

## HORIZON KINETICS SPIN-OFF INDEXES OPPORTUNITIES IN SPECIAL SITUATIONS

Prepared in January 2016

470 Park Avenue South New York, NY 10016

www.horizonkinetics.com www.indxx.com

## Firm Overview

#### At a Glance



#### **Horizon Kinetics LLC**

- Independent, employee owned, serving clients since 1994.
- \$7.1 billion in firm-wide assets under management<sup>1</sup>.
- 80 employees.
- Offices in New York City, White Plains, NY and Summit, NJ.

#### Stable, tenured investment team

- Co-Founders investing together for over 30 years.
  - Murray Stahl Chairman, CEO, and CIO
  - Steven Bregman President, Senior Portfolio Manager and Director of Research
  - Peter Doyle President of Kinetics Mutual Funds, Inc. and Senior Portfolio Manager
- 16 Investment Professionals with an average tenure of 12 years with the firm and 21 years in the industry.

#### **Dedicated Culture**

- Committed exclusively to investment research and portfolio management across the capital structure.
- Independent publisher of research for institutional investment community since 1995.
- Adhering to a research-intensive, time-tested fundamental investment philosophy.
- Institutional quality client service and operations infrastructure.

#### **Investment Approach**

- Independent Thinking
  - Primary source data driven process.
  - Research analysts culturally guided to overcome confirmation biases and data availability errors.

#### Opportunity

- Seek above market returns with reduced chances of loss by capturing high discount rates associated with the "Equity Yield Curve."
- Earn returns of underlying fundamental business and potential narrowing of discount rate.

#### Focus

- Research team and process organized around attributes associated with long-term excess returns.
- Seek to avoid the permanent loss of capital.

#### Differentiated

- Philosophy and process lead us to explore lesser researched and less frequently trafficked investments.
- High <u>active share</u><sup>2</sup> by design.

#### Discipline

 Portfolio Managers and Research Analysts must write logical, clear and understandable investment theses that withstand internal and external scrutiny.

#### Patience

Capturing long-term excess returns requires commitment.

<sup>&</sup>lt;sup>1</sup> As of December 31, 2015

<sup>&</sup>lt;sup>2</sup> Active share is a measure of the percentage of holdings in a portfolio that differ from a benchmark index. It is calculated by taking the sum of the differences of the weight of each holding in the portfolio and the weight of each holding in the benchmark index and dividing by two. Active share is measured against the strategy's primary benchmark.

## Firm Overview

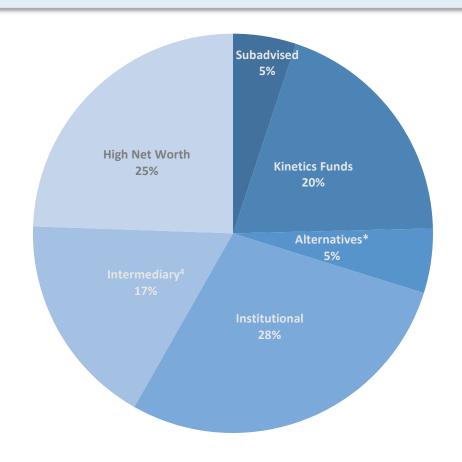
## Strategy and Client Type Overview



Firmwide Assets Under Management <sup>1</sup>	\$7.1 B
Separately Managed Accounts <sup>2</sup>	\$5.4 B
Kinetics Mutual Funds <sup>3</sup>	\$1.4 B
Alternative Investments*	\$0.4 B
Fundamental Predictive Indexes	

Horizon Kinetics U.S. Spin-Off Index
Horizon Kinetics International Spin-Off Index
Horizon Kinetics Global Spin-Off Index
Horizon Kinetics ISE US Wealth Index
Horizon Kinetics ISE Global Wealth Index
Horizon Kinetics ISE Asia ex-Japan Wealth Index
Horizon Kinetics ISE International Wealth Index
Horizon Kinetics Japan Founders Index

#### Client Assets by Type<sup>1</sup>



<sup>\*</sup>Additional information available upon request for qualified investors.

<sup>&</sup>lt;sup>1</sup>AUM and client type as of 12/31/2015.

<sup>&</sup>lt;sup>2</sup> Includes assets in customized portfolios and other strategies developed for intermediaries.

