

# Equity mutual fund fees & performance

presented at

**SEC Working Papers Forum**

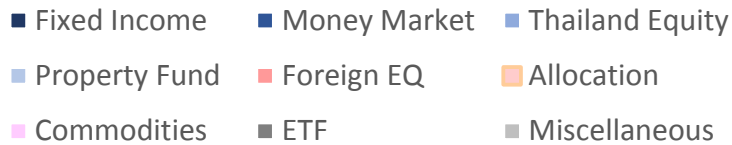
June 2015

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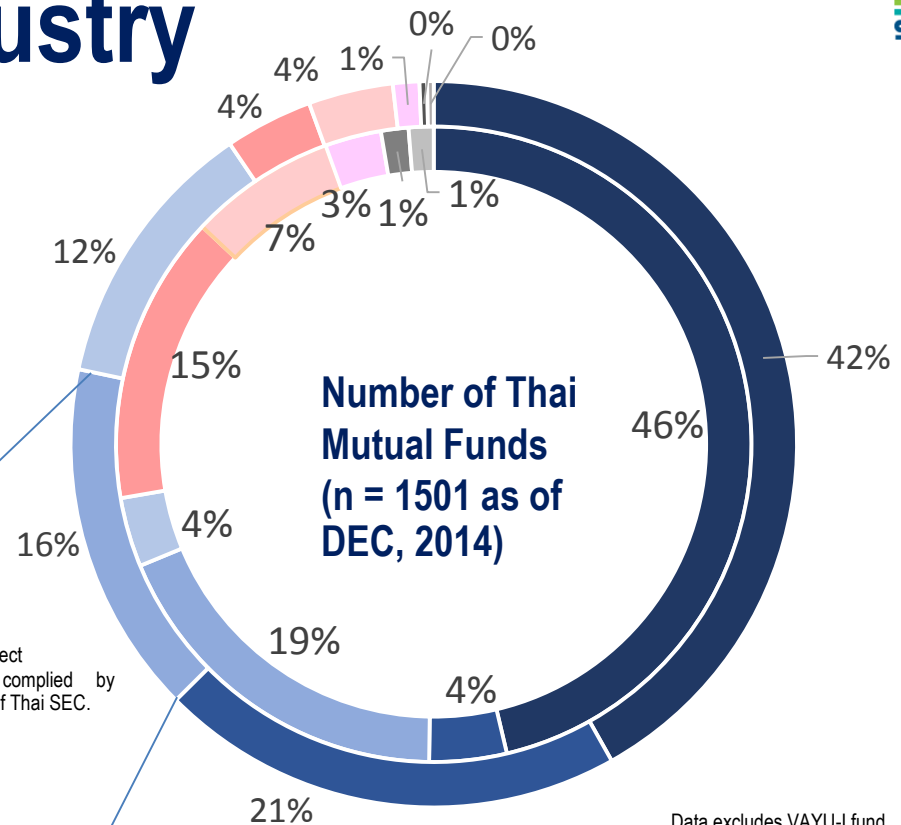
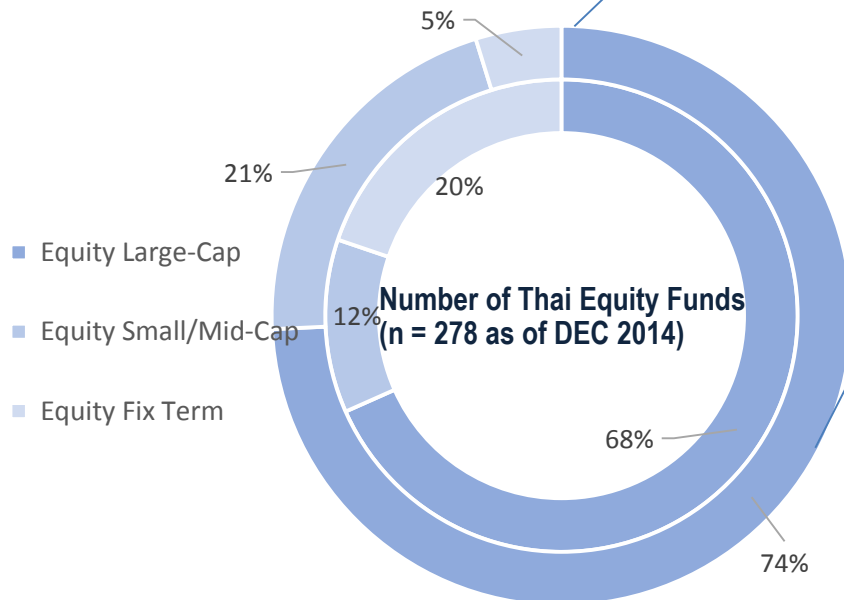
\*The views expressed herein are the authors' and not those of the Securities and Exchange Commission, Thailand. Please send comments to [chatchat@sec.or.th](mailto:chatchat@sec.or.th)

# Thai Mutual Fund Industry

## Size of Thai Mutual Fund Market (Total size = THB 3,325 bn. as of DEC 2014)



## Size of Thai Equity Funds (Total size = THB 523 bn. as of DEC 2014)



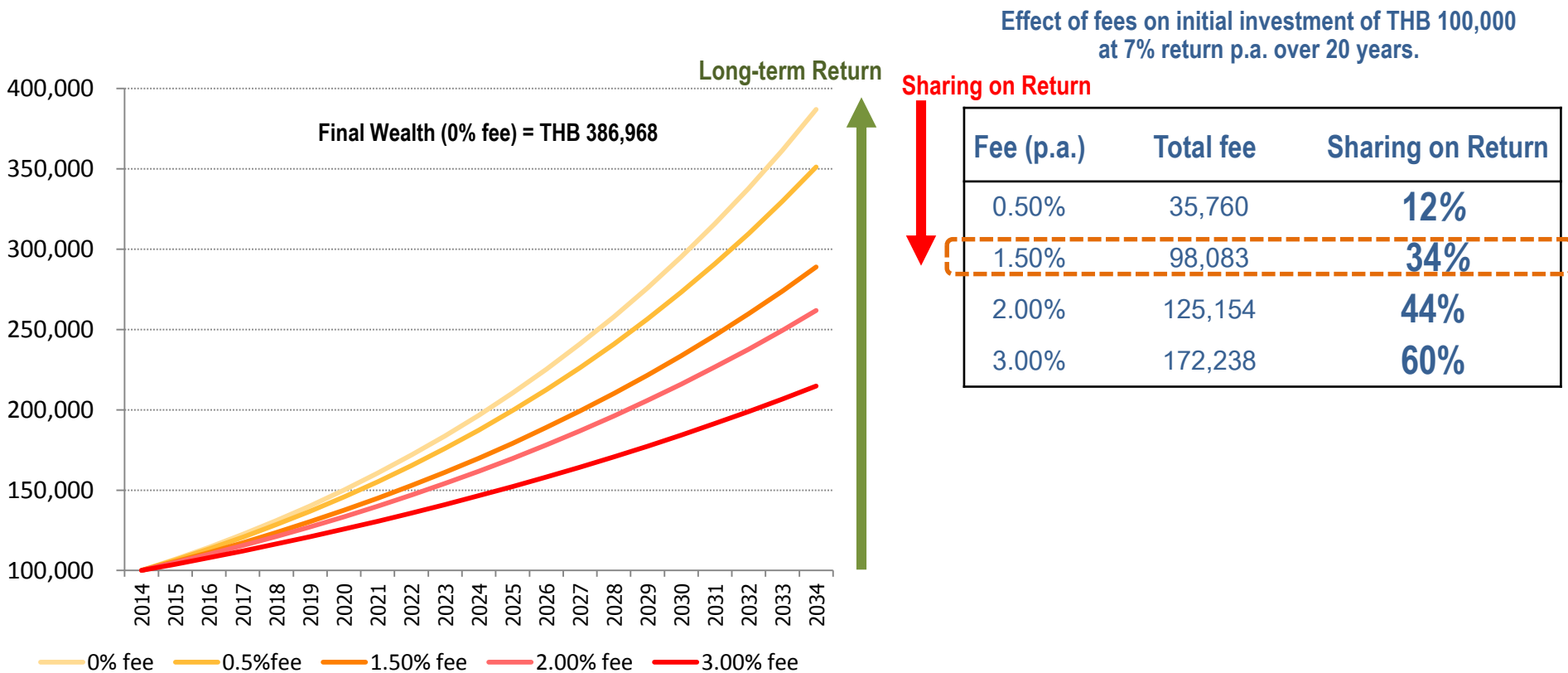
Source: Morningstar Direct  
(Dec 2014), data compiled by  
Research Department of Thai SEC.

	2014	2013
No. of AMCs	24	23
No. of active mutual fund managers under AMCs	266	<---
No. of investment consultants/analysts under AMCs	2,338	<---
Total Revenues (MB)	23,525	19,298
Total Net Income (MB)	6,075	4,965
Average ROE* - mean	64%	65%

\*medians are 18% and 24% for 2014 and 2013, respectively.  
Source: statistics or financial statements accessible at [www.sec.or.th](http://www.sec.or.th)

- **Fees: a sure thing**
- **Performance: managers or markets**
- **Trackers: low-cost investment**
- **Strategic Beta: beyond cap-weighting**

# Typical fee rate could take more than one-third of the return over a long-term investment horizon.



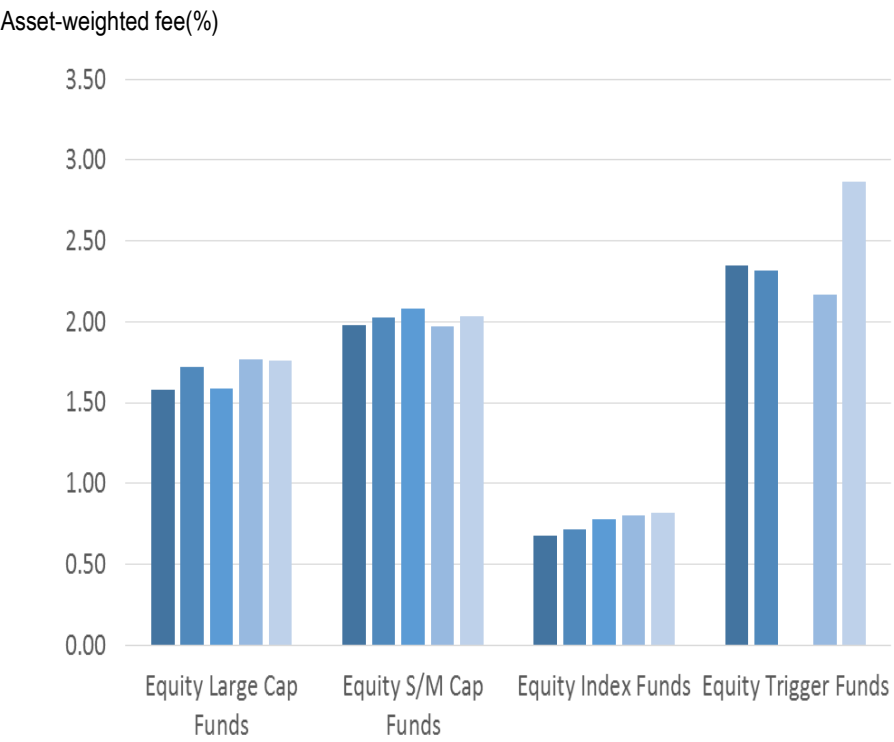
Assume the initial investment at 100,000 Baht for 20 years of investment horizon:

→ For 7% return & 1.5% fee, investors lose 98,000 Baht for the fee charged.

Note that in 2014 the average fee (total expense ratio) of equity large cap funds was around 1.76% charged by AMCs in Thailand.

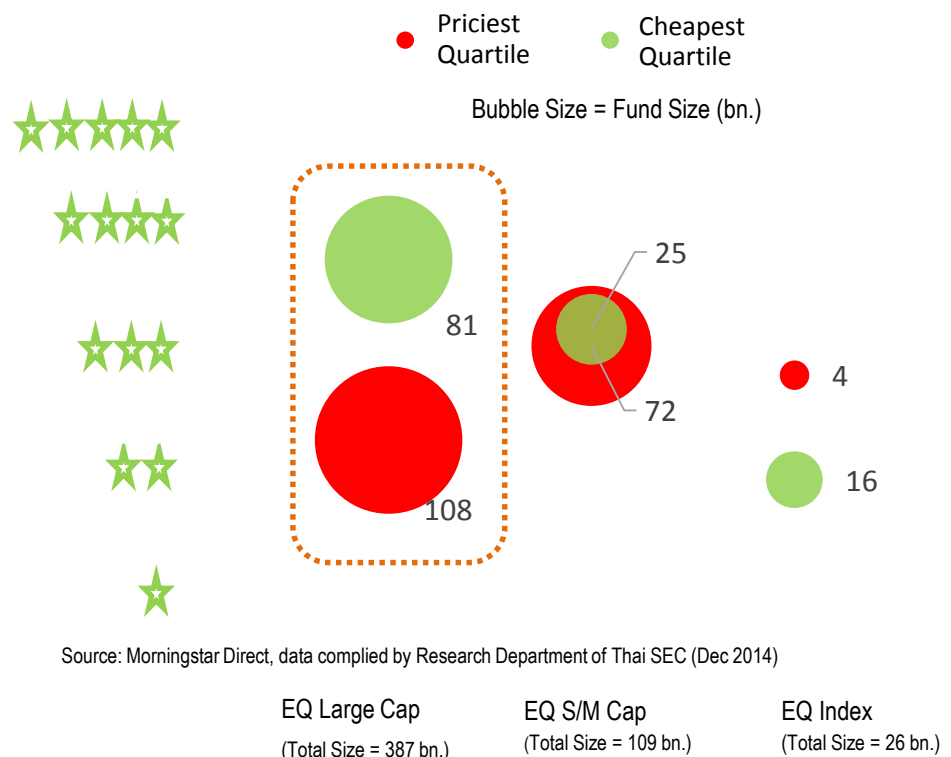
# From high to low fees: trigger, small-cap, large-cap, and index funds.

