



Europe

Synthetic Equity & Index Strategy  
**ETF Monthly Europe**

Date  
13 December 2017

## 2017 flows heading towards €100bn

Data in this report is as of 30th November 2017.

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### European ETP Monthly Highlights (Assets, Flows & Launches):

- **Assets & Flows:** Assets rose by €4bn MoM (Total Assets €660bn), Net inflows +€10.6bn (YTD +€96bn)
- **18 New Launches:** 10 Equity, 7 Fixed Income and 1 Multi Asset.

### Investment Themes for the Month

**Equities (+€6.9bn) - Winners:** US +€1.9bn, Europe +€1.5bn, EM +€1.1bn, Global DM +€1bn and Japan +€0.6bn; Smart Beta covering all regions saw + €553mn inflows. Segments that benefitted include Robotics, Multi-Factor and ESG strategies. Regional flow drivers:

- *Europe (+€1.5bn):* ETFs tracking Euro STOXX 50, STOXX Europe 600 & MSCI Europe were the major contributors.
- *Other regions (+€4.6bn):* 1) US inflows (S&P 500) 2) EM inflows (MSCI EM, MSCI EM IMI & China) 3) Global DM inflows (MSCI World) 4) Japan inflows (FTSE Japan, MSCI Japan € Hedged).

**Fixed Income (+€1.2bn) - Winners:** Global DM +€1.1bn, US +€748mn, Europe + €726mn ; Losers: EM -€450mn. High Yield segments saw outflows. Regional flow drivers:

- *Europe (+€726mn):* Inflows into IG Corp. Bonds offset by HY Corp. Bonds outflows. Sovereign and other sub segments also drew inflows.
- *Other regions (+€0.7bn):* 1) Global DM inflows (Global Aggregate bonds) 2) US inflows (Sovereign bonds) 3) EM outflows (Sovereign bonds).

**Commodities (+€321mn) -** Gold (+€632mn), Broad Commodity (+€325mn) inflows, Crude Oil outflows (-€292mn).

### Turnover: MoM turnover increased by 22%

The total turnover activity into European ETPs increased by 22% where total turnover observed was (€70bn) compared to the last month's total (€57.5bn). All the major asset classes recorded increased turnover activity.

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## European ETP November Highlights

**Assets:** European ETPs AUM increased by €4bn on MoM basis and ended the month at €660bn. All the asset classes recorded positive growth during last month except marginal decrease in Commodity. At asset class level, Fixed income assets increased by 1% and Equities by 0.6% while Commodity saw marginal decrease in assets. For more details please refer to [Assets](#) section.

**Flows:** European-domiciled ETPs registered inflows of +€10.6bn last month where year-to-date flows have reached +€96bn. Equity ETFs registered inflows of +€6.9bn (+€6.1bn inflows in Oct'17). Fixed Income and Commodity ETPs also had inflows of +€3bn and +€712mn respectively. For more details please refer to [Cash Flow Analysis](#) section.

### Global ETPs Highlights

Global ETPs assets increased by \$140bn, reached at \$4.6 trillion at the end of Nov'17, 3.2% up from last month-end levels. Globally, ETPs registered monthly inflows of +\$59bn during November. +\$568bn inflows have been recorded so far this year. US-listed & Asia-Pacific-listed ETPs had inflows of +\$37bn and +\$10bn respectively during last month.

Figure 1: Global ETPs Snapshot - | ETPs | Global |

Region	AUM (\$bn)			Cash Flow (\$bn)		Turnover (\$bn)			Market Share (%)		
	Nov-17	Oct-17	MoM Change (%)	Nov-17	Oct-17	Nov-17	Oct-17	MoM Change (%)	AUM	Cash Flows*	Turnover
US	3344.22	3247.75	2.97%	37.01	49.95	1394.91	1307.05	6.72%	73%	1.1%	80%
Europe	786.73	763.81	3.00%	12.49	9.07	82.46	67.60	21.98%	17%	1.6%	5%
Asia-Pacific	437.70	416.89	4.99%	9.57	-4.34	268.07	167.69	59.86%	10%	2.3%	15%
Global	<b>4568.64</b>	<b>4428.45</b>	<b>3.17%</b>	<b>59.07</b>	<b>54.68</b>	<b>1745.43</b>	<b>1542.34</b>	<b>13.17%</b>	<b>100%</b>	<b>1.3%</b>	<b>100%</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. \*Cash Flow Market Share corresponds to Nov-17 Monthly Cash Flow / End of Oct-17 AUM

## New Launch Activity

### 18 New products launched during November

18 New products have been launched in Europe during November. This includes 10 Equity, 7 Fixed Income and 1 Multi Asset ETF. PowerShares launched 5 Smart beta ETFs based on European Factor Indices (Momentum, Low Beta, Quality, Value & Earnings Momentum). Fidelity International listed 2 equity ETFs providing exposure to Europe and EM Quality Income Indices respectively. Lyxor, Amundi and JPMorgan each listed an equity ETF last month. UBS and PowerShares each listed 3 Fixed Income products while BlackRock listed 1 Fixed Income product in Nov'17. Further, a multi asset ETF was also listed by JPMorgan. These ETFs were listed on multiple stock exchanges. For additional information on new product launches please refer to [Product Review](#) section.



Figure 2: Newly Launched ETFs in November

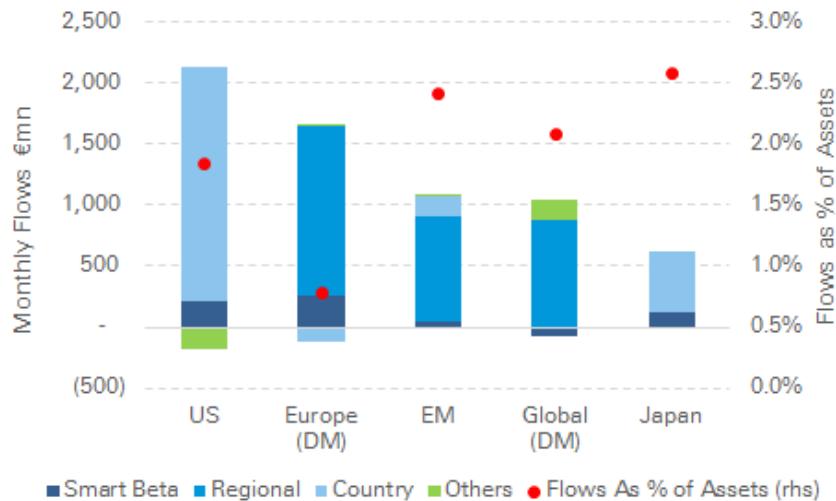
ETF Name	BIG Ticker	Issuer	Asset class & Structure	Benchmark	TER	Exchange Listed
PowerShares Tradable European Price Momentum Factor UCITS ETF	PFTP.GY	PowerShares	Equity ETF	Selective Tradable European Price Momentum Factor Net Total Return	0.30%	Deutsche Borse
PowerShares Tradable European Low Beta Factor UCITS ETF	PFTB.GY	PowerShares	Equity ETF	Selective Tradable European Low Beta Factor Net Total Return	0.30%	Deutsche Borse
PowerShares Tradable European Quality Factor UCITS ETF	PFTQ.GY	PowerShares	Equity ETF	Selective Tradable European Quality Factor Net Total Return	0.30%	Deutsche Borse
PowerShares Tradable European Value Factor UCITS ETF	PFTV.GY	PowerShares	Equity ETF	Selective Tradable European Value Factor Net Total Return	0.30%	Deutsche Borse
PowerShares Tradable European Earnings Momentum Factor UCITS ETF	PFTE.GY	PowerShares	Equity ETF	Selective Tradable European Earning Momentum Factor Net Total Return	0.30%	Deutsche Borse
Fidelity Europe Quality Income UCITS ETF	FEUQ.GY	Fidelity International	Equity ETF	Fidelity Europe Quality Income Index	0.30%	Deutsche Borse
Fidelity Emerging Markets Quality Income UCITS ETF	FYEM.GY	Fidelity International	Equity ETF	Fidelity Emerging Markets Quality Income Index	0.50%	Deutsche Borse
Lyxor Global Gender Equality DR UCITS ETF	ELLE.FP	Lyxor	Equity ETF	The Solactive Equalibet Global Gender Equality Index	0.35%	Euronext Paris
Amundi ETF iSTOXX Europe Multi-Factor Market Neutral UCITS ETF	MKTN.FP	Amundi	Equity ETF	iSTOXX Europe Multi-Factor Market Neutral Index	0.55%	Euronext Paris
JPMorgan Equity Long-Short UCITS ETF	JLES.LN	JPMorgan	Equity ETF	Active	0.67%	London SE
UBS ETF - J.P. Morgan USD EM Diversified Bond 1-5 UCITS ETF	SEAA.GY	UBS	Fixed Income ETF	JP Morgan USD EM Diversified 3% capped 1-5 Year Bond Index	0.42%	Deutsche Borse
UBS ETF - Bloomberg Barclays Euro Inflation Linked 1-10 UCITS ETF	FRC3.GY	UBS	Fixed Income ETF	Bloomberg Barclays Euro Government Inflation Linked 1-10 Year Index	0.20%	Deutsche Borse
UBS ETF - Bloomberg Barclays Euro Inflation Linked 10+ UCITS ETF	FRC4.GY	UBS	Fixed Income ETF	Bloomberg Barclays Euro Government Inflation Linked 10+ Year Index	0.20%	Deutsche Borse
PowerShares Emerging Markets USD Bond UCITS ETF	PEMD.LN	PowerShares	Fixed Income ETF	Bloomberg Barclays Emerging Markets USD Sovereign Index	0.35%	London SE
PowerShares USD Corporate Bond UCITS ETF	PUIG.LN	PowerShares	Fixed Income ETF	Bloomberg Barclays USD IG Corporate Liquidity Screened Bond Index	0.16%	London SE
PowerShares Euro Corporate Bond UCITS ETF	PSFE.GY	PowerShares	Fixed Income ETF	Bloomberg Barclays Euro Corporate Index	0.16%	Deutsche Borse
iShares Global Aggregate Bond UCITS ETF	AGGG.LN	BlackRock	Fixed Income ETF	Barclays Global Aggregate Bond Index	0.10%	London SE
JPMorgan Managed Futures UCITS ETF	JPMF.LN	JPMorgan	Multi Asset ETF	Active	0.57%	London SE

Source: Deutsche Bank, Bloomberg Finance LP, Reuters



## Investment Themes for the Month

Figure 3: Regional/Country Equity Flows - November - | ETFs | Europe |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters. \*Others includes Sector, Size, Strategy & Thematic ETFs.

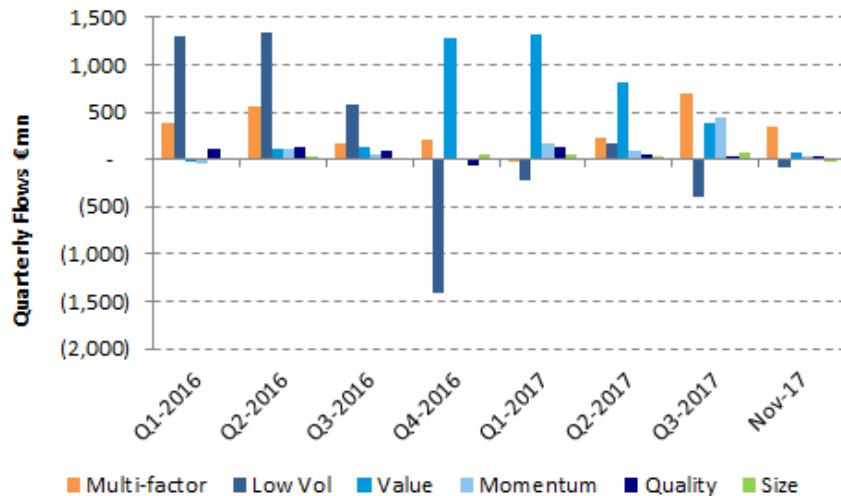
### Equity inflows continues across the regions

The Equity ETFs brought in nearly +€7bn in November across the regions, taking ytd flows to around +€60bn.

- **Inflows into Europe continue into both Eurozone and Pan European indices.** Regional European ETFs gathered +€1.4bn while country focused ETFs saw outflows of -€123mn in November. Including all other equity segments (Smart Beta, Size, Sector etc.), flows into European equities were slightly higher, at +€1.5bn. Index wise, the Euro STOXX 50 (+€372mn), STOXX Europe 600 (+€292mn) and MSCI Europe (+€234mn) benefitted most. At country level, Spain (+€211mn) and UK (+€129mn) focused ETFs gained while Germany had further outflows of -€347mn (-€202mn outflows in Oct'17).
- **\$2bn into US and robust flows into World, EM, Japan & China.** Outside Europe, ETFs providing exposure to US equities had, by far, the strongest month (+€1.9bn) with flows going primarily into the S&P500 index. We also saw strong flows into broad benchmarks tracking Emerging Markets (+€0.9bn, MSCI EM IMI, MSCI EM & MSCI EM Asia) and Developed Markets (+€0.9bn, MSCI World). Country wise, in addition to the US, ETFs tracking Japan and China equities also benefitted seeing +€597mn and +€313mn respectively in November.
- **Smart Beta: Automation & Robotics theme dominates.** European listed Smart Beta ETFs have seen a further +€1bn of inflows taking YTD flows to +€10.7bn. The Thematic sub-segment (+€393mn) was the largest contributor where flows were dominated by the Automation & Robotics theme (+€321mn). Factor ETFs flows (+€360mn) were almost equally strong with investment split between the Multi-Factor (+€339mn) and Value (+€76bn) strategies. ESG (+€182mn) investments continue to be in favour as we have seen in previous months.



Figure 4: Quarterly Flows into Factor Strategies - | ETFs | Europe |



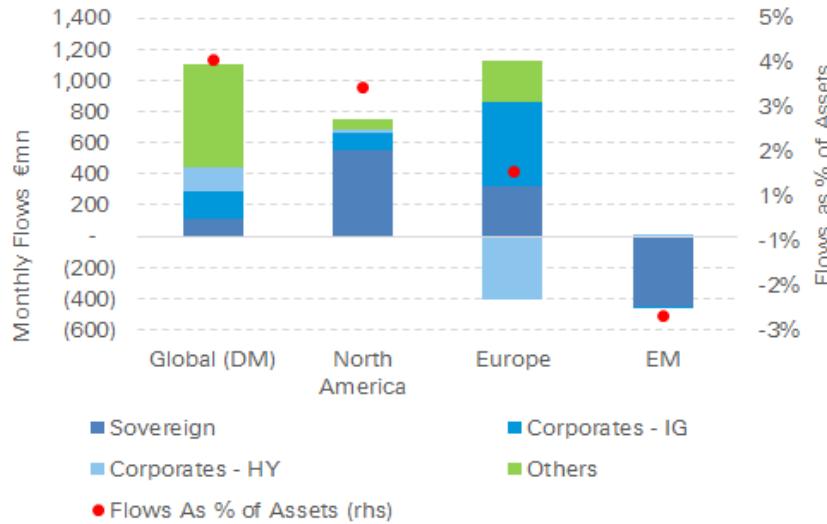
Source: Deutsche Bank, Bloomberg Finance LP, Reuters

- **Inflows into Energy ETFs, Financials saw redemptions.** Within sector ETFs, Energy ETFs recorded inflows of +€202mn which went primarily into MSCI World Energy Index. In contrast, Financial sector ETFs saw -€101mn of net redemptions. US Financials (-€181mn) contributed most which was offset by modest inflows into Global Financials.
- **Net flows into Currency hedged and Leveraged Long products, Small Cap ETFs redemptions driven by Russell 2000.** Currency Hedged ETFs recorded +€1.1bn of inflows in the month of November, mainly into EUR and USD hedged products. Year to date flows into hedged products has reached an impressive +€9.3bn. Small cap based ETFs witnessed outflows of -€236mn which partially offset inflows (+€355mn) in Oct'17. Outflows were mainly from ETFs tracking the Russell 2000 index. Leveraged long products saw investor demand and recorded inflows worth of +€152mn (-€232mn outflows in Oct'17).



### Fixed Income ETFs: Corporate IG & Broad Bonds gathered flows, EM Sovereigns saw redemptions

Figure 5: Regional Fixed Income Flows - November - | ETFs | Europe |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters. \*Others Includes Covered, Credit Exposure, Money Market & Broad Bonds.

The European fixed income ETF market registered strong inflows of +€3bn (+€1.2bn in Oct'17). YTD flows reached at +€27bn.

- **Regional observations: Redemptions in EM along with other High Yield products.** Aside from EM (-€455mn), we have observed solid inflows across all major regions. Global DM bonds benefitted most with inflows of +€1.1bn where a single product tracking Barclays Global Aggregate Bond Index contributed most (+€616mn). North America focused bonds had inflows of +€748mn, primarily into sovereign bonds (+€555mn). Within Europe focused bonds, inflows were into Corporate IG (+€548mn) & Sovereign (+€316mn) bonds but partially offset by outflows in Corporate HY (-€403mn) Bonds.
- **Flows by Segment: Broad bonds saw highest assets growth.** Considering all regions, Corporate Bonds topped in flows ranking (+€1.4bn) followed by Broad (+€1.2bn) and Sovereign (+€514mn). In terms of growth, broad bonds exposure ETFs led with 10% increase in assets while Money Market bonds suffered most with -5.4% decrease in assets during last month.

### Commodity ETPs: Gold & Broad Commodity drive inflows

European Commodity ETP market recorded inflows of +€712mn for the month of November (+€8.7bn YTD). Within Commodity, Gold and Broad Commodity based ETPs recorded monthly inflows of +€633mn and +€325mn respectively while Crude Oil witness outflows of -€292mn. In terms of growth, Broad Commodity Based ETPs led with 4.6% increase in assets While Crude Oil saw greatest fall in assets (-14%).



## Turnover: MoM turnover activity increased by 22%

The total turnover activity into European ETPs increased by 22% where total turnover observed was (€70bn) compared to the last month's total (€57.5bn). All the major asset classes recorded increased turnover activity where Commodity ETPs took the lead by recording 28% increase while Equity and FI increased by 22% and 21% respectively. For more details please refer to [Trading Perspective](#) section.

## Price discounts/premium to NAV Monitor

The price of ETFs may not trade in line with the respective NAVs driven by multiple factors such as supply/demand, market access, duty and varying trading time zones of stocks within an index. In this section we highlight, for ETFs with European equity exposure only, the median, maximum premium and maximum discount observed in varying categories for this month. Figures below illustrate the Price premium/discount to NAV for European ETFs.

- **Equities:** Sector ETFs had the deepest discount (-0.18%) and highest premium (0.37%).
- **Fixed Income:** Covered Bonds had the deepest discount (-0.13%) and Corporate Bonds had the highest premium (0.25%).

**Figure 6: Price premium/discount to NAV - | ETFs | Europe |**

	Nov-17			Oct-17			YTD		
	Max Discount	Max Premium	Median	Max Discount	Max Premium	Median	Max Discount	Max Premium	Median
<b>Equity</b>									
Country	-0.01%	0.23%	0.08%	-0.05%	0.16%	0.08%	-0.22%	0.29%	0.08%
Regional	-0.07%	0.23%	0.02%	-0.11%	0.25%	0.04%	-0.24%	0.30%	0.05%
Size	-0.07%	0.17%	0.05%	-0.03%	0.20%	0.09%	-0.13%	0.45%	0.10%
Style	-0.06%	0.14%	0.01%	-0.08%	0.17%	0.00%	-0.16%	0.24%	0.02%
Sector	-0.18%	0.37%	-0.04%	-0.21%	0.36%	0.02%	-0.48%	0.37%	0.00%
Strategy	-0.02%	0.12%	0.06%	-0.04%	0.16%	0.05%	-0.15%	0.19%	0.05%
<b>Fixed Income</b>									
Sovereign	-0.05%	0.02%	-0.02%	-0.05%	0.02%	-0.02%	-0.08%	0.07%	-0.01%
Corporates	-0.02%	0.25%	0.14%	-0.06%	0.18%	0.13%	-0.06%	0.35%	0.17%
Broad	-0.12%	0.01%	-0.05%	-0.15%	0.00%	-0.05%	-0.56%	0.03%	-0.07%
Money Market	-0.02%	0.02%	0.00%	-0.06%	0.00%	0.00%	-0.06%	0.02%	0.00%
Credit exposure	0.00%	0.00%	-	0.00%	0.00%	-	0.00%	0.00%	-
Covered Bonds	-0.13%	0.21%	0.02%	-0.14%	0.13%	-0.04%	-0.39%	0.24%	0.00%

\*Universe: Europe Listed ETFs with European focus (DM only), AUM>€200mn.

\*Calculation Methodology: We have calculated asset weighted daily avg. Price premium/discount to Nav of a category and then derived max. discount/premium and median for a period.

Source: Deutsche Bank, Bloomberg Finance LP, Reuters



## US Market: Monthly inflows in European equities return

US domiciled ETPs recorded inflows of +\$37bn in November where year-to-date inflows have exceeded +\$400bn . Equity ETFs topped the flow rankings with inflows of +\$31bn followed by +\$6.4bn inflows into fixed income ETFs while Commodity ETPs witness outflows of -\$0.3bn during the same period. In growth terms (flows as % of assets), Fixed Income and Equity ETFs registered 1.2% and 1.1% growth respectively whereas Commodity ETPs saw marginal fall in growth during last month.

Europe focused ETFs (Regional + Country) recorded inflows of +\$556mn after experiencing outflows for the last three consecutive months (-\$813mn, -\$519mn & -\$69mn in Oct, Sep & Aug respectively) primarily into regional indices. The biggest contributor to the inflows were from ETFs tracking MSCI EMU (+\$540mn) and FTSE Developed Europe (+\$362mn). Further, inflows have been recorded into EAFE indices (+\$1.6bn), where Europe represents 65% of the index, which translates to more inflows into the European segment.

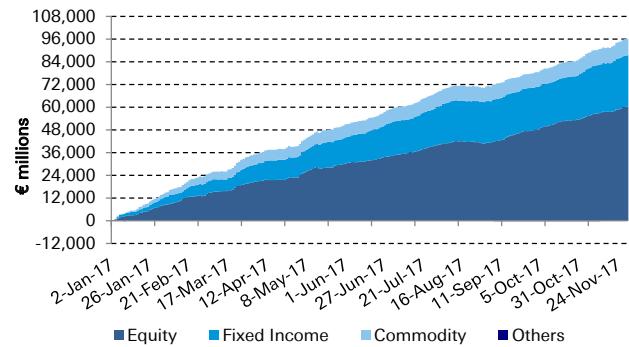
US listed Smart Beta ETFs had continued the positive flow momentum and registered inflows of +\$8bn, year to date flows reached at +\$65bn. Inflows were observed across most factor strategies; Value (+\$1.4bn), Growth (+\$1.3bn), Dividend (+\$1.1bn), Equal-weight (+\$1.1bn), Multi-factor (+\$0.8bn) and Low Vol (+\$0.8bn).



