

ETF Firms – Assets Under Management in Canada

Assets under management by firm, 2008–March 31, 2016

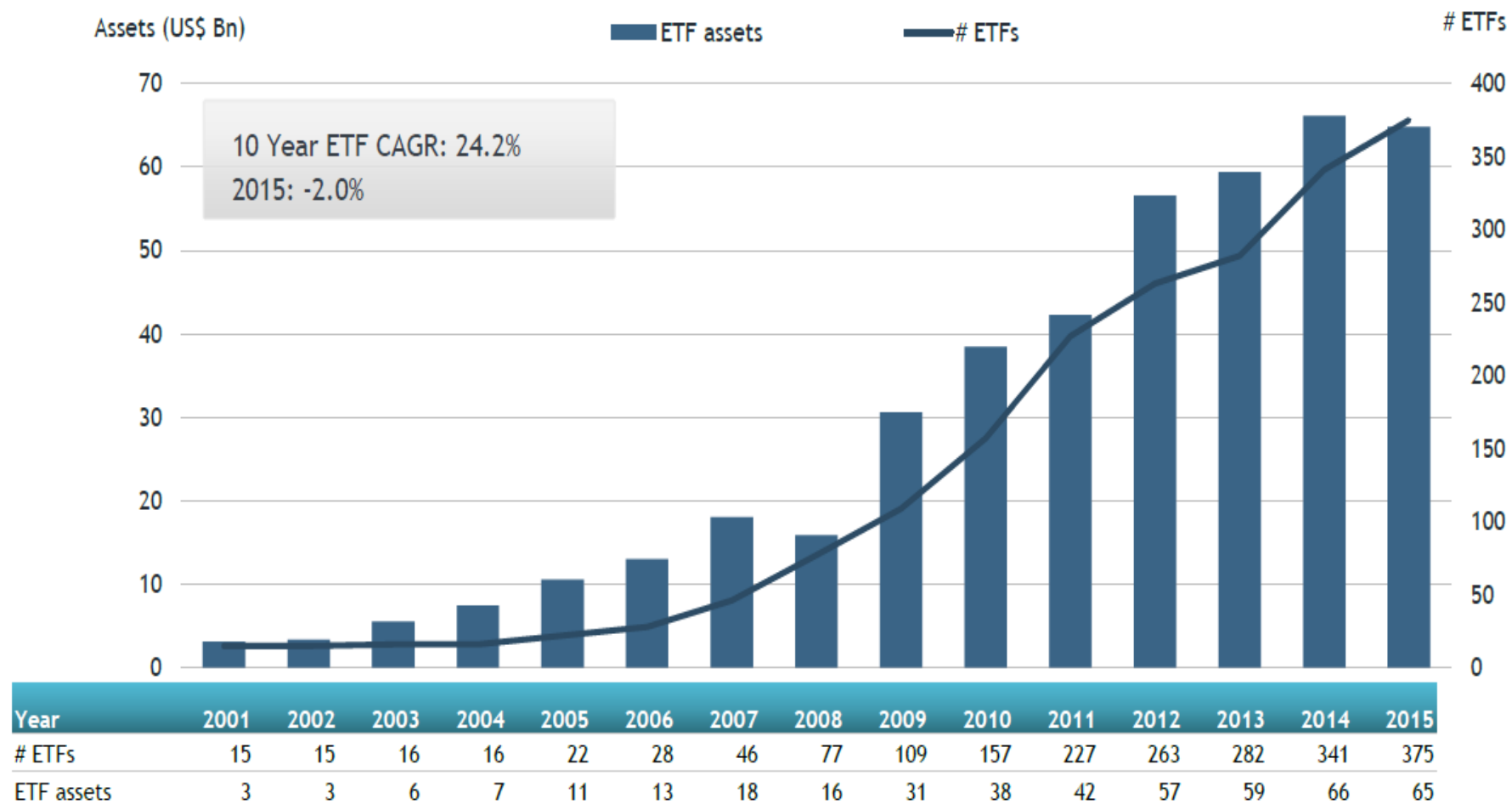
Assets in billions

2008	2009	2010	2011	2012	2013	2014	2015	Q1 2016	
iShares \$16.45	iShares \$25.44	iShares \$28.25	iShares \$29.00	iShares \$41.68	iShares \$42.05	iShares \$45.31	iShares \$46.92	iShares \$48.97	1
Horizons \$1.86	Claymore \$3.11	Claymore \$5.31	Claymore \$6.64	BMO \$9.05	BMO \$12.63	BMO \$18.76	BMO \$24.31	BMO \$26.23	2
Claymore \$1.01	Horizons \$2.46	Horizons \$2.98	BMO \$3.83	Horizons \$3.62	Horizons \$4.17	Horizons \$4.35	Vanguard \$6.57	Vanguard \$7.35	3
	BMO \$0.17	BMO \$1.50	Horizons \$3.05	PowerShares \$1.31	Vanguard \$1.78	Vanguard \$3.68	Horizons \$4.79	Horizons \$5.09	4
			PowerShares \$0.38	Vanguard \$0.47	PowerShares \$1.72	PowerShares \$2.23	PowerShares \$2.50	PowerShares \$2.74	5
