The Growth of Passive Investing Worldwide – Implications for Canada

U of T Rotman - Capital Markets Institute
20 Nov 2018

PEDRO MATOS
The Growth of Passive Investing Worldwide

I. THE ACTIVE-PASSIVE QUESTION

II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY (2015 UPDATE)

III. IMPLICATIONS FOR CANADA
“I can’t believe that the great mass of investors are going to be satisfied with an ultimate goal of just achieving average returns.”
Ned Johnson (Fidelity Investments)
Boston Globe, 1976

“Over the years, I’ve often been asked for investment advice (...) My regular recommendation has been a low-cost S&P 500 index fund.”
Warren Buffett (Berkshire Hathaway) letter to shareholders, 2016

After winning bet against hedge funds, Warren Buffett says he’d wager again on index funds

Tae Kim | @1firstadaptor
Published 9:45 AM ET Tue, 3 Oct 2017

CNBC
Buffett bets big on Vanguard
February 28, 2017
Buffet reports in his latest shareholder letter that, at the end of 2016, his bet on the index fund is winning by a wide margin.

Read blog entry

Apr 14, 2017:
The New York Times
Vanguard Is Growing Faster Than Everybody Else Combined
http://us.spindices.com/spiva/#/

**United States**

Percentage of large-cap funds that underperformed the S&P 500®

Data as of Jun 30, 2018

- **Five-year**: 76.49%
- **Three-year**: 78.64%
- **One-year**: 63.46%

**Persistence**

Does past performance really matter? The Persistence Scorecard tracks the staying power of top active performers over time.
http://us.spindices.com/spiva/#/

**CANADA**

**Percentage of Canadian Equity Funds That Underperformed the S&P/TSX Composite**

*Data as of Jun 30, 2018*

**FIVE-YEAR**

89.74%

**THREE-YEAR**

90.91%

**ONE-YEAR**

93.22%

Displaying five-year data

89.74% of Funds Underperformed the S&P/TSX Composite

10.26% of Funds Outperformed the S&P/TSX Composite

Get stats for other market segments ›
I. THE ACTIVE-PASSIVE INVESTING QUESTION

(LACK OF) OVER-PERFORMANCE
[= 100% - SPIVA SCORE]

Figure 1: Percentage of Equity Mutual Funds That Outperform Their Benchmarks (as of Year-End 2017)

<table>
<thead>
<tr>
<th>Category</th>
<th>Nr. Outperforming Funds (1-YEAR) (%)</th>
<th>Nr. Outperforming Funds (5-YEAR) (%)</th>
<th>Nr. Outperforming Funds (10-YEAR) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Equity in USD [vs. S&amp;P Global 1200]</td>
<td>0%  25%  50%  75%  100%</td>
<td>0%  25%  50%  75%  100%</td>
<td>0%  25%  50%  75%  100%</td>
</tr>
<tr>
<td>U.S. Large-Cap [vs. S&amp;P 500]</td>
<td>0%  100%</td>
<td>0%  100%</td>
<td>0%  100%</td>
</tr>
<tr>
<td>Canadian Equity [vs. S&amp;P/TSX Composite]</td>
<td>0%  100%</td>
<td>0%  100%</td>
<td>0%  100%</td>
</tr>
</tbody>
</table>

Note: The data was converted to 100%-SPIVA score. The original SPIVA scores are the % of active funds outperformed by their benchmarks.

MARKETS

Stock Pickers Struggle to Beat Index Funds Once Again
This year was supposed to be active managers’ big comeback, but so far, that hasn’t happened

By Dawn Lim
Sept. 2, 2018 7:00 a.m. ET
Figure 2: Persistence in Over-performance over Consecutive Years (U.S. Domestic Equity Mutual Funds)

INDEXING AS A "ZERO-SUM" GAME

I. THE ACTIVE-PASSIVE INVESTING QUESTION

THE GROWTH OF PASSIVE MANAGEMENT

Figure 3: Active vs. Passive Management
(Total Net Assets in U.S. Domestic-Equity Mutual Funds, 1993-2017)

Source: based on data from Investment Company Institute, "2018 Investment Company Fact Book"
I. THE ACTIVE-PASSIVE INVESTING QUESTION

THE GROWTH OF PASSIVE MANAGEMENT (CONT.)

Figure 4: Cumulative Net Flows
(U.S. Domestic Equity Mutual Funds, 2007-2017)

Source: based on data from Investment Company Institute, "2018 Investment Company Fact Book"
I. THE ACTIVE-PASSIVE INVESTING QUESTION

THE GROWTH OF PASSIVE MANAGEMENT (CONT.)

