

Returns by year

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|--|---|----------------|---------------------------|---|-----------|-----------|----------------|----------------|-------------------------|----------------|--------------------------------|------------------------|-----------------|
| Date updated: | 1-Jan-19 | | | | | | | | | | | | |
| Created by: | Aswath Damodaran, adamodar@stern.nyu.edu | | | | | | | | | | | | |
| What is this data | Historical returns: Stocks, T.Bonds & T.Bills with premium US companies | | | | | | | | | | | | |
| Home Page: | http://www.damodaran.com | | | | | | | | | | | | |
| Data website: | http://www.stern.nyu.edu/~adamodar/New_Home_Page/data.html | | | | | | | | | | | | |
| Companies in ea | http://www.stern.nyu.edu/~adamodar/pc/datasets/indname.xls | | | | | | | | | | | | |
| Variable definiti | http://www.stern.nyu.edu/~adamodar/New_Home_Page/datafile/variable.htm | | | | | | | | | | | | |
| Customized Geometric risk premium estimator | | | | | | | | | | | | | |
| What is your riskfree rate? | LT | | | Estimates of risk premiums from 1928, over the last 50 years and over the last 10 years are provided at the bottom of this table. | | | | | | | | | |
| Enter your starting year | 1981 | | | | | | | | | | | | |
| Value of stocks in starting year: | \$ 7,934.26 | | | | | | | | | | | | |
| Value of T.Bills in starting year: | \$ 448.58 | | | | | | | | | | | | |
| Value of T.bonds in starting year: | \$ 448.17 | | | | | | | | | | | | |
| Estimate of risk premium based on your inputs: | 3.12% | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | Annual Returns on Investments in | | | Compounded Value of \$ 100 | | | | | | | Real Returns on Investments in | | |
| | S&P 500 (include s dividends) | 3-month T.Bill | Return on 10-year T. Bond | | | | | | | | S&P 500 (includes dividends) 2 | 3-month T. Bill (Real) | !0-year T.Bonds |
| Year | | | | Stocks | T.Bills | T.Bonds | Stocks - Bills | Stocks - Bonds | Historical risk premium | Inflation Rate | | | |
| 1928 | 43.81% | 3.08% | 0.84% | \$ 143.81 | \$ 103.08 | \$ 100.84 | 40.73% | 42.98% | | | 43.81% | 3.08% | 0.84% |
| 1929 | -8.30% | 3.16% | 4.20% | \$ 131.88 | \$ 106.34 | \$ 105.07 | -11.46% | -12.50% | | | -8.30% | 3.16% | 4.20% |
| 1930 | -25.12% | 4.55% | 4.54% | \$ 98.75 | \$ 111.18 | \$ 109.85 | -29.67% | -29.66% | | | -25.12% | 4.55% | 4.54% |
| 1931 | -43.84% | 2.31% | -2.56% | \$ 55.46 | \$ 113.74 | \$ 107.03 | -46.15% | -41.28% | | | -43.84% | 2.31% | -2.56% |