			Vanguard \$0.06	RBC \$0.16	First Asset \$0.49	First Asset \$1.16	First Asset \$1.70	First Asset \$1.84	6
			RBC \$0.06	First Asset \$0.12	RBC \$0.19	RBC \$0.75	RBC \$1.53	RBC \$1.66	7
			First Asset \$0.05		Purpose \$0.13	Purpose \$0.47	Purpose \$0.81	Purpose \$0.95	8
					First Trust \$0.06	First Trust \$0.18	First Trust \$0.26	First Trust \$0.26	9
							Questrade \$0.03	Questrade \$0.04	10
							Auspice \$0.02	Lysander \$0.02	11
								Auspice \$0.01	12

Sources: Vanguard illustration using data from Morningstar, Bloomberg and Investor Economics.

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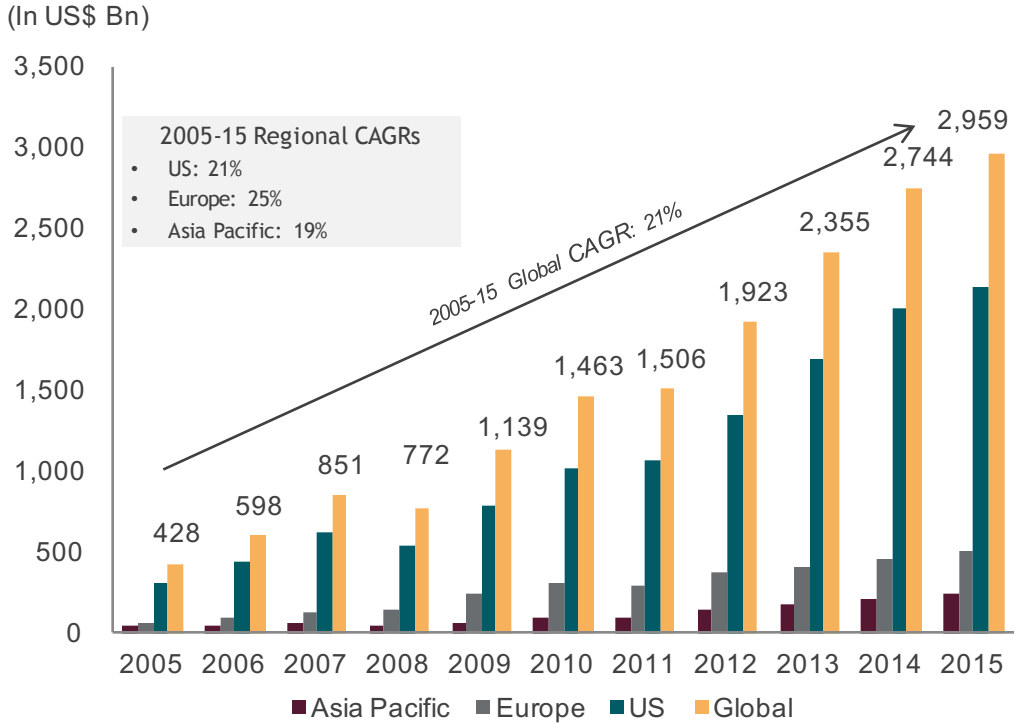
Canada ETP Market



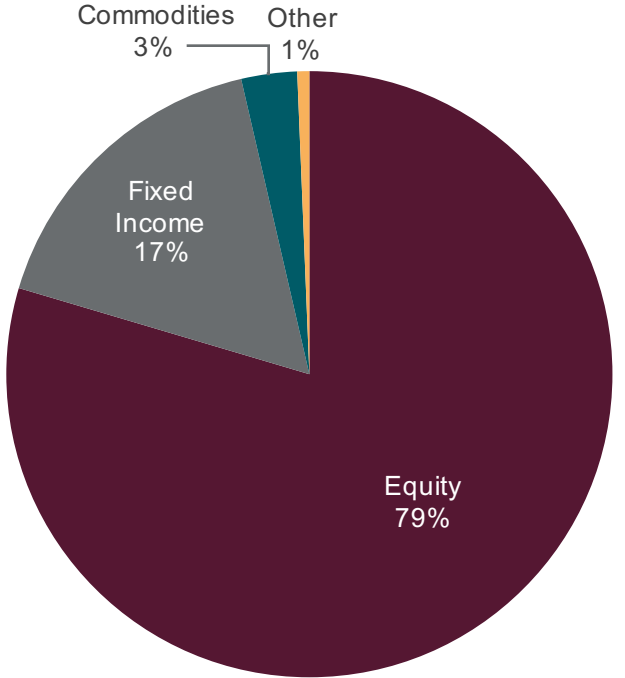
Source: ETFGI

The rapid expansion of the ETP market has increased index provider visibility and is a significant growth driver