# 1. Investment Trends

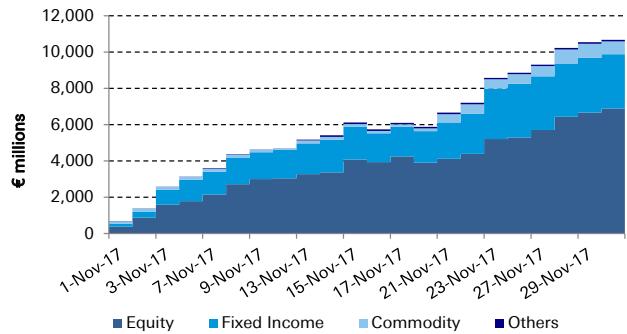
## Cross-Asset Class - | ETPs | Europe |

Figure 7: Cash flows by asset class – YTD



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 8: Cash flows by asset class – Month



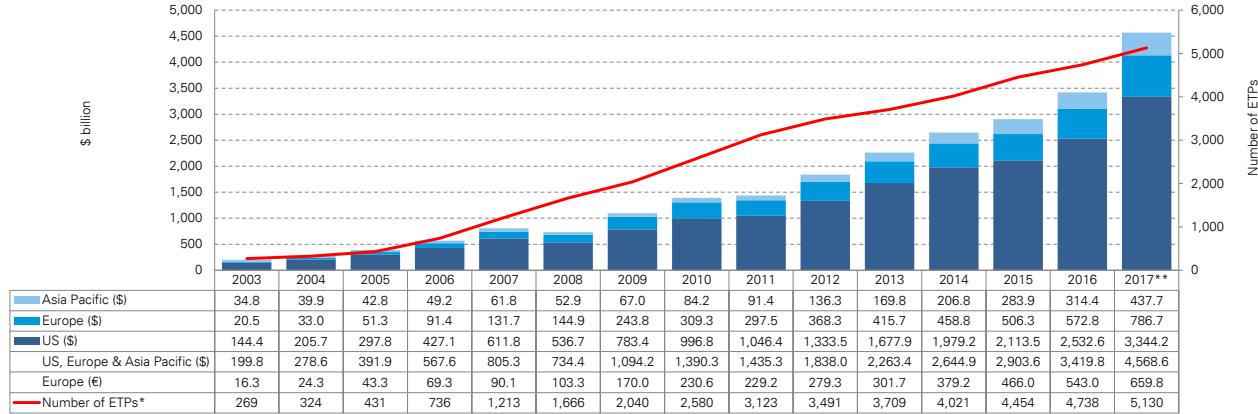
Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## 2. Market Metrics

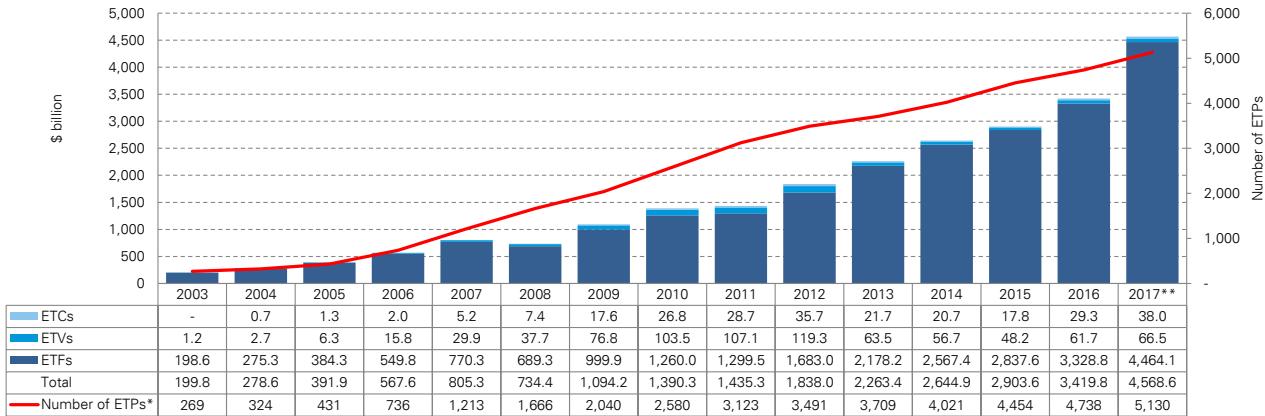
### ETF Industry Asset Evolution

Figure 9: Global ETP regional asset growth - | ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters. \*Number of ETPs at the end of the year is net of delistings for the period. \*\* As of last month

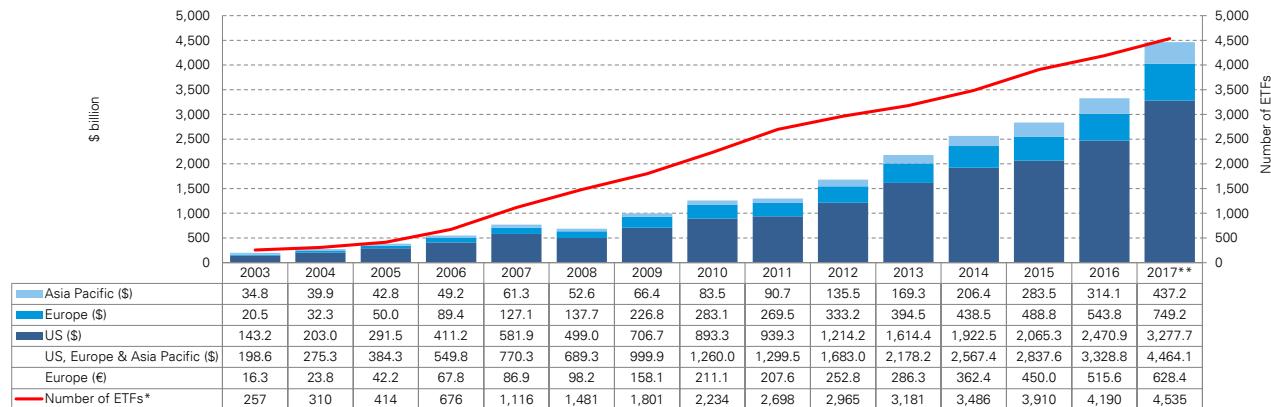
Figure 10: Global ETPs (ETF,ETV & ETC) asset growth - | ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters. \*Number of ETPs at the end of the year is net of delistings for the period. \*\* As of last month

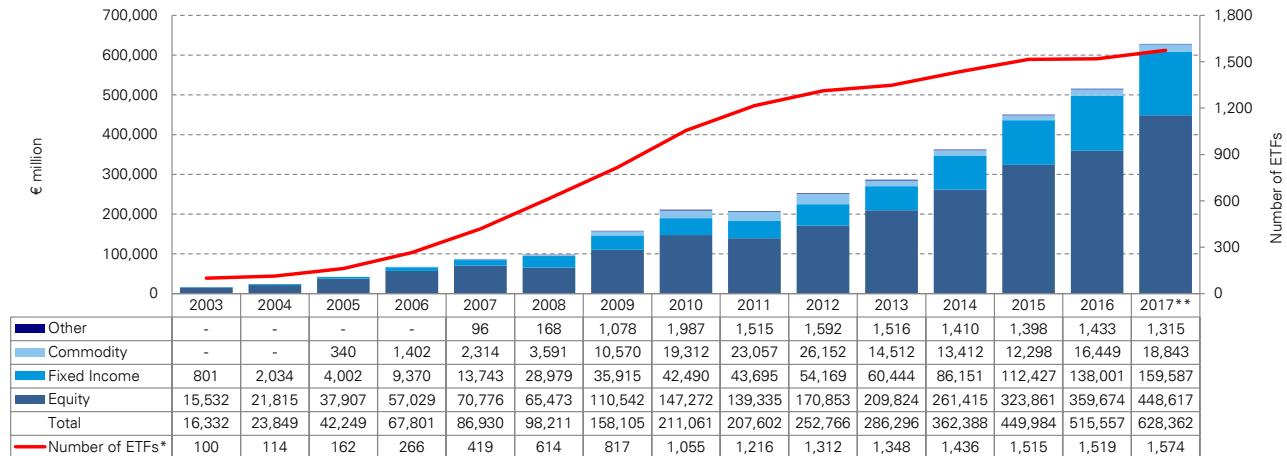


Figure 11: Global ETF regional asset growth - | ETFs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters. \*Number of ETPs at the end of the year is net of delistings for the period. \*\* As of last month

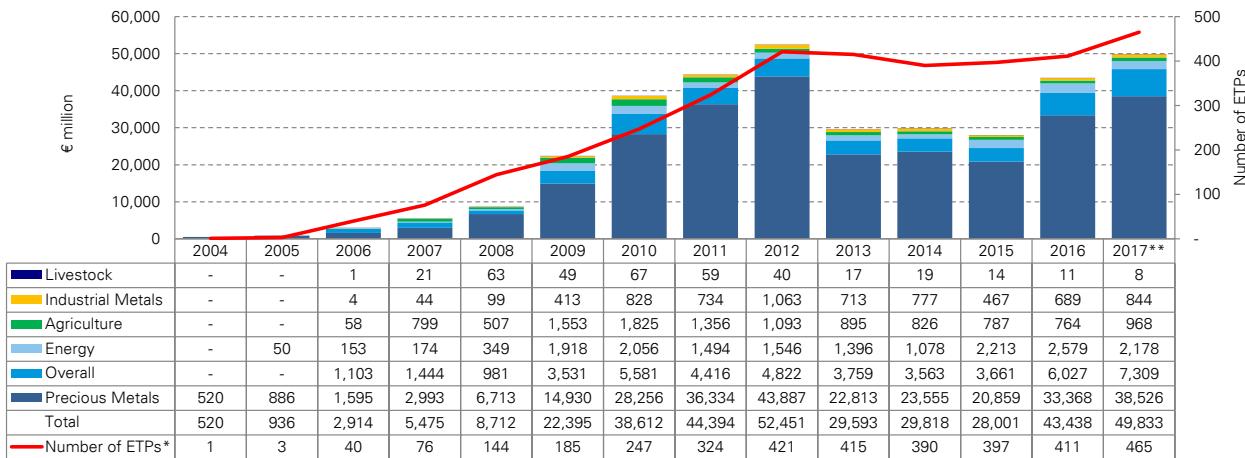
Figure 12: European ETF asset growth by asset class - | ETFs | Europe |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters. \*Number of ETPs at the end of the year is net of delistings for the period. \*\* As of last month

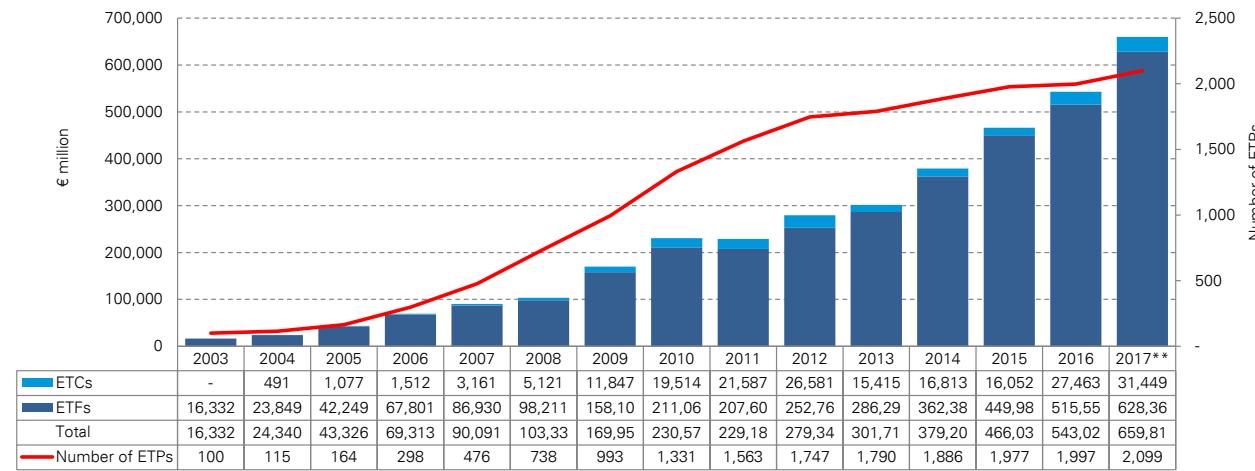


Figure 13: European Commodity ETP (ETF & ETC) asset growth by segment - | ETPs | Europe |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters. \*Number of ETPs at the end of the year is net of delistings for the period. \*\* As of last month

Figure 14: European ETPs (ETF & ETC) asset growth - | ETPs | Europe |

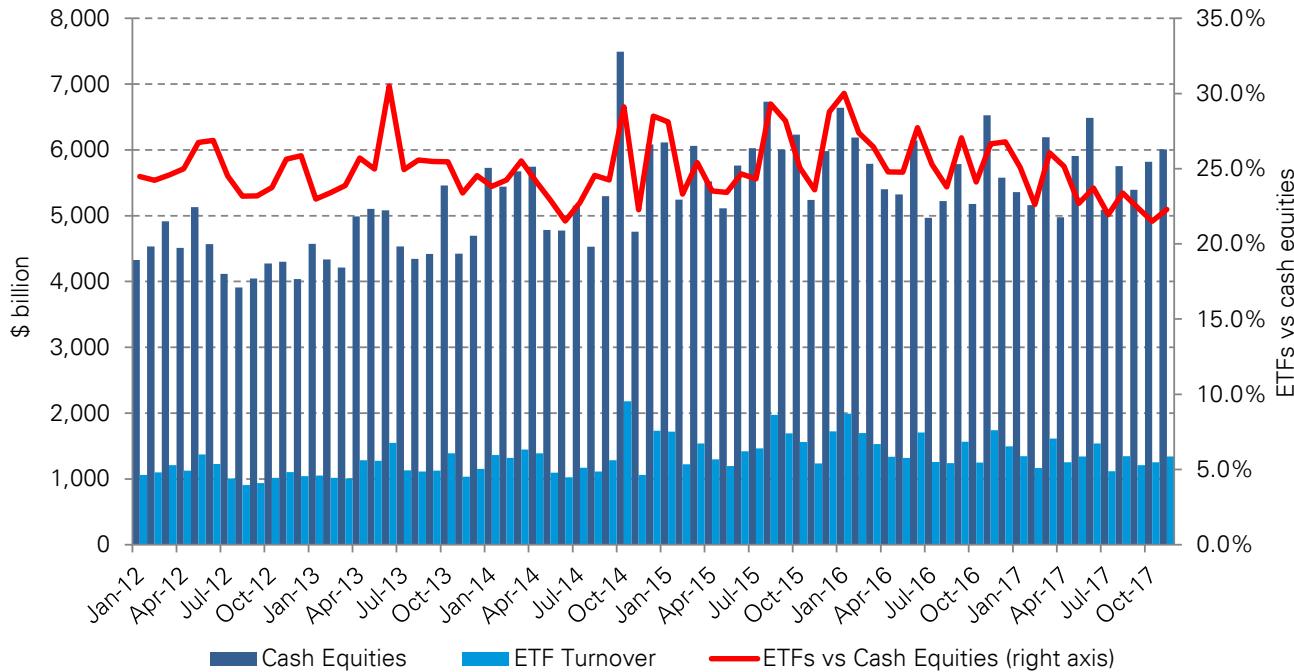


Source: Deutsche Bank, Bloomberg Finance LP, Reuters. \*Number of ETPs at the end of the year is net of delistings for the period. \*\* As of last month.



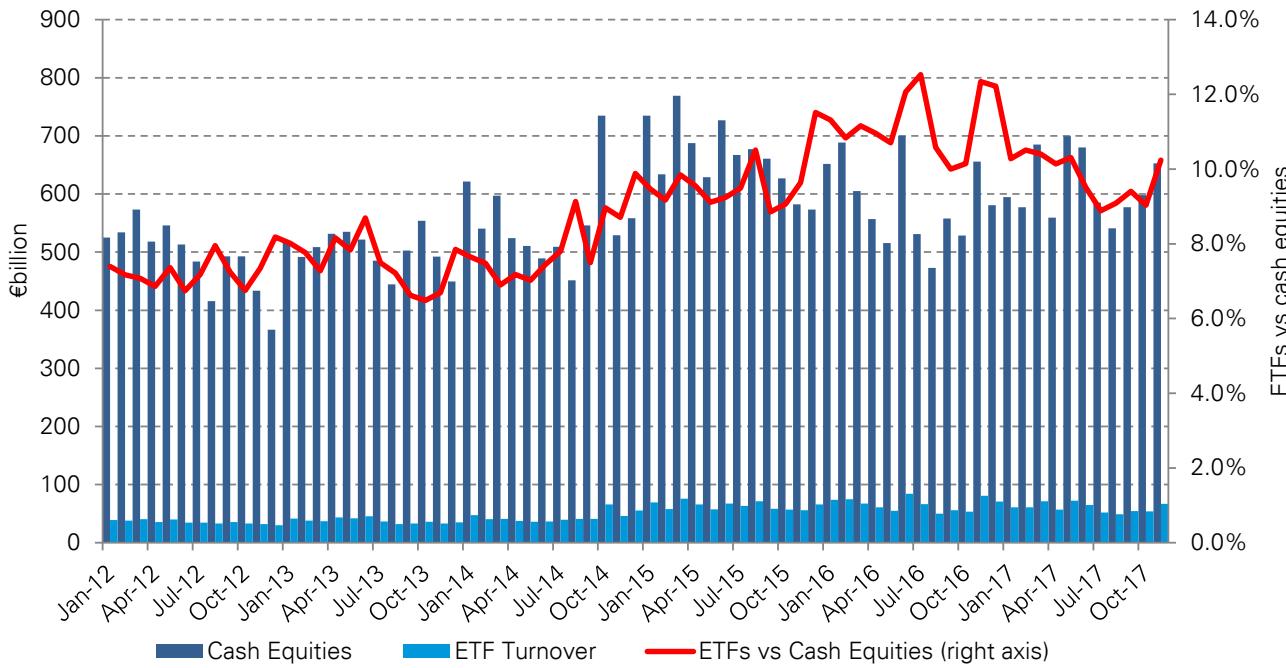
## ETFs vs. Cash Equities

Figure 15: ETFs vs. cash equities turnover – US market - | ETFs | US |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 16: ETFs vs. cash equities turnover – European market - | ETFs | Europe |

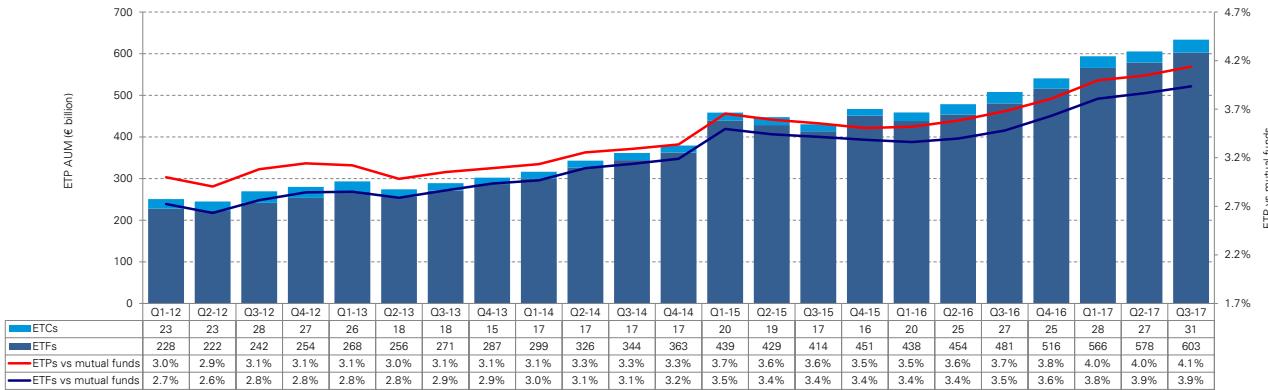


Source: Deutsche Bank, Bloomberg Finance LP, Reuters



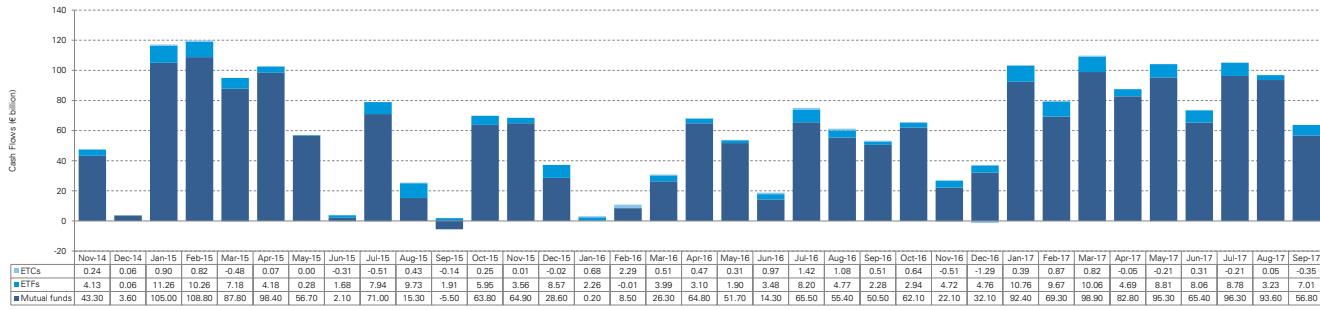
## ETFs vs. Unlisted Mutual Funds

Figure 17: European ETP vs mutual fund assets - | ETPs | Europe |



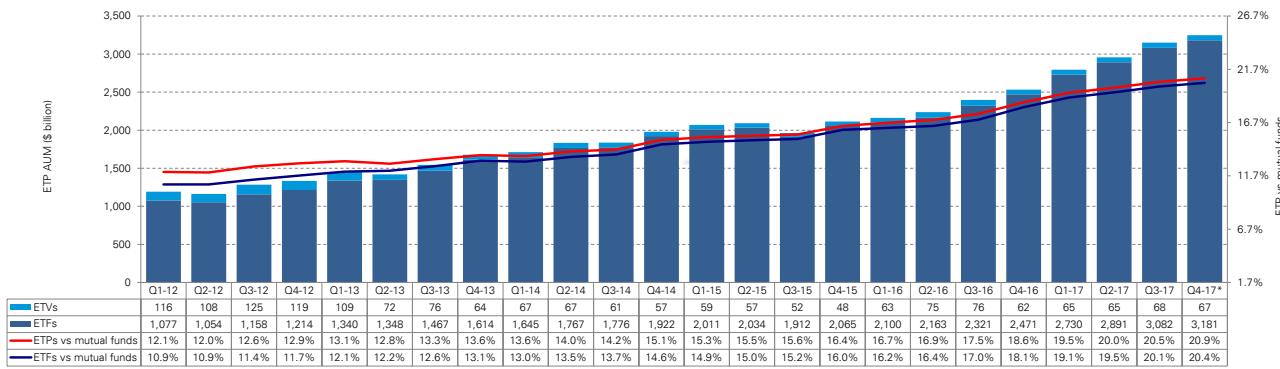
Source: Deutsche Bank, European Fund Management Association (EFAMA), Reuters, Bloomberg Finance LP

Figure 18: European ETP vs mutual fund cash flows - | ETPs | Europe |



Source: Deutsche Bank, European Fund Management Association (EFAMA), Reuters, Bloomberg Finance LP

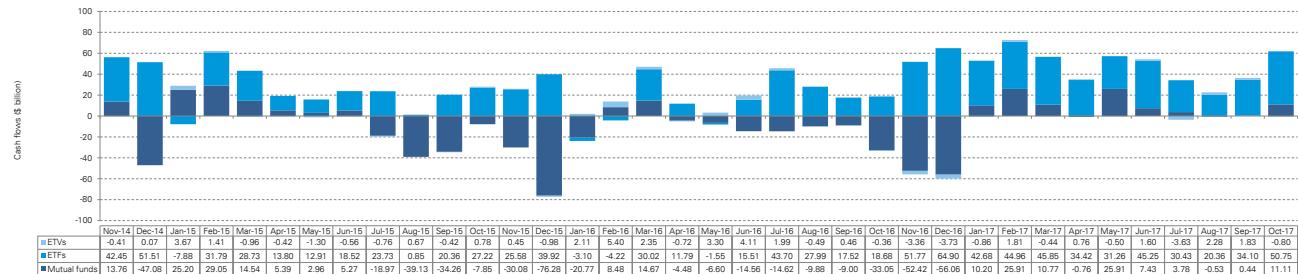
Figure 19: US ETP vs mutual fund assets - | ETPs | US |



Source: Deutsche Bank, Bloomberg Finance LP, ICI. \*Data as of 31-Oct-17.



Figure 20: US ETP vs mutual fund cash flows - |ETPs| US |



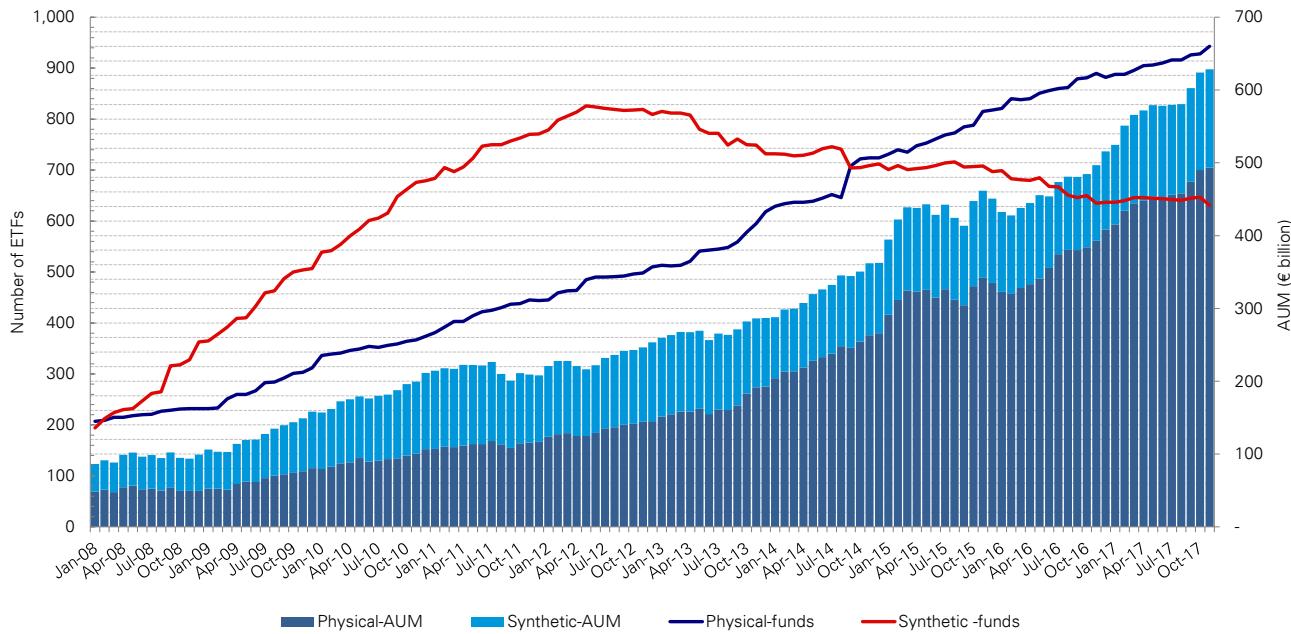
Source: Deutsche Bank, Bloomberg Finance LP, ICI



## European ETF Industry Replication Structure Composition

Synthetic vs Physical

Figure 21: Historical Composition by ETF Structure - | ETFs | Europe |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 22: European AUM ETF market historical asset class analysis by replication technique - | ETFs | Europe |

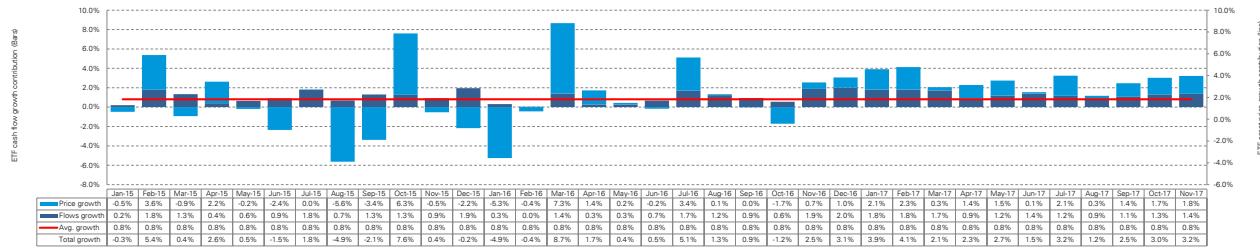
AUM (€ million)	2016		2017*		Nov-17	
	Physical	Synthetic	Physical	Synthetic	Physical	Synthetic
Equity	281,807	77,895	350,424	98,193	350,424	98,193
Fixed Income	115,319	22,682	130,715	28,872	130,715	28,872
Commodity	10,801	5,660	11,656	7,188	11,656	7,188
Others	589	924	622	693	622	693
Total	408,516	107,161	493,417	134,946	493,417	134,946
<b>ETFs (number of products)</b>						
Equity	605	478	652	461	652	461
Fixed Income	240	132	261	129	261	129
Commodity	21	28	21	34	21	34
Others	7	8	9	7	9	7
Total	873	646	943	631	943	631
<b>Cash Flows (€ million)</b>						
Equity	10,573	6,169	46,362	14,071	4,961	1,903
Fixed Income	23,614	-824	19,272	7,692	2,990	1
Commodity	1,231	1,517	1,057	2,347	257	298
Others	145	-59	0	-132	45	23
Total	35,563	6,804	66,691	23,978	8,253	2,224

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. \*Year-to-date (up to 30-Nov-2017) numbers have been provided.



