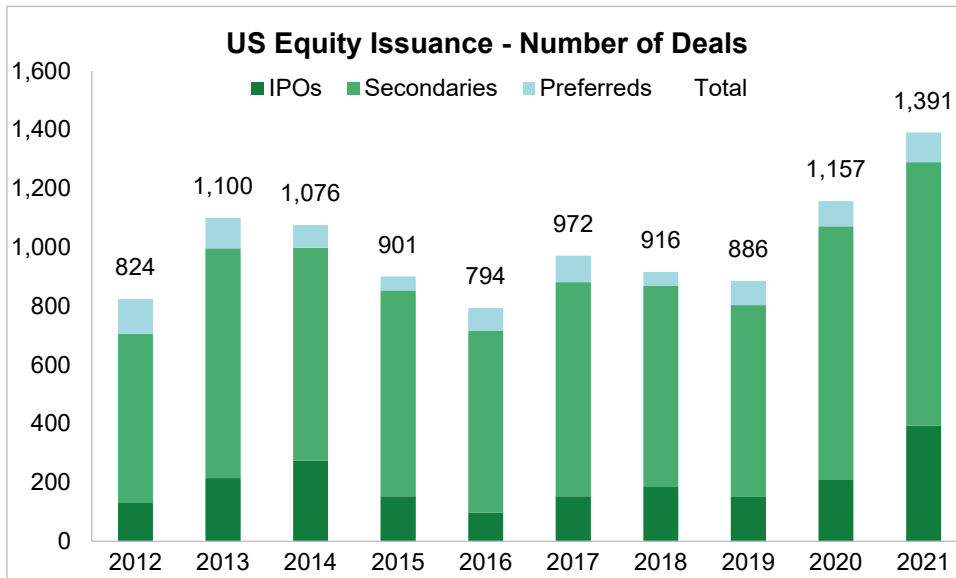
	\$ Billions				
	IPOs	Secondaries	Total CS	Preferreds	Total
2007	52.3	111.7	164.0	62.9	226.9
2008	26.7	174.9	201.6	54.7	256.4
2009	27.0	230.8	257.9	7.0	264.9
2010	43.5	169.5	213.0	6.2	219.2
2011	40.1	139.3	179.4	5.5	184.9
2012	46.2	183.7	230.0	34.6	264.6
2013	60.0	194.8	254.8	30.2	285.0
2014	93.5	171.9	265.4	38.5	304.0
2015	32.2	184.5	216.7	32.1	248.8
2016	20.7	157.3	178.1	25.0	203.0
2017	39.2	154.8	194.0	25.8	219.8
2018	49.9	154.6	204.5	17.2	221.6
2019	48.8	145.3	194.1	34.0	228.1
2020	85.4	258.4	343.8	46.6	390.4
2021	153.5	224.7	378.2	58.0	436.2
Average	54.6	177.1	231.7	31.9	263.6
Y/Y % Change	79.7%	-13.0%	10.0%	24.4%	11.7%
5-Year CAGR	31.4%	7.7%	14.3%	17.6%	14.7%
10-Year CAGR	12.7%	2.0%	5.1%	5.3%	5.1%

	% Change Y/Y				
	IPOs	Secondaries	Total CS	Preferreds	Total
2008	-48.9%	56.5%	22.9%	-13.0%	13.0%
2009	1.2%	32.0%	27.9%	-87.2%	3.3%
2010	60.8%	-26.6%	-17.4%	-11.4%	-17.3%
2011	-7.6%	-17.8%	-15.7%	-11.5%	-15.6%
2012	15.2%	31.9%	28.2%	528.9%	43.1%
2013	29.7%	6.0%	10.8%	-12.9%	7.7%
2014	55.9%	-11.7%	4.2%	27.8%	6.7%
2015	-65.6%	7.3%	-18.4%	-16.6%	-18.1%
2016	-35.5%	-14.7%	-17.8%	-22.3%	-18.4%
2017	89.2%	-1.6%	8.9%	3.3%	8.3%
2018	27.1%	-0.1%	5.4%	-33.5%	0.8%
2019	-2.1%	-6.0%	-5.1%	98.0%	2.9%
2020	75.1%	77.8%	77.1%	37.1%	71.1%
2021	79.7%	-13.0%	10.0%	24.4%	11.7%

Source: Dealogic

Note: Includes rank eligible deals, excludes BDCs, SPACs, ETFs, CLEFs and rights offers. IPO = initial public offering, secondaries = secondary offerings or follow-ons, CS = common stock, preferreds = preferred stock

US Equity Issuance – Number of Issues: Chart



Source: Dealogic

Note: Includes rank eligible deals, excludes BDCs, SPACs, ETFs, CLEFs and rights offers. IPO = initial public offering, secondaries = secondary offerings or follow-ons, CS = common stock, preferreds = preferred stock

US Equity Issuance – Number of Issues - Value

	Number of Deals				
	IPOs	Secondaries	Total CS	Preferreds	Total
2007	215	465	680	90	770
2008	33	267	300	43	343
2009	63	653	716	14	730
2010	158	600	758	23	781
2011	124	502	626	37	663
2012	131	575	706	118	824
2013	215	782	997	103	1,100
2014	275	724	999	77	1,076
2015	153	701	854	47	901
2016	98	618	716	78	794
2017	154	728	882	90	972
2018	185	685	870	46	916
2019	151	653	804	82	886
2020	209	863	1,072	85	1,157
2021	393	897	1,290	101	1,391

Average	170	648	818	69	887
Y/Y % Change	88.0%	3.9%	20.3%	18.8%	20.2%
5-Year CAGR	20.6%	4.3%	7.9%	2.3%	7.4%
10-Year CAGR	11.6%	4.5%	6.2%	-1.5%	5.4%

	% Change Y/Y				
	IPOs	Secondaries	Total CS	Preferreds	Total
2008	-84.7%	-42.6%	-55.9%	-52.2%	-55.5%
2009	90.9%	144.6%	138.7%	-67.4%	112.8%
2010	150.8%	-8.1%	5.9%	64.3%	7.0%
2011	-21.5%	-16.3%	-17.4%	60.9%	-15.1%
2012	5.6%	14.5%	12.8%	218.9%	24.3%
2013	64.1%	36.0%	41.2%	-12.7%	33.5%
2014	27.9%	-7.4%	0.2%	-25.2%	-2.2%
2015	-44.4%	-3.2%	-14.5%	-39.0%	-16.3%
2016	-35.9%	-11.8%	-16.2%	66.0%	-11.9%
2017	57.1%	17.8%	23.2%	15.4%	22.4%
2018	20.1%	-5.9%	-1.4%	-48.9%	-5.8%
2019	-18.4%	-4.7%	-7.6%	78.3%	-3.3%
2020	38.4%	32.2%	33.3%	3.7%	30.6%
2021	88.0%	3.9%	20.3%	18.8%	20.2%

Source: Dealogic

Note: Includes rank eligible deals, excludes BDCs, SPACs, ETFs, CLEFs and rights offers. IPO = initial public offering, secondaries = secondary offerings or follow-ons, CS = common stock, preferreds = preferred stock

US Private Placements – Value

\$ Billions				% Change Y/Y			% of Total	
	Debt	Equity	Total		Debt	Equity	Total	Debt Equity
2007	491.5	33.6	525.1					2007 93.6% 6.4%
2008	112.0	53.1	165.1	2008	-77.2%	57.8%	-68.6%	2008 67.8% 32.2%
2009	157.9	8.2	166.0	2009	41.0%	-84.6%	0.6%	2009 95.1% 4.9%
2010	140.2	27.2	167.3	2010	-11.2%	233.2%	0.8%	2010 83.8% 16.2%
2011	114.4	25.5	139.9	2011	-18.4%	-6.1%	-16.4%	2011 81.8% 18.2%
2012	135.1	13.4	148.5	2012	18.1%	-47.3%	6.2%	2012 91.0% 9.0%
2013	132.2	45.4	177.6	2013	-2.1%	238.1%	19.6%	2013 74.4% 25.6%
2014	130.9	7.8	138.7	2014	-0.9%	-82.9%	-21.9%	2014 94.4% 5.6%
2015	131.8	12.0	143.7	2015	0.6%	54.7%	3.6%	2015 91.7% 8.3%
2016	133.9	19.2	153.0	2016	1.6%	59.9%	6.5%	2016 87.5% 12.5%
2017	221.1	14.2	235.2	2017	65.1%	-26.2%	53.7%	2017 94.0% 6.0%
2018	213.5	12.3	225.8	2018	-3.4%	-13.4%	-4.0%	2018 94.6% 5.4%
2019	283.0	20.3	303.3	2019	32.5%	65.5%	34.3%	2019 93.3% 6.7%
2020	314.3	15.8	330.1	2020	11.1%	-22.1%	8.8%	2020 95.2% 4.8%
2021	415.1	18.3	433.4	2021	32.1%	15.8%	31.3%	2021 95.8% 4.2%
Average	208.4	21.7	230.2					Average 88.9% 11.1%
Y/Y % Change	32.1%	15.8%	31.3%					Y/Y % Change 0.6% -0.6%
5-Year CAGR	13.4%	5.3%	13.0%					
10-Year CAGR	11.9%	3.1%	11.3%					

Source: Refinitiv

Note: Includes private placements in the U.S. from all issuers

US Private Placements – Number of Issues

Number of Deals				% Change Y/Y				% of Total		
	Debt	Equity	Total		Debt	Equity	Total		Debt	Equity
2007	1,659	968	2,627					2007	63.2%	36.8%
2008	473	855	1,328	2008	-71.5%	-11.7%	-49.4%	2008	35.6%	64.4%
2009	495	523	1,018	2009	4.7%	-38.8%	-23.3%	2009	48.6%	51.4%
2010	535	650	1,185	2010	8.1%	24.3%	16.4%	2010	45.1%	54.9%
2011	482	546	1,028	2011	-9.9%	-16.0%	-13.2%	2011	46.9%	53.1%
2012	500	347	847	2012	3.7%	-36.4%	-17.6%	2012	59.0%	41.0%
2013	549	206	755	2013	9.8%	-40.6%	-10.9%	2013	72.7%	27.3%
2014	491	126	617	2014	-10.6%	-38.8%	-18.3%	2014	79.6%	20.4%
2015	481	192	673	2015	-2.0%	52.4%	9.1%	2015	71.5%	28.5%
2016	462	248	710	2016	-4.0%	29.2%	5.5%	2016	65.1%	34.9%
2017	601	102	703	2017	30.1%	-58.9%	-1.0%	2017	85.5%	14.5%
2018	581	42	623	2018	-3.3%	-58.8%	-11.4%	2018	93.3%	6.7%
2019	652	57	709	2019	12.2%	35.7%	13.8%	2019	92.0%	8.0%
2020	647	55	702	2020	-0.8%	-3.5%	-1.0%	2020	92.2%	7.8%
2021	810	35	845	2021	25.2%	-36.4%	20.4%	2021	95.9%	4.1%
Average	628	330	958					Average	69.7%	30.3%
Y/Y % Change	25.2%	-36.4%	20.4%					Y/Y % Change	3.7%	-3.7%
5-Year CAGR	6.2%	-19.3%	3.7%							
10-Year CAGR	4.9%	-20.5%	0.0%							

Source: Refinitiv

Note: Includes private placements in the U.S. from all issuers

US Fixed Income Securities Average Daily Trading Volume (ADV)

	\$ Billions						% Change Y/Y						
	UST	MBS	Corporates	Munis	Agency	ABS	UST	MBS	Corporates	Munis	Agency	ABS	
2007	566.0	320.1	16.4	26.5	-	-							
2008	553.3	344.9	14.3	21.8	-	-	2008	-2.2%	7.7%	-12.6%	-17.8%		
2009	409.8	299.9	19.9	15.0	-	-	2009	-25.9%	-13.1%	39.2%	-31.0%		
2010	523.8	320.6	20.5	14.9	11.5	-	2010	27.8%	6.9%	2.5%	-1.1%		
2011	571.0	249.5	20.6	13.0	9.9	1.5	2011	9.0%	-22.2%	1.0%	-12.6%	-13.4%	
2012	519.5	284.4	22.6	12.8	10.7	1.5	2012	-9.0%	14.0%	9.5%	-1.6%	7.8%	3.6%
2013	546.5	225.9	24.7	12.4	7.3	1.3	2013	5.2%	-20.6%	9.2%	-3.3%	-31.9%	-15.7%
2014	505.0	181.1	26.7	11.0	6.0	1.5	2014	-7.6%	-19.8%	8.1%	-11.1%	-17.1%	16.9%
2015	490.0	195.3	27.9	9.6	5.2	1.4	2015	-3.0%	7.9%	4.7%	-12.8%	-13.2%	-4.4%
2016	519.1	212.3	30.0	12.4	5.4	1.3	2016	5.9%	8.7%	7.4%	29.6%	3.0%	-7.6%
2017	505.2	211.0	30.9	11.9	4.2	1.4	2017	-2.7%	-0.6%	3.1%	-4.6%	-23.2%	6.5%
2018	547.8	220.6	31.5	12.3	3.5	1.4	2018	8.4%	4.5%	1.9%	3.3%	-15.9%	0.4%
2019	593.6	250.4	34.3	12.0	4.2	1.5	2019	8.4%	13.5%	8.7%	-2.5%	19.3%	7.5%
2020	603.2	293.0	38.9	12.4	5.3	1.9	2020	1.6%	17.0%	13.7%	3.8%	28.3%	23.2%
2021	624.1	280.7	37.0	9.0	3.2	1.4	2021	3.5%	-4.2%	-5.0%	-27.8%	-39.6%	-26.5%
Average	538.5	259.3	26.4	13.8	6.4	1.5							
Y/Y % Change	3.5%	-4.2%	-5.0%	-27.8%	-39.6%	-26.5%							
5-Year CAGR	4.3%	5.9%	3.6%	-5.5%	-4.9%	-0.4%							
10-Year CAGR	1.9%	-0.1%	5.0%	-3.5%	-11.3%	-1.0%							

Source: Federal Reserve Bank of New York, Municipal Securities Rulemaking Board, FINRA TRACE

Note: UST = U.S. Treasuries, trading volumes from U.S. primary dealers. MBS = mortgage-backed securities; starting in 2011 includes non-agency MBS and CMBS, daily figures include 144A trades but not subcategories with <5 trades per day; new issue transactions sometimes included. Corporates = corporate bonds, include public and 144A trades. Munis = municipal securities, annual daily average figures. Agency = federal agency securities. ABS = asset-backed securities; do not include CMBS but do include CDOs and other, daily figures include 144A trades but not subcategories with <5 trades per day, new issue transactions sometimes included

US Municipal Bond Average Daily Trading – Dollar Volume

	\$ Millions				% Change Y/Y		
	Retail	Institutional	Total		Retail	Institutional	Total
2007	967.8	25,560.6	26,528.4				
2008	1,209.1	20,587.0	21,796.1	2008	24.9%	-19.5%	-17.8%
2009	1,107.2	13,937.9	15,045.1	2009	-8.4%	-32.3%	-31.0%
2010	1,101.3	13,778.8	14,880.1	2010	-0.5%	-1.1%	-1.1%
2011	1,084.7	11,925.9	13,010.6	2011	-1.5%	-13.4%	-12.6%
2012	1,028.8	11,772.0	12,800.8	2012	-5.2%	-1.3%	-1.6%
2013	1,119.6	11,260.6	12,380.2	2013	8.8%	-4.3%	-3.3%
2014	928.3	10,076.6	11,004.9	2014	-17.1%	-10.5%	-11.1%
2015	979.2	8,616.8	9,596.0	2015	5.5%	-14.5%	-12.8%
2016	992.9	11,448.0	12,440.9	2016	1.4%	32.9%	29.6%
2017	1,048.5	10,824.7	11,873.2	2017	5.6%	-5.4%	-4.6%
2018	1,080.4	11,186.2	12,266.6	2018	3.0%	3.3%	3.3%
2019	893.7	11,066.9	11,960.6	2019	-17.3%	-1.1%	-2.5%
2020	834.2	11,575.5	12,409.7	2020	-6.7%	4.6%	3.8%
2021	747.2	8,217.6	8,964.8	2021	-30.8%	-26.5%	-26.9%
Average	1,008.2	12,789.0	13,797.2				
Y/Y % Change	-10.4%	-29.0%	-27.8%				
5-Year CAGR	-6.6%	-5.4%	-5.5%				
10-Year CAGR	-3.1%	-3.5%	-3.5%				

	% of Total	
	Retail	Institutional
2007	3.6%	96.4%
2008	5.5%	94.5%
2009	7.4%	92.6%
2010	7.4%	92.6%
2011	8.3%	91.7%
2012	8.0%	92.0%
2013	9.0%	91.0%
2014	8.4%	91.6%
2015	10.2%	89.8%
2016	8.0%	92.0%
2017	8.8%	91.2%
2018	8.8%	91.2%
2019	7.5%	92.5%
2020	6.7%	93.3%
2021	8.3%	91.7%

Average	7.7%	92.3%
Y/Y % Change	1.6%	-1.6%

Source: Municipal Securities Rulemaking Board

Note: Institutional trades defined as trade sizes greater than \$100,000

US Municipal Bond Average Daily Trading – Number of Trades

Number of Trades				% Change Y/Y			
	Retail	Institutional	Total		Retail	Institutional	Total
2007	25,417	11,020	36,437				
2008	32,854	10,533	43,387	2008	29.3%	-4.4%	19.1%
2009	33,304	7,805	41,109	2009	1.4%	-25.9%	-5.3%
2010	33,941	7,716	41,657	2010	1.9%	-1.1%	1.3%
2011	34,026	7,215	41,241	2011	0.3%	-6.5%	-1.0%
2012	31,148	7,396	38,544	2012	-8.5%	2.5%	-6.5%
2013	35,008	7,180	42,188	2013	12.4%	-2.9%	9.5%
2014	28,764	6,596	35,360	2014	-17.8%	-8.1%	-16.2%
2015	29,921	6,814	36,735	2015	4.0%	3.3%	3.9%
2016	29,712	7,422	37,134	2016	-0.7%	8.9%	1.1%
2017	31,745	7,652	39,397	2017	6.8%	3.1%	6.1%
2018	32,638	7,736	40,374	2018	2.8%	1.1%	2.5%
2019	27,252	7,486	34,738	2019	-16.5%	-3.2%	-14.0%
2020	26,199	7,404	33,603	2020	-3.9%	-1.1%	-3.3%
2021	24,253	6,094	30,347	2021	-7.4%	-17.7%	-9.7%
Average	30,412	7,738	38,150				
Y/Y % Change	-7.4%	-17.7%	-9.7%				
5-Year CAGR	-5.2%	-4.5%	-5.1%				
10-Year CAGR	-2.5%	-1.9%	-2.4%				

