BlackRock Global ETP Landscape

Industry Highlights | December 2016



The opinions expressed are as of December 31, 2016 and may change as subsequent conditions vary.

Summary

Global ETPs Set A New Flows Record in 2016, Posting Another Year of Double Digit Organic Growth

- Global ETP flows of \$379.5bn represented 13% organic growth and exceeded last year's record of \$350.7bn, fueled by record flows for fixed income, a second-half surge in U.S. equities and renewed appetite for broad emerging markets equities
- Fixed income flows set a new annual record of \$115.0bn driven by new highs for investment grade corporate bonds, U.S. TIPS and emerging markets debt funds
- U.S. equity flows rallied in the second half of 2016 led by large caps with \$82.3bn and boosted by new annual flow records in small caps and dividend funds
- Broad emerging markets (EM) equities gathered \$26.7bn in 2016, snapping a threeyear streak of outflows, lifted by a leveling in commodities prices and a more stable U.S. dollar in the period before the U.S. Presidential election

BlackRock ETP Research

A cross-regional team analyzing global markets to deliver insights on the intersection of investment trends and ETP flows

For inquiries, please email ETPResearch@BlackRock.com

Global ETP Highlights		3
Full-year Overview	4	
Reference schedules		
ETP Flows by Listing Region		5
ETP Flows by Exposure		6

Global ETP Highlights

Global ETPs gathered \$58.3bn in December to drive 2016 full-year flows to a new record of \$379.5bn. The industry achieved organic growth of 13% reflecting record flows to fixed income ETPs, renewed appetite for broad emerging markets equity and a second-half turn-around for U.S. equities. Contrasting market conditions during the first and second halves of the year highlighted the ways investors are using ETPs to express their investment views (see below).

Record fixed income flows of \$115.0bn surpassed 2015's record flows by almost a third, representing organic growth of 24% and a third consecutive year where organic growth was greater than 20%. Persistently low interest rates bolstered investor adoption of fixed income ETPs in the first half of the year, particularly in higher yielding categories, driving new full-year flow records in **investment grade corporates** with \$32.6bn, **U.S. TIPS** with \$11.1bn, and **emerging markets debt** with \$11.0bn. **High yield corporates** also brought in \$11.2bn, near the full-year record from 2012.

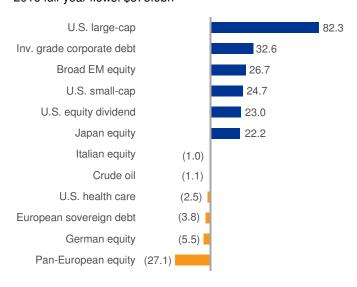
In contrast with fixed income, U.S. equity flows started the year off slowly but rallied in the second half, accelerating following Brexit and the U.S. Presidential election. **Large caps** led with full-year flows of \$82.3bn, just shy of the 2014 record, and **small caps** set a new annual flow record with \$24.7bn, as did **dividend** strategies with \$23.0bn.

Broad EM equity funds were back in favor in 2016 with durable flows throughout the year totaling \$26.7bn, snapping a streak of three consecutive years of outflows. Flows were fueled by a leveling in commodities prices and a more stable U.S. dollar in the period before the U.S. Presidential election.

Key investment themes / ETP flow trends



Global ETP Flows by Asset Class & Exposure¹ 2016 full-year flows: \$375.9bn



Spotlight on 2016 flows: A Tale of Two Halves

ETP flows remained resilient throughout 2016 despite several periods of heightened uncertainty. Volatility at the start of the year subsided before spiking following the surprise outcomes of Brexit and the U.S. Presidential elections. Thus, the story of ETP flows in 2016 is a tale of two halves:

- First half flows were \$121.5bn, over half in fixed income, as equity returns disappointed and low interest rates persisted.
- Market conditions shifted in the second half and flows surged to \$258.0bn, 87% in equities. Q4 was the second best quarter ever, behind only Q4 2014, boosted by a market rally following the U.S. presidential election. Q3 was the third best, sparked by a quick market recovery in the wake of the Brexit referendum surprise.

Global ETP flows by half since 2014¹



Full-year Overview

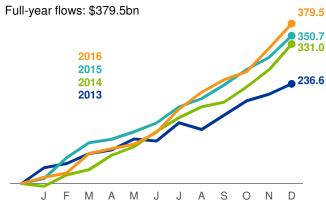
RESULTS AT A GLANCE¹

(US\$bn)	Dec 2016	Dec 2015	Dec 2014
Monthly flows	58.3	51.3	60.7
Full-year flows	379.5	350.7	331.0
Assets	3,505	2,961	2,749
# of ETPs	6,053	5,865	5,453

EQUITY SMART BETA FLOWS BY TYPE¹

(US\$bn)	Dec 2016 Flows	2016 FY Flows	Current Assets
Dividend	3.0	26.8	158
Multi-Factor	1.6	4.2	54
Low Volatility	(2.8)	13.3	44
Equal Weight	1.3	4.0	42
Single Exposure	1.2	4.6	25
Grand Total	4.3	52.8	322

