

# The Inefficient Canadian Market

RESEARCH BY OSAM: APRIL 2016

Despite robust performance, the Canadian market gets little consideration as a dedicated piece of an overall asset allocation outside of the country. Canadian equities have a long history, dating back to 1861, and today it ranks as the world's fourth largest stock market by market capitalization. Over the period from 1900 to 2014, adjusted for inflation, Canadian equities have returned 5.8 percent annualized, which compares favorably to the U.K.'s return of 5.3 percent and slightly lags the U.S. return of 6.5 percent.\*

Over the most recent 20-year period, the Canadian stock market has been one of the best performers in terms of both absolute return and consistency (see Table 1 below). For example, Canada even outpaces the U.S.—widely considered to be the most dynamic equity market in the world—with a winning percentage of 62 percent (135 out of 217 rolling three-year periods). Canada ranks third with an average excess return of 2.1 percent over all rolling time frames, trailing only Australia and Sweden.

## OSAM RESEARCH TEAM

Jim O'Shaughnessy  
Chris Meredith, CFA  
Scott Bartone, CFA  
Travis Fairchild, CFA  
Patrick O'Shaughnessy, CFA  
Ehren Stanhope, CFA  
Manson Zhu, CFA

## CONTENTS

Market Inefficiency  
Stability & Cost Matter  
Factor Alpha Efficacy  
CONCLUSION

**Table 1: Rolling 3-Year Batting averages by Country** (BACKTESTED 1995–2015)

	Australia	Canada	Switzerland	Germany	Spain	France	Great Britain	Japan	Sweden	U.S.	Average Excess Return
Australia		65%	65%	64%	73%	71%	71%	86%	52%	63%	3.7%
Canada	35%		60%	64%	64%	70%	66%	84%	39%	62%	2.1%
Switzerland	35%	40%		58%	57%	66%	73%	86%	41%	54%	0.9%
Germany	36%	36%	42%		57%	62%	54%	77%	37%	34%	-0.1%
Spain	27%	36%	43%	43%		53%	53%	70%	36%	46%	-1.6%
France	29%	30%	34%	38%	47%		52%	77%	29%	47%	-0.8%
Great Britain	29%	34%	27%	46%	47%	48%		78%	22%	37%	-0.9%
Japan	14%	16%	14%	23%	30%	23%	22%		16%	26%	-7.0%
Sweden	48%	61%	59%	63%	64%	71%	78%	84%		57%	3.4%
U.S.	37%	38%	46%	66%	54%	53%	63%	74%	43%		0.2%

Source: "The Dangers of Indexing in Canada" (Feb. 2016) <http://factorexerts.com/commentary.aspx>

At O'Shaughnessy Asset Management (OSAM), we believe Canadian equities present investors with an overlooked opportunity for consistent long-term return. In this paper, we will examine the structure of the Canadian market and highlight why we consider it to be less efficient than the U.S. with the implication that inefficiency results in the potential to outperform. As well, based on our research spanning nearly three decades, we will highlight why the Canadian equity space provides equivalent or greater alpha potential—including greater safety and less cost—relative to other less efficient markets.

\* Elroy Dimson, Paul Marsh, Mike Staunton; "Credit Suisse Global Investment Returns Yearbook 2015" (Feb. 2015) <http://bit.ly/16TVzOJ>

## O'Shaughnessy Asset Management, LLC

Six Suburban Avenue ■ Stamford, CT 06901 ■ 203.975.3333 Tel ■ 203.975.3310 Fax

### Market Inefficiency

The benchmark indices for the U.S. and Canada, the S&P 500, and the S&P/TSX cover the cap spectrum within their respective markets. However, the Canadian market is heavily skewed towards small and mid cap stocks. As of year end 2015, 33 percent of companies on the S&P/TSX are classified as mid cap while 54 percent are in the small cap space—compared to only 24 percent and one percent in the small and mid cap buckets within the U.S. market (see Figure 1).

