2019 CRESTMONT RESEARCH 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)

P/E	1899=1	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	1	1	1	1	1	1	2	1	1	2	1	2	2	1	1	1	2	1	1	1	1	1	1	1	1	2	2	2	3	4	4	3	2	2	2	3	4	4	3	3	3	3	2	3	3	4	4	3	3	3	4	4	5	5	6	8	9	8	8	10	10	11	10	12	13	14	13	14	14	13	11	12	13	12	9	8	10	9	8	8	8	8	7	10	9	11	13	15	13	15	14	15	16	17	17	19	22	27	32	37	37	30	25	24	27	28	30	32	26	21	25	27	28	33	38	40	40	46	50	52	1899 = 1
18.6	1	1900		32	16	6	4	9	8	4	4	5	4	5	5	3	3	3	3	2	0	1	0	0	1	1	2	2	3	4	5	5	5	3	2	3	3	3	4	4	3	3	3	3	2	3	3	3	3	3	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	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	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	FROM Rodin Completes 'The Thinker'
22.7	1	1901			3	-6	-4	3	4	0	0	3	2	3	2	1	1	1	2	0	-1	-1	-2	-2	0	0	0	1	2	3	4	5	4	3	1	2	2	2	3	3	2	3	2	2	1	2	2	2	3	2	2	2	2	3	3	3	3	3	4	3	3	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1901 First Electric Typewriter
22.0	1	1902				-13	-7	4	4	-1	0	3	2	3	2	1	1	1	2	0	-1	-1	-2	-2	0	0	0	1	2	3	4	5	4	3	1	2	2	2	3	3	2	3	2	2	1	2	2	2	3	2	2	2	2	3	3	3	3	3	4	3	3	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1902 Navy Installs Radio
17.6	1	1903					0	13	11	2	3	5	4	5	4	3	2	2	3	1	-1	0	-1	-1	0	1	1	2	2	3	4	5	5	3	1	2	3	3	4	4	3	3	3	2	2	2	3	3	3	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1903 Wright Bros Fly
16.3	1	1904						28	17	3	4	6	5	5	5	3	2	3	3	1	-1	0	-1	-1	0	1	1	2	3	4	5	6	5	3	1	2	3	3	4	4	3	3	3	2	2	2	3	3	3	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	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1904 Crayola & Jell-O
19.3	1	1905							6	-8	-3	2	0	2	2	0	0	0	1	-1	-3	-2	-3	-3	-1	-1	0	1	1	2	4	5	4	3	0	2	2	2	3	3	2	2	2	2	1	2	2	2	2	2	2	2	2	2	3	3	3	3	4	3	3	4	4	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1905 Pen Gets Pocket Clip
18.7	2	1906								-20	-8	0	-1	1	1	-1	-1	0	1	-1	-3	-3	-4	-4	-2	-1	-1	1	1	2	4	5	4	2	0	1	2	2	3	3	2	2	2	2	1	2	2	2	2	2	2	2	2	2	3	2	3	3	4	3	3	4	3	4	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1906 S.F. Earthquake
13.4	1	1907									6	12	6	7	6	3	2	2	3	1	-2	-1	-2	-2	0	0	1	2	2	4	5	6	5	3	1	2	3	3	4	4	3	3	3	2	2	2	3	3	3	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	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1907 Photocopier Marketed
13.1	1	1908										18	7	8	6	2	1	2	3	0	-2	-2	-3	-3	-1	0	0	2	2	3	5	6	5	3	1	2	3	3	4	4	3	3	3	2	2	2	2	3	3	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	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1908 Model T Introduced
14.9	2	1909											-4	3	2	-1	-2	-1	1	-2	-4	-3	-5	-4	-2	-1	-1	1	1	3	4	5	4	3	0	2	2	2	4	3	2	3	2	2	1	2	2	2	3	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	4	3	3	3	3	3	2	2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1909 Chlorine In Drinking Water
13.5	1	1910												10	5	0	-2	0	2	-2	-4	-3	-5	-4	-2	-1	-1	1	2	3	5	6	5	3	0	2	2	2	4	4	3	3	3	2	1	2	2	3	3	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	3	3	3	3	3	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1910 Electric Range Invented
14.2	2	1911													0	-5	-5	-2	0	-4	-6	-5	-6	-6	-3	-2	-1	0	1	3	4	6	4	3	0	2	2	2	4	3	2	3	2	2	1	2	2	2	3	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3	4	3	3	3	3	3	2	2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1911 Sherman Anti-Trust Act; Airmail Begins
13.7	2	1912														-10	-8	-3	0	-4	-7	-6	-7	-6	-3	-2	-1	0	1	3	5	6	5	3	0	2	2	2	4	4	2	3	2	2	1	2	2	3	3	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	3	3	3	3	3	3	2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1912 Titanic Sinks; U.S. Radio Act
