

# The Growth of Passive Investing Worldwide – Implications for Canada

U of T Rotman - Capital Markets Institute

20 Nov 2018

PEDRO MATOS



DARDEN SCHOOL  
*of* BUSINESS

CHARLOTTESVILLE, VA | WASHINGTON, DC | SAN FRANCISCO, CA | SHANGHAI, CHINA

# The Growth of Passive Investing Worldwide



## THE ACTIVE-PASSIVE QUESTION

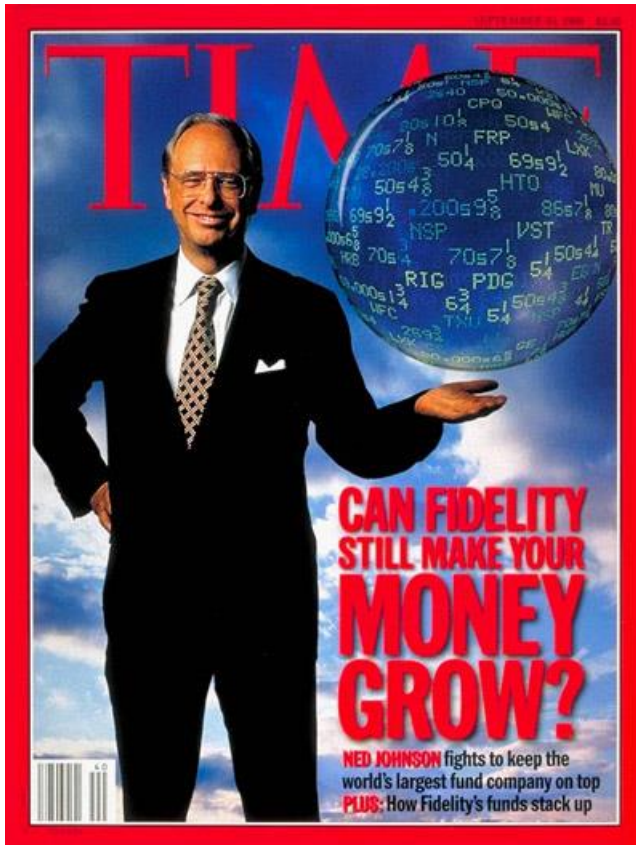


## ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY (2015 UPDATE)



## 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

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

Tae Kim | @firstadopter  
Published 9:46 AM ET Tue, 3 Oct 2017



***“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



## 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*

## SPIVA<sup>®</sup> STATISTICS & REPORTS

- U.S.
- CANADA
- MEXICO
- BRAZIL
- CHILE
- EUROPE
- S. AFRICA
- INDIA
- JAPAN

### UNITED STATES

PERCENTAGE OF LARGE-CAP FUNDS THAT UNDERPERFORMED THE S&P 500<sup>®</sup>

Data as of Jun 30, 2018

FIVE-YEAR

76.49%

THREE-YEAR

78.64%

ONE-YEAR

63.46%

[GET STATS FOR OTHER MARKET SEGMENTS >](#)

PERSISTENCE  
DOES PAST PERFORMANCE REALLY MATTER?  
[THE PERSISTENCE SCORECARD](#) TRACKS THE STAYING POWER OF TOP ACTIVE PERFORMERS OVER TIME.

## SPIVA<sup>®</sup> / S&P INDICES VERSUS ACTIVE

Displaying five-year data

76.49%

OF FUNDS UNDERPERFORMED THE S&P 500<sup>®</sup>

23.51%

OF FUNDS OUTPERFORMED THE S&P 500<sup>®</sup>

S&P Dow Jones Indices

A Division of S&P Global



## SPIVA<sup>®</sup> STATISTICS & REPORTS

- U.S.
- CANADA**
- MEXICO
- BRAZIL
- CHILE
- EUROPE
- S. AFRICA
- INDIA
- JAPAN

### CANADA

PERCENTAGE OF CANADIAN EQUITY FUNDS THAT UNDERPERFORMED THE S&P/TSX COMPOSITE

*Data as of Jun 30, 2018*

FIVE-YEAR

89.74%

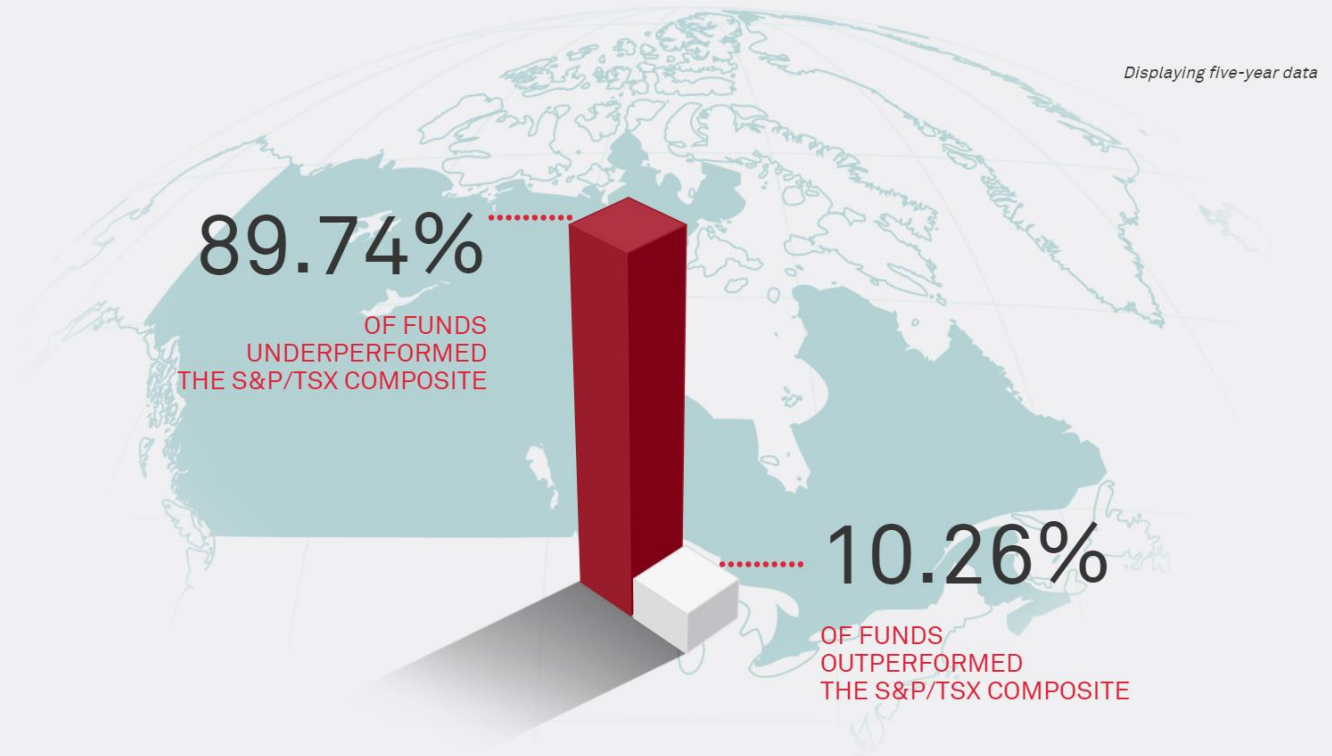
THREE-YEAR

90.91%

ONE-YEAR

93.22%

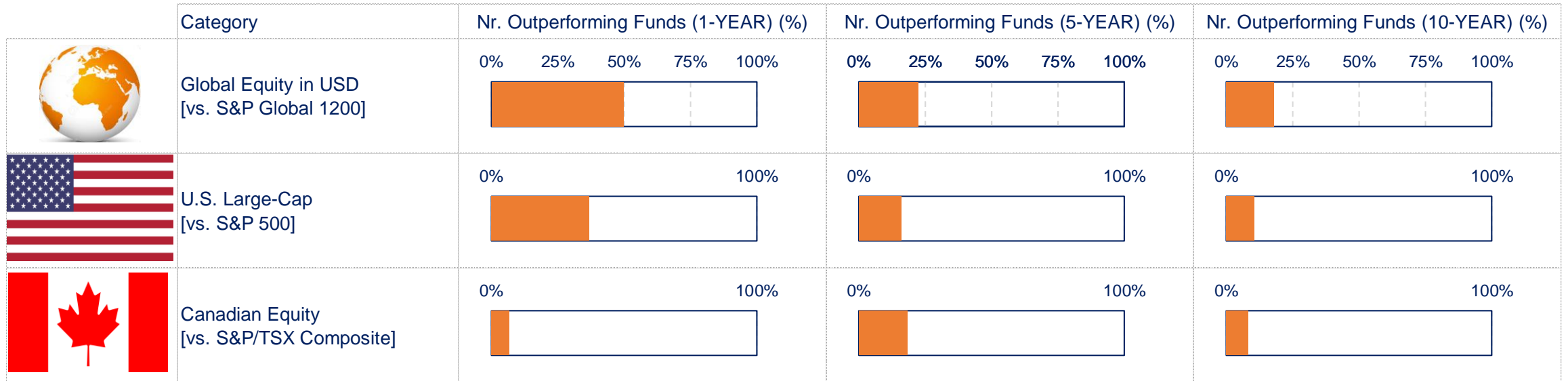
GET STATS FOR OTHER MARKET SEGMENTS >



## 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)



Source: S&P Dow Jones Indices, SPIVA U.S. Scorecards for U.S. and Canada - Year-End 2017.

