

#### The Randomness of Returns

Annual Return (%)

future results.

,	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Highest Return	62.6	34.2	34.5	36.0	39.8	8.8	79.0	28.1	9.4	20.1	38.8	32.0	5.8	31.7	37.8
<b>↑</b>	60.2	33.2	25.5	32.6	8.2	6.6	53.3	26.9	3.4	18.6	34.5	13.7	4.5	21.3	31.5
	56.3	29.9	21.1	29.6	7.9	4.7	51.4	24.9	2.3	18.1	32.5	13.5	1.5	17.3	28.6
	47.3	26.0	13.8	27.9	6.3	-28.9	37.2	24.5	2.1	17.9	32.4	4.9	1.4	12.0	21.8
	46.0	22.4	13.1	23.5	5.9	-33.8	28.5	21.2	0.6	17.8	28.3	4.2	1.0	11.6	20.9
	41.8	22.2	7.0	22.2	5.5	-36.8	27.2	19.2	0.4	17.5	26.0	1.9	0.9	8.4	14.6
	36.2	18.3	4.9	19.8	3.6	-37.0	26.5	15.5	-4.2	17.1	21.7	1.2	0.2	8.0	13.7
	30.0	16.5	4.7	18.4	2.5	-39.2	20.6	15.1	-5.5	16.3	1.2	0.2	-3.8	6.7	7.8
	28.7	10.9	4.6	15.8	-0.2	-44.3	19.7	3.8	-10.6	16.0	0.6	-1.8	-4.4	4.7	3.8
	2.0	2.7	3.1	4.3	-1.6	-45.6	2.3	3.7	-15.5	2.1	0.3	-5.0	-7.5	1.5	1.1
<b>∀</b>	1.9	1.3	2.4	4.1	-9.8	-47.8	0.8	2.0	-16.4	0.9	-0.1	-5.4	-8.0	1.0	0.7
Lowest Return	1.5	0.8	1.3	3.8	-17.6	-53.2	0.2	0.8	-18.2	0.2	-2.3	-5.6	-14.6	8.0	0.6
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
US Large Cap	<b>2003</b> 28.7	<b>2004</b> 10.9	<b>2005</b> 4.9	<b>2006</b> 15.8	<b>2007</b> 5.5	<b>2008</b> -37.0	<b>2009</b> 26.5	<b>2010</b> 15.1	<b>2011</b> 2.1	<b>2012</b> 16.0	<b>2013</b> 32.4	<b>2014</b> 13.7	<b>2015</b> 1.4	<b>2016</b> 12.0	<b>2017</b> 21.8
US Large Cap US Large Cap Value															
	28.7	10.9	4.9	15.8	5.5	-37.0	26.5	15.1	2.1	16.0	32.4	13.7	1.4	12.0	21.8
US Large Cap Value	28.7 30.0	10.9 16.5	4.9 7.0	15.8 22.2	5.5 -0.2	-37.0 -36.8	26.5 19.7	15.1 15.5	2.1 0.4	16.0 17.5	32.4 32.5	13.7 13.5	1.4 -3.8	12.0 17.3	21.8 13.7
US Large Cap Value US Small Cap	28.7 30.0 47.3	10.9 16.5 18.3	4.9 7.0 4.6	15.8 22.2 18.4	5.5 -0.2 -1.6	-37.0 -36.8 -33.8	26.5 19.7 27.2	15.1 15.5 26.9	2.1 0.4 -4.2	16.0 17.5 16.3	32.4 32.5 38.8	13.7 13.5 4.9	1.4 -3.8 -4.4	12.0 17.3 21.3	21.8 13.7 14.6
US Large Cap Value US Small Cap US Small Cap Value	28.7 30.0 47.3 46.0	10.9 16.5 18.3 22.2	4.9 7.0 4.6 4.7	15.8 22.2 18.4 23.5	5.5 -0.2 -1.6 -9.8	-37.0 -36.8 -33.8 -28.9	26.5 19.7 27.2 20.6	15.1 15.5 26.9 24.5	2.1 0.4 -4.2 -5.5	16.0 17.5 16.3 18.1	32.4 32.5 38.8 34.5	13.7 13.5 4.9 4.2	1.4 -3.8 -4.4 -7.5	12.0 17.3 21.3 31.7	21.8 13.7 14.6 7.8
US Large Cap Value US Small Cap US Small Cap Value US Real Estate	28.7 30.0 47.3 46.0 36.2	10.9 16.5 18.3 22.2 33.2	4.9 7.0 4.6 4.7 13.8	15.8 22.2 18.4 23.5 36.0	5.5 -0.2 -1.6 -9.8 -17.6	-37.0 -36.8 -33.8 -28.9 -39.2	26.5 19.7 27.2 20.6 28.5	15.1 15.5 26.9 24.5 28.1	2.1 0.4 -4.2 -5.5 9.4	16.0 17.5 16.3 18.1 17.1	32.4 32.5 38.8 34.5 1.2	13.7 13.5 4.9 4.2 32.0	1.4 -3.8 -4.4 -7.5 4.5	12.0 17.3 21.3 31.7 6.7	21.8 13.7 14.6 7.8 3.8