<sup>&</sup>lt;sup>3</sup> Kinetics Mutual Funds, Inc. ("Kinetics Funds") are distributed by Kinetics Funds Distributor LLC ("KFD"), an affiliate of Horizon Kinetics LLC. KFD is not affiliated with the Kinetics Funds.

<sup>&</sup>lt;sup>4</sup>Includes individual client accounts through intermediaries.

You should consider the investment objectives, risks, charges and expenses of the mutual funds carefully before investing. For a free copy of the mutual funds' prospectus, which contains this and other information, visit our website at www.kineticsfunds.com or call 1-800-930-3828. You should read the prospectus carefully before you invest.

## Descriptive Versus Predictive Indexes



#### **Descriptive Indexes**

Most equity indexes are constructed based on descriptive characteristics or variables.

These variables are based on information consistent with preconceived views and are readily available, easily organized, and hence provide little information on how well an index may perform in the future.

#### **Predictive Indexes**

Dynamic, unconventional thinking is required to find successful long-term investments. Horizon Kinetics focuses on attributes that are verifiable but not always readily quantifiable. Indexes are designed to identify variables that have long-term fundamental predictive attributes that ultimately seek outperformance relative to various broad market benchmarks.





## Horizon Kinetics Indexes

#### Fundamental Predictive Indexes





#### **FUNDAMENTAL PREDICTIVE INDEXES**

## THE SPIN-OFF INDEXES

OPPORTUNITIES IN SPECIAL SITUATIONS

Tracks the performance of publicly listed spin-offs from large companies divesting small subsidiaries, which often result in a short-term valuation disconnect and potential to unlock shareholder value.

#### **U.S. Spin-Off Index**

(Inception Date: June 2013)

#### **International Spin-Off Index**

(Inception Date: April 2014)

#### **Global Spin-Off Index**

(Inception Date: April 2014)

### THE WEALTH INDEXES

LET THE WEALTHY WORK FOR YOU

Tracks the performance of publicly listed companies managed by executives whose track records of skill and specific industry knowledge have made them some of the wealthiest individuals in the world.

#### **U.S. Wealth Index**

(Inception Date: August 2011)

#### **Global Wealth Index**

(Inception Date: October 2012)

#### **Asia ex-Japan Wealth Index**

(Inception Date: October 2012)

#### **International Wealth Index**

(Inception Date: April 2014)

#### **Japan Founders Index**

(Inception Date: September 2014)

The Horizon Kinetics Spin-Off Indexes are calculated by Indxx and the value of the each index is posted on a daily basis, end-of-day, on the Indxx website, <a href="www.indxx.com">www.indxx.com</a>
Horizon Kinetics partnered with the International Securities Exchange (ISE) to launch the Horizon Kinetics ISE Wealth Indexes.

## Long-Term Fundamental Predictive Indexation



## THE SPIN-OFF INDEX

OPPORTUNITIES IN SPECIAL SITUATIONS

The Horizon Kinetics Spin-Off Indexes provide benchmarks for investors interested in tracking the performance of listed, publicly-held spin-offs that are domiciled and trade in the U.S. and international developed equity markets. These securities generally result from large companies divesting small subsidiaries in a way that bypasses traditional Wall Street coverage, often resulting in a short-term valuation disconnect.

In many cases, spin-off transactions may have the long-term potential to unlock shareholder value that has been obscured by a dysfunctional corporate structure. The use of a spin-off strategy as a predictive index variable, appears to provide relative returns well in excess of the broader market.

The Horizon Kinetics Spin-Off Index uses an equal weighted allocation methodology for all components in the index.

Index components are reviewed quarterly for eligibility, and weights are reset accordingly.

The Horizon Kinetics Spin-Off Indexes are calculated by Indxx and the value of the Total Return Index will be posted on a daily basis, end-of-day, on the Indxx website, www.indxx.com.