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

**WSJ**

By Dawn Lim  
Sept. 29, 2018 7:00 a.m. ET

MARKETS

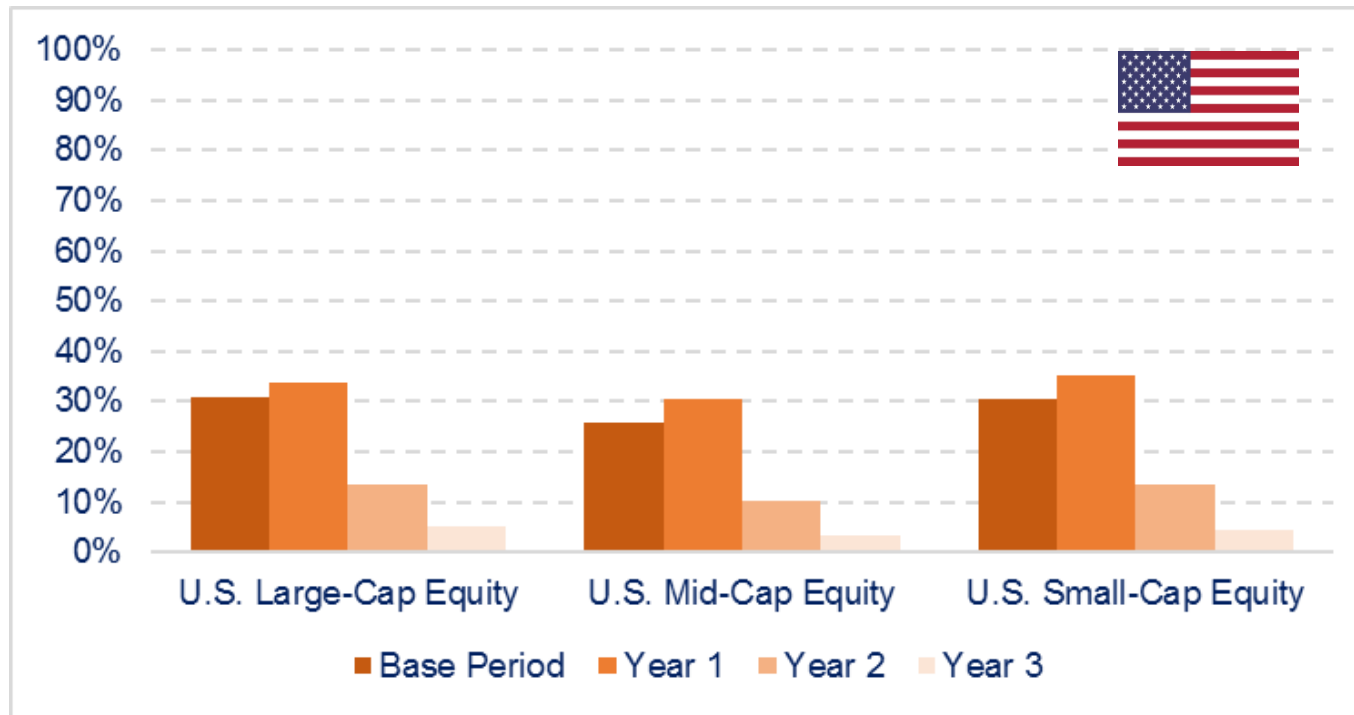
## Stock Pickers Struggle to Beat Index Funds Once Again

This year was supposed to be active managers' big comeback, but so far, that hasn't happened



# (LACK OF) PERSISTENCE

**Figure 2: Persistence in Over-performance over Consecutive Years  
(U.S. Domestic Equity Mutual Funds)**



Source: S&P Dow Jones, "15 Years of SPIVA – Where Does the Active Versus Passive Debate Go From Here?", May 2017.

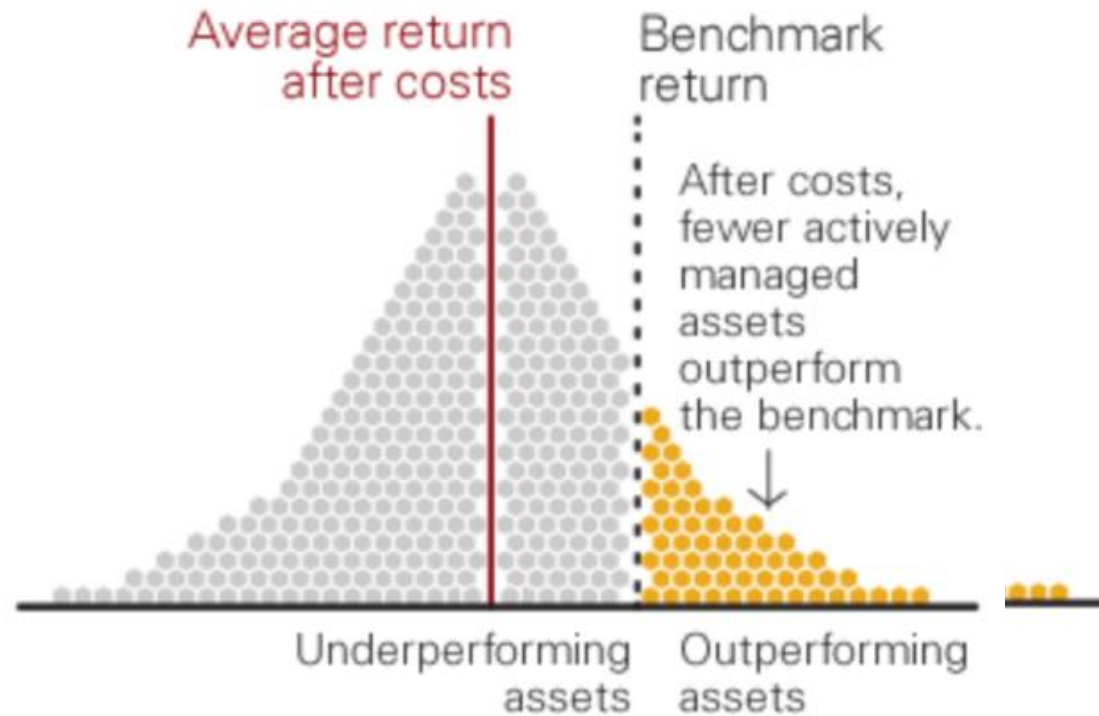


## I. THE ACTIVE-PASSIVE INVESTING QUESTION

# INDEXING AS A “ZERO-SUM” GAME



Distribution of returns  
after costs are considered

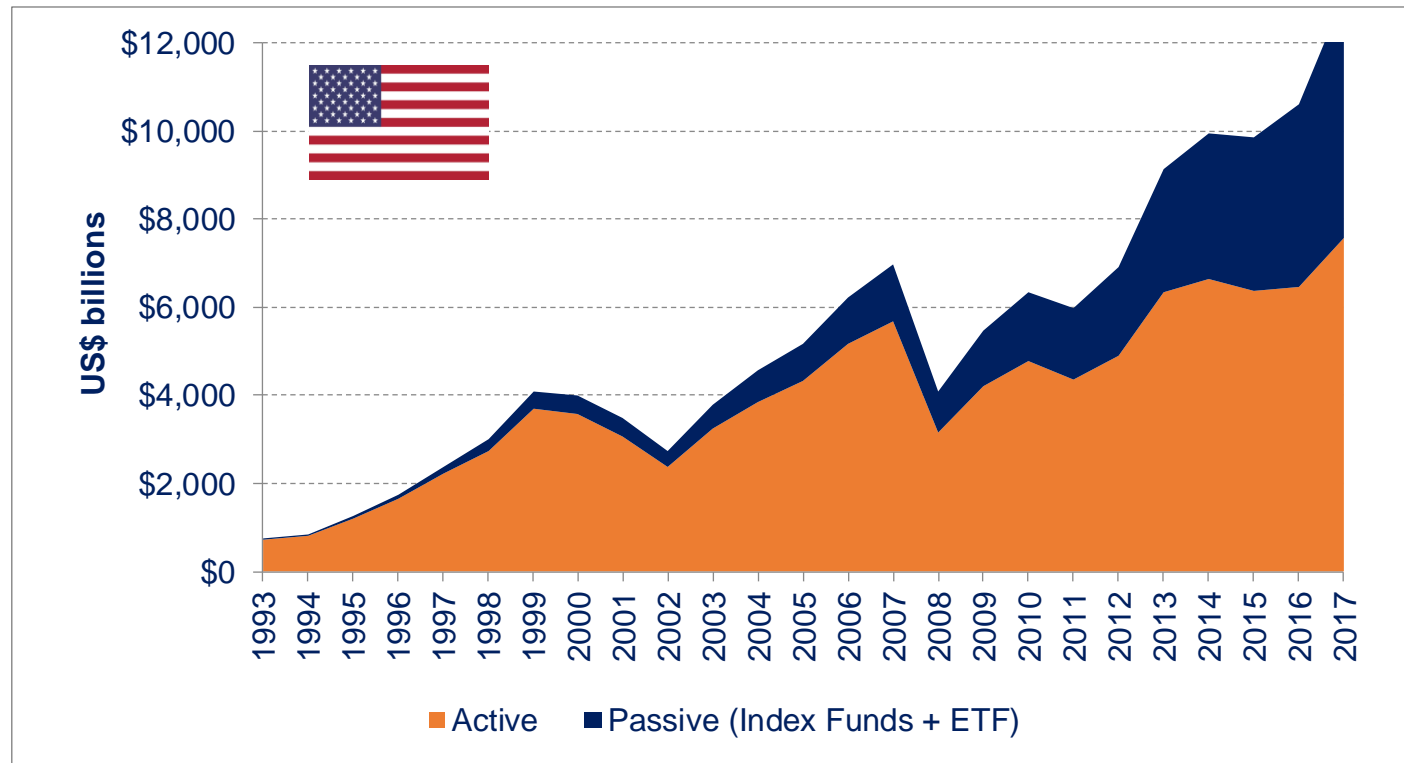


Source: Vanguard ([https://advisors.vanguard.com/VGApp/iip/site/advisor/etfcenter/article/ETF\\_WhatIsIndexing](https://advisors.vanguard.com/VGApp/iip/site/advisor/etfcenter/article/ETF_WhatIsIndexing))