11.9	1	1913															-5	1	4	-3	-7	-5	-7	-6	-2	-1	-1	1	2	4	6	7	6	4	1	2	3	3	4	4	3	3	3	2	2	2	2	3	3	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	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1913 Income Tax & Federal Reserve
11.1	1	1914																7	8	-2	-7	-5	-7	-6	-2	-1	0	2	3	5	6	8	6	4	1	3	3	3	5	5	3	4	3	3	2	3	3	3	3	2	2	2	3	3	3	3	4	4	5	4	4	5	4	5	4	4	5	5	4	4	4	4	4	4	4	4	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	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	1914 WWI Starts; First Transcon. Phone Call
11.5	1	1915																	9	-6	-11	-7	-10	-8	-3	-2	-1	1	3	4	6	8	6	4	1	2	3	3	5	4	3	3	3	2	2	2	3	3	3	2	2	2	3	3	3	3	4	4	4	4	4	4	4	5	4	4	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1915 Americans Avg 40 Phone Calls A Year
12.0	2	1916																		-19	-20	-12	-14	-11	-5	-4	-2	1	2	4	6	8	6	4	0	2	2	3	5	4	3	3	3	2	1	2	2	3	3	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5	4	4	4	4	4	4	4	4	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1916 Keds & Electric Clock Invented
8.8	1	1917																			-21	-9	-12	-9	-2	-1	1	3	5	7	9	11	8	5	1	4	4	4	6	6	4	4	4	3	2	3	3	4	4	3	3	3	3	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	3	4	4	4	4	3	3	3	3	3	3	4	4	4	4	4	4	1917 US Enters WWI; Einstein Theorizes Lasers
6.4	1	1918																				5	-7	-5	4	4	5	7	8	10	12	14	11	8	3	5	6	6	8	7	6	6	5	4	3	4	4	5	5	4	4	4	4	4	5	5	5	6	6	5	5	6	5	6	5	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	3	3	3	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	1918 WWI Ends
6.5	1	1919																					-18	-9	3	4	5	8	9	11	13	15	12	8	3	5	6	6	8	7	6	6	5	4	3	4	4	5	5	4	4	4	4	4	5	5	5	6	6	5	5	6	5	6	5	6	6	6	5	5	5	5	5	5	5	5	4	4	4	4	4	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	1919 Prohibition; Shortwave Radio; Dial Phones
5.3	1	1920																						0	16	12	11	14	14	16	18	19	15	11	5	8	8	8	10	9	7	7	6	6	4	5	5	6	6	5	4	4	5	5	5	5	6	6	7	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	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	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1920 Women's Right To Vote
5.4	1	1921																							35	18	15	17	17	19	21	22	17	12	6	8	8	8	10	10	7	8	7	6	5	5	6	6	6	5	5	5	5	5	6	5	6	7	7	6	6	7	6	7	6	6	7	6	6	6	6	6	5	5	5	5	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	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	1921 World Series On Radio; Quartz Crystals
7.5	1	1922																								4	7	12	13	16	19	20	15	10	3	6	6	6	9	8	6	6	5	4	3	4	4	5	5	4	4	4	4	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	4	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	1922 100,000 Radios Made In U.S.; 3 Frequencies
7.9	1	1923																									10	17	16	19	22	23	17	10	3	6	6	7	9	8	6	6	6	5	3	4	4	5	5	4	4	4	4	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5	5	5	4	4	4	4	4	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	1923 500,000 Radios Made; Neon Signs
8.4	1	1924																										24	19	22	25	26	18	10	2	6	6	6	9	8	6	6	5	4	3	4	4	5	5	4	3	3	4	4	5	4	5	6	6	6	5	6	6	6	6	6	6	6	6	6	5	5	5	5	5	5	4	4	4	4	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	5	4	4	4	4	4	4	4	4	4	3	3	3	4	4	4	4	4	4	4	4	1924 2.5 Million Radios Made; Frozen Food Invented
10.1	2	1925																											15	21	25	27	17	8	-1	4	4	5	8	7	5	5	4	3	2	3	3	4	4	3	3	3	3	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	5	4	3	3	3	3	3	3	3	3	3	3	3	3	3	4	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	3	4	4	4	4	3	3	3	3	3	3	4	4	4	4	4	4	1925 Commercial Picture Fax By Radio In U.S.