	U.S. Spin-Off Index	International Spin-Off Index	Global Spin-Off Index			
Regions	US Only	Developed Non-US Regions: UK, Western Europe, Pac Rim (Australia, Hong Kong, New Zealand)	US and Non-US Developed Regions			
Horizon Kinetics' Definition of Spin-Off	does not require of i.e., share exchanged.  The Parent Compleast 80% of the component share component shared and not a closed fund (ETF).	ion of shares from the action from the receivages and carve-outs/library must have original outstanding shares. partnerships, ETFs or Cecurity must be an opend fund (CEF) or an ecurity cannot be a lime	ring shareholders; PO are excluded. cally distributed at EEFs. perating company exchange traded			
Portfolio Construction and Rebalancing Policy	<ul><li>Equal Weighted</li><li>Five-Year Holding Period</li><li>Quarterly Rebalancing</li></ul>					
Market Capitalization and Liquidity Requirements	<ul><li>Min USD 500M mai</li><li>Trailing 20-day ave</li></ul>	rket capitalization erage daily value > USE	) 0.5M			

# HORIZON KINETICS

## A Long History of Spin-Off Research & Investing



Horizon begins publishing The Spin-Off Report.

1996

Spin-Off research implemented via a dedicated long-only active investment strategy.

15th year of The Spin-Off Report and Horizon's long-only Spin-Off strategy has significantly outperformed most equity market indices since inception (net of fees)<sup>1</sup>.

Horizon Kinetics Spin-Off Index Launched on June 3, 2013.



#### *Since 1996*

- •700+ US Spin Off Reports<sup>2</sup>
- 60+ Global Spin Off Reports<sup>2</sup>

1997

2012

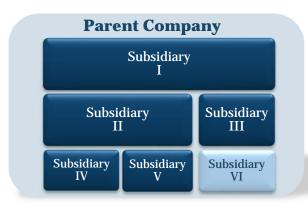
2013

<sup>&</sup>lt;sup>1</sup> Past performance does not guarantee future results. Please refer to the appendix for strategy specific information and important disclosures.

<sup>&</sup>lt;sup>2</sup> Includes Spin-Off Flash Reports

## Spin-Off Opportunity and Incentive





#### **Opportunity to Improve Efficiency**

As a subsidiary of a large conglomerate, management tends to focus on increasing revenue, and controlling costs becomes secondary. Furthermore, subsidiaries are often allocated company expenses that are not necessarily part of their operations.



Independent Publicly Traded Co.

#### **Empowered Management**

Following a spin-off, management is free to implement its business and financial strategies.

- 1) Capital allocation
- 2) Operations and personnel
- 3) Improved alignment of incentives

## Spin-Off Valuation



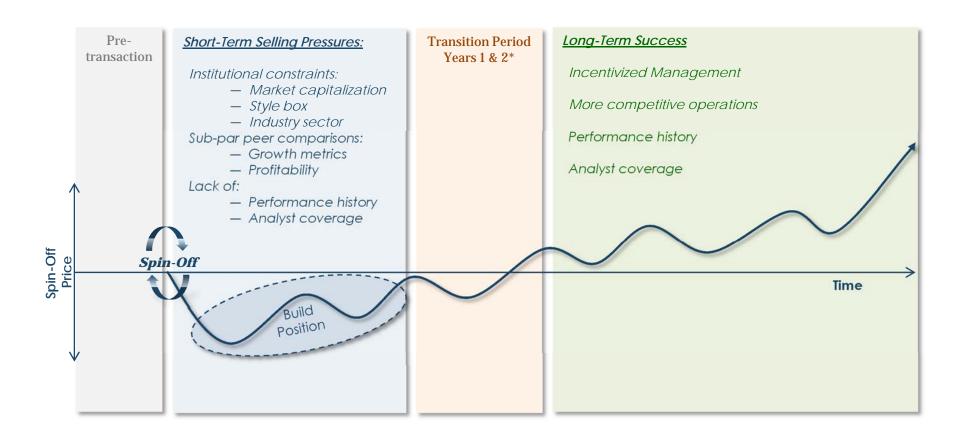


Diagram is strictly for illustrative purposes and does not represent actual investment results.

 $<sup>\</sup>ensuremath{^*}$  Transition time may vary significantly across spin-off investments.



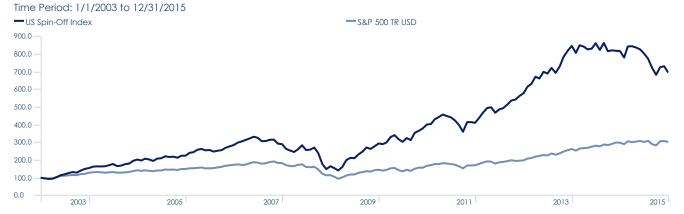
## Performance History and Statistics - As of 12/31/2015

Performance Statistics	MTD	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	ITD
Total Return*	-4.9	1.8	-14.9	-14.9	6.3	11.6	11.9	16.1
S&P 500	-1.6	7.0	1.4	1.4	15.1	12.6	7.3	8.9
Excess Return	-3.4	-5.2	-16.3	-16.3	-8.8	-1.0	4.6	7.2
Standard Deviation (%)				15.9	15.0	16.2	21.9	20.5
Tracking Error (%)				7.8	7.7	7.6	10.6	10.1
Sharpe Ratio				-0.9	0.4	0.7	0.5	0.7
Information Ratio				-2.1	-1.2	-0.1	0.4	0.7
Beta				1.0	1.2	1.2	1.3	1.3
UpMkt Capture Ratio (%)				47	91	113	137	147
Down Capture Ratio (%)				146	162	135	126	128
Batting Average				25	42	50	54	57

Statistics (as of 12/31/2015)								
Number of Positions	68							
Weighted Avg. Market Cap. (B)	6.3							
P/E <sup>(2)</sup>	17.7							
Price/Sales (2)	0.9							
Dividend Yield	2.0%							

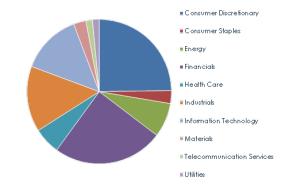
Sample Constituents (as of 12/31/2015)								
Distribution Date								
1/12/2012								
12/17/2012								
5/7/2012								
1/31/2014								
10/4/2011								

#### **Cumulative Growth of \$100** (gross)



Source: FactSet, Horizon Kinetics LLC, Indxx, Bloomberg. Inception Date: January 2003. Note: (1) Calculated Using Total Returns. The Horizon Kinetics US Spin-Off Index began in June 2013, therefore, a portion of the returns stated above contain back-tested performance. See the disclosures for important considerations when evaluating back-tested performance data. (2) Trailing 12 months data, Weighted harmonic average.

#### Sector Breakdown (as of 12/31/2015)



Source: Morningstar Direct

## Horizon Kinetics U.S. Spin-Off Index



## Historical Statistics

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Number of Constituents	29	32	28	26	30	28	27	31	29	33	37	40	58
Constituents Added		7	7	9	11	9	8	8	7	11	11	10	24
Constituents Removed		4	11	11	7	11	9	4	9	7	7	10	6
Average Market Cap (\$b)	2.3	2.7	3.4	4.3	4.9	6.3	6.6	7.4	8.5	7.8	8.7	7.9	6.6

#### Sector Breakdown

% Market Value	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Consumer Discretionary	14	12	21	23	37	32	37	39	38	27	27	27	26
Consumer Staples	10	6	4	4	3	4	11	10	7	6	11	5	3
Energy	3	6	7	4	3	4	4	3	7	9	11	14	9
Financials	10	6	7	12	10	18	15	13	7	12	11	13	22
Health Care	24	28	32	27	20	11	7	6	3	3	3	5	4
Industrials	17	16	18	15	7	11	11	6	14	21	24	21	18
Information Technology	17	19	11	8	7	14	15	16	21	15	11	9	9
Materials	3	6	0	8	10	4	0	6	3	6	3	5	5
Telecommunication Services	0	0	0	0	3	4	0	0	0	0	0	0	2
Utilities	0	0	0	0	0	0	0	0	0	0	0	0	2

Source: FactSet, Horizon Kinetics LLC, Indxx

The Horizon Kinetics U.S. Spin-Off Index began in June 2013, therefore, a portion of the statistics stated above rely upon back-tested data. See the Disclosure slide for important considerations when evaluating back-tested data.