# THE GROWTH OF PASSIVE MANAGEMENT

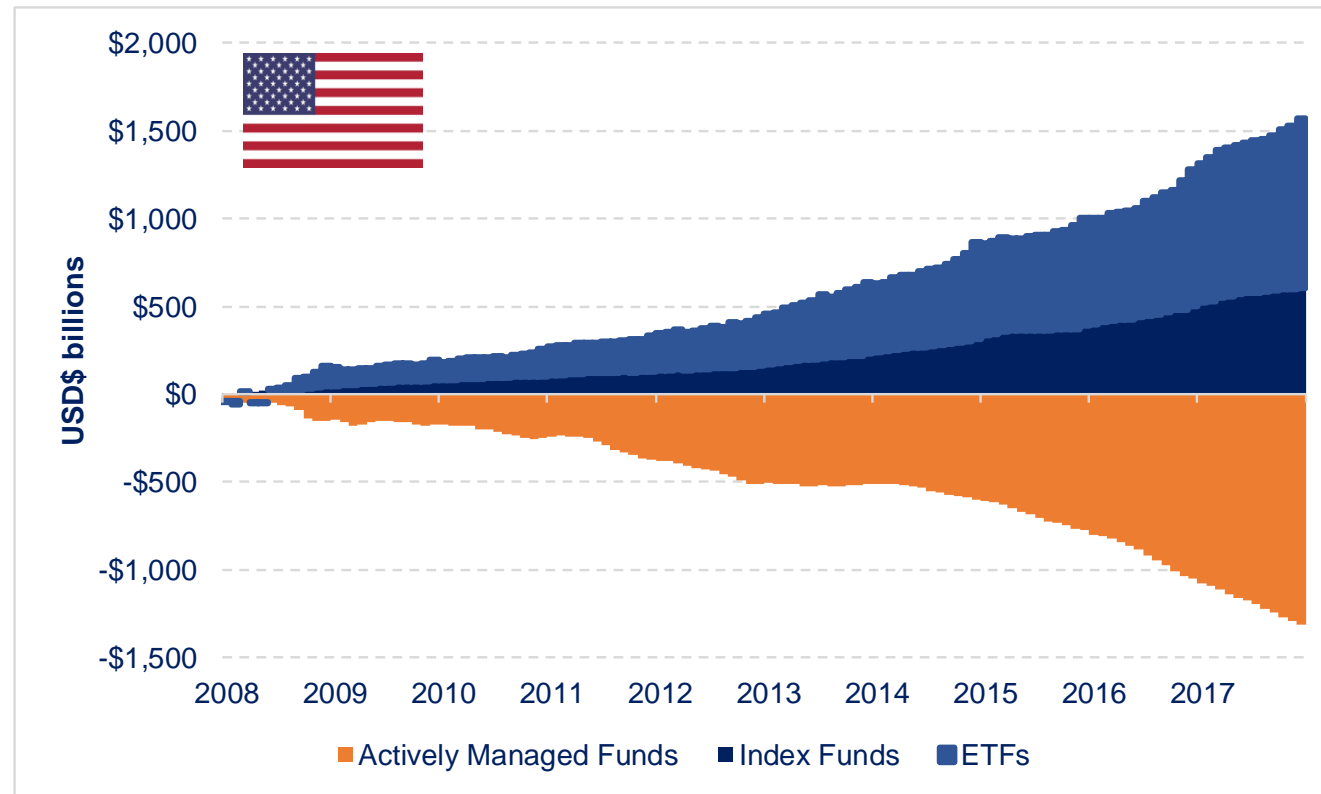
**Figure 3: Active vs. Passive Management  
(Total Net Assets in U.S. Domestic-Equity Mutual Funds, 1993-2017)**



Source: based on data from Investment Company Institute, "2018 Investment Company Fact Book"

# THE GROWTH OF PASSIVE MANAGEMENT (CONT.)

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

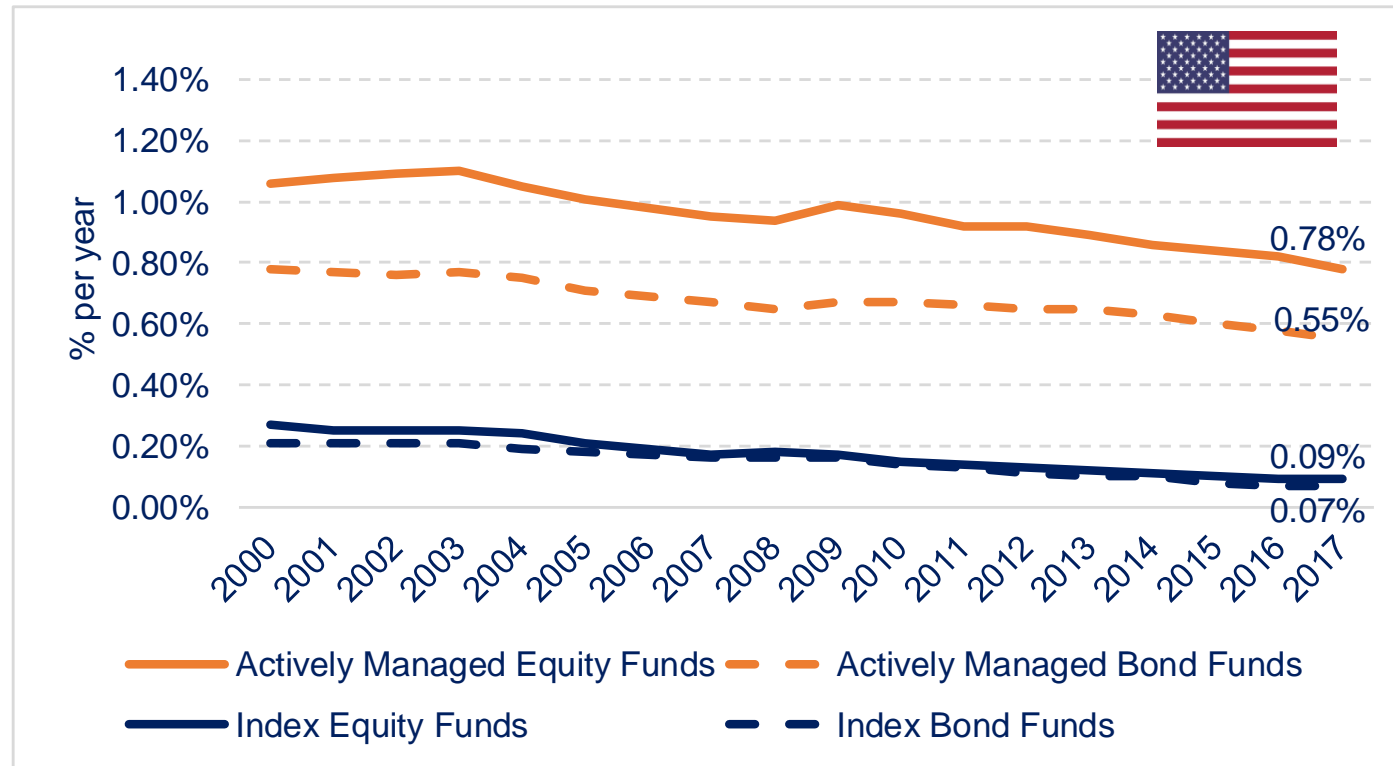


Source: based on data from Investment Company Institute, "2018 Investment Company Fact Book"



# 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"

# The Growth of Passive Investing Worldwide



## THE ACTIVE-PASSIVE QUESTION



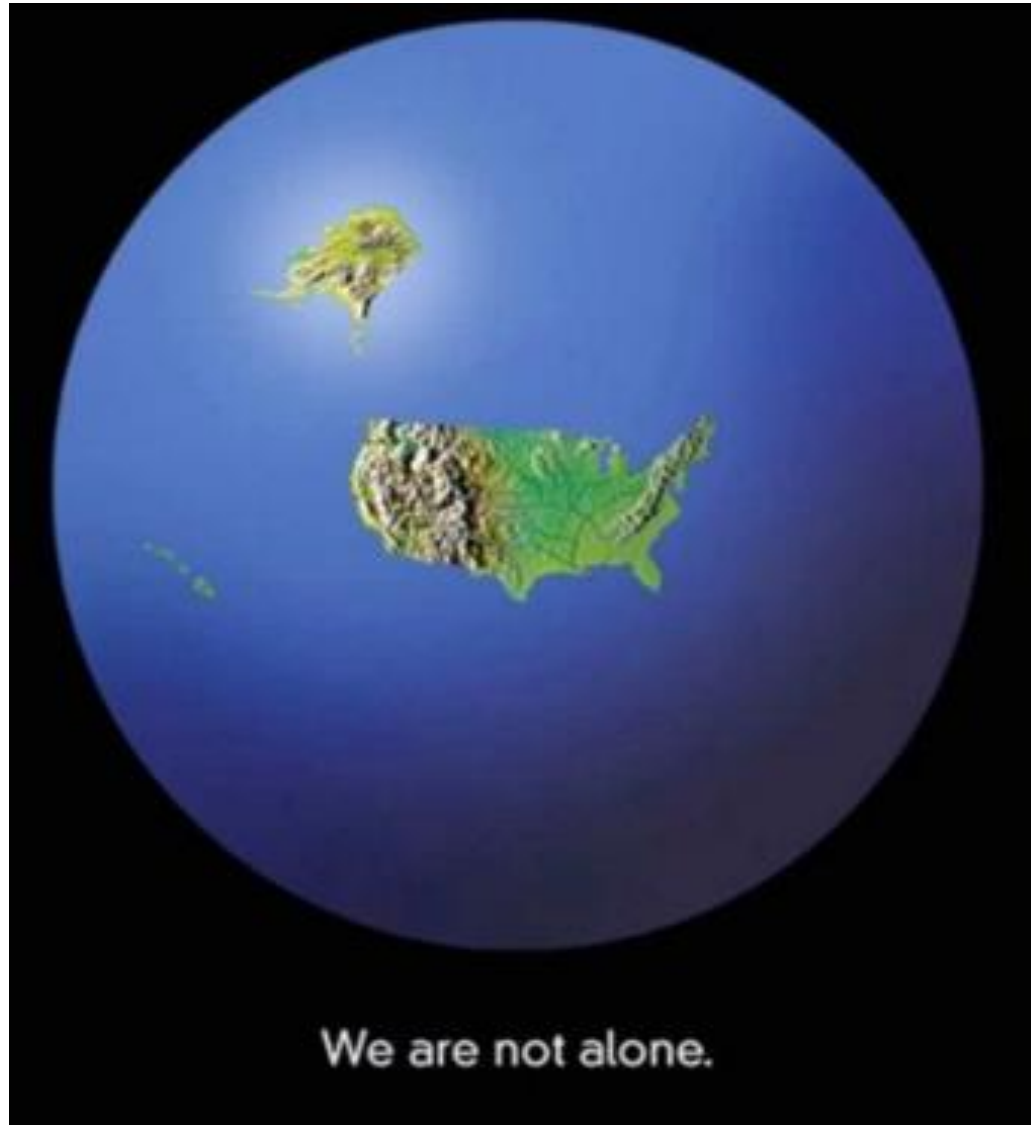
## ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY (2015 UPDATE)



## IMPLICATIONS FOR CANADA



## II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY



“Indexing And Active Fund Management: International Evidence” *Journal Of Financial Economics* (June 2016), with Martijn Cremers, Miguel Ferreira And Laura Starks



SPIVA® AWARD WINNERS

### PEDRO MATOS



Pedro Matos is an Associate Professor in Finance at the University of Virginia's Darden School of Business. His research...