11.7	2	1926																												27	31	31	17	7	-3	2	3	4	7	6	4	4	3	2	1	2	3	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	4	4	4	4	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	4	4	4	1926 First Publicly Shown 'Talkie'
15.9	2	1927																													34	33	14	3	-8	-1	0	1	5	5	2	2	2	1	-1	1	1	2	2	1	1	1	2	2	3	3	3	4	4	4	4	5	4	5	4	4	5	5	4	4	4	4	4	4	4	4	3	3	3	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1927 2-Way Radio Phone: U.S. To London ($15/min)
21.8	3	1928																														32	6	-6	-16	-7	-5	-3	2	2	-1	0	-1	-1	-3	-1	0	1	1	0	-1	0	1	1	2	2	2	3	4	3	3	4	3	4	3	4	4	4	4	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	3	2	3	2	2	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	3	3	3	3	3	3	3	3	3	1928 Teletype Machine; Test TV In 3 Homes
27.6	4	1929																															-16	-21	-28	-15	-11	-8	-2	-2	-4	-3	-3	-4	-5	-3	-2	-1	-1	-2	-2	-2	-1	0	0	0	1	2	3	2	2	3	3	3	3	3	3	3	3	3	3	3	2	3	3	2	2	1	2	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	2	2	2	2	3	3	2	2	2	2	2	2	3	3	3	3	3	3	1929 Crash of '29; Car Radio
21.5	4	1930																																-26	-34	-15	-10	-6	1	1	-3	-1	-2	-3	-4	-2	-1	0	0	-1	-1	-1	0	1	1	1	2	3	3	3	3	4	3	4	3	4	4	4	4	4	4	3	3	3	3	3	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	3	3	3	3	3	3	3	3	1930 Photo Flash Bulbs
14.7	3	1931																																	-41	-9	-3	-1	7	6	1	2	1	0	-2	0	1	2	2	1	1	1	2	2	3	3	3	5	5	4	4	5	4	5	4	5	5	5	5	5	5	4	4	4	4	4	3	3	3	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1931 Radios In 40% Of Homes; Scotch Tape
8.1	2	1932																																		40	24	18	25	19	11	11	8	6	3	5	6	7	6	4	4	4	5	5	6	5	6	7	7	7	6	7	7	7	6	7	7	7	6	6	6	6	5	5	5	5	4	4	4	4	4	3	3	3	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	1932 Radar; 8 mm Cameras; Electric Eye Scanner
11.1	2	1933																																			9	8	20	14	6	6	5	2	0	2	3	4	4	2	2	2	3	4	4	4	5	6	6	5	5	6	6	6	5	6	6	6	6	5	5	5	4	5	5	4	3	3	3	3	3	3	3	3	2	3	3	3	3	4	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	3	4	4	4	4	3	3	3	3	3	3	4	4	4	4	4	4	1933 End of Prohibition; FM Radio; Wallboard
12.2	2	1934																																				8	26	16	5	6	4	2	-1	2	2	4	4	2	1	2	3	3	4	4	4	6	6	5	5	6	5	6	5	5	6	6	5	5	5	5	4	4	5	4	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	3	3	3	3	4	4	3	3	3	3	3	3	4	4	4	4	4	4	1934 Radios In 50% Of Homes; AP Wirephoto
13.1	3	1935																																					47	21	4	6	3	1	-2	1	2	3	3	1	1	1	2	3	3	3	4	6	6	5	5	6	5	6	5	5	6	6	5	5	5	5	4	4	4	4	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	4	4	4	1935 Social Security Act Passed
19.3	4	1936																																						-1	-12	-5	-6	-7	-9	-4	-3	-1	0	-2	-2	-2	0	1	1	1	2	4	4	4	3	4	4	4	4	4	4	5	4	4	4	4	3	3	3	3	2	2	2	2	2	2	2	2	1	2	2	2	2	3	2	3	2	3	3	3	3	3	3	3	3	4	4	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	1936 BBC First TV Service, 3 Hours A Day
18.5	4	1937																																							-22	-8	-7	-8	-10	-5	-3	-1	0	-2	-2	-2	0	1	1	1	2	4	4	4	4	5	4	5	4	4	5	5	4	4	4	4	3	4	4	3	2	2	2	2	2	2	2	2	1	2	2	2	3	3	2	3	3	3	3	3	3	3	3	3	4	4	4	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	1937 Hindenburg Airship Crash
