The Nifty-Fifty Re-Revisited

Jeff Fesenmaier and Gary Smith

Department of Economics

Pomona College

Claremont, California 91711

gsmith@pomona.edu

Abstract

The traditional Nifty-Fifty story is that the prices of growth stocks rose to unreasonable heights in the early 1970s, as evidenced by their subsequent crash. Jeremy Siegel argues that this story is wrong—the long-run performance of these investor favorites justified their seemingly high prices. Siegel uses a plausible list, but a competing list is frequently cited as the Nifty Fifty. The 24 stocks that appear on both lists—the unambiguously Terrific 24—have done substantially worse than the market. On both lists, there is a substantial and statistically persuasive inverse relationship between P/E ratio and subsequent long-term performance.

The basic elements of the Nifty Fifty story are sound: with the spectacular exception of Wal-Mart, the glamour stocks that were pushed to relatively high P/E ratios in the early 1970s did substantially worse than the market, in both the short and long run.

The Nifty-Fifty Re-Revisited

A fundamental investment maxim is that, "A great company is not necessarily a great stock." No matter how good or bad a company's management, no matter how large or small a company's profits, no matter how bright or bleak a company's prospects, the attractiveness of a company's stock depends on its price. At some price, a great company's stock is expensive; at some price, a lousy company's stock is cheap.

To illustrate this fundamental principle, people often recall the early 1970s when institutional investors were infatuated by the Nifty Fifty—a small group of "one-decision" stocks, companies so appealing that their stocks should always be bought and never sold, regardless of price. Among these select few were Avon, Disney, McDonald's, Polaroid, and Xerox. Each was a leader in its field with a strong balance sheet, high profit rates, and double-digit growth rates.

But is such a company's stock worth any price, no matter how high? In late 1972, Xerox traded for 49 times earnings, Avon for 65 times earnings, Polaroid for 91 times earnings. When the stock market crashed in 1973, the Nifty Fifty defied gravity for a while, held up by institutional enthusiasm that created a two-tiered market of the richly priced Nifty Fifty and the depressed rest. Then, in the memorable words of a Forbes columnist, the Nifty Fifty were taken out and shot one by one. From their 1972–1973 highs to their 1974 lows, Xerox fell 71%, Avon 86%, and Polaroid 91%.

Jeremy Siegel [1994, 1995, 1998] has deflated the Nifty-Fifty story, arguing that from a long-term perspective the Nifty Fifty as a whole were fairly priced. Table 1 updates Siegel's calculations through December 31, 2001. (Appendix A describes some slight differences in our calculations.) In comparison to the S&P 500's 12.01% annualized return over this period, a portfolio of these 50 stocks would have had annualized returns of 11.64% (a frozen portfolio that is initially equally weighted) or 11.85% (rebalanced monthly to be equally weighted).

THE TRULY NIFTY

This legend-puncturing is weakened somewhat by the fact that, as Siegel acknowledges, there never was an official list of the Nifty Fifty. Siegel uses a Morgan Guaranty Trust list that appears in a footnote in a *Forbes* article (M. S. Forbes, Jr. [1977, p. 25]). Siegel also references another *Forbes* article [1977, p. 72] that states, "There was never an official list of the Nifty Fifty. One oldtimer believes that Kidder Peabody's monthly list of the 50 Big Board stocks with the highest [P/E] multiples probably came closest—although Kidder disdains credit." Over the years, several *Forbes* articles have used this Kidder Peabody list to describe the Nifty Fifty (for example, Barnfather [1982], Sturza and Ramos [1988], and Fisher [1999]).

Since the hallmark of the Nifty Fifty story is the implausibly high P/E ratios, the Kidder Peabody list of the 50 NYSE stocks with the highest P/E ratios is certainly worth considering. Indeed, one odd thing about the Morgan Guaranty list is that many of the stocks do not have especially high P/E ratios. If the point of the Nifty-Fifty cautionary tale is that investors sometimes bid prices to unreasonably high levels, we should presumably be looking at stocks with high prices.

Thus Siegel begins one paper [1995, p. 8] by asking, "Do stocks with high price-to-earnings ratios, often called *growth stocks*, generally fulfill their promise of generating returns consistent with their lofty valuation?" Similarly, Siegel quotes and then rebuts *Forbes* magazine's comment [1977, p. 72] that, "It was so easy to forget that probably no sizable company could possibly be worth over 50 times normal earnings," a comment made in an article that uses the December 1972 Kidder Peabody list to define the Nifty Fifty.