US Large Cap Value US Small Cap US Small Cap Value US Real Estate International Large Cap Value	28.7 30.0 47.3 46.0 36.2 41.8	10.9 16.5 18.3 22.2 33.2 22.4	4.9 7.0 4.6 4.7 13.8 13.1	15.8 22.2 18.4 23.5 36.0 29.6	5.5 -0.2 -1.6 -9.8 -17.6 7.9	-37.0 -36.8 -33.8 -28.9 -39.2 -44.3	26.5 19.7 27.2 20.6 28.5 37.2	15.1 15.5 26.9 24.5 28.1 3.8	2.1 0.4 -4.2 -5.5 9.4 -10.6	16.0 17.5 16.3 18.1 17.1 17.8	32.4 32.5 38.8 34.5 1.2 21.7	13.7 13.5 4.9 4.2 32.0 -5.6	1.4 -3.8 -4.4 -7.5 4.5 -8.0	12.0 17.3 21.3 31.7 6.7 8.0	21.8 13.7 14.6 7.8 3.8 20.9
US Large Cap Value US Small Cap US Small Cap Value US Real Estate International Large Cap Value International Small Cap	28.7 30.0 47.3 46.0 36.2 41.8 62.6	10.9 16.5 18.3 22.2 33.2 22.4 29.9	4.9 7.0 4.6 4.7 13.8 13.1 25.5	15.8 22.2 18.4 23.5 36.0 29.6 19.8	5.5 -0.2 -1.6 -9.8 -17.6 7.9 3.6	-37.0 -36.8 -33.8 -28.9 -39.2 -44.3 -47.8	26.5 19.7 27.2 20.6 28.5 37.2 51.4	15.1 15.5 26.9 24.5 28.1 3.8 24.9	2.1 0.4 -4.2 -5.5 9.4 -10.6 -15.5	16.0 17.5 16.3 18.1 17.1 17.8 17.9	32.4 32.5 38.8 34.5 1.2 21.7 26.0	13.7 13.5 4.9 4.2 32.0 -5.6 -5.0	1.4 -3.8 -4.4 -7.5 4.5 -8.0 5.8	12.0 17.3 21.3 31.7 6.7 8.0 4.7	21.8 13.7 14.6 7.8 3.8 20.9 31.5
US Large Cap Value US Small Cap US Small Cap Value US Real Estate International Large Cap Value International Small Cap International Small Cap Value	28.7 30.0 47.3 46.0 36.2 41.8 62.6 60.2	10.9 16.5 18.3 22.2 33.2 22.4 29.9 34.2	4.9 7.0 4.6 4.7 13.8 13.1 25.5 21.1	15.8 22.2 18.4 23.5 36.0 29.6 19.8 27.9	5.5 -0.2 -1.6 -9.8 -17.6 7.9 3.6 2.5	-37.0 -36.8 -33.8 -28.9 -39.2 -44.3 -47.8 -45.6	26.5 19.7 27.2 20.6 28.5 37.2 51.4 53.3	15.1 15.5 26.9 24.5 28.1 3.8 24.9 21.2	2.1 0.4 -4.2 -5.5 9.4 -10.6 -15.5	16.0 17.5 16.3 18.1 17.1 17.8 17.9 20.1	32.4 32.5 38.8 34.5 1.2 21.7 26.0 28.3	13.7 13.5 4.9 4.2 32.0 -5.6 -5.0	1.4 -3.8 -4.4 -7.5 4.5 -8.0 5.8 1.5	12.0 17.3 21.3 31.7 6.7 8.0 4.7 8.4	21.8 13.7 14.6 7.8 3.8 20.9 31.5 28.6
US Large Cap Value US Small Cap US Small Cap Value US Real Estate International Large Cap Value International Small Cap International Small Cap Value Emerging Markets	28.7 30.0 47.3 46.0 36.2 41.8 62.6 60.2 56.3	10.9 16.5 18.3 22.2 33.2 22.4 29.9 34.2 26.0	4.9 7.0 4.6 4.7 13.8 13.1 25.5 21.1 34.5	15.8 22.2 18.4 23.5 36.0 29.6 19.8 27.9 32.6	5.5 -0.2 -1.6 -9.8 -17.6 7.9 3.6 2.5 39.8	-37.0 -36.8 -33.8 -28.9 -39.2 -44.3 -47.8 -45.6 -53.2	26.5 19.7 27.2 20.6 28.5 37.2 51.4 53.3 79.0	15.1 15.5 26.9 24.5 28.1 3.8 24.9 21.2 19.2	2.1 0.4 -4.2 -5.5 9.4 -10.6 -15.5 -16.4	16.0 17.5 16.3 18.1 17.1 17.8 17.9 20.1	32.4 32.5 38.8 34.5 1.2 21.7 26.0 28.3 -2.3	13.7 13.5 4.9 4.2 32.0 -5.6 -5.0 -5.4	1.4 -3.8 -4.4 -7.5 4.5 -8.0 5.8 1.5	12.0 17.3 21.3 31.7 6.7 8.0 4.7 8.4 11.6	21.8 13.7 14.6 7.8 3.8 20.9 31.5 28.6 37.8