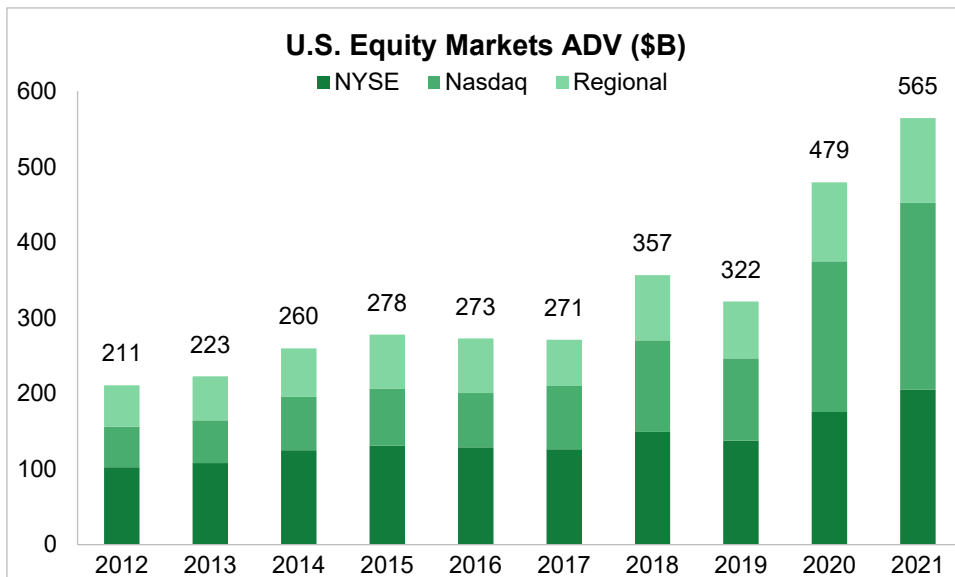
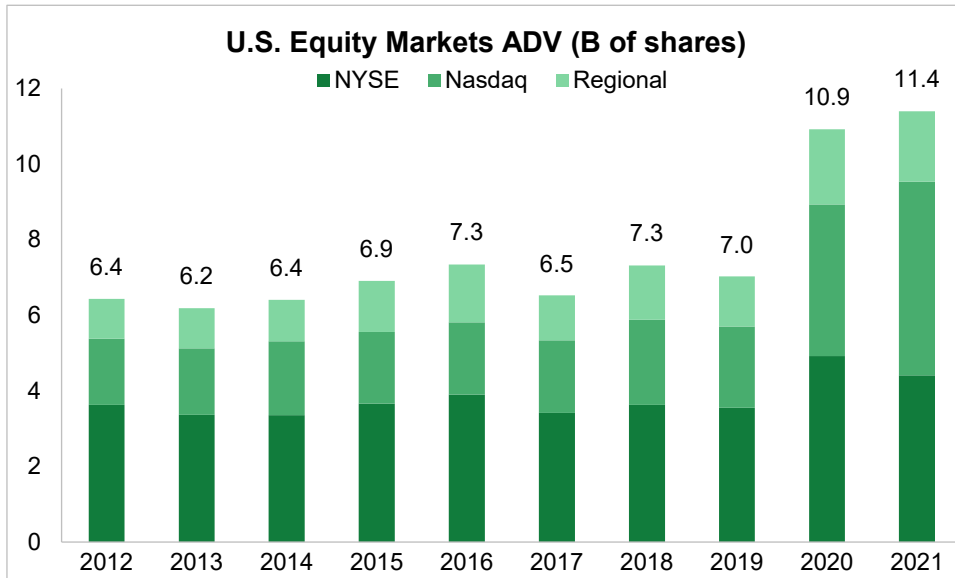
% of Total		
	Retail	Institutional
2007	69.8%	30.2%
2008	75.7%	24.3%
2009	81.0%	19.0%
2010	81.5%	18.5%
2011	82.5%	17.5%
2012	80.8%	19.2%
2013	83.0%	17.0%
2014	81.3%	18.7%
2015	81.5%	18.5%
2016	80.0%	20.0%
2017	80.6%	19.4%
2018	80.8%	19.2%
2019	78.5%	21.5%
2020	78.0%	22.0%
2021	79.9%	20.1%

Average	79.7%	20.3%
Y/Y % Change	2.0%	-2.0%

Source: Municipal Securities Rulemaking Board

Note: Institutional trades defined as trade sizes greater than \$100,000

US Equity Markets Average Daily Trading Volume (ADV) – Charts



Source: Cboe Global Markets

US Equity Markets Average Daily Trading Volume (ADV) – Dollar Volume

Dollar Volume (\$ Billions)					% Change Y/Y				
	NYSE	Regional	Nasdaq	Total	NYSE	Regional	Nasdaq	Total	
2009	111.1	67.7	41.7	220.5					
2010	117.3	66.5	50.8	234.6	2010	5.6%	-1.8%	21.9%	6.4%
2011	121.2	76.7	55.2	253.1	2011	3.3%	15.4%	8.7%	7.9%
2012	102.7	54.7	53.5	210.8	2012	-15.3%	-28.7%	-3.2%	-16.7%
2013	108.0	58.2	56.4	222.7	2013	5.3%	6.5%	5.5%	5.6%
2014	124.9	64.0	70.8	259.8	2014	15.6%	10.1%	25.5%	16.7%
2015	131.2	71.6	75.4	278.2	2015	5.0%	11.7%	6.5%	7.1%
2016	129.0	72.4	71.5	272.9	2016	-1.7%	1.2%	-5.2%	-1.9%
2017	126.4	61.3	83.4	271.2	2017	-2.0%	-15.3%	16.7%	-0.6%
2018	149.5	86.3	121.1	356.9	2018	18.2%	40.8%	45.1%	31.6%
2019	137.9	75.2	108.6	321.7	2019	-7.7%	-12.9%	-10.3%	-9.8%
2020	175.8	104.6	199.0	479.4	2020	27.5%	39.2%	83.2%	49.0%
2021	205.3	112.3	247.1	564.7	2021	48.8%	49.4%	127.4%	75.5%
Average	133.9	74.7	95.0	303.6					
Y/Y % Change	16.8%	7.3%	24.2%	17.8%					
5-Year CAGR	10.2%	12.9%	24.3%	15.8%					
10-Year CAGR	7.2%	7.5%	16.5%	10.4%					

Source: Cboe Global Markets

US Equity Markets Average Daily Trading Volume (ADV) – Share Volume

Share Volume (Billions of Shares)					% Change Y/Y				
	NYSE	Regional	Nasdaq	Total		NYSE	Regional	Nasdaq	Total
2009	5.6	1.9	2.2	9.8					
2010	4.8	1.5	2.2	8.5	2010	-14.4%	-23.0%	-1.9%	-13.2%
2011	4.3	1.5	2.0	7.8	2011	-10.1%	1.3%	-7.8%	-7.5%
2012	3.6	1.1	1.7	6.4	2012	-16.3%	-28.5%	-13.5%	-17.9%
2013	3.4	1.1	1.8	6.2	2013	-7.4%	0.7%	0.7%	-3.9%
2014	3.4	1.1	2.0	6.4	2014	-0.1%	3.6%	10.8%	3.7%
2015	3.7	1.4	1.9	6.9	2015	8.9%	23.4%	-3.1%	7.8%
2016	3.9	1.5	1.9	7.3	2016	6.6%	13.4%	0.7%	6.3%
2017	3.4	1.2	1.9	6.5	2017	-12.4%	-22.7%	0.7%	-11.2%
2018	3.6	1.4	2.3	7.3	2018	6.3%	20.9%	17.3%	12.2%
2019	3.6	1.3	2.1	7.0	2019	-2.1%	-7.7%	-4.6%	-4.0%
2020	4.9	2.0	4.0	10.9	2020	38.3%	50.2%	86.9%	55.4%
2021	4.4	1.9	5.1	11.4	2021	24.1%	40.6%	138.7%	62.2%
Average	4.1	1.4	2.4	7.9					
Y/Y % Change	-10.3%	-6.4%	27.7%	4.4%					
5-Year CAGR	5.2%	9.4%	21.7%	11.8%					
10-Year CAGR	2.0%	5.9%	11.3%	5.9%					

Source: Cboe Global Markets

US Equity Markets Average Daily Trading Volume (ADV) – NYSE Listed

NYSE-listed stocks					% Change Y/Y			
	Annual Volume (M shares)	Annual Value (\$B)	ADV (M shares)	ADV (\$B)	Annual Volume (M shares)	Annual Value (\$B)	ADV (M shares)	ADV (\$B)
2007								
2008								
2009	1,420,980	27,997.2	5,638.8	111.1				
2010	1,216,841	29,563.7	4,828.7	117.3				
2011	1,094,332	30,543.8	4,342.6	121.2	2011	-10.1%	3.3%	-10.1%
2012	908,892	25,663.6	3,635.6	102.7	2012	-16.9%	-16.0%	-16.3%
2013	848,098	27,227.2	3,365.5	108.0	2013	-6.7%	6.1%	-7.4%
2014	847,594	31,475.1	3,363.5	124.9	2014	-0.1%	15.6%	-0.1%
2015	923,306	33,055.9	3,663.9	131.2	2015	8.9%	5.0%	8.9%
2016	984,312	32,510.2	3,906.0	129.0	2016	6.6%	-1.7%	6.6%
2017	858,465	31,738.4	3,420.2	126.4	2017	-12.8%	-2.4%	-12.4%
2018	912,322	37,583.6	3,634.7	149.5	2018	6.3%	18.4%	6.3%
2019	896,773	34,756.3	3,558.6	137.9	2019	-1.7%	-7.5%	-2.1%
2020	1,245,381	44,481.4	4,922.5	175.8	2020	38.9%	28.0%	38.3%
2021	1,113,121	51,734.3	4,417.1	205.3	2021	-10.6%	16.3%	-10.3%
Average	1,020,801	33,717.7	4,053.7	133.9				
Y/Y % Change	-10.6%	16.3%	-10.3%	16.8%				
5-Year CAGR	5.3%	10.3%	5.2%	10.2%				
10-Year CAGR	2.0%	7.3%	2.0%	7.2%				

Source: Cboe Global Markets, Nasdaq

US Equity Markets Average Daily Trading Volume (ADV) – Nasdaq Listed

Nasdaq-listed stocks					% Change Y/Y			
	Annual Volume (M shares)	Annual Value (\$B)	ADV (M shares)	ADV (\$B)	Annual Volume (M shares)	Annual Value (\$B)	ADV (M shares)	ADV (\$B)
2007	537,263	15,116	2,132.0	60.0				
2008	580,909	15,105	2,296.1	59.7	2008	8.1%	-0.1%	7.7%
2009	563,398	10,512	2,235.7	41.7	2009	-3.0%	-30.4%	-2.6%
2010	552,466	12,811	2,192.3	50.8	2010	-1.9%	21.9%	-1.9%
2011	509,523	13,920	2,021.9	55.2	2011	-7.8%	8.7%	-7.8%
2012	437,352	13,373	1,749.4	53.5	2012	-14.2%	-3.9%	-13.5%
2013	444,114	14,223	1,762.4	56.4	2013	1.5%	6.4%	0.7%
2014	492,188	17,852	1,953.1	70.8	2014	10.8%	25.5%	10.8%
2015	477,058	19,010	1,893.1	75.4	2015	-3.1%	6.5%	-3.1%
2016	480,484	18,015	1,906.7	71.5	2016	0.7%	-5.2%	0.7%
2017	481,993	20,935	1,920.3	83.4	2017	0.3%	16.2%	0.7%
2018	565,173	30,407	2,251.7	121.1	2018	17.3%	45.2%	17.3%
2019	541,092	27,375	2,147.2	108.6	2019	-4.3%	-10.0%	-4.6%
2020	1,015,287	50,345	4,013.0	199.0	2020	87.6%	83.9%	86.9%
2021	1,291,449	62,259	5,124.8	247.1	2021	27.2%	23.7%	27.7%
Average								
Y/Y % Change								
5-Year CAGR								
10-Year CAGR								

Source: Cboe Global Markets, Nasdaq

Futures Contracts Traded on US Exchanges

Millions

	Agriculture	Currency	Energy	Equity Index	Individual Equity	Interest Rates	Precious Metals	Non-Precious Metals	Other	Total
2007	193.3	143.0	240.9	676.9	7.9	1,333.1	44.1	3.8	1.5	2,644.6
2008	215.4	155.8	285.9	904.9	3.7	1,213.1	56.2	4.6	13.0	2,852.5
2009	196.6	156.3	313.1	744.7	2.7	854.6	48.8	6.4	4.8	2,328.1
2010	239.5	229.0	350.6	740.6	4.8	1,123.0	63.8	10.4	3.1	2,764.8
2011	265.9	231.6	374.1	813.9	3.6	1,277.6	76.3	12.6	1.0	3,056.5
2012	280.7	210.7	428.3	650.8	6.4	1,008.3	63.7	16.2	0.9	2,666.0
2013	264.5	208.9	627.4	663.0	6.7	1,202.0	68.6	17.2	0.9	3,059.3
2014	273.9	186.0	553.8	675.0	8.0	1,401.9	60.2	14.7	1.1	3,174.8
2015	315.8	212.0	619.7	667.3	8.8	1,312.5	61.3	17.3	1.5	3,216.3
2016	333.4	205.4	746.6	731.0	9.7	1,440.4	82.9	21.9	1.7	3,573.0
2017	342.0	220.0	778.8	639.6	12.2	1,524.8	103.8	27.4	2.7	3,651.4
2018	382.4	243.8	751.1	816.6	5.9	1,900.5	113.6	33.1	2.9	4,249.9
2019	383.1	211.9	694.9	822.0	6.3	1,911.5	124.6	24.4	2.7	4,181.3
2020	375.8	217.5	713.2	1,358.9	2.5	1,572.7	134.8	24.9	2.1	4,402.4
2021	345.9	207.1	646.0	1,303.3	0.0	1,819.0	100.1	25.3	2.3	4,449.0
Average	293.9	202.6	541.6	813.9	6.0	1,393.0	80.2	17.3	2.8	3,351.3
Y/Y % Change	-8.0%	-4.7%	-9.4%	-4.1%	-100.0%	15.7%	-25.7%	1.6%	9.7%	1.1%
5-Year CAGR	0.2%	-1.2%	-3.7%	15.3%	-100.0%	3.6%	-0.7%	-1.6%	-3.5%	4.0%
10-Year CAGR	2.1%	-0.2%	4.2%	7.2%	-100.0%	6.1%	4.6%	4.5%	10.1%	5.3%

% Change Y/Y

	Agriculture	Currency	Energy	Equity Index	Individual Equity	Interest Rates	Precious Metals	Non-Precious Metals	Other	Total
2008	11.4%	8.9%	18.7%	33.7%	-53.0%	-9.0%	27.3%	23.3%	743.1%	7.9%
2009	-8.7%	0.3%	9.5%	-17.7%	-26.4%	-29.6%	-13.2%	38.6%	-62.6%	-18.4%
2010	21.8%	46.5%	12.0%	-0.5%	76.1%	31.4%	30.9%	61.3%	-36.7%	18.8%
2011	11.0%	1.1%	6.7%	9.9%	-24.2%	13.8%	19.6%	21.3%	-68.5%	10.6%
2012	5.6%	-9.0%	14.5%	-20.0%	76.6%	-21.1%	-16.6%	29.2%	-10.2%	-12.8%
2013	-5.8%	-0.9%	46.5%	1.9%	4.8%	19.2%	7.8%	6.1%	3.3%	14.8%
2014	3.5%	-11.0%	-11.7%	1.8%	18.8%	16.6%	-12.3%	-14.7%	25.6%	3.8%
2015	15.3%	14.0%	11.9%	-1.1%	9.8%	-6.4%	1.9%	17.3%	32.2%	1.3%
2016	5.6%	-3.1%	20.5%	9.5%	10.2%	9.7%	35.2%	27.1%	12.5%	11.1%
2017	2.6%	7.1%	4.3%	-12.5%	26.1%	5.9%	25.1%	25.0%	61.1%	2.2%
2018	11.8%	10.8%	-3.6%	27.7%	-51.5%	24.6%	9.5%	20.8%	8.1%	16.4%
2019	0.2%	-13.1%	-7.5%	0.7%	5.3%	0.6%	9.7%	-26.1%	-8.2%	-1.6%
2020	-1.9%	2.7%	2.6%	65.3%	-60.3%	-17.7%	8.2%	1.8%	-23.0%	5.3%
2021	-8.0%	-4.7%	-9.4%	-4.1%	-100.0%	15.7%	-25.7%	1.6%	9.7%	1.1%

Source: Futures Industry Association

Options Contracts Traded on US Exchanges

Millions

	Agriculture	Currency	Energy	Equity Index	Individual Equity	Interest Rates	Precious Metals	Non-Precious Metals	Other	Total
2007	43.4	6.5	71.1	522.1	2,379.1	417.7	4.9	0.0	1.5	3,446.4
2008	56.7	11.2	79.1	336.7	3,284.8	326.4	6.1	0.0	0.5	4,101.5
2009	43.3	6.2	64.5	276.1	3,367.0	223.9	5.8	0.0	0.3	3,987.1
2010	56.0	11.9	71.3	328.3	3,610.4	268.7	9.4	0.0	0.3	4,356.5
2011	68.1	10.9	74.2	398.7	4,224.6	274.0	12.4	0.0	0.2	5,063.2
2012	70.6	11.0	84.3	381.6	3,681.8	227.8	11.5	0.0	0.2	4,468.9
2013	61.9	16.3	119.5	1,930.2	2,273.8	285.9	13.1	0.1	0.1	4,700.8
2014	69.0	18.8	104.6	2,054.2	2,342.9	364.9	10.8	0.0	0.1	4,965.5
2015	75.1	24.7	117.4	2,105.3	2,180.3	388.2	9.1	0.1	0.1	4,900.2
2016	76.0	23.5	126.3	2,251.0	1,975.5	454.3	11.7	0.1	0.1	4,918.6
2017	70.5	26.7	131.6	2,269.1	2,092.1	531.2	11.8	0.2	0.1	5,133.3
2018	79.2	27.8	117.0	2,781.9	2,565.7	607.7	14.4	0.4	0.1	6,194.1
2019	77.6	20.4	89.7	2,422.9	2,641.0	696.4	19.2	0.7	0.2	5,968.0
2020	75.6	21.3	108.9	3,212.1	4,438.3	459.6	17.5	0.4	0.0	8,333.8
2021	82.6	21.3	101.8	3,395.1	6,668.8	499.9	12.4	0.8	0.1	10,782.7
Average	67.1	17.2	97.4	1,644.3	3,181.7	401.8	11.3	0.2	0.3	5,421.4
Y/Y % Change	9.2%	-0.2%	-6.5%	5.7%	50.3%	8.8%	-28.9%	71.6%	165.2%	29.4%
5-Year CAGR	3.2%	-4.5%	-5.0%	8.4%	26.1%	-1.2%	1.0%	36.0%	-0.4%	16.0%
10-Year CAGR	1.6%	6.8%	1.9%	24.4%	6.1%	8.2%	0.8%	35.4%	-5.8%	9.2%

% Change Y/Y

	Agriculture	Currency	Energy	Equity Index	Individual Equity	Interest Rates	Precious Metals	Non-Precious Metals	Other	Total
2008	30.6%	73.3%	11.1%	-35.5%	38.1%	-21.9%	-7.8%	24.3%	-63.1%	19.0%
2009	-23.7%	-45.3%	-18.4%	-18.0%	2.5%	-31.4%	-17.7%	-4.8%	-41.0%	-2.8%
2010	29.4%	93.8%	10.5%	18.9%	7.2%	20.0%	-1.2%	61.2%	2.2%	9.3%
2011	21.4%	-8.3%	4.2%	21.4%	17.0%	2.0%	-11.6%	32.1%	-27.2%	16.2%
2012	3.7%	1.0%	13.5%	-4.3%	-12.8%	-16.9%	127.0%	-7.4%	-34.1%	-11.7%
2013	-12.3%	47.3%	41.8%	405.8%	-38.2%	25.5%	49.9%	14.0%	-23.0%	5.2%
2014	11.5%	15.7%	-12.5%	6.4%	3.0%	27.6%	-9.5%	-17.9%	4.2%	5.6%
2015	8.7%	31.4%	12.2%	2.5%	-6.9%	6.4%	135.5%	-15.7%	-9.0%	-1.3%
2016	1.3%	-4.8%	7.6%	6.9%	-9.4%	17.0%	3.0%	28.6%	-35.9%	0.4%
2017	-7.3%	13.7%	4.2%	0.8%	5.9%	16.9%	35.8%	1.4%	19.6%	4.4%
2018	12.4%	3.8%	-11.1%	22.6%	22.6%	14.4%	121.8%	21.7%	-7.2%	20.7%
2019	-2.0%	-26.4%	-23.4%	-12.9%	2.9%	14.6%	97.7%	33.4%	85.3%	-3.6%
2020	-2.5%	4.3%	21.4%	32.6%	68.1%	-34.0%	-38.3%	-9.0%	-78.5%	39.6%
2021	9.2%	-0.2%	-6.5%	5.7%	50.3%	8.8%	71.6%	-28.9%	165.2%	29.4%

