

Power of active in passive

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Agenda

Why active via
passive?

Style-box tactics

Sector-investing
considerations

Indexing offers additional benefits in portfolio construction

Risk control

- Using a concentrated active fund would lead to a portfolio with risk and return characteristics that differ from those of the equity market
- Indexing permits greater control of asset-class risks

Diversification

- Actively managed funds tend to hold fewer securities, with varying degrees of return correlation

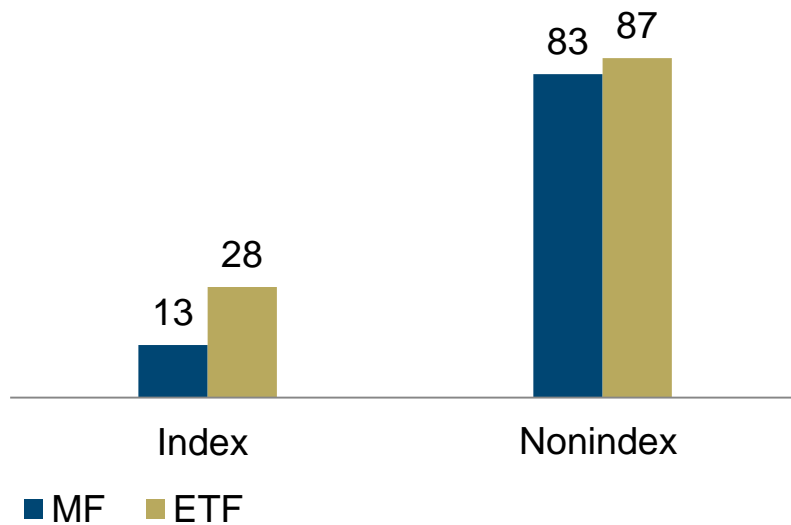
Style consistency

- An index fund maintains its style consistency by closely tracking the characteristics of the index

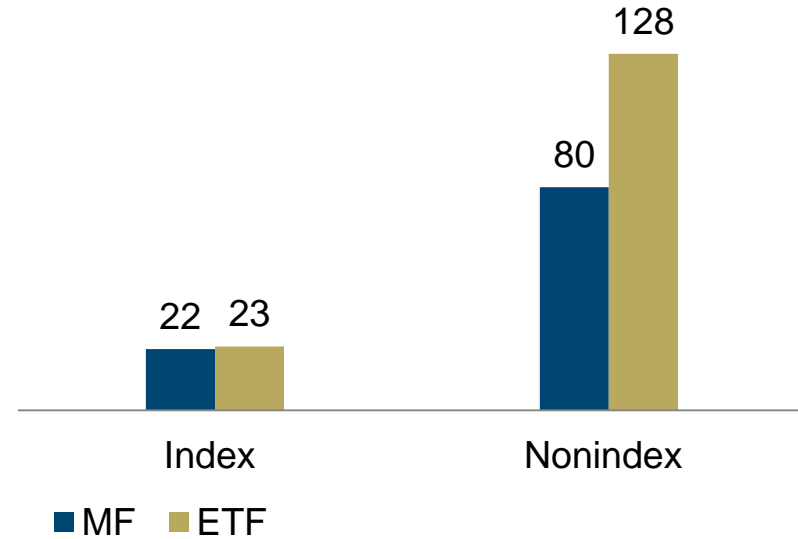
It's a matter of index/active, not ETF/mutual fund

Index funds exhibit similar traits, regardless of structure

Asset-weighted average expense ratios (bps)



Asset-weighted average turnover ratios (percent)



Source: Morningstar, Inc., as of August 31, 2013.

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But what about “better” indexes?