## Large-cap is the largest segment but more expensive funds with poorer performance have been selling well.



Source: Morningstar Direct, data compiled by Research Department of Thai SEC (Dec 2014)

■ 2010 ■ 2011 ■ 2012 ■ 2013 ■ 2014



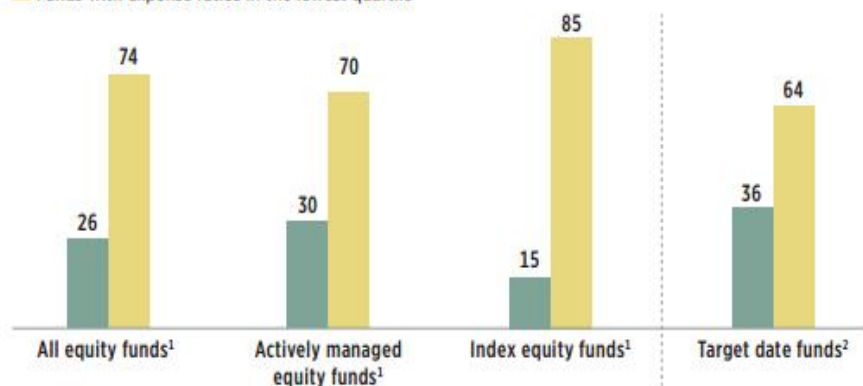
Source: Morningstar Direct, data compiled by Research Department of Thai SEC (Dec 2014)

# In the US, investor preference towards lower-cost funds makes the asset-weighted fees at the industry level lower overtime.

## Assets Are Concentrated in Lower-Cost Funds

Percentage of total net assets, 2014

■ Funds with expense ratios in the upper three quartiles  
■ Funds with expense ratios in the lowest quartile

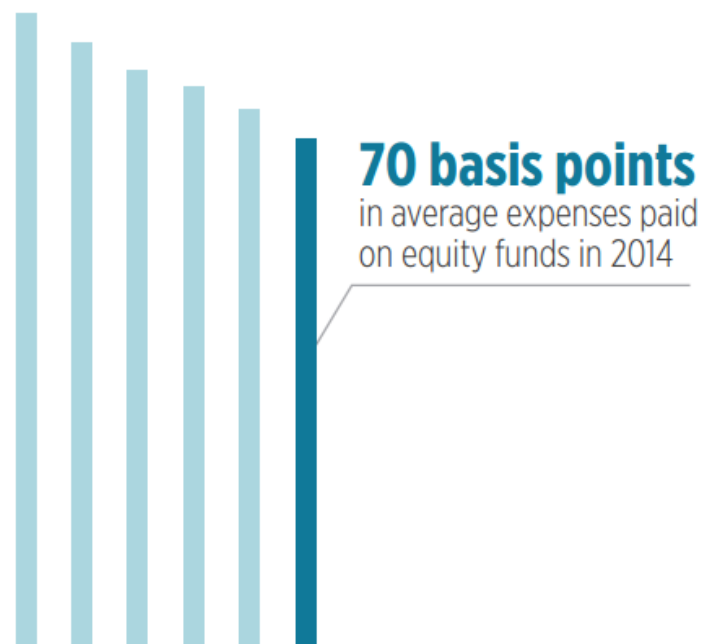


<sup>1</sup> Data exclude mutual funds available as investment choices in variable annuities and mutual funds that invest primarily in other mutual funds.

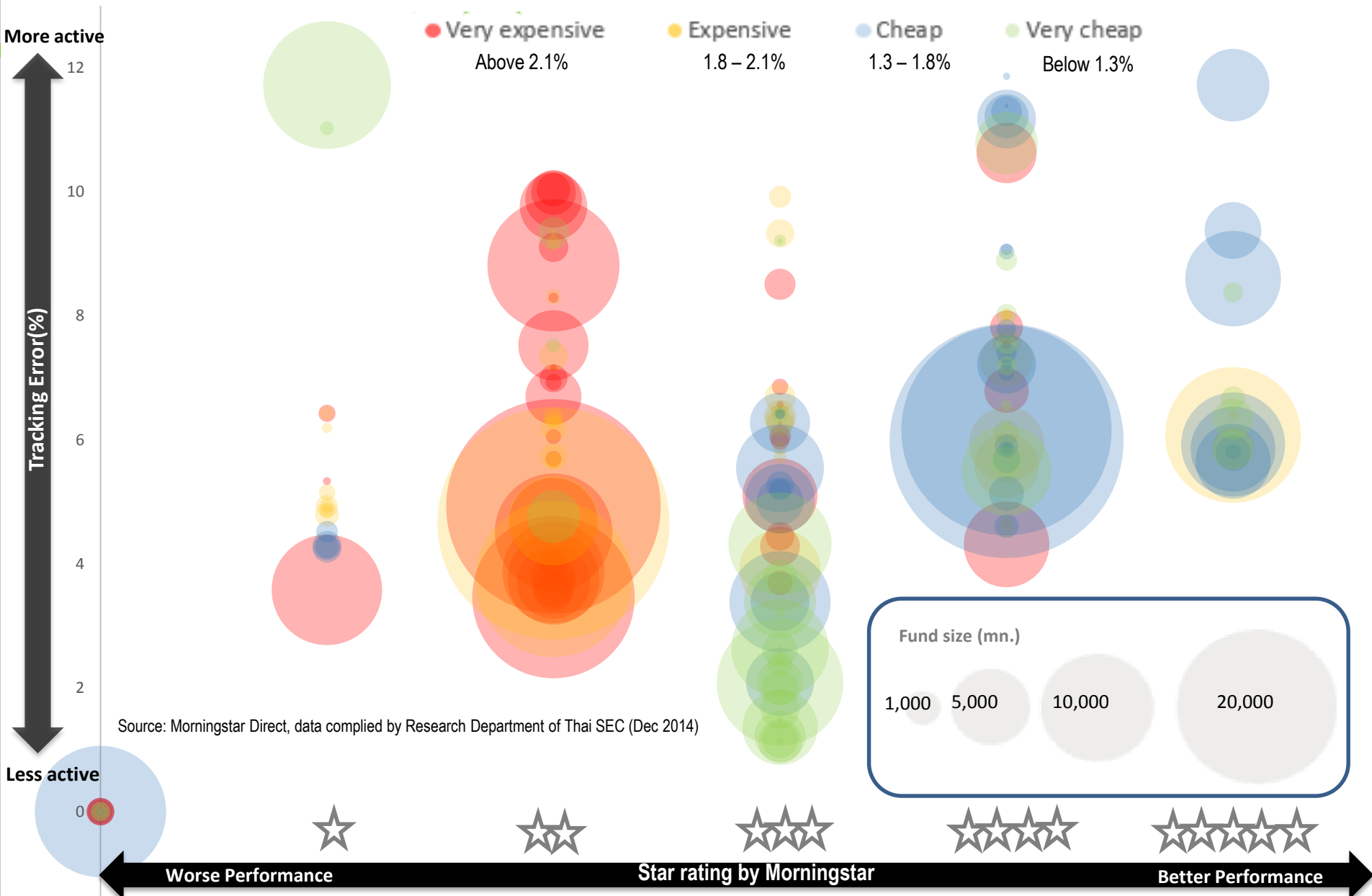
<sup>2</sup> Data include mutual funds that invest primarily in other mutual funds, but exclude mutual funds available as investment choices in variable annuities. Ninety-seven percent of these funds invest primarily in other mutual funds.

Sources: Investment Company Institute and Lipper

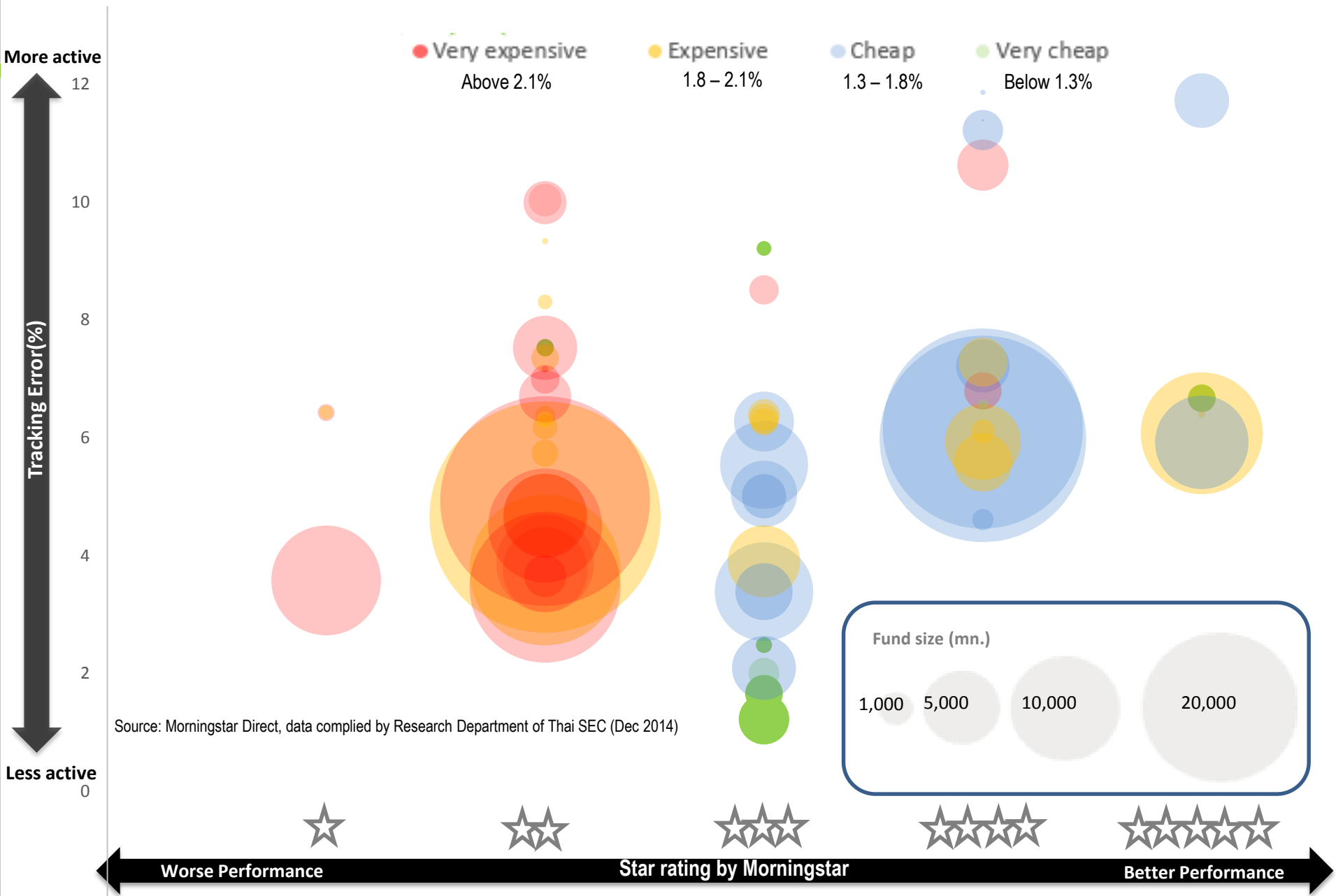
Expenses paid by equity fund investors have fallen for five consecutive years



# Among large-cap funds, cheaper funds seem to perform better but not selling very well. Big yellow & red balls concentrate in 1-3 stars area.