Table 1 shows that only 16 stocks on the Morgan Guaranty list had P/Es of 50 or higher in December 1972. Eleven stocks had P/Es below 30 and one (ITT) has a P/E of only 16.3, which was below the 19.2 P/E for the S&P 500 at that time. Table 1 sorts the Morgan Guaranty stocks by P/E ratio, and shows that the high-P/E stocks did, in fact, substantially underperform the low-P/E stocks. Of the sixteen stocks with P/Es of 50 or higher, only three beat the S&P; of the eleven stocks with P/Es below 30, eight beat the S&P. Figure 1 shows the inverse relationship between the P/E ratio and subsequent annualized return ($r = –0.56$; two-sided $p = 0.00003$). The slope is –0.20, which implies that each 10-point increase in the P/E tends to reduce the annual return by 2 percentage points.

There are 24 stocks that appear on both the Morgan Guaranty and Kidder Peabody lists. These are the first 24 companies in Table 1: Polaroid through Merck. The other 26 Kidder Peabody stocks are in Table 2. For the combined Morgan Kidder list, there is an inverse relationship between the P/E ratio and subsequent annualized return ($r = –0.41$; two-sided $p = 0.0002$).

If any group of stocks is clearly the stocks of the Nifty Fifty legend, it is the 24 stocks that appear on both the Morgan Guaranty and Kidder Peabody lists. Table 3 shows that the annualized returns from a portfolio consisting of these Terrific 24 stocks were 9.69% (frozen) and 9.58% (rebalanced). Because of the power of compound interest, these return shortfalls relative to the S&P 500 have a substantial negative effect on wealth over a 29-year horizon. Table 4 shows that the value of the Terrific 24 portfolio relative to an S&P 500 portfolio would have been 0.54 (frozen) and 0.53 (rebalanced).

WAL-MART

Only ten stocks on the Kidder Peabody list beat the S&P 500, but one did so spectacularly. Wal-Mart's 26.96% annualized return over this 29-year period was the third highest in the entire CRSP data base. (The only stocks to do better were 28.94% for Southwest Airlines and 29.65% for Boothe Computer, now Robert Half International.) Perhaps, buying a high P/E stock is like buying a lottery ticket: the expected return is not good, but there is a chance of a huge payoff. Here, 80 percent of the Kidder Peabody stocks underperformed the market, but one (yes, one with a P/E above 50) hit the jackpot.

CONCLUSIONS

The usual moral of the Nifty Fifty story is that investors became too enamored with growth stocks in the early 1970s and pushed the prices of their favorites to unjustified heights. Overall, the Morgan Guaranty list of 50 stocks somewhat underperformed the S&P 500 from December 31, 1972 through December 31, 2001, as did the Kidder Peabody list, with the notable exception of Wal-Mart which was a spectacular success. For both lists, there was a substantial and statistically persuasive negative correlation between a stock's December 1972 P/E ratio and its annual return over the next 29 years.

The Terrific 24 stocks that were on both lists did substantially worse than the S&P 500. An investor who bought these 24 stocks at the end of 1972 would have had 50 percent less wealth at the end of 2001 than an investor who bought the S&P 500.

APPENDIX A

COMPUTATIONAL NOTES

There are some relatively minor differences in our calculations.

Siegel uses *Value Line* P/Es that are equal to a "recent price" divided by estimated earnings for the four quarters ending two quarters ahead. Kidder-Peabody's P/Es, on the other hand, are equal to the end-of-month price divided by earnings for the most recently reported four quarters. For consistency, we use the Kidder Peabody P/Es for all stocks.

Siegel used the S&P 500 when he spliced individual company returns to a market index, but compares the returns to the CRSP NYSE/AMEX/NASDAQ index. We use the S&P 500 throughout.

Siegel assumes that the proceeds of a merger are invested in the surviving firm and that the proceeds of a buyout are invested in a market index. This strategy ("spliced") seems at odds with the stated goal of measuring the long-run performance of the 1972 Nifty Fifty. With Siegel's strategy, every merger or buyout causes part of the portfolio to be invested in securities that are not part of the original Nifty Fifty. Over time, the portfolio may move far from the original Nifty Fifty and closer to the market index. A plausible alternative strategy ("reinvested") is to invest the proceeds of mergers and buyouts in the remaining Nifty Fifty stocks. We show both calculations here.

Two companies, Polaroid and Standard Brands Paint, went bankrupt. The portfolio returns use the date when each stock became worthless. For the correlations between P/E and annualized returns, however, we have the awkward mathematical fact that -100% is the only annualized return that gives a 0 terminal value, and -100% will be an extreme outlier; we consequently use annualized returns of -14.68%, which give terminal values equal to 1% of the initial values.

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Table 1 Morgan Guaranty P/E Ratios and Annualized Returns

	1972 P/E	Annualized Return	
Polaroid	90.7	-14.68	
McDonald's	85.7	10.50	
MGIC Investment	83.3	-6.84	(1.41)
Walt Disney	81.6	8.97	
Baxter Travenol	78.5	10.10	
Intl Flavors & Fragrances	75.8	5.66	
Avon Products	65.4	6.04	
Emery Air Freight	62.1	-1.37	(-0.16)
Johnson & Johnson	61.9	13.35	
Digital Equipment	60.0	0.93	(7.14)
Kresge (now Kmart)	54.3	-1.07	
Simplicity Pattern	53.1	-1.47	(-1.32)
AMP	51.8	11.17	(11.92)
Black & Decker	50.5	2.45	
Schering	50.4	13.19	
American Hospital Supply	50.0	12.36	(5.16)
Schlumberger	49.5	10.37	
Burroughs	48.8	-1.64	
Xerox	48.8	0.89	
Eastman Kodak	48.2	1.72	
Coca-Cola	47.6	13.15	
Texas Instruments	46.3	11.27	
Eli Lilly	46.0	13.14	
Merck	45.9	14.27	
Upjohn	41.1	9.95	(10.98)
Chesebrough Ponds	41.0	10.96	(6.55)
Minnesota Mining (3M)	40.8	9.78	
American Express	39.0	10.30	
American Home Products	38.9	13.13	
Schlitz Brewing	38.7	6.68	(-0.67)
Halliburton	38.3	3.19	
IBM	37.4	9.68	
Lubrizol	36.9	7.62	
J.C. Penny	34.1	4.83	
Squibb	33.9	14.21	(10.26)
Procter & Gamble	32.0	11.94	
Anheuser-Busch	31.9	13.55	
Sears Roebuck	30.8	6.94	
Heublein	30.1	14.66	(4.20)
PepsiCo	29.3	15.55	
Pfizer	29.0	16.99	
Bristol-Myers	27.6	15.35	
General Electric	26.1	15.57	
Revlon	26.1	12.40	(6.05)
Phillip Morris	25.9	17.68	
Gillette	25.9	14.12	
Louisiana Land & Exploration	25.6	4.91	(8.54)
Dow Chemical	25.5	10.80	
First National City	22.4	13.36	(12.11)
ITT	16.3	9.99	
S&P 500	19.2	12.01	

note: The 14 stocks with double entries were involved in mergers or buyouts. The first entry assumes that the proceeds were invested in the surviving firm, if possible, or the S&P 500 index. The parenthetical return assumes the proceeds were reinvested in the remaining Nifty Fifty.

Table 2 Kidder Peabody Alone P/E Ratios and Annualized Returns

	1972 P/E	Annualized Return	
Automatic Data Processing	76.2	14.94	
Ponderosa System	69.9	5.30	(1.25)
Colonial Penn	65.1	5.62	(2.86)
Rite Aid	64.7	3.81	
Avery International	64.2	10.94	
Hewlett-Packard	63.1	11.48	
Dr. Pepper	62.8	9.76	(3.87)
Natomas	61.3	3.73	(8.78)
Tropicana Products	61.0	11.18	(2.99)
Bandag	59.8	6.85	
CMI Investment	56.4	8.76	(0.64)
Marriott	56.2	9.54	
National Chemsearch	55.8	3.42	
Sony	55.0	7.83	
Damon	54.0	3.54	(2.23)
Standard Brands Paint	52.9	-14.68	
Jack Eckerd	52.7	9.06	(4.73)
Wal-Mart Stores	52.3	26.96	
C R Bard	52.1	10.30	
Longs Drugs	49.7	5.55	
Electronic Data Systems	49.5	16.10	(8.88)
Perkin-Elmer	47.2	9.68	
Masco	47.2	9.08	
Marion Labs	46.1	14.50	(14.04)
Corning Glass	42.9	5.55	
Clorox	41.4	11.05	

Table 3 Annualized Returns, December 31, 1972 through December 31, 2001

	Spliced		Reinvested	
	Frozen	Rebalanced	Frozen	Rebalanced
Morgan Guaranty	11.64	11.85	11.19	11.80
Morgan/Kidder overlap	9.69	9.58	9.55	9.55
Kidder Peabody	13.11	11.65	12.81	11.71
Kidder w/o Wal-Mart	9.93	11.25	9.23	11.25

Table 4 Wealth Ratios Relative to S&P 500

	Spliced		Reinvested	
	Frozen	Rebalanced	Frozen	Rebalanced
Morgan Guaranty	0.91	0.96	0.81	0.95
Morgan/Kidder overlap	0.54	0.53	0.52	0.53
Kidder Peabody	1.32	0.91	1.23	0.92
Kidder w/o Wal-Mart	0.58	0.82	0.48	0.82

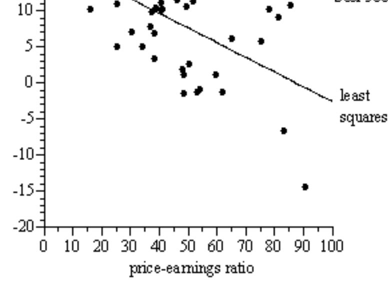

Figure 1 Return versus P/E, Morgan Guaranty Nifty Fifty