

(R)evolution of ETFs

Niagara Institutional Dialogue

Cary Blake, Sales Executive

June 22, 2016

About Vanguard

The Vanguard Group, Inc.

- **Founded:** 1975
- **Corporate headquarters:** Valley Forge, Pennsylvania, United States
- **Total assets:** \$4.4 trillion worldwide
- **Number of products:** More than 300 mutual funds and ETFs worldwide

Vanguard Investments Canada Inc.

- **Founded:** December 2011
- **Headquarters:** Toronto, Ontario, Canada
- **Total assets:** \$7.2 billion
- **Number of products:** 23 ETFs listed on Toronto Stock Exchange

Source: The Vanguard Group, Inc. as of March 31, 2016.

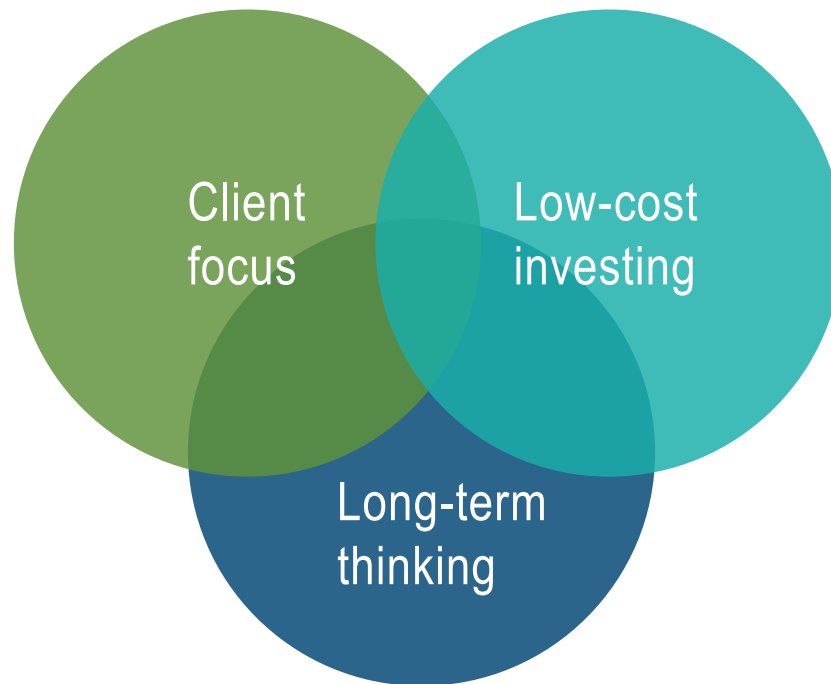
Note: All assets are in CAD.

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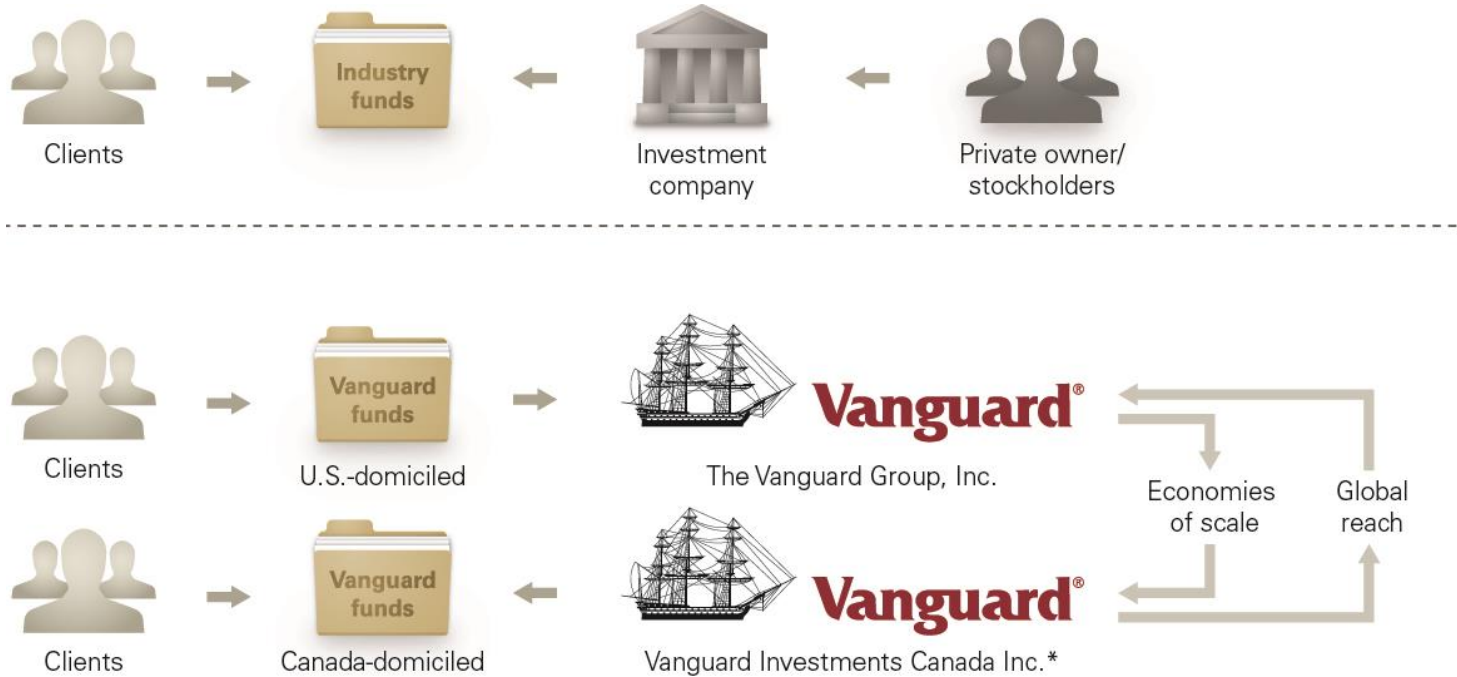
What makes us different