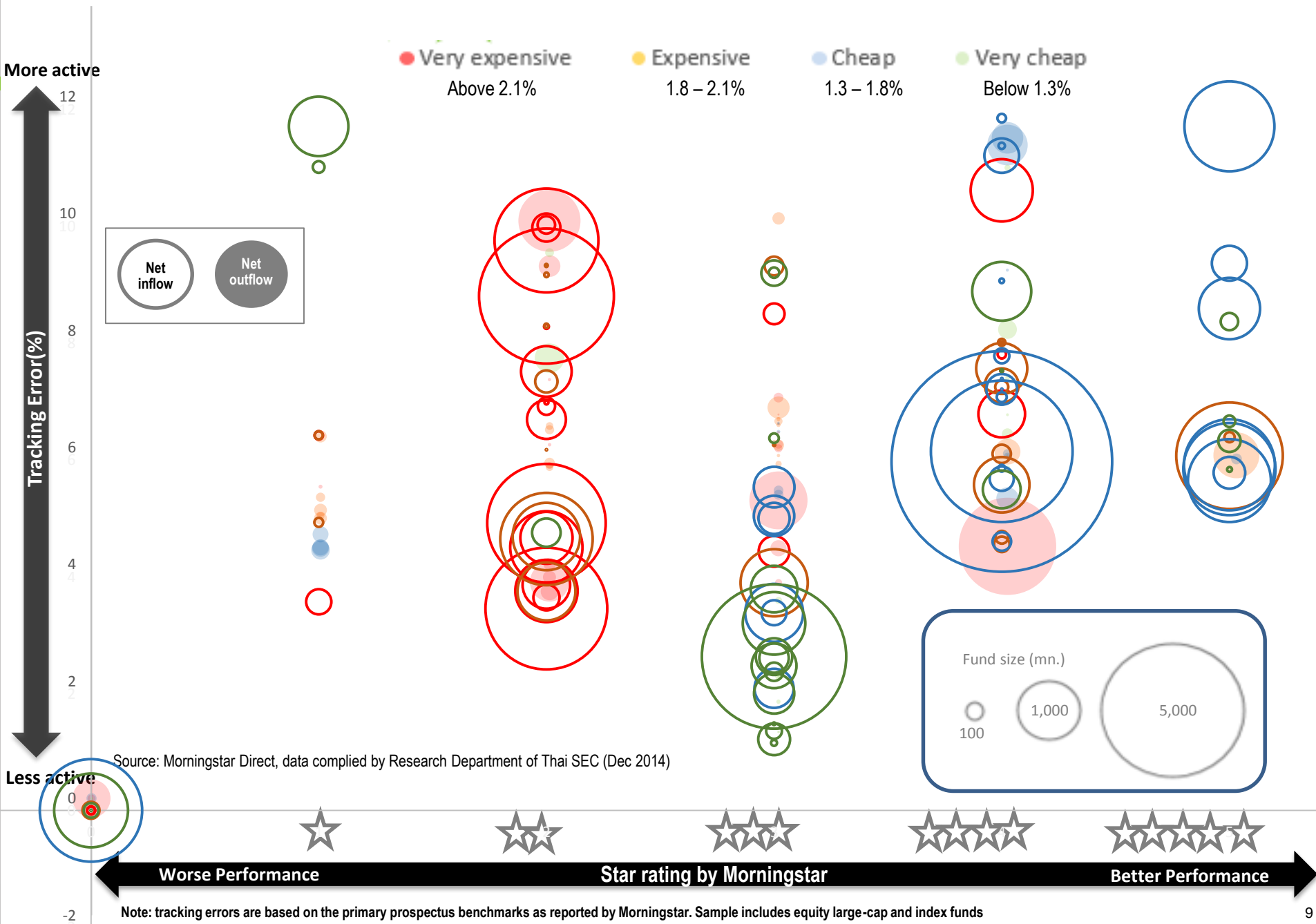


# Particularly for LTFs & RMFs, cheaper funds seem to perform better.

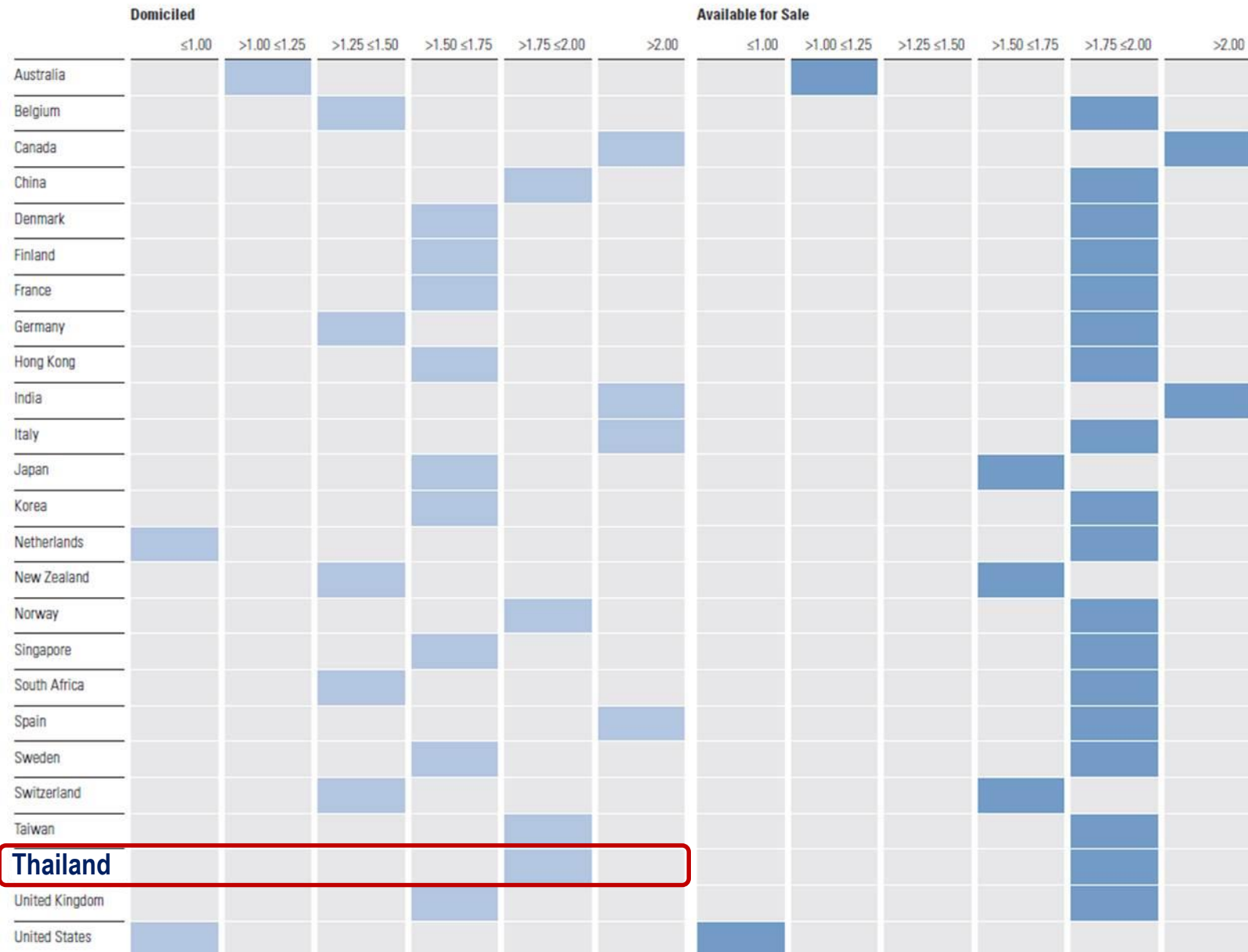




# Cheap & well-performing funds attract large inflow over 2014.



# Thai equity funds are fairly expensive among peers.

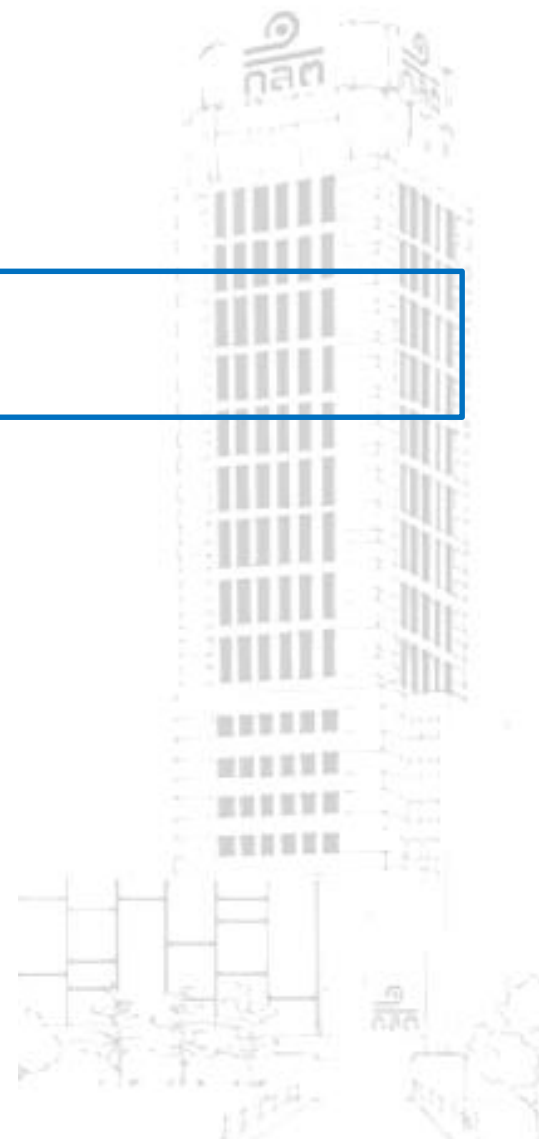


# Some pieces of (unbiased) advice.

- “...นักลงทุนมักจะไม่นับถึงอัตรา TER เนื่องจากนักลงทุนส่วนใหญ่จะให้ความสนใจกับอัตราลดหย่อนภาษีของแต่ละกองทุน ซึ่งจะเป็นประเด็นสำคัญที่ทำให้ผลการดำเนินการระยะยาวลดน้อยลงเนื่องจากกองทุนดังกล่าวมีค่าธรรมเนียมที่สูงเกินไป...” **ผลกระทบจากค่าธรรมเนียมสูง The Tyranny of High Fees, คุณธีระ ภูตระกูล CFP, Chairman of TFPA.**
- “...เพราะมีบทวิจัยออกมาว่าปัจจัยที่สำคัญประการหนึ่งที่จะบ่งบอกผลตอบแทนของกองทุนรวม ก็คือ Total Expense Ratio ถึงขนาดมีบทวิจัยออกมาว่ากองทุนรวมไหนที่เก็บค่าใช้จ่ายสูงๆ จะสร้างผลตอบแทนไม่ดี ส่วนกองทุนรวมไหนเก็บค่าใช้จ่ายต่ำจะสร้างผลตอบแทนได้ดี...” **ค่าใช้จ่ายกองทุนรวมที่ไม่ควรมองข้าม, Kittikun Tanaratpattanakit, Senior Data Analyst, Morningstar.**
- “...ก่อนลงทุนอย่าลืมที่จะตรวจสอบค่าธรรมเนียมโดยเลือกกองทุนที่ค่าธรรมเนียมต่ำๆ และดูด้วยนะครับว่า ผลตอบแทนที่ได้นั้นคุ้มค่าหรือไม่ครับ ค่าธรรมเนียมต่ำ แล้วผลตอบแทนต่ำก็ไม่ไหวครับ (เปลี้ย)...” **เลือกกองทุนอย่างไร ให้คุ้มค่าทำเนียน, Dr.Nut, aommoney.com**

# Outlines

- Fees: a sure thing
- Performance: managers or markets
- Trackers: low-cost investment
- Strategic Beta: beyond cap-weighting



# Scope: Thai Equity Funds by MorningStar Direct.

1. Large & Mid/Small –Cap funds and 2. Large-Cap funds.  
Excluded equity fix term (trigger funds).

Fund Category	Benchmark Index	Scope
<b>Large &amp; Mid/Small-Cap Funds</b> (Thailand OE Equity Large-Cap + Thailand OE Equity Small/Mid-Cap) N = 223 at Dec2014	SET TRI	Included
<b>Large-Cap Funds</b> (Thailand OE Equity Large-Cap) N = 190 at Dec2014	SET 50 TRI	Included
<b>Thailand OE Equity Fix Term</b> (trigger funds)	Excluded	Excluded

**In general, average performance of Thai equity funds underperform the market total return benchmarks. Equal-weighted outperforms asset-weighted, thus smaller funds are more performing.**

Periods	Annualized Returns % of Thailand Equity Funds					
	SET TRI	SET 50 TRI	Large & Mid/Small-Cap		Large-Cap	
			Asset-Weighted	Equal-Weighted	Asset-Weighted	Equal-Weighted
<u>One-Year</u>						
Jan 2010 – Dec 2010	47.80%	44.72%	32.96%	41.23%	40.74%	40.89%
Jan 2011 – Dec 2011	3.69%	3.74%	-0.46%	-0.25%	-1.23%	-1.01%
Jan 2012 – Dec 2012	40.53%	35.94%	36.10%	38.93%	34.95%	38.28%
Jan 2013 – Dec 2013	-3.63%	-3.53%	-3.75%	-3.27%	-3.58%	-3.37%
Jan 2014 – Dec 2014	19.12%	16.98%	13.60%	16.07%	12.77%	15.74%
<u>Three-Year</u>						
Jan 2010 – Dec 2012	29.14%	26.85%	24.10%	25.06%	23.33%	24.51%
Jan 2011 – Dec 2013	11.98%	10.80%	9.20%	10.35%	8.69%	9.93%
Jan 2012 – Dec 2014	17.28%	15.33%	14.05%	15.87%	13.57%	15.69%
<u>Five-Year</u>						
Jan 2010 – Dec 2014	19.85%	18.16%	15.81%	16.99%	15.28%	16.69%

Source: Morningstar Direct (Dec 2014), data compiled by Research Department of Thai SEC.

# Many of Thai equity funds find it challenging to outperform the market total return benchmarks. Delisting/merging is very rare.



Periods	Large & Mid/Small-Cap Equity Funds			Large-cap Equity Funds		
	No. of Survival Funds	Survivorship	Outperform the index (SETTRI)	No. of Survival Funds	Survivorship	Outperform the index (SET50TR)
<b>One-Year</b>						
Jan 2010 – Dec 2010	176	97.74%	21.02%	163	100.00%	26.99%
Jan 2011 – Dec 2011	180	100.00%	26.67%	166	99.40%	19.88%
Jan 2012 – Dec 2012	186	99.45%	43.55%	171	100.00%	57.31%
Jan 2013 – Dec 2013	205	100.00%	57.56%	181	100.00%	55.25%
Jan 2014 – Dec 2014	214	100.00%	23.83%	187	99.47%	26.20%
<b>Three-Year</b>						
Jan 2010 – Dec 2012	174	98.86%	14.94%	161	98.77%	24.14%
Jan 2011 – Dec 2013	179	98.90%	29.61%	165	98.80%	35.20%
Jan 2012 – Dec 2014	185	99.46%	37.30%	170	99.42%	45.95%
<b>Five-Year</b>						
Jan 2010 – Dec 2014	173	98.30%	20.23%	160	98.16%	32.95%

Source: Morningstar Direct (Dec 2014), data compiled by Research Department of Thai SEC.

Even more challenging to persistently perform well. Only one fund stays in Top Quintile from 2012 through 2014. Only four funds stay in Top Half from 2010 through 2014.



### Performance Persistence Over Three Consecutive 12-Month Periods

Mutual Fund Category	Fund Count at Start	Funds Remaining	
	Dec 2012	Dec 2013	Dec 2014
Top Quintile			
• Large & Mid/Small-Cap	38	12	1
• Large-Cap	35	11	2
Top Half			
• Large & Mid/Small-Cap	93	58	21
• Large-Cap	86	55	20

Source: Morningstar Direct (Dec 2014), data compiled by Research Department of Thai SEC.