Source: Futures Industry Association

US Equity Market Index Prices

	Value (At Year-End)					% Change Y/Y			
	DJIA	S&P 500	Nasdaq	Russell 2000		DJIA	S&P 500	Nasdaq	Russell 2000
2007	13,264.82	1,468.36	2,652.28	766.04					
2008	8,776.39	903.25	1,577.03	499.45	2008	-33.8%	-38.5%	-40.5%	-34.8%
2009	10,428.05	1,115.10	2,269.15	625.39	2009	18.8%	23.5%	43.9%	25.2%
2010	11,577.51	1,257.64	2,652.87	783.65	2010	11.0%	12.8%	16.9%	25.3%
2011	12,217.56	1,257.61	2,605.15	740.92	2011	5.5%	0.0%	-1.8%	-5.5%
2012	13,104.14	1,426.19	3,019.51	849.35	2012	7.3%	13.4%	15.9%	14.6%
2013	16,576.66	1,848.36	4,176.59	1,163.64	2013	26.5%	29.6%	38.3%	37.0%
2014	17,823.07	2,058.90	4,736.05	1,204.70	2014	7.5%	11.4%	13.4%	3.5%
2015	17,425.03	2,043.94	5,007.41	1,135.89	2015	-2.2%	-0.7%	5.7%	-5.7%
2016	19,762.60	2,238.83	5,383.12	1,357.13	2016	13.4%	9.5%	7.5%	19.5%
2017	24,719.22	2,673.61	6,903.39	1,535.51	2017	25.1%	19.4%	28.2%	13.1%
2018	23,327.46	2,506.85	6,635.28	1,348.56	2018	-5.6%	-6.2%	-3.9%	-12.2%
2019	28,538.44	3,230.78	8,972.60	1,668.47	2019	22.3%	28.9%	35.2%	23.7%
2020	30,606.48	3,756.07	12,888.28	1,974.86	2020	7.2%	16.3%	43.6%	18.4%
2021	36,338.30	4,766.81	16,320.08	2,245.31	2021	18.7%	26.9%	26.6%	13.7%
Average	18,965.7	2,170.2	5,719.9	1,193.3					
Y/Y % Change	18.7%	26.9%	26.6%	13.7%					
5-Year CAGR	8.0%	12.3%	18.8%	7.9%					
10-Year CAGR	10.7%	12.8%	18.4%	10.2%					

Source: Bloomberg

Note: DJIA = Dow Jones Industrial Average

US Interest Rates and Bond Yields

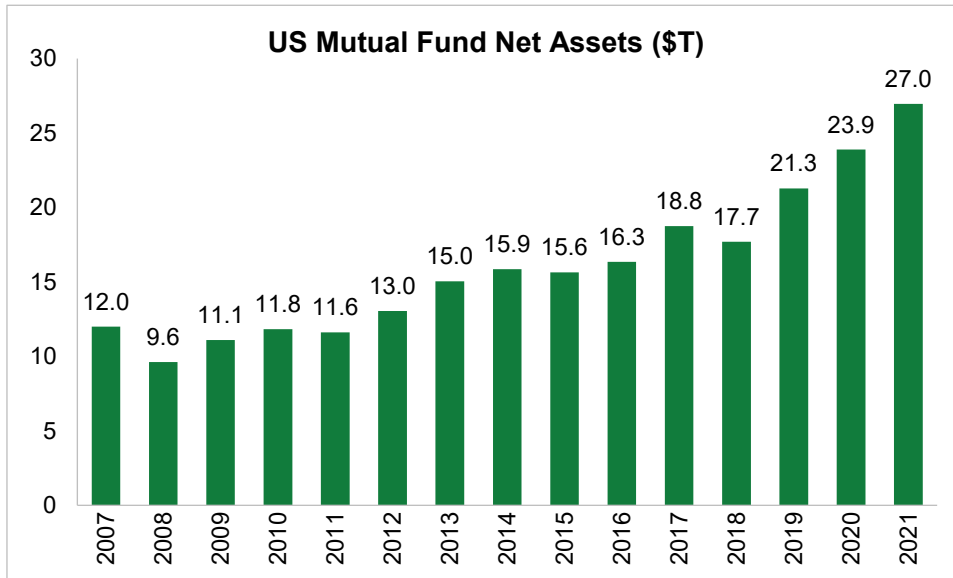
	Annual Average %								
	3M UST	2Y UST	10Y UST	30Y UST	Aaa Corporates	Baa Corporates	20Y HG Munis	Prime	Fed Funds
2007	4.4810	4.3648	4.6347	4.8383	5.56	6.48	4.42	8.05	5.03
2008	1.3969	2.0113	3.6643	4.2775	5.63	7.44	4.80	5.07	1.94
2009	0.1509	0.9585	3.2641	4.0766	5.31	7.29	4.64	3.25	0.16
2010	0.1384	0.7033	3.2151	4.2511	4.94	6.04	4.16	3.25	0.18
2011	0.0528	0.4494	2.7816	3.9108	4.64	5.66	4.29	3.25	0.10
2012	0.0876	0.2762	1.8034	2.9217	3.67	4.94	3.25	3.25	0.14
2013	0.0571	0.3071	2.3502	3.4462	4.23	5.10	3.96	3.25	0.11
2014	0.0327	0.4621	2.5396	3.3382	4.16	4.85	3.78	3.25	0.09
2015	0.0525	0.6868	2.1383	2.8410	3.89	5.00	3.48	3.26	0.13
2016	0.3194	0.8342	1.8374	2.5944	3.66	4.71	3.07	3.51	0.39
2017	0.9490	1.3992	2.3295	2.8940	3.74	4.44	3.36	4.10	1.00
2018	1.9717	2.5271	2.9112	3.1116	3.93	4.80	3.53	4.90	1.83
2019	2.1058	1.9688	2.1414	2.5804	3.39	4.37	3.38	5.29	2.16
2020	0.3603	0.3886	0.8892	1.5561	2.48	3.60	2.41	3.53	0.36
2021	0.0449	0.2655	1.4469	2.0556	2.71	3.40	2.01	3.25	0.08
Average	81.34%	117.35%	252.98%	324.62%	412.89%	520.83%	363.52%	403.09%	91.41%
Y/Y % Change	-87.5%	-31.7%	62.7%	32.1%	9.3%	-5.8%	-16.7%	-7.9%	-78.3%
5-Year CAGR	-45.7%	-28.3%	-9.1%	-6.6%	-6.3%	-5.2%	-9.8%	-4.5%	-39.9%
10-Year CAGR	-6.5%	-0.4%	-2.2%	-3.5%	-3.0%	-3.7%	-4.7%	0.0%	-5.7%

	Y/Y Change (pps)								
	3M UST	2Y UST	10Y UST	30Y UST	Aaa Corporates	Baa Corporates	20Y HG Munis	Prime	Fed Funds
2008	(3.0841)	(2.3535)	(0.9704)	(0.5608)	0.07	0.96	0.38	(2.98)	(3.09)
2009	(1.2459)	(1.0528)	(0.4001)	(0.2009)	(0.31)	(0.15)	(0.16)	(1.82)	(1.78)
2010	(0.0125)	(0.2551)	(0.0491)	0.1744	(0.37)	(1.25)	(0.48)	0.00	0.02
2011	(0.0856)	(0.2540)	(0.4334)	(0.3403)	(0.30)	(0.38)	0.13	0.00	(0.08)
2012	0.0348	(0.1732)	(0.9782)	(0.9891)	(0.97)	(0.72)	(1.04)	0.00	0.04
2013	(0.0305)	0.0309	0.5467	0.5245	0.56	0.16	0.71	0.00	(0.03)
2014	(0.0244)	0.1550	0.1894	(0.1080)	(0.07)	(0.25)	(0.18)	0.00	(0.02)
2015	0.0198	0.2247	(0.4013)	(0.4972)	(0.27)	0.15	(0.30)	0.01	0.05
2016	0.2669	0.1474	(0.3008)	(0.2466)	(0.23)	(0.29)	(0.41)	0.25	0.26
2017	0.6296	0.5650	0.4920	0.2996	0.08	(0.27)	0.29	0.59	0.61
2018	1.0227	1.1279	0.5818	0.2175	0.19	0.36	0.17	0.81	0.83
2019	0.1341	(0.5583)	(0.7698)	(0.5312)	(0.54)	(0.43)	(0.15)	0.39	0.33
2020	(1.7455)	(1.5802)	(1.2522)	(1.0243)	(0.91)	(0.77)	(0.97)	(1.76)	(1.80)
2021	(0.3154)	(0.1232)	0.5576	0.4994	0.23	(0.21)	(0.40)	(0.28)	(0.28)

Source: Federal Reserve Board, St. Louis Federal Reserve Bank, S&P Dow Jones Indices

Note: UST = U.S. Treasuries. HG = high grade. Rated by Moody's = Aaa, Baa corporates. Rated by S&P = 20Y HG munis. Prime = the interest rate banks lend to customers with good credit

US Mutual Funds: Total Net Assets – Chart



Source: Investment Company Institute

Note: Data for funds that invest primarily in other mutual funds were excluded

US Mutual Funds: Total Net Assets – Value

	\$ Billions						% Change Y/Y				
	Equity	Hybrid	Bond	MM	Total		Equity	Hybrid	Bond	MM	Total
2007	6,412.6	821.5	1,675.6	3,085.5	11,995.2	2008	-43.1%	-31.6%	-6.3%	24.2%	-19.8%
2008	3,651.5	562.2	1,569.7	3,832.2	9,615.5	2009	33.3%	27.6%	40.4%	-13.5%	15.5%
2009	4,867.1	717.3	2,204.0	3,315.9	11,104.3	2010	14.9%	17.3%	17.5%	-15.5%	6.5%
2010	5,590.2	841.7	2,589.2	2,803.5	11,824.6	2011	-6.8%	5.0%	9.8%	-4.0%	-1.7%
2011	5,207.5	883.4	2,842.6	2,690.9	11,624.3	2012	13.9%	16.8%	19.2%	0.1%	12.2%
2012	5,932.2	1,031.7	3,389.1	2,693.2	13,046.1	2013	30.7%	24.4%	-3.1%	0.9%	15.3%
2013	7,753.9	1,283.8	3,283.7	2,717.8	15,039.2	2014	7.1%	7.4%	5.3%	0.3%	5.5%
2014	8,305.5	1,378.3	3,458.6	2,724.6	15,867.1	2015	-2.0%	-2.7%	-1.4%	1.1%	-1.4%
2015	8,140.5	1,340.6	3,411.9	2,754.7	15,647.7	2016	5.2%	4.4%	6.9%	-1.0%	4.4%
2016	8,567.0	1,399.1	3,648.1	2,728.1	16,342.3	2017	20.1%	10.5%	11.4%	4.4%	14.7%
2017	10,291.4	1,546.2	4,065.2	2,847.3	18,750.0	2018	-10.4%	-10.5%	-0.1%	6.7%	-5.6%
2018	9,216.4	1,383.2	4,060.9	3,037.0	17,697.5	2019	23.3%	14.1%	15.8%	19.6%	20.2%
2019	11,362.3	1,578.3	4,704.1	3,632.0	21,276.8	2020	11.9%	2.6%	10.8%	19.3%	12.2%
2020	12,716.7	1,619.4	5,213.8	4,333.3	23,883.1	2021	15.7%	15.4%	7.9%	9.7%	12.9%
2021	14,715.2	1,868.7	5,624.9	4,755.7	26,964.5						
Average	8,182.0	1,217.0	3,449.4	3,196.8	16,045.2						
Y/Y % Change	15.7%	15.4%	7.9%	9.7%	12.9%						
5-Year CAGR	7.4%	3.9%	6.7%	10.8%	7.5%						
10-Year CAGR	9.5%	6.1%	5.2%	5.9%	7.5%						

Source: Investment Company Institute

Note: Data for funds that invest primarily in other mutual funds were excluded. MM = money market

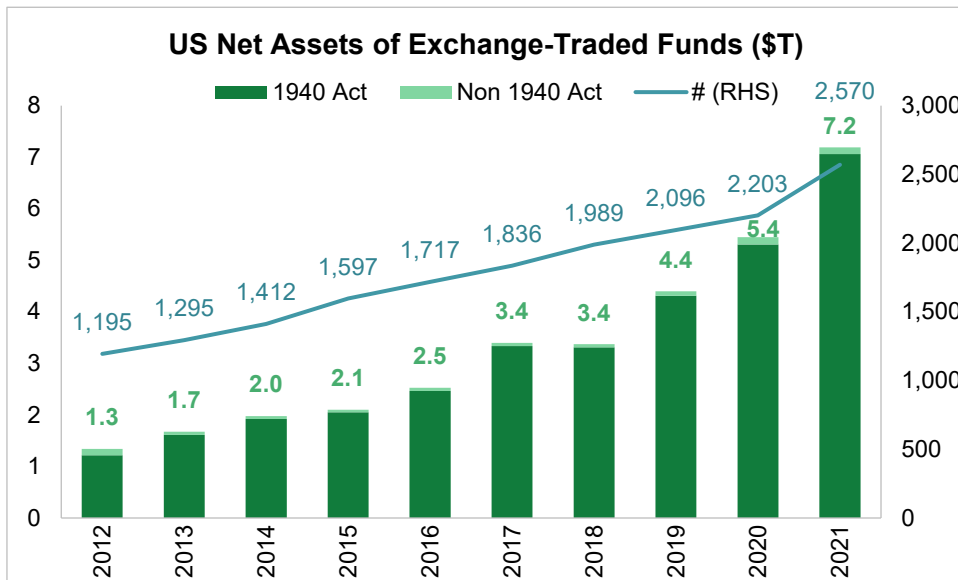
US Mutual Funds: Net New Cash Flows

	\$ Billions						% Change Y/Y				
	Equity	Hybrid	Bond	MM	Total		Equity	Hybrid	Bond	MM	Total
2007	73.2	40.4	110.6	654.3	878.4	2008	-395.7%	-163.5%	-71.8%	-2.5%	-51.4%
2008	-216.5	-25.6	31.2	637.7	426.7	2009	101.0%	176.5%	1090.9%	-184.5%	-134.2%
2009	2.1	19.6	371.4	-539.2	-146.0	2010	-1282.4%	80.7%	-37.4%	2.6%	-93.1%
2010	-24.8	35.5	232.4	-525.1	-282.0	2011	-423.5%	11.7%	-49.2%	76.4%	65.8%
2011	-130.0	39.6	118.0	-124.1	-96.5	2012	-17.4%	16.6%	159.7%	99.9%	307.1%
2012	-152.7	46.2	306.5	-0.2	199.8	2013	204.2%	61.7%	-123.2%	8601.1%	-11.0%
2013	159.2	74.7	-71.2	15.1	177.8	2014	-84.3%	-59.3%	161.7%	-58.8%	-40.6%
2014	25.0	30.4	43.9	6.2	105.6	2015	-402.6%	-162.4%	-156.8%	244.2%	-193.0%
2015	-75.8	-19.0	-24.9	21.5	-98.2	2016	-240.9%	-120.2%	528.9%	-240.9%	-127.4%
2016	-258.3	-41.8	107.0	-30.2	-223.4	2017	38.2%	32.0%	142.8%	453.4%	179.9%
2017	-159.6	-28.4	259.7	106.9	178.5	2018	-60.9%	-220.8%	-99.2%	48.6%	-204.9%
2018	-256.9	-91.2	2.1	158.8	-187.2	2019	-40.8%	46.0%	14537.0%	248.0%	342.6%
2019	-361.8	-49.2	312.4	552.7	454.1	2020	-78.1%	-70.4%	-21.8%	25.0%	-54.4%
2020	-644.2	-83.8	244.4	690.8	207.2	2021	32.4%	84.3%	59.4%	-38.9%	75.4%
2021	-435.2	-13.2	389.5	422.1	363.3						
Average	-163.8	-4.4	162.2	136.5	130.5						
Y/Y % Change	32.4%	84.3%	59.4%	-38.9%	75.4%						

Source: Investment Company Institute

Note: Net new cash flow is the dollar value of new sales minus redemptions, combined with net exchanges. Data for funds that invest primarily in other mutual funds were excluded. MM = money market

US Exchange-Traded Funds (ETFs): Net Assets and Number – Chart



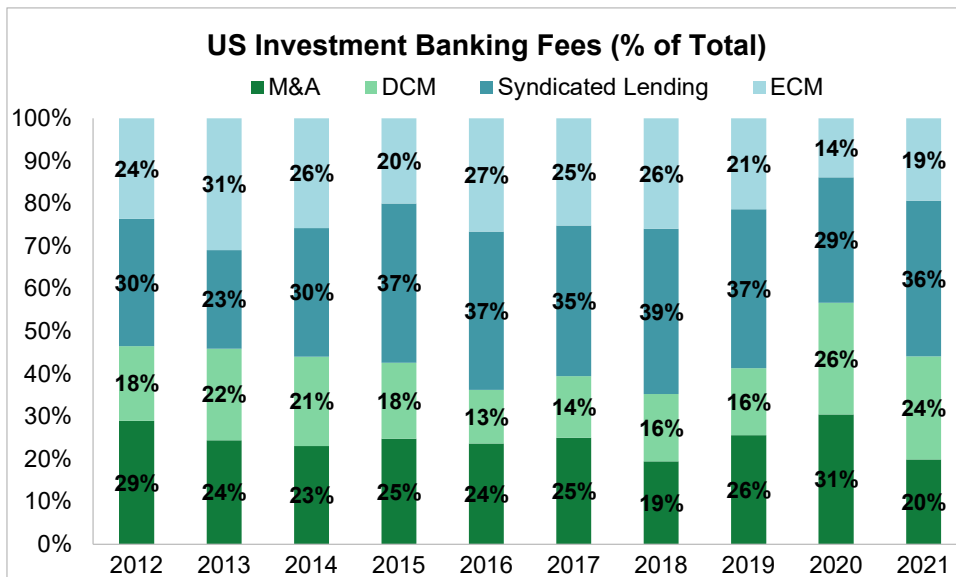
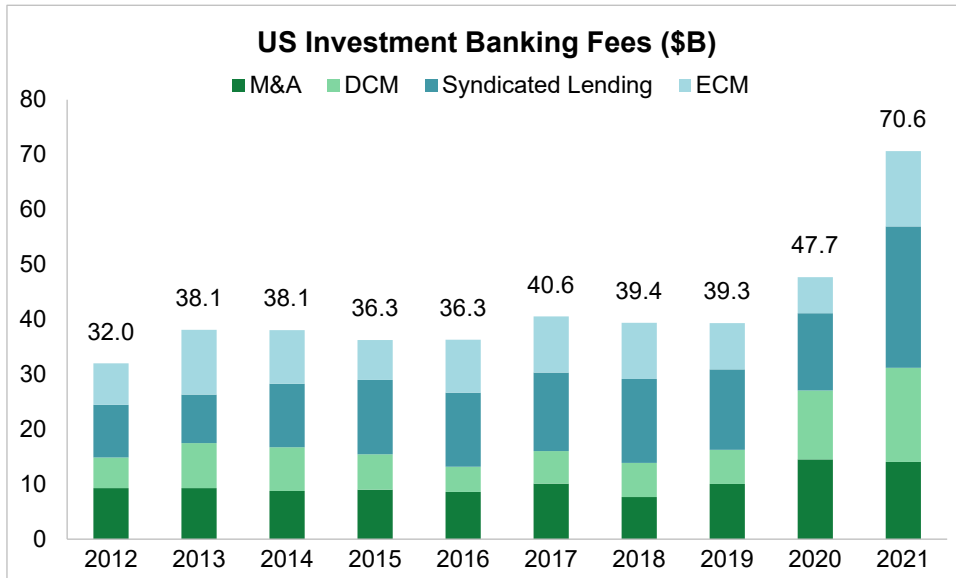
Source: Investment Company Institute and Strategic Insight Simfund