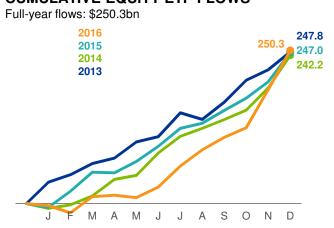
CUMULATIVE ETP FLOWS¹



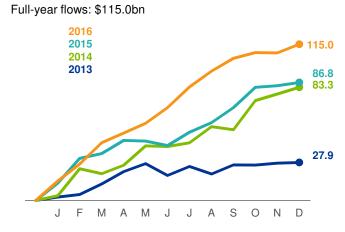
GLOBAL 13-MONTH ROLLING FLOWS¹



CUMULATIVE EQUITY ETP FLOWS¹

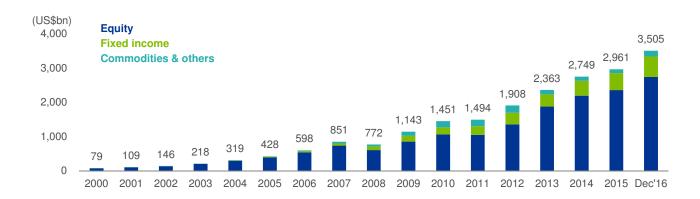


CUMULATIVE FIXED INCOME ETP FLOWS¹



Full-year Overview (cont'd)

GLOBAL ETP ASSETS¹



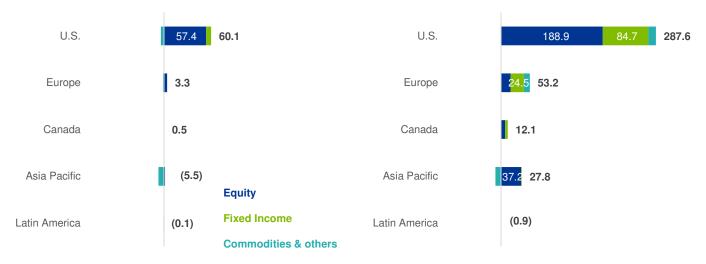
ETP Assets and Flows By Listing Region

ASSETS BY LISTING REGION¹

(US\$bn)	Equity	Fixed Income	Commodity & others	Total
U.S.	2,035	428	82	2,545
Europe	374	139	52	565
Canada	58	25	2	85
Asia Pacific	263	8	28	299
Latin America	4	0	0	5
Middle East & Africa	4	0	2	6
Total	2,738	601	166	3,505

MONTH-TO-DATE FLOWS BY LISTING REGION¹ FULL-YEAR FLOWS BY LISTING REGION¹

Month-to-date flows: \$58.3bn Full-year flows: \$379.5bn



Global ETP Multi-Year Asset Growth and Top 10 Providers

Global ETP Providers Ranked by Assets (US\$bn)1

						2016 (Change
Provider *	Month end Assets	Market Share %	Month Flows	2016 Flows	# ETPs	Assets	Market Share %
iShares	1,293.3	36.9	23.0	141.3	804	183.7	(0.6)
Vanguard	646.9	18.5	14.2	100.3	138	137.4	1.3
State Street	539.0	15.4	18.8	59.5	267	95.8	0.4
Powershares	115.8	3.3	1.7	8.5	209	13.5	(0.2)
Nomura Group	81.7	2.3	1.1	13.9	71	16.6	0.1
Deutsche Asset & Wealth Management (db x-trackers)	73.0	2.1	(0.6)	(11.0)	269	(11.2)	(0.8)
Charles Schwab	59.8	1.7	2.5	16.2	21	20.0	0.4
Lyxor / Soc Gen	54.4	1.6	0.3	1.8	211	1.8	(0.2)
First Trust Portfolios	41.5	1.2	0.5	(2.7)	138	(1.6)	(0.3)
WisdomTree Investments	41.1	1.2	0.6	(12.3)	190	(11.5)	(0.6)
Other Providers	558.1	15.9	(3.8)	64.1	3,735	99.0	0.4
Grand Total	3,504.7	100.0	58.3	379.5	6,053	543.6	0.0

^{*} Providers measured at parent company level.

ETP Flows by Exposure

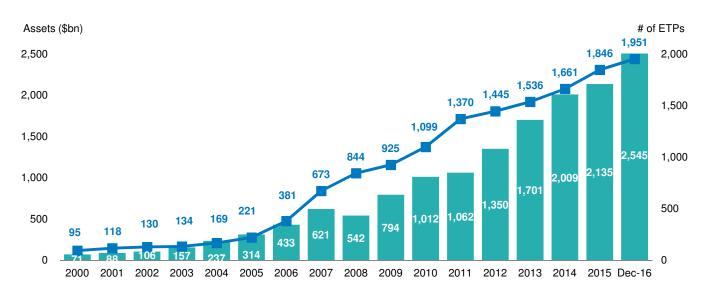
(US\$bn)		December Flows	2016 Full-year Flows	Current Assets
Equity	U.S.	48.3	182.2	1,639
equity xed Income	Broad Developed Markets	9.8	48.5	342
	Asia-Pacific	3.9	25.3	266
	Europe	2.2	(34.2)	216
	Canada	0.4	4.5	35
	Developed Equity	64.5	226.3	2,499
	Single Country	(1.1)	(3.5)	109
	Broad	0.9	26.7	124
	Regional	(0.4)	0.8	6
	Emerging Markets Equity	(0.5)	24.1	239
	Equity Total	64.1	250.3	2,738
Fixed Income	Investment Grade Corp	(0.9)	32.6	153
	High Yield Corp	3.8	11.2	62
	Broad	0.9	22.7	103
	U.S. Treasury	(0.4)	1.6	55
	Sovereign	(0.1)	(2.0)	45
	Municipal	1.2	7.1	26
	Emerging Markets Debt	(0.6)	11.0	32
	Other Fixed Income	2.5	30.8	124
	Fixed Income Total	6.4	115.0	601
Commodities	Gold	(3.8)	19.6	72
	Crude oil	(2.8)	(1.1)	15
	Silver	(0.1)	1.0	9
	Agriculture	(0.0)	0.2	3
	Other Precious Metals	(0.1)	0.0	3
	Other Commodities	0.5	2.8	15
	Commodities Total	(6.3)	22.5	118
Other	Other Total	(5.8)	(8.3)	49
Grand Total		58.3	379.5	3,505