13.9	3	1938																																								10	2	-3	-7	-1	0	3	3	0	0	0	2	3	3	3	4	6	6	5	5	6	5	6	5	6	6	6	5	5	5	5	4	4	4	4	3	3	3	3	3	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	4	4	4	1938 National Minimum Wage Enacted
15.6	3	1939																																									-6	-9	-12	-3	-1	2	2	-1	-1	-1	1	2	3	3	4	6	6	5	5	6	5	6	5	5	6	6	5	5	5	5	4	4	4	4	3	3	3	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	1939 WW II Begins; Regular TV In U.S.; Helicopter
14.7	3	1940																																										-11	-14	-3	0	3	4	0	0	0	2	3	4	3	5	6	7	6	6	6	6	6	6	6	6	6	6	6	6	5	4	5	5	4	3	3	3	3	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	4	4	4	1940 FM Radio; Radar; 1st Social Security Check
12.2	3	1941																																											-17	2	4	8	7	2	1	1	4	5	5	5	6	8	8	7	7	8	7	7	7	7	7	7	7	6	6	6	5	5	5	5	4	3	4	3	3	3	3	3	2	3	3	3	4	4	3	4	3	4	4	4	3	4	4	4	4	5	5	4	4	4	4	4	4	4	3	3	3	3	3	4	4	4	4	4	4	4	1941 Pearl Harbor Attack; 2-Way Police Radio
9.2	2	1942																																												26	17	17	14	6	5	4	7	8	8	7	8	10	10	9	8	9	8	9	8	8	8	8	8	8	7	7	6	6	6	6	4	4	4	4	4	4	3	3	3	4	3	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	1942 U.S. Office Of Censorship Due To War
11.0	3	1943																																													8	13	10	2	1	1	4	5	6	5	7	9	9	8	7	8	7	8	7	7	8	8	7	7	7	6	5	5	5	5	4	3	4	3	3	3	3	3	3	3	3	3	4	4	3	4	4	4	4	4	4	4	4	4	5	5	5	4	4	4	4	4	4	4	3	3	3	3	3	4	4	4	4	4	4	4	1943 Phone Line Repeaters Help Service
11.3	3	1944																																														19	12	0	-1	0	4	5	6	5	7	9	9	8	7	8	7	8	7	7	8	8	7	7	7	6	5	5	5	5	4	3	4	3	3	3	3	3	2	3	3	3	4	4	3	4	3	4	4	4	3	4	4	4	4	5	5	4	4	4	4	4	4	4	3	3	3	3	3	4	4	4	4	4	4	4	1944 D-Day, Normandy
13.3	4	1945																																															5	-9	-7	-4	1	3	4	3	5	8	8	7	6	8	7	7	6	7	7	7	6	6	6	6	4	5	5	4	3	3	3	3	2	2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	4	4	4	1945 World War II Ends; FCC Sets VHF Channels
14.0	4	1946																																																-20	-12	-7	0	3	4	3	5	8	9	7	7	8	7	7	6	7	7	7	6	6	6	6	4	5	5	4	3	3	3	3	2	2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	4	4	4	1946 ENIAC, 1st Computer; First Copy Machine Sold
11.2	3	1947																																																	-3	0	7	9	9	8	10	13	12	10	9	10	9	10	9	9	9	9	8	8	8	7	6	6	6	6	4	4	4	4	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4	4	4	4	4	3	3	3	3	4	4	4	4	4	4	4	1947 Transistor Invented; Microwave Oven
10.7	3	1948																																																		3	13	14	12	10	12	15	14	12	11	12	10	11	9	9	10	10	9	8	8	7	6	6	6	6	4	4	4	4	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	4	4	4	4	1948 Israel Established; RCA High Speed Fax
9.9	3	1949																																																			24	19	16	12	14	17	16	13	12	13	11	11	10	10	10	10	9	9	8	8	6	7	7	6	4	4	4	4	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4	4	4	4	4	3	3	4	4	4	4	4	4	4	4	4	1949 NATO Established; Network TV In U.S.