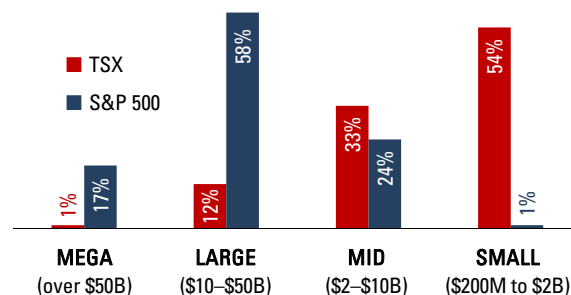
This is important because small and mid cap stocks exhibit greater dispersion between the highest and lowest performers. To illustrate this point, we perform a simple test assuming we know in advance the return of each stock over the next 12 months and rank the return by quintile within each market cap bucket (see Figure 2). The universe of small cap stocks within Canada has the greatest return spread between the top and bottom quintile (135 percent). As we move up the capitalization range, the spread declines to 98 percent for mid cap and 84 percent for large cap stocks. The wider dispersion in returns for small and mid cap companies suggests there are greater inefficiencies as you move down the capitalization spectrum. Aligning portfolio characteristics with consistent winners while avoiding traits of consistent underperformers provides investors with the potential to outperform over the long run.

### Stability & Cost Matter

While an inefficiently-priced market provides alpha opportunity for investors, it is not a cure all for achieving excess returns. Common concerns about investing outside of the U.S. are related to *stability* and *cost*. When comparing Canada against the U.S. and emerging markets, we observe a favorable climate for investing in equities according to rankings by three non-governmental organizations (see Table 2). Based on corruption, ease of doing business, and political stability, Canada ranks in the best 15 out of more than 150 countries. Of equal importance is the low ticket charge from custodians associated with trading a Canadian stock at \$9 relative to the emerging space at \$48. This cost differential makes smaller account sizes more viable in Canada, since fees can significantly erode return. Finally, Canada offers investors more favorable tax treatment than emerging markets. Depending on the country, emerging market countries levy as much as a two percent local or stamp duty tax on all transactions.

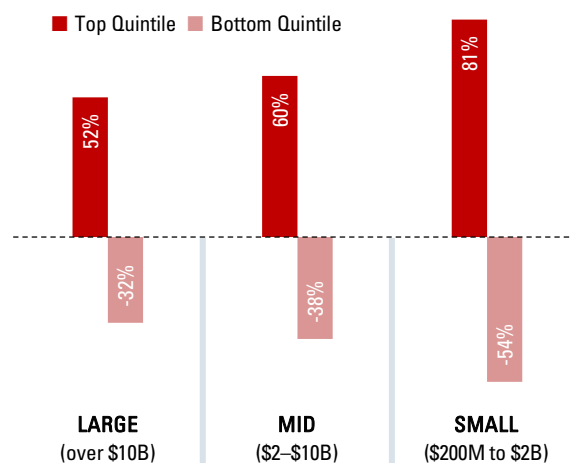
**Figure 1: Opportunity Set — TSX vs. S&P 500**

(As of 12/31/15)



Source: OSAM calculations

**Figure 2: Excess Return Spread by Market Cap**



(As of 12/31/15) Source: OSAM calculations

**Table 2**

Ranking (the lower the number the better the ranking)	Canada	U.S.	Emerging <sup>1</sup>
Corruption <sup>2</sup>	9	16	70
Ease of Doing Business <sup>3</sup>	14	7	56
Political Stability <sup>4</sup>	11	21	80
Ticket Charge (\$) <sup>5</sup>	9	6	48
Taxes (%)	0	0	0-2

<sup>1</sup> Top 10 emerging countries by weight within the MSCI Emerging Markets Index.