[Full Bio \(/Spiva-Winner-Profiles/Pedro-Matos\)](#)

### MARTIJN CREMERS



Hailing from the Netherlands, his undergraduate degree in Econometrics is from the VU University Amsterdam (1993-1997). ...

[Full Bio \(/Spiva-Winner-Profiles/Martijn-Cremers\)](#)

### MIGUEL FERREIRA



Miguel A. Ferreira holds the Banco BPI Chair in Finance at Nova School of Business and Economics in Lisbon. He has a PhD...

[Full Bio \(/Spiva-Winner-Profiles/Miguel-Ferreira\)](#)

### LAURA STARKS



Laura T. Starks, Ph.D., is the Associate Dean for Research, the Charles E. and Sarah M. Seay Regents Chair of Finance, ...

[Full Bio \(/Spiva-Winner-Profiles/Laura-Starks\)](#)



## II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

# PRESS COVERAGE

2014:

sverigesradio

**The Swedes pay for the wrong funds**



The Best Thing for Active Managers? Passive Investors.

2015:



FINANCIAL TIMES

Index funds and avoiding the generics paradox

Closet tracking: 'Gigantic mis-selling phenomenon'



¿Qué explica que la presencia de los closet trackers en España sea mayor que en otros países?



2016:



Revealing the closet indexers among Canada's mutual funds



OSC to examine actively managed funds

# REGULATORY IMPACT

2016:  
(CONT.)



European Securities and Markets Authority  
**STATEMENT**

Date: 02 February 2016  
ESMA/2016/165

Supervisory work on potential closet index tracking



EFAMA's Report on ESMA's supervisory work on potential closet index tracking  
6 July 2016

2017:

FINANCIAL TIMES

Italian closet trackers sanctioned by regulator

FINANCIAL TIMES

Swedish regulator names closet-tracker funds

2018:



FINANCIAL CONDUCT AUTHORITY

Closet trackers

First published: 14/03/2018



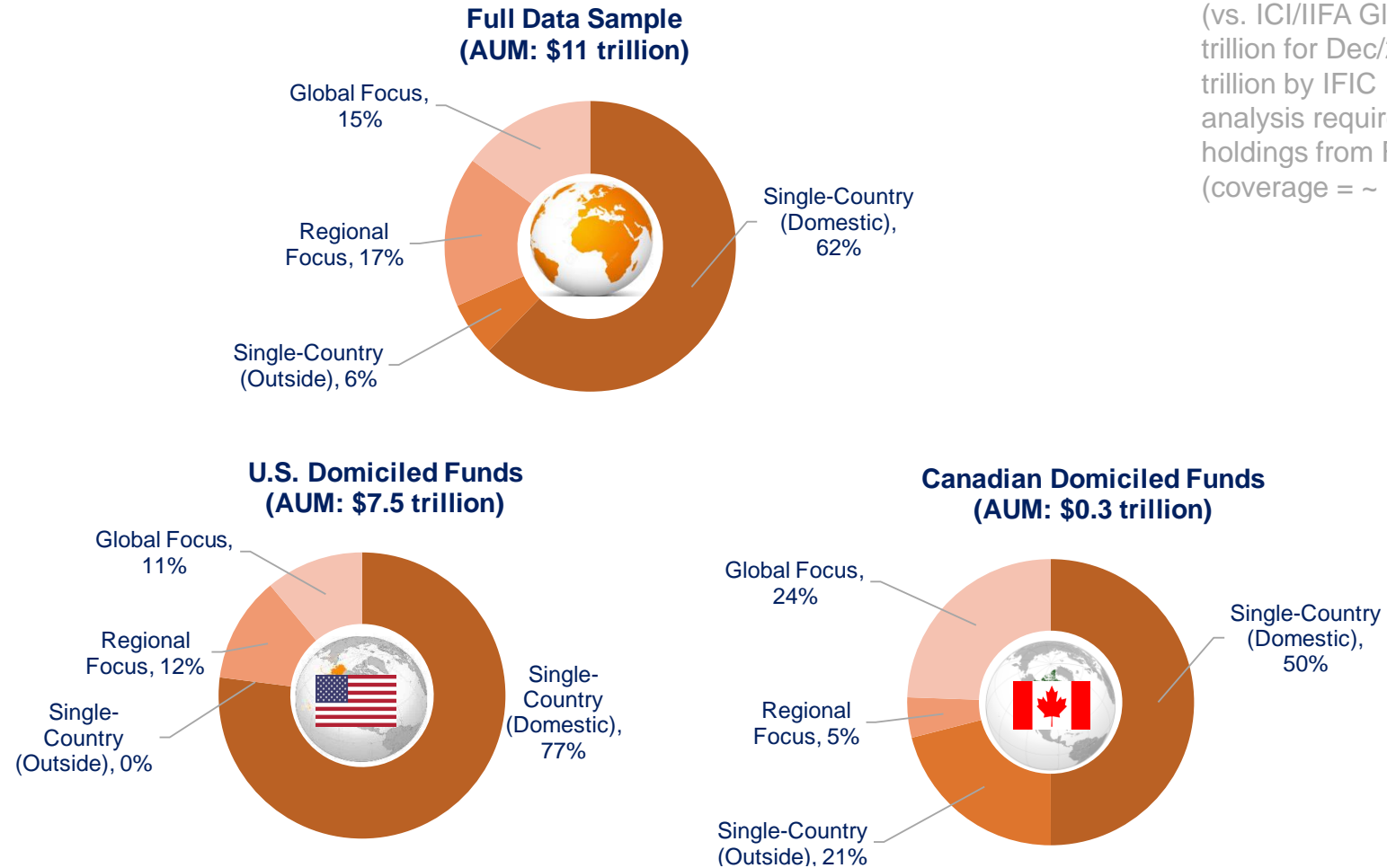
Mutual Fund Fees and Active Share  
April 2018



## 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**



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).





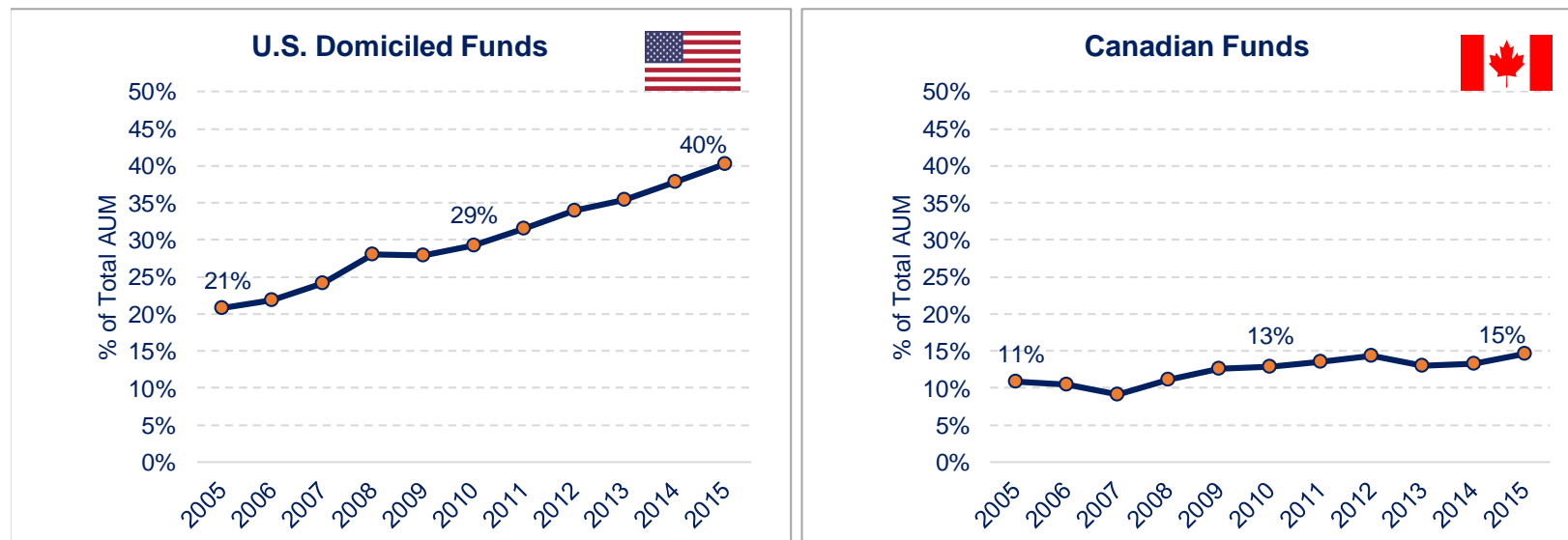
## II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

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

- Explicit indexing = Index funds + index-tracking ETFs

*NOTE:* Morningstar Dec/2017 Passive (Index Funds & ETFs): Canadian-Equity Funds (18%), U.S.-Equity Funds (42%)

Figure 7: Percentage of AUM that is Explicitly Indexed



60% actively managed?

85% actively managed?