United States ETPs



U.S. ETP Multi-Year Asset Growth and Top 10 Providers

U.S. ETP Assets & Number of ETPs by Year¹



U.S. ETP Providers Ranked by Assets (US\$bn)1

						2016 (Change
Provider *	Month end Assets	Market Share %	Month Flows	2016 Flows	# ETPs	Assets	Market Share %
iShares	971.5	38.2	19.5	107.6	334	143.4	(0.6)
Vanguard	611.0	24.0	13.7	93.7	70	127.9	1.4
State Street	502.5	19.7	18.3	52.7	149	88.3	0.3
Invesco Powershares	110.8	4.4	1.8	7.6	159	12.4	(0.3)
Charles Schwab	59.8	2.4	2.5	16.2	21	20.0	0.5
First Trust Portfolios	41.0	1.6	0.5	(2.8)	111	(1.8)	(0.4)
WisdomTree Investments	40.0	1.6	0.7	(12.6)	94	(11.8)	(0.9)
Guggenheim	32.3	1.3	1.3	2.3	78	4.0	(0.1)
VanEck	29.6	1.2	0.8	7.9	60	10.9	0.3
ProShares	26.3	1.0	(0.3)	3.6	142	1.1	(0.1)
Other Providers	120.4	4.7	1.4	11.5	733	15.7	(0.2)
Grand Total	2,545.2	100.0	60.1	287.6	1,951	410.2	0.0

^{*} Providers measured at parent company level.

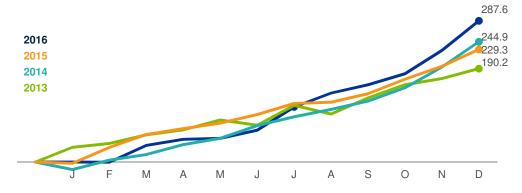
Year-to-date Overview

U.S. ETP Flows by exposure¹

(US\$bn)		Annual 2016	Annual 2015	Annual 2014
Equity	Developed Markets	169.4	170.5	187.1
	Emerging Markets	19.6	(2.2)	2.9
	Total	188.9	168.3	190.0
Fixed Income	Government	1.4	8.7	11.0
	High Yield Corporate	15.7	12.9	9.8
	Investment Grade Corporate	8.3	2.6	2.4
	Others	59.3	30.0	28.9
	Total	84.7	54.2	52.0
Commodities & Others	Total	14.0	6.7	2.9
Grand Total		287.6	229.3	244.9

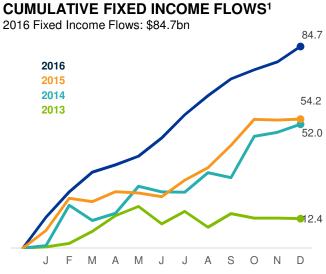
CUMULATIVE U.S. ETP FLOWS¹

2016 Flows: \$287.6bn









U.S. ETP Flows by Exposure

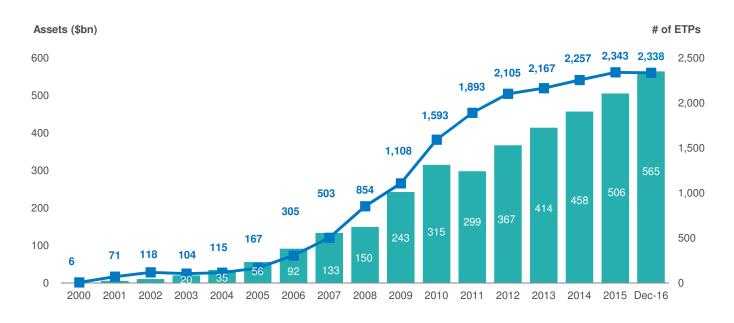
(US\$bn)		Month Flows	Annual Flows	Current Assets
Equity	U.S.	46.7	165.8	1,525
	Broad Developed Markets	8.1	38.0	279
	Europe	0.5	(25.9)	49
	Asia-Pacific	0.8	(9.7)	40
	Canada	0.2	1.3	4
	Developed Equity	56.3	169.4	1,896
	Broad	1.3	20.3	103
	Single Country	0.1	(0.8)	33
	Regional	(0.2)	0.1	2
	Emerging Markets Equity	1.2	19.6	139
	Equity Total	57.4	188.9	2,035
Fixed Income	Investment Grade Corp	(1.3)	15.7	93
	HY Corp	3.4	8.3	45
	Broad	1.0	20.0	92
	U.S. Government	(0.2)	1.4	50
	Municipal	1.3	6.5	25
	Emerging Markets	(0.3)	5.6	16
	Sovereign	(0.1)	(0.0)	3
	Other Fixed Income	2.7	27.3	104
	Fixed Income Total	6.6	84.7	428
Commodities	Gold	(2.6)	9.5	40
	Silver	(1.7)	(1.0)	7
	Crude Oil	(0.1)	0.6	6
	Agriculture	(0.2)	(0.0)	1
	Energy	(0.0)	0.1	1
	Other Commodities	0.2	0.9	7
	Other Precious Metals	(0.0)	0.2	1
	Commodities Total	(4.4)	10.2	64
Alternatives		0.6	4.3	15
Currency		(0.1)	(0.5)	3
Grand Total		60.1	287.6	2,545