11.2	4	1950																																																				15	12	8	11	16	15	11	10	11	10	10	9	9	9	9	8	8	8	7	5	6	6	5	4	3	4	3	3	3	3	3	2	3	3	3	4	4	3	4	3	3	4	4	3	4	4	4	5	5	5	4	4	4	4	4	4	4	3	3	3	3	3	4	4	4	4	4	4	4	1950 Korean War Begins; Credit Card Created
12.0	4	1951																																																					9	5	10	16	15	11	10	11	9	10	8	8	9	9	8	8	7	6	5	5	5	5	3	3	3	3	2	2	2	2	2	3	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	5	4	4	3	3	4	4	4	4	3	3	3	3	3	3	4	4	4	4	4	4	1951 Color TV; Modern Plastic Invented
12.5	5	1952																																																						2	11	18	17	11	10	11	9	10	8	8	9	9	8	7	7	6	5	5	5	5	3	3	3	3	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	4	4	4	1952 Phone Area Codes; EDVAC Computer
12.0	5	1953																																																							21	28	22	14	11	13	10	11	9	9	10	9	8	8	8	7	5	5	6	5	3	3	3	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	4	4	4	5	4	4	3	3	3	3	3	4	3	3	3	3	3	3	3	3	3	4	4	4	1953 Korean War Ends; Magnetic Core Memory
13.7	6	1954																																																							35	23	12	9	12	9	10	8	8	9	8	7	7	7	6	4	5	5	4	2	2	2	2	1	1	1	1	1	2	2	2	3	3	2	3	3	3	3	3	3	3	3	4	4	4	4	4	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	1954 TVs In 54% Of Homes; Transistor Radios
17.5	8	1955																																																								12	1	2	7	4	6	4	5	6	6	5	5	5	4	2	3	3	3	1	0	1	1	0	0	0	0	0	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	4	4	3	2	2	3	3	3	3	2	2	2	2	2	3	3	3	3	3	3	3	1955 Tests Begin On Digital Fiber Optics
18.3	9	1956																																																									-8	-3	5	2	5	3	4	5	5	4	4	4	3	2	2	3	2	0	0	0	0	0	0	0	0	-1	0	0	1	1	2	1	2	1	2	2	2	2	2	2	3	3	3	3	3	2	2	2	2	2	3	2	2	2	2	2	2	3	3	3	3	3	3	1956 Transatlantic Phone Cable; The Pager
15.6	8	1957																																																										2	12	6	9	5	6	7	7	6	6	5	4	2	3	3	3	0	0	1	0	0	0	0	0	0	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	4	4	3	3	2	3	3	3	3	2	2	2	2	2	3	3	3	3	3	3	3	1957 Sputnik, First Satellite; EEC Formed
15.1	8	1958																																																											23	8	11	6	7	8	8	6	6	6	5	2	3	3	3	0	0	1	0	0	0	0	0	0	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	3	4	4	3	3	2	3	3	3	3	2	2	2	2	2	3	3	3	3	3	3	3	1958 Stereo LP Records; Data On Phone Lines
18.4	10	1959																																																												-5	5	1	3	6	6	4	4	4	3	1	2	2	1	-1	-1	0	-1	-1	-1	-1	-1	-1	0	0	0	1	1	1	1	1	1	1	2	1	2	2	3	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2	2	2	3	2	3	3	3	1959 COBOL; Microchip; Plain Paper Xerox
17.4	10	1960																																																													17	4	6	8	8	5	5	5	4	1	2	3	2	-1	-1	0	0	-1	-1	-1	-1	-1	0	0	0	1	2	1	2	1	2	2	2	2	2	2	3	3	4	3	3	2	2	2	2	2	3	2	2	2	2	2	2	3	3	3	3	3	3	1960 90% Homes w/TVs; Laser; Weather Satellite
20.5	11	1961																																																														-7	1	6	6	3	4	3	2	0	1	2	1	-2	-2	-1	-1	-2	-2	-2	-2	-2	-1	-1	0	1	1	1	1	1	1	1	1	1	2	2	3	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	3	3	3	1961 Berlin Wall Built; IBM Selectric Typewriter
