

DECADES OF DATA APPENDIX: LONG-TERM HISTORICAL CAPITAL MARKET RETURNS SUMMARY

GLOBAL MARKETS 1900–2018



Table of Contents

Long-Term Historical Capital Market Returns Summary: US	2
Equity and bond nominal returns: 1900–2018	3–6
Money market instrument returns and inflation: 1900–2018	7–10
Equity and bond real returns: 1900–2018	11–14
Long-Term Historical Capital Market Returns Summary: UK	15
Equity and bond nominal returns: 1900–2018	16–19
Money market instrument returns and inflation: 1900–2018	20–23
Equity and bond real returns: 1900–2018	24–27
Long-Term Historical Capital Market Returns Summary: Japan	28
Equity and bond nominal returns: 1900–2018	29–31
Money market instrument returns and inflation: 1900–2018	32–34
Equity and bond real returns: 1900–2018	35–37
Long-Term Historical Capital Market Returns Summary: Australia	38
Equity and bond nominal returns: 1900–2018	39–41
Money market instrument returns and inflation: 1900–2018	42–44
Equity and bond real returns: 1900–2018	45–47
Long-Term Historical Equity Returns Summary: Emerging Markets	48
Equity returns in USD and local currency terms: 1987–2018	49
Notes on the Data	50
Index Disclosures	56



LONG-TERM HISTORICAL CAPITAL MARKET
RETURNS SUMMARY: US

Equity and bond nominal returns (US): 1900–2018

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1899	—	—	100.0	100.0	—	—
1900	18.7	6.2	118.7	106.2	9.5	4.6
1901	19.7	4.1	142.1	110.5	9.4	4.6
1902	4.9	-0.1	149.1	110.4	9.4	4.6
1903	-14.7	2.1	127.2	112.7	9.4	4.6
1904	30.9	0.5	166.5	113.3	9.6	4.7
1905	19.7	2.7	199.3	116.4	9.5	4.7
1906	6.8	3.2	212.9	120.1	9.4	4.7
1907	-29.6	-6.4	149.8	112.5	9.4	4.7
1908	44.5	5.6	216.5	118.7	9.8	4.8
1909	19.0	-0.9	257.6	117.7	9.6	4.8
1910	-7.9	2.9	237.2	121.1	9.5	4.9
1911	5.7	1.9	250.9	123.3	9.7	4.9
1912	8.0	4.0	270.9	128.3	9.7	4.9
1913	-9.6	1.7	244.8	130.5	9.7	4.9
1914	-3.7	1.8	235.8	132.9	9.9	5.0
1915	35.5	4.5	319.5	138.9	10.1	5.0
1916	8.9	3.8	348.1	144.2	9.8	5.0
1917	-25.2	-2.3	260.3	140.9	9.8	5.0
1918	25.6	0.9	326.8	142.3	10.3	5.1
1919	20.7	3.5	394.3	147.3	10.1	5.1
1920	-19.7	-4.2	316.7	141.1	10.0	5.2
1921	14.6	18.8	362.9	167.6	10.4	5.3
1922	27.8	3.2	463.8	173.0	10.3	5.1
1923	4.2	3.8	483.1	179.5	10.2	5.1
1924	25.7	10.3	607.3	198.0	10.2	5.2
1925	29.5	5.5	786.7	209.0	10.1	5.1
1926	11.1	7.8	874.3	225.2	9.9	5.1
1927	37.1	9.0	1,198.9	245.6	9.9	5.1
1928	43.3	0.2	1,718.2	246.1	9.6	5.0
1929	-8.9	3.7	1,565.1	255.1	9.3	5.1
1930	-25.3	4.8	1,169.8	267.2	9.5	5.1
1931	-43.9	-12.6	656.8	233.6	10.0	5.1
1932	-8.9	17.1	598.6	273.5	10.8	5.3
1933	52.9	-0.1	915.2	273.3	11.1	5.2

Equity and bond nominal returns (US): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1934	-2.3	10.2	893.8	301.1	10.7	5.3
1935	47.2	4.4	1,315.7	314.3	10.8	5.2
1936	32.8	6.9	1,747.2	335.9	10.4	5.2
1937	-35.3	0.8	1,131.2	338.6	10.2	5.2
1938	33.2	7.0	1,506.7	362.5	10.9	5.2
1939	-0.9	5.3	1,493.0	381.6	10.7	5.2
1940	-10.1	4.9	1,342.5	400.4	10.8	5.2
1941	-11.8	2.7	1,184.5	411.3	11.1	5.2
1942	21.1	1.8	1,434.2	418.6	11.4	5.3
1943	25.8	2.0	1,803.6	426.9	11.3	5.3
1944	19.7	2.3	2,158.8	436.7	11.1	5.4
1945	36.5	5.8	2,945.9	461.9	11.0	5.4
1946	-8.2	0.4	2,704.9	463.7	10.7	5.4
1947	5.2	-1.4	2,846.6	457.2	11.0	5.5
1948	5.1	2.7	2,991.8	469.7	11.1	5.6
1949	18.1	4.9	3,532.2	492.9	11.2	5.6
1950	30.6	-1.4	4,612.4	486.1	11.1	5.6
1951	24.6	-0.6	5,744.8	483.4	10.8	5.7
1952	18.5	1.9	6,807.7	492.5	10.6	5.8
1953	-1.1	2.2	6,732.9	503.4	10.5	5.9
1954	52.4	3.2	10,261.2	519.3	10.7	5.9
1955	31.4	-1.1	13,486.2	513.4	10.1	6.0
1956	6.6	-2.7	14,379.9	499.6	9.8	6.1
1957	-10.9	5.9	12,819.2	529.2	9.9	6.2
1958	43.3	-2.1	18,375.6	518.1	10.3	6.2
1959	11.9	-1.1	20,563.1	512.2	9.8	6.4
1960	0.5	11.7	20,662.4	571.9	9.8	6.5
1961	26.8	2.1	26,202.3	583.9	9.9	6.4
1962	-8.8	5.8	23,900.7	617.9	9.6	6.5
1963	22.7	1.6	29,324.0	628.1	10.0	6.5
1964	16.4	3.7	34,120.7	651.2	9.8	6.6
1965	12.4	0.7	38,336.6	655.9	9.7	6.7
1966	-10.1	5.5	34,462.9	691.7	9.6	6.8

Equity and bond nominal returns (US): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1967	23.9	-3.1	42,714.1	670.3	10.0	6.8
1968	11.0	2.2	47,413.7	685.2	9.8	7.0
1969	-8.4	-5.6	43,423.5	646.5	9.8	7.1
1970	3.9	18.9	45,132.2	768.9	10.2	7.4
1971	14.6	11.2	51,706.0	855.3	10.3	7.2
1972	18.9	2.4	61,481.3	875.7	10.2	7.1
1973	-14.8	3.3	52,403.1	904.9	10.0	7.2
1974	-26.4	4.1	38,575.8	941.9	10.7	7.3
1975	37.2	5.6	52,913.1	994.8	11.7	7.3
1976	23.6	15.2	65,387.9	1,146.5	11.2	7.4
1977	-7.4	0.7	60,539.0	1,154.0	10.9	7.2
1978	6.4	-0.8	64,404.5	1,145.1	11.4	7.4
1979	18.2	1.9	76,129.7	1,167.1	11.5	7.6
1980	32.3	-1.1	100,701.6	1,154.6	11.3	7.7
1981	-5.0	5.6	95,661.1	1,218.7	10.8	8.0
1982	21.4	39.3	116,176.4	1,697.8	11.3	8.0
1983	22.4	2.6	142,183.5	1,742.7	11.0	7.3
1984	6.1	15.0	150,864.0	2,004.3	10.7	7.4
1985	31.6	29.6	198,501.3	2,598.0	10.8	7.2
1986	18.6	21.3	235,374.2	3,151.0	10.3	6.6
1987	5.1	-2.2	247,390.3	3,081.2	10.0	6.2
1988	16.6	7.0	288,495.3	3,297.4	10.2	6.4
1989	31.7	17.8	379,904.2	3,883.9	10.0	6.4
1990	-3.1	7.9	368,108.9	4,189.9	9.3	6.0
1991	30.5	18.8	480,254.8	4,975.7	9.8	6.0
1992	7.6	7.4	516,852.4	5,346.3	9.1	5.5
1993	10.1	13.0	568,940.1	6,041.1	9.1	5.5
1994	1.3	-7.3	576,449.9	5,598.6	9.1	5.2
1995	37.6	25.9	793,071.7	7,051.1	9.4	5.7
1996	23.0	0.1	975,168.7	7,060.3	8.3	4.9
1997	33.4	12.0	1,300,511.9	7,909.2	7.7	5.1
1998	28.6	14.5	1,672,185.5	9,052.3	6.6	4.8
1999	21.0	-7.5	2,024,033.2	8,372.5	5.6	4.4
2000	-9.1	17.2	1,839,753.5	9,813.9	4.9	5.0

Equity and bond nominal returns (US): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
2001	-11.9	3.6	1,621,089.0	10,165.0	5.7	4.4
2002	-22.1	15.4	1,262,822.9	11,727.7	6.8	4.4
2003	28.7	0.5	1,625,054.2	11,781.4	9.0	3.8
2004	10.9	4.6	1,801,894.2	12,324.5	7.8	4.0
2005	4.9	3.1	1,890,399.4	12,705.1	7.5	4.0
2006	15.8	2.2	2,188,977.8	12,985.3	7.8	4.1
2007	5.5	10.5	2,309,234.2	14,354.2	7.1	4.2
2008	-37.0	20.2	1,454,872.7	17,257.8	7.3	3.7
2009	26.5	-9.8	1,839,893.6	15,574.1	13.1	2.1
2010	15.1	7.4	2,117,044.1	16,728.4	11.7	3.5
2011	2.1	16.9	2,161,752.5	19,547.9	11.3	3.1
2012	16.0	2.8	2,507,702.6	20,089.8	12.7	1.2
2013	32.4	-8.6	3,319,909.1	18,371.0	12.2	1.0
2014	13.7	10.8	3,774,350.3	20,361.7	8.5	3.0
2015	1.4	1.2	3,826,578.2	20,608.4	7.2	1.1
2016	12.0	0.2	4,284,233.6	20,651.2	9.3	1.1
2017	21.8	2.8	5,219,550.4	21,231.0	7.9	1.6
2018	-4.4	0.3	4,990,712.7	21,302.4	-4.4	0.3

Money market instrument returns and inflation (US): 1900–2018

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1899	—	—	100.0	100.0	—	—
1900	4.3	1.3	104.3	101.3	3.8	3.0
1901	4.2	2.6	108.7	104.0	3.8	3.0
1902	4.9	2.6	114.1	106.7	3.8	3.0
1903	5.5	0.0	120.4	106.7	3.8	3.0
1904	4.1	1.3	125.3	108.0	3.8	3.1
1905	4.3	2.5	130.7	110.7	3.8	3.1
1906	5.6	4.8	138.1	116.0	3.8	3.1
1907	6.5	3.4	147.1	120.0	3.7	3.1
1908	4.2	-6.8	153.2	111.8	3.7	3.1
1909	3.9	13.3	159.2	126.7	3.7	3.2
1910	4.8	0.0	166.8	126.7	3.7	3.1
1911	3.9	2.1	173.2	129.3	3.7	3.1
1912	4.8	3.1	181.5	133.3	3.7	3.1
1913	5.5	2.0	191.5	136.1	3.7	3.1
1914	4.7	1.0	200.5	137.4	3.7	3.1
1915	3.3	2.0	207.1	140.1	3.7	3.1
1916	3.3	12.6	214.0	157.8	3.7	3.1
1917	4.8	18.1	224.2	186.4	3.7	3.1
1918	5.9	20.4	237.5	224.5	3.7	2.9
1919	5.5	14.5	250.6	257.1	3.6	2.8
1920	5.6	2.6	264.5	263.9	3.6	2.6
1921	4.9	-10.8	277.6	235.4	3.6	2.6
1922	3.5	-2.3	287.4	229.9	3.6	2.8
1923	4.0	2.4	298.9	235.4	3.6	2.9
1924	2.8	0.0	307.2	235.4	3.6	2.9
1925	3.1	3.5	316.7	243.5	3.6	2.9
1926	3.3	-1.1	327.1	240.8	3.6	2.9
1927	3.2	-2.3	337.4	235.4	3.6	2.9
1928	4.0	-1.2	351.1	232.7	3.6	3.0
1929	4.5	0.6	366.8	234.0	3.6	3.0
1930	2.3	-6.4	375.1	219.0	3.6	3.1
1931	1.2	-9.3	379.4	198.6	3.6	3.2
1932	0.9	-10.3	382.7	178.2	3.6	3.3

Money market instrument returns and inflation (US): 1900–2018 (continued)

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1933	0.5	0.8	384.7	179.6	3.7	3.5
1934	0.3	1.5	385.7	182.3	3.7	3.5
1935	0.2	3.0	386.4	187.8	3.7	3.6
1936	0.2	1.4	387.1	190.5	3.8	3.6
1937	0.3	2.9	388.1	195.9	3.8	3.6
1938	0.1	-2.8	388.3	190.5	3.9	3.6
1939	0.0	0.0	388.5	190.5	3.9	3.7
1940	0.0	0.7	388.6	191.8	4.0	3.7
1941	0.1	9.9	389.2	210.9	4.0	3.8
1942	0.3	9.0	390.5	229.9	4.1	3.7
1943	0.4	3.0	392.0	236.7	4.1	3.6
1944	0.4	2.3	393.5	242.2	4.2	3.6
1945	0.4	2.2	395.0	247.6	4.2	3.6
1946	0.4	18.1	396.5	292.5	4.3	3.7
1947	0.6	8.8	398.9	318.4	4.3	3.5
1948	1.1	3.0	403.2	327.9	4.4	3.4
1949	1.1	-2.1	407.7	321.1	4.4	3.4
1950	1.2	5.9	412.7	340.1	4.5	3.5
1951	1.6	6.0	419.1	360.5	4.5	3.5
1952	1.7	0.8	426.4	363.3	4.6	3.4
1953	1.9	0.7	434.4	366.0	4.6	3.5
1954	0.9	-0.7	438.4	363.3	4.7	3.5
1955	1.8	0.4	446.3	364.6	4.7	3.6
1956	2.7	3.0	458.2	375.5	4.8	3.6
1957	3.3	2.9	473.2	386.4	4.8	3.6
1958	1.7	1.8	481.3	393.2	4.8	3.6
1959	3.5	1.7	498.0	400.0	4.9	3.7
1960	2.8	1.4	512.0	405.4	4.9	3.7
1961	2.4	0.7	524.3	408.2	4.9	3.7
1962	2.8	1.3	539.1	413.6	5.0	3.8
1963	3.2	1.6	556.5	420.4	5.0	3.8
1964	3.6	1.0	576.7	424.5	5.1	3.9
1965	4.1	1.9	600.0	432.7	5.1	3.9
1966	4.9	3.5	629.7	447.6	5.1	4.0

Money market instrument returns and inflation (US): 1900–2018 (continued)