ETP Market Growth (1)



ETP AUM by Asset Class (1)

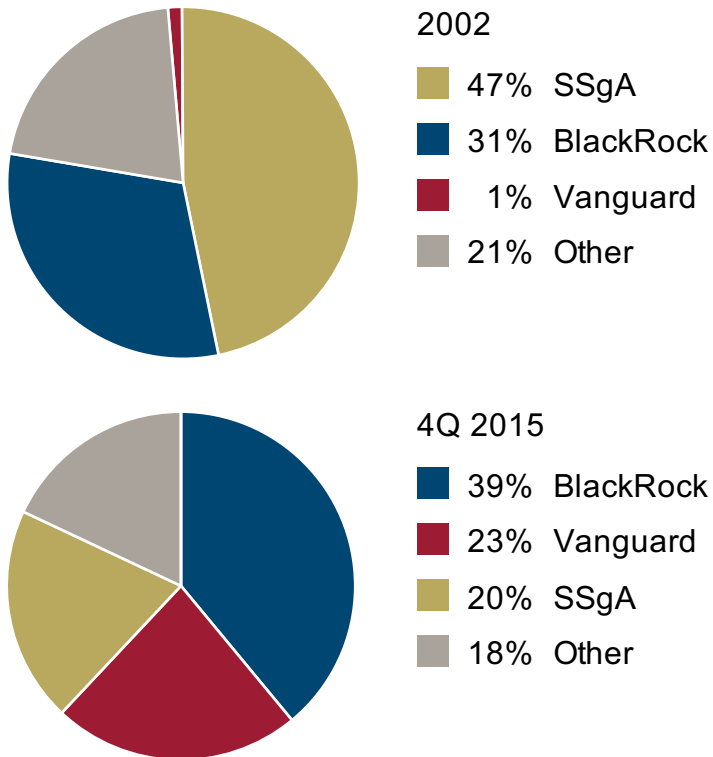


FTSE Russell share of global ETF AUM has increased c.30% since October 2012

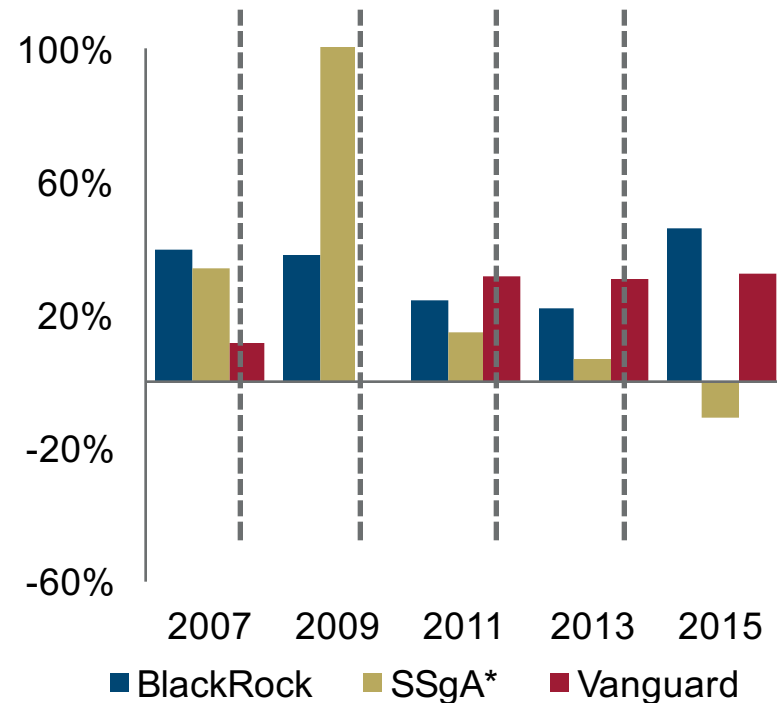
1: BlackRock ETP Landscape, December 2015

U.S. ETF Market is Dominated by 3 Sponsors

Market share of total AUM



Market share of cash flow (YTD through 4Q2015)