## Horizon Kinetics International Spin-Off Index



## Performance History and Statistics - As of 12/31/2015

Performance Statistics	MTD	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	ITD	
Total Return*	2.3	7.9	13.0	13.0	17.6	13.6	10.0	13.4	
MSCI EAFE	-1.3	4.7	-0.8	-0.8	5.0	3.6	3.0	5.2	
Excess Return	3.6	3.2	13.8	13.8	12.6	10.0	6.9	8.2	
Standard Deviation (%)				15.6	14.0	17.2	23.7	22.2	
Tracking Error (%)				6.8	7.6	7.3	8.9	8.6	
Sharpe Ratio				0.8	1.3	0.8	0.4	0.5	
Information Ratio				2.0	1.7	1.4	0.8	1.0	
Beta				0.9	0.9	1.0	1.2	1.2	
UpMkt Capture Ratio (%)				105	115	118	128	131	
Down Capture Ratio (%)				42	44	71	102	101	
Batting Average				75	67	67	69	70	

Statistics (as of 12/31/2015)								
Number of Positions	21							
Weighted Avg. Market Cap. (B)	3.7							
P/E <sup>(2)</sup>	17.1							
Price/Sales (2)	0.7							
Dividend Yield	1.4%							

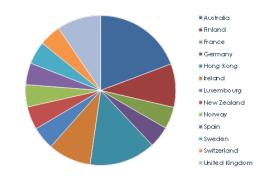
# Sector Allocation (as of 12/31/2015) Consumer Staples Energy Financials Health Care hdustials Materials Telecommunication Services

#### **Cumulative Growth of \$100** (gross)



Source: FactSet, Horizon Kinetics LLC, Indxx, Bloomberg. Inception Date: January 2004. Note: (1) Calculated Using Total Returns. The Horizon Kinetics International Spin-Off Index began in April 2014, therefore, a portion of the returns stated above contain back-tested performance. See the disclosures for important considerations when evaluating back-tested performance data. (2) Trailing 12 months data, Weighted harmonic average

#### Country Allocation (as of 12/31/2015)



Source: Morningstar Direct

## Horizon Kinetics International Spin-Off Index



## Historical Statistics

	,				,			,				•
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Number of Constituents	25	24	25	32	32	17	23	24	22	20	25	28
Constituents Added		4	10	15	10	1	9	9	6	5	12	5
Constituents Removed		5	9	8	10	16	3	8	8	7	7	2
Average Market Cap (\$b)	4.2	5.8	3.1	3.8	4.6	3.6	4.1	4.6	4.0	2.6	2.8	2.9
Sector Breakdown												
% Market Value	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Consumer Discretionary	32	37	28	19	19	18	13	13	14	10	24	25
Consumer Staples	4	4	0	0	0	0	0	0	5	15	4	4
Energy	4	4	8	6	9	12	13	4	0	5	4	4
Financials	16	8	12	19	19	18	13	13	14	15	8	7
Health Care	8	8	4	0	3	6	4	4	5	0	8	7
Industrials	8	8	20	22	25	18	22	25	23	15	24	25
nformation Technology	0	0	0	0	3	6	4	4	5	0	4	4
Materials	24	25	28	31	22	24	26	21	23	25	16	18
Telecommunication Services	4	4	0	0	0	0	4	17	14	15	8	7
Utilities	0	0	0	3	0	0	0	0	0	0	0	0
Country Breakdown												
% Market Value	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
North America	0	0	0	0	3	0	0	0	0	0	0	0
Bermuda	0	0	0	0	3	0	0	0	0	0	0	0
United States	0	0	0	0	0	0	0	0	0	0	0	0
Virgin Islands	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Rim	20	21	16	9	6	12	13	21	32	30	28	29
Australia	16	17	12	9	6	12	9	17	23	20	24	22
Hong Kong	0	0	0	0	0	0	4	4	5	5	4	4
New Zealand	4	4	4	0	0	0	0	0	5	5	0	4
Singapore	0	0	0	0	0	0	0	0	0	0	0	0
Western Europe	80	79	84	91	91	88	87	79	68	70	72	71
Belgium .	0	0	4	6	3	0	0	0	0	0	0	0
Denmark	4	4	4	0	0	0	0	0	0	0	0	0
Finland	0	0	8	9	6	12	9	4	5	5	4	11
France	0	0	0	3	3	6	4	8	5	5	8	7
Germany	8	8	12	9	6	6	4	0	0	0	4	3

Source: FactSet, Horizon Kinetics LLC, Indxx

Netherlands Norway Portugal Spain Sweden Switzerland United Kingdom

The Horizon Kinetics International Spin-Off Index began in April 2014, therefore, a portion of the statistics stated above rely upon back-tested data. See the Disclosure slide for important considerations when evaluating back-tested data.