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1967	4.4	3.0	657.4	461.2	5.1	4.0
1968	5.5	4.7	693.5	483.0	5.1	4.0
1969	6.9	6.2	741.3	512.9	5.1	4.0
1970	6.7	5.6	790.9	541.5	5.1	3.9
1971	4.7	3.3	828.5	559.2	5.1	3.9
1972	4.3	3.4	864.3	578.2	5.1	3.9
1973	7.6	8.7	930.1	628.6	5.1	3.9
1974	8.5	12.3	1,008.8	706.1	5.0	3.8
1975	6.1	6.9	1,070.5	755.1	4.9	3.6
1976	5.3	4.9	1,127.1	791.8	4.9	3.6
1977	5.7	6.7	1,191.6	844.9	4.9	3.5
1978	7.2	9.0	1,277.6	921.1	4.9	3.5
1979	10.4	13.3	1,410.1	1,043.5	4.8	3.3
1980	12.3	12.5	1,583.3	1,174.1	4.7	3.1
1981	16.5	8.9	1,843.8	1,278.9	4.5	2.9
1982	13.1	3.8	2,085.0	1,327.9	4.2	2.7
1983	9.3	3.8	2,278.1	1,378.2	4.0	2.7
1984	11.1	3.9	2,531.3	1,432.7	3.8	2.6
1985	8.5	3.8	2,745.5	1,487.1	3.6	2.6
1986	6.8	1.1	2,931.1	1,503.4	3.5	2.6
1987	6.7	4.4	3,128.7	1,570.1	3.4	2.6
1988	6.9	4.4	3,345.8	1,639.5	3.2	2.5
1989	9.0	4.6	3,647.0	1,715.6	3.1	2.5
1990	7.7	6.1	3,928.1	1,820.4	2.9	2.4
1991	6.4	3.1	4,179.5	1,876.2	2.8	2.3
1992	3.9	2.9	4,343.7	1,930.6	2.6	2.2
1993	3.2	2.7	4,482.2	1,983.7	2.6	2.2
1994	4.2	2.7	4,670.0	2,036.7	2.6	2.2
1995	6.0	2.5	4,951.6	2,088.4	2.5	2.2
1996	5.3	3.3	5,214.3	2,157.8	2.3	2.2
1997	5.3	1.7	5,492.3	2,194.6	2.2	2.1
1998	5.2	1.6	5,779.6	2,229.9	2.1	2.1
1999	4.8	2.7	6,058.7	2,289.8	1.9	2.2
2000	6.2	3.4	6,433.2	2,367.3	1.8	2.1

Money market instrument returns and inflation (US): 1900–2018 (continued)

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
2001	4.4	1.6	6,717.5	2,404.1	1.5	2.1
2002	1.8	2.4	6,837.2	2,461.2	1.3	2.1
2003	1.1	1.9	6,915.5	2,507.5	1.3	2.1
2004	1.3	3.3	7,007.4	2,589.1	1.3	2.1
2005	3.1	3.4	7,222.4	2,677.6	1.3	2.0
2006	4.8	2.5	7,572.7	2,745.6	1.2	1.9
2007	5.0	4.1	7,951.6	2,857.6	0.9	1.8
2008	2.1	0.1	8,115.2	2,860.2	0.5	1.6
2009	0.2	2.7	8,132.0	2,938.1	0.4	1.8
2010	0.1	1.5	8,142.2	2,982.0	0.4	1.7
2011	0.1	3.0	8,150.5	3,070.4	0.4	1.7
2012	0.1	1.7	8,159.5	3,123.8	0.5	1.5
2013	0.1	1.5	8,165.3	3,170.7	0.5	1.5
2014	0.0	0.8	8,168.3	3,194.7	0.6	1.5
2015	0.1	0.7	8,172.5	3,218.0	0.8	1.7
2016	0.3	2.1	8,199.2	3,284.8	1.0	2.0
2017	0.9	2.1	8,269.3	3,354.1	1.4	2.0
2018	1.9	1.9	8,424.4	3,418.1	1.9	1.9

Equity and bond real returns (US): 1900–2018

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1899	—	—	100.0	100.0	—	—
1900	17.1	4.8	117.1	104.8	6.3	1.5
1901	16.6	1.4	136.6	106.3	6.2	1.5
1902	2.3	-2.6	139.8	103.5	6.1	1.5
1903	-14.7	2.1	119.3	105.7	6.2	1.6
1904	29.3	-0.7	154.2	104.9	6.4	1.6
1905	16.8	0.2	180.1	105.2	6.2	1.6
1906	1.9	-1.5	183.5	103.6	6.1	1.6
1907	-32.0	-9.5	124.9	93.7	6.1	1.6
1908	55.1	13.3	193.6	106.1	6.6	1.7
1909	5.0	-12.5	203.4	92.9	6.2	1.6
1910	-7.9	2.9	187.3	95.6	6.2	1.8
1911	3.6	-0.2	194.0	95.4	6.4	1.8
1912	4.7	0.9	203.1	96.2	6.4	1.8
1913	-11.4	-0.3	179.9	95.9	6.4	1.8
1914	-4.6	0.8	171.6	96.7	6.6	1.8
1915	32.9	2.5	228.0	99.1	6.7	1.8
1916	-3.3	-7.8	220.6	91.4	6.5	1.8
1917	-36.7	-17.3	139.6	75.6	6.6	1.9
1918	4.2	-16.2	145.6	63.4	7.1	2.1
1919	5.4	-9.6	153.3	57.3	7.2	2.3
1920	-21.8	-6.6	120.0	53.5	7.2	2.4
1921	28.5	33.2	154.2	71.2	7.5	2.5
1922	30.8	5.6	201.7	75.2	7.3	2.3
1923	1.8	1.4	205.2	76.3	7.1	2.2
1924	25.7	10.3	258.0	84.1	7.2	2.2
1925	25.2	2.0	323.0	85.8	7.0	2.2
1926	12.4	9.0	363.1	93.5	6.8	2.2
1927	40.3	11.5	509.4	104.3	6.7	2.1
1928	45.0	1.4	738.5	105.8	6.4	2.0
1929	-9.4	3.1	668.8	109.0	6.1	2.0
1930	-20.2	11.9	534.0	122.0	6.2	2.0
1931	-38.1	-3.6	330.6	117.6	6.6	1.9
1932	1.6	30.5	335.8	153.5	7.3	1.9

Equity and bond real returns (US): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1933	51.7	-0.8	509.6	152.2	7.3	1.6
1934	-3.8	8.5	490.2	165.2	6.9	1.7
1935	42.9	1.4	700.7	167.4	7.0	1.6
1936	30.9	5.3	917.3	176.3	6.6	1.6
1937	-37.1	-2.0	577.4	172.8	6.4	1.6
1938	37.0	10.1	791.0	190.3	7.1	1.6
1939	-0.9	5.3	783.8	200.3	6.7	1.5
1940	-10.7	4.2	699.8	208.7	6.8	1.4
1941	-19.7	-6.6	561.7	195.0	7.1	1.4
1942	11.0	-6.7	623.7	182.0	7.5	1.5
1943	22.1	-0.9	761.9	180.3	7.4	1.6
1944	17.0	0.0	891.4	180.3	7.3	1.7
1945	33.5	3.4	1,189.7	186.5	7.1	1.7
1946	-22.3	-15.0	924.7	158.5	6.8	1.7
1947	-3.3	-9.4	894.1	143.6	7.3	1.9
1948	2.0	-0.3	912.4	143.2	7.4	2.1
1949	20.6	7.2	1,100.1	153.5	7.5	2.1
1950	23.3	-6.9	1,356.0	142.9	7.3	2.1
1951	17.5	-6.2	1,593.4	134.1	7.1	2.2
1952	17.6	1.1	1,874.0	135.6	7.0	2.3
1953	-1.8	1.5	1,839.7	137.6	6.8	2.3
1954	53.5	3.9	2,824.7	143.0	7.0	2.4
1955	30.9	-1.5	3,698.6	140.8	6.4	2.3
1956	3.5	-5.5	3,829.4	133.1	6.0	2.4
1957	-13.4	2.9	3,317.6	137.0	6.0	2.5
1958	40.9	-3.8	4,673.4	131.8	6.4	2.5
1959	10.0	-2.8	5,140.8	128.1	5.9	2.6
1960	-0.9	10.2	5,096.3	141.1	5.8	2.7
1961	26.0	1.4	6,419.6	143.1	6.0	2.6
1962	-10.0	4.4	5,778.6	149.4	5.6	2.6
1963	20.7	0.0	6,975.1	149.4	5.9	2.6
1964	15.2	2.7	8,038.1	153.4	5.7	2.6
1965	10.2	-1.2	8,860.8	151.6	5.5	2.6
1966	-13.1	1.9	7,699.2	154.5	5.4	2.7

Equity and bond real returns (US): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1967	20.3	-5.9	9,261.0	145.3	5.8	2.7
1968	6.0	-2.4	9,816.6	141.9	5.6	2.9
1969	-13.8	-11.1	8,465.9	126.1	5.5	3.0
1970	-1.5	12.6	8,334.7	142.0	6.0	3.3
1971	10.9	7.7	9,246.7	152.9	6.1	3.1
1972	15.0	-1.0	10,632.7	151.4	6.0	3.0
1973	-21.6	-4.9	8,336.9	144.0	5.9	3.1
1974	-34.5	-7.3	5,463.0	133.4	6.6	3.3
1975	28.3	-1.2	7,007.4	131.7	7.8	3.6
1976	17.8	9.9	8,257.7	144.8	7.3	3.7
1977	-13.2	-5.7	7,165.2	136.6	7.1	3.5
1978	-2.4	-9.0	6,992.2	124.3	7.6	3.8
1979	4.3	-10.0	7,295.4	111.8	7.9	4.1
1980	17.6	-12.1	8,576.6	98.3	8.0	4.5
1981	-12.8	-3.1	7,479.9	95.3	7.7	5.0
1982	17.0	34.2	8,748.9	127.9	8.4	5.2
1983	17.9	-1.1	10,316.4	126.4	8.1	4.5
1984	2.1	10.6	10,530.4	139.9	7.9	4.7
1985	26.8	24.9	13,348.4	174.7	8.0	4.5
1986	17.3	20.0	15,656.1	209.6	7.5	3.9
1987	0.6	-6.4	15,756.7	196.2	7.2	3.5
1988	11.7	2.5	17,597.0	201.1	7.4	3.8
1989	25.8	12.6	22,143.5	226.4	7.3	3.8
1990	-8.7	1.7	20,221.2	230.2	6.7	3.6
1991	26.6	15.2	25,597.3	265.2	7.3	3.6
1992	4.6	4.4	26,771.4	276.9	6.7	3.2
1993	7.1	10.0	28,681.1	304.5	6.7	3.2
1994	-1.3	-9.7	28,302.7	274.9	6.7	2.9
1995	34.2	22.8	37,974.4	337.6	7.1	3.5
1996	19.0	-3.1	45,192.2	327.2	6.0	2.7
1997	31.1	10.1	59,260.8	360.4	5.5	3.0
1998	26.5	12.6	74,988.2	405.9	4.4	2.6
1999	17.9	-9.9	88,393.6	365.6	3.4	2.2
2000	-12.1	13.4	77,713.7	414.6	2.7	2.8

Equity and bond real returns (US): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
2001	-13.2	2.0	67,430.7	422.8	3.6	2.3
2002	-23.9	12.7	51,308.7	476.5	4.6	2.3
2003	26.3	-1.4	64,808.2	469.8	6.8	1.7
2004	7.4	1.3	69,595.0	476.0	5.6	1.9
2005	1.4	-0.3	70,601.8	474.5	5.4	1.9
2006	12.9	-0.3	79,727.4	473.0	5.7	2.1
2007	1.4	6.2	80,809.3	502.3	5.2	2.3
2008	-37.1	20.1	50,865.3	603.4	5.5	2.0
2009	23.1	-12.1	62,622.3	530.1	11.1	0.3
2010	13.4	5.8	70,993.5	561.0	9.9	1.8
2011	-0.8	13.5	70,407.0	636.7	9.4	1.3
2012	14.0	1.0	80,276.7	643.1	11.0	-0.3
2013	30.4	-9.9	104,704.7	579.4	10.5	-0.5
2014	12.8	10.0	118,143.3	637.4	6.9	1.5
2015	0.6	0.5	118,910.7	640.4	5.4	-0.6
2016	9.7	-1.8	130,426.4	628.7	7.1	-0.9
2017	19.3	0.7	155,618.5	633.0	5.8	-0.4
2018	-6.2	-1.5	146,006.8	623.2	-6.2	-1.5

LONG-TERM HISTORICAL CAPITAL MARKET
RETURNS SUMMARY: UK

Equity and bond nominal returns (UK): 1900–2018

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1899	—	—	100.0	100.0	—	—
1900	4.1	1.9	104.1	101.9	8.7	5.1
1901	1.5	-0.7	105.7	101.2	8.7	5.1
1902	1.6	2.8	107.3	104.1	8.8	5.2
1903	-0.6	-3.5	106.7	100.4	8.8	5.2
1904	-1.2	3.5	105.4	104.0	8.9	5.3
1905	0.0	4.2	105.4	108.3	9.0	5.3
1906	0.4	-0.7	105.9	107.5	9.1	5.3
1907	0.5	0.2	106.4	107.7	9.2	5.3
1908	-0.8	3.3	105.5	111.3	9.2	5.4
1909	0.6	1.7	106.1	113.3	9.3	5.4
1910	1.6	-1.0	107.8	112.2	9.4	5.4
1911	2.1	0.3	110.0	112.5	9.5	5.5
1912	0.9	0.5	111.0	113.0	9.6	5.6
1913	0.5	-0.9	111.7	112.0	9.7	5.6
1914	6.4	-1.5	118.8	110.4	9.7	5.7
1915	0.4	-11.0	119.3	98.2	9.8	5.7
1916	-8.9	-1.6	108.7	96.7	9.9	5.9
1917	6.6	3.1	115.9	99.7	10.1	6.0
1918	16.3	13.8	134.8	113.5	10.1	6.0
1919	-8.9	-9.7	122.8	102.5	10.0	6.0
1920	-9.3	-7.4	111.4	94.9	10.3	6.1
1921	19.6	18.4	133.2	112.4	10.5	6.3
1922	30.5	16.3	173.7	130.7	10.4	6.2
1923	6.2	3.7	184.5	135.5	10.2	6.0
1924	14.6	7.6	211.5	145.8	10.2	6.1
1925	9.1	1.0	230.8	147.2	10.2	6.1
1926	7.4	2.5	247.8	150.9	10.2	6.1
1927	13.0	7.7	280.1	162.6	10.2	6.2
1928	12.6	5.5	315.5	171.6	10.2	6.1
1929	-3.4	-1.1	304.6	169.7	10.2	6.1
1930	-15.4	14.3	257.6	193.9	10.3	6.2
1931	-19.2	0.3	208.2	194.4	10.7	6.1
1932	10.8	39.2	230.8	270.7	11.1	6.2
1933	31.8	3.4	304.2	279.9	11.1	5.9

Equity and bond nominal returns (UK): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1934	11.7	16.0	339.9	324.8	10.9	5.9
1935	12.0	1.5	380.7	329.5	10.8	5.8
1936	18.1	1.4	449.5	334.3	10.8	5.8
1937	-15.7	-0.4	378.9	332.9	10.7	5.9
1938	-9.2	-0.3	344.0	332.0	11.1	6.0
1939	7.0	1.4	368.2	336.8	11.4	6.1
1940	-6.8	10.5	343.2	372.0	11.5	6.1
1941	29.9	4.5	445.8	388.7	11.7	6.1
1942	24.6	3.5	555.3	402.5	11.5	6.1
1943	12.9	2.3	626.8	411.8	11.3	6.1
1944	15.5	3.1	723.8	424.6	11.3	6.2
1945	3.7	3.5	750.6	439.6	11.3	6.2
1946	23.3	10.0	925.7	483.5	11.4	6.3
1947	1.8	-6.2	942.5	453.7	11.2	6.2
1948	0.8	0.4	949.6	455.4	11.3	6.4
1949	-9.1	-9.8	863.1	410.6	11.5	6.5
1950	12.3	5.6	969.5	433.5	11.8	6.7
1951	8.0	-12.3	1,047.4	380.2	11.8	6.7
1952	1.3	1.6	1,060.5	386.4	11.9	7.1
1953	23.2	15.6	1,306.8	446.7	12.1	7.1
1954	41.9	6.3	1,854.8	475.1	11.9	7.0
1955	7.2	-10.3	1,989.0	426.3	11.5	7.0
1956	-3.1	-2.8	1,926.5	414.6	11.5	7.3
1957	2.9	-7.3	1,981.8	384.4	11.8	7.5
1958	41.7	13.1	2,808.9	434.7	12.0	7.8
1959	50.5	3.1	4,226.5	448.1	11.5	7.7
1960	-0.2	-5.8	4,216.7	421.9	10.9	7.8
1961	2.6	-6.0	4,325.6	396.6	11.2	8.0
1962	1.6	25.1	4,395.5	496.1	11.3	8.3
1963	25.7	2.6	5,523.3	509.1	11.5	8.0
1964	-5.6	-6.5	5,215.8	476.1	11.2	8.1
1965	12.6	8.9	5,873.9	518.4	11.6	8.4
1966	-4.2	4.3	5,626.7	540.5	11.6	8.4

Equity and bond nominal returns (UK): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1967	35.6	2.4	7,631.3	553.4	11.9	8.5
1968	48.7	-5.0	11,346.8	525.8	11.5	8.6
1969	-11.9	-0.3	10,000.9	524.1	10.8	8.9
1970	-3.4	-1.9	9,664.6	514.1	11.4	9.1
1971	47.4	27.5	14,244.7	655.5	11.7	9.3
1972	16.4	-5.3	16,574.7	620.6	11.0	8.9
1973	-28.7	-10.0	11,824.8	558.4	10.9	9.3
1974	-51.8	-18.9	5,705.0	452.6	12.0	9.8
1975	152.1	37.9	14,383.2	624.2	14.2	10.5
1976	2.2	16.2	14,701.9	725.3	12.1	9.9
1977	49.2	59.3	21,929.7	1,155.6	12.3	9.8
1978	8.5	-5.1	23,790.8	1,096.5	11.6	8.8
1979	10.5	5.0	26,297.8	1,151.4	11.6	9.2
1980	35.4	17.7	35,614.6	1,355.3	11.7	9.3
1981	13.8	4.7	40,515.8	1,419.6	11.1	9.1
1982	29.2	39.6	52,366.2	1,981.5	11.0	9.2
1983	29.2	15.6	67,635.5	2,291.5	10.6	8.4
1984	32.0	9.8	89,279.2	2,516.2	10.1	8.3
1985	20.1	13.1	107,250.9	2,845.2	9.5	8.2
1986	27.2	12.4	136,455.7	3,198.4	9.2	8.1
1987	8.4	15.5	147,978.3	3,695.1	8.7	7.9
1988	11.5	6.6	165,046.7	3,938.5	8.7	7.7
1989	36.1	9.7	224,616.4	4,320.4	8.6	7.7
1990	-9.7	8.5	202,784.3	4,686.7	7.7	7.7
1991	20.8	18.9	244,955.1	5,574.0	8.4	7.6
1992	20.5	21.4	295,147.9	6,764.2	8.0	7.2
1993	28.4	25.9	378,949.3	8,514.8	7.5	6.7
1994	-5.8	-9.7	356,783.7	7,685.8	6.8	6.0
1995	23.9	18.8	441,883.7	9,129.8	7.3	6.7
1996	16.7	7.7	515,685.4	9,829.8	6.6	6.2
1997	23.6	17.4	637,165.4	11,535.4	6.2	6.2
1998	13.8	22.6	724,906.9	14,139.5	5.4	5.7
1999	24.2	-3.9	900,351.7	13,589.8	5.0	4.9
2000	-5.9	10.6	847,219.2	15,033.0	4.1	5.4

Equity and bond nominal returns (UK): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
2001	-13.3	3.6	734,611.4	15,580.9	4.7	5.1
2002	-22.7	10.9	567,979.7	17,282.4	5.9	5.2
2003	20.9	0.9	686,461.0	17,430.5	8.0	4.8
2004	12.8	7.5	774,598.0	18,746.4	7.2	5.1
2005	22.0	8.2	945,338.2	20,292.8	6.8	4.9
2006	16.8	-0.2	1,103,693.9	20,258.5	5.7	4.7
2007	5.3	7.1	1,162,366.4	21,694.5	4.8	5.1
2008	-29.9	17.6	814,484.3	25,523.0	4.8	4.9
2009	30.1	-4.7	1,059,790.6	24,323.9	9.1	3.7
2010	14.5	9.3	1,213,618.8	26,592.6	7.0	4.7
2011	-3.5	16.0	1,171,619.2	30,834.4	6.0	4.1
2012	12.3	3.2	1,315,781.3	31,811.5	7.5	2.5
2013	20.8	-7.8	1,589,557.6	29,343.6	6.7	2.4
2014	1.2	14.5	1,608,287.7	33,591.7	4.1	4.6
2015	1.0	-0.2	1,624,027.9	33,536.1	4.8	2.3
2016	16.8	6.0	1,896,104.1	35,538.0	6.1	3.1
2017	13.1	2.4	2,144,444.6	36,374.3	1.2	1.7
2018	-9.5	1.0	1,941,303.1	36,739.5	-9.5	1.0

Money market instrument returns and inflation (UK): 1900–2018

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1899	—	—	100.0	100.0	—	—
1900	4.1	-1.8	104.1	98.2	4.6	3.7
1901	3.5	-1.1	107.8	97.2	4.6	3.8
1902	3.0	0.0	111.0	97.2	4.6	3.8
1903	3.5	1.1	114.9	98.2	4.6	3.8
1904	2.9	1.1	118.3	99.3	4.6	3.9
1905	2.2	0.0	120.9	99.3	4.7	3.9
1906	3.0	1.1	124.6	100.4	4.7	3.9
1907	3.8	2.1	129.3	102.6	4.7	3.9
1908	2.3	-2.1	132.3	100.4	4.7	4.0
1909	2.2	1.1	135.1	101.5	4.7	4.0
1910	3.1	2.1	139.3	103.6	4.8	4.0
1911	2.9	1.0	143.3	104.7	4.8	4.1
1912	3.1	3.1	147.7	108.0	4.8	4.1
1913	3.5	2.0	153.0	110.1	4.8	4.1
1914	3.2	8.1	157.9	119.0	4.8	4.1
1915	3.8	22.1	163.8	145.3	4.8	4.1
1916	5.3	22.2	172.5	177.6	4.8	3.9
1917	5.1	12.1	181.3	199.1	4.8	3.8
1918	3.7	18.9	188.0	236.8	4.8	3.7
1919	4.0	2.3	195.4	242.2	4.8	3.5
1920	6.5	17.8	208.2	285.3	4.9	3.5
1921	5.3	-27.5	219.3	206.7	4.8	3.4
1922	2.6	-7.3	225.1	191.6	4.8	3.8
1923	2.7	-0.6	231.1	190.5	4.9	3.9
1924	3.4	1.7	239.0	193.8	4.9	4.0
1925	4.2	-2.8	249.0	188.4	4.9	4.0
1926	4.6	0.0	260.5	188.4	4.9	4.1
1927	4.3	-4.0	271.8	180.8	4.9	4.1
1928	4.2	-0.6	283.3	179.8	4.9	4.2
1929	5.4	-0.6	298.5	178.7	4.9	4.3
1930	2.6	-7.8	306.2	164.7	4.9	4.3
1931	3.5	-3.9	317.0	158.2	4.9	4.5
1932	1.7	-3.4	322.3	152.9	5.0	4.6

Money market instrument returns and inflation (UK): 1900–2018 (continued)

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1933	0.6	0.0	324.2	152.9	5.0	4.7
1934	0.7	0.7	326.5	153.9	5.0	4.7
1935	0.5	2.8	328.3	158.2	5.1	4.8
1936	0.6	2.8	330.2	162.6	5.2	4.8
1937	0.6	5.3	332.0	171.2	5.2	4.8
1938	0.6	-2.6	334.0	166.8	5.3	4.8
1939	1.2	12.3	338.2	187.3	5.3	4.9
1940	1.0	12.6	341.6	211.0	5.4	4.8
1941	1.0	2.1	345.1	215.4	5.4	4.7
1942	1.0	-0.8	348.6	213.6	5.5	4.7
1943	1.0	0.0	352.1	213.6	5.6	4.8
1944	1.0	1.7	355.6	217.1	5.6	4.9
1945	0.9	0.8	358.8	218.8	5.7	4.9
1946	0.5	0.0	360.7	218.8	5.8	5.0
1947	0.5	4.0	362.5	227.6	5.8	5.1
1948	0.5	3.8	364.4	236.3	5.9	5.1
1949	0.5	3.7	366.3	245.1	6.0	5.1
1950	0.5	2.7	368.1	251.6	6.1	5.1
1951	0.6	11.1	370.3	279.6	6.1	5.1
1952	2.2	6.7	378.3	298.3	6.2	5.1
1953	2.3	1.6	387.1	302.9	6.3	5.0
1954	1.8	3.8	394.1	314.6	6.4	5.1
1955	3.8	5.3	409.0	331.1	6.4	5.1
1956	5.0	3.6	429.6	342.9	6.5	5.1
1957	4.9	5.2	450.7	360.7	6.5	5.1
1958	4.7	1.6	471.7	366.6	6.5	5.1
1959	3.4	0.0	487.8	366.6	6.6	5.2
1960	5.1	1.6	512.5	372.5	6.6	5.3
1961	5.4	4.8	540.0	390.2	6.6	5.3
1962	4.2	2.3	562.7	399.1	6.7	5.4
1963	3.7	2.2	583.8	408.0	6.7	5.4
1964	4.7	4.3	611.3	425.7	6.8	5.5
1965	6.1	4.9	648.4	446.4	6.8	5.5
1966	6.3	3.3	689.1	461.2	6.8	5.5

Money market instrument returns and inflation (UK): 1900–2018 (continued)

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1967	6.0	2.6	730.3	473.0	6.8	5.5
1968	7.3	6.2	783.4	502.6	6.8	5.6
1969	7.9	4.7	845.3	526.2	6.8	5.6
1970	7.2	7.9	906.6	567.6	6.8	5.6
1971	5.7	8.9	958.5	617.9	6.8	5.6
1972	5.6	7.7	1,012.6	665.2	6.8	5.5
1973	9.7	10.7	1,110.8	736.1	6.8	5.4
1974	12.0	18.9	1,243.9	875.1	6.8	5.3
1975	10.7	25.0	1,376.4	1,093.9	6.7	5.0
1976	11.7	15.1	1,537.5	1,259.4	6.6	4.6
1977	8.0	12.2	1,659.9	1,413.1	6.5	4.4
1978	8.8	8.4	1,806.6	1,531.4	6.4	4.2
1979	13.8	17.2	2,055.5	1,794.5	6.4	4.1
1980	16.2	15.2	2,388.4	2,066.5	6.2	3.8
1981	13.8	12.0	2,717.8	2,314.8	5.9	3.5
1982	12.0	5.4	3,044.7	2,439.0	5.7	3.3
1983	10.0	5.3	3,350.3	2,569.1	5.5	3.2
1984	9.7	4.6	3,675.5	2,687.3	5.4	3.2
1985	12.2	5.6	4,124.3	2,838.1	5.3	3.1
1986	10.9	3.7	4,573.6	2,944.5	5.1	3.0
1987	9.7	3.7	5,017.9	3,053.9	4.9	3.0
1988	10.2	6.8	5,531.9	3,260.9	4.8	3.0
1989	14.1	7.7	6,313.1	3,512.2	4.6	2.9
1990	15.3	9.3	7,278.4	3,840.3	4.3	2.7
1991	11.5	4.5	8,115.3	4,011.8	3.9	2.5
1992	9.4	2.6	8,879.1	4,115.3	3.6	2.4
1993	5.4	1.9	9,359.4	4,195.1	3.4	2.4
1994	5.3	2.9	9,857.6	4,316.3	3.3	2.4
1995	6.6	3.2	10,509.9	4,455.3	3.3	2.4
1996	6.1	2.5	11,149.8	4,564.6	3.1	2.4
1997	6.8	3.6	11,907.3	4,730.2	3.0	2.4
1998	7.2	2.7	12,765.2	4,860.3	2.8	2.3
1999	5.2	1.8	13,434.3	4,946.0	2.6	2.3
2000	6.0	2.9	14,245.8	5,090.9	2.5	2.3

Money market instrument returns and inflation (UK): 1900–2018 (continued)

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
2001	5.0	0.7	14,956.2	5,126.4	2.3	2.3
2002	4.0	2.9	15,550.5	5,277.1	2.1	2.4
2003	3.7	2.7	16,118.7	5,417.9	2.0	2.3
2004	4.6	1.7	16,857.3	5,508.5	1.9	2.3
2005	4.7	1.9	17,650.2	5,614.1	1.7	2.3
2006	4.8	3.0	18,495.6	5,781.7	1.4	2.4
2007	5.8	2.1	19,566.2	5,902.2	1.2	2.3
2008	4.5	3.1	20,449.8	6,082.2	0.8	2.4
2009	0.6	2.9	20,562.7	6,258.2	0.4	2.3
2010	0.5	3.7	20,665.1	6,490.0	0.4	2.2
2011	0.5	4.2	20,766.2	6,762.4	0.4	2.0
2012	0.3	2.7	20,831.5	6,943.4	0.3	1.7
2013	0.3	2.0	20,894.4	7,084.7	0.4	1.6
2014	0.4	0.5	20,973.5	7,123.4	0.4	1.5
2015	0.4	0.2	21,067.1	7,137.8	0.4	1.7
2016	0.3	1.6	21,135.5	7,249.1	0.3	2.2
2017	0.2	3.0	21,167.4	7,464.5	0.3	2.5
2018	0.5	2.1	21,280.1	7,621.6	0.5	2.1

Equity and bond real returns (UK): 1900–2018

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1899	—	—	100.0	100.0	—	—
1900	6.0	3.7	106.0	103.7	4.8	1.3
1901	2.6	0.4	108.7	104.2	4.8	1.3
1902	1.6	2.8	110.5	107.1	4.8	1.3
1903	-1.7	-4.5	108.6	102.2	4.8	1.3
1904	-2.3	2.4	106.1	104.7	4.9	1.4
1905	0.0	4.2	106.1	109.0	4.9	1.3
1906	-0.7	-1.8	105.5	107.1	5.0	1.3
1907	-1.6	-1.9	103.7	105.0	5.0	1.4
1908	1.3	5.6	105.1	110.9	5.1	1.4
1909	-0.5	0.7	104.5	111.6	5.1	1.3
1910	-0.5	-3.0	104.0	108.2	5.2	1.4
1911	1.0	-0.8	105.1	107.4	5.2	1.4
1912	-2.1	-2.5	102.9	104.7	5.3	1.4
1913	-1.4	-2.8	101.4	101.7	5.3	1.5
1914	-1.6	-8.9	99.8	92.7	5.4	1.5
1915	-17.7	-27.1	82.1	67.6	5.5	1.6
1916	-25.5	-19.5	61.2	54.4	5.7	1.9
1917	-4.9	-8.0	58.2	50.1	6.1	2.2
1918	-2.2	-4.3	56.9	47.9	6.2	2.3
1919	-10.9	-11.7	50.7	42.3	6.3	2.3
1920	-23.0	-21.4	39.1	33.3	6.5	2.5
1921	65.0	63.5	64.4	54.4	6.8	2.8
1922	40.7	25.4	90.7	68.2	6.4	2.3
1923	6.8	4.3	96.9	71.1	6.0	2.1
1924	12.7	5.8	109.2	75.2	6.0	2.0
1925	12.2	3.8	122.5	78.1	6.0	2.0
1926	7.4	2.5	131.5	80.1	5.9	2.0
1927	17.7	12.2	154.9	89.9	5.9	2.0
1928	13.3	6.2	175.5	95.5	5.8	1.9
1929	-2.9	-0.5	170.5	94.9	5.7	1.8
1930	-8.3	24.0	156.4	117.7	5.8	1.8
1931	-15.9	4.4	131.6	122.9	6.0	1.6
1932	14.7	44.1	151.0	177.1	6.2	1.6

Equity and bond real returns (UK): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1933	31.8	3.4	199.0	183.1	6.1	1.2
1934	11.0	15.2	220.8	211.0	5.9	1.1
1935	9.0	-1.2	240.7	208.3	5.8	1.0
1936	14.9	-1.3	276.4	205.6	5.8	1.0
1937	-20.0	-5.4	221.3	194.4	5.7	1.0
1938	-6.8	2.4	206.2	199.0	6.0	1.1
1939	-4.7	-9.7	196.5	179.8	6.2	1.1
1940	-17.2	-1.9	162.7	176.3	6.4	1.3
1941	27.2	2.3	207.0	180.5	6.7	1.3
1942	25.6	4.4	260.0	188.4	6.4	1.3
1943	12.9	2.3	293.4	192.8	6.2	1.2
1944	13.6	1.4	333.3	195.5	6.1	1.2
1945	2.9	2.7	343.0	200.9	6.0	1.2
1946	23.3	10.0	423.0	221.0	6.1	1.2
1947	-2.1	-9.8	414.2	199.4	5.9	1.1
1948	-3.0	-3.3	401.8	192.7	6.0	1.3
1949	-12.4	-13.1	352.2	167.5	6.1	1.3
1950	9.4	2.8	385.3	172.3	6.4	1.5
1951	-2.8	-21.1	374.6	136.0	6.4	1.5
1952	-5.1	-4.7	355.5	129.5	6.5	1.9
1953	21.3	13.8	431.4	147.5	6.7	2.0
1954	36.7	2.4	589.6	151.0	6.5	1.8
1955	1.9	-14.7	600.7	128.8	6.1	1.8
1956	-6.5	-6.1	561.8	120.9	6.1	2.1
1957	-2.2	-11.8	549.5	106.6	6.3	2.3
1958	39.4	11.3	766.2	118.6	6.5	2.5
1959	50.5	3.1	1,152.9	122.2	6.0	2.4
1960	-1.8	-7.3	1,132.0	113.3	5.4	2.4
1961	-2.1	-10.3	1,108.4	101.6	5.5	2.5
1962	-0.6	22.3	1,101.3	124.3	5.7	2.8
1963	22.9	0.4	1,353.8	124.8	5.8	2.4
1964	-9.5	-10.4	1,225.2	111.8	5.5	2.5
1965	7.4	3.8	1,315.8	116.1	5.8	2.7
1966	-7.3	0.9	1,220.0	117.2	5.7	2.7

Equity and bond real returns (UK): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1967	32.2	-0.2	1,613.3	117.0	6.0	2.8
1968	39.9	-10.6	2,257.7	104.6	5.6	2.8
1969	-15.8	-4.8	1,900.5	99.6	5.0	3.1
1970	-10.4	-9.1	1,702.6	90.6	5.4	3.3
1971	35.4	17.1	2,305.4	106.1	5.8	3.5
1972	8.1	-12.1	2,491.7	93.3	5.2	3.3
1973	-35.5	-18.7	1,606.3	75.9	5.2	3.6
1974	-59.4	-31.8	651.9	51.7	6.3	4.2
1975	101.7	10.3	1,314.9	57.1	8.7	5.2
1976	-11.2	0.9	1,167.4	57.6	7.1	5.1
1977	32.9	42.0	1,551.8	81.8	7.6	5.2
1978	0.1	-12.4	1,553.5	71.6	7.1	4.4
1979	-5.7	-10.4	1,465.5	64.2	7.2	4.9
1980	17.6	2.2	1,723.4	65.6	7.6	5.3
1981	1.6	-6.5	1,750.3	61.3	7.3	5.4
1982	22.7	32.5	2,147.0	81.2	7.5	5.7
1983	22.6	9.8	2,632.7	89.2	7.1	5.1
1984	26.2	5.0	3,322.2	93.6	6.7	4.9
1985	13.7	7.1	3,778.9	100.2	6.2	4.9
1986	22.6	8.4	4,634.2	108.6	6.0	4.9
1987	4.6	11.4	4,845.5	121.0	5.5	4.8
1988	4.5	-0.2	5,061.4	120.8	5.5	4.6
1989	26.4	1.8	6,395.4	123.0	5.5	4.7
1990	-17.4	-0.8	5,280.4	122.0	4.9	4.8
1991	15.6	13.8	6,105.9	138.9	5.8	5.0
1992	17.5	18.3	7,172.0	164.4	5.4	4.7
1993	26.0	23.5	9,033.2	203.0	5.0	4.2
1994	-8.5	-12.3	8,265.9	178.1	4.2	3.5
1995	20.0	15.1	9,918.3	204.9	4.8	4.2
1996	13.9	5.1	11,297.4	215.3	4.2	3.8
1997	19.2	13.2	13,470.2	243.9	3.8	3.7
1998	10.7	19.3	14,914.9	290.9	3.1	3.3
1999	22.0	-5.6	18,203.6	274.8	2.7	2.6
2000	-8.6	7.5	16,641.9	295.3	1.8	3.0

Equity and bond real returns (UK): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
2001	-13.9	2.9	14,330.1	303.9	2.4	2.8
2002	-24.9	7.8	10,763.0	327.5	3.4	2.8
2003	17.7	-1.8	12,670.3	321.7	5.5	2.4
2004	11.0	5.8	14,061.9	340.3	4.8	2.7
2005	19.7	6.2	16,838.5	361.5	4.3	2.5
2006	13.4	-3.1	19,089.3	350.4	3.2	2.2
2007	3.2	4.9	19,693.8	367.6	2.4	2.7
2008	-32.0	14.2	13,391.2	419.6	2.4	2.5
2009	26.5	-7.4	16,934.3	388.7	6.6	1.4
2010	10.4	5.4	18,699.8	409.7	4.6	2.4
2011	-7.3	11.3	17,325.5	456.0	3.9	2.1
2012	9.4	0.5	18,950.0	458.2	5.7	0.8
2013	18.4	-9.6	22,436.6	414.2	5.1	0.9
2014	0.6	13.9	22,577.4	471.6	2.6	3.1
2015	0.8	-0.4	22,752.5	469.8	3.1	0.6
2016	15.0	4.3	26,156.6	490.2	3.8	0.9
2017	9.8	-0.6	28,728.4	487.3	-1.3	-0.8
2018	-11.3	-1.1	25,471.0	482.0	-11.3	-1.1

LONG-TERM HISTORICAL CAPITAL MARKET
RETURNS SUMMARY: JAPAN

Equity and bond nominal returns (Japan): 1900–2018

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1920	—	—	100.0	100.0	—	—
1921	15.6	28.1	115.6	128.1	11.0	6.5
1922	-9.6	16.7	104.5	149.5	11.0	6.3
1923	4.3	3.5	109.0	154.8	11.2	6.2
1924	16.7	-0.5	127.1	154.0	11.3	6.2
1925	23.6	4.9	157.2	161.6	11.2	6.3
1926	4.4	13.9	164.1	184.1	11.1	6.3
1927	1.9	13.1	167.2	208.2	11.2	6.2
1928	5.4	5.0	176.3	218.6	11.3	6.2
1929	-10.9	7.2	157.2	234.4	11.4	6.2
1930	-14.3	6.9	134.6	250.4	11.6	6.2
1931	3.3	0.0	139.1	250.4	12.0	6.2
1932	97.9	15.5	275.3	289.1	12.1	6.2
1933	18.4	5.6	326.0	305.4	11.3	6.1
1934	-0.6	5.2	323.9	321.2	11.3	6.1
1935	10.4	5.7	357.7	339.5	11.4	6.1
1936	12.6	8.1	402.9	366.9	11.4	6.1
1937	9.5	-3.4	441.1	354.4	11.4	6.1
1938	-4.6	4.9	420.9	371.6	11.4	6.2
1939	40.9	4.0	593.3	386.4	11.6	6.3
1940	-12.3	3.4	520.5	399.6	11.3	6.3
1941	20.2	4.3	625.5	416.7	11.7	6.3
1942	6.1	4.4	663.6	434.9	11.5	6.4
1943	3.9	3.8	689.7	451.4	11.6	6.4
1944	4.9	3.9	723.4	468.8	11.7	6.4
1945	2.2	4.4	739.6	489.4	11.8	6.5
1946	-30.1	3.8	516.9	507.7	12.0	6.5
1947	54.6	3.8	799.3	526.8	12.7	6.5
1948	100.4	-10.3	1,601.5	472.6	12.2	6.6
1949	61.5	19.3	2,586.7	563.7	11.3	6.8
1950	2.0	5.7	2,638.6	595.9	10.7	6.6
1951	83.2	5.6	4,833.6	629.5	10.8	6.7
1952	142.0	5.6	11,699.3	665.1	10.0	6.7
1953	11.5	21.5	13,043.3	808.3	8.7	6.7

Equity and bond nominal returns (Japan): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1954	-0.1	5.4	13,029.0	852.2	8.6	6.5
1955	39.7	6.4	18,206.4	906.7	8.8	6.5
1956	40.2	6.5	25,517.8	966.0	8.3	6.5
1957	-8.9	4.4	23,237.5	1,008.8	7.9	6.5
1958	50.2	30.2	34,891.2	1,313.4	8.2	6.5
1959	37.4	-5.2	47,931.8	1,245.2	7.6	6.2
1960	42.0	14.7	68,057.9	1,428.1	7.2	6.4
1961	-3.8	-14.7	65,500.9	1,217.9	6.6	6.2
1962	1.9	51.4	66,758.5	1,843.8	6.8	6.7
1963	-2.7	5.7	64,953.4	1,948.2	6.9	6.0
1964	2.8	8.2	66,755.0	2,108.9	7.1	6.0
1965	21.3	21.3	80,941.6	2,558.2	7.2	6.0
1966	10.2	17.0	89,203.6	2,994.1	6.9	5.7
1967	-5.0	6.2	84,710.6	3,178.7	6.9	5.5
1968	36.0	6.7	115,226.2	3,393.0	7.1	5.5
1969	41.1	6.7	162,608.0	3,621.3	6.6	5.4
1970	-12.2	6.5	142,717.8	3,857.9	6.0	5.4
1971	34.3	7.5	191,690.4	4,148.2	6.4	5.4
1972	116.3	13.4	414,544.6	4,703.6	5.9	5.3
1973	-26.2	-8.8	306,096.5	4,290.0	4.3	5.2
1974	-9.9	4.0	275,840.0	4,461.6	5.1	5.5
1975	21.1	13.7	333,905.7	5,073.7	5.4	5.5
1976	20.2	11.1	401,288.8	5,638.3	5.1	5.4
1977	-5.5	27.0	379,385.5	7,160.4	4.8	5.2
1978	23.7	7.5	469,411.8	7,699.2	5.0	4.7
1979	8.1	-9.1	507,600.3	6,998.8	4.6	4.7
1980	10.3	7.7	559,706.4	7,535.6	4.5	5.1
1981	24.7	14.1	698,006.1	8,596.5	4.4	5.0
1982	5.9	10.7	739,197.9	9,517.9	3.8	4.8
1983	22.8	11.3	907,593.1	10,592.3	3.8	4.6
1984	26.7	12.8	1,150,311.5	11,945.7	3.3	4.4
1985	14.4	11.0	1,315,705.0	13,259.3	2.7	4.2
1986	58.7	11.6	2,088,382.3	14,790.9	2.3	4.0
1987	8.7	7.8	2,269,148.7	15,942.9	0.9	3.7

