



Synthetic Equity & Index Strategy
**ETF Annual Review
& Outlook**

Date
31 January 2017

\$4 trillion Global ETF market in sight for 2017

Global ETP assets crossed \$3.5 trillion mark with inflows of \$381bn in 2016

Global ETP assets reached a new milestone in 2016 by ending at the \$3.5 trillion mark, representing a YoY growth of 18%. The growth was mostly organic with flows and asset prices increases representing 13%, and 5%, respectively. During 2016, total inflows of \$381bn were led by equities bringing in \$249bn, followed by fixed income with \$106bn, and commodity ETPs which also saw positive, albeit smaller, flows of \$23bn.

In 2016, the US ETP market led the inflow tally with an all-time high of \$284bn, followed in the distance by the European and Asia-Pacific ETP markets with inflows of \$55bn and 31bn, respectively. Meanwhile, the other markets (Rest of the World) attracted \$12bn in net new assets.

The US, Europe, Asia-Pac, and RoW regional ETP assets closed the year at \$2.53 trillion (+19.9%), \$570bn (+12.6%), \$314bn (+10.7%), and \$94.9bn (+27.1%), respectively

ETP assets likely to reach \$4.17 trillion at the end of 2017

We project the industry will continue to grow significantly in 2017, particularly on the back of better economic outlook and new regulation such as the DOL fiduciary rule in the US. In our base case scenario, assuming a neutral market condition, global ETF assets may grow by 18.6% broken down into 13.3% or \$455bn growth from new flows, and 4.7% from price appreciation. This growth should put the ETF assets well on their way to \$4.2 trillion by the end of 2017. We expect the US ETF market to be the major contributor with asset growth of 18.2% and inflows in the vicinity of \$325bn. In a bull market case, ETF assets may grow by 34.1% reaching over \$4.6 trillion. We expect ETPs (including ETFs and other exchange traded products such as ETVs/ETCs) to experience a similar growth rate and reach about \$4.17 trillion in 2017 in our base case scenario, and pass \$4.66 trillion in a bull market case.

In the US ETF market we continue to see growth support from a shift away from mutual funds and active management. Last year, ETFs neared \$300bn in inflows compared to mutual funds which registered over \$100bn of outflows. Furthermore, passive ETFs and mutual funds received over \$400bn inflows compared to the more than \$300bn outflows experienced by their active counterparts. We expect the ETF/Mutual Fund and Passive/Active gaps to

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continue to widen in 2017. In fact, we believe the DOL fiduciary rule (whether repealed or not) will also provide a unique boost to ETF and passive growth this year. Among products, we expect cheap core beta products to continue to receive the bulk of the new assets, while smart beta, active, and satellite ETFs should proliferate and provide new revenue potential for newer and existing entrants. Competition among ETF providers will most likely stay on the rise, and distribution strategies will probably determine the success or failure of newer ventures.

In the European ETF market, investors were long US, European, and Financials equities, while being short EM stocks coming into 2017. In addition, new allocations to Smart Beta products reached almost \$10bn pushing assets in the space to \$48bn at year end. This segment has experienced a larger relative growth compared to traditional funds, and has favored factor, ESG, and Dividend strategies in particular. From an asset class perspective, we saw fixed income inflows surpassing equity inflows for the first time, in addition to healthy inflows into Gold. We see these events as a sign of maturity in the European markets where ETPs can be efficiently used for asset allocation in a multi asset setting.

In the Asia Pacific ETF markets individual personalities abound among countries. China assets retreated on the back of a bear market, and triggered significant redemptions from money market funds (-\$17.9bn), while still maintaining significant trading activity (\$1.6 trillion) in 2016. Japan ETFs, on the other hand, experienced significant growth with assets reaching \$175bn (+30% YoY) as the market continued to benefit from increased ETF purchases from the BOJ and equity allocation from GPIF. Other markets such as Hong Kong and Taiwan saw significant developments in Leveraged and Inverse products which come to provide more trading alternatives to investors. Finally, we also see some industry developments in the form of stronger competition translating into lower fees as we have seen in other markets such as the US or Europe, and fund market integration with initiatives such as Mutual Recognition and Fund Passport.

[ETF investors favored US equities as they shifted from defensive to aggressive positioning during 2016](#)

Despite a slow start during the first half of last year, Global equity ETF flows dominated ETF investors allocations with \$231.6bn in net new cash. Fixed Income flows came in second place attracting about \$100bn of inflows from ETF investors in 2016, while Commodity ETP flows were also significant at \$22.3bn for the year. Overall, ETP flows reflected investors' shift in risk appetite from defensive in the beginning of the year with allocations favoring fixed income and commodities (Gold particularly) to aggressive allocations favoring equities at the expense of fixed income and commodities - particularly following the election of Trump in November. Among the major trends during 2016 across ETPs globally we highlight US Equities (+\$169.5bn), Investment Grade Debt (+\$71.6bn), European equities (-\$37.0bn), EM Broad equities (+\$27.8bn), Japan equities (+\$21.4bn), and Gold (\$19.5bn).

[ETP trading activity was flat in 2016 reaching \\$22.7 trillion](#)

Trading activity stayed flat in 2016 with ETP turnover levels registering \$22.7 trillion. In 2016, US ETFs continued to dominate the global ETP trading activity (\$19.0 trillion, up 1.5%). Other regions followed in the distance with Asia-Pac, Europe, and RoW recording \$2.4 trillion, \$1.0 trillion, and \$0.4 trillion in traded value for the year, respectively. We expect ETPs to continue increasing their relevance in the markets, particularly during significant episodes of market volatility.



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1. ETP Industry Review

ETP industry registered notable asset growth in 2016

Global ETP assets surpassed \$3.5 trillion mark at the end of 2016

Global ETP industry reached a new assets milestone in 2016 by touching the \$3.5 trillion mark, representing a YoY growth of 18%. The Global ETP industry is back on track with double digit YoY growth rate of 18% compared to 9% YoY growth in 2015. During 2016, the organic growth was supported by healthy inflows in all the asset classes.

In terms of flows, 2016 was another strong year for the Global ETP industry recording healthy inflows of \$381bn, compared to \$402bn and \$332bn flows recorded in 2015 & 2014 respectively. For the last three years, equities remained on the top with yearly flows crossing \$200bn (\$249bn, \$261bn & \$238bn for 2016, 2015 & 2014 respectively). Fixed Income ETFs also continued the positive run in 2016 with inflows of \$106bn. The major asset class comeback of 2016 was Commodity ETPs where we experienced significantly higher inflows (\$23bn) relative to previous years flows (\$5bn and -\$1.2bn for 2015 & 2014 respectively).

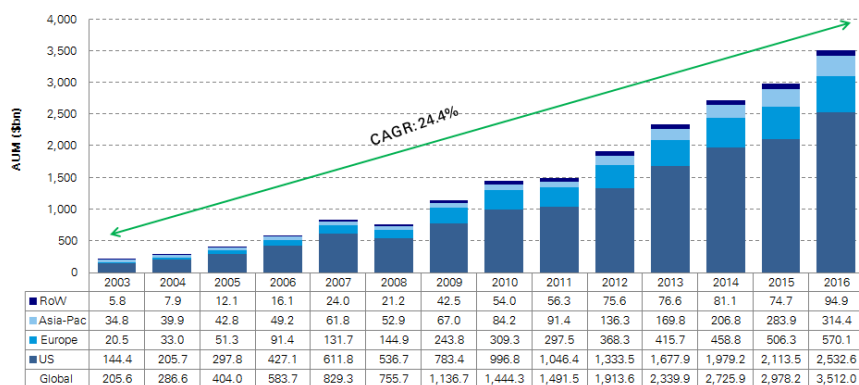
Within Equities, EM market recovered after 3 years of negative returns as global investors poured \$23.5bn into broad emerging markets on the back of rising commodity prices and better growth opportunities relative to DM countries or regions as the monetary stimulus began to lose effectiveness in these markets. Within equity segments, Size, Style and Strategy recorded significant inflows of \$76.4bn, \$48.8bn and \$29.4bn respectively during 2016. At country level, Japan and broad US focused ETFs registered inflows worth of \$21.3bn and \$19.1bn while Germany, China and Taiwan saw redemptions worth of \$6.2bn, \$4.3bn and \$2.1bn respectively.

Fixed income ETFs recorded inflows of \$106bn during 2016 despite the Fed's decision to hike interest rates; however there was a clear preference of Credit products over Rates ones. Within Fixed Income, Corporate, Broad and Sovereign bonds received inflows of \$55.7bn, \$24.9bn and \$18.3bn respectively while money market ETFs saw redemptions worth of \$18bn which were primarily came from China-listed money market ETFs (\$17.8bn).

Commodities ETPs also followed their peers and registered strong inflows of \$22.7bn during 2016. Within commodity, Gold ETPs has been shining through out the year and registered inflows of \$20bn (-\$3.4bn and -\$5.4bn outflows in 2015 and 2014 respectively) with Gold prices rises more than 10% in 2016. This is evident that in the backdrop of global growth concerns and uncertainty around major events like Brexit and US elections, Gold emerged as the preferred investment area for risk averse investors. Further, Crude oil which was on the positive side for the last 2 years came into negative territory and experienced outflows of -\$0.8bn (\$8.4bn and \$2.2bn inflows in 2015 and 2014 respectively).

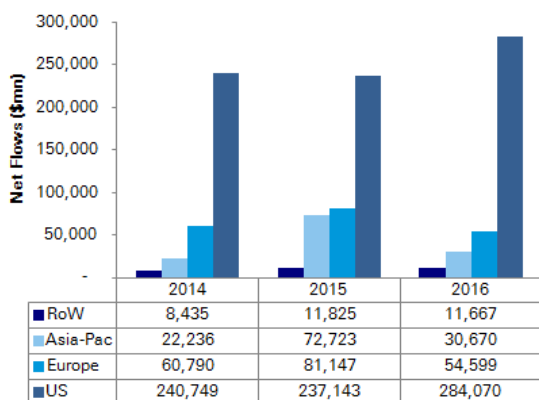


Figure 1: Global ETP regional asset growth historically



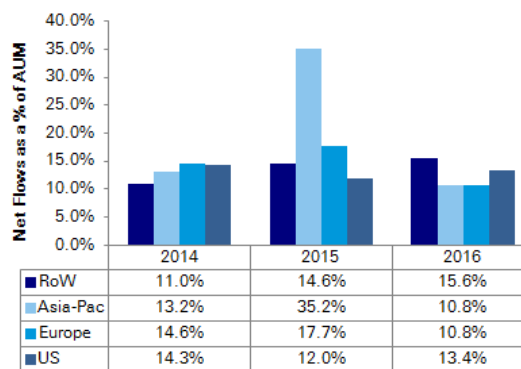
Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 2: Global ETPs Regional Flows



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 3: Global ETPs Regional Flows as a % of AUM



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

The Global ETP trading activity matched the previous year's level during 2016. Overall turnover levels in 2016, 2015 and 2014 were \$22.7 trillion, \$22.7 trillion and \$19 trillion, respectively. We also noticed mixed trading growth among various asset classes where Alternative, Fixed Income and Commodity witnessed positive growth while Currency, Multi-Asset and Equity saw a decrease in trading activities during 2016.

US: Equities led the flows in the US with Capitalization, Global EM, Global Broad and broad US attracting significant flows while Japan saw outflows

In 2016, the US-domiciled ETPs crossed the \$2.5 trillion milestone and ended the year with AUM worth \$2.53 trillion with YoY growth of 20% (6.8% in 2015). Equity ETFs ended the year with more than \$2.0 trillion in assets or 18.4% above the previous end of year figure, followed by fixed income with AUM of \$454bn or 25.6% above last year's close. Meanwhile, Commodity ETPs had a YoY asset increase of 33% with assets reaching \$59bn at the end of last year (vs. \$44bn in 2015); while ETPs based on Multi-Asset and Alternative investment products ended the year with AUM of \$7bn and \$4bn, respectively.



During the year 2016, flows into US ETPs totaled \$284bn (\$237bn in 2015). Equity ETFs recorded inflows of \$180.7bn (vs. 173.8bn in 2015); while, Fixed Income ETFs recorded flows of \$91.3bn in 2016, surpassing the all-time full year record of \$59.9bn established in 2015 by almost \$30bn (52% above the previous year). Commodity, Alternative, and Multi-Asset ETPs registered inflows of \$10.8bn, \$1.2bn and \$0.9bn, respectively.

Within Equities, capitalization focused ETFs had the lion's share in overall equity flows with \$76bn (42.1%), followed by inflows into style (\$44.6bn) and sectors (\$21.3bn). Within regional and country funds, ETFs focused on global emerging markets collected inflows of \$17.8bn, and ETFs focusing in developed markets with focus on regional broad indices, broad US, and Canada received inflows of \$14.6bn, \$10.1bn and \$1.3bn, respectively; meanwhile, Japan saw outflows of \$9.4bn. In addition, large cap, mid cap, and small cap focused ETFs (most of which have a geographic focus in the US) registered inflows of \$51.6bn, \$7.6bn, and \$16.8bn, respectively.

Within Fixed Income, ETFs focusing on corporate bonds led for second consecutive year the tally with inflows of \$35bn (vs. \$19bn in 2015) followed by overall bond and sub-sovereign bond focused ETFs which collected inflows of \$23bn (vs. \$16bn in 2015) and \$13bn (vs. \$4.8bn in 2015), respectively; while Commodity ETPs focused on gold, overall, and silver registered flows of \$9.6bn, \$0.8bn, and \$0.5bn, respectively.

[Europe: Gold ETPs, US and Global EM received inflows while Broad Europe, Germany and Japan focused ETFs saw Outflows](#)

European ETPs assets reached \$570bn at the end of 2016 registering a growth of 13% YoY (16% in terms of EUR). During 2016, European ETPs had flows totaled \$54.6bn compared to flows of \$81.1bn in 2015 and \$60.8bn in 2014. Fixed Income ETFs stand out with inflows of \$25.6bn followed by \$17.8bn inflows in Equity ETFs. The main attraction of 2016 was Commodity ETPs where we observed strong inflows of \$11bn (\$1.6bn inflows in 2015 and \$1.1bn outflows in 2014).

Within Equities, Investors trading European-listed ETPs were net buyers of Global Emerging Markets focused ETFs with inflows of \$5.6bn. Broad European equities which have been on the positive path for the last two years (\$26.1bn and \$5.3bn inflows in 2015 & 2014 respectively) reversed the trend and experienced outflows of \$6.9bn during 2016. At country level, US and UK-focused ETFs registered inflows of \$8.8bn and \$1.7bn respectively while Germany, Japan and Italy-focused ETFs witnessed outflows of \$3.4bn, \$3.1bn and \$0.9bn respectively.

Fixed Income ETFs continued their positive trend in 2016 with inflows of \$25.6bn (vs. \$28.9bn in 2015). Within Fixed Income category, Corporate bonds remained favorite among investors with inflows of \$19bn contributing more than 70% of total fixed income flows (\$25.6bn) this year. Sovereign and broad bonds also showed their presence with inflows of \$6.6bn and \$1.3bn respectively.

Commodity ETPs which have been in immense selling pressure since 2010, registered strong inflows of \$11bn during 2016. Gold ETPs topped the flows table with inflows of \$8.9bn over the last year. Compared to last five years, Commodity ETPs performed very well in 2016 with inflows of \$11bn vs \$3bn net flows from 2011 through 2015.



Asia-Pacific: Inflows in Japan while China money market witness redemptions

During 2016 Asia-Pacific ETPs registered 10.7% YoY asset growth and closed the year at \$314bn. This was altogether different from 2015 when YoY growth rate was over 37%. During both 2015 and 2016, Asia-Pac ETP asset growth have been almost entirely contributed by organic growth with yearly net inflows of \$72.7bn and \$30.7bn for 2015 and 2016 respectively. At asset class level, equity ETFs experienced steady growth of 20% in both the years when inflows grew from \$30.4bn in 2015 to \$44.8bn in 2016. But, fixed income ETFs which we observed more than two fold increase in 2015 supported by attracting massive inflows of \$40.4bn, took a U-turn in 2016 and recorded significant outflows of \$15.7bn.

Within Equities, Japan, China and leveraged/inverse ETPs were the major flow drivers. Japan focused ETFs were the biggest beneficiaries in both 2015 and 2016 receiving strong inflows of \$31.3bn and \$33.8bn respectively. These inflows were fueled by Bank of Japan ETF purchases and increased equity allocation from GPIF. China focused ETFs experienced heavy redemptions in 2015 (\$13.9bn) which came down to \$1.5bn outflows in 2016. Leveraged/inverse ETPs attracted \$1.8bn in new money in 2016 while 2015 inflows were much stronger with \$5.7bn inflows.

Within the fixed income, China money market ETFs drove the flow activity which reversed the previous year's trend and came into negative zone with outflows of \$17.4bn in 2016 vs. \$39.7bn inflows in 2015. During second half of 2015 when Chinese markets fell sharply, equity investors shifted their investments into money markets ETFs. But during 2016 (after January), investors pulled out money from these ETFs amid market recovery.

RoW: Rest of World markets experienced positive growth in USD terms

RoW ETP assets (which include Canada, Africa, and Latin America markets) registered positive growth of 27.1% in 2016 mostly driven by FX strengthened; similarly, the industry continued to grow in local terms. Total assets increased by \$20.2bn and sat at \$94.9bn at the end of last year. The total flows into RoW ETPs were \$11.7bn (11.8bn in 2015); primarily contributed by Equity and Fixed Income ETPs which received inflows of \$6.1bn and \$5.2bn, respectively.

Within equities, strategy, developed markets and style ETFs recorded flows worth \$2.5bn, \$1.5bn, and \$1.0bn, respectively, whereas emerging markets based ETFs experienced outflows of \$0.7bn during 2016. ETFs focusing on Canada, global broad indices, and US recorded flows worth \$0.90bn, \$0.46bn, and \$0.16bn, respectively. Within fixed income, sovereign & corporate debt, corporate bond, and broad bond ETFs received flows worth \$3.3bn, \$1.5bn, and \$0.5bn, respectively.

2016: ETP industry growth attribution

After experiencing slow-paced growth in 2015 which was driven by negative asset prices, global ETP industry assets witnessed healthy growth in 2016 with year-on-year rise of 17.9% despite volatile global equity markets. Fund flows for the year stood strong and recorded 12.8% growth over the last year asset base, followed by asset price growth of 5.1%. On a regional basis also, we observed double digit growth across all the regions both in terms of overall and organic growth supported by growth in asset prices. Globally, flows totaled \$381bn for 2016 which is the highest ever annual flow total for the industry after 2015 flows.



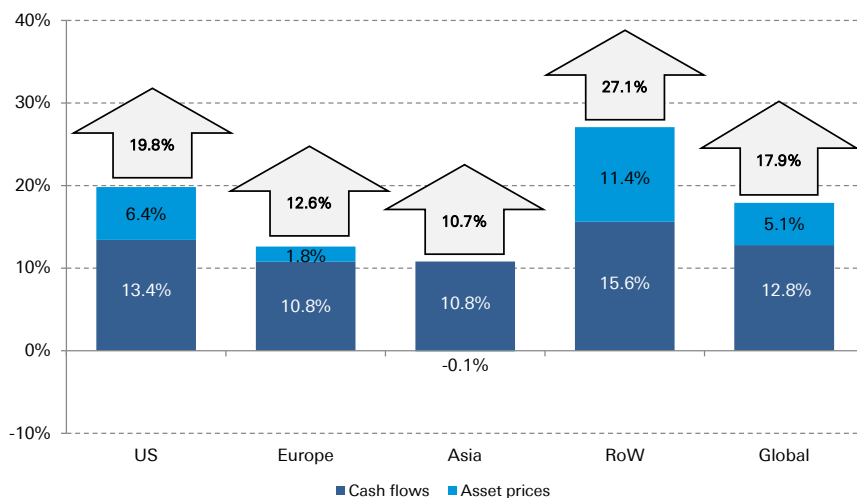
US ETP industry registered one of the strongest growth among all the regions with overall growth of 19.8% in 2016. Fund flows contribution was solid at 13.4% while asset price movement added 6.4%. Total flows of 2016 were strong (\$284.1bn) which is the highest ever yearly total for the region.

Europe also delivered double digit asset growth of 12.6% in 2016 over the year 2015. In this case contributions from organic growth were at 10.8%, while asset prices only added 1.8% towards overall growth (in USD). European ETP industry was positioned better in EUR terms because of EURUSD depreciation in 2016 with overall growth of 16% of which flows growth was at 10.6% and asset price growth was at 5.4%. Europe witnessed yearly flows totaling \$54.6bn (€49.2bn) for 2016.

Asia Pacific region lagged behind among all the regions with an increase of 10.7% in assets over 2015 year-end figures. Almost the entire contribution was from inflows which stood at 10.8% while asset prices were technically flat. Total flows for 2016 totaled \$30.7bn.

The Rest of the World region [which includes markets outside of the US, Europe and Asia such as Canada and Latin America] received the highest growth among all the regions recoding 27.1% year-on-year growth, although the asset base is the smallest. This was driven by both organic growth and rise in asset prices of 15.6% and 11.4% respectively.

Figure 4: Flows contribute to growth, along with positive growth from asset prices in 2016 (based on USD)



Source: Deutsche Bank, Bloomberg Finance LP, Reuters



Figure 5: Global ETP industry growth attribution in 2016 over 2015 (based on USD)

	US	Europe	Asia Pacific	RoW	Global
ETPs					
Total ETF industry growth					
Equity	18.4%	7.7%	20.0%	28.7%	17.2%
Fixed income	25.6%	19.2%	-29.7%	25.3%	18.8%
Commodity	33.0%	42.5%	38.9%	10.8%	36.0%
Currency	-17.4%	31.6%	48.4%	115.0%	-4.8%
Multi Asset	18.2%	-0.3%	277.2%	20.5%	18.2%
Alternative	-3.7%	8.6%	76.5%	129.6%	2.4%
Total	19.8%	12.6%	10.7%	27.1%	17.9%
Growth from cash flows					
Equity	10.7%	5.1%	19.9%	12.8%	10.8%
Fixed income	25.3%	21.0%	-28.7%	22.6%	19.0%
Commodity	24.4%	36.1%	27.2%	0.6%	28.0%
Currency	-19.2%	31.2%	48.6%	112.8%	-6.3%
Multi Asset	14.6%	-3.6%	293.6%	9.0%	14.0%
Alternative	28.0%	10.8%	264.1%	246.9%	33.2%
Total	13.4%	10.8%	10.8%	15.6%	12.8%
Growth from asset price fluctuation					
Equity	7.7%	2.7%	0.1%	15.9%	6.4%
Fixed income	0.4%	-1.8%	-1.0%	2.7%	-0.1%
Commodity	8.7%	6.5%	11.6%	10.2%	8.0%
Currency	1.8%	0.4%	-0.3%	2.2%	1.5%
Multi Asset	3.6%	3.3%	-16.4%	11.5%	4.2%
Alternative	-31.7%	-2.2%	-187.6%	-117.3%	-30.8%
Total	6.4%	1.8%	-0.1%	11.4%	5.1%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Product Launches

ETF Launches:

Global ETF industry saw another strong year for new product launches. Globally, the ETF industry registered 632 new product launches, bringing the total number of global products to 4,779 as of the 2016 year ending. Once again, the US ETF market took the lead with 223 new ETF launches followed by Asia Pacific with 187, Europe with 125, and the Rest of the World with 97.

Within Asset class, Equity ETFs had the lion share in overall new product launches. There were 470 new ETFs listed globally reaching total equity product count to 3598 as of 2016 year end. The US recorded the highest number of equity ETF listings in 2016 with 171 new launches; while Asia Pacific saw 148 new launches (vs. 156 in 2015). Furthermore, the European region declined during 2016 and listed 77 new products as compared to 130 new products listed in 2015, and the Rest of World witness increased new launch activity and saw 74 new products launches in 2016 (vs. 46 in 2015).



Fixed Income ETFs registered positive growth in new launches in 2016. Global Fixed Income ETF market remained on the higher end with 113 new launches during 2016 as compared to 101 new products listed during 2015. The European ETF market witnessed the largest number of new Fixed Income ETFs in 2016 with 42 new products, which were close to previous year's count of 43 products, followed by the US listing 36 new Fixed Income products during 2016 compared to 30 and 42 product launches in 2015 and 2014 respectively. Similar to previous year's offerings (19), the largely equity-dominated Asia Pacific market recorded another 19 new Fixed Income ETFs in 2016 reaching total Fixed Income product count to 93 (vs. 791 equity ETFs). Rest of World listed 16 new Fixed Income ETFs in 2016 as compared to 9 funds listed in 2015.

Globally, Alternative and Currency ETFs saw positive movement with each registering 8 new ETFs in 2016, whereas in 2015 the above asset classes recorded 13 and 5 new launches respectively. Furthermore Commodity ETFs recorded 17 new products during 2016 compared to 8 new listings in 2015. Multi Asset ETFs also joined with the listings of 16 new products in 2016.

During 2016, some of the products categories deserve special mention. These categories include Smart Beta, Leveraged/Short and Currency hedged ETFs. We have noticed an increased demand for these special products due to uncertain and volatile markets. Below are the product highlights for these ETFs:

Smart Beta ETFs: Amid volatile and uncertain markets investors seek improved risk adjusted returns, in view of this ETF providers have launched 227 new smart beta ETFs globally during 2016. US led the new smart beta launches table with 134 new products launched this year (vs. 149 launched in 2015) followed by Europe (54) and Asia (39). Unlike traditional funds, Smart beta ETFs are benchmarked to non-market cap based indices and follow custom strategies to enhance return.

Leverage/Short ETFs: Similar to previous year, we have seen another significant year in Leverage/Short ETFs in terms of new product offerings. Globally, we have noticed 75 new listings and especially in Asia-Pac (50), followed by US (21) and Europe (4) in 2016. Leverage/Short products are mostly used for trading tool and held for taking exposure to short term views. These types of ETFs are complex in nature and commonly used by institutional investors as advance trading tools.

Currency Hedged: During 2016, the highly volatile foreign exchange market spur the usage of currency hedged ETFs in investor's portfolios. In view of this many providers offered currency hedged products to cover the risk of FX movements. Globally, we have noticed 34 new products launched in this category. Region-wise, US market led the tally with the launch of 15 products closely followed by Asia Pacific (14) and Europe (5).

ETC/V Launches:

2016 was a quiet year for new ETC/V launches globally, we have seen 17 new products launches over the last year compared to 37 products listed in 2015, bringing the total number of ETC/V to 545 globally. Similar to previous year, Commodity benchmarked ETPs continued the positive trend in 2016 by listing all the above 17 new ETPs. On the regional level, Europe was the only player to list all these 17 new ETC/Vs during 2016.



For historical information on product counts please refer to [Product count](#).

Industry entrants and Leavers

Many new providers exploring opportunities in the growing ETF space

Global ETF market witness another strong year with 25 new providers entered into growing ETF market. The US and Asia Pacific each witness 8 new providers, followed by Rest of World and Europe registering 7 and 2 new providers respectively.

US: US ETFs market saw 8 new providers during 2016, Janus Capital led the launches by listing 8 new products, followed by Nuveen (7), Principal Management (5) and Amplify Investments listing 3 new products. Aptus Capital, Natixis GAM, ACSI Funds and Premise Capital made their US ETF debut by each listing 1 product in 2016.

Europe: European ETF market witness relatively less number of new providers in 2016 compared to its regional peers. We have noticed only 2 new providers last year. Expat Capital and Fullgoal Fund Management Co each listed 1 product during 2016.

Asia-Pac: Last year the Asia-Pacific ETF market saw 8 new providers entering the ETP market which is equal to the number of new providers entering the market in the previous year. Amundi (Which were already present in European Market) entered the Asia Pacific Market in the year 2016 by listing 2 new products. The remaining providers entered the Asian market offering 1 product each.

RoW: During last year, RoW ETF markets witness increased activity with the launch of 7 new entrants. Mackenzie Investments took the lead by launching 9 new products followed by TD Asset Management (6), Sphere Investments (5) and Harvest listing 3 new products. While remaining providers entered the RoW market offering 1 product each.

ETF Industry Casualties: 14 providers left the ETF market

Despite the growing investment demand for ETFs, 14 providers left the ETF market in 2016. Precidian, Calamos Investments and Horizons ETFs each delisted its single product and exited from US market. Nordea Investment Funds delisted 2 funds and exited from European market. Asian market saw maximum number of leavers (7) where Maybank Asset Management Thailand Co Ltd closed 4 of its funds and exited the market. Remaining 6 providers delisted 1 product each and exited the market.

ETC/V Industry Casualties:

At a global Level, 2 providers left the ETC/V market in 2016. Royal Bank of Scotland plc (5) and AccuShares Management LLC (4) delisted their products and exited from European and US Markets respectively.

For more information on entrants and leavers please refer to [New Entrants and Leavers](#) section.



2. 2017 Outlook

2017: Global ETP Assets

We expect the ETF industry to continue on a strong growth path in 2017. Our approach to ETF industry growth projection is driven primarily by two factors, asset prices and new money into the industry (fund flows). Our base case scenario contemplates a positive equity market and average ETF flow growth till 2016.

Accounting for historical flow trends, ETF usage patterns in the last 5 years, and expected flow boost from regulation such as the DOL fiduciary rule in the US, we expect the ETF industry to attract between \$315bn and \$595bn of inflows over 2017, with a base case scenario of \$455bn (equivalent to 13.3% AUM growth in 2017).

Assuming neutral growth in asset prices, fund flow base case scenario implies 18.6% global ETF asset growth over 2017. This growth could range between 2.2% and 34.1% depending on how the equity markets develop over the year.

Figure 6: 2017 ETF Industry growth projection

2017 Global ETF Market Growth Projection					
Market scenario	Market performance	Cash Flow Activity	2017 Global ETF Asset Range	Growth Rate	Fund Flow Contribution
Bull market	14.2%	High	\$4,588	34.1%	17.4%
Neutral market	4.7%	Middle	\$4,059	18.6%	13.3%
Bear market	-6.4%	Low	\$3,498	2.2%	9.2%

Region	2016 Assets	2016 Share	2017 ETF Cash Flow Scenarios by Region		
			Strong	Neutral	Weak
US	\$2,470.9	72%	\$400	\$325	\$250
Europe	\$543.7	16%	\$90	\$60	\$30
Asia	\$314.0	9%	\$90	\$60	\$30
RoW	\$93.6	3%	\$15	\$10	\$5
Total	\$3,422.2	100%	\$595	\$455	\$315

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

The ETF industry registered assets of \$3.42 trillion at the end of 2016; we expect the industry to close 2017 with a size closer to \$4.06 trillion, ranging between \$3.50 trillion to \$4.59 trillion depending on how asset prices evolve.

The ETP industry registered assets of \$3.51 trillion at the end of 2016; we expect the industry to close 2017 with a size closer to \$4.17 trillion, ranging between \$3.64 trillion to \$4.66 trillion depending on how asset prices evolve.



Figure 7: 2017 ETP Industry growth projection

2017 Global ETP Market Growth Projection					
Market scenario	Market performance	Cash Flow Activity	2017 Global ETP Asset Range	Growth Rate	Fund Flow Contribution
Bull market	13.7%	High	\$4,658	32.6%	16.5%
Neutral market	4.7%	Middle	\$4,174	18.9%	13.5%
Bear market	-5.8%	Low	\$3,644	3.7%	10.0%

Region	2016 Assets	2016 Share	2017 ETP Cash Flow Scenarios by Region		
			Strong	Neutral	Weak
US	\$2,532.6	72%	\$390	\$335	\$270
Europe	\$570.1	16%	\$85	\$70	\$45
Asia	\$314.4	9%	\$90	\$60	\$31
RoW	\$94.9	3%	\$14	\$10	\$6
Total	\$3,512.0	100%	\$579	\$475	\$352

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

US Outlook

Organic growth gap between active and passive management widens beyond \$700bn in 2016

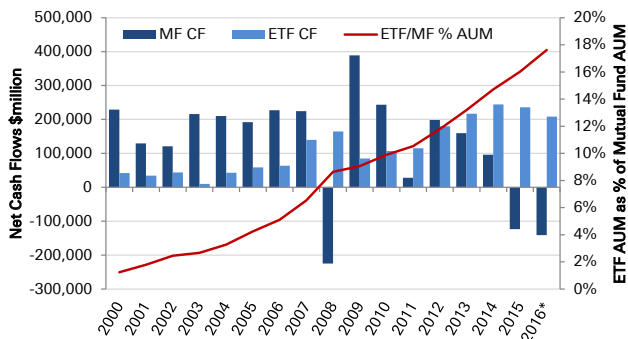
Another year has gone by, and the organic growth gap between mutual funds¹ and ETFs, and between active and passive funds (mutual funds and ETFs) continues to widen. The last year in which mutual funds gathered more new assets than ETFs was 2012, while the last time active fund vehicles surpassed passive fund inflows was 2010. In fact, during 2016 ETF inflows neared \$300bn while mutual funds experienced over \$100bn in outflows. Similarly, passive vehicles gathered more than \$400bn in net new assets, while active mutual funds and ETFs recorded more than \$300bn in net redemptions sending the organic growth gap between passively and actively managed vehicles to more than \$700bn, the largest gap on record.

The latest figures and trends are very compelling and make it very difficult to argue that the growth of ETFs and passive mutual funds is a short term phenomenon, or the latest investment fashion deemed to be just temporary. In fact, the trend we observe strongly suggest a structural shift in the fund industry both in terms of management style and fund structure which cannot be ignored. ETF assets represented about 18% of mutual fund assets at the end of 2016, while passively-invested fund assets reached almost 45% of actively-managed fund assets at the end of last year. Overall, we believe that investor discontent with active management performance, cost pressures, asset allocation-centered investing, and regulation such as the DOL fiduciary rule are just some of the drivers which will continue to level the battlefield for market share between the forces of mutual funds and ETFs, and active and passive management.

¹ Any reference to Mutual Funds refers to Long Term Mutual Funds which exclude Money Market funds.

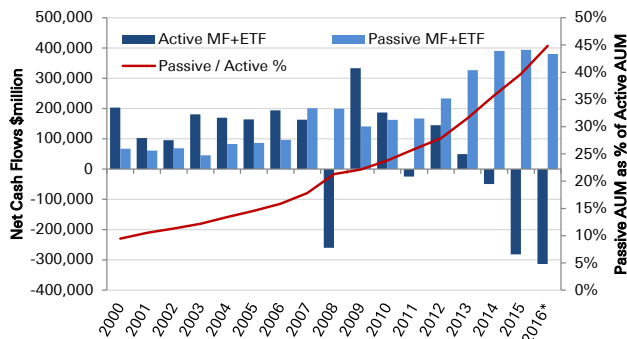


Figure 8: ETFs continue to take significant market share away from mutual funds



Source: Deutsche Bank, ICI, Bloomberg Finance LP. *2016 figures cover Jan-Nov.

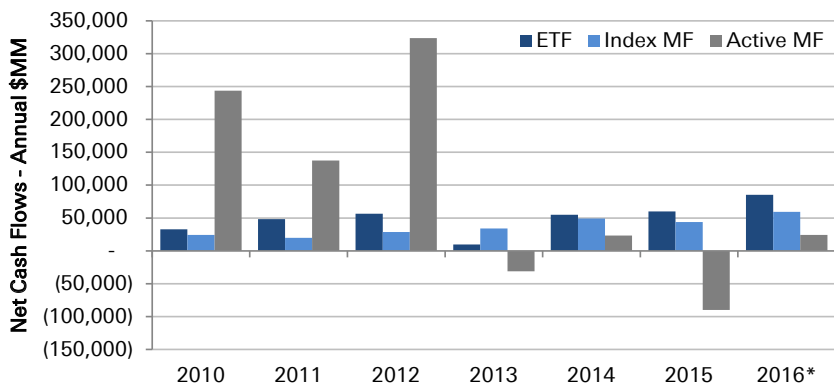
Figure 9: About \$700bn separated the organic growth between active and passive funds in 2016*



Source: Deutsche Bank, ICI, Bloomberg Finance LP. *2016 figures cover Jan-Nov.

Furthermore, the ETF phenomenon is no longer restricted to equity products anymore, but it has also begun to spread to other asset classes such as Fixed Income. Actually, for the last three years ETFs have been the preferred fund vehicle of choice for new allocations among ETFs, Active Mutual Funds, and Index Mutual Funds.

Figure 10: ETFs are consistently being chosen as the preferred fund vehicle for fixed income investments



Source: Deutsche Bank, ICI, Bloomberg Finance LP. *2016 figures cover Jan-Nov.

Cheap Core beta exposures present higher organic growth potential...

Investors usually utilize ETFs as building blocks ² which can take the form of either a Core or a Satellite holding. Core positions are usually designed to have a more strategic function in the portfolio with a larger allocation budget and longer investment horizon. On the other hand, Satellite positions are used to implement portfolio tilts in a more timely way for a shorter period of time, and therefore tend to be of tactical nature with lower allocation budget. Some examples of core allocations would be US Equity, DM Broad Intl Equity, EM Broad Equity, or Aggregate Bonds; while examples of satellite positions would be US Sector Equity, Intl Region or Country Equity. Core products concentrate about two

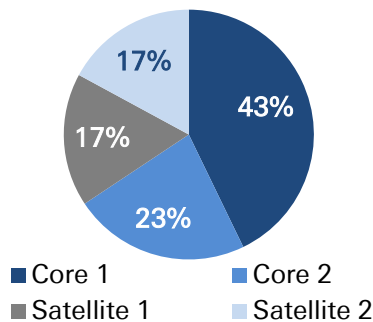
² Building blocks do not include leveraged or inverse products which are deemed as trading vehicles, rather than investment ones



thirds of the ETP assets in the US market, while Satellite products represent the remaining one third.

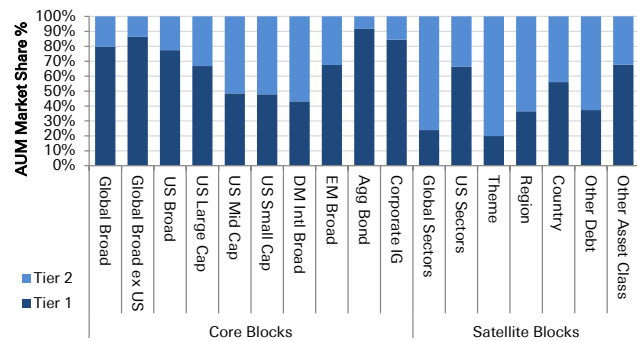
From a cost perspective, we define two tiers. The first tier (Tier 1) represents all the ETPs within the cheapest Total Expense Ratio quintile (i.e. 20%) for each asset class or building block; while the second tier (Tier 2) represents the rest of the ETPs in that specific group. Within Core products, the majority of the core assets (65%) are concentrated in the cheaper products (i.e. Core 1); while in the case of satellite products the distribution between the group of cheaper products and the rest is more balanced with half of the assets in satellite ETPs allocated to each tier. An individual examination of each investment segment also suggests that Core building blocks tend to have a higher concentration of assets in low cost (i.e. Core 1) ETPs, relative to Satellite ETPs. Therefore it seems that investors are more likely to discriminate ETPs based on cost within Core products than within Satellite products.

Figure 11: 2016 AUM Market share per block type and cost tier



Source: Deutsche Bank, Bloomberg Finance LP.

Figure 12: 2016 AUM Market Share per individual building block and cost tier

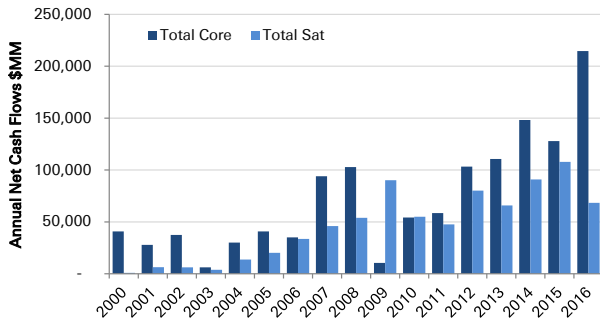


Source: Deutsche Bank, Bloomberg Finance LP.

Historically, Core products have had better potential for gathering net new assets relative to Satellite products. This was particularly true during 2016 when investors poured over 3 times as many inflows in Core vehicles compared to Satellite ETPs. In addition, both Core and Satellite product assets market share remain dominated by beta products, despite any market share gain by Smart Beta and Active ETPs in the last 10 years. Therefore, it is accurate to say that products offering access to cheap core beta present the most scalable solution with the best potential for organic growth. However competing in the CCB (Cheap Core Beta) space can be extremely challenging for ETP issuers, unless they possess unique distribution advantages such as access to a loyal network of investors and advisors, or access to ancillary sources of revenue related to the ETF business.

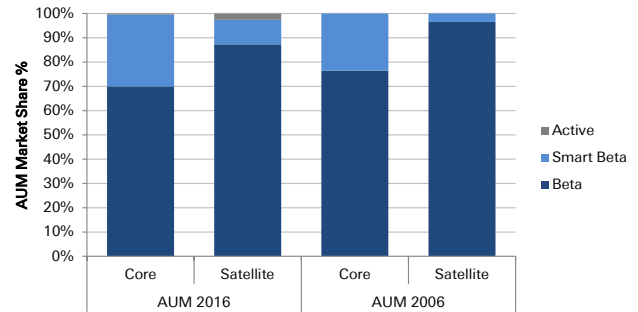


Figure 13: Historical net cash flow per building block type (annual)



Source: Deutsche Bank, Bloomberg Finance LP.

Figure 14: AUM market share per product type and building block type (10Y comparison)

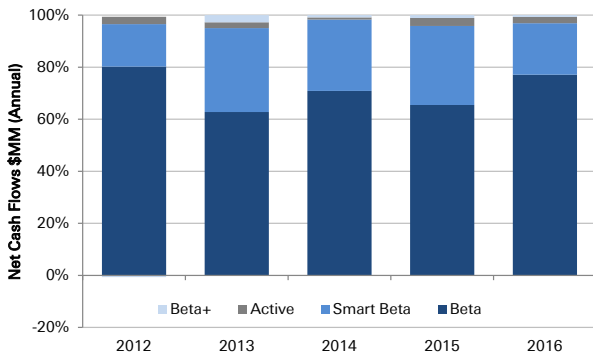


Source: Deutsche Bank, Bloomberg Finance LP.

...however smart beta, and active products also offer attractive opportunities

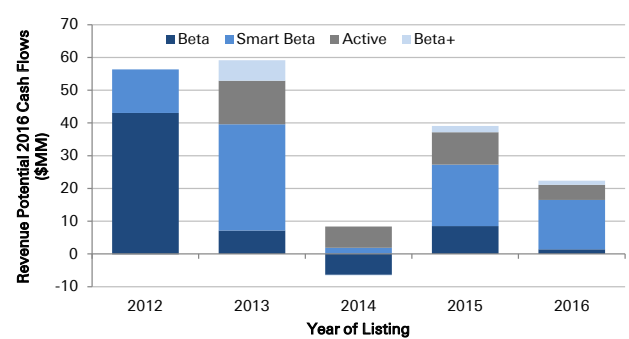
Although the bulk of the assets are in beta ETFs, recent trends suggest attractive opportunities in the Smart Beta and Active ETF space. For example, in the last five years between 20% and 40% of the net new cash flow has gone to non-traditional ETFs such as those tracking smart beta strategies. In addition, annual revenue potential³ from net new flows in 2016 among newer products listed during the same 5-year period significantly favored non-traditional products. Furthermore, Smart Beta or Active ETFs can seem even more attractive when we take into consideration the fact that active mutual funds have been experiencing a systemic flight of assets and revenue erosion in recent years.

Figure 15: Annual net cash flow market share per product type last 5 years



Source: Deutsche Bank, Bloomberg Finance LP.

Figure 16: Revenue Potential from 2016 cash flows per product type and year of listing



Source: Deutsche Bank, Bloomberg Finance LP.

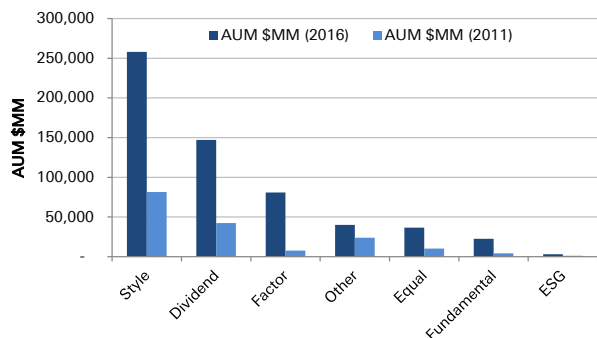
Among Smart Beta ETFs, those products tracking Style (i.e. Growth and Value), and Dividend indices have recorded the most significant absolute dollar growth in the last 5 years with Style and Dividend ETFs adding more than \$150bn, and more than \$100bn in assets, respectively. However, Smart Beta ETFs offering factor strategies have experienced the most significant growth in percentage terms growing 65% over the last 5 year period ending at about \$81bn in assets at the end of last year.

³ Revenue Potential is estimated by multiplying the level of assets by the annual total expense ratio of each ETF



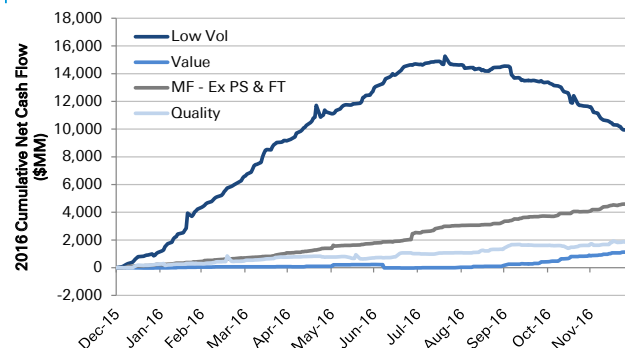
Flow activity among Smart Beta Factor ETFs has also begun to be more active, showing not only signs of strategic allocations, but also of tactical usage. For example, during 2016 Low-Volatility ETFs experienced both strong inflows (~\$15bn) and outflows (~\$5bn) as the markets went from defensive to aggressive. Meanwhile, other factor strategies such as Value and Quality experienced the first clear signals of investors' interest. Finally, we also highlight newer multi-factor ETFs (i.e. excluding PowerShares and First Trust multi-factor ETFs) which attracted over \$4bn last year.

Figure 17: Smart Beta ETF 5Y AUM change



Source: Deutsche Bank, Bloomberg Finance LP.

Figure 18: Selected 2016 Smart Beta Factor flows



Source: Deutsche Bank, Bloomberg Finance LP.

New ETF entrants should understand what they are up to

With almost 70 different ETF providers, over 17 hundred products listed in the US market, almost \$2.5 trillion in assets, and a revenue potential approaching \$6 billion, ETFs have already earned a dedicated seat at the asset management table. However, we are still on a strong growth phase and nowhere near saturation which means that there is still opportunity for new players that are willing to tread carefully.

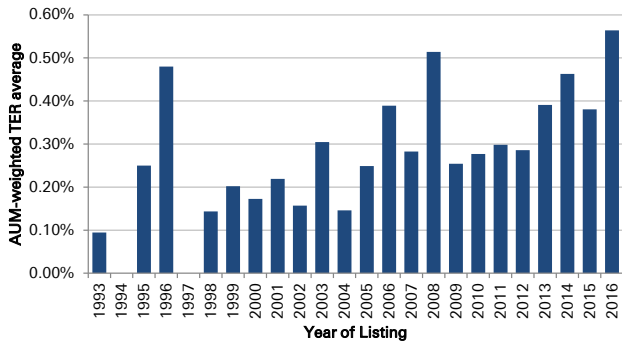
One of the features to keep in mind at the time of launching a new product is the cost or total expense ratio. And although the AUM-weighted average total expense ratio for newer ETFs has been on an uptrend since the beginning of the industry, this doesn't necessarily mean that ETF fees are increasing, on the contrary, ETF fees have actually been under pressure due to fierce competition, particularly in the Core Cheap Beta space. However as the number of new Smart Beta, Active, or more targeted ETFs has become more significant in recent years AUM-weighted avg. TERs have risen accordingly. Therefore, industry newcomers should understand how competitive ETF pricing can be, and what the right pricing point for their planned ETF is, taking into consideration the type of product, the investment strategy, the asset class exposure, and the existing peer group.

Another important factor to consider is that although revenue potential is well distributed across ETFs listed since 1993, it could take up to 3 years or more before an ETF reaches maturity and stable revenue. In other words, newcomers should be prepared to support their new products for a period of at least 3 years before thinking on pulling the plug on their new ventures. This is particularly relevant when it comes to smart beta or active products as investors tend to require longer track records when it comes to allocating money to these funds. Furthermore, revenue potential per ETF suggests that during the first 12 years of the industry first movers were handsomely rewarded for their investment, however the next 12 years have seen a more diluted reward as a larger number of new funds compete



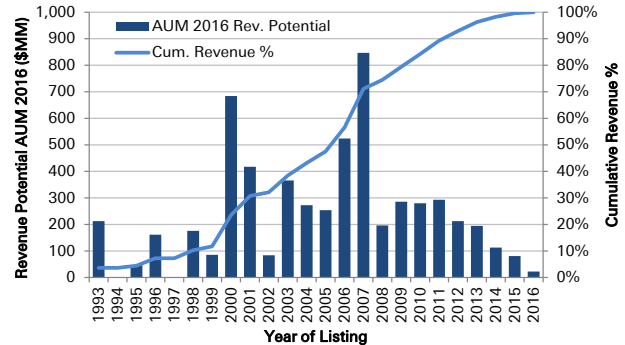
for a limited amount of assets. Thus new entrants need to be prepared to engage in a fierce battle for investors' assets.

Figure 19: AUM-weighted Avg. Total Expense Ratio per year of listing (ETF)



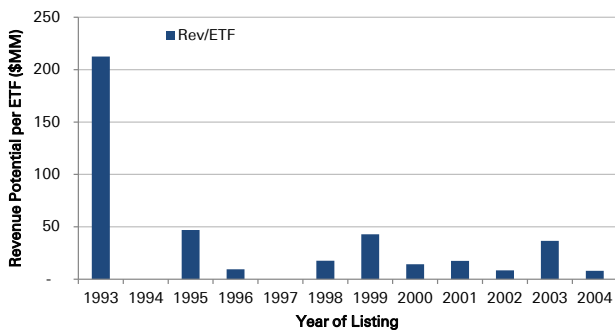
Source: Deutsche Bank, Bloomberg Finance LP.

Figure 20: ETF revenue potential based on 2016 end of year assets per year of listing



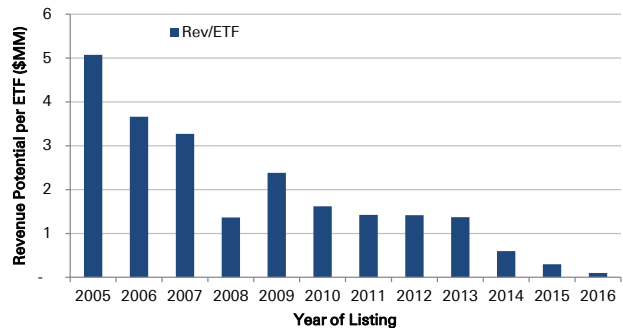
Source: Deutsche Bank, Bloomberg Finance LP.

Figure 21: There seems to be a clear revenue advantage for early ETF movers...



Source: Deutsche Bank, Bloomberg Finance LP.

Figure 22: ...however the space has become more competitive as new entrants and products have come to market.



Source: Deutsche Bank, Bloomberg Finance LP.

Repeal or no Repeal, DOL fiduciary rule still expected to boost ETFs in 2017

The implementation of the DOL fiduciary rule will undeniably be one of the main events to keep an eye on during 2017. In fact, we believe that whether the rule is repealed or not, the ball is already rolling and the question is not if the rule is going to boost ETF assets or not this year, but rather how much the rule implementation will boost ETF assets.

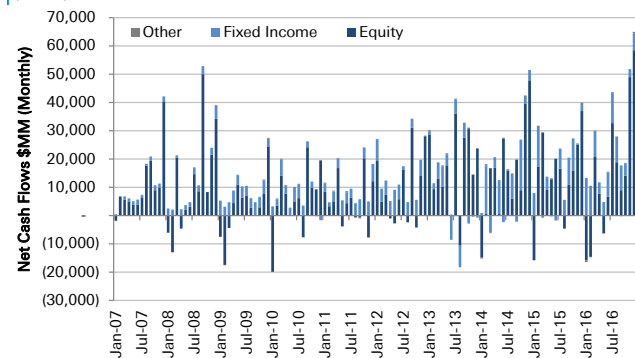
Following the implementation of the Pension Protection Act in 2006 which highlighted the fiduciary responsibility of retirement plan sponsors, we saw an increase in allocations to index funds. And if history can provide any guidance, we can easily expect that the recent DOL fiduciary rule which covers IRAs could significantly accelerate ETF allocations as advisors move assets away from mutual funds to comply with the new rule.

There has been some discussion regarding the possibility that the new administration under the new government could repeal the rule, thus leaving it without effect. We believe that even in a situation in which the rule is dropped altogether, there has already been an awakening of both investors and advisors



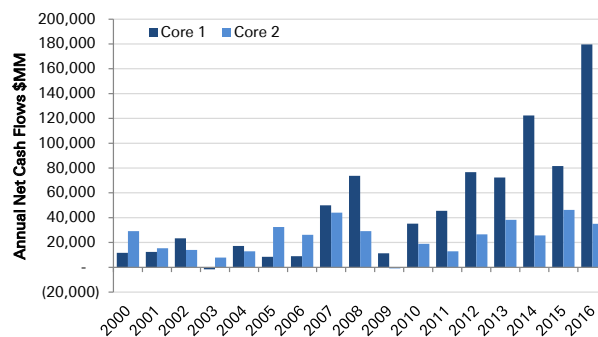
which is not likely to reverse. As a matter of fact, following the results of the last US presidential election, ETFs experienced the largest inflows on record into year end. Moreover, during 2016 ETFs offering access to the cheaper core products recorded their strongest inflows ever, and the largest difference compared to the rest of Core products with higher pricing points. Therefore if we can say anything about the impact of the new elected government is that ETF flows into cheap core products have never been stronger, and it is this specific group which is actually the one which should benefit the most from a DOL-induced migration of assets.

Figure 23: Historical Monthly ETF flows per asset class (10Y)



Source: Deutsche Bank, Bloomberg Finance LP.

Figure 24: Historical ETF & ETV flows for Core building blocks per cost tier



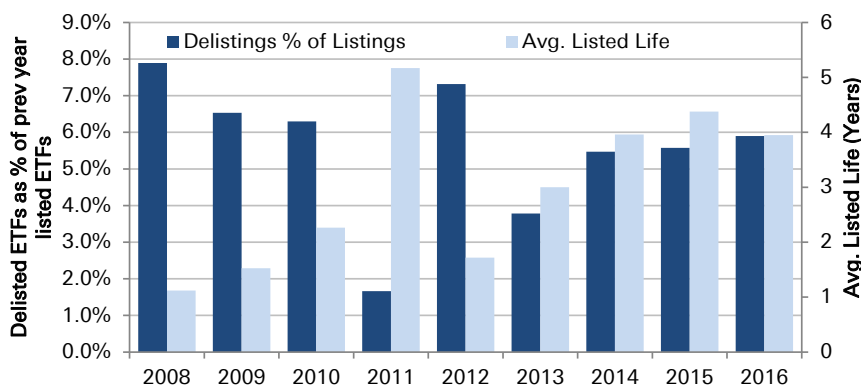
Source: Deutsche Bank, Bloomberg Finance LP.

Record number of delistings not a warning sign, but rather orderly clean-up

With the number of delistings approaching one hundred in the US during 2016, some market participants have promptly suggested that this could be a sign of cool down for the ETF industry. However, we do not share that view. In fact, the percentage of funds delisted during last year relative to the initial number of funds for the year stayed within the 5%-6% range which has been the same level of delistings experienced in the last three years, and actually, even lower than in previous earlier years. Furthermore, the average listed life in years for the delisted products has been following an uptrend since the first industry delistings back in 2008 suggesting that ETFs tend to stay in the market for longer before they are pulled away. Thus, we believe that these metrics are more characteristic of a healthy process of natural selection within the ETF industry which allows to better allocate resources, rather than a warning sign for growth or an overheated market.



Figure 25: ETF delisting trends suggest periodic clean up



Source: Deutsche Bank, Bloomberg Finance LP.

European Trends

Exchange traded products (ETPs) in Europe continued their positive run in 2016 where we observed \$54.6bn net inflows. This was materially lower compared to the previous two years (\$81bn and \$61bn in 2015 & 2014 respectively). Fixed Income ETFs (\$25.6bn) benefitted from more inflows compared to Equity ETFs (\$17.8bn flows). Further, Commodity ETPs in Europe had a very strong year, with inflows of \$11bn in 2016 (\$1.6bn and -\$1.1bn net flows in 2015 & 2014 respectively). Thus, the total assets under management (AUM) in ETPs reached \$570bn at the end of 2016, 13% up from 2015 (16% up in terms of EUR).