Europe ETPs



Europe ETP Multi-Year Asset Growth and Top 10 Providers

Europe ETP Assets & Number of ETPs by Year¹



Europe ETP Providers Ranked by Assets (US\$bn)1

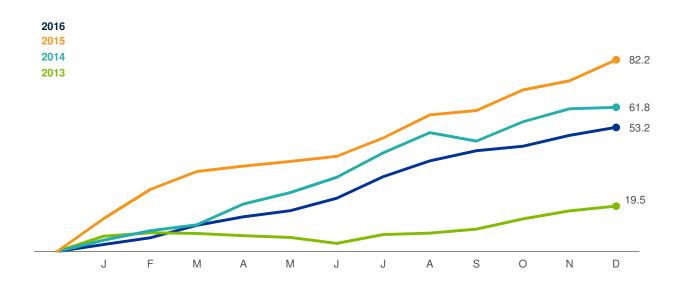
						2016 (Change
Provider *	Month end Assets	Market Share %	Month Flows	2016 Flows	# ETPs	Assets	Market Share %
iShares	267.0	47.2	3.1	31.9	293	34.3	1.1
Deutsche Asset & Wealth Management (db x-trackers)	58.4	10.3	(0.5)	(4.0)	187	(2.3)	(1.7)
Lyxor / Soc Gen	54.4	9.6	0.3	1.8	208	1.8	(8.0)
UBS	30.5	5.4	(0.3)	0.8	316	1.2	(0.4)
Vanguard	25.1	4.4	0.3	4.6	21	5.8	0.6
Credit Agricole	24.2	4.3	1.7	4.4	122	2.5	(0.0)
Source Holdings	20.9	3.7	(1.0)	1.0	77	1.5	(0.1)
State Street	18.5	3.3	0.4	5.1	99	5.7	0.7
ETF Securities	17.5	3.1	(0.6)	4.7	353	5.5	0.7
Deka ETFs	8.8	1.6	0.1	1.1	43	1.1	0.0
Other Providers	39.6	7.0	(0.3)	2.0	619	3.3	(0.2)
Grand Total	565.0	100.0	3.3	53.2	2,338	60.5	0.0

^{*} Providers measured at parent company level.

Europe ETP Multi-Year Flows

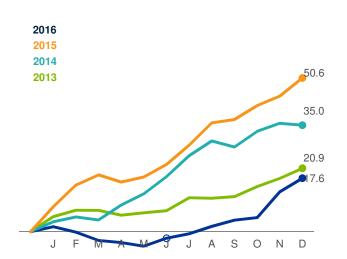
European ETP Industry Cumulative Flows by Year¹

2016 Flows: \$53.2bn



Europe Listed Equity ETP Cumulative Flows¹

2016 Equity Flows:\$17.6bn



Europe Listed Fixed Income ETP Cumulative Flows¹

2016 Fixed Income Flows:\$24.5bn



European ETP Flows by Exposure

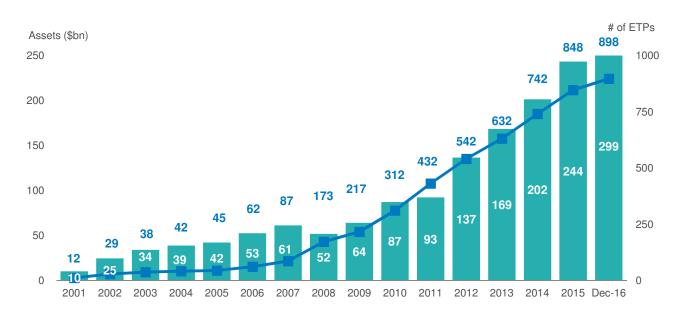
(US\$bn)		MTD Flows	2016 Flows	Current Assets
Equity	Europe	1.8	(8.4)	165
	U.S.	1.4	13.2	96
	Broad Developed Markets	1.5	8.8	52
	Asia-Pacific	0.4	(2.1)	27
	Canada	0.2	0.5	2
	Developed Equity	5.3	12.1	342
	Broad	(0.4)	6.2	20
	Single Country	(0.2)	(1.4)	8
	Regional	(0.2)	0.7	3
	Emerging Markets Equity	(0.8)	5.6	31
	Equity Total	4.5	17.6	374
Fixed Income	Investment Grade Corp	0.3	15.4	50
	HY Corp	0.4	3.1	14
	Sovereign	0.2	(3.4)	35
	Emerging Markets	(0.4)	5.5	14
	U.S. Government	(0.2)	0.2	6
	Broad Aggregate	(0.1)	0.7	5
	Other Fixed Income	(0.3)	3.0	16
	Fixed Income Total	(0.1)	24.5	139
Commodities	Gold	(1.1)	8.6	27
	Crude Oil	(0.4)	0.2	4
	Silver	(0.1)	0.4	3
	Agriculture	0.0	0.1	2
	Energy	0.0	(0.1)	1
	Other Commodities	0.3	1.9	8
	Other Precious Metals	(0.1)	(0.1)	2
	Commodities Total	(1.4)	11.0	45
Money Market		0.1	(0.3)	5
Alternatives		0.1	0.1	2
Currency		0.2	0.3	1
Grand Total		3.3	53.2	565