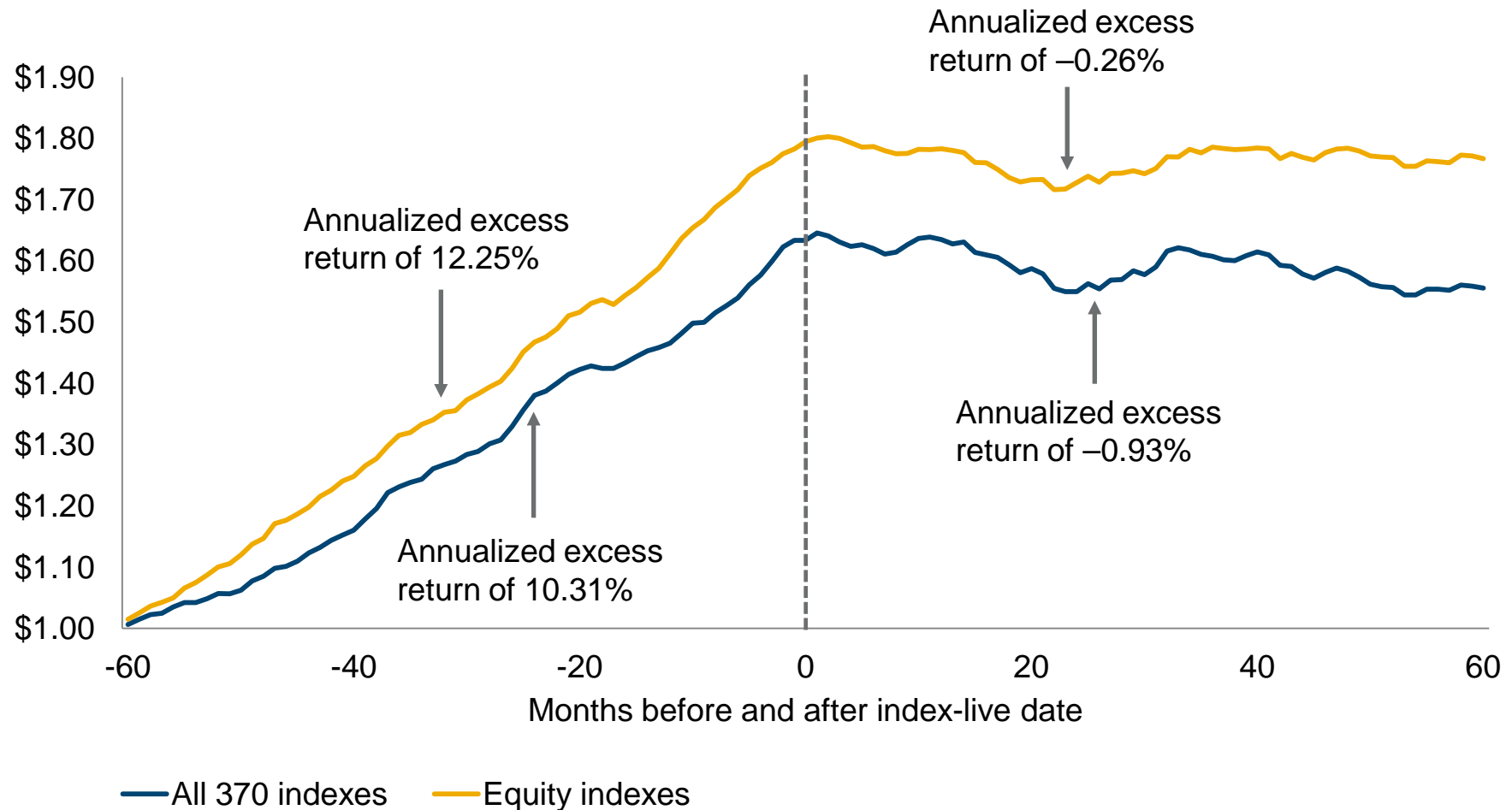
- Are based on the notion that market-cap weighting overweights overvalued securities
- Are constructed according to other metrics
- Often reflect systemic biases: smaller cap and value for equities, emerging market and credit for bonds

For more information:

- *A review of alternative approaches to equity indexing*
(Philips, Kinniry, Walker, and Thomas, 2011)
- *A review of alternative approaches to fixed income indexing*
(Thomas and Bennyhoff, 2012)

Comparison of “index average” excess return versus broad U.S. stock market

Hypothetical growth of \$1 over five years before and five years after index-live date