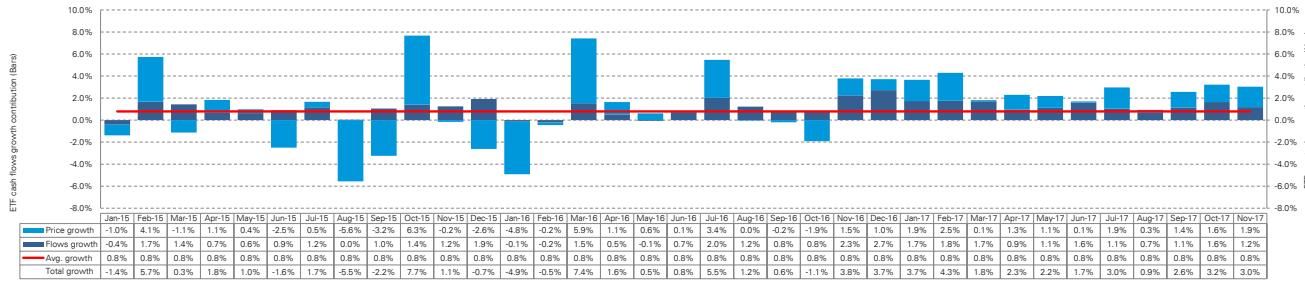
## Industry Growth Analysis

Figure 23: Global ETF Industry growth attribution - | ETFs | Global |



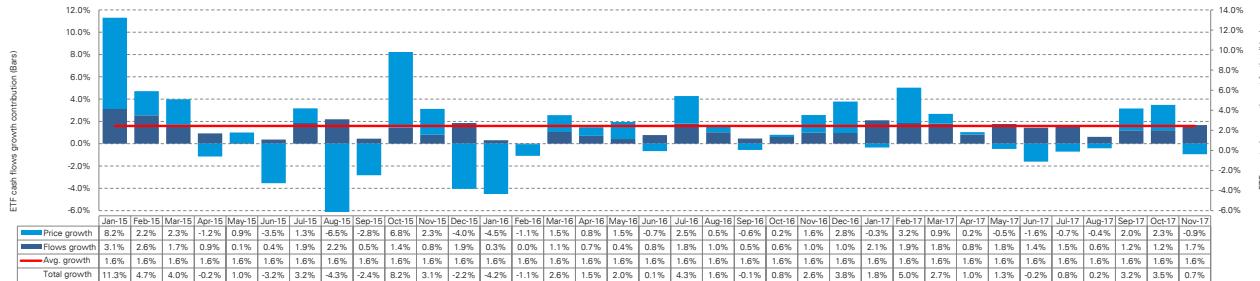
Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 24: US ETF Industry growth attribution - | ETFs | US |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

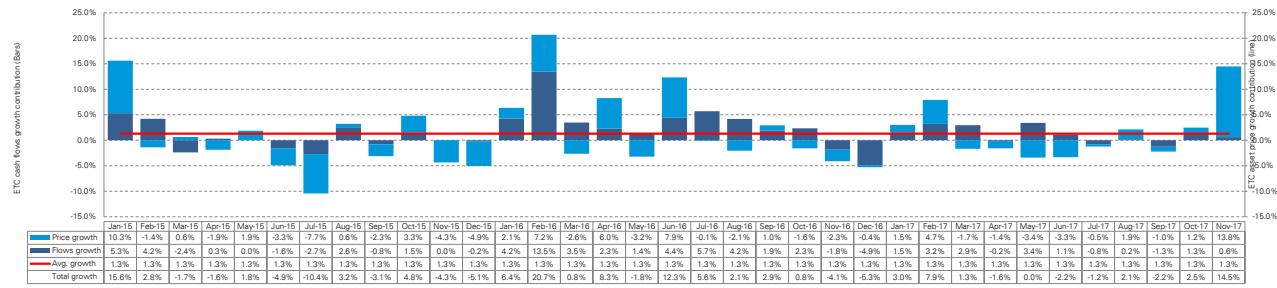
Figure 25: European ETF Industry growth attribution - | ETFs | Europe |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters



Figure 26: European ETC Industry growth attribution - | ETCs | Europe |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters



## 3. Cash Flow Analysis

### Regional Cash Flow Analysis

Figure 27: Global ETP cash flows by region and asset class - | ETPs | Global |

All figures in \$ million except where otherwise stated

Asset Class	Nov-17					Oct-17					YTD				
	US	EU (\$)	EU (€)	Asia	Total	US	EU (\$)	EU (€)	Asia	Total	US	EU (\$)	EU (€)	Asia	Total
<b>ETFs</b>															
Equity	30,789	8,059	6,864	9,247	48,095	40,218	7,128	6,060	-5,777	41,569	293,169	67,815	60,433	51,538	412,521
Fixed income	6,403	3,500	2,990	328	10,230	10,194	1,426	1,222	1,477	13,097	120,664	30,090	26,963	77	150,832
Commodity	148	649	555	-119	679	102	-17	-13	-77	9	442	3,783	3,404	-659	3,566
Currency	-21	0	0	95	74	6	0	0	6	12	-122	0	0	158	36
Multi Asset	190	56	48	11	258	107	3	3	6	116	763	218	195	7	988
Alternative	88	23	20	8	119	128	53	45	17	198	508	-378	-327	272	403
Total	37,597	12,286	10,477	9,571	59,455	50,755	8,593	7,316	-4,347	55,001	415,423	101,529	90,669	51,393	568,345
<b>ETCs/ETVs</b>															
Commodity	-430	186	157	0	-243	-655	465	394	9	-181	927	5,715	5,288	89	6,731
Currency	-152	18	15	0	-134	51	9	8	0	60	-553	18	8	0	-536
Alternative	-7	0	0	0	-7	-201	0	0	0	-201	1,085	0	0	0	1,085
Total	-589	204	172	0	-385	-805	474	401	9	-322	1,458	5,733	5,296	89	7,280
<b>ETPs</b>															
Equity	30,789	8,059	6,864	9,127	47,975	40,218	7,128	6,060	-5,777	41,568	293,169	67,815	60,433	51,408	412,391
Fixed income	6,403	3,500	2,990	448	10,950	10,194	1,426	1,222	1,478	13,098	120,664	30,090	26,963	208	150,962
Commodity	-281	836	712	-119	436	-553	448	381	-68	-173	1,368	9,499	8,692	-570	10,297
Currency	-173	18	15	95	-60	57	9	8	6	72	-675	18	8	158	-500
Multi Asset	190	56	48	11	258	107	3	3	6	116	763	218	195	7	988
Alternative	81	23	20	8	112	-73	53	45	17	-3	1,593	-378	-327	272	1,488
Total	37,008	12,491	10,649	9,571	59,070	49,950	9,067	7,718	-4,339	54,679	416,881	107,262	95,965	51,482	575,626

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

### Asset Class Cash Flow Analysis

Figure 28: European Equity ETF cash flow summary - | ETFs | Europe |

Equity Cash Flows	Nov-17		Oct-17		YTD		
	All figures in € million	Net Flows	% of AUM	Net Flows	% of AUM	Net Flows	% of AUM
Developed Markets	4,768	1.6%		3,204	1.1%	27,688	11.2%
Emerging Markets	998	2.3%		383	1.0%	8,555	28.9%
Global Markets	283	2.7%		206	2.1%	4,284	75.3%
Sector	10	0.0%		1,023	3.6%	5,370	23.4%
Capitalization	-207	-1.7%		469	4.0%	2,634	30.9%
Strategy	438	1.8%		178	0.7%	4,654	23.8%
Style	-46	-0.2%		-168	-0.8%	2,234	11.4%
Thematic	621	5.5%		764	7.5%	5,013	79.4%
<b>Total equities</b>	<b>6,864</b>	<b>1.5%</b>		<b>6,060</b>	<b>1.4%</b>	<b>60,433</b>	<b>16.8%</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



**Figure 29: European Equity ETF cash flow summary - A - | ETFs | Europe |**

Equity Cash Flows	Nov-17		Oct-17		YTD		
	All figures in € million	Net Flows	% of AUM	Net Flows	% of AUM	Net Flows	% of AUM
<b>Sector</b>	10	0.0%		1,023	3.6%	5,370	23.4%
Consumer discretionary	1	0.1%		73	8.1%	-88	-8.6%
Consumer staples	47	4.1%		22	1.9%	156	16.0%
Energy	202	6.4%		152	5.1%	1,301	55.1%
Financials	-101	-0.9%		440	4.2%	3,680	57.7%
Healthcare	-28	-1.0%		68	2.4%	-220	-7.6%
Industrials	-15	-2.0%		11	1.6%	-24	-3.5%
Information Technology	57	2.3%		188	8.9%	463	28.9%
Materials	-86	-6.2%		-24	-1.8%	70	6.6%
Overall	0	0.0%		0	0.0%	2	na
Real Estate	-88	-1.8%		84	1.8%	-152	-3.2%
Telecommunications	43	5.5%		-6	-0.8%	205	30.4%
Utilities	-23	-4.0%		16	2.9%	-23	-4.4%
<b>Capitalization</b>	-207	-1.7%		469	4.0%	2,634	30.9%
Large Cap	-2	-0.7%		0	0.0%	-49	-13.5%
Mid Cap	31	0.8%		114	3.2%	1,531	78.5%
Small Cap	-236	-2.9%		355	4.6%	1,152	18.5%
<b>Strategy</b>	438	1.8%		178	0.7%	4,654	23.8%
Fundamental	28	1.6%		31	1.9%	138	9.1%
Leveraged Long	152	7.9%		-232	-11.2%	-211	-11.9%
Leveraged Short	-51	-4.7%		93	8.8%	454	45.3%
Options Strategy	0	0.0%		0	0.0%	0	0.0%
Quantitative	325	1.8%		350	2.0%	3,954	28.5%
Short	-17	-1.1%		-62	-3.9%	319	22.5%
<b>Style</b>	-46	-0.2%		-168	-0.8%	2,234	11.4%
Dividend	-18	-0.1%		-119	-0.6%	1,811	10.2%
Growth	0	0.0%		-9	-3.3%	-2	-0.7%
Value	-27	-1.2%		-40	-1.8%	425	26.0%
<b>Thematic</b>	621	5.5%		764	7.5%	5,013	79.4%
Commodities	-5	-0.4%		23	1.6%	285	23.0%
Faith	12	6.6%		12	7.2%	-13	-6.5%
Other Theme	423	8.5%		604	14.5%	3,074	164.2%
Sustainability	191	4.0%		125	2.8%	1,667	55.5%
<b>Total</b>	815	0.8%		2,266	2.4%	19,906	25.9%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 30: European Equity ETF cash flow summary – B - | ETFs | Europe |

Equity Cash Flows	Nov-17		Oct-17		YTD		
	All figures in € million	Net Flows	% of AUM	Net Flows	% of AUM	Net Flows	% of AUM
<b>Developed Markets</b>							
<b>Europe</b>	1,276	0.9%		609	0.4%	13,154	10.6%
Austria	12	3.0%		23	6.4%	58	22.4%
Belgium	-6	-12.6%		2	4.7%	-8	-18.8%
Finland	0	0.0%		0	0.0%	37	18.8%
France	0	0.0%		3	0.0%	992	20.9%
Germany	-347	-1.6%		-202	-0.9%	-452	-2.3%
Greece	-4	-2.1%		0	0.0%	15	8.9%
Ireland	0	0.0%		-1	-6.2%	-9	-32.4%
Italy	-80	-4.7%		-73	-4.1%	-451	-25.3%
Netherlands	-22	-4.1%		-20	-3.8%	-105	-19.2%
Norway	4	1.1%		0	0.0%	2	0.6%
Portugal	-2	-3.6%		-2	-3.4%	18	44.9%
Spain	211	13.6%		94	6.6%	392	33.0%
Sweden	-42	-2.1%		69	3.7%	50	3.0%
Switzerland	26	0.2%		-61	-0.6%	308	3.1%
UK	129	0.8%		-24	-0.2%	185	1.2%
Europe broad	1,398	1.6%		803	0.9%	12,123	17.7%
<b>Americas</b>	2,001	2.3%		515	0.6%	6,786	8.7%
US	1,940	2.3%		408	0.5%	6,875	9.3%
Canada	3	0.2%		122	8.4%	20	1.1%
North America	58	0.0%		-15	0.0%	-109	0.0%
<b>Asia</b>	599	2.3%		1,077	4.5%	3,733	17.7%
Australia	6	0.5%		-44	-4.2%	-262	-20.4%
Hong Kong	16	7.7%		19	10.4%	38	22.7%
Japan	598	2.7%		1,052	5.4%	3,423	19.8%
Singapore	3	4.7%		1	2.4%	5	10.8%
Asia Pacific broad	-23	-0.8%		49	1.7%	528	23.1%
<b>Global</b>	891	3.0%		1,004	3.6%	4,011	16.1%
Broad indices	891	3.0%		1,004	3.6%	4,011	16.1%
<b>DM Total</b>	4,767	1.6%		3,204	1.1%	27,685	11.2%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



**Figure 31: European Equity ETF cash flow summary – C - | ETFs | Europe |**

Equity Cash Flows	Nov-17		Oct-17		YTD		
	All figures in € million	Net Flows	% of AUM	Net Flows	% of AUM	Net Flows	% of AUM
<b>Emerging Markets</b>							
<b>BRIC</b>	335	5.1%		100	1.6%	665	11.6%
Brazil	-53	-5.9%		5	0.6%	74	10.5%
Russia	92	8.0%		-6	-0.5%	183	14.9%
India	-17	-0.9%		-37	-2.1%	21	1.4%
China	313	11.7%		138	5.8%	386	17.1%
<b>Latin America</b>	-104	-5.2%		-2	-0.1%	-123	-7.0%
Chile	0	0.0%		0	0.0%	0	0.0%
Mexico	-2	-2.1%		-7	-5.2%	-17	-13.9%
LATAM broad	-101	-10.2%		5	0.5%	-105	-11.5%
<b>Asia</b>	150	1.5%		12	0.1%	1,187	16.3%
Bangladesh	0	0.0%		0	0.0%	-4	-15.1%
Indonesia	5	2.5%		0	-0.2%	60	40.0%
Malaysia	-1	-2.3%		0	0.0%	4	7.8%
Pakistan	2	6.8%		3	12.4%	3	9.4%
Philippines	-4	-7.2%		0	0.0%	4	8.5%
South Korea	-13	-1.2%		-36	-3.6%	173	25.2%
Taiwan	-128	-20.8%		-10	-1.7%	-19	-4.3%
Thailand	3	5.0%		2	5.2%	-2	-3.7%
Vietnam	0	-0.2%		-2	-0.9%	-38	-16.2%
Asia Pacific broad	288	9.7%		54	2.0%	1,006	57.6%
<b>EMEA</b>	-67	-5.5%		10	0.9%	60	6.3%
Bulgaria	0	-0.3%		0	0.8%	0	2.3%
Kuwait	-6	-92.3%		0	0.0%	-6	-96.2%
Poland	-6	-5.7%		-4	-3.5%	-6	-7.5%
South Africa	-4	-3.9%		1	1.0%	3	2.9%
Turkey	-21	-6.5%		-4	-1.1%	32	14.9%
Europe broad	-31	-5.5%		15	2.8%	60	14.5%
Middle East & Africa	0	0.1%		1	1.3%	-24	-18.0%
<b>Global Markets</b>	684	2.4%		263	1.0%	6,766	36.7%
Global	684	2.4%		263	1.0%	6,766	36.7%
<b>EM Total</b>	998	2.3%		383	1.0%	8,554	28.9%
<b>Total (EM + DM)</b>	5,765	1.7%		3,587	1.1%	36,239	13.1%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

**Figure 32: European Fixed Income ETF cash flows - | ETFs | Europe |**

FI Cash Flows	Nov-17		Oct-17		YTD		
	All figures in € million	Net Flows	% of AUM	Net Flows	% of AUM	Net Flows	% of AUM
Overall	1,169	11.5%		-103	-1.0%	2,338	25.2%
Corporates	1,442	2.0%		1,360	1.9%	12,567	20.3%
Covered Bonds	9	0.3%		-23	-0.9%	-249	-8.6%
Credit Exposure	2	0.8%		6	2.1%	74	35.9%
Sovereign	514	0.7%		39	0.1%	11,497	18.6%
Money Market	-147	-5.1%		-57	-1.9%	735	35.1%
<b>Total Fixed Income</b>	2,990	1.9%		1,222	0.8%	26,963	19.5%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 33: European Commodity ETP cash flow summary - | ETPs | Europe |

Commodity Cash Flows	Nov-17		Oct-17		YTD		
	All figures in € million	Net Flows	% of AUM	Net Flows	% of AUM	Net Flows	% of AUM
<b>Overall</b>	330	4.6%		6	0.1%	2,154	35.7%
Overall	325	4.6%		3	0.0%	2,185	37.4%
Overall ex Energy	4	3.6%		3	3.1%	-26	-13.7%
Overall Light Energy	0	0.0%		0	0.0%	-5	-99.2%
Overall Ultra Light Energy	0	0.0%		0	0.0%	0	0.0%
<b>Agriculture</b>	-13	-1.3%		0	0.0%	359	46.9%
Overall	20	3.8%		-2	-0.5%	212	56.6%
Cocoa	-4	-5.7%		-11	-13.0%	53	235.6%
Coffee	3	3.1%		19	23.1%	67	110.6%
Corn	-12	-19.5%		0	0.4%	4	6.4%
Cotton	0	2.7%		0	-1.7%	4	37.8%
Grains	1	2.8%		-1	-3.6%	-9	-26.0%
Softs	0	-1.6%		0	-4.7%	0	7.4%
Soybean Oil	0	-0.4%		0	-8.4%	0	-11.5%
Soybeans	2	17.0%		-2	-14.9%	2	12.4%
Sugar	-2	-4.1%		-2	-5.1%	28	92.3%
Wheat	-21	-14.4%		0	-0.2%	-1	-0.6%
<b>Energy</b>	-261	-11.0%		-110	-4.7%	-43	-1.7%
Overall	6	4.2%		32	31.5%	18	12.3%
Carbon	0	16.9%		0	27.9%	1	77.3%
Crude Oil	-292	-13.9%		-156	-7.4%	-192	-8.4%
Gasoline	0	-2.1%		0	-4.9%	0	2.0%
Heating Oil	0	2.6%		0	1.7%	0	6.4%
Natural Gas	25	18.8%		14	10.3%	129	90.7%
Electricity	0	0.0%		0	0.0%	0	0.0%
Uranium	0	0.0%		0	0.0%	0	0.0%
<b>Industrial Metals</b>	69	8.2%		-21	-2.6%	123	17.8%
Overall	43	12.4%		11	3.5%	107	43.3%
Aluminium	2	1.4%		-2	-1.9%	12	13.4%
Copper	26	12.0%		-22	-9.8%	19	9.4%
Lead	0	9.8%		0	2.7%	-1	-25.3%
Nickel	-3	-2.4%		-5	-4.8%	-3	-2.6%
Tin	0	13.2%		-1	-19.8%	-1	-16.0%
Zinc	1	2.4%		-1	-6.4%	-11	-35.9%
<b>Precious Metals</b>	588	1.5%		505	1.3%	6,101	18.3%
Overall	-1	-0.5%		9	5.0%	32	21.3%
Gold	633	1.8%		465	1.4%	6,036	20.5%
Palladium	0	-0.1%		-6	-1.8%	-178	-40.8%
Platinum	10	1.3%		28	4.0%	5	0.6%
Rhodium	-3	-4.4%		0	0.0%	-7	-16.4%
Silver	-50	-1.9%		10	0.4%	212	8.2%
<b>Livestock</b>	-1	-8.1%		-1	-6.3%	-2	-16.0%
Overall	-1	-25.2%		0	8.2%	0	1.2%
Cattle	0	-1.6%		0	-10.8%	0	-10.2%
Lean Hogs	0	-2.5%		-1	-10.3%	-2	-22.2%
<b>Total</b>	712	1.4%		381	0.8%	8,692	20.0%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## Product Rankings

Figure 34: Top 10 monthly Equity ETF inflows (€ million) - | ETFs | Europe |

ETF Name	BBG Ticker	Issuer	Invest. Strategy	Current Month Flows	Prev. Month Flows	YTD Flows
db x-trackers MSCI Japan Index UCITS ETF 1C	XMJP GR	Deutsche AM	Beta	511.6	472.2	1,568.0
iShares Core MSCI World UCITS ETF (Acc)	SWDA LN	BlackRock	Beta	504.8	231.9	2,325.7
Lyxor ETF S&P 500	LYPS GR	Lyxor	Beta	503.1	57.1	1,714.9
iShares Euro STOXX 50 (DE)	SXEE EX GR	BlackRock	Beta	476.9	64.3	1,799.6
Lyxor STOXX Europe 600 DR UCITS ETF	MEUD FP	Lyxor	Beta	362.4	4.6	740.7
iShares MSCI Emerging Markets IMI UCITS ETF	EMIM NA	BlackRock	Beta	360.5	89.6	2,297.9
iShares Core S&P 500 UCITS ETF	CSSPX SW	BlackRock	Beta	326.9	8.4	1,568.0
Amundi ETF MSCI Europe UCITS ETF	CEU FP	Amundi	Beta	301.1	28.4	878.0
Vanguard S&P 500 ETF	VUSA LN	Vanguard	Beta	275.9	57.1	625.7
Amundi ETF MSCI EM Asia UCITS ETF	AASI FP	Amundi	Beta	267.4	0.0	623.2

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 35: Top 10 monthly Fixed Income ETF inflows (€ million) - | ETFs | Europe |

ETF Name	BBG Ticker	Issuer	Invest. Strategy	Current Month Flows	Prev. Month Flows	YTD Flows
iShares \$ Short Duration Corporate Bond UCITS ETF	SDIG LN	BlackRock	Beta	628.6	266.2	1,279.7
iShares Global Aggregate Bond UCITS ETF	AGGG LN	BlackRock	Beta	616.4	0.0	616.4
PIMCO Euro Short Maturity Source UCITS ETF	PJS1 GR	PowerShares	Alpha	444.8	-35.6	546.1
iShares Core Euro Corporate Bond UCITS ETF	IEBC LN	BlackRock	Beta	301.3	377.6	826.8
iShares US Mortgage Backed Securities UCITS ETF	IMBS LN	BlackRock	Beta	281.6	20.3	335.3
iShares USD TIPS 0-5 UCITS ETF	TIP5 LN	BlackRock	Beta	195.2	16.9	340.0
AMUNDI ETF Floating Rate USD Corporate UCITS ETF	AFLT FP	Amundi	Beta	138.3	285.8	997.2
iShares \$ Treasury Bond 1-3yr UCITS ETF	IBTS LN	BlackRock	Beta	109.6	12.2	904.0
Amundi ETF Floating Rate USD Corporate UCITS ETF - Hedged EUR	AFLE FP	Amundi	Beta	109.0	-87.8	2,157.2
iShares Euro Ultrashort Bond UCITS ETF	ERNE LN	BlackRock	Beta	108.8	53.5	610.8

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 36: Top 10 monthly Commodity ETP inflows (€ million) - | ETPs | Europe |

ETP Name	BBG Ticker	Issuer	Invest. Strategy	Current Month Flows	Prev. Month Flows	YTD Flows
Source Bloomberg Commodity UCITS ETF	CMOD LN	PowerShares	Beta	285.4	-78.5	870.5
iShares Diversified Commodity Swap UCITS ETF	ICOM LN	BlackRock	Beta	165.1	2.5	669.7
db Physical Gold Euro Hedged ETC	XAD1 GR	Deutsche AM	Beta	164.0	18.6	477.6
UBS-IS Gold (CHF) Hedged ETF A	AUCHAH SW	UBS	Beta	140.6	5.9	212.0
UBS ETF (CH) - Gold (USD) I-dis	AUUSI SW	UBS	Beta	119.2	-1.1	827.3
ETFS Physical Gold	PHAU LN	ETF Securities	Beta	92.0	144.1	235.0
db Physical Gold ETC (EUR)	XAD5 GR	Deutsche AM	Beta	81.1	-16.9	28.2
ETFS EUR Daily Hedged Industrial Metals	EIMT IM	ETF Securities	Beta	60.6	-25.5	59.9
UBS ETC linked to the UBS Bloomberg CMCI Composite USD Total Return Index	CMCU LN	UBS	Beta	44.9	-8.5	111.1
ComStage ETF Commerzbank Commodity EW Index TR	CBCOMM GR	ComStage	Beta	36.1	39.1	-114.7

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



**Figure 37: Top 10 monthly Equity ETF outflows (€ million) - | ETFs | Europe |**

ETF Name	BBG Ticker	Issuer	Invest. Strategy	Current Month Flows	Prev. Month Flows	YTD Flows
iShares Core DAX UCITS ETF DE	DAXEX GR	BlackRock	Beta	-233.6	-106.2	-551.4
Lyxor UCITS ETF Japan Topix -D-JPY	LYJPN SW	Lyxor	Beta	-188.0	93.6	228.1
Financials S&P US Select Sector Source ETF	XLFS LN	PowerShares	Beta	-181.1	-93.4	-256.3
iShares MSCI Europe UCITS ETF (Inc)	IMEU LN	BlackRock	Beta	-149.9	4.9	-1,097.2
iShares MSCI Taiwan UCITS ETF	ITWN LN	BlackRock	Beta	-128.3	0.0	-23.7
iShares MSCI Japan EUR Hedged UCITS ETF	IJPE LN	Blackrock	Beta	-105.4	38.2	-278.2
iShares S&P 500 UCITS ETF (Inc)	IUSA LN	BlackRock	Beta	-105.2	-34.5	-1,035.8
iShares EURO STOXX 50 UCITS ETF (Inc)	EUNE SW	BlackRock	Beta	-104.9	84.3	-512.6
Source S&P 500 UCITS ETF	SPXS LN	PowerShares	Beta	-102.1	-102.2	-617.9
SPDR S&P US Dividend Aristocrats ETF	SPYD GY	State Street	Beta	-101.0	-92.2	-332.6

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

**Figure 38: Top 10 monthly Fixed Income ETF outflows (€ million) - | ETFs | Europe |**

ETF Name	BBG Ticker	Issuer	Invest. Strategy	Current Month Flows	Prev. Month Flows	YTD Flows
iShares J.P. Morgan \$ Emerging Markets Bond UCITS ETF	SEMB LN	BlackRock	Beta	-470.6	-103.1	1,539.2
iShares Euro High Yield Corporate Bond UCITS ETF	IHYG LN	BlackRock	Beta	-377.7	49.7	-693.0
db x-trackers II Emerging Markets Liquid EuroBond UCITS ETF 1C EUR - Hedged	XEMB GR	Deutsche AM	Beta	-162.5	-45.7	113.5
iShares GBP Corporate Bond UCITS ETF	SLXX LN	BlackRock	Beta	-148.3	92.8	-151.6
db x-trackers II EONIA TR Index UCITS ETF	XEON GR	Deutsche AM	Beta	-126.2	-28.6	54.1
db x-trackers II iBoxx Euro Sovereigns Eurozone Yield Plus Index UCITS ETF	XY4P GR	Deutsche AM	Beta	-120.2	0.0	-538.9
Lyxor US\$ 10Y Inflation Expectations UCITS ETF C-USD	INFU FP	Lyxor	Beta	-117.9	50.3	360.3
iShares Euro Aggregate Bond UCITS ETF	SEAG LN	BlackRock	Beta	-106.2	-222.4	-306.5
iShares Euro Corporate Bond Large Cap UCITS ETF	IBCS GR	BlackRock	Beta	-98.3	102.2	-686.0
iShares Euro Corporate Bond Sustainability Screened 0-3yr UCITS ETF	SUSE LN	BlackRock	Beta	-76.1	31.1	122.9