<sup>2</sup> <http://www.transparency.org/cpi2015>

<sup>3</sup> <http://www.doingbusiness.org/rankings>

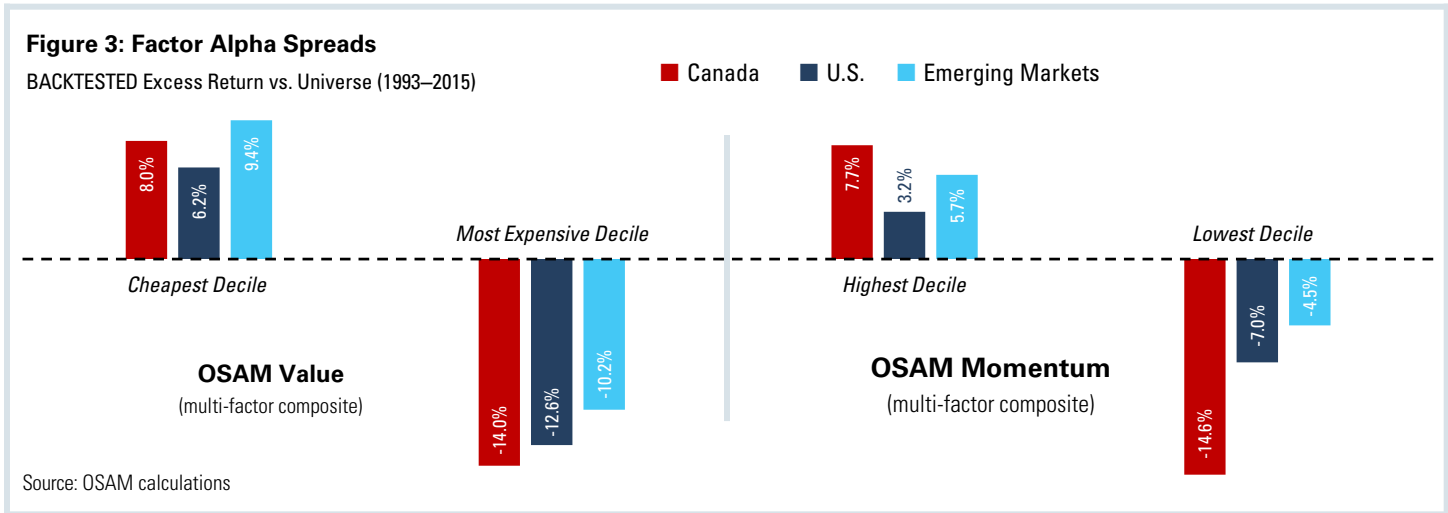
<sup>4</sup> <http://fsi.fundforpeace.org/rankings-2015>

<sup>5</sup> Average of three large custodians.

Source: OSAM calculations

### Factor Alpha Efficacy

A common way for quantitative researchers to evaluate the efficacy of a factor is to compare the return spread between the highest- and lowest-ranking decile. To understand where Canada falls on the efficiency spectrum we compare it to the U.S.—widely considered the most difficult market to outperform—and to a less efficient region such as emerging markets.



Over the period spanning from 1993 to 2015, the spread between the cheapest and most expensive decile by OSAM Value in Canada is 22 percent—beating the 19 percent spread for the U.S. The efficacy of Value in Canada also exceeds emerging markets by approximately 2.4 percent. For OSAM Momentum, we see even more impressive results in Canada. The spread between the highest- and lowest-scoring Momentum decile in Canada is approximately 22.3 percent—exceeding the spread offered in both the U.S. and emerging markets by more than 12 percent. The wide dispersion suggests there are significant benefits derived from aligning portfolio characteristics with the proven themes of valuation and momentum. In particular, within Canada these themes have exhibited outsized efficacy relative to the U.S. and even emerging markets.