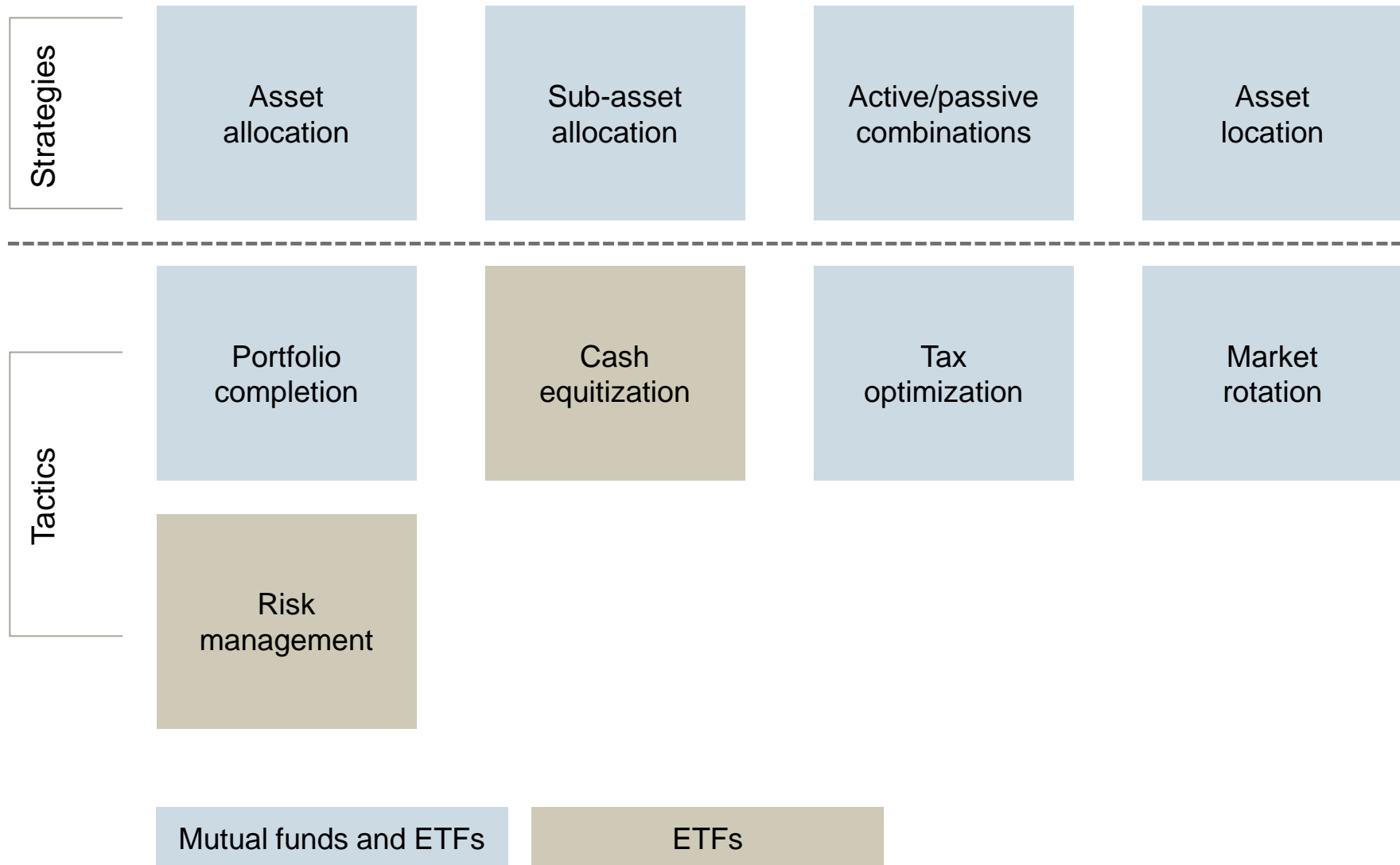


Sources: Vanguard, using index-return data from Bloomberg. Index-live-date data from index-provider and ETF-sponsor websites.

Notes: Analysis includes data from 370 indexes versus the total U.S. stock market (as measured by the Dow Jones Wilshire 5000 Index before April 22, 2005, and the MSCI US Broad Market Index thereafter). Dashed vertical line separates “before” and after performance. Additional information regarding this chart can be found in the Vanguard paper, *Joined at the hip: ETF and index development* by Joel M. Dickson, Ph.D., Sachin Padawar, and Sarah Hammer, published July 2012.

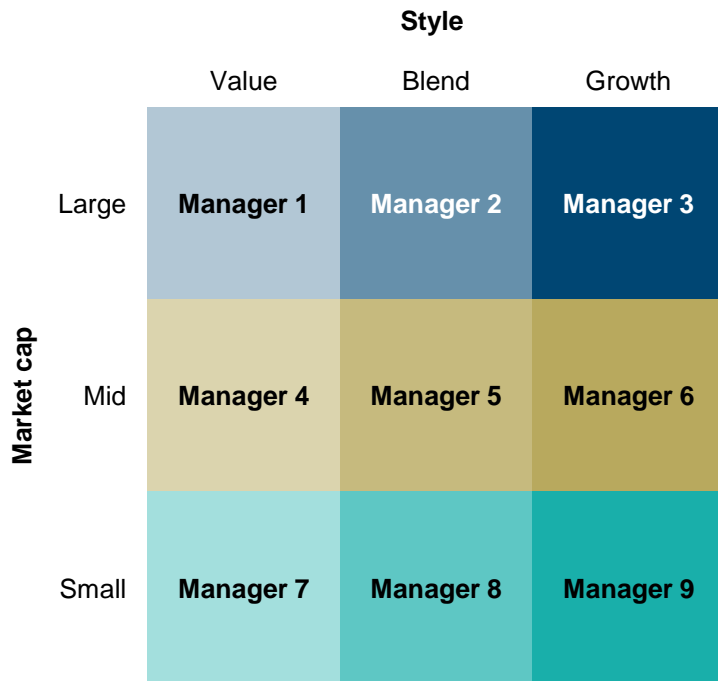
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Implement strategies and tactics using index investments

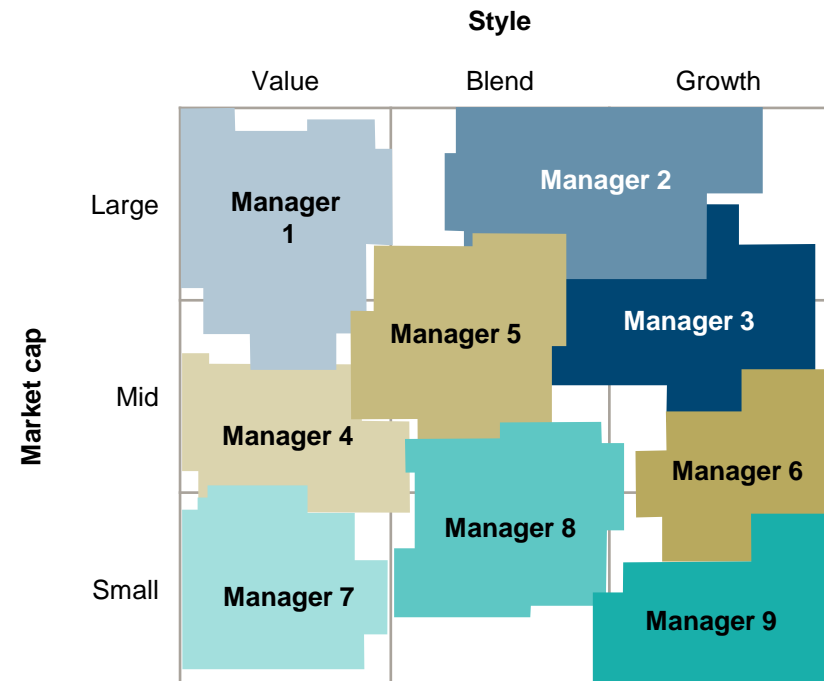


Gaps and overlap caused by “average of averages”