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#### The Randomness of Returns: Sectors

Russell Global Classification Scheme Sectors: Annual Return (%)

	2009	2010	2011	2012	2013	2014	2015	2016	2017
Highest Return	64.47	27.14	14.49	27.21	42.30	25.95	8.21	25.91	38.40
<b>↑</b>	46.72	26.81	12.58	25.32	41.87	20.32	7.07	20.42	24.11
	38.96	24.68	11.78	19.48	41.63	17.02	6.40	19.96	23.87
	22.13	21.11	5.39	17.69	34.80	16.30	4.29	19.41	22.71
	21.30	15.18	3.43	16.28	27.68	14.66	0.70	16.54	22.05
	20.14	11.90	0.28	12.51	27.60	9.85	-1.78	14.08	21.57
	18.41	11.73	-1.95	10.01	25.45	9.52	-2.44	6.30	9.82
<b>↓</b>	17.06	11.54	-7.21	7.78	25.15	5.48	-7.57	5.54	6.17
Lowest Return	11.17	4.70	-12.95	4.12	14.94	-8.62	-22.29	-2.92	-1.12
	2009	2010	2011	2012	2013	2014	2015	2016	2017
Consumer Discretionary	38.96	27.14	5.39	25.32	41.63	9.52	6.40	6.30	24.11
Consumer Staples	18.41	15.18	14.49	10.01	27.68	17.02	8.21	5.54	9.82
Energy	17.06	21.11	3.43	4.12	25.45	-8.62	-22.29	25.91	-1.12
Financial Services	20.14	11.73	-12.95	27.21	34.80	14.66	0.70	16.54	21.57
Health Care	21.30	4.70	11.78	19.48	42.30	25.95	7.07	-2.92	22.05
Materials & Processing	46.72	24.68	-7.21	17.69	25.15	5.48	-7.57	19.96	23.87
Producer Durables	22.13	26.81	-1.95	16.28	41.87	9.85	-2.44	19.41	22.71
Technology	64.47	11.90	0.28	12.51	27.60	20.32	4.29	14.08	38.40
Utilities	11.17	11.54	12.58	7.78	14.94	16.30	-1.78	20.42	6.17

#### In US dollars

Russell Global Classification Scheme ("RGS") is a proprietary system for classifying companies into 9 sectors, 33 sub-sectors and 157 industries. The annual returns displayed are a breakdown of the sector returns from the Russell 1000 Index. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Index performance does not reflect the expenses associated with the management of an actual portfolio.



