

Randomness of returns

Asset class returns 1991 - 2017 (in New Zealand dollars)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Avg
New Zealand shares	26.2%	10.8%	47.8%	-7.2%	20.1%	17.3%	4.3%	-4.4%	13.3%	-8.0%	13.9%	-1.2%	25.6%	25.1%	10.0%	20.3%	-0.3%	-32.8%	18.9%	2.4%	-1.0%	24.2%	16.5%	17.5%	13.6%	10.1%	23.6%	10.3%
Australian shares	44.0%	-7.5%	27.2%	-8.9%	13.7%	12.9%	11.9%	13.6%	28.6%	6.2%	8.0%	-20.1%	22.2%	21.0%	21.5%	29.6%	18.2%	-35.6%	42.1%	7.8%	-10.5%	15.0%	3.9%	1.8%	4.4%	9.0%	18.5%	9.6%
Global large shares	28.9%	-0.5%	13.0%	-8.2%	18.1%	5.0%	40.1%	36.7%	26.9%	2.1%	-11.6%	-36.2%	6.0%	4.3%	15.7%	16.6%	-0.3%	-21.9%	4.5%	4.0%	-5.5%	9.4%	27.0%	10.6%	13.5%	5.3%	20.1%	6.9%
Global value shares	24.4%	1.0%	20.2%	-6.8%	18.1%	5.7%	39.9%	26.9%	18.6%	17.7%	-9.6%	-36.3%	10.0%	7.7%	15.8%	21.5%	-5.5%	-21.5%	1.8%	1.5%	-5.5%	9.1%	27.0%	9.3%	9.0%	10.0%	14.9%	7.1%
Global small shares	34.3%	1.2%	17.0%	-6.1%	10.0%	0.8%	12.3%	13.7%	28.9%	15.4%	7.2%	-33.1%	25.7%	13.0%	22.3%	13.8%	-7.9%	-23.5%	15.9%	17.4%	-9.0%	11.0%	32.7%	7.4%	14.1%	10.4%	20.4%	8.6%
Emerging markets shares	83.1%	6.5%	66.9%	-19.3%	1.6%	4.2%	-0.9%	0.5%	69.0%	-18.7%	3.5%	-25.3%	24.1%	14.1%	41.7%	28.3%	27.5%	-38.5%	43.5%	10.7%	-18.4%	11.6%	-2.3%	3.1%	-2.6%	9.9%	35.0%	9.8%
New Zealand property	-11.4%	-39.2%	-5.6%	2.8%	13.9%	23.3%	-1.8%	4.8%	-6.4%	7.3%	12.1%	10.4%	13.4%	20.0%	19.7%	24.9%	-4.3%	-20.8%	11.8%	3.4%	11.2%	20.5%	3.9%	24.2%	14.5%	3.8%	13.9%	5.2%
Global property	5.9%	-3.8%	38.5%	-18.5%	13.4%	18.4%	32.9%	3.4%	-0.1%	44.1%	12.6%	-11.9%	11.5%	25.2%	17.9%	38.3%	-20.8%	-28.7%	9.5%	15.1%	0.1%	17.7%	3.1%	28.7%	14.2%	4.1%	5.0%	8.7%
New Zealand fixed interest	10.0%	8.4%	6.8%	7.7%	7.7%	7.9%	7.1%	6.2%	6.5%	6.8%	6.4%	6.5%	4.3%	5.9%	6.3%	5.9%	2.7%	15.4%	5.7%	8.7%	9.3%	6.3%	1.9%	7.4%	5.8%	4.1%	5.8%	6.8%
Hedged global bonds	17.8%	10.9%	16.0%	-1.8%	21.4%	13.0%	12.8%	13.1%	0.4%	10.3%	8.2%	12.1%	6.3%	9.5%	9.1%	5.5%	8.9%	15.2%	3.5%	6.3%	8.3%	7.2%	2.2%	11.1%	4.5%	5.8%	4.0%	8.8%
New Zealand cash	10.2%	7.1%	6.3%	6.9%	9.4%	9.8%	7.9%	7.3%	4.8%	6.6%	5.9%	5.7%	5.6%	6.3%	7.3%	7.7%	8.6%	8.3%	3.1%	3.0%	2.7%	2.7%	2.7%	3.4%	3.3%	2.3%	1.9%	5.8%
Portfolio 50/50	22.7%	4.0%	18.9%	-2.9%	14.9%	11.3%	13.9%	12.0%	12.8%	6.4%	5.7%	-5.1%	11.8%	11.7%	12.2%	16.0%	3.5%	-8.2%	17.0%	9.1%	0.1%	12.4%	9.1%	9.0%	6.2%	9.0%	12.3%	8.9%