| 1932 | -8.64% | 1.07% | 8.79% | \$ 50.66 | \$ 114.96 | \$ 116.44 | -9.71% | -17.43% | | | -8.64% | 1.07% | 8.79% |
| 1933 | 49.98% | 0.96% | 1.86% | \$ 75.99 | \$ 116.06 | \$ 118.60 | 49.02% | 48.13% | | | 49.98% | 0.96% | 1.86% |
| 1934 | -1.19% | 0.32% | 7.96% | \$ 75.09 | \$ 116.44 | \$ 128.05 | -1.51% | -9.15% | | | -1.19% | 0.32% | 7.96% |
| 1935 | 46.74% | 0.18% | 4.47% | \$ 110.18 | \$ 116.64 | \$ 133.78 | 46.57% | 42.27% | | | 46.74% | 0.17% | 4.47% |
| 1936 | 31.94% | 0.17% | 5.02% | \$ 145.38 | \$ 116.84 | \$ 140.49 | 31.77% | 26.93% | | | 31.94% | 0.17% | 5.02% |

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|------|---------|-------|--------|-------------|-----------|-----------|---------|---------|-------|--|---------|-------|--------|
| 1937 | -35.34% | 0.30% | 1.38% | \$ 94.00 | \$ 117.19 | \$ 142.43 | -35.64% | -36.72% | | | -35.34% | 0.30% | 1.38% |
| 1938 | 29.28% | 0.08% | 4.21% | \$ 121.53 | \$ 117.29 | \$ 148.43 | 29.21% | 25.07% | | | 29.28% | 0.08% | 4.21% |
| 1939 | -1.10% | 0.04% | 4.41% | \$ 120.20 | \$ 117.33 | \$ 154.98 | -1.14% | -5.51% | | | -1.10% | 0.04% | 4.41% |
| 1940 | -10.67% | 0.03% | 5.40% | \$ 107.37 | \$ 117.36 | \$ 163.35 | -10.70% | -16.08% | | | -10.67% | 0.03% | 5.40% |
| 1941 | -12.77% | 0.08% | -2.02% | \$ 93.66 | \$ 117.46 | \$ 160.04 | -12.85% | -10.75% | | | -12.77% | 0.08% | -2.02% |
| 1942 | 19.17% | 0.34% | 2.29% | \$ 111.61 | \$ 117.85 | \$ 163.72 | 18.84% | 16.88% | | | 19.17% | 0.34% | 2.29% |
| 1943 | 25.06% | 0.38% | 2.49% | \$ 139.59 | \$ 118.30 | \$ 167.79 | 24.68% | 22.57% | | | 25.06% | 0.38% | 2.49% |
| 1944 | 19.03% | 0.38% | 2.58% | \$ 166.15 | \$ 118.75 | \$ 172.12 | 18.65% | 16.45% | | | 19.03% | 0.38% | 2.58% |
| 1945 | 35.82% | 0.38% | 3.80% | \$ 225.67 | \$ 119.20 | \$ 178.67 | 35.44% | 32.02% | | | 35.82% | 0.38% | 3.80% |
| 1946 | -8.43% | 0.38% | 3.13% | \$ 206.65 | \$ 119.65 | \$ 184.26 | -8.81% | -11.56% | | | -8.43% | 0.38% | 3.13% |
| 1947 | 5.20% | 0.57% | 0.92% | \$ 217.39 | \$ 120.33 | \$ 185.95 | 4.63% | 4.28% | | | 5.20% | 0.57% | 0.92% |
| 1948 | 5.70% | 1.02% | 1.95% | \$ 229.79 | \$ 121.56 | \$ 189.58 | 4.68% | 3.75% | | | 5.70% | 1.02% | 1.95% |
| 1949 | 18.30% | 1.10% | 4.66% | \$ 271.85 | \$ 122.90 | \$ 198.42 | 17.20% | 13.64% | | | 18.30% | 1.10% | 4.66% |
| 1950 | 30.81% | 1.17% | 0.43% | \$ 355.60 | \$ 124.34 | \$ 199.27 | 29.63% | 30.38% | | | 30.81% | 1.17% | 0.43% |