### Performance Persistence Over Five Consecutive 12-Month Periods

Mutual Fund Category	Fund Count at Start	Funds Remaining				
	Dec 2010	Dec 2011	Dec 2012	Dec 2013	Dec 2014	
Top Quintile						
• Large & Mid/Small-Cap	36	6	1	1	0	
• Large-Cap	33	0	0	0	0	
Top Half						
• Large & Mid/Small-Cap	88	33	16	7	4	
• Large-Cap	82	30	14	9	1	

Source: Morningstar Direct (Dec 2014), data compiled by Research Department of Thai SEC.



# 3-yr migration from 2009-2011 to 2012-2014: around 10% of First Quintile funds stay in First Quintile. But more than half of Bottom Quintile funds stay in Bottom Quintile.

Three-Year Transition Matrix—Performance Over Two Non-Overlapping Three-Year Periods						
Mutual Fund Category	Fund Count at Start (Jan 2009)	Funds Remaining over 2012-2014 (sum of 1 <sup>st</sup> to 5 <sup>th</sup> Quintiles = 100%)				
		1 <sup>st</sup> Quintile	2 <sup>nd</sup> Quintile	3 <sup>rd</sup> Quintile	4 <sup>th</sup> Quintile	5 <sup>th</sup> Quintile
Large & Mid/Small-Cap over 2009-2011						
1 <sup>st</sup> Quintile	34	12.12%	21.21%	30.30%	27.27%	9.09%
2 <sup>nd</sup> Quintile	35	31.43%	17.14%	20.00%	20.00%	11.43%
3 <sup>rd</sup> Quintile	34	21.21%	39.39%	6.06%	21.21%	12.12%
4 <sup>th</sup> Quintile	33	25.71%	17.14%	25.71%	14.29%	17.14%
5 <sup>th</sup> Quintile	34	11.76%	2.94%	14.71%	14.71%	55.88%
Large-Cap over 2009-2011						
1 <sup>st</sup> Quintile	31	13.33%	20.00%	26.67%	26.67%	13.33%
2 <sup>nd</sup> Quintile	32	28.13%	21.88%	18.75%	28.13%	3.13%
3 <sup>rd</sup> Quintile	31	25.81%	35.48%	9.68%	16.13%	12.90%
4 <sup>th</sup> Quintile	31	31.25%	15.63%	25.00%	12.50%	15.63%
5 <sup>th</sup> Quintile	32	6.25%	6.25%	15.63%	12.50%	59.38%

Yellow & Green shaded boxes are whereabouts SETTRI and SET50TRI, respectively.

Source: Morningstar Direct (Dec 2014), data compiled by Research Department of Thai SEC.

**5-yr migration from 2005-2009 to 2010-2014: around 50% of First Quintile funds stay in First Quintile. But around 40% of Bottom Quintile funds stay in Bottom Quintile.**

### Five-Year Transition Matrix—Performance Over Two Non-Overlapping Five-Year Periods

Mutual Fund Category	Fund Count at Start (Jan 2005)	Funds Remaining over 2010-2014 (sum of 1 <sup>st</sup> to 5 <sup>th</sup> Quintiles = 100%)				
		1 <sup>st</sup> Quintile	2 <sup>nd</sup> Quintile	3 <sup>rd</sup> Quintile	4 <sup>th</sup> Quintile	5 <sup>th</sup> Quintile
Large & Mid/Small-Cap over 2005-2009						
1 <sup>st</sup> Quintile	26	53.85%	23.08%	7.69%	15.38%	0.00%
2 <sup>nd</sup> Quintile	25	16.00%	24.00%	16.00%	28.00%	16.00%
3 <sup>rd</sup> Quintile	25	12.00%	20.00%	32.00%	12.00%	16.00%
4 <sup>th</sup> Quintile	25	8.00%	24.00%	36.00%	12.00%	16.00%
5 <sup>th</sup> Quintile	23	13.04%	4.35%	26.09%	26.09%	39.13%
Large-Cap over 2005-2009						
1 <sup>st</sup> Quintile	24	50.00%	25.00%	8.33%	16.67%	0.00%
2 <sup>nd</sup> Quintile	24	20.83%	20.83%	12.50%	29.17%	16.67%
3 <sup>rd</sup> Quintile	24	20.83%	16.67%	29.17%	8.33%	16.67%
4 <sup>th</sup> Quintile	24	12.50%	29.17%	25.00%	16.67%	12.50%
5 <sup>th</sup> Quintile	22	9.09%	4.55%	31.82%	22.73%	40.91%

Yellow & Green shaded boxes are whereabouts SETTRI and SET50TRI, respectively.

Source: Morningstar Direct (Dec 2014), data compiled by Research Department of Thai SEC.

# Managers or Markets:



MoM for Thailand Equity Funds at year-end 2014.

**Many of Thai equity funds find it challenging to outperform the market total return benchmarks.**

- Around 1/5 of funds outperforms the market total return benchmarks over the 5-yr horizon.
- In general, average performance of Thai equity funds underperforms the market total return benchmarks.
- Equal-weighted outperforms asset-weighted, thus smaller funds are more performing.

**Winner funds are hard to find and persistently win.**

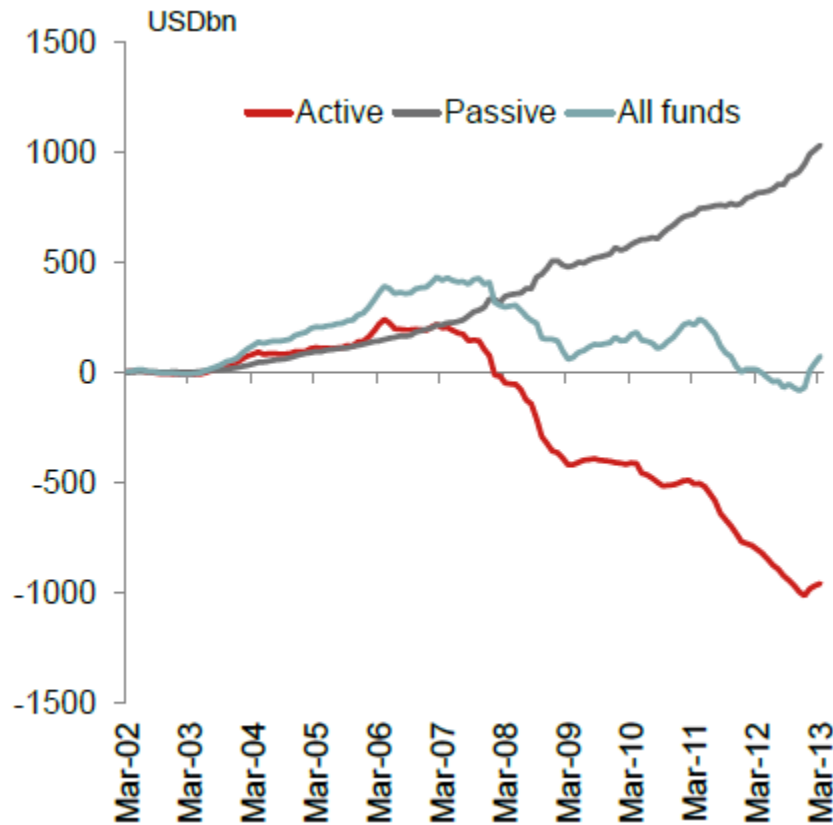
- 3 consecutive years: only one fund stays in Top Quintile from 2012 through 2014.
- 5 consecutive years: only four funds stay in Top Half from 2010 through 2014.
- 3-yr migration from 2009-2011 to 2012-2014: around 10% of First Quintile funds stay in First Quintile. But more than half of Bottom Quintile funds stay in Bottom Quintile.
- 5-yr migration from 2005-2009 to 2010-2014: around 50% of First Quintile funds stay in First Quintile. But around 40% of Bottom Quintile funds stay in Bottom Quintile.

- Fees: a sure thing
- Performance: managers or markets
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- Strategic Beta: beyond cap-weighting