18.8	10	1962																																																														11	13	10	6	6	5	4	1	2	2	2	-1	-2	-1	-1	-1	-1	-1	-1	-2	0	0	0	1	1	1	1	1	1	1	2	1	2	2	3	3	3	3	3	2	2	2	2	2	3	2	1	2	2	2	2	3	3	3	3	3	3	1962 Cuban Missile Crisis; Mariner II At Venus
20.3	12	1963																																																															15	10	5	5	4	3	-1	1	2	1	-2	-3	-1	-2	-2	-2	-2	-2	-2	-1	-1	0	1	1	0	1	1	1	1	1	1	2	2	3	3	3	3	3	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	3	3	3	1963 Kennedy Killed, Income Tax 91% To 70%
22.6	13	1964																																																																6	0	1	2	0	-3	-1	0	-1	-4	-4	-3	-3	-3	-3	-3	-3	-3	-2	-2	-1	0	1	0	0	0	1	1	1	1	1	2	2	3	3	3	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	2	3	1964 Vietnam Begins; Home VCR
23.3	14	1965																																																																	-6	-1	0	-1	-5	-2	-1	-2	-5	-5	-3	-4	-4	-4	-3	-3	-4	-2	-2	-1	0	0	0	0	0	0	1	1	1	1	2	2	3	3	3	2	2	1	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	1965 First Minicomputer; Car Phones; Hypertext
21.3	13	1966																																																																		5	4	1	-5	-1	0	-1	-5	-5	-3	-4	-4	-4	-3	-3	-3	-2	-2	-1	0	1	0	1	0	1	1	1	1	1	2	2	3	3	3	2	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	3	3	1966 Dow @ 1,000; 8-Tracks In Cars; Fax Machine
21.6	14	1967																																																																			3	-2	-8	-3	-1	-2	-6	-6	-4	-4	-5	-4	-4	-4	-4	-2	-2	-1	0	0	0	0	0	0	1	1	1	1	2	2	3	3	3	2	2	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	3	3	1967 Floppy Disk; Cordless Phones; Dolby
21.5	14	1968																																																																				-6	-12	-5	-2	-3	-8	-7	-5	-5	-5	-5	-4	-4	-4	-3	-3	-2	0	0	0	0	0	0	1	1	1	1	2	2	3	3	3	2	2	1	2	2	2	2	2	1	1	1	2	2	2	2	2	2	3	3	1968 Intelsat Global Satellite Link; Intel 1KB RAM
19.4	13	1969																																																																					-18	-4	0	-2	-8	-7	-5	-5	-5	-5	-4	-4	-4	-2	-2	-1	0	1	0	1	0	1	1	1	1	1	2	3	3	3	3	3	2	2	2	2	2	2	2	1	1	2	2	2	2	2	2	3	3	3	1969 Neil Armstrong Walks On Moon; ATMs
15.2	11	1970																																																																						13	10	4	-5	-5	-2	-3	-4	-3	-3	-3	-3	-1	-1	0	1	2	1	2	1	2	2	2	2	2	3	3	4	4	4	3	3	2	3	3	3	3	2	2	2	2	2	3	3	3	3	3	3	3	1970 Barcodes; First Internet Connections
16.9	12	1971																																																																							7	0	-11	-9	-5	-5	-6	-5	-4	-4	-4	-2	-2	-1	0	1	0	1	1	1	1	1	1	2	2	3	4	4	4	3	2	2	2	2	3	3	2	1	2	2	2	2	3	3	3	3	3	3	1971 Microchip, Price Controls; Answering Machine
17.8	13	1972																																																																								-7	-19	-14	-8	-8	-8	-7	-6	-5	-6	-3	-3	-2	0	1	0	1	0	1	1	1	1	2	2	3	3	4	4	3	2	2	2	2	2	3	2	1	2	2	2	2	3	3	3	3	3	3	1972 Dow Closes Above 1,000; Pong; HBO
16.1	12	1973																																																																									-29	-17	-8	-8	-8	-7	-5	-5	-5	-2	-2	-1	1	1	0	1	1	1	1	2	1	2	3	3	4	4	4	3	2	2	3	3	3	3	2	1	2	2	2	3	3	3	3	3	3	3	1973 U.S. Leaves Vietnam; International Internet
10.9	9	1974																																																																										-3	4	0	-2	-2	-1	-1	-2	1	1	2	3	4	3	4	3	3	3	4	3	4	4	5	6	6	6	5	4	4	4	4	4	4	3	2	3	3	3	3	4	4	4	4	4	4	1974 Nixon Resigns; Wage & Price Controls End