In practice, allocations are made at the fund level



In reality, allocations are determined by individual holdings

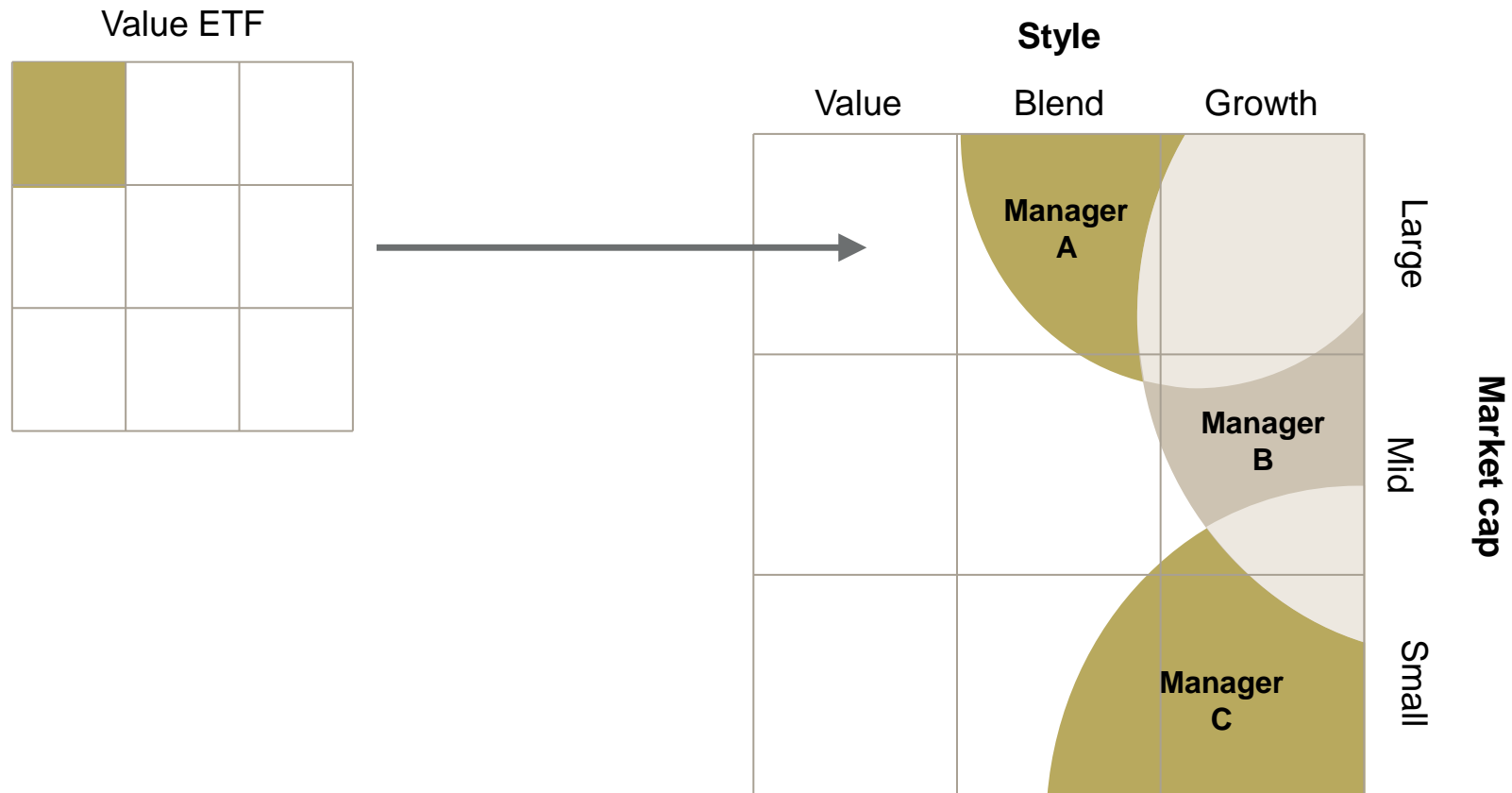


Note: Hypothetical allocation of investments.