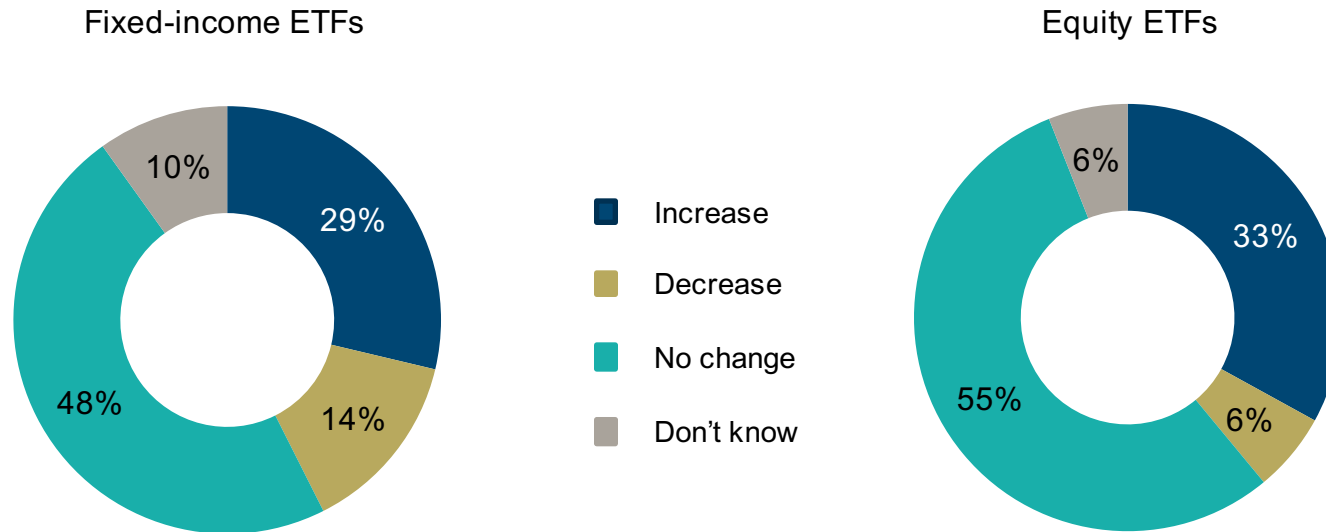
Sources: Strategic Insight, Simfund, Bloomberg, and Vanguard, as of December 31, 2015.

* Percentage below zero represents negative cash flow.

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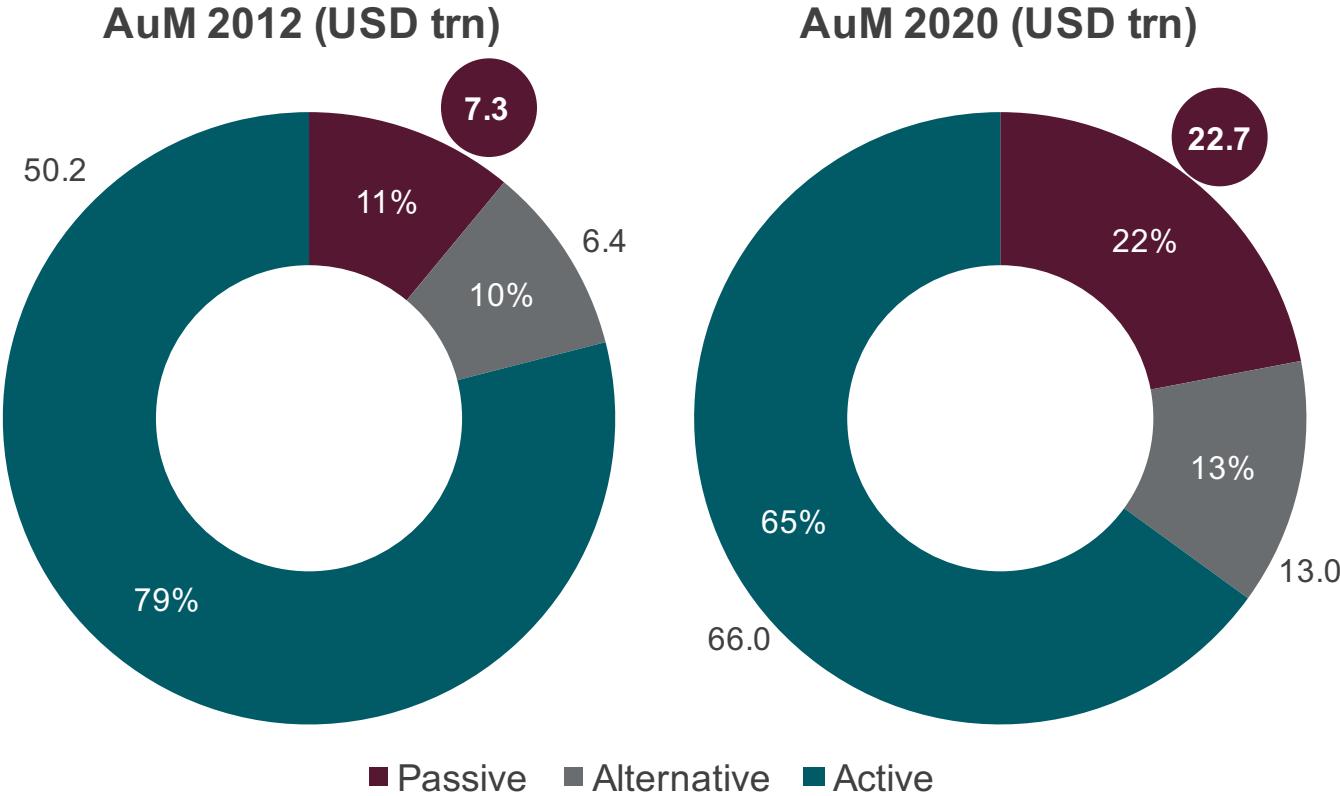
ETF usage and allocations on the rise amongst Canadian institutions