Investors are positioned long US, Europe, Financials, short EM going into 2017

We first revisit the net regional and sector flows observed in Europe for 2016

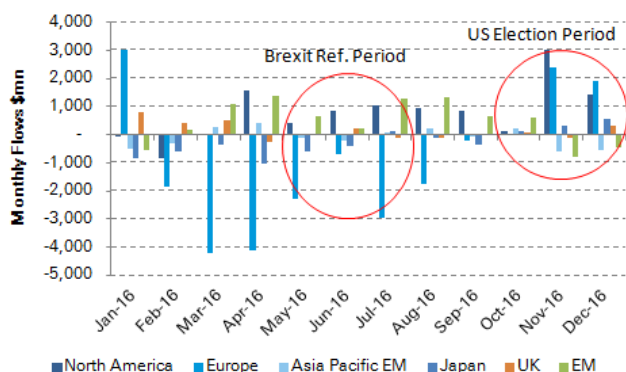
- Europe / EMEA (-\$11bn):** With exception to the UK (+\$1.7bn), a large proportion of regional and country ETFs with European exposure saw redemptions. ETFs tracking E-STOXX 50, DAX and STOXX Europe 600 were particularly hard hit. ETFs tracking UK equity indices, such as FTSE 100 and MSCI UK, were beneficiaries.
- North America / Latin America (+\$9.6bn):** ETFs tracking S&P 500 were by far the biggest contributor to the inflows into North America benefitting from \$7.3bn of inflows. It is interesting to note that ETFs tracking Russell 2000 also received significant inflows (+\$890mn) which was likely to have occurred post US Elections in early November. Latin America as a region (i.e. MSCI Latin America) saw inflows of +\$421mn.
- Asia Pacific (-\$3.2bn):** ETFs tracking Japanese equities saw the most outflows (-\$3.1bn) where it was mainly investors selling out of two indices, MSCI Japan (-\$1.4bn) and MSCI Japan 100% EUR Hedged (-\$950mn). Despite the net negative flows, there were inflows into other parts of the region. MSCI Pacific ex Japan (+\$647mn), MSCI Australia (+\$377mn) and MSCI EM Asia (+\$236mn) are ones to highlight.
- Global (DM +\$4.1bn, EM +\$5.6bn):** It was a positive year for Global benchmarks where we saw net inflows for both Developed and Emerging Markets broad benchmarks. Analysing the individual products, the flows were heavily skewed to the buy side with no material selling. MSCI World,



MSCI EM and MSCI EM IMI (includes small caps) were the 3 largest benchmarks that benefitted from inflows.

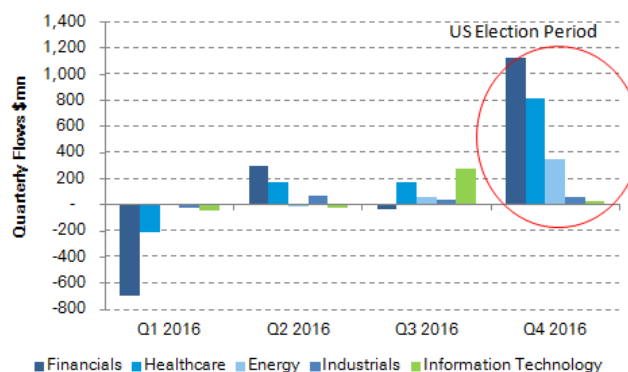
In order to understand how this changed through the course of the year, we highlight the monthly trends for the regions that saw significant flows as shown in Figure below. This helps us formulate a view as to how investors who trade European products are positioned going into 2017. We highlight two key events in 2016, the EU Referendum in the UK (June) and US Elections (November). It was interesting to note that the inflows into UK occurred prior to the referendum date and despite the result, we did not see neither significant redemptions or creations immediately after June 23rd. Although EM appeared to have a good year with respect to inflows, we can see that the pattern switched in Q4 which may be indicative of the change in sentiment towards EM. Another interesting observation is the switch to large inflows into Europe post the US elections. We also illustrate the sector quarterly flows which saw significant increase in AUM for the Financials, Healthcare and Energy sector in Q4.

Figure 26: Regional/Country Monthly flows for 2016 - Europe



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 27: Quarterly flows in Sector ETFs for 2016 - Europe



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

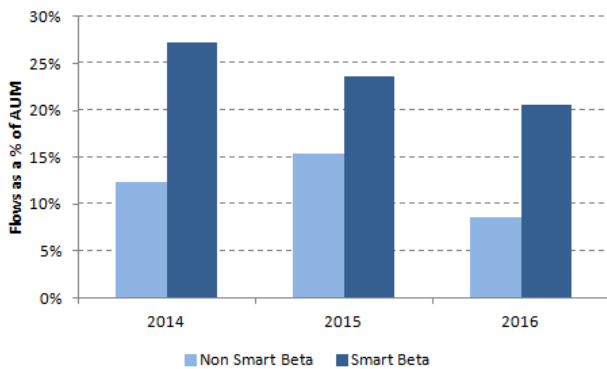
Smart beta assets continue to rise and its momentum will likely persist in 2017

Smart Beta products are amongst the fastest growing products in investment management in recent years. We saw significant growth in 2016 and expect the trend to continue in 2017 as investors seek improved risk adjusted returns. In 2016, there were inflows of \$9.9bn into the Smart Beta segment and total asset rose by \$11bn (32% YoY growth) to reach \$47.9bn at year-end.

A simple comparison of flow as a % of Assets between Smart Beta and regular market capitalisation ETFs (see Figure below) shows that relative growth has been significant over the last 3 years. Further, it was interesting to observe that regional flows were balanced across Europe, North America and Global equity indices. In contrast, regular market cap ETFs experienced significant outflows from Europe. Smart Beta strategies may be used differently within investment mandates and may not necessarily be used only for tactical regional allocation.

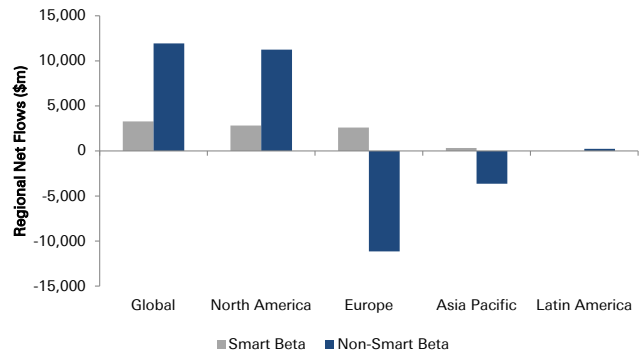


Figure 28: Pace of smart beta ETF growth has outpaced regular ETFs



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

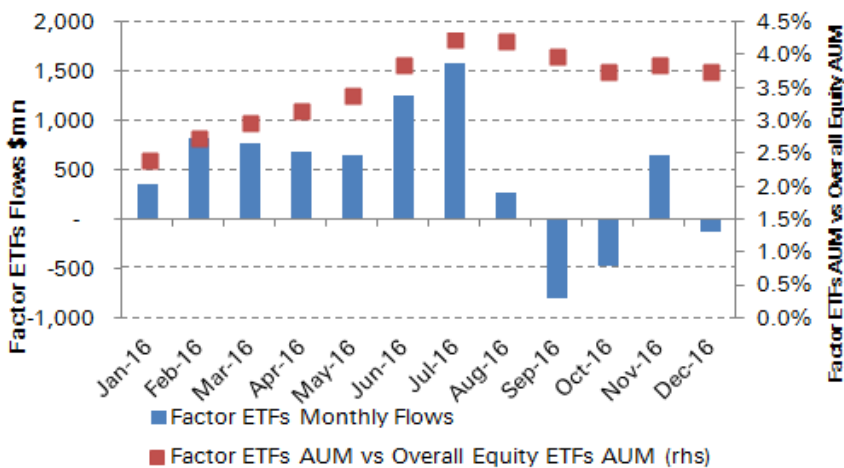
Figure 29: Flows into smart beta ETFs were balances across the regions



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

We analysed the sub-segments within Smart-beta and it was Factor ETFs that commanded over 50% of the inflows (\$5.6bn) in 2016. In a recent DB SYNDEX publication⁴ we analysed in detail the flow trends, product behaviour and growth potential of listed factor products. As the investment landscape evolves where factor investing and hedging increasingly become a core part of equity mandates, demand for Factor ETFs should rise.

Figure 30: Flows into Factor ETFs for 2016 - Europe



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Socially responsible investing is another sub segment within Smart Beta which is expected to continue to grow in the coming years. Over \$1bn of new money was invested in ESG ETFs during 2016 which represented approximately 30% of its Assets (\$3.4bn) at the end of 2016 (see Figure below). MSCI ESG ETFs were the major beneficiaries (\$1bn flows) receiving almost the full chunk of the overall ESG flow. The pace of product launches (13 new products in 2016 vs. 3 in 2015) may give an indication of further demand that we could see in 2017. Thus, we expect the investment trend in ESG ETFs to continue in 2017, with potentially further

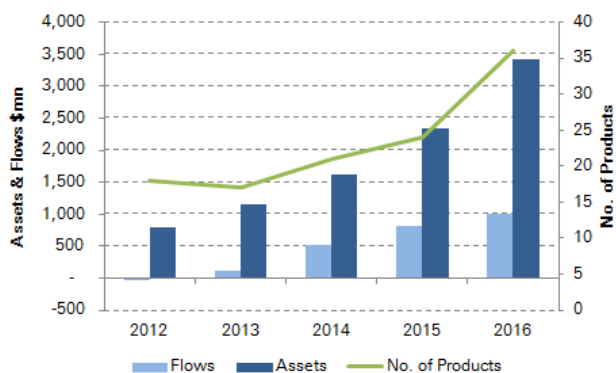
⁴ Synthesis - Efficient Investing in 2017 - Ari Rajendra, Anusha Pai - Jan 2017



product launches as Governments and other social bodies continue to lobby for socially responsible investing.

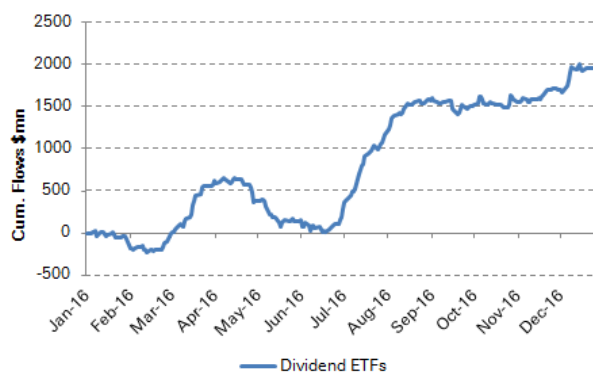
Another key segment within Smart Beta category is Dividend ETFs which is expected to maintain its demand in 2017. Investors will always be looking at efficient ways of investing in income strategies and Dividend ETFs present a viable investment option. 2016 saw inflows of \$2bn into Dividend ETFs which was less than the previous two years (\$2.8bn and \$3.2bn in 2015 & 2014 respectively). [Figure](#) illustrates that there was a significant pick up in flows around July 2016 followed by steady increases toward the end of the year.

Figure 31: Growth in ESG ETFs - Europe



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 32: Cumulative Flows in Dividend ETFs for 2016 - Europe



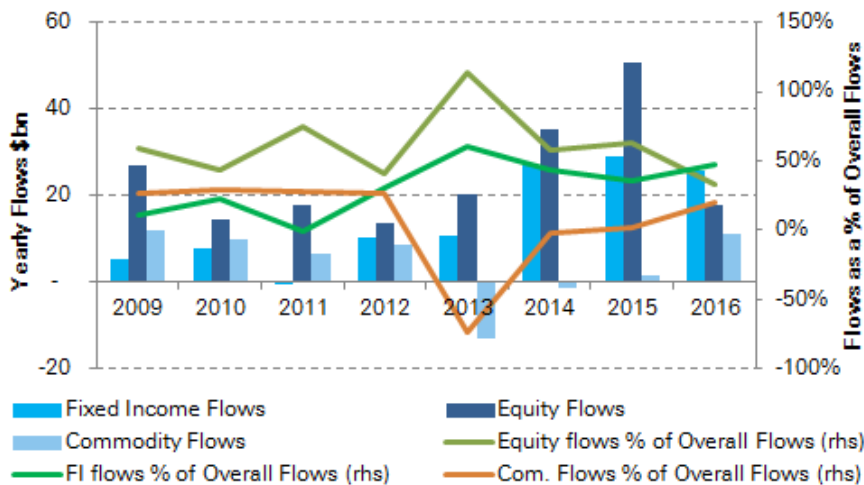
Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Fixed income surpasses Equity contribution to overall net flow for the first time in 2016

In 2016, Fixed Income ETFs contributed more than the Equities segment to the overall net flows in Europe (\$26bn in FI versus \$18bn in Equities). In comparison to previous years, in absolute terms, the total net flows into Fixed Income was marginally less than 2015 and 2014. However, this is the first time for the Fixed Income segment to dominate over Equities in terms of contribution to overall net inflows for European listed ETFs. We think this is an interesting observation and indicative of the growing presence of ETFs within the Fixed Income markets. It is still a small proportion of the total market and 2017 is expected to see this segment grow its market share.



Figure 33: Historical Flow trends in FI, Equity & Commodities - Europe

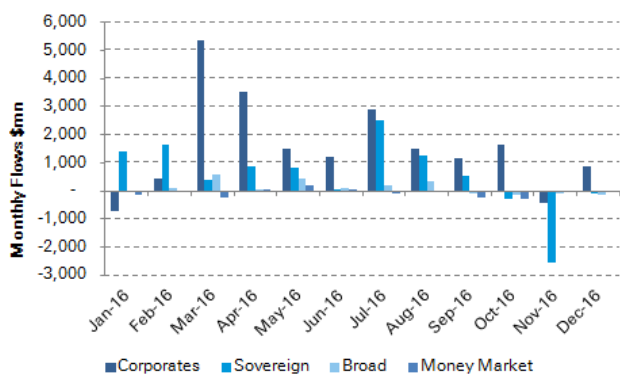


Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Looking at the individual sub segments, Corporate bonds contributed to more than 70% of total fixed income flows in 2016 with inflows of \$19bn . A potential reason could be the ECB Bond purchase program which started to include corporate bonds beginning June 2016. Sovereign and Broad based bonds also had healthy inflows of \$6.6bn and \$1.3bn respectively. Within the Sovereign sub-segment EM Sovereign Bonds drew significant investment with inflows of \$5.5bn. The ECB had recently announced taper to their bond purchasing program from €80bn to €60bn and change in policy with respect to the type of sovereign bonds they can buy allowing buying across broader tenors. This is likely to have an impact on the flow dynamics of Fixed Income ETFs in 2017.

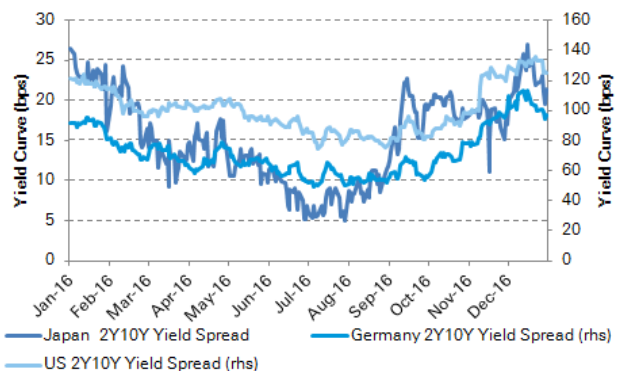
It also worth noting that the steepening in core yields since September 2016 coincided with a weakening in fixed income flows as shown in Figure below. In November, we saw large redemptions from Sovereign ETFs, which was largely from EM Debt. Thus, further steepening could be a headwind to the growth in fixed income ETFs.

Figure 34: Monthly flow trend in Fixed Income Sub-segments - Europe



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 35: Japan ,Germany & US Treasuries Yield curve



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

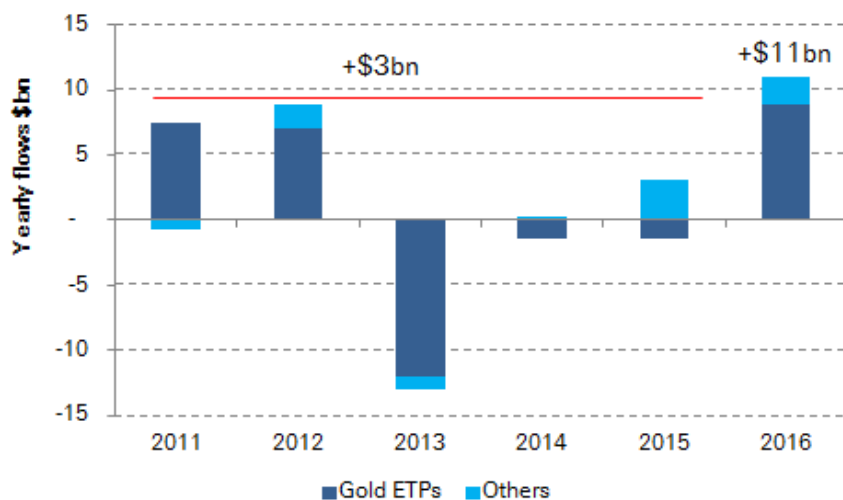


Commodity ETPs performed well through Gold ETPs

Main attraction of 2016 was Commodity ETPs where we observed strong inflows of \$11bn which is biggest positive flow since 2009 and contrary to outflows of previous years. Within Commodity, Gold ETPs alone gathered more than 80% of total commodity ETPs flows (\$8.9bn) which is 18 % of its assets (\$28.5bn) at the end of 2016. Gold is the major commodity within overall commodity space and accounts for 66% of overall commodity ETPs Assets (\$43bn). Other than gold, we have also observed positive flows of \$2bn into broad commodity-based ETPs. Crude oil-based ETPs recorded outflows of \$0.2bn vs. \$2.3bn inflows in 2015.

Figure below illustrates yearly inflows into Commodity ETPs since 2011. Compared to last five years, Commodity ETPs performed very well in 2016 with inflows of \$11bn vs \$3bn net flows from 2011 through 2015. We may see same positive trend in 2017 amid uncertain equity markets globally.

Figure 36: Yearly Flows in Commodity ETPs - Europe



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

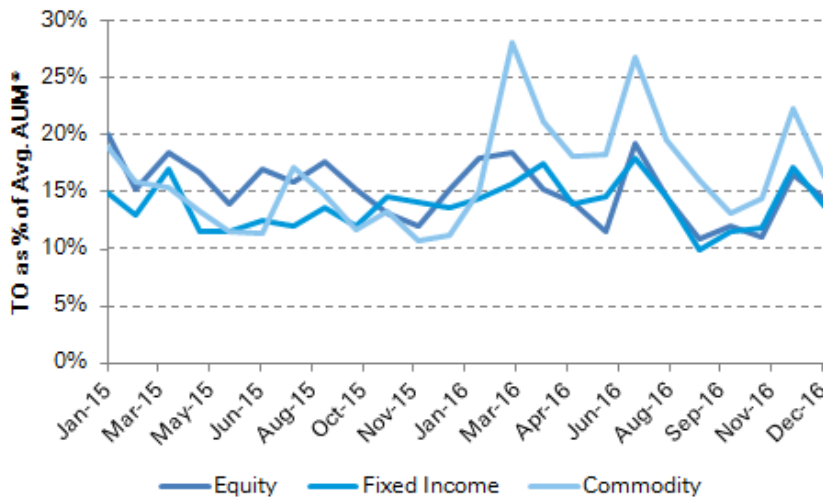
Trading volume points to an increasing trend within Fixed Income

The total turnover activity into European ETPs was up by 7% (\$962bn) vs. \$900bn in 2015. Commodity ETPs and Fixed Income ETFs saw positive growth in trading activity while equities saw decline in trading numbers during previous year. On YoY basis, Commodity ETPs and Fixed Income ETFs witnessed trading activity up by 66% and 33% respectively while equities saw decline in trading activity (-6%).

Figure below highlights the turnover activity into major asset classes where trading activity have been significantly increased since the start of 2016 and elevated post UK referendum on 23rd June.



Figure 37: Turnover as % of Avg. AUM - Europe

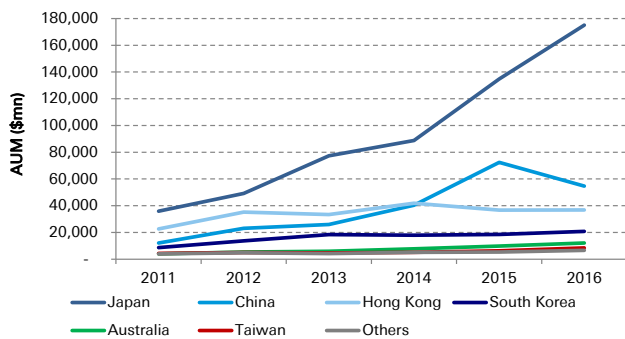


Source: Deutsche Bank, Bloomberg Finance LP, Reuters. Avg. AUM has been calculated using previous month end and current month end AUM.

Asia Pac Outlook

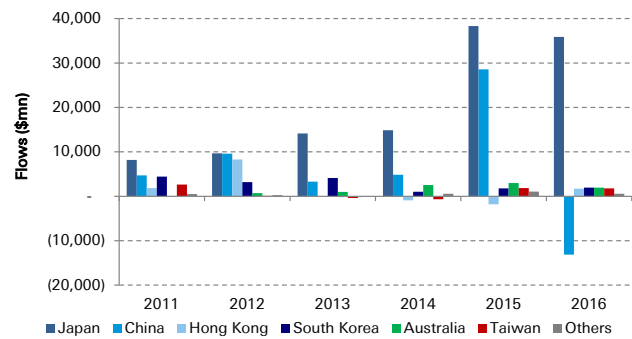
Among Asia-Pac region listed ETPs, major activity was observed in Japan, China, South Korea and Taiwan in 2016. Japan listed ETFs which now account for more than 50% of the overall Asia-Pac ETP market witnessed highest AUM growth and inflows in the region. While China listed ETFs retreated heavily driven by bearish equity markets and heavy redemptions from money market ETFs. Although secondary market trading activity in China remained high in 2016 totaling \$1.5 trillion, of which mostly was in money market ETFs. In terms of new product launches, South Korea ETP market took a giant leap crossing 250 product mark, followed by Taiwan which also saw notable increase in new product offerings.

Figure 38: AUM growth by listing country



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

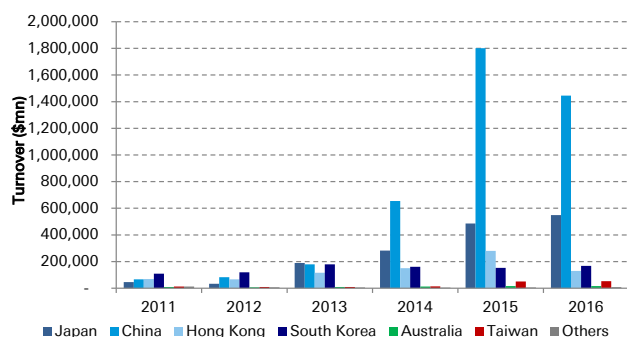
Figure 39: Flows by listing country



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

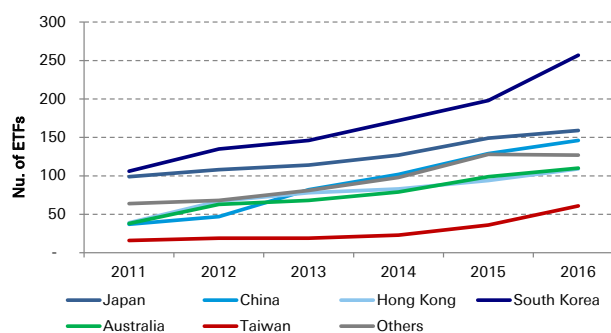


Figure 40: Turnover by listing country



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 41: Number of products by listing country



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Japan will continue to benefit from increased ETF purchases from Bank of Japan and equity allocation from GPIF

In 2016, Japan listed ETFs grew significantly and were the only major growth driver among all the countries in Asia-Pac region. Japan listed ETF assets rose to \$175bn with year-on-year increase of 30% and this was almost entirely contributed by organic growth (inflows of \$36bn) considering equity markets returns were mostly flat for 2016.

Inflows to Japan listed ETFs were primarily driven by enormous ETF purchases by Bank of Japan and increased equity allocation from GPIF. Bank of Japan's ETF purchase program received a new boost in 2016 when it announced to almost double the yearly rate of purchases to ¥6 trillion (about \$52.2bn). Later during the year it also announced that the bank will reduce investments in the Nikkei 225 Stock Average and buy more Topix index. After all these developments, it will allocate ¥2.7 trillion (about \$23.5bn) to Topix ETFs while ¥3 trillion (about \$26.1bn) will be spread out between the Topix, Nikkei 225 and JPX-Nikkei Index 400. Remaining ¥300bn (about \$2.6bn) will be for purchases in companies that boost wages and capital spending. Further, GPIF made a historic move in its policy asset mix starting from 2014. It has significantly increased its allocation to equities to boost returns. This equity allocation acts as a positive catalyst and provides support to the Japanese equity market. As a result, institutional and retail investors will continue to buy into ETFs tracking the benchmarks GPIF uses including JPX-Nikkei 400.

Considering above developments, we expect the AUM growth and inflows to Asia-Pac listed ETFs will continue to be driven by Japan supported by increased ETF purchases from Bank of Japan and equity allocation from GPIF.



Figure 42: Top 5 inflow receivers by major Japanese indices

ETP Name	BBG Ticker	TER	Net Flows (\$mn) - 2016	AUM (\$mn) - 31 Dec 16
Topix ETFs			16,355	68,701
TOPIX ETF	1306 JP	0.28%	8,336	33,305
Daiwa ETF - Topix	1305 JP	0.17%	3,800	15,528
Nikko ETF Topix	1308 JP	0.14%	3,426	14,726
MAXIS TOPIX ETF	1348 JP	0.12%	655	4,243
DIAM ETF Topix	1473 JP	0.08%	101	478
Others	-	-	38	421
Nikkei 225 ETFs			15,307	81,247
Nomura Nikkei 225 ETF	1321 JP	0.24%	6,413	34,733
Nikko Exchange Traded Index 225	1330 JP	0.28%	3,181	16,990
Daiwa ETF - Nikkei 225	1320 JP	0.22%	3,090	16,128
DIAM Nikkei 225 ETF	1369 JP	0.16%	1,156	2,276
iShares Nikkei 225	1329 JP	0.17%	994	3,108
Others	-	-	473	8,011
JPX Nikkei 400 ETFs			2,394	7,327
Next Funds JPX-Nikkei Index 400 ETF	1591 JP	0.25%	925	3,091
Maxis JPX- Nikkei index 400 ETF	1593 JP	0.13%	550	1,390
Daiwa ETF - JPX Nikkei 400	1599 JP	0.22%	364	974
Listed Index Fund JPX-Nikkei Index 400	1592 JP	0.12%	314	836
DIAM ETF JPX-Nikkei400	1474 JP	0.17%	122	462
Others	-	-	119	574
ETFs based on other indices			1,836	17,747
Japan listed ETFs			35,892	175,022

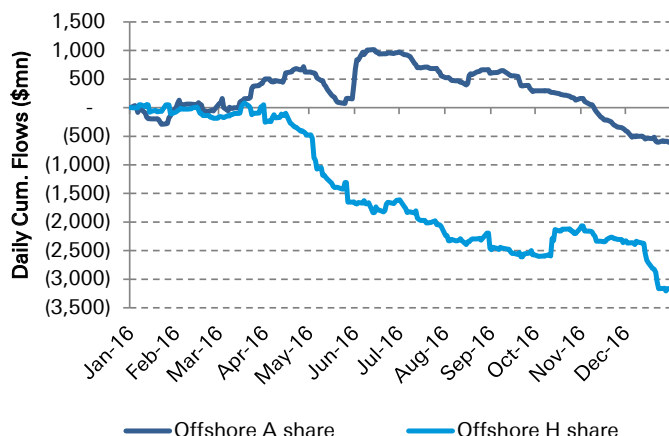
Source: Deutsche Bank, Bloomberg Finance LP, Reuters

China exposure in 2017

Chinese equities started the year with major shocks, although it recovered partially during later part of 2016. Amid volatile scenario, offshore China focused equity ETFs retreated and lost \$3.8bn in redemptions during last year. Among these ETFs, both H and A share ETFs experienced redemptions recording \$3.2bn and \$608mn in outflows. In 2017, market recovery in China's domestic market may attract investors to allocate new money into A share ETFs.



Figure 43: Flow activity in 2016 - China offshore equity ETFs



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 44: Top 5 ETFs by 2016 flows - China offshore equity ETFs

ETP Name	BBG Ticker	TER	Net Flows (\$mn) - 2016	AUM (\$mn) - 31 Dec 16
Offshore China equity ETFs - H Shares				
iShares China Large-Cap ETF	FXI US	0.73%	(2,282)	2,902
Hang Seng H-Share Index ETF	2828 HK	0.60%	(406)	5,780
db x-trackers FTSE China 50 UCITS ETF	XX25 GR	0.60%	(167)	158
Lyxor UCITS ETF China Enterprise (HSCEI)	ASI FP	0.65%	(164)	501
iShares China Large Cap UCITS ETF	FXC LN	0.74%	(143)	535
Offshore China equity ETFs - A Shares				
iShares FTSE A50 China Index ETF	2823 HK	0.99%	(1,181)	3,716
Yuanta/P-shares CSI 300 2X Bull ETF	00637L TT	1.26%	298	793
Fubon SSE180 ETF	006205 TT	1.09%	160	533
Fubon SSE180 Leveraged 2X Index ETF	00633L TT	1.26%	108	873
Direxion Daily CSI 300 China A Share Bear 1X Shares	CHAD US	0.80%	(93)	71

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

China listed ETFs (onshore) saw large outflows of \$13.4bn in 2016. However, this was entirely driven by money market ETFs which experienced huge redemptions worth of \$17.9bn. On the contrary, onshore China-focused equity ETFs attracted \$3.1bn in new money over the last year amid market volatility which was mainly contributed by one newly-launched thematic ETF tracking the performance of state owned enterprises (510810 CH). If the domestic equity market continues to recover and volatility reduces then it may lead to more and more product adoption resulting in more inflows and asset growth for China equity ETFs.



Figure 45: Flow activity in 2016 - China onshore ETFs



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 46: Top 5 ETFs by 2016 flows - China onshore ETFs

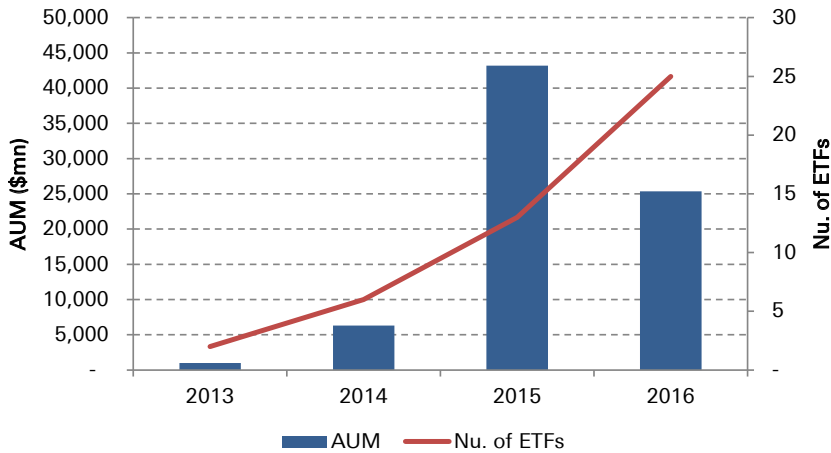
ETP Name	BBG Ticker	TER	Net Flows (\$mn) - 2016	AUM (\$mn) - 31 Dec 16
Onshore China focused equity ETFs				
CSI Shanghai SOE ETF	510810 CH	na	2,313	2,153
E Fund Hang Seng China Enterprises Index ETF	510900 CH	0.60%	474	1,367
E Fund ChiNext Price Index ETF	159915 CH	0.50%	332	740
GF SSE-SZSE 300 Tradable Open-End Index Fund	510360 CH	0.50%	237	242
E Fund SI100 Index Fund	159901 CH	0.50%	(231)	507
China money market ETFs				
Fortune SGAM Xianjin Tianyi Money Market	511990 CH	0.35%	(9,681)	8,907
E Fund Money Market Fund	511800 CH	0.30%	(7,564)	648
Yinhua Traded Money Market Fund	511880 CH	0.30%	(3,880)	3,385
China Southern Cash Management Money Market Fund ETF	511810 CH	0.30%	1,848	3,540
Fullgoal Shouyibao Exchange Traded Money Market Fund	511900 CH	na	1,563	2,374

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

China ETF market has been traditionally dominated by equity ETFs. This has been changing since 2015 with growing traction for money market ETFs amid high market volatility. During last two years, money market ETFs have been significantly utilized by investors for asset allocation purposes, however differently based on changing market conditions. During 2015, these ETFs attracted massive inflows of \$38.3bn, especially in Q3 when CSI 300 index dropped close to 30% and investors switched their money from equities to money market funds. But in 2016, flow trend reversed when investors pulled back \$17.9bn from China money market ETFs amid equity markets recovery post January free fall. Going forward, usage of these ETFs shall depend on how the riskier asset classes shape up in 2017.

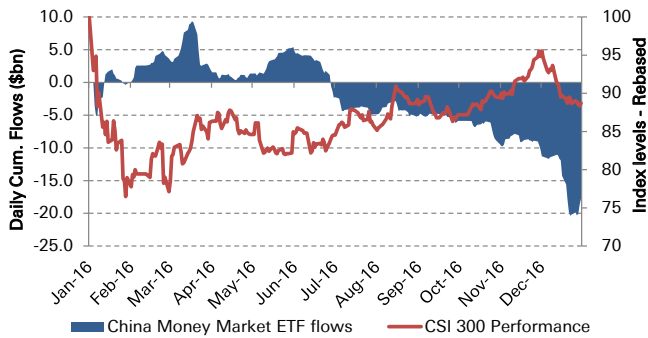


Figure 47: China money market ETF growth



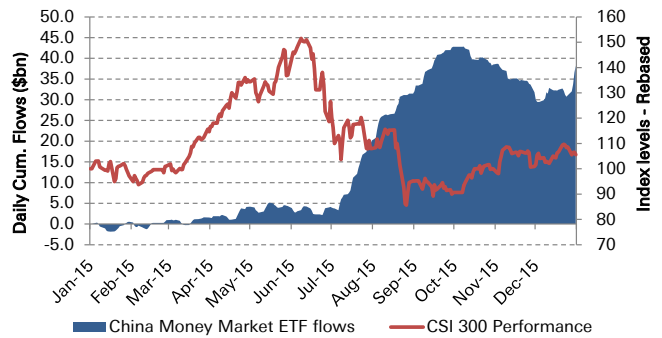
Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 48: China money market ETF flows vs CSI 300 performance - 2016



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 49: China money market ETF flows vs CSI 300 performance - 2015



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Leveraged/Short ETFs set to increase foothold in Asia-Pac region fueled by recent developments

Leveraged/Short (L/S) ETFs saw significant growth in 2015 and they continued the growth momentum in 2016 as well, both in terms of new flows and number of product offerings globally and especially in Asia-Pac. This is evident from \$2.3bn worth of new inflows into Asia-Pac listed ETPs taking total AUM to \$15.3bn by the end of 2016. Number of products available in the market increased drastically to 121 this year from 72 in 2015.

Within L/S ETF space, we observed major developments in Hong Kong and Taiwan during last year. Hong Kong market witnessed its first L/S ETF launch in 2016 bringing in 12 new products by end of the year. These products added more variety to the ETF offerings in Hong Kong which was being sought by asset managers in the past. Further, Taiwan also witnessed many new L/S ETF launches (18) along with notable inflows over the last year (\$3bn).

In the recent years, L/S ETFs' contribution has become noteworthy not only in terms of AUM and product offerings, but their turnovers in the Asia-Pac region represent a significant portion of turnovers among all ETFs. In Japan, L/S ETFs



contribute 88% of the total ETF turnover this year with only 4% of the total AUM. Taiwan and South Korea are similar, with 56% and 18% of the AUM respectively; representing 76% and 56% of the turnover.

In 2016 we experienced high volatility in the global markets and if we see similar trend in 2017 then sophisticated investors may continue to use L/S ETFs to maximize their returns amid volatility. Also, continuing with the developments in Hong Kong and Taiwan we may see further growth to this section of ETFs in 2017 as well.

It is worthwhile to highlight that these ETFs are complicated and different from many other ETFs, so more suitable for sophisticated institutional investors. One key feature of this type of ETFs is the daily compounding: a 2-times leveraged ETF targets to return 2-times of the benchmark index on a daily basis. Investors with holding period longer than a day may see the return drifting away from the 2 times the return of the benchmark, which might lead to volatile, unpredictable and unexpected return.

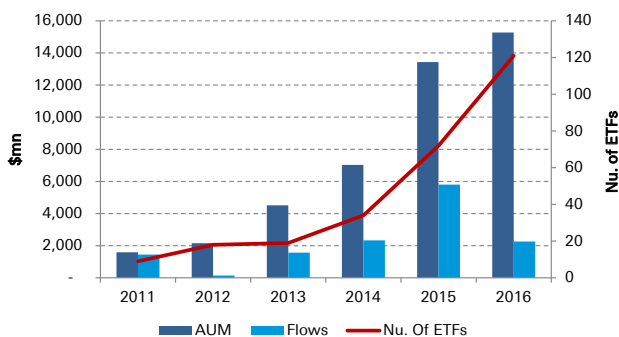
In addition, the daily rebalance of the ETFs could have an impact on the spot of the futures, in particular towards the close. On the other hand, money tends to move out of leveraged funds on the days the funds move up significantly due to profit taking. Such movement could reduce the fund's need to rebalance its leveraged exposure in the direction of the market.

Figure 50: Leveraged/short ETPs by listing country/region

Listing Country/Region	# of ETPs	Leverage Long/Short ETPs					
		AUM (\$mn)		Net Flows (\$mn)		Turnover (\$mn)	
		2016	2015	2016	2015	2016	2015
Japan	29	6,387	8,865	(2,109)	4,949	483,588	420,010
Taiwan	28	4,758	1,860	3,012	1,616	39,619	29,801
S. Korea	49	3,710	2,553	1,066	(878)	93,547	76,579
Australia	3	348	151	226	121	730	504
Hong Kong	12	66	-	66	-	144	-
Asia-Pac	121	15,270	13,429	2,261	5,807	617,630	526,894
US	193	31,914	31,596	2,582	4,051	1,547,528	1,418,344
Europe	328	8,329	7,720	1,477	1,971	97,558	97,422
Global	642	55,514	52,744	6,321	11,829	2,262,716	2,042,660

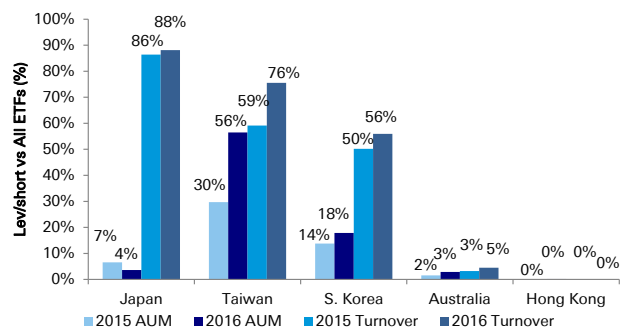
Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 51: Evolution of leveraged/short ETFs in Asia-Pac



Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 52: L/S ETF AUM and Turnover by listing country in Asia-Pac



Source: Deutsche Bank, Bloomberg Finance LP, Reuters



ETF fee reduction trend developing in Asia amid competition

For past some time, ETF fees or TER have been under pressure due to fierce competition in the US and Europe, particularly in the Beta space. Many ETF providers have been reducing fees or coming up with new low cost ETFs to gain or maintain market share. In 2016, we observed that similar trend has started building in Asia-Pac region as well, especially in Hong Kong. This is evident from various low cost new ETF listings and fee reduction for existing ETFs by some of the very large ETF providers. To quote some examples, BlackRock launched a range of low cost ETFs in Hong Kong last year with local and international exposures giving competition to other players in the market. On the other hand, Vanguard slashed fees for all of its existing ETFs listed in Hong Kong. Looking at these fee reduction measures adopted by various ETF providers in 2016, we may see further developments around this in 2017.

Developments around Mutual Recognition and Fund Passport

Asian ETF industry has been lagged behind Europe in the past 10 years, despite of the fact that assets in Asian ETFs were larger than those in Europe until 2004. One of the main reasons is that Asia ETF markets are still segmented and Asia ETF listings mostly focus on domestic markets. This is contrary to the Europe, which has the Undertakings for Collective Investment in Transferable Securities (UCITS). UCITS has helped boosting the growth of European ETF industry by allowing collective investment schemes to operate freely throughout the EU on the basis of a single authorization from one member state.

Fortunately, regulators from various countries in the Asia-Pacific region have continued to make progress in various initiatives aimed at broadening access for locally domiciled funds within the region. Some of these programs are Mutual Recognition of Funds, Asia Region Funds Passport and Stock Connect.

Hong Kong-China Mutual Recognition of Funds (MRF), which was first announced in January 2013 to allow Hong Kong domiciled funds to be sold in China and vice versa. Under this program, qualified Securities and Futures Commission (SFC) authorized funds domiciled in and operating from Hong Kong and mainland respectively enjoy the status of recognized and funds could be sold directly in each other's market after obtaining authorization from the host market. After being overshadowed by the Shanghai Hong Kong Stock Connect in 2014, finally the first batch of three Hong Kong (northbound) and four mainland funds (southbound) was approved at the end of 2015 under the cross-border Mutual Recognition of Funds scheme. The three Hong Kong funds approved for mainland distribution include Hang Seng China H-Share Index ETF (2828 HK). By August 2016, many more funds were approved and it increased to six for northbound and 43 for southbound MRF. Over the first eight months of 2016, northbound MRF funds attracted over \$1bn net inflows, although southbound MRF funds received only about \$10mn due to gloomy investor appetite for A-share products. As of now ETFs form small portion of MRF but we expect in the coming years this scheme should boost growth in Asia ETF industry.

The Asia Region Funds Passport (ARFP) is an initiative aiming to create a mutual and international regulatory framework to enable the cross-border marketing and regulation of collective investment schemes in each participating country namely Australia, Japan, South Korea, New Zealand, Philippines, Singapore and Thailand. It is expected that ARFP will encourage regional financial integration through investors being able to access an internationally diversified range of investment products with a consistent level of investor protection. Australia, Japan, South



Korea, New Zealand and Thailand have signed the Memorandum of Co-operation (MoC) and it came into effect on 30 June 2016. These five countries have up to 18 months from the effective day to implement domestic arrangements under the MoC which means it should be implemented in 2017. ARFP will be implemented as soon as any two participating economies complete the implementation. MoC also ensures any other eligible countries are able to participate in the ARFP.

After two years of launch of Shanghai-Hong Kong Stock Connect in November 2014, Chinese and Hong Kong authorities launched Shenzhen-Hong Kong Stock Connect during December 2016. Both arrangements aim to strengthen the connectivity between the capital markets of China and Hong Kong. Currently ETFs are not included in the list of securities which could be traded under these programs but those are expected to be included in 2017 which can boost market liquidity and bring more investors to the ETF market.

Once the above mentioned programs are fully implemented with wide scope, they should stimulate growth in Asia ETF industry quickly with significantly increased participation across Asian countries.



3. Investment Trends

Market review and outlook

Last year began on a weaker note for risky assets as woes from the Chinese markets from the previous year extended into the first weeks of 2016, however markets regained their footing and slowly started to recover. Nevertheless, markets were taken by surprise by the results of the Brexit vote in June and the US Presidential election in November providing enough fuel to drive significant market activity. European markets were under pressure for most of the year experiencing ETF outflows and negative performance, which only recovered towards the last month of 2016 despite the rejection of the constitutional referendum in Italy. The US, on the other hand, experienced better support from investors, and an additional boost as the markets reacted positively to the presidential election results. On the policy front, the outlook for job, the economy, and inflation expectations provided enough confidence to the Fed for implementing their second hike in a decade by raising the interest rate range by 25bps.

In terms of USD total returns, Commodities (DBC) made a strong comeback with 16.6% during 2016; meanwhile Global equities (ACWI) were up by 8.4%, and Broad Fixed Income (AGG) was up by 2.4% during the same period. The USD also strengthened against most major currencies with the USD basket of G10 currencies (UUP) advancing by 3.2%. US (VTI) and EM (EEM) equities posted strong annual returns of 12.8%, and 10.9%, respectively; while Energy (DBE, +23.3%), and HY Corporate Debt (HYG, +13.4%) were some of the other significant gains outside equities.

Going forward we expect Trump's economic plan with a mix of fiscal stimulus and broad-based deregulation to be supportive for the US economy and therefore this makes us very bullish US growth. Across the Atlantic we see political uncertainty and softer credit impulse weighing on Europe; while in EM markets we expect growth in China to slow slightly, and growth prospect to improve in Brazil and Russia. On the monetary policy front, we still see an easing bias but shifting with the Fed raising rates more this year, and the ECB announcing further QE tapering by year-end. In markets, the normalization of policy should cause bond yields to rise, sovereign curves to steepen, equities to remain supported, and the dollar to strengthen robustly; EM assets could struggle in the near term, but should rebound by year-end ⁵.

Investment trend highlights

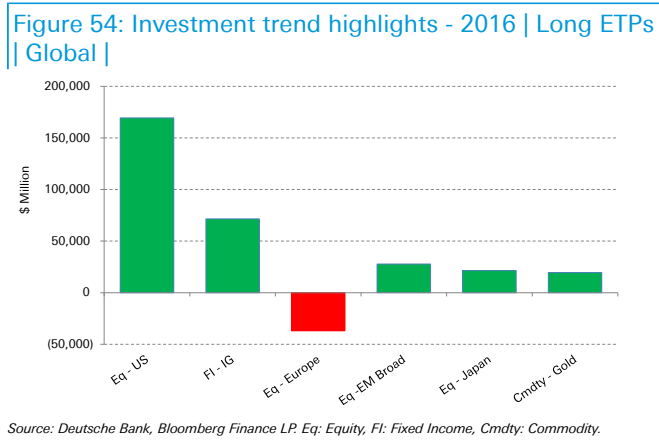
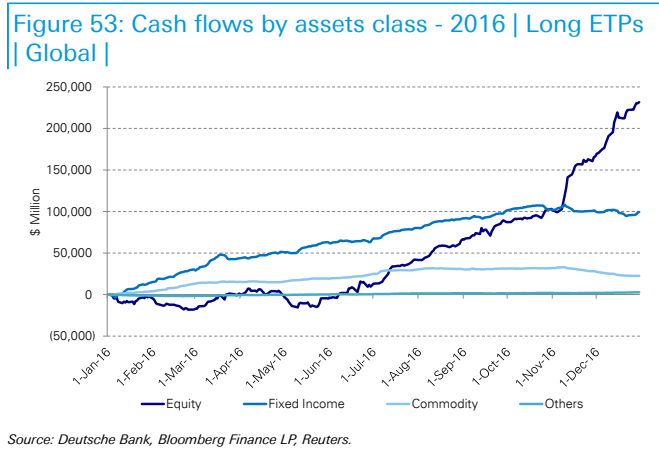
Despite a slow start during the first half of last year, Global equity ETF flows dominated ETF investors allocations with \$231.6bn in net new cash. Fixed Income flows came in second place attracting about \$100bn of inflows from ETF investors in 2016, while Commodity ETP flows were also significant at \$22.3bn for the year. Overall, ETP flows reflected investors' shift in risk appetite from defensive in the beginning of the year with allocations favoring fixed income and commodities (Gold particularly) to aggressive as allocations began favoring equities at the

⁵ Refer to "The House View: Outlook 2017" published by Deutsche Bank Research on January 9 2017 for additional details.



expense of fixed income and commodities - particularly following the election of Trump in November.

Among the major trends during 2016 across ETPs globally we highlight US Equities (+\$169.5bn), Investment Grade Debt (+\$71.6bn), European equities (-\$37.0bn), EM Broad equities (+\$27.8bn), Japan equities (+\$21.4bn), and Gold (\$19.5bn).



Equity ETFs

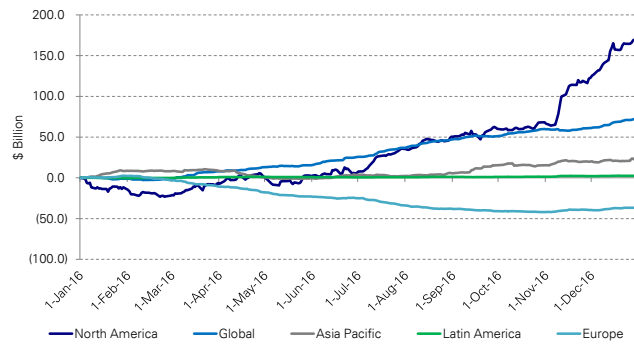
By Geographic Allocation

North America focused- ETPs dominated the 2016; which experienced weakness during the first half of the year; however they had a clear boost recovery during the second half, especially, after the US presidential election during November, gathering \$171.3bn in inflows by the end of the year. ETPs with global focus received the second-largest inflows with \$72.5bn. Furthermore, Asia Pacific and Latin America benchmarked products registered inflows by \$22.1bn and \$2.4bn, respectively. On the contrary, ETPs tracking European equities experienced a weak year marked by the Brexit impact and political uncertainty, concluding the year with outflows of \$37bn (vs. +\$82.5bn in 2015).

In terms of economic regions, strong inflows were captured by US focused-ETPs (+\$169.5bn) mostly added during the second half of the year. EM broad focused-products received the second largest inflows (+\$27.8bn); while ETPs invested in DM countries outside the US experienced inflows of \$16.3bn; similarly DM nations outside US Broad exposure ended the year with inflows of \$2.4bn. On the other hand, EM country ETPs saw outflows by \$1.5bn, mostly influenced by a weak year for Asian EM countries.

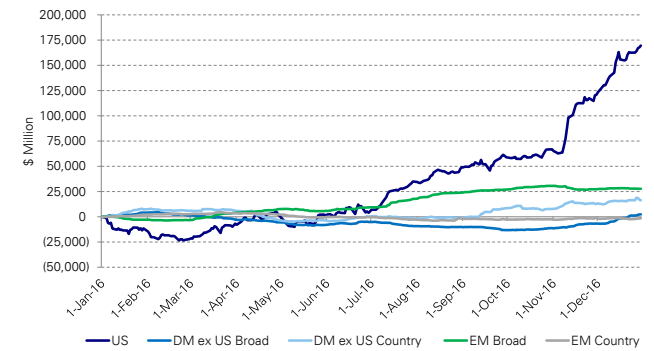


Figure 55: Equity flows by region - 2016 | Long ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

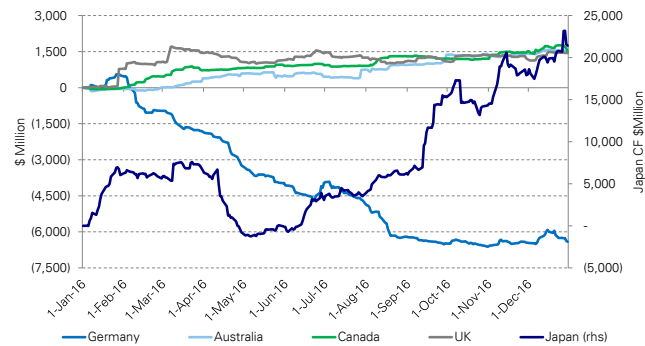
Figure 56: Equity flows by geographic allocation - 2016 | Long ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

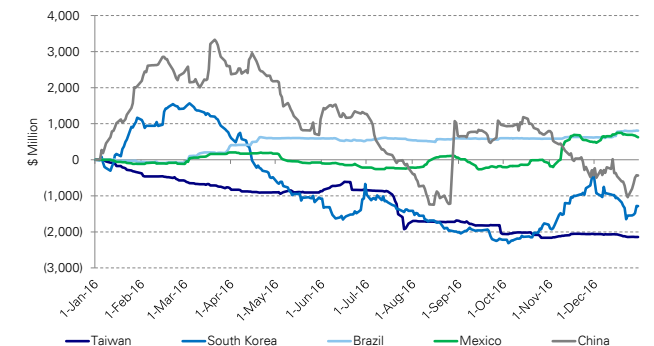
Among the country products outside the US with significant flows activity (> \$1.0bn) during 2016, we had the following: DM-Japan (+\$21.4bn), DM-Germany (-\$6.4bn), EM-Taiwan (-\$2.1bn), DM-Australia (+\$1.5bn), DM-Canada (+\$1.5bn), DM-UK (+\$1.4bn), EM-South Korea (-\$1.3bn), DM-Italy (-\$1.2bn), and DM-Spain (-\$1.2bn).

Figure 57: Top 5 DM ex US countries - 2016 | Long ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 58: Top 5 EM countries - 2016 | Long ETPs | Global |



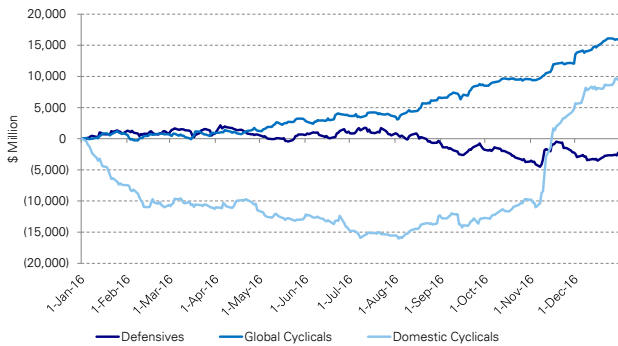
Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

By Sector

Global Cyclical led the inflows with net creations of \$15.9bn, followed by Domestic Cyclical which experienced inflows of \$9.4bn with a strong boost of almost \$20bn in the last 2 months of the year; while, Defensive registered \$2.2bn in outflows. At an individual sector level, Materials (+\$9.3bn), Real Estate (+\$8.8bn), Industrials (\$7.9bn), Energy (+\$6.7bn), and Financials (\$5.8bn) products experienced the highest flow activity.

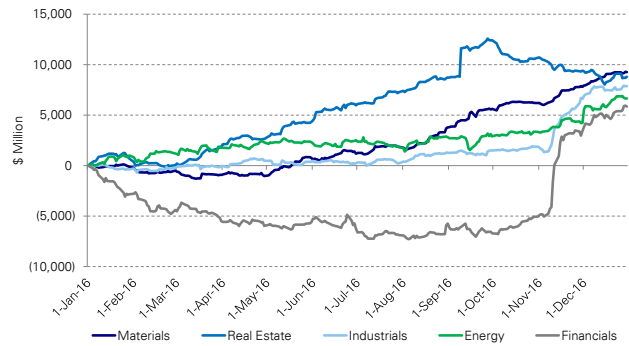


Figure 59: Equity sectors flows by business cycle sensitivity - 2016 | Long ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 60: Top 5 equity sector flows - 2016 | Long ETPs | Global |



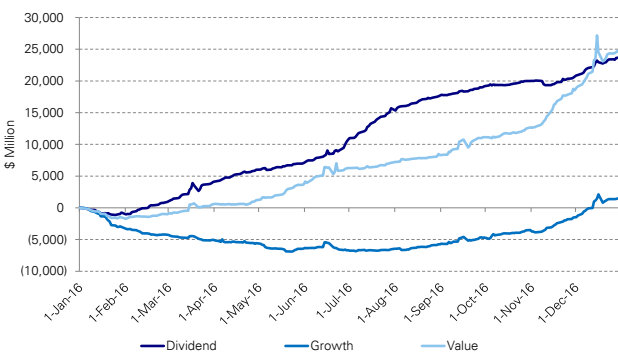
Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

By Style and Size

Value ETP inflows (+\$24.8bn) barely took over Dividend ETPs (+\$23.8bn) on the back of strong allocations into Value following Trump's election. However, the Growth ETP flow trend was mostly flat for the year with weakness during the first half and some inflow support which helped offset the outflows to finish the year with mild inflows of \$1.5bn (vs. +\$15.7bn in 2015).

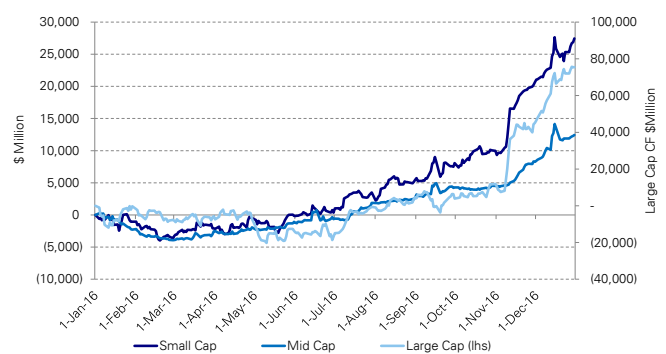
In terms of size allocations, we saw positive numbers for all of them at end of the year. Size-focused products experienced a weak start and a strong flow recovery beginning around midyear, with Large Cap ETPs experiencing the highest inflows capturing over \$75.5bn in fresh new cash; while Small and Mid Cap products registered inflows of \$27.5bn and \$12.4bn, respectively.

Figure 61: Equity flows by style (excludes blend) - 2016 | Long ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 62: Equity flows by size (excludes broad) - 2016 | Long ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

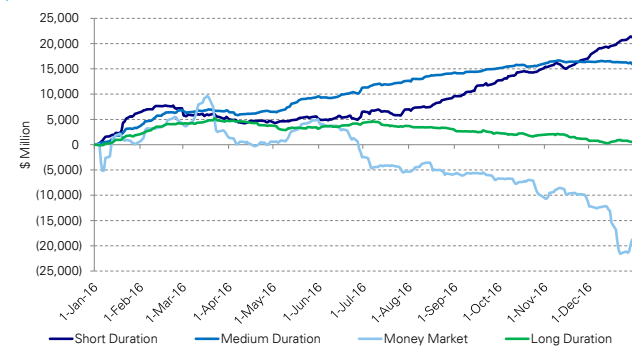


Fixed Income ETFs

Global Fixed Income ETFs continued the uptrend registering another positive year. During 2016, most of the segments of the fixed income spectrum received constant inflows, with overall net creations of \$99.4bn (vs. \$105.3bn in 2015). Corporate ETFs captured most of the inflows, gathering \$53.8bn in fresh cash; meanwhile, broad-aggregated funds, sovereign, and sub-sovereign focused products experienced \$24.6bn, \$16.9bn, and \$12.9bn, respectively. However, money market focused ETFs experienced the largest outflows (-\$18.3bn).

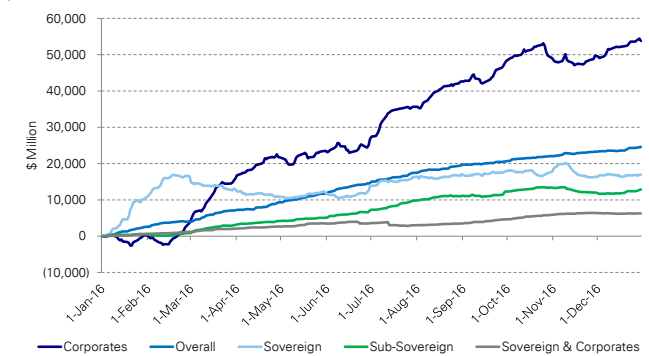
Regarding Credit Quality, both Investment Grade and High Yield ETFs received constant inflows most of the year, collecting \$71.6bn, and \$18bn in fresh new cash, respectively. Focusing on tenure, short duration focused products ended the year with \$21.3bn. Medium duration ETPs came in second place with net creations of \$15.9bn; meanwhile, long duration ETPs registered only \$0.5bn (vs. \$3.4bn in 2015) and money market products experienced outflows (-\$18.7bn).

Figure 63: Fixed income flows by tenure - 2016 | Long ETPs | Global |



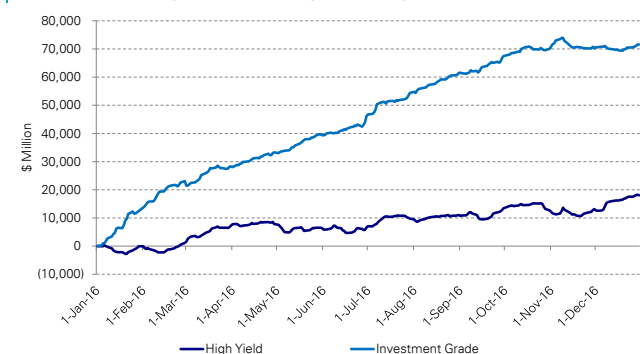
Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 64: Top 5 aggregate fixed income segments - 2016 | Long ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 65: Fixed income flows by credit quality (excludes mixed) - 2016 | Long ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

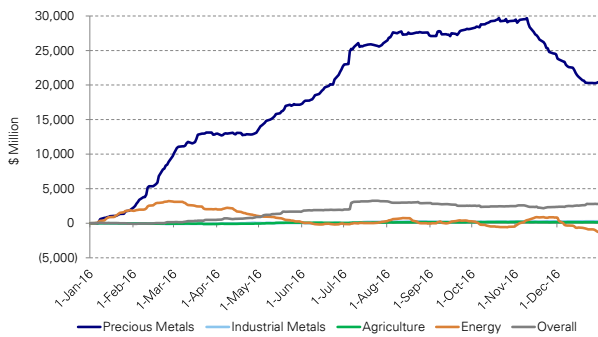
Commodity ETPs

Commodity-focused ETPs closed the year with positive numbers mainly due to Precious Metal performance which received inflows during most part of the year. This sector had the highest level of flows collecting \$20.4bn, where 97% of them



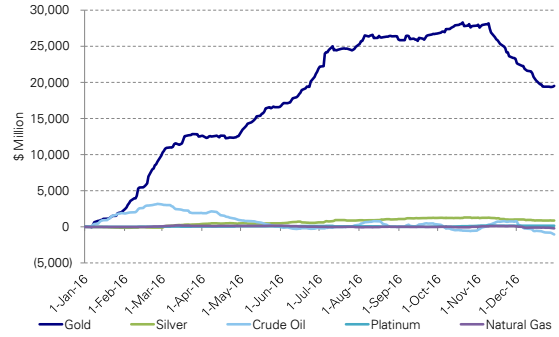
come from Gold focused ETPs (+\$19.5bn). We believe this was mostly driven by the investors' concern about a possible contraction of the world economy during the first three quarters of the year; while, overall ETPs received \$2.8bn in fresh new cash. Energy was the worst performing sector, with \$1.3bn outflows. Among sub-sector, Silver ETPs (+\$0.9bn) experienced the second largest inflows after Gold ETPs; meanwhile, Crude Oil-focused ETPs saw the largest outflows (-\$1.1bn).

Figure 66: Top 5 aggregate commodity sectors - 2016 | Long ETPs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 67: Top 5 commodity sub-sectors 2016 | Long ETPs | Global |



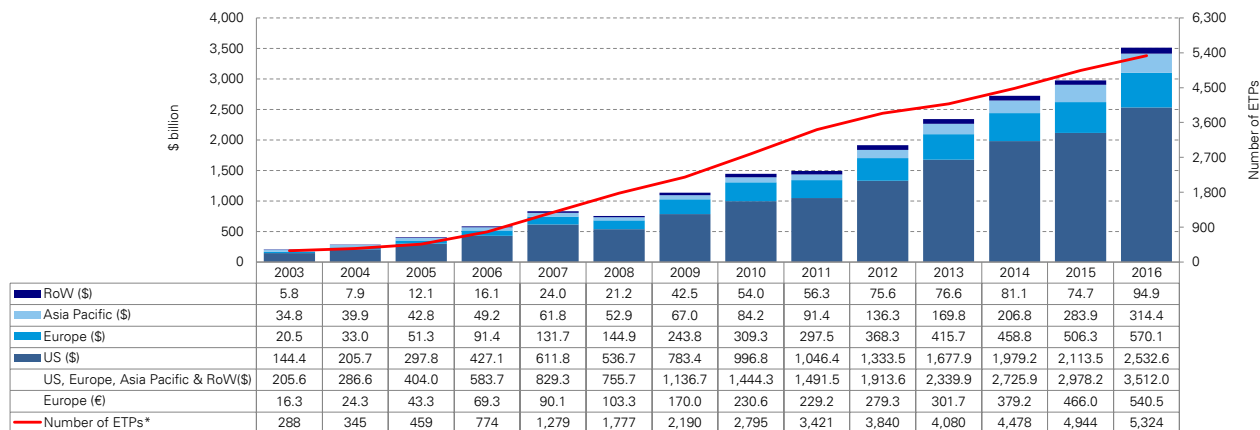
Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



4. Market Metrics

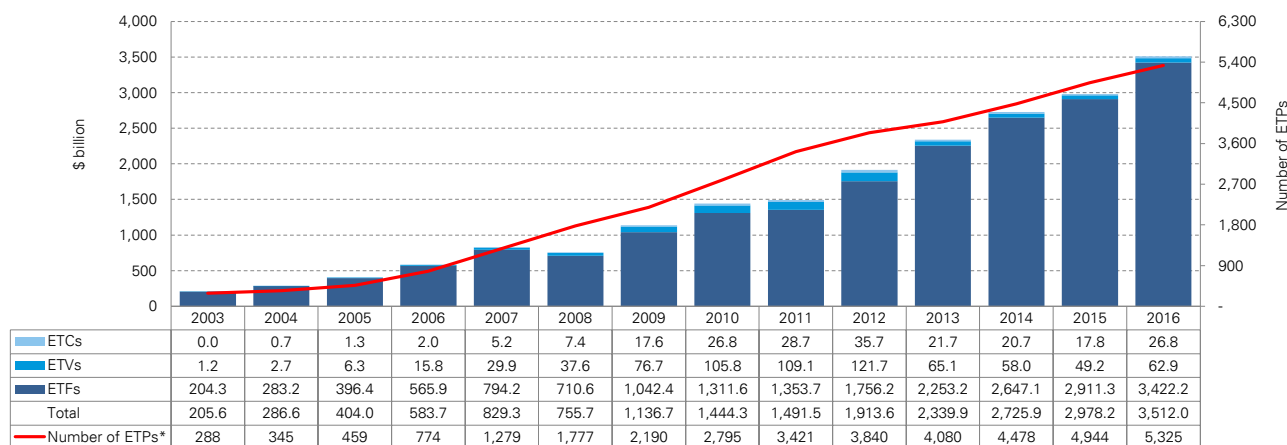
ETP industry asset evolution

Figure 68: 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.

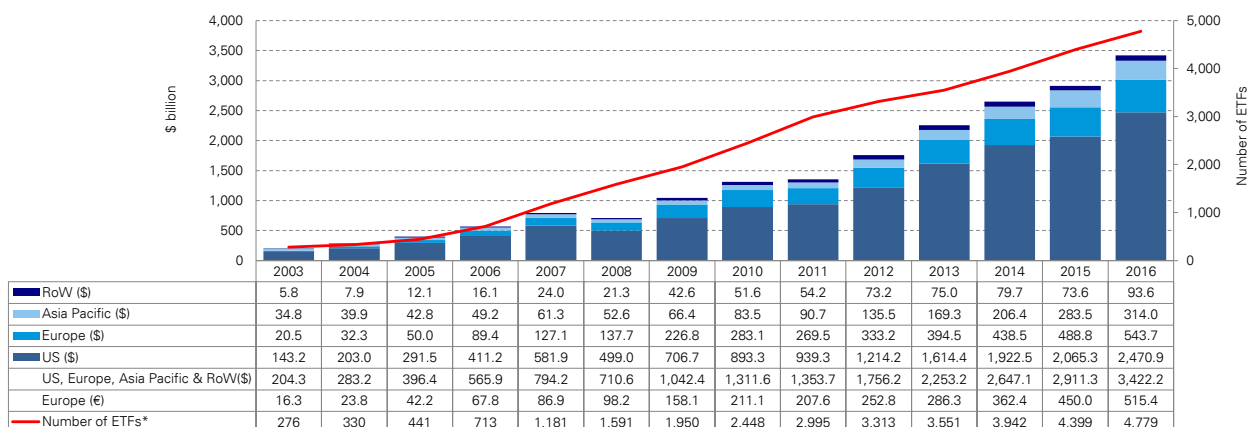
Figure 69: Global ETPs (ETF, ETV & ETC) asset growth | ETPs | Global



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

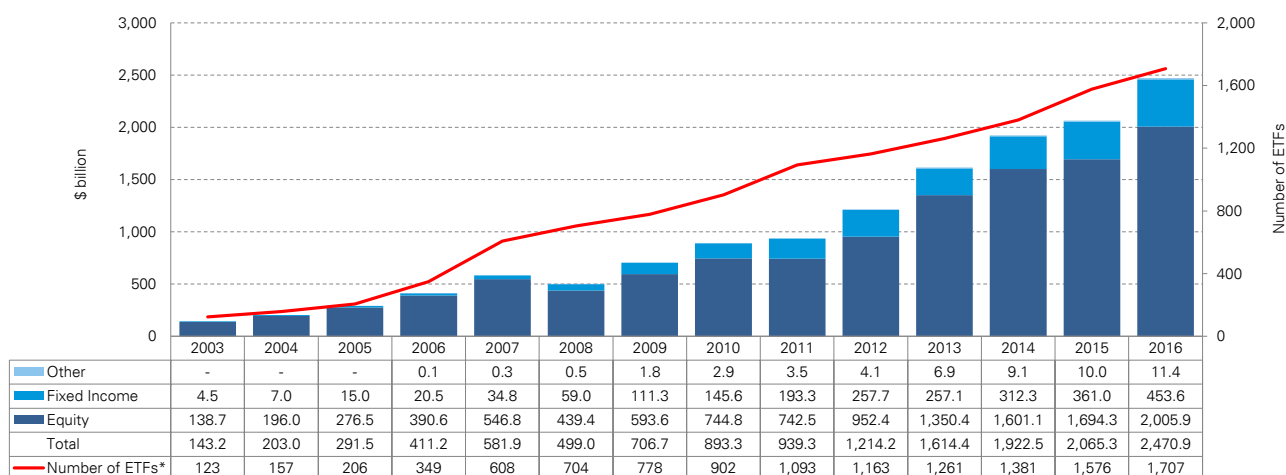


Figure 70: Global ETF regional asset growth | ETFs | Global |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters. * Number of ETFs at the end of the year is net of delistings for the period.

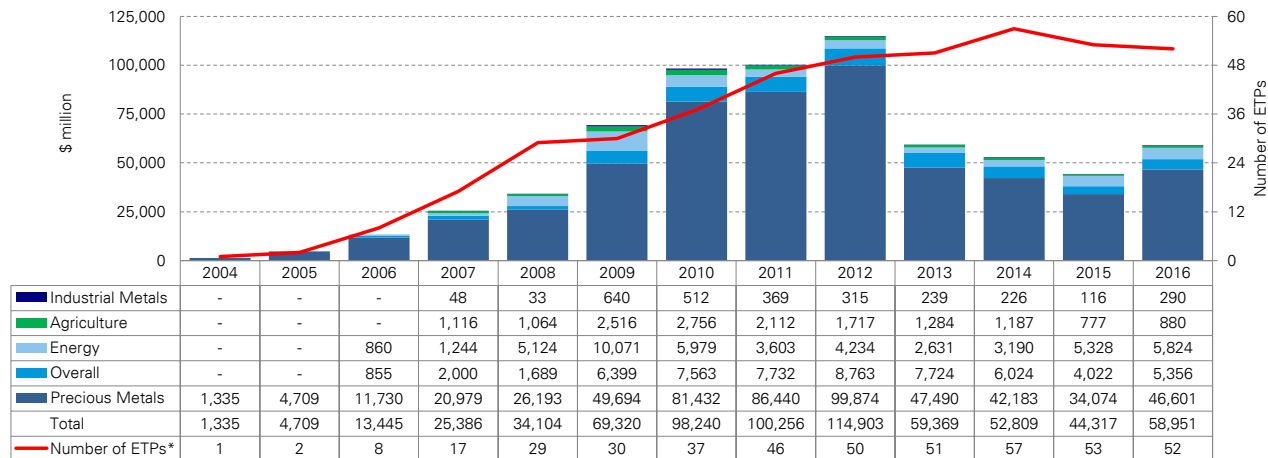
Figure 71: US ETF asset growth by asset class | ETFs | US |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters. * Number of ETFs at the end of the year is net of delistings for the period.

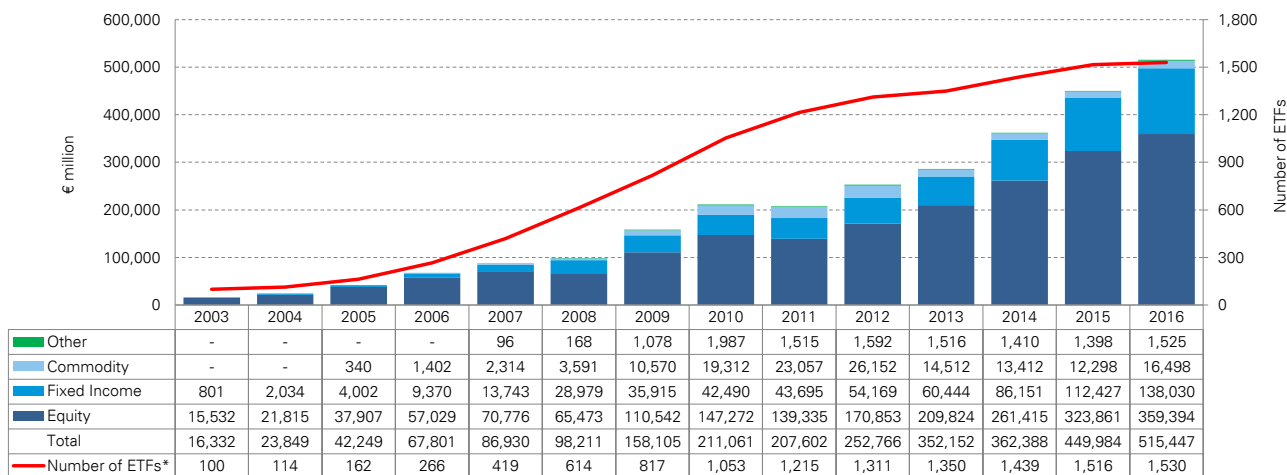


Figure 72: US Commodity ETP asset growth by segment | ETPs | US |



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

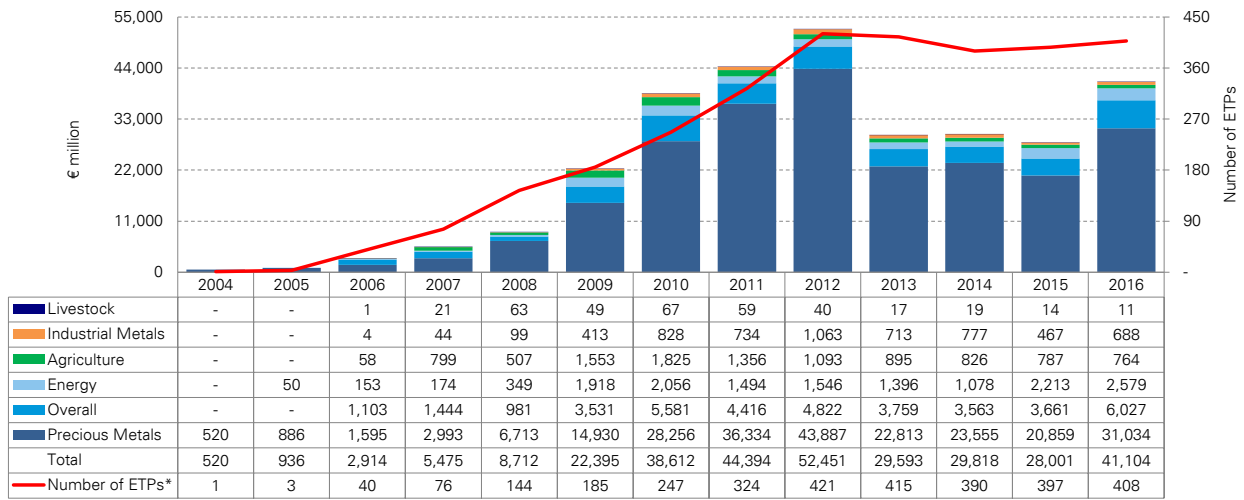
Figure 73: European ETF asset growth by asset class | ETFs | Europe |



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

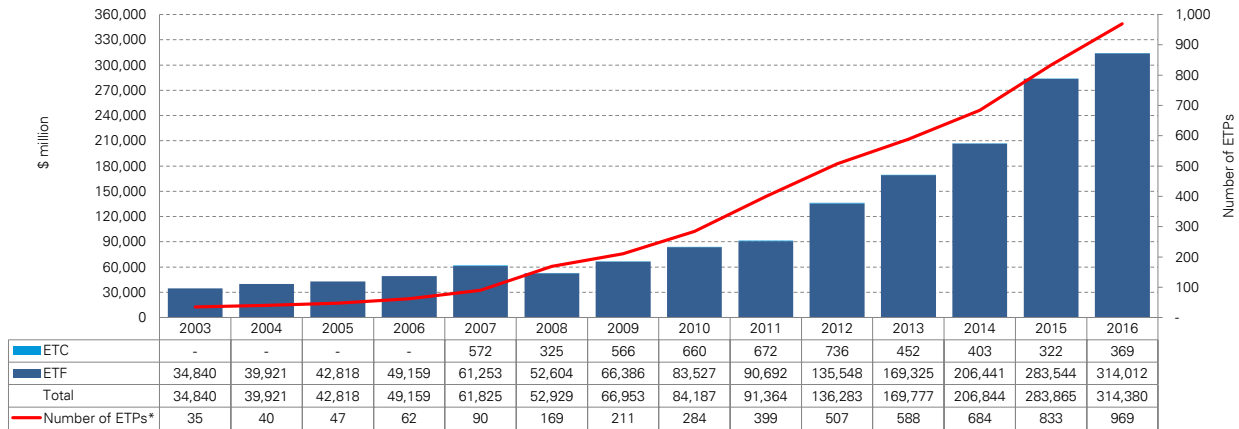


Figure 74: European Commodity ETs (ETF & ETC) asset growth by segment | ETPs | Europe|



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

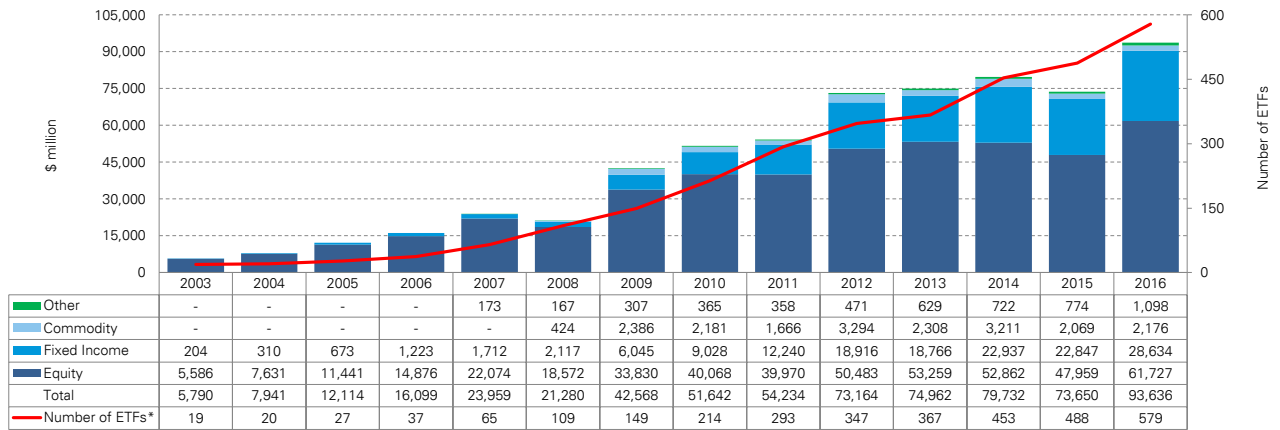
Figure 75: Asia Pacific ETP (ETF & ETC) asset growth | ETPs | Asia Pacific |



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



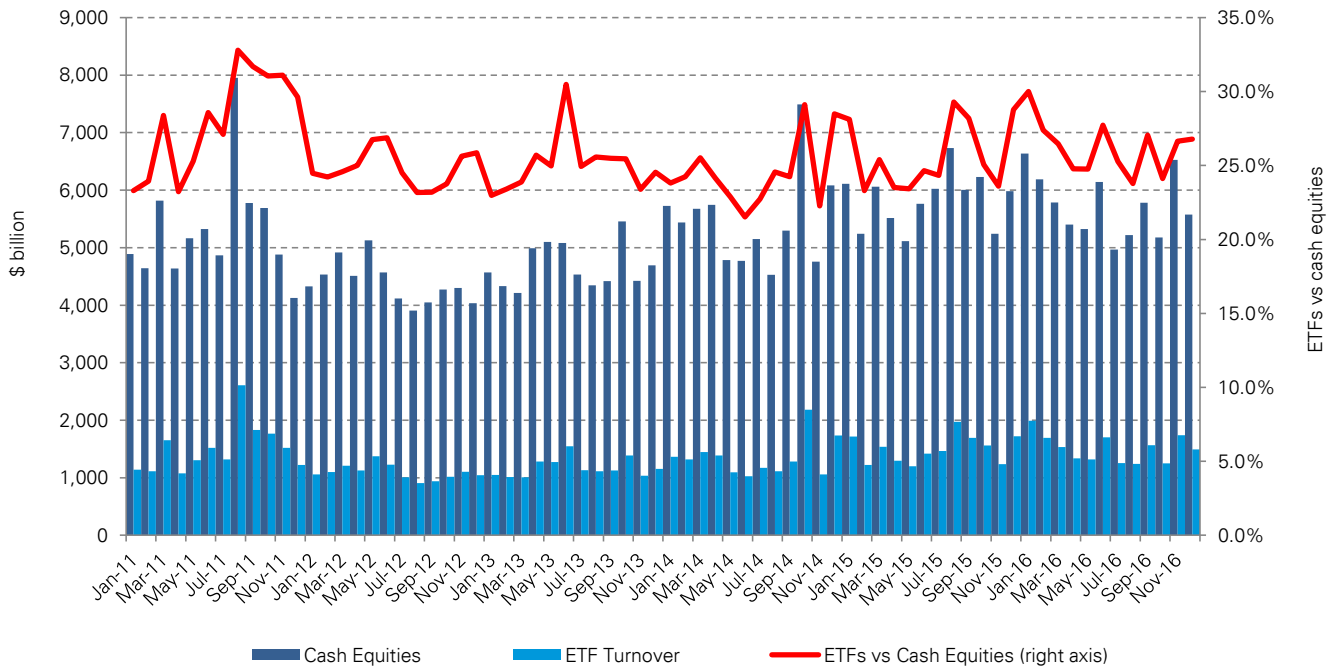
Figure 76: RoW ETF asset growth by asset class | ETFs | RoW |



Source: Deutsche Bank, Bloomberg Finance LP, Reuters. * Number of ETFs at the end of the year is net of delistings for the period.

ETFs vs. cash equities

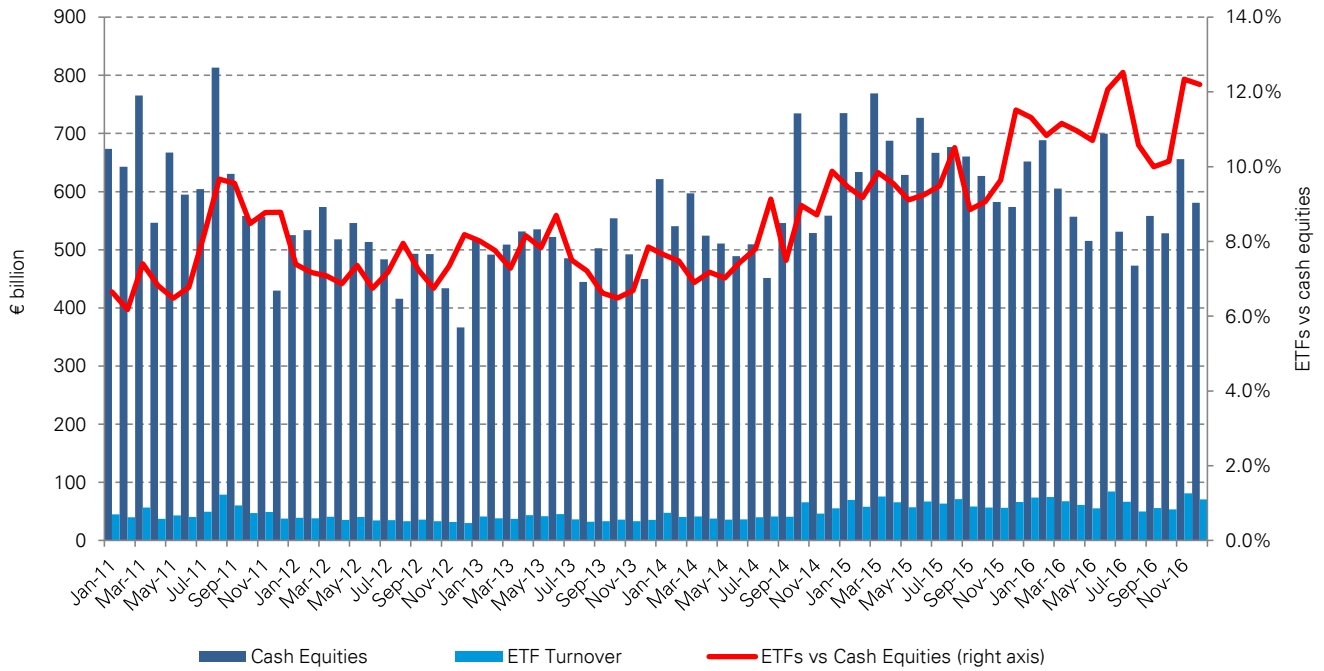
Figure 77: ETFs vs. cash equities* turnover - US market | ETFs | US |



Source: Deutsche Bank, Bloomberg finance LP, Reuters. * Includes ETF's turnover.



Figure 78: ETFs vs. cash equities* turnover - European market | ETFs | Europe |



Source: Deutsche Bank, Bloomberg finance LP, Reuters. * Include ETF's turnover.



Figure 79: Turnover comparatives - ETF vs. cash equities | ETFs | Global |

Region:	Turnover						US vs Europe comparatives		
	Europe (€ million)			USA (\$ million)			ETFs vs CEs	CEs	ETFs
	Statistic:	ETFs	Cash Equities ¹	ETFs vs CEs ³	ETFs	Cash Equities ²			
Date	(A)	(B)	A/B	(C)	(D)	C/D			
Jan-11	44,775	673,339	6.6%	1,139,729	4,891,202	23.3%	3.5x	7.3x	25.5x
Feb-11	39,727	642,806	6.2%	1,111,786	4,644,687	23.9%	3.9x	7.2x	28.0x
Mar-11	56,650	765,112	7.4%	1,651,335	5,817,073	28.4%	3.8x	7.6x	29.2x
Apr-11	37,241	546,291	6.8%	1,077,243	4,638,417	23.2%	3.4x	8.5x	28.9x
May-11	43,260	667,271	6.5%	1,306,334	5,163,662	25.3%	3.9x	7.7x	30.2x
Jun-11	40,248	594,618	6.8%	1,521,226	5,323,852	28.6%	4.2x	9.0x	37.8x
Jul-11	49,408	604,100	8.2%	1,319,878	4,868,052	27.1%	3.3x	8.1x	26.7x
Aug-11	78,618	813,373	9.7%	2,607,718	7,953,225	32.8%	3.4x	9.8x	33.2x
Sep-11	60,255	630,492	9.6%	1,829,995	5,775,005	31.7%	3.3x	9.2x	30.4x
Oct-11	47,315	568,099	8.5%	1,766,121	5,688,208	31.0%	3.7x	10.2x	37.3x
Nov-11	48,824	556,660	8.8%	1,518,554	4,881,775	31.1%	3.5x	8.8x	31.1x
Dec-11	37,754	429,776	8.8%	1,222,458	4,126,527	29.6%	3.4x	9.6x	32.4x
Jan-12	38,802	524,995	7.4%	1,058,682	4,325,076	24.5%	3.3x	8.2x	27.3x
Feb-12	38,274	533,738	7.2%	1,098,599	4,534,757	24.2%	3.4x	8.5x	28.7x
Mar-12	40,586	573,414	7.1%	1,208,186	4,916,705	24.6%	3.5x	8.6x	29.8x
Apr-12	35,556	517,989	6.9%	1,127,926	4,511,294	25.0%	3.6x	8.7x	31.7x
May-12	40,192	546,052	7.4%	1,371,490	5,127,965	26.7%	3.6x	9.4x	34.1x
Jun-12	34,637	513,259	6.7%	1,227,990	4,568,078	26.9%	4.0x	8.9x	35.5x
Jul-12	34,709	483,771	7.2%	1,008,950	4,115,109	24.5%	3.4x	8.5x	29.1x
Aug-12	33,065	415,826	8.0%	905,592	3,908,430	23.2%	2.9x	9.4x	27.4x
Sep-12	35,699	492,889	7.2%	938,537	4,047,495	23.2%	3.2x	8.2x	26.3x
Oct-12	33,246	492,625	6.7%	1,015,281	4,273,995	23.8%	3.5x	8.7x	30.5x
Nov-12	31,865	433,672	7.3%	1,102,650	4,300,950	25.6%	3.5x	9.9x	34.6x
Dec-12	29,990	366,472	8.2%	1,043,483	4,035,958	25.9%	3.2x	11.0x	34.8x
Jan-13	41,368	516,267	8.0%	1,050,769	4,571,220	23.0%	2.9x	8.9x	25.4x
Feb-13	38,177	491,786	7.8%	1,014,370	4,333,513	23.4%	3.0x	8.8x	26.6x
Mar-13	37,049	508,858	7.3%	1,005,941	4,211,982	23.9%	3.3x	8.3x	27.2x
Apr-13	43,335	531,309	8.2%	1,282,375	4,988,895	25.7%	3.2x	9.4x	29.6x
May-13	41,900	534,990	7.8%	1,273,888	5,101,501	25.0%	3.2x	9.5x	30.4x
Jun-13	45,363	521,770	8.7%	1,548,668	5,079,507	30.5%	3.5x	9.7x	34.1x
Jul-13	36,399	485,424	7.5%	1,130,701	4,533,650	24.9%	3.3x	9.3x	31.1x
Aug-13	32,071	444,466	7.2%	1,110,628	4,343,795	25.6%	3.5x	9.8x	34.6x
Sep-13	33,269	502,458	6.6%	1,126,546	4,420,293	25.5%	3.8x	8.8x	33.9x
Oct-13	35,928	553,966	6.5%	1,389,248	5,458,653	25.5%	3.9x	9.9x	38.7x
Nov-13	32,917	492,168	6.7%	1,034,383	4,422,205	23.4%	3.5x	9.0x	31.4x
Dec-13	35,290	449,518	7.9%	1,152,234	4,694,747	24.5%	3.1x	10.4x	32.7x
Jan-14	47,555	621,519	7.7%	1,363,583	5,725,248	23.8%	3.1x	9.2x	28.7x
Feb-14	40,439	540,665	7.5%	1,318,969	5,440,230	24.2%	3.2x	10.1x	32.6x
Mar-14	41,224	597,208	6.9%	1,448,238	5,675,181	25.5%	3.7x	9.5x	35.1x
Apr-14	37,627	524,038	7.2%	1,387,681	5,746,223	24.1%	3.4x	11.0x	36.9x
May-14	35,846	510,600	7.0%	1,095,590	4,784,563	22.9%	3.3x	9.4x	30.6x
Jun-14	36,412	489,081	7.4%	1,027,002	4,772,810	21.5%	2.9x	9.8x	28.2x
Jul-14	39,749	509,354	7.8%	1,171,060	5,149,704	22.7%	2.9x	10.1x	29.5x
Aug-14	41,212	451,333	9.1%	1,112,387	4,529,181	24.6%	2.7x	10.0x	27.0x
Sep-14	40,885	545,756	7.5%	1,283,754	5,295,777	24.2%	3.2x	9.7x	31.4x
Oct-14	65,854	734,764	9.0%	2,181,253	7,491,505	29.1%	3.2x	10.2x	33.1x
Nov-14	46,065	528,764	8.7%	1,058,826	4,755,269	22.3%	2.6x	9.0x	23.0x
Dec-14	55,198	558,569	9.9%	1,733,218	6,081,196	28.5%	2.9x	10.9x	31.4x
Jan-15	69,583	734,817	9.5%	1,718,582	6,112,460	28.1%	3.0x	8.3x	24.7x
Feb-15	58,143	633,802	9.2%	1,221,851	5,242,460	23.3%	2.5x	8.3x	21.0x
Mar-15	75,698	768,892	9.8%	1,539,062	6,060,125	25.4%	2.6x	7.9x	20.3x
Apr-15	65,644	687,504	9.5%	1,297,812	5,518,235	23.5%	2.5x	8.0x	19.8x
May-15	57,277	628,683	9.1%	1,197,595	5,111,824	23.4%	2.6x	8.1x	20.9x
Jun-15	67,201	726,999	9.2%	1,420,153	5,762,644	24.6%	2.7x	7.9x	21.1x
Jul-15	63,279	666,932	9.5%	1,465,731	6,025,688	24.3%	2.6x	9.0x	23.2x
Aug-15	71,128	676,849	10.5%	1,971,994	6,731,171	29.3%	2.8x	9.9x	27.7x
Sep-15	58,466	660,501	8.9%	1,692,334	6,003,237	28.2%	3.2x	9.1x	28.9x
Oct-15	56,825	627,026	9.1%	1,561,540	6,230,426	25.1%	2.8x	9.9x	27.5x
Nov-15	56,105	582,075	9.6%	1,236,632	5,240,597	23.6%	2.4x	9.0x	22.0x
Dec-15	66,047	573,447	11.5%	1,722,065	5,982,914	28.8%	2.5x	10.4x	26.1x
Jan-16	73,739	651,567	11.3%	1,991,783	6,637,936	30.0%	2.7x	10.2x	27.0x
Feb-16	74,601	688,550	10.8%	1,694,766	6,189,155	27.4%	2.5x	9.0x	22.7x
Mar-16	67,553	605,269	11.2%	1,531,653	5,787,204	26.5%	2.4x	9.6x	22.7x
Apr-16	61,029	556,947	11.0%	1,338,618	5,400,934	24.8%	2.3x	9.7x	21.9x
May-16	55,143	515,389	10.7%	1,317,884	5,322,325	24.8%	2.3x	10.3x	23.9x
Jun-16	84,420	699,805	12.1%	1,703,535	6,143,209	27.7%	2.3x	8.8x	20.2x
Jul-16	66,535	531,128	12.5%	1,255,470	4,966,537	25.3%	2.0x	9.4x	18.9x
Aug-16	50,040	472,894	10.6%	1,241,448	5,220,596	23.8%	2.2x	11.0x	24.8x
Sep-16	55,794	558,021	10.0%	1,564,170	5,781,862	27.1%	2.7x	10.4x	28.0x
Oct-16	53,616	528,408	10.1%	1,248,907	5,179,569	24.1%	2.4x	9.8x	23.3x
Nov-16	80,941	655,803	12.3%	1,739,008	6,525,377	26.6%	2.2x	10.0x	21.5x
Dec-16	70,855	580,764	12.2%	1,493,972	5,576,448	26.8%	2.2x	9.6x	21.1x
Period	3,551,490	41,033,337	8.7%	97,647,622	376,797,273	25.9%	3.1x	9.2x	28.4x
Total 2011	584,074	7,481,935	7.8%	18,072,376	63,771,684	28.3%	3.6x	8.6x	30.9x
Total 2012	426,623	5,894,701	7.2%	13,107,366	52,665,812	24.9%	3.4x	9.0x	30.8x
Total 2013	453,065	6,032,979	7.5%	14,119,751	56,159,960	25.1%	3.4x	9.3x	31.3x
Total 2014	528,065	6,611,651	8.0%	16,181,562	65,446,885	24.7%	3.1x	9.9x	30.6x
Total 2015	1,559,663	15,012,070	10.4%	36,166,567	138,752,931	26.1%	2.5x	9.3x	23.3x
Total 2016	794,267	7,044,544	11.3%	18,121,216	68,731,151	26.4%	2.3x	9.8x	23.0x

¹As reported by Bloomberg. The figure equals total on-exchange euro value of all traded security types in Europe.

²As reported by Bloomberg. The figure equals total dollar value of all traded security types on every US Exchange.

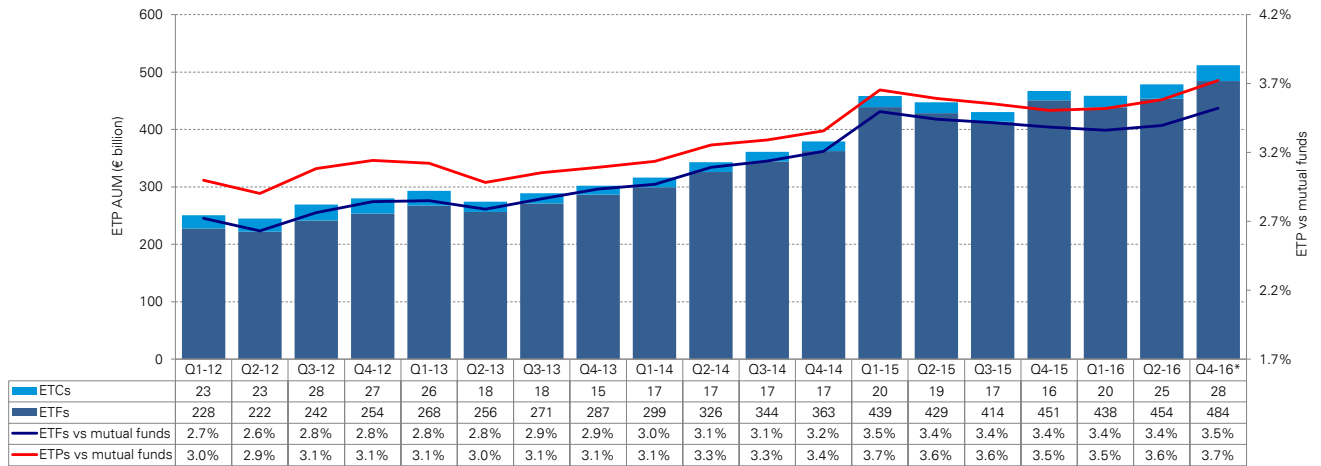
³On-exchange turnover comparison between ETFs and Cash Equities.

Source: Deutsche Bank, NYSE Euronext, London SAE, Deutsche Boerse, SIX Swiss Exchange, Reuters, Blomberg Finance LP.



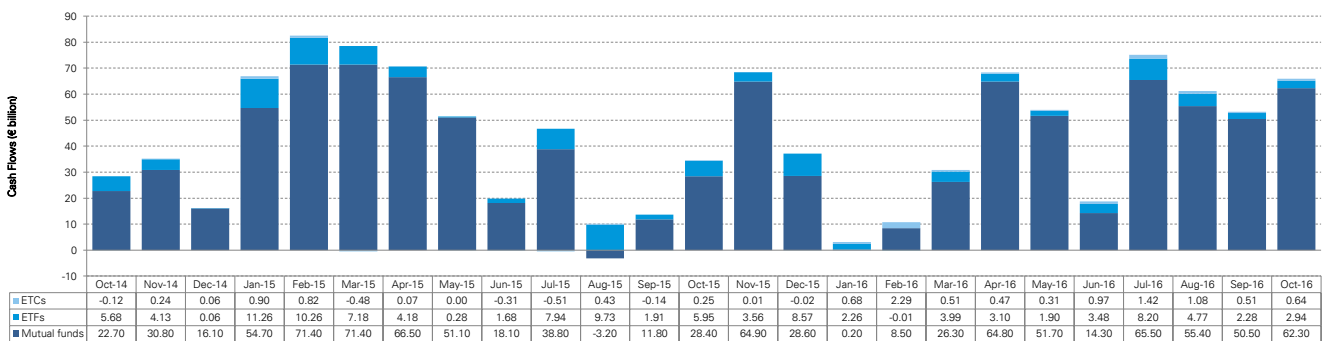
ETFs vs. unlisted mutual funds

Figure 80: European ETP vs. mutual fund assets | ETPs | Europe |



Source: Deutsche Bank, European Fund Management Association (EFAMA), Reuters, Bloomberg Finance LP * As of 31/10/2016

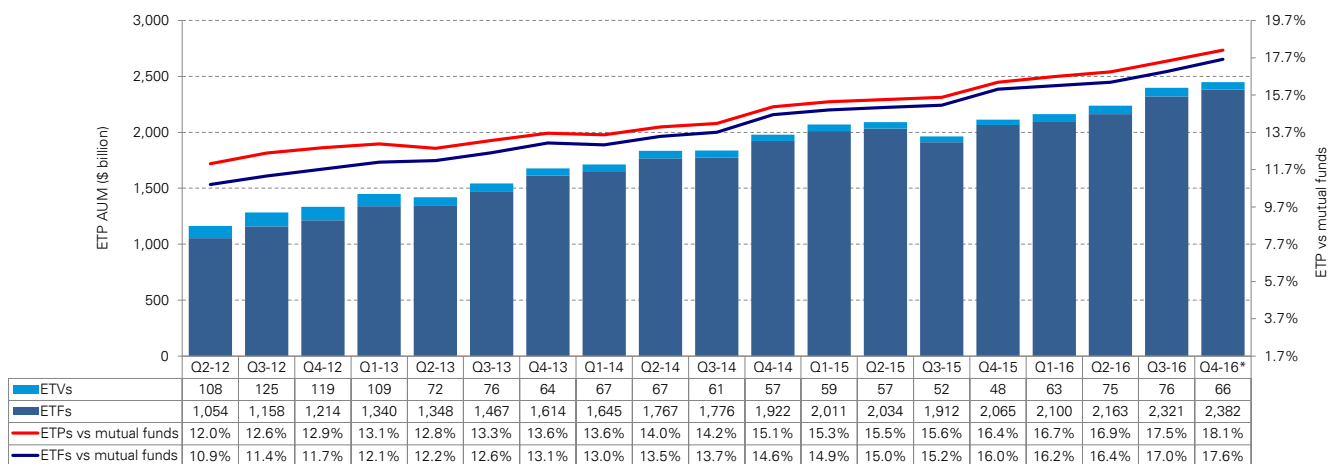
Figure 81: European ETP vs. mutual funds cash flows | ETPs | Europe |



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

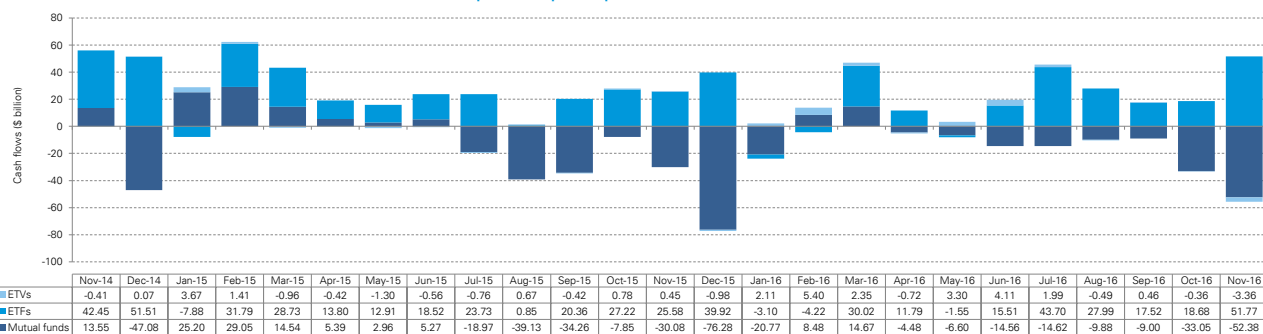


Figure 82: US ETP vs. mutual fund assets | ETPs | US |



Source: Deutsche Bank, Bloomberg LP, ICI. * As of 30/11/2016

Figure 83: US ETP vs. mutual fund cash flows | ETPs | US |



Source: Deutsche Bank, Bloomberg LP, ICI.



Exchange Traded Notes

- Currently, ETNs are not part of our ETP universe; however, we recognize that these products are very comparable to ETPs in many respects and market participants use them interchangeably. Therefore, market is more significant and data more available) for those interested parties.

Figure 84: US ETN summary by asset class

Asset Class	AUM (\$ MM)			Cash Flow (\$ MM)			Turnover (\$ MM)			Products			Market Share %		
	2016	2015	%Chg	2016	2015	\$ MM Chg	2016	2015	%Chg	2016	2015	%Chg	AUM	Turnover	Products
Equity	13,603	12,607	7.9%	(348)	405	(752)	30,529	38,466	-20.6%	56	55	1.8%	63%	3%	29%
Fixed income	131	288	-54.4%	(134)	(140)	6	979	788	24.2%	11	19	-42.1%	1%	0%	6%
Commodity	4,730	5,262	-10.1%	(1,005)	3,355	(4,361)	256,308	151,039	69.7%	90	90	0.0%	22%	29%	47%
Currency	64	73	-12.1%	58	(34)	91	258	455	-43.4%	11	11	0.0%	0%	0%	6%
Multi Asset	455	533	-14.5%	(94)	(360)	266	1,001	1,871	-46.5%	5	7	-28.6%	2%	0%	3%
Alternative	2,687	2,617	2.7%	1,740	375	1,365	585,883	546,753	7.2%	19	19	0.0%	12%	67%	10%
Total	21,671	21,379	1.4%	216	3,601	(3,385)	874,958	739,373	18.3%	192	201	-4.5%	100%	100%	100%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

Figure 85: US ETN summary by provider

Issuer	AUM (\$ MM)			Cash Flow (\$ MM)			Turnover (\$ MM)			Products			Market Share %		
	2016	2015	%Chg	2016	2015	\$ MM Chg	2016	2015	%Chg	2016	2015	%Chg	AUM	Turnover	Products
Barclays Bank	6,833	6,507	5.0%	1,317	(454)	1,770.9	355,154	348,520	1.9%	82	81	1.2%	32%	41%	43%
UBS	6,528	4,932	32.3%	913	1,510	(597.3)	8,668	13,638	-36.4%	42	45	-6.7%	30%	1%	22%
JPMorgan	3,758	3,446	9.0%	-	(130)	130	20,810	21,449	-3.0%	1	1	0.0%	17%	2%	1%
Credit Suisse	3,105	4,682	-33.7%	(1,692)	3,487	(5,178.7)	485,536	347,853	39.6%	24	26	-7.7%	14%	55%	13%
Citigroup	466	206	125.9%	214	103	110.0	1,363	229	496.1%	5	3	66.7%	2%	0%	3%
Swedish Export CC	396	391	1.4%	(24)	(191)	166	606	1,328	-54.4%	7	7	0.0%	2%	0%	4%
Deutsche Bank	315	941	-66.6%	(675)	40	(714.7)	2,670	4,687	-43.0%	20	29	-31.0%	1%	0%	10%
Goldman Sachs	122	105	15.8%	117	-	117.4	21	417	-94.9%	1	1	0.0%	1%	0%	1%
Morgan Stanley	64	51	25.6%	-	(8)	7.8	14	59	-76.8%	1	1	0.0%	0%	0%	1%
VanEck Vectors	50	61	-18.6%	55	(4)	58	90	292	-69.2%	4	4	0.0%	0%	0%	2%
RBC Global Asset Managem	20	20	1.2%	5	0	4.5	19	44	-56.3%	2	1	100.0%	0%	0%	1%
Guggenheim Investments	8	8	4.7%	8	-	8	3	3	8.7%	1	1	0.0%	0%	0%	1%
BMO Capital Markets	5	-	n.a	5	-	5	0	-	n.a	1	-	n.a	0%	0%	1%
Exchange Traded Concepts	2	-	n.a	2	-	1.5	0	-	n.a	1	-	n.a	0%	0%	1%
HSBC USA Inc	-	29	-100.0%	(27)	-	(27.2)	4	3	25.7%	0	1	-100.0%	0%	0%	0%
RBS	-	-	n.a	-	(753)	753.4	-	852	-100.0%	0	-	n.a	0%	0%	0%
Total	21,671	21,379	1.4%	216	3,601	(3,384.8)	874,958	739,373	18.3%	192	201	-4.5%	100%	100%	100%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.

5. Provider Rankings

Global provider rankings

Figure 86: Global top 20 ETF providers | ETFs | Global |

All figures in \$ million

Provider	Assets						Cash flow				Turnover							
	2016	Market share	YoY mkt. share change	2015	Market share	YoY mkt. share change	2014	Market share	2016	YoY change	2015	YoY change	2014	2016	YoY % change	2015	YoY % change	2014
BlackRock	1,289,124	37.7%	-0.1%	1,099,227	37.8%	-0.8%	1,020,993	38.6%	135,036	-3,954	138,989	36,434	102,555	6,017,891	7%	5,643,019	5%	5,397,065
Vanguard	647,040	18.9%	1.4%	509,552	17.5%	0.6%	446,578	16.9%	101,463	16,831	84,631	-3,745	88,376	1,078,401	10%	982,648	28%	770,442
State Street	507,941	14.8%	0.4%	421,286	14.5%	-2.7%	453,738	17.1%	52,458	69,768	-17,310	-61,891	44,581	8,277,726	-7%	8,909,197	19%	7,503,680
PowerShares	109,558	3.2%	-0.1%	96,736	3.3%	-0.2%	93,199	3.5%	8,225	5,113	3,113	9,552	-6,439	933,797	-6%	993,574	1%	984,237
Nomura Asset Management	79,904	2.3%	0.1%	63,783	2.2%	0.6%	43,106	1.6%	14,304	-2,321	16,625	8,415	8,210	458,419	11%	413,688	85%	223,313
Deutsche AM	70,426	2.1%	-0.8%	81,783	2.8%	0.6%	59,023	2.2%	-12,259	-39,796	27,538	18,536	9,002	130,920	-19%	161,452	110%	76,974
Charles Schwab	59,750	1.7%	0.4%	39,712	1.4%	0.3%	26,922	1.0%	16,167	1,971	14,195	5,469	8,726	79,952	25%	63,928	83%	35,012
Lyxor	53,664	1.6%	-0.2%	51,862	1.8%	0.0%	45,876	1.7%	1,917	-8,111	10,027	4,055	5,972	156,026	-4%	162,274	18%	137,019
First Trust	41,521	1.2%	-0.3%	43,067	1.5%	0.2%	33,421	1.3%	-2,619	-13,847	11,229	-620	11,848	109,681	10%	99,847	18%	84,415
WisdomTree	40,285	1.2%	-0.6%	52,160	1.8%	0.3%	39,297	1.5%	-12,499	-29,896	17,397	12,258	5,139	163,559	-26%	221,876	64%	135,478
Nikko Asset Management	35,341	1.0%	0.1%	26,557	0.9%	0.2%	18,050	0.7%	7,742	520	7,222	6,530	692	7,349	-20%	9,230	-35%	14,097
Daiwa Asset Management	34,148	1.0%	0.1%	25,671	0.9%	0.2%	18,581	0.7%	7,485	2,099	5,385	2,288	3,098	13,512	9%	12,447	46%	8,536
UBS	31,050	0.9%	0.0%	27,306	0.9%	0.1%	21,080	0.8%	3,353	-4,479	7,832	2,246	5,586	30,870	3%	29,999	42%	21,125
Guggenheim Investments	30,314	0.9%	0.0%	27,087	0.9%	-0.1%	27,468	1.0%	1,475	614	861	-5,332	6,193	55,669	-6%	59,034	5%	56,183
VanEck Vectors	29,783	0.9%	0.2%	18,894	0.6%	-0.1%	20,740	0.8%	7,954	6,209	1,744	327	1,417	778,231	64%	474,161	2%	463,918
Amundi	26,399	0.8%	0.0%	21,438	0.7%	0.0%	18,682	0.7%	4,532	637	3,895	363	3,532	55,004	1%	54,596	148%	22,034
BMO Financial Group	25,408	0.7%	0.1%	17,578	0.6%	0.0%	16,179	0.6%	6,074	1,391	4,683	76	4,607	41,414	65%	25,142	42%	17,646
ProShares	22,974	0.7%	-0.1%	21,667	0.7%	-0.1%	21,777	0.8%	2,483	2,039	444	-185	629	550,717	-14%	641,640	-13%	740,771
Source	17,693	0.5%	-0.1%	17,692	0.6%	0.0%	15,316	0.6%	-426	-3,751	3,325	991	2,334	23,239	5%	22,169	49%	14,832
Mitsubishi UFJ Asset Mgt	14,028	0.4%	0.0%	11,588	0.4%	0.1%	6,574	0.2%	2,027	-2,559	4,586	3,485	1,101	2,874	-4%	2,980	-8%	3,244
Total	3,166,350	92.5%	0.7%	2,674,646	91.9%	-0.6%	2,446,599	92.4%	344,892	-1,521	346,412	39,254	307,159	18,965,251	0%	18,982,902	14%	16,710,021
Other	255,887	7.5%	-0.7%	236,623	8.1%	0.6%	200,544	7.6%	16,786	-36,751	53,537	26,963	26,574	2,762,323	-7%	2,962,372	71%	1,737,307
Grand total	3,422,237	100%		2,911,269	100%		2,647,143	100%	361,677	-38,272	399,950	66,217	333,733	21,727,574	-1%	21,945,275	19%	18,447,328

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.

Figure 87: Global ETF providers tier market share | ETFs | Global |

Tier	Tier 1	Tier 2	Tier 3
Providers	3	9	217
2014	72.6%	14.3%	13.2%
2015	69.7%	16.5%	13.7%
2016	71.4%	15.3%	13.3%

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

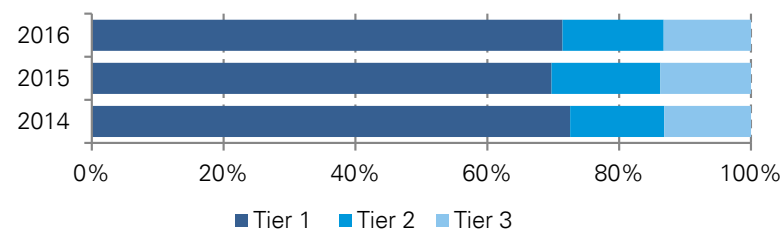


Figure 88: Global top 20 ETP providers | ETPs | Global |

All figures in \$ million

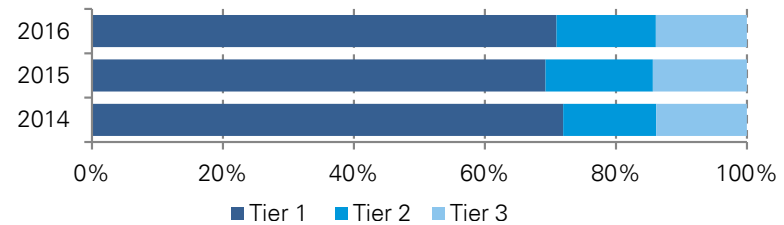
Provider	Assets						Cash flow				Turnover							
	2016	Market share	YoY mkt. share change	2015	Market share	YoY mkt. share change	2014	Market share	2016	YoY change	2015	YoY change	2014	2016	YoY % change	2015	YoY % change	2014
BlackRock	1,305,338	37.2%	-0.1%	1,109,930	37.3%	-0.6%	1,033,486	37.9%	139,693	675	139,017	36,183	102,834	6,090,297	7%	5,680,805	4%	5,442,208
Vanguard	647,040	18.4%	1.3%	509,552	17.1%	0.7%	446,578	16.4%	101,463	16,831	84,631	-3,745	88,376	1,078,401	10%	982,648	28%	770,442
State Street	538,570	15.3%	0.5%	443,216	14.9%	-2.8%	481,063	17.6%	59,983	79,328	-19,345	-60,627	41,282	8,605,629	-5%	9,083,727	18%	7,715,162
PowerShares	115,054	3.3%	-0.1%	101,528	3.4%	-0.3%	100,357	3.7%	8,474	6,362	2,113	8,625	-6,512	960,590	-6%	1,022,878	1%	1,011,812
Nomura Asset Management	79,904	2.3%	0.1%	63,783	2.1%	0.6%	43,106	1.6%	14,304	-2,321	16,625	8,415	8,210	458,419	11%	413,688	85%	223,313
Deutsche AM	73,047	2.1%	-0.7%	83,575	2.8%	0.6%	61,194	2.2%	-11,513	-39,215	27,702	18,793	8,910	135,143	-17%	163,512	106%	79,408
Charles Schwab	59,750	1.7%	0.4%	39,712	1.3%	0.3%	26,922	1.0%	16,167	1,971	14,195	5,469	8,726	79,952	25%	63,928	83%	35,012
Lyxor	53,664	1.5%	-0.2%	51,862	1.7%	0.1%	45,876	1.7%	1,917	-8,111	10,027	4,055	5,972	156,026	-4%	162,274	18%	137,019
First Trust	41,521	1.2%	-0.3%	43,067	1.4%	0.2%	33,421	1.2%	-2,619	-13,847	11,229	-620	11,848	109,681	10%	99,847	18%	84,415
WisdomTree	40,504	1.2%	-0.6%	52,385	1.8%	0.3%	39,563	1.5%	-12,514	-29,922	17,408	12,283	5,125	163,901	-26%	222,264	63%	135,961
Nikko Asset Management	35,341	1.0%	0.1%	26,557	0.9%	0.2%	18,050	0.7%	7,742	520	7,222	6,530	692	7,349	-20%	9,230	-35%	14,097
Daiwa Asset Management	34,148	1.0%	0.1%	25,671	0.9%	0.2%	18,581	0.7%	7,485	2,099	5,385	2,288	3,098	13,512	9%	12,447	46%	8,536
Guggenheim Investments	31,515	0.9%	-0.1%	28,279	0.9%	-0.1%	28,403	1.0%	1,487	282	1,205	-4,539	5,745	80,146	-10%	89,038	14%	77,890
UBS	31,050	0.9%	0.0%	27,306	0.9%	0.1%	21,080	0.8%	3,353	-4,479	7,832	2,246	5,586	30,870	3%	29,999	42%	21,125
VanEck Vectors	29,783	0.8%	0.2%	18,894	0.6%	-0.1%	20,740	0.8%	7,954	6,209	1,744	327	1,417	778,231	64%	474,161	2%	463,918
Amundi	26,399	0.8%	0.0%	21,438	0.7%	0.0%	18,682	0.7%	4,532	637	3,895	363	3,532	55,004	1%	54,596	148%	22,034
ProShares	26,263	0.7%	-0.1%	25,165	0.8%	-0.1%	25,059	0.9%	3,468	1,498	1,970	987	983	906,172	-4%	945,378	7%	882,933
BMO Financial Group	25,408	0.7%	0.1%	17,578	0.6%	0.0%	16,179	0.6%	6,074	1,391	4,683	76	4,607	41,414	65%	25,142	42%	17,646
Source	20,980	0.6%	-0.1%	19,490	0.7%	0.0%	17,235	0.6%	1,046	-2,467	3,513	1,010	2,503	35,343	36%	26,017	47%	17,656
ETF Securities	19,758	0.6%	0.1%	13,998	0.5%	-0.2%	17,173	0.6%	4,759	4,583	176	-438	615	62,650	33%	47,016	24%	37,812
Total	3,235,036	92.1%	0.7%	2,722,986	91.4%	-0.8%	2,512,750	92.2%	363,254	22,025	341,229	37,681	303,548	19,848,729	1%	19,608,595	14%	17,198,398
Other	276,953	7.9%	-0.7%	255,249	8.6%	0.8%	213,163	7.8%	17,751	-43,857	61,608	32,947	28,661	2,897,318	-7%	3,112,920	68%	1,847,459
Grand total	3,511,989	100%		2,978,235	100.0%		2,725,913	100%	381,005	-21,832	402,837	70,628	332,209	22,746,046	0%	22,721,515	19%	19,045,857

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

Figure 89: Global ETP providers tier market share | ETPs | Global |

Tier	Tier 1	Tier 2	Tier 3
Providers	3	8	220
2014	71.9%	14.2%	13.9%
2015	69.3%	16.4%	14.4%
2016	70.9%	15.2%	13.9%

Source: Deutsche Bank, Reuters, Bloomberg Finance LP



US provider rankings

Figure 90: US top 20 ETF providers | ETFs | US |

Provider	Assets						Cash flow					Turnover						
	2016	Market share	YoY mkt. share change	2015	Market share	YoY mkt. share change	2014	Market share	2016	YoY change	2015	YoY change	2014	2016	YoY % change	2015	YoY % change	2014
BlackRock	969,403	39.2%	-0.4%	817,739	39.6%	0.7%	748,079	38.9%	103,182	-3,063	106,244	23,727	82,517	5,398,670	7%	5,040,615	4%	4,846,564
Vanguard	610,989	24.7%	1.3%	483,106	23.4%	1.2%	426,665	22.2%	93,695	16,968	76,727	1,244	75,483	1,032,121	9%	945,788	27%	743,562
State Street	471,272	19.1%	0.1%	392,202	19.0%	-3.3%	427,931	22.3%	45,604	68,161	-22,557	-63,181	40,624	8,190,325	-7%	8,835,572	19%	7,450,312
PowerShares	104,916	4.2%	-0.3%	93,066	4.5%	-0.2%	89,606	4.7%	7,511	4,818	2,694	9,344	-6,650	922,086	-6%	984,146	1%	976,179
Charles Schwab	59,750	2.4%	0.5%	39,712	1.9%	0.5%	26,922	1.4%	16,167	1,971	14,195	5,469	8,726	79,952	25%	63,928	83%	35,012
First Trust	41,009	1.7%	-0.4%	42,748	2.1%	0.3%	33,202	1.7%	-2,805	-13,883	11,079	-613	11,691	107,146	8%	99,308	19%	83,616
WisdomTree	39,798	1.6%	-0.9%	51,642	2.5%	0.5%	39,280	2.0%	-12,466	-29,335	16,869	11,746	5,123	161,252	-27%	220,189	63%	135,159
Guggenheim Investments	30,314	1.2%	-0.1%	27,087	1.3%	-0.1%	27,468	1.4%	1,475	614	861	-5,332	6,193	55,042	-7%	59,018	5%	56,026
VanEck Vectors	29,783	1.2%	0.3%	18,894	0.9%	-0.2%	20,740	1.1%	7,954	6,209	1,744	327	1,417	778,231	64%	474,161	2%	463,918
ProShares	22,974	0.9%	-0.1%	21,667	1.0%	-0.1%	21,777	1.1%	2,483	2,039	444	-185	629	549,542	-14%	640,888	-13%	739,369
Deutsche AM	13,232	0.5%	-0.4%	19,884	1.0%	0.7%	4,402	0.2%	-6,396	-23,191	16,795	13,640	3,155	50,963	-32%	75,146	736%	8,988
ALPS	13,137	0.5%	0.0%	10,078	0.5%	-0.1%	11,693	0.6%	2,305	609	1,697	-1,194	2,891	35,792	12%	31,960	55%	20,645
PIMCO	12,611	0.5%	0.0%	10,902	0.5%	-0.1%	11,682	0.6%	1,449	1,819	-370	1,162	-1,533	29,974	-3%	30,963	-11%	34,701
FlexShares	11,767	0.5%	0.1%	7,588	0.4%	-0.1%	8,389	0.4%	3,155	3,029	125	-1,855	1,981	10,932	30%	8,410	13%	7,416
DirxionShares	10,410	0.4%	0.0%	8,737	0.4%	0.0%	8,087	0.4%	1,470	-1,379	2,849	363	2,486	666,020	37%	485,802	-10%	537,935
Fidelity Investments	5,175	0.2%	0.0%	3,767	0.2%	0.0%	2,757	0.1%	1,117	-21	1,138	-837	1,976	11,981	-2%	12,262	65%	7,433
Global X Funds	3,788	0.2%	0.0%	3,103	0.2%	0.0%	3,706	0.2%	502	-45	546	-773	1,319	9,151	-11%	10,304	-14%	11,968
Goldman Sachs	2,721	0.1%	0.1%	865	0.0%	0.0%	-	0.0%	1,746	884	861	861	0	3,055	294%	775	NA	-
IndexIQ Advisors	2,227	0.1%	0.0%	1,545	0.1%	0.0%	1,338	0.1%	656	378	278	-139	417	3,151	31%	2,404	32%	1,816
Exchange Traded Concepts	2,218	0.1%	0.0%	1,841	0.1%	0.0%	1,907	0.1%	247	95	152	-1,089	1,241	2,184	-12%	2,483	4%	2,377
OppenheimerFunds	1,589	0.1%	0.0%	992	0.0%	0.0%	954	0.0%	416	298	118	-65	182	1,679	46%	1,151	6%	1,091
Total	2,457,492	99.5%	-0.1%	2,056,173	99.6%	-0.1%	1,915,632	99.6%	269,050	36,680	232,371	-7,313	239,684	18,097,571	0%	18,024,124	12%	16,162,995
Other	13,429	0.5%	0.1%	9,085	0.4%	0.1%	6,830	0.4%	3,946	749	3,197	231	2,966	22,541	-3%	23,266	25%	18,574
Grand total	2,470,921	100%		2,065,258	100%		1,922,462	100%	272,996	37,428	235,568	-7,082	242,650	18,120,112	0%	18,047,390	12%	16,181,569

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

Figure 91: US ETF providers tier market share | ETFs | US |

Tier	Tier 1	Tier 2	Tier 3
Providers	3	6	58
2014	83.4%	12.3%	4.3%
2015	82.0%	13.2%	4.8%
2016	83.0%	12.4%	4.6%

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

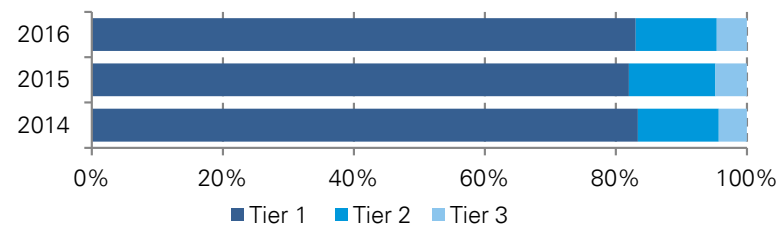


Figure 92: US top 20 ETP providers | ETPs | US |

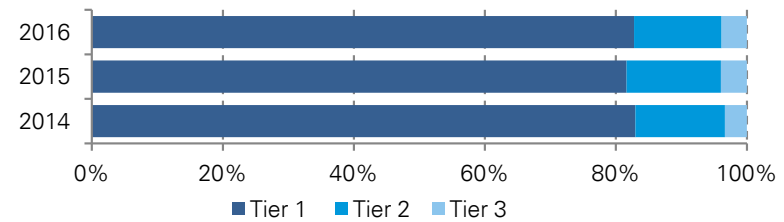
All figures in \$ million

Provider	Assets						Cash flow				Turnover							
	2016	Market share	YoY mkt. share change	2015	Market share	YoY mkt. share change	2014	Market share	2016	YoY change	2015	YoY change	2014	2016	YoY % change	2015	YoY % change	2014
BlackRock	983,312	38.8%	-0.4%	828,011	39.2%	0.8%	760,357	38.4%	105,778	-221	105,999	23,255	82,745	5,465,319	8%	5,077,706	4%	4,891,355
Vanguard	610,989	24.1%	1.3%	483,106	22.9%	1.3%	426,665	21.6%	93,695	16,968	76,727	1,244	75,483	1,032,121	9%	945,788	27%	743,562
State Street	501,901	19.8%	0.2%	414,133	19.6%	-3.4%	455,256	23.0%	53,129	77,721	-24,592	-61,917	37,325	8,517,420	-5%	9,009,602	18%	7,661,082
PowerShares	110,412	4.4%	-0.3%	97,858	4.6%	-0.3%	96,764	4.9%	7,760	6,067	1,694	8,417	-6,723	948,879	-6%	1,013,450	1%	1,003,754
Charles Schwab	59,750	2.4%	0.5%	39,712	1.9%	0.5%	26,922	1.4%	16,167	1,971	14,195	5,469	8,726	79,952	25%	63,928	83%	35,012
First Trust	41,009	1.6%	-0.4%	42,748	2.0%	0.3%	33,202	1.7%	-2,805	-13,883	11,079	-613	11,691	107,146	8%	99,308	19%	83,616
WisdomTree	40,017	1.6%	-0.9%	51,867	2.5%	0.5%	39,547	2.0%	-12,481	-29,361	16,880	11,772	5,109	161,594	-27%	220,577	63%	135,642
Guggenheim Investments	31,515	1.2%	-0.1%	28,279	1.3%	-0.1%	28,403	1.4%	1,487	282	1,205	-4,539	5,745	79,518	-11%	89,022	15%	77,733
VanEck Vectors	29,783	1.2%	0.3%	18,894	0.9%	-0.2%	20,740	1.0%	7,954	6,209	1,744	327	1,417	778,231	64%	474,161	2%	463,918
ProShares	26,263	1.0%	-0.2%	25,165	1.2%	-0.1%	25,059	1.3%	3,468	1,498	1,970	987	983	904,997	-4%	944,626	7%	881,531
Deutsche AM	13,232	0.5%	-0.4%	19,884	0.9%	0.7%	4,402	0.2%	-6,396	-23,191	16,795	13,640	3,155	50,963	-32%	75,146	736%	8,988
ALPS	13,137	0.5%	0.0%	10,078	0.5%	-0.1%	11,693	0.6%	2,305	609	1,697	-1,194	2,891	35,792	12%	31,960	55%	20,645
PIMCO	12,611	0.5%	0.0%	10,902	0.5%	-0.1%	11,682	0.6%	1,449	1,819	-370	1,162	-1,533	29,974	-3%	30,963	-11%	34,701
FlexShares	11,767	0.5%	0.1%	7,588	0.4%	-0.1%	8,389	0.4%	3,155	3,029	125	-1,855	1,981	10,932	30%	8,410	13%	7,416
DirexionShares	10,410	0.4%	0.0%	8,737	0.4%	0.0%	8,090	0.4%	1,470	-1,376	2,846	357	2,489	666,020	37%	485,812	-10%	537,968
Fidelity Investments	5,175	0.2%	0.0%	3,767	0.2%	0.0%	2,757	0.1%	1,117	-21	1,138	-837	1,976	11,981	-2%	12,262	65%	7,433
United States Commodity Funds	4,639	0.2%	0.0%	4,422	0.2%	0.1%	2,794	0.1%	-602	-3,913	3,311	1,747	1,565	123,744	-14%	144,100	36%	105,886
Global X Funds	3,788	0.1%	0.0%	3,103	0.1%	0.0%	3,706	0.2%	502	-45	546	-773	1,319	9,151	-11%	10,304	-14%	11,968
Goldman Sachs	2,721	0.1%	0.1%	865	0.0%	0.0%	-	0.0%	1,746	884	861	861	0	3,055	294%	775	NA	-
IndexIQ Advisors	2,227	0.1%	0.0%	1,545	0.1%	0.0%	1,338	0.1%	656	378	278	-139	417	3,151	31%	2,404	32%	1,816
Total	2,514,658	99.3%	-0.1%	2,100,664	99.4%	0.0%	1,967,767	99.4%	279,553	45,425	234,128	-2,630	236,758	19,019,941	1%	18,740,305	12%	16,714,025
Other	17,957	0.7%	0.1%	12,790	0.6%	0.0%	11,411	0.6%	4,515	1,501	3,014	-977	3,991	29,641	0%	29,500	9%	27,078
Grand total	2,532,614	100%		2,113,454	100%		1,979,179	100%	284,069	46,926	237,143	-3,606	240,749	19,049,582	1%	18,769,806	12%	16,741,103

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

Figure 93: US ETP providers tier market share | ETPs | US |

Tier	Tier 1	Tier 2	Tier 3
Providers	3	7	58
2014	83.0%	13.7%	3.3%
2015	81.6%	14.4%	4.0%
2016	82.8%	13.4%	3.9%



Source: Deutsche Bank, Reuters, Bloomberg Finance LP



Europe provider rankings

Figure 94: Europe top 20 ETF providers | ETFs | Europe |

All figures in € million

Provider	Assets						Cash flow					Turnover						
	2016	Market share	YoY mkt. share change	2015	Market share	YoY mkt. share change	2014	Market share	2016	YoY change	2015	YoY change	2014	2016	YoY % change	2015	YoY % change	2014
BlackRock	250,734	48.6%	1.1%	214,014	47.6%	-0.8%	175,377	48.4%	26,658	-3,683	30,341	15,179	15,162	366,345	11%	331,503	37%	242,651
Deutsche AM	53,444	10.4%	-2.1%	56,234	12.5%	0.2%	44,575	12.3%	-5,329	-14,896	9,567	5,310	4,257	69,431	-8%	75,472	51%	49,862
Lyxor	50,878	9.9%	-0.7%	47,742	10.6%	0.1%	37,913	10.5%	1,761	-7,242	9,003	4,569	4,434	141,081	-3%	146,077	42%	103,194
UBS	29,229	5.7%	0.1%	24,949	5.5%	0.8%	17,073	4.7%	2,964	-4,241	7,205	3,018	4,187	27,843	4%	26,697	68%	15,849
Amundi	24,978	4.8%	0.5%	19,735	4.4%	0.1%	15,439	4.3%	4,087	608	3,479	805	2,674	49,854	1%	49,320	193%	16,810
Vanguard	23,882	4.6%	0.7%	17,691	3.9%	0.5%	12,538	3.5%	4,265	91	4,174	-3,886	8,060	25,910	12%	23,165	70%	13,640
State Street	17,599	3.4%	0.8%	11,863	2.6%	0.1%	9,274	2.6%	4,580	2,347	2,233	13	2,220	24,626	46%	16,912	61%	10,532
Source	16,774	3.3%	-0.4%	16,286	3.6%	0.1%	12,625	3.5%	-404	-3,446	3,042	1,447	1,595	21,083	6%	19,967	78%	11,226
Deka Investment GmbH	8,297	1.6%	0.0%	7,027	1.6%	-0.2%	6,433	1.8%	1,019	617	402	-340	742	10,275	-54%	22,218	24%	17,940
ComStage	6,929	1.3%	-0.2%	6,925	1.5%	0.1%	5,391	1.5%	-472	-1,752	1,280	1,413	-134	7,228	-14%	8,377	37%	6,118
Zuercher Kantonalbank	6,579	1.3%	0.1%	5,400	1.2%	-0.5%	6,032	1.7%	586	969	-383	638	-1,021	4,474	55%	2,886	-16%	3,418
BNP Paribas	5,981	1.2%	0.2%	4,466	1.0%	-0.1%	3,857	1.1%	1,333	1,028	305	-681	986	3,881	69%	2,302	29%	1,785
HSBC	4,925	1.0%	-0.2%	4,978	1.1%	-0.4%	5,363	1.5%	-493	208	-701	-2,857	2,156	5,732	-19%	7,084	-10%	7,858
Xact Fonder AB	2,933	0.6%	0.0%	2,522	0.6%	-0.1%	2,379	0.7%	381	353	28	784	-756	14,537	-8%	15,844	1%	15,656
PowerShares	2,301	0.4%	0.1%	1,766	0.4%	0.0%	1,465	0.4%	333	252	81	196	-115	3,343	46%	2,294	22%	1,875
Julius Baer Inv	1,946	0.4%	0.0%	1,640	0.4%	-0.2%	2,060	0.6%	160	438	-279	139	-418	1,172	29%	906	-38%	1,464
Ossiam	1,943	0.4%	0.0%	1,707	0.4%	0.0%	1,430	0.4%	-46	-38	-8	-357	349	1,241	2%	1,217	143%	501
ThinkCapital ETFs N.V.	1,656	0.3%	0.0%	1,623	0.4%	0.1%	1,089	0.3%	-32	-534	502	214	288	1,148	-25%	1,531	87%	820
ETF Securities	1,482	0.3%	0.1%	790	0.2%	0.0%	475	0.1%	629	249	380	226	154	9,385	28%	7,325	68%	4,366
Fundlogic Global Solutions plc	403	0.1%	0.0%	169	0.0%	0.0%	104	0.0%	197	167	30	-63	92	239	1473%	15	-82%	85
Total	512,892	99.5%	0.0%	447,530	99.5%	-0.1%	360,892	99.6%	42,177	-28,504	70,681	25,768	44,913	788,827	4%	761,112	45%	525,650
Other	2,555	0.5%	0.0%	2,454	0.5%	0.1%	1,496	0.4%	-82	-1,150	1,068	1,133	-66	4,406	74%	2,528	19%	2,122
Grand total	515,447	100%		449,984	100%		362,388	100%	42,095	-29,653	71,749	26,901	44,847	793,233	4%	763,641	45%	527,772

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

Figure 95: Europe ETF providers tier market share | ETFs | Europe |

Tier	Tier 1	Tier 2	Tier 3
Providers	4	9	27
2014	75.9%	21.2%	2.9%
2015	76.2%	21.0%	2.8%
2016	74.6%	22.5%	3.0%

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

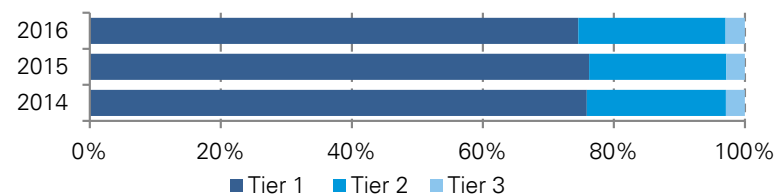


Figure 96: Europe top 20 ETP providers | ETPs | Europe |

All figures in € million

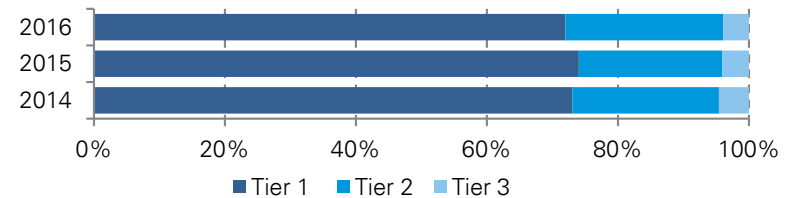
Provider	Assets						Cash flow						Turnover					
	2016	Market share	YoY mkt. share change	2015	Market share	YoY mkt. share change	2014	Market share	2016	YoY change	2015	YoY change	2014	2016	YoY % change	2015	YoY % change	2014
BlackRock	252,918	46.8%	0.8%	214,411	46.0%	-0.3%	175,556	46.3%	28,494	-2,092	30,586	15,386	15,200	371,540	12%	332,122	37%	242,915
Deutsche AM	55,928	10.3%	-2.1%	57,884	12.4%	0.2%	46,369	12.2%	-4,667	-14,378	9,711	5,543	4,167	73,244	-5%	77,321	50%	51,696
Lyxor	50,878	9.4%	-0.8%	47,742	10.2%	0.2%	37,913	10.0%	1,761	-7,242	9,003	4,569	4,434	141,081	-3%	146,077	42%	103,194
UBS	29,229	5.4%	0.1%	24,949	5.4%	0.9%	17,073	4.5%	2,964	-4,241	7,205	3,018	4,187	27,843	4%	26,697	68%	15,849
Amundi	24,978	4.6%	0.4%	19,735	4.2%	0.2%	15,439	4.1%	4,087	608	3,479	805	2,674	49,854	1%	49,320	193%	16,810
Vanguard	23,882	4.4%	0.6%	17,691	3.8%	0.5%	12,538	3.3%	4,265	91	4,174	-3,886	8,060	25,910	12%	23,165	70%	13,640
Source	19,891	3.7%	-0.2%	17,941	3.8%	0.1%	14,212	3.7%	888	-2,313	3,201	1,490	1,711	31,985	37%	23,420	75%	13,360
State Street	17,599	3.3%	0.7%	11,863	2.5%	0.1%	9,274	2.4%	4,580	2,347	2,233	13	2,220	24,626	46%	16,912	61%	10,532
ETF Securities	16,341	3.0%	0.7%	10,941	2.3%	-0.8%	11,757	3.1%	4,033	3,651	382	-333	715	52,514	34%	39,299	58%	24,881
Deka Investment GmbH	8,297	1.5%	0.0%	7,027	1.5%	-0.2%	6,433	1.7%	1,019	617	402	-340	742	10,275	-54%	22,218	24%	17,940
ComStage	6,929	1.3%	-0.2%	6,925	1.5%	0.1%	5,391	1.4%	-472	-1,752	1,280	1,413	-134	7,228	-14%	8,377	37%	6,118
Zuercher Kantonalbank	6,579	1.2%	0.1%	5,400	1.2%	-0.4%	6,032	1.6%	586	969	-383	638	-1,021	4,474	55%	2,886	-16%	3,418
BNP Paribas	5,982	1.1%	0.1%	4,466	1.0%	-0.1%	3,857	1.0%	1,333	1,028	305	-681	986	3,882	69%	2,302	29%	1,785
HSBC	4,925	0.9%	-0.2%	4,978	1.1%	-0.3%	5,363	1.4%	-493	208	-701	-2,857	2,156	5,732	-19%	7,084	-10%	7,858
Xact Fonder AB	2,933	0.5%	0.0%	2,522	0.5%	-0.1%	2,379	0.6%	381	353	28	784	-756	14,537	-8%	15,844	1%	15,656
PowerShares	2,301	0.4%	0.0%	1,766	0.4%	0.0%	1,465	0.4%	333	252	81	196	-115	3,343	46%	2,294	22%	1,875
Julius Baer Inv	1,946	0.4%	0.0%	1,640	0.4%	-0.2%	2,060	0.5%	160	438	-279	139	-418	1,172	29%	906	-38%	1,464
Ossiam	1,943	0.4%	0.0%	1,707	0.4%	0.0%	1,430	0.4%	-46	-38	-8	-357	349	1,241	2%	1,217	143%	501
Deutsche Borse Commodities GmbH	1,775	0.3%	0.0%	1,579	0.3%	-0.1%	1,572	0.4%	0	0	0	0	0	2,715	95%	1,391	13%	1,235
ThinkCapital ETFs N.V.	1,656	0.3%	0.0%	1,623	0.3%	0.1%	1,089	0.3%	-32	-534	502	214	288	1,148	-25%	1,531	87%	820
Total	536,908	99.3%	0.0%	462,792	99.3%	-0.2%	377,201	99.5%	49,174	-22,027	71,201	25,755	45,446	854,344	7%	800,383	45%	551,550
Other	3,618	0.7%	0.0%	3,245	0.7%	0.2%	1,982	0.5%	47	-1,617	1,663	1,764	-101	16,158	65%	9,808	201%	3,254
Grand total	540,527	100%		466,036	100%		379,183	100%	49,220	-23,643	72,864	27,519	45,344	870,503	7%	810,192	46%	554,804

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

Figure 97: Europe ETP providers tier market share | ETPs | Europe |

Tier	Tier 1	Tier 2	Tier 3
Providers	4	9	29
2014	73.0%	22.4%	4.6%
2015	74.0%	21.9%	4.1%
2016	72.0%	24.1%	3.9%

Source: Deutsche Bank, Reuters, Bloomberg Finance LP



Asia Pacific provider rankings

Figure 98: Asia Pacific top 20 ETF providers | ETFs | Asia Pacific |

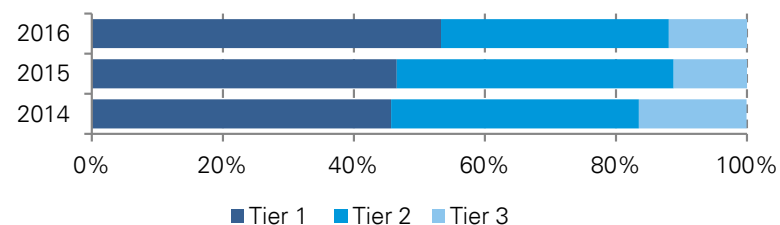
All figures in \$ million

Provider	Assets						Cash flow					Turnover						
	2016	Market share	YoY mkt. share change	2015	Market share	YoY mkt. share change	2014	Market share	2016	YoY change	2015	YoY change	2014	2016	YoY % change	2015	YoY % change	2014
Nomura Asset Management	79,781	25.4%	3.0%	63,510	22.4%	1.5%	43,106	20.9%	14,433	-1,904	16,337	8,127	8,210	458,010	11%	413,410	85%	223,313
Nikko Asset Management	35,341	11.3%	1.9%	26,557	9.4%	0.6%	18,050	8.7%	7,742	520	7,222	6,530	692	7,349	-20%	9,230	-35%	14,097
Daiwa Asset Management	34,148	10.9%	1.8%	25,671	9.1%	0.1%	18,581	9.0%	7,485	2,099	5,385	2,288	3,098	13,512	9%	12,447	46%	8,536
State Street	18,107	5.8%	0.1%	16,197	5.7%	-1.4%	14,585	7.1%	1,791	-974	2,766	1,765	1,011	50,610	3%	49,373	66%	29,705
Mitsubishi UFJ Asset Mng	14,028	4.5%	0.4%	11,588	4.1%	0.9%	6,574	3.2%	2,027	-2,559	4,586	3,485	1,101	2,874	-4%	2,980	-8%	3,244
BlackRock	11,965	3.8%	0.1%	10,655	3.8%	-3.5%	14,910	7.2%	1,880	5,458	-3,577	-4,344	767	25,374	-73%	94,376	49%	63,266
Hang Seng Investment Management	11,503	3.7%	-0.4%	11,624	4.1%	0.2%	8,138	3.9%	-62	-6,056	5,994	5,791	203	30,017	-28%	41,511	404%	8,228
Samsung Asset Management	10,472	3.3%	0.1%	9,274	3.3%	-1.4%	9,601	4.7%	898	721	177	-1,139	1,316	113,553	2%	111,211	-18%	135,979
China Asset Management	8,991	2.9%	-0.6%	9,899	3.5%	-1.9%	11,120	5.4%	448	1,807	-1,359	-64	-1,295	38,027	-81%	205,140	249%	58,863
Fortune SGAM Fund Management	8,984	2.9%	-4.1%	19,659	6.9%	5.2%	3,592	1.7%	-9,637	-26,723	17,086	14,582	2,504	452,491	-45%	824,036	134%	351,820
China Southern Fund Management Co Ltd	6,423	2.0%	0.1%	5,577	2.0%	1.1%	1,792	0.9%	1,784	-835	2,619	2,795	-176	129,024	58%	81,410	2179%	3,572
Yuanta Securities Inv trust Co Ltd.	5,877	1.9%	0.3%	4,502	1.6%	-0.3%	3,901	1.9%	1,008	-360	1,368	2,350	-982	30,629	35%	22,720	116%	10,501
Mirae Asset MAPS Global Investments	4,784	1.5%	0.0%	4,324	1.5%	0.0%	3,226	1.6%	611	-721	1,332	2,113	-781	28,826	33%	21,664	88%	11,548
E Fund Management	4,336	1.4%	-2.8%	11,773	4.2%	2.4%	3,639	1.8%	-6,824	-14,537	7,713	8,525	-812	111,043	-27%	152,819	548%	23,577
Huan Fund Management	4,096	1.3%	0.2%	3,138	1.1%	-0.1%	2,473	1.2%	1,452	1,080	371	887	-515	28,650	-42%	49,554	277%	13,141
DIAM Asset Management	3,823	1.2%	0.6%	1,750	0.6%	0.6%	-	0.0%	1,966	359	1,606	1,606	0	87	-30%	125	NA	-
Vanguard	3,671	1.2%	0.3%	2,484	0.9%	0.1%	1,568	0.8%	1,051	-36	1,087	260	827	3,702	31%	2,824	38%	2,053
Huatai-PineBridge Fund Management Co	3,436	1.1%	-0.3%	4,066	1.4%	-1.2%	5,430	2.6%	-20	2,864	-2,884	-4,648	1,764	29,821	-79%	143,575	129%	62,619
Yinhua Fund Management	3,399	1.1%	-1.6%	7,712	2.7%	1.7%	2,095	1.0%	-3,881	-9,670	5,789	3,828	1,962	267,880	38%	193,613	115%	89,862
China Universal Asset Management Co	3,393	1.1%	0.4%	1,867	0.7%	0.6%	148	0.1%	1,877	180	1,697	1,807	-110	104,396	420%	20,069	3267%	596
Total	276,556	88.1%	-0.7%	251,826	88.8%	5.2%	172,529	83.6%	26,028	-49,287	75,316	56,532	18,784	1,925,875	-21%	2,452,088	120%	1,114,518
Other	37,456	11.9%	0.7%	31,718	11.2%	-5.2%	33,912	16.4%	4,623	7,185	-2,562	-6,054	3,492	440,562	30%	337,948	108%	162,346
Grand total	314,012	100%		283,544	100%		206,441	100%	30,651	-42,102	72,753	50,478	22,275	2,366,437	-15%	2,790,036	119%	1,276,863

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

Figure 99: Asia Pacific ETF providers tier market share | ETFs | Asia Pacific |

Tier	Tier 1	Tier 2	Tier 3
Providers	4	16	94
2014	45.7%	37.8%	16.4%
2015	46.5%	42.3%	11.2%
2016	53.3%	34.8%	11.9%



Source: Deutsche Bank, Reuters, Bloomberg Finance LP



Figure 100: Asia Pacific top 20 ETP providers | ETPs | Asia Pacific |

All figures in \$ million

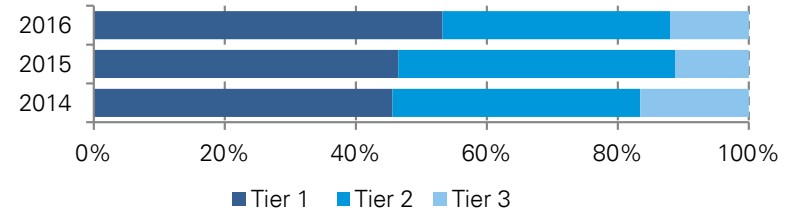
Provider	Assets						Cash flow					Turnover						
	2016	Market share	YoY mkt. share change	2015	Market share	YoY mkt. share change	2014	Market share	2016	YoY change	2015	YoY change	2014	2016	YoY % change	2015	YoY % change	2014
Nomura Asset Management	79,781	25.4%	3.0%	63,510	22.4%	1.5%	43,106	20.8%	14,433	-1,904	16,337	8,127	8,210	458,010	11%	413,410	85%	223,313
Nikko Asset Management	35,341	11.2%	1.9%	26,557	9.4%	0.6%	18,050	8.7%	7,742	520	7,222	6,530	692	7,349	-20%	9,230	-35%	14,097
Daiwa Asset Management	34,148	10.9%	1.8%	25,671	9.0%	0.1%	18,581	9.0%	7,485	2,099	5,385	2,288	3,098	13,512	9%	12,447	46%	8,536
State Street	18,107	5.8%	0.1%	16,197	5.7%	-1.3%	14,585	7.1%	1,791	-974	2,766	1,755	1,011	51,377	3%	49,873	64%	30,416
Mitsubishi UFJ Asset Mg	14,028	4.5%	0.4%	11,588	4.1%	0.9%	6,574	3.2%	2,027	-2,559	4,586	3,485	1,101	2,874	-4%	2,980	-8%	3,244
BlackRock	11,965	3.8%	0.1%	10,655	3.8%	-3.5%	14,910	7.2%	1,880	5,458	-3,577	-4,344	767	25,374	-73%	94,376	49%	63,266
Hang Seng Investment Management	11,503	3.7%	-0.4%	11,624	4.1%	0.2%	8,138	3.9%	-62	-6,056	5,994	5,791	203	30,017	-28%	41,511	404%	8,228
Samsung Asset Management	10,472	3.3%	0.1%	9,274	3.3%	-1.4%	9,601	4.6%	898	721	177	-1,139	1,316	113,553	2%	111,211	-18%	135,979
China Asset Management	8,991	2.9%	-0.6%	9,899	3.5%	-1.9%	11,120	5.4%	448	1,807	-1,359	-64	-1,295	38,027	-81%	205,140	249%	58,863
Fortune SGAM Fund Management	8,984	2.9%	-4.1%	19,659	6.9%	5.2%	3,592	1.7%	-9,637	-26,723	17,086	14,582	2,504	452,491	-45%	824,036	134%	351,820
China Southern Fund Management Co Ltd	6,423	2.0%	0.1%	5,577	2.0%	1.1%	1,792	0.9%	1,784	-835	2,619	2,795	-176	129,024	58%	81,410	2179%	3,572
Yuanta Securities Inv trust Co Ltd.	5,877	1.9%	0.3%	4,502	1.6%	-0.3%	3,901	1.9%	1,008	-360	1,368	2,350	-982	30,629	35%	22,720	116%	10,501
Mirae Asset MAPS Global Investments	4,784	1.5%	0.0%	4,324	1.5%	0.0%	3,226	1.6%	611	-721	1,332	2,113	-781	28,826	33%	21,664	88%	11,548
E Fund Management	4,336	1.4%	-2.8%	11,773	4.1%	2.4%	3,639	1.8%	-6,824	-14,537	7,713	8,525	-812	111,043	-27%	152,819	548%	23,577
Huan Fund Management	4,096	1.3%	0.2%	3,138	1.1%	-0.1%	2,473	1.2%	1,452	1,080	371	887	-515	28,650	-42%	49,554	277%	13,141
DIAM Asset Management	3,823	1.2%	0.6%	1,750	0.6%	0.6%	-	0.0%	1,966	359	1,606	1,606	0	87	-30%	125	NA	-
Vanguard	3,671	1.2%	0.3%	2,484	0.9%	0.1%	1,568	0.8%	1,051	-36	1,087	260	827	3,702	31%	2,824	38%	2,053
Huatai-PineBridge Fund Management Co	3,436	1.1%	-0.3%	4,066	1.4%	-1.2%	5,430	2.6%	-20	2,864	-2,884	-4,648	1,764	29,821	-79%	143,575	129%	62,619
Yinhua Fund Management	3,399	1.1%	-1.6%	7,712	2.7%	1.7%	2,095	1.0%	-3,881	-9,670	5,789	3,828	1,962	267,880	38%	193,613	115%	89,862
China Universal Asset Management Co	3,393	1.1%	0.4%	1,867	0.7%	0.6%	148	0.1%	1,877	180	1,697	1,807	-110	104,396	420%	20,069	3267%	596
Harvest Fund Management Co	2,844	0.9%	-0.3%	3,470	1.2%	-2.6%	7,985	3.9%	-93	5,460	-5,553	-5,922	369	16,167	-45%	29,422	63%	18,079
Total	276,556	88.0%	-0.7%	251,826	88.7%	5.3%	172,529	83.4%	26,028	-49,287	75,316	56,532	18,784	1,926,643	-21%	2,452,587	120%	1,115,229
Other	37,824	12.0%	0.7%	32,039	11.3%	-5.3%	34,314	16.6%	4,642	7,235	-2,593	-6,045	3,452	440,903	30%	338,172	108%	162,614
Grand total	314,380	100.0%		283,865	100%		206,844	100%	30,670	-42,052	72,723	60,487	22,236	2,367,546	-15%	2,790,760	118%	1,277,843

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

Figure 101: Asia Pacific ETP providers tier market share | ETPs | Asia Pacific |

Tier	Tier 1	Tier 2	Tier 3
Providers	4	16	96
2014	45.6%	37.8%	16.6%
2015	46.5%	42.2%	11.3%
2016	53.2%	34.7%	12.0%

Source: Deutsche Bank, Reuters, Bloomberg Finance LP



RoW provider rankings

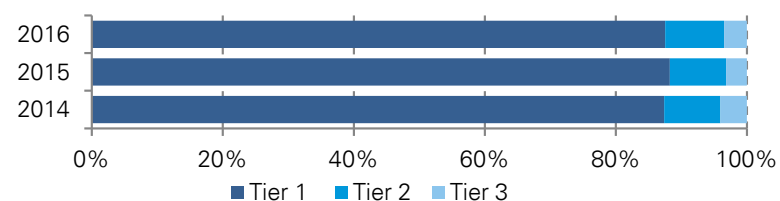
Figure 102: RoW top 20 ETF providers | ETFs | RoW |

Provider	Assets						Cash flow				Turnover							
	2016	Market share	YoY mkt. share change	2015	Market share	YoY mkt. share change	2014	Market share	2016	YoY change	2015	YoY change	2014	2016	YoY % change	2015	YoY % change	2014
BlackRock	43,295	46.2%	-5.8%	38,350	52.1%	-5.4%	45,788	57.4%	442	-2,138	2,581	3,711	-1,131	188,995	35%	139,999	-16%	166,146
BMO Financial Group	25,408	27.1%	3.3%	17,578	23.9%	3.6%	16,179	20.3%	6,074	1,391	4,683	76	4,607	41,414	65%	25,142	42%	17,646
Vanguard	7,191	7.7%	1.2%	4,745	6.4%	2.5%	3,174	4.0%	2,018	-153	2,172	655	1,517	13,921	68%	8,272	18%	7,013
Horizons Management	6,057	6.5%	0.6%	4,302	5.8%	0.2%	4,525	5.7%	1,287	384	903	790	113	76,280	32%	57,972	2%	56,840
PowerShares	2,215	2.4%	0.0%	1,751	2.4%	0.1%	1,821	2.3%	342	17	325	-44	369	8,021	16%	6,886	24%	5,572
First Asset Funds	1,736	1.9%	0.1%	1,263	1.7%	0.5%	1,000	1.3%	279	-152	430	-112	542	2,843	68%	1,688	22%	1,382
RBC Global Asset Management	1,670	1.8%	0.3%	1,089	1.5%	0.7%	633	0.8%	527	-95	622	124	498	1,547	30%	1,188	53%	774
Purpose Investments	985	1.1%	0.2%	606	0.8%	0.3%	408	0.5%	235	-76	311	11	300	3,128	96%	1,594	77%	899
Absa Capital	925	1.0%	-0.5%	1,122	1.5%	-0.7%	1,803	2.3%	-251	-302	51	-660	711	1,138	-49%	2,244	-59%	5,488
Satrix Managers	893	1.0%	0.3%	505	0.7%	-0.8%	1,182	1.5%	49	305	-256	-217	-39	807	6%	764	-33%	1,133
Deutsche AM	825	0.9%	-0.2%	811	1.1%	0.2%	683	0.9%	39	-119	159	-22	181	2,003	63%	1,226	21%	1,017
Banco Itau SA	607	0.6%	0.2%	310	0.4%	-0.2%	515	0.6%	126	129	-3	-11	9	1,391	89%	738	31%	565
Standard Bank	453	0.5%	-0.1%	449	0.6%	-0.3%	697	0.9%	-64	-29	-35	-747	712	443	-21%	564	-28%	779
First Trust	291	0.3%	0.1%	190	0.3%	0.1%	155	0.2%	107	26	82	-30	111	2,267	505%	374	-47%	704
BBVA Gestion SA SGIC	182	0.2%	0.0%	167	0.2%	-0.1%	290	0.4%	25	140	-115	-45	-70	547	10%	497	-55%	1,104
Stanlib Asset Management	179	0.2%	0.0%	169	0.2%	-0.1%	281	0.4%	-5	0	-5	25	-30	706	680%	91	252%	26
Harvest	137	0.1%	0.1%	-	0.0%	0.0%	-	0.0%	-15	-15	0	0	0	33	NA	-	NA	-
Grindrod Bank	99	0.1%	0.1%	-	0.0%	-0.1%	81	0.1%	3	3	0	-45	45	51	46%	35	16%	30
Mackenzie Investments	84	0.1%	0.1%	-	0.0%	0.0%	-	0.0%	63	63	0	0	0	142	NA	-	NA	-
WisdomTree	68	0.1%	0.1%	-	0.0%	0.0%	-	0.0%	69	69	0	0	0	1,470	21%	1,219	307%	299
Total	93,300	99.64%	0.0%	73,407	99.67%	0.3%	79,214	99.4%	11,351	-552	11,903	3,459	8,444	347,148	39%	250,493	-6%	267,419
Other	336	0.36%	0.0%	242	0.33%	-0.3%	517	0.6%	106	182	-76	-341	265	17,301	84%	9,404	-60%	23,514
Grand total	93,636	100%		73,650	100%		79,732	100%	11,457	-370	11,827	3,118	8,709	364,450	40%	259,897	-11%	290,932

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

Figure 103: RoW ETF providers tier market share | ETFs | RoW |

Tier	Tier 1	Tier 2	Tier 3
Providers	4	6	24
2014	87.4%	8.6%	4.0%
2015	88.2%	8.6%	3.2%
2016	87.5%	9.0%	3.5%



Source: Deutsche Bank, Reuters, Bloomberg Finance LP



Figure 104: RoW top 20 ETP providers | ETPs | RoW |

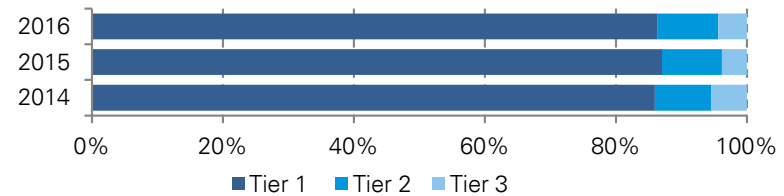
All figures in \$ million

Provider	Assets						Cash flow					Turnover						
	2016	Market share	YoY mkt. share change	2015	Market share	YoY mkt. share change	2014	Market share	2016	YoY change	2015	YoY change	2014	2016	YoY % change	2015	YoY % change	2014
BlackRock	43,295	45.6%	-5.7%	38,350	51.4%	-5.1%	45,788	56.5%	442	-2,138	2,581	3,711	-1,131	189,006	35%	140,000	-16%	166,146
BMO Financial Group	25,408	26.8%	3.2%	17,578	23.5%	3.6%	16,179	20.0%	6,074	1,391	4,683	76	4,607	41,414	65%	25,142	42%	17,646
Vanguard	7,191	7.6%	1.2%	4,745	6.4%	2.4%	3,174	3.9%	2,018	-153	2,172	655	1,517	13,921	68%	8,272	18%	7,013
Horizons Management	6,057	6.4%	0.6%	4,302	5.8%	0.2%	4,525	5.6%	1,287	384	903	790	113	76,280	32%	57,972	2%	56,840
PowerShares	2,215	2.3%	0.0%	1,751	2.3%	0.1%	1,821	2.2%	342	17	325	-44	369	8,021	16%	6,886	24%	5,572
Absa Capital	2,162	2.3%	-0.6%	2,134	2.9%	-1.0%	3,131	3.9%	-41	-90	49	-388	437	3,336	-8%	3,608	-53%	7,621
First Asset Funds	1,736	1.8%	0.1%	1,263	1.7%	0.5%	1,000	1.2%	279	-152	430	-112	542	2,843	68%	1,688	22%	1,382
RBC Global Asset Management	1,670	1.8%	0.3%	1,089	1.5%	0.7%	633	0.8%	527	-95	622	124	498	1,547	30%	1,188	53%	774
Purpose Investments	985	1.0%	0.2%	606	0.8%	0.3%	408	0.5%	235	-76	311	11	300	3,128	96%	1,594	77%	899
Satrix Managers	893	0.9%	0.3%	505	0.7%	-0.8%	1,182	1.5%	49	305	-256	-217	-39	807	6%	764	-33%	1,133
Deutsche AM	825	0.9%	-0.2%	811	1.1%	0.2%	683	0.8%	39	-119	159	-22	181	2,003	63%	1,226	21%	1,017
Banco Itau SA	607	0.6%	0.2%	310	0.4%	-0.2%	515	0.6%	126	129	-3	-11	9	1,391	89%	738	31%	565
Standard Bank	453	0.5%	-0.1%	449	0.6%	-0.3%	697	0.9%	-64	-29	-35	-747	712	443	-21%	564	-28%	779
First Trust	291	0.3%	0.1%	190	0.3%	0.1%	155	0.2%	107	26	82	-30	111	2,267	505%	374	-47%	704
BBVA Gestion SA SGIIC	182	0.2%	0.0%	167	0.2%	-0.1%	290	0.4%	25	140	-115	-45	-70	547	10%	497	-55%	1,104
Stanlib Asset Management	179	0.2%	0.0%	169	0.2%	-0.1%	281	0.3%	-5	0	-5	25	-30	706	680%	91	252%	26
Harvest	137	0.1%	0.1%	-	0.0%	0.0%	-	0.0%	-15	-15	0	0	0	33	NA	-	NA	-
Grindrod Bank	99	0.1%	0.1%	-	0.0%	-0.1%	81	0.1%	3	3	0	-45	45	51	46%	35	16%	30
Mackenzie Investments	84	0.1%	0.1%	-	0.0%	0.0%	-	0.0%	63	63	0	0	0	142	NA	-	NA	-
WisdomTree	68	0.1%	0.1%	-	0.0%	0.0%	-	0.0%	69	69	0	0	0	1,470	21%	1,219	307%	299
Total	94,538	99.65%	0.0%	74,418	99.68%	0.3%	80,542	99.4%	11,561	-340	11,901	3,731	8,170	349,358	39%	251,859	-7%	269,552
Other	336	0.35%	0.0%	242	0.32%	-0.3%	517	0.6%	106	182	-76	-341	265	17,416	85%	9,411	-60%	23,570
Grand total	94,873	100%		74,661	100%		81,059	100%	11,667	-158	11,825	3,390	8,435	366,774	40%	261,270	-11%	293,122

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

Figure 105: RoW ETP providers tier market share | ETPs | RoW |

Tier	Tier 1	Tier 2	Tier 3
Providers	4	5	25
2014	85.9%	8.6%	5.4%
2015	87.0%	9.2%	3.8%
2016	86.4%	9.2%	4.4%



Source: Deutsche Bank, Reuters, Bloomberg Finance LP





New entrants and leavers

Figure 106: New entrants in 2016 - Providers | ETPs | Global |

All figures are in \$million

Region	Provider	2016			
		Assets	Cash flow	Turnover	Products
ETF					
US	Janus Capital	77.2	76.1	61.9	8
	Nuveen	86.7	88.5	79.8	7
	Principal Management	269.5	245.3	32.5	5
	Amplify Investments	41.7	41.6	19.8	3
	Aptus Capital	25.9	25.4	38.0	1
	Natixis GAM	13.5	13.9	10.2	1
	ACSI Funds	12.1	11.7	14.6	1
	Premise Capital	5.1	5.1	5.3	1
Europe	Expat Capital	13.8	13.6	1.8	1
	Fullgoal Fund Management Co	10.2	10.8	0.7	1
Asia Pacific	Amundi	54.3	53.5	40.2	2
	Ping An Asset Management	273.4	279.9	810.1	1
	Rongtong Fund Management	259.0	268.9	7,783.2	1
	Essence Asset Management	215.8	232.1	2,376.9	1
	Bangkok Capital Asset Management	30.6	28.8	29.3	1
	Phillip Capital Management	24.3	25.9	8.3	1
	Tebon Fund Management	14.4	14.5	11.0	1
	Pinnacle Investments	-	-	0.0	1
RoW	Mackenzie Investments	84.3	63.1	142.4	9
	TD Asset Management	46.4	22.5	57.1	6
	Sphere Investments	25.3	15.9	71.1	5
	Harvest	137.0	(14.7)	33.1	4
	Hamilton Capital	12.0	10.4	17.3	1
	Afkar Capital	0.5	1.1	-	1
	MCB Capital Market	-	-	14.0	1

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.

Figure 107: Leavers in 2016 - Providers | ETPs | Global |

All figures are in \$million

Region	Provider	2015			
		Assets	Cash flow	Turnover	Products
ETF					
US	Precidian	47.1	(48.3)	398.2	1
	Calamos Investments	27.3	0.5	1.4	1
	Horizons ETFs	4.5	(4.2)	8.4	1
Europe	Nordea Investment Funds	-	-	0.2	2
Asia Pacific	Tong Yang Investment Trust Mg	6.5	(4.9)	2.3	1
	Maybank Asset Management Thailand Co Ltd	3.6	(3.5)	4.4	4
	Daishin Investment Trust Mg	9.9	(0.9)	3.3	1
	BBL Asset Management Co	8.9	(0.5)	0.3	1
	Kasikorn Asset Management	7.1	(1.2)	0.8	1
	KDB Asset Management Co Ltd/Korea	4.7	-	1.7	1
	Changsheng Fund	1.6	(2.0)	23.5	1
	China International Fund Mgmt	1.4	(7.0)	66.6	1
ETC/V					
US	AccuShares Management LLC	6.3	29.9	81.8	4
Europe	Royal Bank of Scotland plc	222.4	-6.3	50.7	5

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



6. Product Review

Product count

Figure 108: Number of ETPs by asset class | ETPs | Global |

Asset Class	2016				2015			2014
	Products*	Mkt Share	YoY change	YoY % change	Products*	YoY change	YoY % change	Products*
ETFs								
Equity	3,598	67.6%	293	8.9%	3,305	395	13.6%	2,910
Fixed income	889	16.7%	68	8.3%	821	51	6.6%	770
Commodity	139	2.6%	4	3.0%	135	3	2.3%	132
Currency	27	0.5%	7	35.0%	20	1	5.3%	19
Multi Asset	75	1.4%	14	23.0%	61	1	1.7%	60
Alternative	51	1.0%	(6)	-10.5%	57	6	11.8%	51
Total	4,779	89.8%	380	8.6%	4,399	457	11.6%	3,942
ETC/Vs								
Commodity	409	7.7%	-	0.0%	409	3	0.7%	406
Currency	132	2.5%	-	0.0%	132	6	4.8%	126
Alternative	4	0.1%	-	0.0%	4	-	0.0%	4
Total	545	10.2%	-	0.0%	545	9	1.7%	536
Total ETPs	5,324	100.0%	380	7.7%	4,944	466	10.4%	4,478

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

Figure 109: Number of ETPs by asset class | ETPs | US |

Asset Class	2016				2015			2014
	Products*	Mkt Share	YoY change	YoY % change	Products*	YoY change	YoY % change	Products*
ETFs								
Equity	1,316	74.3%	109	9.0%	1,207	174	16.8%	1,033
Fixed income	300	16.9%	14	4.9%	286	16	5.9%	270
Commodity	9	0.5%	3	50.0%	6	(2)	-25.0%	8
Currency	7	0.4%	(1)	-12.5%	8	(3)	-27.3%	11
Multi Asset	37	2.1%	5	15.6%	32	(1)	-3.0%	33
Alternative	38	2.1%	1	2.7%	37	11	42.3%	26
Total	1,707	96.4%	131	8.3%	1,576	195	14.1%	1,381
ETVs								
Commodity	43	2.4%	(4)	-8.5%	47	(2)	-4.1%	49
Currency	17	1.0%	-	0.0%	17	-	0.0%	17
Alternative	4	0.2%	-	0.0%	4	-	0.0%	4
Total	64	3.6%	(4)	-5.9%	68	(2)	-2.9%	70
Total ETPs	1,771	100.0%	127	7.7%	1,644	193	13.3%	1,451

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



Figure 110: Number of ETPs by asset class | ETPs | Europe |

Asset Class	2016				2015			2014
	Products*	Mkt Share	YoY change	YoY % change	Products*	YoY change	YoY % change	Products*
ETFs								
Equity	1,087	54.2%	1	0.1%	1,086	66	6.5%	1,020
Fixed income	379	18.9%	21	5.9%	358	17	5.0%	341
Commodity	49	2.4%	(1)	-2.0%	50	1	2.0%	49
Currency	0	0.0%	-	na	0	(1)	-100.0%	1
Multi Asset	8	0.4%	-	0.0%	8	-	0.0%	8
Alternative	7	0.3%	(7)	-50.0%	14	(6)	-30.0%	20
Total	1,530	76.3%	14	0.9%	1,516	77	5.4%	1,439
ETCs								
Commodity	359	17.9%	12	3.5%	347	6	1.8%	341
Currency	115	5.7%	-	0.0%	115	6	5.5%	109
Total	474	23.7%	12	2.6%	462	12	2.7%	450
Total ETPs	2,004	100.0%	26	1.3%	1,978	89	4.7%	1,889

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

Figure 111: Number of ETPs by asset class | ETPs | Asia Pacific |

Asset Class	2016				2015			2014
	Products*	Mkt Share	YoY change	YoY % change	Products*	YoY change	YoY % change	Products*
ETFs								
Equity	791	81.6%	112	16.5%	679	128	23.2%	551
Fixed income	93	9.6%	19	25.7%	74	17	29.8%	57
Commodity	54	5.6%	-	0.0%	54	4	8.0%	50
Currency	14	1.4%	6	75.0%	8	3	60.0%	5
Multi Asset	9	0.9%	7	350.0%	2	(2)	-50.0%	4
Alternative	2	0.2%	-	0.0%	2	-	0.0%	2
Total	963	99.4%	144	17.6%	819	150	22.4%	669
ETCs								
Commodity	6	0.6%	(8)	-57.1%	14	(1)	-6.7%	15
Total	6	0.6%	(8)	-57.1%	14	(1)	-6.7%	15
Total ETPs	969	100.0%	136	16.3%	833	149	21.8%	684

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



Figure 112: Number of ETPs by asset class | ETPs | RoW |

Asset Class	2016				2015			2014
	Products*	Mkt Share	YoY change	YoY % change	Products*	YoY change	YoY % change	Products*
ETFs								
Equity	404	69.7%	71	21.3%	333	27	8.8%	306
Fixed income	117	20.2%	14	13.6%	103	1	1.0%	102
Commodity	27	4.7%	2	8.0%	25	-	0.0%	25
Currency	6	1.0%	2	50.0%	4	2	100.0%	2
Multi Asset	21	3.6%	2	10.5%	19	4	26.7%	15
Alternative	4	0.7%	-	0.0%	4	1	33.3%	3
Total	579	99.8%	91	18.6%	488	35	7.7%	453
ETVs								
Commodity	1	0.2%	-	0.0%	1	-	0.0%	1
Total	1	0.2%	-	0.0%	1	-	0.0%	1
Total ETPs	580	100.0%	91	18.6%	489	35	7.7%	454

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

Average TERs

Figure 113: ETF TERs using simple average | ETFs | Global |

Asset class	Strategy	US		Europe		Asia Pacific		RoW	
		TER	Nu.	TER	Nu.	TER	Nu.	TER	Nu.
Equity	Alpha	0.90%	58	0.47%	7	1.33%	7	0.61%	95
	Beta	0.45%	711	0.39%	984	0.53%	702	0.45%	185
	Beta+	0.91%	155	0.55%	71	0.75%	80	1.01%	16
	Semi Active	0.48%	392	0.49%	25	0.40%	2	0.57%	108
		0.54%	1,316	0.40%	1,087	0.56%	791	0.54%	404
Fixed Income	Alpha	0.54%	63	0.54%	10	0.47%	3	0.54%	37
	Beta	0.26%	195	0.23%	353	0.30%	86	0.32%	74
	Beta+	0.89%	19	0.22%	16	0.41%	4	1.15%	1
	Semi Active	0.39%	23	NA	NA	NA	NA	0.33%	5
		0.37%	300	0.24%	379	0.31%	93	0.40%	117
Alternative	Alpha	1.01%	8	0.75%	2	0.36%	2	0.65%	1
	Beta	2.44%	7	0.73%	4	NA	NA	0.85%	1
	Beta+	0.50%	1	NA	NA	NA	NA	1.15%	2
	Semi Active	0.78%	22	0.70%	1	NA	NA	NA	NA
		1.13%	38	0.74%	7	0.36%	2	0.95%	4
Commodity	Alpha	0.71%	8	NA	NA	NA	NA	NA	NA
	Beta	0.40%	1	0.48%	48	0.84%	50	0.55%	19
	Beta+	NA	NA	NA	NA	0.85%	4	1.25%	8
	Semi Active	NA	NA	0.45%	1	NA	NA	NA	NA
		0.68%	9	0.48%	49	0.84%	54	0.76%	27
Currency	Alpha	0.48%	6	NA	NA	NA	NA	0.50%	2
	Beta	NA	NA	NA	NA	0.44%	8	0.45%	4
	Beta+	0.95%	1	NA	NA	0.52%	6	NA	NA
		0.54%	7	NA	NA	0.47%	14	0.48%	6
		0.72%	37	0.49%	8	0.37%	9	0.70%	21
Multi Asset	Alpha	0.87%	18	0.54%	6	1.50%	1	0.66%	11
	Beta	0.56%	14	0.33%	2	0.23%	8	0.75%	9
	Semi Active	0.61%	5	NA	NA	NA	NA	0.60%	1
		0.72%	37	0.49%	8	0.37%	9	0.70%	21
	Total	0.52%	1,707	0.37%	1,530	0.55%	963	0.53%	579

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



Figure 114: ETC/V TERs using simple average | ETC/Vs | Global |

Asset class	Strategy	US		Europe		Asia Pacific		RoW	
		TER	Nu.	TER	Nu.	TER	Nu.	TER	Nu.
Alternative	Semi Active	0.85%	2	NA	NA	NA	NA	NA	NA
		0.90%	4	NA	NA	NA	NA	NA	NA
Commodity	Beta	0.82%	34	0.52%	191	0.45%	6	0.40%	1
	Beta+	0.94%	9	0.84%	168	NA	NA	NA	NA
		0.84%	43	0.67%	359	0.45%	6	0.40%	1
Currency	Beta	0.47%	12	0.41%	42	NA	NA	NA	NA
	Beta+	0.95%	5	0.79%	73	NA	NA	NA	NA
		0.61%	17	0.65%	115	NA	NA	NA	NA
Total		0.79%	64	0.66%	474	0.45%	6	0.40%	1

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.

Figure 115: ETF TERs using AUM weighted average | ETFs | Global |

Asset class	Strategy	US		Europe		Asia Pacific		RoW	
		TER	Nu.	TER	Nu.	TER	Nu.	TER	Nu.
Equity	Alpha	0.97%	58	0.39%	7	1.10%	7	NA	95
	Beta	0.20%	711	0.31%	984	0.31%	702	NA	185
	Beta+	0.94%	155	0.49%	71	0.85%	80	NA	16
	Semi Active	0.35%	392	0.51%	25	0.40%	2	NA	108
		0.22%	1,316	0.31%	1,087	0.33%	791	NA	404
Fixed Income	Alpha	0.52%	63	0.36%	10	0.48%	3	NA	37
	Beta	0.21%	195	0.26%	353	0.24%	86	NA	74
	Beta+	0.94%	19	0.23%	16	0.17%	4	NA	1
	Semi Active	0.42%	23	NA	NA	NA	NA	NA	5
		0.23%	300	0.26%	379	0.24%	93	NA	117
Alternative	Alpha	0.95%	8	0.86%	2	0.36%	2	NA	1
	Beta	4.35%	7	0.73%	4	NA	NA	NA	1
	Beta+	0.50%	1	NA	NA	NA	NA	NA	2
	Semi Active	0.68%	22	0.70%	1	NA	NA	NA	NA
		1.25%	38	0.76%	7	0.36%	2	NA	4
Commodity	Alpha	0.65%	8	NA	NA	NA	NA	NA	NA
	Beta	0.40%	1	0.42%	48	0.71%	50	NA	19
	Beta+	NA	NA	NA	NA	1.09%	4	NA	8
	Semi Active	NA	NA	0.45%	1	NA	NA	NA	NA
		0.62%	9	0.42%	49	0.72%	54	NA	27
Currency	Alpha	0.49%	6	NA	NA	NA	NA	NA	2
	Beta	NA	NA	NA	NA	0.44%	8	NA	4
	Beta+	0.95%	1	NA	NA	0.58%	6	NA	NA
Multi Asset		0.51%	7	NA	NA	0.47%	14	NA	6
	Alpha	0.83%	18	0.69%	6	NA	1	NA	11
	Beta	0.43%	14	0.36%	2	0.21%	8	NA	9
	Semi Active	0.61%	5	NA	NA	NA	NA	NA	1
Total		0.52%	37	0.63%	8	0.21%	9	NA	21
		0.23%	1,707	0.30%	1,530	0.33%	963	NA	579

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.

Figure 116: ETC/V TERs using AUM weighted average | ETC/Vs | Global |

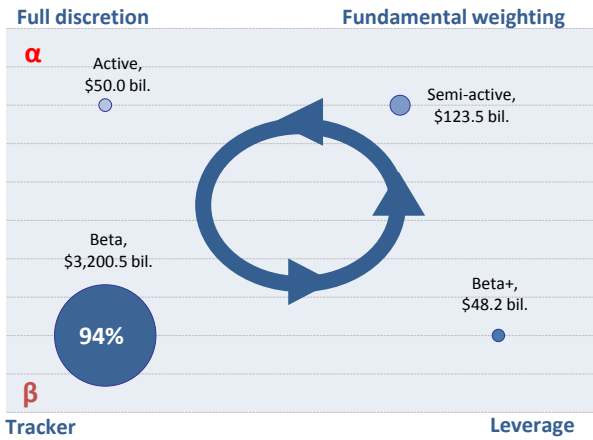
Asset class	Strategy	US		Europe		Asia Pacific		RoW	
		TER	Nu.	TER	Nu.	TER	Nu.	TER	Nu.
Alternative	Semi Active	0.85%	2	NA	NA	NA	NA	NA	NA
		0.93%	4	NA	NA	NA	NA	NA	NA
Commodity	Beta	0.46%	34	0.39%	191	0.41%	6	NA	1
	Beta+	0.95%	9	0.95%	168	NA	NA	NA	NA
		0.47%	43	0.40%	359	0.41%	6	NA	1
Currency	Beta	0.57%	12	0.39%	42	NA	NA	NA	NA
	Beta+	0.95%	5	0.72%	73	NA	NA	NA	NA
		0.66%	17	0.64%	115	NA	NA	NA	NA
Total		0.49%	64	0.41%	474	0.41%	6	NA	1

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



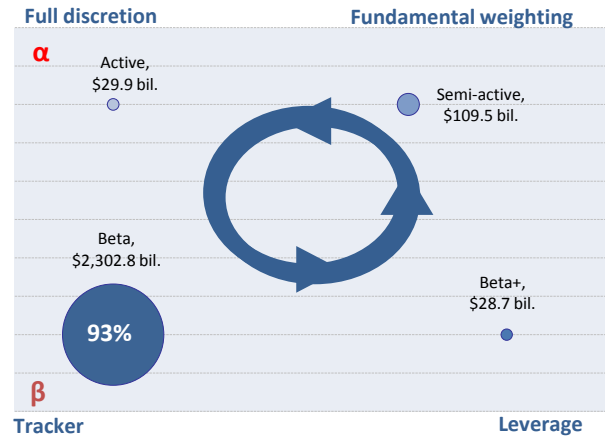
ETF assets by strategy type

Figure 117: Global ETF assets by strategy type | ETFs | Global |



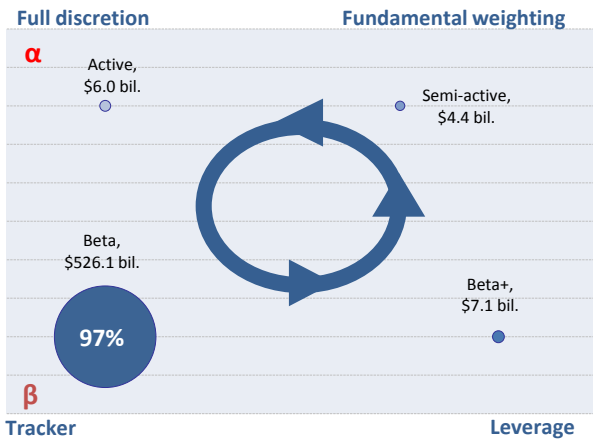
Source: Deutsche Bank, Reuters, Bloomberg Finance LP.

Figure 118: US ETF assets by strategy type | ETFs | US |



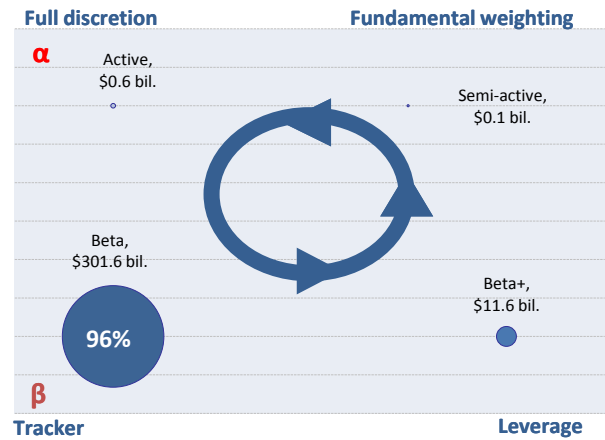
Source: Deutsche Bank, Reuters, Bloomberg Finance LP.

Figure 119: European ETF assets by strategy type | ETFs | Europe |



Source: Deutsche Bank, Reuters, Bloomberg Finance LP.

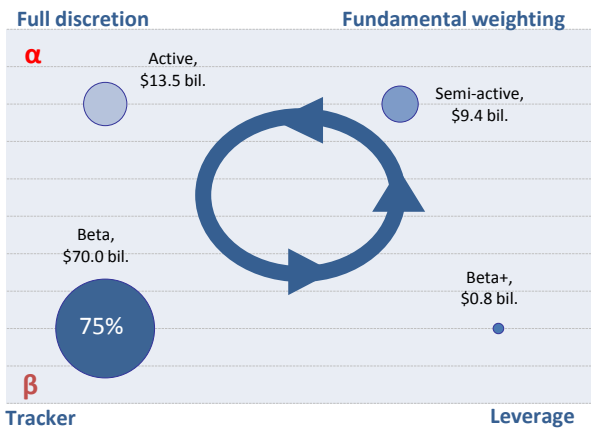
Figure 120: Asia Pacific ETF assets by strategy type | ETFs | Asia Pacific |



Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



Figure 121: RoW ETF assets by strategy type | ETFs |
RoW |



Source: Deutsche Bank, Reuters, Bloomberg Finance LP.

7. Cash Flow Analysis

Regional cash flow analysis

Figure 122: Global ETP cash flows by region and asset class | ETPs | Global |

All figures in \$ million

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	
ETFs																		
Equity	180,672	17,792	44,795	6,138	249,397	-12,010	173,814	50,773	30,402	6,418	261,407	23,118	185,354	35,289	14,317	3,329	238,289	
Fixed income	91,313	25,625	-15,727	5,174	106,386	-27,834	59,944	28,932	40,422	4,923	134,220	41,059	54,858	26,821	7,658	3,824	93,161	
Commodity	256	3,058	945	-192	4,067	1,333	610	146	1,735	244	2,735	2,756	264	-1,839	113	1,440	-22	
Currency	-223	0	215	103	96	-3	-87	-14	163	37	99	354	-389	-24	140	18	-255	
Multi Asset	864	-17	79	55	982	-397	1,100	141	-3	140	1,379	-459	1,617	154	-7	74	1,838	
Alternative	114	115	344	178	750	640	185	-176	35	66	109	-611	946	-303	54	23	721	
Total	272,996	46,573	30,651	11,457	361,677	-38,272	235,568	79,802	72,753	11,827	399,950	66,217	242,650	60,098	22,275	8,709	333,733	
<i>Regional YoY change</i>	<i>37,428</i>	<i>-33,229</i>	<i>-42,102</i>	<i>-370</i>	<i>-38,272</i>		<i>-7,082</i>	<i>19,703</i>	<i>50,478</i>	<i>3,118</i>	<i>66,217</i>							
ETC/As																		
Commodity	10,543	7,908	19	209	18,680	16,522	726	1,464	-31	-2	2,157	3,385	-1,617	703	-40	-274	-1,227	
Currency	-515	119	0	0	-397	-380	102	-119	0	0	-17	496	-501	-12	0	0	-512	
Alternative	1,045	0	0	0	1,045	298	747	0	0	0	747	531	216	0	0	0	216	
Total	11,072	8,026	19	209	19,328	16,440	1,575	1,346	-31	-2	2,888	4,411	-1,901	691	-40	-274	-1,524	
<i>Regional YoY change</i>	<i>9,497</i>	<i>6,681</i>	<i>50</i>	<i>212</i>	<i>16,440</i>		<i>3,476</i>	<i>654</i>	<i>9</i>	<i>272</i>	<i>4,411</i>							
ETPs																		
Equity	180,672	17,792	44,795	6,138	249,397	-12,010	173,814	50,773	30,402	6,418	261,407	23,118	185,354	35,289	14,317	3,329	238,289	
Fixed income	91,313	25,625	-15,727	5,174	106,386	-27,834	59,944	28,932	40,422	4,923	134,220	41,059	54,858	26,821	7,658	3,824	93,161	
Commodity	10,799	10,966	964	18	22,747	17,855	1,336	1,610	1,704	241	4,892	6,141	-1,353	-1,136	74	1,166	-1,249	
Currency	-738	119	215	103	-301	-384	15	-132	163	37	82	850	-889	-36	140	18	-767	
Multi Asset	864	-17	79	55	982	-397	1,100	141	-3	140	1,379	-459	1,617	154	-7	74	1,838	
Alternative	1,158	115	344	178	1,794	938	932	-176	35	66	856	-81	1,163	-303	54	23	937	
Total	284,068.6	54,599.1	30,670.5	11,666.9	381,005.1	-21,832	237,143	81,147	72,723	11,825	402,837	70,628	240,749	60,790	22,236	8,435	332,209	
<i>Regional YoY change</i>	<i>46,926</i>	<i>-26,548</i>	<i>-42,052</i>	<i>-158</i>	<i>-21,832</i>		<i>-3,606</i>	<i>20,358</i>	<i>50,487</i>	<i>3,390</i>	<i>70,628</i>							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



Asset class cash flows analysis - Equity

Figure 123: Cash flow summary | ETPs | Global |

All figures in \$ million

	2016						2015						2014				
	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total
Developed Markets	-10,814	282	36,239	1,532	27,238	-152,253	102,167	39,650	35,194	2,480	179,491	106,830	34,498	23,390	14,905	-133	72,660
Emerging Markets	17,373	4,929	-2,742	-709	18,850	36,919	-2,285	-1,786	-12,860	-1,138	-18,069	-16,215	3,674	1,108	-4,964	-1,671	-1,854
Global Markets	3,110	227	1,117	101	4,554	-1,250	5,780	-507	87	445	5,804	-1,954	6,671	1,004	-26	108	7,758
Sectors	21,288	2,764	2,934	948	27,933	13,429	8,095	3,536	1,591	1,282	14,504	-27,760	35,940	3,144	1,132	2,049	42,264
Capitalization	75,985	-127	25	532	76,415	68,975	4,375	2,294	-49	821	7,440	-40,293	48,153	-968	99	449	47,733
Strategy	18,684	5,982	2,189	2,520	29,375	-11,126	29,058	3,532	5,629	2,282	40,501	13,182	19,143	4,163	2,388	1,626	27,319
Style	44,645	2,007	1,146	1,038	48,835	22,965	21,982	2,828	715	345	25,870	-13,229	35,407	2,532	335	824	39,099
Thematic	10,401	1,729	3,887	178	16,196	10,330	4,643	1,227	96	-99	5,866	2,557	1,868	916	449	76	3,309
Total	180,672	17,792	44,795	6,138	249,397	-12,010	173,814	50,773	30,402	6,418	261,407	23,118	185,354	35,289	14,317	3,329	238,289
Regional YoY change	6,858	-32,981	14,393	-280	-12,010		-11,539	15,484	16,085	3,089	23,118						

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



Figure 124: Cash flows - Developed markets | ETPs | Global |

All figures in \$ million

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	
Europe																		
Austria	17.0	-170.7	0.0	0.0	-153.6	-174.1	-2.0	22.5	0.0	0.0	20.5	-260.4	-14.0	294.9	0.0	0.0	280.9	
Belgium	-139.1	0.5	0.0	0.0	-138.6	-230.4	88.4	3.4	0.0	0.0	91.8	23.2	71.1	-2.5	0.0	0.0	68.6	
Denmark	-24.6	0.0	0.0	0.0	-24.6	-47.9	23.3	0.0	0.0	0.0	23.3	-17.2	40.5	0.0	0.0	0.0	40.5	
Finland	10.5	-6.0	0.0	0.0	4.5	-12.5	5.3	11.7	0.0	0.0	17.0	23.6	6.8	-13.4	0.0	0.0	-6.7	
France	-87.8	-569.8	0.0	0.0	-657.6	-1,845.9	87.9	1,100.4	0.0	0.0	1,188.3	1,041.2	-77.3	224.5	0.0	0.0	147.1	
Germany	-2,870.7	-3,358.9	-2.9	0.0	-6,232.6	-14,012.1	3,710.9	4,174.2	-105.6	0.0	7,779.5	18,435.8	-869.8	-9,940.2	153.6	0.0	-10,656.3	
Greece	20.5	-29.1	0.0	0.0	-8.6	-361.8	282.6	70.6	0.0	0.0	353.2	129.6	76.6	147.1	0.0	0.0	223.6	
Iceland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Ireland	-95.7	-1.3	0.0	0.0	-97.0	-171.9	74.6	0.2	0.0	0.0	74.8	117.8	-34.2	-8.7	0.0	0.0	-43.0	
Italy	-396.5	-893.3	0.0	0.0	-1,289.8	-2,077.7	313.0	474.9	0.0	0.0	787.9	79.8	220.5	487.6	0.0	0.0	708.1	
Netherlands	2.0	-168.7	0.0	0.0	-166.8	-419.3	26.9	225.6	0.0	0.0	252.5	428.4	-147.3	-28.5	0.0	0.0	-175.9	
Norway	54.3	7.7	0.0	0.0	62.0	83.5	5.7	-27.2	0.0	0.0	-21.6	-159.0	61.4	76.0	0.0	0.0	137.4	
Portugal	-3.8	-30.9	0.0	0.0	-34.7	-50.8	3.5	12.7	0.0	0.0	16.1	-63.3	39.1	40.4	0.0	0.0	79.5	
Spain	-669.3	-501.4	0.0	0.0	-1,170.7	-1,377.5	161.2	45.5	0.0	0.0	206.7	-1,253.0	958.8	501.0	0.0	0.0	1,459.8	
Sweden	-76.7	-91.5	0.0	0.0	-168.2	-214.8	57.2	-10.5	0.0	0.0	46.7	678.7	-108.7	-523.4	0.0	0.0	-632.0	
Switzerland	-132.2	-64.7	0.0	0.0	-196.8	-1,172.2	223.5	751.8	0.0	0.0	975.3	-609.2	27.3	1,557.2	0.0	0.0	1,584.5	
UK	-243.7	1,747.6	3.9	0.9	1,508.7	770.3	-177.9	905.6	0.0	10.7	738.4	-135.6	-157.1	1,020.4	0.0	10.8	874.1	
Europe broad	-22,811.9	-6,863.0	69.7	-37.0	-29,642.2	-90,293.8	34,245.9	26,078.6	82.2	244.8	60,651.6	49,573.5	5,691.0	5,312.5	22.2	52.5	11,078.1	
Total	-27,447.8	-10,993.5	70.7	-36.2	-38,406.8	-111,608.9	39,130.0	33,840.0	-23.4	255.5	73,202.1	68,033.7	5,784.6	-855.1	175.8	63.2	5,168.5	
<i>Regional YoY change</i>	<i>-66,577.8</i>	<i>-44,833.6</i>	<i>94.1</i>	<i>-291.7</i>	<i>-111,608.9</i>		<i>33,345.4</i>	<i>34,695.1</i>	<i>-199.2</i>	<i>192.3</i>	<i>68,033.7</i>							
Americas																		
US	10,109.6	8,799.1	64.5	155.4	19,128.6	6,030.8	11,133.5	1,471.5	-42.8	535.6	13,097.8	-15,191.8	9,439.9	18,347.1	85.7	416.9	28,289.6	
Canada	1,263.2	601.8	0.0	900.0	2,765.0	2,603.4	-329.3	6.3	0.0	484.6	161.6	1,571.6	-553.1	175.1	0.0	-1,032.0	-1,409.9	
North America	0.0	-73.4	0.0	1.2	-72.1	806.1	0.0	-879.6	0.0	1.3	-878.2	-651.9	0.0	-226.3	0.0	0.0	-226.3	
Total	11,372.8	9,327.6	64.5	1,056.6	21,821.4	9,440.2	10,804.1	598.3	-42.8	1,021.6	12,381.2	-14,272.1	8,886.9	18,295.9	85.7	-615.1	26,653.3	
<i>Regional YoY change</i>	<i>568.7</i>	<i>8,729.3</i>	<i>107.3</i>	<i>35.0</i>	<i>9,440.2</i>		<i>1,917.3</i>	<i>-17,697.6</i>	<i>-128.5</i>	<i>1,636.7</i>	<i>-14,272.1</i>							
Asia																		
Australia	322.8	408.6	184.2	0.0	915.6	-343.6	-79.6	74.4	1,264.4	0.0	1,259.2	-82.4	-130.1	546.9	924.7	0.0	1,341.6	
Hong Kong	-663.6	-92.7	1,733.7	0.0	977.4	-1,415.8	-113.9	136.7	2,370.4	0.0	2,393.1	853.7	540.9	8.8	989.8	0.0	1,539.5	
Japan	-9,406.2	-3,144.6	33,813.4	37.5	21,300.2	-23,350.1	9,171.8	4,061.9	31,348.2	68.4	44,650.3	27,669.9	1,567.5	2,830.0	12,605.6	-22.7	16,980.4	
New Zealand	42.0	0.0	1.9	0.0	43.9	62.3	-44.4	0.0	26.0	0.0	-18.4	-12.8	-9.4	0.0	3.8	0.0	-5.6	
Singapore	-2.3	-16.6	110.7	0.0	91.7	148.5	-121.4	57.1	7.6	0.0	-56.7	236.5	-297.7	9.3	-4.9	0.0	-293.3	
Asia Pacific broad	354.3	733.8	7.0	10.8	1,105.9	630.2	583.4	-149.9	25.8	16.4	475.7	213.6	-52.6	308.9	0.0	5.7	262.1	
Total	-9,353.1	-2,111.6	35,851.0	48.3	24,434.6	-24,268.5	9,395.9	4,180.1	35,042.3	84.8	48,703.2	28,878.5	1,618.6	3,704.0	14,518.9	-17.0	19,824.6	
<i>Regional YoY change</i>	<i>-18,749.0</i>	<i>-6,291.7</i>	<i>808.7</i>	<i>-36.5</i>	<i>-24,268.5</i>		<i>7,777.2</i>	<i>476.1</i>	<i>20,523.4</i>	<i>101.8</i>	<i>28,878.5</i>							
EMEA																		
Israel	-6.9	7.6	0.0	0.0	0.6	9.2	-8.5	0.0	0.0	0.0	-8.5	-51.8	43.3	0.0	0.0	0.0	43.3	
Total	-6.9	7.6	0.0	0.0	0.6	9.2	-8.5	0.0	0.0	0.0	-8.5	-51.8	43.3	0.0	0.0	0.0	43.3	
<i>Regional YoY change</i>	<i>1.6</i>	<i>7.6</i>	<i>0.0</i>	<i>0.0</i>	<i>9.2</i>		<i>-51.8</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>-51.8</i>							
Global																		
Broad indices	14,621.0	4,051.7	252.5	463.0	19,388.2	-25,824.6	42,845.0	1,031.8	217.7	1,118.3	45,212.8	24,242.0	18,165.0	2,245.2	124.6	436.0	20,970.7	
Total	14,621.0	4,051.7	252.5	463.0	19,388.2	-25,824.6	42,845.0	1,031.8	217.7	1,118.3	45,212.8	24,242.0	18,165.0	2,245.2	124.6	436.0	20,970.7	
<i>Regional YoY change</i>	<i>-28,224.0</i>	<i>3,019.8</i>	<i>34.8</i>	<i>-655.3</i>	<i>-25,824.6</i>		<i>24,680.0</i>	<i>-1,213.3</i>	<i>93.1</i>	<i>682.3</i>	<i>24,242.0</i>							
Grand total	-10,814.0	281.7	36,238.7	1,531.7	27,238.1	-152,252.6	102,166.5	39,650.3	35,193.8	2,480.2	179,490.8	106,830.3	34,498.4	23,389.9	14,904.9	-132.9	72,660.4	
<i>Regional YoY change</i>	<i>-112,980.5</i>	<i>-39,368.6</i>	<i>1,044.9</i>	<i>-948.5</i>	<i>-152,252.6</i>		<i>67,668.1</i>	<i>16,260.3</i>	<i>20,288.8</i>	<i>2,613.1</i>	<i>106,830.3</i>							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



Figure 125: Cash flows - Emerging markets | ETFs | Global |

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	
BRIC																		
Brazil	970.0	-169.5	-11.5	-102.1	687.0	1,213.3	-636.6	30.1	7.5	72.8	-526.3	-1,201.2	635.2	-155.9	-14.3	210.0	674.9	
Russia	316.9	167.3	-5.9	0.0	478.3	290.3	323.2	-133.4	-1.8	0.0	188.1	-1,173.7	1,338.8	14.4	8.6	0.0	1,361.8	
India	103.7	-273.2	351.5	-6.5	175.5	-2,211.4	2,026.6	277.1	-26.6	109.8	2,386.9	823.3	1,729.0	-48.6	-163.2	46.5	1,563.6	
China	-2,262.3	-576.3	-1,460.4	-3.1	-4,302.0	10,959.0	922.4	-2,256.7	-13,894.2	-32.4	-15,261.0	-12,690.8	432.9	411.3	-3,474.8	60.5	-2,570.1	
Total	-871.6	-851.6	-1,126.3	-111.6	-2,961.2	10,251.2	2,635.5	-2,082.9	-13,915.2	150.2	-13,212.3	-14,242.5	4,135.9	221.1	-3,643.8	316.9	1,030.2	
Regional YoY change	-3,507.2	1,231.3	12,788.9	-261.8	10,251.2		-1,500.4	-2,304.0	-10,271.4	-166.7	-14,242.5							
Latin America																		
Argentina	45.8	0.0	0.0	0.0	45.8	40.0	5.9	0.0	0.0	0.0	5.9	-9.1	15.0	0.0	0.0	0.0	15.0	
Chile	161.4	0.0	0.0	47.9	209.3	220.6	-22.7	-18.2	0.0	29.6	-11.3	3.1	-27.4	2.3	0.0	10.6	-14.4	
Colombia	10.1	0.0	0.0	391.5	401.7	526.6	30.0	0.0	0.0	-154.9	-124.9	-21.3	-4.5	0.0	0.0	-99.1	-103.6	
Mexico	725.8	-17.1	0.0	-1,246.4	-537.7	1,168.9	-735.3	-56.9	0.0	-914.4	-1,706.6	173.7	-14.4	15.4	0.0	-1,881.3	-1,880.3	
Peru	30.4	0.0	0.0	0.0	30.4	84.7	-54.3	0.0	0.0	0.0	-54.3	10.4	-64.7	0.0	0.0	0.0	-64.7	
LATAM broad	234.4	421.5	0.0	11.5	667.4	587.8	33.2	49.0	0.0	-2.5	79.6	187.5	-59.8	-47.2	0.0	-0.9	-107.9	
Total	1,208.0	404.3	0.0	-795.5	816.8	2,628.5	-743.3	-26.2	0.0	-1,042.1	-1,811.7	344.3	-155.7	-29.5	0.0	-1,970.7	-2,156.0	
Regional YoY change	1,951.3	430.6	0.0	246.6	2,628.5		-587.6	3.3	0.0	928.6	344.3							
Asia																		
Bangladesh	0.0	1.1	0.0	0.0	1.1	-1.2	0.0	2.2	0.0	0.0	2.2	4.6	0.0	-2.4	0.0	0.0	-2.4	
Indonesia	144.5	10.9	-25.9	0.0	129.5	344.8	-258.3	-5.8	48.7	0.0	-215.4	-394.1	172.1	3.9	2.8	0.0	178.7	
Malaysia	68.5	-3.1	-1.3	0.0	64.1	226.1	-144.4	-18.2	0.6	0.0	-161.9	57.3	-192.9	-21.6	-4.7	0.0	-219.2	
Pakistan	4.4	4.9	0.0	0.0	9.3	6.4	6.0	-3.2	0.0	0.0	2.9	-2.2	0.0	5.1	0.0	0.0	5.1	
Philippines	-107.5	11.8	-3.9	0.0	-99.5	-9.5	-74.5	-27.0	11.5	0.0	-90.0	-143.2	44.3	10.2	-1.2	0.0	53.3	
South Korea	-715.6	-217.6	-22.3	0.0	-955.5	-864.0	-380.4	59.4	229.5	0.0	-91.5	62.8	437.3	-102.2	-489.5	0.0	-154.3	
Taiwan	-295.1	-200.2	-1,596.6	0.0	-2,091.9	-2,628.9	90.7	-277.7	724.0	0.0	536.9	781.0	248.8	354.5	-847.3	0.0	-244.1	
Thailand	96.7	14.3	3.8	0.0	114.8	312.7	-176.4	-34.4	13.0	0.0	-197.9	-108.5	-102.8	17.3	-3.8	0.0	-89.3	
Vietnam	-80.4	-98.5	14.4	0.0	-164.6	-240.8	29.6	39.4	7.2	0.0	76.2	-91.7	102.4	55.7	9.8	0.0	167.9	
Asia Pacific broad	-53.6	248.3	-1.1	0.0	193.6	-211.9	150.4	257.2	-2.0	0.0	405.5	59.9	102.2	248.8	-5.4	0.0	345.7	
Total	-938.1	-228.1	-1,632.8	0.0	-2,799.0	-3,066.2	-757.3	-8.0	1,032.5	0.0	267.2	225.9	811.4	569.3	-1,339.4	0.0	41.3	
Regional YoY change	-180.8	-220.1	-2,665.3	0.0	-3,066.2		-1,568.7	-577.4	2,371.9	0.0	225.9							
EMEA																		
Bulgaria	0.0	13.6	0.0	0.0	13.6	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Egypt	21.3	0.0	0.0	0.0	21.3	22.6	-1.3	0.0	0.0	0.0	-1.3	-0.3	-1.0	0.0	0.0	0.0	-1.0	
Kuwait	0.0	-1.9	0.0	0.0	-1.9	1.9	0.0	-3.8	0.0	0.0	-3.8	-5.2	0.0	1.4	0.0	0.0	1.4	
Nigeria	19.7	0.0	0.0	0.0	19.7	8.4	11.4	0.0	0.0	0.0	11.4	-5.2	16.6	0.0	0.0	0.0	16.6	
Poland	35.4	6.7	0.0	0.0	42.1	-23.2	22.4	43.0	0.0	0.0	65.3	124.3	-31.2	-27.8	0.0	0.0	-59.0	
Qatar	5.1	0.0	0.0	0.0	5.1	-4.2	9.3	0.0	0.0	0.0	9.3	-37.7	47.0	0.0	0.0	0.0	47.0	
South Africa	77.7	26.3	0.0	46.5	150.6	434.3	15.1	-14.5	-10.3	-274.1	-283.8	-152.6	-106.9	-0.8	0.0	-23.5	-131.2	
Saudi Arabia	1.2	0.0	0.0	10.8	12.1	6.3	4.9	0.0	0.0	0.8	5.7	6.3	0.0	0.0	0.0	-0.6	-0.6	
Turkey	66.8	-65.5	0.0	0.0	1.3	36.1	-8.6	-26.2	0.0	0.0	-34.9	175.5	-46.1	-164.2	0.0	0.0	-210.3	
UAE	17.0	0.0	0.0	15.6	32.6	52.1	-16.5	0.0	0.0	-3.0	-19.5	-91.9	60.9	0.0	0.0	11.4	72.4	
Europe broad	-6.3	29.2	0.0	0.0	22.9	370.2	-181.8	-165.6	0.0	0.0	-347.3	-343.2	75.1	-79.3	0.0	0.0	-4.2	
Middle East & Africa	-13.5	-15.7	0.0	0.0	-29.2	-58.4	-25.6	55.4	0.0	-0.6	29.2	121.8	-22.3	-20.5	0.0	-49.8	-92.6	
Total	224.4	-7.4	0.0	73.0	290.0	859.7	-170.8	-111.8	-10.3	-276.8	-569.7	-208.1	-7.9	-291.2	0.0	-62.4	-361.5	
Regional YoY change	395.2	104.4	10.3	349.8	859.7		-162.9	179.4	-10.4	-214.4	-208.1							
Global Markets																		
Global	17,750.4	5,611.3	17.2	124.7	23,503.6	26,245.8	-3,249.1	442.5	33.4	31.0	-2,742.2	-2,334.6	-1,110.0	638.2	18.7	45.4	-407.6	
Total	17,750.4	5,611.3	17.2	124.7	23,503.6	26,245.8	-3,249.1	442.5	33.4	31.0	-2,742.2	-2,334.6	-1,110.0	638.2	18.7	45.4	-407.6	
Regional YoY change	20,999.5	5,168.8	-16.2	93.7	26,245.8		-2,139.1	-195.7	14.7	-14.5	-2,334.6							
Grand Total	17,373.0	4,928.5	-2,741.8	-709.5	18,850.3	36,918.9	-2,285.0	-1,786.4	-12,859.5	-1,137.8	-18,068.6	-16,215.1	3,673.7	1,107.9	-4,964.4	-1,670.8	-1,853.5	
Regional YoY change	19,658.0	6,714.9	10,117.7	428.3	36,918.9		-5,958.7	-2,894.3	-7,895.1	533.1	-16,215.1							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



Figure 126: Cash flows - Other segments | ETFs | Global |

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	
Sector																		
Consumer discretionary	-1,808.4	111.6	-8.7	-0.1	-1,705.7	-2,834.4	880.2	194.7	33.6	20.2	1,128.7	-1,105.0	2,277.2	-2.7	-43.1	2.3	2,233.7	
Consumer staples	164.8	4.5	-146.1	-10.9	12.3	1,159.4	-1,672.6	53.1	437.3	35.1	-1,147.1	-4,402.6	3,212.4	-27.2	50.7	19.7	3,255.6	
Energy	2,685.4	411.9	-6.4	-69.2	3,021.7	-4,430.3	6,581.2	635.2	17.6	218.1	7,452.0	-512.8	6,802.7	650.9	-33.2	544.5	7,964.9	
Financials	5,674.9	691.9	-37.3	345.8	6,675.3	4,558.4	474.7	1,157.7	129.7	354.9	2,116.9	-3,601.3	3,901.1	1,432.4	125.6	259.1	5,718.2	
Healthcare	-148.4	964.5	145.7	-16.3	945.6	-4,211.4	5,375.4	-156.7	-192.6	131.0	5,157.0	-1,168.3	5,258.1	786.0	168.9	112.3	6,325.3	
Industrials	5,452.0	137.7	778.1	16.1	6,383.8	10,493.4	-4,108.0	55.9	-66.0	8.6	-4,109.5	-3,793.4	144.8	-467.2	-21.7	28.0	-316.2	
Information Technology	-315.5	242.6	-20.4	25.2	-68.1	-1,927.9	1,586.1	220.6	37.0	16.1	1,859.9	-888.2	2,399.4	401.0	-65.4	13.0	2,748.1	
Materials	1,160.3	117.3	46.7	12.7	1,337.0	1,428.5	-115.8	138.3	-132.5	18.5	-91.5	2,813.0	-2,488.1	-380.1	-11.5	-24.8	-2,904.5	
Real Estate	7,316.4	0.3	2,172.1	121.1	9,610.0	5,456.0	1,798.9	970.8	1,280.8	103.4	4,154.0	-7,982.2	10,214.6	810.1	1,076.1	35.4	12,136.2	
Telecommunications	259.1	-23.4	3.2	0.0	238.9	-73.1	21.0	282.3	8.7	0.0	312.0	12.3	392.9	-94.5	1.4	0.0	299.8	
Utilities	847.3	104.8	0.3	71.2	1,023.5	3,736.2	-2,726.1	-15.7	-0.7	29.8	-2,712.7	-6,519.2	3,824.7	35.4	-0.6	-53.0	3,806.5	
Transportation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Overall	0.0	0.0	7.0	452.0	459.1	74.5	0.0	0.0	37.8	346.8	384.6	-612.1	0.0	0.0	-115.4	1,112.1	996.7	
Total	21,287.9	2,763.8	2,934.0	947.7	27,933.4	13,429.1	8,095.0	3,536.1	1,590.8	1,282.4	14,504.3	-27,760.0	35,939.9	3,144.1	1,131.7	2,048.7	42,264.3	
<i>Regional YoY change</i>	<i>13,193.0</i>	<i>-772.3</i>	<i>1,343.3</i>	<i>-334.7</i>	<i>13,429.1</i>		<i>-27,844.9</i>	<i>392.0</i>	<i>459.1</i>	<i>-766.2</i>	<i>-27,760.0</i>							
Capitalization																		
Large Cap	51,561.3	-34.7	37.8	546.3	52,110.8	64,269.1	-12,889.7	-69.9	11.4	789.9	-12,158.3	-53,285.8	40,801.4	-240.8	114.2	452.7	41,127.6	
Mid Cap	7,600.1	-579.5	1.5	4.2	7,026.3	-3,241.2	9,566.3	771.6	-89.6	19.1	10,267.4	6,807.3	3,298.8	200.6	-46.3	7.1	3,460.2	
Small Cap	16,823.6	487.1	-14.1	-18.6	17,278.1	7,947.1	7,698.2	1,592.1	29.1	11.6	9,331.0	6,185.9	4,052.4	-927.6	30.8	-10.5	3,145.1	
Total	75,985.0	-127.1	25.2	532.0	76,415.1	68,975.0	4,374.9	2,293.8	-49.1	820.6	7,440.1	-40,292.7	48,152.7	-967.8	98.7	449.3	47,732.8	
<i>Regional YoY change</i>	<i>71,610.1</i>	<i>-2,420.9</i>	<i>74.3</i>	<i>-288.6</i>	<i>68,975.0</i>		<i>-43,777.8</i>	<i>3,261.5</i>	<i>-147.8</i>	<i>371.3</i>	<i>-40,292.7</i>							
Strategy																		
Active	-32.6	0.0	0.0	1,211.9	1,179.3	-585.0	766.0	0.0	0.0	998.3	1,764.3	-685.0	1,616.0	0.0	0.0	833.3	2,449.4	
Fundamental	131.0	-205.7	178.5	-18.3	85.4	-5,135.8	5,216.1	-74.2	52.9	26.4	5,221.2	-5,705.4	9,784.2	1,132.8	-13.3	22.9	10,926.6	
Leveraged Long	-3,053.8	-506.4	-3,785.3	-69.8	-7,415.4	-12,478.0	903.8	423.6	3,758.6	-23.3	5,062.6	4,084.6	-691.2	-245.7	1,895.0	20.0	978.1	
Leveraged Short	5,187.0	581.4	2,055.2	93.4	7,916.9	5,492.1	1,892.0	209.8	340.7	-17.7	2,424.8	-96.3	1,920.7	136.2	359.1	105.0	2,521.1	
Options Strategy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Quantitative	16,452.1	5,821.9	179.7	1,285.7	23,739.5	-441.7	20,279.9	2,677.8	-77.8	1,301.3	24,181.2	14,076.2	6,513.2	2,863.4	87.8	640.5	10,104.9	
Short	0.0	291.0	3,561.4	16.7	3,869.1	2,022.0	0.0	295.0	1,554.9	-2.8	1,847.1	1,507.7	0.0	276.0	59.5	3.8	339.4	
Total	18,683.6	5,982.2	2,189.5	2,519.7	29,375.0	-11,126.3	29,057.8	3,531.9	5,629.3	2,282.3	40,501.3	13,181.8	19,143.1	4,162.7	2,388.2	1,625.6	27,319.5	
<i>Regional YoY change</i>	<i>-10,374.2</i>	<i>2,450.3</i>	<i>-3,439.8</i>	<i>237.4</i>	<i>-11,126.3</i>		<i>9,914.7</i>	<i>-630.8</i>	<i>3,241.1</i>	<i>656.7</i>	<i>13,181.8</i>							
Style																		
Dividend	18,923.0	1,854.7	671.8	1,121.7	22,571.2	23,328.8	-3,787.1	2,248.9	584.6	196.1	-757.6	-17,276.3	12,564.2	2,859.7	481.3	613.4	16,518.7	
Growth	1,941.6	-49.9	444.7	-12.2	2,324.2	-13,445.2	15,307.5	146.1	222.0	93.9	15,769.5	5,782.1	10,240.2	-204.7	-85.6	37.6	9,987.4	
Value	23,780.1	202.1	29.3	-71.7	23,939.8	13,081.9	10,462.0	432.8	-91.7	54.7	10,857.9	-1,734.6	12,602.5	-122.8	-60.7	173.5	12,592.5	
Total	44,644.6	2,007.0	1,145.8	1,037.8	48,835.2	22,965.4	21,982.4	2,827.8	714.9	344.7	25,869.8	-13,228.8	35,406.9	2,532.2	335.0	824.5	39,098.6	
<i>Regional YoY change</i>	<i>22,662.2</i>	<i>-820.8</i>	<i>430.9</i>	<i>693.1</i>	<i>22,965.4</i>		<i>-13,424.5</i>	<i>295.6</i>	<i>379.9</i>	<i>-479.8</i>	<i>-13,228.8</i>							
Thematic																		
Commodities	8,316.4	184.2	6.6	140.4	8,647.6	6,339.1	2,209.7	184.0	-23.4	-61.8	2,308.5	1,598.1	395.2	328.3	-23.5	10.4	710.4	
Faith	0.0	13.6	0.0	0.0	13.6	40.6	0.0	-27.1	0.0	0.0	-27.1	-57.2	0.0	30.1	0.0	0.0	30.1	
Other Theme	1,487.9	763.7	3,855.6	25.5	6,132.6	3,275.6	2,462.8	264.7	173.8	-44.3	2,857.0	758.0	1,480.2	46.9	489.4	82.6	2,099.0	
Sustainability	597.1	767.7	25.1	12.4	1,402.3	674.9	-29.9	805.1	-54.9	7.1	727.4	257.9	-7.4	510.6	-17.1	-16.6	469.5	
Total	10,401.4	1,729.2	3,887.3	178.3	16,196.2	10,330.3	4,642.6	1,226.7	95.6	-99.0	5,865.8	2,556.9	1,868.0	915.8	448.8	76.4	3,309.0	
<i>Regional YoY change</i>	<i>5,758.8</i>	<i>502.5</i>	<i>3,791.7</i>	<i>277.3</i>	<i>10,330.3</i>		<i>2,774.6</i>	<i>310.9</i>	<i>-353.2</i>	<i>-175.4</i>	<i>2,556.9</i>							
Grand total	171,002.6	12,355.0	10,181.9	5,215.4	198,754.9	104,573.6	68,152.7	13,416.2	7,981.5	4,631.0	94,181.4	-65,542.9	140,510.5	9,787.0	4,402.3	5,024.4	159,724.3	
<i>Regional YoY change</i>	<i>102,849.9</i>	<i>-1,061.2</i>	<i>2,200.4</i>	<i>584.4</i>	<i>104,573.6</i>		<i>-72,357.8</i>	<i>3,629.2</i>	<i>3,579.1</i>	<i>-393.4</i>	<i>-65,542.9</i>							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



Asset class cash flow analysis - Fixed income

Figure 127: Cash flow summary | ETFs | Global |

All figures in \$ million

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	
Overall	22,976.3	1,252.5	261.8	457.4	24,947.9	5,714.2	16,028.8	2,052.0	316.1	836.9	19,233.7	-2,151.8	18,234.0	2,700.0	156.4	295.1	21,385.5	
Corporates	35,036.8	18,998.9	181.6	1,450.4	55,667.8	18,495.7	19,296.0	15,818.0	190.7	1,867.3	37,172.0	6,140.9	15,736.4	11,888.9	814.1	2,591.6	31,031.1	
Covered Bonds	0.0	-197.3	0.0	0.0	-197.3	232.3	0.0	-429.6	0.0	0.0	-429.6	-1,356.6	0.0	927.1	0.0	0.0	927.1	
Credit Exposure	0.0	-79.8	0.0	0.0	-79.8	-89.7	0.0	9.9	0.0	0.0	9.9	316.4	0.0	-306.6	0.0	0.0	-306.6	
Sovereign	10,486.8	6,583.5	1,236.3	-27.3	18,279.3	-4,809.8	12,005.8	10,180.9	248.8	653.6	23,089.1	-494.6	11,020.4	11,674.1	637.2	252.1	23,583.8	
Sovereign & Corporates	6,420.5	0.0	0.0	3,250.7	9,671.2	2,194.6	5,967.1	0.0	0.0	1,509.5	7,476.6	2,831.7	3,961.5	0.0	0.0	683.4	4,645.0	
Collateralized Debt	3,535.5	0.0	0.0	0.0	3,535.5	1,648.9	1,886.6	0.0	0.0	0.0	1,886.6	-94.1	1,980.7	0.0	0.0	0.0	1,980.7	
Sub-Sovereign	12,857.2	0.0	0.0	43.2	12,900.4	8,085.3	4,759.6	0.0	0.0	55.5	4,815.1	888.4	3,924.6	0.0	0.0	2.1	3,926.7	
Money Market	0.0	-932.6	-17,406.7	0.0	-18,339.3	-59,305.8	0.0	1,300.4	39,666.1	0.0	40,966.5	34,978.7	0.0	-62.1	6,049.9	0.0	5,987.8	
Total	91,313.1	25,625.2	-15,727.0	5,174.5	106,385.7	-27,834.3	59,944.0	28,931.6	40,421.6	4,922.9	134,220.1	41,058.9	54,857.7	26,821.5	7,657.6	3,824.4	93,161.1	
<i>Regional YoY change</i>	<i>31,369.1</i>	<i>-3,306.5</i>	<i>-56,148.6</i>	<i>251.6</i>	<i>-27,834.3</i>		<i>5,086.3</i>	<i>2,110.2</i>	<i>32,764.0</i>	<i>1,098.5</i>	<i>41,058.9</i>							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP



Asset class cash flow analysis - Commodity

Figure 128: Cash flow summary | ETPs | Global |

All figures in \$ million	2016					2015					2014						
	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total	YoY change	US	Europe	Asia Pacific	RoW	Total
Overall	813.3	2,000.7	1.8	0.0	2,815.8	2,339.1	-507.0	989.8	3.1	-9.2	476.7	-309.0	521.3	280.0	1.9	-17.5	785.7
Overall ex Energy	0.0	-43.6	0.0	0.0	-43.6	-23.0	0.0	-20.6	0.0	0.0	-20.6	-60.2	0.0	39.7	0.0	0.0	39.7
Overall Light Energy	0.0	-1.9	0.0	0.0	-1.9	-3.1	0.0	1.2	0.0	0.0	1.2	3.2	0.0	-2.0	0.0	0.0	-2.0
Overall Ultra Light Energy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall - Total	813.3	1,955.2	1.8	0.0	2,770.4	2,313.0	-507.0	970.5	3.1	-9.2	457.3	-366.1	521.3	317.8	1.9	-17.5	823.4
<i>Regional YoY change</i>	<i>1,320.3</i>	<i>984.7</i>	<i>-1.3</i>	<i>9.2</i>	<i>2,313.0</i>	<i>-1,028.3</i>	<i>652.7</i>	<i>1.2</i>	<i>8.2</i>	<i>-366.1</i>							
Overall	80.2	-100.5	9.4	0.0	-10.9	165.1	-196.2	-1.9	22.1	0.0	-176.0	229.0	-209.7	-199.6	4.2	0.0	-405.0
Cocoa	0.0	18.3	0.0	0.0	18.3	20.6	0.0	-2.3	0.0	0.0	-2.3	-6.5	0.0	4.2	0.0	0.0	4.2
Coffee	0.0	-30.9	0.0	0.0	-30.9	-104.9	0.0	74.0	0.0	0.0	74.0	237.9	0.0	-163.8	0.0	0.0	-163.8
Corn	21.6	26.4	0.0	0.0	48.1	84.7	-30.2	-6.4	-0.1	0.0	-36.7	-140.9	68.8	35.5	0.0	0.0	104.3
Cotton	0.0	-23.3	0.0	0.0	-23.3	-11.0	0.0	-12.3	0.0	0.0	-12.3	-39.0	0.0	26.7	0.0	0.0	26.7
Grains	0.0	5.3	-0.5	0.0	4.8	7.5	0.0	-2.6	0.0	0.0	-2.6	-13.3	0.0	10.2	0.4	0.0	10.6
Softs	0.0	-1.2	0.0	0.0	-1.2	-0.8	0.0	-0.4	0.0	0.0	-0.4	0.1	0.0	-0.5	0.0	0.0	-0.5
Soybean Oil	0.0	0.7	0.0	0.0	0.7	4.5	0.0	-3.8	0.0	0.0	-3.8	-8.8	0.0	5.0	0.0	0.0	5.0
Soybeans	5.3	5.1	0.0	0.0	10.5	23.8	-3.9	-9.4	0.0	0.0	-13.4	-25.9	8.5	2.7	1.4	0.0	12.6
Sugar	-1.3	-30.1	0.0	0.0	-31.4	-48.1	3.3	13.4	0.0	0.0	16.7	-12.2	0.7	28.2	0.0	0.0	28.9
Wheat	48.9	105.2	-0.1	0.0	154.0	145.8	12.4	-4.2	0.0	0.0	8.2	-49.9	17.0	41.1	0.1	0.0	58.1
Agriculture - Total	154.8	-24.8	8.8	0.0	138.7	287.2	-214.6	44.1	22.0	0.0	-148.5	170.4	-114.7	-210.3	6.1	0.0	-318.9
<i>Regional YoY change</i>	<i>369.3</i>	<i>-68.9</i>	<i>-13.3</i>	<i>0.0</i>	<i>287.2</i>	<i>-99.9</i>	<i>254.3</i>	<i>16.0</i>	<i>0.0</i>	<i>170.4</i>							
Overall	78.1	-33.5	-0.1	0.0	44.5	-79.1	4.4	119.0	0.1	0.0	123.5	146.6	-7.2	-15.8	0.0	0.0	-23.0
Carbon	0.0	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.2	0.0	0.0	0.2
Coal	-1.1	0.0	0.0	0.0	-1.1	-2.5	1.3	0.0	0.0	0.0	1.3	1.3	0.0	0.0	0.0	0.0	0.0
Crude Oil	-484.0	-192.6	-93.6	13.7	-756.5	-9,187.7	4,667.3	2,290.3	1,213.8	259.7	8,431.2	6,247.1	1,796.2	271.2	121.5	-4.9	2,184.1
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	-10.3	-3.7	0.0	0.0	-14.0	-64.9	43.9	7.0	0.0	0.0	50.9	42.6	11.1	-2.8	0.0	0.0	8.3
Heating Oil	2.2	-0.2	0.0	0.0	2.0	-3.6	1.9	3.7	0.0	0.0	5.6	7.3	-0.3	-1.4	0.0	0.0	-1.7
Natural Gas	-129.9	-28.7	-0.1	8.8	-150.0	-483.5	163.8	127.8	0.1	41.8	333.5	228.3	-16.4	-11.9	-0.1	133.6	105.2
Oil & Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uranium	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Energy - Total	-545.1	-258.9	-93.8	22.5	-875.3	-9,821.3	4,882.7	2,547.8	1,214.0	301.5	8,946.0	6,673.0	1,783.5	239.5	121.4	128.7	2,273.1
<i>Regional YoY change</i>	<i>-5,427.8</i>	<i>-2,806.7</i>	<i>-1,307.8</i>	<i>-279.0</i>	<i>-9,821.3</i>	<i>3,099.3</i>	<i>2,308.3</i>	<i>1,092.6</i>	<i>172.8</i>	<i>6,673.0</i>							
Overall	134.5	66.1	0.0	0.0	200.6	343.7	-50.9	-92.0	-0.1	0.0	-143.1	-85.7	-1.9	-55.4	0.0	0.0	-57.3
Aluminium	0.0	-0.3	0.0	0.0	-0.3	-14.2	0.0	13.9	0.0	0.0	13.9	-48.7	0.0	62.7	0.0	0.0	62.7
Copper	3.3	64.4	-0.9	0.0	66.8	185.4	-0.1	-119.6	1.0	0.0	-118.6	-97.0	1.0	-22.1	-0.5	0.0	-21.7
Lead	0.0	1.4	0.0	0.0	1.4	1.2	0.0	0.1	0.0	0.0	0.1	0.5	0.0	-0.4	0.0	0.0	-0.4
Nickel	0.0	5.1	0.0	0.0	5.1	10.1	0.0	-5.0	0.0	0.0	-5.0	-137.6	0.0	132.6	0.0	0.0	132.6
Tin	0.0	-1.0	0.0	0.0	-1.0	-1.2	0.0	0.3	0.0	0.0	0.3	-0.1	0.0	0.3	0.0	0.0	0.3
Zinc	0.0	8.3	0.0	0.0	8.3	7.7	0.0	0.7	0.0	0.0	0.7	20.9	0.0	-20.3	0.0	0.0	-20.3
Industrial Metals - Total	137.8	144.1	-0.9	0.0	281.0	532.7	-51.0	-201.7	0.9	0.0	-251.7	-347.7	-1.0	97.4	-0.5	0.0	95.9
<i>Regional YoY change</i>	<i>188.8</i>	<i>345.7</i>	<i>-1.8</i>	<i>0.0</i>	<i>532.7</i>	<i>-50.0</i>	<i>-299.1</i>	<i>1.5</i>	<i>0.0</i>	<i>-347.7</i>							
Overall	127.0	23.9	0.0	0.0	150.9	307.6	-102.1	-54.7	0.0	0.0	-156.7	-144.7	-32.3	21.3	-1.1	0.0	-12.1
Gold	9,573.3	8,927.2	1,044.4	312.8	19,857.7	23,253.6	-2,332.7	-1,439.6	387.4	-11.0	-3,395.8	1,957.5	-3,490.0	-1,430.5	-71.4	-361.4	-5,353.4
Palladium	-44.2	-186.1	-2.0	-196.1	-428.4	-139.7	-111.0	-129.7	2.2	-50.2	-288.7	-1,039.5	-166.5	-65.2	-1.9	984.4	750.8
Platinum	66.6	57.3	17.5	-142.2	-0.8	54.4	-41.8	-93.5	67.1	13.0	-55.2	-400.2	-22.3	-78.0	4.5	440.8	345.0
Rhodium	0.0	-30.0	0.0	34.9	4.9	8.8	0.0	-4.2	0.0	0.3	-3.9	-9.0	0.0	5.2	0.0	0.0	5.2
Silver	515.6	362.6	-11.4	-14.0	852.7	1,060.1	-186.1	-25.8	7.6	-3.0	-207.4	-353.8	169.3	-28.6	14.7	-8.9	146.5
Precious Metals - Total	10,238.4	9,154.9	1,048.4	-4.6	20,437.1	24,544.8	-2,773.7	-1,747.5	464.3	-50.9	-4,107.8	10.3	-3,541.9	-1,575.9	-55.2	1,054.9	-4,118.1
<i>Regional YoY change</i>	<i>13,012.0</i>	<i>10,902.3</i>	<i>584.1</i>	<i>46.3</i>	<i>24,544.8</i>	<i>768.2</i>	<i>-171.6</i>	<i>519.5</i>	<i>-1,105.8</i>	<i>10.3</i>							
Overall	0.0	-4.1	0.0	0.0	-4.1	-1.0	0.0	-3.2	0.0	0.0	-3.2	-4.4	0.0	1.2	0.0	0.0	1.2
Cattle	0.0	-0.1	0.0	0.0	-0.1	2.4	0.0	-2.4	0.0	0.0	-2.4	-1.1	0.0	-1.3	0.0	0.0	-1.3
Lean Hogs	0.0	-0.5	0.0	0.0	-0.5	-2.7	0.0	2.2	0.0	0.0	2.2	6.5	0.0	-4.2	0.0	0.0	-4.2
Livestock - Total	0.0	-4.7	0.0	0.0	-4.7	-1.3	0.0	-3.4	0.0	0.0	-3.4	1.0	0.0	-4.4	0.0	0.0	-4.4
<i>Regional YoY % change</i>	<i>0.0</i>	<i>-1.3</i>	<i>0.0</i>	<i>0.0</i>	<i>-1.3</i>	<i>0.0</i>	<i>0.0</i>	<i>1.0</i>	<i>0.0</i>	<i>0.0</i>	<i>1.0</i>						
Grand Total	10,799.2	10,965.7	964.3	17.9	22,747.1	17,855.1	1,336.5	1,609.8	1,704.3	241.4	4,892.0	6,140.9	-1,352.8	-1,135.9	73.6	1,166.1	-1,248.9
<i>Regional YoY change</i>	<i>9,462.7</i>	<i>9,355.9</i>	<i>-740.1</i>	<i>-223.4</i>	<i>17,855.1</i>	<i>2,689.3</i>	<i>2,745.7</i>	<i>1,630.7</i>	<i>-924.8</i>	<i>6,140.9</i>							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



8. Trading Analysis

Regional turnover analysis

Figure 129: Global ETP turnover by region and asset class | ETPs | Global |

All figures in \$ million	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	
ETFs																		
Equity	16,382,895	614,417	1,005,813	261,623	18,264,747	-4.1%	16,667,650	650,931	1,537,562	186,359	19,042,503	14.3%	15,077,589	566,225	789,108	223,306	16,656,228	
Fixed income	1,718,621	246,347	1,321,769	54,944	3,341,682	18.6%	1,359,709	185,453	1,238,409	33,685	2,817,254	64.3%	1,087,468	116,762	482,619	28,310	1,715,159	
Commodity	3,097	13,962	32,511	37,019	86,589	58.1%	1,810	9,804	10,153	32,989	54,756	14.1%	783	12,738	2,910	31,573	48,004	
Currency	1,482	0	2,370	2,581	6,432	58.7%	1,972	8	1,040	1,035	4,054	36.3%	1,741	22	479	733	2,976	
Multi Asset	9,078	262	117	1,005	10,462	-10.2%	10,624	360	24	647	11,655	17.3%	9,010	239	9	677	9,934	
Alternative	4,939	1,587	3,858	7,278	17,662	17.3%	5,625	1,395	2,849	5,183	15,052	0.2%	4,978	1,976	1,739	6,334	15,027	
Total	18,120,112	876,576	2,366,437	364,450	21,727,574	-1.0%	18,047,390	847,951	2,790,036	259,897	21,945,275	19.0%	16,181,569	697,963	1,276,863	290,932	18,447,328	
<i>Regional YoY % change</i>	<i>0.4%</i>	<i>3.4%</i>	<i>-15.2%</i>	<i>40.2%</i>	<i>-1.0%</i>		<i>11.5%</i>	<i>21.5%</i>	<i>118.5%</i>	<i>-10.7%</i>	<i>19.0%</i>							
ETC/Vs																		
Commodity	592,448	82,755	1,108	2,324	678,635	34.2%	455,163	48,559	724	1,373	505,818	10.6%	420,359	33,976	979	2,189	457,504	
Currency	40,339	2,814	0	0	43,153	-26.4%	55,496	3,170	0	0	58,666	54.6%	36,091	1,850	0	0	37,941	
Alternative	296,684	0	0	0	296,684	40.1%	211,757	0	0	0	211,757	105.4%	103,084	0	0	0	103,084	
Total	929,470	85,569	1,108	2,324	1,018,472	31.2%	722,415	51,729	724	1,373	776,240	29.7%	559,534	35,827	979	2,189	598,529	
<i>Regional YoY % change</i>	<i>28.7%</i>	<i>65.4%</i>	<i>53.2%</i>	<i>69.3%</i>	<i>31.2%</i>		<i>29.1%</i>	<i>44.4%</i>	<i>-26.1%</i>	<i>-37.3%</i>	<i>29.7%</i>							
ETPs																		
Equity	16,382,895	614,417	1,005,813	261,623	18,264,747	-4.1%	16,667,650	650,931	1,537,562	186,359	19,042,503	14.3%	15,077,589	566,225	789,108	223,306	16,656,228	
Fixed income	1,718,621	246,347	1,321,769	54,944	3,341,682	18.6%	1,359,709	185,453	1,238,409	33,685	2,817,254	64.3%	1,087,468	116,762	482,619	28,310	1,715,159	
Commodity	595,545	96,717	33,619	39,343	765,224	36.5%	456,973	58,363	10,877	34,361	560,574	10.9%	421,142	46,715	3,890	33,762	505,508	
Currency	41,820	2,814	2,370	2,581	49,585	-20.9%	57,467	3,178	1,040	1,035	62,720	53.3%	37,832	1,873	479	733	40,916	
Multi Asset	9,078	262	117	1,005	10,462	-10.2%	10,624	360	24	647	11,655	17.3%	9,010	239	9	677	9,934	
Alternative	301,623	1,587	3,858	7,278	314,346	38.6%	217,382	1,395	2,849	5,183	226,809	92.0%	108,061	1,976	1,739	6,334	118,110	
Total	19,049,582	962,145	2,367,546	366,774	22,746,046	0.1%	18,769,806	899,680	2,790,760	261,270	22,721,515	19.3%	16,741,103	733,789	1,277,843	293,122	19,045,857	
<i>Regional YoY % change</i>	<i>1.5%</i>	<i>6.9%</i>	<i>-15.2%</i>	<i>40.4%</i>	<i>0.1%</i>		<i>12.1%</i>	<i>22.6%</i>	<i>118.4%</i>	<i>-10.9%</i>	<i>19.3%</i>							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.

Asset class turnover analysis - Equity

Figure 130: Turnover summary | ETFs | Global |

All figures in \$ million	2016						2015						2014				
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total
Developed Markets	1,185,332	370,711	112,502	74,554	1,743,099	-4.5%	1,225,598	424,641	115,303	59,227	1,824,770	37.0%	887,185	346,053	96,566	62,740	1,392,544
Emerging Markets	1,427,849	60,099	225,021	44,264	1,757,233	-21.6%	1,364,847	61,057	771,010	44,095	2,241,010	15.2%	1,463,672	65,072	350,714	66,638	1,946,096
Global Markets	94,706	9,138	857	3,756	108,457	-3.1%	97,566	10,218	830	3,288	111,902	61.2%	56,604	10,396	607	1,818	69,426
Sectors	2,941,248	46,873	19,386	43,320	3,050,827	8.6%	2,698,064	39,494	43,166	27,804	2,808,529	19.7%	2,266,191	34,468	17,422	27,774	2,345,854
Capitalization	8,068,653	9,312	1,927	18,958	8,098,850	-12.2%	9,186,232	9,434	7,267	18,608	9,221,542	10.6%	8,301,986	9,851	1,990	24,557	8,338,384
Strategy	1,429,885	88,270	616,142	54,898	2,189,195	15.0%	1,266,696	79,867	531,009	25,486	1,903,058	9.4%	1,331,526	77,332	305,676	24,848	1,739,383
Style	549,538	20,237	28,108	9,058	606,942	7.9%	483,474	20,368	53,320	5,169	562,331	22.3%	417,165	18,855	12,704	11,253	459,977
Thematic	685,684	9,777	1,868	12,814	710,143	92.3%	345,172	5,851	15,657	2,680	369,361	1.3%	353,260	4,197	3,430	3,678	364,565
Total	16,382,895	614,417	1,005,813	261,623	18,264,747	-4.1%	16,667,650	650,931	1,537,562	186,359	19,042,503	14.3%	15,077,589	566,225	789,108	223,306	16,656,228
<i>Regional YoY % change</i>	<i>-1.7%</i>	<i>-5.6%</i>	<i>-34.6%</i>	<i>40.4%</i>	<i>-4.1%</i>		<i>10.5%</i>	<i>15.0%</i>	<i>94.8%</i>	<i>-16.5%</i>	<i>14.3%</i>						

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



Figure 131: Turnover - Developed markets | ETFs | Global |

All figures in \$ million

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	
Europe																		
Austria	392.3	148.6	0.0	12.1	552.9	30.0%	255.1	168.5	0.0	1.6	425.2	-57.5%	623.8	260.4	0.0	117.0	1,001.1	
Belgium	1,601.6	19.9	0.0	78.5	1,699.9	36.2%	1,195.3	50.3	0.0	2.7	1,248.3	106.8%	562.7	39.1	0.0	1.8	603.6	
Denmark	606.3	0.0	0.0	0.0	606.3	49.9%	404.5	0.0	0.0	0.0	404.5	86.9%	216.4	0.0	0.0	0.0	216.4	
Finland	171.3	88.0	0.0	0.0	259.3	2.7%	106.1	146.4	0.0	0.0	252.6	-11.1%	134.1	150.1	0.0	0.0	284.1	
France	5,629.4	5,976.1	0.0	83.7	11,689.2	-11.6%	5,136.6	8,011.2	0.0	69.8	13,217.7	37.4%	4,119.1	5,442.9	0.0	54.9	9,616.9	
Germany	39,735.9	46,415.0	150.5	1,264.5	87,565.8	-24.4%	50,926.8	62,852.4	889.6	1,090.0	115,758.8	40.4%	28,461.7	53,281.7	65.3	663.7	82,472.4	
Greece	752.4	315.8	0.0	0.0	1,068.3	-68.0%	2,530.7	811.6	0.0	0.0	3,342.3	7.4%	1,995.7	1,115.9	0.0	0.0	3,111.6	
Ireland	471.9	12.0	0.0	165.1	649.0	25.9%	477.6	35.6	0.0	2.4	515.6	-5.8%	527.7	13.4	0.0	6.4	547.6	
Iceland	0.0	59.6	0.0	0.0	59.6	1103.5%	0.0	5.0	0.0	0.0	5.0	-49.2%	0.0	9.8	0.0	0.0	9.8	
Italy	6,441.4	9,521.8	0.0	150.5	16,113.7	-25.5%	8,991.7	12,435.2	0.0	213.2	21,640.2	-19.3%	12,236.8	14,479.4	0.0	94.1	26,810.3	
Netherlands	1,529.8	2,802.1	0.0	35.0	4,367.0	-12.0%	1,768.8	3,166.7	0.0	28.9	4,964.4	82.9%	1,126.4	1,565.0	0.0	23.5	2,714.9	
Norway	307.3	296.0	0.0	0.0	603.3	-16.2%	363.7	356.2	0.0	0.0	719.8	-47.6%	590.2	783.7	0.0	0.0	1,373.9	
Portugal	51.1	67.2	0.0	0.0	118.3	-71.6%	154.0	262.8	0.0	0.0	416.7	-31.7%	183.1	427.0	0.0	0.0	610.1	
Spain	8,978.9	2,133.4	0.0	120.4	11,232.8	-33.3%	12,405.5	4,359.3	0.0	84.3	16,849.1	1.1%	12,064.2	4,494.3	0.0	101.0	16,659.5	
Sweden	1,798.2	4,251.2	0.0	43.7	6,093.1	-8.7%	2,049.8	4,577.1	0.0	45.7	6,672.5	-3.3%	1,760.4	4,891.6	0.0	245.3	6,897.4	
Switzerland	6,955.6	12,386.4	1.9	52.4	19,396.3	-14.1%	5,901.1	16,614.3	1.3	53.6	22,570.3	29.6%	4,351.3	13,051.4	0.0	9.5	17,412.3	
UK	17,510.2	36,593.1	7.8	1,533.9	55,645.0	17.1%	13,918.5	33,280.1	0.7	314.2	47,513.5	-4.5%	14,938.5	33,789.5	0.0	1,011.2	49,739.2	
Europe broad	210,258.4	102,953.3	492.7	8,883.0	322,587.5	-20.7%	274,140.2	124,526.2	646.8	7,261.8	406,575.0	63.7%	157,588.8	85,772.4	334.3	4,692.3	248,387.8	
Total	303,192.1	224,039.5	652.9	12,422.8	540,307.3	-18.5%	380,726.0	271,659.0	1,538.5	9,168.1	663,091.6	41.5%	241,481.1	219,567.5	399.6	7,020.8	468,469.0	
Regional YoY % change	-20.4%	-17.5%	-57.6%	35.5%	-18.5%		57.7%	23.7%	285.0%	30.6%	41.5%							
Americas																		
US	112,927.9	80,064.2	921.1	4,645.3	198,558.5	2.2%	110,368.1	76,643.5	3,348.8	3,921.6	194,282.1	27.3%	87,353.6	60,896.2	655.1	3,702.3	152,607.2	
Canada	15,593.4	2,053.4	0.0	49,857.7	67,504.5	25.6%	12,718.9	1,095.1	0.0	39,917.8	53,731.9	-9.3%	9,997.3	1,699.0	0.0	47,519.9	59,216.1	
North America	0.0	2,248.7	0.0	14.3	2,263.0	-13.9%	0.0	2,609.6	0.0	19.2	2,628.7	-8.2%	0.0	2,847.8	0.0	16.9	2,864.7	
Total	128,521.4	84,366.2	921.1	54,517.3	268,326.0	7.1%	123,087.1	80,348.2	3,348.8	43,858.6	250,642.7	16.7%	97,350.9	65,443.0	655.1	51,239.1	214,688.1	
Regional YoY % change	4.4%	5.0%	-72.5%	24.3%	7.1%		26.4%	22.8%	411.2%	-14.4%	16.7%							
Asia																		
Australia	13,633.2	1,529.4	5,470.9	102.3	20,735.8	16.2%	12,020.2	1,384.5	4,426.1	19.3	17,850.0	11.3%	10,748.5	1,384.7	3,841.0	59.2	16,033.4	
Hong Kong	17,652.8	216.3	48,344.0	688.9	66,902.1	-1.8%	17,846.5	721.4	49,329.3	238.2	68,135.4	53.1%	16,315.8	637.2	26,897.6	657.1	44,507.7	
Japan	196,915.9	30,114.7	55,541.8	2,442.5	285,014.9	-4.1%	202,787.2	35,696.9	55,294.0	3,387.0	297,165.0	14.1%	164,065.1	31,204.5	63,742.8	1,526.3	260,538.7	
New Zealand	754.0	0.0	58.3	144.6	956.9	219.1%	249.7	0.0	50.0	0.3	299.9	-21.5%	344.4	0.0	36.5	1.2	382.0	
Singapore	3,591.4	39.2	318.4	19.0	3,967.9	16.6%	3,002.0	38.1	344.8	18.8	3,403.8	-18.5%	3,942.3	15.9	207.4	8.4	4,174.0	
Asia Pacific broad	13,604.3	2,570.7	5.7	157.0	16,337.7	-0.5%	14,330.9	2,053.1	1.4	42.4	16,427.8	-4.1%	15,200.8	1,910.9	1.6	11.7	17,125.0	
Total	246,151.6	34,470.5	109,739.0	3,554.3	393,915.4	-2.3%	250,236.5	39,893.9	109,445.5	3,705.9	403,281.9	17.7%	210,616.8	35,153.1	94,727.0	2,263.9	342,760.8	
Regional YoY % change	-1.6%	-13.6%	0.3%	-4.1%	-2.3%		18.8%	13.5%	15.5%	63.7%	17.7%							
EMEA																		
Israel	415.7	36.0	0.0	126.8	578.5	-46.2%	1,073.6	0.0	0.0	2.4	1,076.0	58.0%	679.9	0.0	0.0	1.1	681.0	
Total	415.7	36.0	0.0	126.8	578.5	-46.2%	1,073.6	0.0	0.0	2.4	1,076.0	58.0%	679.9	0.0	0.0	1.1	681.0	
Regional YoY % change	-61.3%	NA	NA	5182.1%	-46.2%		57.9%	NA	NA	123.8%	58.0%							
Global																		
Broad indices	507,050.9	27,799.1	1,189.0	3,933.0	539,972.0	6.6%	470,474.6	32,740.1	970.2	2,492.4	506,677.4	38.5%	337,056.3	25,889.3	784.2	2,214.9	365,944.8	
Total	507,050.9	27,799.1	1,189.0	3,933.0	539,972.0	6.6%	470,474.6	32,740.1	970.2	2,492.4	506,677.4	38.5%	337,056.3	25,889.3	784.2	2,214.9	365,944.8	
Regional YoY % change	7.8%	-15.1%	22.5%	57.8%	6.6%		39.6%	26.5%	23.7%	12.5%	38.5%							
Grand total	1,185,331.6	370,711.3	112,502.0	74,554.2	1,743,099.1	-4.5%	1,225,597.8	424,641.2	115,303.1	59,227.4	1,824,769.6	31.0%	887,185.0	346,053.0	96,565.9	62,739.7	1,392,543.7	
Regional YoY % change	-3.3%	-12.7%	-2.4%	25.9%	-4.5%		38.1%	22.7%	19.4%	-5.6%	31.0%							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



Figure 132: Turnover - Emerging markets | ETFs | Global |

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	
BRIC																		
Brazil	155,103.6	2,175.8	88.0	14,300.9	171,668.3	22.9%	126,506.1	2,196.9	72.5	10,894.8	139,670.2	-45.4%	239,373.9	4,313.9	65.8	12,019.8	255,773.4	
Russia	48,663.5	2,108.2	92.6	166.2	51,030.4	-16.6%	57,863.5	3,167.3	142.5	36.4	61,209.8	7.6%	51,597.0	5,087.0	65.9	152.3	56,902.2	
India	21,528.4	2,586.8	942.6	155.9	25,213.7	-17.7%	24,516.5	4,740.9	1,003.3	381.9	30,642.7	99.7%	10,574.6	3,457.3	1,086.3	223.9	15,342.0	
China	222,153.2	4,581.9	165,610.1	277.8	392,623.1	-60.8%	282,435.6	11,997.5	706,092.6	357.3	1,000,883.1	100.2%	207,658.5	7,986.5	283,736.2	478.3	499,859.4	
Total	447,448.7	11,452.6	166,733.3	14,900.9	640,535.5	-48.0%	491,321.7	22,102.7	707,311.0	11,670.4	1,232,405.8	48.9%	509,204.0	20,844.6	284,954.2	12,874.3	827,877.0	
Regional YoY % change	-8.9%	-48.2%	-76.4%	27.7%	-48.0%		-3.5%	6.0%	148.2%	-9.4%	48.9%							
Latin America																		
Argentina	306.7	0.0	0.0	0.0	306.7	323.5%	72.4	0.0	0.0	0.0	72.4	-37.1%	115.1	0.0	0.0	0.0	115.1	
Chile	3,252.4	0.0	0.0	236.0	3,488.3	24.5%	2,607.4	57.8	0.0	136.4	2,801.6	-5.1%	2,719.4	52.9	0.0	181.4	2,953.7	
Colombia	324.9	0.0	0.0	849.0	1,174.0	60.0%	423.7	0.0	0.0	310.0	733.7	-47.1%	509.7	0.0	0.0	877.0	1,386.7	
Mexico	41,729.1	526.0	0.0	23,324.1	65,579.1	5.8%	33,150.6	440.2	0.0	28,390.5	61,981.3	-24.1%	40,275.7	843.9	0.0	40,571.6	81,691.2	
Peru	1,268.4	0.0	0.0	70.4	1,338.8	147.0%	535.6	0.0	0.0	6.4	542.0	-42.0%	868.6	0.0	0.0	65.9	934.5	
LATAM broad	9,891.3	1,416.8	6.7	110.1	11,424.8	124.1%	4,086.4	998.5	3.4	8.9	5,097.2	-36.2%	6,106.8	1,774.5	4.7	98.3	7,984.1	
Total	56,772.7	1,942.8	6.7	24,589.5	83,311.7	17.0%	40,876.1	1,496.5	3.4	28,852.2	71,228.2	-25.1%	50,595.2	2,671.3	4.7	41,794.1	95,065.2	
Regional YoY % change	38.9%	29.8%	94.7%	-14.8%	17.0%		-19.2%	-44.0%	-26.6%	-31.0%	-25.1%							
Asia																		
Bangladesh	0.0	22.7	4.2	0.0	27.0	33.8%	0.0	13.6	6.5	0.0	20.1	-19.4%	0.0	19.7	5.3	0.0	25.0	
Indonesia	5,743.5	413.8	236.8	36.2	6,430.3	30.5%	4,381.1	458.5	71.6	15.1	4,926.3	-19.1%	5,401.8	559.6	81.1	45.2	6,087.7	
Malaysia	4,500.9	176.9	11.0	41.8	4,730.6	-10.2%	4,972.6	277.9	9.8	8.6	5,268.9	-18.6%	6,041.3	359.3	12.6	63.0	6,476.2	
Pakistan	21.6	35.6	3.5	0.0	60.6	13.0%	14.3	33.1	6.3	0.0	53.7	98.3%	0.0	25.5	1.6	0.0	27.1	
Philippines	3,025.2	132.9	54.2	41.0	3,253.3	2.3%	2,987.6	154.1	25.9	11.7	3,179.3	27.2%	2,326.8	115.7	21.8	34.9	2,499.3	
South Korea	36,315.7	1,534.1	51,766.9	856.9	90,473.6	-8.8%	39,696.1	2,290.1	56,782.8	447.3	99,216.3	-1.1%	38,750.8	2,371.8	58,892.4	302.4	100,317.4	
Taiwan	29,099.0	1,126.9	5,305.4	108.3	35,639.6	-8.3%	31,654.8	1,394.9	5,706.9	106.7	38,863.3	21.7%	24,849.2	986.0	6,035.3	66.6	31,937.1	
Thailand	4,168.3	154.5	144.2	36.5	4,503.4	12.9%	3,704.6	189.2	71.4	24.5	3,989.8	-22.3%	4,675.0	323.7	87.7	45.3	5,131.6	
Vietnam	897.4	261.5	498.8	38.5	1,696.2	-30.3%	1,878.4	442.5	107.7	4.4	2,432.9	-7.8%	1,987.4	507.5	122.8	22.0	2,639.7	
Asia Pacific broad	433.4	3,335.1	10.2	0.0	3,778.7	-16.4%	1,022.6	3,482.1	15.8	0.0	4,520.4	86.9%	559.4	1,849.0	10.4	0.0	2,418.9	
Total	84,204.9	7,194.0	58,035.0	1,159.1	150,593.1	-7.3%	90,312.0	8,736.0	62,804.6	618.3	162,471.0	3.1%	84,591.8	7,117.7	65,270.9	579.5	157,559.8	
Regional YoY % change	-6.8%	-17.7%	-7.6%	87.5%	-7.3%		6.8%	22.7%	-3.8%	6.7%	3.1%							
EMEA																		
Bulgaria	0.0	1.8	0.0	0.0	1.8	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	
Egypt	267.5	0.0	0.0	38.6	306.2	176.6%	108.7	0.0	0.0	2.0	110.7	-70.6%	332.7	0.0	0.0	44.0	376.8	
Kuwait	0.0	9.2	0.0	0.0	9.2	-55.3%	0.0	20.6	0.0	0.0	20.6	-46.9%	0.0	38.9	0.0	0.0	38.9	
Nigeria	133.9	0.0	0.0	22.0	156.0	10.5%	140.9	0.0	0.0	0.2	141.2	78.8%	78.9	0.0	0.0	0.1	79.0	
Poland	1,387.6	193.0	0.0	67.3	1,647.8	11.1%	1,314.3	156.7	0.0	11.6	1,482.6	-34.3%	1,990.3	204.8	0.0	62.6	2,257.7	
Qatar	50.4	0.0	0.0	0.0	50.4	-29.8%	71.8	0.0	0.0	0.0	71.8	-45.3%	131.1	0.0	0.0	0.0	131.1	
South Africa	8,155.3	327.8	0.9	1,405.2	9,889.3	5.5%	8,247.3	321.8	2.1	801.6	9,372.9	-46.7%	7,403.3	465.6	1.8	9,721.4	17,592.2	
Saudi Arabia	17.4	0.0	0.0	299.5	316.9	-31.0%	2.2	0.0	0.0	457.2	459.4	875.5%	0.0	0.0	0.0	47.1	47.1	
Turkey	3,850.2	539.4	0.0	98.0	4,487.6	-19.6%	4,074.5	1,443.1	0.0	63.8	5,581.4	-28.6%	5,099.7	2,613.3	0.0	105.3	7,818.3	
UAE	50.0	0.0	0.0	0.0	50.0	-24.5%	66.0	0.0	0.0	0.2	66.2	-69.4%	213.6	0.0	0.0	2.4	216.1	
Europe broad	137.0	1,098.0	0.0	0.0	1,235.0	-10.9%	291.7	1,090.0	1.7	2.5	1,386.0	-39.1%	446.0	1,812.9	1.5	16.8	2,277.2	
Middle East & Africa	175.4	112.9	0.0	47.0	335.3	-35.8%	286.5	161.0	0.0	74.9	522.4	-40.3%	601.3	215.2	0.0	58.7	875.2	
Total	14,224.6	2,282.2	0.9	1,977.6	18,485.3	-3.8%	14,604.0	3,193.2	3.8	1,414.1	19,215.1	-39.4%	16,297.0	5,350.8	3.4	10,058.4	31,709.5	
Regional YoY % change	-2.6%	-28.5%	-76.2%	39.8%	-3.8%		-10.4%	-40.3%	13.0%	-85.9%	-39.4%							
Global Markets																		
Global	825,198.4	37,227.1	245.2	1,637.0	864,307.7	14.4%	727,733.5	25,528.8	886.7	1,540.4	755,689.4	-9.4%	802,983.8	29,087.8	480.6	1,331.9	833,884.0	
Total	825,198.4	37,227.1	245.2	1,637.0	864,307.7	14.4%	727,733.5	25,528.8	886.7	1,540.4	755,689.4	-9.4%	802,983.8	29,087.8	480.6	1,331.9	833,884.0	
Regional YoY % change	13.4%	45.8%	-72.4%	6.3%	14.4%		-9.4%	-12.2%	84.5%	15.7%	-9.4%							
Grand Total	1,427,849.3	60,098.8	225,021.1	44,264.1	1,757,233.3	-21.6%	1,364,847.3	61,057.1	771,009.6	44,095.5	2,241,009.5	15.2%	1,463,671.7	65,072.2	350,713.7	66,638.1	1,946,095.6	
Regional YoY % change	4.6%	-1.6%	-70.8%	0.4%	-21.6%		-6.8%	-6.2%	119.8%	-33.8%	15.2%							

Source:



Figure 133: Turnover - Other segments | ETFs | Global |

All figures in \$ million

Sector	2016						2015						2014				
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total
Consumer discretionary	184,894.0	1,889.8	117.3	1,166.9	188,067.9	-3.0%	190,862.8	2,211.5	267.6	569.6	193,911.5	12.5%	169,559.3	1,735.2	388.7	675.8	172,359.0
Consumer staples	183,822.6	1,994.1	1,060.9	806.9	187,684.6	54.6%	116,831.7	1,996.4	2,092.6	480.0	121,400.7	28.7%	92,108.7	1,134.4	696.6	373.9	94,313.6
Energy	537,710.2	5,239.0	249.9	11,431.5	554,630.6	-5.2%	569,138.7	4,840.3	1,375.4	9,781.8	585,136.2	4.8%	544,996.3	3,739.1	436.7	8,911.5	558,083.6
Financials	458,368.9	18,748.0	1,749.3	12,466.6	491,332.9	35.1%	314,007.2	12,181.6	29,595.6	7,947.3	363,731.6	19.0%	273,672.9	11,615.5	11,685.5	8,659.8	305,633.7
Healthcare	468,490.2	3,905.4	1,384.2	2,660.6	476,440.4	-7.7%	507,852.3	3,237.4	3,340.6	1,838.0	516,268.3	71.7%	295,719.4	2,105.3	1,749.1	1,065.8	300,639.5
Industrials	195,708.3	1,199.3	12,595.5	883.0	210,386.2	19.3%	173,762.1	1,939.3	231.1	353.1	176,285.5	0.9%	171,612.3	2,313.9	73.5	745.9	174,745.6
Information Technology	224,412.6	2,235.4	365.9	671.6	227,685.5	10.0%	202,978.0	2,204.3	1,189.7	701.6	207,073.8	38.3%	146,738.5	2,041.0	242.9	664.8	149,687.2
Materials	155,873.1	2,836.0	116.2	1,187.3	160,012.5	7.0%	144,069.8	2,541.9	2,604.2	384.0	149,599.9	-7.4%	156,744.9	3,447.9	351.9	937.9	161,482.6
Real Estate	307,542.1	6,035.4	1,612.7	3,564.7	318,754.9	-2.0%	315,749.5	5,887.5	1,623.7	2,008.1	325,268.8	18.3%	267,622.5	4,046.4	1,579.8	1,771.1	275,019.7
Telecommunications	9,856.6	1,073.4	35.9	1,017.1	11,983.1	69.6%	5,721.4	1,259.8	22.7	60.2	7,064.0	24.5%	4,545.7	1,039.4	13.8	73.4	5,672.2
Utilities	214,569.6	1,717.2	2.9	1,762.0	218,051.7	37.3%	157,091.1	1,194.4	5.9	546.7	158,838.1	9.0%	142,870.5	1,250.0	6.6	1,585.0	145,712.2
Transportation	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	NA	NA	0.0	0.0	0.0	0.0	0.0
Overall	0.0	0.0	95.6	5,701.6	5,797.2	46.7%	0.0	0.0	816.7	3,134.0	3,950.6	57.7%	0.0	0.0	196.5	2,308.9	2,505.3
Total	2,941,248.2	46,873.1	19,386.3	43,319.9	3,050,827.5	8.6%	2,698,064.4	39,494.3	43,165.8	27,804.4	2,808,529.0	19.7%	2,266,190.9	34,468.0	17,421.6	27,773.6	2,345,854.2
<i>Regional YoY % change</i>	<i>9.0%</i>	<i>18.7%</i>	<i>-55.1%</i>	<i>55.8%</i>	<i>8.6%</i>		<i>19.1%</i>	<i>14.6%</i>	<i>147.8%</i>	<i>0.1%</i>	<i>19.7%</i>						
Capitalization																	
Large Cap	6,859,610.6	403.6	1,712.7	16,832.7	6,878,559.5	-13.7%	7,949,185.7	508.5	4,672.7	17,507.7	7,971,874.6	16.9%	6,795,068.1	834.2	1,734.7	20,089.5	6,817,726.5
Mid Cap	196,521.8	2,630.6	61.4	513.8	199,727.6	1.9%	189,337.9	3,743.5	2,447.9	504.4	196,033.7	-5.8%	204,290.8	2,758.3	121.5	1,015.0	208,185.6
Small Cap	1,012,520.3	6,277.4	153.3	1,611.8	1,020,562.9	-3.1%	1,047,708.4	5,182.1	146.6	596.3	1,053,633.3	-19.7%	1,302,627.7	6,258.9	133.3	3,452.1	1,312,472.0
Total	8,068,652.7	9,311.6	1,927.4	18,958.4	8,098,850.1	-12.2%	9,186,232.0	9,434.1	7,267.2	18,608.4	9,221,541.7	10.6%	8,301,986.5	9,851.5	1,989.5	24,556.7	8,338,384.2
<i>Regional YoY % change</i>	<i>-12.2%</i>	<i>-1.3%</i>	<i>-73.5%</i>	<i>1.9%</i>	<i>-12.2%</i>		<i>10.7%</i>	<i>-4.2%</i>	<i>265.3%</i>	<i>-24.2%</i>	<i>10.6%</i>						
Strategy																	
Active	5,639.4	0.0	0.0	4,237.4	9,876.8	15.9%	6,115.4	0.0	0.0	2,410.1	8,525.5	16.3%	5,986.8	0.0	0.0	1,341.4	7,328.2
Fundamental	87,551.4	1,116.4	622.2	5,296.4	94,586.3	3.5%	88,430.3	1,333.1	589.4	1,027.9	91,380.6	4.2%	83,911.5	3,021.2	211.6	570.3	87,714.6
Leveraged Long	671,726.8	28,766.6	482,954.4	16,706.9	1,200,154.8	5.0%	641,641.7	37,342.1	454,262.4	10,246.8	1,143,493.0	10.8%	717,617.6	36,022.4	266,375.3	12,050.6	1,032,066.0
Leveraged Short	498,197.9	27,353.7	86,925.4	12,348.9	624,826.0	25.0%	429,688.3	24,262.3	38,084.2	7,809.2	499,844.0	-2.5%	471,696.8	27,765.5	5,557.5	7,751.9	512,771.7
Options Strategy	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0
Quantitative	166,769.8	19,879.1	309.1	15,529.5	202,487.5	73.4%	100,820.0	8,371.2	4,106.1	3,502.8	116,800.1	99.2%	52,313.6	3,572.8	541.7	2,205.4	58,633.5
Short	0.0	11,154.0	45,330.7	779.1	57,263.7	33.1%	0.0	8,558.8	33,967.0	489.0	43,014.7	5.3%	0.0	6,950.2	32,990.4	927.9	40,868.5
Total	1,429,885.3	88,269.8	616,141.8	54,898.3	2,189,195.2	15.0%	1,266,695.7	79,867.3	531,009.1	25,485.8	1,903,058.0	9.4%	1,331,526.3	77,332.2	305,676.5	24,847.6	1,739,382.6
<i>Regional YoY % change</i>	<i>12.9%</i>	<i>10.5%</i>	<i>16.0%</i>	<i>115.4%</i>	<i>15.0%</i>		<i>-4.9%</i>	<i>3.3%</i>	<i>73.7%</i>	<i>2.6%</i>	<i>9.4%</i>						
Style																	
Dividend	148,801.3	18,209.7	3,274.4	6,871.4	177,156.8	16.1%	122,299.4	18,376.5	7,560.0	4,330.1	152,565.9	9.5%	114,255.2	17,253.2	2,151.2	5,694.3	139,353.8
Growth	179,249.7	488.2	24,655.7	748.0	205,141.6	-12.0%	188,813.0	876.4	43,084.0	364.4	233,137.8	36.1%	160,849.5	370.9	8,948.5	1,127.1	171,295.9
Value	221,487.3	1,539.5	178.3	1,438.6	224,643.6	27.2%	172,361.9	1,115.1	2,676.2	474.2	176,627.4	18.3%	142,059.9	1,231.3	1,604.0	4,432.1	149,327.2
Total	549,538.3	20,237.4	28,108.4	9,057.9	606,942.0	7.9%	483,474.3	20,368.0	53,320.2	5,168.6	562,331.1	22.3%	417,164.6	18,855.4	12,703.6	11,253.5	459,977.0
<i>Regional YoY % change</i>	<i>13.7%</i>	<i>-0.6%</i>	<i>-47.3%</i>	<i>75.2%</i>	<i>7.9%</i>		<i>15.9%</i>	<i>8.0%</i>	<i>319.7%</i>	<i>-54.1%</i>	<i>22.3%</i>						
Thematic																	
Commodities	660,306.1	4,559.4	113.9	12,300.0	677,279.4	110.7%	314,098.5	1,625.6	3,471.7	2,237.7	321,433.5	-2.6%	324,817.9	1,523.5	453.1	3,132.2	329,926.7
Faith	0.0	316.0	0.0	0.0	316.0	31.6%	0.0	240.1	0.0	0.0	240.1	-22.7%	0.0	310.4	0.0	0.0	310.4
Other Theme	21,907.6	1,612.7	1,728.0	313.4	25,561.8	-36.2%	25,983.2	1,557.7	12,157.5	336.7	40,035.1	63.8%	20,039.7	1,017.0	2,964.4	427.2	24,448.3
Sustainability	3,469.8	3,288.7	26.5	200.6	6,985.6	-8.7%	5,090.6	2,427.7	28.3	105.9	7,652.6	-22.5%	8,402.5	1,345.7	12.3	119.1	9,879.6
Total	685,683.5	9,776.9	1,868.5	12,813.9	710,142.9	92.3%	345,172.4	5,851.1	15,657.5	2,680.3	369,361.3	1.3%	353,260.1	4,196.6	3,429.8	3,678.5	364,565.0
<i>Regional YoY % change</i>	<i>98.6%</i>	<i>67.1%</i>	<i>-88.1%</i>	<i>378.1%</i>	<i>92.3%</i>		<i>-2.3%</i>	<i>39.4%</i>	<i>356.5%</i>	<i>-27.1%</i>	<i>1.3%</i>						
Grand total	13,675,008.0	174,468.8	667,432.3	139,048.5	14,655,957.5	-1.4%	13,979,638.8	155,014.9	650,419.7	79,747.6	14,864,821.1	12.2%	12,670,128.4	144,703.6	341,221.0	92,109.9	13,248,162.9
<i>Regional YoY % change</i>	<i>-2.2%</i>	<i>12.5%</i>	<i>2.6%</i>	<i>74.4%</i>	<i>-1.4%</i>		<i>10.3%</i>	<i>7.1%</i>	<i>90.6%</i>	<i>-13.4%</i>	<i>12.2%</i>						

Source: Deutsche Bank, Reuters, Bloomberg Finance LP



Asset class turnover analysis - Fixed Income

Figure 134: Turnover summary | ETFs | Global |

All figures in \$ million

	2016						2015						2014				
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total
Overall	174,224.4	6,651.6	923.9	6,598.6	188,398.5	9.9%	160,955.9	5,552.3	750.9	4,159.4	171,418.5	37.0%	117,328.0	4,309.7	308.5	3,180.2	125,126.4
Corporates	768,584.1	98,804.6	395.6	20,136.7	887,921.1	43.1%	539,801.5	65,912.0	283.8	14,448.4	620,445.7	46.7%	369,671.2	39,759.6	378.6	13,042.7	422,852.1
Covered Bonds	0.0	1,885.0	0.0	0.0	1,885.0	-29.0%	0.0	2,656.7	0.0	0.0	2,656.7	42.3%	0.0	1,866.4	0.0	0.0	1,866.4
Credit Exposure	0.0	388.8	0.0	0.0	388.8	-15.4%	0.0	459.4	0.0	0.0	459.4	23.6%	0.0	371.6	0.0	0.0	371.6
Sovereign	566,403.6	130,733.3	16,547.4	14,549.6	728,233.9	10.3%	521,916.8	102,422.9	28,209.8	7,479.3	660,028.8	12.9%	485,374.6	66,494.7	26,835.6	5,719.0	584,423.9
Sovereign & Corporates	56,214.6	0.0	0.0	12,947.8	69,162.4	33.9%	44,167.7	0.0	0.0	7,500.3	51,668.1	26.6%	34,609.0	0.0	0.0	6,211.1	40,820.1
Collateralized Debt	19,842.6	0.0	0.0	64.4	19,907.0	14.6%	17,373.8	0.0	0.0	4.2	17,378.0	36.0%	12,777.2	0.0	0.0	4.6	12,781.8
Sub-Sovereign	133,351.9	0.0	0.0	646.8	133,998.7	77.3%	75,493.0	0.0	0.0	93.0	75,586.0	11.4%	67,708.4	0.0	0.0	152.5	67,860.9
Money Market	0.0	7,884.1	1,303,902.2	0.0	1,311,786.3	7.7%	0.0	8,449.3	1,209,164.1	0.0	1,217,613.4	165.2%	0.0	3,959.8	455,096.0	0.0	459,055.8
Total	1,718,621.2	246,347.4	1,321,769.1	54,943.9	3,341,681.7	18.6%	1,359,708.6	185,452.6	1,238,408.5	33,684.7	2,817,254.5	64.3%	1,087,468.4	116,761.9	482,618.6	28,310.2	1,715,159.1
Regional YoY % change	26.4%	32.8%	6.7%	63.1%	18.6%		25.0%	58.8%	156.6%	19.0%	64.3%						

Source: Deutsche Bank, Reuters, Bloomberg Finance LP



Asset class turnover analysis - Commodity

Figure 135: Turnover summary | ETPs | Global |

All figures in \$ million

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	
Overall	13,980.9	5,568.9	5.5	150.4	19,705.8	15.9%	12,741.4	4,190.5	14.3	50.8	16,997.0	-21.9%	17,556.3	4,100.0	9.3	98.4	21,763.9	
Overall ex Energy	0.0	199.9	0.3	0.0	200.2	-32.6%	0.0	295.9	1.0	0.0	296.9	0.6%	0.0	291.8	3.4	0.0	295.1	
Overall Light Energy	0.0	1.7	0.0	0.0	1.7	-11.8%	0.0	1.9	0.0	0.0	1.9	-40.8%	0.0	2.9	0.3	0.0	3.2	
Overall Ultra Light Energy	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	
Overall - Total	13,980.9	5,770.6	5.8	150.4	19,907.7	15.1%	12,741.4	4,488.3	15.3	50.8	17,295.8	-21.6%	17,556.3	4,394.7	13.0	98.4	22,062.3	
<i>Regional YoY % change</i>	9.7%	28.6%	-62.0%	195.9%	15.1%		-27.4%	2.1%	18.1%	-48.3%	-21.6%							
Overall	2,743.3	583.0	57.5	68.9	3,452.7	17.0%	2,295.8	563.3	91.9	0.6	2,951.6	-46.4%	4,584.2	742.9	37.7	139.8	5,504.5	
Cocoa	0.0	111.7	0.0	0.0	111.7	76.8%	0.0	63.2	0.0	0.0	63.2	9.6%	0.0	57.7	0.0	0.0	57.7	
Coffee	0.0	468.1	0.0	0.0	468.1	-30.5%	0.0	673.4	0.0	0.0	673.4	-26.6%	0.0	917.2	0.0	0.0	917.2	
Corn	446.2	159.5	3.3	0.0	609.0	9.7%	394.3	160.0	1.1	0.0	555.4	-64.8%	1,318.1	259.2	1.6	0.0	1,578.9	
Cotton	0.0	46.2	0.0	0.0	46.2	-43.1%	0.0	81.2	0.0	0.0	81.2	-42.3%	0.0	140.6	0.0	0.0	140.6	
Grains	0.0	38.5	0.4	0.0	38.9	-39.0%	0.0	63.5	0.2	0.0	63.7	-25.9%	0.0	84.9	1.2	0.0	86.0	
Softs	0.0	10.2	0.0	0.0	10.2	-1.0%	0.0	10.3	0.0	0.0	10.3	-39.5%	0.0	17.0	0.0	0.0	17.0	
Soybean Oil	0.0	103.2	0.0	0.0	103.2	57.5%	0.0	65.5	0.0	0.0	65.5	28.9%	0.0	50.8	0.0	0.0	50.8	
Soybeans	101.1	105.1	5.2	0.0	211.4	57.9%	56.9	69.6	7.4	0.0	133.9	-24.8%	56.1	110.2	11.7	0.0	178.1	
Sugar	24.2	313.7	0.0	0.0	338.0	-6.7%	16.7	345.4	0.0	0.0	362.1	19.8%	17.9	284.4	0.0	0.0	302.3	
Wheat	266.6	601.6	9.1	0.0	877.3	-5.6%	173.4	753.2	2.8	0.0	929.3	-5.7%	211.1	770.4	3.6	0.0	985.1	
Agriculture - Total	3,581.5	2,540.9	75.4	68.9	6,266.7	6.4%	2,937.1	2,848.6	103.4	0.6	5,889.6	-40.0%	6,187.4	3,435.2	55.8	139.8	9,818.2	
<i>Regional YoY % change</i>	21.9%	-10.8%	-27.0%	12378.9%	6.4%		-52.5%	-17.1%	85.4%	-99.6%	-40.0%							
Overall	604.6	363.6	0.3	190.3	1,158.8	10.6%	341.5	704.4	0.1	1.8	1,047.7	-2.1%	808.8	258.5	0.0	3.1	1,070.4	
Carbon	0.0	1.2	0.0	0.0	1.2	-24.1%	0.0	1.6	0.0	0.0	1.6	-61.4%	0.0	4.2	0.0	0.0	4.2	
Coal	109.4	0.0	0.0	0.0	109.4	1015.8%	9.8	0.0	0.0	0.0	9.8	NA	0.0	0.0	0.0	0.0	0.0	
Crude Oil	151,847.9	23,361.1	7,278.3	22,420.2	204,907.6	-14.6%	196,433.3	17,604.5	5,922.8	19,866.6	239,827.2	215.3%	67,446.8	3,182.0	260.2	5,170.0	76,059.0	
Electricity	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	
Gasoline	485.3	115.2	0.2	0.0	600.7	-18.0%	613.6	118.5	0.1	0.0	732.2	121.5%	296.8	33.8	0.0	0.0	330.6	
Heating Oil	15.4	60.5	0.0	0.0	75.9	28.8%	12.9	46.0	0.0	0.0	58.9	40.3%	19.7	22.3	0.0	0.0	42.0	
Natural Gas	20,998.3	2,805.5	4.0	10,088.5	33,896.4	-11.3%	25,668.9	3,353.0	3.4	9,190.8	38,216.0	-53.0%	60,277.9	2,654.8	5.0	18,415.1	81,352.8	
Oil & Gas	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	
Uranium	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	
Energy - Total	174,060.9	26,707.2	7,282.9	32,699.0	240,750.0	-14.0%	223,080.0	21,827.9	5,926.2	29,059.1	279,893.3	76.2%	128,850.0	6,155.5	265.2	23,588.1	158,858.9	
<i>Regional YoY % change</i>	-22.0%	22.4%	22.9%	12.5%	-14.0%		73.1%	254.6%	2134.3%	23.2%	76.2%							
Overall	725.6	518.8	1.4	93.8	1,339.7	10.0%	685.6	530.2	1.5	0.0	1,217.4	-28.0%	1,151.4	532.2	1.7	5.6	1,690.9	
Aluminium	0.0	107.8	0.0	0.0	107.9	-66.6%	0.0	322.8	0.0	0.0	322.8	-38.5%	0.0	524.6	0.0	0.0	524.6	
Copper	16.3	1,259.5	26.3	0.0	1,302.2	23.5%	4.1	1,035.6	14.8	0.0	1,054.5	5.6%	14.0	974.7	9.5	0.0	998.1	
Lead	0.0	23.5	0.0	0.0	23.5	190.9%	0.0	8.1	0.0	0.0	8.1	31.6%	0.0	6.1	0.0	0.0	6.1	
Nickel	0.0	242.0	0.1	0.0	242.1	-22.1%	0.0	310.8	0.0	0.0	310.8	-27.9%	0.0	430.9	0.0	0.0	430.9	
Tin	0.0	17.6	0.0	0.0	17.6	-40.1%	0.0	29.3	0.0	0.0	29.3	-19.7%	0.0	36.5	0.0	0.0	36.5	
Zinc	0.0	97.2	0.0	0.0	97.2	53.1%	0.0	63.5	0.0	0.0	63.5	-35.7%	0.0	98.8	0.0	0.0	98.8	
Industrial Metals - Total	742.0	2,266.5	27.8	93.8	3,130.1	4.1%	689.8	2,300.3	16.3	0.0	3,006.4	-20.6%	1,165.3	2,603.7	11.3	5.6	3,786.0	
<i>Regional YoY % change</i>	7.6%	-1.5%	70.7%	837028.5%	4.1%		-40.8%	-11.7%	44.1%	-99.8%	-20.6%							
Overall	1,253.2	248.5	8.5	116.7	1,626.9	32.5%	735.1	487.2	5.1	0.0	1,227.4	10.3%	929.8	179.2	3.2	0.8	1,113.0	
Gold	355,150.9	52,352.6	25,777.1	3,698.6	436,979.1	101.5%	188,164.3	22,246.6	4,435.4	2,019.3	216,865.6	-14.4%	223,449.2	23,086.6	3,284.8	3,456.5	253,277.0	
Palladium	501.3	867.2	7.1	566.9	1,942.6	-19.5%	586.6	676.5	12.6	1,138.2	2,413.8	-42.0%	1,229.4	1,449.4	17.1	1,469.2	4,165.0	
Platinum	1,268.6	841.7	217.6	885.6	3,213.5	-9.1%	838.7	942.2	163.9	1,589.4	3,534.2	-47.6%	1,179.6	1,334.0	45.7	4,180.7	6,740.0	
Rhodium	0.0	9.0	0.0	27.2	36.2	11.5%	0.0	32.5	0.0	0.0	32.5	-28.0%	0.0	45.1	0.0	0.0	45.1	
Silver	45,005.8	5,046.7	216.9	1,036.1	51,305.5	69.1%	27,199.8	2,434.2	198.3	503.9	30,336.2	-33.4%	40,595.3	3,918.6	193.6	822.7	45,530.2	
Precious Metals - Total	403,179.9	59,365.7	26,227.1	6,331.1	495,103.8	94.6%	217,524.5	26,819.1	4,815.3	5,250.8	254,409.7	-18.2%	267,383.2	30,012.9	3,544.4	9,929.9	310,870.3	
<i>Regional YoY % change</i>	85.3%	121.4%	444.7%	20.6%	94.6%		-18.6%	-10.6%	35.9%	-47.1%	-18.2%							
Overall	0.0	5.6	0.0	0.0	5.6	-32.2%	0.0	8.2	0.0	0.0	8.2	-54.3%	0.0	17.9	0.0	0.0	17.9	
Cattle	0.0	13.3	0.0	0.0	13.3	-19.9%	0.0	16.6	0.0	0.0	16.6	-40.5%	0.0	27.9	0.0	0.0	27.9	
Lean Hogs	0.0	47.1	0.0	0.0	47.1	-13.2%	0.0	54.3	0.0	0.0	54.3	-18.8%	0.0	66.8	0.0	0.0	66.8	
Livestock - Total	0.0	65.9	0.0	0.0	65.9	-16.6%	0.0	79.0	0.0	0.0	79.0	-29.8%	0.0	112.7	0.0	0.0	112.7	
<i>Regional YoY % change</i>	NA	-16.6%	NA	NA	-16.6%		NA	-29.8%	NA	NA	-29.8%							
Grand Total	595,545.1	96,716.9	33,619.1	39,343.3	765,224.3	36.5%	456,972.7	58,363.3	10,876.5	34,361.4	560,573.9	10.9%	421,142.3	46,714.7	3,889.7	33,761.8	505,508.5	
<i>Regional YoY % change</i>	30.3%	65.7%	209.1%	14.5%	36.5%		8.5%	24.9%	179.6%	1.8%	10.9%							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



9. Assets

Regional AUM analysis

Figure 136: Global ETP AUM by region and asset class | ETPs | Global |

All figures in \$ million

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	
ETFs																		
Equity	2,005,948	379,071	269,967	61,727	2,716,712	17.2%	1,694,264	351,810	224,945	47,959	2,318,978	7.5%	1,601,081	316,326	187,419	52,862	2,157,688	
Fixed income	453,560	145,587	38,507	28,634	666,288	18.8%	360,972	122,129	54,778	22,847	560,727	23.0%	312,283	104,247	16,361	22,937	455,828	
Commodity	1,040	17,402	4,552	2,176	25,170	30.0%	707	13,359	3,222	2,069	19,358	-11.5%	212	16,229	2,219	3,211	21,871	
Currency	372	0	655	197	1,224	10.4%	576	0	442	92	1,109	6.9%	675	15	286	62	1,038	
Multi Asset	7,007	458	101	736	8,303	18.2%	5,929	460	27	611	7,026	9.0%	5,425	363	32	624	6,444	
Alternative	2,995	1,150	230	165	4,540	11.5%	2,810	1,059	130	72	4,071	-4.7%	2,786	1,327	124	36	4,274	
Total	2,470,921	543,668	314,012	93,636	3,422,237	17.6%	2,065,258	488,818	283,544	73,650	2,911,269	10.0%	1,922,462	438,508	206,441	79,732	2,647,143	
<i>Regional YoY % change</i>	<i>19.6%</i>	<i>11.2%</i>	<i>10.7%</i>	<i>27.1%</i>	<i>17.6%</i>		<i>7.4%</i>	<i>11.5%</i>	<i>37.3%</i>	<i>-7.6%</i>	<i>10.0%</i>							
ETC/As																		
Commodity	57,911	25,953	369	1,238	85,470	37.9%	43,610	17,058	322	1,011	62,000	-16.4%	52,597	19,851	403	1,328	74,179	
Currency	2,795	500	0	0	3,296	-9.5%	3,260	380	0	0	3,641	1.2%	3,127	472	0	0	3,598	
Alternative	986	0	0	0	986	-25.6%	1,326	0	0	0	1,326	33.5%	993	0	0	0	993	
Total	61,693	26,453	369	1,238	89,752	34.0%	48,196	17,438	322	1,011	66,966	-15.0%	56,717	20,323	403	1,328	78,770	
<i>Regional YoY % change</i>	<i>28.0%</i>	<i>51.7%</i>	<i>14.6%</i>	<i>22.4%</i>	<i>34.0%</i>		<i>-15.0%</i>	<i>-14.2%</i>	<i>-20.2%</i>	<i>-23.8%</i>	<i>-15.0%</i>							
ETPs																		
Equity	2,005,948	379,071	269,967	61,727	2,716,712	17.2%	1,694,264	351,810	224,945	47,959	2,318,978	7.5%	1,601,081	316,326	187,419	52,862	2,157,688	
Fixed income	453,560	145,587	38,507	28,634	666,288	18.8%	360,972	122,129	54,778	22,847	560,727	23.0%	312,283	104,247	16,361	22,937	455,828	
Commodity	58,951	43,354	4,921	3,414	110,639	36.0%	44,317	30,417	3,544	3,080	81,357	-15.3%	52,809	36,081	2,621	4,538	96,050	
Currency	3,167	500	655	197	4,520	-4.8%	3,836	380	442	92	4,750	2.5%	3,802	487	286	62	4,636	
Multi Asset	7,007	458	101	736	8,303	18.2%	5,929	460	27	611	7,026	9.0%	5,425	363	32	624	6,444	
Alternative	3,981	1,150	230	165	5,527	2.4%	4,136	1,059	130	72	5,397	2.5%	3,779	1,327	124	36	5,267	
Total	2,532,614	570,121	314,380	94,873	3,511,989	17.9%	2,113,454	506,255	283,865	74,661	2,978,235	9.3%	1,979,179	458,831	206,844	81,059	2,725,913	
<i>Regional YoY % change</i>	<i>19.8%</i>	<i>12.6%</i>	<i>10.7%</i>	<i>27.1%</i>	<i>17.9%</i>		<i>6.8%</i>	<i>10.3%</i>	<i>37.2%</i>	<i>-7.9%</i>	<i>9.3%</i>							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP

Asset class AUM analysis - Equity

Figure 137: AUM summary | ETFs | Global |

All figures in \$ million

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	
Developed Markets	328,371	262,328	181,689	21,981	794,370	6.0%	334,820	256,609	140,471	17,502	749,401	27.1%	247,419	223,915	99,130	19,335	589,799	
Emerging Markets	122,743	31,270	49,558	5,965	209,537	13.4%	98,182	24,242	56,162	6,112	184,698	-19.8%	122,088	30,588	68,444	9,078	230,198	
Global Markets	37,134	5,851	1,305	1,585	45,875	13.5%	33,450	5,337	207	1,420	40,415	5.7%	30,640	6,346	142	1,116	38,244	
Sectors	283,544	24,041	10,593	11,545	329,723	14.9%	249,221	21,257	7,771	8,792	287,041	0.9%	249,893	18,688	6,182	9,588	284,351	
Capitalization	675,093	7,798	715	5,199	688,805	25.1%	538,044	7,752	659	4,085	550,541	0.0%	540,676	5,427	698	3,861	550,661	
Strategy	131,443	20,647	15,756	7,828	175,675	24.0%	108,284	14,412	13,990	4,984	141,670	31.6%	85,219	11,454	7,724	3,250	107,648	
Style	381,527	20,638	4,497	6,430	413,091	26.4%	300,978	17,974	3,541	4,445	326,938	3.9%	289,880	16,431	2,788	5,689	314,788	
Thematic	46,093	6,497	5,853	1,194	59,637	55.8%	31,285	4,226	2,142	620	38,273	-8.9%	35,266	3,477	2,311	945	41,999	
Total	2,005,948	379,071	269,967	61,727	2,716,712	17.2%	1,694,264	351,810	224,945	47,959	2,318,978	7.5%	1,601,081	316,326	187,419	52,862	2,157,688	
<i>Regional YoY % change</i>	<i>18.4%</i>	<i>7.7%</i>	<i>20.0%</i>	<i>28.7%</i>	<i>17.2%</i>		<i>5.8%</i>	<i>11.2%</i>	<i>20.0%</i>	<i>-9.3%</i>	<i>7.5%</i>							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP



Figure 138: AUM - Developed markets | ETFs | Global |

All figures in \$ million

	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	
Europe																		
Austria	76.2	273.7	0.0	0.0	349.9	-28.4%	56.9	431.7	0.0	0.0	488.6	5.7%	58.1	404.0	0.0	0.0	462.0	
Belgium	84.5	45.8	0.0	0.0	130.3	-54.3%	237.9	47.2	0.0	0.0	285.0	62.7%	133.2	42.0	0.0	0.0	175.1	
Denmark	56.4	0.0	0.0	0.0	56.4	-35.5%	87.4	0.0	0.0	0.0	87.4	54.0%	56.8	0.0	0.0	0.0	56.8	
Finland	36.4	208.0	0.0	0.0	244.3	11.8%	24.8	193.9	0.0	0.0	218.6	12.7%	19.3	174.6	0.0	0.0	193.9	
France	302.0	5,015.8	0.0	0.0	5,317.7	-9.2%	383.5	5,472.1	0.0	0.0	5,855.6	20.7%	307.6	4,545.0	0.0	0.0	4,852.7	
Germany	4,669.3	20,549.8	39.1	0.0	25,258.2	-19.0%	7,703.5	23,421.9	40.6	0.0	31,166.0	27.8%	4,756.9	19,481.9	145.4	0.0	24,384.2	
Greece	268.8	173.8	0.0	0.0	442.7	-6.1%	257.1	214.2	0.0	0.0	471.3	30.8%	105.2	255.1	0.0	0.0	360.2	
Iceland	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	
Ireland	62.2	30.1	0.0	0.0	92.3	-55.3%	172.4	34.1	0.0	0.0	206.5	86.9%	81.8	28.7	0.0	0.0	110.5	
Italy	572.0	1,879.7	0.0	0.0	2,451.7	-43.7%	1,132.6	3,219.8	0.0	0.0	4,352.3	21.4%	838.0	2,748.4	0.0	0.0	3,586.5	
Netherlands	167.1	576.0	0.0	0.0	743.1	-14.4%	162.9	705.1	0.0	0.0	867.9	30.9%	142.0	521.0	0.0	0.0	663.0	
Norway	147.3	292.1	0.0	0.0	439.4	38.0%	77.0	241.4	0.0	0.0	318.4	-19.2%	94.0	300.2	0.0	0.0	394.2	
Portugal	20.7	41.5	0.0	0.0	62.2	-43.0%	26.9	82.2	0.0	0.0	109.1	13.2%	26.2	70.1	0.0	0.0	96.4	
Spain	626.3	1,255.7	0.0	0.0	1,882.0	-41.8%	1,391.1	1,842.2	0.0	0.0	3,233.3	-13.7%	1,579.8	2,168.3	0.0	0.0	3,748.1	
Sweden	278.7	1,428.1	0.0	0.0	1,706.9	-9.9%	368.3	1,526.4	0.0	0.0	1,894.7	-3.6%	341.4	1,623.4	0.0	0.0	1,964.8	
Switzerland	1,006.2	10,535.4	0.0	0.0	11,541.6	-6.8%	1,199.8	11,185.5	0.0	0.0	12,385.3	6.9%	1,010.3	10,579.4	0.0	0.0	11,589.7	
UK	2,059.1	15,580.0	4.9	70.4	17,714.5	5.8%	2,415.9	14,261.8	0.0	64.9	16,742.5	-5.0%	3,006.6	14,548.2	0.0	62.0	17,616.8	
Europe broad	36,923.3	72,469.8	169.2	230.3	109,792.7	-23.3%	61,421.4	81,343.0	98.3	272.4	143,135.1	56.4%	32,276.6	59,179.8	20.1	49.1	91,525.6	
Total	47,356.5	130,355.3	213.3	300.7	178,225.8	-19.7%	77,119.2	144,222.5	138.9	337.3	221,817.8	37.1%	44,833.7	116,670.3	165.4	111.1	161,780.6	
<i>Regional YoY % change</i>	<i>-38.6%</i>	<i>-9.6%</i>	<i>53.5%</i>	<i>-10.8%</i>	<i>-19.7%</i>		<i>72.0%</i>	<i>23.6%</i>	<i>-16.1%</i>	<i>203.5%</i>	<i>37.1%</i>							
Americas																		
US	97,517.9	79,037.2	294.2	2,755.3	179,604.5	24.0%	78,667.7	63,712.3	200.4	2,289.8	144,870.2	8.5%	68,912.0	62,337.4	194.7	2,089.3	133,533.4	
Canada	3,492.2	1,927.6	0.0	15,625.2	21,045.0	42.9%	1,729.6	839.0	0.0	12,158.4	14,727.0	-23.2%	2,719.5	1,097.3	0.0	15,347.3	19,164.1	
North America	0.0	2,301.8	0.0	43.2	2,345.1	5.3%	0.0	2,189.5	0.0	37.2	2,226.7	-29.7%	0.0	3,123.8	0.0	43.1	3,166.9	
Total	101,010.1	83,266.5	294.2	18,423.8	202,994.6	25.4%	80,397.3	66,740.8	200.4	14,485.5	161,824.0	3.8%	71,631.5	66,558.5	194.7	17,479.7	155,864.5	
<i>Regional YoY % change</i>	<i>25.6%</i>	<i>24.8%</i>	<i>46.8%</i>	<i>27.2%</i>	<i>25.4%</i>		<i>12.2%</i>	<i>0.3%</i>	<i>2.9%</i>	<i>-17.1%</i>	<i>3.8%</i>							
Asia																		
Australia	1,717.6	1,354.1	5,004.7	0.0	8,076.3	19.7%	1,297.3	863.6	4,587.9	0.0	6,748.8	6.9%	1,618.0	819.3	3,878.0	0.0	6,315.3	
Hong Kong	1,658.6	178.3	16,809.3	0.0	18,646.2	5.9%	2,440.2	284.5	14,889.1	0.0	17,613.9	7.9%	2,745.5	179.8	13,398.4	0.0	16,323.7	
Japan	26,482.1	18,263.1	157,884.1	153.9	202,783.3	13.1%	37,610.0	21,978.8	119,582.6	136.7	179,308.0	42.6%	27,644.7	17,429.5	80,606.6	77.7	125,758.5	
New Zealand	114.3	0.0	190.8	0.0	305.1	20.5%	73.8	0.0	179.4	0.0	253.2	-13.8%	134.4	0.0	159.5	0.0	293.9	
Singapore	513.8	50.5	467.4	0.0	1,031.7	6.9%	539.2	68.3	357.9	0.0	965.4	-24.2%	831.9	22.1	419.3	0.0	1,273.3	
Asia Pacific broad	6,157.5	2,398.8	35.1	32.0	8,623.4	18.3%	5,675.8	1,566.5	26.7	20.5	7,289.4	-0.5%	5,429.5	1,892.2	0.0	5.4	7,327.1	
Total	36,643.9	22,244.9	180,391.3	185.9	239,465.9	12.9%	47,636.4	24,761.6	139,623.6	157.2	212,178.8	34.9%	38,404.0	20,342.9	98,461.8	83.1	157,291.8	
<i>Regional YoY % change</i>	<i>-23.1%</i>	<i>-10.2%</i>	<i>29.2%</i>	<i>18.3%</i>	<i>12.9%</i>		<i>24.0%</i>	<i>21.7%</i>	<i>41.8%</i>	<i>89.2%</i>	<i>34.9%</i>							
EMEA																		
Israel	136.5	7.8	0.0	0.0	144.3	-5.1%	152.0	0.0	0.0	0.0	152.0	-6.3%	162.3	0.0	0.0	0.0	162.3	
Total	136.5	7.8	0.0	0.0	144.3	-5.1%	152.0	0.0	0.0	0.0	152.0	-6.3%	162.3	0.0	0.0	0.0	162.3	
<i>Regional YoY % change</i>	<i>-10.2%</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>-5.1%</i>		<i>-6.3%</i>	<i>NA</i>	<i>NA</i>	<i>NA</i>	<i>-6.3%</i>							
Global																		
Broad indices	143,224.1	26,453.6	790.7	3,070.6	173,539.0	13.1%	129,515.1	20,883.7	508.3	2,521.8	153,428.8	33.8%	92,387.4	20,343.1	308.5	1,661.2	114,700.1	
Total	143,224.1	26,453.6	790.7	3,070.6	173,539.0	13.1%	129,515.1	20,883.7	508.3	2,521.8	153,428.8	33.8%	92,387.4	20,343.1	308.5	1,661.2	114,700.1	
<i>Regional YoY % change</i>	<i>10.6%</i>	<i>26.7%</i>	<i>55.5%</i>	<i>21.8%</i>	<i>13.1%</i>		<i>40.2%</i>	<i>2.7%</i>	<i>64.8%</i>	<i>51.8%</i>	<i>33.8%</i>							
Grand total	328,371.1	262,328.2	181,689.4	21,981.0	794,369.6	6.0%	334,820.1	256,608.6	140,471.2	17,501.7	749,401.5	27.1%	247,418.9	223,914.8	99,130.4	19,335.1	589,799.2	
<i>Regional YoY % change</i>	<i>-1.9%</i>	<i>2.2%</i>	<i>29.3%</i>	<i>25.6%</i>	<i>6.0%</i>		<i>35.3%</i>	<i>14.6%</i>	<i>41.7%</i>	<i>-9.5%</i>	<i>27.1%</i>							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP



Figure 139: AUM - Emerging markets | ETFs | Global |

All figures in \$ million	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	
BRIC																		
Brazil	4,258.8	740.5	37.3	1,088.2	6,124.9	91.9%	1,950.6	569.7	29.9	641.9	3,192.2	-47.6%	4,003.5	963.5	39.6	1,081.9	6,088.5	
Russia	3,082.1	1,294.7	23.2	0.0	4,400.0	61.5%	1,967.4	739.1	18.7	0.0	2,725.2	0.0%	1,776.4	931.2	18.3	0.0	2,726.0	
India	4,803.3	1,623.5	1,752.0	179.7	8,358.6	4.7%	4,845.0	1,962.4	991.4	184.5	7,983.3	22.5%	3,390.8	1,928.0	1,101.0	95.6	6,515.3	
China	6,539.7	2,385.1	36,884.9	81.6	45,891.3	-18.3%	9,202.0	3,195.3	43,675.9	85.4	56,158.6	-20.7%	9,800.8	5,678.3	55,236.5	117.2	70,832.8	
Total	18,684.0	6,043.8	38,697.4	1,349.5	64,774.7	-7.5%	17,965.0	6,466.6	44,715.9	911.8	70,059.3	-18.7%	18,971.6	9,501.0	56,395.3	1,294.8	86,162.6	
Regional YoY % change	4.0%	-6.5%	-13.5%	48.0%	-7.5%		-5.3%	-31.9%	-20.7%	-29.6%	-18.7%							
Latin America																		
Argentina	84.9	0.0	0.0	0.0	84.9	256.2%	23.8	0.0	0.0	0.0	23.8	23.5%	19.3	0.0	0.0	0.0	19.3	
Chile	391.4	0.0	0.0	95.6	486.9	103.5%	196.0	0.0	0.0	43.2	239.2	-29.0%	279.8	22.6	0.0	34.6	337.1	
Colombia	102.2	0.0	0.0	1,042.5	1,144.6	97.4%	74.2	0.0	0.0	505.6	579.8	-51.0%	89.2	0.0	0.0	1,093.7	1,182.9	
Mexico	1,790.0	131.9	0.0	1,855.8	3,777.8	-20.5%	1,282.6	164.3	0.0	3,302.9	4,749.7	-34.8%	2,302.7	249.7	0.0	4,736.6	7,289.0	
Peru	210.5	0.0	0.0	0.0	210.5	98.6%	106.0	0.0	0.0	0.0	106.0	-54.9%	234.9	0.0	0.0	0.0	234.9	
LATAM broad	974.4	964.6	3.1	11.2	1,953.4	94.3%	589.7	413.5	2.4	0.0	1,005.6	-27.6%	822.1	556.5	3.6	6.8	1,389.0	
Total	3,553.4	1,096.5	3.1	3,005.1	7,658.1	14.2%	2,272.3	577.8	2.4	3,851.7	6,704.2	-35.9%	3,748.0	828.9	3.6	5,871.7	10,452.2	
Regional YoY % change	56.4%	89.8%	33.6%	-22.0%	14.2%		-39.4%	-30.3%	-33.8%	-34.4%	-35.9%							
Asia																		
Bangladesh	0.0	25.1	0.0	0.0	25.1	13.8%	0.0	22.0	0.0	0.0	22.0	3.7%	0.0	21.3	0.0	0.0	21.3	
Indonesia	573.5	157.8	50.5	0.0	781.7	41.1%	360.5	128.9	64.6	0.0	553.9	-43.7%	785.4	170.8	27.3	0.0	983.4	
Malaysia	245.1	48.0	5.0	0.0	298.1	9.4%	211.8	53.8	6.7	0.0	272.4	-56.5%	529.5	88.8	8.1	0.0	626.4	
Pakistan	12.1	36.0	0.0	0.0	48.0	72.3%	5.2	22.7	0.0	0.0	27.9	-4.7%	0.0	29.3	0.0	0.0	29.3	
Philippines	141.9	51.8	26.5	0.0	220.1	-33.3%	256.7	42.9	30.5	0.0	330.0	-29.8%	372.2	75.8	22.3	0.0	470.3	
South Korea	2,895.8	722.3	9,070.2	0.0	12,688.3	-1.5%	3,413.0	885.4	8,577.6	0.0	12,875.9	-10.8%	4,209.7	983.6	9,244.9	0.0	14,438.2	
Taiwan	2,734.4	470.1	1,408.6	0.0	4,613.2	-22.0%	2,771.3	611.8	2,528.3	0.0	5,911.4	-12.9%	3,269.3	1,019.2	2,499.8	0.0	6,788.3	
Thailand	368.8	52.5	103.9	0.0	525.1	56.9%	218.8	31.5	84.4	0.0	334.6	-48.3%	471.2	79.4	97.1	0.0	647.8	
Vietnam	257.5	247.9	30.5	0.0	535.9	-28.4%	379.2	353.5	16.0	0.0	748.7	-12.1%	468.2	375.1	8.8	0.0	852.2	
Asia Pacific broad	297.8	1,843.3	15.4	0.0	2,156.4	14.6%	354.5	1,512.0	15.8	0.0	1,882.2	7.3%	261.4	1,472.0	20.4	0.0	1,753.7	
Total	7,526.9	3,654.7	10,710.5	0.0	21,892.0	-4.6%	7,971.0	3,664.4	11,323.7	0.0	22,959.1	-13.7%	10,366.8	4,315.2	11,928.8	0.0	26,610.8	
Regional YoY % change	-5.6%	-0.3%	-5.4%	NA	-4.6%		-23.1%	-15.1%	-5.1%	NA	-13.7%							
EMEA																		
Bulgaria	0.0	13.8	0.0	0.0	13.8	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	
Egypt	41.0	0.0	0.0	0.0	41.0	55.7%	26.3	0.0	0.0	0.0	26.3	-46.8%	49.5	0.0	0.0	0.0	49.5	
Kuwait	0.0	6.3	0.0	0.0	6.3	-22.0%	0.0	8.0	0.0	0.0	8.0	-47.2%	0.0	15.2	0.0	0.0	15.2	
Nigeria	27.9	0.0	0.0	0.0	27.9	38.1%	20.2	0.0	0.0	0.0	20.2	18.1%	17.1	0.0	0.0	0.0	17.1	
Poland	206.1	77.9	0.0	0.0	284.0	16.7%	174.3	69.1	0.0	0.0	243.4	-7.9%	217.5	46.8	0.0	0.0	264.3	
Qatar	48.1	0.0	0.0	0.0	48.1	11.1%	43.3	0.0	0.0	0.0	43.3	-0.9%	43.7	0.0	0.0	0.0	43.7	
South Africa	397.1	108.7	6.7	665.6	1,178.1	21.8%	291.5	74.5	6.2	594.8	967.0	-34.8%	410.4	111.6	18.6	941.7	1,482.3	
Saudi Arabia	6.2	0.0	0.0	5.6	11.8	-2.1%	4.7	0.0	0.0	7.3	12.1	44.1%	0.0	0.0	0.0	8.4	8.4	
Turkey	324.6	229.0	0.0	0.0	553.5	-9.9%	305.9	308.5	0.0	0.0	614.5	-39.2%	500.6	509.5	0.0	0.0	1,010.1	
UAE	43.8	0.0	0.0	18.3	62.1	42.7%	25.2	0.0	0.0	18.3	43.5	-40.1%	47.0	0.0	0.0	25.7	72.6	
Europe broad	36.0	439.6	0.0	0.0	475.6	24.2%	36.2	346.9	0.0	0.0	383.1	-51.4%	203.3	584.5	0.0	0.0	787.9	
Middle East & Africa	94.8	142.8	0.0	127.8	365.4	1.5%	98.7	144.0	0.0	117.4	360.1	-30.1%	168.9	137.5	0.0	208.9	515.3	
Total	1,225.6	1,018.1	6.7	817.3	3,067.7	12.7%	1,026.5	951.0	6.2	737.9	2,721.6	-36.2%	1,658.0	1,405.1	18.6	1,184.6	4,266.4	
Regional YoY % change	19.4%	7.0%	8.3%	10.8%	12.7%		-38.1%	-32.3%	-66.8%	-37.7%	-36.2%							
Global Markets																		
Global	91,753.7	19,457.2	140.4	793.1	112,144.4	36.3%	68,947.4	12,582.1	114.3	610.4	82,254.2	-19.9%	87,343.5	14,537.7	98.1	726.9	102,706.1	
Total	91,753.7	19,457.2	140.4	793.1	112,144.4	36.3%	68,947.4	12,582.1	114.3	610.4	82,254.2	-19.9%	87,343.5	14,537.7	98.1	726.9	102,706.1	
Regional YoY % change	33.1%	54.6%	22.8%	29.9%	36.3%		-21.1%	-13.5%	16.6%	-16.0%	-19.9%							
Grand Total	122,743.5	31,270.3	49,558.1	5,965.0	209,536.9	13.4%	98,182.2	24,241.9	56,162.5	6,111.8	184,698.4	-19.8%	122,087.9	30,587.9	68,444.4	9,078.0	230,198.1	
Regional YoY % change	25.0%	29.0%	-11.8%	-2.4%	13.4%		-19.6%	-20.7%	-17.9%	-32.7%	-19.8%							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP



Figure 140: AUM - Other segments | ETFs | Global |

All figures in \$ million	2016						2015						2014					
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	
	Sector																	
Consumer discretionary	15,598.4	1,087.7	270.1	36.5	16,992.8	-7.1%	16,983.2	967.1	303.9	34.3	18,288.6	10.2%	15,575.2	754.6	245.5	20.4	16,595.7	
Consumer staples	13,492.0	1,030.5	509.3	99.0	15,130.9	2.3%	12,903.3	1,070.7	717.4	106.3	14,797.7	-3.5%	14,108.5	955.6	198.2	78.3	15,340.5	
Energy	31,318.6	2,490.7	85.4	1,135.0	35,029.7	39.5%	22,537.7	1,653.8	58.1	856.7	25,106.3	-2.1%	23,153.5	1,333.0	51.7	1,098.5	25,636.7	
Financials	43,859.9	6,724.1	1,506.0	3,697.6	55,787.7	21.5%	35,570.6	6,082.6	1,657.8	2,601.3	45,912.3	-2.3%	36,800.3	5,584.6	1,654.0	2,958.5	46,997.3	
Healthcare	37,774.1	3,053.3	375.3	316.5	41,519.2	-8.9%	42,716.5	2,193.9	324.0	343.8	45,578.1	18.8%	35,435.0	2,244.2	434.5	266.3	38,379.9	
Industrials	18,252.7	742.8	824.5	231.5	20,051.5	73.8%	10,818.0	579.9	75.7	62.9	11,536.4	-31.3%	15,971.8	527.2	64.6	220.4	16,784.0	
Information Technology	40,070.4	1,876.8	238.2	120.2	42,305.6	9.0%	36,937.6	1,532.2	264.7	85.6	38,820.2	9.4%	33,939.5	1,242.6	224.4	87.1	35,493.6	
Materials	9,840.9	1,118.5	191.2	302.2	11,452.8	30.9%	7,667.2	726.2	141.0	215.5	8,749.9	-11.7%	8,596.9	811.1	214.1	282.2	9,904.2	
Real Estate	60,268.1	4,647.5	6,424.0	1,553.8	72,893.4	15.6%	52,662.1	5,109.6	4,019.9	1,254.0	63,045.6	4.1%	52,034.8	4,092.4	2,922.5	1,531.1	60,580.9	
Telecommunications	2,585.4	713.4	12.2	0.0	3,311.0	15.9%	1,990.2	854.8	12.8	0.0	2,857.9	9.6%	2,025.3	578.8	4.2	0.0	2,608.3	
Utilities	10,483.7	555.6	5.0	563.4	11,607.7	24.1%	8,434.3	486.5	5.5	429.9	9,356.3	-30.1%	12,252.3	564.2	5.6	568.2	13,390.3	
Transportation	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	
Overall	0.0	0.0	152.3	3,489.0	3,641.3	21.7%	0.0	0.0	189.5	2,802.1	2,991.6	13.3%	0.0	0.0	162.6	2,476.7	2,639.4	
Total	283,544.2	24,041.1	10,593.4	11,544.7	329,723.4	14.9%	249,220.7	21,257.4	7,770.5	8,792.4	287,041.0	0.9%	249,893.2	18,688.3	6,181.9	9,587.7	284,351.1	
<i>Regional YoY % change</i>	<i>13.8%</i>	<i>13.1%</i>	<i>36.3%</i>	<i>31.3%</i>	<i>14.9%</i>		<i>-0.3%</i>	<i>13.7%</i>	<i>25.7%</i>	<i>-8.3%</i>	<i>0.9%</i>							
Capitalization																		
Large Cap	482,239.5	381.5	449.4	4,741.2	487,811.6	22.5%	393,814.3	412.1	383.6	3,700.6	398,310.6	-3.3%	407,487.7	494.3	354.3	3,385.5	411,721.8	
Mid Cap	88,803.7	2,057.0	115.4	331.8	91,307.9	24.2%	70,504.5	2,581.3	123.0	278.7	73,487.4	11.3%	63,682.5	1,811.8	194.7	336.7	66,025.7	
Small Cap	104,049.5	5,359.5	150.1	126.3	109,685.5	39.3%	73,725.6	4,759.1	152.6	105.7	78,743.0	8.0%	69,505.4	3,120.6	148.7	138.6	72,913.2	
Total	675,092.7	7,798.0	714.9	5,199.4	688,805.0	25.1%	538,044.3	7,752.4	659.2	4,085.0	550,540.9	0.0%	540,675.6	5,426.7	697.7	3,860.8	550,660.8	
<i>Regional YoY % change</i>	<i>25.5%</i>	<i>0.6%</i>	<i>8.4%</i>	<i>27.3%</i>	<i>25.1%</i>		<i>-0.5%</i>	<i>42.9%</i>	<i>-5.5%</i>	<i>5.8%</i>	<i>0.0%</i>							
Strategy																		
Active	3,329.6	0.0	0.0	3,394.1	6,723.7	32.0%	3,093.0	0.0	0.0	2,000.1	5,093.0	26.7%	2,841.5	0.0	0.0	1,179.6	4,021.1	
Fundamental	35,964.4	1,605.0	544.5	416.1	38,530.0	9.2%	32,817.4	1,673.7	363.5	413.6	35,268.2	8.8%	29,776.3	1,898.6	310.4	427.7	32,413.0	
Leveraged Long	14,732.9	1,875.0	7,227.4	179.8	24,015.1	-13.5%	14,686.5	2,366.7	10,541.3	181.1	27,775.6	17.9%	15,485.4	1,930.5	5,869.3	267.9	23,553.0	
Leveraged Short	9,837.8	1,057.8	2,162.0	148.2	13,205.8	29.1%	8,675.1	868.1	544.8	144.2	10,232.2	16.1%	7,341.8	964.0	306.8	198.2	8,810.8	
Options Strategy	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	NA	0.0	0.0	0.0	0.0	0.0	
Quantitative	67,578.6	14,610.7	565.6	3,659.6	86,414.5	45.0%	49,011.7	7,969.5	385.2	2,226.2	59,592.6	63.2%	29,774.2	5,158.0	438.8	1,151.4	36,522.5	
Short	0.0	1,498.7	5,257.0	30.2	6,785.8	83.0%	0.0	1,534.2	2,155.5	19.0	3,708.7	59.4%	0.0	1,503.1	798.5	25.5	2,327.1	
Total	131,443.3	20,647.2	15,756.4	7,828.0	175,675.0	24.0%	108,283.6	14,412.2	13,990.2	4,984.3	141,670.3	31.6%	85,219.2	11,454.2	7,723.9	3,250.2	107,647.5	
<i>Regional YoY % change</i>	<i>21.4%</i>	<i>43.3%</i>	<i>12.6%</i>	<i>57.1%</i>	<i>24.0%</i>		<i>27.1%</i>	<i>25.8%</i>	<i>81.1%</i>	<i>53.4%</i>	<i>31.6%</i>							
Style																		
Dividend	122,357.3	18,638.2	3,318.7	6,017.1	150,331.4	32.1%	91,108.1	16,177.9	2,518.3	3,996.0	113,800.4	-8.1%	101,298.0	15,109.0	2,106.7	5,278.3	123,792.0	
Growth	121,989.2	262.3	958.5	156.7	123,366.7	7.3%	113,662.2	326.2	826.8	155.1	114,970.3	17.9%	96,870.3	191.2	391.9	95.0	97,548.4	
Value	137,180.4	1,737.3	219.6	255.8	139,393.0	42.0%	96,208.1	1,470.1	196.1	293.4	98,167.7	5.1%	91,711.7	1,130.9	289.7	315.7	93,448.0	
Total	381,526.9	20,637.8	4,496.7	6,429.6	413,091.1	26.4%	300,978.4	17,974.2	3,541.2	4,444.5	326,938.3	3.9%	289,880.0	16,431.1	2,788.2	5,689.0	314,788.3	
<i>Regional YoY % change</i>	<i>26.8%</i>	<i>14.8%</i>	<i>27.0%</i>	<i>44.7%</i>	<i>26.4%</i>		<i>3.8%</i>	<i>9.4%</i>	<i>27.0%</i>	<i>-21.9%</i>	<i>3.9%</i>							
Thematic																		
Commodities	26,829.3	1,315.5	33.2	694.1	28,872.2	72.8%	15,585.9	733.6	29.9	356.6	16,706.0	-21.3%	19,856.8	782.4	50.2	549.3	21,238.7	
Faith	0.0	230.4	0.0	0.0	230.4	12.4%	0.0	204.9	0.0	0.0	204.9	-15.7%	0.0	243.1	0.0	0.0	243.1	
Other Theme	15,498.9	1,785.7	5,758.5	361.9	23,405.0	48.8%	12,557.6	941.7	2,077.2	157.2	15,733.7	3.5%	11,954.6	825.1	2,168.5	256.5	15,204.7	
Sustainability	3,764.3	3,165.0	61.3	138.3	7,128.9	26.7%	3,141.7	2,345.3	35.4	106.0	5,628.4	6.0%	3,454.6	1,626.1	92.0	139.2	5,312.0	
Total	46,092.6	6,496.5	5,853.1	1,194.3	59,636.5	55.8%	31,285.2	4,225.5	2,142.4	619.8	38,273.0	-8.9%	35,266.0	3,476.8	2,310.7	945.0	41,998.5	
<i>Regional YoY % change</i>	<i>47.3%</i>	<i>53.7%</i>	<i>173.2%</i>	<i>92.7%</i>	<i>55.8%</i>		<i>-11.3%</i>	<i>21.5%</i>	<i>-7.3%</i>	<i>-34.4%</i>	<i>-8.9%</i>							
Grand total	1,517,699.7	79,620.7	37,414.5	32,196.0	1,666,930.9	24.0%	1,227,812.3	65,621.8	28,103.5	22,925.9	1,344,463.5	3.5%	1,200,934.0	55,477.1	19,702.4	23,332.8	1,299,446.2	
<i>Regional YoY % change</i>	<i>23.6%</i>	<i>21.3%</i>	<i>33.1%</i>	<i>40.4%</i>	<i>24.0%</i>		<i>2.2%</i>	<i>18.3%</i>	<i>42.6%</i>	<i>-1.7%</i>	<i>3.5%</i>							

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.



Asset class AUM analysis - Fixed Income

Figure 141: AUM summary | ETFs | Global |

All figures in \$ million	2016						2015						2014				
	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total	YoY % change	US	Europe	Asia Pacific	RoW	Total
Overall	100,373.5	9,800.4	1,061.6	3,471.1	114,706.6	27.5%	77,585.2	8,672.5	800.6	2,930.3	89,988.5	22.8%	62,969.0	7,239.3	475.4	2,618.7	73,302.3
Corporates	179,862.3	65,154.1	1,461.6	13,565.1	260,043.0	28.6%	142,066.0	47,054.5	1,387.8	11,643.8	202,152.0	12.8%	129,688.2	35,905.2	1,159.0	12,531.5	179,284.0
Covered Bonds	0.0	3,058.1	0.0	0.0	3,058.1	-7.7%	0.0	3,313.2	0.0	0.0	3,313.2	-21.5%	0.0	4,220.8	0.0	0.0	4,220.8
Credit Exposure	0.0	218.6	0.0	0.0	218.6	-28.5%	0.0	305.8	0.0	0.0	305.8	3.2%	0.0	296.4	0.0	0.0	296.4
Sovereign	80,398.0	65,146.1	6,734.4	2,781.5	155,060.1	12.5%	69,646.2	59,588.1	5,787.6	2,799.5	137,821.4	12.9%	58,982.7	54,511.3	5,981.2	2,651.2	122,126.4
Sovereign & Corporates	35,681.6	0.0	0.0	8,708.5	44,390.1	27.6%	29,378.7	0.0	0.0	5,412.3	34,791.0	20.3%	23,803.3	0.0	0.0	5,121.9	28,925.2
Collateralized Debt	13,119.8	0.0	0.0	0.0	13,119.8	34.2%	9,776.4	0.0	0.0	0.0	9,776.4	22.1%	8,009.1	0.0	0.0	0.0	8,009.1
Sub-Sovereign	44,124.8	0.0	0.0	108.2	44,233.0	35.8%	32,519.7	0.0	0.0	61.2	32,580.9	13.0%	28,830.9	0.0	0.0	13.6	28,844.5
Money Market	0.0	2,209.6	29,249.0	0.0	31,458.6	-37.1%	0.0	3,195.0	46,802.3	0.0	49,997.3	362.1%	0.0	2,074.0	8,745.7	0.0	10,819.7
Total	453,560.1	145,586.9	38,506.6	28,634.4	666,288.0	18.8%	360,972.2	122,129.2	54,778.3	22,847.0	560,726.6	23.0%	312,283.2	104,246.9	16,361.3	22,937.0	455,828.4
Regional YoY % change	25.6%	19.2%	-29.7%	25.3%	18.8%		15.6%	17.2%	234.8%	-0.4%	23.0%						

Source: Deutsche Bank, Reuters, Bloomberg Finance LP.





10. ETP Rankings

Top ETPs - US

Figure 143: Top 20 ETPs (including ETNs) by AUM | ETPs | US |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	AUM (\$million)
SPDR S&P 500 ETF	State Street	Equity ETF	SPY US	0.09%	224,820
iShares Core S&P 500 ETF	BlackRock	Equity ETF	IVV US	0.04%	90,620
Vanguard Total Stock Market ETF	Vanguard	Equity ETF	VTI US	0.05%	69,556
iShares MSCI EAFE ETF	BlackRock	Equity ETF	EFA US	0.33%	59,665
Vanguard S&P 500 ETF	Vanguard	Equity ETF	VOO US	0.05%	56,485
Vanguard FTSE Emerging Markets ETF	Vanguard	Equity ETF	VWO US	0.15%	43,948
PowerShares QQQ	PowerShares	Equity ETF	QQQ US	0.20%	41,793
iShares Core U.S. Aggregate Bond ETF	BlackRock	Fixed Income ETF	AGG US	0.05%	41,555
Vanguard FTSE Developed Markets ETF	Vanguard	Equity ETF	VEA US	0.09%	40,169
iShares Russell 2000 ETF	BlackRock	Equity ETF	IWM US	0.20%	38,727
iShares Russell 1000 Value ETF	BlackRock	Equity ETF	IWD US	0.20%	34,879
iShares Core S&P Mid-Cap ETF	BlackRock	Equity ETF	IJH US	0.07%	34,715
Vanguard REIT ETF	Vanguard	Equity ETF	VNQ US	0.12%	32,603
iShares Russell 1000 Growth ETF	BlackRock	Equity ETF	IWF US	0.20%	32,389
Vanguard Total Bond Market ETF	Vanguard	Fixed Income ETF	BND US	0.06%	31,443
SPDR Gold Shares	State Street	Commodity ETV	GLD US	0.40%	30,629
Vanguard Value ETF	Vanguard	Equity ETF	VTV US	0.08%	27,101
iShares iBoxx \$ Investment Grade Corporate Bond ETF	BlackRock	Fixed Income ETF	LQD US	0.15%	27,041
iShares Core S&P Small-Cap ETF	BlackRock	Equity ETF	IJR US	0.07%	26,462
iShares MSCI Emerging Markets ETF	BlackRock	Equity ETF	EEM US	0.69%	26,034

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 144: Top 20 ETPs (including ETNs) by turnover | ETPs | US |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Turnover (\$million)
SPDR S&P 500 ETF	State Street	Equity ETF	SPY US	0.09%	5,461,052
iShares Russell 2000 ETF	BlackRock	Equity ETF	IWM US	0.20%	926,824
PowerShares QQQ	PowerShares	Equity ETF	QQQ US	0.20%	780,735
iShares MSCI Emerging Markets ETF	BlackRock	Equity ETF	EEM US	0.69%	601,490
VanEck Vectors Gold Miners ETF	VanEck Vectors	Equity ETF	GDX US	0.52%	469,666
iPath S&P 500 VIX Short-Term Futures ETN	Barclays Bank	Alternative ETN	VXX US	0.89%	341,088
iShares MSCI EAFE ETF	BlackRock	Equity ETF	EFA US	0.33%	334,560
SPDR Gold Shares	State Street	Commodity ETV	GLD US	0.40%	327,095
Financial Select Sector SPDR Fund	State Street	Equity ETF	XLF US	0.14%	316,372
Energy Select Sector SPDR Fund	State Street	Equity ETF	XLE US	0.14%	298,433
iShares 20+ Year Treasury Bond ETF	BlackRock	Fixed Income ETF	TLT US	0.15%	295,748
iShares iBoxx \$ High Yield Corporate Bond ETF	BlackRock	Fixed Income ETF	HYG US	0.50%	281,967
iShares Core S&P 500 ETF	BlackRock	Equity ETF	IVV US	0.04%	211,115
Utilities Select Sector SPDR Fund	State Street	Equity ETF	XLU US	0.14%	198,826
iShares China Large-Cap ETF	BlackRock	Equity ETF	FXI US	0.73%	197,666
SPDR Dow Jones Industrial Average ETF	State Street	Equity ETF	DIA US	0.17%	194,410
Health Care Select Sector SPDR Fund	State Street	Equity ETF	XLV US	0.14%	192,473
VelocityShares Daily Inverse VIX Short-Term ETN	Credit Suisse	Alternative ETN	XIV US	1.35%	191,326
ProShares Ultra VIX Short-Term Futures ETF	ProShares	Alternative ETV	UVXY US	0.95%	186,414
Consumer Staples Select Sector SPDR Fund	State Street	Equity ETF	XLP US	0.14%	173,170

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 145: Top 20 ETPs by (including ETNs) inflows | ETPs | US |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Net Inflows (\$million)
SPDR S&P 500 ETF	State Street	Equity ETF	SPY US	0.09%	25,192
iShares Core S&P 500 ETF	BlackRock	Equity ETF	IVV US	0.04%	13,296
Vanguard S&P 500 ETF	Vanguard	Equity ETF	VOO US	0.05%	11,417
iShares Core U.S. Aggregate Bond ETF	BlackRock	Fixed Income ETF	AGG US	0.05%	11,210
Vanguard FTSE Developed Markets ETF	Vanguard	Equity ETF	VEA US	0.09%	11,004
SPDR Gold Shares	State Street	Commodity ETV	GLD US	0.40%	7,525
iShares Core MSCI Emerging Markets ETF	BlackRock	Equity ETF	IEMG US	0.14%	7,447
iShares TIPS Bond ETF	BlackRock	Fixed Income ETF	TIP US	0.20%	6,765
Vanguard FTSE Emerging Markets ETF	Vanguard	Equity ETF	VWO US	0.15%	6,734
iShares Russell 2000 ETF	BlackRock	Equity ETF	IWM US	0.20%	6,637
iShares Core MSCI EAFE ETF	BlackRock	Equity ETF	IEFA US	0.08%	6,246
Vanguard Total Stock Market ETF	Vanguard	Equity ETF	VTI US	0.05%	5,861
Vanguard Value ETF	Vanguard	Equity ETF	VTV US	0.08%	5,386
iShares Core S&P Small-Cap ETF	BlackRock	Equity ETF	IJR US	0.07%	4,855
Vanguard Short-Term Corporate Bond ETF	Vanguard	Fixed Income ETF	VCSH US	0.07%	4,855
Vanguard REIT ETF	Vanguard	Equity ETF	VNQ US	0.12%	4,272
Vanguard High Dividend Yield ETF	Vanguard	Equity ETF	VYM US	0.09%	4,268
Vanguard Total Bond Market ETF	Vanguard	Fixed Income ETF	BND US	0.06%	4,265
iShares Edge MSCI Min Vol USA ETF	BlackRock	Equity ETF	USMV US	0.15%	4,202
Vanguard Intermediate-Term Corporate Bond ETF	Vanguard	Fixed Income ETF	VCIT US	0.07%	3,925

Source: Deutsche Bank, Bloomberg Finance LP, Reuters



Figure 146: Top 20 ETPs (including ETNs) by outflows | ETPs | US |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Net Outflows (\$million)
WisdomTree Europe Hedged Equity Fund	WisdomTree	Equity ETF	HEDJ US	0.58%	-7,696
iShares MSCI Eurozone ETF	BlackRock	Equity ETF	EZU US	0.48%	-6,642
WisdomTree Japan Hedged Equity Fund	WisdomTree	Equity ETF	DXJ US	0.48%	-5,635
Deutsche X-trackers MSCI EAFE Currency-Hedged Equity ETF	Deutsche AM	Equity ETF	DBEF US	0.35%	-5,447
iShares MSCI Japan ETF	BlackRock	Equity ETF	EWJ US	0.48%	-4,230
Vanguard FTSE Europe ETF	Vanguard	Equity ETF	VGK US	0.12%	-3,510
PowerShares QQQ	PowerShares	Equity ETF	QQQ US	0.20%	-2,451
First Trust Health Care AlphaDEX Fund	First Trust	Equity ETF	FXH US	0.70%	-2,288
iShares China Large-Cap ETF	BlackRock	Equity ETF	FXI US	0.73%	-2,282
First Trust Consumer Staples AlphaDEX Fund	First Trust	Equity ETF	FXG US	0.70%	-2,197
iShares MSCI Germany ETF	BlackRock	Equity ETF	EWG US	0.48%	-1,960
First Trust Dorsey Wright Focus 5 ETF	First Trust	Equity ETF	FV US	0.30%	-1,941
First Trust Consumer Discretionary AlphaDEX Fund	First Trust	Equity ETF	FXD US	0.70%	-1,846
First Trust NYSE Arca Biotechnology Index Fund	First Trust	Equity ETF	FBT US	0.60%	-1,802
SPDR EURO STOXX 50 ETF	State Street	Equity ETF	FEZ US	0.29%	-1,502
Deutsche X-trackers MSCI Europe Hedged Equity ETF	Deutsche AM	Equity ETF	DBEU US	0.45%	-1,473
First Trust Dow Jones Internet Index Fund	First Trust	Equity ETF	FDN US	0.60%	-1,413
iShares Currency Hedged MSCI Eurozone ETF	BlackRock	Equity ETF	HEZU US	0.51%	-1,397
VelocityShares 3x Long Crude ETN	Credit Suisse	Commodity ETN	UWTI US	1.35%	-1,339
iShares 20+ Year Treasury Bond ETF	BlackRock	Fixed Income ETF	TLT US	0.15%	-1,133

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 147: Top 20 ETPs (including ETNs) by performance* - non-leveraged | ETPs | US |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	2016 Perf. %
PureFunds ISE Junior Silver ETF	ETFMG	Equity ETF	SILJ US	0.69%	137.3%
SPDR S&P Metals and Mining ETF	State Street	Equity ETF	XME US	0.35%	103.4%
VanEck Vectors Russia Small-Cap ETF	VanEck Vectors	Equity ETF	RSXJ US	0.67%	99.4%
VanEck Vectors Coal ETF	VanEck Vectors	Equity ETF	KOL US	0.59%	96.2%
VanEck Vectors Steel ETF	VanEck Vectors	Equity ETF	SLX US	0.55%	93.8%
iShares MSCI Global Silver Miners ETF	BlackRock	Equity ETF	SLVP US	0.39%	85.9%
Global X Silver Miners ETF	Global X Funds	Equity ETF	SIL US	0.65%	73.5%
Global X Copper Miners ETF	Global X Funds	Equity ETF	COPX US	0.65%	69.3%
Sprott Junior Gold Miners ETF	ALPS	Equity ETF	SGDJ US	0.57%	65.0%
VanEck Vectors Junior Gold Miners ETF	VanEck Vectors	Equity ETF	GDXJ US	0.54%	64.2%
iShares MSCI All Peru Capped ETF	BlackRock	Equity ETF	EPU US	0.62%	62.5%
iShares MSCI Brazil Capped ETF	BlackRock	Equity ETF	EWZ US	0.62%	61.2%
iShares MSCI Brazil Small-Cap ETF	BlackRock	Equity ETF	EWZS US	0.62%	59.4%
iShares MSCI Global Gold Miners ETF	BlackRock	Equity ETF	RING US	0.39%	56.3%
First Trust Brazil AlphaDEX Fund	First Trust	Equity ETF	FBZ US	0.83%	54.3%
VanEck Vectors Brazil Small-Cap ETF	VanEck Vectors	Equity ETF	BRF US	0.59%	53.1%
iShares MSCI Global Metals & Mining Producers ETF	BlackRock	Equity ETF	PICK US	0.39%	52.9%
VanEck Vectors Gold Miners ETF	VanEck Vectors	Equity ETF	GDX US	0.52%	52.5%
PowerShares S&P SmallCap Materials Portfolio	PowerShares	Equity ETF	PSCM US	0.29%	52.4%
Global X Brazil Consumer ETF	Global X Funds	Equity ETF	BRAQ US	0.77%	50.6%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. *Performance is total return and is calculated using the local listing currency.



Figure 148: Top 20 ETPs (including ETNs) by performance* - inverse & leveraged | ETPs | US |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	2016 Perf. %
ProShares Ultra MSCI Brazil Capped	ProShares	Equity ETF	UBR US	0.95%	126.7%
Direxion Daily Semiconductor Bull 3X Shares	DirexionShares	Equity ETF	SOXL US	0.95%	113.3%
VelocityShares Daily Inverse VIX Short-Term ETN	Credit Suisse	Alternative ETN	XIV US	1.35%	81.2%
Direxion Daily Energy Bull 3X Shares	DirexionShares	Equity ETF	ERX US	0.95%	70.3%
ProShares Ultra S&P Regional Banking	ProShares	Equity ETF	KRU US	0.95%	64.9%
Direxion Daily Latin America Bull 3X Shares	DirexionShares	Equity ETF	LBJ US	0.94%	62.7%
ProShares UltraPro Russell2000	ProShares	Equity ETF	URTY US	0.98%	60.0%
Direxion Daily Small Cap Bull 3X Shares	DirexionShares	Equity ETF	TNA US	0.95%	59.2%
Direxion Daily Gold Miners Index Bull 3X Shares	DirexionShares	Equity ETF	NUGT US	0.95%	57.3%
ProShares UltraPro MidCap400	ProShares	Equity ETF	UMDD US	0.95%	56.6%
ProShares Ultra Semiconductors	ProShares	Equity ETF	USD US	0.95%	56.2%
Direxion Daily Mid Cap Bull 3X Shares	DirexionShares	Equity ETF	MIDU US	1.27%	56.1%
DB Base Metals Double Long ETN	Deutsche Bank	Commodity ETN	BDD US	0.75%	55.9%
ProShares Ultra SmallCap600	ProShares	Equity ETF	SAA US	0.96%	50.9%
ProShares UltraPro Dow30	ProShares	Equity ETF	UDOW US	0.95%	47.0%
ProShares Ultra Oil & Gas	ProShares	Equity ETF	DIG US	0.95%	45.7%
ProShares Ultra Telecommunications	ProShares	Equity ETF	LTL US	0.95%	44.8%
ProShares Ultra Russell2000	ProShares	Equity ETF	UWM US	0.98%	40.8%
Direxion Daily Financial Bull 3X Shares	DirexionShares	Equity ETF	FAS US	0.94%	40.7%
ProShares Ultra MidCap400	ProShares	Equity ETF	MVV US	0.95%	38.9%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. *Performance is total return and is calculated using the local listing currency.



Top ETPs - Europe

Figure 149: Top 20 ETPs by AUM | ETPs | Europe |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	AUM (€ million)
iShares Core S&P 500 UCITS ETF	BlackRock	Equity ETF	CSSPX SW	0.07%	18,252
Vanguard S&P 500 ETF	Vanguard	Equity ETF	VUSA LN	0.07%	15,926
iShares Core DAX UCITS ETF DE	BlackRock	Equity ETF	DAXEX GR	0.16%	8,100
iShares Core MSCI World UCITS ETF (Acc)	BlackRock	Equity ETF	SWDA LN	0.40%	7,918
iShares Euro Corporate Bond UCITS ETF	BlackRock	Fixed Income ETF	IEBC LN	0.20%	7,675
iShares S&P 500 UCITS ETF (Inc)	BlackRock	Equity ETF	IUSA LN	0.40%	7,463
iShares Euro STOXX 50 (DE)	BlackRock	Equity ETF	SX5EEX GR	0.16%	7,410
Lyxor UCITS ETF Euro STOXX 50	Lyxor	Equity ETF	MSE FP	0.20%	7,030
iShares MSCI Europe UCITS ETF (Inc)	BlackRock	Equity ETF	IMEU LN	0.35%	5,787
iShares Euro High Yield Corporate Bond UCITS ETF	BlackRock	Fixed Income ETF	IHYG LN	0.50%	5,780
iShares STOXX 600 (DE)	BlackRock	Equity ETF	SXXPIEX GR	0.20%	5,469
iShares EURO STOXX 50 UCITS ETF (Inc)	BlackRock	Equity ETF	EUNE SW	0.35%	5,449
iShares MSCI World UCITS ETF (Inc)	BlackRock	Equity ETF	IWRD LN	0.50%	5,411
iShares J.P. Morgan \$ Emerging Markets Bond UCITS ETF	BlackRock	Fixed Income ETF	SEMB LN	0.45%	5,401
iShares FTSE 100 UCITS ETF (Inc)	BlackRock	Equity ETF	ISF LN	0.07%	5,372
ZKB Gold ETF	Zuercher Kantonalbank	Commodity ETF	ZGLD SW	0.40%	5,124
iShares Euro Corporate Bond Large Cap UCITS ETF	BlackRock	Fixed Income ETF	IBCS GR	0.20%	5,115
ETFS Physical Gold	ETF Securities	Commodity ETC	PHAU LN	0.39%	5,076
db x-trackers Euro Stoxx 50® UCITS ETF (DR) - 1D	Deutsche AM	Equity ETF	XESX GR	0.09%	4,773
iShares \$ Corporate Bond UCITS ETF	BlackRock	Fixed Income ETF	LQDE LN	0.20%	4,586

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 150: Top 20 ETPs by turnover | ETPs | Europe |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Turnover (€ million)
iShares Core DAX UCITS ETF DE	BlackRock	Equity ETF	DAXEX GR	0.16%	17,986
iShares Core S&P 500 UCITS ETF	BlackRock	Equity ETF	CSSPX SW	0.07%	16,718
iShares FTSE 100 UCITS ETF (Inc)	BlackRock	Equity ETF	ISF LN	0.07%	15,114
Vanguard S&P 500 ETF	Vanguard	Equity ETF	VUSA LN	0.07%	13,359
Lyxor UCITS ETF Euro STOXX 50	Lyxor	Equity ETF	MSE FP	0.20%	11,869
iShares Euro High Yield Corporate Bond UCITS ETF	BlackRock	Fixed Income ETF	IHYG LN	0.50%	11,225
iShares MSCI Emerging Markets UCITS ETF (Inc)	BlackRock	Equity ETF	IEEM LN	0.75%	10,969
ETFS Physical Gold	ETF Securities	Commodity ETC	PHAU LN	0.39%	10,567
Source Physical Gold ETC (P-ETC)	Source	Commodity ETC	SGLD LN	0.29%	10,396
iShares Euro Corporate Bond UCITS ETF	BlackRock	Fixed Income ETF	IEBC LN	0.20%	9,932
iShares J.P. Morgan \$ Emerging Markets Bond UCITS ETF	BlackRock	Fixed Income ETF	SEMB LN	0.45%	9,388
iShares Core MSCI World UCITS ETF (Acc)	BlackRock	Equity ETF	SWDA LN	0.40%	8,928
iShares \$ High Yield Corporate Bond UCITS ETF	BlackRock	Fixed Income ETF	SHYU LN	0.50%	8,723
iShares Euro STOXX 50 (DE)	BlackRock	Equity ETF	SX5EEX GR	0.16%	8,595
iShares EURO STOXX 50 UCITS ETF (Inc)	BlackRock	Equity ETF	EUNE SW	0.35%	8,203
iShares S&P 500 UCITS ETF (Inc)	BlackRock	Equity ETF	IUSA LN	0.40%	8,095
iShares \$ Corporate Bond UCITS ETF	BlackRock	Fixed Income ETF	LQDE LN	0.20%	7,853
Gold Bullion Securities	ETF Securities	Commodity ETC	GBS LN	0.40%	7,354
db x-trackers DAX® UCITS ETF (DR) 1C	Deutsche AM	Equity ETF	XDAX GR	0.09%	7,308
iShares STOXX 600 (DE)	BlackRock	Equity ETF	SXXPIEX GR	0.20%	7,251

Source: Deutsche Bank, Bloomberg Finance LP, Reuters



Figure 151: Top 20 ETPs by inflows | ETPs | Europe |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Net Inflows (€ million)
iShares Core S&P 500 UCITS ETF	BlackRock	Equity ETF	CSSPX SW	0.07%	4,148
Vanguard S&P 500 ETF	Vanguard	Equity ETF	VUSA LN	0.07%	2,703
iShares Core MSCI World UCITS ETF (Acc)	BlackRock	Equity ETF	SWDA LN	0.40%	2,283
iShares MSCI Emerging Markets IMI UCITS ETF	BlackRock	Equity ETF	EMIM NA	0.25%	1,992
iShares Physical Gold ETC	Blackrock	Commodity ETC	SGLN LN	0.25%	1,790
iShares Euro Ultrashort Bond UCITS ETF	BlackRock	Fixed Income ETF	ERNE LN	0.20%	1,624
iShares Euro High Yield Corporate Bond UCITS ETF	BlackRock	Fixed Income ETF	IHYG LN	0.50%	1,565
ETFs Physical Gold	ETF Securities	Commodity ETC	PHAU LN	0.39%	1,558
Amundi ETF MSCI Emerging Markets UCITS ETF	Amundi	Equity ETF	AEEM FP	0.20%	1,539
iShares Emerging Markets Local Government Bond UCITS ETF	Blackrock	Fixed Income ETF	SEML LN	0.50%	1,472
iShares \$ TIPS UCITS ETF	BlackRock	Fixed Income ETF	IDTP LN	0.25%	1,416
Source Physical Gold ETC (P-ETC)	Source	Commodity ETC	SGLD LN	0.29%	1,374
iShares J.P. Morgan \$ Emerging Markets Bond UCITS ETF	BlackRock	Fixed Income ETF	SEMB LN	0.45%	1,354
iShares Euro Corporate Bond 1-5yr UCITS ETF	BlackRock	Fixed Income ETF	SE15 LN	0.20%	1,192
iShares Euro Corporate Bond UCITS ETF	BlackRock	Fixed Income ETF	IEBC LN	0.20%	1,105
Amundi ETF Floating Rate USD Corporate UCITS ETF - Hedged EUR	Amundi	Fixed Income ETF	AFLE FP	0.20%	1,061
iShares Euro Corporate Bond Large Cap UCITS ETF	BlackRock	Fixed Income ETF	IBCS GR	0.20%	995
Gold Bullion Securities	ETF Securities	Commodity ETC	GBS LN	0.40%	936
iShares \$ Corporate Bond UCITS ETF	BlackRock	Fixed Income ETF	LQDE LN	0.20%	877
iShares MSCI World Value Factor UCITS ETF	BlackRock	Equity ETF	IS3S GY	0.30%	851

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 152: Top 20 ETPs by outflows | ETPs | Europe |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Net Outflows (€ million)
iShares S&P 500 UCITS ETF (Inc)	BlackRock	Equity ETF	IUSA LN	0.40%	-2,073
iShares Core DAX UCITS ETF DE	BlackRock	Equity ETF	DAXEX GR	0.16%	-1,724
db x-trackers DAX® UCITS ETF (DR) 1C	Deutsche AM	Equity ETF	XDAX GR	0.09%	-1,413
db x-trackers II iBoxx Euro Sovereigns Eurozone Yield Plus Index UCITS ETF	Deutsche AM	Fixed Income ETF	XY4P GR	0.15%	-1,038
iShares MSCI Japan EUR Hedged UCITS ETF	Blackrock	Equity ETF	IJPE LN	0.64%	-856
UBS-ETF MSCI USA	UBS	Equity ETF	USACHA SW	0.20%	-850
db x-trackers Euro Stoxx 50® UCITS ETF (DR) - 1D	Deutsche AM	Equity ETF	XESX GR	0.09%	-834
iShares EURO STOXX 50 UCITS ETF (Inc)	BlackRock	Equity ETF	EUNE SW	0.35%	-801
Source EURO STOXX 50 UCITS ETF - A EUR Accumulating	Source	Equity ETF	SDJE50 GR	0.05%	-766
UBS ETF - MSCI EMU 100% hedged to USD UCITS ETF A-acc	UBS	Equity ETF	EUUSBH SW	0.33%	-738
iShares MSCI Japan UCITS ETF (Inc)	BlackRock	Equity ETF	IJPN LN	0.59%	-688
db X-trackers II iBoxx Sovereigns Eurozone Yield Plus 1-3 UCITS ETF	Deutsche AM	Fixed Income ETF	XYP1 GY	0.15%	-662
iShares Euro Government Bond UCITS ETF	BlackRock	Fixed Income ETF	IEGA LN	0.20%	-614
Amundi ETF MSCI USA UCITS ETF	Amundi	Equity ETF	CU2 FP	0.28%	-562
UBS ETF - MSCI EMU 100% hedged to GBP UCITS ETF A-acc	UBS	Equity ETF	EUGBBH SW	0.33%	-550
iShares STOXX 600 (DE)	BlackRock	Equity ETF	SXXPIEX GR	0.20%	-548
iShares Spain Government Bond UCITS ETF	BlackRock	Fixed Income ETF	SESP LN	0.20%	-540
iShares MSCI World UCITS ETF (Inc)	BlackRock	Equity ETF	IWRD LN	0.50%	-498
iShares Italy Government Bond UCITS ETF	BlackRock	Fixed Income ETF	SITB LN	0.20%	-464
Amundi Govt Bond Lowest Rated EuroMTS Investment Grade UCITS ETF	Amundi	Fixed Income ETF	X1G FP	0.14%	-453

Source: Deutsche Bank, Bloomberg Finance LP, Reuters



Figure 153: Top 20 ETPs by performance* (non-leveraged) | ETPs | Europe |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	2016 Perf. %
iShares Gold Producers UCITS ETF	BlackRock	Equity ETF	SPGP LN	0.55%	92.2%
iShares MSCI Brazil UCITS ETF (Inc)	BlackRock	Equity ETF	IBZL LN	0.74%	90.9%
Market Vectors Junior Gold Miners UCITS ETF	Van Eck Funds	Equity ETF	GDXJ LN	0.55%	84.3%
HSBC MSCI Russia Capped UCITS ETF	HSBC	Equity ETF	HRUB LN	0.60%	76.8%
ComStage ETF NYSE Arca Gold BUGS	ComStage	Equity ETF	CD91 GR	0.65%	75.8%
Market Access Amex Gold BUGS Index Fund	China Post Global	Equity ETF	M9SD GR	0.65%	75.5%
Lyxor ETF Brazil (Ibovespa)	Lyxor	Equity ETF	RIO FP	0.65%	72.8%
Lyxor PEA Brazil (Ibovespa) UCITS ETF	Lyxor	Equity ETF	PRIO FP	0.65%	72.1%
UBS ETF plc - Solactive Global Pure Gold Miners (USD) A-dis	UBS	Equity ETF	UBUD GY	0.43%	68.3%
db x-trackers MSCI Brazil TRN Index UCITS ETF	Deutsche AM	Equity ETF	XMBR GR	0.65%	66.5%
STOXX 600 Optimised Basic Resources Source ETF	Source	Equity ETF	XPPS GR	0.30%	66.5%
iShares Oil & Gas Exploration & Production UCITS ETF	BlackRock	Equity ETF	SPOG LN	0.55%	66.5%
Lyxor UCITS ETF STOXX Europe 600 Basic Resources	Lyxor	Equity ETF	BRE FP	0.30%	64.5%
ComStage ETF STOXX 600 Basic Resources TR	ComStage	Equity ETF	CBSXPR GR	0.25%	64.4%
db x-trackers STOXX 600 Basic Resources UCITS ETF	Deutsche AM	Equity ETF	XSPR GR	0.30%	64.3%
Amundi ETF MSCI Brazil UCITS ETF	Amundi	Equity ETF	BRZ FP	0.55%	64.2%
iShares MSCI Brazil UCITS ETF	BlackRock	Equity ETF	CSBR SW	0.65%	63.9%
HSBC MSCI Brazil ETF	HSBC	Equity ETF	HMBR LN	0.60%	60.3%
Market Vectors Gold Miners UCITS ETF	Van Eck Funds	Equity ETF	GDX LN	0.55%	60.3%
Lyxor PEA UCITS ETF Russia	Lyxor	Equity ETF	PRUS FP	0.65%	60.2%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. *Performance is total return and is calculated using the local listing currency.

Figure 154: Top 20 ETPs by performance* (inverse & leveraged) | ETPs | Europe |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	2016 Perf. %
Coba ETC -4x Cocoa Daily Short	Commerzbank AG	Commodity ETC	X0BG GY	0.75%	152.7%
Coba ETC -3x Cocoa Daily Short	Commerzbank AG	Commodity ETC	X0BF GY	0.75%	123.3%
ETFS Daily Leveraged Zinc	ETF Securities	Commodity ETC	LZIC LN	0.98%	115.8%
ETFS Daily Leveraged Tin	ETF Securities	Commodity ETC	LTIM LN	0.98%	103.5%
ETFS 5x Long USD Short GBP	ETF Securities	Currency ETC	USP5 LN	0.98%	100.9%
Coba ETC -2x Cocoa Daily Short	Commerzbank AG	Commodity ETC	X0BE GY	0.60%	83.6%
ETFS 5x Long EUR Short GBP	ETF Securities	Currency ETC	EUP5 LN	0.98%	72.2%
ETFS 3x Long AUD Short GBP	ETF Securities	Currency ETC	AUP3 LN	0.98%	63.7%
ETFS 3x Daily Short Wheat	ETF Securities	Commodity ETC	3WHS IM	0.98%	61.8%
ETFS 3x Long USD Short GBP	ETF Securities	Currency ETC	USP3 LN	0.98%	61.3%
ETFS 3x Long JPY Short GBP	ETF Securities	Currency ETC	JPP3 LN	0.98%	58.4%
ETFS 5X Short GBP Long EUR	ETF Securities	Currency ETC	GBE5 IM	0.98%	56.6%
ETFS 3x Short GBP Long USD	ETF Securities	Currency ETC	SGB3 LN	0.98%	51.6%
ETFS Daily Leveraged Heating Oil	ETF Securities	Commodity ETC	LHEO LN	0.98%	49.9%
ETFS 3x Daily Long FTSE 100	ETF Securities	Equity ETF	UK3L LN	0.70%	47.5%
Coba ETC 2x Gasoil Daily Long	Commerzbank AG	Commodity ETC	X0E2 GY	0.60%	46.7%
ETFS 3x Long EUR Short GBP	ETF Securities	Currency ETC	EUP3 LN	0.98%	44.3%
ETFS 3x Daily Long Sugar	ETF Securities	Commodity ETC	3SUL IM	0.98%	43.3%
Coba ETC 2x Brent Oil Daily Long	Commerzbank AG	Commodity ETC	X0C2 GY	0.60%	42.0%
Coba ETC -1x Cocoa Daily Short	Commerzbank AG	Commodity ETC	X0BD GY	0.60%	41.5%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. *Performance is total return and is calculated using the local listing currency.



Top ETPs - Asia Pacific

Figure 155: Top 20 ETPs by AUM | ETPs | Asia Pacific |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	AUM (\$ million)
Nomura Nikkei 225 ETF	Nomura Asset Management	Equity ETF	1321 JP	0.24%	34,733
TOPIX ETF	Nomura Asset Management	Equity ETF	1306 JP	0.28%	33,305
Nikko Exchange Traded Index 225	Nikko Asset Management	Equity ETF	1330 JP	0.28%	16,990
Daiwa ETF - Nikkei 225	Daiwa Asset Management	Equity ETF	1320 JP	0.22%	16,128
Daiwa ETF - Topix	Daiwa Asset Management	Equity ETF	1305 JP	0.17%	15,528
Nikko ETF Topix	Nikko Asset Management	Equity ETF	1308 JP	0.14%	14,726
Tracker Fund of Hong Kong	State Street	Equity ETF	2800 HK	0.15%	10,383
Fortune SGAM Xianjin Tianyi Money Market	Fortune SGAM Fund Management	Fixed Income ETF	511990 CH	0.35%	8,907
Maxis Nikkei 225 ETF	Mitsubishi UFJ Asset Mg	Equity ETF	1346 JP	0.21%	7,671
Hang Seng H-Share Index ETF	Hang Seng Investment Management	Equity ETF	2828 HK	0.60%	5,780
Hang Seng Index ETF	Hang Seng Investment Management	Equity ETF	2833 HK	0.13%	5,669
MAXIS TOPIX ETF	Mitsubishi UFJ Asset Mg	Equity ETF	1348 JP	0.12%	4,243
China 50 ETF	China Asset Management	Equity ETF	510050 CH	0.60%	4,218
Samsung KODEX 200	Samsung Asset Management	Equity ETF	069500 KS	0.26%	4,055
ABF Pan-Asia Bond Index Fund	State Street	Fixed Income ETF	2821 HK	0.19%	3,734
iShares FTSE A50 China Index ETF	BlackRock	Equity ETF	2823 HK	0.99%	3,716
China Southern Cash Management Money Market Fund ETF	China Southern Fund Management Co Ltd	Fixed Income ETF	511810 CH	0.30%	3,540
Yinhua Traded Money Market Fund	Yinhua Fund Management	Fixed Income ETF	511880 CH	0.30%	3,385
iShares Nikkei 225	BlackRock	Equity ETF	1329 JP	0.17%	3,108
Next Funds JPX-Nikkei Index 400 ETF	Nomura Asset Management	Equity ETF	1591 JP	0.25%	3,091

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 156: Top 20 ETPs by turnover | ETPs | Asia Pacific |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Turnover (\$ million)
Fortune SGAM Xianjin Tianyi Money Market	Fortune SGAM Fund Management	Fixed Income ETF	511990 CH	0.35%	452,273
Next Funds Nikkei 225 Leveraged Index ETF	Nomura Asset Management	Equity ETF	1570 JP	0.87%	362,652
Yinhua Traded Money Market Fund	Yinhua Fund Management	Fixed Income ETF	511880 CH	0.30%	267,878
China Southern Cash Management Money Market Fund ETF	China Southern Fund Management Co Ltd	Fixed Income ETF	511810 CH	0.30%	121,133
Fullgoal Shouyibao Exchange Traded Money Market Fund	Fullgoal Fund Management Co	Fixed Income ETF	511900 CH	0.00%	90,596
China Universal Tianfutong Money Market Fund	China Universal Asset Management Co	Fixed Income ETF	511980 CH	0.00%	81,016
Bosera Security Deposit Real-time Traded Money Market Fund	Bosera Fund Management Co Ltd	Fixed Income ETF	511860 CH	0.30%	62,147
Next Funds Nikkei 225 Double Inverse Index ETF	Nomura Asset Management	Equity ETF	1357 JP	0.87%	51,341
Tracker Fund of Hong Kong	State Street	Equity ETF	2800 HK	0.15%	46,589
Penghua Profit Added Traded Money Market Fund	Penghua Fund Management Co Ltd	Fixed Income ETF	511820 CH	0.00%	42,709
Samsung KODEX Leverage ETF	Samsung Asset Management	Equity ETF	122630 KS	0.64%	39,742
E Fund Money Market Fund	E Fund Management	Fixed Income ETF	511800 CH	0.30%	34,930
E Fund - Guranteed Income Money Market Fund	E Fund Management	Fixed Income ETF	159001 CH	0.56%	33,865
Samsung KODEX 200	Samsung Asset Management	Equity ETF	069500 KS	0.26%	30,374
Hang Seng H-Share Index ETF	Hang Seng Investment Management	Equity ETF	2828 HK	0.60%	29,834
Samsung KODEX Inverse ETF	Samsung Asset Management	Equity ETF	114800 KS	0.64%	27,210
Simplex Nikkei225 Bull 2x ETF	Simplex Asset Management Co Ltd	Equity ETF	1579 JP	0.76%	25,849
Nomura Nikkei 225 ETF	Nomura Asset Management	Equity ETF	1321 JP	0.24%	25,750
E Fund ChiNext Price Index ETF	E Fund Management	Equity ETF	159915 CH	0.50%	23,802
Huatai-Pinebridge CSI 300 ETF	Huatai-PineBridge Fund Management Co	Equity ETF	510300 CH	0.50%	22,977

Source: Deutsche Bank, Bloomberg Finance LP, Reuters



Figure 157: Top 20 ETPs by inflows | ETPs | Asia Pacific |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Net Inflows (\$ million)
TOPIX ETF	Nomura Asset Management	Equity ETF	1306 JP	0.28%	8,336
Nomura Nikkei 225 ETF	Nomura Asset Management	Equity ETF	1321 JP	0.24%	6,413
Daiwa ETF - Topix	Daiwa Asset Management	Equity ETF	1305 JP	0.17%	3,800
Nikko ETF Topix	Nikko Asset Management	Equity ETF	1308 JP	0.14%	3,426
Nikko Exchange Traded Index 225	Nikko Asset Management	Equity ETF	1330 JP	0.28%	3,181
Daiwa ETF - Nikkei 225	Daiwa Asset Management	Equity ETF	1320 JP	0.22%	3,090
CSI Shanghai SOE ETF	China Universal Asset Management Co	Equity ETF	510810 CH	0.00%	2,313
Yuanta/P-shares Taiwan Top 50 1X Bear ETF	Yuanta Securities Inv trust Co Ltd.	Equity ETF	00632R TT	1.08%	2,178
China Southern Cash Management Money Market Fund ETF	China Southern Fund Management Co Ltd	Fixed Income ETF	511810 CH	0.30%	1,848
Fullgoal Shouyibao Exchange Traded Money Market Fund	Fullgoal Fund Management Co	Fixed Income ETF	511900 CH	0.00%	1,563
DIAM Nikkei 225 ETF	DIAM Asset Management	Equity ETF	1369 JP	0.16%	1,156
Next Funds Nikkei 225 Double Inverse Index ETF	Nomura Asset Management	Equity ETF	1357 JP	0.87%	1,027
iShares Nikkei 225	BlackRock	Equity ETF	1329 JP	0.17%	994
Tracker Fund of Hong Kong	State Street	Equity ETF	2800 HK	0.15%	960
Next Funds JPY-Nikkei Index 400 ETF	Nomura Asset Management	Equity ETF	1591 JP	0.25%	925
ABF Pan-Asia Bond Index Fund	State Street	Fixed Income ETF	2821 HK	0.19%	921
Huaan Yifu Gold ETF	Huaan Fund Management	Commodity ETF	518880 CH	0.50%	856
Samsung KODEX Inverse ETF	Samsung Asset Management	Equity ETF	114800 KS	0.64%	720
MAXIS TOPIX ETF	Mitsubishi UFJ Asset Mg	Equity ETF	1348 JP	0.12%	655
Huaan Rixin Monetary Market Fund ETF	Huaan Fund Management	Equity ETF	511600 CH	0.00%	651

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 158: Top 20 ETPs by outflows | ETPs | Asia Pacific |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Net Outflows (\$ million)
Fortune SGAM Xianjin Tianyi Money Market	Fortune SGAM Fund Management	Fixed Income ETF	511990 CH	0.35%	-9,681
E Fund Money Market Fund	E Fund Management	Fixed Income ETF	511800 CH	0.30%	-7,564
Yinhua Traded Money Market Fund	Yinhua Fund Management	Fixed Income ETF	511880 CH	0.30%	-3,880
Next Funds Nikkei 225 Leveraged Index ETF	Nomura Asset Management	Equity ETF	1570 JP	0.87%	-3,262
Yuanta/P-Shares Taiwan Top 50 ETF	Yuanta Securities Inv trust Co Ltd.	Equity ETF	0050 TT	0.36%	-1,606
iShares FTSE A50 China Index ETF	BlackRock	Equity ETF	2823 HK	0.99%	-1,181
Penghua Profit Added Traded Money Market Fund	Penghua Fund Management Co Ltd	Fixed Income ETF	511820 CH	0.00%	-1,118
Samsung KODEX Leverage ETF	Samsung Asset Management	Equity ETF	122630 KS	0.64%	-794
Reliance Gold Exchange Traded Fund	Reliance Capital Asset Management	Commodity ETF	REGOLD IN	1.50%	-429
Hang Seng H-Share Index ETF	Hang Seng Investment Management	Equity ETF	2828 HK	0.60%	-406
China Universal Tianfutong Money Market Fund	China Universal Asset Management Co	Fixed Income ETF	511980 CH	0.00%	-395
Daiwa ETF Japan Nikkei 225 Inverse Index	Daiwa Asset Management	Equity ETF	1456 JP	0.75%	-357
Invesco Great Wall Traded Money Market Fund	Invesco Great Wall Fund Management Co. Ltd	Fixed Income ETF	511890 CH	0.30%	-286
Samsung KODEX 200	Samsung Asset Management	Equity ETF	069500 KS	0.26%	-283
CSOP China 5-year Treasury Bond ETF	CSOP Asset Management	Fixed Income ETF	3199 HK	0.56%	-238
E Fund SI100 Index Fund	E Fund Management	Equity ETF	159901 CH	0.50%	-231
Daiwa ETF - TOPIX Ex-Financials ETF	Daiwa Asset Management	Equity ETF	1585 JP	0.21%	-230
Huatai-Pinebridge CSI 300 ETF	Huatai-PineBridge Fund Management Co	Equity ETF	510300 CH	0.50%	-224
SPDR200 - SPDRS&P/ASX 200	State Street	Equity ETF	STW AU	0.29%	-209
Simplex Nikkei225 Bull 2x ETF	Simplex Asset Management Co Ltd	Equity ETF	1579 JP	0.76%	-205

Source: Deutsche Bank, Bloomberg Finance LP, Reuters.



Figure 159: Top 20 ETPs by performance* (non-leveraged) | ETPs | Asia Pacific |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	2016 Perf. %
Next Funds Ibovespa Linked ETF	Nomura Asset Management	Equity ETF	1325 JP	1.01%	55.4%
KTAM SET Food and Beverage ETF Tracker	Krung Thai Asset Management	Equity ETF	EFOOD TB	0.49%	49.3%
Next Funds Russian RTS Linked ETF	Nomura Asset Management	Equity ETF	1324 JP	1.01%	44.4%
Market Vectors Australian Emerging Resources ETF	Van Eck Funds	Equity ETF	MVE AU	0.49%	44.1%
KTAM SET Energy ETF Tracker	Krung Thai Asset Management	Equity ETF	ENY TB	0.49%	42.8%
KTAM SET Commerce ETF Tracker	Krung Thai Asset Management	Equity ETF	ECOMM TB	0.49%	39.2%
SPDR S&P/ASX 200 Resources Fund	State Street	Equity ETF	OZR AU	0.40%	38.4%
Mtrack Energy ETF	TMB Asset Management	Equity ETF	ENGY TB	0.75%	37.7%
Mirae Asset MAPS TIGER Latin ETF	Mirae Asset MAPS Global Investments	Equity ETF	105010 KS	0.49%	37.5%
Market Vectors Australian Resources ETF	Van Eck Funds	Equity ETF	MVR AU	0.35%	37.5%
BetaShares S&P/ASX 200 Resources Sector ETF	BetaShares Capital Ltd	Equity ETF	QRE AU	0.39%	37.1%
iShares CSI A-Share Consumer Staples Index ETF	BlackRock	Equity ETF	2841 HK	1.39%	35.6%
KB KStar Synth-US Oil&Gas E&P Company ETF-H	KB Asset Management	Equity ETF	219390 KS	0.25%	35.3%
Premier ETF Indonesia State-Owned Companies	Indo Premier Securities	Equity ETF	XISC IJ	3.00%	32.0%
Australian Resources Index Trust	Smartshares Ltd	Equity ETF	ASR NZ	0.54%	31.6%
Premier ETF Indonesia Financial	Indo Premier Securities	Equity ETF	XIIF IJ	3.00%	31.5%
ETFS Physical Palladium/Australia	ETF Securities	Commodity ETC	ETPMPD AU	0.49%	29.7%
Bosera Standard And Poor's 500 ETF	Bosera Fund Management Co Ltd	Equity ETF	513500 CH	0.60%	27.8%
Mirae Asset MAPS Tiger Shipbuilding & Transportation ETF	Mirae Asset MAPS Global Investments	Equity ETF	139230 KS	0.40%	26.8%
Samsung KODEX SYNTH-US Energy ETF	Samsung Asset Management	Equity ETF	218420 KS	0.25%	26.6%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. *Performance is total return and is calculated using the local listing currency.

Figure 160: Top ETPs by performance* (inverse & leveraged) | ETPs | Asia Pacific |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	2016 Perf. %
Yuanta/P-shares Taiwan Top 50 2X Bull ETF	Yuanta Securities Inv trust Co Ltd.	Equity ETF	00631L TT	1.08%	39.2%
Yuanta Daily S&P 500 Bull 2X ETF	Yuanta Securities Inv trust Co Ltd.	Equity ETF	00647L TT	1.24%	16.6%
Mirae Asset Maps TIGER 200 (2X) ETF	Mirae Asset MAPS Global Investments	Equity ETF	123320 KS	0.59%	15.3%
Samsung KODEX Leverage ETF	Samsung Asset Management	Equity ETF	122630 KS	0.64%	15.1%
Kindex Leverage ETF	Korea Investment Trust Mg	Equity ETF	152500 KS	0.30%	14.5%
MiraeAsset TIGER S&P500 Leverage ETF H	Mirae Asset MAPS Global Investments	Equity ETF	225040 KS	0.59%	13.7%
Mirae Asset Tiger Synth-China A Inverse ETF	Mirae Asset MAPS Global Investments	Equity ETF	217780 KS	0.59%	12.1%
MIDAS KOSPI200 Covered Call ETF	Midas Asset Management Co	Equity ETF	137930 KS	0.45%	10.9%
KIM Kindex Synth-Gold futures Leverage ETF - H	Korea Investment Trust Mg	Commodity ETF	225130 KS	0.49%	9.8%
Mirae Asset Tiger Covered C200 ETF	Mirae Asset MAPS Global Investments	Equity ETF	166400 KS	0.39%	9.5%
MiraeAsset TIGER Synth-MSCI EM Leverage ETF H	Mirae Asset MAPS Global Investments	Equity ETF	225060 KS	0.59%	6.0%
Kiwoom KOSEF Synth-USD Futures Leverage ETF	Kiwoom Asset Management Co Ltd	Currency ETF	225800 KS	0.64%	2.6%
WOORI KOSEF 10Y KTB Leverage ETF	Woori Asset Management	Fixed Income ETF	167860 KS	0.30%	0.5%
Samsung KODEX 10Y F-LKTB Inverse ETF	Samsung Asset Management	Fixed Income ETF	176950 KS	0.25%	0.4%
KOSEF USD Futures Inverse ETF	Woori Asset Management	Currency ETF	139660 KS	0.49%	-2.6%
Yuanta/P-shares CSI 300 1X Bear ETF	Yuanta Securities Inv trust Co Ltd.	Equity ETF	00638R TT	1.24%	-2.9%
BetaShares Australian Dividend Harvester Fund	BetaShares Capital Ltd	Equity ETF	HVST AU	0.90%	-3.2%
Rakuten ETF-Nikkei 225 Leveraged Index	Rakuten Investment Management	Equity ETF	1458 JP	0.35%	-3.4%
Simplex Nikkei225 Bull 2x ETF	Simplex Asset Management Co Ltd	Equity ETF	1579 JP	0.76%	-3.9%
Nikko Listed Index Fund Nikkei Leveraged Index	Nikko Asset Management	Equity ETF	1358 JP	1.03%	-3.9%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. *Performance is total return and is calculated using the local listing currency.



Top ETPs - RoW

Figure 161: Top 20 ETPs by AUM | ETPs | RoW |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	AUM (\$ million)
iShares S&P/TSX 60 Index ETF	BlackRock	Equity ETF	XIU CN	0.17%	9,149
iShares Core S&P 500 Index ETF (CAD- Hedged)	BlackRock	Equity ETF	XSP CN	0.24%	2,853
BMO S&P 500 Index ETF	BMO Financial Group	Equity ETF	ZSP CN	0.15%	2,183
iShares Core S&P/TSX Capped Composite Index ETF	BlackRock	Equity ETF	XIC CN	0.26%	2,058
iShares NAFTRAC	BlackRock	Equity ETF	NAFTRAC MM	0.25%	1,769
iShares Canadian Short Term Bond Index ETF	BlackRock	Fixed Income ETF	XSB CN	0.25%	1,747
BMO Aggregate Bond Index ETF	BMO Financial Group	Fixed Income ETF	ZAG CN	0.28%	1,589
iShares Canadian Universe Bond Index ETF	BlackRock	Fixed Income ETF	XBB CN	0.30%	1,565
iShares 1-5 Year Laddered Corporate Bond Index ETF	BlackRock	Fixed Income ETF	CBO CN	0.25%	1,483
Horizons S&P/TSX 60 Index ETF	Horizons Management	Equity ETF	HXT CN	0.07%	1,441
BMO Dow Jones CanadaTitans 60 Index ETF	BMO Financial Group	Equity ETF	ZCN CN	0.15%	1,295
iShares Canadian Corporate Bond Index ETF	BlackRock	Fixed Income ETF	XCB CN	0.40%	1,259
NewGold ETF	Absa Capital	Commodity ETV	GLD SJ	0.40%	1,238
BMO Laddered Preferred Share Index ETF	BMO Financial Group	Fixed Income ETF	ZPR CN	0.45%	1,199
iShares Canadian Select Dividend Index ETF	BlackRock	Equity ETF	XDV CN	0.50%	1,136
iShares S&P/TSX Capped REIT Index ETF	BlackRock	Equity ETF	XRE CN	0.55%	1,043
BMO US Dividend ETF	BMO Financial Group	Equity ETF	ZDY CN	0.30%	975
iShares S&P/TSX Canadian Preferred Share Index ETF	BlackRock	Fixed Income ETF	CPD CN	0.48%	971
BMO Low Volatility Canadian Equity ETF	BMO Financial Group	Equity ETF	ZLB CN	0.35%	968
BMO Covered Call Canadian Banks ETF	BMO Financial Group	Equity ETF	ZWB CN	0.65%	961

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 162: Top 20 ETPs by turnover | ETPs | RoW |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Turnover (\$ million)
iShares S&P/TSX 60 Index ETF	BlackRock	Equity ETF	XIU CN	0.17%	40,698
iShares NAFTRAC	BlackRock	Equity ETF	NAFTRAC MM	0.25%	19,889
iShares Ibovespa Fundo de Índice	BlackRock	Equity ETF	BOVA11 BZ	0.54%	12,389
Horizons BetaPro NYMEX Crude Oil Bull Plus ETF	Horizons Management	Commodity ETF	HOU CN	1.29%	12,123
Horizons BetaPro NYMEX Crude Oil Bear Plus ETF	Horizons Management	Commodity ETF	HOD CN	1.27%	10,181
iShares S&P/TSX Global Gold Index ETF	BlackRock	Equity ETF	XGD CN	0.55%	9,859
iShares S&P/TSX Capped Energy Index ETF	BlackRock	Equity ETF	XEG CN	0.55%	9,444
Horizons BetaPro S&P/TSX Global Gold Bull Plus ETF	Horizons Management	Equity ETF	HGU CN	1.13%	8,319
iShares MSCI USA Value Factor ETF	BlackRock	Equity ETF	VLUE* MM	0.15%	8,007
Horizons BetaPro S&P/TSX Global Gold Bear Plus ETF	Horizons Management	Equity ETF	HGD CN	1.27%	6,857
Horizons BetaPro NYMEX Natural Gas Bull Plus ETF	Horizons Management	Commodity ETF	HNU CN	1.27%	6,250
iShares Barclays Short Treasury Bond Fund	BlackRock	Fixed Income ETF	SHV* MM	0.15%	5,823
Horizons BetaPro S&P 500 VIX Short-Term Futures Bull Plus ETF	Horizons Management	Alternative ETF	HVU CN	1.15%	5,709
iShares Core S&P 500 Index ETF (CAD- Hedged)	BlackRock	Equity ETF	XSP CN	0.24%	5,097
iShares MSCI USA Quality Factor ETF	BlackRock	Equity ETF	QUAL* MM	0.15%	4,737
iShares S&P/TSX Capped Financials Index ETF	BlackRock	Equity ETF	XFN CN	0.55%	4,427
Horizons S&P/TSX 60 Index ETF	Horizons Management	Equity ETF	HXT CN	0.07%	4,230
BMO S&P 500 Index ETF	BMO Financial Group	Equity ETF	ZSP CN	0.15%	3,905
Horizons BetaPro NYMEX Natural Gas Bear Plus ETF	Horizons Management	Commodity ETF	HND CN	1.27%	3,795
BMO S&P/TSX Equal Weight Banks Index ETF	BMO Financial Group	Equity ETF	ZEB CN	0.55%	3,174

Source: Deutsche Bank, Bloomberg Finance LP, Reuters



Figure 163: Top 20 ETPs by inflows | ETPs | RoW |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Net Inflows (\$ million)
BMO Aggregate Bond Index ETF	BMO Financial Group	Fixed Income ETF	ZAG CN	0.28%	996
BMO US Dividend ETF	BMO Financial Group	Equity ETF	ZDY CN	0.30%	648
Vanguard Canadian Aggregate Bond Index ETF	Vanguard	Fixed Income ETF	VAB CN	0.20%	473
BMO Low Volatility Canadian Equity ETF	BMO Financial Group	Equity ETF	ZLB CN	0.35%	433
BMO Dow Jones CanadaTitans 60 Index ETF	BMO Financial Group	Equity ETF	ZCN CN	0.15%	335
BMO Short Corporate Bond Index ETF	BMO Financial Group	Fixed Income ETF	ZCS CN	0.30%	311
BMO Short Federal Bond Index ETF	BMO Financial Group	Fixed Income ETF	ZFS CN	0.20%	298
iShares Colcap Index Fund	BlackRock	Equity ETF	ICOLCAP CB	0.65%	293
BMO Mid Provincial Bond Index ETF	BMO Financial Group	Fixed Income ETF	ZMP CN	0.25%	282
Horizons S&P/TSX 60 Index ETF	Horizons Management	Equity ETF	HXT CN	0.07%	278
Horizons Active Preferred Share ETF	Horizons Management	Fixed Income ETF	HPR CN	0.55%	273
iShares Core S&P 500 Index ETF (CAD- Hedged)	BlackRock	Equity ETF	XSP CN	0.24%	269
iShares Core S&P/TSX Capped Composite Index ETF	BlackRock	Equity ETF	XIC CN	0.26%	262
BMO Mid Corporate Bond Index ETF	BMO Financial Group	Fixed Income ETF	ZCM CN	0.30%	261
BMO Laddered Preferred Share Index ETF	BMO Financial Group	Fixed Income ETF	ZPR CN	0.45%	251
Vanguard Canadian Short-Term Corporate Bond Index ETF	Vanguard	Fixed Income ETF	VSC CN	0.18%	233
BMO S&P 500 Index ETF	BMO Financial Group	Equity ETF	ZSP CN	0.15%	232
NewGold ETF	Absa Capital	Commodity ETV	GLD SJ	0.40%	209
BMO LongProvincial Bond Index ETF	BMO Financial Group	Fixed Income ETF	ZPL CN	0.25%	201
Vanguard FTSE CanadaAll Cap Index ETF	Vanguard	Equity ETF	VCN CN	0.12%	187

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 164: Top 20 ETPs by outflows | ETPs | RoW |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	Net Outflows (\$ million)
iShares NAFTRAC	BlackRock	Equity ETF	NAFTRAC MM	0.25%	-886
iShares S&P/TSX 60 Index ETF	BlackRock	Equity ETF	XIU CN	0.17%	-467
iShares MSCI Mexico Risk TRAC	BlackRock	Equity ETF	MEXRISK MM	0.25%	-179
iShares Ibovespa Fundo de Índice	BlackRock	Equity ETF	BOVA11 BZ	0.54%	-176
NewPlat ETF	Absa Capital	Commodity ETF	NGPLT SJ	0.40%	-160
BMO Short-Term US IG Corporate Bond Hedged To CAD Index ETF	BMO Financial Group	Fixed Income ETF	ZSU CN	0.28%	-146
iShares 1-5 Year Laddered Corporate Bond Index ETF	BlackRock	Fixed Income ETF	CBO CN	0.25%	-143
iShares S&P/TSX Capped Energy Index ETF	BlackRock	Equity ETF	XEG CN	0.55%	-130
iShares MSCI Mexico Momentum TRAC	BlackRock	Equity ETF	MEXMTUM MM	0.25%	-128
iShares S&P/TSX Canadian Preferred Share Index ETF	BlackRock	Fixed Income ETF	CPD CN	0.48%	-123
PowerShares Ultra DLUX LongTerm Government Bond Index ETF	PowerShares	Fixed Income ETF	PGL CN	0.25%	-122
Standard Bank Africa Palladium ETF	Standard Bank	Commodity ETF	ETFFLD SJ	0.35%	-122
BMO Mid-Term US IG Corporate Bond Index ETF	BMO Financial Group	Fixed Income ETF	ZIC CN	0.25%	-111
BMO MSCI EAFE Hedged to CAD Index ETF	BMO Financial Group	Equity ETF	ZDM CN	0.35%	-106
BMO Floating Rate High Yield ETF	BMO Financial Group	Fixed Income ETF	ZFH CN	0.45%	-100
iShares US Fundamental Index ETF	BlackRock	Equity ETF	CLU CN	0.69%	-74
NewGold Palladium ETF	Absa Capital	Commodity ETF	NGPLD SJ	0.40%	-74
BMO High Yield US Corporate Bond Hedged to CAD Index ETF	BMO Financial Group	Fixed Income ETF	ZHY CN	0.65%	-74
First Asset Morningstar US Value Index ETF (Unhedged)	First Asset Funds	Equity ETF	XXM/B CN	0.60%	-62
It Now PIBB IBrX-50	Banco Itau SA	Equity ETF	PIBB11 BZ	0.06%	-61

Source: Deutsche Bank, Bloomberg Finance LP, Reuters



Figure 165: Top 20 ETPs by performance* (inverse & leveraged) | ETPs | RoW |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	2016 Perf. %
CHNTRAC	BBVA Gestion SA SGIIC	Equity ETF	CHNTRAC MM	0.50%	62.6%
iShares S&P 500 FIC FI Investimento no Exterior	BlackRock	Equity ETF	IVVB11 BZ	0.27%	51.3%
db x-trackers MSCI Japan Index ETF	Deutsche AWM	Equity ETF	DBXJP SJ	0.86%	44.7%
db x-trackers MSCI USA Index ETF	Deutsche AWM	Equity ETF	DBXUS SJ	0.86%	33.9%
db x-trackers MSCI World Index ETF	Deutsche AWM	Equity ETF	DBXWD SJ	0.68%	32.2%
db x-trackers Eurostoxx 50 Index ETF	Deutsche AWM	Equity ETF	DBXEU SJ	0.86%	29.3%
iShares MSCI EAFE Minimum Volatility Index ETF	BlackRock	Equity ETF	XMI CN	0.72%	27.8%
BMO Low Volatility US Equity ETF	BMO Financial Group	Equity ETF	ZLU CN	0.30%	27.0%
BBVA CONSUMO 10	BBVA Gestion SA SGIIC	Equity ETF	CONSUMO MM	0.35%	26.9%
BMO MSCI USA High Quality Index ETF	BMO Financial Group	Equity ETF	ZUQ CN	0.34%	26.0%
iShares MSCI USA Minimum Volatility Index ETF	BlackRock	Equity ETF	XMU CN	0.64%	24.9%
db x-trackers FTSE 100 ETF	Deutsche AWM	Equity ETF	DBXUK SJ	0.86%	24.7%
BMO US High Dividend Covered Call ETF	BMO Financial Group	Equity ETF	ZWH CN	0.74%	23.9%
iShares MSCI All Country World Minimum Volatility Index ETF	BlackRock	Equity ETF	XMW CN	0.93%	21.8%
BMO MSCI All Country World High Quality Index ETF	BMO Financial Group	Equity ETF	ZGQ CN	0.51%	21.5%
First Asset Morningstar International Momentum Index ETF (CAD Hedged)	First Asset Funds	Equity ETF	ZXM CN	0.60%	21.3%
Vanguard FTSE Developed Asia Pacific All Cap Index ETF	Vanguard	Equity ETF	VA CN	0.23%	21.2%
iShares Global Real Estate Index ETF	BlackRock	Equity ETF	CGR CN	0.65%	20.7%
PowerShares LadderRite US 0-5 Year Corporate Bond Index ETF	PowerShares	Fixed Income ETF	USB CN	0.25%	20.5%
BMO S&P 500 Index ETF	BMO Financial Group	Equity ETF	ZSP CN	0.15%	20.3%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. *Performance is total return and is calculated using the local listing currency.

Figure 166: Top 20 ETPs by performance* (inverse & leveraged) | ETPs | RoW |

ETP Name	Issuer	Asset Class & Structure	BBG Ticker	TER	2016 Perf. %
Horizons BetaPro NYMEX Crude Oil Bear+ Plus ETF	Horizons Management	Commodity ETF	HOD CN	1.15%	80.3%
Horizons BetaPro NYMEX Natural Gas Bear+ Plus ETF	Horizons Management	Commodity ETF	HND CN	1.15%	54.1%
Horizons BetaPro S&P/TSX Capped Energy Bear+ Plus ETF	Horizons Management	Equity ETF	HED CN	1.15%	28.5%
Horizons BetaPro COMEX Gold Bull+ion Bear+ Plus ETF	Horizons Management	Commodity ETF	HBD CN	1.15%	16.0%
Horizons BetaPro NASDAQ-100 Bull+ Plus ETF	Horizons Management	Equity ETF	HQU CN	1.15%	13.6%
Horizons BetaPro S&P/TSX 60 Bear+ Plus ETF	Horizons Management	Equity ETF	HXD CN	1.15%	10.3%
Horizons BetaPro COMEX Silver Bear+ Plus ETF	Horizons Management	Commodity ETF	HZD CN	1.15%	7.1%
Horizons BetaPro S&P/TSX 60 Inverse ETF	Horizons Management	Equity ETF	HIX CN	1.15%	5.3%
Horizons BetaPro S&P/TSX Capped Financials Bear+ Plus ETF	Horizons Management	Equity ETF	HFD CN	1.15%	-0.4%
Horizons BetaPro S&P 500 Bull+ Plus ETF	Horizons Management	Equity ETF	HSU CN	1.15%	-2.6%
Horizons BetaPro S&P 500 Inverse ETF	Horizons Management	Equity ETF	HIU CN	1.15%	-4.6%
Horizons BetaPro US 30 Year Bond Bear+ Plus ETF	Horizons Management	Fixed Income ETF	HTD CN	1.15%	-4.6%
Horizons BetaPro S&P 500 Bear+ Plus ETF	Horizons Management	Equity ETF	HSD CN	1.15%	-10.4%
Horizons BetaPro S&P/TSX Capped Financials Bull+ Plus ETF	Horizons Management	Equity ETF	HFU CN	1.15%	-10.9%
Smartshares DIABLOI 10 ETF	Smartshares	Equity ETF	DIABLOI MM	1.90%	-14.2%
Smartshares ANGELD 10 ETF	Smartshares	Equity ETF	ANGELD MM	1.90%	-14.5%
Horizons BetaPro S&P/TSX 60 Bull+ Plus ETF	Horizons Management	Equity ETF	HXU CN	1.15%	-19.5%
Horizons BetaPro S&P 500 VIX Short-Term Futures Inverse ETF	Horizons Management	Alternative ETF	HVI CN	1.15%	-19.8%
Horizons BetaPro COMEX Gold Bull+ion Bull+ Plus ETF	Horizons Management	Commodity ETF	HBU CN	1.15%	-24.8%
Horizons BetaPro NASDAQ-100 Bear+ Plus ETF	Horizons Management	Equity ETF	HQD CN	1.15%	-25.8%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. *Performance is total return and is calculated using the local listing currency.



11. ETP Exchanges

US exchanges

Figure 167: Trading ranking by exchange* (\$ million) | ETPs | US |

Exchange	2016			2015			2014	
	Turnover	Market share	YoY % change	Turnover	Market share	YoY % change	Turnover	Market share
ETF								
NYSE Arca	16,837,724	92.9%	1.2%	16,631,250	92.2%	11.1%	14,966,360	92.5%
Nasdaq	1,254,031	6.9%	-10.0%	1,392,726	7.7%	15.4%	1,207,109	7.5%
BATS	28,356	0.2%	21.1%	23,414	0.1%	189.1%	8,100	0.1%
Total	18,120,112	100.0%	0.4%	18,047,390	100.0%	11.5%	16,181,569	100.0%
ETV								
NYSE Arca	929,467	100.0%	28.7%	722,415	100.0%	29.1%	559,534	100.0%
Nasdaq	3	0.0%	NA	0	0.0%	NA	0	0.0%
Total	929,470	100.0%	28.7%	722,415	100.0%	29.1%	559,534	100.0%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters. *Only includes Primary listing exchanges.

European exchanges

Figure 168: Trading ranking by exchange (€ million) | ETFs | Europe |

Exchange	2016			2015			2014	
	Turnover	Market share	YoY % change	Turnover	Market share	YoY % change	Turnover	Market share
LSE								
London SE	325,166	41.0%	32.6%	245,139	32.1%	54.6%	158,540	30.0%
Borsa Italiana	82,149	10.4%	-1.2%	83,115	10.9%	25.5%	66,207	12.5%
	407,315	51.3%	24.1%	328,254	43.0%	46.1%	224,747	42.6%
Deutsche Borse								
Deutsche Borse	156,931	19.8%	-16.1%	187,116	24.5%	39.2%	134,383	25.5%
Euronext								
Paris	115,294	14.5%	-6.9%	123,773	16.2%	83.1%	67,591	12.8%
Amsterdam	23,141	2.9%	-25.4%	31,000	4.1%	46.3%	21,186	4.0%
Lisbon	39	0.0%	-79.6%	191	0.0%	-43.2%	336	0.1%
Brussels	18	0.0%	-60.4%	45	0.0%	53.0%	30	0.0%
	138,492	17.5%	-10.7%	155,009	20.3%	73.9%	89,142	16.9%
Swiss SE	71,063	9.0%	1.4%	70,097	9.2%	20.6%	58,141	11.0%
Stockholmborsen	11,005	1.4%	-12.5%	12,579	1.6%	-0.1%	12,589	2.4%
BME	4,279	0.5%	-32.7%	6,360	0.8%	45.6%	4,367	0.8%
Oslo Bors	3,995	0.5%	-1.6%	4,059	0.5%	-4.2%	4,237	0.8%
Others	154	0.0%	-8.2%	167	0.0%	1.0%	166	0.0%
Total	793,233	100.0%	3.9%	763,641	100.0%	44.7%	527,772	100.0%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters



Figure 169: Trading ranking by exchange (€ million) | ETCs | Europe |

Exchange	2016			2015			2014	
	Turnover	Market share	YoY % change	Turnover	Market share	YoY % change	Turnover	Market share
LSE								
London SE	47,717	61.8%	112.7%	22,429	48.2%	36.3%	16,457	60.9%
Borsa Italiana	20,726	26.8%	14.9%	18,040	38.8%	174.2%	6,580	24.3%
	68,442	88.6%	69.1%	40,469	86.9%	75.7%	23,037	85.2%
Deutsche Borse								
Deutsche Borse	7,358	9.5%	43.6%	5,122	11.0%	47.3%	3,477	12.9%
Euronext								
Paris	612	0.8%	26.6%	484	1.0%	142.1%	200	0.7%
Amsterdam	332	0.4%	63.6%	203	0.4%	50.3%	135	0.5%
	944	1.2%	37.5%	687	1.5%	105.1%	335	1.2%
Swiss SE	396	0.5%	94.7%	203	0.4%	56.0%	130	0.5%
Borse Stuttgart	129	0.2%	84.2%	70	0.2%	30.8%	54	0.2%
Others	525	0.7%	92.0%	273	0.6%	48.6%	184	0.7%
Total	77,270	100.0%	66.0%	46,551	100.0%	72.2%	27,032	100.0%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Asia Pacific exchanges

Figure 170: Trading ranking by exchange (\$ million) | ETFs | Asia Pacific |

Exchange	2016			2015			2014	
	Turnover	Market share	YoY % change	Turnover	Market share	YoY % change	Turnover	Market share
China - Shanghai	1,326,599	56.1%	-18.0%	1,618,663	58.0%	168.2%	603,519	47.3%
Japan - Osaka	401,286	17.0%	6.3%	377,628	13.5%	76.2%	214,324	16.8%
Korea SE - KSE	167,266	7.1%	9.7%	152,505	5.5%	-4.9%	160,306	12.6%
Japan - Tokyo SE	147,148	6.2%	36.0%	108,225	3.9%	59.7%	67,784	5.3%
Hong Kong - HKE	129,696	5.5%	-53.6%	279,604	10.0%	86.0%	150,316	11.8%
China - Shenzhen	119,154	5.0%	-34.7%	182,345	6.5%	258.4%	50,879	4.0%
Taiwan SE - TSEC	52,436	2.2%	4.1%	50,372	1.8%	256.4%	14,133	1.1%
Australia - ASX	15,855	0.7%	3.5%	15,322	0.5%	31.2%	11,681	0.9%
India - NSE	4,920	0.2%	43.9%	3,419	0.1%	46.4%	2,336	0.2%
Singapore SE - SGX	1,788	0.1%	4.1%	1,718	0.1%	22.9%	1,397	0.1%
New Zealand - NZ	177	0.0%	60.2%	110	0.0%	91.3%	58	0.0%
Thailand SE - SET	81	0.0%	-4.7%	85	0.0%	-17.7%	103	0.0%
Philippines - PSE	15	0.0%	-22.6%	19	0.0%	32.8%	14	0.0%
Vietnam - HOSE	7	0.0%	-10.2%	8	0.0%	87.8%	4	0.0%
India - Bombay	5	0.0%	315.5%	1	0.0%	31.1%	1	0.0%
Malaysia - Kuala Lumpur	4	0.0%	-57.3%	9	0.0%	42.9%	6	0.0%
Indonesia - Jakarta	1	0.0%	-21.0%	1	0.0%	51.2%	1	0.0%
Japan - Nagoya	1	0.0%	-60.3%	2	0.0%	-20.8%	2	0.0%
Total	2,366,437	100.0%	-15.2%	2,790,036	100.0%	118.5%	1,276,863	100.0%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters



Figure 171: Trading ranking by exchange (\$ million) | ETC/Vs | Asia Pacific |

Exchange	2016			2015			2014	
	Turnover	Market share	YoY % change	Turnover	Market share	YoY % change	Turnover	Market share
Singapore SE - SGX	549	49.5%	60.4%	342	47.3%	-24.2%	451	46.1%
Australia - ASX	308	27.8%	46.7%	210	29.0%	-18.2%	257	26.2%
Japan - Tokyo SE	202	18.2%	27.6%	158	21.9%	-38.0%	255	26.0%
Hong Kong - HKE	50	4.5%	278.5%	13	1.8%	-20.0%	16	1.7%
Total	1,108	100.0%	53.2%	724	100.0%	-26.1%	979	100.0%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

RoW exchanges

Figure 172: Trading ranking by exchange (\$ million) | ETFs | RoW |

Exchange	2016			2015			2014	
	Turnover	Market share	YoY % change	Turnover	Market share	YoY % change	Turnover	Market share
Toronto SE	239,424	65.7%	37.5%	174,113	67.0%	4.0%	167,495	57.6%
Mexican SE	104,751	28.7%	50.5%	69,596	26.8%	-26.4%	94,570	32.5%
San Paulo SE	14,047	3.9%	32.8%	10,579	4.1%	-5.4%	11,180	3.8%
Johannesburg SE	3,451	0.9%	-21.8%	4,414	1.7%	-7.0%	4,744	1.6%
Santiago SE	856	0.2%	167.4%	320	0.1%	220.0%	100	0.0%
Colombia SE	852	0.2%	181.1%	303	0.1%	-65.2%	870	0.3%
Saudi Arabia SE	302	0.1%	-34.3%	461	0.2%	669.2%	60	0.0%
Lima	288	0.1%	2462.4%	11	0.0%	NA	0	0.0%
Botswana SE	257	0.1%	337.6%	59	0.0%	-99.4%	10,226	3.5%
Lagos SE	115	0.0%	19543.0%	1	0.0%	90.8%	0	0.0%
Aequitas NEO	75	0.0%	NA	0	0.0%	NA	0	0.0%
Windhoek SE	18	0.0%	-57.8%	42	0.0%	-97.5%	1,676	0.6%
Stock Exchange of Mauritius	14	0.0%	6656.8%	0	0.0%	-97.5%	9	0.0%
Dubai Financial Market Exchange	0	0.0%	NA	0	0.0%	NA	0	0.0%
Abu Dhabi SE	0	0.0%	-100.0%	0	0.0%	-93.0%	2	0.0%
Total	364,450	100.0%	40.2%	259,897	100.0%	-10.7%	290,932	100.0%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

Figure 173: Trading ranking by exchange (\$ million) | ETC/Vs | RoW |

Exchange	2016			2015			2014	
	Turnover	Market	YoY %	Turnover	Market	YoY %	Turnover	Market
Johannesburg SE	2,198	96.3%	61.2%	1,364	99.4%	-36.1%	2,133	97.4%
Mexican SE	74	3.2%	1076.9%	6	0.5%	-88.8%	56	2.6%
Santiago SE	11	0.5%	594.0%	2	0.1%	4350.7%	0	0.0%
Botswana SE	0	0.0%	NA	0	0.0%	NA	0	0.0%
Lagos SE	0	0.0%	NA	0	0.0%	NA	0	0.0%
Total	2,283	100.0%	66.4%	1,372	100.0%	-37.3%	2,189	100.0%

Source: Deutsche Bank, Bloomberg Finance LP, Reuters

12. ETF Broker rankings

European ETP broker ranking

Figure 174: Top 20 European ETF brokers | ETFs | Europe |

Rank	Broker	Value Trade Summary						Broker	Volume Trade Summary					
		2016			2015				2016			2015		
		Advertised value (€ million)	Market Share	Advertised Trades	Advertised value (€ million)	Market Share	Advertised Trades		Advertised volume (million)	Market Share	Advertised Trades	Advertised volume (million)	Market Share	Advertised Trades
1	(CBK) COMMERZBANK	123,510	11.10%	243,949	151,554	14.44%	238,220	(BNPP) BNP PARIBAS	3,590	9.48%	123,504	1,290	4.35%	55,182
2	(BNPP) BNP PARIBAS	107,528	9.66%	123,454	69,198	6.59%	55,138	(CBK) COMMERZBANK	3,417	9.03%	244,536	3,769	12.72%	240,162
3	(FLOW) FLOW TRADERS	98,105	8.82%	56,716	78,849	7.51%	49,091	(FLOW) FLOW TRADERS	3,308	8.74%	59,137	2,315	7.81%	50,366
4	(SIS) SUSQUEHANNA INTERNATIONAL GRP	82,637	7.43%	38,733	84,572	8.06%	36,150	(SIS) SUSQUEHANNA INTERNATIONAL GRP	3,241	8.56%	38,800	2,645	8.93%	36,203
5	(CITI) CITIGROUP GLOBAL MARKETS	69,921	6.28%	44,048	70,253	6.69%	36,131	(CSFB) CREDIT SUISSE	2,233	5.90%	39,313	1,226	4.14%	36,575
6	(CSFB) CREDIT SUISSE	57,671	5.18%	38,625	46,524	4.43%	35,764	(OPTV) OPTIVER VOF	1,773	4.68%	50,350	-	0.00%	-
7	(DBK) DEUTSCHE BANK AG	44,661	4.01%	51,142	61,422	5.85%	53,945	(CITI) CITIGROUP GLOBAL MARKETS	1,711	4.52%	44,060	1,808	6.10%	36,141
8	(OPTV) OPTIVER VOF	43,427	3.90%	50,319	-	0.00%	-	(KCG) KCG HOLDINGS, INC.	1,468	3.88%	80,944	1,234	4.16%	60,742
9	(SG) SG SECURITIES	42,231	3.80%	50,929	47,172	4.49%	108,967	(SG) SG SECURITIES	1,452	3.84%	50,933	1,344	4.54%	108,987
10	(BCAP) BARCLAYS CAPITAL	39,218	3.52%	42,288	38,597	3.68%	40,020	(UBS) UBS INVESTMENT BANK	1,324	3.50%	11,810	1,155	3.90%	8,336
11	(JPMS) JPMORGAN CHASE BANK, N.A.	37,334	3.36%	32,928	47,585	4.53%	30,757	(DBK) DEUTSCHE BANK AG	1,309	3.46%	51,185	1,492	5.04%	53,955
12	(KEPL) KEPLER CAPITAL MARKETS	31,346	2.82%	33,548	13,933	1.33%	29,664	(WINS) WINTERFLOOD SECURITIES	1,270	3.35%	83,688	1,032	3.48%	70,133
13	(UBS) UBS INVESTMENT BANK	30,928	2.78%	11,800	35,068	3.34%	8,334	(BCAP) BARCLAYS CAPITAL	1,227	3.24%	42,303	1,093	3.69%	40,034
14	(HSBC) HSBC GROUP PLC	30,440	2.74%	27,447	10,477	1.00%	24,218	(HSBC) HSBC GROUP PLC	1,070	2.83%	27,470	353	1.19%	24,223
15	(MSCO) MORGAN STANLEY	29,845	2.68%	38,716	36,211	3.45%	21,261	(KEPL) KEPLER CAPITAL MARKETS	999	2.64%	33,556	476	1.60%	29,665
16	(UNIC) UNICREDIT	27,369	2.46%	7,753	36,743	3.50%	11,801	(MSCO) MORGAN STANLEY	930	2.46%	38,727	986	3.33%	21,268
17	(WINS) WINTERFLOOD SECURITIES	27,113	2.44%	83,682	22,993	2.19%	70,124	(MLCO) MERRILL LYNCH	837	2.21%	31,523	1,210	4.08%	39,770
18	(KCG) KCG HOLDINGS, INC.	26,573	2.39%	80,940	26,601	2.53%	60,738	(JPMS) JPMORGAN CHASE BANK, N.A.	805	2.13%	32,960	993	3.35%	30,778
19	(GS) GOLDMAN SACHS & CO.	24,956	2.24%	60,220	30,121	2.87%	58,367	(GS) GOLDMAN SACHS & CO.	755	1.99%	60,213	545	1.84%	58,374
20	(BFIN) BLUEFIN EUROPE LLP	18,824	1.69%	3,136	18,632	1.78%	2,831	(UNIC) UNICREDIT	747	1.97%	7,763	779	2.63%	11,827
	Other	118,953	10.69%	269,741	122,961	11.72%	256,290	Other	4,386	11.59%	242,179	3,891	13.13%	219,928
	Total	1,112,592	100.00%	1,390,114	1,049,467	100.00%	1,227,811	Total	37,853	100.00%	1,394,954	29,634	100.00%	1,232,649

Note: ETF broker statistics represent advertised volume as reported by brokers to Bloomberg. These numbers may be different from actual volumen traded.

Source: Deutsche Bank, Bloomberg Finance LP



Figure 175: Top 20 European ETC brokers | ETCs | Europe |

Rank	Broker	Value Trade Summary						Broker	Volume Trade Summary					
		2016			2015				2016			2015		
		Advertised value (€ million)	Market Share	Advertised Trades	Advertised value (€ million)	Market Share	Advertised Trades		Advertised volume (million)	Market Share	Advertised Trades	Advertised volume (million)	Market Share	Advertised Trades
1	(FLOW) FLOW TRADERS	5,798	9.53%	4,166	1,673	5.89%	2,016	(WINS) WINTERFLOOD SECURITIES	1,890	19.90%	26,615	1,245	21.88%	20,252
2	(OPTV) OPTIVER VOF	5,479	9.00%	12,026	-	0.00%	-	(OPTV) OPTIVER VOF	1,416	14.91%	12,026	-	0.00%	-
3	(WINS) WINTERFLOOD SECURITIES	5,275	8.67%	26,615	2,101	7.39%	20,252	(BNPP) BNP PARIBAS	1,216	12.80%	2,288	51	0.90%	347
4	(HSBC) HSBC GROUP PLC	3,778	6.21%	1,782	810	2.85%	1,699	(FLOW) FLOW TRADERS	501	5.28%	4,373	169	2.97%	2,087
5	(CITI) CITIGROUP GLOBAL MARKETS	3,527	5.80%	6,293	2,060	7.25%	3,907	(CITI) CITIGROUP GLOBAL MARKETS	444	4.67%	6,294	307	5.40%	3,908
6	(MSCO) MORGAN STANLEY	3,063	5.03%	6,432	2,601	9.16%	2,880	(KCG) KCG HOLDINGS, INC.	400	4.21%	7,004	120	2.11%	5,615
7	(CBK) COMMERZBANK	3,002	4.93%	7,287	2,110	7.43%	8,395	(DBK) DEUTSCHE BANK AG	387	4.08%	5,782	564	9.91%	4,902
8	(CSFB) CREDIT SUISSE	2,871	4.72%	2,246	1,587	5.59%	1,705	(MSCO) MORGAN STANLEY	363	3.82%	6,432	83	1.45%	2,880
9	(BNPP) BNP PARIBAS	2,789	4.58%	2,255	781	2.75%	347	(PEEL) PEEL HUNT LLP	334	3.52%	5,852	87	1.52%	4,230
10	(MACQ) MACQUARIE SECURITIES	2,741	4.50%	896	1,938	6.82%	595	(UBS) UBS INVESTMENT BANK	261	2.75%	1,624	244	4.29%	1,275
11	(SIS) SUSQUEHANNA INTERNATIONAL GRP	1,885	3.10%	452	481	1.69%	173	(INCA) INSTINET	250	2.63%	1,224	187	3.29%	1,096
12	(SG) SG SECURITIES	1,834	3.01%	1,616	1,152	4.05%	1,037	(SIS) SUSQUEHANNA INTERNATIONAL GRP	178	1.87%	452	83	1.45%	174
13	(UBS) UBS INVESTMENT BANK	1,748	2.87%	1,624	1,257	4.42%	1,275	(BCAP) BARCLAYS CAPITAL	163	1.72%	3,231	56	0.98%	1,679
14	(KEPL) KEPLER CAPITAL MARKETS	1,557	2.56%	3,056	487	1.71%	2,729	(MLCO) MERRILL LYNCH	162	1.70%	2,836	332	5.83%	5,061
15	(DBK) DEUTSCHE BANK AG	1,520	2.50%	5,780	1,874	6.60%	4,902	(BFIN) BLUEFIN EUROPE LLP	149	1.57%	582	224	3.93%	576
16	(KCG) KCG HOLDINGS, INC.	1,474	2.42%	7,004	984	3.46%	5,615	(KEPL) KEPLER CAPITAL MARKETS	146	1.54%	3,057	160	2.81%	2,729
17	(BCAP) BARCLAYS CAPITAL	1,414	2.32%	3,231	374	1.31%	1,679	(SG) SG SECURITIES	117	1.24%	1,617	64	1.13%	1,037
18	(GS) GOLDMAN SACHS & CO.	1,223	2.01%	810	366	1.29%	340	(ITGE) ITG EUROPE	113	1.19%	270	4	0.08%	48
19	(DNB) DNB NOR BANK ASA	1,036	1.70%	64	-	0.00%	-	(CSFB) CREDIT SUISSE	108	1.14%	2,256	194	3.40%	1,716
20	(JPM) JPMORGAN CHASE BANK, N.A.	1,016	1.67%	2,443	419	1.48%	1,559	(MACQ) MACQUARIE SECURITIES	95	1.00%	896	598	10.51%	595
	Other	7,819	12.85%	35,573	5,355	18.85%	33,628	Other	805	8.48%	37,245	919	16.15%	34,671
	Total	60,849	100.00%	131,651	28,408	100.00%	94,733	Total	9,499	100.00%	131,956	5,693	100.00%	94,878

Note: ETC broker statistics represent advertised volume as reported by brokers to Bloomberg. These numbers may be different from actual volumen traded.

Source: Deutsche Bank, Bloomberg Finance LP





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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).

The figure below provides a summary of our current coverage universe by region and structure type as on 31 December 2016.

The vast majority of instruments are ETFs (97.4%, 4779 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 176: 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 (70.1%): Fund structures that issue shares that are traded on an exchange much the same way as equities. ETFs indexes 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 (16.6%): 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 Undertaking 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 (8.5%): Both European and US ETFs are cross sold in 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 classes 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 that could bear no resemblance to those of their respective benchmark index and replicate 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 title 'The race for assets in the European Exchange-Traded Products Market'.

[Exchange-traded vehicles \(ETVs, 1.8%\)](#)

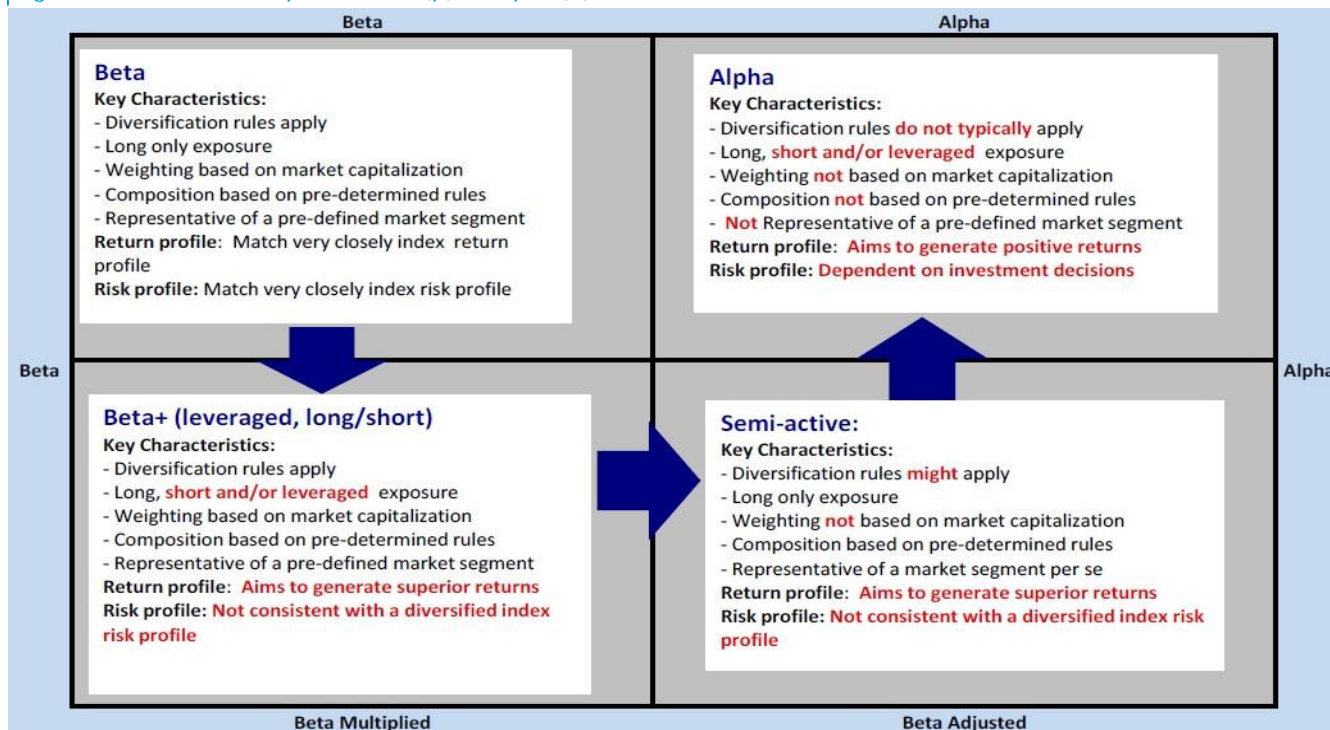
This terminology typically refers to grantor trusts that exist in the US market. These instruments track primarily commodity benchmarks. They differ from ETFs in that they are registered under the Securities Act of 1933 and not the Investment Company Act of 1940, hence they are not classed as funds. 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 177: The Roadmap from Beta (β) to Alpha (α)



Source: Deutsche Bank

The performance of beta products is measured against an index; managers are most successful when they 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 higher the return and the lower 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 distinguishes these products, taking into consideration a number of variables, ranging from diversification to what constitutes a market segment.



Appendix 1

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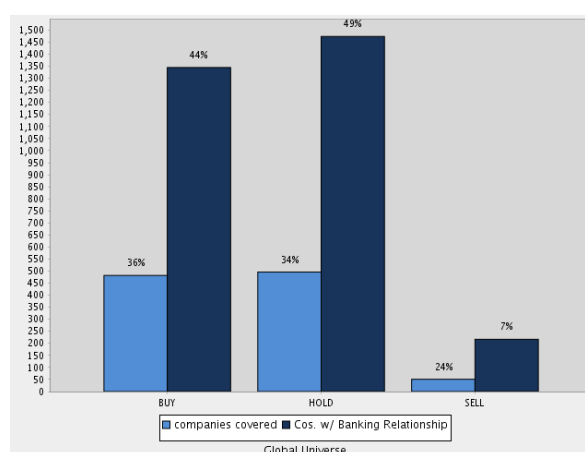
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