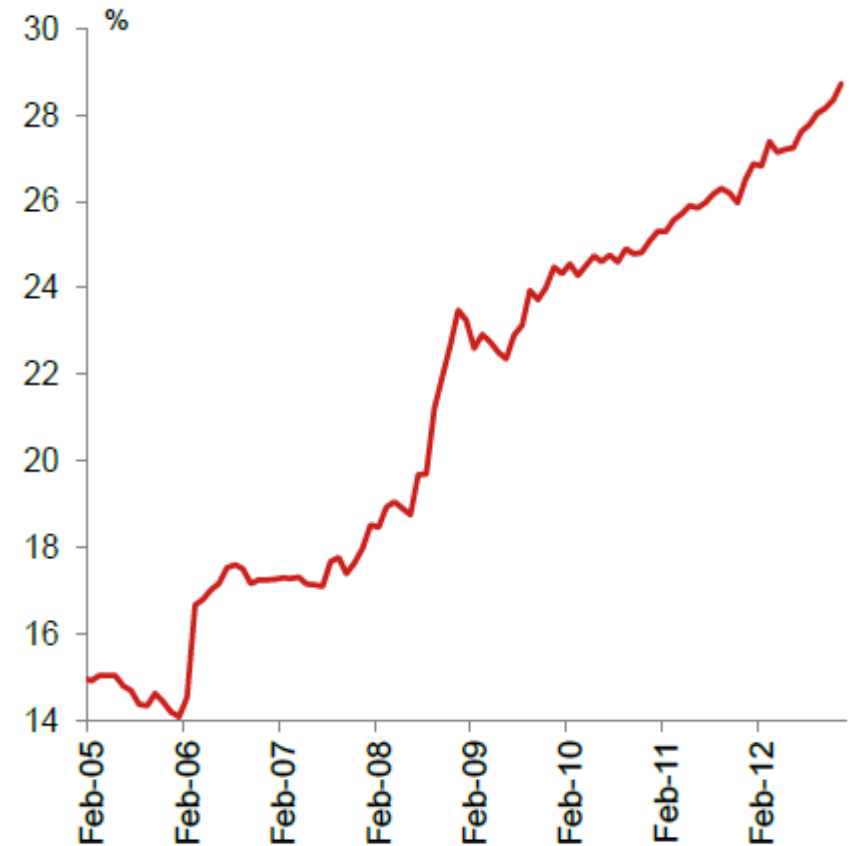


# Shifting from active to passive equities, globally.

Global equity mutual fund flows from active to passive

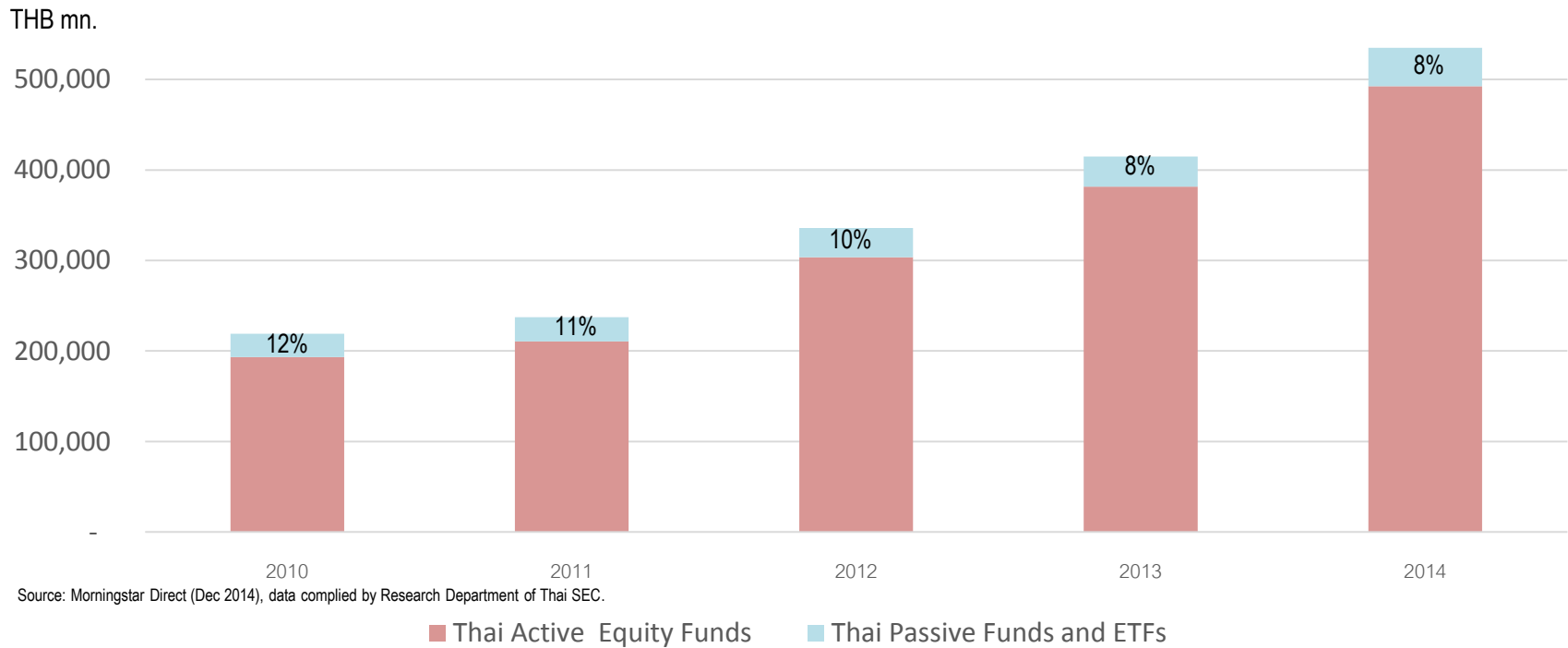


Share of passively-managed equities



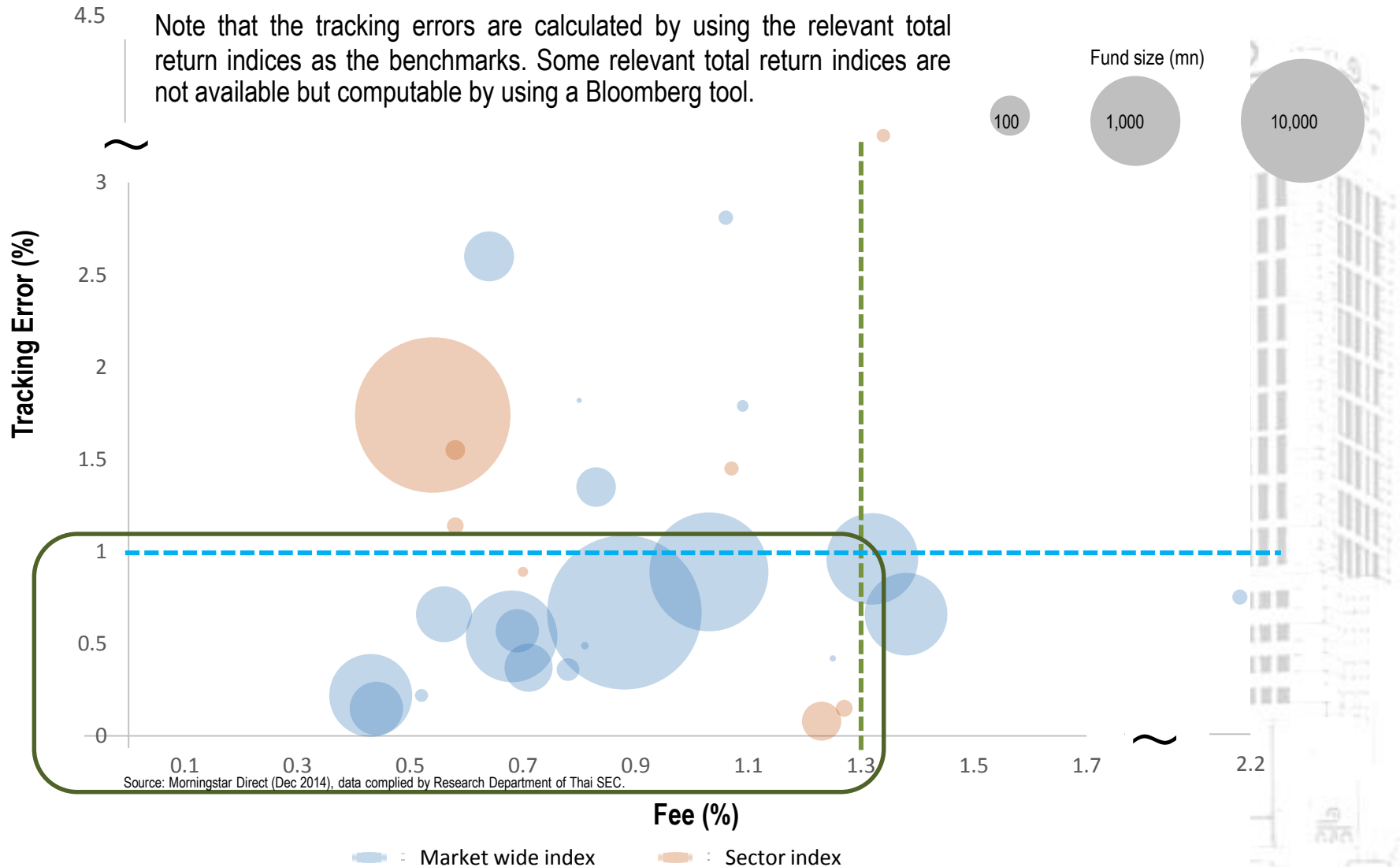
Source: EPFR, Nomura Quantitative Strategy research

# Shrinking market share to 8% for Thai passive equity funds.



Note that passive or active classification is based on the prospectus, as read by Research Department of Thai SEC.

# Many trackers are cheap with low tracking errors.



# IOSCO principles related to tracking errors of ETFs.



- The common ways to detect the ETFs management strategy are tracking error and asset allocation of the fund. The tracking error helps measure the quality of replication and benchmark-tracking.
  
- By IOSCO principle, for the passive or index-based ETFs, one the most important disclosure is
  - How the performance of an index is tracked.
  - The methodology used to measure tracking error should be disclosed.
  - What level of tracking error may be reasonably expected.
  - A policy to minimize tracking error if exceeding the target level.

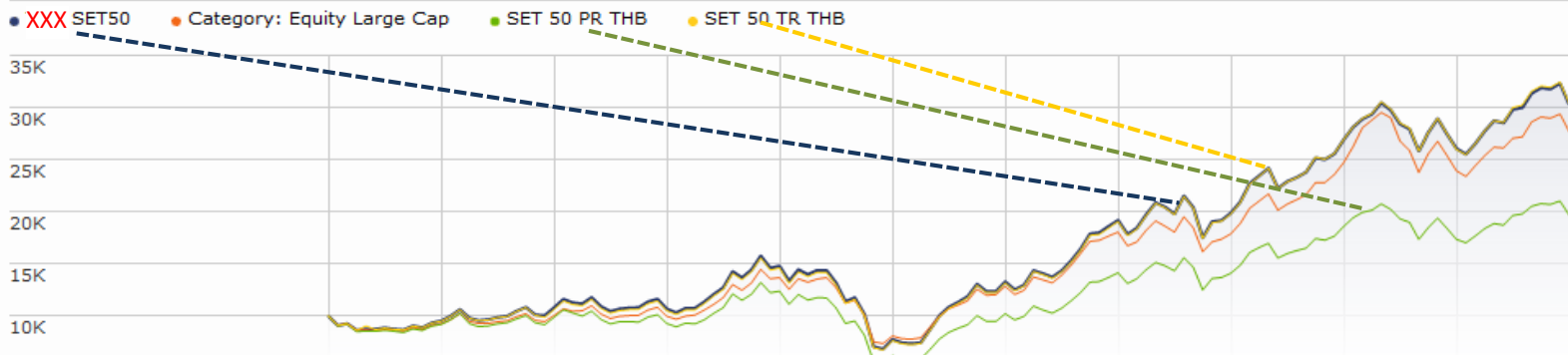


# Tracking total return index is more practical as fund performance measured on the total return basis too.

Name	Tracking Error to PRI			Tracking Error to TRI		
	1 Yr	5 Yr	10 Yr	1 Yr	5 Yr	10 Yr
XXX SET50	1.53	1.27	1.53	0.67	0.48	0.57
	Tracking error to PRI			Tracking error to TRI		

## Growth of 10,000

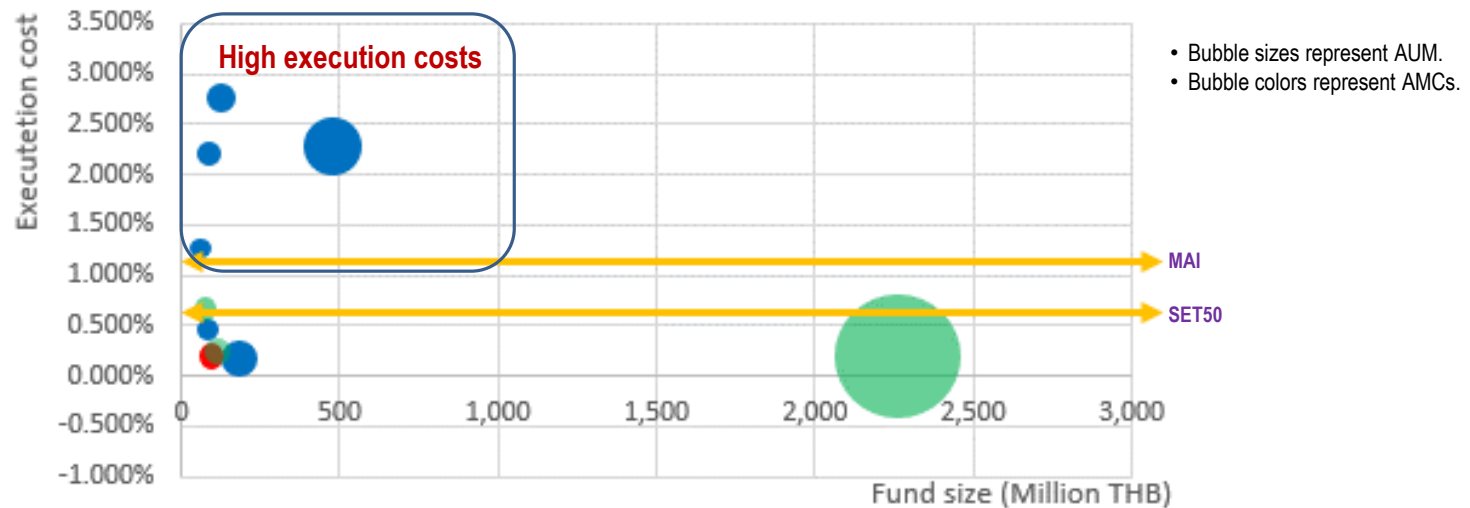
[Customize Interactive Chart >>](#)



Performance Quartile											
History (12/31/2014)	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
XXX SET50	-4.67	13.32	-1.05	38.29	-47.44	71.07	44.23	3.63	35.24	-3.14	16.14
SET 50 PR THB	-7.94	7.29	-5.88	33.27	-49.83	64.54	38.31	-0.25	31.60	-6.56	13.31
SET 50 TR THB	-4.86	11.74	-1.05	38.77	-47.56	72.08	44.72	3.74	35.98	-3.56	16.98
Category (Equity Large Cap)	-6.83	8.70	-0.65	37.59	-40.56	58.07	40.45	-0.85	38.31	-3.23	15.71
+/- SET 50 PR THB	3.26	6.04	4.83	5.02	2.39	6.53	5.91	3.88	3.64	3.42	2.83
+/- SET 50 TR THB	0.18	1.58	0.01	-0.48	0.12	-1.01	-0.50	-0.12	-0.74	0.42	-0.84
+/- Category (Equity Large Cap)	2.15	4.62	-0.40	0.70	-6.88	13.01	3.78	4.48	-3.07	0.09	0.43
Income THB	—	—	—	—	—	—	—	—	—	—	—
Capital Gains THB	—	—	—	—	—	—	—	—	—	—	—
Net Assets THB Mil	5,917	4,427	3,705	4,324	2,702	3,992	4,135	4,484	4,375	5,375	9,320
Annual Report Net Expense Ratio	—	0.55	0.55	0.56	0.56	0.57	0.71	0.89	0.88	0.88	—
Turnover Ratio	—	190	152	138	91	148	164	42	—	77	—
Rank in Category	27	6	47	48	93	15	29	22	64	51	35

Many ETFs have relatively narrow bid/ask spread but some impose fairly high trading costs.

## Trading cost of ETFs

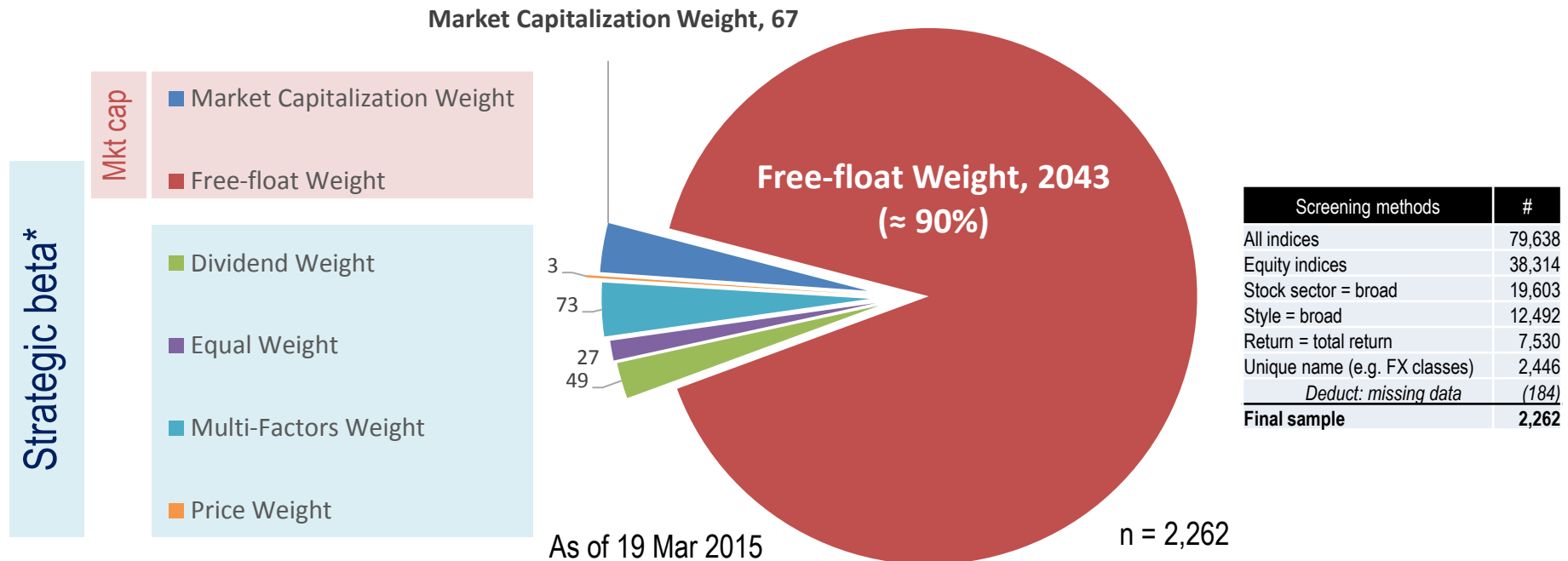


Source : Bloomberg compiled by Research Department of Thai SEC (as of 30 June 2014)

	ETFs	SET50	MAI
<b>Average</b>	1.05%	0.63%	1.11%
<b>Max</b>	2.77%	1.72%	7.69%
<b>Min</b>	0.17%	0.25%	0.40%

- Execution cost, measured by bid-ask spread to mid price, shows the average cost at 1.05% comparable to those of MAI, instead of SET50.
- Some ETFs have high execution costs.
- No relationship between execution cost and fund size.
- Low trading volume may challenge market making practice.
- No report on market making activities.

# Free-float adjusted indices are more investable, and commonly used for tracking in many markets.



## Top three indices\*\*

Rank	Free-float weight	Market capitalization weight	Strategic beta
1	S&P 500 TR (476 \$ bln)	KRX KOSPI 200 Korea PR (8 \$ bln)	CRSP US Large Cap Growth TR (48 \$ bln)
2	CRSP US Total Market TR (405 \$ bln)	NYSE Arca Gold Miners TR (6 \$ bln)	CRSP US Large Cap Value TR (37 \$ bln)
3	FTSE Global All Cap ex US NR (146 \$ bln)	BMV IPC PR (3 \$ bln)	Nikkei 225 (35 \$ bln)

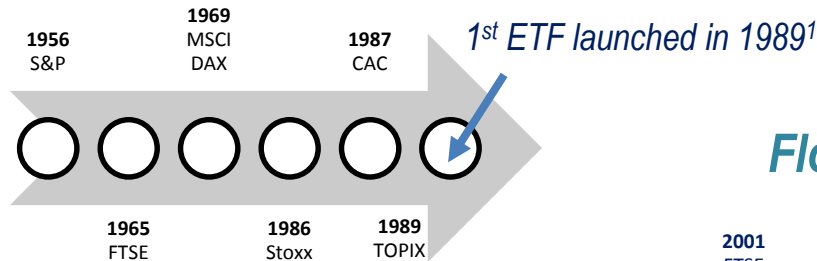
\*Per Morningstar definition, market capitalization weight indices can be considered as Strategic beta if they have style "tilts", e.g. screen the investable universe for certain characteristics (not solely on size).

\*\* Measured by total size of tracking ETFs

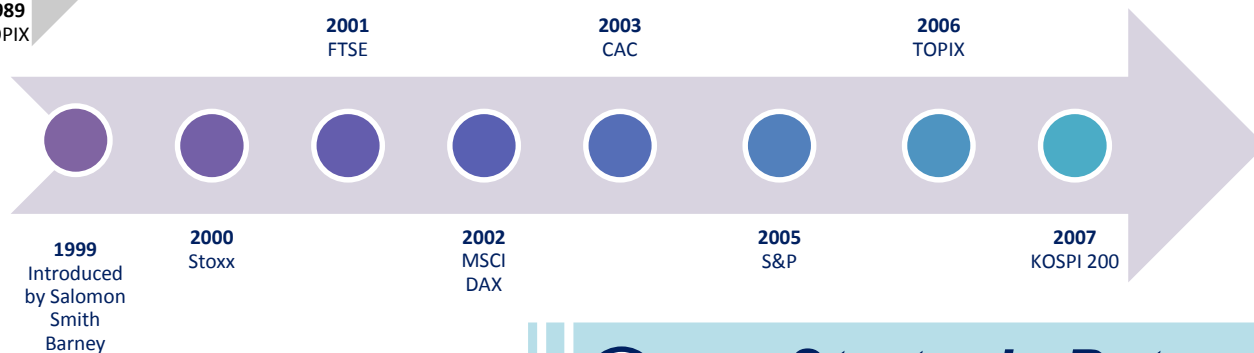
**Before 2000's, total return indices have been used. Then, Float-adjusted indices have been used. Now, we are talking about non-cap weighting or Strategic Beta indices.**

- “.. almost all the index providers have adopted free float weighting in the field of domestic indices or global indices ..” EDHEC (2006)
- Many commercial index providers consider free float adjusted capitalization superior to total market capitalization because it better represents the practically tradable opportunities in the market and makes the index a more liquid investment.

## **Total return indices\***



## **Float-adjusted indices\*\***



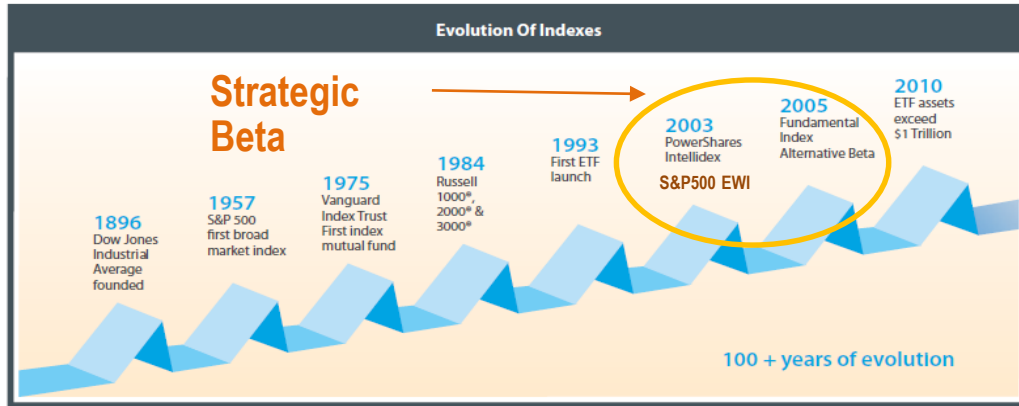
\*Inception date

\*\*Year of fully implemented

<sup>1</sup> Toronto index participant shares

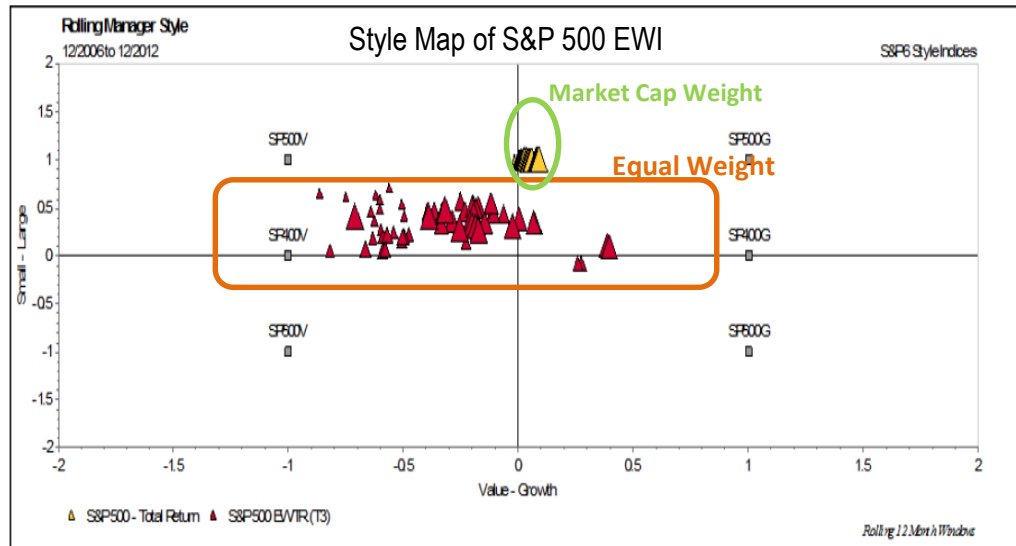
- Fees: a sure thing
- Performance: managers or markets
- Trackers: low-cost investment
- Strategic Beta: beyond cap-weighting

**Strategic Beta: another evolution in passive investment. The first Strategic Beta by S&P: equally weighting S&P500. S&P500EWI exposes more to small & value stocks, yielding better returns than the parental S&P500.**



Source: Russell Indexes

- ETFs were launched in 1993. About 10 years later, Strategic Beta strategies were adopted.
- S&P500EWI has its exposures moving around the area of smaller & value stocks than the parental index, S&P500.
- S&P500EWI consistently outperforms S&P500 over the past 1Y, 3Y, 5Y, 10Y.

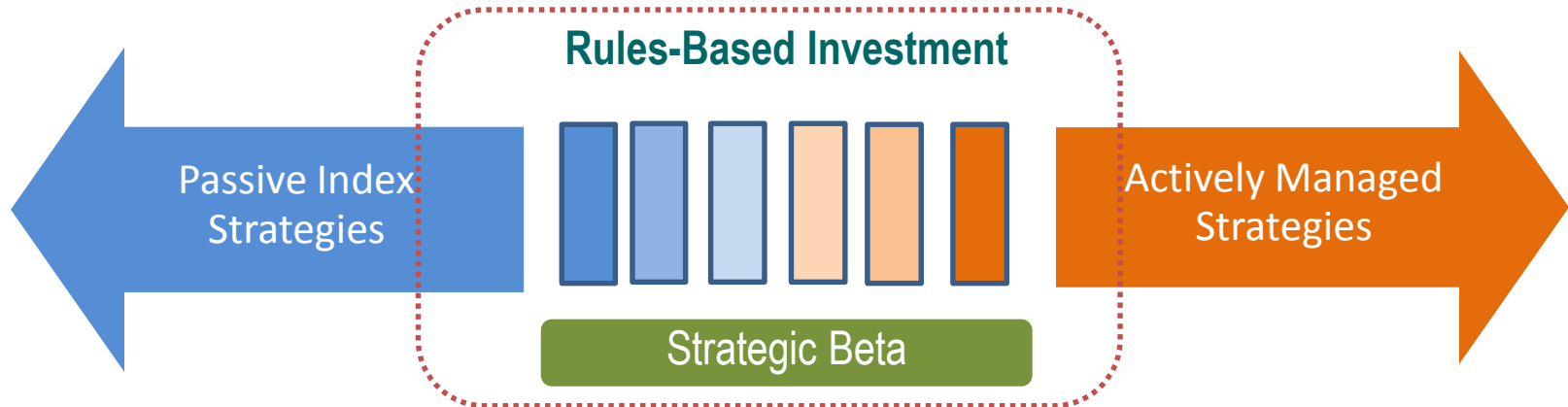


Source: S&P Dow Jones Indices, Factset. Data calculated from December 31, 2006 through December 31, 2012 on Factset SP2 platform. Larger triangles show more recent time periods. Charts and graphs are provided for illustrative purposes only. Past performance is no indication of future results.

Return (p.a.) as of Aug 2014	S&P500EWI	S&P500
1 yr	<b>24.10%</b>	<b>22.68%</b>
3 yr	<b>19.60%</b>	<b>18.01%</b>
5 yr	<b>17.14%</b>	<b>14.44%</b>
10 yr	<b>8.82%</b>	<b>6.14%</b>

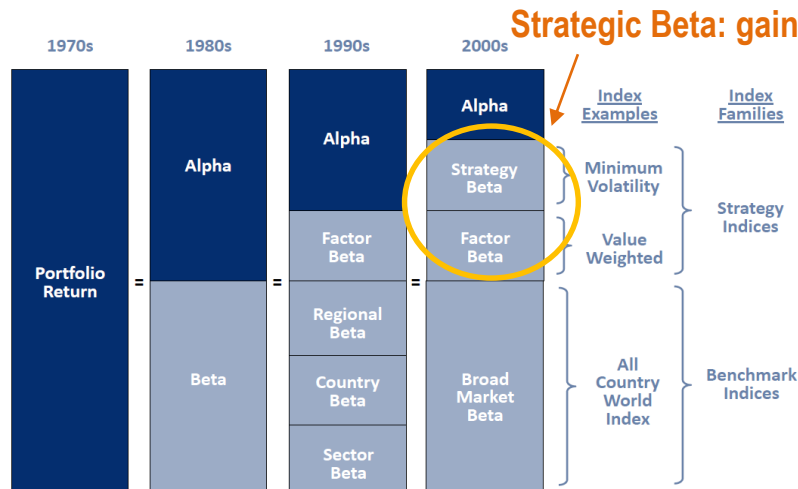
Source: Bloomberg

# Strategic Beta: adding active flavors into passive strategies.



Based on "Fundamental Indexing: Weighting the Difference", Schwab Center of Financial Research, Journal of Investment Research

Strategic Beta strategies— sometimes referred to as fundamental index strategies, alternative beta, or strategy beta, because they provide broad-based market exposure (beta) – weighting securities based on fundamental factors (non market cap weight). Strategic Beta strategies screen securities in a fashion similar to that of many actively managed funds by using pre-specified rules.



Performance broken-down into 3 parts:

- ☐ Market beta (cap-weight beta)
- ☐ Alpha (managers' timing & selection abilities)
- ☐ Strategic beta (exposure to non-market beta factors)

# Details of the largest Strategic Beta ETFs with equal-weight & low-volt indexing.

## Equal-Weight Indexing → Return Enhancement

A "STRATEGIC BETA" ETF WITH BROAD MARKET EXPOSURE

### Guggenheim S&P 500® Equal Weight ETF

**RSP**  
LISTED  
NYSE  
ARCA

Equal Weight Investing-offering performance potential over its cap-weighted rivals, as well as diversification and disciplined rebalancing. For the potential benefits and risks, click "Learn More".