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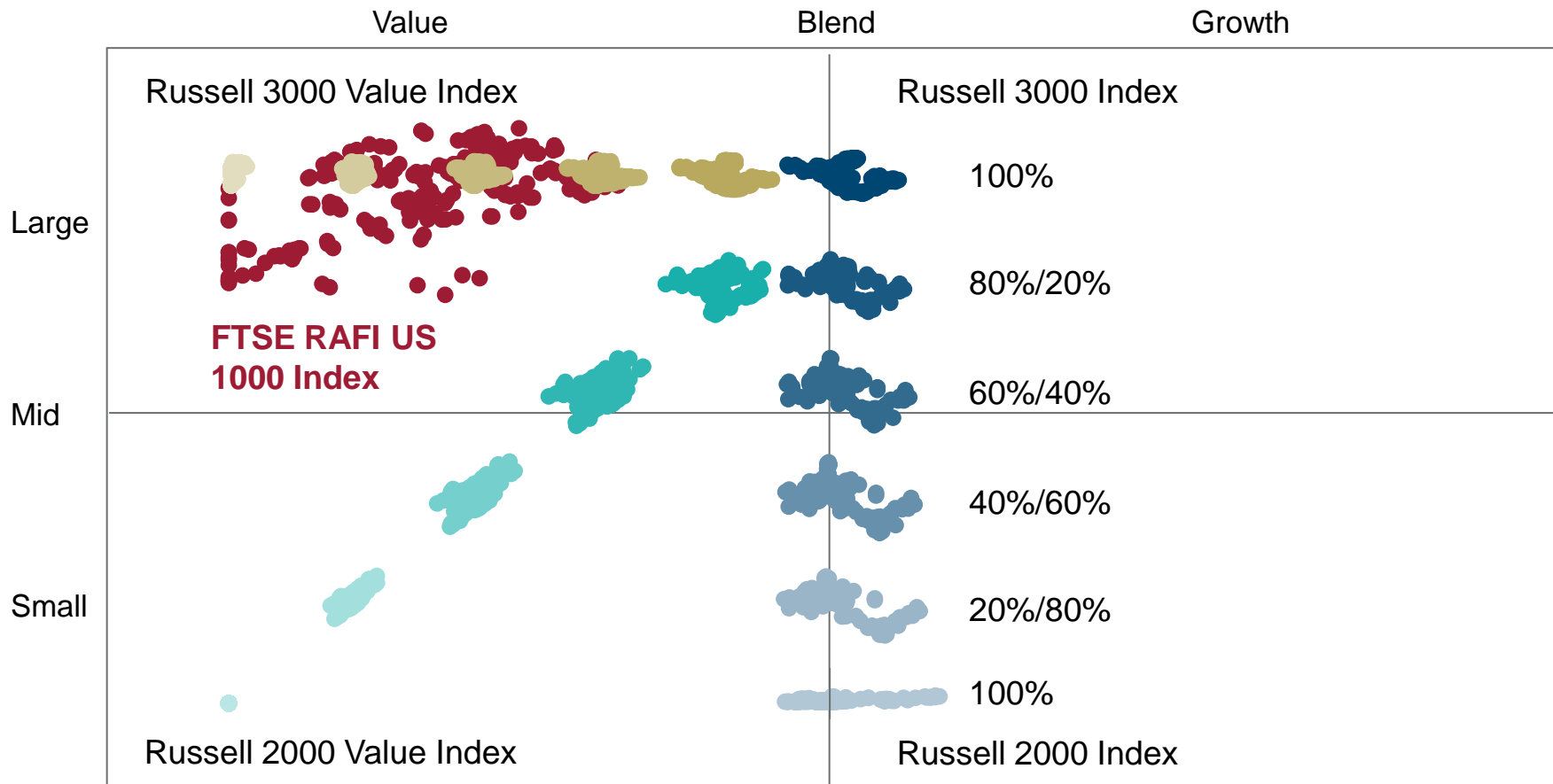
Portfolio completion

Eliminate potential portfolio gaps or build customized portfolios with individual ETFs



Control benefit

Cap-weighted combinations offer consistent exposure



Source: Created with Zephyr StyleADVISOR.

Notes: Figure shows style windows from January 1986 through June 2013. Each window represents a 36-month period. The circles represent the style windows for combinations of Russell indexes. Each market-cap-weighted strategy (MWS) combination begins with a 100% allocation to the Russell 3000 Index and makes 20% incremental allocations to various subcomponent size and style indexes until the allocation becomes 100% invested in the size or style index (allocations are rebalanced annually). The red dots represent the style windows for the FTSE RAFI US 1000 Index.

Factor-based investing is an active strategy

Index funds increase style purity; active funds reduce control

Tracking error of Russell 3000 Index/Russell 2000 Value active combos versus Russell 3000