| 1951 | 23.68% | 1.48% | -0.30% | \$ 439.80 | \$ 126.18 | \$ 198.68 | 22.20% | 23.97% | | | 23.68% | 1.48% | -0.30% |
| 1952 | 18.15% | 1.67% | 2.27% | \$ 519.62 | \$ 128.29 | \$ 203.19 | 16.48% | 15.88% | | | 18.15% | 1.67% | 2.27% |
| 1953 | -1.21% | 1.89% | 4.14% | \$ 513.35 | \$ 130.72 | \$ 211.61 | -3.10% | -5.35% | | | -1.21% | 1.89% | 4.14% |
| 1954 | 52.56% | 0.96% | 3.29% | \$ 783.18 | \$ 131.98 | \$ 218.57 | 51.60% | 49.27% | | | 52.56% | 0.96% | 3.29% |
| 1955 | 32.60% | 1.66% | -1.34% | \$ 1,038.47 | \$ 134.17 | \$ 215.65 | 30.94% | 33.93% | | | 32.60% | 1.66% | -1.34% |
| 1956 | 7.44% | 2.56% | -2.26% | \$ 1,115.73 | \$ 137.60 | \$ 210.79 | 4.88% | 9.70% | | | 7.44% | 2.56% | -2.26% |
| 1957 | -10.46% | 3.23% | 6.80% | \$ 999.05 | \$ 142.04 | \$ 225.11 | -13.69% | -17.25% | | | -10.46% | 3.23% | 6.80% |
| 1958 | 43.72% | 1.78% | -2.10% | \$ 1,435.84 | \$ 144.57 | \$ 220.39 | 41.94% | 45.82% | | | 43.72% | 1.78% | -2.10% |
| 1959 | 12.06% | 3.26% | -2.65% | \$ 1,608.95 | \$ 149.27 | \$ 214.56 | 8.80% | 14.70% | | | 12.06% | 3.26% | -2.65% |
| 1960 | 0.34% | 3.05% | 11.64% | \$ 1,614.37 | \$ 153.82 | \$ 239.53 | -2.71% | -11.30% | 6.11% | | 0.34% | 3.05% | 11.64% |
| 1961 | 26.64% | 2.27% | 2.06% | \$ 2,044.40 | \$ 157.30 | \$ 244.46 | 24.37% | 24.58% | 6.62% | | 26.64% | 2.27% | 2.06% |
| 1962 | -8.81% | 2.78% | 5.69% | \$ 1,864.26 | \$ 161.67 | \$ 258.38 | -11.59% | -14.51% | 5.97% | | -8.81% | 2.78% | 5.69% |
| 1963 | 22.61% | 3.11% | 1.68% | \$ 2,285.80 | \$ 166.70 | \$ 262.74 | 19.50% | 20.93% | 6.36% | | 22.61% | 3.11% | 1.68% |
| 1964 | 16.42% | 3.51% | 3.73% | \$ 2,661.02 | \$ 172.54 | \$ 272.53 | 12.91% | 12.69% | 6.53% | | 16.42% | 3.51% | 3.73% |
| 1965 | 12.40% | 3.90% | 0.72% | \$ 2,990.97 | \$ 179.28 | \$ 274.49 | 8.50% | 11.68% | 6.66% | | 12.40% | 3.90% | 0.72% |
| 1966 | -9.97% | 4.84% | 2.91% | \$ 2,692.74 | \$ 187.95 | \$ 282.47 | -14.81% | -12.88% | 6.11% | | -9.97% | 4.84% | 2.91% |
| 1967 | 23.80% | 4.33% | -1.58% | \$ 3,333.69 | \$ 196.10 | \$ 278.01 | 19.47% | 25.38% | 6.57% | | 23.80% | 4.33% | -1.58% |
| 1968 | 10.81% | 5.26% | 3.27% | \$ 3,694.23 | \$ 206.41 | \$ 287.11 | 5.55% | 7.54% | 6.60% | | 10.81% | 5.26% | 3.27% |
| 1969 | -8.24% | 6.56% | -5.01% | \$ 3,389.77 | \$ 219.96 | \$ 272.71 | -14.80% | -3.23% | 6.33% | | -8.24% | 6.56% | -5.01% |

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|------|---------|--------|--------|---------------|-------------|-------------|---------|---------|-------|--|---------|--------|--------|