Exchange-Traded Funds (ETFs): Net Assets and Number – Values

ETF Net Assets (\$ Billions)				ETF Count	
Non 1940					
	1940 Act	Act	Total	# (RHS)	
2007	579.5	28.9	608.4	2007	629
2008	495.6	35.7	531.3	2008	728
2009	702.6	74.5	777.1	2009	797
2010	890.9	101.1	992.0	2010	923
2011	939.3	108.9	1,048.1	2011	1,135
2012	1,217.2	119.9	1,337.1	2012	1,195
2013	1,610.8	63.9	1,674.7	2013	1,295
2014	1,918.0	56.5	1,974.6	2014	1,412
2015	2,052.2	48.5	2,100.7	2015	1,597
2016	2,462.9	61.6	2,524.5	2016	1,717
2017	3,333.7	67.3	3,401.0	2017	1,836
2018	3,308.7	62.4	3,371.2	2018	1,989
2019	4,314.6	81.6	4,396.2	2019	2,096
2020	5,304.3	145.1	5,449.4	2020	2,203
2021	7,065.1	125.4	7,190.5	2021	2,570
Average	2,413.0	78.8	2,491.8	Average	1,474.8
Y/Y % Change	33.2%	-13.6%	32.0%	Y/Y % Change	16.7%
5-Year CAGR	16.2%	13.3%	16.2%	5-Year CAGR	7.0%
10-Year CAGR	19.2%	0.4%	18.3%	10-Year CAGR	8.0%

Source: Investment Company Institute and Strategic Insight Simfund

US Investment Banking Revenues by Product – Charts



Source: Dealogic Investment Banking Revenue Analytics

Note: M&A = mergers & acquisitions; DCM = debt capital markets; ECM = equity capital markets

US Mergers and Acquisitions – Announced and Completed

Announced			Completed		
	\$B	#		\$B	#
2007	1,275.9	10,405	2007	1,785.3	10,888
2008	1,076.4	9,216	2008	1,146.1	9,235
2009	794.2	7,384	2009	794.2	7,386
2010	822.9	10,239	2010	822.9	10,239
2011	992.9	10,693	2011	992.9	10,693
2012	1,041.8	12,345	2012	1,041.8	12,345
2013	1,030.0	10,413	2013	1,030.0	10,413
2014	1,249.4	10,785	2014	1,249.4	10,785
2015	1,764.2	10,646	2015	1,764.2	10,646
2016	1,699.4	9,909	2016	1,699.4	9,909
2017	1,625.3	10,554	2017	1,625.3	10,554
2018	1,916.6	8,533	2018	1,916.6	8,533
2019	1,762.8	10,060	2019	1,762.8	10,060
2020	1,502.2	8,574	2020	1,502.2	8,574
2021	2,647.4	10,096	2021	2,647.4	10,096
Average	1,413.4	9,990.1	Average	1,452.0	10,023.7
Y/Y % Change	76.2%	17.8%	Y/Y % Change	76.2%	17.8%
5-Year CAGR	10.2%	-0.9%	5-Year CAGR	10.2%	-0.9%
10-Year CAGR	9.8%	-2.0%	10-Year CAGR	9.8%	-2.0%

% Change Y/Y				
	Announced	Announced	Completed	Completed
	\$	#	\$	#
2008	-15.6%	-11.4%	-35.8%	-15.2%
2009	-26.2%	-19.9%	-30.7%	-20.0%
2010	3.6%	38.7%	3.6%	38.6%
2011	20.7%	4.4%	20.7%	4.4%
2012	4.9%	15.4%	4.9%	15.4%
2013	-1.1%	-15.7%	-1.1%	-15.7%
2014	21.3%	3.6%	21.3%	3.6%
2015	41.2%	-1.3%	41.2%	-1.3%
2016	-3.7%	-6.9%	-3.7%	-6.9%
2017	-4.4%	6.5%	-4.4%	6.5%
2018	17.9%	-19.1%	17.9%	-19.1%
2019	-8.0%	17.9%	-8.0%	17.9%
2020	-14.8%	-14.8%	-14.8%	-14.8%
2021	76.2%	17.8%	76.2%	17.8%

Source: Dealogic

Section III: US Investor Participation

US Holdings of Equities – Value

\$ Billions				% Change Y/Y			
	Households	Institutions	Total		Households	Institutions	
2007	9,739.5	16,460.0	26,199.5				
2008	5,723.1	10,540.5	16,263.5	2008	-41.2%	-36.0%	-37.9%
2009	7,193.3	13,455.7	20,649.0	2009	25.7%	27.7%	27.0%
2010	8,545.7	15,531.5	24,077.2	2010	18.8%	15.4%	16.6%
2011	8,105.5	15,228.1	23,333.6	2011	-5.2%	-2.0%	-3.1%
2012	9,390.5	17,443.0	26,833.5	2012	15.9%	14.5%	15.0%
2013	12,159.6	22,286.2	34,445.8	2013	29.5%	27.8%	28.4%
2014	13,913.9	24,182.5	38,096.4	2014	14.4%	8.5%	10.6%
2015	13,739.2	23,471.9	37,211.1	2015	-1.3%	-2.9%	-2.3%
2016	15,176.3	24,991.7	40,168.0	2016	10.5%	6.5%	7.9%
2017	17,942.8	29,977.0	47,919.8	2017	18.2%	19.9%	19.3%
2018	16,279.0	27,436.3	43,715.3	2018	-9.3%	-8.5%	-8.8%
2019	21,051.6	33,592.4	54,644.0	2019	29.3%	22.4%	25.0%
2020	26,171.5	39,272.5	65,444.1	2020	24.3%	16.9%	19.8%
2021	32,011.7	48,083.1	80,094.7	2021	22.3%	22.4%	22.4%
Average	14,476.2	24,130.2	38,606.4				
Y/Y % Change	22.3%	22.4%	22.4%				
5-Year CAGR	16.1%	14.0%	14.8%				
10-Year CAGR	14.7%	12.2%	13.1%				
% of Total							
	Households	Institutions					
2007	37.2%	62.8%					
2008	35.2%	64.8%					
2009	34.8%	65.2%					
2010	35.5%	64.5%					
2011	34.7%	65.3%					
2012	35.0%	65.0%					
2013	35.3%	64.7%					
2014	36.5%	63.5%					
2015	36.9%	63.1%					
2016	37.8%	62.2%					
2017	37.4%	62.6%					
2018	37.2%	62.8%					
2019	38.5%	61.5%					
2020	40.0%	60.0%					
2021	40.0%	60.0%					
Average	36.8%	63.2%					
Y/Y Change	0.0%	0.0%					

Source: The Federal Reserve - Financial Accounts of the United States

Note: Household sector includes nonprofit organizations; includes only directly held equities

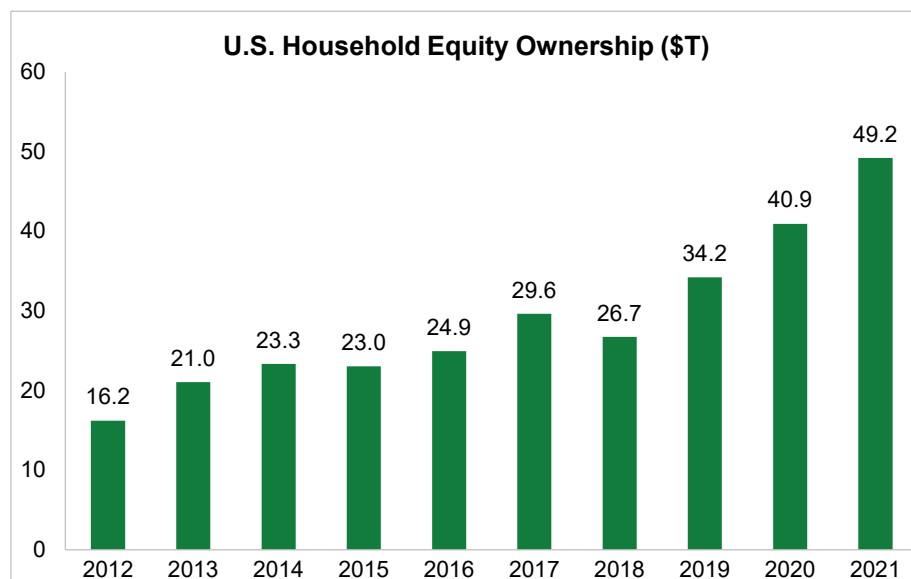
US Households Owning Stocks

	2001	2004	2007	2010	2013	2016	2019	Average
Families with stock holdings, direct or indirect (% of all families)	53.0%	50.3%	53.2%	49.8%	48.8%	51.9%	52.6%	51.4%
Median value of stock held among families (thousands of dollars)	50.5	44.6	42.0	34.2	39.3	42.5	40.0	41.9
Stock held by families (% of total family financial assets)	56.7%	51.3%	53.6%	46.8%	51.3%	53.2%	54.6%	52.5%

Source: The Federal Reserve, 2019 Survey of Consumer Finances (triennial survey)

Note: Includes both directly and indirectly held publicly traded stock (i.e. through mutual funds or retirement accounts); 2019 is the latest data available at the time of publication.

US Household Equity Ownership – Value



	\$ Billions
2007	16,662.4
2008	9,732.9
2009	12,587.6
2010	14,829.6
2011	14,043.5
2012	16,187.9
2013	21,031.9
2014	23,331.7
2015	23,011.8
2016	24,918.2
2017	29,614.2
2018	26,714.5
2019	34,190.0
2020	40,924.2
2021	49,211.1

Average	23,799.4
Y/Y % Change	20.2%
5-Year CAGR	10.7%
10-Year CAGR	11.8%

Source: The Federal Reserve - Financial Accounts of the United States

Note: Household sector includes nonprofit organizations; includes both directly and indirectly held equities (i.e. through mutual funds)

US Household Liquid Financial Assets – Value

\$ Billions								
	UST, Equities Deposits MFs Agency Munis MMFs Corporates							Total
2007	9,739.5	6,061.6	4,531.0	648.1	1,652.7	1,967.8	1,162.3	25,762.9
2008	5,723.1	6,564.9	2,915.0	1,303.8	1,534.3	2,285.0	1,235.7	21,561.7
2009	7,193.3	6,689.4	4,019.8	896.1	1,871.3	1,962.3	1,327.3	23,959.5
2010	8,545.7	6,663.7	4,699.2	1,152.2	1,905.1	1,790.0	1,482.6	26,238.3
2011	8,105.5	7,322.9	4,682.6	1,201.4	2,067.7	1,711.7	1,624.7	26,716.6
2012	9,390.5	7,682.4	5,545.7	1,278.0	2,043.2	1,749.3	1,638.2	29,327.3
2013	12,159.6	7,990.7	6,594.2	898.3	1,857.8	1,680.3	1,097.4	32,278.3
2014	13,913.9	8,500.7	7,060.3	840.6	1,966.2	1,676.8	1,162.9	35,121.4
2015	13,739.2	9,184.1	6,955.8	1,339.6	1,932.5	1,723.6	610.9	35,485.8
2016	15,176.3	9,825.1	7,303.6	1,364.7	1,914.6	1,580.2	289.0	37,453.5
2017	17,942.8	10,177.4	8,651.0	1,418.0	1,929.4	1,653.1	203.7	41,975.5
2018	16,279.0	10,433.7	7,999.6	2,111.7	1,882.8	1,823.0	256.9	40,786.6
2019	21,051.6	11,046.2	9,958.6	2,279.7	1,908.4	2,273.7	345.3	48,863.6
2020	26,171.5	13,556.3	11,078.5	1,831.7	1,929.5	2,682.6	460.9	57,711.0
2021	32,011.7	15,441.6	12,711.4	763.3	1,804.6	2,783.8	151.9	65,668.3
Average	14,476.2	9,142.7	6,980.4	1,288.5	1,880.0	1,956.2	870.0	36,594.0
Y/Y % Change	22.3%	13.9%	14.7%	-58.3%	-6.5%	3.8%	-67.0%	13.8%
5-Year CAGR	12.3%	8.7%	8.0%	-11.7%	-1.3%	11.0%	-5.7%	9.4%
10-Year CAGR	13.0%	7.2%	8.6%	-5.0%	-1.2%	4.8%	-21.2%	8.4%

% Change Y/Y								
	UST, Equities Deposits MFs Agency Munis MMFs Corporates							Total
2008	-41.2%	8.3%	-35.7%	101.2%	-7.2%	16.1%	6.3%	-16.3%
2009	25.7%	1.9%	37.9%	-31.3%	22.0%	-14.1%	7.4%	11.1%
2010	18.8%	-0.4%	16.9%	28.6%	1.8%	-8.8%	11.7%	9.5%
2011	-5.2%	9.9%	-0.4%	4.3%	8.5%	-4.4%	9.6%	1.8%
2012	15.9%	4.9%	18.4%	6.4%	-1.2%	2.2%	0.8%	9.8%
2013	29.5%	4.0%	18.9%	-29.7%	-9.1%	-3.9%	-33.0%	10.1%
2014	14.4%	6.4%	7.1%	-6.4%	5.8%	-0.2%	6.0%	8.8%
2015	-1.3%	8.0%	-1.5%	59.4%	-1.7%	2.8%	-47.5%	1.0%
2016	10.5%	7.0%	5.0%	1.9%	-0.9%	-8.3%	-52.7%	5.5%
2017	18.2%	3.6%	18.4%	3.9%	0.8%	4.6%	-29.5%	12.1%
2018	-9.3%	2.5%	-7.5%	48.9%	-2.4%	10.3%	26.1%	-2.8%
2019	29.3%	5.9%	24.5%	8.0%	1.4%	24.7%	34.4%	19.8%
2020	24.3%	22.7%	11.2%	-19.7%	1.1%	18.0%	33.5%	18.1%
2021	22.3%	13.9%	14.7%	-58.3%	-6.5%	3.8%	-67.0%	13.8%

Source: The Federal Reserve - Financial Accounts of the United States

Note: Households include nonprofit organizations. Liquid financial assets exclude pension fund reserves, equity in non-corporate business, etc. Deposits = bank deposits and CDs; MFs = mutual funds; UST (U.S. Treasuries), Agency includes GSE securities; Munis = municipal bonds; MMFs = money market funds

US Household Liquid Financial Assets – Share of Total

	% of Total						
	UST, Agency Munis MMFs Corporates						
	Equities	Deposits	MFs	Agency	Munis	MMFs	Corporates
2007	37.8%	23.5%	17.6%	2.5%	6.4%	7.6%	4.5%
2008	26.5%	30.4%	13.5%	6.0%	7.1%	10.6%	5.7%
2009	30.0%	27.9%	16.8%	3.7%	7.8%	8.2%	5.5%
2010	32.6%	25.4%	17.9%	4.4%	7.3%	6.8%	5.7%
2011	30.3%	27.4%	17.5%	4.5%	7.7%	6.4%	6.1%
2012	32.0%	26.2%	18.9%	4.4%	7.0%	6.0%	5.6%
2013	37.7%	24.8%	20.4%	2.8%	5.8%	5.2%	3.4%
2014	39.6%	24.2%	20.1%	2.4%	5.6%	4.8%	3.3%
2015	38.7%	25.9%	19.6%	3.8%	5.4%	4.9%	1.7%
2016	40.5%	26.2%	19.5%	3.6%	5.1%	4.2%	0.8%
2017	42.7%	24.2%	20.6%	3.4%	4.6%	3.9%	0.5%
2018	39.9%	25.6%	19.6%	5.2%	4.6%	4.5%	0.6%
2019	43.1%	22.6%	20.4%	4.7%	3.9%	4.7%	0.7%
2020	45.3%	23.5%	19.2%	3.2%	3.3%	4.6%	0.8%
2021	48.7%	23.5%	19.4%	1.2%	2.7%	4.2%	0.2%
Average	37.7%	25.4%	18.7%	3.7%	5.6%	5.8%	3.0%
Y/Y Change	3.4%	0.0%	0.2%	-2.0%	-0.6%	-0.4%	-0.6%

Source: The Federal Reserve - Financial Accounts of the United States

Note: Households include nonprofit organizations. Liquid financial assets exclude pension fund reserves, equity in non-corporate business, etc. Deposits = bank deposits and CDs; MFs = mutual funds; UST (U.S. Treasuries), Agency includes GSE securities; Munis = municipal bonds; MMFs = money market funds

US Holdings of Equities by Type of Holder – Value

	\$ Billions						Y/Y % Average	5-Year Change	CAGR
	2016	2017	2018	2019	2020	2021			
Households	15,202.6	17,974.1	16,301.7	20,860.6	25,890.9	32,011.7	21,373.6	23.6%	12.2%
Institutions	24,965.4	29,945.7	27,413.6	33,764.3	39,316.8	48,083.1	33,914.8	22.3%	9.9%
Mutual Funds	9,069.9	10,819.6	9,657.5	11,934.5	13,391.1	15,533.8	11,734.4	16.0%	7.5%
Foreign	5,782.7	7,019.4	6,629.5	8,199.0	10,519.3	13,318.0	8,578.0	26.6%	13.7%
Exchange-Traded Funds	2,032.7	2,775.6	2,669.2	3,486.2	4,233.6	5,804.4	3,500.3	37.1%	15.9%
Private Pension Funds	2,329.9	2,713.0	2,448.0	3,135.8	3,477.3	4,107.5	3,035.3	18.1%	8.6%
State & Local Gov't Retirement Funds	2,321.5	2,706.8	2,478.6	2,553.9	2,773.8	3,392.2	2,704.5	22.3%	4.6%
Nonfinancial corporate business	1,712.9	1,949.3	1,789.9	2,317.7	2,531.0	3,100.6	2,233.6	22.5%	9.7%
Life Insurance Companies	554.8	622.9	538.0	644.6	729.8	763.4	642.3	4.6%	4.2%
Property Casualty Companies	354.3	410.6	392.1	493.9	518.6	642.8	468.7	23.9%	9.4%
Federal Gov't Retirement Funds	260.8	324.2	292.1	370.7	418.4	524.0	365.0	25.2%	10.1%
Broker/Dealers	176.1	182.7	147.7	166.7	214.3	233.9	186.9	9.2%	5.1%
State & Local Governments	130.5	151.5	137.7	173.2	201.4	306.4	183.4	52.1%	15.1%
U.S. Chartered Depository Institutions	104.0	127.6	109.1	147.7	160.3	199.6	141.4	24.5%	9.4%
Closed-End Funds	101.8	109.3	91.2	107.2	105.9	123.4	106.5	16.5%	2.5%
Federal Government	33.3	33.2	33.2	33.2	33.2	33.2	33.2	-0.1%	0.0%
Other	0.0	0.0	0.0	0.0	8.8	0.0	1.5	N/A	N/A
Monetary Authority	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A	N/A
Total US Holdings	40,168.0	47,919.8	43,715.3	54,624.9	65,207.7	80,094.7	55,288.4	22.8%	10.8%