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

**Figure 39: Top 10 monthly Commodity ETP outflows (€ million) - | ETPs | Europe |**

ETP Name	BBG Ticker	Issuer	Invest. Strategy	Current Month Flows	Prev. Month Flows	YTD Flows
iShares Diversified Commodity Swap UCITS ETF DE	DJCOMEX GR	BlackRock	Beta	-155.9	106.3	-399.9
ETFS WTI Crude Oil	CRUD LN	ETF Securities	Beta	-99.9	-36.3	-67.7
Boost Wti Oil 3X Leverage Daily ETP	3OIL LN	WisdomTree	Beta+	-65.7	-12.1	-17.0
LGIM Commodity Composite Source ETF	LGCF LN	PowerShares	Beta	-49.2	6.4	28.8
ETFS Physical Silver	PHAG LN	ETF Securities	Beta	-48.2	7.4	13.2
ETFS Brent 1mnth Oil	OILB LN	ETF Securities	Beta	-41.9	-48.8	-55.3
Source Physical Gold ETC (P-ETC)	SGLD LN	PowerShares	Beta	-26.0	-22.7	1,121.0
ETFS EUR Daily Hedged Wheat	00XS GY	ETF Securities	Beta	-24.0	0.1	-8.8
ETFS Daily Leveraged Crude Oil	LOIL LN	ETF Securities	Beta+	-22.4	-5.0	-17.4
ETFS EUR Daily Hedged WTI Crude Oil	00XM GY	ETF Securities	Beta	-18.1	-3.8	-22.8

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## 4. Product Review

### New Products Launched in the Month

Figure 40: Number of ETPs by Asset Class - | ETPs | Global |

Asset Class	Nov-17		Oct-17		MoM Change		End of 2016		YTD Change	
	Nu.	Mkt Share %	Nu.	Nu.	%	Nu.	Nu.	%		
<b>ETFs</b>										
Equity	3,402	66.3%	3,361	41	66.3%	3,193	209	67.4%		
Fixed income	856	16.7%	847	9	16.7%	764	92	16.1%		
Commodity	135	2.6%	132	3	2.6%	111	24	2.3%		
Currency	26	0.5%	26	-	0.5%	21	5	0.4%		
Multi Asset	71	1.4%	63	8	1.2%	54	17	1.1%		
Alternative	45	0.9%	45	-	0.9%	47	(2)	1.0%		
Total	4,535	88.4%	4,474	61	88.3%	4,190	345	88.4%		
<b>ETCVs</b>										
Equity	-	0.0%	0	-	0.0%	0	-	0.0%		
Commodity	459	8.9%	459	-	9.1%	412	47	8.7%		
Currency	132	2.6%	132	-	2.6%	132	-	2.8%		
Alternative	4	0.1%	4	-	0.1%	4	-	0.1%		
Total	595	11.6%	595	-	11.7%	548	47	11.6%		
<b>Total ETPs</b>	<b>5,130</b>	<b>100.0%</b>	<b>5,069</b>	<b>61</b>	<b>100.0%</b>	<b>4,738</b>	<b>392</b>	<b>100.0%</b>		

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 41: Number of ETPs by Asset Class - | ETPs | Europe |

Asset Class	Nov-17		Oct-17		MoM Change		End of 2016		YTD Change	
	Nu.	Mkt Share %	Nu.	Nu.	%	Nu.	Nu.	%		
<b>ETFs</b>										
Equity	1,113	53.0%	1,121	(8)	-0.4%	1,086	27	1.4%		
Fixed income	390	18.6%	384	6	0.3%	371	19	1.0%		
Commodity	55	2.6%	55	-	0.0%	48	7	0.4%		
Currency	-	0.0%	0	-	0.0%	0	-	0.0%		
Multi Asset	11	0.5%	10	1	0.0%	8	3	0.2%		
Alternative	5	0.2%	5	-	0.0%	6	(1)	-0.1%		
Total	1,574	75.0%	1,575	(1)	0.0%	1,519	55	2.8%		
<b>ETCs</b>										
Commodity	410	19.5%	410	-	0.0%	363	47	2.4%		
Currency	115	5.5%	115	-	0.0%	115	-	0.0%		
Total	525	25.0%	525	-	0.0%	478	47	2.4%		
<b>Total ETPs</b>	<b>2,099</b>	<b>100.0%</b>	<b>2,100</b>	<b>(1)</b>	<b>0.0%</b>	<b>1,997</b>	<b>102</b>	<b>5.1%</b>		

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 42: New ETF launches - | ETFs | Europe |

Launch / listing date	Bloomberg Ticker	Reuters Code	Issuer	ETF Name	Asset class	Invest. Strategy	Focus	Market flag	Benchmark	Long /Short/ Leverage	TER	Exchange Listed
<b>New Launches</b>												
1-Nov-17	FEUQ.GY	FEUQ.DE	Fidelity International	Fidelity Europe Quality Income UCITS ETF	Equity	Beta	Dividend	DM	Fidelity Europe Quality Income Index	1L	0.30%	Deutsche Borse
1-Nov-17	FYEM.GY	FYEM.DE	Fidelity International	Fidelity Emerging Markets Quality Income UCITS ETF	Equity	Beta	Dividend	EM	Fidelity Emerging Markets Quality Income Index	1L	0.50%	Deutsche Borse
6-Nov-17	ELLE.FP	LYELLE.PA	Lyxor	Lyxor Global Gender Equality DR UCITS ETF	Equity	Beta	Other Theme	DM	The Solactive Eqlleap Global Gender Equality Index	1L	0.35%	Euronext Paris
7-Nov-17	MKTN.FP	MKTN.PA	Amundi	Amundi ETF ISTOXX Europe Multi-Factor Market Neutral UCITS ETF	Equity	Beta	Quantitative	DM	ISTOXX Europe Multi-Factor Market Neutral Index	1L	0.55%	Euronext Paris
8-Nov-17	SEAA.GY	SEAA.DE	UBS	UBS ETF - J.P. Morgan USD EM Diversified Bond 1-5 UCITS ETF	Fixed Income	Beta	Overall	EM	JP Morgan USD EM Diversified 3% capped 1-5 Year Bond Index	1L	0.42%	Deutsche Borse
9-Nov-17	FRC3.GY	FRC3.DE	UBS	UBS ETF - Bloomberg Barclays Euro Inflation Linked 1-10 UCITS ETF	Fixed Income	Beta	Overall	DM	Bloomberg Barclays Euro Government Inflation Linked 1-10 Year Index	1L	0.20%	Deutsche Borse
9-Nov-17	FRC4.GY	FRC4.DE	UBS	UBS ETF - Bloomberg Barclays Euro Inflation Linked 10+ UCITS ETF	Fixed Income	Beta	Overall	DM	Bloomberg Barclays Euro Government Inflation Linked 10+ Year Index	1L	0.20%	Deutsche Borse
14-Nov-17	JPMF.LN	JPMFL	JPMorgan	JPMorgan Managed Futures UCITS ETF	Multi Asset	Alpha	Moderate	Overall	Active	ILS	0.57%	London SE
14-Nov-17	JLES.LN	JLES.I	JPMorgan	JPMorgan Equity Long-Short UCITS ETF	Equity	Alpha	Global	DM	Active	ILS	0.67%	London SE
17-Nov-17	PEMD.LN	PEMD.L	PowerShares	PowerShares Emerging Markets USD Bond UCITS ETF	Fixed Income	Beta	Overall	EM	Bloomberg Barclays Emerging Markets USD Sovereign Index	1L	0.35%	London SE
17-Nov-17	PUIG.LN	PUIG.L	PowerShares	PowerShares USD Corporate Bond UCITS ETF	Fixed Income	Beta	Overall	EM	Bloomberg Barclays USD IG Corporate Liquidity Screened Bond Index	1L	0.16%	London SE
20-Nov-17	PSFE.GY	PSFE.DE	PowerShares	PowerShares Euro Corporate Bond UCITS ETF	Fixed Income	Beta	Overall	EM	Bloomberg Barclays Euro Corporate Index	1L	0.16%	Deutsche Borse
23-Nov-17	AGGG.LN	AGGG.L	BlackRock	iShares Global Aggregate Bond UCITS ETF	Fixed Income	Beta	Overall	EM	Barclays Global Aggregate Bond Index	1L	0.10%	London SE
27-Nov-17	PFTP.GY	PFTP.DE	PowerShares	PowerShares Tradable European Price Momentum Factor UCITS ETF	Equity	Beta	Quantitative	Overall	Selective Tradable European Price Momentum Factor Net Total Return	1L	0.30%	Deutsche Borse
27-Nov-17	PFTB.GY	PFTB.DE	PowerShares	PowerShares Tradable European Low Beta Factor UCITS ETF	Equity	Beta	Quantitative	Overall	Selective Tradable European Low Beta Factor Net Total Return	1L	0.30%	Deutsche Borse
27-Nov-17	PFTQ.GY	PFTQ.DE	PowerShares	PowerShares Tradable European Quality Factor UCITS ETF	Equity	Beta	Quantitative	Overall	Selective Tradable European Quality Factor Net Total Return	1L	0.30%	Deutsche Borse
27-Nov-17	PFTV.GY	PFTV.DE	PowerShares	PowerShares Tradable European Value Factor UCITS ETF	Equity	Beta	Quantitative	Overall	Selective Tradable European Value Factor Net Total Return	1L	0.30%	Deutsche Borse
27-Nov-17	PFTE.GY	PFTE.DE	PowerShares	PowerShares Tradable European Earnings Momentum Factor UCITS ETF	Equity	Beta	Quantitative	Overall	Selective Tradable European Earning Momentum Factor Net Total Return	1L	0.30%	Deutsche Borse

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## Average TERs

Figure 43: ETF TERs using simple average - | ETFs | Europe |

Asset class	Strategy	Physical		Synthetic		Total	
		TER	Nu.	TER	Nu.	TER	Nu.
Equity	Alpha	0.39%	7	0.82%	2	0.49%	9
	Beta	0.37%	632	0.38%	379	0.37%	1,011
	Beta+	0.60%	4	0.57%	67	0.57%	71
	Semi Active	0.46%	9	0.54%	13	0.51%	22
		0.37%	652	0.41%	461	0.39%	1,113
Fixed Income	Alpha	0.37%	5	0.41%	2	0.38%	7
	Beta	0.25%	256	0.21%	110	0.24%	366
	Beta+		NA	0.22%	17	0.22%	17
		0.25%	261	0.21%	129	0.24%	390
Alternative	Alpha	NA	NA	0.60%	1	0.60%	1
	Beta	0.75%	1	0.70%	2	0.72%	3
	Beta+		NA	NA	NA	NA	NA
	Semi Active	NA	NA	0.70%	1	0.70%	1
		0.0075	1	0.68%	4	0.69%	5
Commodity	Beta	0.50%	21	0.41%	33	0.46%	54
	Beta+		NA	NA	NA	NA	NA
	Semi Active	NA	NA	0.45%	1	0.45%	1
		0.50%	21	0.41%	34	0.46%	55
Currency	Beta	NA	NA	NA	NA	NA	NA
		NA	NA	NA	NA	NA	NA
Multi Asset	Beta	NA	2	NA	1	NA	3
	Alpha	0.53%	6	0.64%	2	0.57%	8
		0.53%	8	0.64%	3	0.57%	11
Total		0.35%	943	0.37%	631	0.36%	1,574

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 44: ETC TERs using simple average - | ETCs | Europe |

Asset Class Segment	Strategy	Physical		Synthetic		Total		
		TER	Nu.	TER	Nu.	TER	Nu.	
Commodity	Agriculture	Beta	NA	NA	0.49%	37	0.48%	37
		Beta+	NA	NA	0.92%	35	0.92%	35
	Energy	Beta	NA	NA	0.66%	77	0.64%	77
		Beta+	NA	NA	0.80%	55	0.74%	55
Industrial Metals	Beta	NA	NA	0.64%	51	0.63%	51	
		Beta+	NA	NA	0.90%	27	0.90%	27
	Livestock	Beta	NA	NA	0.49%	6	0.49%	6
		Beta+	NA	NA	0.98%	6	0.98%	6
Overall	Beta	NA	NA	0.48%	9	0.43%	9	
	Beta+	NA	NA	0.98%	4	0.98%	4	
Precious Metals	Beta	0.44%	32	0.59%	28	0.49%	60	
	Beta+	NA	NA	0.76%	43	0.76%	43	
<b>Commodity</b>		0.44%	32	0.71%	378	0.67%	410	
Currency	Currency	Beta	NA	NA	0.41%	42	0.41%	42
		Beta+	NA	NA	0.79%	73	0.79%	73
<b>Currency</b>		NA	NA	0.65%	115	0.65%	115	

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 45: ETF TERs using AUM weighted average - | ETFs | Europe |

Asset class	Strategy	Physical		Synthetic		Total	
		TER	Nu.	TER	Nu.	TER	Nu.
Equity	Alpha	0.35%	7	0.74%	2	0.44%	9
	Beta	0.29%	632	0.34%	379	0.30%	1,011
	Beta+	0.60%	4	0.50%	67	0.51%	71
	Semi Active	0.39%	9	0.52%	13	0.50%	22
		0.29%	652	0.35%	461	0.30%	1,113
Fixed Income	Alpha	0.35%	5	0.39%	2	0.36%	7
	Beta	0.28%	256	0.21%	110	0.26%	366
	Beta+	NA	NA	0.24%	17	0.24%	17
		0.28%	261	0.21%	129	0.27%	390
Alternative	Alpha	NA	NA	0.60%	1	0.60%	1
	Beta	0.75%	1	0.70%	2	0.73%	3
	Beta+	NA	NA	NA	NA	NA	NA
	Semi Active	NA	NA	0.70%	1	0.70%	1
		0.75%	1	0.69%	4	0.72%	5
Commodity	Beta	0.39%	21	0.38%	33	0.39%	54
	Beta+	NA	NA	NA	NA	NA	NA
	Semi Active	NA	NA	0.45%	1	0.45%	1
		0.39%	21	0.38%	34	0.39%	55
Currency	Beta	NA	NA	NA	NA	NA	NA
		NA	NA	NA	-	NA	-
Multi Asset	Beta	0.33%	2	0.55%	1	0.39%	3
	Alpha	0.55%	6	0.71%	2	0.67%	8
		0.55%	8	0.71%	3	0.67%	8
Total		0.29%	943	0.33%	631	0.30%	1,574

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 46: ETC TERs using AUM weighted average - | ETCs | Europe |

Asset Class	Segment	Strategy	Physical		Synthetic		Total	
			TER	Nu.	TER	Nu.	TER	Nu.
Commodity	Agriculture	Beta	NA	NA	0.49%	37	0.49%	37
		Beta+	NA	NA	0.97%	35	0.97%	35
	Energy	Beta	NA	NA	0.48%	77	0.48%	77
		Beta+	NA	NA	0.96%	55	0.96%	55
	Industrial Metals	Beta	NA	NA	0.49%	51	0.49%	51
		Beta+	NA	NA	0.97%	27	0.97%	27
	Livestock	Beta	NA	NA	0.49%	6	0.49%	6
		Beta+	NA	NA	0.98%	6	0.98%	6
Overall	Overall	Beta	NA	NA	0.47%	9	0.47%	9
		Beta+	NA	NA	0.98%	4	0.98%	4
	Precious Metals	Beta	0.37%	32	0.37%	28	0.37%	60
		Beta+	NA	NA	0.95%	43	0.95%	43
<b>Commodity</b>			0.37%	32	0.45%	378	0.39%	410
Currency	Currency	Beta	NA	NA	0.39%	42	0.39%	42
		Beta+	NA	NA	0.88%	73	0.88%	73
<b>Currency</b>			NA	NA	0.66%	115	0.66%	115

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## 5. Provider Rankings

### Global Provider Rankings

Figure 47: Global Top 10 ETF Providers (\$ million) - | ETFs | Global |

Rank	Issuer	Current AUM	Mkt. Share	2016 AUM	2016 Mkt. Share	Nu.	Current Month CF	Current Month TO	YTD CF
1	BlackRock	1,683,249	37.7%	1,246,177	37.4%	694	19,867	479,998	231,307
2	Vanguard	880,392	19.7%	639,873	19.2%	119	11,865	89,982	134,917
3	State Street	607,206	13.6%	507,938	15.3%	247	3,094	569,309	17,522
4	PowerShares	160,940	3.6%	125,028	3.8%	248	1,636	102,448	12,558
5	Nomura Asset Management	119,978	2.7%	79,904	2.4%	51	248	41,637	19,617
6	Charles Schwab	95,620	2.1%	59,750	1.8%	22	2,088	6,845	24,229
7	Deutsche AM	91,967	2.1%	69,535	2.1%	209	1,795	8,535	8,689
8	Lyxor	76,548	1.7%	53,664	1.6%	216	1,300	11,367	11,930
9	First Trust	56,782	1.3%	41,230	1.2%	143	1,261	9,174	8,634
10	Nikko Asset Management	56,263	1.3%	35,341	1.1%	29	2,184	727	11,433
<b>Total Top 10</b>		<b>3,828,946</b>	<b>85.8%</b>	<b>2,858,440</b>	<b>85.9%</b>	<b>1,978</b>	<b>45,338</b>	<b>1,320,022</b>	<b>480,837</b>
Others		635,171	14.2%	470,391	14.1%	2,557	14,116	366,040	87,509
<b>Global Total</b>		<b>4,464,117</b>	<b>100.0%</b>	<b>3,328,831</b>	<b>100.0%</b>	<b>4,535</b>	<b>59,455</b>	<b>1,686,062</b>	<b>568,345</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 48: Global Top 10 ETC/V Providers (\$ million) - | ETCs/Vs | Global |

Rank	Issuer	Current AUM	Mkt. Share	2016 AUM	2016 Mkt. Share	Nu.	Current Month CF	Current Month TO	YTD CF
1	State Street	34,544	33.0%	30,629	33.6%	1	-451	14,873	990
2	ETF Securities	20,564	19.7%	18,193	20.0%	340	-101	2,561	865
3	BlackRock	19,784	18.9%	16,213	17.8%	8	366	5,044	2,453
4	PowerShares	9,642	9.2%	8,783	9.6%	15	31	2,385	531
5	Deutsche Borse Commodities GmbH	7,053	6.7%	4,384	4.8%	1	-15	185	2,132
6	Deutsche AM	3,812	3.6%	2,620	2.9%	17	269	264	732
7	United States Commodity Funds	3,453	3.3%	4,633	5.1%	11	-275	5,610	-979
8	ProShares	3,252	3.1%	3,289	3.6%	17	-126	26,460	476
9	Guggenheim Investments	1,124	1.1%	1,201	1.3%	9	-109	1,324	-165
10	WisdomTree	505	0.5%	521	0.6%	31	-20	597	28
<b>Total Top 10</b>		<b>103,733</b>	<b>99.2%</b>	<b>90,468</b>	<b>99.4%</b>	<b>450</b>	<b>-431</b>	<b>59,303</b>	<b>7,061</b>
Others		795	0.8%	560	0.6%	145	46	68	219
<b>Global Total</b>		<b>104,528</b>	<b>100.0%</b>	<b>91,028</b>	<b>100.0%</b>	<b>595</b>	<b>-385</b>	<b>59,371</b>	<b>7,280</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



**Figure 49: Global Top 10 ETP Providers (\$ million) - | ETPs | Global |**

Rank	Issuer	Current AUM	Mkt. Share	2016 AUM	2016 Mkt. Share	Nu.	Current Month CF	Current Month TO	YTD CF
1	BlackRock	1,703,033	37.3%	1,262,390	36.9%	702	20,233	485,042	233,760
2	Vanguard	880,392	19.3%	639,873	18.7%	119	11,865	89,982	134,917
3	State Street	641,750	14.0%	538,567	15.7%	248	2,643	584,182	18,512
4	PowerShares	170,582	3.7%	133,811	3.9%	263	1,666	104,832	13,089
5	Nomura Asset Management	119,978	2.6%	79,904	2.3%	51	248	41,637	19,617
6	Deutsche AM	95,779	2.1%	72,155	2.1%	226	2,064	8,800	9,421
7	Charles Schwab	95,620	2.1%	59,750	1.7%	22	2,088	6,845	24,229
8	Lyxor	76,576	1.7%	53,664	1.6%	218	1,300	11,367	11,971
9	First Trust	56,782	1.2%	41,230	1.2%	143	1,261	9,174	8,634
10	Nikko Asset Management	56,263	1.2%	35,341	1.0%	29	2,184	727	11,433
<b>Total Top 10</b>		3,896,756	85.3%	2,916,686	85.3%	2,021	45,553	1,342,588	485,584
Others		671,889	14.7%	503,173	14.7%	3,109	13,517	402,845	90,042
<b>Global Total</b>		4,568,645	100.0%	3,419,859	100.0%	5,130	59,070	1,745,433	575,626

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## European Provider Rankings - General

Figure 50: European ETF Providers (All) – Assets, Flows, Products, Turnover - | ETFs | Europe |

Issuer	AUM			Cash Flow			Turnover			Products		
	Current Month	End of 2016	Diff.	Current Month	Prev. Month	YTD	Current Month	Prev. Month	Diff.	Current Month	End of 2016	Diff.
BlackRock	293,271	251,064	17%	2,958	2,519	33,731	31,797	24,886	28%	297	288	3%
Deutsche AM	66,109	53,381	24%	1,281	1,664	9,251	5,342	5,372	-1%	174	190	-8%
Lyxor	64,199	50,878	26%	1,109	677	10,721	9,687	8,463	14%	216	218	-1%
UBS	40,934	29,166	40%	1,022	440	10,083	2,836	2,316	22%	119	116	3%
Amundi	37,337	24,998	49%	1,219	736	10,155	3,677	3,619	2%	116	105	10%
Vanguard	29,075	23,882	22%	720	388	3,990	4,023	2,144	88%	23	22	5%
State Street	22,500	17,599	28%	187	351	4,697	2,505	1,811	38%	98	99	-1%
PowerShares	21,814	19,069	14%	807	22	2,552	2,756	1,546	78%	101	93	9%
Deka Investment GmbH	9,292	8,297	12%	106	44	376	621	393	58%	42	42	0%
ComStage	8,105	6,925	17%	434	112	794	471	398	18%	111	114	-3%
BNP Paribas	7,823	5,982	31%	100	165	1,264	435	610	-29%	49	44	11%
Zuercher Kantonalbank	6,492	6,542	-1%	-2	-39	86	215	204	5%	4	4	0%
HSBC	5,356	4,925	9%	133	65	128	444	419	6%	27	27	0%
Xact Fonder AB	3,183	2,933	9%	-19	90	123	585	529	11%	14	13	8%
ETF Securities	2,468	1,482	67%	173	59	981	768	637	20%	29	27	7%
Ossiam	2,382	1,943	23%	26	-1	416	102	49	111%	12	11	9%
Julius Baer Inv	1,891	1,946	-3%	-12	1	-53	63	87	-27%	4	4	0%
ThinkCapital ETFs N.V.	1,526	1,656	-8%	60	17	-169	93	111	-16%	14	14	0%
WisdomTree	1,006	419	140%	57	-16	552	209	188	11%	35	27	30%
First Trust	485	210	131%	28	11	239	43	59	-27%	15	10	50%
BMO Global Asset Management	378	234	62%	-13	7	143	11	22	-51%	13	10	30%
BBVA Gestión SA SGIIC	360	349	3%	10	-14	-21	39	44	-11%	2	2	0%
IndexIQ/Candriam	338	0	NA	3	0	326	1	1	33%	5	0	NA
Fundlogic Global Solutions plc	287	403	-29%	-3	-5	-134	17	17	0%	2	2	0%
Seligson & Co Fund Man	254	197	29%	0	0	37	4	6	-33%	1	1	0%
China Post Global	251	274	-8%	-3	-2	30	15	8	85%	9	8	13%
Van Eck Funds	219	148	48%	4	9	88	19	22	-13%	6	3	100%
Raiffeisen Schweiz Genossenschaft	215	194	10%	1	6	26	5	5	11%	3	3	0%
Fidelity International	182	0	NA	26	0	178	5	3	73%	4	0	NA
Nomura Asset Management	135	117	16%	0	3	2	16	20	-21%	3	3	0%
DnB Kapitalforvaltning	120	122	-2%	4	0	-11	18	17	4%	1	1	0%
UniCredit Bank	93	95	-1%	0	0	0	1	1	0%	1	1	0%
JPMorgan	58	0	NA	59	0	59	3	0	NA	2	0	NA
Commerzbank AG	56	55	2%	0	0	0	0	0	-29%	3	3	0%
SEB Investment Management AB	49	46	6%	0	0	0	1	1	-49%	3	3	0%
FinEx Fund Plc	38	33	17%	0	1	7	0	0	158%	2	2	0%
Franklin Templeton Investments	24	0	NA	1	4	23	13	1	1494%	5	0	NA
Expat Capital	16	13	21%	0	0	0	0	0	17%	1	1	0%
Alpha Asset Management	12	10	15%	0	0	0	0	1	-48%	1	1	0%
ZyFin Holdings	9	20	-56%	0	-1	-10	0	0	-89%	2	3	-33%
GF International Fund Management	8	0	NA	0	3	8	1	0	NA	1	0	NA
Fulgoal Fund Management Co	8	10	-21%	0	0	-1	0	0	86%	1	1	0%
NBG Asset Management MFMC	5	4	14%	0	0	0	0	0	NA	2	2	0%
Landsbankinn	0	0	NA	0	0	0	0	0	-97%	1	1	0%
PDR Services LLC	0	0	NA	0	0	0	2	1	170%	0	0	NA
Total	628,362	515,622	22%	10,477	7,316	90,669	66,841	54,010	24%	1574	1,519	4%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 51: European ETC Providers (All) – Assets, Flows, Products, Turnover - | ETCs | Europe |