| 1970 | 3.56% | 6.69% | 16.75% | \$ 3,510.49 | \$ 234.66 | \$ 318.41 | -3.12% | -13.19% | 5.90% | | 3.56% | 6.69% | 16.75% |
| 1971 | 14.22% | 4.54% | 9.79% | \$ 4,009.72 | \$ 245.32 | \$ 349.57 | 9.68% | 4.43% | 5.87% | | 14.22% | 4.54% | 9.79% |
| 1972 | 18.76% | 3.95% | 2.82% | \$ 4,761.76 | \$ 255.01 | \$ 359.42 | 14.80% | 15.94% | 6.08% | | 18.76% | 3.95% | 2.82% |
| 1973 | -14.31% | 6.73% | 3.66% | \$ 4,080.44 | \$ 272.16 | \$ 372.57 | -21.03% | -17.97% | 5.50% | | -14.31% | 6.73% | 3.66% |
| 1974 | -25.90% | 7.78% | 1.99% | \$ 3,023.54 | \$ 293.33 | \$ 379.98 | -33.68% | -27.89% | 4.64% | | -25.90% | 7.78% | 1.99% |
| 1975 | 37.00% | 5.99% | 3.61% | \$ 4,142.10 | \$ 310.90 | \$ 393.68 | 31.01% | 33.39% | 5.17% | | 37.00% | 5.99% | 3.61% |
| 1976 | 23.83% | 4.97% | 15.98% | \$ 5,129.20 | \$ 326.35 | \$ 456.61 | 18.86% | 7.85% | 5.22% | | 23.83% | 4.97% | 15.98% |
| 1977 | -6.98% | 5.13% | 1.29% | \$ 4,771.20 | \$ 343.09 | \$ 462.50 | -12.11% | -8.27% | 4.93% | | -6.98% | 5.13% | 1.29% |
| 1978 | 6.51% | 6.93% | -0.78% | \$ 5,081.77 | \$ 366.87 | \$ 458.90 | -0.42% | 7.29% | 4.97% | | 6.51% | 6.93% | -0.78% |
| 1979 | 18.52% | 9.94% | 0.67% | \$ 6,022.89 | \$ 403.33 | \$ 461.98 | 8.58% | 17.85% | 5.21% | | 18.52% | 9.94% | 0.67% |
| 1980 | 31.74% | 11.22% | -2.99% | \$ 7,934.26 | \$ 448.58 | \$ 448.17 | 20.52% | 34.72% | 5.73% | | 31.74% | 11.22% | -2.99% |
| 1981 | -4.70% | 14.30% | 8.20% | \$ 7,561.16 | \$ 512.73 | \$ 484.91 | -19.00% | -12.90% | 5.37% | | -4.70% | 14.30% | 8.20% |
| 1982 | 20.42% | 11.01% | 32.81% | \$ 9,105.08 | \$ 569.18 | \$ 644.04 | 9.41% | -12.40% | 5.10% | | 20.42% | 11.01% | 32.81% |
| 1983 | 22.34% | 8.45% | 3.20% | \$ 11,138.90 | \$ 617.26 | \$ 664.65 | 13.89% | 19.14% | 5.34% | | 22.34% | 8.45% | 3.20% |
| 1984 | 6.15% | 9.61% | 13.73% | \$ 11,823.51 | \$ 676.60 | \$ 755.92 | -3.47% | -7.59% | 5.12% | | 6.15% | 9.61% | 13.73% |
| 1985 | 31.24% | 7.49% | 25.71% | \$ 15,516.60 | \$ 727.26 | \$ 950.29 | 23.75% | 5.52% | 5.13% | | 31.24% | 7.49% | 25.71% |
| 1986 | 18.49% | 6.04% | 24.28% | \$ 18,386.33 | \$ 771.15 | \$ 1,181.06 | 12.46% | -5.79% | 4.97% | | 18.49% | 6.03% | 24.28% |
| 1987 | 5.81% | 5.72% | -4.96% | \$ 19,455.08 | \$ 815.27 | \$ 1,122.47 | 0.09% | 10.77% | 5.07% | | 5.81% | 5.72% | -4.96% |
| 1988 | 16.54% | 6.45% | 8.22% | \$ 22,672.40 | \$ 867.86 | \$ 1,214.78 | 10.09% | 8.31% | 5.12% | | 16.54% | 6.45% | 8.22% |
| 1989 | 31.48% | 8.11% | 17.69% | \$ 29,808.58 | \$ 938.24 | \$ 1,429.72 | 23.37% | 13.78% | 5.24% | | 31.48% | 8.11% | 17.69% |
| 1990 | -3.06% | 7.55% | 6.24% | \$ 28,895.11 | \$ 1,009.08 | \$ 1,518.87 | -10.61% | -9.30% | 5.00% | | -3.06% | 7.55% | 6.24% |
| 1991 | 30.23% | 5.61% | 15.00% | \$ 37,631.51 | \$ 1,065.69 | \$ 1,746.77 | 24.62% | 15.23% | 5.14% | | 30.23% | 5.61% | 15.00% |
| 1992 | 7.49% | 3.41% | 9.36% | \$ 40,451.51 | \$ 1,101.98 | \$ 1,910.30 | 4.09% | -1.87% | 5.03% | | 7.49% | 3.40% | 9.36% |
| 1993 | 9.97% | 2.98% | 14.21% | \$ 44,483.33 | \$ 1,134.84 | \$ 2,181.77 | 6.98% | -4.24% | 4.90% | | 9.97% | 2.98% | 14.21% |
| 1994 | 1.33% | 3.99% | -8.04% | \$ 45,073.14 | \$ 1,180.07 | \$ 2,006.43 | -2.66% | 9.36% | 4.97% | | 1.33% | 3.98% | -8.04% |
| 1995 | 37.20% | 5.52% | 23.48% | \$ 61,838.19 | \$ 1,245.15 | \$ 2,477.55 | 31.68% | 13.71% | 5.08% | | 37.20% | 5.52% | 23.48% |
| 1996 | 22.68% | 5.02% | 1.43% | \$ 75,863.69 | \$ 1,307.68 | \$ 2,512.94 | 17.66% | 21.25% | 5.30% | | 22.68% | 5.02% | 1.43% |
| 1997 | 33.10% | 5.05% | 9.94% | \$ 100,977.34 | \$ 1,373.76 | \$ 2,762.71 | 28.05% | 23.16% | 5.53% | | 33.10% | 5.05% | 9.94% |
| 1998 | 28.34% | 4.73% | 14.92% | \$ 129,592.25 | \$ 1,438.70 | \$ 3,174.95 | 23.61% | 13.42% | 5.63% | | 28.34% | 4.73% | 14.92% |
| 1999 | 20.89% | 4.51% | -8.25% | \$ 156,658.05 | \$ 1,503.58 | \$ 2,912.88 | 16.38% | 29.14% | 5.96% | | 20.89% | 4.51% | -8.25% |
| 2000 | -9.03% | 5.76% | 16.66% | \$ 142,508.98 | \$ 1,590.23 | \$ 3,398.03 | -14.79% | -25.69% | 5.51% | | -9.03% | 5.76% | 16.66% |
| 2001 | -11.85% | 3.67% | 5.57% | \$ 125,622.01 | \$ 1,648.63 | \$ 3,587.37 | -15.52% | -17.42% | 5.17% | | -11.85% | 3.67% | 5.57% |
| 2002 | -21.97% | 1.66% | 15.12% | \$ 98,027.82 | \$ 1,675.96 | \$ 4,129.65 | -23.62% | -37.08% | 4.53% | | -21.97% | 1.66% | 15.12% |

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| | | | | | | | | | | | | | |
|---------------------------|---------|-------|---------|---------------------|-------------|-------------|-----------------------|---------|-------|--|---------|-------|---------|
| 2003 | 28.36% | 1.03% | 0.38% | \$ 125,824.39 | \$ 1,693.22 | \$ 4,145.15 | 27.33% | 27.98% | 4.82% | | 28.36% | 1.03% | 0.38% |
| 2004 | 10.74% | 1.23% | 4.49% | \$ 139,341.42 | \$ 1,714.00 | \$ 4,331.30 | 9.52% | 6.25% | 4.84% | | 10.74% | 1.23% | 4.49% |
| 2005 | 4.83% | 3.01% | 2.87% | \$ 146,077.85 | \$ 1,765.59 | \$ 4,455.50 | 1.82% | 1.97% | 4.80% | | 4.83% | 3.01% | 2.87% |
| 2006 | 15.61% | 4.68% | 1.96% | \$ 168,884.34 | \$ 1,848.18 | \$ 4,542.87 | 10.94% | 13.65% | 4.91% | | 15.61% | 4.68% | 1.96% |
| 2007 | 5.48% | 4.64% | 10.21% | \$ 178,147.20 | \$ 1,933.98 | \$ 5,006.69 | 0.84% | -4.73% | 4.79% | | 5.48% | 4.64% | 10.21% |
| 2008 | -36.55% | 1.59% | 20.10% | \$ 113,030.22 | \$ 1,964.64 | \$ 6,013.10 | -38.14% | -56.65% | 3.88% | | -36.55% | 1.58% | 20.10% |
| 2009 | 25.94% | 0.14% | -11.12% | \$ 142,344.87 | \$ 1,967.29 | \$ 5,344.65 | 25.80% | 37.05% | 4.29% | | 25.94% | 0.13% | -11.12% |
| 2010 | 14.82% | 0.13% | 8.46% | \$ 163,441.94 | \$ 1,969.84 | \$ 5,796.96 | 14.69% | 6.36% | 4.31% | | 14.82% | 0.13% | 8.46% |
| 2011 | 2.10% | 0.03% | 16.04% | \$ 166,871.56 | \$ 1,970.44 | \$ 6,726.52 | 2.07% | -13.94% | 4.10% | | 2.10% | 0.03% | 16.04% |
| 2012 | 15.89% | 0.05% | 2.97% | \$ 193,388.43 | \$ 1,971.42 | \$ 6,926.40 | 15.84% | 12.92% | 4.20% | | 15.89% | 0.05% | 2.97% |
| 2013 | 32.15% | 0.07% | -9.10% | \$ 255,553.31 | \$ 1,972.72 | \$ 6,295.79 | 32.08% | 41.25% | 4.62% | | 32.15% | 0.07% | -9.10% |
| 2014 | 13.52% | 0.05% | 10.75% | \$ 290,115.42 | \$ 1,973.77 | \$ 6,972.34 | 13.47% | 2.78% | 4.60% | | 13.52% | 0.05% | 10.75% |
| 2015 | 1.38% | 0.21% | 1.28% | \$ 294,115.79 | \$ 1,977.91 | \$ 7,061.89 | 1.17% | 0.09% | 4.54% | | 1.38% | 0.21% | 1.28% |
| 2016 | 11.77% | 0.51% | 0.69% | \$ 328,742.28 | \$ 1,988.00 | \$ 7,110.65 | 11.26% | 11.08% | 4.62% | | 11.77% | 0.51% | 0.69% |
| 2017 | 21.61% | 1.39% | 2.80% | \$ 399,768.64 | \$ 2,015.63 | \$ 7,309.87 | 20.22% | 18.80% | 4.77% | | 21.61% | 1.39% | 2.80% |
| 2018 | -4.23% | 2.37% | -0.02% | \$ 382,850.00 | \$ 2,063.40 | \$ 7,308.65 | -6.60% | -4.22% | 4.66% | | -4.23% | 2.37% | -0.02% |
| | | | | <i>Risk Premium</i> | | | <i>Standard Error</i> | | | | | | |
| Arithmetic Average | | | | Stocks - T.Bi | | | Stocks - T.Bonds | | | | | | |
| 1928-2018 | 11.36% | 3.43% | 5.10% | 7.93% | | | 6.26% | 2.09% | 2.22% | | | | |
| 1969-2018 | 11.10% | 4.76% | 7.10% | 6.34% | | | 4.00% | 2.38% | 2.71% | | | | |
| 2009-2018 | 13.49% | 0.49% | 2.28% | 13.00% | | | 11.22% | 3.71% | 5.50% | | | | |
| | | | | <i>Risk Premium</i> | | | | | | | | | |
| Geometric Average | | | | Stocks - T.Bi | | | Stocks - T.Bonds | | | | | | |
| 1928-2018 | 9.49% | 3.38% | 4.83% | 6.11% | | | 4.66% | | | | | | |
| 1969-2018 | 9.73% | 4.71% | 6.69% | 5.01% | | | 3.04% | | | | | | |
| 2009-2018 | 12.98% | 0.49% | 1.97% | 12.48% | | | 11.00% | | | | | | |