Source: The Federal Reserve - Financial Accounts of the United States

Note: Households include non-profit organizations. Other contains foreign banking offices in the U.S. and funding corporations

US Holdings of Equities by Type of Holder – Share of Total

	2016	2017	2018	2019	2020	2021	Average	Y/Y Change
Households	37.8%	37.5%	37.3%	38.2%	39.7%	40.0%	38.4%	0.3%
Institutions	62.2%	62.5%	62.7%	61.8%	60.3%	60.0%	61.6%	-0.3%
Mutual Funds	22.6%	22.6%	22.1%	21.8%	20.5%	19.4%	21.5%	-1.1%
Foreign	14.4%	14.6%	15.2%	15.0%	16.1%	16.6%	15.3%	0.5%
Exchange-Traded Funds	5.1%	5.8%	6.1%	6.4%	6.5%	7.2%	6.2%	0.8%
Private Pension Funds	5.8%	5.7%	5.6%	5.7%	5.3%	5.1%	5.5%	-0.2%
State & Local Gov't Retirement Funds	5.8%	5.6%	5.7%	4.7%	4.3%	4.2%	5.0%	0.0%
Nonfinancial corporate business	4.3%	4.1%	4.1%	4.2%	3.9%	3.9%	4.1%	0.0%
Life Insurance Companies	1.4%	1.3%	1.2%	1.2%	1.1%	1.0%	1.2%	-0.2%
Property Casualty Companies	0.9%	0.9%	0.9%	0.9%	0.8%	0.8%	0.9%	0.0%
Federal Gov't Retirement Funds	0.6%	0.7%	0.7%	0.7%	0.6%	0.7%	0.7%	0.0%
Broker/Dealers	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.0%
State & Local Governments	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.3%	0.1%
U.S. Chartered Depository Institutions	0.3%	0.3%	0.2%	0.3%	0.2%	0.2%	0.3%	0.0%
Closed-End Funds	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.0%
Federal Government	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Monetary Authority	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Source: The Federal Reserve - Financial Accounts of the United States

Note: Households include non-profit organizations. Other contains foreign banking offices in the US and funding corporations

US Net Acquisitions of Corporate Equities by Type of Holder

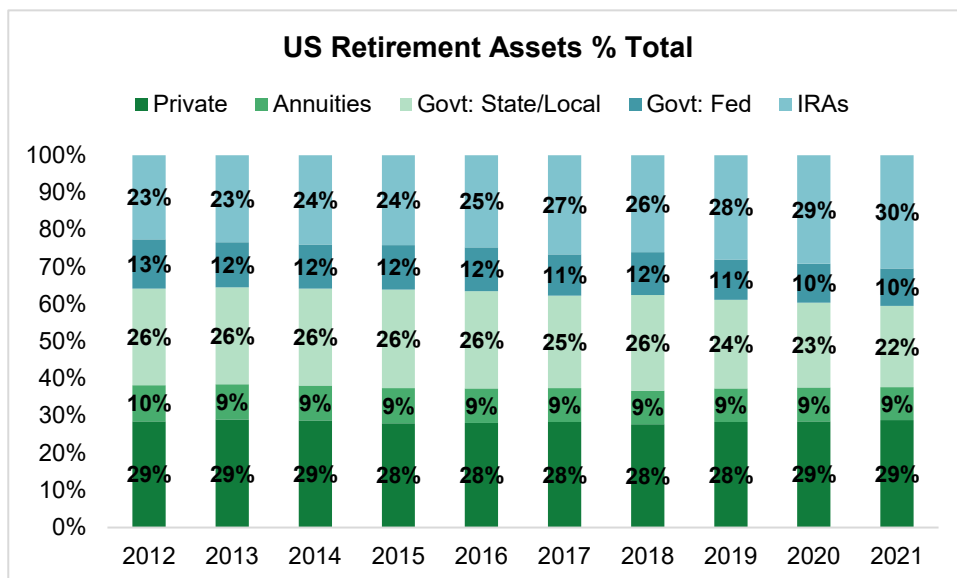
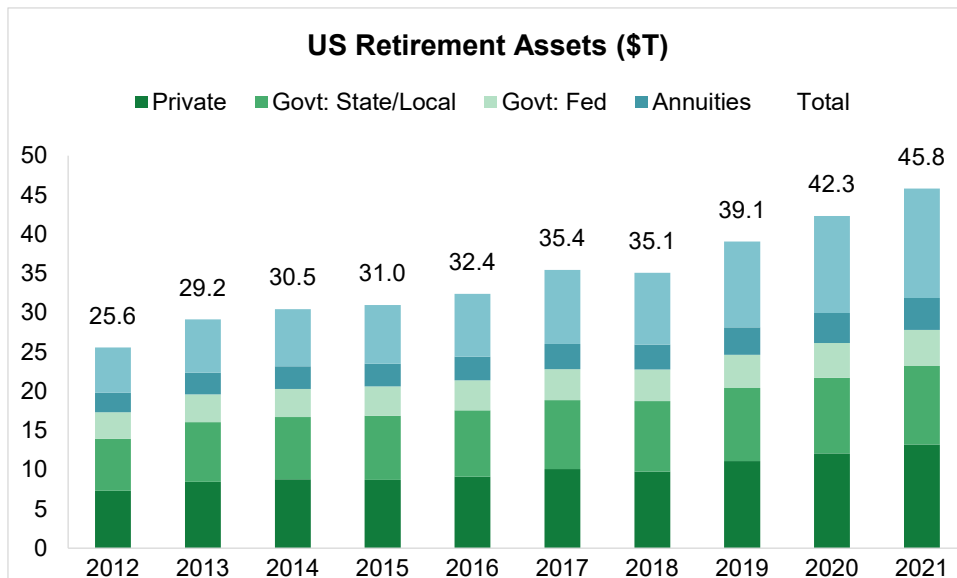
	\$ Billions						Y/Y %	
	2016	2017	2018	2019	2020	2021	Average	Change
Households	76.5	130.2	-176.2	7.4	462.3	615.0	185.9	33.0%
Institutions	-295.0	103.2	-71.7	-419.0	111.4	-232.5	-133.9	308.6%
Foreign	-186.3	116.9	110.9	-205.5	637.7	-226.0	41.3	135.4%
Mutual Funds	-111.7	-133.6	-120.9	-219.2	-481.5	-317.1	-230.7	34.1%
Exchange-Traded Funds	186.1	346.7	204.4	166.1	260.2	732.4	316.0	181.5%
Nonfinancial corporate business	66.9	-89.9	-40.7	10.2	-136.0	-116.1	-50.9	14.7%
Private Pension Funds	-113.5	-53.1	-80.0	-168.8	-110.7	-73.7	-100.0	33.4%
Federal Gov't Retirement Funds	-5.6	6.5	-21.6	-5.0	-23.9	10.2	-6.6	142.9%
Property Casualty Companies	2.9	9.8	20.1	-1.8	-21.8	2.6	2.0	112.1%
Other	0.0	0.0	0.0	0.0	8.8	-8.8	0.0	200.0%
Broker/Dealers	-5.4	-26.3	-19.9	-22.4	6.8	-33.7	-16.8	598.6%
State & Local Gov't Retirement Funds	-93.5	-61.9	-82.3	26.1	-30.6	-129.2	-61.9	321.9%
State & Local Governments	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	-3.4	0.0%
U.S. Chartered Depository Institutions	-6.9	-2.0	2.5	0.8	2.9	1.9	-0.1	36.2%
Closed-End Funds	0.1	-0.5	-0.4	2.6	1.9	8.0	1.9	321.7%
Life Insurance Companies	-24.6	-5.9	-44.4	1.2	1.1	-79.6	-25.4	7499.2%
Federal Government	-0.1	-0.1	4.0	0.0	0.0	0.0	0.6	N/A
Monetary Authority	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Total Net Issuance	-218.6	233.3	-247.9	-411.6	573.8	382.6	51.9	33.3%

Source: The Federal Reserve - Financial Accounts of the United States

Note: Households include non-profit organizations. Other contains foreign banking offices in the US and funding corporations

Section IV: US Savings & Investment

US Retirement Assets – Charts



Source: The Federal Reserve - Financial Accounts of the United States

Note: Private = defined benefit and contribution pension plans, includes claims of pension funds on sponsor (unfunded defined benefit entitlements). Annuities = annuity reserves held by life insurance companies. Govt = government pension plans. Fed = federal. IRA = individual retirement account

US Retirement Assets – Value

\$ Billions							
	Private	Annuities	Govt: State/Local	Govt: Fed	Total Pensions	IRAs	Total
2007	6,191.4	2,173.2	5,374.1	2,728.1	16,466.8	4,748.0	21,214.8
2008	5,331.6	1,938.9	5,507.4	2,769.4	15,547.4	3,681.0	19,228.4
2009	5,988.2	2,075.3	5,788.7	2,911.3	16,763.5	4,488.0	21,251.5
2010	6,640.7	2,287.5	6,275.3	3,143.8	18,347.3	5,029.0	23,376.3
2011	6,774.1	2,286.7	6,443.5	3,243.6	18,747.8	5,153.0	23,900.8
2012	7,295.8	2,477.2	6,647.2	3,366.8	19,787.0	5,785.0	25,572.0
2013	8,457.1	2,753.0	7,602.9	3,524.9	22,337.9	6,819.0	29,156.9
2014	8,756.4	2,869.0	7,930.3	3,612.5	23,168.2	7,292.0	30,460.2
2015	8,686.0	2,908.5	8,195.1	3,709.3	23,498.9	7,477.0	30,975.9
2016	9,110.1	3,003.0	8,468.3	3,808.4	24,389.7	8,015.0	32,404.7
2017	10,056.7	3,221.6	8,788.7	3,941.5	26,008.4	9,439.0	35,447.4
2018	9,732.4	3,174.8	8,999.4	4,035.5	25,942.1	9,135.0	35,077.1
2019	11,087.7	3,503.4	9,322.8	4,222.7	28,136.6	10,949.0	39,085.6
2020	12,072.4	3,830.4	9,648.3	4,424.7	29,975.7	12,333.0	42,308.7
2021	13,205.4	4,065.3	9,990.0	4,627.7	31,888.4	13,913.0	45,801.4
Average	8,625.7	2,837.9	7,665.5	3,604.7	22,733.7	7,617.1	30,350.8
Y/Y % Change	9.4%	6.1%	3.5%	4.6%	6.4%	12.8%	8.3%
5-Year CAGR	5.6%	4.8%	2.6%	3.3%	4.2%	8.1%	5.3%
10-Year CAGR	6.1%	5.1%	4.2%	3.2%	4.9%	9.2%	6.0%

% Change Y/Y							
	Private	Annuities	Govt: State/Local	Govt: Fed	Total Pensions	IRAs	Total
2008	-13.9%	-10.8%	2.5%	1.5%	-5.6%	-22.5%	-9.4%
2009	12.3%	7.0%	5.1%	5.1%	7.8%	21.9%	10.5%
2010	10.9%	10.2%	8.4%	8.0%	9.4%	12.1%	10.0%
2011	2.0%	0.0%	2.7%	3.2%	2.2%	2.5%	2.2%
2012	7.7%	8.3%	3.2%	3.8%	5.5%	12.3%	7.0%
2013	15.9%	11.1%	14.4%	4.7%	12.9%	17.9%	14.0%
2014	3.5%	4.2%	4.3%	2.5%	3.7%	6.9%	4.5%
2015	-0.8%	1.4%	3.3%	2.7%	1.4%	2.5%	1.7%
2016	4.9%	3.2%	3.3%	2.7%	3.8%	7.2%	4.6%
2017	10.4%	7.3%	3.8%	3.5%	6.6%	17.8%	9.4%
2018	-3.2%	-1.4%	2.4%	2.4%	-0.3%	-3.2%	-1.0%
2019	13.9%	10.3%	3.6%	4.6%	8.5%	19.9%	11.4%
2020	8.9%	9.3%	3.5%	4.8%	6.5%	12.6%	8.2%
2021	9.4%	6.1%	3.5%	4.6%	6.4%	12.8%	8.3%

Source: The Federal Reserve - Financial Accounts of the United States

Note: Private = defined benefit and contribution pension plans, includes claims of pension funds on sponsor (unfunded defined benefit entitlements).

Annuities = annuity reserves held by life insurance companies. Govt = government pension plans. Fed = federal. IRA = individual retirement account

US Retirement Assets – Share of Total

	% of Total					
	Govt:			Total		
	Private	Annuities	State/Local	Govt: Fed	Pensions	IRAs
2007	29.2%	10.2%	25.3%	12.9%	77.6%	22.4%
2008	27.7%	10.1%	28.6%	14.4%	80.9%	19.1%
2009	28.2%	9.8%	27.2%	13.7%	78.9%	21.1%
2010	28.4%	9.8%	26.8%	13.4%	78.5%	21.5%
2011	28.3%	9.6%	27.0%	13.6%	78.4%	21.6%
2012	28.5%	9.7%	26.0%	13.2%	77.4%	22.6%
2013	29.0%	9.4%	26.1%	12.1%	76.6%	23.4%
2014	28.7%	9.4%	26.0%	11.9%	76.1%	23.9%
2015	28.0%	9.4%	26.5%	12.0%	75.9%	24.1%
2016	28.1%	9.3%	26.1%	11.8%	75.3%	24.7%
2017	28.4%	9.1%	24.8%	11.1%	73.4%	26.6%
2018	27.7%	9.1%	25.7%	11.5%	74.0%	26.0%
2019	28.4%	9.0%	23.9%	10.8%	72.0%	28.0%
2020	28.5%	9.1%	22.8%	10.5%	70.8%	29.2%
2021	28.8%	8.9%	21.8%	10.1%	69.6%	30.4%
Average	28.4%	9.4%	25.6%	12.2%	75.7%	24.3%
Y/Y % Change	0.3%	-0.2%	-1.0%	-0.4%	-1.2%	1.2%

Source: The Federal Reserve - Financial Accounts of the United States

Note: Private = defined benefit and contribution pension plans, includes claims of pension funds on sponsor (unfunded defined benefit entitlements).
Annuities = annuity reserves held by life insurance companies. Govt = government pension plans. Fed = federal. IRA = individual retirement accounts

US Private Pension Funds: Total Assets

\$ Billions				% Change Y/Y			% of Total	
	Defined Benefit	Defined Contribution	Total	Defined Benefit	Defined Contribution	Total	Defined Benefit	Defined Contribution
2007	2,529.1	3,662.2	6,191.4				40.8%	59.2%
2008	2,608.2	2,723.3	5,331.6	2008	3.1%	-25.6%	48.9%	51.1%
2009	2,652.9	3,335.4	5,988.2	2009	1.7%	22.5%	44.3%	55.7%
2010	2,872.2	3,768.4	6,640.7	2010	8.3%	13.0%	43.3%	56.7%
2011	2,983.8	3,790.3	6,774.1	2011	3.9%	0.6%	44.0%	56.0%
2012	3,055.4	4,240.4	7,295.8	2012	2.4%	11.9%	41.9%	58.1%
2013	3,451.3	5,005.8	8,457.1	2013	13.0%	18.0%	40.8%	59.2%
2014	3,463.6	5,292.9	8,756.4	2014	0.4%	5.7%	39.6%	60.4%
2015	3,436.3	5,249.7	8,686.0	2015	-0.8%	-0.8%	39.6%	60.4%
2016	3,469.5	5,640.6	9,110.1	2016	1.0%	7.4%	38.1%	61.9%
2017	3,516.0	6,540.6	10,056.7	2017	1.3%	16.0%	35.0%	65.0%
2018	3,532.3	6,200.1	9,732.4	2018	0.5%	-5.2%	36.3%	63.7%
2019	3,660.9	7,426.8	11,087.7	2019	3.6%	19.8%	33.0%	67.0%
2020	3,702.1	8,370.3	12,072.4	2020	1.1%	12.7%	30.7%	69.3%
2021	3,742.3	9,463.1	13,205.4	2021	1.1%	13.1%	28.3%	71.7%
Average	3,245.1	5,380.7	8,625.7	Average			39.0%	61.0%
Y/Y % Change	1.1%	13.1%	9.4%	Y/Y % Change			-2.3%	2.3%
5-Year CAGR	1.3%	7.7%	5.6%					
10-Year CAGR	2.0%	8.4%	6.1%					
% Total Private	28.3%	71.7%						
% Total Assets	8.2%	20.7%						

Source: The Federal Reserve - Financial Accounts of the United States

Note: Includes claims of pension funds on sponsor (i.e. unfunded defined benefit pension entitlements)

US Private Pension Funds: Asset Mix

\$ Billions								% Change Y/Y							
	Equity	Bonds	MFs	Cash	Claims	Other	Total		Equity	Bonds	MFs	Cash	Claims	Other	Total
2007	2,041.0	690.3	2,174.1	255.3	-28.3	1,024.6	6,157.1								
2008	1,275.0	673.1	1,480.2	244.1	687.7	936.2	5,296.3	2008	-37.5%	-2.5%	-31.9%	-4.4%	-2532.6%	-8.6%	-14.0%
2009	1,504.4	722.8	1,955.3	236.8	466.2	1,066.3	5,951.8	2009	18.0%	7.4%	32.1%	-3.0%	-32.2%	13.9%	12.4%
2010	1,778.1	829.1	2,220.2	226.1	437.5	1,113.2	6,604.1	2010	18.2%	14.7%	13.5%	-4.5%	-6.2%	4.4%	11.0%
2011	1,680.4	915.0	2,200.0	252.6	497.9	1,191.5	6,737.5	2011	-5.5%	10.4%	-0.9%	11.7%	13.8%	7.0%	2.0%
2012	1,890.7	1,049.5	2,481.5	225.2	377.9	1,234.4	7,259.2	2012	12.5%	14.7%	12.8%	-10.9%	-24.1%	3.6%	7.7%
2013	2,243.8	1,045.5	3,006.9	248.0	592.0	1,284.5	8,420.6	2013	18.7%	-0.4%	21.2%	10.1%	56.6%	4.1%	16.0%
2014	2,284.3	1,166.5	3,190.2	256.6	504.1	1,318.2	8,719.9	2014	1.8%	11.6%	6.1%	3.5%	-14.9%	2.6%	3.6%
2015	2,220.4	1,136.2	3,127.9	248.0	609.0	1,307.9	8,649.4	2015	-2.8%	-2.6%	-2.0%	-3.4%	20.8%	-0.8%	-0.8%
2016	2,329.9	1,192.5	3,352.8	248.4	582.3	1,367.5	9,073.4	2016	4.9%	5.0%	7.2%	0.2%	-4.4%	4.6%	4.9%
2017	2,713.0	1,348.3	3,886.6	261.5	326.7	1,484.0	10,020.1	2017	16.4%	13.1%	15.9%	5.3%	-43.9%	8.5%	10.4%
2018	2,448.0	1,378.5	3,594.6	245.2	601.7	1,427.9	9,695.8	2018	-9.8%	2.2%	-7.5%	-6.2%	84.2%	-3.8%	-3.2%
2019	2,961.8	1,530.7	4,320.0	269.5	404.8	1,564.4	11,051.2	2019	21.0%	11.0%	20.2%	9.9%	-32.7%	9.6%	14.0%
2020	3,375.7	1,661.2	4,742.7	319.3	218.9	1,718.1	12,035.9	2020	14.0%	8.5%	9.8%	18.5%	-45.9%	9.8%	8.9%
2021	4,107.5	1,603.4	5,292.9	345.1	12.8	1,807.2	13,168.9	2021	21.7%	-3.5%	11.6%	8.1%	-94.2%	5.2%	9.4%
Average	2,323.6	1,129.5	3,135.1	258.8	419.4	1,323.1	8,589.4								
Y/Y % Change	21.7%	-3.5%	11.6%	8.1%	-94.2%	5.2%	9.4%								
5-Year CAGR	8.6%	3.5%	6.4%	5.7%	-47.7%	4.0%	5.6%								
10-Year CAGR	8.1%	4.3%	7.9%	4.4%	-28.7%	3.9%	6.1%								