Our core purpose:

To take a stand for all investors, to treat them fairly,
and to give them the best chance for investment success.



Vanguard structure



* Vanguard Investments Canada Inc. is a wholly owned indirect subsidiary of The Vanguard Group, Inc.
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Low-cost and structure deliver ongoing client benefits



Overview of the ETF industry

ETF firms—assets under management

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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ETF firms—net cash flow in ETFs

Net cash flow by firm, 2008–March 31, 2016

Assets in billions

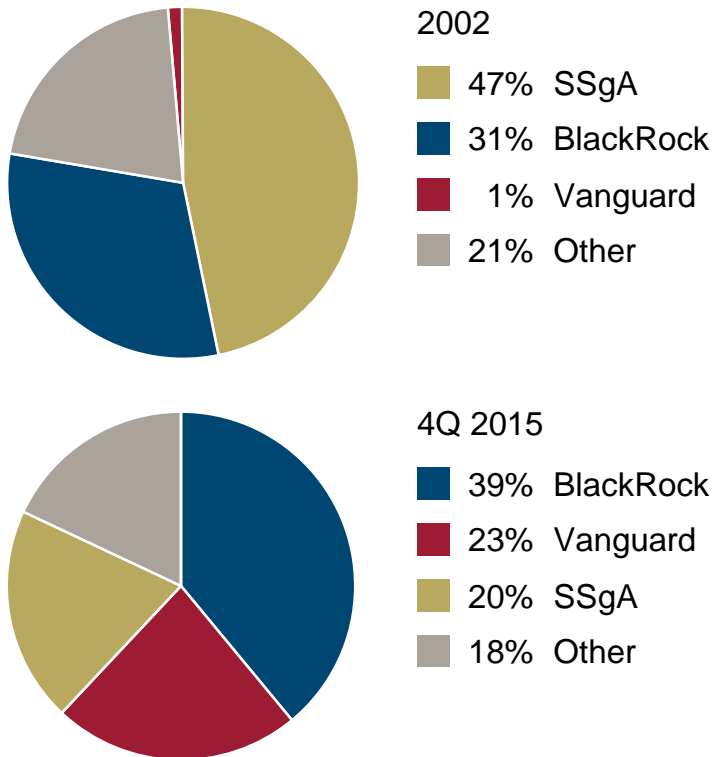
2008	2009	2010	2011	2012	2013	2014	2015	Q1 2016	
iShares \$3.43	iShares \$4.12	iShares \$1.47	BMO \$2.51	BMO \$5.00	BMO \$3.22	BMO \$5.12	BMO \$5.94	BMO \$2.12	1
Horizons \$1.09	Claymore \$1.88	BMO \$1.16	iShares \$2.35	iShares \$4.62	Vanguard \$1.17	Vanguard \$1.70	iShares \$4.71	iShares \$1.38	2
Claymore \$0.73	Horizons \$0.80	Claymore \$0.79	Claymore \$1.31	PowerShares \$0.93	Horizons \$0.66	iShares \$1.23	Vanguard \$2.79	Vanguard \$0.90	3
	BMO \$0.17	Horizons \$0.63	PowerShares \$0.38	Horizons \$0.72	PowerShares \$0.46	First Asset \$0.60	Horizons \$1.04	Horizons \$0.30	4
			Horizons \$0.33	Vanguard \$0.39	First Asset \$0.34	RBC \$0.56	RBC \$0.78	PowerShares \$0.23	5
			Vanguard \$0.06	RBC \$0.10	Purpose \$0.13	PowerShares \$0.39	First Asset \$0.49	RBC \$0.21	6
			RBC \$0.06	First Asset \$0.03	First Trust \$0.06	Horizons \$0.38	PowerShares \$0.37	Purpose \$0.10	7
			First Asset \$0.05		RBC \$0.05	Purpose \$0.33	Purpose \$0.36	First Asset \$0.02	8
					iShares (\$0.96)	First Trust \$0.12	First Trust \$0.10	Questrade \$0.01	9
							Auspice \$0.04	First Trust \$0.01	10
							Questrade \$0.03	Lysander \$0.00	11
							Lysander \$0.02	Auspice -\$0.01	12