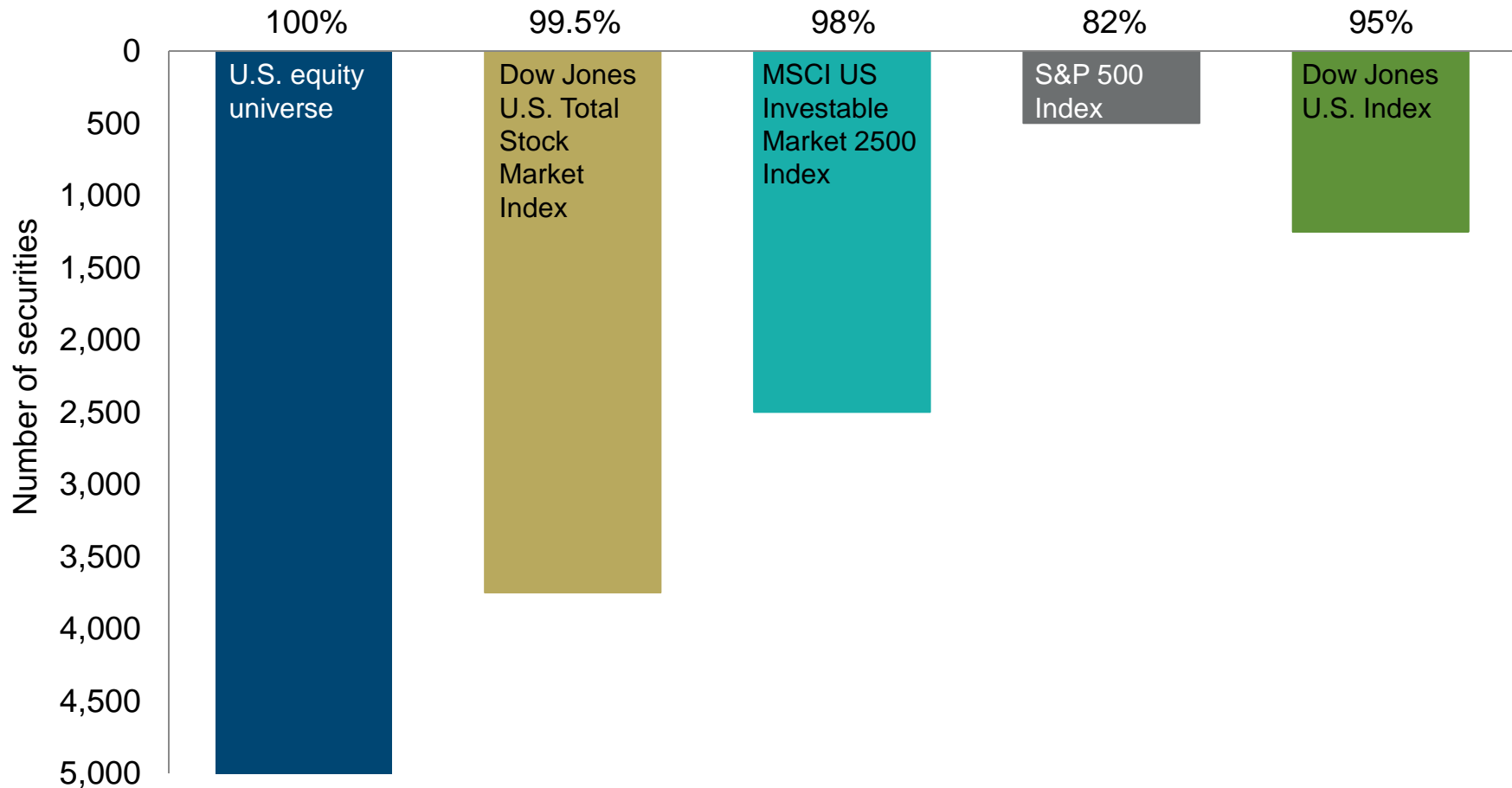
Active share quartiles (1 = highest, 4 = lowest)	Weights					
	100%/0%	80%/20%	60%/40%	40%/60%	20%/80%	0%/100%
Quartile 1	0.25%	1.16%	2.29%	3.42%	4.56%	5.70%
Quartile 2	0.25	1.29	2.55	3.82	5.09	6.37
Quartile 3	0.25	1.13	2.22	3.31	4.41	5.51
Quartile 4	0.25	1.42	2.83	4.24	5.66	7.07
Index	0.25	1.56	3.12	4.69	6.26	7.83

Source: Morningstar, July 1, 2003, to June 30, 2013.

Notes: (1) Active share quartiles based on level of active share of Russell 2000 Value active managers (1 = highest, 4 = lowest) as of June 30, 2013, (2) Tracking error calculated for each portfolio against the Russell 3000 Index for the July 2, 2013 to June 30, 2013 analysis period, (3) Portfolios created using the median monthly return for each quartile for active funds and average monthly return for index funds.