## Horizon Kinetics Global Spin-Off Index

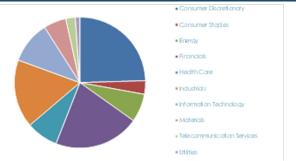


## Performance History and Statistics - As of 12/31/2015

Performance Statistics	MTD	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	ITD	
Total Return*	-3.2	3.3	-6.9	-6.9	9.9	11.7	11.1	13.5	
MSCI World	-1.8	5.5	-0.9	-0.9	9.6	7.6	5.0	6.1	
Excess Return	-1.4	-2.2	-6.0	-6.0	0.2	4.1	6.1	7.3	
Standard Deviation (%)				15.1	13.6	15.8	21.8	20.5	
Tracking Error (%)				6.1	6.4	6.1	8.5	8.0	
Sharpe Ratio				-0.5	0.7	0.7	0.5	0.6	
Information Ratio				-1.0	0.0	0.7	0.7	0.9	
Beta				1.0	1.1	1.1	1.3	1.3	
UpMkt Capture Ratio (%)				70	112	123	134	138	
Down Capture Ratio (%)				106	119	107	112	111	
Batting Average				25	58	62	64	67	

Statistics (as of 12/31/2015)								
Number of Positions	89							
Weighted Avg. Market Cap. (B)	5.7							
P/E <sup>(2)</sup>	17.5							
Price/Sales (2)	0.8							
Dividend Yield	1.9%							

#### Sector Allocation (as of 12/31/2015)

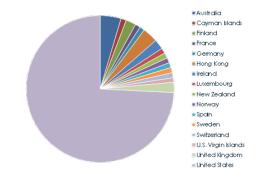


#### **Cumulative Growth of \$100** (gross)



Source: FactSet, Horizon Kinetics LLC, Indxx, Bloomberg. Inception Date: January 2004. Note: (1) Calculated Using Total Returns. The Horizon Kinetics Global Spin-Off Index began in April 2014, therefore, a portion of the returns stated above contain back-tested performance. See the disclosures for important considerations when evaluating back-tested performance data. (2) Trailing 12 months data, Weighted harmonic average

#### Country Allocation (as of 12/31/2015)



Source: Morningstar Direct

## Horizon Kinetics Global Spin-Off Index

# HORIZON KINETICS

## Historical Statistics

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Number of Constituents	57	52	51	62	60	44	54	53	55	57	65	86
Constituents Added		11	19	26	19	9	17	16	17	16	26	29
Constituents Removed		16	20	15	21	25	7	17	15	14	18	8
Average Market Cap (\$b)	3.4	4.5	3.7	4.3	5.4	5.4	6.0	6.7	6.3	6.6	6.0	5.4
Sector Breakdown												
% Market Value	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Consumer Discretionary	21	29	25	27	25	30	28	26	22	21	26	26
Consumer Staples	5	4	2	2	2	7	6	4	5	12	5	3
Energy	5	6	6	5	7	7	7	6	5	9	9	7
Financials	11	8	12	15	18	16	13	9	13	12	14	17
Health Care	19	21	16	10	7	7	6	4	4	2	6	5
Industrials	12	13	18	15	18	14	13	19	22	21	22	20
Information Technology	11	6	4	3	8	11	11	13	11	7	8	7
Materials	14	12	18	21	13	9	15	11	13	11	8	9
Telecommunication Services	2	2	0	2	2	0	2	8	5	5	3	4
Utilities	0	0	0	2	0	0	0	0	0	0	0	1
Country Breakdown												
% Market Value	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
North America	56	54	51	48	48	61	57	55	60	65	62	67
Bermuda	0	0	0	0	2	0	0	0	0	0	0	0
United States	56	54	51	48	47	61	57	55	60	65	60	67
Virgin Islands	0	0	0	0	0	0	0	0	0	0	2	0
Pacific Rim	9	10	8	5	3	5	6	9	13	11	11	10
Australia	7	8	6	5	3	5	4	8	9	7	9	7
Hong Kong	0	0	0	0	0	0	2	2	2	2	2	1
New Zealand	2	2	2	0	0	0	0	0	2	2	0	1
Singapore	0	0	0	0	0	0	0	0	0	0	0	0
Western Europe	35	37	41	47	48	34	37	36	27	25	28	23
Belgium	0	0	2	3	2	0	0	0	0	0	0	0
Denmark	2	2	2	0	0	0	0	0	0	0	0	0
Finland	0	0	4	5	3	5	4	2	2	2	2	3
France	0	0	0	2	2	2	2	4	2	2	3	2
Germany	4	4	6	5	3	2	2	0	0	0	2	1
Ireland	0	0	0	2	3	5	4	4	2	0	5	4
Italy	4	4	4	6	2	0	0	0	2	0	2	1
Luxembourg	0	0	0	0	0	2	0	0	2	2	2	1
Netherlands	4	0	2	2	0	0	0	0	0	2	0	0
Norway	0	2	4	3	5	5	2	0	0	2	2	1
Portugal	0	0	0	3	5	2	6	2	2	0	0	0
Spain	2	2	2	2	2	0	0	0	2	2	2	1
Sweden	5	6	4	5	7	2	7	8	4	5	2	1
Switzerland	2	2	0	0	2	2	4	4	4	4	3	2
United Kingdom	14	15	12	10	13	7	7	13	7	5	6	5