## 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)



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

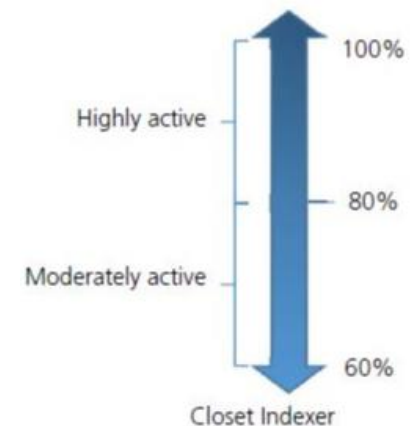
- Decompose portfolio into two parts:

$$\text{Portfolio} = \underset{\substack{\uparrow \\ \text{Passive}}}{[\text{Index}]} + \underset{\substack{\uparrow \\ \text{Active}}}{[\text{Portfolio} - \text{Index}]}$$

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

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

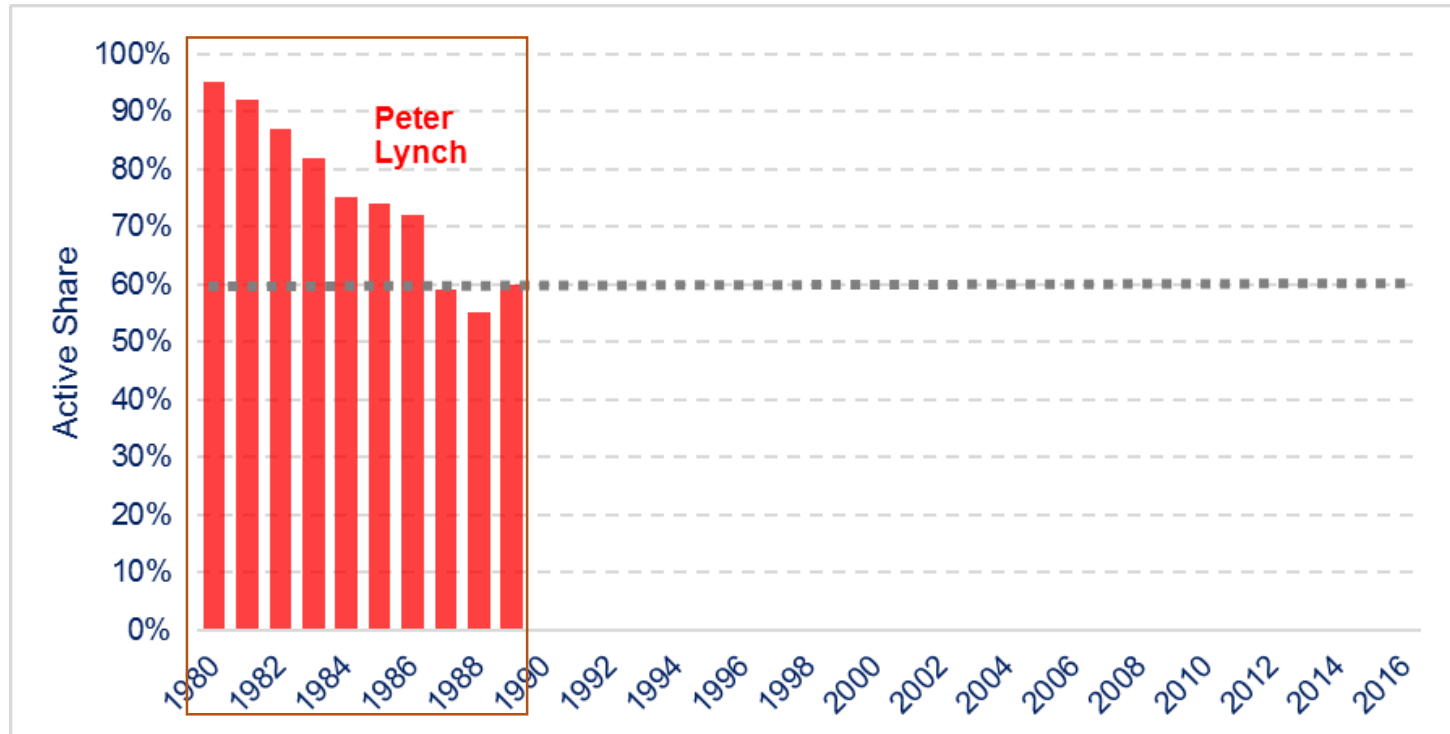
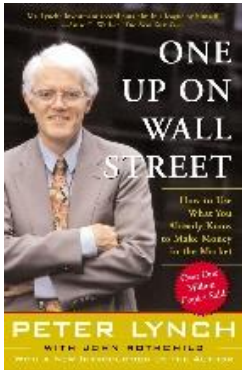
Fraction of portfolio that is different from benchmark  
Between 0% and 100%



## 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)

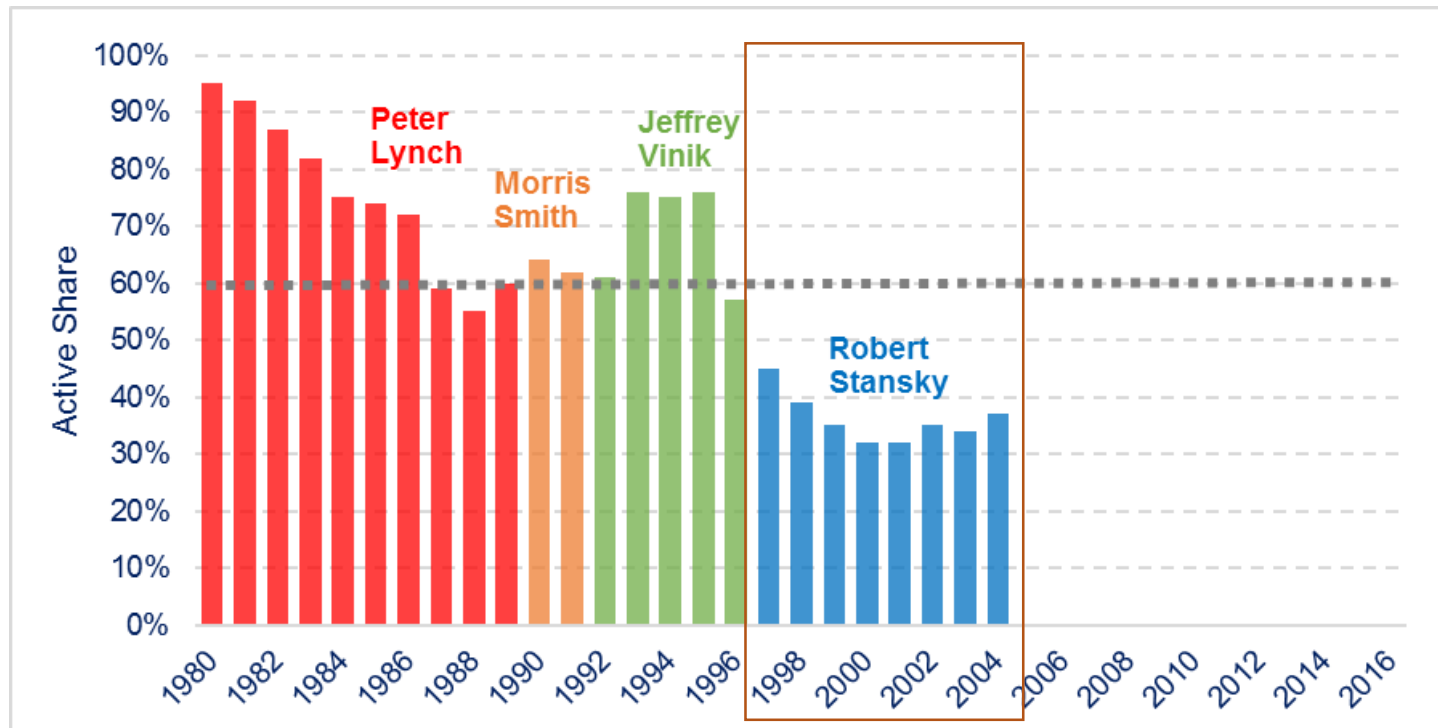


Source: Cremers and Petajisto (2009) and <https://ActiveShare.info>.

## II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

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



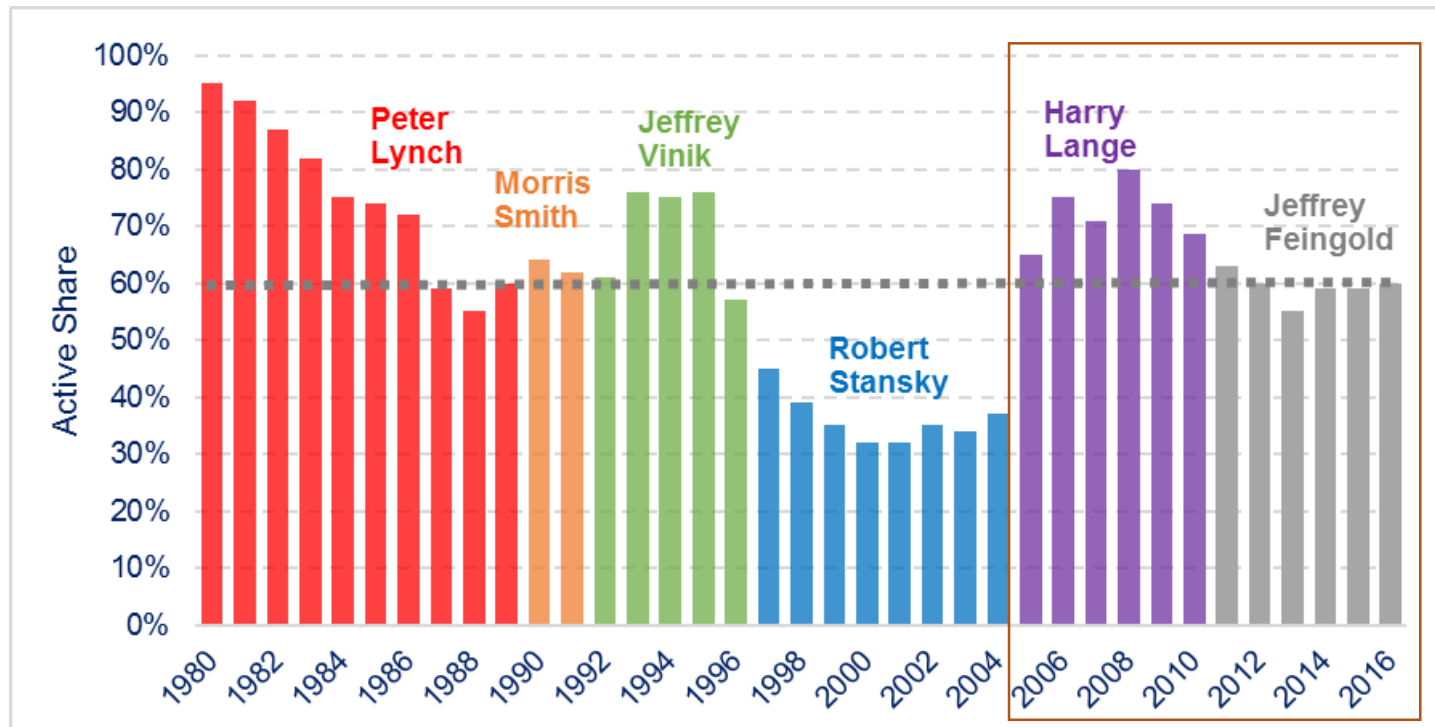
Source: Cremers and Petajisto (2009) and <https://ActiveShare.info>.