A review of benchmark providers: Dow Jones, MSCI, and Standard & Poor's

Market capitalization*

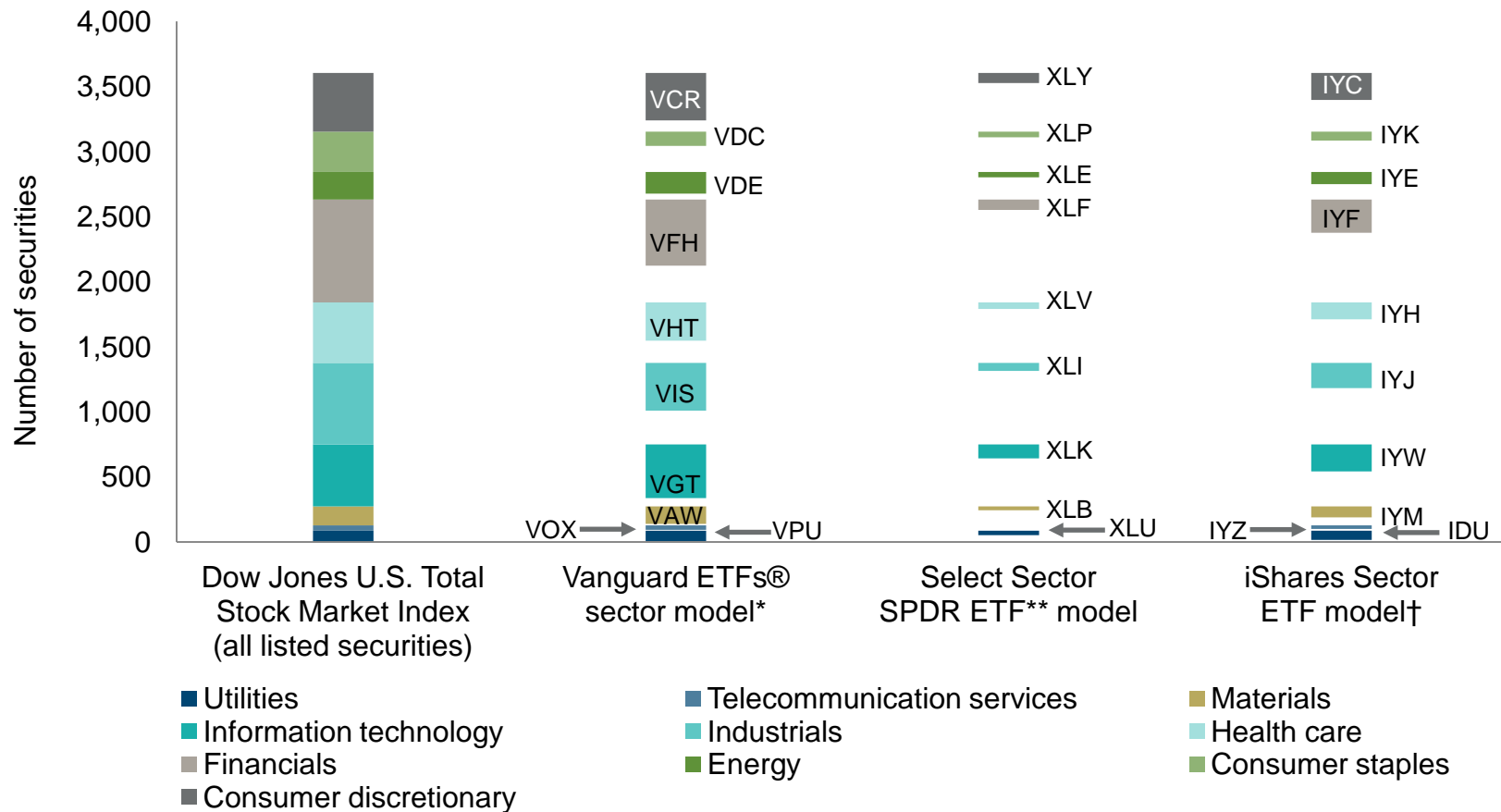


Source: Vanguard.

* Approximate cumulative market-cap coverage as a percentage of U.S. equity universe.

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Sector products do not offer the same coverage



There may be other material differences between products that must be considered prior to investing.

Sources: Vanguard, FactSet, iShares, and SPDRs. Data as of December 31, 2012.

* Vanguard ETFs sector model includes Vanguard Consumer Discretionary ETF (VCR), Vanguard Consumer Staples ETF (VDC), Vanguard Energy ETF (VDE), Vanguard Financials ETF (VFH), Vanguard Health Care ETF (VHT), Vanguard Industrials ETF (VIS), Vanguard Information Technology ETF (VGT), Vanguard Materials ETF (VAW), Vanguard Telecommunication Services ETF (VOX), and Vanguard Utilities ETF (VPU).

** Select Sector SPDR ETF model includes Consumer Discretionary Select Sector SPDR Fund (XLY), Consumer Staples Select Sector SPDR Fund (XLP), Energy Select Sector SPDR Fund (XLE), Financial Select Sector SPDR Fund (XLF), Health Care Select Sector SPDR Fund (XLV), Industrial Select Sector SPDR Fund (XLI), Technology Select Sector SPDR Fund (XLK), Materials Select Sector SPDR Fund (XLB), and Utilities Select Sector SPDR Fund (XLU).

† iShares Sector ETF model includes iShares Dow Jones U.S. Consumer Services Sector Index Fund (IYC), iShares Dow Jones U.S. Consumer Goods Sector Index Fund (IYK), iShares Dow Jones U.S. Energy Sector Index Fund (IYE), iShares Dow Jones U.S. Financials Sector Index Fund (IYF), iShares Dow Jones U.S. Healthcare Sector Index Fund (IYH), iShares Dow Jones U.S. Industrials Sector Index Fund (IYJ), iShares Dow Jones U.S. Technology Sector Index Fund (IYW), iShares Dow Jones U.S. Basic Materials Sector Index Fund (IYM), iShares Dow Jones U.S. Telecommunications Sector Index Fund (IYZ), iShares Dow Jones U.S. Utilities Sector Index Fund (IDU).

A look at the differences between sector products

Health care sector: Characteristics

	Dow Jones U.S. Total Stock Market/Health Care	Vanguard Health Care Index Fund	SPDR Series- Health Care Select Sector SPDR Fund	iShares U.S. Healthcare ETF
Market capitalization (\$ millions)				
Median	462	1,429	18,030	5,585
Weighted average	79,754	77,663	91,491	85,315
Maximum	244,299	244,299	244,299	244,299
Minimum	5	103	4,185	938
Price/earnings	19.2x	19.6x	19.1x	19.1x
Number of securities	491	286	55	113

Source: FactSet, as of September 30, 2013.

There may be other material differences between products that must be considered prior to investing.

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A look at the differences between sector products

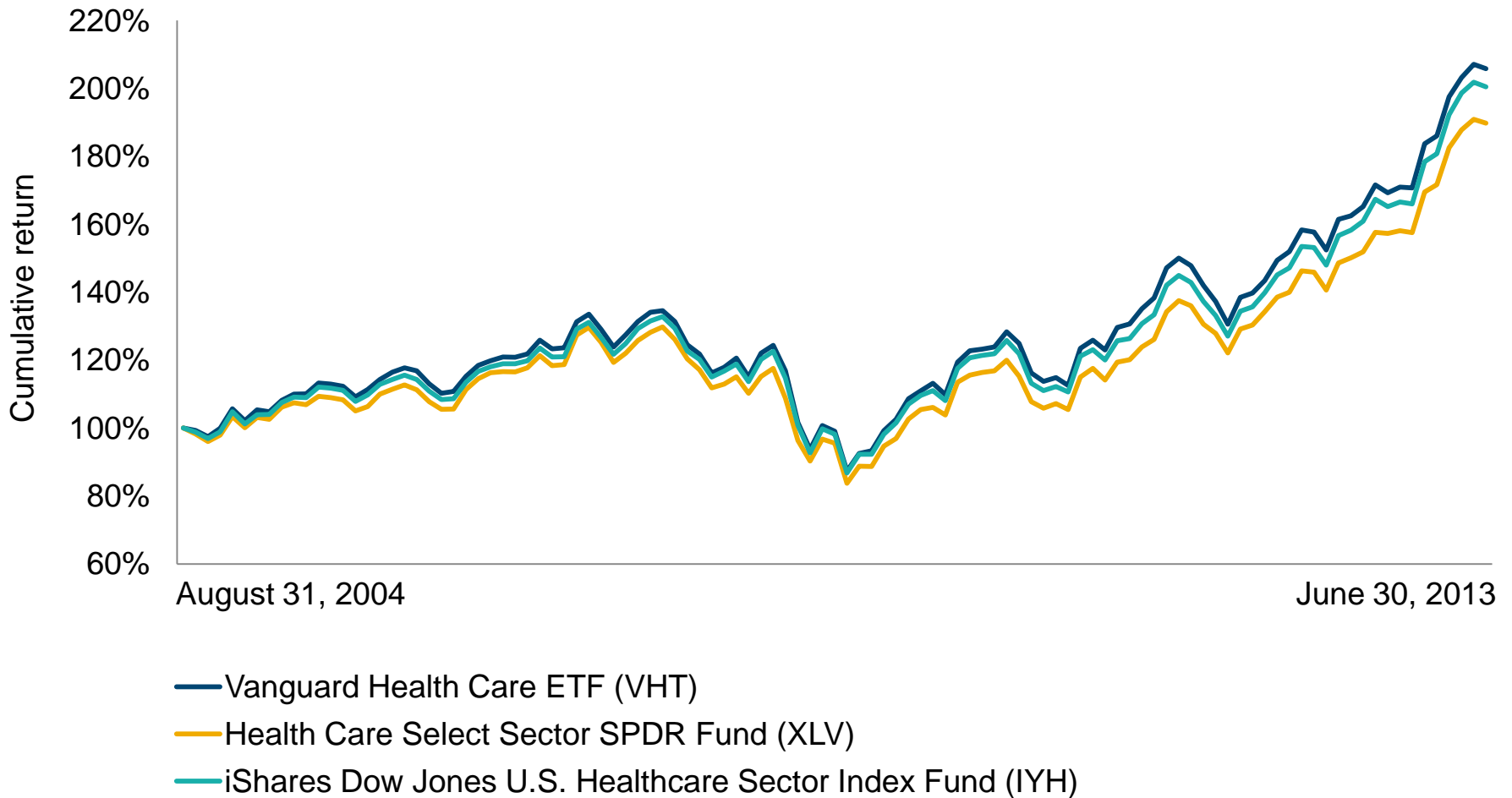
Health care sector: Industry weights

	Dow Jones U.S. Total Stock Market/Health Care	Vanguard Health Care Index Fund	SPDR Series- Health Care Select Sector SPDR Fund	iShares U.S. Healthcare ETF
GICS industry	Weight	Weight	Weight	Weight
Pharmaceuticals	41.2%	39.4%	45.1%	43.4%
Biotechnology	22.3	20.2	18.8	20.9
Health care equipment & supplies	17.6	16.8	15.4	17.1
Health care providers & services	14.7	17.2	16.0	14.7
Life sciences tools & services	3.9	4.9	3.9	3.8
Health care technology	0.2	1.4	0.8	0.1
Commercial services & supplies	0.1	—	—	0.1
Personal products	0.1	—	—	—
Machinery	0.0	—	—	—
Media	0.0	—	—	—
Electronic equipment instruments & components	0.0	—	—	—
Total	100.0	100.0	100.0	100.0

There may be other material differences between products that must be considered prior to investing.
Source: FactSet, as of September 30, 2013.

A look at the differences between sector products

Health care sector: Performance



Source: FactSet, as of June 30, 2013.

There may be other material differences between products that must be considered prior to investing. Past performance is no guarantee of future returns.

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Conclusion

Market-cap-weighted indexes provide control and style consistency

Full sector exposure determined by all-cap strategy

Use of passives can transform source of active to the advisor

Important information

For more information on Vanguard funds and ETFs, visit advisors.vanguard.com or call 800-997-2798 to obtain a prospectus. Investment objectives, risks, charges, expenses, and other important information are contained in the prospectus; read and consider it carefully before investing.

All investing is subject to risk, including the possible loss of the money you invest. Diversification does not ensure a profit or protect against a loss.

Funds that concentrate on a relatively narrow market sector face the risk of higher share-price volatility. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

Vanguard ETF Shares are not redeemable with the issuing Fund other than in Creation Unit aggregations. Instead, investors must buy or sell Vanguard ETF Shares in the secondary market with the assistance of a stockbroker. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

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