Issuer	AUM			Cash Flow			Turnover			Products		
	Current Month	End of 2016	Diff.	Current Month	Prev. Month	YTD	Current Month	Prev. Month	Diff.	Current Month	End of 2016	Diff.
ETF Securities	14,707	14,860	-1%	-90	192	617	1,935	1,913	1%	330	330	0%
Deutsche Borse Commodities GmbH	5,915	4,157	42%	-12	54	1,982	158	133	19%	1	1	0%
PowerShares	4,087	3,116	31%	-23	-22	1,115	308	314	-2%	4	4	0%
Deutsche AM	3,197	2,484	29%	228	66	663	225	215	5%	17	17	0%
Blackrock	2,718	2,184	24%	40	145	636	235	327	-28%	4	4	0%
Borse Stuttgart Securities GmbH	298	249	20%	7	2	59	0	0	NA	2	1	100%
WisdomTree	292	286	2%	-14	-20	87	498	579	-14%	30	30	0%
Commerzbank AG	105	126	-17%	-9	-8	-16	13	10	27%	68	68	0%
UBS	104	0	349451%	45	-9	111	0	0	37%	4	4	0%
Lyxor	24	0	NA	0	0	39	0	0	38%	2	0	NA
BNP Paribas	4	1	483%	0	0	3	1	0	61%	63	19	232%
Total	31,449	27,463	15%	172	401	5,296	3,371	3,491	-3%	525	478	10%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



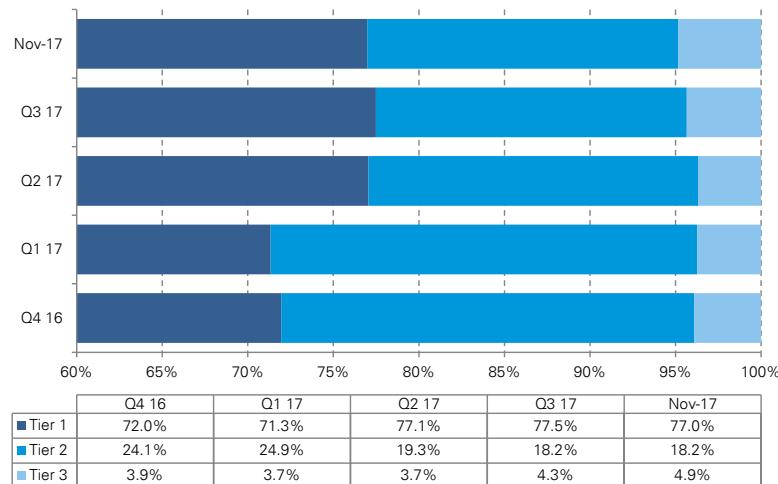
Figure 52: European ETP Providers (All) – Assets, Flows, Products, Turnover - | ETPs | Europe |

Issuer	AUM			Cash Flow			Turnover			Products		
	Current Month	End of 2016	Diff.	Current Month	Prev. Month	YTD	Current Month	Prev. Month	Diff.	Current Month	End of 2016	Diff.
BlackRock	295,989	253,248	17%	2,998	2,664	34,367	32,032	25,212	27%	301	292	3%
Deutsche AM	69,306	55,865	24%	1,509	1,730	9,914	5,566	5,586	0%	191	207	-8%
Lyxor	64,223	50,878	26%	1,109	677	10,761	9,687	8,463	14%	218	218	0%
UBS	41,038	29,166	41%	1,067	431	10,195	2,836	2,316	22%	123	120	2%
Amundi	37,337	24,998	49%	1,219	736	10,155	3,677	3,619	2%	116	105	10%
Vanguard	29,075	23,882	22%	720	388	3,990	4,023	2,144	88%	23	22	5%
PowerShares	25,900	22,186	17%	784	0	3,667	3,063	1,859	65%	105	97	8%
State Street	22,500	17,599	28%	187	351	4,697	2,505	1,811	38%	98	99	-1%
ETF Securities	17,175	16,342	5%	83	251	1,599	2,702	2,550	6%	359	357	1%
Deka Investment GmbH	9,292	8,297	12%	106	44	376	621	393	58%	42	42	0%
ComStage	8,105	6,925	17%	434	112	794	471	398	18%	111	114	-3%
BNP Paribas	7,827	5,983	31%	100	165	1,266	436	610	-29%	112	63	78%
Zuercher Kantonalbank	6,492	6,542	-1%	-2	-39	86	215	204	5%	4	4	0%
Deutsche Borse Commodities GmbH	5,915	4,157	42%	-12	54	1,982	158	133	19%	1	1	0%
HSBC	5,356	4,925	9%	133	65	128	444	419	6%	27	27	0%
Xact Fonder AB	3,183	2,933	9%	-19	90	123	585	529	11%	14	13	8%
Ossiam	2,382	1,943	23%	26	-1	416	102	49	111%	12	11	9%
Julius Baer Inv	1,891	1,946	-3%	-12	1	-53	63	87	-27%	4	4	0%
ThinkCapital ETFs N.V.	1,526	1,656	-8%	60	17	-169	93	111	-16%	14	14	0%
WisdomTree	1,298	705	84%	43	-36	638	707	767	-8%	65	57	14%
First Trust	485	210	131%	28	11	239	43	59	-27%	15	10	50%
BMO Global Asset Management	378	234	62%	-13	7	143	11	22	-51%	13	10	30%
BBVA Gestión SA SGIIIC	360	349	3%	10	-14	-21	39	44	-11%	2	2	0%
IndexIQ/Candriam	338	0	NA	3	0	326	1	1	33%	5	0	NA
Borse Stuttgart Securities GmbH	298	249	20%	7	2	59	0	0	NA	2	1	100%
Fundlogic Global Solutions plc	287	403	-29%	-3	-5	-134	17	17	0%	2	2	0%
Seligson & Co Fund Man	254	197	29%	0	0	37	4	6	-33%	1	1	0%
China Post Global	251	274	-8%	-3	-2	30	15	8	85%	9	8	13%
Van Eck Funds	219	148	48%	4	9	88	19	22	-13%	6	3	100%
Raiffeisen Schweiz Genossenschaft	215	194	10%	1	6	26	5	5	11%	3	3	0%
Fidelity International	182	0	NA	26	0	178	5	3	73%	4	0	NA
Commerzbank AG	161	181	-11%	-9	-8	-16	13	10	25%	71	71	0%
Nomura Asset Management	135	117	16%	0	3	2	16	20	-21%	3	3	0%
DnB Kapitalforvaltning	120	122	-2%	4	0	-11	18	17	4%	1	1	0%
UniCredit Bank	93	95	-1%	0	0	0	1	1	0%	1	1	0%
JPMorgan	58	0	NA	59	0	59	3	0	NA	2	0	NA
SEB Investment Management AB	49	46	6%	0	0	0	1	1	-49%	3	3	0%
FinEx Fund Plc	38	33	17%	0	1	7	0	0	158%	2	2	0%
Franklin Templeton Investments	24	0	NA	1	4	23	13	1	1494%	5	0	NA
Expat Capital	16	13	21%	0	0	0	0	0	17%	1	1	0%
Alpha Asset Management	12	10	15%	0	0	0	0	1	-48%	1	1	0%
ZyFin Holdings	9	20	-56%	0	-1	-10	0	0	-89%	2	3	-33%
GF International Fund Management	8	0	NA	0	3	8	1	0	NA	1	0	NA
Fullgoal Fund Management Co	8	10	-21%	0	0	-1	0	0	86%	1	1	0%
NBG Asset Management MFMC	5	4	14%	0	0	0	0	0	NA	2	2	0%
Landsbankinn	0	0	NA	0	0	0	0	0	-97%	1	1	0%
PDR Services LLC	0	0	NA	0	0	0	2	1	170%	0	0	NA
Total	659,812	543,085	21%	10,649	7,718	95,965	70,212	57,500	22%	2,099	1,997	5%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 53: European ETP Providers tier market share - | ETPs | Europe |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## European Provider Rankings - by Asset Class

Figure 54: European ETF Providers (All) – Assets, Flows, Products, Turnover - | ETFs | Europe |

All figures in € million except products

Issuer	Equity	Fixed Income	Commodity	Others	Total AUM	Mkt Share %	Nu.	Current TO	Current CF	YTD CF
BlackRock	194,396	96,389	2,112	375	293,271	46.7%	297	31,797	2,958	33,731
Deutsche AM	52,703	12,482	362	562	66,109	10.5%	174	5,342	1,281	9,251
Lyxor	47,798	15,251	1,096	54	64,199	10.2%	216	9,687	1,109	10,721
UBS	33,074	3,905	3,899	56	40,934	6.5%	119	2,836	1,022	10,083
Amundi	27,484	9,853	0	0	37,337	5.9%	116	3,677	1,219	10,155
Vanguard	28,699	376	0	0	29,075	4.6%	23	4,023	720	3,990
State Street	14,242	8,184	0	75	22,500	3.6%	98	2,505	187	4,697
PowerShares	12,800	7,939	1,074	0	21,814	3.5%	101	2,756	807	2,552
Deka Investment GmbH	6,665	2,627	0	0	9,292	1.5%	42	621	106	376
ComStage	6,166	1,247	633	59	8,105	1.3%	111	471	434	794
BNP Paribas	7,316	170	336	0	7,823	1.2%	49	435	100	1,264
Zuercher Kantonalbank	0	0	6,492	0	6,492	1.0%	4	215	-2	86
HSBC	5,356	0	0	0	5,356	0.9%	27	444	133	128
Xact Fonder AB	3,136	41	6	0	3,183	0.5%	14	585	-19	123
ETF Securities	1,670	333	465	0	2,468	0.4%	29	768	173	981
Ossiam	2,276	0	55	50	2,382	0.4%	12	102	26	416
Julius Baer Inv	0	0	1,891	0	1,891	0.3%	4	63	-12	-53
ThinkCapital ETFs N.V.	1,197	294	0	35	1,526	0.2%	14	93	60	-169
WisdomTree	916	0	90	0	1,006	0.2%	35	209	57	552
First Trust	480	0	0	5	485	0.1%	15	43	28	239
BMO Global Asset Management	200	178	0	0	378	0.1%	13	11	-13	143
BBVA Gestión SA SGIIIC	360	0	0	0	360	0.1%	2	39	10	-21
IndexIQ/Candriam	237	101	0	0	338	0.1%	5	1	3	326
Fundlogic Global Solutions plc	287	0	0	0	287	0.0%	2	17	-3	-134
Seligson & Co Fund Man	254	0	0	0	254	0.0%	1	4	0	37
China Post Global	143	0	108	0	251	0.0%	9	15	-3	30
Van Eck Funds	172	46	1	0	219	0.0%	6	19	4	88
Raiffeisen Schweiz Genossenschaft	0	0	215	0	215	0.0%	3	5	1	26
Fidelity International	182	0	0	0	182	0.0%	4	5	26	178
Nomura Asset Management	135	0	0	0	135	0.0%	3	16	0	2
DnB Kapitalforvaltning	120	0	0	0	120	0.0%	1	18	4	-11
UniCredit Bank	0	93	0	0	93	0.0%	1	1	0	0
JPMorgan	14	0	0	44	58	0.0%	2	3	59	59
Commerzbank AG	24	32	0	0	56	0.0%	3	0	0	0
SEB Investment Management AB	49	0	0	0	49	0.0%	3	1	0	0
FinEx Fund Plc	0	31	7	0	38	0.0%	2	0	0	7
Franklin Templeton Investments	24	0	0	0	24	0.0%	5	13	1	23
Expat Capital	16	0	0	0	16	0.0%	1	0	0	0
Alpha Asset Management	12	0	0	0	12	0.0%	1	0	0	0
ZyFin Holdings	2	7	0	0	9	0.0%	2	0	0	-10
GF International Fund Management	8	0	0	0	8	0.0%	1	1	0	8
Fullgoal Fund Management Co	0	8	0	0	8	0.0%	1	0	0	-1
NBG Asset Management MFMC	5	0	0	0	5	0.0%	2	0	0	0
PDR Services LLC	0	0	0	0	0	0.0%	-	2	0	0
Nordea Investment Funds	0	0	0	0	0	0.0%	0	0	0	0
Landsbankinn	0	0	0	0	0	0.0%	1	0	0	0
<b>Total</b>	<b>448,617</b>	<b>159,587</b>	<b>18,843</b>	<b>1,315</b>	<b>628,362</b>	<b>100.0%</b>	<b>1,574</b>	<b>66,841</b>	<b>10,477</b>	<b>90,669</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 55: European ETC Providers (All) – Assets, Flows, Products, Turnover - | ETCs | Europe |

All figures in € million except products

Issuer	Commodity	Currency	Total AUM	Mkt		Nu.	Current TO	Current CF	YTD CF
				Share %					
ETF Securities	14,257	451	14,707	46.8%		330	1,935	-90	617
Deutsche Borse Commodities GmbH	5,915	0	5,915	18.8%		1	158	-12	1982
PowerShares	4,087	0	4,087	13.0%		4	308	-23	1115
Deutsche AM	3,197	0	3,197	10.2%		17	225	228	663
Blackrock	2,718	0	2,718	8.6%		4	235	40	636
Borse Stuttgart Securities GmbH	298	0	298	0.9%		2	-	7	59
WisdomTree	283	9	292	0.9%		30	498	-14	87
Commerzbank AG	105	0	105	0.3%		68	13	-9	-16
UBS	104	0	104	0.3%		4	0	45	111
Lyxor	24	0	24	0.1%		2	0	0	39
BNP Paribas	4	0	4	0.0%		63	1	0	3
Royal Bank of Scotland plc	0	0	0	0.0%		-	-	0	0
Total	30,990	459	31,449	100.0%		525	3,371	172	5,296

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 56: European ETP Providers (All) – Assets, Flows, Products, Turnover - | ETPs | Europe |

All figures in € million except products										
Issuer	Equity	Fixed Income			Commodity	Others	Total AUM	Mkt Share %	Current Nu.	Current TO
		Income	Commodity	Others					Nu.	CF
BlackRock	194,396	96,389	4,829	375	295,989	44.9%	301	32,032	2,998	34,367
Deutsche AM	52,703	12,482	3,559	562	69,306	10.5%	191	5,566	1,509	9,914
Lyxor	47,798	15,251	1,120	54	64,223	9.7%	218	9,687	1,109	10,761
UBS	33,074	3,905	4,003	56	41,038	6.2%	123	2,836	1,067	10,195
Amundi	27,484	9,853	0	0	37,337	5.7%	116	3,677	1,219	10,155
Vanguard	28,699	376	0	0	29,075	4.4%	23	4,023	720	3,990
PowerShares	12,800	7,939	5,161	0	25,900	3.9%	105	3,063	784	3,667
State Street	14,242	8,184	0	75	22,500	3.4%	98	2,505	187	4,697
ETF Securities	1,670	333	14,722	451	17,175	2.6%	359	2,702	83	1,599
Deka Investment GmbH	6,665	2,627	0	0	9,292	1.4%	42	621	106	376
ComStage	6,166	1,247	633	59	8,105	1.2%	111	471	434	794
BNP Paribas	7,316	170	340	0	7,827	1.2%	112	436	100	1,266
Zuercher Kantonalbank	0	0	6,492	0	6,492	1.0%	4	215	-2	86
Deutsche Borse Commodities GmbH	0	0	5,915	0	5,915	0.9%	1	158	-12	1,982
HSBC	5,356	0	0	0	5,356	0.8%	27	444	133	128
Xact Fonder AB	3,136	41	6	0	3,183	0.5%	14	585	-19	123
Ossiam	2,276	0	55	50	2,382	0.4%	12	102	26	416
Julius Baer Inv	0	0	1,891	0	1,891	0.3%	4	63	-12	-53
ThinkCapital ETFs N.V.	1,197	294	0	35	1,526	0.2%	14	93	60	-169
WisdomTree	916	0	373	9	1,298	0.2%	65	707	43	638
First Trust	480	0	0	5	485	0.1%	15	43	28	239
BMO Global Asset Management	200	178	0	0	378	0.1%	13	11	-13	143
BBVA Gestión SA SGIIIC	360	0	0	0	360	0.1%	2	39	10	-21
IndexIQ/Candriam	237	101	0	0	338	0.1%	5	1	3	326
Borse Stuttgart Securities GmbH	0	0	298	0	298	0.0%	2	0	7	59
Fundlogic Global Solutions plc	287	0	0	0	287	0.0%	2	17	-3	-134
Seligson & Co Fund Man	254	0	0	0	254	0.0%	1	4	0	37
China Post Global	143	0	108	0	251	0.0%	9	15	-3	30
Van Eck Funds	172	46	1	0	219	0.0%	6	19	4	88
Raiffeisen Schweiz Genossenschaft	0	0	215	0	215	0.0%	3	5	1	26
Fidelity International	182	0	0	0	182	0.0%	4	5	26	178
Commerzbank AG	24	32	105	0	161	0.0%	71	13	-9	-16
Nomura Asset Management	135	0	0	0	135	0.0%	3	16	0	2
DnB Kapitalforvaltning	120	0	0	0	120	0.0%	1	18	4	-11
UniCredit Bank	0	93	0	0	93	0.0%	1	1	0	0
JPMorgan	14	0	0	44	58	0.0%	2	3	59	59
SEB Investment Management AB	49	0	0	0	49	0.0%	3	1	0	0
FinEx Fund Plc	0	31	7	0	38	0.0%	2	0	0	7
Franklin Templeton Investments	24	0	0	0	24	0.0%	5	13	1	23
Expat Capital	16	0	0	0	16	0.0%	1	0	0	0
Alpha Asset Management	12	0	0	0	12	0.0%	1	0	0	0
ZyFin Holdings	2	7	0	0	9	0.0%	2	0	0	-10
GF International Fund Management	8	0	0	0	8	0.0%	1	1	0	8
Fullgoal Fund Management Co	0	8	0	0	8	0.0%	1	0	0	-1
NBG Asset Management MFMC	5	0	0	0	5	0.0%	2	0	0	0
Royal Bank of Scotland plc	0	0	0	0	0	0.0%	0	0	0	0
PDR Services LLC	0	0	0	0	0	0.0%	0	2	0	0
Nordea Investment Funds	0	0	0	0	0	0.0%	0	0	0	0
Landsbankinn	0	0	0	0	0	0.0%	1	0	0	0
Total	448,617	159,587	49,833	1,774	659,812	100.0%	2,099	70,212	10,649	95,965

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## European Provider Analysis by Replication Method

Figure 57: European ETF Providers list by replication - | ETFs | Europe|

All figures in € million except products

European Providers	Replication Method	AUM (€)	ETFs	AUM (€)	ETFs	AUM (€)	ETFs	AUM (€)	ETFs	AUM (€)	AUM (%)	ETFs
		Equity		Fixed Income		Commodity		Other		Total		
BlackRock	Physical	193,276	202	96,231	84	701	3	375	1	290,583	99%	290
	Synthetic	1,120	4	158	1	1,410	2	-	-	2,689	1%	7
Deutsche AM	Physical	36,610	73	4,760	19	-	-	29	1	41,400	63%	93
	Synthetic	16,093	40	7,722	37	362	2	533	2	24,710	37%	81
Lyxor	Physical	18,377	19	5,997	29	-	-	-	-	24,373	38%	48
	Synthetic	29,421	135	9,255	28	1,096	3	54	2	39,826	62%	168
UBS	Physical	26,257	68	3,905	27	2,350	5	-	-	32,512	79%	100
	Synthetic	6,817	6	-	-	1,549	11	56	2	8,422	21%	19
Amundi	Physical	6,453	11	119	7	-	-	-	-	6,573	18%	18
	Synthetic	21,031	71	9,734	27	-	-	-	-	30,765	82%	98
Vanguard	Physical	28,699	17	376	6	-	-	-	-	29,075	100%	23
State Street	Physical	14,242	61	8,184	36	-	-	75	1	22,500	100%	98
PowerShares	Physical	2,520	22	7,283	16	-	-	-	-	9,804	45%	38
	Synthetic	10,280	57	656	3	1,074	3	-	-	12,010	55%	63
Deka Investment GmbH	Physical	6,643	25	2,627	16	-	-	-	-	9,271	100%	41
	Synthetic	22	1	-	-	-	-	-	-	22	0%	1
ComStage	Physical	325	7	-	-	-	-	59	1	384	5%	8
	Synthetic	5,842	73	1,247	28	633	2	-	-	7,722	95%	103
BNP Paribas	Physical	3,275	19	164	1	-	-	-	-	3,439	44%	20
	Synthetic	4,041	24	7	3	336	2	-	-	4,384	56%	29
Zuercher Kantonalbank	Physical	-	-	-	-	6,492	4	-	-	6,492	100%	4
HSBC	Physical	5,356	27	-	-	-	-	-	-	5,356	100%	27
Xact Fonder AB	Physical	3,033	10	41	1	6	1	-	-	3,080	100%	12
Xact Fonder AB	Synthetic	103	2	-	-	-	-	-	-	103	100%	2
Ossiam	Physical	35	1	-	-	-	-	-	-	35	1%	1
	Synthetic	2,241	9	-	-	55	1	50	1	2,347	99%	11
ETF Securities	Synthetic	494	19	-	-	465	3	-	-	959	100%	22
	Physical	1,176	3	333	4	-	-	-	-	1,509	100%	7
Julius Baer Inv	Physical	-	-	-	-	1,891	4	-	-	1,891	100%	4
ThinkCapital ETFs N.V.	Physical	1,197	8	294	3	-	-	35	3	1,526	100%	14
WisdomTree	Physical	691	25	-	-	-	-	-	-	691	100%	25
	Synthetic	224	8	0	1	90	1	-	-	314	100%	10
First Trust	Physical	480	14	-	-	-	-	5	1	485	100%	15
BMO Global Asset Management	Physical	200	9	178	4	-	-	-	-	378	100%	13
BBVA Gestion SA	Physical	360	2	-	-	-	-	-	-	360	100%	2
IndexIQ/Candriam	Physical	237	3	101	2	-	-	-	-	338	100%	5
Fundlogic Global Solutions plc	Synthetic	287	2	-	-	-	-	-	-	287	100%	2
Seligson & Co Fund Mgmt.	Physical	254	1	-	-	-	-	-	-	254	100%	1
China Post Global	Physical	28	1	-	-	-	-	-	-	28	100%	1
China Post Global	Synthetic	115	5	-	-	108	3	-	-	223	100%	8
Van Eck Funds	Physical	172	3	46	2	1	1	-	-	219	100%	6
Raiffeisen Schweiz Genossenschaft	Physical	-	-	-	-	215	3	-	-	215	100%	3
Fidelity International	Physical	182	4	-	-	-	-	-	-	182	100%	4
Nomura Asset Management	Physical	135	3	-	-	-	-	-	-	135	100%	3
DnB Kapitalforvaltning	Physical	120	1	-	-	-	-	-	-	120	100%	1
UniCredit Bank	Synthetic	-	-	93	1	-	-	-	-	93	100%	1
JPMorgan	Physical	14	1	-	-	-	-	44	1	58	100%	2
Commerzbank AG	Physical	12	1	32	1	-	-	-	-	45	79%	2
	Synthetic	12	1	-	-	-	-	-	-	12	21%	1
SEB Investment Management AB	Synthetic	49	3	-	-	-	-	-	-	49	100%	3
FinEx Fund Plc	Physical	-	-	31	1	-	-	-	-	31	81%	1
	Synthetic	-	-	-	-	7	1	-	-	7	19%	1
Franklin Templeton Investments	Physical	24	5	-	-	-	-	-	-	24	100%	5
Expat Capital	Physical	16	1	-	-	-	-	-	-	16	100%	1
Alpha Asset Mgmt.	Physical	12	1	-	-	-	-	-	-	12	100%	1
ZyFin Holdings	Physical	2	1	7	1	-	-	-	-	9	30%	2
GF International Fund Management	Physical	8	1	-	-	-	-	-	-	8	100%	1
Fullgoal Fund Management Co	Physical	-	-	8	1	-	-	-	-	8	100%	1
NBG Asset Mgmt.	Physical	3	1	-	-	-	-	-	-	3	52%	1
	Synthetic	2	1	-	-	-	-	-	-	2	48%	1
Landsbankinn	Physical	-	1	-	-	-	-	-	-	-	NA	1
<b>Total</b>		448,617	1,113	159,587	390	18,843	55	1,315	16	628,362		1,574

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## 6. Trading Perspective

### ETP Monthly Turnover Analysis by Asset Class, by Instrument

Figure 58: Turnover by asset class and instrument - | ETPs | Europe |

Asset Class	Nov-17				Oct-17	2016 (Monthly Avg.)
	All figures in € million	Turnover	Market Share %	MoM %Change		
<b>ETFs</b>						
Equity	51,462	73.3%	22.1%	11.0%	42,136	46,356
Fixed income	13,376	19.1%	20.8%	-28.0%	11,070	18,567
Commodity	1,916	2.7%	160.8%	81.2%	735	1,058
Multi Asset	27	0.0%	2.5%	37.5%	27	20
Alternative	59	0.1%	39.3%	-50.3%	43	119
Total	66,841	95.2%	23.8%	1.1%	54,010	66,120
<b>ETCs</b>						
Commodity	3,189	4.5%	-2.4%	-48.8%	3,266	6,227
Currency	182	0.3%	-19.0%	-14.2%	225	213
Total	3,371	4.8%	-3.4%	-47.6%	3,491	6,439
<b>Total ETPs</b>	<b>70,212</b>	<b>100.0%</b>	<b>22.1%</b>	<b>-3.2%</b>	<b>57,500</b>	<b>72,559</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

### Asset Class Analysis

Figure 59: European Equity ETF Turnover Summary - | ETFs | Europe |

Equity Turnover	Nov-17				Oct-17	2016 (Monthly Avg.)
	All figures in € million	Turnover	Market Share %	MoM %Change		
<b>Developed Markets</b>						
Developed Markets	29,936	58.2%	17.3%	107.6%	25,528	27,834
Emerging Markets	6,401	12.4%	54.0%	141.1%	4,157	4,536
Global Markets	1,031	2.0%	26.2%	145.1%	817	710
Sector	4,668	9.1%	17.8%	130.8%	3,964	3,569
Capitalization	1,323	2.6%	34.1%	170.0%	986	778
Strategy	5,051	9.8%	15.4%	75.9%	4,376	6,655
Style	1,706	3.3%	44.2%	112.0%	1,183	1,523
Thematic	1,348	2.6%	19.6%	179.3%	1,127	752
<b>Total Equities</b>	<b>51,462</b>	<b>100%</b>	<b>22%</b>	<b>111.0%</b>	<b>42,136</b>	<b>46,356</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 60: European Equity ETF Turnover Summary – A - | ETFs | Europe |