# **Equity Returns of Developed Markets**

Annual Return (%)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Highest	Finland	Finland	Switz.	NZ	NZ	Sweden	Austria	Canada	Spain	Finland	Japan	Norway	Sweden	Ireland	Belgium	Finland	US	Denmark	Canada	Austria
Return	121.6	152.6	5.9	8.4	24.2	64.5	71.5	28.3	49.4	48.7	-29.2	87.1	33.8	13.7	39.6	46.0	12.7	23.4	24.6	58.3
↑	Belgium	Singapore	Canada	Australia	Austria	Germany	Norway	Japan	Portugal	HK	Switz.	Australia	Denmark	NZ	Denmark	Ireland	NZ	Ireland	NZ	HK
	67.7	99.4	5.3	1.7	16.5	63.8	53.3	25.5	47.4	41.2	-30.5	76.4	30.7	5.5	31.3	41.2	7.3	16.5	18.4	36.2
	Italy	Sweden	Denmark	Ireland	Australia	Spain	Belgium	Austria	Ireland	Germany	US	Singapore	HK	US	Singapore	US	Denmark	Belgium	Norway	Singapore
	52.5	79.7	3.4	-2.8	-1.3	58.5	43.5	24.6	46.8	35.2	-37.6	74.0	23.2	1.4	31.0	31.8	6.2	12.1	13.3	35.6
	Spain	Japan	Norway	Austria	Norway	Austria	Ireland	Denmark	Singapore	Norway	Spain	Sweden	Singapore	UK	Germany	Germany	HK	Japan	Australia	Denmark
	49.9	61.5	-0.9	-5.6	-7.3	57.0	43.1	24.5	46.7	31.4	-40.6	64.2	22.1	-2.6	30.9	31.4	5.1	9.6	11.4	34.7
	France	HK	Italy	Belgium	Italy	NZ	Sweden	Norway	Norway	Canada	France	HK	Canada	Switz.	NZ	Spain	Belgium	Austria	Austria	Nether.
	41.5	59.5	-1.3	-10.9	-7.3	55.4	36.3	24.3	45.1	29.6	-43.3	60.2	20.5	-6.8	29.3	31.3	4.1	3.5	11.3	32.2
	Ireland 35.3	Canada 53.7	Nether. -4.1	Spain -11.4	Japan -10.3	Canada 54.6	NZ 35.2	Finland 16.7	Sweden 43.4	Singapore 28.4	Canada -45.5	Belgium 57.5	Japan 15.4	Norway -10.0	HK 28.3	Nether. 31.3	Singapore 3.0	Italy 2.3	US 10.9	France 28.7
	US	Norway	France	Norway	Switz.	Australia	Italy	Switz.	Denmark	Australia	Germany	Canada	US	Belgium	Austria	Belgium	Ireland	Finland	France	Italy
	30.1	31.7	-4.3	-12.2	-10.3	49.5	32.5	16.3	38.8	28.3	-45.9	56.2	14.8	-10.6	25.9	27.6	2.3	2.0	4.9	28.4
	Germany	France	Australia	US	Singapore	Denmark	Denmark	Australia	Belgium	Denmark	Singapore	NZ	Australia	Australia	Australia	Japan	Canada	Nether.	Nether.	Norway
	29.4	29.3	-10.0	-12.4	-11.0	49.3	30.8	16.0	36.7	25.6	-47.4	50.4	14.5	-11.0	22.1	27.2	1.5	1.3	4.8	28.3
	Portugal	US	Portugal	UK	Canada	Norway	Australia	Singapore	Austria	Portugal	Denmark	Spain	Switz.	Nether.	Sweden	Switz.	Switz.	Portugal	Portugal	Germany
	27.5	21.9	-10.3	-14.0	-13.2	48.1	30.3	14.4	36.5	24.0	-47.6	43.5	11.8	-12.1	22.0	26.6	-0.1	0.9	3.6	27.7
	Switz.	Germany	UK	Denmark	Portugal	Ireland	Spain	Nether.	Germany	Spain	Nether.	UK	Norway	Spain	France	France	Finland	US	Germany	Spain
	23.5	20.0	-11.5	-14.8	-13.8	43.8	28.9	13.9	36.0	24.0	-48.2	43.3	10.9	-12.3	21.3	26.3	-0.7	0.7	2.8	27.0
	Nether.	Australia	Austria	HK	Belgium	Portugal	HK	Sweden	France	Nether.	UK	Austria	Finland	Canada	Nether.	Denmark	Australia	Switz.	Japan	Japan