### CONCLUSION

Small and mid cap stocks account for approximately 87 percent of the investable opportunity set within Canada. As well, we have established greater dispersion of returns between the top and bottom performers as you move down the capitalization spectrum, indicating greater inefficiencies for active managers to exploit. We believe the business climate in Canada is among the best in the world—it achieves a high ranking based on corruption, ease of doing business, and stability, while also keeping costs low for cheap investor access. Finally, the themes of value and momentum investing show particular efficacy in Canada, exhibiting spreads in excess of the U.S. and emerging markets

OSAM has managed Canadian equity strategies since 1997, utilizing the themes of value and momentum as the primary stock selection criteria. O’Shaughnessy All-Canadian equity has beaten the S&P/TSX in 100 percent of all rolling three-year periods since inception and has generated 5.5 percent annualized excess return\* during that period.

\* Gross of fees, CAD (as of 2/29/16). Inception date: February 1, 2007.

**General Legal Disclosures & Hypothetical and/or Backtested Results Disclaimer**

The material contained herein is intended as a general market commentary. Opinions expressed herein are solely those of O'Shaughnessy Asset Management, LLC and may differ from those of your broker or investment firm.

It should not be assumed that your account holdings correspond directly to any comparative indices. Individual accounts may experience greater dispersion than the composite level dispersion (which is an asset weighted standard deviation of the accounts in the composite for the full measurement period). This is due a variety of factors, including but not limited to, the fresh start investment approach that OSAM employs and the fact that each account has its own customized re-balance frequency. Over time, dispersion should stabilize and track more closely to the composite level dispersion. Gross of fee performance computations are reflected prior to OSAM's investment advisory fee (as described in OSAM's written disclosure statement), the application of which will have the effect of decreasing the composite performance results (for example: an advisory fee of 1% compounded over a 10-year period would reduce a 10% return to an 8.9% annual return). Portfolios are managed to a target weight of 3% cash. Account information has been compiled by OSAM derived from information provided by the portfolio account systems maintained by the account custodian(s), and has not been independently verified. In calculating historical asset class performance, OSAM has relied upon information provided by the account custodian or other sources which OSAM believes to be reliable. OSAM maintains information supporting the performance results in accordance with regulatory requirements. Please remember that different types of investments involve varying degrees of risk, that past performance is no guarantee of future results, and there can be no assurance that any specific investment or investment strategy (including the investments purchased and/or investment strategies devised and/or implemented by OSAM) will be either suitable or profitable for a prospective client's portfolio. OSAM is a registered investment adviser with the SEC and a copy of our current written disclosure statement discussing our advisory services and fees continues to remain available for your review upon request.

Hypothetical performance results shown on the preceding pages are backtested and do not represent the performance of any account managed by OSAM, but were achieved by means of the retroactive application of each of the previously referenced models, certain aspects of which may have been designed with the benefit of hindsight.

The hypothetical backtested performance does not represent the results of actual trading using client assets nor decision-making during the period and does not and is not intended to indicate the past performance or future performance of any account or investment strategy managed by OSAM. If actual accounts had been managed throughout the period, ongoing research might have resulted in changes to the strategy which might have altered returns. The performance of any account or investment strategy managed by OSAM will differ from the hypothetical backtested performance results for each factor shown herein for a number of reasons, including without limitation the following:

- Although OSAM may consider from time to time one or more of the factors noted herein in managing any account, it may not consider all or any of such factors. OSAM may (and will) from time to time consider factors in addition to those noted herein in managing any account.
- OSAM may rebalance an account more frequently or less frequently than annually and at times other than presented herein.
- OSAM may from time to time manage an account by using non-quantitative, subjective investment management methodologies in conjunction with the application of factors.
- The hypothetical backtested performance results assume full investment, whereas an account managed by OSAM may have a positive cash position upon rebalance. Had the hypothetical backtested performance results included a positive cash position, the results would have been different and generally would have been lower.
- The hypothetical backtested performance results for each factor do not reflect any transaction costs of buying and selling securities, investment management fees (including without limitation management fees and performance fees), custody and other costs, or taxes – all of which would be incurred by an investor in any account managed by OSAM. If such costs and fees were reflected, the hypothetical backtested performance results would be lower.
- The hypothetical performance does not reflect the reinvestment of dividends and distributions therefrom, interest, capital gains and withholding taxes.
- Accounts managed by OSAM are subject to additions and redemptions of assets under management, which may positively or negatively affect performance depending generally upon the timing of such events in relation to the market's direction.
- Simulated returns may be dependent on the market and economic conditions that existed during the period. Future market or economic conditions can adversely affect the returns.