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Highest	83.1%	10.9%	66.9%	7.7%	21.4%	23.3%	40.1%	36.7%	69.0%	44.1%	13.9%	12.1%	25.7%	25.2%	41.7%	38.3%	27.5%	15.4%	43.5%	17.4%	11.2%	24.2%	32.7%	28.7%	14.5%	10.4%	35.0%
	44.0%	10.8%	47.8%	6.9%	20.1%	18.4%	39.9%	26.9%	28.9%	17.7%	12.6%	10.4%	25.6%	25.1%	22.3%	29.6%	18.2%	15.2%	42.1%	15.1%	9.3%	20.5%	27.0%	24.2%	14.2%	10.1%	23.6%
	34.3%	8.4%	38.5%	2.8%	18.1%	17.3%	32.9%	13.7%	28.6%	15.4%	12.1%	6.5%	24.1%	21.0%	21.5%	28.3%	8.9%	8.3%	18.9%	10.7%	8.3%	17.7%	27.0%	17.5%	14.1%	10.0%	20.4%
	28.9%	7.1%	27.2%	-1.8%	18.1%	13.0%	13.9%	13.6%	26.9%	10.3%	8.2%	5.7%	22.2%	20.0%	19.7%	24.9%	8.6%	-8.2%	17.0%	9.1%	2.7%	15.0%	16.5%	11.1%	13.6%	9.9%	20.1%
	26.2%	6.5%	20.2%	-2.9%	14.9%	12.9%	12.8%	13.1%	18.6%	7.3%	8.0%	-1.2%	13.4%	14.1%	17.9%	21.5%	3.5%	-20.8%	15.9%	8.7%	0.1%	12.4%	9.1%	10.6%	13.5%	9.0%	18.5%
	24.4%	4.0%	18.9%	-6.1%	13.9%	11.3%	12.3%	12.0%	13.3%	6.8%	7.2%	-5.1%	11.8%	13.0%	15.8%	20.3%	2.7%	-21.5%	11.8%	7.8%	0.1%	11.6%	3.9%	9.3%	9.0%	9.0%	14.9%
	22.7%	1.2%	17.0%	-6.8%	13.7%	9.8%	11.9%	7.3%	12.8%	6.6%	6.4%	-11.9%	11.5%	11.7%	15.7%	16.6%	-0.3%	-21.9%	9.5%	6.3%	-1.0%	11.0%	3.9%	9.0%	6.2%	5.8%	13.9%
	17.8%	1.0%	16.0%	-7.2%	13.4%	7.9%	7.9%	6.2%	6.5%	6.4%	5.9%	-20.1%	10.0%	9.5%	12.2%	16.0%	-0.3%	-23.5%	5.7%	4.0%	-5.5%	9.4%	3.1%	7.4%	5.8%	5.3%	12.3%
	10.2%	-0.5%	13.0%	-8.2%	10.0%	5.7%	7.1%	4.8%	4.8%	6.2%	5.7%	-25.3%	6.3%	7.7%	10.0%	13.8%	-4.3%	-28.7%	4.5%	3.4%	-5.5%	9.1%	2.7%	7.4%	4.5%	4.1%	5.8%
	10.0%	-3.8%	6.8%	-8.9%	9.4%	5.0%	4.3%	3.4%	0.4%	2.1%	3.5%	-33.1%	6.0%	6.3%	9.1%	7.7%	-5.5%	-32.8%	3.5%	3.0%	-9.0%	7.2%	2.2%	3.4%	4.4%	4.1%	5.0%
	5.9%	-7.5%	6.3%	-18.5%	7.7%	4.2%	-0.9%	0.5%	-0.1%	-8.0%	-9.6%	-36.2%	5.6%	5.9%	7.3%	5.9%	-7.9%	-35.6%	3.1%	2.4%	-10.5%	6.3%	1.9%	3.1%	3.3%	3.8%	4.0%
Lowest	-11.4%	-39.2%	-5.6%	-19.3%	1.6%	0.8%	-1.8%	-4.4%	-6.4%	-18.7%	-11.6%	-36.3%	4.3%	4.3%	6.3%	5.5%	-20.8%	-38.5%	1.8%	1.5%	-18.4%	2.7%	-2.3%	1.8%	-2.6%	2.3%	1.9%