	23.2	17.6	-12.0	-18.6	-15.0	43.0	25.0	10.3	34.5	20.6	-48.3	43.2	10.3	-12.7	20.6	25.2	-3.4	0.4	2.4	24.0
	UK	NZ	Ireland	Canada	UK	France	Portugal	Germany	Italy	France	Sweden	Nether.	Austria	Japan	Switz.	Sweden	Nether.	France	HK	Portugal
	17.8	12.9	-12.7	-20.4	-15.2	40.2	24.7	9.9	32.5	13.2	-49.9	42.3	9.9	-14.3	20.4	24.5	-3.5	-0.1	2.3	23.8
	Sweden	UK	US	Switz.	Spain	HK	Singapore	France	Nether.	NZ	Italy	Portugal	UK	Sweden	Norway	UK	Japan	HK	Singapore	Switz.
	14.0	12.5	-12.8	-21.4	-15.3	38.1	22.3	9.9	31.4	8.9	-50.0	40.4	8.8	-16.0	18.7	20.7	-4.0	-0.5	1.4	22.5
	Denmark	Denmark	Finland	Portugal	Denmark	Italy	Canada	Belgium	Australia	UK	Australia	Denmark	Germany	Denmark	US	Italy	Spain	Germany	Sweden	Finland
	9.0	12.1	-14.2	-22.0	-16.0	37.8	22.2	9.0	30.9	8.4	-50.7	36.6	8.4	-16.0	15.3	20.4	-4.7	-1.9	0.6	22.5
	Australia	Nether.	HK	Nether.	HK	Singapore	UK	HK	UK	Italy	HK	France	NZ	HK	UK	Austria	UK	Sweden	UK	UK
	6.1	6.9	-14.7	-22.1	-17.8	37.6	19.6	8.4	30.6	6.1	-51.2	31.8	8.3	-16.0	15.3	13.4	-5.4	-5.0	-0.1	22.3
	Japan	Spain	Germany	France	Nether.	Japan	France	UK	HK	US	Portugal	Italy	Nether.	France	Finland	NZ	Sweden	NZ	Spain	US
	5.1	4.8	-15.6	-22.4	-20.8	35.9	18.5	7.4	30.4	5.4	-52.2	26.6	1.7	-16.9	14.6	11.3	-7.5	-6.3	-1.0	21.2
	Austria	Italy	Spain	Germany	France	Belgium	Germany	US	Finland	Switz.	NZ	US	Belgium	Singapore	Italy	HK	Italy	UK	Finland	Sweden
	0.4	-0.3	-15.9	-22.4	-21.2	35.3	16.2	5.1	29.9	5.3	-53.8	26.3	-0.4	-17.9	12.5	11.1	-9.5	-7.6	-4.7	20.6
	HK	Switz.	Belgium	Singapore	US	Switz.	Japan	Spain	Switz.	Austria	Finland	Switz.	France	Germany	Canada	Portugal	France	Australia	Switz.	Australia
	-2.9	-7.0	-16.8	-23.4	-23.1	34.1	15.9	4.4	27.4	2.2	-55.2	25.3	-4.1	-18.1	9.1	11.0	-9.9	-10.0	-4.9	19.9
	Canada	Portugal	Sweden	Italy	Ireland	UK	Switz.	Italy	Canada	Sweden	Norway	Germany	Portugal	Portugal	Japan	Norway	Germany	Norway	Ireland	Belgium
	-6.1	-8.9	-21.3	-26.6	-26.2	32.1	15.0	1.9	17.8	0.6	-64.2	25.2	-11.3	-23.1	8.2	9.4	-10.4	-15.0	-7.1	18.6
	Singapore	Austria	Singapore	Sweden	Finland	US	Nether.	NZ	NZ	Belgium	Belgium	Ireland	Italy	Italy	Ireland	Canada	Norway	Spain	Belgium	Ireland
	-12.9	-9.1	-27.7	-27.2	-30.3	28.4	12.2	1.7	16.6	-2.7	-66.5	12.3	-15.0	-23.2	5.7	5.6	-22.0	-15.6	-7.6	18.1
	NZ	Ireland	Japan	Japan	Sweden	Nether.	US	Portugal	US	Japan	Austria	Finland	Ireland	Finland	Portugal	Australia	Austria	Singapore	Italy	Canada
	-22.6	-12.6	-28.2	-29.4	-30.5	28.1	10.1	-1.9	14.7	-4.2	-68.4	11.1	-18.1	-31.9	3.5	4.2	-29.8	-17.7	-10.5	16.1
Lowest	Norway	Belgium	NZ	Finland	Germany	Finland	Finland	Ireland	Japan	Ireland	Ireland	Japan	Spain	Austria	Spain	Singapore	Portugal	Canada	Denmark	NZ
Return	-30.1	-14.3	-33.5	-38.2	-33.2	19.4	6.1	-2.3	6.2	-20.1	-71.9	6.3	-22.0	-36.4	3.0	1.7	-38.2	-24.2	-15.8	11.7