## Composite Performance Summary: O'Shaughnessy All-Canadian Equity

Time Period	"Blended" Gross Rate of Return (%)	Net Rate of Return (%)	Primary Index Return (%) (S&P/TSX Index)	Number of Portfolios	Internal Dispersion	Composite Assets (\$ mil)	3-Yr Annual Std Dev	3-Yr Annual Std Dev Primary Index	Composite Assets as a % of Firm's Assets	Wrap Accounts as a % of Composite Accounts
2015	0.58	-0.27	-8.32	≤5	N/A	440.1	8.53	8.36	5.94	N/A
2014	5.41	4.52	10.56	≤5	N/A	492.4	8.20	8.21	6.14	N/A
2013	34.31	33.20	12.99	≤5	N/A	462.8	10.08	10.11	6.75	N/A
2012	11.28	10.35	7.19	≤5	N/A	329.7	10.81	11.48	6.89	N/A
2011	-3.94	-4.76	-8.71	≤5	N/A	330.5	13.98	14.80	7.36	N/A
2010	26.08	25.04	17.61	≤5	N/A	342.2	18.63	19.95	6.81	N/A
2009	29.88	28.81	35.06	≤5	N/A	293.2	N/A	N/A	5.61	N/A
2008	-30.39	-31.00	-33.00	≤5	N/A	216.8	N/A	N/A	4.10	N/A
2/1/07–12/31/07	12.69	11.83	8.58	≤5	N/A	184.0	N/A	N/A	1.73	N/A

"Blended" gross returns are a combination of "true" gross and "pure" gross and are presented as supplemental information.

### Basis of Presentation:

O'Shaughnessy Asset Management, LLC ("OSAM"), founded in 2007, is a Stamford, CT based quantitative money management firm and an SEC Registered Investment Advisor. We deliver a broad range of equity strategies, from micro cap to large cap, and growth to value. Our clients are individual investors, institutional investors, and the high-net-worth clients of financial advisors. James O'Shaughnessy and his team left Bear Stearns to form OSAM in July 2007. All the GIPS® rules of portability were met. Jim maintained continuous management of all accounts during the transition from BSAM to OSAM, which was completed in March 2008. The performance of a past firm or affiliation is being attributed to the performance of the current firm for all the periods starting 1996.

OSAM claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. OSAM has been independently verified for the periods of 2007-2015. BSAM was independently verified in compliance with GIPS 2005-2006 and AIMR-PPS for the periods of 2002 - 2004. The verification reports are available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

A complete list of OSAM's composite descriptions is available upon request.

The O'Shaughnessy All Canadian Equity strategy (the "Composite") is designed for investors who seek exposure to the Canadian Equity market. The strategy employs a model that invests in what the manager believes are the best growth and value stock ideas across all cap ranges. From a final ranking list of approximately 300 securities, an average of 70-100 names are targeted for portfolio inclusion at rebalance. Names are weighted based on conviction and are unconstrained by sector or market cap. The strategy is periodically rebalanced.

### Selection Criteria and Valuation Procedures:

The Composite represents the performance of the All Canadian Equity Fund managed through the Royal Bank of Canada. The Composite was initiated and created in June 2008. Gross of fee returns are calculated by adding back the monthly portion of annual management expense ratio to the NAV derived net of fee monthly returns. The net of fee return data shown in this presentation represents the reduction of the OSAM investment management charged to separately managed accounts. The fee schedule is: 0.55% on the first \$25mm, 0.45% on the next \$75 to \$100mm, and 0.35% thereafter.