**LEARN MORE**

**Volatility Measures RSP**

	3-Year	5-Year	10-Year	15-Year	
3-Year Trailing					
		Standard Deviation	Return	Sharpe Ratio	Sortino Ratio
RSP		14.02	17.16	1.20	2.08
S&P 500 TR USD		12.20	16.84	1.34	2.36
Category: LB		12.29	15.84	1.26	2.22



### Fact Sheet

- Fund Sponsor: Guggenheim Investments
- Manager: Michael P. Byrum, CFA, Senior Vice President
- Index: S&P500 Equal Weighted Index
- Fund size: 8,348.94 mil. USD
- Fee : 0.4%
- Inception Date : 24/4/2003
- Star: 5 by Morningstar
- Link:<http://guggenheiminvestments.com/products/etf/details?productid=92>

Source: Morningstar, Guggenheim investments, as of July 2014

## Low-Volt Indexing → Volatility Reduction

COMBAT MARKET VOLATILITY WITH AN INDUSTRY FIRST

powerSHARES<sup>®</sup> SPLV

**Volatility Measures SPLV**

	3-Year	5-Year	10-Year	15-Year	
3-Year Trailing					
		Standard Deviation	Return	Sharpe Ratio	Sortino Ratio
SPLV		9.01	15.26	1.62	3.14
S&P 500 TR USD		12.20	16.84	1.34	2.36
Category: LV		11.72	16.62	1.40	2.61



### Fact Sheet

- Fund Sponsor: Invesco Powershares
- Manager: Peter Hubbard , Vice President and Director of Portfolio Management of the Adviser
- Index: S&P500 Low Volatility Index
- Fund size: 4136.37 mil. USD
- Fee: 0.35%
- Inception Date: 5/5/2011
- Star: 3 by Morningstar
- Link:<http://www.invescopowershares.com/pdf/P-SPLV-PC-1.pdf>

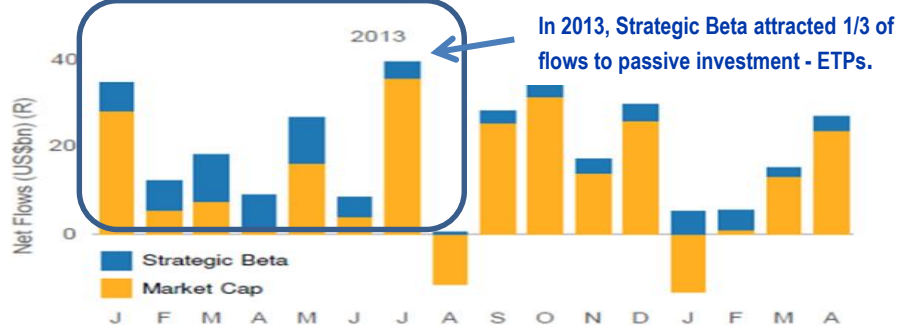
Source: Morningstar, Invesco Powershares, as of July 2014



Players are moving towards Strategic Beta. Non-cap weighted ETFs are more common in many countries, as they seem outperforming the traditional cap-weighted.

### MONTHLY GLOBAL EQUITY ETP FLOWS<sup>1</sup>

2014 YTD Strategic Beta Equity ETP Flows: \$14.9bn

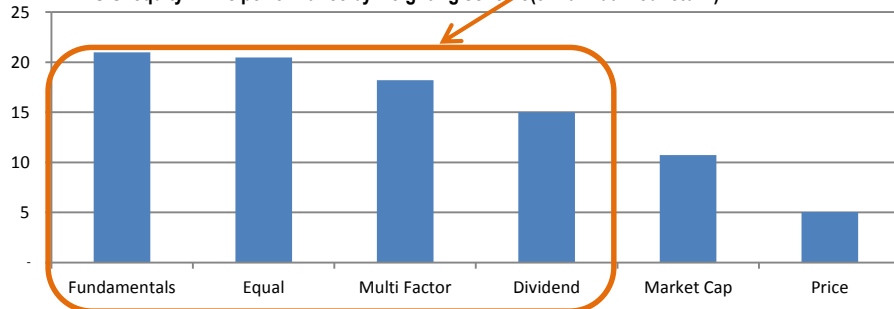


Source: Bloomberg, compiled by Blackrock

- Strategic beta equity funds gathered a record total of \$61.3bn – nearly a third of 2013 global industry flows – with asset growth of over 40%.

### Strategic Beta: outperformers

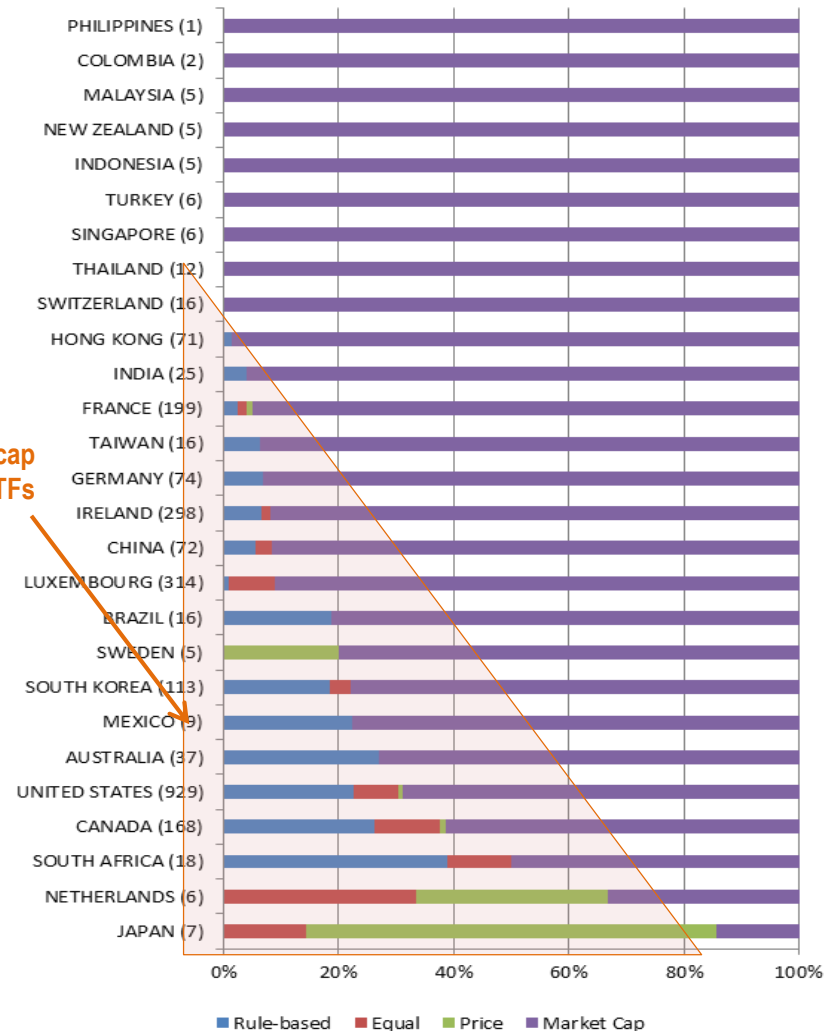
U.S. equity ETFs performance by weighting scheme (5Yr annualized return)



Source: Bloomberg, compiled by RD of Thai SEC (Sep 2014)

- For U.S. equity ETF market, Strategic Beta ETFs outperform market cap index.
- ETF products with rule-based (Strategic beta) strategy are common in many countries. Strategic-beta ETFs account for over 20 percent of number of funds in many countries

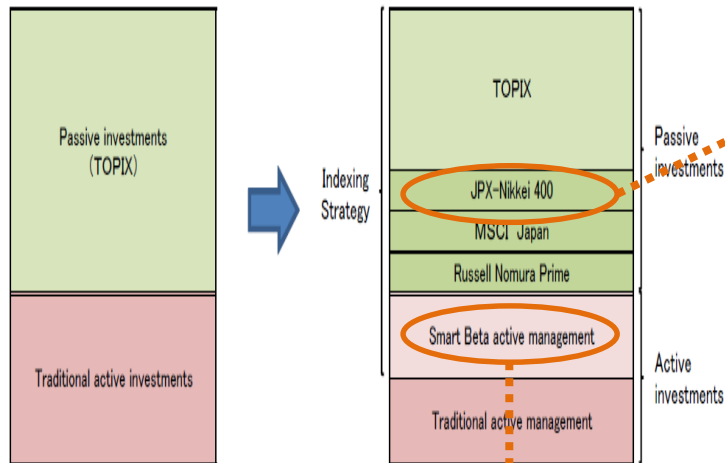
### Proportion of equity ETFs by weighting scheme in each country (% number of funds)



Source: Bloomberg, compiled by Research Department of Thai SEC

# Recently, GPIF of Japan goes for Strategic Beta, taking allocation away from traditional cap-weighted index.

Revision of manager structure for domestic stocks investment of GPIF, Japan. (2014)



Source: Government Pension Investment Fund, Japan. 2014

## Indices for Strategic Beta strategies:

- **S&P GIVI Japan (S&P Global Intrinsic Value Index):** constructed by book value and discounted projected earnings
- **Nomura RAFI reference index :** constructed by total cash dividends, free cash flow, total sales and book value
- GPIF has selected 14 active funds and 10 passive funds. For some passive investments, JPX-Nikkei 400 were employed for benchmarking.
- In addition to the “Traditional active management” category, a new category “Strategic Beta active management” was established.

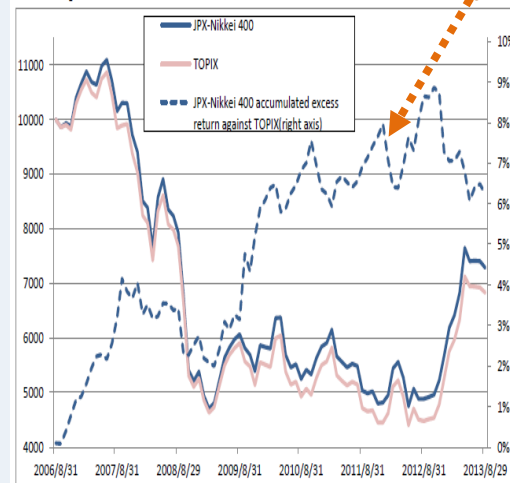
## More weights to fundamentals

**JPX-Nikkei Index 400:** to promote efficient use of capital and investor-focused management perspectives, the new index will encourage firms to improve corporate value represented by their ROE and operating profit.

### JPX-Nikkei Index 400: ROE & Profit for weighting scheme

Quantitative	Qualitative
<ul style="list-style-type: none"> <li>3-year average ROE: 40%</li> <li>3-year cumulative operating profit: 40%</li> <li>Market capitalization on the base date for selection: 20%</li> </ul>	<ul style="list-style-type: none"> <li>Appointment of Independent Outside Directors (at least 2)</li> <li>Adoption or Scheduled Adoption of IFRS (pure IFRS)</li> <li>Disclosure of English Earnings Information via TDnet (Company Announcements Distribution Service in English)</li> </ul>

### (1) Index performance



\*Base date = August 31, 2006, Base point = 10000

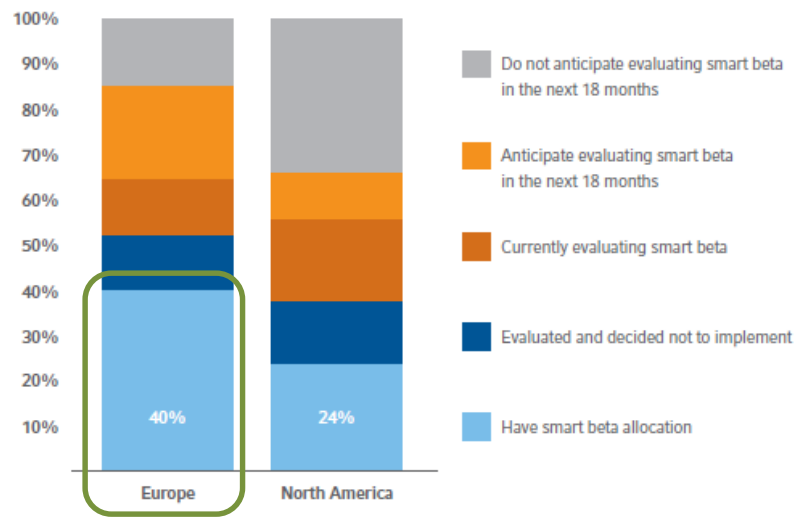
### JPX-Nikkei index 400: superior performance than TOPIX

	Monthly return (Annualized)	
	JPX-Nikkei 400	TOPIX
End of Aug 2006 - End of Aug 2007	2.0%	-1.1%
End of Aug 2007 - End of Aug 2008	-22.6%	-22.8%
End of Aug 2008 - End of Aug 2009	-21.9%	-21.6%
End of Aug 2009 - End of Aug 2010	-12.6%	-16.2%
End of Aug 2010 - End of Aug 2011	-3.0%	-3.1%
End of Aug 2011 - End of Aug 2012	-1.6%	-3.3%
End of Aug 2012 - End of Aug 2013	41.9%	44.3%
End of Aug 2006 - End of Aug 2013	-2.5%	-3.4%

Source: JPX, Nov 2013

# By a survey, E.U. is the leader in adopting Strategic Beta. Top strategies are low-volatility and fundamental indexing.