## II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

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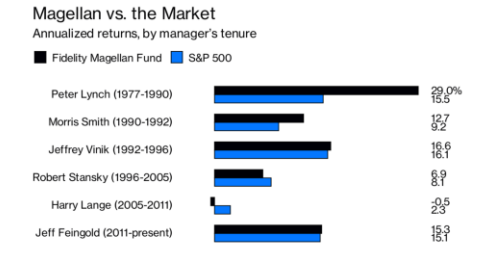
**Figure 8: Active Share Example - Fidelity Magellan Fund (FMAGX, 1980-2016)**



Q Search Bloomberg Businessweek

June 4, 2018, 5:00 AM EDT  
**A Once-Hot Fidelity Fund Is Outperforming Again. Investors Still Don't Care**

Magellan used to be America's biggest mutual fund. Now it's dwarfed by the company's own index fund.



Note: Feingold's returns through May 31, 2018  
 Sources: Bloomberg, Morningstar

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”?

### THE WALL STREET JOURNAL.

THE INTELLIGENT INVESTOR

Is Your Mutual Fund Hiding in the Closet?

### FINANCIAL TIMES

Active fund managers are closet index huggers

### LIPPER ALPHA INSIGHT

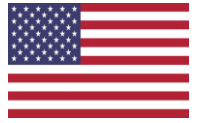
Monday Morning Memo: Active share—a valid measure to evaluate funds?

### MorningstarAdvisor

#### Active Share: What You Need to Know

Fidelity has offered some useful research on this popular metric.

<https://activeshare.info/fund/fidelity-magellan-fund>



**ActiveShare.info**

Enter the name or ticker of a U.S. equity mutual fund to view the Active Share and related data.

Fidelity Magellan Fund: FMAGX

ActiveShare.info is maintained and © by Martijn Cremers, Professor of Finance at the Mendoza College of Business of the University of Notre Dame. Professor Cremers would like to acknowledge Touchstone Investments for its support throughout the development of this website.

### Fidelity Magellan Fund

As of Dec 31, 2016  
Compare Funds  
Export Data

#### Active Share

DEC 31, 2016

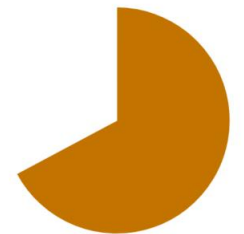
Minimum Active Share  
"Across Benchmarks"



60.2%

Active Share with respect to the S&P 100 benchmark

Active Share for Self-Declared  
Benchmark



67.2%

Active Share with respect to the S&P 500 (the self-declared benchmark)