Institutions to boost ETF allocations in equities and fixed income



Note: May not total 100% due to rounding. Based on 21 responses for fixed-income ETF and 33 responses for equity ETF usage.
Source: Greenwich Associated 2015 Canadian Exchange-Traded Funds Study.

The Trend to Passive Accelerates



ETFs are driving this trend

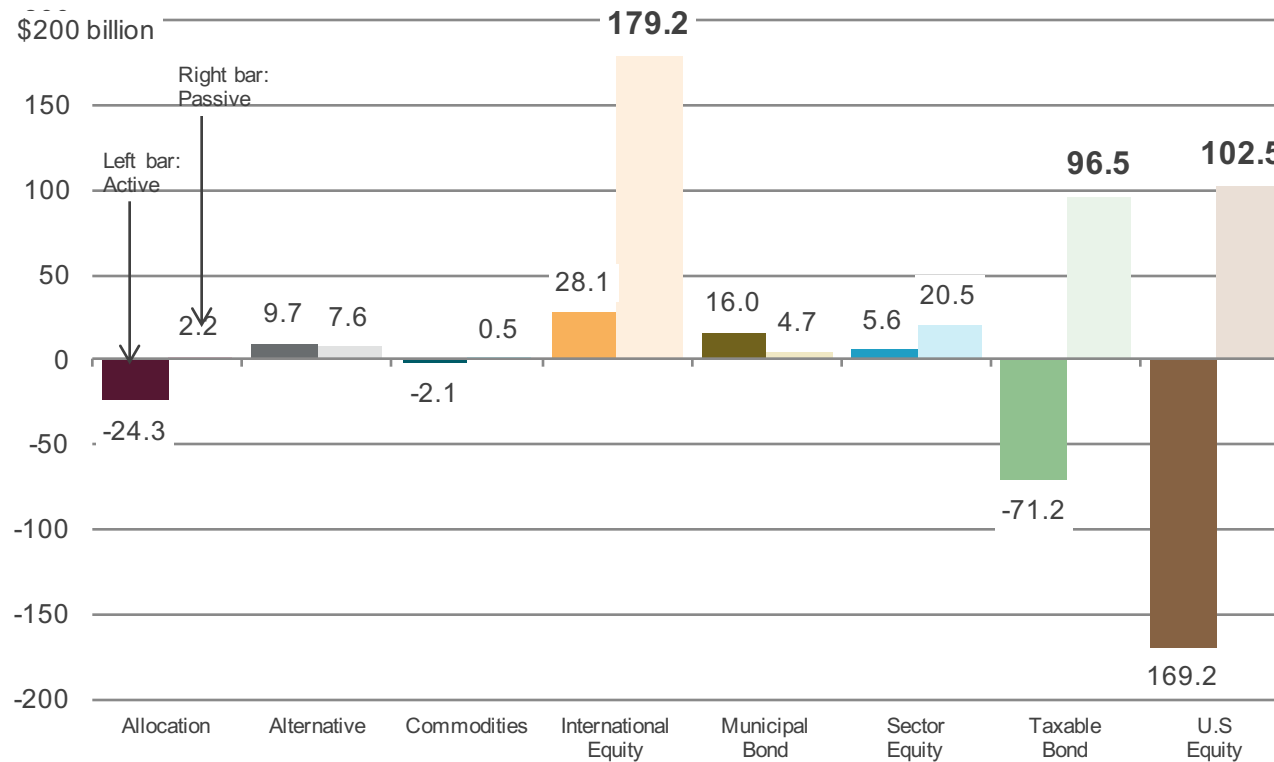
New smart beta ETFs will accelerate this trend

- Passive assets are expected to almost triple from 2012-2020 (market share doubles)
- Active asset growth expected to be much lower at 31% growth from 2012-2020 (market share decline)
- Alternatives are expected to see strong growth – 103%

Source: PwC analysis. Past data based on ICI, Lipper, Hedge Fund Research, Preqin, The City UK and Towers Watson.