n US dollars

Source: MSCI country indices (net dividends) for each country listed. Does not include Israel, which MSCI classified as an emerging market prior to May 2010. MSCI data © MSCI 2018, all rights reserved.

Past performance is no guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.



is highest return for the year.

**Boxed Return** 

31.8

12.7

0.7

10.9

21.2

# **Equity Returns of Developed Markets**

Annual Return (%)

1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2014 2016 2017 2013 2015 -11.0 Australia 6.1 17.6 -10.0 1.7 -1.3 49.5 30.3 16.0 30.9 28.3 -50.7 76.4 14.5 22.1 4.2 -3.4 -10.0 11.4 19.9 Austria 0.4 -9.1 -12.0 -5.6 16.5 57.0 71.5 24.6 36.5 2.2 -68.4 43.2 9.9 -36.425.9 13.4 -29.8 3.5 11.3 58.3 Belgium 67.7 -14.3 -16.8 -10.9 -15.0 35.3 43.5 9.0 36.7 -66.5 57.5 -0.4 -10.6 39.6 27.6 4.1 12.1 -7.6 18.6 -2.724.6 Canada -6.1 53.7 5.3 -20.4 -13.254.6 22.2 28.3 17.8 29.6 -45.5 56.2 20.5 -12.7 9.1 5.6 1.5 -24.2 16.1 Denmark 9.0 12.1 3.4 -14.8 -16.0 49.3 30.8 24.5 38.8 25.6 -47.6 36.6 30.7 -16.0 31.3 25.2 6.2 23.4 -15.8 34.7 152.6 48.7 46.0 Finland 121.6 -14.2 -38.2 -30.3 19.4 6.1 16.7 29.9 -55.2 11.1 10.3 -31.9 14.6 -0.7 2.0 -4.7 22.5 France 41.5 29.3 -4.3 -22.4 -21.2 40.2 18.5 9.9 34.5 13.2 -43.331.8 -4.1 -16.9 21.3 26.3 -9.9 -0.1 4.9 28.7 63.8 Germany 29.4 20.0 -15.6 -22.4-33.216.2 9.9 36.0 35.2 -45.9 25.2 8.4 -18.1 30.9 31.4 -10.4-1.9 28 27.7 Hong Kong -2.9 59.5 -14.7 -18.6 -17.8 38.1 25.0 8.4 30.4 41.2 -51.2 60.2 23.2 -16.0 28.3 11.1 5.1 -0.5 2.3 36.2 Ireland 35.3 -12.6 -12.7 -2.8 -26.2 43.8 43.1 -2.3 46.8 -20.1 -71.9 12.3 -18.1 13.7 5.7 41.2 2.3 16.5 -7.1 18.1 Italy 52.5 -0.3 -1.3 -26.6 -7.3 37.8 32.5 1.9 32.5 6.1 -50.0 26.6 -15.0 -23.2 12.5 20.4 -9.5 2.3 -10.5 28.4 5.1 61.5 -28.2 -29.4-10.335.9 15.9 25.5 6.2 -4.2 6.3 15.4 -14.3 8.2 27.2 -4.0 9.6 2.4 24.0 23.2 6.9 -22.1 -20.8 28.1 13.9 -48.2 42.3 -12.1 20.6 31.3 -3.5 32.2 **Netherlands** -4.1 122 314 20.6 1.7 1.3 48 **New Zealand** -22.6 12.9 -33.5 8.4 24.2 55.4 35.2 1.7 16.6 8.9 -53.8 50.4 8.3 5.5 29.3 11.3 7.3 -6.3 18.4 11.7 -30.1 31.7 -0.9 -12.2 -7.3 48.1 53.3 24.3 45.1 -64.2 87.1 10.9 -10.0 18.7 9.4 -22.0 28.3 Norway 31.4 -15.0 13.3 -22.0 -52.2 40.4 -38.2 Portugal 27.5 -8.9 -10.3 -13.843.0 24.7 -1.9 47.4 24.0 -11.3 -23.1 3.5 11.0 0.9 3.6 23.8 Singapore -12.9 99.4 -27.7 -23.4 -11.0 37.6 22.3 14.4 46.7 28.4 -47.4 74.0 22.1 -17.931.0 1.7 3.0 -17.7 1.4 35.6 Spain 49.9 4.8 -15.9 -11.4 -15.358.5 28.9 4.4 49.4 24.0 -40.6 43.5 -22.0 -12.33.0 31.3 -4.7 -15.6 -1 0 27.0 64.5 33.8 Sweden 14.0 79.7 -21.3 -27.2 -30.536.3 10.3 43.4 0.6 -49.9 64.2 -16.0 22.0 24.5 -7.5 -5.0 0.6 20.6 23.5 -7.0 5.9 -21.4 -10.3 34.1 -30.5 26.6 15.0 16.3 27.4 25.3 11.8 20.4 -0.1 22.5 Switzerland 5.3 -6.8 0.4 -4.9 UK 17.8 12.5 -11.5 -14.0 -15.232.1 19.6 7.4 30.6 8.4 -48.343.3 8.8 -2.6 15.3 20.7 -5.4 -7.6 -0.1 22.3

In US dollars

30.1

-12.8

21.9

-23.1

-12.4

28.4

US

Source: MSCI country indices (net dividends) for each country listed. Does not include Israel, which MSCI classified as an emerging market prior to May 2010. MSCI data © MSCI 2018, all rights reserved.