Asia Pacific ETPs



Asia Pacific ETP Multi-Year Asset Growth and Top 10 Providers

Asia Pacific ETP Assets & Number of ETPs by Year¹



Asia Pacific ETP Providers Ranked by Assets (US\$bn)1

						2016 Change	
Provider *	Month end Assets	Market Share %	Month Flows	2016 Flows	# ETPs	Assets	Market Share %
Nomura Group	81.6	27.2	1.1	14.0	67	16.7	0.6
Nikko Asset Management	35.1	11.7	0.6	7.5	22	8.6	0.8
Daiwa Securities Group	33.4	11.2	(0.6)	7.0	33	7.7	0.6
State Street	18.0	6.0	0.1	1.7	19	1.8	(0.6)
Mitsubishi Group	14.6	4.9	(0.7)	1.8	15	2.5	(0.1)
HSBC	11.9	4.0	(0.1)	(0.0)	6	(0.1)	(0.9)
iShares	11.4	3.8	0.6	1.3	50	0.8	(0.6)
Samsung Asset Management	9.4	3.2	(0.7)	0.3	49	0.4	(0.6)
Fortune SG Fund Management	8.9	3.0	(3.2)	(11.4)	3	8.9	3.0
China Asset Management	8.7	2.9	0.1	0.2	12	(1.2)	(1.1)
Other Providers	66.4	22.2	(2.7)	5.4	622	10.0	(1.0)
Grand Total	299.5	100.0	(5.5)	27.8	898	56.1	0.0

^{*} Providers measured at parent company level.

Asia Pacific ETP Flows by Exposure

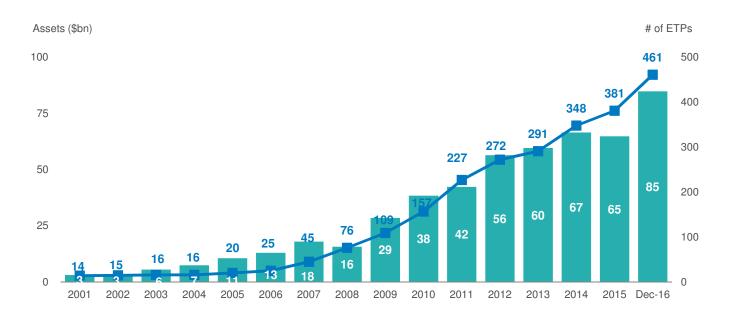
(US\$bn)		Month Flows	2016 Flows	Current Assets
Equity	Asia-Pacific	2.6	37.1	198.5
	Broad Developed Markets	0.0	0.2	1.7
	U.S.	(0.0)	0.1	1.0
	Europe	(0.0)	0.0	0.1
	Developed Equity	2.5	37.4	201.3
	Single Country	(0.8)	(0.2)	62.0
	Broad	0.0	0.0	0.1
	Regional	0.0	(0.0)	0.0
	Emerging Markets Equity	(0.8)	(0.2)	62.1
	Equity Total	1.7	37.2	263.4
Fixed Income	Sovereign	(0.2)	0.9	4.5
	Emerging Markets	0.1	(0.0)	2.1
	Broad Aggregate	0.0	0.2	1.3
	Inv Grade Corp	0.0	0.1	0.2
	HY Corp	0.0	(0.0)	0.1
	U.S. Treasury	0.0	0.0	0.0
	Other Fixed Income	(0.0)	0.0	0.3
	Fixed Income Total	(0.1)	1.2	8.5
Commodities	Gold	(0.0)	1.5	3.9
	Crude Oil	(0.4)	(0.0)	1.9
	Silver	0.0	0.0	0.1
	Agriculture	0.0	0.0	0.1
	Energy	0.0	(0.0)	0.0
	Other Precious Metals	(0.0)	0.0	0.1
	Other Commodities	0.0	(0.0)	0.0
	Commodities Total	(0.5)	1.5	6.1
Money Market		(6.5)	(12.6)	20.5
Alternatives		(0.1)	0.3	0.5
Currency		(0.0)	0.1	0.6
Grand Total		(5.5)	27.8	299.5

Canada ETPs



Canada ETP Multi-Year Asset Growth and Top 10 Providers

Canada ETP Assets & Number of ETPs by Year¹



Canada ETP Providers Ranked by Assets (US\$bn)1

						2016	Change
Provider *	Month end Assets	Market Share %	Month Flows	2016 Flows	# ETPs	Assets	Market Share %
iShares	39.8	47.0	(0.1)	1.6	107	6.1	(5.4)
ВМО	25.4	30.0	0.2	5.9	66	7.9	2.9
Vanguard	7.2	8.5	0.2	2.0	29	2.5	1.2
Horizon (Mirae Asset)	4.7	5.6	(0.0)	0.4	76	1.3	0.3
PowerShares	2.3	2.7	0.0	0.4	23	0.5	(0.1)
First Asset Capital	1.9	2.2	0.0	0.4	53	0.5	0.1
RBC	1.7	2.0	0.1	0.5	29	0.6	0.3
Purpose Investments	0.9	1.1	0.1	0.3	19	0.3	0.2
First Trust Portfolios	0.3	0.3	0.0	0.1	18	0.1	0.0
Harvest Fund Management	0.1	0.2	0.0	0.1	4		0.2
Other Providers	0.3	0.4	0.0	0.3	37	0.3	0.3
Grand Total	84.8	100.0	0.5	12.1	461	20.3	0.0