% Change Y/Y							
	Equity	Bonds	MFs	Cash	Claims	Other	
2007	33.1%	11.2%	35.3%	4.1%	-0.5%	16.6%	
2008	24.1%	12.7%	27.9%	4.6%	13.0%	17.7%	
2009	25.3%	12.1%	32.9%	4.0%	7.8%	17.9%	
2010	26.9%	12.6%	33.6%	3.4%	6.6%	16.9%	
2011	24.9%	13.6%	32.7%	3.7%	7.4%	17.7%	
2012	26.0%	14.5%	34.2%	3.1%	5.2%	17.0%	
2013	26.6%	12.4%	35.7%	2.9%	7.0%	15.3%	
2014	26.2%	13.4%	36.6%	2.9%	5.8%	15.1%	
2015	25.7%	13.1%	36.2%	2.9%	7.0%	15.1%	
2016	25.7%	13.1%	37.0%	2.7%	6.4%	15.1%	
2017	27.1%	13.5%	38.8%	2.6%	3.3%	14.8%	
2018	25.2%	14.2%	37.1%	2.5%	6.2%	14.7%	
2019	26.8%	13.9%	39.1%	2.4%	3.7%	14.2%	
2020	28.0%	13.8%	39.4%	2.7%	1.8%	14.3%	
2021	31.2%	12.2%	40.2%	2.6%	0.1%	13.7%	
Average	26.9%	13.1%	35.8%	3.2%	5.4%	15.7%	
Y/Y % Change	3.1%	-1.6%	0.8%	0.0%	-1.7%	-0.6%	

Source: The Federal Reserve - Financial Accounts of the United States

Note: Bonds include UST, Agency, GSE-backed securities, corporate & foreign bonds. MF = mutual funds. Cash includes checkable deposits and currency, time and savings deposits, money market mutual fund shares, repo and reverse repo agreements, and commercial paper. Claims include total liabilities of pension entitlements. Other = mortgages, unallocated insurance contracts, contributions receivable, and unidentified miscellaneous assets

US Defined Benefit Plans: Asset Mix

\$ Billions								% Change Y/Y							
	Equity	Bonds	MFs	Cash	Claims	Other	Total		Equity	Bonds	MFs	Cash	Claims	Other	Total
2007	1,209.3	536.3	332.6	136.0	-28.3	309.0	2,494.9								
2008	726.1	480.8	258.5	102.2	687.7	317.6	2,572.9	2008	-40.0%	-10.4%	-22.3%	-24.8%	-2532.6%	2.8%	3.1%
2009	863.8	517.9	321.9	106.7	466.2	339.9	2,616.4	2009	19.0%	7.7%	24.6%	4.4%	-32.2%	7.0%	1.7%
2010	1,010.7	577.8	348.1	102.8	437.5	358.9	2,835.7	2010	17.0%	11.6%	8.1%	-3.7%	-6.2%	5.6%	8.4%
2011	929.5	665.9	356.3	106.5	497.9	391.1	2,947.2	2011	-8.0%	15.3%	2.3%	3.6%	13.8%	9.0%	3.9%
2012	1,048.0	746.6	359.3	94.2	377.9	392.9	3,018.8	2012	12.7%	12.1%	0.8%	-11.6%	-24.1%	0.4%	2.4%
2013	1,165.0	750.5	407.9	109.6	592.0	389.9	3,414.8	2013	11.2%	0.5%	13.5%	16.3%	56.6%	-0.8%	13.1%
2014	1,137.9	835.5	425.6	118.3	504.1	405.6	3,427.0	2014	-2.3%	11.3%	4.3%	8.0%	-14.9%	4.0%	0.4%
2015	1,086.9	804.6	382.9	105.9	609.0	410.5	3,399.7	2015	-4.5%	-3.7%	-10.1%	-10.5%	20.8%	1.2%	-0.8%
2016	1,099.1	829.5	385.1	102.5	582.3	434.4	3,432.9	2016	1.1%	3.1%	0.6%	-3.2%	-4.4%	5.8%	1.0%
2017	1,210.9	946.7	411.5	115.3	326.7	468.4	3,479.5	2017	10.2%	14.1%	6.9%	12.5%	-43.9%	7.8%	1.4%
2018	1,055.5	972.1	344.9	96.8	601.7	424.7	3,495.7	2018	-12.8%	2.7%	-16.2%	-16.1%	84.2%	-9.3%	0.5%
2019	1,210.1	1,079.6	360.9	101.7	404.8	467.3	3,624.4	2019	14.6%	11.1%	4.6%	5.1%	-32.7%	10.0%	3.7%
2020	1,393.7	1,115.6	366.4	101.2	218.9	469.8	3,665.5	2020	15.2%	3.3%	1.5%	-0.6%	-45.9%	0.5%	1.1%
2021	1,673.5	1,062.6	379.5	104.3	12.8	473.1	3,705.8	2021	20.1%	-4.8%	3.6%	3.1%	-94.2%	0.7%	1.1%
Average	1,121.3	794.8	362.8	106.9	419.4	403.5	3,208.8								
Y/Y % Change	20.1%	-4.8%	3.6%	3.1%	-94.2%	0.7%	1.1%								
5-Year CAGR	6.7%	2.3%	-1.6%	-2.0%	-47.7%	0.2%	1.3%								
10-Year CAGR	4.8%	3.6%	0.5%	1.0%	-28.7%	1.9%	2.1%								

% of Total						
	Equity	Bonds	MFs	Cash	Claims	Other
2007	48.5%	21.5%	13.3%	5.5%	-1.1%	12.4%
2008	28.2%	18.7%	10.0%	4.0%	26.7%	12.3%
2009	33.0%	19.8%	12.3%	4.1%	17.8%	13.0%
2010	35.6%	20.4%	12.3%	3.6%	15.4%	12.7%
2011	31.5%	22.6%	12.1%	3.6%	16.9%	13.3%
2012	34.7%	24.7%	11.9%	3.1%	12.5%	13.0%
2013	34.1%	22.0%	11.9%	3.2%	17.3%	11.4%
2014	33.2%	24.4%	12.4%	3.5%	14.7%	11.8%
2015	32.0%	23.7%	11.3%	3.1%	17.9%	12.1%
2016	32.0%	24.2%	11.2%	3.0%	17.0%	12.7%
2017	34.8%	27.2%	11.8%	3.3%	9.4%	13.5%
2018	30.2%	27.8%	9.9%	2.8%	17.2%	12.1%
2019	33.4%	29.8%	10.0%	2.8%	11.2%	12.9%
2020	38.0%	30.4%	10.0%	2.8%	6.0%	12.8%
2021	45.2%	28.7%	10.2%	2.8%	0.3%	12.8%
Average	35.0%	24.4%	11.4%	3.4%	13.3%	12.6%
Y/Y % Change	7.1%	-1.8%	0.2%	0.1%	-5.6%	0.0%

Source: The Federal Reserve - Financial Accounts of the United States

Note: Bonds include UST, Agency, GSE-backed securities, corporate & foreign bonds. MF = mutual funds. Cash includes checkable deposits and currency, time and savings deposits, money market mutual fund shares, repo and reverse repo agreements, and commercial paper. Claims include total liabilities of pension entitlements. Other = mortgages, unallocated insurance contracts, contributions receivable, and unidentified miscellaneous assets

US Defined Contribution Plans: Asset Mix

\$ Billions							% Change Y/Y						
	Equity	Bonds	MFs	Cash	Other	Total		Equity	Bonds	MFs	Cash	Other	Total
2007	831.7	154.0	1,841.5	119.3	715.6	3,662.2							
2008	548.9	192.3	1,221.7	141.9	618.6	2,723.3	2008	-34.0%	24.8%	-33.7%	18.9%	-13.6%	-25.6%
2009	640.6	205.0	1,633.4	130.1	726.3	3,335.4	2009	16.7%	6.6%	33.7%	-8.3%	17.4%	22.5%
2010	767.4	251.4	1,872.0	123.3	754.3	3,768.4	2010	19.8%	22.7%	14.6%	-5.2%	3.8%	13.0%
2011	750.9	249.2	1,843.7	146.1	800.4	3,790.3	2011	-2.1%	-0.9%	-1.5%	18.5%	6.1%	0.6%
2012	842.7	302.9	2,122.2	131.0	841.5	4,240.4	2012	12.2%	21.6%	15.1%	-10.3%	5.1%	11.9%
2013	1,078.8	295.0	2,598.9	138.4	894.6	5,005.8	2013	28.0%	-2.6%	22.5%	5.7%	6.3%	18.0%
2014	1,146.4	331.0	2,764.6	138.3	912.6	5,292.9	2014	6.3%	12.2%	6.4%	-0.1%	2.0%	5.7%
2015	1,133.5	331.7	2,745.0	142.1	897.4	5,249.7	2015	-1.1%	0.2%	-0.7%	2.7%	-1.7%	-0.8%
2016	1,230.8	363.0	2,967.7	145.9	933.1	5,640.6	2016	8.6%	9.5%	8.1%	2.7%	4.0%	7.4%
2017	1,502.1	401.6	3,475.1	146.2	1,015.6	6,540.6	2017	22.0%	10.6%	17.1%	0.2%	8.8%	16.0%
2018	1,392.5	406.4	3,249.6	148.5	1,003.2	6,200.1	2018	-7.3%	1.2%	-6.5%	1.5%	-1.2%	-5.2%
2019	1,751.7	451.1	3,959.2	167.8	1,097.1	7,426.8	2019	25.8%	11.0%	21.8%	13.0%	9.4%	19.8%
2020	1,982.0	545.6	4,376.3	218.1	1,248.4	8,370.3	2020	13.1%	20.9%	10.5%	30.0%	13.8%	12.7%
2021	2,434	541	4,913	241	1,334	9,463	2021	22.8%	-0.9%	12.3%	10.4%	6.9%	13.1%
Average	1,202.3	334.7	2,772.3	151.9	919.5	5,380.7							
Y/Y % Change	22.8%	-0.9%	12.3%	10.4%	6.9%	13.1%							
5-Year CAGR	10.1%	6.1%	7.2%	10.5%	5.6%	7.7%							
10-Year CAGR	11.2%	6.0%	8.8%	6.3%	4.7%	8.4%							

% of Total						
	Equity	Bonds	MFs	Cash	Other	
2007	22.7%	4.2%	50.3%	3.3%	19.5%	
2008	20.2%	7.1%	44.9%	5.2%	22.7%	
2009	19.2%	6.1%	49.0%	3.9%	21.8%	
2010	20.4%	6.7%	49.7%	3.3%	20.0%	
2011	19.8%	6.6%	48.6%	3.9%	21.1%	
2012	19.9%	7.1%	50.0%	3.1%	19.8%	
2013	21.6%	5.9%	51.9%	2.8%	17.9%	
2014	21.7%	6.3%	52.2%	2.6%	17.2%	
2015	21.6%	6.3%	52.3%	2.7%	17.1%	
2016	21.8%	6.4%	52.6%	2.6%	16.5%	
2017	23.0%	6.1%	53.1%	2.2%	15.5%	
2018	22.5%	6.6%	52.4%	2.4%	16.2%	
2019	23.6%	6.1%	53.3%	2.3%	14.8%	
2020	23.7%	6.5%	52.3%	2.6%	14.9%	
2021	25.7%	5.7%	51.9%	2.5%	14.1%	
Average	21.8%	6.2%	51.0%	3.0%	17.9%	
Y/Y % Change	2.0%	-0.8%	-0.4%	-0.1%	-0.8%	

Source: The Federal Reserve - Financial Accounts of the United States

Note: Bonds include UST, Agency, GSE-backed securities, corporate & foreign bonds. MF = mutual funds. Cash includes checkable deposits and currency, time and savings deposits, money market mutual fund shares, repo and reverse repo agreements, and commercial paper. Claims include total liabilities of pension entitlements. Other = mortgages, unallocated insurance contracts, contributions receivable, and unidentified miscellaneous assets

US Individual Retirement Account (IRA) Assets

\$ Billions						% Change Y/Y					
	MFs	Deposits	Annuities	Other	Total		MFs	Deposits	Annuities	Other	Total
2007	2,435	340	303	1,670	4,748						
2008	1,692	391	295	1,303	3,681	2008	-30.5%	15.0%	-2.6%	-22.0%	-22.5%
2009	2,114	431	291	1,652	4,488	2009	24.9%	10.2%	-1.4%	26.8%	21.9%
2010	2,418	461	313	1,837	5,029	2010	14.4%	7.0%	7.6%	11.2%	12.1%
2011	2,409	482	308	1,954	5,153	2011	-0.4%	4.6%	-1.6%	6.4%	2.5%
2012	2,752	508	323	2,201	5,785	2012	14.2%	5.4%	4.9%	12.6%	12.3%
2013	3,322	508	351	2,639	6,819	2013	20.7%	0.0%	8.7%	19.9%	17.9%
2014	3,524	506	368	2,894	7,292	2014	6.1%	-0.4%	4.8%	9.7%	6.9%
2015	3,493	523	383	3,078	7,477	2015	-0.9%	3.4%	4.1%	6.4%	2.5%
2016	3,708	561	397	3,350	8,015	2016	6.2%	7.3%	3.7%	8.8%	7.2%
2017	4,279	548	417	4,196	9,439	2017	15.4%	-2.3%	5.0%	25.3%	17.8%
2018	3,994	568	429	4,143	9,135	2018	-6.7%	3.6%	2.9%	-1.3%	-3.2%
2019	4,820	558	468	5,103	10,949	2019	20.7%	-1.8%	9.1%	23.2%	19.9%
2020	5,455	685	523	5,669	12,333	2020	13.2%	22.8%	11.8%	11.1%	12.6%
2021	6,210	676	557	6,470	13,913	2021	13.8%	-1.3%	6.5%	14.1%	12.8%
Average	3,508	516	382	3,211	7,617						
Y/Y % Change	13.8%	-1.3%	6.5%	14.1%	12.8%						
5-Year CAGR	7.7%	4.3%	6.0%	9.0%	8.1%						
10-Year CAGR	8.5%	2.9%	5.6%	11.4%	9.2%						

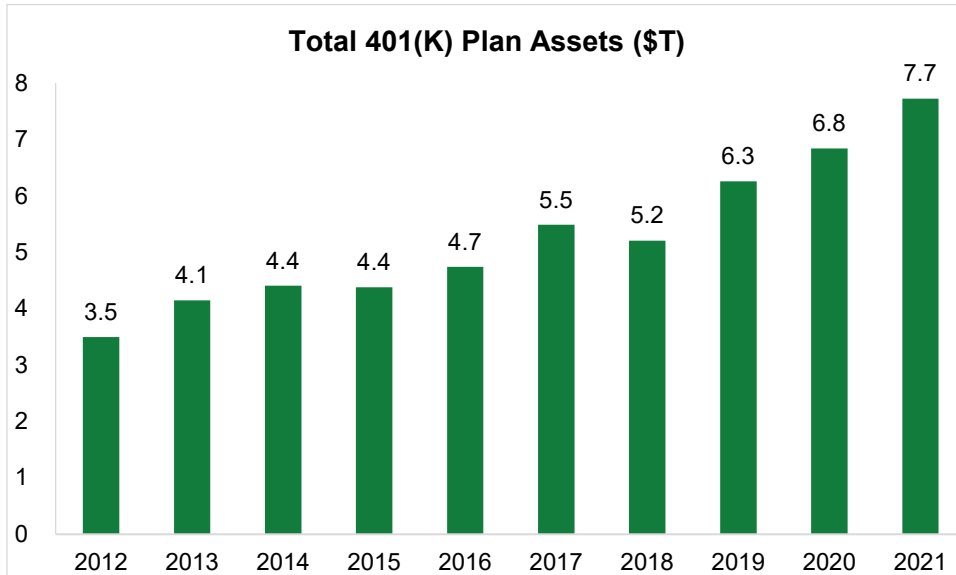
% of Total IRA Assets

	MFs	Deposits	Annuities	Other
2007	51.3%	7.2%	6.4%	35.2%
2008	46.0%	10.6%	8.0%	35.4%
2009	47.1%	9.6%	6.5%	36.8%
2010	48.1%	9.2%	6.2%	36.5%
2011	46.7%	9.4%	6.0%	37.9%
2012	47.6%	8.8%	5.6%	38.0%
2013	48.7%	7.4%	5.1%	38.7%
2014	48.3%	6.9%	5.0%	39.7%
2015	46.7%	7.0%	5.1%	41.2%
2016	46.3%	7.0%	5.0%	41.8%
2017	45.3%	5.8%	4.4%	44.5%
2018	43.7%	6.2%	4.7%	45.4%
2019	44.0%	5.1%	4.3%	46.6%
2020	44.2%	5.6%	4.2%	46.0%
2021	44.6%	4.9%	4.0%	46.5%
Average	46.6%	7.4%	5.4%	40.7%
Y/Y % Change	0.4%	-0.7%	-0.2%	0.5%

Source: Investment Company Institute

Note: Bank and thrift deposits include Keogh deposits; 2020 and 2021 data are estimates. Other was not identified

US 401(K) Assets



	\$ Billions
2007	2,975
2008	2,203
2009	2,718
2010	3,119
2011	3,112
2012	3,495
2013	4,148
2014	4,406
2015	4,377
2016	4,741
2017	5,486
2018	5,207
2019	6,256
2020	6,840
2021	7,725