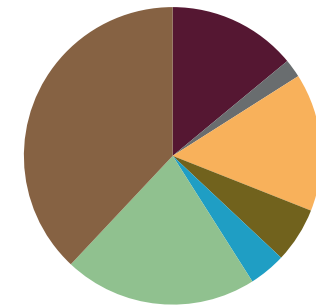
2015 Passive vs. Active Flows

2015 Mutual Fund and ETF Investment Flows by Category

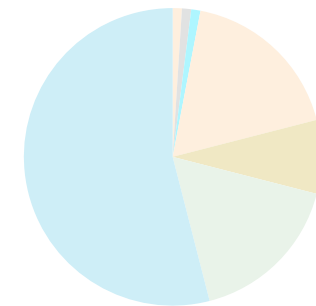


Total Net Assets

Active: \$9.4 trillion



Passive: \$4.5 trillion



- Passive flows are higher than Active in all major categories
- Passive AUM is still 50% of Active implying that there is plenty of room for growth

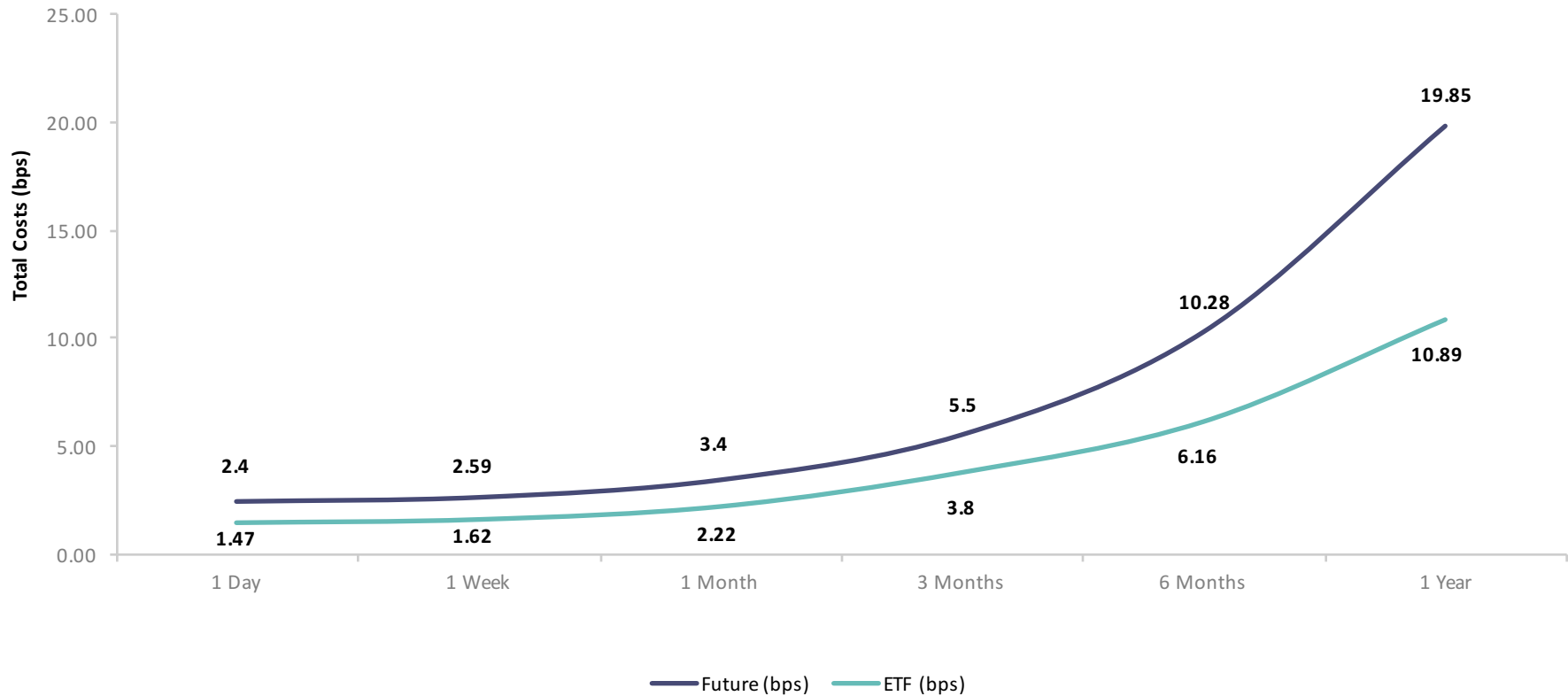
Source: Morningstar Market Observer – US intermediary Assets. Q1, 2016

