Public and Private Value Creation from ETF & Indexed Investments

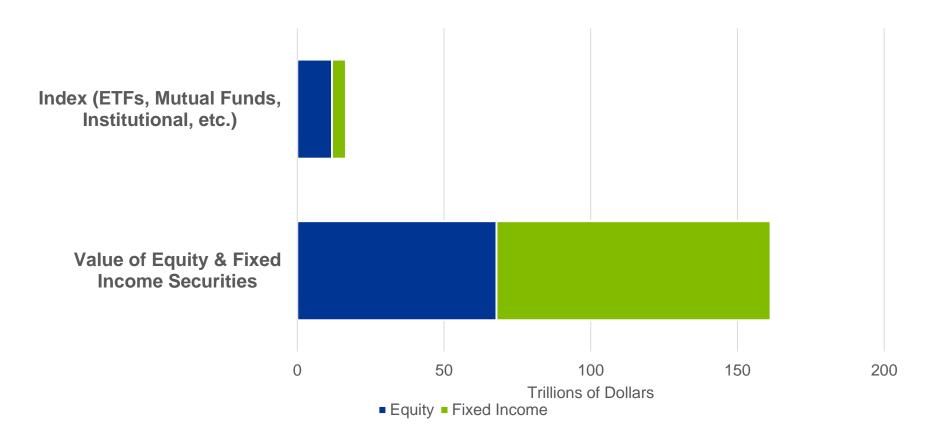
Martin Small, Managing Director Head of U.S. & Canada iShares

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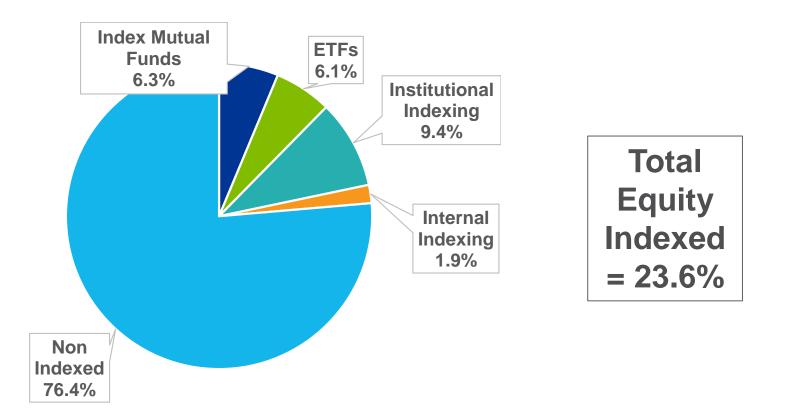
Ample room to grow: indexed assets are comparatively small, ~10% of global market value



Notes: ETFs as of Sept 2016, Global market as of Aug 2016, MFs as of Aug 2016, ETPs as of Aug 2016. Source: Bank for International Settlements, Strategic Insight Simfund, BlackRock, Bloomberg.

> 75% of U.S. equity market cap is held by non-index vehicles

US equity market = \$24T



Sources: World Federation of Exchange Database (WFED), BIS (data as of Q3 2016), HFR, Cerulli, Simfund (data as of Dec 2016), BlackRock (data as of Dec 2016), Global Heat Map, McKinsey Cube

Equity and Fixed Income exposures estimates based on individual holdings-level data for US MF and ETPs (BlackRock)) as of 9/30/2016

ETFs are composite securities that contribute positively to price discovery, similar to stock index futures contracts

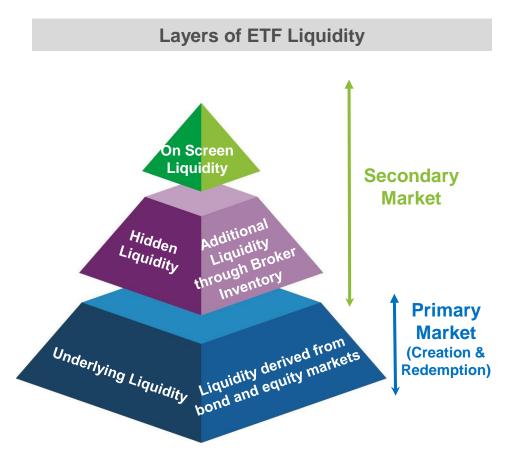
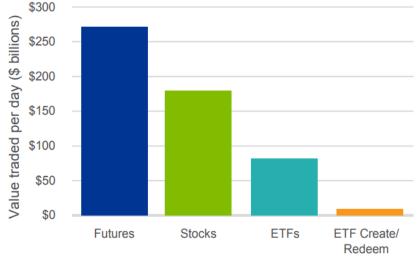


Exhibit 10: ETF creations are a fraction of US equity dollar trading volume



Source: Bloomberg, KCG Market Commentary: ETF Insights (Feb. 8, 2017),

Layers of ETF Liquidity Source: BlackRock. For illustrative purposes. There can be no assurance that an active trading market for shares of an ETF will develop or be maintained. Exhibit 10 from BLK Viewpoint, Index Investing Supports Vibrant Capital Markets <u>https://www.blackrock.com/corporate/en-us/literature/whitepaper/viewpoint-index-investing-supports-vibrant-capital-markets-oct-2017.pdf</u>

Case Study (July 2017): In record month of ETF inflows, ~95% of trading in AAPL occurred away from ETFs

Example: Apple (month of July 2017) Cumulative Dollar Trading Volume (CDV) = \$65.9 bn									
ETF Ticker	ETF Net Flow <i>∑flow_t</i> (\$bn)	ETF Gross Flow ∑∣ <i>flow_t∣</i> (\$bn)	Weight of Apple in ETF Basket (%)	Imputed ETF Gross Flow into Apple (\$bn)	Imputed Apple Gross Flow to Apple CDV (%)				
QQQ US	-1.92	14.36	11.6	1.67	2.53				
SPY US	1.04	15.76	3.7	0.58	0.88				
IVV US	4.14	4.89	3.7	0.18	0.27				
XLK US	-0.06	1.05	14.8	0.15	0.24				
DIA US	-0.60	1.78	4.7	0.08	0.13				
Next 326 ETFs that hold Apple	2.53	16.62	-	0.70	1.06				
Total	5.14	54.46	-	3.37	5.11				

Where's the evidence that ETFs are setting prices?

95% of 7/17's trading volume in this marquis stock was conducted by stock pickers. Findings are broadly consistent across US equities.

Source: BlackRock, Bloomberg, Thomson Reuters, totals for the period 6/30/2017 – 7/31/2017. Information on non-iShares Fund securities is provided strictly for illustrative purposes and should not be deemed an offer to sell or solicitation of an offer to buy shares of any security other than the iShares Fund, that are described in this material.

Robustness and market quality in stock pricing should be assessed by turnover – buys and sells – not AUM of investment products

AUM x Turnover = Information Velocity								
Form of Asset Management	AUM	Turnover	Information Velocity					
Active stock picking (including fund leverage)	\$12.5 trillion	80%	\$10.0 trillion					
Index-tracking	\$6.5 trillion	7%	\$0.46 trillion					

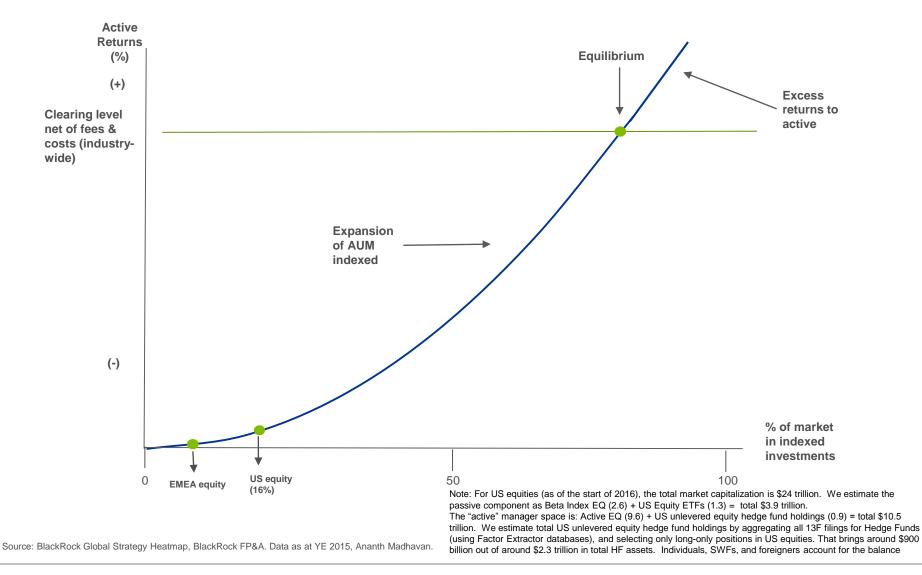
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Notes:

- · Active stock picking includes institutional, retail, and multi-asset/HFs
- Index-tracking includes Index MFs and ETFs
- In using the \$8.4tn and the \$.3tn info velocity figures, we are assuming that 55% of Alts/HF is equity
- Source: BlackRock, McKinsey, and Investment Company Institute (2015)

No "tipping point" - rather, where is the equilibrium?



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Beyond the S&P 500: re-framing index investing

An index is anything that is:



"Does what's on the label"

- Constituents 100% visible
- Public info, verifiable
- Known risk/reward profile



"Public market, transactable"

- Deploy material capital over short period, realize reported return
- "Liquid" instruments (not indexing Nigerian barges)

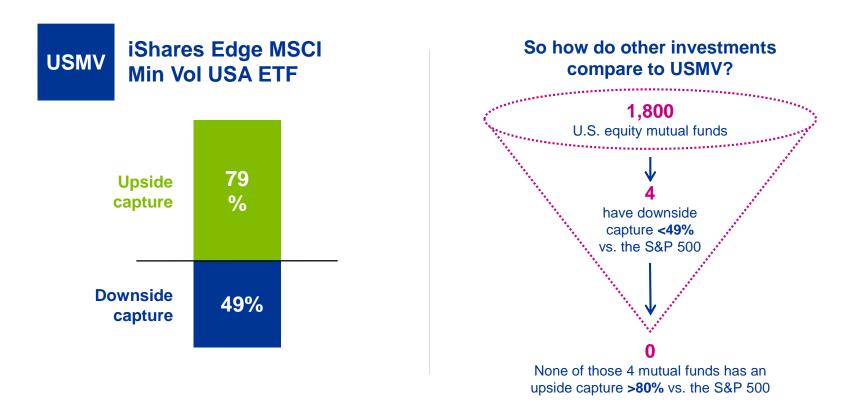


"No judgment, or unique investment skill"

- Risk and return management delivered at scale, low cost
- Dynamically manage risk, unbundled from "unexplained" alpha generation

Source: Some framing borrowed from "What Is An Index? (Lo, A., MIT Sloan School of Management, 12 October 2015)

Golden age of indexing: index investments can be more than the market, they can seek outcomes that deviate from cap-weighted benchmarks



Source: Morningstar, as of 3/31/17. USMV and U.S. equity mutual funds Upside / Downside Capture 11/1/2011 – 9/30/2017 vs. S&P500 Index. Mutual Fund universe based on the oldest share class in the "U.S. Equity" Morningstar category incepted before 11/1/2011. Past performance does not guarantee future results. For standardized performance, please see next slide.

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Fund performance as of 12/31/17

Fees as of Current Prospectus. All Other Data as of 12/31/17.

Fund Name	Fund Gross Inception Expense Date Ratio	0	30-Day SEC Yield (With / Without Waiver)	Contractual Fee Waiver Expiration (If Applicable)	1-Year Returns		5-Year Returns		10-Year Returns		Since Inception	
		Expense			NAV	Mkt Price	NAV	Mkt Price	NAV	Mkt Price	NAV	Mkt Price
iShares Edge MSCI Min Vol USA ETF (USMV)	10/18/2011	0.15%	1.92%		18.97%	19.36%	15.08%	15.16%			14.89%	14.96%

The performance quoted represents past performance of specific funds and does not guarantee future results for such funds. Investment return and principal value of an investment will fluctuate so that an investor's shares, when sold or redeemed, may be worth more or less than the original cost. Current performance may be lower or higher than the performance quoted. Performance data current to the most recent month end may be obtained by visiting www.iShares.com or www.blackrock.com. Shares of iShares Funds are bought and sold at market price (not NAV) and are not individually redeemed from the Fund. Brokerage commissions will reduce returns. Market returns are based upon the midpoint of the bid/ask spread at 4:00 p.m. eastern time (when NAV is normally determined for most iShares Funds), and do not represent the returns you would receive if you traded shares at other times.

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