CRESTMONT STOCK MARKET MATRIX

INDIVIDUAL INVESTOR (TAXPAYER) REAL RETURNS

Real Returns (inflation adjusted), including dividends (reinvested), transaction costs, and taxes paid

COMPONENTS	
Index	Included
Dividends	Included (Reinvested)
Transaction Costs	Included
Taxes	Included (Paid)
Inflation	Real (Inflation Adjusted)

Matrix, "TO" years 1900–1919 (rows: FROM year; columns: "TO" year, Yr: 19__)

From	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
P/E Ratio	19	23	22	18	16	19	19	13	13	15	14	14	14	12	11	11	12	9	6	7
1900 = 1.0	1	1	1	1	1	1	2	1	1	2	1	1	2	1	1	1	2	1	1	1
1900		22	16	3	2	7	8	3	2	5	4	3	4	3	2	2	3	2	1	1
1901			11	-5	-3	4	5	0	0	4	2	2	3	1	1	1	2	1	0	0
1902				-18	-10	2	3	-2	-2	3	1	1	2	1	0	1	2	0	-1	-1
1903					-1	14	12	3	2	7	4	3	5	3	2	2	3	2	0	0
1904						31	19	4	2	8	5	4	5	3	2	3	4	2	0	1
1905							8	-7	-6	3	1	0	2	0	-1	0	1	0	-2	-1
1906								-19	-12	2	-1	-1	1	-1	-2	-1	1	-1	-3	-2
1907									-3	14	6	4	6	2	1	2	3	1	-1	0
1908										34	11	6	8	4	2	3	4	2	-1	0
1909											-9	-5	1	-3	-4	-2	1	-1	-4	-3
1910												-2	6	-1	-2	0	2	0	-3	-2
1911													15	0	-2	0	3	0	-3	-2
1912														-14	-10	-5	0	-3	-6	-5
1913															-6	0	5	0	-5	-3
1914																7	12	2	-4	-2
1915																	16	0	-8	-5
1916																		-14	-18	-11
1917																			-21	-9
1918																				4

Matrix, "TO" years 1920–1939

From	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39
P/E Ratio	5	5	8	8	8	10	12	16	22	28	21	15	8	11	12	13	19	18	14	16
1900 = 1.0	1	1	1	1	1	2	2	2	3	4	3	2	1	2	2	3	4	4	3	3
1900	0	-1	0	1	1	2	2	3	4	5	4	3	1	2	3	3	4	4	3	3
1901	-1	-2	-1	0	0	1	2	3	4	5	4	2	0	2	2	2	3	3	2	3
1902	-2	-3	-1	0	0	1	1	2	3	4	3	2	0	1	2	2	3	3	2	2
1903	-1	-2	0	0	1	2	2	3	4	5	4	3	1	2	3	3	4	4	3	3
1904	-1	-2	0	1	1	2	3	3	5	6	5	3	1	2	3	3	4	4	3	3
1905	-3	-4	-2	-1	0	1	1	2	3	5	4	2	0	1	2	2	3	3	2	2
1906	-3	-5	-2	-1	-1	0	1	2	3	5	3	2	0	1	2	2	3	3	2	2
1907	-2	-3	-1	0	0	2	2	3	5	6	5	3	0	2	3	3	4	4	3	3
1908	-2	-4	-1	0	1	2	3	4	5	6	5	3	1	2	3	3	4	4	3	3
1909	-4	-6	-3	-2	-1	0	1	2	4	5	4	2	-1	1	2	2	3	3	2	2
1910	-4	-6	-3	-1	-1	1	2	3	4	6	4	2	0	2	2	2	4	4	2	3
1911	-4	-6	-3	-1	-1	1	2	3	5	6	5	2	0	2	2	3	4	4	3	3
1912	-6	-8	-4	-3	-2	0	1	2	4	6	4	2	-1	1	2	2	4	3	2	2
1913	-5	-8	-3	-2	-1	1	2	4	5	7	5	3	0	2	3	3	4	4	3	3
1914	-5	-8	-3	-1	0	2	3	4	6	8	6	3	0	2	3	3	5	5	3	3
1915	-7	-10	-4	-2	-1	1	2	4	6	8	6	3	0	2	3	3	5	5	3	3
1916	-13	-15	-7	-4	-3	0	1	3	5	7	5	2	-1	1	2	2	4	4	2	3
1917	-12	-15	-5	-3	-1	2	3	5	7	9	7	4	0	2	3	4	5	5	3	4
1918	-7	-13	-1	1	2	6	7	8	11	13	10	6	1	4	5	5	7	7	5	5
1919	-18	-20	-3	1	2	6	7	9	11	14	10	6	1	4	5	5	7	7	5	5
1920		-23	5	8	8	11	12	13	16	18	13	8	3	6	7	7	9	8	6	6
1921			44	27	20	22	20	21	23	24	18	12	6	9	10	9	12	11	8	8
1922				12	10	15	15	17	19	22	16	9	2	6	7	7	10	9	6	6
1923					7	17	16	18	21	23	16	9	1	6	7	7	9	9	6	6
1924						28	20	21	25	27	18	9	1	5	7	7	10	9	6	6
1925							13	18	24	26	16	6	-3	3	5	5	8	7	4	5
1926								23	29	31	16	4	-5	2	4	4	7	7	3	4
1927									35	35	14	0	-10	-2	1	2	6	5	2	3
1928										35	5	-9	-19	-8	-4	-2	3	2	-1	0
1929											-18	-26	-31	-16	-10	-7	-1	-1	-4	-3
1930												-32	-37	-15	-8	-5	2	2	-2	-1
1931													-42	-5	2	3	11	9	3	4
1932														54	35	25	30	23	13	13
1933															19	13	23	16	6	7
1934																7	25	15	3	5
1935																	45	20	2	4
1936																		-1	-14	-7
1937																			-26	-9
1938																				11

Matrix, "TO" years 1940–1959

From	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59
P/E Ratio	15	12	9	11	11	13	14	11	11	10	11	12	12	12	14	18	18	16	15	18
1900 = 1.0	3	3	2	3	3	4	4	3	3	3	3	4	4	4	5	7	8	8	8	9
1900	3	3	2	3	3	3	3	3	2	2	3	3	3	3	3	4	4	4	4	4
1901	2	2	2	2	2	3	3	2	2	2	2	3	3	3	3	3	4	3	3	4
1902	2	2	1	2	2	2	3	2	2	2	2	2	2	2	3	3	3	3	3	3
1903	3	2	2	3	3	3	3	3	2	2	3	3	3	3	3	4	4	4	4	4
1904	3	3	2	3	3	3	3	3	2	2	3	3	3	3	3	4	4	4	4	4
1905	2	2	1	2	2	2	3	2	2	2	2	2	2	2	3	3	4	3	3	4
1906	2	2	1	2	2	2	2	2	2	1	2	2	2	2	3	3	3	3	3	3
1907	3	2	2	2	2	3	3	2	2	2	2	3	3	3	3	4	4	4	4	4
1908	3	3	2	3	3	3	3	3	2	2	3	3	3	3	3	4	4	4	4	4
1909	2	2	1	2	2	2	3	2	2	1	2	2	2	2	3	3	4	3	3	4
1910	2	2	2	2	2	3	3	2	2	2	2	3	3	3	3	4	4	4	4	4
1911	3	2	2	2	2	3	3	2	2	2	2	3	3	3	3	4	4	4	4	4
1912	2	2	1	2	2	2	3	2	2	1	2	3	3	2	3	4	4	3	3	4
1913	3	2	2	3	3	3	3	3	2	2	2	3	3	3	3	4	4	4	4	4
1914	3	3	2	3	3	3	4	3	2	2	3	3	3	3	4	4	4	4	4	4
1915	3	3	2	3	3	3	3	3	2	2	3	3	3	3	3	4	4	4	4	4
1916	2	2	1	2	2	3	3	2	2	2	2	3	3	3	3	4	4	4	4	4
1917	3	3	2	3	3	3	4	3	2	2	3	3	3	3	4	4	5	4	4	5
1918	5	4	3	4	4	5	5	4	3	3	4	4	4	4	4	5	5	5	5	5
1919	5	4	3	4	4	5	5	4	3	3	4	4	4	4	4	5	5	5	5	5
1920	6	5	4	5	5	6	6	5	4	4	4	5	5	5	5	6	6	6	6	6
1921	8	7	6	6	6	7	7	6	5	5	5	6	6	6	6	7	7	7	7	7
1922	6	5	4	5	5	6	6	5	4	4	4	5	5	5	5	6	6	6	6	6
1923	5	5	4	5	5	5	5	4	4	3	4	5	5	4	5	6	6	6	5	6
1924	5	4	3	4	4	5	5	4	4	3	4	5	5	4	5	6	6	6	5	6
1925	4	3	2	3	3	4	4	3	3	2	3	4	4	4	4	5	5	5	5	5
1926	3	3	2	3	3	4	4	3	2	2	3	3	3	3	4	5	5	5	5	5
1927	2	1	0	2	2	3	3	2	1	1	2	3	3	3	3	4	5	4	4	4
1928	0	-1	-2	0	0	1	1	0	0	-1	1	1	1	1	2	3	4	3	3	4
1929	-3	-4	-4	-2	-2	-1	0	-1	-2	-2	-1	0	0	0	1	2	3	2	2	3
1930	-1	-2	-3	-1	-1	1	1	0	-1	-1	0	1	1	1	2	3	3	3	3	4
1931	3	2	0	2	2	3	4	2	2	1	2	3	3	3	4	5	5	5	5	5
1932	10	8	6	7	7	8	8	6	5	4	5	6	6	6	6	8	8	7	7	7
1933	5	3	2	4	4	5	5	3	2	2	3	4	4	4	5	6	6	6	5	6
1934	3	1	0	2	2	4	4	2	1	1	2	3	3	3	4	5	6	5	5	5
1935	2	0	-1	2	2	3	4	2	1	0	2	3	3	3	4	5	6	5	5	5
1936	-6	-7	-8	-4	-3	0	1	-1	-2	-2	-1	1	1	1	2	3	4	3	3	4
1937	-8	-8	-9	-4	-3	0	1	-1	-2	-3	-1	1	1	1	2	4	4	4	3	4
1938	3	-1	-4	1	1	4	5	2	1	0	2	3	3	3	4	6	6	5	5	6
1939	-5	-7	-9	-1	0	3	4	1	0	-1	1	3	3	3	4	5	6	5	5	6
1940		-8	-10	0	1	5	5	2	0	-1	2	3	3	3	4	6	7	6	5	6
1941			-12	5	4	8	8	3	1	0	3	5	5	4	5	7	8	7	6	7
1942				25	13	16	14	7	4	2	5	7	6	6	7	9	9	8	8	8
1943					3	12	11	3	0	-1	2	5	5	4	5	8	8	7	7	7
1944						21	15	3	-1	-2	2	5	5	4	6	8	9	7	7	8
1945							10	-6	-7	-7	-1	3	3	2	4	7	8	6	6	7
1946								-19	-14	-12	-4	1	2	1	3	7	7	6	6	7
1947									-9	-8	2	7	6	5	7	10	11	9	8	9
1948										-7	8	13	10	8	10	14	14	11	10	11
1949											27	25	17	12	14	17	17	14	12	13
1950												23	13	8	11	16	15	12	10	12
1951													3	1	7	14	14	10	9	10
1952														-1	10	18	17	12	10	11
1953															21	28	23	15	12	13
1954																37	25	13	10	12
1955																	14	3	2	7
1956																		-8	-4	4
1957																			1	11
1958																				21

Matrix, "TO" years 1960–1979

From	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79
P/E Ratio	17	20	19	20	23	23	21	22	21	19	15	17	18	16	11	10	12	10	9	9
1900 = 1.0	9	10	10	11	12	13	12	13	13	13	10	12	12	12	9	8	9	8	7	8
1900	4	4	4	4	4	4	4	4	4	4	3	4	4	3	3	3	3	3	3	3
1901	3	4	3	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	2	2
1902	3	4	3	3	4	4	4	4	4	3	3	3	3	3	3	3	3	2	2	2
1903	4	4	4	4	4	4	4	4	4	4	3	4	4	3	3	3	3	3	3	3
1904	4	4	4	4	4	4	4	4	4	4	3	4	4	4	3	3	3	3	3	3
1905	3	4	3	4	4	4	4	4	4	4	3	3	3	3	3	3	3	2	2	2
1906	3	4	3	3	4	4	4	4	4	3	3	3	3	3	3	2	3	2	2	2
1907	4	4	4	4	4	4	4	4	4	4	3	4	4	4	3	3	3	3	3	3
1908	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3
1909	3	4	3	4	4	4	4	4	4	4	3	3	3	3	3	3	3	2	2	2
1910	4	4	4	4	4	4	4	4	4	4	3	3	4	3	3	3	3	3	2	2
1911	4	4	4	4	4	4	4	4	4	4	3	4	4	3	3	3	3	3	3	3
1912	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	2	2
1913	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3
1914	4	4	4	4	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3
1915	4	4	4	4	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3
1916	4	4	4	4	4	4	4	4	4	4	3	4	4	4	3	3	3	3	2	2
1917	4	5	4	5	5	5	5	5	5	4	4	4	4	4	3	3	3	3	3	3
1918	5	5	5	5	5	5	5	5	5	5	4	5	5	4	4	4	4	3	3	3
1919	5	5	5	5	5	5	5	5	5	5	4	5	5	4	4	4	4	3	3	3
1920	6	6	6	6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	4	4
1921	7	7	6	7	7	7	6	6	6	6	6	6	6	5	5	5	5	4	4	4
1922	6	6	6	6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	4	4
1923	6	6	6	6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	3	3
1924	6	6	5	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	3	3
1925	5	5	5	5	5	5	5	5	5	5	4	4	4	4	3	3	3	3	3	3
1926	5	5	5	5	5	5	5	5	5	5	4	4	4	4	3	3	3	3	3	3
1927	4	5	4	4	5	5	4	4	4	4	4	4	4	4	3	3	3	3	2	2
1928	3	4	3	4	4	4	4	4	4	4	3	3	3	3	2	2	2	2	2	2
1929	3	3	3	3	3	3	3	3	3	3	2	2	3	2	2	1	2	1	1	1
1930	3	4	3	4	4	4	4	4	4	3	3	3	3	3	2	2	2	2	2	2
1931	5	5	5	5	5	5	5	5	5	5	4	4	4	4	3	3	3	3	3	3
1932	7	7	7	7	7	7	7	7	7	6	6	6	6	5	5	4	4	4	4	4
1933	6	6	5	6	6	6	6	6	6	5	4	5	5	4	4	3	3	3	3	3
1934	5	5	5	5	5	6	5	5	5	5	4	4	4	4	3	3	3	3	3	3
1935	5	5	5	5	5	5	5	5	5	5	4	4	4	4	3	3	3	3	2	2
1936	4	4	4	4	4	4	4	4	4	4	3	3	3	3	2	2	2	2	2	2
1937	4	4	4	4	4	5	4	4	4	4	3	3	3	3	2	2	2	2	2	2
1938	5	6	5	6	6	6	5	5	5	5	4	4	5	4	3	3	3	3	3	2
1939	5	6	5	5	6	6	5	5	5	5	4	4	4	4	3	3	3	3	2	2
1940	6	6	6	6	6	6	6	6	6	5	4	5	5	4	3	3	3	3	2	2
1941	7	7	6	6	7	7	6	6	6	6	5	5	5	5	4	3	4	3	3	3
1942	8	8	7	7	8	8	7	7	7	6	5	6	6	5	4	4	4	4	3	3
1943	7	7	6	7	7	7	6	6	6	6	5	5	5	5	3	3	3	3	3	3
1944	7	7	7	7	7	7	7	6	6	6	5	5	5	5	3	3	3	3	3	3
1945	6	7	6	6	7	7	6	6	6	5	4	5	5	4	3	3	3	3	2	2
1946	6	7	6	6	6	6	6	6	6	5	4	4	4	4	3	2	3	2	2	2
1947	8	9	7	8	8	8	7	7	7	6	5	5	5	5	4	3	4	3	3	3
1948	10	10	9	9	9	9	8	8	8	7	6	6	6	6	4	4	4	4	3	3
1949	11	12	10	10	10	10	9	9	9	8	6	7	7	6	5	4	4	4	4	3
1950	10	10	9	9	9	9	8	8	8	7	6	6	6	5	4	3	4	3	3	3
1951	9	9	8	8	8	8	7	7	7	6	5	5	5	5	3	3	3	3	2	2
1952	9	10	8	8	9	9	8	7	7	6	5	5	5	5	3	3	3	2	2	2
1953	11	11	9	9	10	9	8	8	8	7	5	6	6	5	3	3	3	3	2	2
1954	9	10	8	8	9	9	7	7	7	6	4	5	5	4	2	2	2	2	1	1
1955	4	6	4	5	6	6	5	5	5	4	2	3	3	3	1	1	1	1	0	0
1956	2	5	3	4	5	5	4	4	4	3	2	2	3	2	0	0	0	0	0	0
1957	6	8	5	6	7	7	5	5	5	4	2	3	3	3	1	0	1	0	0	0
1958	8	11	6	7	8	8	6	6	6	5	2	3	3	3	1	0	1	0	0	0
1959	-4	5	1	3	6	6	4	4	4	3	1	2	2	2	-1	-1	0	-1	-1	-1
1960		16	4	6	8	8	5	5	5	4	1	2	3	2	0	-1	0	-1	-1	-1
1961			-7	1	6	6	3	4	4	3	0	1	2	1	-2	-2	-1	-1	-2	-2
1962				11	13	11	6	6	6	4	1	2	3	2	-1	-1	0	-1	-2	-1
1963					15	11	5	5	5	3	0	1	2	1	-2	-2	-1	-2	-2	-2
1964						7	0	2	2	1	-3	-1	0	0	-4	-4	-3	-3	-3	-3
1965							-6	-1	1	0	-5	-2	-1	-1	-5	-5	-3	-4	-4	-4
1966								5	5	1	-4	-1	0	-1	-4	-4	-3	-4	-4	-4
1967									4	0	-7	-2	-1	-1	-6	-6	-4	-4	-5	-4
1968										-5	-12	-5	-2	-3	-7	-7	-5	-5	-6	-5
1969											-19	-4	-1	-2	-8	-7	-5	-5	-6	-5
1970												14	10	5	-5	-5	-2	-3	-4	-3
1971													6	0	-10	-9	-5	-6	-6	-5
1972														-5	-17	-13	-8	-8	-8	-7
1973															-28	-17	-9	-9	-9	-7
1974																-4	3	-1	-3	-2
1975																	10	0	-3	-2
1976																		-9	-9	-5
1977																			-8	-4
1978																				2

Matrix, "TO" years 1980–1999

From	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
P/E Ratio	9	8	7	10	9	11	13	16	14	17	16	18	20	21	20	23	26	31	36	42
1900 = 1.0	8	8	6	8	8	9	11	13	11	12	12	12	13	13	13	15	18	21	25	29
1900	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
1901	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
1902	2	2	2	2	2	2	3	3	2	3	3	3	3	3	3	3	3	3	3	3
1903	3	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
1904	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4
1905	2	2	2	2	2	2	3	3	2	3	3	3	3	3	3	3	3	3	3	3
1906	2	2	2	2	2	2	2	3	2	3	2	3	3	3	2	3	3	3	3	3
1907	3	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
1908	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4
1909	2	2	2	2	2	2	3	3	2	3	3	3	3	3	3	3	3	3	3	3
1910	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
1911	3	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
1912	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3
1913	3	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4
1914	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4
1915	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4
1916	3	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4
1917	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4
1918	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	4	4	4	4
1919	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	4	4	4	4
1920	4	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4
1921	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5
1922	4	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4
1923	3	3	3	3	3	3	4	4	3	4	3	4	4	4	3	4	4	4	4	4
1924	3	3	3	3	3	3	4	4	3	4	3	3	3	3	3	4	4	4	4	4
1925	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1926	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1927	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4
1928	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3
1929	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3
1930	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3
1931	3	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4
1932	4	4	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5
1933	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1934	3	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1935	3	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4
1936	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3
1937	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3
1938	3	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1939	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4
1940	3	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1941	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1942	3	3	3	3	3	3	4	4	3	4	3	3	3	3	3	4	4	4	4	4
1943	3	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1944	3	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1945	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4
1946	2	2	1	2	2	2	3	3	2	3	2	3	3	3	2	3	3	3	4	4
1947	3	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1948	3	3	2	3	3	3	3	4	3	3	3	3	3	3	3	3	4	4	4	5
1949	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	5	5
1950	3	3	2	3	2	3	3	4	3	3	3	3	3	3	3	3	4	4	4	4
1951	2	2	1	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1952	2	2	1	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1953	2	2	1	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4
1954	2	1	1	2	1	2	2	3	2	2	2	2	2	2	2	3	3	3	4	4
1955	0	0	0	0	0	1	1	2	1	2	1	2	2	2	2	2	2	3	3	3
1956	0	0	-1	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	3	3
1957	0	0	-1	0	0	1	1	2	1	1	1	1	2	2	1	2	2	3	3	3
1958	0	0	-1	0	0	1	1	2	1	1	1	1	2	2	1	2	2	3	3	3
1959	-1	-1	-2	-1	-1	0	1	1	0	1	1	1	1	1	1	1	2	2	3	3
1960	-1	-1	-1	0	-1	0	1	1	1	1	1	1	1	1	1	1	2	2	3	3
1961	-1	-2	-2	-1	-1	-1	0	1	0	1	0	1	1	1	1	1	2	2	2	3
1962	-1	-1	-2	-1	-1	0	0	1	0	1	1	1	1	1	1	1	2	2	3	3
1963	-2	-2	-3	-1	-1	-1	0	1	0	1	0	1	1	1	1	1	2	2	2	3
1964	-3	-3	-3	-2	-2	-2	-1	0	-1	0	0	0	0	0	0	1	1	2	2	2
1965	-3	-3	-4	-3	-3	-2	-1	0	-1	0	0	0	0	0	0	0	1	2	2	2
1966	-3	-3	-4	-2	-2	-2	-1	0	-1	0	0	0	0	0	0	1	1	2	2	3
1967	-4	-4	-5	-3	-3	-2	-1	0	-1	0	0	0	0	0	0	0	1	2	2	3
1968	-4	-4	-5	-3	-3	-2	-1	0	-1	0	-1	0	0	0	0	0	1	2	2	2
1969	-4	-4	-5	-3	-3	-2	-1	0	-1	0	0	0	0	0	0	1	1	2	2	3
1970	-3	-3	-4	-2	-2	-1	0	1	0	1	1	1	1	1	1	1	2	3	3	4
1971	-4	-4	-5	-3	-3	-2	-1	0	-1	0	0	0	1	1	0	1	2	2	3	3
1972	-5	-5	-6	-4	-4	-3	-1	0	-1	0	0	0	0	0	0	1	1	2	3	3
1973	-5	-5	-6	-4	-4	-2	-1	1	-1	0	0	0	1	1	0	1	2	3	3	3
1974	-1	-2	-3	0	-1	0	2	3	2	2	2	2	2	2	2	3	3	4	5	5
1975	0	-1	-3	0	0	1	3	4	2	3	3	3	3	3	2	3	4	4	5	5
1976	-3	-3	-5	-1	-2	0	2	3	1	2	2	2	2	2	2	3	3	4	5	5
1977	-1	-2	-5	0	0	1	3	4	3	3	3	3	3	3	3	3	4	5	5	6
1978	3	1	-4	2	1	2	5	6	4	4	4	4	4	4	3	4	5	6	6	7
1979	5	0	-5	2	1	3	5	7	4	5	4	4	4	4	4	4	5	6	6	7
1980		-4	-10	1	0	2	5	7	4	5	4	4	4	4	4	4	5	6	7	7
1981			-16	4	1	4	7	9	5	6	5	5	5	5	4	5	6	7	7	8
1982				28	11	11	14	14	9	9	8	8	7	7	6	7	7	8	9	9
1983					-4	4	9	11	5	7	5	5	5	5	4	5	6	7	8	8
1984						12	17	17	8	9	7	7	6	6	5	6	7	8	9	9
1985							22	20	7	8	6	6	6	5	4	5	6	8	8	9
1986								17	0	4	2	3	3	3	2	3	5	6	7	8
1987									-15	-2	-2	0	1	1	0	2	4	5	6	7
1988										13	5	5	5	4	3	5	6	8	9	9
1989											-2	1	2	2	1	3	5	7	8	9
1990												5	5	4	2	4	7	9	10	10
1991													5	4	1	4	7	10	11	11
1992														3	0	4	8	11	12	12
1993															-3	5	10	13	13	14
1994																13	16	18	18	17
1995																	19	21	19	18
1996																		22	20	18
1997																			17	16
1998																				15

Matrix, "TO" years 2000–2009

From	100	101	102	103	104	105	106	107	108	109
P/E Ratio	42	32	26	24	26	26	26	27	21	17
1900 = 1.0	29	22	18	17	19	20	21	22	18	13
1900	3	3	3	3	3	3	3	3	3	2
1901	3	3	3	3	3	3	3	3	3	2
1902	3	3	3	3	3	3	3	3	2	2
1903	3	3	3	3	3	3	3	3	3	2
1904	3	3	3	3	3	3	3	3	3	2
1905	3	3	3	3	3	3	3	3	2	2
1906	3	3	3	3	3	3	3	3	2	2
1907	3	3	3	3	3	3	3	3	3	2
1908	4	3	3	3	3	3	3	3	3	2
1909	3	3	3	3	3	3	3	3	2	2
1910	3	3	3	3	3	3	3	3	3	2
1911	3	3	3	3	3	3	3	3	3	2
1912	3	3	3	3	3	3	3	3	3	2
1913	4	3	3	3	3	3	3	3	3	2
1914	4	3	3	3	3	3	3	3	3	2
1915	4	3	3	3	3	3	3	3	3	2
1916	3	3	3	3	3	3	3	3	3	2
1917	4	3	3	3	3	3	3	3	3	2
1918	4	4	3	3	3	3	3	3	3	3
1919	4	4	3	3	3	3	3	3	3	3
1920	4	4	4	4	4	4	4	4	3	3
1921	5	4	4	4	4	4	4	4	4	3
1922	4	4	4	3	4	4	4	4	3	3
1923	4	4	3	3	4	4	4	4	3	3
1924	4	4	3	3	3	3	3	4	3	3
1925	4	4	3	3	3	3	3	3	3	3
1926	4	3	3	3	3	3	3	3	3	2
1927	4	3	3	3	3	3	3	3	3	2
1928	3	3	2	2	2	2	2	3	2	2
1929	3	2	2	2	2	2	2	2	2	1
1930	3	3	2	2	2	2	2	2	2	2
1931	4	3	3	3	3	3	3	3	3	2
1932	5	4	4	4	4	4	4	4	3	3
1933	4	4	3	3	3	3	3	3	3	2
1934	4	3	3	3	3	3	3	3	3	2
1935	4	3	3	3	3	3	3	3	3	2
1936	3	3	2	2	2	2	2	3	2	2
1937	3	3	2	2	2	2	3	3	2	2
1938	4	3	3	3	3	3	3	3	3	2
1939	4	3	3	3	3	3	3	3	3	2
1940	4	3	3	3	3	3	3	3	3	2
1941	4	4	3	3	3	3	3	3	3	2
1942	4	4	3	3	3	3	3	4	3	3
1943	4	4	3	3	3	3	3	3	3	2
1944	4	4	3	3	3	3	3	3	3	2
1945	4	3	3	3	3	3	3	3	3	2
1946	4	3	3	3	3	3	3	3	2	2
1947	4	4	3	3	3	3	3	3	3	2
1948	4	4	3	3	3	3	3	3	3	2
1949	5	4	4	3	4	4	4	4	3	3
1950	4	4	3	3	3	3	3	3	3	2
1951	4	3	3	3	3	3	3	3	3	2
1952	4	3	3	3	3	3	3	3	3	2
1953	4	3	3	3	3	3	3	3	3	2
1954	4	3	3	2	3	3	3	3	2	2
1955	3	2	2	2	2	2	2	2	2	1
1956	3	2	2	2	2	2	2	2	1	1
1957	3	2	2	2	2	2	2	2	2	1
1958	3	3	2	2	2	2	2	2	2	1
1959	3	2	2	1	2	2	2	2	1	1
1960	3	2	2	1	2	2	2	2	1	1
1961	3	2	1	1	1	2	2	2	1	0
1962	3	2	2	1	2	2	2	2	1	1
1963	3	2	1	1	1	2	2	2	1	0
1964	2	2	1	1	1	1	1	1	1	0
1965	2	2	1	1	1	1	1	1	1	0
1966	3	2	1	1	1	1	1	1	1	0
1967	2	2	1	1	1	1	1	1	1	0
1968	2	2	1	1	1	1	1	1	1	0
1969	3	2	1	1	1	1	1	1	1	0
1970	4	3	2	2	2	2	2	2	1	1
1971	3	2	1	1	2	2	2	2	1	0
1972	3	2	1	1	1	1	2	2	1	0
1973	3	2	1	1	2	2	2	2	1	0
1974	5	4	3	2	3	3	3	3	2	1
1975	5	4	3	3	3	3	3	3	2	1
1976	5	4	3	2	3	3	3	3	2	1
1977	6	4	3	3	3	3	3	3	3	1
1978	6	5	4	3	4	4	4	4	3	2
1979	7	5	4	3	4	4	4	4	3	2
1980	7	5	4	3	4	4	4	4	3	2
1981	7	6	4	4	4	4	4	4	3	2
1982	9	7	5	5	5	5	5	5	4	3
1983	8	6	4	4	4	4	4	4	3	2
1984	8	6	5	4	5	5	5	5	3	2
1985	8	6	4	4	4	4	4	4	3	2
1986	7	5	3	3	3	3	3	4	2	1
1987	7	4	2	2	3	3	3	3	2	0
1988	9	6	4	3	4	4	4	4	3	1
1989	8	5	3	2	3	3	3	3	2	0
1990	9	6	3	3	4	4	4	4	2	1
1991	10	6	3	3	4	4	4	4	2	0
1992	11	6	3	2	3	3	3	4	2	0
1993	12	7	3	2	3	3	4	4	2	0
1994	14	8	4	3	4	4	4	4	2	0
1995	15	7	3	2	3	3	3	4	1	-1
1996	13	5	0	0	1	2	2	2	0	-2
1997	10	1	-4	-4	-1	-1	0	0	-2	-4
1998	8	-4	-8	-7	-4	-3	-2	-1	-3	-6
1999	1	-12	-15	-12	-8	-6	-4	-3	-5	-8
2000		-22	-21	-16	-9	-7	-5	-4	-6	-8
2001			-20	-13	-5	-3	-1	0	-3	-7
2002				-5	4	4	4	5	0	-4
2003					15	9	7	7	1	-4
2004						3	4	5	-2	-8
2005							4	6	-4	-10
2006								8	-8	-14
2007									-21	-24
2008										-26

FROM years: P/E, index and events

FROM	P/E	1900 = 1.0	Event
1900	18.6	1.0	Rodin Completes 'The Thinker'
1901	22.7	1.2	First Electric Typewriter
1902	22.0	1.3	Navy Installs Radio
1903	17.6	1.1	Wright Bros Fly
1904	16.3	1.1	Crayola & Jell-O
1905	19.3	1.4	Pen Gets Pocket Clip
1906	18.7	1.5	S.F. Earthquake
1907	13.4	1.2	Photocopier Marketed
1908	13.1	1.2	Model T Introduced
1909	14.9	1.6	Chlorine In Drinking Water
1910	13.5	1.4	Electric Range Invented
1911	14.2	1.4	Sherman Anti-Trust Act; Airmail Begins
1912	13.7	1.6	Titanic Sinks; U.S. Radio Act
1913	11.9	1.4	Income Tax & Federal Reserve
1914	11.1	1.3	WWI Starts; First Transcon. Phone Call
1915	11.5	1.4	Americans Avg 40 Phone Calls A Year
1916	12.0	1.6	Keds & Electric Clock Invented
1917	8.8	1.4	US Enters WWI; Einstein Theorizes Lasers
1918	6.4	1.1	WWI Ends
1919	6.5	1.2	Prohibition; Shortwave Radio; Dial Phones
1920	5.3	1.0	Women's Right To Vote
1921	5.4	0.7	World Series On Radio; Quartz Crystals
1922	7.5	1.1	100,000 Radios Made In U.S.; 3 Frequencies
1923	7.9	1.2	500,000 Radios Made; Neon Signs
1924	8.4	1.3	2.5 Million Radios Made; Frozen Food Invented
1925	10.1	1.6	Commercial Picture Fax By Radio In U.S.
1926	11.7	1.8	First Publicly Shown 'Talkie'
1927	15.9	2.3	2-Way Radio Phone: U.S. To London ($15/min)
1928	21.8	3.1	Teletype Machine; Test TV In 3 Homes
1929	27.6	4.2	Crash of '29; Car Radio
1930	21.5	3.4	Photo Flash Bulbs
1931	14.7	2.3	Radios In 40% Of Homes; Scotch Tape
1932	8.1	1.3	Radar; 8 mm Cameras; Electric Eye Scanner
1933	11.1	2.1	End of Prohibition; FM Radio; Wallboard
1934	12.2	2.5	Radios In 50% Of Homes; AP Wirephoto
1935	13.1	2.6	Social Security Act Passed
1936	19.3	3.8	BBC First TV Service, 3 Hours A Day
1937	18.5	3.8	Hindenburg Airship Crash
1938	13.9	2.8	National Minimum Wage Enacted
1939	15.6	3.1	Regular TV Broadcasts In U.S.; Helicopter
1940	14.7	2.9	World War II Begins; Radar Invented
1941	12.2	2.7	Pearl Harbor Attack; 2-Way Police Radio
1942	9.2	2.4	U.S. Office Of Censorship Due To War
1943	11.0	2.9	Phone Line Repeaters Help Service
1944	11.3	3.0	D-Day, Normandy
1945	13.3	3.7	World War II Ends; FCC Sets VHF Channels
1946	14.0	4.0	ENIAC, 1st Computer; First Copy Machine Sold
1947	11.2	3.3	Transistor Invented; Microwave Oven
1948	10.7	3.0	Israel Established; RCA High Speed Fax
1949	9.9	2.8	NATO Established; Network TV In U.S.
1950	11.2	3.5	Korean War Begins; Credit Card Created
1951	12.0	4.3	Color TV; Modern Plastic Invented
1952	12.5	4.4	Phone Area Codes; EDVAC Computer
1953	12.0	4.4	Korean War Ends; Magnetic Core Memory
1954	13.7	5.3	TVs In 54% Of Homes; Transistor Radios
1955	17.5	7.2	Tests Begin On Digital Fiber Optics
1956	18.3	8.3	Transatlantic Phone Cable; The Pager
1957	15.6	7.6	Sputnik, First Satellite; EEC Formed
1958	15.1	7.7	Stereo LP Records; Data On Phone Lines
1959	18.4	9.3	COBOL; Microchip; Plain Paper Xerox
1960	17.4	9.0	90% Homes w/TVs; Laser; Weather Satellite
1961	20.5	10.4	Berlin Wall Built; IBM Selectric Typewriter
1962	18.8	9.6	Cuban Missile Crisis; Mariner II At Venus
1963	20.3	10.6	Kennedy Killed, Income Tax 91% To 70%
1964	22.6	12.2	Vietnam Begins; Home VCR
1965	23.3	13.0	First Minicomputer; Car Phones; Hypertext
1966	21.3	12.3	Dow @ 1,000; 8-Tracks In Cars; Fax Machine
1967	21.6	12.9	Floppy Disk; Cordless Phones; Dolby
1968	21.5	13.4	Intelsat Global Satellite Link; Intel 1KB RAM
1969	19.4	12.8	Neil Armstrong Walks On Moon; ATMs
1970	15.2	10.3	Barcodes; First Internet Connections
1971	16.9	11.7	Microchip, Price Controls; Answering Machine
1972	17.8	12.4	Dow Closes Above 1,000; Pong; HBO
1973	16.1	11.8	U.S. Leaves Vietnam; International Internet
1974	10.9	8.5	Nixon Resigns; Wage & Price Controls End
1975	10.2	8.2	Microsoft; Optical Videodisk Demo
1976	11.5	9.0	Apple I; Cray-1; Home Satellite Dish
1977	10.4	8.2	Elvis Dies; TRS-80 PC; Fiber Optic Call
1978	9.4	7.5	Modems; Cell Phone Tests; Intel 16-bit Chip
1979	8.9	7.6	CompuServe Online; VisiCalc Spreadsheet
1980	8.8	8.0	CPI 13.5%; CNN; Sony Camcorder
1981	8.5	7.6	IBM PC Introduced; 300 bps Modems
1982	7.3	6.5	Dow Over 1,000; Compact Disk; 5.5 Mil. PCs
1983	9.6	8.2	AT&T Breakup; 288k Chips; Domain Names
1984	9.4	7.9	3 1/2" Floppy; Intel 32-bit; 1 MB Chips
1985	10.7	8.8	Cellphones; 2400k Modems; Windows OS
1986	13.4	10.8	Laser Printers; TV On 7 Hrs/Day In U.S.
1987	16.0	12.7	Stock Market Crash; 50% Have Cable TV
1988	14.4	10.7	Transatlantic Fiberoptic Cable; Internet T1
1989	16.6	12.1	Poland Solidarity; Nintendo Profits @ $1 Bil.
1990	16.5	11.9	World Wide Web (www)
1991	17.9	12.4	Gulf War; USSR Breakup; 75% Have VCRs
1992	19.6	13.0	65 Mil. PCs; 200k On AOL; CDs > Cassettes
1993	20.7	13.4	Pentium Chip; HTML; V-Chip
1994	20.5	13.0	First WTC Attack; Satellite TV; 33% w/PC
1995	22.7	14.7	NAFTA Enacted; Dot.com; Internet Audio
1996	25.9	17.6	100k Web Sites; 30 Mil In U.S. On Internet
1997	31.0	21.5	Internet Video; 43% In U.S. Have PCs
1998	36.0	25.1	Russia Debt Default; 75 Mil U.S. On Internet
1999	42.1	28.8	Satellite Can See 3' Objects On Earth
2000	41.7	29.0	Dow Hits 11,723; NASDAQ Hits 5,048
2001	32.1	22.5	WTC Attack (9/11); >50% U.S. On Internet; iPod
2002	25.9	17.9	HDTV Grows; Wi-Fi Laptops; DVD Sales>VCR
2003	24.1	17.0	Iraq Conflict; Home Networks; T-Bills @ <1%
2004	26.4	19.5	Hybrid Cars; Flat Panel TVs; Blogs; VoIP
2005	26.0	20.1	Hurricanes; $70 Oil; Podcasts; Housing Boom
2006	26.0	20.9	YouTube; Dow High; Pluto Demoted; Fed Pause
2007	26.8	22.5	iPhone; Sub-Prime; Going Green; Facebook
2008	20.8	17.7	Recession; Wall Street Crisis; $144 Oil; Obama
2009			H1N1; Jackson Dies; GM Bankruptcy; Digital TV

Annual data by year (Yr: 19__)

Yr	S&P 500 Index Value	S&P500 Div Yield (%)	CPI (Inflation %)	GDP (Nominal %)	GDP (Real %)
00	6	4	7	4	2
01	8	4	-2	13	12
02	8	4	6	3	2
03	7	5	1	6	3
04	7	5	0	5	4
05	9	4	1	9	9
06	10	4	3	8	4
07	8	5	6	3	-2
08	8	5	-4	-7	-5
09	10	4	8	12	12
10	9	5	4	5	0
11	9	5	-8	3	3
12	10	5	7	8	6
13	9	6	3	5	4
14	8	6	1	-6	-8
15	8	5	1	6	4
16	9	5	8	27	16
17	8	7	17	20	0
18	8	8	18	26	8
19	9	6	15	11	-3
20	8	7	16	13	-2
21	7	7	-11	-16	-4
22	8	6	-6	0	7
23	9	6	2	17	14
24	9	6	0	3	3
25	11	5	2	4	2
26	13	5	1	7	6
27	15	5	-2	-1	1
28	20	4	-2	1	2
29	26	4	0	7	7
30	21	5	-2	-12	-9
31	14	7	-9	-16	-6
32	7	9	-10	-23	-13
33	9	5	-5	-4	-1
34	10	5	3	17	11
35	11	4	2	11	9
36	15	4	1	14	13
37	15	5	4	10	5
38	11	6	-2	-6	-3
39	12	5	-1	7	8
40	11	6	1	10	9
41	10	7	5	25	17
42	9	7	11	28	18
43	12	5	6	23	16
44	12	5	2	11	8
45	15	4	2	2	-1
46	17	4	8	0	-11
47	15	5	14	10	-1
48	16	6	8	10	4
49	15	7	-1	-1	-1
50	18	7	1	10	9
51	22	7	8	15	8
52	24	6	2	6	4
53	25	6	1	6	5
54	30	5	1	0	-1
55	40	4	0	9	7
56	47	4	1	5	2
57	44	4	3	5	2
58	46	4	3	1	-1
59	57	3	1	8	7
60	56	3	2	4	2
61	66	3	1	3	2
62	62	3	1	7	6
63	70	3	1	5	4
64	81	3	1	7	6
65	88	3	2	8	6
66	85	3	3	10	7
67	92	3	3	6	3
68	99	3	4	9	5
69	98	3	5	8	3
70	83	4	6	6	0
71	98	3	4	9	3
72	109	3	3	10	5
73	107	3	6	12	6
74	83	4	11	8	-1
75	86	4	9	9	0
76	102	4	6	12	6
77	98	4	7	11	5
78	96	5	8	13	6
79	103	5	11	12	3
80	119	5	13	9	0
81	128	5	10	12	2
82	120	6	6	4	-2
83	160	4	3	8	4
84	160	5	4	11	7
85	187	4	4	7	4
86	236	3	2	6	3
87	287	3	4	7	3
88	266	3	4	8	4
89	323	3	5	7	4
90	335	3	5	6	2
91	376	3	4	3	0
92	416	3	3	6	3
93	451	3	3	5	3
94	460	3	3	6	4
95	542	2	3	5	3
96	671	2	3	6	4
97	873	2	2	6	4
98	1084	1	2	6	4
99	1326	1	2	6	4
100	1427	1	3	6	4
101	1192	1	3	3	1
102	996	2	2	3	2
103	964	2	2	5	2
104	1131	2	3	7	4
105	1210	2	3	6	3
106	1310	2	3	6	3
107	1477	2	3	5	2
108	1220	2	4	3	0
109	948	2	0	-1	-2
Avg		4.3%	3.2%	6.5%	3.4%

GDP (Annualized %) by decade

Decade	GDP Nominal (Annualized %)	GDP Real (Annualized %)
1900–1909	+5.3%	+3.9%
1910–1919	+10.0%	+2.9%
1920–1929	+3.0%	+3.4%
1930–1939	-1.2%	+0.9%
1940–1949	+11.3%	+5.6%
1950–1959	+6.6%	+4.1%
1960–1969	+6.9%	+4.4%
1970–1979	+10.0%	+3.2%
1980–1989	+7.9%	+3.0%
1990–1999	+5.4%	+3.1%
2000–2009	+4.3%	+1.9%

LEGEND			
Red		<	0.0%
Pink	0.0%	-	3.0%
Blue	3.0%	-	7.0%
Lt Green	7.0%	-	10.0%
Dk Green		>	10.0%

White Numbers: Decreasing P/E Ratio

NOTES:
1) Numbers reflect the percentage annual rate of return from the starting period to the ending period
2) Returns include index returns, dividends, transaction costs/fees (bid/ask spread, commissions, fees, etc.), and taxes; real returns excluding inflation (see assumptions)
3) Red: <0%; Pink: 0% - 3%; Blue: 3% - 7%; Lt Green: 7% - 10%; Dk Green: >10%
4) Black type reflects P/E ratio increasing over the period; White type reflects P/E ratio decreasing over the period
5) The black diagonal line reflects the boundary of 20-year periods
6) S&P500 index & P/E ratio reflect Robert Shiller's methodology of average daily prices annually, including related data
7) Other data and information developed from various sources and believed to be reliable

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