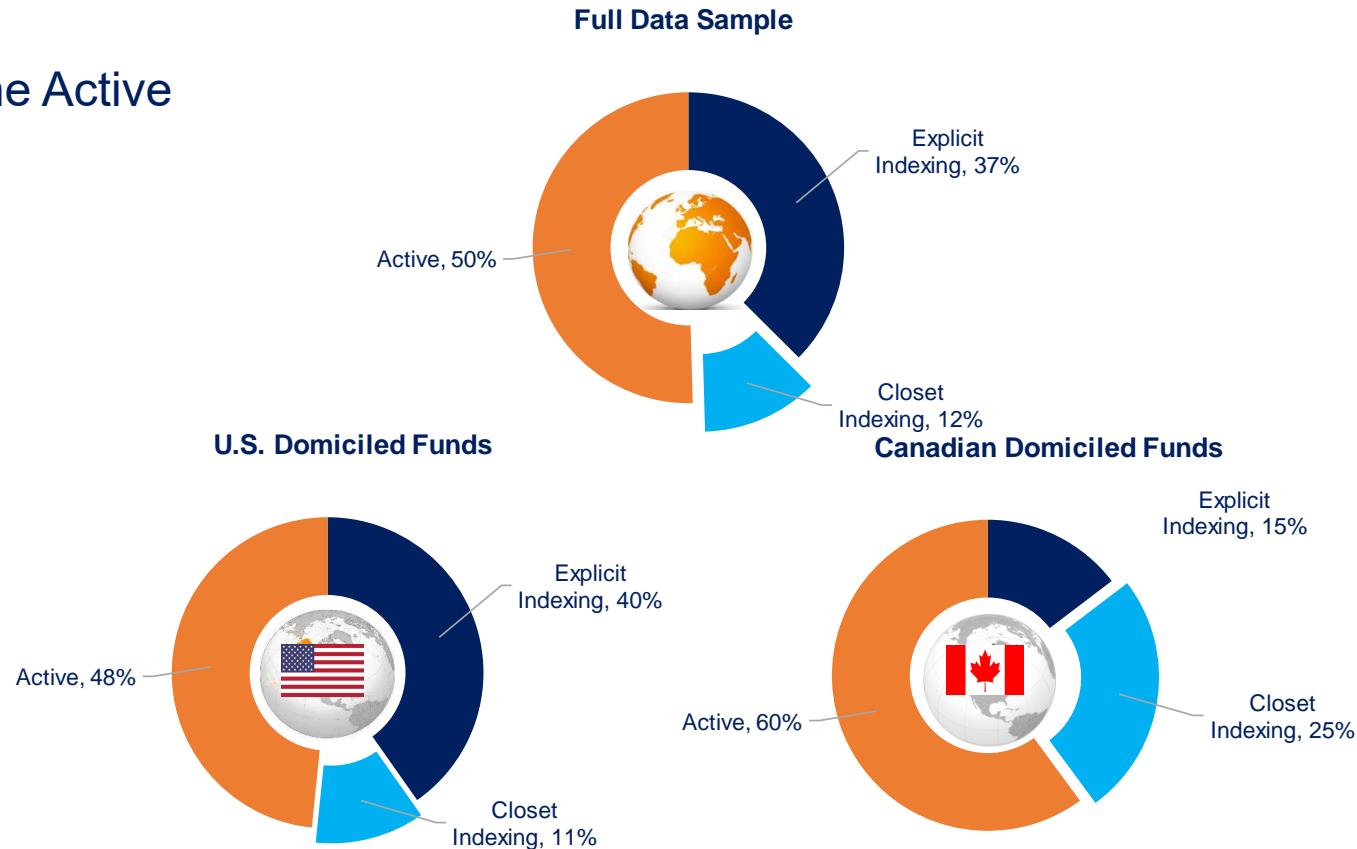


## II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

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

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

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

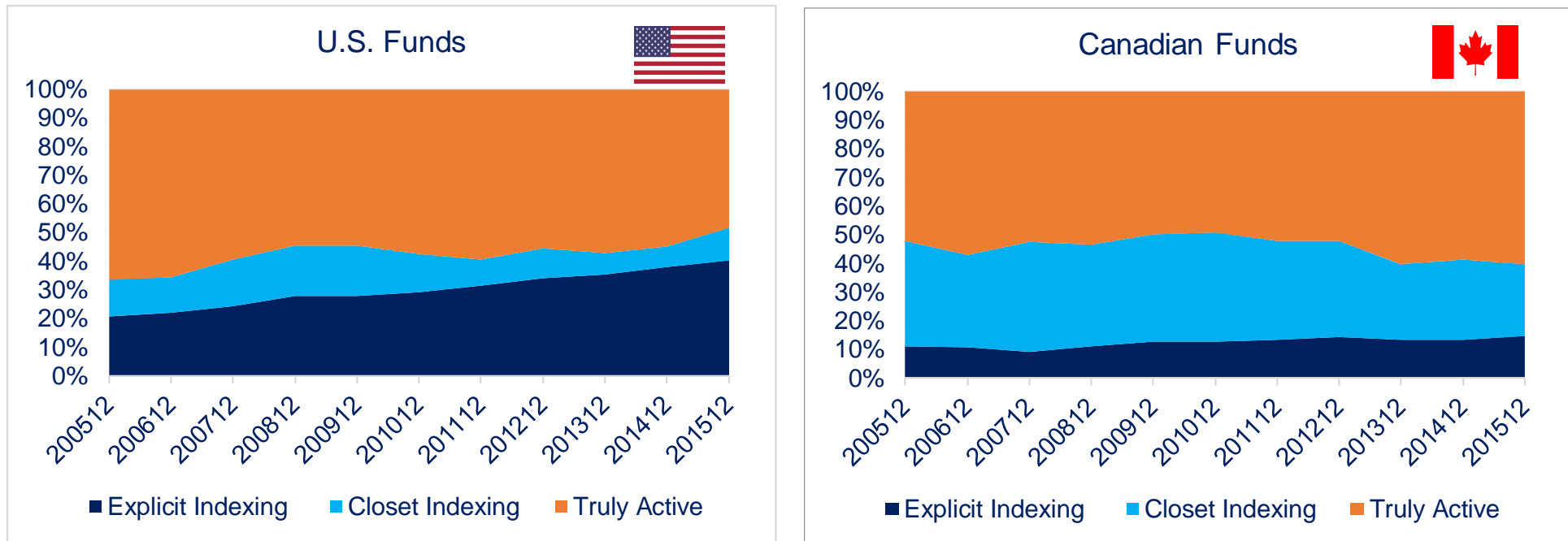




## II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

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

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

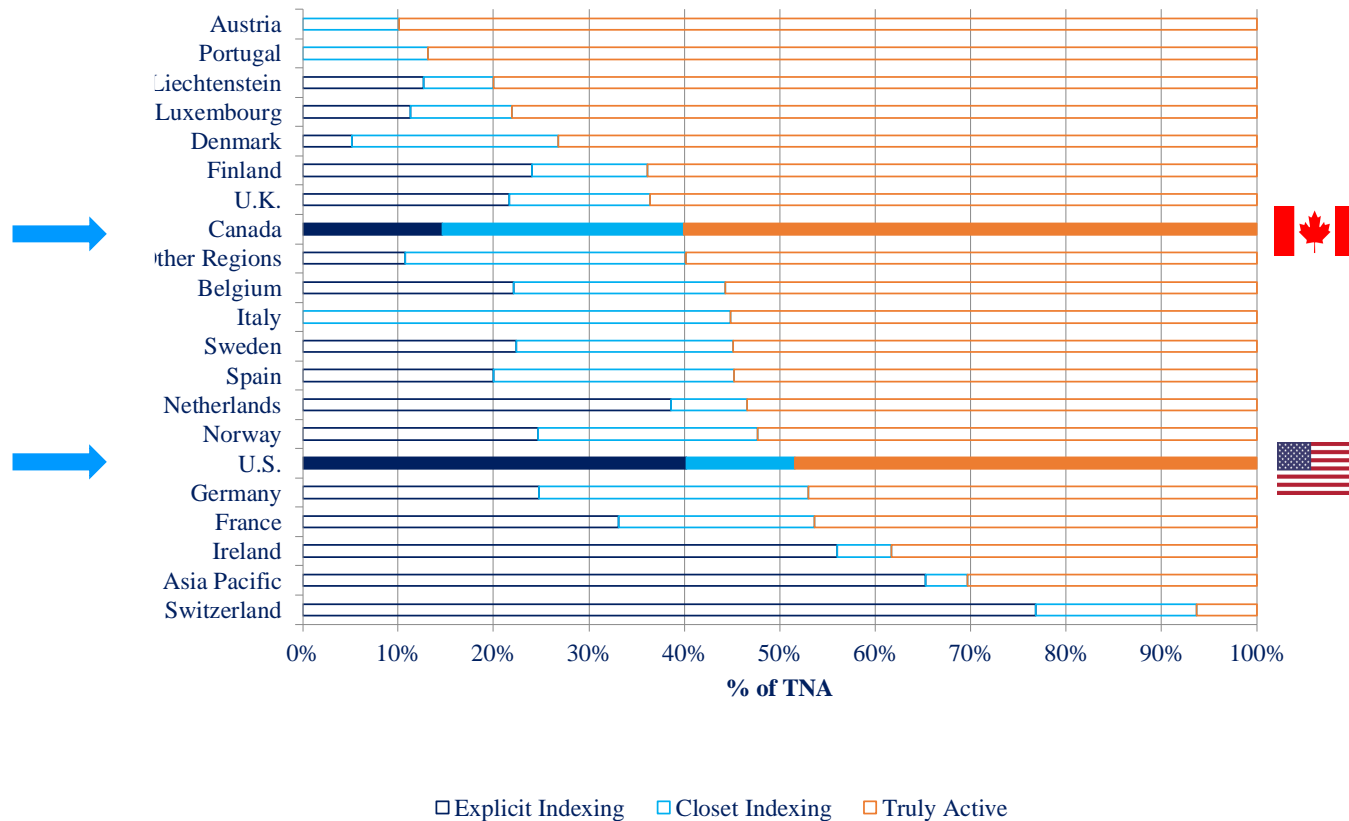


“closet indexer” if the Active Share is below 60%

## II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

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

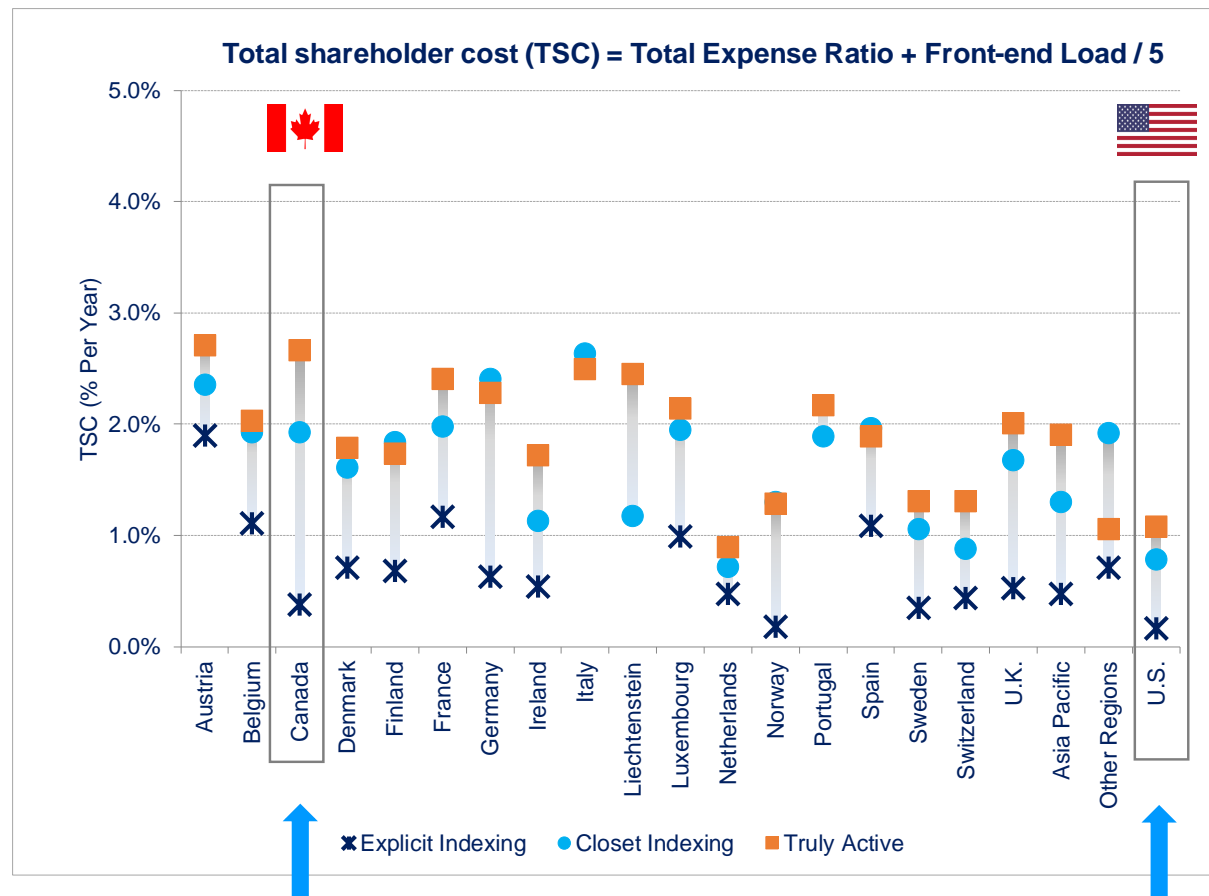
Figure 10: Explicit and Closet Indexing by Country of Domicile  
(Percentage of AUM as of December 2015)



## II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

# QUESTION 3: COMPETITIVE PRESSURE ON ACTIVE FUNDS?

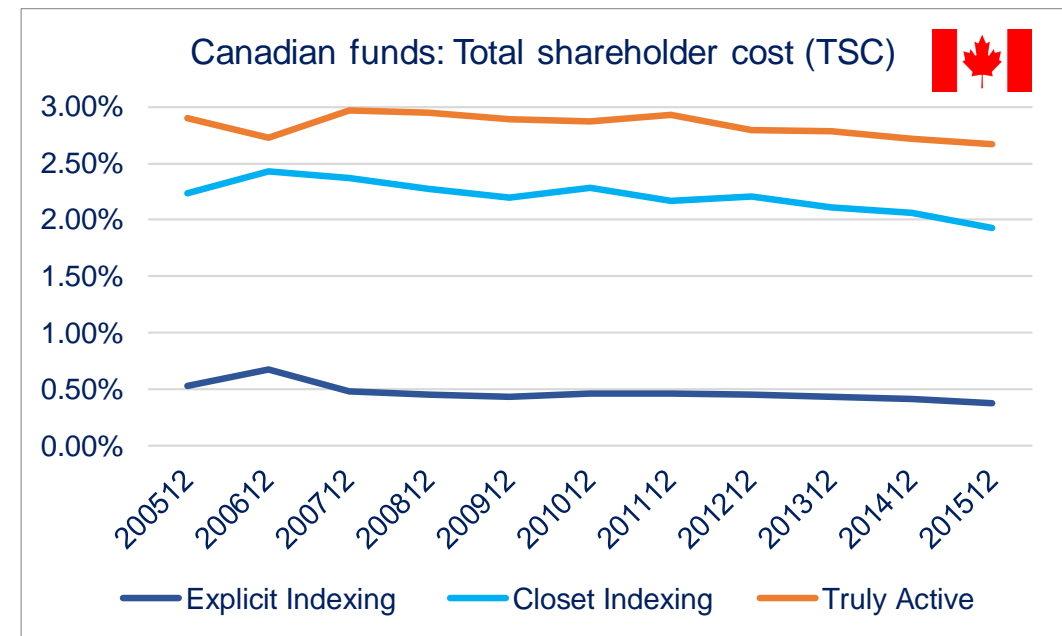
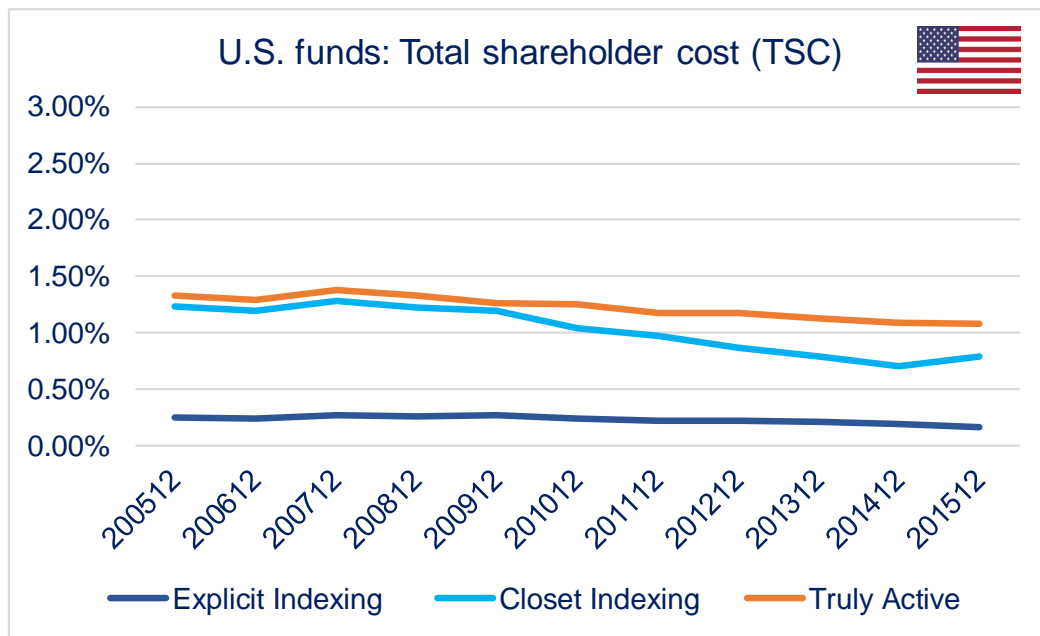
Figure 11: Fees by Country of Domicile  
(Average Total Shareholder Costs - December 2015)