Average	4,454
Y/Y % Change	12.9%
5-Year CAGR	7.1%
10-Year CAGR	8.3%

Source: Investment Company Institute

US Household Saving Rates versus Other Major Nations

% Disposable Household Income							% Change Y/Y						
	US	Canada	France	Germany	Japan	UK		US	Canada	France	Germany	Japan	UK
2007	3.5%	2.2%	9.4%	10.7%	3.5%	4.2%							
2008	4.8%	3.3%	9.3%	10.9%	3.4%	2.9%	2008	1.3%	1.1%	-0.2%	0.2%	-0.1%	-1.3%
2009	6.1%	4.5%	10.6%	10.4%	4.3%	5.8%	2009	1.3%	1.2%	1.3%	-0.5%	0.9%	2.9%
2010	6.5%	4.3%	10.5%	10.3%	3.3%	6.2%	2010	0.4%	-0.2%	-0.1%	-0.1%	-1.0%	0.3%
2011	7.0%	4.2%	9.9%	10.0%	3.6%	3.7%	2011	0.5%	-0.1%	-0.5%	-0.3%	0.3%	-2.5%
2012	8.9%	4.7%	10.0%	9.7%	2.3%	3.1%	2012	1.8%	0.6%	0.1%	-0.4%	-1.2%	-0.6%
2013	6.3%	4.7%	8.5%	9.3%	0.1%	2.4%	2013	-2.5%	0.0%	-1.5%	-0.4%	-2.3%	-0.7%
2014	7.3%	3.5%	8.9%	9.8%	-0.8%	2.5%	2014	1.0%	-1.2%	0.3%	0.5%	-0.8%	0.1%
2015	7.8%	4.1%	8.3%	10.1%	0.1%	3.6%	2015	0.5%	0.5%	-0.5%	0.2%	0.9%	1.1%
2016	7.2%	1.6%	8.2%	10.2%	1.9%	0.6%	2016	-0.6%	-2.5%	-0.1%	0.1%	1.8%	-3.0%
2017	7.5%	1.9%	8.4%	10.6%	1.6%	-1.3%	2017	0.3%	0.2%	0.2%	0.4%	-0.3%	-1.9%
2018	7.9%	0.7%	8.7%	11.3%	1.8%	-1.5%	2018	0.4%	-1.2%	0.3%	0.7%	0.2%	-0.2%
2019	7.9%	2.0%	9.2%	10.8%	3.2%	-1.6%	2019	0.0%	1.4%	0.6%	-0.5%	1.5%	-0.1%
2020	17.1%	14.4%	15.7%	16.1%	12.1%	7.5%	2020	9.2%	12.4%	6.5%	5.3%	8.8%	9.1%
2021	12.3%	10.8%	19.0%	15.0%	8.5%	12.2%	2021	-4.8%	-3.6%	3.3%	-1.1%	-3.6%	4.7%
Average	7.9%	4.5%	10.3%	11.0%	3.3%	3.4%							
Y/Y Change	-4.8%	-3.6%	3.3%	-1.1%	-3.6%	4.7%							

Source: OECD Database, OECD Economic Outlook

Note: Net savings rate; actual data in black, forecast in grey

US Economic Indicators

						% Change Y/Y				
						Nominal				
	CPI	UE Rate	Savings Rate	Nominal GDP (\$B)	Real GDP (\$B)	CPI	UE Rate	Savings Rate	Nominal GDP (\$B)	Real GDP (\$B)
2007	4.1%	4.6%	3.7%	14,451.9	15,626.0					
2008	0.1%	5.8%	5.0%	14,712.8	15,604.7	2008	-4.0%	1.2%	1.3%	-0.1%
2009	2.7%	9.3%	6.1%	14,448.9	15,208.8	2009	2.6%	3.5%	1.1%	-1.8%
2010	1.5%	9.6%	6.5%	14,992.1	15,598.8	2010	-1.2%	0.3%	0.4%	3.8%
2011	3.0%	9.0%	7.2%	15,542.6	15,840.7	2011	1.5%	-0.7%	0.7%	3.7%
2012	1.7%	8.1%	8.9%	16,197.0	16,197.0	2012	-1.2%	-0.9%	1.7%	4.2%
2013	1.5%	7.4%	6.4%	16,784.9	16,495.4	2013	-0.2%	-0.7%	-2.5%	3.6%
2014	0.8%	6.2%	7.4%	17,527.3	16,912.0	2014	-0.7%	-1.2%	1.0%	4.4%
2015	0.7%	5.3%	7.5%	18,238.3	17,432.2	2015	0.0%	-0.9%	0.1%	4.1%
2016	2.1%	4.9%	6.9%	18,745.1	17,730.5	2016	1.3%	-0.4%	-0.6%	2.8%
2017	2.1%	4.4%	7.2%	19,543.0	18,144.1	2017	0.0%	-0.5%	0.3%	4.3%
2018	1.9%	3.9%	7.8%	20,611.9	18,687.8	2018	-0.2%	-0.4%	0.6%	5.5%
2019	2.3%	3.7%	7.5%	21,433.2	19,091.7	2019	0.4%	-0.2%	-0.3%	4.0%
2020	1.4%	8.1%	16.4%	20,936.6	18,426.1	2020	-0.9%	4.4%	8.9%	-2.3%
2021	7.0%	5.4%	12.2%	22,996.1	19,427.3	2021	5.6%	-2.7%	-4.2%	9.8%
Average	2.2%	6.4%	7.8%	17,810.8	17,094.9					
Y/Y % Change	5.6%	-2.7%	-4.2%	9.8%	5.4%					
5-Year CAGR				3.3%	1.4%					
10-Year CAGR				3.6%	1.8%					

Source: U.S. Bureau of Economic Analysis; U.S. Department of Labor

Note: CPI, unemployment not seasonally adjusted. CPI = consumer price index, % change Y/Y. UE = unemployment rate for civilians. Savings rate = personal, % of disposable income. GDP = gross domestic product, real GDP = 2012

US Federal Receipts, Outlays, Deficit, and Debt – Value

	\$ Billions					
	GDP	Receipts	Outlays	Surplus/ (Deficit)	Total Debt	Debt Held by Public
2007	14,305.4	2,568.0	2,728.7	-160.7	8,950.7	5,035.1
2008	14,796.6	2,524.0	2,982.5	-458.6	9,986.1	5,803.1
2009	14,467.3	2,105.0	3,517.7	-1,412.7	11,875.9	7,544.7
2010	14,884.4	2,162.7	3,457.1	-1,294.4	13,528.8	9,018.9
2011	15,466.5	2,303.5	3,603.1	-1,299.6	14,764.2	10,128.2
2012	16,109.4	2,450.0	3,537.0	-1,087.0	16,050.9	11,281.1
2013	16,665.1	2,775.1	3,454.6	-679.5	16,719.4	11,982.7
2014	17,370.8	3,021.5	3,506.1	-484.6	17,794.5	12,779.9
2015	18,086.1	3,249.9	3,688.4	-438.5	18,120.1	13,116.7
2016	18,536.1	3,268.0	3,852.6	-584.7	19,539.5	14,167.6
2017	19,250.9	3,316.2	3,981.6	-665.4	20,205.7	14,665.4
2018	20,294.6	3,329.9	4,109.0	-779.1	21,462.3	15,749.6
2019	21,152.3	3,463.4	4,447.0	-983.6	22,669.5	16,800.7
2020	20,948.0	3,421.2	6,553.6	-3,132.4	26,902.5	21,016.7
2021	22,357.6	4,047.1	6,822.4	-2,775.3	28,385.6	22,284.0
Average	17,646.1	2,933.7	4,016.1	-1,082.4	17,797.0	12,758.3
Y/Y % Change	6.7%	18.3%	4.1%	-11.4%	5.5%	6.0%
5-Year CAGR	3.0%	4.1%	11.4%	33.1%	7.0%	8.7%
10-Year CAGR	3.3%	5.1%	6.8%	9.8%	5.9%	7.0%

	% Change Y/Y					
	GDP	Receipts	Outlays	Surplus/ (Deficit)	Total Debt	Debt Held by Public
2008	3.4%	-1.7%	9.3%	185.4%	11.6%	15.3%
2009	-2.2%	-16.6%	17.9%	208.0%	18.9%	30.0%
2010	2.9%	2.7%	-1.7%	-8.4%	13.9%	19.5%
2011	3.9%	6.5%	4.2%	0.4%	9.1%	12.3%
2012	4.2%	6.4%	-1.8%	-16.4%	8.7%	11.4%
2013	3.4%	13.3%	-2.3%	-37.5%	4.2%	6.2%
2014	4.2%	8.9%	1.5%	-28.7%	6.4%	6.7%
2015	4.1%	7.6%	5.2%	-9.5%	1.8%	2.6%
2016	2.5%	0.6%	4.5%	33.3%	7.8%	8.0%
2017	3.9%	1.5%	3.3%	13.8%	3.4%	3.5%
2018	5.4%	0.4%	3.2%	17.1%	6.2%	7.4%
2019	4.2%	4.0%	8.2%	26.2%	5.6%	6.7%
2020	-1.0%	-1.2%	47.4%	218.5%	18.7%	25.1%
2021	6.7%	18.3%	4.1%	-11.4%	5.5%	6.0%

Source: Economic Report of the President

Note: Fiscal year data. GDP = gross domestic product

US Federal Receipts, Outlays, Deficit, and Debt – % of GDP

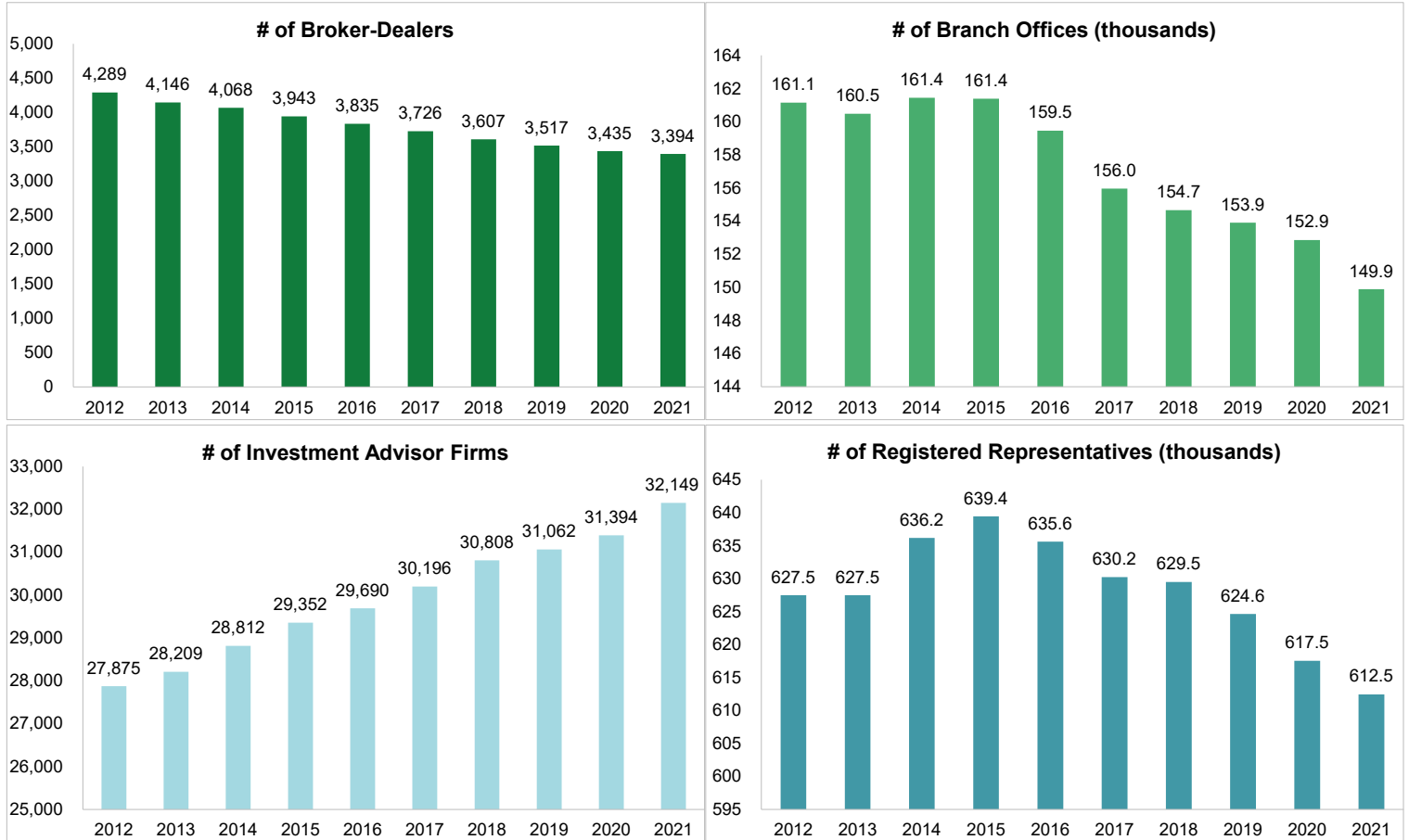
	Debt/GDP	
	Total Debt	Debt Held by Public
2007	62.6%	35.2%
2008	67.5%	39.2%
2009	82.1%	52.2%
2010	90.9%	60.6%
2011	95.5%	65.5%
2012	99.6%	70.0%
2013	100.3%	71.9%
2014	102.4%	73.6%
2015	100.2%	72.5%
2016	105.4%	76.4%
2017	105.0%	76.2%
2018	105.8%	77.6%
2019	107.2%	79.4%
2020	128.4%	100.3%
2021	127.0%	99.7%
Average	98.7%	70.0%
Y/Y % Change	-1.5%	-0.7%

Source: Economic Report of the President

Note: Fiscal year data. GDP = gross domestic product

Section V: US Securities Industry

FINRA Registered Firms and Representatives – Charts



Source: FINRA

Note: Includes all FINRA registered broker-dealers doing business in the U.S.

FINRA Registered Firms and Registered Representatives – Values

Total					% Change Y/Y				
	Broker-Dealers	Branch Offices	Investment Advisor Firms	Registered Representatives		Broker-Dealers	Branch Offices	Investment Advisor Firms	Registered Representatives
2007	5,002	171,286		669,794					
2008	4,896	171,659		662,899	2008	-2.1%	0.2%		-1.0%
2009	4,717	166,699		630,904	2009	-3.7%	-2.9%		-4.8%
2010	4,577	162,711		628,462	2010	-3.0%	-2.4%		-0.4%
2011	4,455	160,403		627,067	2011	-2.7%	-1.4%		-0.2%
2012	4,289	161,149	27,875	627,492	2012	-3.7%	0.5%		0.1%
2013	4,146	160,478	28,209	627,488	2013	-3.3%	-0.4%	1.2%	0.0%
2014	4,068	161,446	28,812	636,178	2014	-1.9%	0.6%	2.1%	1.4%
2015	3,943	161,392	29,352	639,442	2015	-3.1%	0.0%	1.9%	0.5%
2016	3,835	159,464	29,690	635,625	2016	-2.7%	-1.2%	1.2%	-0.6%
2017	3,726	155,967	30,196	630,235	2017	-2.8%	-2.2%	1.7%	-0.8%
2018	3,607	154,661	30,808	629,499	2018	-3.2%	-0.8%	2.0%	-0.1%
2019	3,517	153,907	31,062	624,644	2019	-2.5%	-0.5%	0.8%	-0.8%
2020	3,435	152,861	31,394	617,531	2020	-2.3%	-0.7%	1.1%	-1.1%
2021	3,394	149,887	32,149	612,457	2021	-1.2%	-1.9%	2.4%	-0.8%
Average	4,107.1	160,264.7	29,954.7	633,314.5					
Y/Y % Change	-1.2%	-1.9%	2.4%	-0.8%					
5-Year CAGR	-1.8%	-0.8%	1.3%	-0.6%					
10-Year CAGR	-2.3%	-0.7%	1.4%	-0.2%					

Source: FINRA

Note: Includes all FINRA registered broker-dealers doing business in the U.S.

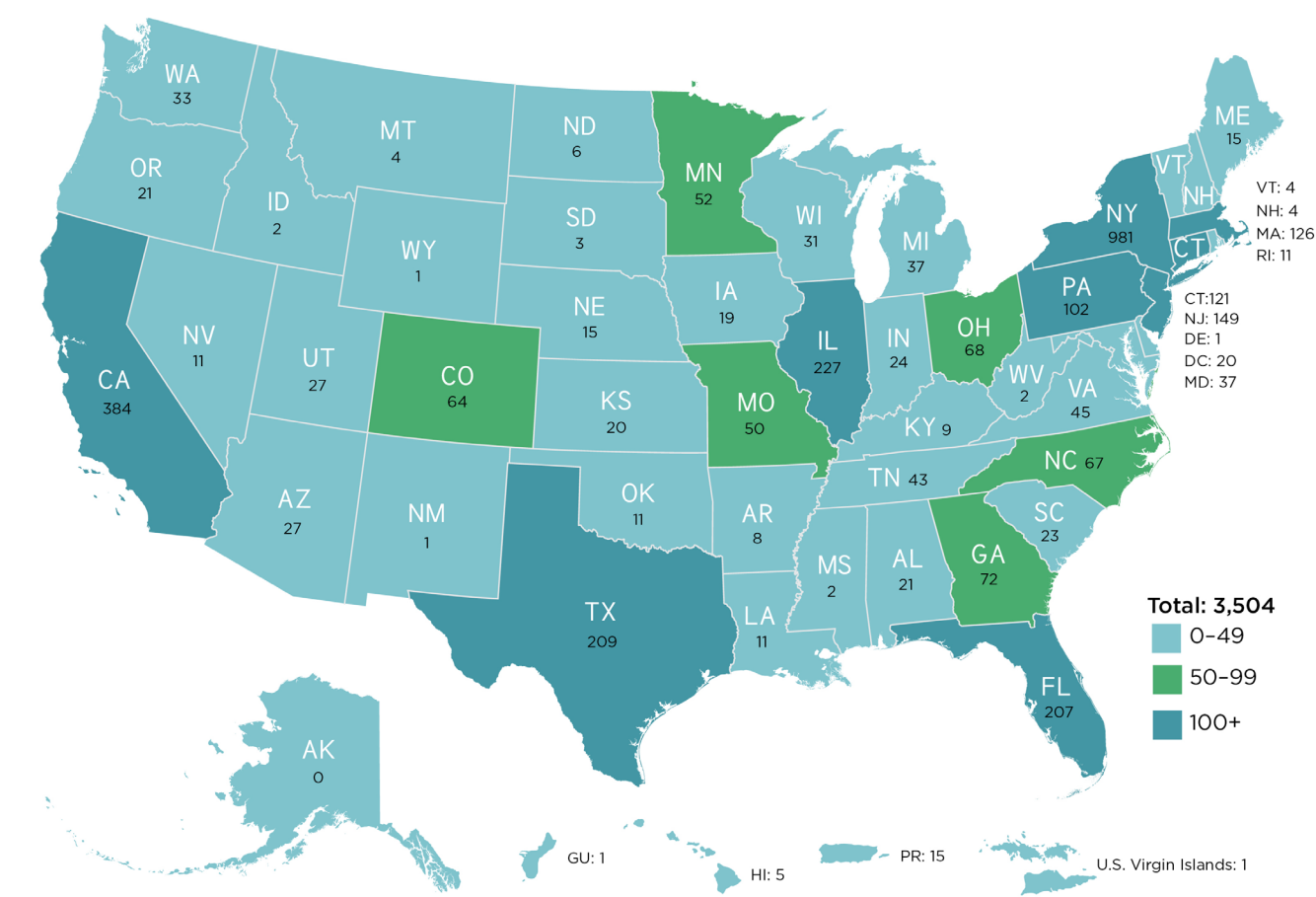
US Securities Industry Employment

	Thousands				% Change Y/Y				% of Total	
	US	NYS	NYC		US	NYS	NYC		NYS	NYC
2007	909.4	214.6	191.8					2007	23.6%	21.1%
2008	907.8	204.4	182.8	2008	-0.2%	-4.8%	-4.7%	2008	22.5%	20.1%
2009	854.2	187.0	165.3	2009	-5.9%	-8.5%	-9.6%	2009	21.9%	19.4%
2010	852.7	192.1	169.8	2010	-0.2%	2.7%	2.7%	2010	22.5%	19.9%
2011	862.7	192.8	171.6	2011	1.2%	0.4%	1.1%	2011	22.3%	19.9%
2012	858.1	188.6	167.9	2012	-0.5%	-2.2%	-2.2%	2012	22.0%	19.6%
2013	872.6	189.2	168.2	2013	1.7%	0.3%	0.2%	2013	21.7%	19.3%
2014	892.3	193.4	171.3	2014	2.3%	2.2%	1.8%	2014	21.7%	19.2%
2015	923.6	198.3	176.5	2015	3.5%	2.5%	3.0%	2015	21.5%	19.1%
2016	931.4	198.1	176.6	2016	0.8%	-0.1%	0.1%	2016	21.3%	19.0%
2017	944.9	201.4	179.0	2017	1.4%	1.7%	1.4%	2017	21.3%	18.9%
2018	962.2	202.7	182.6	2018	1.8%	0.6%	2.0%	2018	21.1%	19.0%
2019	967.3	203.6	183.3	2019	0.5%	0.4%	0.4%	2019	21.0%	18.9%
2020	972.2	199.5	179.8	2020	0.5%	-2.0%	-1.9%	2020	20.5%	18.5%
2021	1,016.9	201.1	180.3	2021	4.6%	0.8%	0.3%	2021	19.8%	17.7%
Average	915.2	197.8	176.5					Average	21.6%	19.3%
Y/Y % Change	4.6%	0.8%	0.3%					Y/Y % Change	-0.7%	-0.8%
5-Year CAGR	1.8%	0.3%	0.4%							
10-Year CAGR	1.7%	0.4%	0.5%							