^{*} Providers measured at parent company level

Canada ETP Flows by Exposure

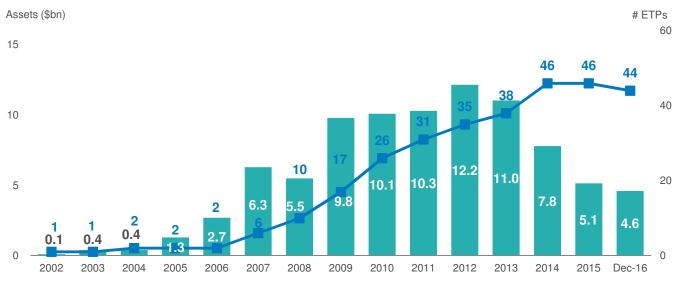
(US\$bn)		Month Flows	2016 Flows	Current Assets
Equity	Canada	0.0	2.8	30.1
	U.S.	0.3	3.1	16.2
	Broad Developed Markets	0.2	1.5	9.0
	Europe	(0.0)	0.1	0.9
	Asia-Pacific	0.0	0.1	0.2
	Developed Equity	0.5	7.4	56.4
	Broad	0.0	0.2	0.9
	Single Country	(0.0)	(0.0)	0.2
	Regional	(0.0)	(0.0)	0.0
	Emerging Markets Equity	0.0	0.1	1.1
	Equity Total	0.5	7.6	57.5
Fixed Income	Inv Grade Corporate	0.0	1.5	9.3
	HY Corp	0.0	(0.2)	2.3
	Broad Aggregate	0.0	1.7	4.8
	Sovereign	(0.1)	0.5	2.8
	Municipal	(0.0)	0.5	1.2
	Emerging Markets	0.0	(0.0)	0.2
	U.S. Government	(0.0)	(0.0)	0.0
	Other Fixed Income	0.1	0.6	4.2
	Fixed Income Total	(0.0)	4.6	24.9
Commodities	Gold	(0.0)	0.1	0.3
	Crude Oil	(0.1)	(0.2)	0.3
	Energy	(0.0)	0.0	0.1
	Silver	0.0	0.0	0.1
	Commodities Total	(0.1)	(0.1)	0.8
Money Market		0.0	0.1	0.4
Alternatives		0.0	(0.1)	1.1
Currency		(0.0)	0.0	0.1
Grand Total		0.5	12.1	84.8

Latin America ETPs



Latin America ETP Multi-Year Asset Growth, Top Providers and Flows by Exposure

Latin America ETP Assets & Number of ETPs by Year¹



Latin America ETP Providers Ranked by Assets (US\$bn)1

						2016 Change	
Provider *	Month end Assets	Market Share %	Month Flows	2016 Flows	# ETPs	Assets	Market Share %
iShares	3.7	79.0	(0.1)	(1.1)	20	(0.8)	(7.5)
Itau Unibanco	0.5	10.4	0.0	0.0	8	0.0	1.8
BBVA	0.2	4.0	0.0	0.0	7	0.0	0.7
Actinver	0.1	3.1	0.0	0.1	5	0.1	2.2
Horizon (Mirae Asset)	0.1	2.9	0.0	0.1	1	0.1	2.2
Other Providers	0.0	0.6	0.0	0.0	3	0.0	0.5
Grand Total	4.6	100.0	(0.1)	(0.9)	44	(0.5)	0.0

Latin America ETP Flows by Exposure¹

	Exposure (US\$mn)		Month Flows	2016 Flows	Assets
	Developed Markets	U.S. Equity	(46)	3	123
	Emerging Markets	Mexico	(77)	(1,147)	2,125
Equity		Brazil	0	391	1,045
		Colombia	(13)	(219)	991
		Chile	(23)	48	96
		China	0	(0)	46
		EM Equity Total	(114)	(928)	4,302
	Equity Total		(160)	(924)	4,425
Fixed Income	Fixed Income & Others		26	56	200
Latin Ame	rica Listed ETP total		(134)	(869)	4,625

^{*} Providers measured at parent company level.

Endnotes

The ETP (or exchange traded product) category encompasses any portfolio exposure security that trades intra-day on an exchange. The data for this report are captured from a number of sources by BlackRock, including provider websites, fund prospectuses, provider press releases, provider surveys, Bloomberg, the National Stock Exchange, Strategic Insight Simfund, and Wind. All amounts are reported in US dollars. Flows are derived using daily net asset values and shares outstanding using the most recent data we can capture at month-end. For products with cross-listings, we attribute net flows and assets to the primary listings. For Middle East and Africa, assets and net flows data is not available. Assets are derived using shares outstanding and prices at the end of each month (or the closest date available). Where price is not available, we use an approximation. Product level information is aggregated by provider, asset class, exposure, and listing region to produce the various analyses in the report.

1. Data is as of December 31, 2016 for all regions. Global ETP flows and assets are sourced using Markit, as well as BlackRock internal sources. Flows for the years between 2010 and 2015 are sourced from Bloomberg as well as BlackRock internal sources. Flows for years prior to 2010 are sourced from Strategic Insights Simfund. Asset classifications are assigned by BlackRock based on product definitions from provider websites and product prospectuses. Other static product information is obtained from provider websites, product prospectuses, provider press releases, and provider surveys. Market returns are sourced from Bloomberg.