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

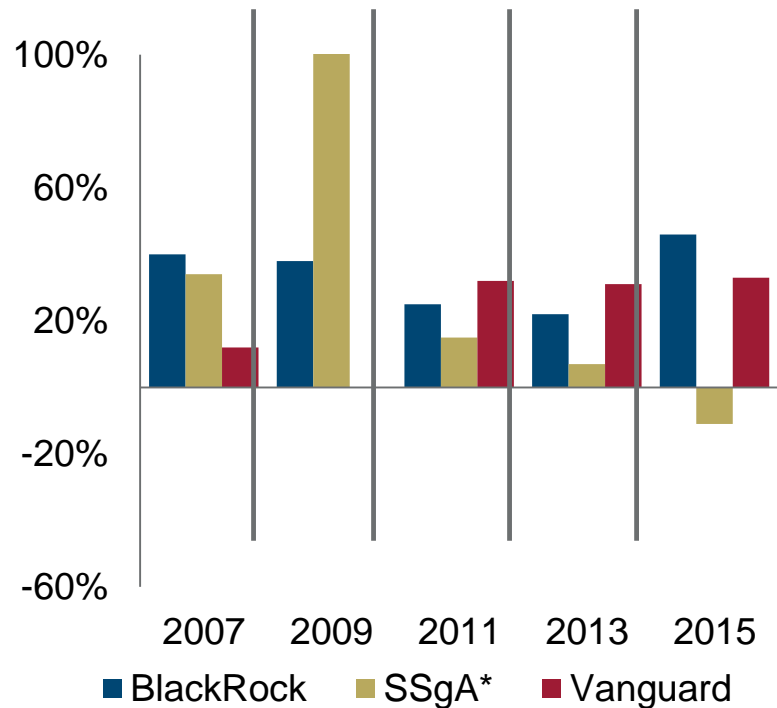
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U.S. ETF market is dominated by three sponsors

Market share of total AUM



Market share of cash flow (YTD through 4Q2015)



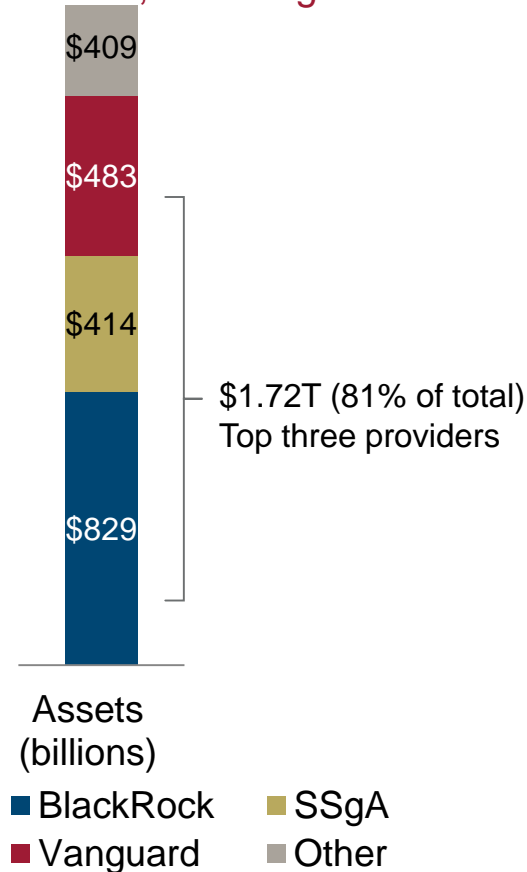
Sources: Strategic Insight, Simfund, Bloomberg, and Vanguard, as of December 31, 2015.