Source: U.S. Department of Labor, Bureau of Labor Statistics

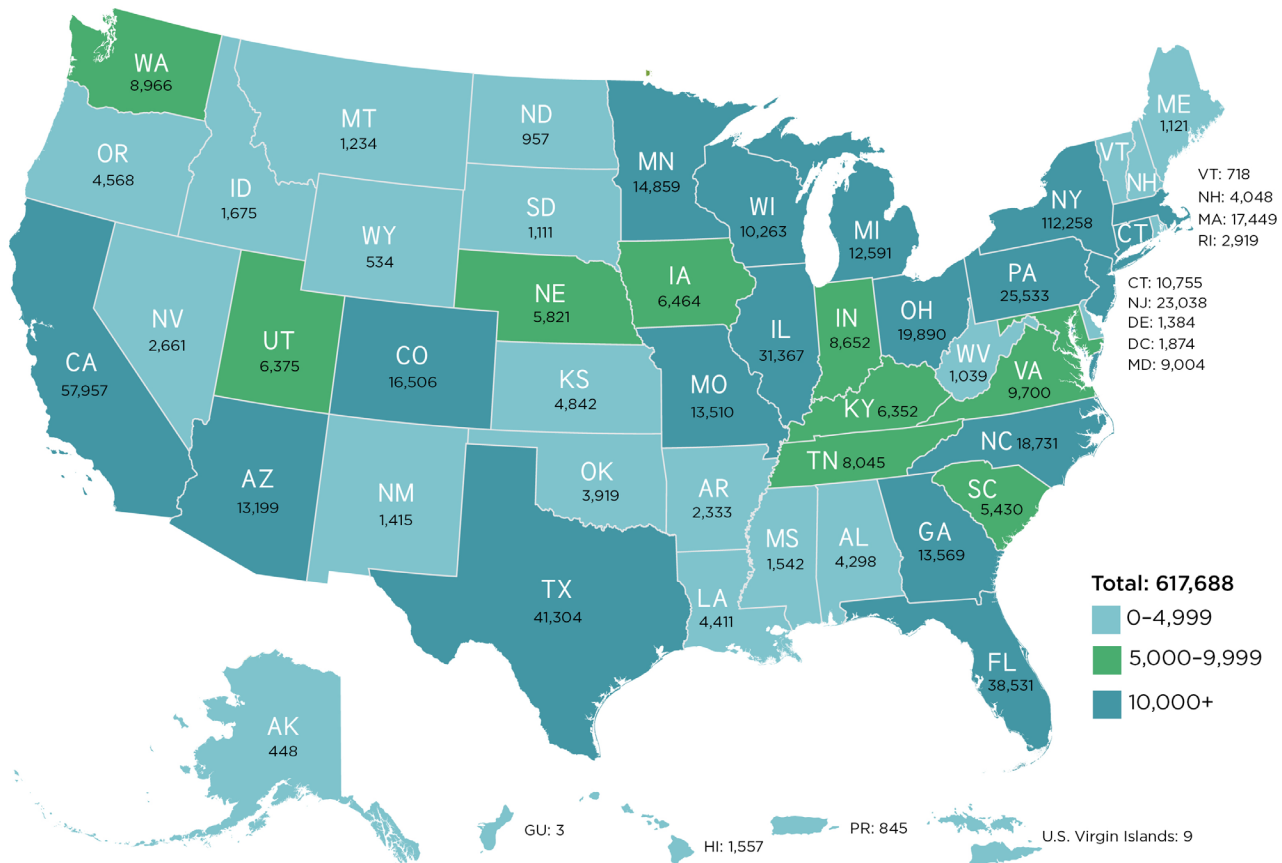
Note: Year end data, not seasonally adjusted, as per NAICS code 523; nationwide data is based on securities, commodity contracts, investments, and funds and trusts industry while state and city data is based on financial investments and related activities including financial vehicles industry. NYS = New York State, NYC = New York City

FINRA Registered Broker-Dealers by State – Map



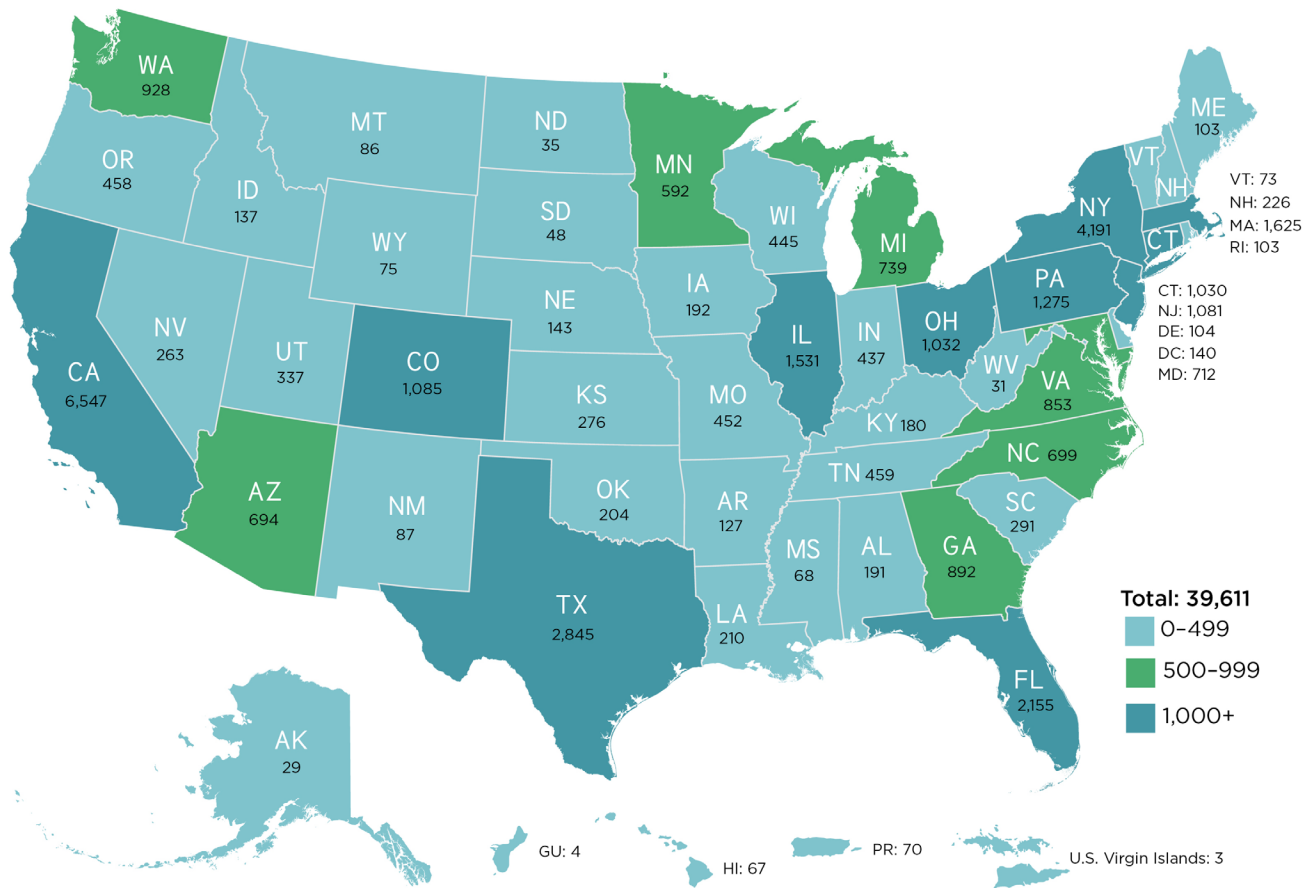
Note: Based on main office location. Totals differ from FINRA-reported data due to data source.
Source: Discovery Data

FINRA Registered Representatives by State – Map



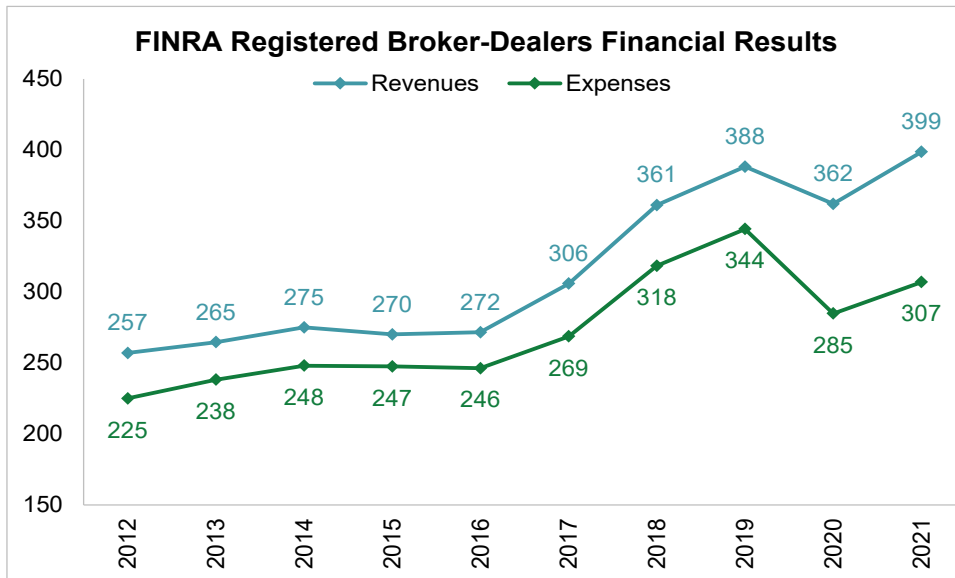
Note: Based on branch office location. Totals differ from FINRA-reported data due to data source.
Source: Discovery Data

SEC and State Registered Investment Advisors by State – Map



Note: Based on main office location. Includes both SEC- and state-registered investment advisors.
Source: Discovery Data

FINRA Registered Broker-Dealer Financial Results – Chart



Source: FINRA Financial and Operational Combined Uniform Single (FOCUS) Reports

FINRA Registered Broker-Dealer Financial Results – Value

	\$ Billions			# Firms
	Revenues	Expenses	Pre-Tax Net Income	
2007	474.2	473.4	0.8	5,002
2008	290.5	324.7	-34.1	4,896
2009	278.9	207.3	71.7	4,717
2010	254.8	220.0	34.8	4,577
2011	238.9	224.7	14.2	4,455
2012	256.9	224.9	32.1	4,289
2013	264.5	238.2	26.3	4,146
2014	275.0	247.9	27.0	4,068
2015	270.0	247.4	22.6	3,943
2016	271.5	246.2	25.3	3,835
2017	305.7	268.6	37.1	3,726
2018	361.1	318.3	42.8	3,607
2019	388.2	344.2	43.9	3,517
2020	362.0	284.7	77.3	3,435
2021	398.6	306.8	91.8	3,394
Average	312.7	278.5	34.2	4,107.1
Y/Y % Change	10.1%	7.8%	18.8%	-1.2%
5-Year CAGR	5.4%	2.7%	19.9%	-1.8%
10-Year CAGR	4.5%	3.2%	11.1%	-2.3%

	% Change Y/Y			
	Revenues	Expenses	Pre-Tax Net Income	# Firms
2008	-38.7%	-31.4%	-4489.8%	-2.1%
2009	-4.0%	-36.2%	-310.0%	-3.7%
2010	-8.7%	6.1%	-51.4%	-3.0%
2011	-6.2%	2.2%	-59.2%	-2.7%
2012	7.5%	0.1%	125.6%	-3.7%
2013	3.0%	5.9%	-17.8%	-3.3%
2014	4.0%	4.1%	2.6%	-1.9%
2015	-1.8%	-0.2%	-16.4%	-3.1%
2016	0.5%	-0.5%	12.0%	-2.7%
2017	12.6%	9.1%	46.4%	-2.8%
2018	18.1%	18.5%	15.4%	-3.2%
2019	7.5%	8.1%	2.7%	-2.5%
2020	-6.7%	-17.3%	75.8%	-2.3%
2021	10.1%	7.8%	18.8%	-1.2%

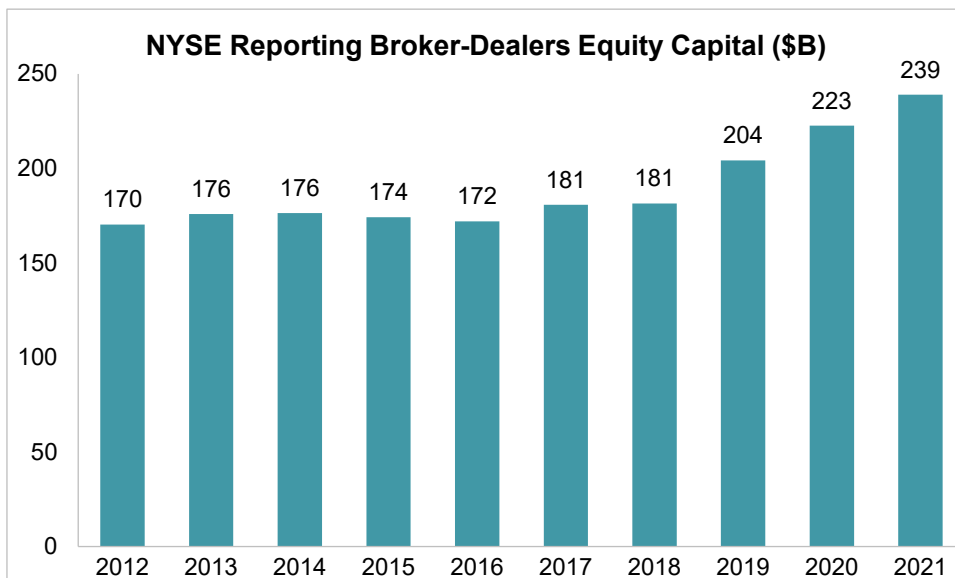
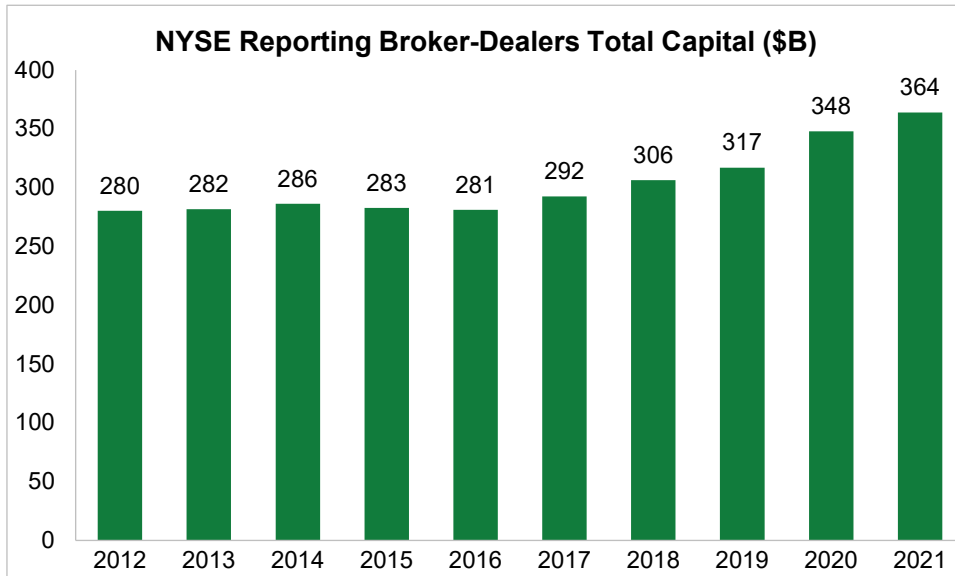
Source: FINRA Financial and Operational Combined Uniform Single (FOCUS) Reports

NYSE Member Firms Aggregate Financial Results

	\$ Millions		Percentage	
	Revenue	Pre-Tax Profit	PT Profit Margin	ROE
2007	352,048	-11,302	-3.2%	-10.4%
2008	178,068	-42,587	-23.9%	-37.9%
2009	185,267	58,576	31.6%	40.3%
2010	159,767	25,092	15.7%	15.3%
2011	147,283	7,747	5.3%	5.0%
2012	161,456	23,878	14.8%	14.0%
2013	162,359	16,719	10.3%	9.5%
2014	164,628	15,965	9.7%	9.1%
2015	161,886	14,288	8.8%	8.2%
2016	166,653	17,295	10.4%	10.1%
2017	189,702	24,526	12.9%	13.6%
2018	228,091	27,308	12.0%	15.1%
2019	250,379	28,086	11.2%	13.8%
2020	219,324	50,894	23.2%	22.9%
2021	230,590	58,358	25.3%	24.4%
Average	197,166.7	20,989.5	10.9%	10.2%
Y/Y % Change	5.1%	14.7%	2.1%	1.6%
5-Year CAGR	4.0%	18.9%		
10-Year CAGR	3.6%	9.3%		

Source: Intercontinental Exchange (ICE), FINRA

NYSE Member Firms Aggregate Total and Equity Capital – Charts



Source: Intercontinental Exchange (ICE), FINRA

NYSE Member Firms Aggregate Total and Equity Capital – Value

	\$ Billions			% Change Y/Y	
	Total Capital	Equity Capital		Total Capital	Equity Capital
2007	250.1	108.7			
2008	244.5	112.5	2008	-2.2%	3.5%
2009	256.8	145.4	2009	5.0%	29.3%
2010	280.8	164.3	2010	9.4%	13.0%
2011	267.8	154.8	2011	-4.6%	-5.8%
2012	280.1	170.3	2012	4.6%	10.0%
2013	281.5	175.8	2013	0.5%	3.3%
2014	286.2	176.3	2014	1.7%	0.3%
2015	282.6	174.2	2015	-1.3%	-1.2%
2016	281.1	172.0	2016	-0.5%	-1.3%
2017	292.3	180.7	2017	4.0%	5.1%
2018	306.2	181.4	2018	4.7%	0.4%
2019	317.0	204.2	2019	3.5%	12.6%
2020	347.9	222.6	2020	9.8%	9.0%
2021	363.7	238.9	2021	4.6%	7.3%
Average	289.2	172.1			
Y/Y % Change	4.6%	7.3%			
5-Year CAGR	4.5%	5.7%			
10-Year CAGR	2.6%	3.4%			

Sources: Intercontinental Exchange (ICE), SIFMA DataBank

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