Equity and bond nominal returns (Japan): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1988	39.5	6.7	3,165,799.9	17,010.4	0.7	3.6
1989	17.0	-1.1	3,702,697.3	16,822.0	-0.4	3.5
1990	-39.6	-1.3	2,235,422.2	16,604.5	-0.9	3.7
1991	0.1	17.2	2,238,193.0	19,458.5	0.8	3.9
1992	-21.5	12.5	1,756,088.0	21,892.9	0.9	3.4
1993	12.2	17.1	1,970,750.1	25,641.4	1.8	3.1
1994	8.6	-7.9	2,139,457.5	23,622.0	1.4	2.5
1995	4.1	18.3	2,227,348.7	27,941.9	1.2	3.0
1996	-4.9	6.1	2,117,720.0	29,655.2	1.0	2.4
1997	-14.5	9.3	1,810,768.2	32,409.4	1.3	2.2
1998	-8.9	-0.5	1,650,227.0	32,236.7	2.1	1.9
1999	46.6	5.0	2,418,736.6	33,858.7	2.7	2.0
2000	-19.8	1.8	1,938,700.0	34,453.9	0.8	1.8
2001	-19.0	3.9	1,570,706.8	35,810.9	2.1	1.8
2002	-18.8	5.6	1,275,996.1	37,801.0	3.5	1.7
2003	22.7	-3.0	1,566,096.9	36,657.3	5.1	1.5
2004	10.8	0.9	1,734,965.3	36,987.6	4.0	1.8
2005	44.6	0.9	2,508,403.6	37,329.8	3.5	1.9
2006	7.3	-0.1	2,690,443.2	37,285.0	0.9	1.9
2007	-10.2	3.3	2,415,656.8	38,531.6	0.4	2.1
2008	-42.6	4.6	1,387,579.3	40,285.8	1.4	2.0
2009	9.1	0.4	1,514,133.9	40,431.3	7.4	1.7
2010	0.6	2.7	1,522,752.1	41,538.6	7.2	1.9
2011	-18.7	2.5	1,237,529.6	42,563.7	8.0	1.8
2012	21.6	2.6	1,504,494.5	43,689.5	12.5	1.7
2013	54.6	1.2	2,325,601.3	44,203.0	11.1	1.5
2014	9.5	4.4	2,546,156.2	46,168.5	4.0	1.6
2015	9.9	0.9	2,799,104.3	46,587.4	2.6	0.9
2016	-0.7	2.1	2,778,419.0	47,577.6	0.3	0.9
2017	19.7	0.0	3,327,147.7	47,594.4	0.8	0.3
2018	-15.1	0.6	2,823,106.9	47,897.7	-15.1	0.6

Money market instrument returns and inflation (Japan): 1900–2018

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1920	—	—	100.0	—	—	—
1921	5.3	—	105.3	100.0	4.0	—
1922	7.9	-10.9	113.6	89.1	4.0	6.8
1923	8.5	5.8	123.2	94.3	3.9	7.0
1924	7.3	1.0	132.3	95.2	3.9	7.0
1925	6.6	-7.1	141.0	88.5	3.8	7.1
1926	6.6	-11.1	150.3	78.6	3.8	7.2
1927	4.5	-1.6	157.0	77.4	3.8	7.5
1928	2.7	1.8	161.2	78.8	3.8	7.6
1929	2.8	-9.3	165.7	71.4	3.8	7.6
1930	3.2	-18.7	171.0	58.1	3.8	7.8
1931	3.0	-3.5	176.2	56.1	3.8	8.2
1932	4.1	8.4	183.4	60.8	3.8	8.3
1933	2.5	1.9	188.0	62.0	3.8	8.3
1934	2.5	0.8	192.8	62.5	3.8	8.4
1935	2.4	3.8	197.5	64.9	3.8	8.5
1936	2.5	4.4	202.5	67.7	3.9	8.6
1937	2.7	12.2	208.0	76.0	3.9	8.6
1938	2.4	16.1	213.1	88.2	3.9	8.6
1939	2.5	13.4	218.4	100.1	3.9	8.5
1940	2.6	8.6	224.1	108.8	3.9	8.4
1941	2.5	2.5	229.8	111.5	4.0	8.4
1942	2.6	2.2	235.6	113.9	4.0	8.5
1943	2.6	8.2	241.7	123.2	4.0	8.6
1944	2.6	17.9	248.0	145.3	4.0	8.6
1945	3.3	160.3	256.1	378.2	4.0	8.5
1946	3.7	317.1	265.6	1,577.4	4.0	7.2
1947	4.8	190.7	278.2	4,585.8	4.0	5.2
1948	4.9	64.3	291.9	7,535.6	4.0	3.7
1949	6.3	4.7	310.4	7,888.9	4.0	3.0
1950	6.6	-0.7	330.9	7,830.0	4.0	3.0
1951	7.3	12.0	355.1	8,771.9	3.9	3.0
1952	8.3	0.7	384.8	8,830.8	3.9	2.9
1953	8.1	10.7	415.8	9,772.8	3.8	2.9

Money market instrument returns and inflation (Japan): 1900–2018 (continued)

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1954	8.1	1.2	449.7	9,890.5	3.8	2.8
1955	7.6	-0.9	483.9	9,800.3	3.7	2.8
1956	6.8	2.7	516.7	10,060.3	3.6	2.9
1957	11.5	1.7	576.1	10,235.7	3.6	2.9
1958	10.1	0.6	634.5	10,294.2	3.5	2.9
1959	8.7	1.7	689.7	10,469.7	3.4	3.0
1960	6.3	3.9	732.8	10,879.1	3.3	3.0
1961	6.3	9.1	778.6	11,873.4	3.2	3.0
1962	6.3	4.9	827.3	12,458.3	3.2	2.9
1963	6.0	6.1	877.1	13,218.7	3.1	2.8
1964	5.9	4.9	928.5	13,862.1	3.1	2.8
1965	5.9	6.3	982.9	14,739.4	3.0	2.7
1966	5.9	4.4	1,040.6	15,382.8	3.0	2.7
1967	5.9	5.7	1,101.6	16,260.2	2.9	2.6
1968	5.9	4.0	1,166.9	16,903.5	2.8	2.6
1969	5.9	6.2	1,236.2	17,956.4	2.8	2.5
1970	6.1	5.9	1,311.2	19,009.2	2.7	2.5
1971	5.5	4.9	1,383.8	19,945.0	2.6	2.4
1972	4.5	5.6	1,445.4	21,056.3	2.6	2.3
1973	5.3	18.3	1,521.6	24,916.6	2.5	2.3
1974	7.0	21.1	1,628.8	30,180.7	2.5	1.9
1975	6.5	7.8	1,734.9	32,520.3	2.4	1.5
1976	5.8	10.6	1,836.0	35,971.2	2.3	1.4
1977	4.9	5.0	1,926.9	37,784.4	2.2	1.2
1978	3.6	3.9	1,995.7	39,246.6	2.1	1.1
1979	4.5	5.7	2,085.9	41,469.3	2.1	1.0
1980	6.8	7.2	2,228.1	44,452.2	2.0	0.9
1981	5.8	4.3	2,358.4	46,382.4	1.9	0.8
1982	5.6	2.0	2,489.6	47,318.2	1.8	0.7
1983	5.4	1.7	2,624.6	48,137.1	1.7	0.6
1984	5.0	2.7	2,756.6	49,423.9	1.6	0.6
1985	5.0	1.4	2,895.1	50,125.7	1.5	0.5
1986	5.0	-0.4	3,039.1	49,950.3	1.4	0.5
1987	3.6	0.8	3,149.7	50,359.7	1.3	0.5

Money market instrument returns and inflation (Japan): 1900–2018 (continued)

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1988	3.9	1.0	3,271.8	50,886.1	1.2	0.5
1989	5.1	2.6	3,437.6	52,231.4	1.1	0.5
1990	7.7	3.7	3,703.4	54,161.5	1.0	0.4
1991	7.2	2.7	3,969.4	55,623.8	0.8	0.3
1992	4.2	1.2	4,137.7	56,267.2	0.5	0.2
1993	2.8	1.0	4,255.1	56,852.1	0.4	0.2
1994	2.2	0.6	4,348.2	57,203.0	0.3	0.2
1995	1.1	-0.4	4,395.6	56,969.0	0.2	0.2
1996	0.4	0.6	4,414.5	57,320.0	0.2	0.2
1997	0.4	1.8	4,432.1	58,372.8	0.2	0.2
1998	0.4	0.6	4,448.5	58,723.7	0.2	0.1
1999	0.1	-1.1	4,452.5	58,080.4	0.2	0.1
2000	0.2	-0.4	4,461.9	57,846.4	0.2	0.1
2001	0.1	-1.2	4,464.8	57,144.5	0.2	0.1
2002	0.0	-0.3	4,465.1	56,969.0	0.2	0.2
2003	0.0	-0.4	4,465.6	56,735.1	0.2	0.3
2004	0.0	0.2	4,465.8	56,852.1	0.2	0.3
2005	0.0	-0.4	4,466.3	56,618.1	0.2	0.3
2006	0.3	0.3	4,478.0	56,793.6	0.2	0.4
2007	0.6	0.7	4,506.7	57,203.0	0.2	0.4
2008	0.7	0.4	4,539.7	57,437.0	0.2	0.3
2009	0.4	-1.7	4,559.1	56,442.6	0.1	0.3
2010	0.2	-0.3	4,569.1	56,267.2	0.1	0.6
2011	0.2	-0.2	4,576.3	56,150.2	0.1	0.7
2012	0.2	-0.2	4,584.8	56,033.2	0.1	0.8
2013	0.2	1.7	4,591.9	56,969.0	0.1	1.0
2014	0.1	2.4	4,597.8	58,314.3	0.0	0.8
2015	0.0	0.1	4,598.3	58,372.8	0.0	0.4
2016	0.0	0.3	4,598.7	58,548.3	0.0	0.6
2017	0.0	1.1	4,599.2	59,191.7	0.0	0.7
2018	0.0	0.3	4,599.7	59,367.1	0.0	0.3

Equity and bond real returns (Japan): 1900–2018


Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1920	—	—	100.0	100.0	—	—
1921	15.6	28.1	115.6	128.1	4.0	-0.2
1922	1.5	31.0	117.2	167.7	3.9	-0.5
1923	-1.4	-2.1	115.6	164.1	3.9	-0.8
1924	15.6	-1.5	133.5	161.8	4.0	-0.7
1925	33.0	13.0	177.7	182.7	3.9	-0.7
1926	17.5	28.2	208.8	234.1	3.6	-0.9
1927	3.5	14.9	216.2	269.1	3.5	-1.2
1928	3.5	3.1	223.8	277.4	3.5	-1.3
1929	-1.7	18.3	220.0	328.1	3.5	-1.4
1930	5.3	31.4	231.7	431.0	3.5	-1.6
1931	7.0	3.6	248.0	446.4	3.5	-1.9
1932	82.5	6.5	452.7	475.4	3.5	-1.9
1933	16.2	3.7	526.1	492.8	2.8	-2.0
1934	-1.4	4.3	518.6	514.2	2.6	-2.1
1935	6.3	1.8	551.5	523.5	2.7	-2.2
1936	7.8	3.5	594.8	541.7	2.6	-2.2
1937	-2.4	-13.9	580.4	466.3	2.6	-2.3
1938	-17.8	-9.7	477.0	421.1	2.6	-2.1
1939	24.3	-8.3	592.7	386.0	2.9	-2.0
1940	-19.2	-4.8	478.6	367.5	2.7	-2.0
1941	17.2	1.7	561.1	373.8	3.0	-1.9
1942	3.9	2.2	582.8	381.9	2.8	-2.0
1943	-4.0	-4.1	559.7	366.3	2.8	-2.0
1944	-11.0	-11.9	498.0	322.7	2.9	-2.0
1945	-60.7	-59.9	195.6	129.4	3.1	-1.9
1946	-83.2	-75.1	32.8	32.2	4.5	-0.6
1947	-46.8	-64.3	17.4	11.5	7.2	1.3
1948	21.9	-45.4	21.3	6.3	8.2	2.8
1949	54.3	13.9	32.8	7.1	8.0	3.7
1950	2.8	6.5	33.7	7.6	7.5	3.6
1951	63.5	-5.7	55.1	7.2	7.6	3.5
1952	140.4	4.9	132.5	7.5	6.9	3.7
1953	0.7	9.8	133.5	8.3	5.6	3.7

Equity and bond real returns (Japan): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1954	-1.3	4.2	131.7	8.6	5.7	3.6
1955	41.0	7.4	185.8	9.3	5.8	3.6
1956	36.5	3.8	253.6	9.6	5.3	3.5
1957	-10.5	2.6	227.0	9.9	4.8	3.5
1958	49.3	29.5	338.9	12.8	5.1	3.5
1959	35.1	-6.8	457.8	11.9	4.5	3.1
1960	36.6	10.4	625.6	13.1	4.0	3.3
1961	-11.8	-21.9	551.7	10.3	3.6	3.2
1962	-2.9	44.3	535.9	14.8	3.9	3.7
1963	-8.3	-0.4	491.4	14.7	4.0	3.1
1964	-2.0	3.2	481.6	15.2	4.2	3.1
1965	14.0	14.1	549.2	17.4	4.3	3.1
1966	5.6	12.1	579.9	19.5	4.2	2.9
1967	-10.2	0.4	521.0	19.5	4.1	2.8
1968	30.8	2.7	681.7	20.1	4.4	2.8
1969	32.8	0.5	905.6	20.2	4.0	2.8
1970	-17.1	0.6	750.8	20.3	3.4	2.9
1971	28.0	2.5	961.1	20.8	3.9	2.9
1972	104.8	7.4	1,968.7	22.3	3.5	2.9
1973	-37.6	-22.9	1,228.5	17.2	1.9	2.8
1974	-25.6	-14.1	914.0	14.8	3.1	3.5
1975	12.3	5.5	1,026.8	15.6	3.8	3.9
1976	8.7	0.5	1,115.6	15.7	3.6	3.9
1977	-10.0	20.9	1,004.1	19.0	3.5	4.0
1978	19.1	3.5	1,196.1	19.6	3.9	3.6
1979	2.3	-14.0	1,224.0	16.9	3.5	3.6
1980	2.9	0.4	1,259.1	17.0	3.5	4.1
1981	19.5	9.3	1,504.9	18.5	3.6	4.2
1982	3.8	8.5	1,562.2	20.1	3.2	4.1
1983	20.7	9.4	1,885.4	22.0	3.1	3.9
1984	23.4	9.8	2,327.4	24.2	2.7	3.8
1985	12.8	9.4	2,624.8	26.5	2.1	3.6
1986	59.3	11.9	4,180.9	29.6	1.8	3.4
1987	7.8	6.9	4,505.9	31.7	0.4	3.2

Equity and bond real returns (Japan): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1988	38.1	5.6	6,221.3	33.4	0.2	3.1
1989	13.9	-3.7	7,089.0	32.2	-0.9	3.0
1990	-41.8	-4.8	4,127.3	30.7	-1.4	3.2
1991	-2.5	14.1	4,023.8	35.0	0.5	3.5
1992	-22.4	11.2	3,121.0	38.9	0.6	3.1
1993	11.1	15.9	3,466.5	45.1	1.6	2.8
1994	7.9	-8.4	3,740.1	41.3	1.3	2.4
1995	4.5	18.8	3,909.8	49.0	1.0	2.8
1996	-5.5	5.5	3,694.6	51.7	0.9	2.2
1997	-16.0	7.3	3,102.1	55.5	1.2	2.0
1998	-9.4	-1.1	2,810.2	54.9	2.1	1.8
1999	48.2	6.2	4,164.5	58.3	2.7	1.9
2000	-19.5	2.2	3,351.5	59.6	0.7	1.7
2001	-18.0	5.2	2,748.7	62.7	2.0	1.7
2002	-18.5	5.9	2,239.8	66.4	3.3	1.5
2003	23.2	-2.6	2,760.4	64.6	4.8	1.2
2004	10.6	0.7	3,051.7	65.1	3.7	1.5
2005	45.2	1.3	4,430.4	65.9	3.2	1.5
2006	6.9	-0.4	4,737.2	65.7	0.5	1.6
2007	-10.9	2.6	4,223.0	67.4	0.0	1.7
2008	-42.8	4.1	2,415.8	70.1	1.1	1.7
2009	11.0	2.1	2,682.6	71.6	7.0	1.4
2010	0.9	3.1	2,706.3	73.8	6.6	1.3
2011	-18.6	2.7	2,204.0	75.8	7.3	1.1
2012	21.8	2.9	2,685.0	78.0	11.6	0.9
2013	52.0	-0.5	4,082.2	77.6	10.0	0.6
2014	7.0	2.0	4,366.3	79.2	3.1	0.8
2015	9.8	0.8	4,795.2	79.8	2.2	0.5
2016	-1.0	1.8	4,745.5	81.3	-0.3	0.4
2017	18.4	-1.1	5,621.0	80.4	0.1	-0.4
2018	-15.4	0.3	4,755.3	80.7	-15.4	0.3



LONG-TERM HISTORICAL CAPITAL MARKET
RETURNS SUMMARY: AUSTRALIA

Equity and bond nominal returns (Australia): 1900–2018

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1911	—	—	100.0	100.0	—	—
1912	10.4	-0.2	110.4	99.8	10.6	6.6
1913	10.7	0.5	122.2	100.4	10.6	6.6
1914	13.4	2.1	138.5	102.5	10.6	6.7
1915	-1.9	1.3	135.9	103.8	10.6	6.8
1916	-1.7	-5.8	133.6	97.8	10.8	6.8
1917	17.6	3.6	157.2	101.2	10.9	6.9
1918	11.6	7.1	175.5	108.5	10.8	7.0
1919	18.4	1.9	207.8	110.5	10.8	7.0
1920	10.0	1.8	228.6	112.5	10.7	7.0
1921	22.4	12.4	279.8	126.5	10.7	7.1
1922	23.6	8.2	345.8	136.9	10.6	7.0
1923	18.3	8.8	409.2	149.0	10.5	7.0
1924	17.1	5.4	479.4	157.0	10.4	7.0
1925	18.5	3.3	568.0	162.2	10.3	7.0
1926	16.2	5.0	660.0	170.3	10.3	7.1
1927	19.8	4.9	790.4	178.7	10.2	7.1
1928	14.6	0.4	905.6	179.5	10.1	7.1
1929	-3.6	3.6	873.1	185.9	10.1	7.2
1930	-28.1	-16.8	627.8	154.7	10.2	7.2
1931	20.0	50.9	753.3	233.5	10.8	7.5
1932	26.5	10.0	952.7	256.8	10.6	7.1
1933	27.1	8.6	1,211.0	279.0	10.5	7.1
1934	24.6	8.3	1,509.5	302.1	10.3	7.1
1935	11.4	2.3	1,681.7	309.0	10.1	7.0
1936	18.8	6.9	1,997.8	330.2	10.1	7.1
1937	6.2	5.0	2,120.7	346.5	10.0	7.1
1938	1.0	2.4	2,142.4	354.8	10.1	7.1
1939	7.2	4.7	2,295.9	371.4	10.2	7.2
1940	5.3	9.8	2,417.4	407.8	10.2	7.2
1941	-3.8	14.7	2,324.3	467.8	10.3	7.2
1942	20.4	3.5	2,798.4	484.0	10.5	7.1
1943	10.5	3.2	3,091.2	499.5	10.4	7.1
1944	9.6	3.3	3,388.4	515.9	10.4	7.2
1945	15.5	3.2	3,913.3	532.5	10.4	7.2
1946	14.8	3.6	4,491.1	551.8	10.3	7.3

Equity and bond nominal returns (Australia): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1947	18.0	3.6	5,299.2	571.5	10.2	7.4
1948	3.6	3.5	5,490.6	591.7	10.1	7.4
1949	9.6	3.3	6,015.7	611.0	10.2	7.5
1950	32.9	2.8	7,996.2	627.9	10.2	7.5
1951	-3.3	-1.3	7,736.2	619.9	9.9	7.6
1952	-11.8	-1.9	6,823.3	608.1	10.1	7.7
1953	14.8	5.4	7,835.7	640.9	10.5	7.9
1954	20.6	3.9	9,452.1	666.0	10.5	7.9
1955	12.1	4.4	10,599.8	695.6	10.3	8.0
1956	10.3	0.7	11,691.7	700.2	10.3	8.1
1957	18.3	5.9	13,830.8	741.3	10.3	8.2
1958	22.8	5.3	16,985.6	780.9	10.1	8.2
1959	47.1	6.1	24,991.1	828.7	9.9	8.3
1960	-7.3	1.0	23,155.4	836.8	9.4	8.3
1961	16.0	9.2	26,853.3	914.0	9.7	8.4
1962	5.0	6.2	28,201.1	970.9	9.6	8.4
1963	28.6	8.1	36,280.4	1,049.8	9.7	8.5
1964	6.6	0.9	38,679.4	1,059.0	9.4	8.5
1965	-7.1	2.1	35,931.5	1,080.8	9.4	8.6
1966	10.2	6.3	39,595.9	1,149.3	9.8	8.7
1967	42.9	4.5	56,589.4	1,200.9	9.8	8.8
1968	42.5	4.0	80,643.3	1,248.5	9.2	8.9
1969	14.7	0.3	92,533.7	1,252.0	8.6	9.0
1970	-20.3	0.3	73,733.2	1,255.4	8.5	9.2
1971	-8.4	12.3	67,555.6	1,409.3	9.2	9.3
1972	12.4	8.9	75,904.9	1,535.4	9.6	9.3
1973	-25.6	-0.3	56,496.7	1,531.2	9.5	9.3
1974	-26.5	1.7	41,516.4	1,557.9	10.5	9.5
1975	56.1	6.8	64,815.3	1,663.7	11.5	9.7
1976	2.4	7.7	66,390.6	1,792.3	10.6	9.8
1977	4.8	17.2	69,554.3	2,100.4	10.8	9.8
1978	20.0	14.4	83,456.7	2,403.2	11.0	9.6
1979	47.9	1.6	123,437.1	2,442.8	10.8	9.5
1980	42.9	-3.3	176,441.4	2,361.2	10.0	9.7
1981	-21.2	0.8	139,012.6	2,380.5	9.2	10.1
1982	-12.4	22.9	121,730.3	2,924.7	10.2	10.4

Equity and bond nominal returns (Australia): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1983	68.3	18.0	204,906.2	3,449.7	10.9	10.0
1984	-6.1	15.0	192,500.6	3,967.9	9.6	9.8
1985	44.8	6.3	278,812.7	4,217.2	10.1	9.7
1986	45.8	23.5	406,415.1	5,208.6	9.2	9.8
1987	0.6	17.5	408,995.8	6,121.0	8.2	9.4
1988	15.4	12.2	471,941.5	6,866.3	8.4	9.1
1989	18.2	14.6	557,686.4	7,867.4	8.2	9.0
1990	-15.7	19.4	470,284.7	9,394.4	7.9	8.8
1991	35.8	30.3	638,807.8	12,236.5	8.8	8.5
1992	-1.5	13.0	629,509.6	13,824.3	7.9	7.7
1993	37.0	25.3	862,230.4	17,326.2	8.3	7.5
1994	-7.8	-12.8	795,317.9	15,114.8	7.3	6.9
1995	15.9	24.0	922,106.2	18,737.1	8.0	7.8
1996	9.1	14.6	1,006,026.3	21,481.6	7.6	7.1
1997	9.2	17.7	1,098,291.8	25,287.9	7.6	6.8
1998	12.7	14.2	1,237,525.9	28,873.1	7.5	6.3
1999	10.2	-8.1	1,364,275.3	26,535.0	7.3	5.9
2000	6.0	19.0	1,446,674.9	31,565.2	7.1	6.7
2001	10.4	1.6	1,596,811.3	32,057.7	7.2	6.1
2002	-10.3	12.9	1,432,243.4	36,199.6	7.0	6.4
2003	11.7	2.1	1,599,825.7	36,958.6	8.2	6.0
2004	25.3	7.9	2,004,195.2	39,879.4	7.9	6.2
2005	24.0	6.0	2,484,837.0	42,263.8	6.8	6.1
2006	21.8	1.1	3,026,192.4	42,733.1	5.6	6.1
2007	15.2	2.7	3,486,332.2	43,883.4	4.3	6.6
2008	-37.9	26.3	2,165,757.9	55,436.5	3.4	6.9
2009	36.8	-8.0	2,962,218.6	50,977.0	8.8	5.1
2010	0.5	6.8	2,976,407.3	54,431.4	6.0	6.7
2011	-11.0	20.7	2,649,975.5	65,678.0	6.8	6.7
2012	20.5	7.8	3,194,315.4	70,777.9	9.6	4.9
2013	20.9	-3.9	3,861,200.5	68,004.5	7.8	4.4
2014	5.6	16.4	4,077,069.7	79,151.8	5.4	6.1
2015	1.3	2.0	4,129,468.7	80,738.9	5.3	3.7
2016	12.0	3.4	4,624,150.5	83,498.8	6.7	4.3
2017	11.0	3.9	5,134,346.5	86,732.3	4.2	4.7
2018	-2.2	5.6	5,020,205.1	91,563.9	-2.2	5.6

Money market instrument returns and inflation (Australia): 1900–2018

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1911	—	—	100.0	100.0	—	—
1912	1.8	12.9	101.8	112.9	4.8	4.1
1913	2.0	-3.0	103.9	109.6	4.8	4.0
1914	2.0	4.1	106.0	114.1	4.8	4.1
1915	2.0	16.9	108.1	133.3	4.8	4.1
1916	2.7	-2.5	111.0	130.0	4.9	4.0
1917	3.0	2.6	114.3	133.3	4.9	4.0
1918	3.0	4.1	117.8	138.7	4.9	4.1
1919	3.0	14.4	121.4	158.7	4.9	4.1
1920	3.3	9.6	125.4	174.0	4.9	4.0
1921	3.6	-9.9	129.9	156.9	5.0	3.9
1922	3.6	2.2	134.5	160.3	5.0	4.1
1923	3.6	2.9	139.3	164.9	5.0	4.1
1924	3.6	-2.8	144.2	160.3	5.0	4.1
1925	3.6	3.6	149.4	166.0	5.0	4.2
1926	3.6	0.7	154.7	167.2	5.0	4.2
1927	3.8	0.7	160.5	168.3	5.1	4.2
1928	4.3	-0.7	167.5	167.2	5.1	4.2
1929	5.0	2.1	175.8	170.6	5.1	4.3
1930	5.7	-9.3	185.8	154.7	5.1	4.3
1931	5.1	-8.8	195.3	141.1	5.1	4.5
1932	3.8	-4.1	202.8	135.3	5.1	4.7
1933	2.9	-0.6	208.8	134.5	5.1	4.8
1934	2.2	1.8	213.4	136.9	5.1	4.8
1935	1.9	2.1	217.4	139.8	5.1	4.9
1936	1.8	2.7	221.2	143.5	5.2	4.9
1937	1.8	2.4	225.1	147.0	5.2	4.9
1938	1.8	2.4	229.1	150.6	5.3	5.0
1939	1.8	2.4	233.1	154.2	5.3	5.0
1940	1.6	6.4	236.8	164.1	5.4	5.0
1941	1.5	4.5	240.4	171.5	5.4	5.0
1942	1.5	8.8	244.0	186.5	5.5	5.0
1943	1.5	0.3	247.6	187.0	5.5	5.0
1944	1.3	0.5	250.7	188.1	5.6	5.0
1945	1.0	0.8	253.3	189.6	5.6	5.1
1946	1.0	7.3	255.9	203.5	5.7	5.2

Money market instrument returns and inflation (Australia): 1900–2018 (continued)

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1947	1.0	6.1	258.4	215.8	5.8	5.1
1948	1.0	10.0	261.0	237.4	5.8	5.1
1949	0.8	9.1	263.2	259.0	5.9	5.0
1950	0.8	15.6	265.2	299.2	6.0	5.0
1951	0.8	23.9	267.2	370.8	6.1	4.8
1952	0.9	10.5	269.5	409.8	6.1	4.6
1953	1.0	1.6	272.2	416.3	6.2	4.5
1954	1.0	1.6	275.0	422.9	6.3	4.5
1955	1.0	3.1	277.7	435.9	6.4	4.6
1956	1.0	6.0	280.5	461.9	6.5	4.6
1957	1.0	1.4	283.3	468.4	6.6	4.6
1958	1.0	1.4	286.2	474.9	6.7	4.6
1959	1.3	2.7	290.0	487.9	6.8	4.7
1960	3.6	4.0	300.4	507.4	6.8	4.7
1961	4.2	0.0	312.9	507.4	6.9	4.7
1962	3.8	0.0	324.7	507.4	7.0	4.8
1963	3.4	1.3	335.7	513.9	7.0	4.9
1964	3.7	3.8	348.1	533.4	7.1	5.0
1965	4.3	3.7	363.0	553.0	7.1	5.0
1966	4.6	2.4	379.7	566.0	7.2	5.0
1967	4.6	3.4	397.2	585.5	7.2	5.1
1968	4.6	2.2	415.4	598.5	7.3	5.1
1969	4.8	3.3	435.3	618.0	7.4	5.2
1970	5.5	5.3	459.3	650.5	7.4	5.2
1971	5.5	7.0	484.8	696.1	7.4	5.2
1972	4.4	4.7	506.2	728.6	7.5	5.2
1973	5.5	12.5	534.2	819.7	7.6	5.2
1974	9.4	16.7	584.6	956.3	7.6	5.0
1975	8.0	14.3	631.6	1,092.9	7.6	4.8
1976	7.8	14.3	680.7	1,249.0	7.5	4.6
1977	8.9	9.4	741.0	1,366.1	7.5	4.3
1978	8.7	7.6	805.3	1,470.2	7.5	4.2
1979	9.2	10.2	879.8	1,619.8	7.5	4.1
1980	11.2	9.2	978.4	1,769.5	7.4	4.0
1981	14.1	11.0	1,116.2	1,964.6	7.3	3.8
1982	15.7	11.3	1,291.0	2,185.8	7.2	3.7

Money market instrument returns and inflation (Australia): 1900–2018 (continued)

Year	Annual Total Return (%) Money Market Instruments	Annual Inflation Rate (%)	Cumulative Wealth Money Market Instruments	Cumulative Inflation Index	AACR (%) Through 2018 Money Market Instruments	Average Annual Inflation Rate (%) Through 2018
1983	11.6	8.6	1,441.2	2,374.5	6.9	3.5
1984	11.6	2.5	1,607.8	2,433.0	6.8	3.3
1985	16.6	8.3	1,873.9	2,634.7	6.7	3.3
1986	16.5	9.6	2,183.5	2,888.4	6.4	3.2
1987	13.6	7.2	2,479.9	3,096.6	6.1	3.0
1988	12.8	7.6	2,798.3	3,330.8	5.8	2.9
1989	18.2	7.8	3,306.3	3,591.0	5.6	2.7
1990	15.1	6.9	3,805.7	3,838.2	5.2	2.5
1991	10.4	1.5	4,202.4	3,896.7	4.9	2.4
1992	6.4	0.3	4,472.5	3,909.8	4.7	2.4
1993	5.1	1.8	4,702.4	3,981.3	4.6	2.5
1994	5.7	2.6	4,970.7	4,085.4	4.6	2.5
1995	7.9	5.1	5,364.3	4,293.6	4.5	2.5
1996	7.2	1.5	5,753.0	4,358.6	4.4	2.4
1997	5.4	-0.3	6,064.9	4,345.6	4.3	2.4
1998	4.9	1.5	6,364.8	4,410.7	4.2	2.6
1999	4.9	1.9	6,674.5	4,495.2	4.2	2.6
2000	6.2	5.8	7,086.5	4,755.5	4.1	2.7
2001	4.8	3.1	7,429.3	4,905.1	4.0	2.5
2002	4.8	2.9	7,783.9	5,048.2	4.0	2.5
2003	4.9	2.4	8,167.1	5,171.8	3.9	2.4
2004	5.5	2.5	8,613.8	5,301.9	3.9	2.4
2005	5.7	2.8	9,103.8	5,451.5	3.8	2.4
2006	6.1	3.3	9,659.5	5,633.7	3.6	2.4
2007	6.7	2.9	10,309.1	5,796.3	3.4	2.3
2008	6.6	3.7	10,986.5	6,011.0	3.1	2.3
2009	3.2	2.1	11,333.4	6,134.6	2.8	2.1
2010	4.6	2.8	11,852.7	6,303.8	2.7	2.1
2011	4.7	3.0	12,404.2	6,492.4	2.5	2.1
2012	3.5	2.2	12,839.7	6,635.5	2.2	1.9
2013	2.7	2.7	13,181.8	6,817.7	2.0	1.9
2014	2.5	1.7	13,513.6	6,934.8	1.8	1.7
2015	2.0	1.7	13,784.0	7,051.9	1.7	1.7
2016	1.7	1.5	14,014.6	7,156.0	1.6	1.7
2017	1.5	1.9	14,225.8	7,292.6	1.5	1.8
2018	1.5	1.8	14,440.7	7,422.7	1.5	1.8

Equity and bond real returns (Australia): 1900–2018

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1911	—	—	100.0	100.0	—	—
1912	-2.2	-11.6	97.8	88.4	6.3	2.4
1913	14.1	3.6	111.5	91.6	6.4	2.5
1914	8.9	-1.9	121.4	89.8	6.3	2.5
1915	-16.1	-13.3	101.9	77.8	6.3	2.6
1916	0.9	-3.4	102.8	75.2	6.5	2.7
1917	14.7	1.0	117.9	75.9	6.6	2.8
1918	7.3	3.0	126.5	78.2	6.5	2.8
1919	3.4	-10.9	130.9	69.6	6.5	2.8
1920	0.4	-7.1	131.3	64.7	6.5	2.9
1921	35.8	24.7	178.4	80.7	6.6	3.1
1922	20.9	5.9	215.7	85.4	6.3	2.9
1923	15.0	5.8	248.2	90.4	6.2	2.8
1924	20.5	8.4	299.0	98.0	6.1	2.8
1925	14.4	-0.2	342.1	97.7	5.9	2.7
1926	15.4	4.3	394.8	101.9	5.8	2.8
1927	18.9	4.2	469.6	106.2	5.7	2.7
1928	15.4	1.1	541.7	107.4	5.6	2.7
1929	-5.5	1.5	511.8	109.0	5.5	2.7
1930	-20.7	-8.2	405.9	100.0	5.6	2.8
1931	31.5	65.4	533.7	165.4	6.0	2.9
1932	31.9	14.7	704.1	189.8	5.7	2.3
1933	27.9	9.3	900.7	207.5	5.5	2.2
1934	22.5	6.4	1,103.0	220.8	5.2	2.1
1935	9.1	0.1	1,203.2	221.1	5.0	2.1
1936	15.7	4.0	1,391.9	230.0	5.0	2.1
1937	3.7	2.5	1,443.0	235.8	4.8	2.1
1938	-1.4	-0.1	1,423.0	235.7	4.9	2.1
1939	4.7	2.2	1,489.4	240.9	4.9	2.1
1940	-1.1	3.2	1,473.3	248.5	4.9	2.1
1941	-8.0	9.8	1,355.7	272.9	5.0	2.1
1942	10.7	-4.9	1,500.3	259.5	5.2	2.0
1943	10.2	2.9	1,652.7	267.1	5.1	2.1
1944	9.0	2.7	1,801.7	274.3	5.1	2.1
1945	14.6	2.4	2,063.9	280.8	5.0	2.1
1946	6.9	-3.4	2,207.2	271.2	4.9	2.0

Equity and bond real returns (Australia): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1947	11.3	-2.4	2,455.5	264.8	4.9	2.1
1948	-5.8	-5.9	2,312.9	249.2	4.8	2.2
1949	0.4	-5.3	2,322.9	235.9	4.9	2.3
1950	15.0	-11.1	2,672.1	209.8	5.0	2.4
1951	-21.9	-20.3	2,086.3	167.2	4.9	2.6
1952	-20.2	-11.2	1,664.9	148.4	5.3	3.0
1953	13.0	3.8	1,882.0	153.9	5.8	3.3
1954	18.8	2.3	2,235.3	157.5	5.7	3.3
1955	8.8	1.3	2,431.9	159.6	5.5	3.3
1956	4.1	-5.0	2,531.3	151.6	5.4	3.3
1957	16.7	4.4	2,952.8	158.3	5.4	3.4
1958	21.1	3.9	3,576.7	164.4	5.3	3.4
1959	43.2	3.3	5,122.1	169.9	5.0	3.4
1960	-10.9	-2.9	4,563.3	164.9	4.5	3.4
1961	16.0	9.2	5,292.1	180.1	4.8	3.5
1962	5.0	6.2	5,557.7	191.3	4.6	3.4
1963	27.0	6.8	7,059.4	204.3	4.6	3.4
1964	2.7	-2.8	7,250.9	198.5	4.2	3.3
1965	-10.4	-1.5	6,498.0	195.5	4.2	3.4
1966	7.7	3.9	6,996.1	203.1	4.5	3.5
1967	38.2	1.0	9,665.3	205.1	4.5	3.5
1968	39.4	1.7	13,474.3	208.6	3.9	3.6
1969	11.1	-2.9	14,972.7	202.6	3.3	3.6
1970	-24.3	-4.7	11,334.1	193.0	3.1	3.8
1971	-14.4	4.9	9,705.2	202.5	3.8	3.9
1972	7.3	4.1	10,417.8	210.7	4.2	3.9
1973	-33.8	-11.4	6,892.5	186.8	4.2	3.9
1974	-37.0	-12.8	4,341.4	162.9	5.2	4.3
1975	36.6	-6.6	5,930.5	152.2	6.4	4.7
1976	-10.4	-5.7	5,315.3	143.5	5.8	5.0
1977	-4.2	7.1	5,091.3	153.7	6.2	5.3
1978	11.5	6.3	5,676.5	163.5	6.5	5.2
1979	34.2	-7.7	7,620.3	150.8	6.4	5.2
1980	30.9	-11.5	9,971.4	133.4	5.8	5.5
1981	-29.0	-9.2	7,075.7	121.2	5.2	6.0
1982	-21.3	10.4	5,569.1	133.8	6.3	6.5

Equity and bond real returns (Australia): 1900–2018 (continued)

Year	Annual Total Return (%)		Cumulative Wealth		AACR (%) Through 2018	
	Equities	Bonds	Equities	Bonds	Equities	Bonds
1983	55.0	8.6	8,629.5	145.3	7.2	6.4
1984	-8.3	12.3	7,912.0	163.1	6.1	6.3
1985	33.8	-1.9	10,582.4	160.1	6.5	6.1
1986	33.0	12.7	14,070.6	180.3	5.8	6.4
1987	-6.1	9.6	13,208.0	197.7	5.0	6.2
1988	7.3	4.3	14,169.1	206.1	5.4	6.1
1989	9.6	6.3	15,530.1	219.1	5.3	6.1
1990	-21.1	11.7	12,252.7	244.8	5.2	6.1
1991	33.8	28.3	16,393.4	314.0	6.3	5.9
1992	-1.8	12.6	16,101.0	353.6	5.4	5.2
1993	34.5	23.1	21,656.9	435.2	5.7	4.9
1994	-10.1	-15.0	19,467.3	370.0	4.7	4.3
1995	10.3	18.0	21,476.4	436.4	5.3	5.1
1996	7.5	12.9	23,081.2	492.9	5.1	4.6
1997	9.5	18.1	25,273.5	581.9	5.0	4.3
1998	11.0	12.5	28,057.5	654.6	4.8	3.6
1999	8.2	-9.8	30,349.3	590.3	4.5	3.2
2000	0.2	12.4	30,421.3	663.8	4.3	4.0
2001	7.0	-1.5	32,554.2	653.6	4.5	3.5
2002	-12.8	9.7	28,371.3	717.1	4.4	3.8
2003	9.0	-0.3	30,933.6	714.6	5.6	3.4
2004	22.2	5.3	37,801.3	752.2	5.4	3.7
2005	20.6	3.1	45,580.4	775.3	4.2	3.6
2006	17.8	-2.2	53,716.0	758.5	3.1	3.6
2007	12.0	-0.2	60,147.2	757.1	1.9	4.1
2008	-40.1	21.8	36,029.9	922.3	1.1	4.5
2009	34.0	-9.9	48,287.0	831.0	6.5	3.0
2010	-2.2	3.9	47,216.4	863.5	3.8	4.5
2011	-13.6	17.2	40,816.5	1,011.6	4.6	4.6
2012	17.9	5.4	48,139.6	1,066.7	7.5	2.9
2013	17.6	-6.5	56,635.1	997.5	5.8	2.5
2014	3.8	14.4	58,791.6	1,141.4	3.6	4.3
2015	-0.4	0.3	58,558.5	1,144.9	3.6	2.0
2016	10.4	1.9	64,619.6	1,166.8	4.9	2.5
2017	9.0	1.9	70,405.1	1,189.3	2.3	2.8
2018	-3.9	3.7	67,633.3	1,233.6	-3.9	3.7

LONG-TERM HISTORICAL EQUITY RETURNS SUMMARY:
EMERGING MARKETS

Equity returns (Emerging Markets) in USD and local currency terms: 1987–2018

Year	Annual Total Return (%)				Cumulative Wealth				AACR (%) Through 2018			
	Nominal		Real		Nominal		Real		Nominal		Real	
	USD	LC	USD	LC	USD	LC	USD	LC	USD	LC	USD	LC
1987	—	—	—	—	100.0	100.0	100.0	100.0	—	—	—	—
1988	40.4	164.3	34.5	143.7	140.4	264.3	134.5	243.7	10.2	25.5	7.5	13.3
1989	65.0	245.0	57.6	223.4	231.7	911.9	212.0	788.0	9.3	22.4	6.7	10.4
1990	-10.6	40.7	-15.7	4.5	207.2	1,282.8	178.7	823.2	7.8	18.1	5.3	6.4
1991	59.9	118.1	55.2	57.9	331.3	2,798.3	277.3	1,300.2	8.5	17.4	6.1	6.5
1992	11.4	64.8	8.3	3.6	369.1	4,611.5	300.2	1,347.4	7.0	14.7	4.6	4.9
1993	74.8	184.9	70.2	67.0	645.4	13,136.5	510.8	2,250.0	6.8	13.1	4.5	5.0
1994	-7.3	27.7	-9.7	-13.8	598.2	16,772.8	461.1	1,939.8	4.7	9.0	2.5	3.1
1995	-5.2	0.8	-7.6	-8.5	567.0	16,901.5	426.3	1,775.7	5.2	8.3	3.0	3.8
1996	6.0	13.5	2.6	5.7	601.2	19,187.2	437.4	1,876.7	5.7	8.6	3.5	4.4
1997	-11.6	4.8	-13.1	-0.9	531.6	20,111.0	380.3	1,859.9	5.7	8.4	3.5	4.3
1998	-25.3	-19.6	-26.5	-25.2	396.9	16,160.3	279.4	1,392.1	6.6	8.6	4.4	4.6
1999	66.4	77.5	62.1	70.4	660.4	28,679.6	452.8	2,371.9	8.5	10.2	6.2	6.4
2000	-30.6	-25.3	-32.9	-28.3	458.3	21,424.8	303.9	1,700.4	6.1	7.5	3.9	3.8
2001	-2.6	7.6	-4.1	4.7	446.3	23,060.8	291.5	1,780.2	8.7	9.7	6.5	5.9
2002	-6.2	-7.3	-8.3	-11.6	418.7	21,379.8	267.1	1,574.4	9.4	9.8	7.1	6.0
2003	55.8	46.3	52.9	42.2	652.5	31,281.1	408.5	2,238.8	10.4	11.0	8.2	7.2
2004	25.6	16.1	21.6	11.9	819.2	36,310.3	496.8	2,504.3	7.9	9.0	5.7	5.2
2005	34.0	35.3	29.6	30.6	1,097.7	49,114.2	643.7	3,270.0	6.7	8.5	4.6	4.7
2006	32.1	28.4	28.9	24.4	1,450.5	63,086.0	829.5	4,066.5	4.9	6.7	2.9	3.0
2007	39.4	33.2	34.0	26.6	2,022.3	84,034.1	1,111.1	5,147.7	2.9	5.0	1.0	1.3
2008	-53.3	-45.9	-53.4	-48.5	943.8	45,444.2	518.1	2,652.6	0.1	2.8	-1.5	-0.7
2009	78.5	62.3	73.8	57.7	1,684.7	73,751.9	900.3	4,183.6	8.0	9.6	6.1	6.1
2010	18.9	14.1	17.1	9.8	2,002.7	84,149.2	1,054.4	4,594.5	2.2	4.9	0.5	1.5
2011	-18.4	-12.7	-20.8	-16.7	1,633.7	73,432.7	835.4	3,825.6	0.2	3.8	-1.5	0.5
2012	18.2	17.0	16.2	12.7	1,931.4	85,906.9	970.7	4,311.5	3.2	6.4	1.7	3.2
2013	-2.6	3.4	-4.0	-0.3	1,881.1	88,858.6	931.5	4,299.2	0.9	4.7	-0.6	1.7
2014	-2.2	5.2	-2.9	1.9	1,840.0	93,453.5	904.3	4,382.8	1.6	5.0	0.1	2.1
2015	-14.9	-5.8	-15.5	-8.6	1,565.5	88,072.7	763.8	4,004.0	2.6	5.0	0.9	2.2
2016	11.2	9.7	8.9	6.6	1,740.6	96,610.9	832.0	4,268.7	9.3	8.8	7.1	6.1
2017	37.3	30.6	34.4	27.2	2,389.6	126,126.4	1,118.6	5,427.9	8.3	8.4	6.2	5.8
2018	-14.6	-10.1	-16.2	-12.0	2,041.5	113,425.5	937.7	4,776.4	-14.6	-10.1	-16.2	-12.0

Notes on the Data

Equity Returns Data

- **US:** From 1900 to 1968, US equity series returns come from the Global Financial Data S&P 500 Index. This uses data from the Cowles/Standard & Poor's Index of stocks through 1918 and then the Standard Composite after 1918. This index was calculated by the Standard Statistics Company and initially consisted of a 90-stock average, which included 50 industrials, 20 rails, and 20 utilities. The 90-share index was used through 1957, when S&P introduced the S&P 500 stock average, including 425 industrials, 25 rails, and 50 utilities. From 1969 to the present, the data cited come directly from the S&P 500 Index.¹
- **UK:** Data from 1900 to June 1962 are based on the historical total return index of UK shares compiled by Global Financial Data, Inc. Returns from September 1962 to December 1964 are calculated for the FT-500 Non-Financials Index provided by data from the FT Actuaries Library. Total returns from January 1965 to December 1992 are based on the FTSE® Total Non-Financial Index calculated by Thomson Reuters Datastream, while from 1993 to the present, returns are based on the FTSE® All-Share Index, as calculated by FTSE®.
- **Japan:** From 1921 to 1968, Japan equity series returns come from Global Financial Data, Inc. The National Bank Index is used from January 1921 through December 1932, and the Oriental Economist Index is used from 1933 through September 1948. The Fisher Index is used from September 1948 through April 1949. The Tokyo stock exchange officially reopened in May 1949, and the Nikkei 225 Index is used from May 1949 until 1969. From 1969 on, the MSCI Japan Index is used and the data cited come from MSCI Inc. Total return data for the MSCI Japan Index are net of dividend taxes.
- **Australia:** From 1912 to 1968, Australia equity series returns come from Global Financial Data, Inc. The All Ordinaries Index is used over this time frame as it is Australia's premier market indicator. The index represents the 500 largest companies listed on the Australian Stock Exchange. From 1969 on, the MSCI Australia Index is used and the data cited come from MSCI Inc. Total return data for the MSCI Australia Index are net of dividend taxes.

¹ As of January 1, 1988, S&P 500 total return calculations are based on daily reinvestment of accrued dividends on ex-date.

Notes on the Data

Equity Returns Data (continued)

- **Emerging Markets:** Data are sourced from the MSCI Emerging Markets Index from 1987, the index inception date. Returns used in exhibits are based on a spliced series of gross and net of dividend tax returns due to availability of the net return series. From 1987 through 2000, gross returns are used. From 2001 onwards, net returns are used. For graphs showing emerging markets compared to developed markets, the gross/net splicing methodology is also used for developed markets, and data are shown in USD terms for comparative purposes. For initial valuation and subsequent return charts, emerging markets returns are shown in local currency terms.

Notes on the Data

Bond Data

The long-term bond series for each region is calculated and provided by Global Financial Data, Inc.

- **US:** From 1900 to September 1917, the 4% US Government Bonds of 1925 are used. Where no trades were recorded during a given month, the previous month's yield was used. The sources for this data is William B. Dana Co., *The Financial Review*, New York: William B. Dana Co. (1872–1921), which reprinted data published by *The Commercial and Financial Chronicle*. The 4% Liberty Bonds are used from October 1917 through December 1918, and beginning in 1919, the Federal Reserve Board's 10–15 Year Treasury Bond Index is used. Ten-year bonds are used beginning in 1941.
- **UK:** The British consol is used from 1900 until 1934. The United Kingdom 3% Funding Loan of 1934 (Redeemable 1959–1969) is used from July 1934 until July 1947 and the United Kingdom 2.50% Treasury Bonds of 1947 (Redeemable after 1975) is used from August 1947 until December 1978. The Bank of England's index of ten-year bonds is used from January 1979 on. The benchmark bond is used for this series. The benchmark bond is the bond that is closest to the stated maturity without exceeding it. When the government issues a new bond of the stated maturity, it replaces the bond used for the index to keep the maturity as close to the stated time period as possible. Depending on how much of a difference there is in maturities, there may be some adjustment in the yield when the new bond is introduced.

Notes on the Data

Bond Data (continued)

- **Japan:** The Empire of Japan 4% Sterling Bonds of 1899 is used from 1900 to 1930. Tokyo quotes begin in 1931. Tokyo quotes for the 5% Japanese Bond are used from 1931 through 1946. No data are available from January 1947 until November 1948. The data from 1948 until September 1961 represent the yields on bonds newly issued during that month. When no bonds were issued, the previous month's yield was used. The series beginning from October 1961 to December 1971 is for seven-year government bonds. Data from January 1972 to present uses the yield on the ten-year government bond. The benchmark bond is used for this series. The benchmark bond is the bond that is closest to the stated maturity without exceeding it. When the government issues a new bond of the stated maturity, it replaces the bond used for the index to keep the maturity as close to the stated time period as possible. Depending on how much of a difference there is in maturities, there may be some adjustment in the yield when the new bond is introduced.
- **Australia:** The New South Wales 3% Inscribed Bond due 1935 is used from January 1900 to November 1917, the Australia 5.50% External Debt of 1917 (Redeemable 1922–1927) is used from December 1917 to June 1922, the Australia 5% Registered Bond of 1922 (Redeemable 1935–1945) is used from July 1922 to August 1933. From 1933 until 1936, 4% bonds are used. Starting in 1937, a weighted average of bonds of ten years through 1940, 12 years from 1941 to May 1959, 20 years from June 1959 through 1980, 15 years from 1981 through 1990, and ten years since 1991 is used to produce the theoretical yield on a perpetual ten-year bond.

Notes on the Data

Cash Data

- **US:** The money market instrument return series is composed of the Global Financial Data USA AA-Rated 3-Month Non-Financial Commercial Paper Index from 1900 through 1918. From 1919 to March 1970, the Global Financial Data USA T-Bill Index is used. From April 1970 to December 1977, T-bill data were sourced directly from the Federal Reserve. From January 1978 to the present, the BofA Merrill Lynch 91-Day Treasury Bill Index total return is used.
- **UK:** The Global Financial Data United Kingdom Total Return Bills Index is used from 1900 through January 1985. To calculate total returns, the index uses the yield on Treasury bills. The United Kingdom 3-Month Treasury Bill Index is used from February 1985 to the present, as sourced from the UK Debt Management Office via Thomson Reuters Datastream.
- **Japan:** The Global Financial Data Japan Total Return Bills Index is used. To calculate total returns, the Bank of Japan Discount Rate is used from 1900 to 1913, the Overnight Call Money rate from 1914 to January 1945, the Bank of Japan Discount Rate from February 1945 to 1948, the overnight call money rate from 1949 to 1959, and Treasury bill yields from 1960 on.
- **Australia:** The Global Financial Data Australia Total Return Bills Index is used. To calculate total returns, the index uses the bank deposit rate from 1900 until June 1928 and Treasury bill yields thereafter.

Notes on the Data

Inflation Data

- **US:** From January 1900 to January 1913, the Global Financial Data US BLS Consumer Price Index is used. From February 1913 to present the US Department of Labor - Bureau of Labor Statistics Consumer Price Index, All Urban Consumers (CPI-U) is used. Data for both series are non-seasonally adjusted.
- **UK:** From January 1900 to February 1956, the Global Financial Data United Kingdom Consumer Price Index is used. From March 1956 to November 2003, the UK Retail Price Index is used. From December 2003 to present, the UK Consumer Price Index is used. Retail and Consumer Price Index data are sourced from the Office for National Statistics and are based on the non-seasonally adjusted series.
- **Japan:** From January 1922 to January 1957, the Global Financial Data Japan Consumer Price Index series is used. From February 1957 to present, the Japan Consumer Price Index is used, as sourced from the Japan Statistics Bureau, Ministry of Internal Affairs & Communication. Data are non-seasonally adjusted.
- **Australia:** From January 1912 to March 1950, the Global Financial Data Australia Consumer Price Index is used. From June 1950 to present, the Australia Consumer Price Index, as sourced from the Australian Bureau of Statistics, is used. Data are non-seasonally adjusted. Australia CPI data are only reported on a quarterly basis. For intra-quarter months we calculate CPI levels using a linear interpolation based on the reported quarter-end data points.
- **Emerging Markets:** Where USD returns are used, as with the US data, we use the US Department of Labor – Bureau of Labor Statistics CPI-U inflation measure. Where local currency returns are used, we use a proprietary basket inflation measure based on the prevailing country exposures and weights of the MSCI Emerging Markets Index at each given period. The inflation basket is calculated as the weighted average of each country's official non-seasonally adjusted consumer price index, with weights derived from the country's allocation in the index. The constituency of the inflation series is dynamic over time as countries are reclassified into and out of the emerging markets index.

Index Disclosures

General Disclaimer

Notwithstanding any specific disclosure provided below, indexes listed on the previous pages and used in this report are the property of the named provider of such index. Each index is used with the permission of, or has been licensed for use by, the provider. The index information may not be copied, used, or distributed without permission of the index provider. Neither CA nor individual index providers are responsible for any loss, damage, cost or expense suffered as a result of any use of, or reliance on, any of the information. Broad-based securities indexes are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index.

BofA Merrill Lynch:

The 91-Day Treasury Bill Index sources the BofA Merrill Lynch 91-Day Treasury Bills Index from January 1978 to present.

Pre-1978 data represent returns calculated by Cambridge Associates LLC using yields from the Federal Reserve.

Source: Merrill Lynch, Pierce, Fenner & Smith Incorporated (BofAML), used with permission. BofAML permits use of the BofAML indexes and related data on an “as is” basis, makes no warranties regarding same, does not guarantee the suitability, quality, accuracy, timeliness, and/or completeness of the BofAML indexes or any data included in, related to, or derived therefrom, assumes no liability in connection with the use of the foregoing, and does not sponsor, endorse, or recommend Cambridge Associates LLC, or any of its products or services.

The index data referenced herein are the property of Merrill Lynch, Pierce, Fenner & Smith Incorporated (BofAML) and/or its licensors and has been licensed for use by Cambridge Associates LLC. BofAML and its licensors accept no liability in connection with its use.

FTSE®:

FTSE® 2019. To the extent permissible by law, FTSE accepts no liability for errors or omissions in the data. The Industry Classification Benchmark is property of FTSE® International Limited and has been licensed for use.

MSCI:

Copyright © MSCI 2019. Unpublished. All Rights Reserved. This information may only be used for internal use, may not be reproduced or disseminated in any form, and may not be used to create any financial instruments or products or any indexes. This information is provided on an “as is” basis and the user of this information assumes the entire risk of any use it may make or permit to be made of this information. Neither MSCI, any of its affiliates, or any other person involved in or related to compiling, computing or creating this information makes any express or implied warranties or representations with respect to such information or the results to be obtained by the use thereof, and MSCI, its affiliates and each such other person hereby expressly disclaim all warranties (including, without limitation, all warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability, and fitness for a particular purpose) with respect to this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any other person involved in or related to compiling, computing, or creating this information have any liability for any direct, indirect, special, incidental, punitive, consequential or any other damages (including, without limitation, lost profits) even if notified of, or if it might otherwise have anticipated, the possibility of such damages. The MSCI information is the exclusive property of MSCI Inc. and may not be reproduced or disseminated in any form or used to create any financial products or indexes without MSCI's express prior written permission. This information is provided “as is” without any express or implied warranties. In no event shall MSCI or any of its affiliates or information providers have any liability of any kind to any person or entity arising from or related to this information.

Standard & Poor's:

The S&P 500 Index is a product of S&P Dow Jones indexes LLC and/or its affiliates and has been licensed for use by Cambridge Associates LLC. Copyright © S&P Dow Jones Indexes LLC, a division of S&P Global, Inc., and/or its affiliates. All rights reserved. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indexes LLC. For more information on any of S&P Dow Jones LLC's Indexes, please visit www.spdji.com. S&P® is a registered trademark of S&P Global and Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC. Neither S&P Dow Jones Indexes LLC, Dow Jones Trademark Holdings LLC, their affiliates, nor their third-party licensors make any representation or warranty, express or implied, as to the ability of any index to accurately represent the asset class or market sector that it purports to represent and either S&P Dow Jones Indexes LLC, Dow Jones omissions, or interruptions of any index of the data included therein.



Contributors to this report include Stuart Brown, Sean Duffin, Graham Landrith, and Brandon Smith.

Copyright © 2019 by Cambridge Associates LLC. All rights reserved.

This report may not be displayed, reproduced, distributed, transmitted, or used to create derivative works in any form, in whole or in portion, by any means, without written permission from Cambridge Associates LLC ("CA"). Copying of this publication is a violation of US and global copyright laws (e.g., 17 U.S.C.101 et seq.). Violators of this copyright may be subject to liability for substantial monetary damages.

This report is provided for informational purposes only. The information does not represent investment advice or recommendations, nor does it constitute an offer to sell or a solicitation of an offer to buy any securities. Any references to specific investments are for illustrative purposes only. The information herein does not constitute a personal recommendation or take into account the particular investment objectives, financial situations, or needs of individual clients. Information in this report or on which the information is based may be based on publicly available data. CA considers such data reliable but does not represent it as accurate, complete, or independently verified, and it should not be relied on as such. Nothing contained in this report should be construed as the provision of tax, accounting, or legal advice. Past performance is not indicative of future performance. Broad-based securities indexes are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly in an index. Any information or opinions provided in this report are as of the date of the report, and CA is under no obligation to update the information or communicate that any updates have been made. Information contained herein may have been provided by third parties, including investment firms providing information on returns and assets under management, and may not have been independently verified.

The terms "CA" or "Cambridge Associates" may refer to any one or more CA entity including: Cambridge Associates, LLC (a registered investment adviser with the US Securities and Exchange Commission, a Commodity Trading Adviser registered with the US Commodity Futures Trading Commission and National Futures Association, and a Massachusetts limited liability company with offices in Arlington, VA; Boston, MA; Dallas, TX; Menlo Park, CA, New York, NY; and San Francisco, CA), Cambridge Associates Limited (a registered limited company in England and Wales, No. 06135829, that is authorised and regulated by the UK Financial Conduct Authority in the conduct of Investment Business, reference number: 474331); Cambridge Associates Limited, LLC (a registered investment adviser with the US Securities and Exchange Commission, an Exempt Market Dealer and Portfolio Manager in the Canadian provinces of Alberta, British Columbia, Manitoba, Newfoundland and Labrador, Nova Scotia, Ontario, Québec, and Saskatchewan, and a Massachusetts limited liability company with a branch office in Sydney, Australia, ARBN 109 366 654), Cambridge Associates Investment Consultancy (Beijing) Ltd (a wholly owned subsidiary of Cambridge Associates, LLC which is registered with the Beijing Administration for Industry and Commerce, registration No. 110000450174972), and Cambridge Associates Asia Pte Ltd (a Singapore corporation, registration No. 200101063G, which holds a Capital Market Services License to conduct Fund Management for Accredited and/or Institutional Investors only by the Monetary Authority of Singapore).