Figure 5: Average Yearly Expense Ratios
(U.S. Domestic Equity and Bond Mutual Funds, 2007-2017)

Source: based on data from Investment Company Institute, "2018 Investment Company Fact Book"
I. THE ACTIVE-PASSIVE QUESTION

II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY (2015 UPDATE)

III. IMPLICATIONS FOR CANADA
"Indexing And Active Fund Management: International Evidence" Journal Of Financial Economics (June 2016), with Martijn Cremers, Miguel Ferreira And Laura Starks
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

PRESS COVERAGE

2014:
- **Sveriges Radio**
  - The Swedes pay for the wrong funds
- **Chief Investment Officer**
  - The Best Thing for Active Managers? Passive Investors.

2015:
- **Reuters**
  - Index funds and avoiding the generics paradox
- **Financial Times**
  - Closet tracking: ‘Gigantic mis-selling phenomenon’
- **Funds People**
  - ¿Qué explica que la presencia de los closet trackers en España sea mayor que en otros países?

2016:
- **The Globe and Mail**
  - Revealing the closet indexers among Canada’s mutual funds
- **OSC**
  - To examine actively managed funds

REGULATORY IMPACT

2016:
- **ESMA**
  - Statement
  - Supervisory work on potential closet index tracking

2017:
- **EFAMA**
  - Report on ESMA’s supervisory work on potential closet index tracking
  - 6 July 2016

2018:
- **FCA**
  - Mutual Fund Fees and Active Share
  - April 2018

(Date: 02 February 2016
 ESMA/2016/165)
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

THE SAMPLE (UPDATE VS JFE 2016)

Figure 6: Sample of Global Mutual Fund Study
Breakout of Assets under Management (AUM) in US$ for Dec/2015

- **Full Data Sample** (AUM: $11 trillion)
  - Global Focus, 15%
  - Single-Country (Domestic), 62%
  - Regional Focus, 17%
  - Single-Country (Outside), 6%

- **U.S. Domiciled Funds** (AUM: $7.5 trillion)
  - Global Focus, 11%
  - Regional Focus, 12%
  - Single-Country (Domestic), 77%
  - Single-Country (Outside), 0%

- **Canadian Domiciled Funds** (AUM: $0.3 trillion)
  - Global Focus, 24%
  - Regional Focus, 5%
  - Single-Country (Domestic), 50%
  - Single-Country (Outside), 21%

**NOTE**: Lipper open-end equity mutual funds have combined TNA of $14 trillion (vs. ICI/IIFA Global statistics of $16 trillion for Dec/2015; Canada: $0.4 trillion by IFIC Industry Overview). Main analysis requires additionally portfolio holdings from FactSet/Lionshares (coverage = ~ 80% of Lipper).
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 1: WHAT % OF MUTUAL FUNDS ARE ACTIVE/PASSIVE?

• Explicit indexing = Index funds + index-tracking ETFs

Figure 7: Percentage of AUM that is Explicitly Indexed

<table>
<thead>
<tr>
<th>Year</th>
<th>U.S. Domiciled Funds</th>
<th>Canadian Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>21%</td>
<td>11%</td>
</tr>
<tr>
<td>2006</td>
<td>29%</td>
<td>13%</td>
</tr>
<tr>
<td>2007</td>
<td>40%</td>
<td>15%</td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

60% actively managed? 85% actively managed?

NOTE: Morningstar Dec/2017 Passive (Index Funds & ETFs): Canadian-Equity Funds (18%), U.S.-Equity Funds (42%)
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 2: WHAT % OF NON-PASSIVE FUNDS ARE TRULY “ACTIVE” VS. “CLOSET INDEXERS”? 

• Explicit indexing = Index funds + index-tracking ETFs

• Active - Closet indexing: Funds claiming to be active but whose holdings are similar to their benchmark (LOW ACTIVE SHARE)

• Active - Truly active: Funds that are truly active in terms of distance from benchmark holdings (HIGH ACTIVE SHARE)
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 2: WHAT % OF NON-PASSIVE FUNDS ARE TRULY “ACTIVE” VS. “CLOSET INDEXERS”? 

• Decompose portfolio into two parts:

\[
\text{Portfolio} = [\text{Index}] + [\text{Portfolio} - \text{Index}]
\]

Passive  Active

• Compare portfolio weights: fund vs. benchmark – Active Share (Cremers and Petajisto, 2009)

\[
\frac{1}{2} \sum_{i=1}^{N} |w_{\text{fund},i} - w_{\text{benchmark},i}|
\]

Fraction of portfolio that is different from benchmark 
Between 0% and 100%
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 2: WHAT % OF NON-PASSIVE FUNDS ARE TRULY “ACTIVE” VS. “CLOSET INDEXERS”?