Source: FactSet, Horizon Kinetics LLC, Indxx

The Horizon Kinetics Global Spin-Off Index began in April 2014, therefore, a portion of the statistics stated above rely upon back-tested data. See the Disclosure slide for important considerations when evaluating back-tested data.

## **Contact Information**



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http://www.indxx.com/other.php

## Horizon Kinetics Index Investment Team

## Biographies



#### **Murray Stahl**

Chairman, Chief Executive Officer, Chief Investment Officer

Murray is Chairman of the Board of Horizon Kinetics LLC and is a co-founder of the Firm. He has over thirty years of investing experience and is responsible for overseeing the Horizon Kinetics Research Team. Murray serves as the Firm's Chief Investment Officer and Chief Executive Officer, and chairs the Firm's Investment Committee, which is responsible for portfolio management decisions across the entire Firm. He is also the co-manager for a number of registered investment companies, private funds, and institutional separate accounts. Additionally, Murray is the Chairman and Chief Executive Officer of FRMO Corp. He is also a member of the Board of Directors of the Bermuda Stock Exchange, the Minneapolis Grain Exchange, Winland Electronics, Inc., and IL&FS Securities Services Limited. Prior to co-founding the Firm, Murray spent 16 years at Bankers Trust Company (1978-1994) as a senior portfolio manager and research analyst. As a senior fund manager, he was responsible for investing the Utility Mutual Fund, along with three of the bank's Common Trust Funds: The Special Opportunity Fund, The Utility Fund, and The Tangible Assets Fund. He was also a member of the Equity Strategy Group and the Investment Strategy Group, which established asset allocation guidelines for the Private Bank, Murray received a Bachelor of Arts in 1976 and Masters of Arts in 1980 from Brooklyn College and an MBA from Pace University in 1985.

#### **Aya Hirato Weisman**

Senior Portfolio Manager, Director of Asia Strategy

Aya joined the firm in 2010, as a Co-Portfolio Manager on the Asia Strategy. With over 30 years of investment experience, Aya was previously a founder and Chief Investment Officer of AS Hirota Capital Management, LLC. Prior to that, her experiences included acting as a portfolio manager specializing in Japanese securities for Kingdon Capital Management, LLC, a New York-based hedge fund; two years as a partner and Portfolio Manager of Feirstein Hirota Japan Partners, a Japanese long/short hedge fund; and 12 years at Salomon Smith Barney Asset Management, as Managing Director and Senior Portfolio manager in the US value equity group where she was a founding member of the large cap value equity group, with personal responsibility for approximately \$2 billion in assets from pension funds, endowments, and mutual funds. She also worked as a securities analyst covering global technology and consumer sectors at Equitable Capital Management. Aya is a director of SBI Holdings, Inc. in Japan. Aya received her MBA from the International Institute for Management Development (IMD) in Lausanne, Switzerland and holds a BA in Liberal Arts from International Christian University in Tokyo, Japan. She also studied at Chung Chi College at the Chinese University of Hong Kong, as a Japanese Ministry of Education Scholar. Aya is a CFA® charter holder and Co-Vice Chairman of the Board of Friends Without A Border.

#### **Ryan Casey**

Research Analyst

Ryan joined the firm in 2011 and is responsible for conducting and authoring research. He has been writing spin-off and global contrarian research for the firm since 2008 as a senior analyst with the Institutional Research Group. Ryan has over eleven years of experience as an equity research analyst, including a senior analyst position with Bear Stearns. He received a BS in Electrical Engineering from the University of Michigan, an MBA from New York University and is a CFA® charter holder.