5.1

10.1

Past performance is no guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.

14.7

-37.6

5.4

26.3

14.8

1.4

15.3



## **Equity Returns of Emerging Markets**

Annual Return (%)



In US dollars

Source: MSCI country indices (gross dividends) for each country listed. Does not include Greece, which MSCI classified as a developed market prior to November 2013. Additional countries excluded due to data availability or due to downgrades by MSCI from emerging to frontier market. MSCI data © MSCI 2018, all rights reserved.

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Boxed Return is highest return for the year.

# **Equity Returns of Emerging Markets**

Annual Return (%)

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Brazil	-39.6	67.2	-11.4	-17.0	-30.7	115.0	36.5	57.0	45.8	80.0	-56.1	128.6	6.8	-21.6	0.3	-15.8	-13.7	-41.2	66.7	24.5
Chile	-28.5	39.0	-15.1	-2.8	-19.8	84.4	29.0	21.6	29.3	23.7	-35.4	86.7	44.8	-20.0	8.3	-21.4	-12.2	-16.8	16.8	43.6
China	-42.4	13.3	-30.5	-24.7	-14.0	87.6	1.9	19.8	82.9	66.2	-50.8	62.6	4.8	-18.2	23.1	4.0	8.3	-7.6	1.1	54.3
Colombia	-41.7	-14.4	-38.9	45.8	25.4	66.9	133.0	107.5	13.8	15.0	-25.1	84.3	43.4	-5.0	35.9	-21.1	-19.8	-41.8	26.5	16.3
Czech Republic	0.5	5.3	1.6	-2.0	44.2	66.2	87.3	46.2	34.7	55.9	-42.7	27.8	-1.7	-5.0	3.5	-8.1	-2.4	-16.5	-2.5	38.9
Egypt	-27.0	88.4	-43.7	-41.3	1.6	91.8	126.2	161.6	17.1	58.4	-52.4	39.7	12.4	-46.9	47.1	8.2	29.3	-23.5	-11.4	5.2
Hungary	-8.2	11.7	-26.8	-9.2	30.7	32.3	92.5	18.5	33.7	16.8	-61.5	77.6	-9.6	-33.6	22.8	-5.8	-27.4	36.3	35.4	39.9
India	-21.2	87.3	-21.7	-19.5	8.4	78.4	19.1	37.6	51.0	73.1	-64.6	102.8	20.9	-37.2	26.0	-3.8	23.9	-6.1	-1.4	38.8
Indonesia	-31.5	93.5	-61.9	-8.5	42.8	78.2	52.2	15.8	74.8	55.0	-56.2	127.6	34.6	6.5	5.2	-23.1	27.2	-19.1	17.5	24.8
Korea	141.1	92.4	-49.6	48.7	8.6	35.9	22.9	58.0	13.2	32.6	-55.1	72.1	27.2	-11.8	21.5	4.2	-10.7	-6.3	9.2	47.8
Malaysia	-30.8	114.3	-16.0	4.6	-0.7	26.6	15.2	2.3	37.1	46.1	-41.2	52.1	37.0	0.1	14.3	7.7	-10.7	-20.1	-3.9	25.1
Mexico	-33.5	80.1	-20.5	18.5	-13.3	32.8	48.3	49.1	41.4	12.2	-42.9	56.6	27.6	-12.1	29.1	0.2	-9.2	-14.2	-9.0	16.3
Peru	-40.2	18.9	-23.8	19.9	30.5	94.3	3.2	35.0	62.6	94.7	-40.1	72.1	53.3	-21.4	20.2	-29.8	10.5	-31.7	55.6	38.4
Philippines	13.5	3.3	-45.0	-19.3	-29.0	42.8	26.6	23.9	59.7	41.7	-51.9	68.0	35.5	0.1	47.6	-2.0	26.4	-6.3	-6.1	25.2
Poland	-6.7	31.5	-4.0	-27.4	1.3	35.5	61.5	25.0	41.9	25.8	-54.5	42.5	15.9	-29.5	41.0	3.6	-13.6	-24.9	0.7	55.3
Russia	-83.0	247.1	-30.0	55.9	15.7	75.9	5.7	73.8	55.9	24.8	-73.8	104.9	19.4	-19.3	14.4	1.4	-45.9	5.0	55.9	6.1
South Africa	-27.6	57.2	-17.2	-17.2	28.0	45.9	44.9	28.3	20.5	18.1	-37.9	57.8	34.2	-14.4	19.0	-5.8	5.7	-25.1	18.4	36.8
Taiwan	-20.6	52.7	-44.9	10.5	-24.5	42.5	9.8	7.3	20.9	9.1	-45.9	80.2	22.7	-20.2	17.7	9.8	10.1	-11.0	19.6	28.5
Thailand	11.6	47.2	-56.3	5.3	27.6	144.6	-0.9	9.2	11.6	46.6	-48.3	77.3	56.3	-2.4	34.9	-14.3	16.8	-23.3	27.0	34.9
Turkey	-52.5	252.4	-45.6	-32.7	-35.7	125.9	42.0	56.9	-7.0	74.8	-62.1	98.5	21.2	-35.2	64.9	-26.5	19.1	-31.6	-8.1	39.1