## 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)

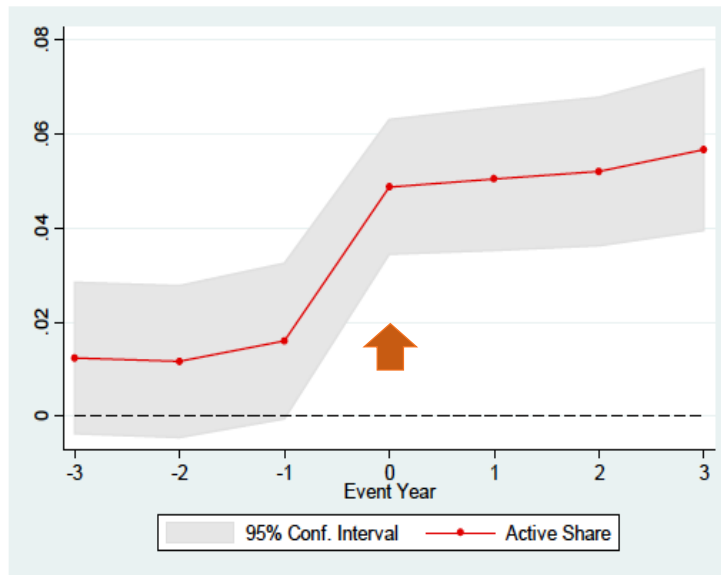


## II. ACTIVE VS. PASSIVE MANAGEMENT – A GLOBAL STUDY

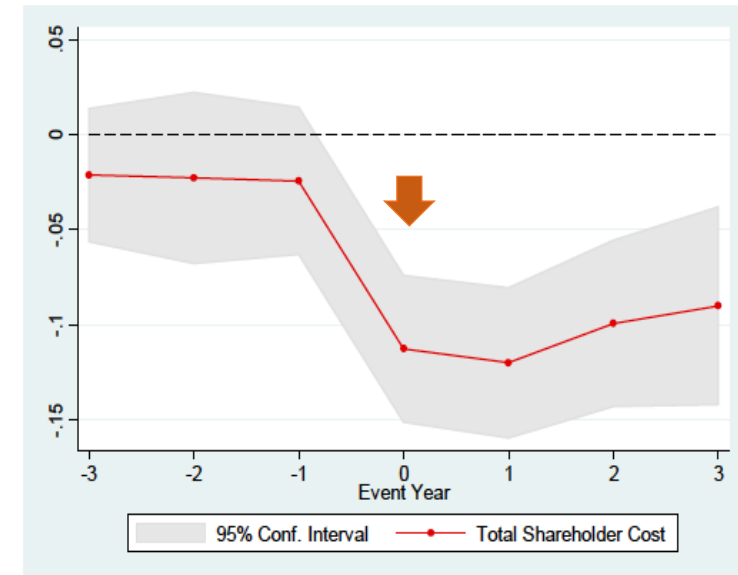
# QUESTION 3: COMPETITIVE PRESSURE ON ACTIVE FUNDS?

**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*

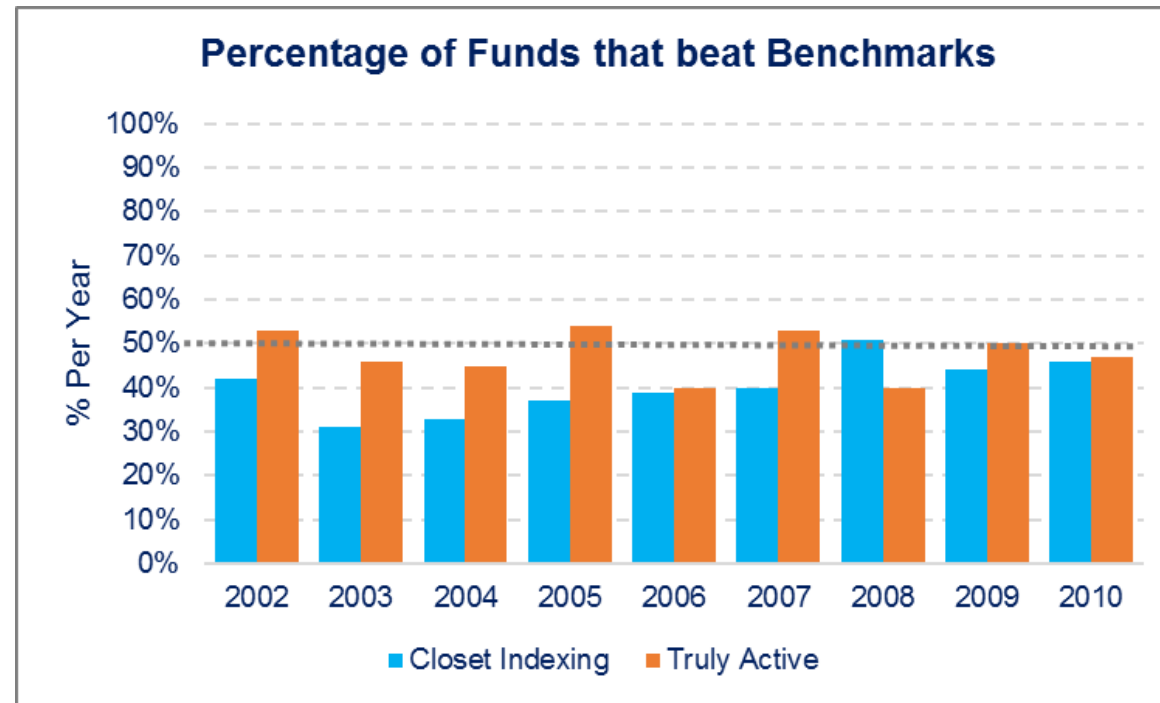


Source: Cremers, Ferreira, Matos and Starks (2016).



# 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)**



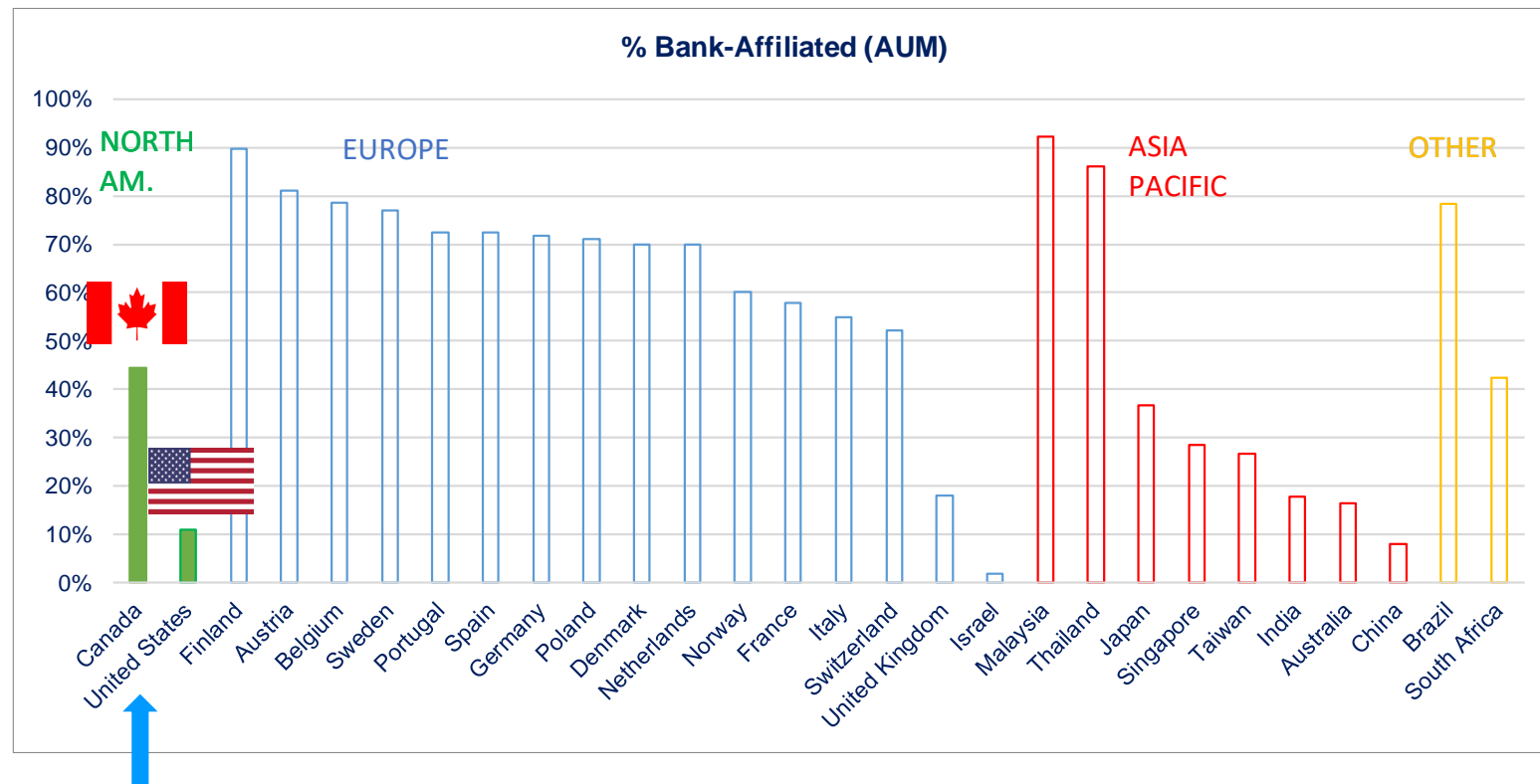
Source: Cremers, Ferreira, Matos and Starks (2016).



## 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.)]



## 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!



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