Index returns are for illustrative purposes only and do not represent actual Fund performance. Index performance returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results.

ABOUT BLACKROCK

BlackRock is a global leader in investment management, risk management and advisory services for institutional and retail clients worldwide. At September 30, 2016, BlackRock's AUM was \$5.1trillion. BlackRock helps clients around the world meet their goals and overcome challenges with a range of products that include separate accounts, mutual funds, iShares® ETFs (exchange traded funds), and other pooled investment vehicles. BlackRock also offers risk management, advisory and enterprise investment system services to a broad base of institutional investors through BlackRock Solutions®. As of June 30, 2016, the firm had approximately 13,000 employees in more than 30 countries and a major presence in global markets, including North and South America, Europe, Asia, Australia and the Middle East and Africa. For additional information, please visit the Company's website at www.blackrock.com.

Disclaimer

REGULATORY INFORMATION

BlackRock Advisors (UK) Limited is authorised and regulated by the Financial Conduct Authority ('FCA'), having its registered office at 12 Throgmorton Avenue, London, EC2N 2DL, England, Tel +44 (0)20 7743 3000.

This document has been provided by BlackRock in a private and confidential manner to professional and or institutional investors (as such term is defined according to applicable regulations in the relevant jurisdiction) only upon express request.

This document is solely for informational and educational purposes only and represents an assessment of the market environment at a specific time and is not intended to be relied upon by the reader as research, a forecast of future events or a guarantee of future results.

This publication does not provide financial, investment or tax advice or information relating to the securities of any particular fund or other issuer. The information and opinions included in this publication are based on publicly available information, are subject to change and should not be relied upon for any purpose other than general information and education. This publication has been prepared without regard to the individual financial circumstances and objectives of those who receive it and the types of securities discussed in this publication may not be suitable for all investors.

The information included in this document has been taken from trade and other sources considered to be reliable. This document is published in good faith but no representation or warranty, express or implied, is made by BlackRock or by any person as to its accuracy or completeness and it should not be relied on as such. BlackRock or any of its directors, officers, employees or agents shall have no liability for any loss or damage arising out of the use or reliance on the material provided including without limitation, any loss of profit or any other damage, direct or consequential. Any opinions expressed in this document reflect our analysis at this date and are subject to change.

This is not a recommendation, offer or solicitation to buy or sell any securities or to adopt any strategy in any jurisdiction.

This document has not been prepared, reviewed or distributed by any broker-dealer affiliate of BlackRock and should not be deemed a product of any such affiliate.

BlackRock has not performed any due diligence on products which are not managed by BlackRock and accordingly does not make any remark on their suitability for investment purposes. Past performance is not a guide to future performance. Income is not fixed and may fluctuate. Exposure to foreign currencies can be affected by exchange rate movements.

This document or any portion hereof may not be reprinted, sold or redistributed without authorisation from BlackRock Advisors (UK) or its affiliates (together, 'BlackRock').

FOR RESIDENTS IN THE UNITED STATES

This publication does not provide financial, investment or tax advice or information relating to the securities of any particular fund or other issuer. The information and opinions included in this publication are based on publicly available information, are subject to change and should not be relied upon for any purpose other than general information and education. This publication has been prepared without regard to the individual financial circumstances and objectives of those who receive it and the types of securities discussed in this publication may not be suitable for all investors. The information included in this document has been taken from trade and other sources considered to be reliable. This document is published in good faith but no representation or warranty, express or implied is made by BlackRock or by any person as to its accuracy or completeness and it should bot be relied on as such. BlackRock or any of its directors, officers, employees or agents shall have no liability for any loss or damage arising out of the use or reliance on the material provided including without limitation, any loss of profit or any other damage, direct or consequential. Any opinions expressed in this document reflect our analysis at this date and are subject to change. This is not a recommendation, offer or solicitation to buy or sell any securities or to adopt any strategy in any jurisdiction.

Disclaimer (continued)

NOTICE TO RESIDENTS IN AUSTRALIA:

Issued in Australia by BlackRock Investment Management (Australia) Limited ABN 13 006 165 975, AFSL 230523 ("BlackRock Australia") to institutional investors only. iShares® exchange traded funds ("ETFs") that are made available in Australia are issued by BlackRock Australia, iShares, Inc. ARBN 125 632 279 and iShares Trust ARBN 125 632 411. BlackRock Australia is the local agent and intermediary for iShares ETFs that are issued by iShares, Inc. and iShares Trust. BlackRock Australia is a wholly-owned subsidiary of BlackRock, Inc. (collectively "BlackRock"). A Product Disclosure Statement ("PDS") or prospectus for each iShares ETF that is offered in Australia is available at iShares.com.au. You should read the PDS or prospectus and consider whether an iShares ETF is appropriate for you before deciding to invest. iShares securities trade on ASX at market price (not, net asset value ("NAV")). iShares securities may only be redeemed directly by persons called "Authorised Participants". This information is general in nature, and has been prepared without taking into account any individual's objectives, financial situation, or needs. You should seek independent professional legal, financial, taxation, and/or other professional advice before making an investment decision regarding the iShares funds.

FOR INVESTORS IN CANADA:

The information and opinions herein are provided for informational purposes only, are subject to change and should not be relied upon as the basis for investment decisions. Past performance is not necessarily indicative of future performance. This document is not and should not be construed as a solicitation or offering of units of any funds or other security in any jurisdiction. No part of this publication may be reproduced in any manner without prior written permission of BlackRock Asset Management Canada Limited and/or its affiliates.