Equity Turnover	Nov-17			Oct-17	2016 (Monthly Avg.)	
	All figures in € million	Turnover	Market Share %	MoM %Change	2016 (Monthly Avg.)	Turnover
<b>Sector</b>	4,668	33.1%	17.8%	30.8%	3,964	3,569
Consumer discretionary	179	1.3%	-13.6%	25.1%	207	143
Consumer staples	138	1.0%	-17.8%	-8.5%	168	151
Energy	691	4.9%	56.6%	74.6%	441	396
Financials	2190	15.5%	37.1%	54.6%	1597	1,417
Healthcare	282	2.0%	-20.2%	-4.7%	354	296
Industrials	70	0.5%	-34.8%	-23.0%	107	91
Information Technology	296	2.1%	-15.2%	90.5%	349	155
Materials	203	1.4%	28.6%	-5.6%	157	215
Overall	0	0.0%	-83.2%	na	0	-
Real Estate	417	3.0%	3.6%	-15.7%	403	495
Telecommunications	117	0.8%	21.0%	44.8%	97	81
Utilities	84	0.6%	1.2%	-35.0%	83	130
<b>Capitalization</b>	1,323	9.4%	34.1%	70.0%	986	778
Large Cap	19	0.1%	104.8%	-38.3%	9	30
Mid Cap	387	2.7%	27.0%	95.0%	305	199
Small Cap	917	6.5%	36.4%	67.0%	672	549
<b>Strategy</b>	5,051	35.8%	15.4%	-24.1%	4,376	6,655
Fundamental	131	0.9%	41.9%	55.6%	93	84
Leveraged Long	1787	12.7%	27.3%	-17.5%	1404	2167
Leveraged Short	963	6.8%	8.9%	-53.2%	884	2058
Options Strategy	0	0.0%	0.0%	0.0%	0	0
Quantitative	1666	11.8%	4.8%	10.6%	1590	1506
Short	503	3.6%	24.4%	-40.1%	404	840
<b>Style</b>	1,706	12.1%	44.2%	12.0%	1,183	1,523
Dividend	1,591	11.3%	50.5%	15.8%	1,057	1,373
Growth	15	0.1%	-23.3%	-59.1%	20	37
Value	100	0.7%	-5.6%	-11.1%	106	113
<b>Thematic</b>	1,348	9.6%	19.6%	79.3%	1,127	752
Commodities	140	1.0%	-3.4%	-59.2%	145	343
Cyclical	0	0.0%	0.0%	0.0%	0	-
Faith	45	0.3%	5.5%	87.2%	42	24
Other Theme	792	5.6%	46.1%	483.4%	542	136
Sustainability	371	2.6%	-6.7%	49.2%	397	248
<b>Total</b>	14,095	100.0%	21.1%	6.2%	11,635	13,277

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 61: European Equity ETF Turnover Summary – B - | ETFs | Europe |

Equity Turnover	Nov-17			Oct-17	2016 (Monthly Avg.)	
	Turnover	Market Share %	MoM %Change		2016 (Monthly Avg.)	%Change
<b>All figures in € million</b>						
Developed Markets						
<b>Europe</b>	16,659	55.6%	27.5%	-1.1%	13,066	16,843
Austria	27	0.1%	-48.9%	142.3%	53	11
Belgium	1	0.0%	-66.5%	994144.5%	2	0
Finland	4	0.0%	-33.0%	-35.9%	6	7
France	441	1.5%	68.7%	-2.1%	262	451
Germany	3,752	12.5%	61.2%	7.4%	2,328	3,495
Greece	27	0.1%	48.9%	12.6%	18	24
Ireland	0	0.0%	-89.2%	-56.6%	4	1
Italy	727	2.4%	-12.0%	1.2%	827	719
Netherlands	107	0.4%	19.2%	-49.5%	90	211
Norway	19	0.1%	-22.7%	-16.4%	24	22
Portugal	2	0.0%	-33.6%	-60.7%	3	5
Iceland	0	0.0%	-96.8%	-99.7%	0	4
Spain	252	0.8%	-38.1%	56.5%	407	161
Sweden	353	1.2%	46.4%	10.3%	241	320
Switzerland	814	2.7%	9.0%	-12.8%	747	933
UK	1,830	6.1%	-16.0%	-33.5%	2,180	2,754
Europe broad	8,302	27.7%	41.3%	7.5%	5,875	7,724
<b>Americas</b>	6,891	23.0%	20.0%	9.3%	5,744	6,305
US	6,634	22.2%	18.3%	10.9%	5,606	5,982
Canada	62	0.2%	-5.3%	-59.6%	66	154
North America	196	0.7%	172.3%	15.3%	72	170
<b>Asia</b>	4,193	14.0%	-1.7%	61.2%	4,268	2,602
Australia	45	0.1%	-36.2%	-61.3%	70	115
Hong Kong	40	0.1%	6.0%	145.9%	38	16
Japan	3,728	12.5%	-5.9%	64.0%	3,963	2,273
Singapore	3	0.0%	-53.5%	1.4%	6	3
Asia Pacific broad	377	1.3%	97.3%	94.5%	191	194
<b>EMEA</b>	10	0.0%	38.1%	264.3%	7	3
Israel	10	0.0%	38.1%	264.3%	7	3
<b>Global</b>	2,182	7.3%	-10.7%	4.9%	2,443	2,081
Broad indices	2,182	7.3%	-10.7%	4.9%	2,443	2,081
<b>DM Total</b>	29,936	100.0%	17.3%	7.6%	25,521	27,831

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 62: European Equity ETF Turnover Summary – C - | ETFs | Europe |

Equity Turnover	Nov-17			Oct-17	2016 (Monthly Avg.)	
	All figures in € million	Turnover	Market Share %	MoM %Change	2016 (Monthly Avg.)	%Change
<b>Emerging Markets</b>						
<b>BRIC</b>	1,183	18.5%	20.7%	36.7%	980	865
Brazil	237	3.7%	47.8%	44.5%	160	164
Russia	293	4.6%	129.0%	82.7%	128	160
India	113	1.8%	-32.5%	-42.0%	168	195
China	540	8.4%	3.0%	56.3%	524	346
<b>Latin America</b>	116	1.8%	28.0%	-21.2%	91	147
Chile	0	0.0%	0.0%	na	0	0
Mexico	27	0.4%	1.0%	-32.7%	26	40
LATAM broad	89	1.4%	39.2%	-16.9%	64	107
<b>Asia</b>	1,179	18.4%	170.3%	116.7%	436	544
Bangladesh	3	0.0%	-7.9%	46.1%	3	2
Indonesia	20	0.3%	20.5%	-36.2%	17	31
Malaysia	5	0.1%	31.0%	-63.5%	4	13
Pakistan	4	0.1%	-38.8%	45.4%	6	3
Philippines	29	0.5%	399.2%	194.1%	6	10
South Korea	151	2.4%	41.3%	30.4%	107	116
Taiwan	502	7.8%	1160.7%	488.3%	40	85
Thailand	4	0.1%	-51.4%	-67.4%	8	12
Vietnam	21	0.3%	108.5%	3.9%	10	20
Asia Pacific broad	441	6.9%	86.5%	74.8%	236	252
<b>EMEA</b>	197	3.1%	15.5%	14.3%	170	172
Bulgaria	0	0.0%	16.8%	-77.2%	0	0
Kuwait	1	0.0%	10970.0%	-19.4%	0	1
Poland	22	0.4%	-15.3%	54.1%	27	15
South Africa	25	0.4%	68.7%	0.3%	15	25
Turkey	77	1.2%	18.5%	88.2%	65	41
Europe broad	68	1.1%	16.9%	-18.5%	58	83
Middle East & Africa	5	0.1%	-29.2%	-44.1%	7	9
<b>Global Markets</b>	3,726	58.2%	50.3%	32.7%	2,479	2,807
Global	3,726	58.2%	50.3%	32.7%	2,479	2,807
<b>EM Total</b>	6,401	100.0%	54.0%	41.1%	4,157	4,536
<b>Total (EM + DM)</b>	36,336	100.0%	22.4%	12.3%	29,677	32,366

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 63: European Fixed Income ETF Turnover - | ETFs | Europe |

Fixed Income Turnover	Nov-17				Oct-17	2016 (Monthly Avg.)
	Turnover	Market Share %	MoM %Change	2016 (Monthly Avg.) %Change		
All figures in € million						
Overall	462	3.5%	-2.9%	-8.0%	476	502
Corporates	6,801	50.8%	39.2%	-8.7%	4,885	7,449
Covered Bonds	49	0.4%	-22.6%	-65.2%	64	142
Credit Exposure	31	0.2%	146.3%	5.4%	12	29
Sovereign	5,661	42.3%	10.0%	-42.5%	5,145	9,850
Money Market	372	2.8%	-23.7%	-37.4%	487	594
<b>Total Fixed Income</b>	<b>13,376</b>	<b>100.0%</b>	<b>20.8%</b>	<b>-28.0%</b>	<b>11,070</b>	<b>18,567</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 64: European Commodity ETP Turnover summary - | ETPs | Europe |

Commodity Turnover	Nov-17			Oct-17	2016 (Monthly Avg.)	
	All figures in € million	Turnover	Market Share %	MoM %Change	2016 (Monthly Avg.)	Turnover
<b>Overall</b>	1,544	30.3%	327.9%	250.6%	361	440
Overall	1521	29.8%	332.6%	257.7%	352	425
Overall ex Energy	23	0.5%	151.1%	54.3%	9	15
Overall Light Energy	0	0.0%	#DIV/0!	-100.0%	0	0
Overall Ultra Light Energy	0	0.0%	0.0%	0.0%	0	0
<b>Agriculture</b>	263	5.1%	46.8%	37.3%	179	191
Overall	72	1.4%	241.8%	63.8%	21	44
Cocoa	31	0.6%	-1.6%	260.8%	31	9
Coffee	60	1.2%	11.4%	69.5%	54	35
Corn	17	0.3%	406.2%	42.3%	3	12
Cotton	3	0.1%	-46.6%	-3.5%	6	3
Grains	3	0.1%	93.5%	8.5%	2	3
Softs	0	0.0%	3.0%	-55.8%	0	1
Soybean Oil	3	0.1%	219.9%	-59.9%	1	8
Soybeans	5	0.1%	-4.0%	-30.7%	6	8
Sugar	35	0.7%	15.8%	50.3%	31	24
Wheat	32	0.6%	33.7%	-28.7%	24	45
<b>Energy</b>	1,160	22.7%	0.7%	-42.2%	1,152	2,008
Overall	34	0.7%	21.5%	25.2%	28	27
Carbon	1	0.0%	2.8%	745.6%	1	0
Crude Oil	932	18.3%	-1.8%	-46.9%	949	1756
Gasoline	6	0.1%	56.1%	-35.4%	4	9
Heating Oil	1	0.0%	3.8%	-79.1%	1	5
Natural Gas	187	3.7%	10.4%	-11.6%	169	211
Electricity	0	0.0%	0.0%	0.0%	0	0
Uranium	0	0.0%	0.0%	0.0%	0	0
<b>Industrial Metals</b>	223	4.4%	8.0%	30.4%	207	171
Overall	51	1.0%	-21.8%	30.7%	66	39
Aluminium	9	0.2%	3.2%	16.5%	9	8
Copper	107	2.1%	59.0%	12.5%	67	95
Lead	1	0.0%	-12.3%	-66.2%	1	2
Nickel	51	1.0%	-7.7%	178.2%	55	18
Tin	0	0.0%	-47.9%	-68.6%	1	1
Zinc	4	0.1%	-55.7%	-52.6%	8	7
<b>Precious Metals</b>	1,913	37.5%	-8.8%	-57.2%	2,097	4,468
Overall	20	0.4%	4.0%	8.6%	20	19
Gold	1588	31.1%	-15.4%	-59.7%	1878	3940
Palladium	44	0.9%	40.8%	-32.9%	31	66
Platinum	55	1.1%	88.4%	-13.8%	29	63
Rhodium	3	0.1%	-71.5%	390.2%	12	1
Silver	202	4.0%	59.0%	-46.7%	127	379
<b>Livestock</b>	1	0.0%	-69.7%	-72.1%	5	5
Overall	0	0.0%	-70.4%	-90.0%	0	0
Cattle	0	0.0%	-41.6%	-63.3%	1	1
Lean Hogs	1	0.0%	-74.3%	-72.5%	4	4
<b>Total</b>	5,105	100.0%	27.6%	-29.9%	4,000	7,284

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## Product Rankings

Figure 65: Top 20 Equity ETFs by Turnover (€ million) - | ETFs | Europe |

ETF Name	BBG Ticker	Issuer	Invest. Strategy	Current Month TO	Prev. Month TO	YTD TO
iShares Core DAX UCITS ETF DE	DAXEX GR	BlackRock	Beta	2,380.0	1,359.6	16,868.9
iShares Core S&P 500 UCITS ETF	CSSPX SW	BlackRock	Beta	1,437.6	1,317.3	17,138.5
Vanguard S&P 500 ETF	VUSA LN	Vanguard	Beta	1,435.5	1,057.0	15,778.6
iShares MSCI Emerging Markets UCITS ETF (Inc)	IEEM LN	BlackRock	Beta	1,182.0	470.8	6,629.8
iShares Core MSCI World UCITS ETF (Acc)	SWDA LN	BlackRock	Beta	1,115.5	1,135.6	9,034.5
iShares Core FTSE 100 UCITS ETF	ISF LN	BlackRock	Beta	810.9	1,002.5	10,543.4
iShares MSCI Emerging Markets IMI UCITS ETF	EMIM NA	BlackRock	Beta	796.3	447.7	6,526.5
iShares Euro STOXX 50 (DE)	SX5EEX GR	BlackRock	Beta	761.5	641.1	8,447.3
Vanguard FTSE Japan UCITS ETF	VJPN LN	Vanguard	Beta	696.0	108.5	1,800.9
iShares EURO STOXX 50 UCITS ETF (Inc)	EUNE SW	BlackRock	Beta	650.2	675.2	7,260.7
Vanguard FTSE Developed Europe ex UK UCITS ETF	VERX LN	Vanguard	Beta	646.5	74.7	1,733.3
Lyxor ETF S&P 500	LYPS GR	Lyxor	Beta	623.6	142.6	3,824.4
iShares MSCI Japan EUR Hedged UCITS ETF	IJPE LN	Blackrock	Beta	606.2	326.3	3,111.0
iShares S&P Financials Sector UCITS ETF	IUFS LN	BlackRock	Beta	603.1	221.5	1,864.7
Lyxor UCITS ETF FTSE MIB	ETFMIB IM	Lyxor	Beta	522.2	609.4	5,532.0
db x-trackers Euro Stoxx 50 UCITS ETF (DR) - 1D	XESX GR	Deutsche AM	Beta	503.5	335.2	4,342.6
Lyxor UCITS ETF Japan Topix -D-JPY	LYJPN SW	Lyxor	Beta	500.1	422.2	2,227.1
iShares MSCI Taiwan UCITS ETF	ITWN LN	BlackRock	Beta	493.5	26.4	1,074.7
SPDR S&P US Dividend Aristocrats ETF	SPYD GY	State Street	Beta	471.7	274.8	2,313.0
Lyxor ETF Leveraged Euro STOXX 50	LVE FP	Lyxor	Beta+	460.6	249.1	2,126.0

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 66: Top 20 Fixed Income ETFs by Turnover (€ million) - | ETFs | Europe |

ETF Name	BBG Code	Issuer	Invest. Strategy	Current Month TO	Prev. Month TO	YTD TO
iShares Core Euro Corporate Bond UCITS ETF	IEBC LN	BlackRock	Beta	1,418.1	575.9	9,679.6
iShares Euro High Yield Corporate Bond UCITS ETF	IHYG LN	BlackRock	Beta	763.3	307.5	6,294.1
iShares \$ Corporate Bond UCITS ETF	LODE LN	BlackRock	Beta	602.9	251.5	6,487.4
iShares J.P. Morgan \$ Emerging Markets Bond UCITS ETF	SEMB LN	BlackRock	Beta	545.9	632.1	8,063.3
iShares USD TIPS 0-5 UCITS ETF	TIP5 LN	BlackRock	Beta	385.8	8.1	415.0
iShares \$ Treasury Bond 7-10yr UCITS ETF	IDTM LN	BlackRock	Beta	359.9	300.1	2,852.1
iShares \$ High Yield Corporate Bond UCITS ETF	SHYU LN	BlackRock	Beta	355.8	333.1	5,365.7
iShares \$ Short Duration Corporate Bond UCITS ETF	SDIG LN	BlackRock	Beta	273.9	151.9	1,987.1
iShares CHF Corporate Bond (CH)	CHCORP SW	BlackRock	Beta	269.6	330.8	1,090.1
iShares Emerging Markets Local Government Bond UCITS ETF	SEML LN	Blackrock	Beta	266.7	474.7	4,498.6
iShares GBP Corporate Bond 1-5yr UCITS ETF	IS15 LN	Blackrock	Beta	251.6	111.3	1,569.7
iShares \$ TIPS UCITS ETF	IDTP LN	BlackRock	Beta	200.8	154.1	3,423.9
SPDR Barclays 1-3 Year US Treasury Bond UCITS ETF	SYBW GY	State Street	Beta	192.8	106.6	460.2
iShares Euro Ultrashort Bond UCITS ETF	ERNE LN	BlackRock	Beta	188.8	141.7	2,458.7
Amundi ETF Floating Rate USD Corporate UCITS ETF - Hedged EUR	AFLF FP	Amundi	Beta	188.0	200.6	2,647.8
SPDR Barclays Capital 1-5 Year Gilt ETF	SYB5 GY	State Street	Beta	184.6	108.4	756.8
AMUNDI ETF Floating Rate USD Corporate UCITS ETF	AFLT FP	Amundi	Beta	179.5	210.8	1,184.2
SPDR Barclays Capital Emerging Market Local Bond ETF	SYBM GY	State Street	Beta	175.8	59.4	2,032.9
iShares Euro Aggregate Bond UCITS ETF	SEAG LN	BlackRock	Beta	169.0	194.7	2,154.7
iShares \$ Treasury Bond 1-3yr UCITS ETF	IBTS LN	BlackRock	Beta	168.5	130.7	2,682.3

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 67: Top 20 Commodity ETPs by Turnover (€ million) - | ETPs | Europe |

ETP Name	BBG Code	Issuer	Invest. Strategy	Current Month TO	Prev. Month TO	YTD TO
Source Bloomberg Commodity UCITS ETF	CMOD LN	PowerShares	Beta	579.2	37.4	1,346.6
iShares Diversified Commodity Swap UCITS ETF	ICOM LN	BlackRock	Beta	347.2	5.2	858.4
ETFS WTI Crude Oil	CRUD LN	ETF Securities	Beta	321.9	282.5	3,150.7
Source Physical Gold ETC (P-ETC)	SGLD LN	PowerShares	Beta	271.7	292.3	4,053.1
LGIM Commodity Composite Source ETF	LGCF LN	PowerShares	Beta	263.8	0.8	288.3
ETFS Physical Gold	PHAU LN	ETF Securities	Beta	239.8	370.5	5,783.7
iShares Physical Gold ETC	SGLN LN	Blackrock	Beta	220.2	321.9	3,127.8
Boost Wti Oil 3X Leverage Daily ETP	3OIL LN	WisdomTree	Beta+	205.9	216.0	2,635.2
ZKB Gold ETF	ZGLD SW	Zuercher Kantonalbank	Beta	169.6	166.6	2,162.6
XETRA-Gold	4GLD GY	Deutsche Borse Commodities GmbH	Beta	157.6	132.7	2,584.9
Gold Bullion Securities	GBS LN	ETF Securities	Beta	140.5	181.1	2,772.7
UBS ETFs plc - CMCI Composite SF UCITS ETF (USD) A-acc	CCUSAS SW	UBS	Beta	112.8	43.9	733.4
Boost Wti Oil 3X Short Daily ETP	3OIS LN	WisdomTree	Beta+	94.2	163.1	1,542.2
Boost Natural Gas 3X Leverage Daily ETP	3NGL LN	WisdomTree	Beta+	91.4	82.2	857.9
db Physical Gold Euro Hedged ETC	XAD1 GR	Deutsche AM	Beta	86.2	85.0	1,090.8
ETFS Copper	COPA LN	ETF Securities	Beta	76.2	36.5	567.6
ETFS Daily Leveraged Crude Oil	LOIL LN	ETF Securities	Beta+	68.0	61.0	810.1
ETFS Physical Silver	PHAG LN	ETF Securities	Beta	65.3	30.7	1,353.8
Julius Baer Physical Gold Fund - A (USD listing)	JBGOUA SW	Julius Baer Inv	Beta	56.3	74.8	546.4
ETFS Industrial Metals	AIGI LN	ETF Securities	Beta	48.6	62.9	574.1

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 68: Top 10 ETPs by Turnover (€ million) – Deutsche Borse - | ETPs | Europe |

Equity ETFs	BBG Ticker	Turnover	Fixed Income ETFs	BBG Ticker	Turnover
1 iShares Core DAX UCITS ETF DE	DAXEX GR	2,294.26	1 iShares Barclays Euro Corporate Bond	EUN5 GR	61.05
2 iShares Euro STOXX 50 (DE)	SXSEEX GR	581.59	2 iShares Markit iBoxx Euro High Yield	EUNW GR	53.76
3 iShares Euro STOXX Banks (DE)	SX7EEBX GR	342.55	3 db x-trackers II EONIA TR Index UCITS ETF	XEON GR	43.65
4 iShares STOXX 600 (DE)	SXXPIEX GR	328.33	4 iShares JPMorgan USD Emerging Markets Bond	IUS7 GR	32.14
5 Deka DAX UCITS ETF	ETFDAX GR	265.88	5 iShares JP Morgan \$ EM Bond EUR Hedged UCITS ETF	IS3C GY	31.25
6 db x-trackers DAX UCITS ETF (DR) 1C	XDAX GR	221.06	6 iShares Euro Corporate Bond Large Cap UCITS ETF	IBCS GR	27.94
7 iShares EURO STOXX 50 UCITS ETF (Inc)	EUN2 GR	202.44	7 db x-trackers II iBoxx Euro Sovereigns Eurozone 5-7 TR Index UCITS ETF	X57E GR	25.99
8 db x-trackers Euro Stoxx 50 UCITS ETF (DR) - 1D	XESX GR	200.21	8 iShares Barclays Euro Corporate Bond 1-5 (EUR)	EUNCT GR	22.52
9 db x-trackers MSCI EMU Index UCITS ETF (DR) 1D	XD5E GY	153.90	9 iShares Euro Inflation Linked Bond	IBCI GR	22.49
10 iShares STOXX 600 Banks (DE)	SX7PEX GR	143.65	10 iShares Euro Ultrashort Bond UCITS ETF	IS3M GY	21.65
Commodity ETFs	BBG Ticker	Turnover	Other	BBG Ticker	Turnover
1 XETRA-Gold	4GLD GY	157.59	1 db x-trackers Portfolio TR Index UCITS ETF	XQUI GR	9.84
2 db Physical Gold Euro Hedged ETC	XAD1 GR	37.60	2 UBS ETFs plc - HFRX Global Hedge Fund Index SF	UIQC GR	8.67
3 db Physical Gold ETC (EUR)	XAD5 GR	25.97	3 db x-trackers LPX Major Market Private Equity UCITS ETF	XLPE GR	5.76
4 Source Physical Gold ETC (P-ETC)	8PSG GY	25.71	4 ComStage Vermogenstrategie UCITS ETF	F701 GY	3.76
5 iShares Diversified Commodity Swap UCITS ETF DE	DJCOMEX GR	17.94	5 ETFS 5X Long USD Short EUR	5CH5 GY	1.74
6 ETFS Brent Oil	OESA GR	17.77	6 ETFS Long USD Short EUR	XBJP GR	1.38
7 ComStage ETF Commerzbank Commodity EW Index TR	CBCCOMM GR	17.68	7 ETFS 5X Short USD Long EUR	5CH6 GY	1.22
8 db Physical Silver ETC (EUR)	XAD6 GR	15.27	8 db-x trackers Portfolio Income UCITS ETF	XS7W GR	1.18
9 ETFS Physical Gold	VZLD GR	8.40	9 iShares S&P Listed Private Equity Fund	IQQL GR	1.17
10 ETFS Physical Silver	VZLC GR	7.68	10 Lyxor ETF S&P 500 VIX Futures Enhanced Roll D-EUR	VOOL GY	1.12

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 69: Top 10 ETPs by Turnover (€ million) – London SE - | ETPs | Europe |

Equity ETFs		BBG Ticker	Turnover	Fixed Income ETFs		BBG Ticker	Turnover
1	Vanguard S&P 500 ETF	VUSD LN	948.85	1	iShares Core Euro Corporate Bond UCITS ETF	IEAC LN	866.10
2	iShares Core S&P 500 UCITS ETF	CSPX LN	812.63	2	iShares Euro High Yield Corporate Bond UCITS ETF	IHYG LN	538.14
3	iShares Core FTSE 100 UCITS ETF	ISF LN	725.83	3	iShares \$ Corporate Bond UCITS ETF	LQDE LN	517.32
4	iShares Core MSCI World UCITS ETF (Acc)	IWDA LN	723.62	4	iShares Core Euro Corporate Bond UCITS ETF	IEBC LN	399.44
5	Vanguard FTSE Developed Europe ex UK UCITS ETF	VERX LN	627.62	5	iShares J.P. Morgan \$ Emerging Markets Bond UCITS ETF	IEMB LN	318.00
6	Vanguard FTSE Japan UCITS ETF	VDJP LN	590.16	6	iShares \$ High Yield Corporate Bond UCITS ETF	IHYU LN	260.08
7	iShares S&P Financials Sector UCITS ETF	IUFS LN	588.31	7	iShares GBP Corporate Bond 1-5yr UCITS ETF	IS15 LN	250.88
8	iShares MSCI Emerging Markets IMI UCITS ETF	EIMI LN	484.49	8	iShares \$ Short Duration Corporate Bond UCITS ETF	SDIG LN	246.37
9	iShares MSCI Taiwan UCITS ETF	ITWN LN	402.21	9	iShares USD TIPS 0-5 UCITS ETF	TIP5 LN	207.54
10	Vanguard S&P 500 ETF	VUSA LN	387.63	10	SPDR Barclays 1-3 Year US Treasury Bond UCITS ETF	TSY3 LN	190.06
Commodity ETPs		BBG Ticker	Turnover	Other		BBG Ticker	Turnover
1	Source Bloomberg Commodity UCITS ETF	CMOD LN	304.55	1	ETFS 3x Long GBP Short USD	LGB3 LN	25.44
2	Source Bloomberg Commodity UCITS ETF	CMOP LN	274.00	2	iShares Listed Private Equity UCITS ETF	IPRV LN	22.55
3	ETFS WTI Crude Oil	CRUD LN	232.92	3	db x-trackers LPX Major Market Private Equity UCITS ETF	XLPE LN	2.55
4	iShares Diversified Commodity Swap UCITS ETF	ICOM LN	222.23	4	ETFS 3x Short EUR Long USD	SEU3 LN	2.35
5	Source Physical Gold ETC (P-ETC)	SGLD LN	206.28	5	iShares Listed Private Equity UCITS ETF	IDPE LN	2.17
6	LGIM Commodity Composite Source ETF	LGCU LN	170.98	6	First Trust FactorFX UCITS ETF	FTFX LN	1.85
7	iShares Physical Gold ETC	IGLN LN	168.82	7	ETFS Short GBP Long USDGBP	USD2 LN	1.75
8	iShares Diversified Commodity Swap UCITS ETF	COMM LN	124.96	8	ETFS Short EUR Long USDGBP	SEUP LN	1.66
9	Gold Bullion Securities	GBS LN	101.16	9	ETFS 3x Long EUR Short USD	LEU3 LN	1.55
10	ETFS Physical Gold	PHAU LN	96.19	10	ETFS Short EUR Long GBP	URGB LN	1.42