How Institutions use ETFs

Application	Objective	Potential ETF Solution
Cash Equitization	Remain fully invested while maintaining liquidity	ETFs are an attractive alternative solution to futures due to their transparency, lack of documentation and roll slippage
Tactical Adjustments	Over or underweight certain market segments based on short term outlook	ETFs represent virtually every asset class and offer efficient vehicles for implementing a tactical idea
Transitions	Maintain market exposure while searching for a new manager	Invest the proceeds of a manager liquidation in an ETF which tracks the appropriate benchmark until new manager has been selected
Rebalancing	Increase the speed and efficiency of rebalancing across the asset allocation	ETFs can make rebalancing more efficient due to their intraday liquidity than moving assets from illiquid managers
Asset Class Exposure	Establish exposure to a difficult to reach market segment	There are a variety of ETFs which provide potential exposure to difficult to reach asset classes
Liquidity Management	Increase liquidity in overall asset allocation without changing allocation	Use ETFs for a given percentage of each asset class to provide a liquidity buffer across the asset allocation
Portfolio Completion	Fill any asset allocation holes without engaging a new investment manager	Use an ETF to gain potential exposure to an asset class that is underrepresented in the asset allocation
Fixed Income Duration and Credit Adjustments	Tweak duration and credit exposure to meet specified targets	Fixed Income ETFs help provide an efficient means to adjust duration and credit exposure
Taxable Institutional Plans	Implement desired asset allocation regardless of plan size	Implement an asset allocation efficiently using ETFs. Advantages include no minimum fees and simplified rebalancing.

SPY is a Cost Effective Alternative to Futures

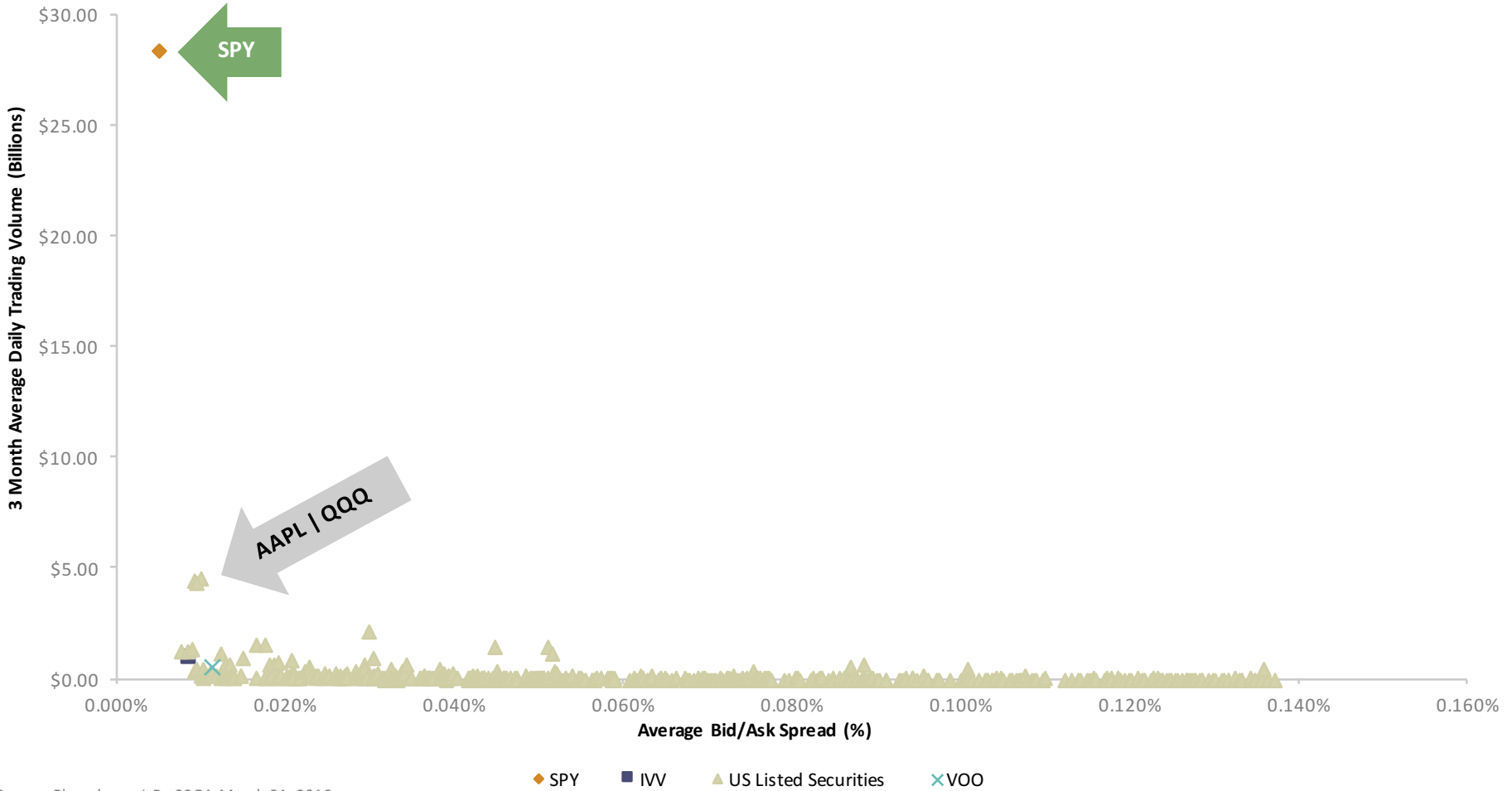
S&P 500 ETF (SPY) and S&P 500 E-Mini Futures Cost Details