10.2	8	1975																																																																											13	2	-1	-1	0	0	-2	2	1	2	4	5	3	4	4	4	4	4	4	4	5	5	6	6	6	5	4	4	4	4	4	4	3	3	3	3	3	4	4	4	4	4	4	4	1975 Microsoft; Optical Videodisk Demo
11.5	10	1976																																																																												-8	-7	-5	-3	-3	-4	0	0	1	3	4	3	3	3	3	3	3	3	4	4	5	6	6	6	5	4	3	4	4	4	4	3	2	3	3	3	3	4	4	4	4	4	4	1976 Apple I; Cray-1; Home Satellite Dish
10.4	9	1977																																																																													-7	-4	-2	-2	-3	2	1	2	5	5	3	4	4	4	4	4	4	4	5	6	6	7	6	5	4	4	4	4	4	4	4	3	3	3	3	4	4	4	4	4	4	4	1977 Elvis Dies; TRS-80 PC; Fiber Optic Call
9.4	8	1978																																																																													-2	1	0	-2	3	2	4	6	7	5	6	5	5	5	5	5	5	6	7	7	7	7	6	5	4	5	5	5	5	4	3	3	4	4	4	4	4	4	5	5	5	1978 Modems; Cell Phone Tests; Intel 16-bit Chip
8.9	8	1979																																																																														3	1	-3	5	3	5	7	8	5	6	5	6	6	5	5	6	6	7	8	8	8	6	5	5	5	5	5	5	4	3	4	4	4	4	5	5	4	5	5	5	1979 CompuServe Online; VisiCalc Spreadsheet
8.8	8	1980																																																																															-1	-5	5	3	5	8	9	6	7	6	6	6	6	5	6	6	7	8	8	8	6	5	5	5	5	5	5	4	3	4	4	4	4	5	5	4	5	5	5	1980 CPI 13.5%; CNN; Sony Camcorder
8.5	8	1981																																																																																-10	8	4	7	10	10	7	8	6	6	6	6	6	6	7	8	8	9	8	7	5	5	5	5	5	5	4	3	4	4	4	4	5	5	5	5	5	5	1981 IBM PC Introduced; 300 bps Modems
7.3	7	1982																																																																																	29	12	13	15	15	9	10	9	8	8	8	7	7	8	9	10	10	9	8	6	6	6	6	6	6	5	4	4	4	5	5	5	5	5	5	5	5	1982 Dow Over 1,000; Compact Disk; 5.5 Mil. PCs
9.6	10	1983																																																																																	-2	5	11	11	6	8	6	6	6	6	5	6	7	8	8	9	8	7	5	5	5	5	5	5	4	3	4	4	4	4	5	5	4	5	5	5	1983 AT&T Breakup; 288k Chips; Domain Names
9.4	9	1984																																																																																		13	18	16	8	10	7	7	7	7	6	7	7	9	9	10	9	7	6	5	5	5	5	6	4	3	4	4	4	4	5	5	5	5	5	5	1984 3 1/2" Floppy; Intel 32-bit; 1 MB Chips
10.7	11	1985																																																																																		24	18	6	9	6	6	6	6	5	6	7	8	9	9	9	7	5	5	5	5	5	5	4	3	3	4	4	4	5	5	4	5	5	5	1985 Cellphones; 2400k Modems; Windows OS
13.4	13	1986																																																																																					12	-1	4	2	3	4	4	3	4	5	7	8	8	8	6	4	4	4	4	4	4	3	2	3	3	3	4	4	4	4	4	4	4	1986 Laser Printers; TV On 7 Hrs/Day In U.S.
16.0	15	1987																																																																																					-13	0	-1	1	2	2	2	3	5	6	7	8	7	5	3	3	4	4	4	4	3	2	2	2	3	3	4	4	4	4	4	4	1987 Stock Market Crash; 50% Have Cable TV
14.4	13	1988																																																																																						16	6	6	6	6	4	6	7	9	10	10	9	7	5	4	5	5	5	5	4	2	3	3	3	4	4	4	4	5	5	5	1988 Transatlantic Fiberoptic Cable; Internet T1
16.6	15	1989																																																																																						-3	2	3	3	2	4	6	8	9	10	9	6	4	3	4	4	4	4	3	2	2	3	3	3	4	4	4	4	4	4	1989 Poland Solidarity; Nintendo Profits @ $1 Bil.