Figure 8: Active Share Example - Fidelity Magellan Fund (FMAGX, 1980-2016)

Source: Cremers and Petajisto (2009) and https://ActiveShare.info.
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 2: WHAT % OF NON-PASSIVE FUNDS ARE TRULY “ACTIVE” VS. “CLOSET INDEXERS”? 

Figure 8: Active Share Example - Fidelity Magellan Fund (FMAGX, 1980-2016)

Source: Cremers and Petajisto (2009) and https://ActiveShare.info.
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 2: WHAT % OF NON-PASSIVE FUNDS ARE TRULY “ACTIVE” VS. “CLOSET INDEXERS”?  

Figure 8: Active Share Example - Fidelity Magellan Fund  
(FMAGX, 1980-2016)

Source: Cremers and Petajisto (2009) and https://ActiveShare.info.
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 2: WHAT % OF NON-PASSIVE FUNDS ARE TRULY “ACTIVE” VS. “CLOSET INDEXERS”?

https://activeshare.info/fund/fidelity-magellan-fund
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 2: WHAT % OF NON-PASSIVE FUNDS ARE TRULY “ACTIVE” VS. “CLOSET INDEXERS”?

“closet indexer” if the Active Share is below 60%

Figure 9: Explicit and Closet Indexing – U.S. vs. Non-U.S. Funds
(Percentage of AUM as of December 2015)

- Full Data Sample
  - Explicit Indexing, 37%
  - Closet Indexing, 12%
  - Active, 50%

- U.S. Domiciled Funds
  - Explicit Indexing, 40%
  - Closet Indexing, 11%
  - Active, 48%

- Canadian Domiciled Funds
  - Explicit Indexing, 15%
  - Closet Indexing, 25%
  - Active, 60%
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 2: WHAT % OF NON-PASSIVE FUNDS ARE TRULY “ACTIVE” VS. “CLOSET INDEXERS”?

Figure 9 (B): Explicit and Closet Indexing by Year – U.S. vs. Canadian Funds (Percentage of AUM)

“closet indexer” if the Active Share is below 60%
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 2: WHAT % OF NON-PASSIVE FUNDS ARE TRULY “ACTIVE” VS. “CLOSET INDEXERS”?

Figure 10: Explicit and Closet Indexing by Country of Domicile (Percentage of AUM as of December 2015)
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 3: COMPETITIVE PRESSURE ON ACTIVE FUNDS?

Figure 11: Fees by Country of Domicile
(Average Total Shareholder Costs - December 2015)

Total shareholder cost (TSC) = Total Expense Ratio + Front-end Load / 5

Explicit Indexing  Closet Indexing  Truly Active
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 3: COMPETITIVE PRESSURE ON ACTIVE FUNDS?

Figure 11 (B): Fees – U.S. vs. Canadian Funds
(TSC by Explicit and Closet Indexing and Year)
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

QUESTION 3: COMPETITIVE PRESSURE ON ACTIVE FUNDS?

Figure 12: Active Management Around the Passage of Pension Acts (Panel A: average active share and Panel B: average total shareholder cost)

Panel A: Active share

Panel B: Total shareholder cost

Source: Cremers, Ferreira, Matos and Starks (2016).
QUESTION 4: EVIDENCE OF RETURNS TO “TRUE” ACTIVE MANAGEMENT?

Figure 13: Returns to “True” Active Management
(Percentage of Funds with Positive Benchmark-Adjusted Returns, by Year)

Percentage of Funds that beat Benchmarks

Source: Cremers, Ferreira, Matos and Starks (2016).
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

CONFLICTS OF INTEREST & UNDERPERFORMANCE
BY BANK-AFFILIATED FUNDS [FMP (JF, FORTH.)]

Figure 14: Market Share of Commercial Bank-Affiliated Mutual Funds
[Ferreira, Matos and Pires (JF, forth.)]
II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

TAKEAWAYS

• Outside the US (ex: Canada!), little explicit indexing but lots of closet indexing!

• In markets where low-cost explicitly indexed funds are available, they affect the behavior of active funds:
  - tend to differentiate their products by deviating more from their benchmarks
  - charge lower fees
  - and deliver higher returns ("truly active" funds outperform their benchmarks, but closet indexers underperform!)
Thank you!