Source: Bloomberg, State Street Global Markets, as of June 30, 2015. The above data illustrates the total costs of S&P 500 E-Mini futures and the SPDR S&P 500 ETF (SPY) including management fees, bid/ask spreads and commissions among other variables. All costs are indicative only. Frequent trading of ETFs could significantly increase commissions and other costs such that they may offset any savings from low fees or costs.

SPY is the Most Heavily Traded Equity Security in the World

SPY Dollar Volume versus Bid/Ask Spreads



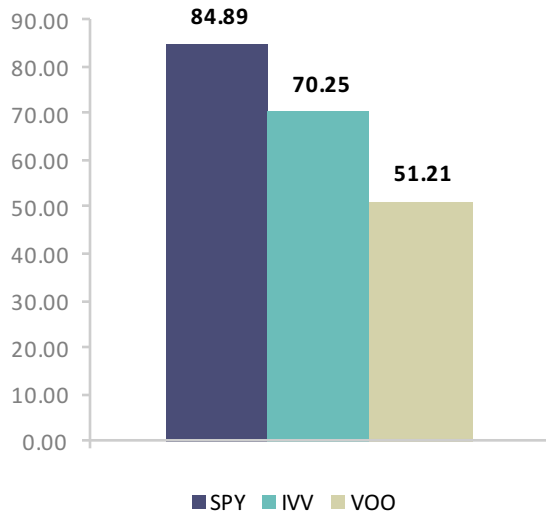
Source: Bloomberg, L.P., SSGA March 31, 2016.

The funds presented herein have different investment objectives, costs and expenses. Each fund is managed by a different investment firm, and the performance of each fund will necessarily depend on the ability of their respective managers to select portfolio investments. These differences, among others, may result in significant disparity in the funds' portfolio assets and performance. For further information on the funds, please review their respective prospectuses.

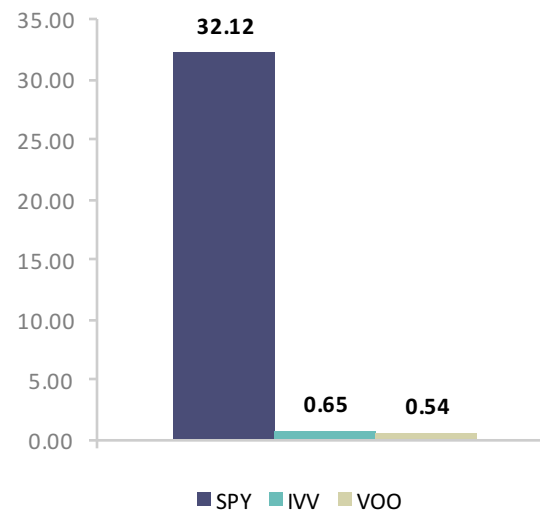
SPY is the Most Widely Held ETF by Institutions

- SPY is able to maintain a fluid and tight market as it is commonly used by investors of many types
- SPY is the most used ETF vehicle for*:
 - Institutional investors, with nearly 85% institutional ownership
 - Arbitrage investors, with over 30% of shares held short
 - Options users, with over 4,000x the amount of open interest options notional than competitors

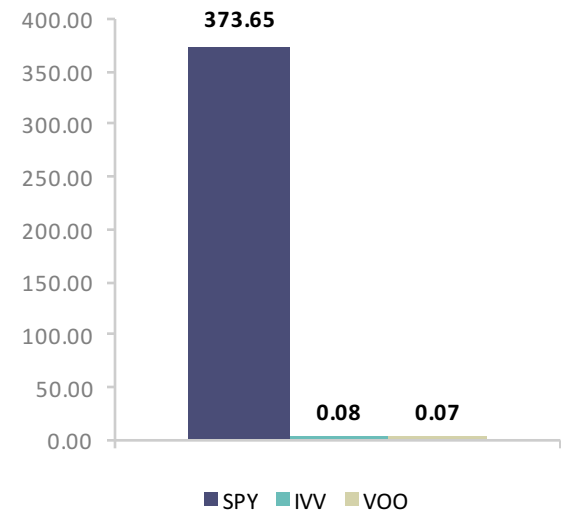
S&P 500 ETF Institutional Ownership (%)



S&P 500 ETF Short Interest (%)



S&P 500 ETF Open Interest Option Notional Value (\$B)



* Source: Bloomberg, L.P., SSGA March 31, 2016.

Important Information

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