FOR INVESTORS IN HONG KONG:

Some of the funds mentioned herein have not been registered with the Securities and Futures Commission for offering or distribution in Hong Kong. Accordingly, this material may not be circulated or distributed, nor may the funds be offered or sold whether directly or indirectly, to any person in Hong Kong other than to a Professional Investor as defined in the Securities and Futures Ordinance ("SFO") (Cap. 571 of the laws of Hong Kong) and any regulations there under.

NOTICE TO RESIDENTS IN INDIA:

This document is intended for information purposes only and does not constitute investment advice or an offer to sell or solicitation of an offer to buy the funds described herein. This document has been provided by BlackRock in a private and confidential manner to financial intermediaries only upon their request. The funds mentioned herein have not been registered with any authorities in India.

NOTICE TO RESIDENTS IN JAPAN:

This document is solely for educational purposes and does not constitute advertisement of financial services targeted at investors in Japan. This document is intended for information purposes only and does not constitute investment advice or an offer to sell or solicitation of an offer to buy the funds described herein. This document has been provided by BlackRock in a private and confidential manner to Qualified Institutional Investors (as defined in the Financial Instruments and Exchange Law of Japan) only upon their request.

Disclaimer (continued)

FOR INSTITUTIONAL AND PROFESSIONAL INVESTORS ONLY IN LATIN AMERICA:

In Latin America, for Institutional and Professional Investors only. This material is solely for educational purposes only and does not constitute an offer or a solicitation to sell or a solicitation of an offer to buy any shares of any securities (nor shall any such securities be offered or sold to any person) in any jurisdiction within Latin America in which an offer, solicitation, purchase or sale would be unlawful under the securities law of that jurisdiction. It is possible that all or some of the funds mentioned or inferred to in this material have not been registered with the securities regulator of Brazil, Chile, Colombia, Mexico and Peru or any other securities regulator in any Latin American country, and thus, might not be publicly offered, purchased or sold within any such country. The securities regulators of such countries have not confirmed the accuracy of any information contained herein. No information discussed herein can be provided to the general public in Latin America.

NOTICE TO RESIDENTS IN SINGAPORE:

This document is provided by BlackRock (Singapore) Limited (company registration number: 200010143N) for use with institutional investors only. This document has not been registered as a prospectus with the Monetary Authority of Singapore (MAS). Some of the funds mentioned herein have not been registered with the MAS for distribution in Singapore. Accordingly, this and any other document or material in connection with the offer or sale of the Shares may not be circulated or distributed, nor may the Shares be offered or sold, whether directly or indirectly, to any person in Singapore other than (i) to an institutional investor pursuant to Section 304 of the Securities and Futures Act (SFA) or (ii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA. First sales of the Shares acquired pursuant to Section 304 of the SFA are subject to the requirements under Section 304A of the SFA.

NOTICE TO RESIDENTS IN SOUTH AFRICA:

BlackRock Investment Management (UK) Limited is registered with the South African Financial Services Board, FSP No. 43288.

FOR QUALIFIED INVESTORS IN SWITZERLAND

This document shall be exclusively made available to, and directed at, qualified investors as defined in the Swiss Collective Investment Schemes Act of 23 June 2006, as amended (CISA).

The iShares ETFs are domiciled in Ireland, Switzerland and Germany. BlackRock Asset Management Schweiz AG, Bahnhofstrasse 39, CH-8001 Zurich, is the Swiss Representative and State Street Bank GmbH, Munich, Zurich Branch, Beethovenstrasse 19, CH-8002 Zürich, the Swiss Paying Agent for the foreign iShares ETFs registered in Switzerland. The Prospectus, the Prospectus with integrated fund contract, the Key Investor Information Document, the general and particular conditions, the Articles of Incorporation, the latest and any previous annual and semi-annual reports of the iShares ETFs domiciled or registered in Switzerland are available free of charge from BlackRock Asset Management Schweiz AG. Investors should read the fund specific risks in the Key Investor Information Document and the Prospectus.

NOTICE TO RESIDENTS IN THAILAND:

This document is intended for information purposes only and does not constitute investment advice or an offer to sell or solicitation of an offer to buy the funds described herein. This document has been provided by BlackRock in a private and confidential manner to institutional investors only upon their request. The funds mentioned herein have not been registered with any authorities in Thailand, and accordingly, this document may not be circulated or distributed, nor may the shares of these funds be offered or sold whether directly or indirectly, to any person in Thailand.

NOTICE TO RESIDENTS IN VIETNAM:

This document is intended for information purposes only and does not constitute investment advice or an offer to sell or solicitation of an offer to buy the funds described herein. This document has been provided by BlackRock in a private and confidential manner to institutional investors only upon their request. The funds mentioned herein have not been registered with any authorities in Vietnam, and accordingly, this document may not be circulated or distributed, nor may the shares of these funds be offered or sold whether directly or indirectly, to any person in Vietnam.

© 2016 BlackRock Advisors (UK) Limited. All rights reserved. Registered Company No. 00796793. All rights reserved. Calls may be monitored or recorded.

BLACKROCK, BLACKROCK SOLUTIONS, and iSHARES, are registered and unregistered trademarks of BlackRock, Inc. or its subsidiaries in the United States and elsewhere. All other marks are those of their respective owners.

iS-19947-0117