In US dollars.

Source: MSCI country indices (gross dividends) for each country listed. Does not include Greece, which MSCI classified as a developed market prior to November 2013. Additional countries excluded due to data availability or due to downgrades by MSCI from emerging to frontier market. MSCI data © MSCI 2018, all rights reserved.

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### Model Portfolios' Index Descriptions

Fama/French US Large Value Research Index: Constructed from CRSP securities data. The size breakpoint is the market capitalization of the median NYSE firm, so the big and small categories contain the same number of eligible NYSE firms. The BtM breakpoints split the eligible NYSE firms with positive book equity into three categories: 30% of the eligible NYSE firms with positive BE are in Low (Growth), 40% are in Medium (Neutral), and 30% are in High (Value). Rebalancing: annual, at the end of June.

**Fama/French US Small Index:** Constructed from CRSP securities data. Includes the lower-half range in market cap of NYSE securities (plus NYSE Amex equivalents since July 1962 and Nasdaq equivalents since 1973).

Fama/French US Small Value Research Index: Constructed from CRSP securities data. The size breakpoint is the market capitalization of the median NYSE firm, so the big and small categories contain the same number of eligible NYSE firms. The BtM breakpoints split the eligible NYSE firms with positive book equity into three categories: 30% of the eligible NYSE firms with positive BE are in Low (Growth), 40% are in Medium (Neutral), and 30% are in High (Value).

**Fama/French International Value Index:** 2008—Present: Provided by Fama/French from Bloomberg securities data. Simulated strategy of MSCI EAFE + Canada countries in the lower 30% price-to-book range. 1975–2007: Provided by Fama/French from MSCI securities data.

Dimensional International Small Cap Index was created by Dimensional in April 2008 and is compiled by Dimensional. July 1981–December 1993: It includes non-US developed securities in the bottom 10% of market capitalization in each eligible country. All securities are market capitalization weighted. Each country is capped at 50%. Rebalanced semiannually. January 1994–Present: Market-capitalization-weighted index of small company securities in the eligible markets excluding those with the lowest profitability and highest relative price within the small cap universe. Profitability is measured as operating income before depreciation and amortization minus interest expense scaled by book. The index monthly returns are computed as the simple average of the monthly returns of four sub-indices, each one reconstituted once a year at the end of a different quarter of the year. Prior to July 1981, the index is 50% UK and 50% Japan. The calculation methodology for the Dimensional International Small Cap Index was amended on January 1, 2014, to include profitability as a factor in selecting securities for inclusion in the index.

Fama/ French Indices: Results shown during periods prior to each Index's index inception date do not represent actual returns of the respective index. Other periods selected may have different results, including losses. Backtested index performance is hypothetical and is provided for informational purposes only to indicate historical performance had the index been calculated over the relevant time periods. Backtested performance results assume the reinvestment of dividends and capital gains.

Dimensional Index: The Index has been retrospectively calculated by Dimensional Fund Advisors LP and did not exist prior to its index inception date. Accordingly, results shown during the periods prior to the Index's index inception date do not represent actual returns of the Index. Other periods selected may have different results, including losses. Backtested index performance is hypothetical and is provided for informational purposes only to indicate historical performance had the index been calculated over the relevant time periods. Backtested performance results assume the reinvestment of dividends and capital gains. Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP.