2019 CRESTMONT RESEARCH STOCK MARKET MATRIX

S&P 500 INDEX ONLY

NOMINAL RETURNS

Nominal Returns (not inflation adjusted), without dividends, transaction costs, or taxes

COMPONENTS	
Index	Included
Dividends	Not Included
Transaction Costs	Not Included
Taxes	Not Included (Deferred)
Inflation	Nominal (Not Inflation Adjusted)

P/E	S&P500	Yr: 19	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	2000	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	←"TO" Year
		TO	19	23	22	18	16	19	19	13	13	15	14	14	14	12	11	11	12	9	6	7	5	5	8	8	8	10	12	16	22	28	21	15	8	11	12	13	19	18	14	16	15	12	9	11	11	13	14	11	11	10	11	12	12	12	14	18	18	16	15	18	17	20	19	20	23	23	21	22	21	19	15	17	18	16	11	10	12	10	9	9	9	8	7	10	9	11	13	16	14	17	16	18	20	21	20	23	26	31	36	42	42	32	26	24	26	26	26	27	21	17	21	22	21	23	25	26	26	30	31	29	P/E Ratio
		FROM	6	8	8	7	7	9	10	8	8	10	9	9	10	9	8	8	9	8	8	9	8	7	8	9	9	11	13	15	20	26	21	14	7	9	10	11	15	15	11	12	11	10	9	12	12	15	17	15	16	15	18	22	24	25	30	40	47	44	46	57	56	66	62	70	81	88	85	92	98	98	83	98	109	107	83	86	102	98	96	103	119	128	120	160	160	187	236	287	266	323	335	376	416	452	460	542	670	873	1086	1327	1427	1194	994	965	1131	1207	1310	1477	1220	948	1140	1268	1379	1644	1931	2061	2095	2449	2746	2913	S&P 500 Index
18.6	6	1900		28	17	5	3	8	8	4	3	5	4	4	4	3	2	2	3	2	1	2	1	1	1	1	2	2	3	3	4	5	4	3	0	1	1	2	3	3	2	2	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	5	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	FROM Rodin Completes 'The Thinker'
22.7	8	1901			7	-4	-3	3	4	0	0	3	2	2	2	1	0	0	1	1	0	1	0	-1	0	0	1	1	2	3	4	4	3	2	0	0	1	1	2	2	1	1	1	1	0	1	1	2	2	1	1	1	2	2	2	2	3	3	3	3	3	3	3	4	3	4	4	4	4	4	4	4	3	4	4	4	3	3	3	3	3	3	3	4	3	4	4	4	4	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	First Electric Typewriter
22.0	8	1902				-14	-8	2	3	-1	-1	2	1	1	1	0	0	0	1	0	-1	0	0	-1	0	0	0	1	2	2	3	4	3	2	-1	0	0	1	2	2	1	1	1	0	0	1	1	1	2	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	3	4	4	4	4	4	4	4	3	4	4	4	3	3	3	3	3	3	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Navy Installs Radio
17.6	7	1903					-2	12	10	2	2	5	4	3	3	2	1	1	2	1	0	1	1	0	1	1	1	2	2	3	4	5	4	2	0	1	1	1	2	2	1	1	1	1	0	1	1	2	2	2	2	2	2	2	3	2	3	3	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Wright Bros Fly
16.3	7	1904						27	17	4	2	7	5	4	4	2	1	2	2	1	0	1	1	0	1	1	1	2	3	3	4	5	4	2	0	1	1	1	2	2	1	2	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Crayola & Jell-O
19.3	9	1905							7	-7	-5	2	1	0	1	-1	-1	-1	0	0	-1	0	-1	-2	0	0	0	1	2	2	4	5	3	2	-1	0	0	1	2	2	1	1	1	0	0	1	1	1	2	1	1	1	2	2	2	2	2	3	3	3	3	3	3	4	3	4	4	4	4	4	4	4	3	4	4	4	3	3	3	3	3	3	4	4	3	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Pen Gets Pocket Clip
18.7	10	1906								-19	-10	0	-1	-1	0	-2	-2	-2	0	-1	-2	-1	-1	-2	-1	-1	0	1	1	2	3	4	3	1	-1	0	0	0	2	2	1	1	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	3	3	3	3	3	3	4	3	4	4	4	4	4	4	4	3	4	4	4	3	3	3	3	3	3	3	4	3	4	4	4	4	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	S.F. Earthquake
13.4	8	1907									-1	11	6	4	4	1	0	1	2	1	0	1	0	-1	0	1	1	2	3	3	5	6	4	2	0	1	1	1	2	2	1	1	1	1	0	1	1	2	2	2	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Photocopier Marketed
13.1	8	1908										25	10	6	5	2	0	1	2	1	0	1	0	-1	1	1	1	2	3	4	5	6	5	2	0	1	1	1	2	2	1	1	1	1	0	1	1	2	2	2	2	2	2	2	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Model T Introduced
14.9	10	1909											-4	-2	-1	-3	-4	-3	0	-2	-3	-1	-2	-3	-1	-1	0	1	2	3	4	5	4	2	-1	0	0	0	2	2	1	1	0	0	0	0	1	1	2	1	1	1	2	2	2	2	3	3	3	3	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	4	3	3	3	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Chlorine In Drinking Water
13.5	9	1910												-1	1	-3	-4	-2	0	-1	-3	-1	-2	-3	-1	-1	0	1	2	3	4	6	4	2	-1	0	0	1	2	2	1	1	1	0	0	1	1	1	2	1	1	1	2	2	2	2	3	3	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	4	4	3	4	4	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Electric Range Invented
14.2	9	1911													3	-4	-5	-3	0	-1	-3	-1	-2	-3	-1	-1	0	1	2	3	5	6	4	2	-1	0	0	1	2	2	1	1	1	0	0	1	1	1	2	1	1	1	2	2	2	2	3	3	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Sherman Anti-Trust Act; Airmail Begins
13.7	10	1912														-11	-9	-4	0	-2	-4	-1	-2	-4	-1	-1	0	1	2	3	5	6	4	2	-2	0	0	0	2	2	1	1	1	0	0	1	1	1	2	1	1	1	2	2	2	2	3	3	4	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	6	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Titanic Sinks; U.S. Radio Act
11.9	9	1913															-7	-1	4	0	-2	1	-1	-3	0	0	1	2	3	4	6	7	5	3	-1	0	1	1	3	3	1	1	1	1	0	1	1	2	2	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5	4	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	5	5	6	6	6	6	5	5	5	5	5	5	6	6	5	6	6	6	Income Tax & Federal Reserve
11.1	8	1914																5	9	2	-1	2	0	-2	1	1	1	3	4	5	7	8	6	3	-1	1	1	1	3	3	2	2	1	1	0	1	2	2	2	2	2	2	2	3	3	3	3	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	4	5	5	5	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	6	6	6	6	6	6	6	WWI Starts; First Transcon. Phone Call
11.5	8	1915																	14	1	-3	1	-1	-3	0	0	1	3	4	5	7	8	6	3	-1	0	1	1	3	3	1	2	1	1	0	1	1	2	2	2	2	2	2	3	3	3	3	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	4	5	5	5	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	6	6	6	6	6	6	6	Americans Avg 40 Phone Calls A Year
12.0	9	1916																		-10	-11	-2	-4	-6	-2	-1	-1	2	3	4	6	8	6	2	-2	0	0	1	2	2	1	1	1	0	0	1	1	2	2	2	2	1	2	2	3	3	3	4	4	4	4	4	4	4	4	4	5	5	4	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	5	6	6	6	6	5	5	5	5	5	5	6	6	6	6	6	6	Keds & Electric Clock Invented
8.8	8	1917																			-11	2	-2	-5	0	0	1	3	4	6	8	10	7	3	-1	0	1	1	3	3	1	2	1	1	0	1	1	2	2	2	2	2	2	3	3	3	3	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	4	5	5	5	4	4	4	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	6	6	6	6	6	6	6	6	US Enters WWI; Einstein Theorizes Lasers
6.4	8	1918																				16	3	-3	3	3	3	6	7	8	10	12	9	5	-1	1	2	2	4	4	2	2	2	1	1	2	2	3	3	2	2	2	3	3	4	3	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	4	4	4	5	5	4	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6	WWI Ends
6.5	9	1919																					-9	-12	-1	-1	1	4	5	7	10	11	8	4	-2	0	1	1	3	3	1	2	1	1	0	1	1	2	2	2	2	2	2	3	3	3	4	4	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	6	6	6	6	6	6	6	6	6	Prohibition; Shortwave Radio; Dial Phones
5.3	8	1920																						-14	3	2	3	7	8	10	12	14	10	5	-1	1	2	2	4	4	2	2	2	1	0	2	2	3	3	2	2	2	3	3	4	3	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	5	4	4	5	5	4	5	5	5	5	5	5	6	5	6	6	6	6	6	6	6	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	Women's Right To Vote
5.4	7	1921																							23	12	10	13	13	14	16	18	13	7	0	2	3	3	6	5	3	3	3	2	1	2	3	3	4	3	3	3	3	4	4	4	5	5	6	5	5	6	6	6	6	6	6	6	6	6	6	6	5	5	6	5	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	World Series On Radio; Quartz Crystals
7.5	8	1922																								2	4	10	11	13	15	18	12	6	-2	1	1	2	4	4	2	2	2	1	0	2	2	3	3	2	2	2	3	3	4	4	4	5	5	5	5	5	5	5	5	5	6	6	5	5	5	5	5	5	5	5	4	4	5	5	4	4	5	5	5	5	5	5	5	6	5	6	6	6	6	6	6	6	6	6	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	100,000 Radios Made In U.S.; 3 Frequencies
7.9	9	1923																									6	14	14	16	18	20	14	6	-2	0	1	2	5	4	2	2	1	1	0	1	2	3	3	2	2	2	3	3	4	4	4	5	5	5	5	5	5	6	5	5	6	6	5	6	6	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	6	5	6	6	6	6	6	6	6	6	6	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	500,000 Radios Made; Neon Signs
8.4	9	1924																										23	18	19	22	24	15	6	-3	0	1	1	5	4	2	2	1	0	0	1	2	2	3	2	2	2	3	3	4	4	4	5	5	5	5	5	5	6	5	5	6	6	5	6	6	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5	5	6	5	6	6	6	6	6	6	6	6	6	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	2.5 Million Radios Made; Frozen Food Invented
10.1	11	1925																											13	17	21	24	14	3	-7	-3	-1	-1	3	3	0	1	0	-1	-1	0	1	2	2	1	1	1	2	3	3	3	3	4	5	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	7	7	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6	Commercial Picture Fax By Radio In U.S.
11.7	13	1926																												22	26	27	14	2	-9	-5	-3	-2	2	2	-1	0	-1	-2	-2	-1	0	1	2	1	1	1	2	2	3	3	3	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	4	5	5	5	4	4	4	4	4	4	4	4	4	5	4	5	5	5	5	5	5	5	5	5	5	6	6	6	6	7	7	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6	First Publicly Shown 'Talkie'
15.9	15	1927																													30	30	11	-3	-15	-9	-6	-5	0	0	-3	-2	-3	-3	-4	-2	-1	0	1	0	0	0	1	2	2	2	2	4	4	4	4	4	4	4	4	4	5	5	4	5	5	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	6	6	6	6	6	6	6	2-Way Radio Phone: U.S. To London ($15/min)
21.8	20	1928																														30	3	-12	-23	-15	-11	-9	-3	-3	-5	-4	-5	-5	-6	-4	-3	-2	-1	-1	-1	-1	0	0	1	1	2	3	3	3	3	3	3	4	3	4	4	4	4	4	4	4	3	4	4	4	3	3	3	3	3	3	3	4	3	4	4	4	4	5	4	5	5	5	5	5	5	5	5	6	6	6	6	6	5	5	5	5	6	6	5	5	5	5	5	5	5	5	5	6	6	6	Teletype Machine; Test TV In 3 Homes
27.6	26	1929																															-19	-28	-36	-23	-18	-14	-7	-6	-9	-7	-8	-8	-8	-6	-5	-3	-2	-3	-3	-3	-2	-1	0	0	1	2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	5	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	Crash of '29; Car Radio
21.5	21	1930																																-35	-43	-25	-17	-13	-5	-4	-7	-6	-6	-7	-7	-5	-4	-2	-1	-2	-2	-2	-1	0	1	1	1	3	3	3	3	4	3	4	3	4	4	4	4	4	4	4	3	4	4	4	3	3	3	3	3	3	4	4	3	4	4	4	4	5	4	5	5	5	5	5	5	5	5	6	6	6	6	6	6	5	6	6	6	6	5	5	5	5	5	5	6	6	5	6	6	6	Photo Flash Bulbs
14.7	14	1931																																	-49	-19	-10	-6	3	2	-2	-2	-2	-3	-4	-1	-1	1	2	1	1	1	2	2	3	3	3	5	5	5	5	5	5	5	5	5	6	6	5	5	5	5	5	5	5	5	4	4	5	4	4	4	5	5	4	5	5	5	5	6	5	6	6	6	6	6	6	6	6	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	Radios In 40% Of Homes; Scotch Tape
8.1	7	1932																																		29	19	15	22	17	9	8	6	4	2	5	5	6	7	5	5	5	6	6	7	6	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8	7	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	Radar; 8 mm Cameras; Electric Eye Scanner
11.1	9	1933																																			10	9	20	15	5	5	3	1	0	3	3	4	5	4	4	3	4	5	5	5	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	7	7	6	6	6	6	6	5	5	6	6	5	6	6	6	6	7	6	7	7	7	7	7	7	7	7	7	8	8	8	7	7	7	7	7	7	7	7	6	6	7	7	7	7	7	7	7	7	7	End of Prohibition; FM Radio; Wallboard
12.2	10	1934																																				8	25	16	4	4	2	0	-2	2	2	4	5	3	3	3	4	5	5	5	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	6	7	6	5	5	6	5	5	5	6	6	5	6	6	6	6	7	6	7	6	7	7	7	7	7	7	7	8	8	8	7	7	7	7	7	7	7	7	6	6	7	7	7	7	7	7	7	7	7	Radios In 50% Of Homes; AP Wirephoto
13.1	11	1935																																					46	21	3	3	1	-1	-3	1	2	4	4	3	3	3	4	5	5	5	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	6	7	6	5	5	6	5	5	5	6	6	5	6	6	6	6	7	6	7	6	7	7	7	7	7	7	7	8	8	8	7	7	7	7	7	7	7	7	6	6	6	7	7	7	7	7	7	7	7	Social Security Act Passed
19.3	15	1936																																						0	-14	-8	-8	-9	-9	-4	-3	0	1	0	0	0	1	2	3	3	4	5	6	5	5	6	5	6	6	6	6	6	6	6	6	6	5	5	6	5	5	5	5	5	4	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	6	7	7	7	7	6	6	6	6	6	6	6	6	6	6	7	7	BBC First TV Service, 3 Hours A Day
18.5	15	1937																																							-25	-12	-11	-11	-11	-5	-3	0	1	0	0	0	1	3	3	3	4	6	6	5	5	6	6	6	6	6	6	6	6	6	6	6	5	6	6	6	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	6	7	7	7	7	6	6	6	6	6	6	6	6	6	7	7	7	Hindenburg Airship Crash
13.9	11	1938																																								5	-2	-5	-7	0	1	4	5	3	3	3	4	5	6	5	6	8	8	7	7	8	7	8	7	7	8	8	7	7	7	7	6	7	7	7	6	6	6	6	5	5	6	6	5	6	6	6	7	7	6	7	7	7	7	7	7	7	7	8	8	8	8	8	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7	7	7	7	National Minimum Wage Enacted
15.6	12	1939																																									-9	-10	-10	-1	1	4	5	3	3	2	4	5	6	5	6	8	8	8	7	8	8	8	7	8	8	8	8	8	8	7	6	7	7	7	6	6	6	6	5	6	6	6	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	7	7	7	7	7	7	7	6	7	7	7	7	7	7	7	7	7	7	WW II Begins; Regular TV In U.S.; Helicopter
14.7	11	1940																																										-11	-11	1	3	7	8	5	4	4	5	7	7	6	7	9	9	9	8	9	8	9	8	8	9	9	8	8	8	8	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	7	8	7	8	8	7	7	7	7	7	7	7	7	7	7	7	7	FM Radio; Radar; 1st Social Security Check
12.2	10	1941																																											-12	8	8	11	12	8	7	6	7	9	9	8	9	11	11	10	10	10	10	10	9	9	10	10	9	9	9	9	8	8	8	8	7	7	7	7	6	6	7	7	6	7	7	7	7	8	7	8	7	8	8	8	8	8	8	8	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	8	7	7	8	8	8	Pearl Harbor Attack; 2-Way Police Radio
9.2	9	1942																																												33	20	20	18	12	10	8	10	11	11	10	11	13	13	12	11	12	11	11	10	10	11	11	10	10	10	9	8	9	9	8	7	7	8	7	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	8	8	8	8	8	8	8	8	U.S. Office Of Censorship Due To War
11.0	12	1943																																													8	15	14	7	6	5	7	9	9	8	9	11	11	10	10	11	10	10	9	9	10	10	9	9	9	9	8	8	8	8	7	6	7	7	6	6	7	7	6	7	7	7	7	8	7	8	7	8	8	8	8	8	8	8	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7	8	8	8	Phone Line Repeaters Help Service
11.3	12	1944																																														22	17	7	6	4	7	9	9	8	9	11	12	10	10	11	10	10	9	9	10	10	9	9	9	9	8	8	8	8	7	6	7	6	6	6	6	6	6	7	7	7	7	8	7	8	7	8	8	8	7	8	8	8	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7	8	8	8	D-Day, Normandy
13.3	15	1945																																															13	0	1	0	4	7	7	6	8	10	11	9	9	10	9	10	9	9	9	9	9	9	8	8	7	7	8	7	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	9	9	8	8	7	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	World War II Ends; FCC Sets VHF Channels
14.0	17	1946																																																-11	-5	-4	2	5	6	5	7	10	11	9	9	10	9	9	8	9	9	9	8	8	8	8	7	7	7	7	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	8	9	9	8	8	7	7	7	8	8	7	7	7	7	7	7	7	7	7	7	7	7	ENIAC, 1st Computer; First Copy Machine Sold
11.2	15	1947																																																	2	0	7	10	10	8	10	13	13	11	11	12	11	11	10	10	10	10	10	9	9	9	8	8	8	8	6	6	7	6	6	6	6	6	6	7	7	7	7	8	7	8	7	8	8	8	8	8	8	8	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	8	7	7	8	8	8	Transistor Invented; Microwave Oven
10.7	16	1948																																																		-2	9	13	12	10	11	15	15	12	12	13	11	12	10	11	11	11	10	10	10	9	8	8	8	8	7	7	7	7	6	6	7	7	6	7	7	7	7	8	7	8	8	8	8	8	8	8	8	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	8	8	7	8	8	8	Israel Established; RCA High Speed Fax
9.9	15	1949																																																			21	21	17	13	14	18	17	14	13	14	13	13	11	11	12	12	11	11	10	10	8	9	9	8	7	7	7	7	7	7	7	7	6	7	7	7	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	8	8	8	8	8	8	8	7	7	7	7	8	8	8	8	8	8	8	NATO Established; Network TV In U.S.
11.2	18	1950																																																				21	15	10	13	17	17	13	12	13	12	12	11	11	11	11	10	10	10	9	8	8	8	8	6	6	7	6	6	6	6	6	6	7	7	7	7	8	7	8	8	8	8	8	8	8	8	9	9	9	9	9	8	8	8	8	8	8	7	7	7	7	7	7	8	8	7	8	8	8	Korean War Begins; Credit Card Created
12.0	22	1951																																																					10	5	10	16	16	12	11	13	11	11	10	10	10	10	9	9	9	9	7	8	8	7	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8	8	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	Color TV; Modern Plastic Invented
12.5	24	1952																																																						1	10	18	17	13	11	13	11	12	10	10	11	10	9	9	9	8	7	8	8	7	6	6	6	6	5	5	6	6	5	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	9	9	9	8	8	7	8	8	8	8	7	7	7	7	7	7	7	7	7	7	7	7	Phone Area Codes; EDVAC Computer
12.0	25	1953																																																							20	28	24	16	13	15	12	13	11	11	11	11	10	10	10	9	7	8	8	8	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	8	8	7	8	8	8	9	9	9	8	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7	7	8	7	Korean War Ends; Magnetic Core Memory
13.7	30	1954																																																								36	25	14	12	14	11	12	10	10	11	10	9	9	9	8	7	7	7	7	5	5	6	5	5	5	5	6	5	6	6	6	7	7	7	7	7	7	7	7	7	7	8	8	9	9	9	8	8	7	8	8	8	8	7	6	7	7	7	7	7	7	7	7	7	7	TVs In 54% Of Homes; Transistor Radios
17.5	40	1955																																																									15	5	4	9	7	9	6	7	8	8	7	7	7	6	5	6	6	6	4	4	4	4	4	4	4	5	4	5	5	5	6	6	6	6	6	6	6	7	6	7	7	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	7	7	7	7	7	7	7	Tests Begin On Digital Fiber Optics
18.3	47	1956																																																										-5	0	7	5	7	5	6	7	7	6	6	6	6	4	5	5	5	3	3	4	4	3	4	4	4	4	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	7	7	7	7	7	7	Transatlantic Phone Cable; The Pager
15.6	44	1957																																																											4	14	8	11	7	8	9	9	8	8	7	7	5	6	6	6	4	4	4	4	4	4	4	5	4	5	5	5	6	6	6	6	6	6	7	7	7	7	7	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	7	7	7	7	7	7	7	Sputnik, First Satellite; EEC Formed
15.1	46	1958																																																												24	10	13	8	9	10	10	8	8	8	7	5	6	6	6	4	4	4	4	4	4	4	5	4	5	5	5	6	7	6	6	6	7	7	7	7	7	7	8	8	9	9	8	7	7	7	7	7	7	7	6	6	6	6	7	7	7	7	7	7	7	Stereo LP Records; Data On Phone Lines
18.4	57	1959																																																													-3	7	3	5	7	7	6	6	6	5	3	5	5	5	2	3	3	3	3	3	4	4	3	4	4	5	5	6	5	6	6	6	6	6	6	6	7	7	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	7	7	7	7	7	7	COBOL; Microchip; Plain Paper Xerox
17.4	56	1960																																																													19	6	8	10	10	7	7	7	6	4	5	6	5	3	3	4	3	3	3	4	4	4	5	4	5	6	6	6	6	6	6	6	7	6	7	7	8	8	8	8	8	7	7	7	7	7	7	7	6	6	6	6	7	7	7	7	7	7	7	90% Homes w/TVs; Laser; Weather Satellite
20.5	66	1961																																																														-6	3	7	7	5	6	6	5	3	4	5	4	2	2	3	2	2	2	3	3	3	4	4	4	5	6	5	6	6	6	6	6	6	6	7	7	8	8	8	7	7	7	7	7	7	7	6	6	6	6	6	6	7	7	6	7	7	7	Berlin Wall Built; IBM Selectric Typewriter
18.8	62	1962																																																														12	14	12	8	8	8	7	4	5	6	5	2	3	4	3	3	3	4	4	3	5	4	5	6	6	6	6	6	6	7	7	6	7	7	8	8	9	9	8	7	7	7	7	7	7	7	6	6	6	6	7	7	7	7	7	7	7	Cuban Missile Crisis; Mariner II At Venus
20.3	70	1963																																																															16	12	7	7	7	6	3	4	5	4	2	2	3	2	2	2	3	3	3	4	4	5	5	6	5	6	6	6	6	6	6	7	7	8	8	9	8	8	7	7	7	7	7	7	7	6	6	6	6	7	7	7	7	7	7	7	Kennedy Killed, Income Tax 91% To 70%
22.6	81	1964																																																																8	2	4	5	4	0	3	4	3	0	1	2	1	1	2	2	3	2	4	3	4	5	6	5	6	6	6	6	6	6	6	7	7	8	8	8	8	7	7	7	7	7	7	6	6	6	6	6	6	7	7	6	7	7	7	Vietnam Begins; Home VCR
23.3	88	1965																																																																	-3	2	4	3	-1	2	3	3	-1	0	1	1	1	1	2	2	2	3	3	4	5	6	5	6	5	6	6	6	6	6	7	7	8	8	8	8	7	7	7	7	7	7	6	6	6	6	6	6	7	7	6	7	7	7	First Minicomputer; Car Phones; Hypertext
21.3	85	1966																																																																		8	7	5	-1	3	4	3	0	0	2	1	1	1	2	3	2	4	4	4	5	6	5	6	6	6	6	6	6	7	7	8	8	9	9	8	7	7	7	7	7	7	7	6	6	6	6	7	7	7	7	7	7	7	Dow @ 1,000; 8-Tracks In Cars; Fax Machine
21.6	92	1967																																																																			7	3	-3	2	3	3	-1	-1	1	1	0	1	2	2	2	4	3	4	5	6	5	6	6	6	6	6	6	7	7	8	8	9	9	8	7	7	7	7	7	7	7	6	6	6	6	6	7	7	7	7	7	7	Floppy Disk; Cordless Phones; Dolby
21.5	98	1968																																																																				-1	-8	0	3	2	-3	-2	0	0	0	0	2	2	1	3	3	4	5	6	5	6	6	6	6	6	6	7	7	8	8	9	9	8	7	7	7	7	7	7	6	6	6	6	6	6	7	7	7	7	7	7	Intelsat Global Satellite Link; Intel 1KB RAM
19.4	98	1969																																																																					-15	0	4	2	-3	-2	1	0	0	1	2	2	2	4	3	4	5	6	5	6	6	6	6	7	6	7	7	8	9	9	9	8	7	7	7	7	7	7	7	6	6	6	6	7	7	7	7	7	7	7	Neil Armstrong Walks On Moon; ATMs
15.2	83	1970																																																																							18	15	9	0	1	3	2	2	2	4	4	3	5	5	6	7	8	7	7	7	7	8	8	7	8	8	9	10	10	10	9	8	8	8	8	8	8	7	6	7	7	7	7	7	7	7	7	8	8	Barcodes; First Internet Connections
16.9	98	1971																																																																								11	5	-6	-3	1	0	0	1	2	3	2	4	4	5	6	7	6	7	7	7	7	7	7	7	8	9	9	10	10	9	8	7	8	8	8	8	7	6	6	7	7	7	7	7	7	7	7	7	Microchip, Price Controls; Answering Machine
17.8	109	1972																																																																								-2	-13	-8	-2	-2	-2	-1	1	2	1	4	3	4	6	7	6	7	6	7	7	7	7	7	8	9	9	10	10	9	8	7	8	8	8	8	7	6	6	6	7	7	7	7	7	7	7	7	Dow Closes Above 1,000; Pong; HBO
16.1	107	1973																																																																									-23	-10	-2	-2	-2	-1	1	2	1	4	4	5	6	7	6	7	7	7	7	7	7	8	8	9	10	10	10	9	8	8	8	8	8	8	7	6	7	7	7	7	7	7	7	7	7	7	U.S. Leaves Vietnam; International Internet
10.9	83	1974																																																																										4	11	6	4	4	6	6	5	8	7	8	9	10	9	10	9	9	9	9	9	9	10	11	11	12	12	10	9	9	9	9	9	9	8	7	8	8	8	8	8	8	8	8	8	8	Nixon Resigns; Wage & Price Controls End
10.2	86	1975																																																																											18	7	4	5	7	7	5	8	7	8	10	11	9	10	9	10	10	10	9	10	10	11	12	12	12	11	9	9	9	9	9	9	8	7	8	8	8	8	8	8	8	8	8	8	Microsoft; Optical Videodisk Demo
11.5	102	1976																																																																												-4	-3	0	4	5	3	7	6	7	9	10	8	9	9	9	9	9	9	9	10	11	11	12	12	10	9	9	9	9	9	9	8	7	7	7	8	8	8	8	8	8	8	8	Apple I; Cray-1; Home Satellite Dish
10.4	98	1977																																																																													-2	2	7	7	4	9	7	8	10	11	9	10	10	10	10	10	10	10	11	12	12	13	12	11	10	9	9	9	9	9	8	7	8	8	8	8	8	8	8	8	8	8	Elvis Dies; TRS-80 PC; Fiber Optic Call
9.4	96	1978																																																																													7	11	10	6	11	9	10	12	13	11	12	11	11	11	11	10	11	11	12	13	13	13	12	10	10	10	10	10	10	9	8	8	8	8	8	9	9	8	9	9	9	Modems; Cell Phone Tests; Intel 16-bit Chip
8.9	103	1979																																																																														15	11	5	12	9	10	13	14	11	12	11	11	11	11	10	11	12	13	13	14	13	12	10	10	10	10	10	10	9	8	8	8	8	8	9	9	8	9	9	9	CompuServe Online; VisiCalc Spreadsheet
8.8	119	1980																																																																															8	0	11	8	9	12	13	11	12	11	11	11	11	10	11	11	12	13	14	13	12	10	10	10	10	10	10	9	7	8	8	8	8	9	8	8	9	9	9	CPI 13.5%; CNN; Sony Camcorder
8.5	128	1981																																																																																-7	12	8	10	13	14	11	12	11	11	11	11	10	11	12	13	13	14	14	12	10	10	10	10	10	10	9	7	8	8	8	8	9	9	8	9	9	9	IBM PC Introduced; 300 bps Modems
7.3	120	1982																																																																																	34	16	16	19	19	14	15	14	14	13	13	12	12	13	14	15	15	15	13	11	10	11	11	10	11	9	8	8	8	8	9	9	9	9	9	9	9	Dow Over 1,000; Compact Disk; 5.5 Mil. PCs
9.6	160	1983																																																																																		0	8	14	16	11	12	11	11	11	11	10	11	12	13	14	14	14	12	10	9	10	10	10	10	8	7	8	8	8	8	8	8	8	8	8	8	AT&T Breakup; 288k Chips; Domain Names
9.4	160	1984																																																																																			16	21	21	13	15	13	13	13	12	11	12	13	14	15	15	15	13	11	10	10	10	10	10	9	7	8	8	8	8	9	9	8	9	9	9	3 1/2" Floppy; Intel 32-bit; 1 MB Chips
10.7	187	1985																																																																																				27	24	12	15	12	12	12	12	11	11	12	14	14	15	15	12	10	10	10	10	10	10	9	7	8	8	8	8	8	8	8	8	8	8	Cellphones; 2400k Modems; Windows OS
13.4	236	1986																																																																																					21	6	11	9	10	10	10	9	10	11	13	14	14	14	11	9	9	9	9	9	9	8	6	7	7	7	7	8	8	8	8	8	8	Laser Printers; TV On 7 Hrs/Day In U.S.
16.0	287	1987																																																																																					-7	6	5	7	8	8	7	8	10	12	13	14	13	11	9	8	8	8	8	9	7	6	6	6	6	7	7	7	7	7	8	8	Stock Market Crash; 50% Have Cable TV
14.4	266	1988																																																																																						22	12	12	12	11	10	11	12	14	15	16	15	12	10	9	9	9	9	9	8	6	7	7	7	8	8	8	8	8	8	8	Transatlantic Fiberoptic Cable; Internet T1
16.6	323	1989																																																																																								4	8	9	9	7	9	11	13	14	15	14	12	9	8	9	9	9	9	7	6	6	6	7	7	7	7	7	8	8	8	Poland Solidarity; Nintendo Profits @ $1 Bil.
16.5	335	1990																																																																																									12	11	11	8	10	12	15	16	17	16	12	9	8	9	9	9	9	7	6	6	7	7	7	8	8	7	8	8	8	World Wide Web (www)
17.9	376	1991																																																																																										11	10	7	10	12	15	16	17	16	12	9	8	9	9	9	9	7	5	6	6	6	7	7	7	7	7	8	8	Gulf War; USSR Breakup; 75% Have VCRs
19.6	416	1992																																																																																										9	5	9	13	16	17	18	17	12	9	8	9	9	9	9	7	5	6	6	6	7	7	7	7	7	8	7	65 Mil. PCs; 200k On AOL; CDs > Cassettes
20.7	452	1993																																																																																									2	10	14	18	19	20	18	13	9	8	9	9	9	9	7	5	6	6	6	7	7	7	7	7	7	7	Pentium Chip; HTML; V-Chip
20.5	460	1994																																																																																										18	21	24	24	24	21	15	10	9	9	9	9	9	7	5	6	6	6	7	7	7	7	8	8	8	First WTC Attack; Satellite TV; 33% w/PC
22.7	542	1995																																																																																										24	27	26	25	21	14	9	7	9	8	8	9	6	4	5	5	6	6	7	7	7	7	7	7	NAFTA Enacted; Dot.com; Internet Audio
25.9	670	1996																																																																																										30	27	26	21	12	7	5	7	7	7	7	5	3	4	4	5	5	6	6	6	6	7	7	100k Web Sites; 30 Mil In U.S. On Internet
31.0	873	1997																																																																																											24	23	18	8	3	2	4	4	5	5	3	1	2	3	3	4	5	5	5	5	6	6	Internet Video; 43% In U.S. Have PCs
36.0	1086	1998																																																																																												22	15	3	-2	-2	1	2	2	3	1	-1	0	1	2	3	4	4	4	4	5	5	Russia Debt Default; 75 Mil U.S. On Internet
42.1	1327	1999																																																																																													8	-5	-9	-8	-3	-2	0	1	-1	-3	-1	0	0	2	3	3	3	3	4	4	Satellite Can See 3' Objects On Earth
41.7	1427	2000																																																																																														-16	-17	-12	-6	-3	-1	0	-2	-4	-2	-1	0	1	2	2	2	3	4	4	Dow Hits 11,723; NASDAQ Hits 5,048
32.1	1194	2001																																																																																															-17	-10	-2	0	2	4	0	-3	-1	1	1	3	4	4	4	5	5	5	WTC Attack (9/11); >50% U.S. On Internet; iPod
25.9	994	2002																																																																																														-3	7	7	7	8	3	-1	2	3	3	5	6	6	5	6	7	7	HDTV Grows; Wi-Fi Laptops; DVD Sales>VCR
24.1	965	2003																																																																																															17	12	11	11	5	0	2	3	4	5	7	7	6	7	7	7	Iraq Conflict; Home Networks; T-Bills @ <1%
26.4	1131	2004																																																																																															7	8	9	2	-3	0	2	3	4	6	6	5	6	7	7	Hybrid Cars; Flat Panel TVs; Blogs; VoIP
26.0	1207	2005																																																																																																9	11	0	-6	-1	1	2	4	5	5	5	6	7	6	Hurricanes; $70 Oil; Podcasts; Housing Boom
26.0	1310	2006																																																																																																13	-4	-10	-3	-1	1	3	5	5	5	6	6	6	YouTube; Dow High; Pluto Demoted; Fed Pause
26.8	1477	2007																																																																																																	-17	-20	-8	-4	-1	2	4	4	4	5	6	6	iPhone; Sub-Prime; Going Green; Facebook
20.8	1220	2008																																																																																																		-22	-3	1	3	6	8	8	7	8	8	8	Recession; Wall Street Crisis; $144 Oil; Obama
16.9	948	2009																																																																																																		20	16	13	15	15	14	12	13	13	12	H1N1; Jackson Dies; GM Bankruptcy; Digital TV
20.7	1140	2010																																																																																																		11	10	13	14	13	11	12	12	11	iPad; Greece Debt Crisis; Twitter; QE2