Internal dispersion is calculated using the equal weighted standard deviation of annual net returns of those portfolios that were included in the composite for the entire year. AUM data is presented from December 31, 2007 forward, consistent with the inception of our firm, and N/A is shown for prior periods. All investments are in Canadian equities and all returns are stated in Canadian Dollars. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

### Composite Benchmark(s):

The S&P/TSX Composite Index is an index of the stock (equity) prices of the largest companies on the Toronto Stock Exchange as measured by market capitalization. The Toronto Stock Exchange listed companies in this index comprises about 71% of market capitalization for all Canadian-based companies listed on the TSX.

## Composite Performance Summary: O'Shaughnessy All-Canadian Equity (ISA)

Time Period	Gross Rate of Return (%)	Net Rate of Return (%)	Primary Index Return (%) (S&P/TSX Index)	Number of Portfolios	Internal Dispersion	Composite Assets (\$ mil)	3-Yr Annual Std Dev	3-Yr Annual Std Dev Primary Index	Percent of Firm's Assets
2015	0.86	0.56	-8.32	≤5	N/A	308.3	N/A	N/A	4.16
5/1/14–12/31/14	0.83	0.48	1.77	≤5	N/A	231.6	N/A	N/A	2.89

### Basis of Presentation:

O'Shaughnessy Asset Management, LLC ("OSAM"), founded in 2007, is a Stamford, CT based quantitative money management firm and an SEC Registered Investment Advisor. We deliver a broad range of equity strategies, from micro cap to large cap, and growth to value. Our clients are individual investors, institutional investors, and the high-net-worth clients of financial advisors. James O'Shaughnessy and his team left Bear Stearns to form OSAM in July 2007. All the GIPS® rules of portability were met. Jim maintained continuous management of all accounts during the transition from BSAM to OSAM, which was completed in March 2008. The performance of a past firm or affiliation is being attributed to the performance of the current firm for all the periods starting 1996.

OSAM claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. OSAM has been independently verified for the periods of 2007-2015. BSAM was independently verified in compliance with GIPS 2005-2006 and AIMR-PPS for the periods of 2002 - 2004. The verification reports are available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation.

A complete list of OSAM's composite descriptions is available upon request.

The O'Shaughnessy All Canadian Equity strategy (the "Composite") is designed for investors who seek exposure to the Canadian Equity market. The strategy employs a model that invests in what the manager believes are the best growth and value stock ideas across all cap ranges. From a final ranking list of approximately 300 securities, an average of 70-100 names are targeted for portfolio inclusion at rebalance. Names are weighted based on conviction and are unconstrained by sector or market cap. The strategy is periodically rebalanced.

### Selection Criteria and Valuation Procedures:

The Composite was created in May 2014 and represents the performance of our fee paying, non wrap separately managed accounts invested in the All Canadian Equity - (ISA) strategy, regardless of asset size. The net of fee return data shown in this presentation represents the reduction of the actual OSAM investment management fee charged. Institutional separate accounts are charged an annual investment advisory fee of 0.55% on the first \$25 million, 0.45% on the next \$75 million, and 0.35% on assets over \$100 million.

Internal dispersion is calculated using the equal weighted standard deviation of annual net returns of those portfolios that were included in the composite for the entire year. AUM data is presented from December 31, 2007 forward, consistent with the inception of our firm, and N/A is shown for prior periods. All investments are in Canadian equities and all returns are stated in Canadian Dollars. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

### Composite Benchmark(s):

The S&P/TSX Composite Index is an index of the stock (equity) prices of the largest companies on the Toronto Stock Exchange as measured by market capitalization. The Toronto Stock Exchange listed companies in this index comprises about 71% of market capitalization for all Canadian-based companies listed on the TSX.