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 70: Top 10 ETPs by Turnover (€ million) – Swiss SE - | ETPs | Europe |

Equity ETFs		BBG Ticker	Turnover	Fixed Income ETFs		BBG Ticker	Turnover
1	iShares MSCI Emerging Markets UCITS ETF (Inc)	IEEM SW	397.44	1	iShares CHF Corporate Bond (CH)	CHCOPR SW	269.64
2	iShares SMI CH	CSSMI SW	196.17	2	iShares \$ Treasury Bond 7-10yr UCITS ETF	IBTM SW	101.61
3	iShares Euro STOXX 50 (DE)	SXSEEX SW	179.90	3	UBS ETF - Barclays US Liquid Corporates UCITS ETF (hedged to EUR) A-acc	CBUSE SW	77.55
4	iShares SPI (CH)	CHSPI SW	141.85	4	UBS ETF - Barclays TIPS 1-10 UCITS ETF Hedged to EUR	TIP1E SW	63.89
5	iShares Core S&P 500 UCITS ETF	CSSPX SW	141.01	5	iShares \$ TIPS UCITS ETF	ITPS SW	53.98
6	iShares MSCI Emerging Markets IMI UCITS ETF	EIMI SW	137.43	6	iShares J.P. Morgan \$ Emerging Markets Bond UCITS ETF	IEMB SW	39.52
7	iShares EURO Core STOXX 50 - B UCITS ETF Acc	CSSX5E SW	133.93	7	AMUNDI ETF Floating Rate USD Corporate UCITS ETF	AFLT SW	22.04
8	UBS ETF - MSCI EMU 100% hedged to USD UCITS ETF A-acc	EUUSBH SW	120.71	8	iShares Global High Yield Corp Bond CHF Hedged UCITS ETF	GHYC SW	19.31
9	iShares China Large Cap UCITS ETF	FXC SW	100.74	9	iShares Euro Government Bond 1-3yr UCITS ETF	IBGS SW	14.23
10	UBS-ETF MSCI EMU	EMUAA SW	98.93	10	UBS ETF - Barclays TIPS 1-10 UCITS ETF	TIP1A SW	13.88
Commodity ETPs		BBG Ticker	Turnover	Other		BBG Ticker	Turnover
1	ZKB Gold ETF-A USD	ZGLDUS SW	60.74	1	iShares Listed Private Equity UCITS ETF	IPRV SW	1.04
2	ZKB Gold ETF	ZGLD SW	44.66	2	UBS ETFs plc - HFRX Global Hedge Fund Index SF (EUR) A-acc	HFCHAS SW	1.01
3	ZKB Gold ETF-H (CHF)	ZGLDHC SW	33.38	3	UBS ETFs plc - HFRX Global Hedge Fund Index SF (CHF) A-acc	HFEUAS SW	0.44
4	UBS ETF (CH) - Gold (USD) I-dis	AUUSI SW	27.22	4	UBS ETFs plc - HFRX Global Hedge Fund Index SF (GBP) A-acc	HFGBAS SW	0.34
5	db Physical Gold Euro Hedged ETC	XAD1 SW	23.12	5	ComStage Vermogensstrategie UCITS ETF	CBVSEU SW	0.06
6	UBS-IS Gold (CHF) Hedged ETF A	AUCHAH SW	19.28	6	ComStage Vermogensstrategie UCITS ETF	CBVS SW	0.04
7	UBS-IS CMCI Oil ETF (USD) A	OILUSA SW	18.31				
8	ZKB Gold ETF-A EUR	ZGLDEU SW	17.58				
9	Julius Baer Physical Gold Fund - A (USD listing)	JBGOUA SW	17.41				
10	iShares Gold CH	CSGOLD SW	16.85				

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 71: Top 10 ETFs by Turnover (€ million) – Euronext Paris - | ETFs | Europe |

Equity ETFs	BBG Ticker	Turnover	Fixed Income ETFs	BBG Ticker	Turnover
1 Lyxor ETF S&P 500	SP5 FP	440.05	1 AMUNDI ETF Floating Rate USD Corporate UCITS ETF	AFLT FP	156.34
2 Lyxor STOXX Europe 600 DR UCITS ETF	MEUD FP	370.69	2 Amundi ETF Floating Rate USD Corporate UCITS ETF - Hedged EUR	AFLE FP	137.61
3 Lyxor UCITS ETF Euro STOXX 50	MSE FP	277.12	3 Lyxor UCITS ETF Barclays Floating Rate Euro 0-7y	FLOT FP	108.99
4 Lyxor ETF Leverage CAC 40	LVC FP	272.70	4 Lyxor UCITS ETF Smart Cash C-EUR	CSH2 FP	77.19
5 Lyxor ETF XBear CAC 40	BX4 FP	260.52	5 Amundi ETF Floating Rate Euro Corporate 1-3 UCITS ETF	AFRN FP	76.56
6 Lyxor UCITS ETF Euro Stoxx Banks	BNKE FP	243.23	6 Lyxor UCITS ETF MTS BTP 10Y Italy Government Bond (DR)	MI10 FP	68.23
7 Lyxor UCITS ETF CAC 40 (DR) -D-EUR	CAC FP	230.06	7 Lyxor ETF SGI Daily Double Short Bund ETF	DSB FP	54.32
8 Lyxor ETF Leveraged Euro STOXX 50	LVE FP	188.44	8 Amundi ETF Global Emerging Bond Markit iBoxx UCITS ETF	AGEB FP	48.10
9 Lyxor UCITS ETF Japan Topix -D-EUR	JPN FP	182.81	9 Amundi ETF BBB Euro Corporate IG UCITS ETF	CBBB FP	46.51
10 Amundi ETF MSCI Emerging Markets UCITS ETF	AEEM FP	181.08	10 Amundi Euro HY Liquid Bond iBoxx UCITS ETF	AHYE FP	45.66

Commodity ETFs	BBG Ticker	Turnover	Other	BBG Ticker	Turnover
1 ETFS WTI Crude Oil	CRUDP FP	27.99	1 Lyxor ETF Privex	PVX FP	3.38
2 Lyxor ETF Commodities CRB Non-Energy	CRN FP	18.32			
3 Gold Bullion Securities	GBS FP	6.37			
4 Lyxor ETF Commodities CRB	CRB FP	5.16			
5 BNP Paribas Easy Energy & Metals Enhanced Roll ETF	EMEH FP	4.76			
6 ETFS Brent 1mnth Oil	OILBP FP	2.16			
7 ETFS All Commodities	AIGCP FP	1.57			
8 ETFS Agriculture	AIGAP FP	1.26			
9 ETFS Gold	BULLP FP	0.48			
10 ETFS Natural Gas	NGASP FP	0.40			

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 72: Top 10 ETFs by Turnover (€ million) – Borsa Italiana - | ETFs | Europe |

Equity ETFs	BBG Ticker	Turnover	Fixed Income ETFs	BBG Ticker	Turnover
1 Lyxor UCITS ETF FTSE MIB	ETFMIB IM	347.19	1 iShares Euro High Yield Corporate Bond UCITS ETF	IHYG IM	71.51
2 iShares EURO STOXX 50 UCITS ETF (Inc)	EUE IM	247.14	2 iShares Euro Government Bond 3-5yr UCITS ETF	IBGX IM	53.40
3 Lyxor ETF Leveraged Euro STOXX 50	DJLEV IM	223.82	3 Lyxor ETF SGI Daily Double Short Bund ETF	BUND2S IM	48.79
4 iShares MSCI Japan EUR Hedged UCITS ETF	IJPE IM	210.68	4 iShares Emerging Markets Local Government Bond UCITS ETF	SEML IM	48.32
5 Lyxor UCITS ETF FTSE Mid Cap Italy D-EUR	ITAMID IM	177.13	5 iShares J.P. Morgan \$ Emerging Markets Bond UCITS ETF	IEMB IM	46.59
6 Lyxor UCITS ETF Euro STOXX 50	MSE IM	140.83	6 Lyxor ETF Daily Double Short BTP	BTP2S IM	45.99
7 UBS-ETF MSCI EMU	EMUEUA IM	132.33	7 iShares Euro Corporate Bond 1-5yr UCITS ETF	SE15 IM	42.06
8 Lyxor ETF Leveraged FTSE/MIB	LEVMB IM	125.82	8 Amundi ETF Floating Rate USD Corporate UCITS ETF - Hedged EUR	HFRN IM	41.03
9 Lyxor UCITS ETF DAX (DR)	DAXX IM	124.59	9 iShares Euro Government Bond 1-3yr UCITS ETF	IBGS IM	32.15
10 db x-trackers DAX UCITS ETF (DR) 1C	XDAX IM	124.29	10 PIMCO Short-Term HY Corporate Bond Index Source ETF (EUR Hedged)	STHE IM	32.15

Commodity ETFs	BBG Ticker	Turnover	Other	BBG Ticker	Turnover
1 Boost Wti Oil 3X Leverage Daily ETP	3OIL IM	181.50	1 ETFS 3X Long USD Short EUR	EUS3 IM	28.89
2 Boost Natural Gas 3X Leverage Daily ETP	3NGL IM	82.62	2 ETFS 3X Short USD Long EUR	USE3 IM	17.89
3 Boost Wti Oil 3X Short Daily ETP	3OIS IM	80.95	3 ETFS 5X Short USD Long EUR	USE5 IM	15.55
4 ETFS Physical Gold	PHAU IM	64.39	4 ETFS 5X Long USD Short EUR	EUS5 IM	14.87
5 ETFS WTI Crude Oil	CRUD IM	55.28	5 ETFS Short USD Long EUR	USEU IM	12.31
6 ETFS Daily Leveraged Crude Oil	LOIL IM	40.13	6 ETFS Long GBP Short EUR	EUGB IM	3.86
7 Boost Natural Gas 3x Short Daily	3NGS IM	26.63	7 ETFS Long NOK Short EUR	EUNO IM	3.83
8 db Physical Gold Euro Hedged ETC	XAD1 IM	25.51	8 Lyxor ETF S&P 500 VIX Futures Enhanced Roll D-EUR	LVO IM	3.53
9 Gold Bullion Securities	GBS IM	21.75	9 ETFS Long USD Short EUR	EUUS IM	3.34
10 ETFS Brent Crude	BRNT IM	21.21	10 Boost Short USD Long EUR 5x Daily ETP	SEUS IM	2.55

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 73: Top 10 ETPs by Turnover (€ million) – Stockholmbörsen & Euronext Amsterdam - | ETPs | Europe |

Stockholmbörsen			Fixed Income ETFs				
	Equity ETFs	BBG Ticker	Turnover	Fixed Income ETFs	BBG Ticker	Turnover	
1	XACT OMXS30	XACTOMX SS	340.53	1 XACT Obligation UCITS ETF	XACTBOND SS	5.00	
2	XACT Bull 2	XABULL2 SS	75.36				
3	XACT Bear 2	XABEAR2 SS	66.00				
4	XACT Bear	XACBEAR SS	28.20				
5	XACT Svenska Smabolag UCITS ETF	XACTSMAC SS	15.91				
6	XACT Nordic High Dividend Low Volatility UCITS ETF	XACTHDIV SS	15.45				
7	XACT Bull	XACBULL SS	14.03				
8	XACT Nordic 30	XACTVINX SS	9.68				
9	XACT OMXSB	XACTSBX SS	9.56				
10	db x-trackers MSCI Europe Index UCITS ETF (DR)	XMEU SS	6.81				

Euronext Amsterdam			Fixed Income ETFs				
	Equity ETFs	BBG Ticker	Turnover	Fixed Income ETFs	BBG Ticker	Turnover	
1	iShares MSCI Europe UCITS ETF (Inc)	IMEU NA	88.60	1 iShares Core Euro Corporate Bond UCITS ETF	IEAC NA	60.14	
2	Vanguard S&P 500 ETF	VUSA NA	87.93				
3	iShares EURO STOXX 50 UCITS ETF (Inc)	EUEA NA	70.72				
4	Vanguard FTSE Developed Europe UCITS ETF	VEUR NA	62.64				
5	iShares AEX UCITS ETF	IAEX NA	58.62				
6	iShares European Property Yield UCITS ETF	IPRP NA	52.60				
7	iShares MSCI Japan EUR Hedged UCITS ETF	IJPE NA	52.07				
8	iShares MSCI Europe ex-UK UCITS ETF	IEUX NA	47.22				
9	iShares Core MSCI World UCITS ETF (Acc)	IWDA NA	45.28				
10	iShares MSCI Emerging Markets UCITS ETF (Inc)	IEMM NA	40.18				

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## 7. European ETF Exchanges

Figure 74: European on-exchange trading ranking by exchange - | ETPs | Europe |

Exchanges (All figures in € million)	Nov-17				Oct-17				Sep-17			
	ETF Turnover	ETF Market Share %	ETC Turnover	ETC Market Share %	ETF Turnover	ETF Market Share %	ETC Turnover	ETC Market Share %	ETF Turnover	ETF Market Share %	ETC Turnover	ETC Market Share %
<b>Deutche Boerse</b>												
Deutsche Borse	11,927	17.8%	425	12.6%	8,929	16.5%	401	11.5%	10,078	18.6%	536	12.1%
<b>LSE</b>												
London SE	30,173	45.1%	1,714	50.8%	23,417	43.4%	1,906	54.6%	23,974	44.2%	2,611	58.7%
Borsa Italiana	7,210	10.8%	1,129	33.5%	6,289	11.6%	1,113	31.9%	5,935	10.9%	1,205	27.1%
	37,384	55.9%	2,843	84.3%	29,707	55.0%	3,019	86.5%	29,909	55.1%	3,816	85.8%
<b>Euronext</b>												
Paris	8,110	12.1%	41	1.2%	7,203	13.3%	20	0.6%	7,473	13.8%	38	0.8%
Amsterdam	1,478	2.2%	22	0.7%	1,658	3.1%	21	0.6%	1,246	2.3%	29	0.7%
Lisbon	2	0.0%	0	0.0%	3	0.0%	0	0.0%	2	0.0%	0	0.0%
Brussels	1	0.0%	0	0.0%	2	0.0%	0	0.0%	1	0.0%	0	0.0%
	9,591	14.3%	64	1.9%	8,866	16.4%	41	1.2%	8,722	16.1%	67	1.5%
Swiss SE	6,949	10.4%	40	1.2%	5,431	10.1%	29	0.8%	4,791	8.8%	27	0.6%
Stockholmborsen	604	0.9%	0	0.0%	510	0.9%	0	0.0%	440	0.8%	0	0.0%
Oslo Bors	19	0.0%	0	0.0%	58	0.1%	0	0.0%	141	0.3%	0	0.0%
BME	360	0.5%	0	0.0%	500	0.9%	0	0.0%	169	0.3%	0	0.0%
Others	7	0.0%	0	0.0%	10	0.0%	0	0.0%	45	0.1%	0	0.0%
Total	66,841	100.0%	3,371	100.0%	54,010	100.0%	3,491	100.0%	54,295	100.0%	4,446	100.0%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 75: Total ETP on-exchange Turnover by asset class and by exchange - | ETPs | Europe |

	Deutsche Borse	London SE	Euronext Paris	Borsa Italiana	Euronext Amsterdam	Swiss SE	Stockholm Borsen	Total
	Total Turnover (€ million)						Turnover* Mkt Share %	
<b>Equity</b>								
Developed Markets	67,815.0	106,260.3	38,054.2	26,680.3	9,227.7	32,253.8	3,424.4	283,715.7 40.5%
Emerging Markets	6,241.4	21,692.4	9,266.3	4,579.1	1,535.1	5,408.5	52.4	48,775.2 7.0%
Global Markets	680.0	5,655.4	384.7	476.7	330.0	3,504.2	3.7	11,034.6 1.6%
Sector	14,674.9	13,934.8	11,856.0	3,989.9	569.9	2,667.4	7.0	47,699.9 6.8%
Capitalization	2,121.2	5,426.2	852.4	1,865.3	359.5	1,446.6	198.2	12,269.4 1.8%
Style	3,761.3	8,641.1	1,039.8	1,154.0	729.4	1,169.1	0.0	16,494.7 2.4%
Strategy	6,122.6	15,458.1	11,409.8	11,839.4	70.4	1,012.4	2,617.5	48,530.3 6.9%
Thematic	2,539.2	4,878.7	707.8	1,086.6	304.6	1,448.8	0.0	10,965.7 1.6%
Total	103,956	181,947	73,571	51,671	13,127	48,911	6,303	479,485.4 68.4%
<b>Fixed Income</b>								
Overall	731.5	3,677.5	58.3	252.2	439.2	504.7	14.7	5,678.1 0.8%
Corporates	5,404.9	46,318.7	5,567.1	6,682.6	1,176.3	3,114.7	0.0	68,264.5 9.7%
Covered Bonds	590.5	129.3	15.1	60.3	20.3	15.7	0.0	831.1 0.1%
Credit Exposure	97.0	0.0	0.0	64.4	0.0	9.8	0.0	171.2 0.0%
Sovereign	7,706.7	50,217.5	7,676.1	9,554.7	1,125.4	6,036.6	0.0	82,317.0 11.7%
Money Market	941.0	1,736.1	1,472.1	2,213.1	0.0	67.1	0.0	6,429.4 0.9%
Total	15,472	102,079	14,789	18,827	2,761	9,749	15	163,691.3 23.4%
<b>Commodity</b>								
Overall	891.7	3,792.8	274.2	428.1	55.8	1,112.0	51.4	6,606.1 0.9%
Agriculture	222.0	801.7	22.2	1,287.2	0.0	40.6	0.0	2,373.7 0.3%
Energy	587.0	4,822.6	130.7	7,296.2	0.0	184.1	0.0	13,020.7 1.9%
Industrial Metals	150.7	1,475.1	4.5	534.5	0.0	19.6	0.0	2,184.3 0.3%
Precious Metals	4,635.1	16,431.3	204.1	3,064.9	261.1	5,080.3	0.0	29,676.7 4.2%
Livestock	17.8	30.8	0.0	19.2	0.0	0.0	0.0	67.8 0.0%
Total	6,504	27,354	636	12,630	317	6,437	51	53,929.3 7.7%
<b>Other</b>								
Alternative	152.9	352.7	122.1	120.3	49.9	63.9	0.0	861.8 0.1%
Currency	107.0	855.3	0.0	1,390.5	32.7	0.0	0.0	2,385.5 0.3%
Multi Asset	162.9	46.7	0.0	36.0	29.9	2.7	0.0	278.1 0.0%
Total	423	1,255	122	1,547	113	67	-	3,525.4 0.5%
Grand Total	126,355	312,635	89,117	84,675	16,317	65,163	6,369	700,631 100%

\* Total turnover year to date (not daily average)

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## 8. Assets

### ETP Monthly AUM Analysis by Asset Class

Figure 76: AUM by asset class and instrument - | ETPs | Europe |

Asset Class	Nov-17				Oct-17	End of 2016
	All figures in € million	AUM	Market Share %	MoM %change	YTD %change	AUM
<b>ETFs</b>						
Equity	448,617	68.0%	0.6%	24.7%	446,016	359,727
Fixed income	159,587	24.2%	1.0%	15.6%	158,014	138,001
Commodity	18,843	2.9%	1.4%	14.5%	18,575	16,461
Multi Asset	651	0.1%	6.8%	49.6%	610	436
Alternative	664	0.1%	-0.7%	-33.5%	668	998
Total	628,362	95.2%	0.7%	21.9%	623,883	515,622
<b>ETCs</b>						
Commodity	30,990	4.7%	-1.1%	14.8%	31,325	26,989
Currency	459	0.1%	2.0%	-3.1%	450	474
Total	31,449	4.8%	-1.0%	14.5%	31,776	27,463
<b>Total ETPs</b>	<b>659,812</b>	<b>100.0%</b>	<b>0.6%</b>	<b>21.5%</b>	<b>655,658</b>	<b>543,085</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

### Asset Class Analysis

Figure 77: European Equity ETF AUM summary - | ETFs | Europe |

Equity AUM	Nov-17				Oct-17	End of 2016
	All figures in € million	AUM	Market Share %	MoM %change	YTD %change	AUM
<b>Developed Markets</b>						
Developed Markets	294,906	65.7%	0.8%	19.2%	292,583	247,419
Emerging Markets	42,530	9.5%	0.0%	43.5%	42,515	29,644
Global Markets	10,854	2.4%	2.0%	90.9%	10,641	5,685
Sector	29,453	6.6%	-1.2%	28.1%	29,822	22,993
Capitalization	12,072	2.7%	-2.3%	41.5%	12,358	8,531
Strategy	25,056	5.6%	1.4%	27.9%	24,707	19,584
Style	21,856	4.9%	-0.7%	11.8%	22,021	19,555
Thematic	11,892	2.7%	4.6%	88.3%	11,369	6,317
<b>Total Equities</b>	<b>448,617</b>	<b>100.0%</b>	<b>0.6%</b>	<b>24.7%</b>	<b>446,016</b>	<b>359,727</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 78: European Equity ETF AUM summary - A - | ETFs | Europe |

Equity AUM	Nov-17			Oct-17	End of 2016	
	All figures in € million	AUM	Market Share %	MoM %change	YTD %change	AUM
<b>Sector</b>	29,453	29.4%	-1.2%	28.1%	29,822	22,993
Consumer discretionary	1,004	1.0%	-0.2%	-2.7%	1,006	1,031
Consumer staples	1,192	1.2%	3.2%	21.9%	1,154	977
Energy	3,299	3.3%	4.4%	39.7%	3,160	2,361
Financials	10,539	10.5%	-2.6%	65.3%	10,818	6,375
Healthcare	2,817	2.8%	-2.0%	-2.7%	2,873	2,895
Industrials	740	0.7%	-3.4%	5.0%	766	704
Information Technology	2,479	2.5%	0.9%	54.9%	2,456	1,600
Materials	1,256	1.3%	-9.3%	18.4%	1,385	1,060
Overall	2	0.0%	-2.2%	na	2	0
Real Estate	4,758	4.7%	-1.7%	-0.6%	4,839	4,786
Telecommunications	822	0.8%	4.2%	21.5%	789	676
Utilities	547	0.5%	-4.7%	3.8%	574	527
<b>Capitalization</b>	12,072	12.0%	-2.3%	41.5%	12,358	8,531
Large Cap	310	0.3%	-2.5%	-14.3%	318	362
Mid Cap	3,812	3.8%	0.0%	95.5%	3,813	1,950
Small Cap	7,950	7.9%	-3.4%	27.8%	8,227	6,219
<b>Strategy</b>	25,056	25.0%	1.4%	27.9%	24,707	19,584
Fundamental	1,747	1.7%	1.4%	15.1%	1,724	1,518
Leveraged Long	1,999	2.0%	4.0%	12.5%	1,922	1,778
Leveraged Short	1,058	1.1%	-2.4%	5.5%	1,084	1,003
Options Strategy	0	0.0%	0.0%	0.0%	0	0
Quantitative	18,772	18.7%	1.6%	35.4%	18,478	13,864
Short	1,479	1.5%	-1.3%	4.1%	1,499	1,421
<b>Style</b>	21,856	21.8%	-0.7%	11.8%	22,021	19,555
Dividend	19,435	19.4%	-0.6%	10.0%	19,543	17,671
Growth	280	0.3%	-1.3%	12.4%	283	249
Value	2,141	2.1%	-2.4%	31.0%	2,194	1,635
<b>Thematic</b>	11,892	11.9%	4.6%	88.3%	11,369	6,317
Commodities	1,388	1.4%	-2.8%	11.6%	1,428	1,243
Cyclical	0	0.0%	0.0%	0.0%	0	0
Faith	193	0.2%	4.9%	-2.9%	184	199
Other Theme	5,364	5.3%	8.1%	186.5%	4,961	1,872
Sustainability	4,946	4.9%	3.2%	64.8%	4,795	3,002
<b>Total</b>	100,328	100.0%	0.1%	30.3%	100,276	76,979

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 79: European Equity ETF AUM summary - B - | ETFs | Europe |

Equity AUM	Nov-17				Oct-17	End of 2016
	All figures in € million	AUM	Market Share %	MoM %change	YTD %change	AUM
<b>Developed Markets</b>						
<b>Europe</b>	147,725	50.1%	-1.3%	19.6%	149,659	123,533
Austria	394	0.1%	0.7%	52.5%	391	258
Belgium	40	0.0%	-15.1%	-8.2%	47	43
Finland	254	0.1%	-2.6%	28.8%	261	197
France	6,292	2.1%	-2.3%	32.3%	6,442	4,755
Germany	21,713	7.4%	-2.7%	11.4%	22,323	19,483
Greece	191	0.1%	-5.8%	15.7%	202	165
Ireland	21	0.0%	-0.5%	-26.9%	21	29
Italy	1,592	0.5%	-6.8%	-10.7%	1,707	1,782
Netherlands	504	0.2%	-6.2%	-7.7%	537	546
Norway	301	0.1%	-3.8%	8.8%	313	277
Portugal	63	0.0%	-5.6%	59.9%	67	39
Spain	1,716	0.6%	10.6%	44.2%	1,551	1,191
Sweden	1,832	0.6%	-7.4%	8.8%	1,979	1,684
Switzerland	11,089	3.8%	-0.2%	11.0%	11,109	9,989
UK	15,093	5.1%	-1.4%	2.2%	15,303	14,769
Europe broad	86,632	29.4%	-0.9%	26.8%	87,405	68,326
<b>Americas</b>	89,713	30.4%	3.0%	15.3%	87,058	77,811
US	85,975	29.2%	3.1%	16.5%	83,364	73,801
Canada	1,565	0.5%	-1.5%	-14.4%	1,589	1,828
North America	2,173	0.7%	3.2%	-0.4%	2,105	2,182
<b>Asia</b>	26,883	9.1%	2.8%	27.5%	26,152	21,087
Australia	1,042	0.4%	-1.3%	-18.8%	1,056	1,284
Hong Kong	225	0.1%	8.6%	33.3%	207	169
Japan	22,596	7.7%	3.5%	30.6%	21,831	17,301
Singapore	61	0.0%	5.9%	26.9%	57	48
Asia Pacific broad	2,959	1.0%	-1.4%	29.4%	3,001	2,286
<b>EMEA</b>	12	0.0%	24.5%	58.9%	9	7
Israel	12	0.0%	24.5%	58.9%	9	7
<b>Global</b>	30,573	10.4%	2.9%	22.4%	29,703	24,979
Broad indices	30,573	10.4%	2.9%	22.4%	29,703	24,979
<b>DM Total</b>	294,906	100.0%	0.8%	19.2%	292,572	247,410