21.8	1268	2011																																																																																																		9	14	15	13	11	12	12	11	The Cloud; Arab Spring; OWS; E-books
21.4	1379	2012																																																																																																			19	18	14	11	12	12	11	Google Glass; Mars Rover; iPhone5; Fiscal Cliff
23.2	1644	2013																																																																																																				17	12	8	10	11	10	Fed Taper; Detroit Ch 9; NSA; ACA Launch; Nest
25.5	1931	2014																																																																																																				7	4	8	9	9	Ebola; ISIS; Amazon Drones; Wearable Tech
26.2	2061	2015																																																																																																						2	9	10	9	ZIRP Ends; Iran Deal; Refugees; Driverless Car
26.1	2095	2016																																																																																																						17	15	12	Brexit; Trump; <$30 Oil; Cyborg Stingray
29.9	2449	2017																																																																																																								12	9	Bitcoin Mania; Robot Citizen; Teleporting; WattUp
31.5	2746	2018																																																																																																										6	Apple $1T; Tax Reform; Zero Carbon Nat Gas; 5G
		Yr: 19	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	2000	'01	'02	'03	'04	'05	'06	'07	'08	'09	'10	'11	'12	'13	'14	'15	'16	'17	'18	'19	2019 UPS Drones; Quantum Supremacy; Starlink L1
S&P 500 Index Value			6	8	8	7	7	9	10	8	8	10	9	9	10	9	8	8	9	8	8	9	8	7	8	9	9	11	13	15	20	26	21	14	7	9	10	11	15	15	11	12	11	10	9	12	12	15	17	15	16	15	18	22	24	25	30	40	47	44	46	57	56	66	62	70	81	88	85	92	98	98	83	98	109	107	83	86	102	98	96	103	119	128	120	160	160	187	236	287	266	323	335	376	416	452	460	542	670	873	1086	1327	1427	1194	994	965	1131	1207	1310	1477	1220	948	1140	1268	1379	1644	1931	2061	2095	2449	2746	2913	
S&P 500 Div Yield (%)			4	4	4	5	5	4	4	5	5	4	5	5	5	6	6	5	5	7	8	6	7	7	6	6	6	5	5	5	4	4	5	7	9	5	5	4	4	5	6	5	6	7	7	5	5	4	4	5	6	7	7	7	6	6	5	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3	4	4	4	4	5	5	5	5	6	4	5	4	3	3	3	3	3	3	3	3	3	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	4.1% Avg (S&P 500 Div Yield %)
CPI (Inflation %)			7	-2	6	1	0	1	3	6	-4	8	4	-8	7	3	1	1	8	17	18	15	16	-11	-6	2	0	2	1	-2	-2	0	-2	-9	-10	-5	3	2	1	4	-2	-1	1	5	11	6	2	2	8	14	8	-1	1	8	2	1	1	0	1	3	3	1	2	1	1	1	1	2	3	3	4	5	6	4	3	6	11	9	6	7	8	11	13	10	6	3	4	4	2	4	4	5	5	4	3	3	3	3	3	2	2	2	3	3	2	2	3	3	3	3	4	0	2	3	2	1	2	0	1	2	2	2	3.1% Avg (CPI Inflation %)
GDP (Nominal %)			4	13	3	6	5	9	8	3	-7	12	5	3	8	5	-6	6	27	20	26	11	13	-16	0	17	3	4	7	-1	1	7	-12	-16	-23	-4	17	11	14	10	-6	7	10	26	28	22	10	2	0	10	10	-1	10	16	6	6	0	9	6	5	2	8	4	4	7	6	7	8	10	6	9	8	5	9	10	11	8	9	11	11	13	12	9	12	4	9	11	7	6	6	8	8	6	3	6	5	6	5	6	6	6	6	6	3	3	5	7	7	6	5	2	-2	4	4	4	4	4	4	3	4	5	4	
GDP (Annualized %)								+5.3%										+10.0%										+3.1%										-1.1%										+11.3%										+6.7%										+6.9%										+9.9%										+7.9%										+5.5%										+4.1%										+4.0%					+6.1% Avg (GDP Nominal %)
GDP (Real %)			2	12	2	3	4	9	4	-2	-5	12	0	3	6	4	-8	4	16	0	8	-3	-2	-4	7	14	3	2	6	1	2	7	-9	-6	-13	-1	11	9	13	5	-3	8	9	18	19	17	8	-1	-12	-1	4	-1	9	8	4	5	-1	7	2	2	-1	7	3	3	6	4	6	6	7	3	5	3	0	3	5	6	-1	0	5	5	6	3	0	3	-2	5	7	4	3	3	4	4	2	0	4	3	4	3	4	4	4	5	4	1	2	3	4	4	3	2	0	-3	3	2	2	2	3	3	2	2	3	2	
GDP (Annualized %)								+3.9%										+2.9%										+3.4%										+1.0%										+5.6%										+4.2%										+4.5%										+3.2%										+3.1%										+3.2%										+1.9%										+2.3%					+3.3% Avg (GDP Real %)

2019 MATRIX: AVERAGE ANNUAL DATA

NOTES:
1) Numbers reflect the percentage annual rate of return from the starting period to the ending period
2) Returns include index returns & exclude dividends, transaction costs/fees (bid/ask spread, commissions, fees, etc.), and taxes; nominal returns include inflation (see assumptions)
3) Red: <0%; Pink: 0% - 3%; Blue: 3% - 7%; Light Green: 7% - 10%; Dark 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&P 500 & P/E reflect the methodology popularized by Robert Shiller with average daily index annually and other related data (P/E10)
7) Other data and information developed from various sources and believed to be reliable

LEGEND				
Red		<	0.0%	
Pink	0.0%	-	3.0%	
Blue	3.0%	-	7.0%	
Light Green	7.0%	-	10.0%	
Dark Green		>	10.0%	

White Numbers: Decreasing P/E Ratio

Copyright 2002-2020, Crestmont Research
(www.CrestmontResearch.com)