* Percentage below zero represents negative cash flow.

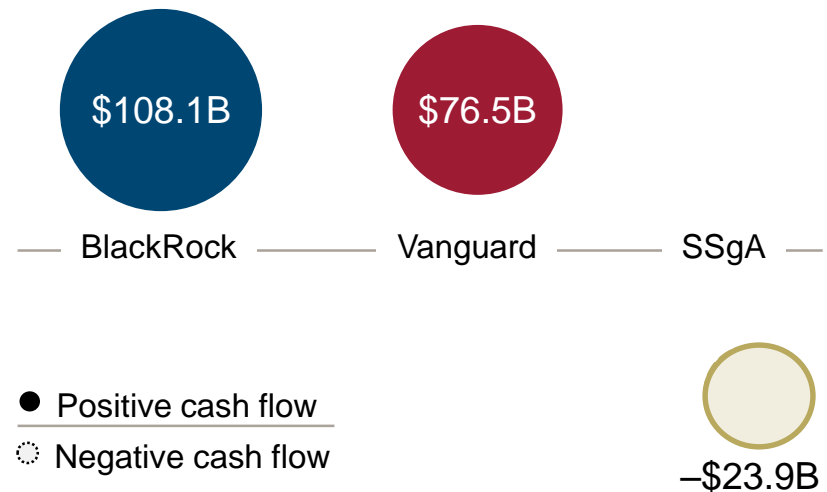
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Top three firms' assets and cash flow

ETF assets, including ETNs



Net cash flow, January—December 2015

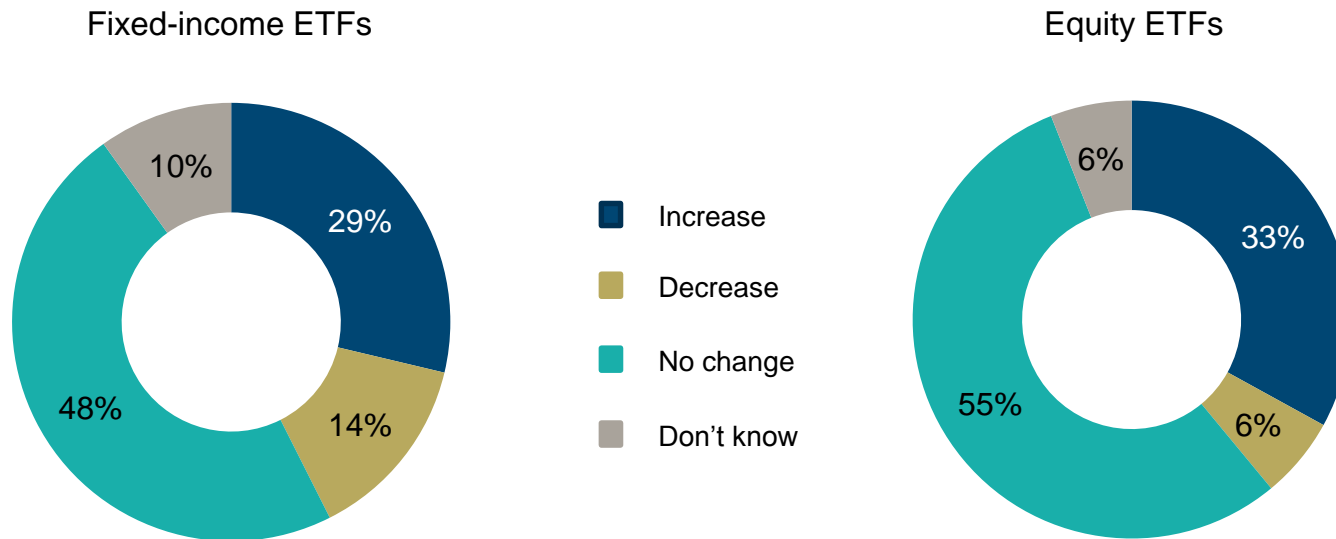


Industry-wide net cash flows, January—December 2015	
2015	\$245.2B
2014	\$241.9B

Source: Morningstar, Inc., as of December 31, 2015.

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.

Important information

Commissions, management fees, and expenses all may be associated with investments in a Vanguard ETF®. Investment objectives, risks, fees, expenses, and other important information are contained in the prospectus; please read it before investing. ETFs are not guaranteed, their values change frequently, and past performance may not be repeated. Vanguard ETFs® are managed by Vanguard Investments Canada Inc., an indirect wholly owned subsidiary of The Vanguard Group, Inc.

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