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



**Figure 80: European Equity ETF AUM summary - C - | ETFs | Europe |**

Equity AUM	Nov-17			Oct-17	End of 2016	
	All figures in € million	AUM	Market Share %	MoM %change	YTD %change	AUM
<b>Emerging Markets</b>						
<b>BRIC</b>	6,779	2.0%	2.6%	18.3%	6,610	5,730
Brazil	796	0.2%	-11.2%	13.3%	896	702
Russia	1,245	0.4%	8.0%	1.4%	1,153	1,228
India	1,802	0.5%	-4.0%	17.1%	1,878	1,539
China	2,937	0.9%	9.4%	29.9%	2,684	2,261
<b>Latin America</b>	955	0.3%	-14.2%	-8.2%	1,113	1,040
Chile	0	0.0%	0.0%	0.0%	0	0
Mexico	114	0.0%	-4.9%	-8.8%	120	125
LATAM broad	841	0.2%	-15.3%	-8.1%	993	915
<b>Asia</b>	5,311	1.6%	0.6%	53.3%	5,277	3,465
Bangladesh	20	0.0%	2.0%	-17.5%	19	24
Indonesia	207	0.1%	-0.3%	38.5%	208	150
Malaysia	50	0.0%	-2.8%	10.6%	52	46
Pakistan	25	0.0%	4.5%	-26.6%	24	34
Philippines	54	0.0%	-9.1%	10.9%	60	49
South Korea	1,025	0.3%	-3.5%	49.6%	1,062	685
Taiwan	460	0.1%	-25.6%	3.2%	619	446
Thailand	53	0.0%	4.0%	7.4%	51	50
Vietnam	237	0.1%	9.0%	0.9%	218	235
Asia Pacific broad	3,179	0.9%	7.2%	81.9%	2,965	1,748
<b>EMEA</b>	1,126	0.3%	-7.5%	18.1%	1,217	953
Bulgaria	16	0.0%	-1.4%	20.7%	16	13
Kuwait	0	0.0%	-100.0%	-100.0%	6	6
Poland	95	0.0%	-9.0%	28.6%	104	74
South Africa	117	0.0%	0.9%	13.1%	116	103
Turkey	265	0.1%	-16.1%	22.1%	316	217
Europe broad	521	0.2%	-7.5%	25.1%	564	417
Middle East & Africa	112	0.0%	0.7%	-17.9%	111	136
<b>Global Markets</b>	28,359	8.4%	0.3%	53.8%	28,282	18,443
Global	28,359	8.4%	0.3%	53.8%	28,282	18,443
<b>EM Total</b>	42,530	12.6%	0.1%	43.5%	42,500	29,631
<b>Total (EM + DM)</b>	337,435	100.0%	0.7%	21.8%	335,072	277,041

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 81: European Fixed Income ETF AUM summary - | ETFs | Europe |

Fixed Income AUM	Nov-17			Oct-17	End of 2016	
	AUM	Market Share %	MoM %change	YTD %change	AUM	AUM
All figures in € million						
Overall	11,244	7.0%	10.4%	21.0%	10,184	9,290
Corporates	72,551	45.5%	1.0%	17.5%	71,828	61,766
Covered Bonds	2,644	1.7%	0.4%	-8.8%	2,633	2,899
Credit Exposure	289	0.2%	0.7%	39.6%	287	207
Sovereign	70,125	43.9%	-0.1%	13.6%	70,179	61,742
Money Market	2,734	1.7%	-5.8%	30.5%	2,902	2,095
<b>Total Fixed Income</b>	<b>159,587</b>	<b>100.0%</b>	<b>1.0%</b>	<b>15.6%</b>	<b>158,014</b>	<b>138,001</b>

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 82: European Commodity ETP AUM summary - | ETPs | Europe |

Commodity AUM	Nov-17			Oct-17	End of 2016	
	All figures in € million	AUM	Market Share %	MoM %change	YTD %change	AUM
<b>Overall</b>	7,309	14.7%	2.5%	21.3%	7,129	6,027
Overall	7189	14.4%	2.6%	23.2%	7009	5834
Overall ex Energy	120	0.2%	0.4%	-36.1%	119	187
Overall Light Energy	0	0.0%	#DIV/0!	-100.0%	0	5
Overall Ultra Light Energy	0	0.0%	0.0%	0.0%	0	0
<b>Agriculture</b>	968	1.9%	-3.1%	26.6%	999	764
Overall	531	1.1%	2.4%	41.9%	519	374
Cocoa	68	0.1%	-9.4%	204.3%	75	22
Coffee	102	0.2%	0.8%	68.5%	101	60
Corn	46	0.1%	-22.2%	-18.6%	60	57
Cotton	13	0.0%	6.1%	26.2%	12	10
Grains	21	0.0%	0.0%	-41.2%	21	35
Softs	4	0.0%	-1.4%	-16.7%	4	5
Soybean Oil	3	0.0%	-6.6%	-29.5%	3	4
Soybeans	15	0.0%	14.5%	-3.6%	13	16
Sugar	43	0.1%	-3.8%	44.7%	45	30
Wheat	121	0.2%	-17.0%	-19.6%	145	150
<b>Energy</b>	2,178	4.4%	-8.6%	-15.5%	2,383	2,579
Overall	150	0.3%	5.2%	-0.1%	142	150
Carbon	2	0.0%	18.3%	96.2%	2	1
Crude Oil	1864	3.7%	-11.0%	-18.0%	2095	2272
Gasoline	7	0.0%	-3.9%	-11.6%	7	8
Heating Oil	5	0.0%	1.2%	-3.3%	5	5
Natural Gas	151	0.3%	14.4%	5.5%	132	143
Electricity	0	0.0%	0.0%	0.0%	0	0
Uranium	0	0.0%	0.0%	0.0%	0	0
<b>Industrial Metals</b>	844	1.7%	1.4%	22.5%	833	689
Overall	363	0.7%	5.8%	47.2%	343	247
Aluminium	109	0.2%	-6.4%	18.4%	117	92
Copper	235	0.5%	7.7%	15.9%	218	203
Lead	3	0.0%	10.3%	-20.2%	3	4
Nickel	110	0.2%	-13.9%	0.4%	127	109
Tin	3	0.0%	12.1%	-31.1%	3	4
Zinc	21	0.0%	-3.0%	-29.3%	22	30
<b>Precious Metals</b>	38,526	77.3%	-0.1%	15.4%	38,548	33,380
Overall	177	0.4%	-1.9%	17.8%	180	150
Gold	34659	69.5%	0.3%	18.0%	34542	29380
Palladium	355	0.7%	0.7%	-18.8%	352	437
Platinum	742	1.5%	1.8%	-7.3%	729	801
Rhodium	63	0.1%	-2.8%	56.3%	65	40
Silver	2531	5.1%	-5.6%	-1.6%	2680	2572
<b>Livestock</b>	8	0.0%	-16.8%	-25.4%	10	11
Overall	2	0.0%	-32.3%	-9.9%	2	2
Cattle	2	0.0%	-9.8%	-12.1%	2	2
Lean Hogs	5	0.0%	-12.2%	-33.3%	5	7
<b>Total</b>	49,833	100.0%	-0.1%	14.7%	49,901	43,450

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



## Product Rankings

**Figure 83: Top 20 Products by AUM – Equity ETFs (€ million) - | ETFs | Europe |**

ETF Name	BBG Ticker	Issuer	Invest. Strategy	Current Month AUM	Prev. Month AUM	2016 AUM
iShares Core S&P 500 UCITS ETF	CSSPX SW	BlackRock	Beta	21,039.3	20,572.8	18,252.4
Vanguard S&P 500 ETF	VUSA LN	Vanguard	Beta	17,368.4	16,981.6	15,926.4
iShares Core MSCI World UCITS ETF (Acc)	SWDA LN	BlackRock	Beta	10,861.1	10,378.9	7,918.2
iShares Euro STOXX 50 (DE)	SX5EEX GR	BlackRock	Beta	9,759.1	9,533.5	7,409.9
iShares Core DAX UCITS ETF DE	DAXEX GR	BlackRock	Beta	8,554.0	8,928.7	8,100.4
Lyxor UCITS ETF Euro STOXX 50	MSE FP	Lyxor	Beta	7,695.8	7,948.5	7,029.6
iShares S&P 500 UCITS ETF (Inc)	IUSA LN	BlackRock	Beta	6,776.1	6,837.0	7,462.6
iShares MSCI Emerging Markets IMI UCITS ETF	EMIM NA	BlackRock	Beta	6,713.5	6,489.2	3,689.0
iShares STOXX 600 (DE)	SXSPIEX GR	BlackRock	Beta	6,132.5	6,321.8	5,469.1
db x-trackers Euro Stoxx 50 UCITS ETF (DR) - 1D	XESX GR	Deutsche AM	Beta	5,842.2	5,965.2	4,773.2
iShares Core FTSE 100 UCITS ETF	ISF LN	BlackRock	Beta	5,729.3	5,748.8	5,372.1
iShares EURO STOXX 50 UCITS ETF (Inc)	EUNE SW	BlackRock	Beta	5,355.5	5,632.1	5,448.7
iShares MSCI Europe UCITS ETF (Inc)	IMEU LN	BlackRock	Beta	5,050.4	5,330.7	5,787.0
iShares MSCI Emerging Markets UCITS ETF (Inc)	IEEM LN	BlackRock	Beta	4,942.7	5,052.4	4,078.2
Amundi ETF MSCI Emerging Markets UCITS ETF	AEEM FP	Amundi	Beta	4,701.2	4,679.8	2,092.7
iShares MSCI World UCITS ETF (Inc)	IWRD LN	BlackRock	Beta	4,618.9	4,619.7	5,411.3
Lyxor ETF S&P 500	LYPS GR	Lyxor	Beta	4,578.3	4,029.6	2,613.7
Lyxor UCITS ETF CAC 40 (DR) -D-EUR	CAC FP	Lyxor	Beta	4,456.0	4,588.6	3,709.6
iShares EURO Core STOXX 50 - B UCITS ETF Acc	CSSX5E SW	BlackRock	Beta	4,159.7	4,318.4	2,252.4
UBS ETF PLC - MSCI ACWI SF UCITS ETF Hedged To USD	ACWIU SW	UBS	Beta	4,039.9	3,865.8	882.4

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

**Figure 84: Top 20 Products by AUM – Fixed Income ETFs (€ million) - | ETFs | Europe |**

ETF Name	BBG Ticker	Issuer	Invest. Strategy	Current Month AUM	Prev. Month AUM	2016 AUM
iShares Core Euro Corporate Bond UCITS ETF	IEBC LN	BlackRock	Beta	8,579.5	8,293.5	7,674.5
iShares J.P. Morgan \$ Emerging Markets Bond UCITS ETF	SEMB LN	BlackRock	Beta	6,387.1	7,037.6	5,400.7
iShares Emerging Markets Local Government Bond UCITS ETF	SEML LN	BlackRock	Beta	5,614.6	5,702.1	3,273.2
iShares \$ Corporate Bond UCITS ETF	LQDE LN	BlackRock	Beta	5,286.1	5,340.5	4,585.6
iShares Euro High Yield Corporate Bond UCITS ETF	IHYG LN	BlackRock	Beta	5,143.5	5,543.8	5,780.2
iShares Euro Corporate Bond Large Cap UCITS ETF	IBCS GR	BlackRock	Beta	4,470.0	4,576.8	5,115.0
iShares Euro Corporate Bond 1-5yr UCITS ETF	SE15 LN	BlackRock	Beta	3,638.5	3,557.3	3,564.3
iShares \$ High Yield Corporate Bond UCITS ETF	SHYU LN	BlackRock	Beta	3,548.2	3,738.8	3,480.5
Amundi ETF Floating Rate USD Corporate UCITS ETF - Hedged EUR	AFLE FP	Amundi	Beta	3,229.3	3,122.8	1,062.3
PIMCO Euro Short Maturity Source UCITS ETF	PJS1 GR	PowerShares	Alpha	2,820.5	2,375.9	2,277.7
SPDR Barclays Capital Emerging Market Local Bond ETF	SYBM GY	State Street	Beta	2,765.8	2,713.1	1,613.9
iShares JP Morgan \$ EM Bond EUR Hedged UCITS ETF	EMBE LN	BlackRock	Beta	2,695.6	2,608.8	1,204.9
iShares Euro Ultrashort Bond UCITS ETF	ERNE LN	BlackRock	Beta	2,500.4	2,392.1	1,889.3
iShares \$ Short Duration Corporate Bond UCITS ETF	SDIG LN	BlackRock	Beta	2,352.9	1,783.0	1,252.4
PIMCO US Dollar Enhanced Short Maturity Source ETF	MINT LN	PowerShares	Alpha	2,267.0	2,319.9	1,765.8
iShares \$ Treasury Bond 1-3yr UCITS ETF	IBTS LN	BlackRock	Beta	2,224.0	2,171.4	1,555.5
iShares Euro Government Bond 3-5yr UCITS ETF	IEGX LN	BlackRock	Beta	2,042.1	2,093.8	1,701.2
iShares \$ TIPS UCITS ETF	IDTP LN	BlackRock	Beta	1,961.1	2,010.6	3,255.0
iShares UK Gilts UCITS ETF	IGLT LN	BlackRock	Beta	1,820.1	1,892.5	1,769.5
iShares Euro Corporate Bond ex-Financials 1-5yr UCITS ETF	EEX5 LN	BlackRock	Beta	1,755.4	1,783.3	1,866.5

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



**Figure 85: Top 20 Products by AUM – Commodity ETPs (€ million) - | ETPs | Europe |**

ETP Name	BBG Ticker	Issuer	Invest. Strategy	Current Month AUM	Prev. Month AUM	2016 AUM
XETRA-Gold	4GLD GY	Deutsche Borse Commodities GmbH	Beta	5,915.3	6,070.3	4,156.8
ETFS Physical Gold	PHAU LN	ETF Securities	Beta	5,171.2	5,162.2	5,076.4
ZKB Gold ETF	ZGLD SW	Zuercher Kantonalbank	Beta	5,067.4	5,131.3	5,087.1
Source Physical Gold ETC (P-ETC)	SGLD LN	PowerShares	Beta	4,006.6	4,095.7	3,015.8
Gold Bullion Securities	GBS LN	ETF Securities	Beta	3,261.1	3,295.3	3,307.6
iShares Physical Gold ETC	SGLN LN	Blackrock	Beta	2,636.5	2,642.6	2,111.0
Julius Baer Physical Gold Fund - A (USD listing)	JBGOUA SW	Julius Baer Inv	Beta	1,558.2	1,576.7	1,619.1
db Physical Gold Euro Hedged ETC	XAD1 GR	Deutsche AM	Beta	1,351.3	1,182.3	800.2
UBS ETF (CH) - Gold (USD) I-dis	AUUSI SW	UBS	Beta	1,204.5	1,104.0	393.0
ZKB Silver ETF	ZSIL SW	Zuercher Kantonalbank	Beta	1,067.9	1,113.3	1,084.5
UBS ETFs plc - CMCI Composite SF UCITS ETF (USD) A-acc	CCUSAS SW	UBS	Beta	1,042.8	1,023.7	822.8
Lyxor ETF Commodities CRB	CRB FP	Lyxor	Beta	898.4	905.8	750.4
UBS-IS Gold (CHF) Hedged ETF A	AUCHAH SW	UBS	Beta	865.0	727.3	668.3
iShares Diversified Commodity Swap UCITS ETF DE	DJCOMEX GR	BlackRock	Beta	742.3	922.1	1,261.8
ETFS Physical Silver	PHAG LN	ETF Securities	Beta	730.9	807.4	797.7
Source Bloomberg Commodity UCITS ETF	CMOD LN	PowerShares	Beta	707.9	442.2	-
iShares Diversified Commodity Swap UCITS ETF	ICOM LN	BlackRock	Beta	668.2	520.6	-
db Physical Gold ETC	XGLD LN	Deutsche AM	Beta	638.2	646.4	520.7
ETFS WTI Crude Oil	CRUD LN	ETF Securities	Beta	606.3	687.3	782.3
db Physical Gold ETC (EUR)	XAD5 GR	Deutsche AM	Beta	530.5	458.0	515.6

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.







# Appendix A: How we define ETPs

## Exchange-Traded Products (ETPs)

We define an exchange-traded product (ETP) as a secure (funded or collateralized) open-ended delta-one exchange-traded equity or debt instrument with no embedded optionality and market-wide appeal to investors. This includes exchange traded funds, exchange-traded commodities (Europe) and exchange-traded vehicles (US).

Figure below gives a summary of our current coverage universe by region and structure type as on 30 December 2016.

The vast majority of instruments are ETFs (97.4%, 4,779 products, \$3,422bn) with the remainder being ETCs (0.8%, 474 products, \$26.5bn) in Europe and ETVs (1.8%, 64 products, \$61.7bn) in the US.

Figure 90: ETP Coverage Universe Summary

Region	ETPs			ETFs			ETC/Vs		
	Products	US\$ Mil.	%	Products	US\$ Mil.	%	Products	US\$ Mil.	%
US	1,771	2,532,614	72.1%	1,707	2,470,921	70.4%	64	61,693	1.8%
Europe	2,004	570,121	16.2%	1,530	543,668	15.5%	474	26,453	0.8%
Asia Pacific	969	314,380	9.0%	963	314,012	8.9%	6	369	0.0%
RoW	580	94,873	2.7%	579	93,636	2.7%	1	1,238	0.0%
Global	5,324	3,511,989	100.0%	4,779	3,422,237	97.4%	545	89,752	2.6%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

## Exchange-Traded Funds (ETFs, 97.4%)

**US (70.4%):** Fund structures that issue shares that are traded on an exchange much the same way as equities. ETFs indexed to equity and fixed income benchmarks are registered under the investment company act of 1940. Only physical index replication techniques are permissible by this legislation while synthetic replication is not allowed.

**Europe (15.5%):** Fund structures that issue units or shares that are traded on an exchange much the same way as equities. The vast majorities of European ETFs are UCITS III compliant and are primarily domiciled in Dublin and Luxemburg. The Undertakings for Collective Investment in Transferable Securities (UCITS) are a set of European Union directives that aim to allow collective investment schemes to operate freely throughout the EU on the basis of a single authorization from one member state. Both physical and synthetic index replication is permissible by UCITS and funds are allowed to track equity, fixed income as well as diversified commodity indices.

**Asia (8.9%):** Both European and US ETFs are cross sold into the Asian market.



#### Exchange-Traded Collateralized Instruments (2.6%)

##### Exchange-Traded Commodities (ETCs, 0.8%)

In Europe as UCITS III does not permit the creation of funds tracking non diversified commodity indices (for example wheat or oil), exchange-traded products that track single commodity profiles are issued under the EU Prospectus Directive in two structures that have become widely known as exchange-traded commodities (ETCs). ETCs can either be physically backed or they can be issued through a bankruptcy remote special purpose vehicle (SPV). Both forms utilize offshore domiciles, such as Jersey, and are classed as debt instruments. Physically-backed ETCs are fully backed with securities that closely resemble the composition of a product's benchmark index. SPV structures are collateralized by assets which could bear no resemblance to those of their respective benchmark index and ensure replication of their index return through a total return swap structure or by holding other derivative instruments such as futures. In the vast majority of cases, both types of ETCs are fully collateralized with secure assets such as money market instruments, government bonds and gold. For more information, please refer to our research report issued on March 11 2010 titled 'The race for assets in the European Exchange-Traded Products Market'.

##### Exchange-traded vehicles (ETVs, 1.8%)

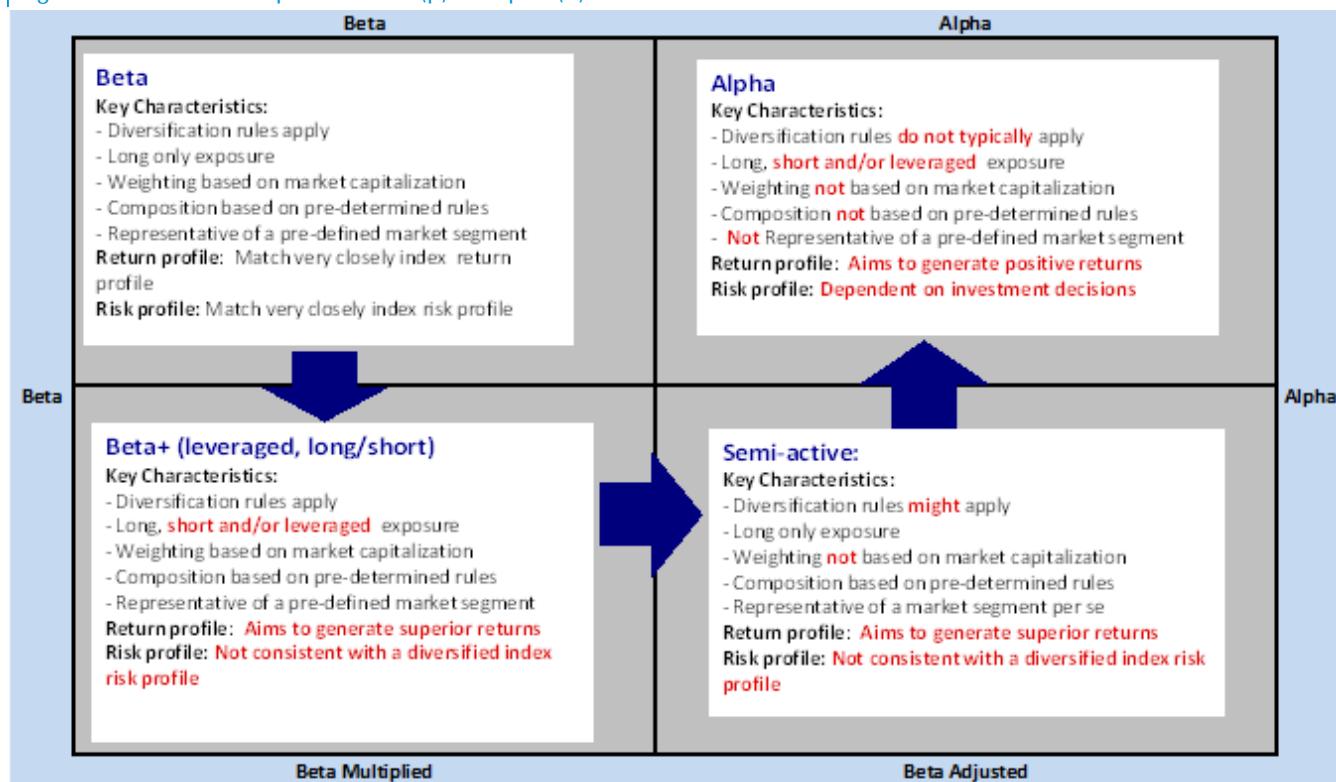
This terminology typically refers to grantor trusts that exist in the US market. These instruments track primarily commodity benchmarks. They differ from ETFs in that they are registered under the Securities Act of 1933 and not the Investment Company Act of 1940, hence they are not classed as funds. Vehicles that replicate commodity benchmarks, more often known as pools, and funds targeting alternative index returns are formed under the Commodities Exchange Act and are listed under the 33 Securities Act, and report under 34 Corporate Act.



# Appendix B: The road from beta to alpha

The figure below illustrates the road from beta (diversified rule based market access) to alpha (discretionary market access). Moving counter-clockwise from beta, the potential for return increases, together with the potential risk.

Figure 91: The Roadmap From Beta ( $\beta$ ) to Alpha ( $\alpha$ )



Source: Deutsche Bank

The performance of beta products is measured against an index; a manager is most successful when they manage to match the return of a product to its stated benchmark. The performance of alpha products, or rather the performance of an alpha product's manager, is measured by the risk adjusted return it generates. The highest the return and the lowest the risk [typically measured by the standard deviation of a product's returns] the more successful a product is deemed to be.

There is however a whole host of products that fall between beta and alpha, we have sought to create a classification system that classifies these products, taking into consideration a number of variables, ranging from diversification to what constitutes a market segment.



The authors of this report wish to acknowledge the contribution made by **Vibhor Mahalwala** and **Varun Sachdeva**, employees of Evalueserve, a third party provider to Deutsche Bank of offshore research support services.



# Appendix 1

## Important Disclosures

### \*Other information available upon request

\*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors . Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <http://gm.db.com/ger/disclosure/DisclosureDirectory.eqsr>. Aside from within this report, important conflict disclosures can also be found at <https://gm.db.com/equities> under the "Disclosures Lookup" and "Legal" tabs. Investors are strongly encouraged to review this information before investing.

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The views expressed in this report accurately reflect the personal views of the undersigned lead analyst(s). In addition, the undersigned lead analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report. Ari Rajendra

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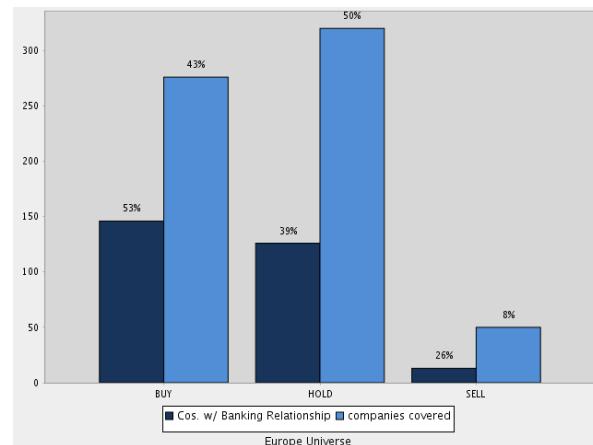
Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus projected dividend yield ), we recommend that investors buy the stock.

Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock.

Hold: We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

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Macroeconomic fluctuations often account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor who is long fixed-rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or liquidation of positions), and settlement issues related to local clearing houses are also important risk factors. The sensitivity of fixed-income instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates – these are common in emerging markets. The index fixings may – by construction – lag or mis-measure the actual move in the underlying variables they are intended to track. The choice of the proper fixing (or metric) is particularly important in swaps markets, where floating coupon rates (i.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. Funding in a currency that differs from the currency in which coupons are denominated carries FX risk. Options on swaps (swaptions) the risks typical to options in addition to the risks related to rates movements.

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