#### **Matthew Houk**

Portfolio Manager, Research Analyst

Matt joined the firm in 2008 and has responsibilities in both Research and Portfolio Management. Matt is a member of the Investment Committee and has responsibilities in the identification, analysis and monitoring of certain investment opportunities for the firm. He is also a co-portfolio manager for the Kinetics Small Cap Opportunities Fund, which is managed by Kinetics Asset Management LLC, and the Virtus Wealth Masters Fund, which is sub-advised by Horizon Asset Management LLC. Previously, from 2005 through 2008, Matt was an Associate with Goldman, Sachs & Co. Matt received a BA in Economics and Political Science from Yale University.

#### **Utako Kojima**

Portfolio Analyst

Utako joined the firm in 2010 as a Portfolio Analyst, primarily focusing on the Asia Strategy. Prior, Utako was an equity analyst at AS Hirota Capital Management, LLC. Her experience included consulting in the Valuation Division at Shin-Nihon Ernst & Young Transaction Advisory Services, Tokyo, Japan for a year and a half, where she worked on-site in the Legal/Compliance Department designing and implementing effective transaction analysis processes and systems. Previously, she served in the International Products Client Service and Sales Operation at Deutsche Securities Limited, Tokyo, Japan for two years managing post transaction processes and client services. Utako received a BA in Political Science from Keio University, Tokyo, Japan.

## **Disclosures**



The Horizon Kinetics U.S. Spin-Off Index, Global Spin-Off Index and International Spin-Off Index were created by Horizon Kinetics LLC ("Horizon Kinetics"). Indxx, LLC ("Indxx"), a third party, has a contractual arrangement with Horizon Kinetics whereby it has agreed to calculate certain index components.

Past performance is not an indication of future results and the value of the investments and the income derived from them may increase or decrease. Returns are subject to change. Note that indices are unmanaged and the figures shown herein do not reflect any investment management fee or transaction costs. Investors cannot directly invest in an index. References to market or composite indices, benchmarks or other measures of relative market performance (a "Benchmark") over a specific period are provided for your information only. Reference to a Benchmark may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, correlations, volatility, or tracking error targets, all of which are subject to change over time. It is not our intention to state, indicate or imply in any manner that our future results will be profitable or equal past results.

The S&P 500® Index is widely regarded as the best single gauge of large cap U.S. equities. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization. The S&P 500 Index is property of Standard & Poor's.

The MSCI EAFE Index (Europe, Australasia, Far East) is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada. The MSCI EAFE Index consists of the following 21 developed market country indexes: Australia, Austria, Belgium, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, and the United Kingdom. The MSCI EAFE Index is property of MSCI.

The MSCI World Index is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. The MSCI World Index consists of the following 23 developed market country indexes: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom, and the United States. The MSCI World Index is property of MSCI.

Back-tested data and performance from slides 10 through 15 is hypothetical (it does not reflect trading in actual accounts) and is provided for informational purposes to indicate historical performance had the index been available over the relevant period. Back-tested performance also differs from actual performance because it is achieved through the retroactive application of portfolios designed with the benefit of hindsight. Horizon Kinetics generally employs the same methodology in its back-test calculations as it does when the actual index was officially launched. The US Spin-Off Index was launched in June 2013 therefore, any performance stated prior to that date is back-tested performance. Similarly, the International and Global Spin-Off Indexes were launched in April 2014, and any performance stated prior to such date is back-tested. The value of each index will be posted on a daily basis, end-of-day, on the Indxx website, www.indxx.com. Actual performance may be materially lower than that of the indexes, as it does not include expenses and fees. Such results do not represent the impact that material economic and market factors might have on the investment adviser's decision making process if the adviser were actually managing client money. The information contained in this document is current as of the publication date, and is subject to change without notice. The index methodologies are subject to change at the discretion of the index provider. Anyone interested in better understanding the methodologies for each index, including details on the manner in which each index is rebalanced, the timing of such rebalancing, the criteria used in determining additions and deletions to the indexes as well as other index calculations may contact Horizon Kinetics at info@horizonkinetics.com or (646) 495-7333.

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