16.5	14	1990																																																																																							7	6	5	4	6	8	10	11	11	10	7	5	4	5	5	5	5	3	2	3	3	3	4	4	4	4	4	5	5	1990 World Wide Web (www)
17.9	15	1991																																																																																								5	5	3	5	8	10	11	12	10	7	4	4	4	4	4	5	3	2	2	3	3	4	4	4	4	4	4	4	1991 Gulf War; USSR Breakup; 75% Have VCRs
19.6	16	1992																																																																																								4	1	5	8	11	12	13	11	7	4	4	4	4	4	5	3	1	2	3	3	4	4	4	4	4	4	4	1992 65 Mil. PCs; 200k On AOL; CDs > Cassettes
20.7	17	1993																																																																																								-1	6	10	13	14	14	12	7	4	3	4	4	4	5	3	1	2	3	3	3	4	4	4	4	4	4	1993 Pentium Chip; HTML; V-Chip
20.5	17	1994																																																																																										14	16	18	18	17	14	9	5	4	5	5	5	5	3	1	2	3	3	4	4	4	4	5	5	5	1994 First WTC Attack; Satellite TV; 33% w/PC
22.7	19	1995																																																																																										17	20	19	18	14	8	4	3	4	4	4	5	2	1	2	2	2	3	4	4	4	4	4	4	1995 NAFTA Enacted; Dot.com; Internet Audio
25.9	22	1996																																																																																											23	20	18	14	6	2	1	2	3	3	3	1	-1	1	1	2	2	3	3	3	4	4	4	1996 100k Web Sites; 30 Mil In U.S. On Internet
31.0	27	1997																																																																																												17	16	11	2	-2	-2	0	0	1	2	0	-2	-1	0	0	1	2	2	2	3	3	3	1997 Internet Video; 43% In U.S. Have PCs
36.0	32	1998																																																																																													15	8	-2	-6	-6	-3	-2	-1	0	-2	-4	-2	-1	-1	0	1	1	1	2	2	2	1998 Russia Debt Default; 75 Mil U.S. On Internet
42.1	37	1999																																																																																														1	-10	-13	-10	-6	-5	-3	-2	-4	-6	-4	-3	-2	-1	0	1	0	1	2	2	1999 Satellite Can See 3' Objects On Earth
41.7	37	2000																																																																																														-19	-19	-14	-8	-6	-4	-2	-4	-6	-4	-3	-2	-1	0	0	0	1	2	2	2000 Dow Hits 11,723; NASDAQ Hits 5,048
32.1	30	2001																																																																																															-18	-11	-3	-2	0	1	-2	-5	-2	-1	-1	1	2	2	2	3	3	3	2001 WTC Attack (9/11); >50% U.S. On Internet; iPod
25.9	25	2002																																																																																															-4	5	4	4	5	1	-3	0	1	1	3	4	4	4	4	4	4	2002 HDTV Grows; Wi-Fi Laptops; DVD Sales>VCR
24.1	24	2003																																																																																																14	9	7	8	2	-2	0	1	2	3	4	4	4	5	5	5	2003 Iraq Conflict; Home Networks; T-Bills @ <1%
26.4	27	2004																																																																																																	3	4	6	-1	-5	-2	0	1	2	4	4	3	4	4	4	2004 Hybrid Cars; Flat Panel TVs; Blogs; VoIP
26.0	28	2005																																																																																																	5	7	-2	-7	-3	-1	0	2	4	4	3	4	5	4	2005 Hurricanes; $70 Oil; Podcasts; Housing Boom
26.0	30	2006																																																																																																		10	-6	-11	-5	-2	-1	2	3	3	3	4	4	4	2006 YouTube; Dow High; Pluto Demoted; Fed Pause
26.8	32	2007																																																																																																			-19	-20	-9	-5	-3	1	2	3	2	4	4	4	2007 iPhone; Sub-Prime; Going Green; Facebook
20.8	26	2008																																																																																																			-21	-3	1	2	5	7	6	6	7	7	6	2008 Recession; Wall Street Crisis; $144 Oil; Obama
16.9	21	2009																																																																																																				19	13	11	13	13	12	10	11	10	10	2009 H1N1; Jackson Dies; GM Bankruptcy; Digital TV
20.7	25	2010																																																																																																					8	8	11	12	10	9	9	9	9	2010 iPad; Greece Debt Crisis; Twitter; QE2
21.8	27	2011																																																																																																						7	12	13	11	9	10	9	9	2011 The Cloud; Arab Spring; OWS; E-books
21.4	28	2012																																																																																																						18	16	12	9	10	10	9	2012 Google Glass; Mars Rover; iPhone5; Fiscal Cliff
23.2	33	2013																																																																																																							15	10	6	8	8	8	2013 Fed Taper; Detroit Ch 9; NSA; ACA Launch; Nest
25.5	38	2014																																																																																																							5	3	6	7	6	2014 Ebola; ISIS; Amazon Drones; Wearable Tech
26.2	40	2015																																																																																																							0	7	7	7	2015 ZIRP Ends; Iran Deal; Refugees; Driverless Car
26.1	40	2016																																																																																																								14	11	9	2016 Brexit; Trump; <$30 Oil; Cyborg Stingray
29.9	46	2017																																																																																																										8	6	2017 Bitcoin Mania; Robot Citizen; Teleporting; WattUp
31.5	50	2018																																																																																																											4	2018 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, dividends, transaction costs/fees (bid/ask spread, commissions, fees, etc.), and taxes; real returns are adjusted for 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

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