## Usage of Strategic Betas



## Current Strategic Betas in use

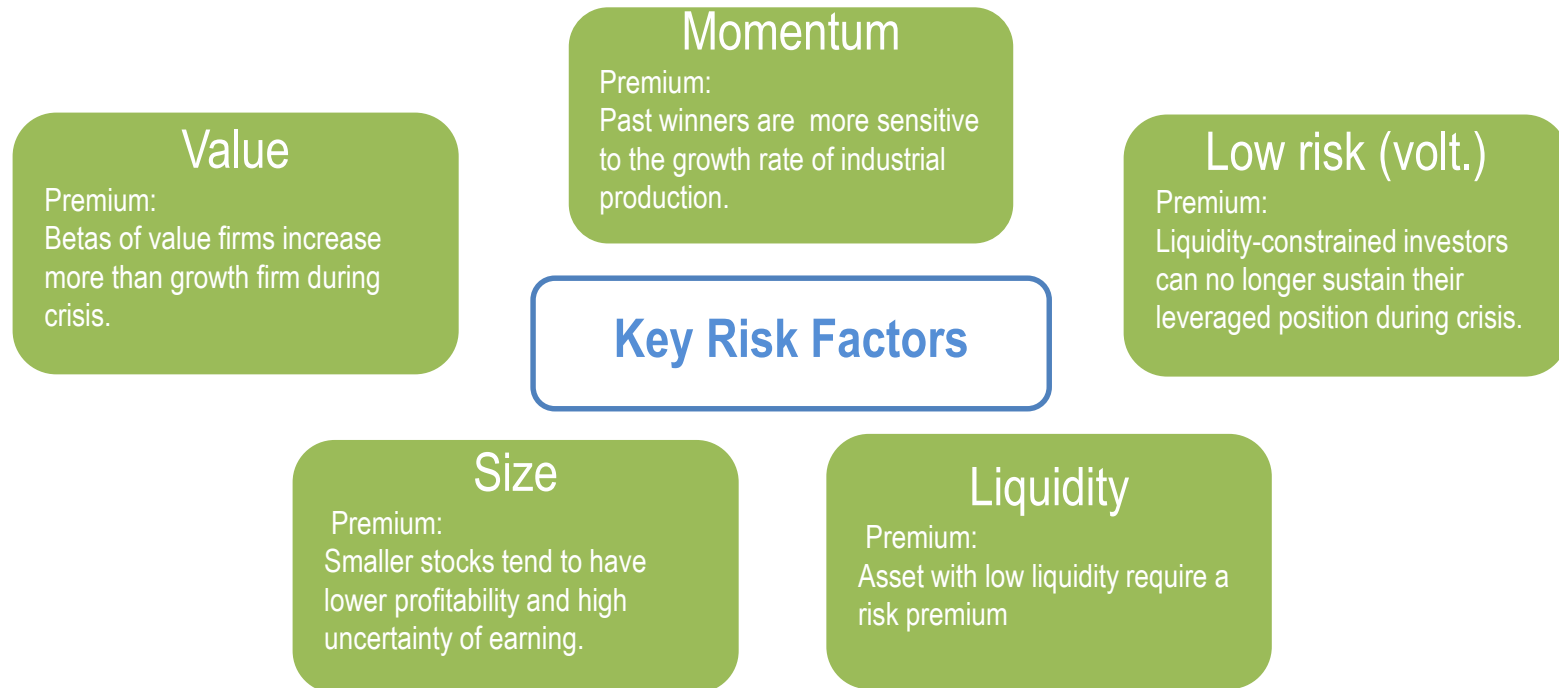
	U.S.	Canada	UK	Europe (ex UK)
Low volatility	33%	100%	33%	77%
Fundamental	67%	17%	60%	23%
High quality	17%	33%	7%	23%
Maximum diversification	8%	33%	0%	31%
Risk parity	17%	17%	13%	8%
Momentum	25%	0%	7%	8%
Equal weight	0%	17%	20%	8%
Stability (defensive / dynamic)	17%	0%	13%	0%
High dividend	0%	17%	13%	8%
Other	17%	17%	13%	23%

### Sample:

A survey of institutional asset owners is conducted in January 2014.

The 181 asset owners included in the study were drawn from Europe (52%) and North America (48%).

# No free lunch for Strategic Beta strategies: more exposure to some other risk factors – in return for risk premia.



	Risk-based explanation	Behavioral explanation
Value	Costly reversibility of assets in place leads to high sensitivity to economic shocks in bad times	Over-reaction to bad news and extrapolation of the recent past leads to subsequent return reversal
Momentum	High expected growth firms are more sensitive to shocks to expected growth	Investor over-confidence and self-attribution bias leads to return continuation in the short term
Low risk	Liquidity-constrained investors hold leveraged positions in low-risk assets which they may have to sell in bad times when liquidity constraint become binding	Disagreement of investors about high-risk stocks leads to overpricing in the presence of short sales constraints
Size	Low profitability leads to high distress risk and downside risk. Low liquidity and high cost of investment needs to be compensated by higher returns	n.a.
Liquidity	Assets with low returns in times of funding liquidity constraints or low market liquidity require a risk premium	n.a.

# Some caveats when implementing Strategic Beta: strategy-specification sensitive, and market dynamics (vs. strict/naive investing rules).

Maximum calendar-year performance differences of fundamental strategies with different strategy specifications

	Best performing (%)		Worst performing (%)		Max difference (%)	Year
Variable selection	Earnings	-12.2	Dividends	-23.0	10.8	1999
Leverage adjustment	Total leverage adj	5.3	Operating leverage adj	-4.0	9.3	2008
Turnover control	Optimal control	9.0	No control	4.6	4.5	2002
Selection effect	Fundamental	4.6	Cap selection	2.3	2.3	2003
Rebalancing	March	11.3	September	0.2	11.1	2009

Source: EDHEC-Risk Institution research Insights, Principles of equity factor investing, Investment& Pension Europe, 2014

## Performance: data-mining dependent?

In an extreme case, ignoring price can be costly. Eg. Book-value is generally static but price is very dynamic.

Fundamentals alone:

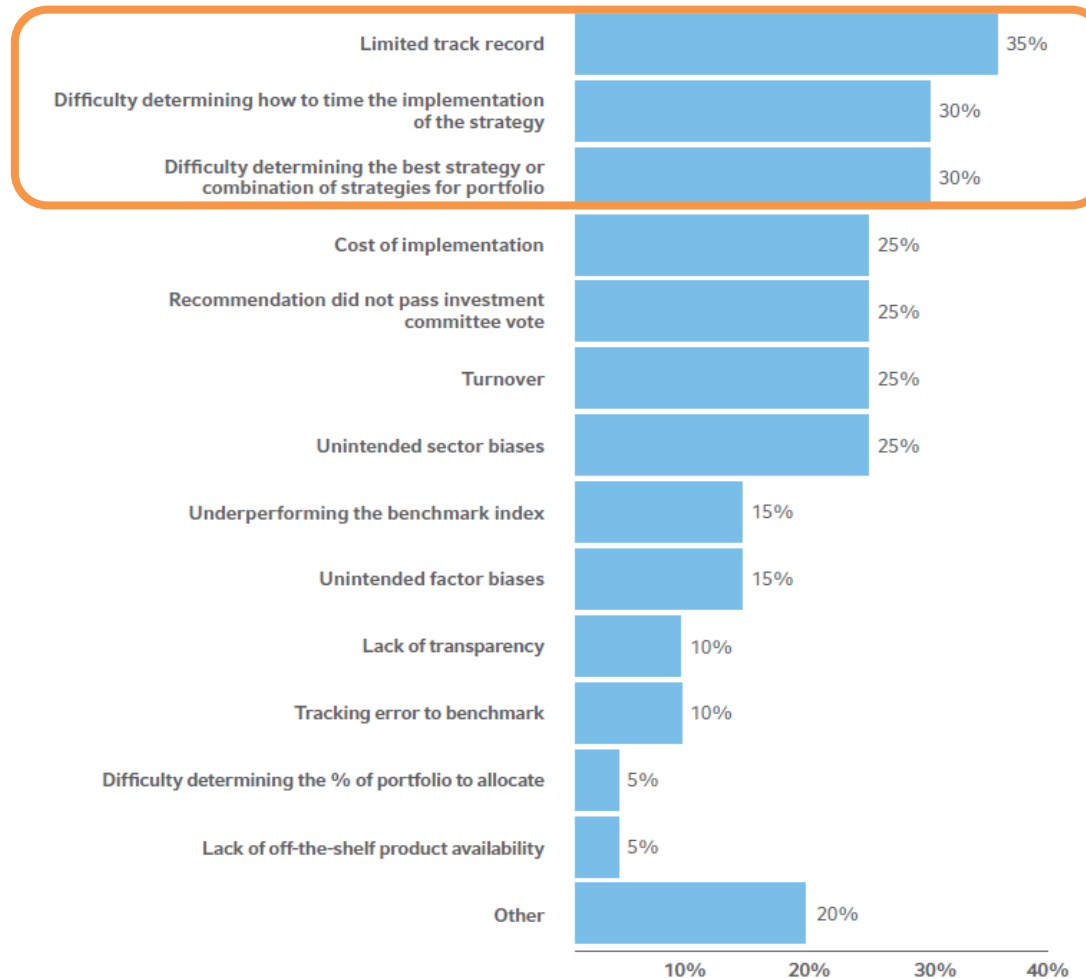
- Are lagged (even as of the reporting date)
- Do not reflect latest events

LEHMAN BROTHERS IN 2008			
Quarter	Book Value	Date	Price
Q4 2007	21,395	11/30/2007	62.63
Q1 2008	21,839	2/29/2008	50.99
Q2 2008	19,283	5/31/2008	36.81
Q3 2008	19,283	8/31/2008	15.99
Q4 2008	19,283	11/30/2008	0.01

Source: Dimension, Dimensions of Higher Expected Return and Strategic Beta, Dec 2013

# Strategic Beta seems relatively new. Key investor concerns: limited track records, strategy timing, and strategy selection.

## Asset owner survey: Concern over Strategic beta adoption



# A Test of Strategic Beta: rule-based screening & weighting vs. SET50TR



## Screening

### RD Strategic Beta

Rank 3-Yr trailing Trading Volume, then exclude 20% stocks from the bottom – the least liquid.

Rank & select the top 50 stocks by their fundamentals (value stocks, free cash flow, ROE)

### SET50TR Index

1. Sizable: SET's main market top200
2. Shareholder concentration: over 20% Free-float
3. Liquidity: trading volume > 0.5 \*(avg. trading volume) + no SP marking

## Weighting Scheme

### RD Strategic Beta

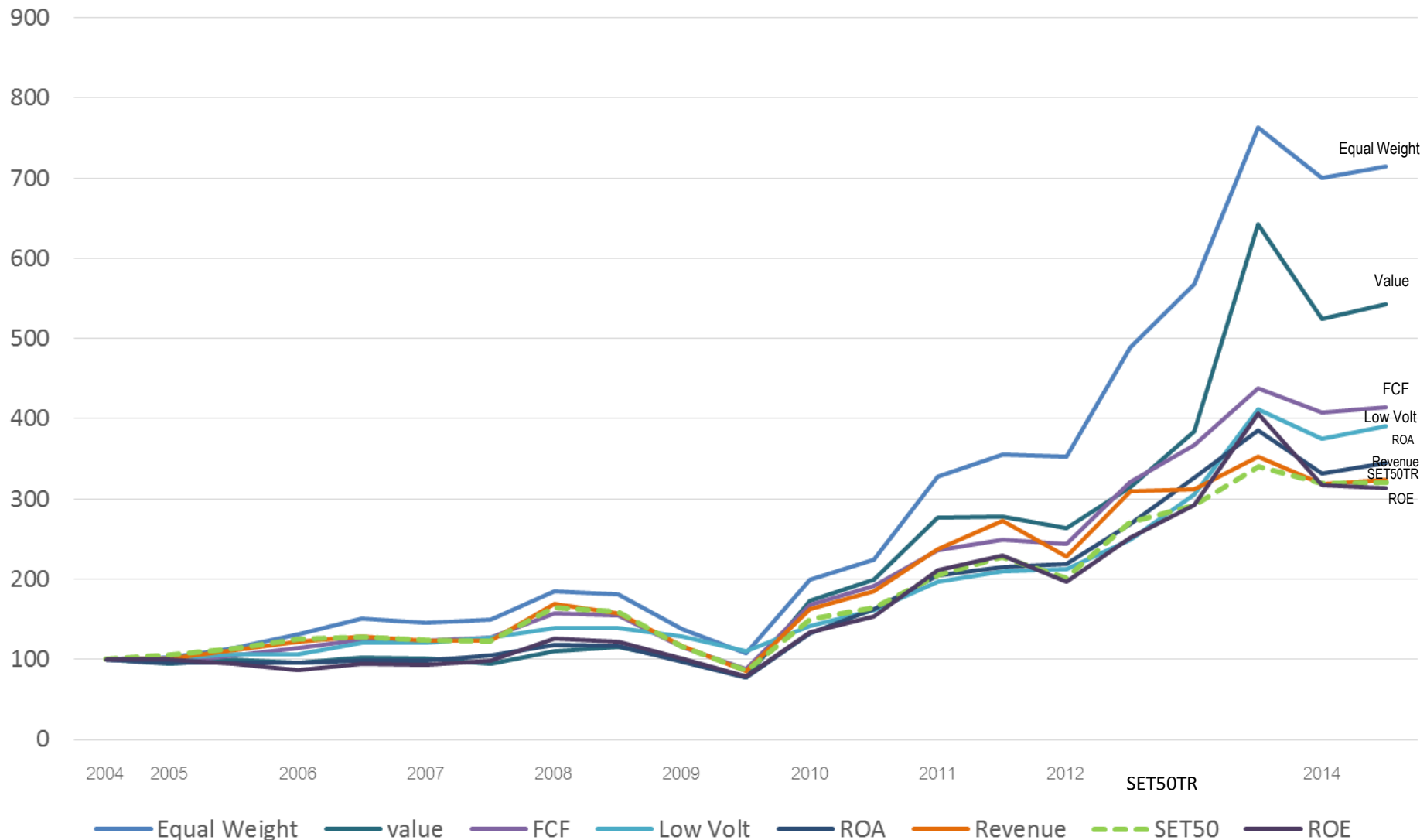
(Each stock's Fundamental Value)  
 $\div$  (total Fundamental Value)  
= weight of each stock

### SET50TR Index

(Outstanding shares x market price)  
 $\div$  (total market cap of the index)  
= weight of each stock

# Weighting by Equal, Value (low P/B), Cash-flow, Low-volt, ROA, & Revenue outperform SET50TR over the past 10 years.

10 Yr Buy-and-Hold Performance



5 yrs & random

Note: value = low P/B; FCF = free cashflow; Low Volt = low volatility; ROA = return on asset; ROE = return on equity

Source: Bloomberg, compiled by Research Department of Thai SEC. all indices are rebalanced semi-annually. Investment horizon is from Mar 2004 to Mar 2014



# Strategic Beta: further issues



- **Player Awareness.** In addition to the low-cost advantage of index funds, the concept of non-market cap weighting should be familiarized among institutional & retail investors and other players in Thailand. With that financial knowledge in place, Strategic Betas could be an alternative choice of investment, offering more space of risk & return opportunities.
- **Indexation Business.** The exchange or other reputable third-parties may compete on investment ideas by providing alternative indices. They are assigned to calculate, maintain and disseminate the information of indices so that other players can track their investment.

## Equity Mutual Fund Fees & Performance

Fees could have a significant effect on investor portfolios, especially those with long-term horizon such as saving for retirement. It is not necessary that funds with higher fees have better performance. The opposite could be true for many of them, as it is not easy to persistently performing better than the market total return benchmark. To be more informed, investors should understand key information of mutual funds. In addition, low-cost and rule-based investment strategies such as Strategic Betas have been gaining popularity in many markets.