

**HammondAssociates**  
INSTITUTIONAL FUND CONSULTANTS, INC.



## *Purity Hypothesis Appendices*

*March 2009*

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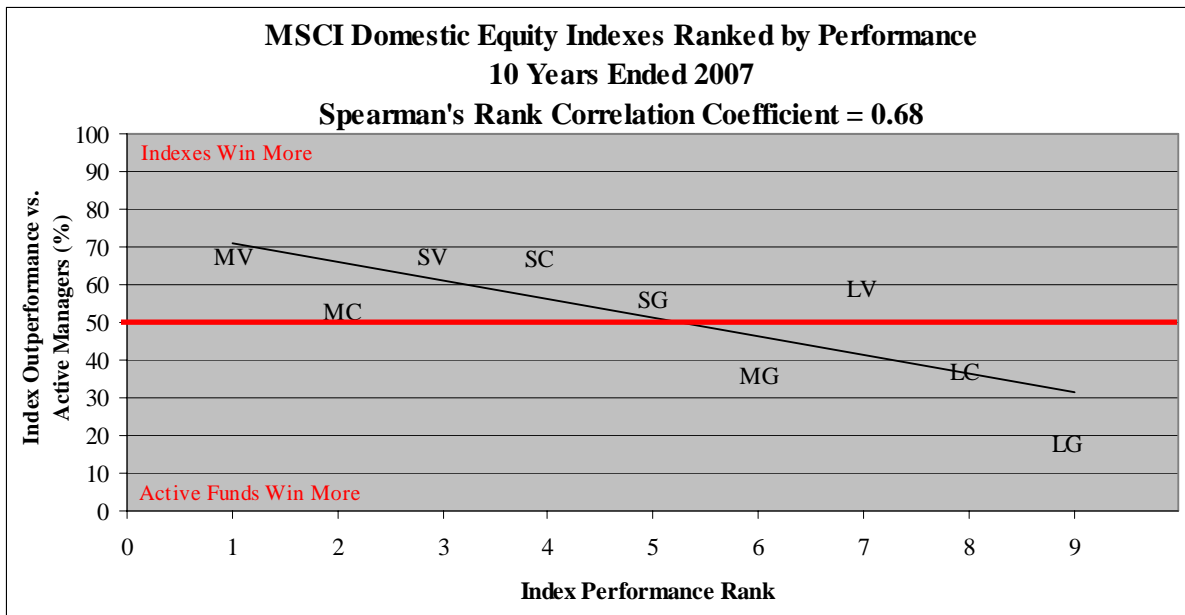
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# APPENDIX 1

## MSCI, RUSSELL AND MORNINGSTAR INDEX VERSUS ACTIVE PERFORMANCE ANALYSES

**EXHIBIT 1**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**10 Years Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Mid-Cap Value	10.8	1	67	MV(Mid Value)
MSCI US Mid-Cap 450	10.0	2	53	MC (Mid Core)
MSCI US Small-Cap Value	9.6	3	68	SV (Small Value)
MSCI US Small-Cap 1750	9.6	4	67	SC (Small Core)
MSCI US Small-Cap Growth	8.5	5	56	SG (Small Growth)
MSCI US Mid-Cap Growth	7.8	6	36	MG (Mid Growth)
MSCI US Large-Cap Value	7.2	7	59	LV (Large Value)
MSCI US Large-Cap 300	5.5	8	37	LC (Large Core)
MSCI US Large-Cap Growth	3.5	9	18	LG (Large Growth)

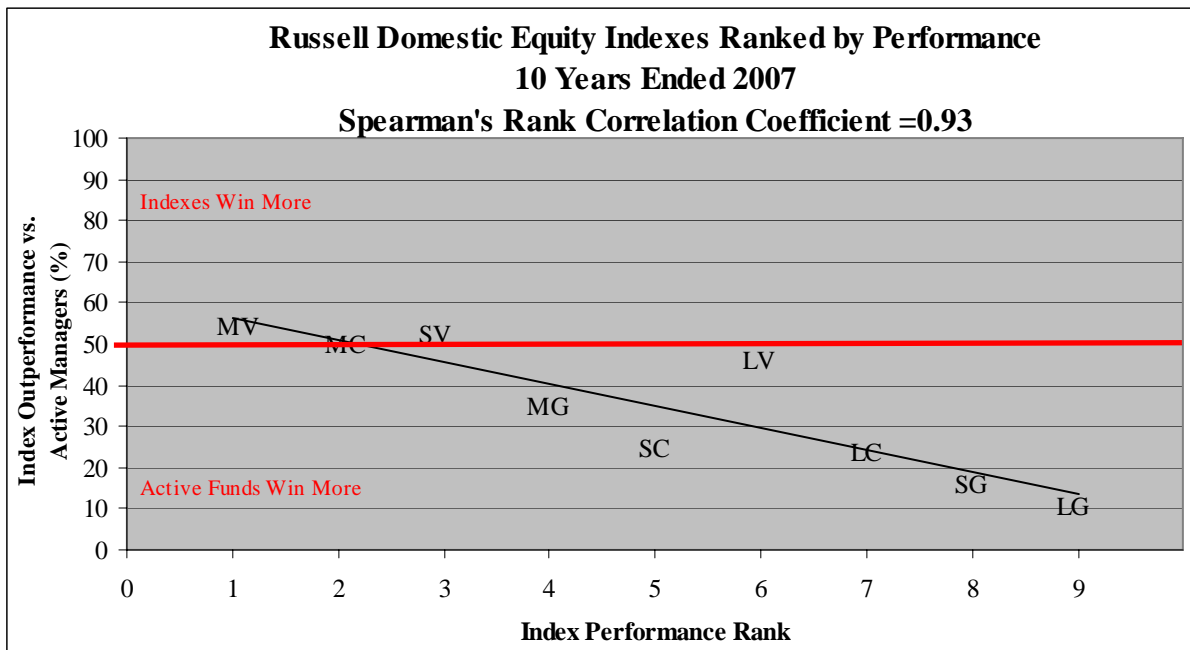


The Purity Hypothesis asserts that the data points for the three top performing asset classes will lie above the graph's 50% horizontal line, and those for the three bottom performing groups will be below that line. Of the Purity Hypothesis's six predictions, five were accurate (MV, MC, SV, LC, LG) and one was not (LV). The Efficiency Hypothesis holds that the three

small cap data points will lie below the graph's 50% horizontal line, and the three large cap ones will be above it. Of the Efficiency Hypothesis's six predictions, one was right (LV) and five were wrong (SV, SC, SG, LC, LG).

**EXHIBIT 2**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**10 Years Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell Mid-Cap Value	10.2	1	54	MV (Mid Value)
Russell Mid-Cap	9.9	2	50	MC (Mid Core)
Russell 2000 Value	9.1	3	53	SV (Small Value)
Russell Mid-Cap Growth	7.6	4	35	MG (Mid Growth)
Russell 2000	7.1	5	25	SC (Small Core)
Russell Top 200 Value	6.7	6	46	LV (Large Value)
Russell Top 200	5.0	7	24	LC (Large Core)
Russell 2000 Growth	4.3	8	16	SG (Small Growth)
Russell Top 200 Growth	3.0	9	11	LG (Large Growth)



The Purity Hypothesis asserts that the data points for the three top performing asset classes will lie above the graph's 50% horizontal line, and those for the three bottom performing groups will be below that line. Of the Purity Hypothesis's six predictions, five were accurate (MV, SV, LC, SG, LG) and one was not (MC). Still, the top three Russell indexes taken together outperformed comparable active managers by only a small margin, which seems to question the

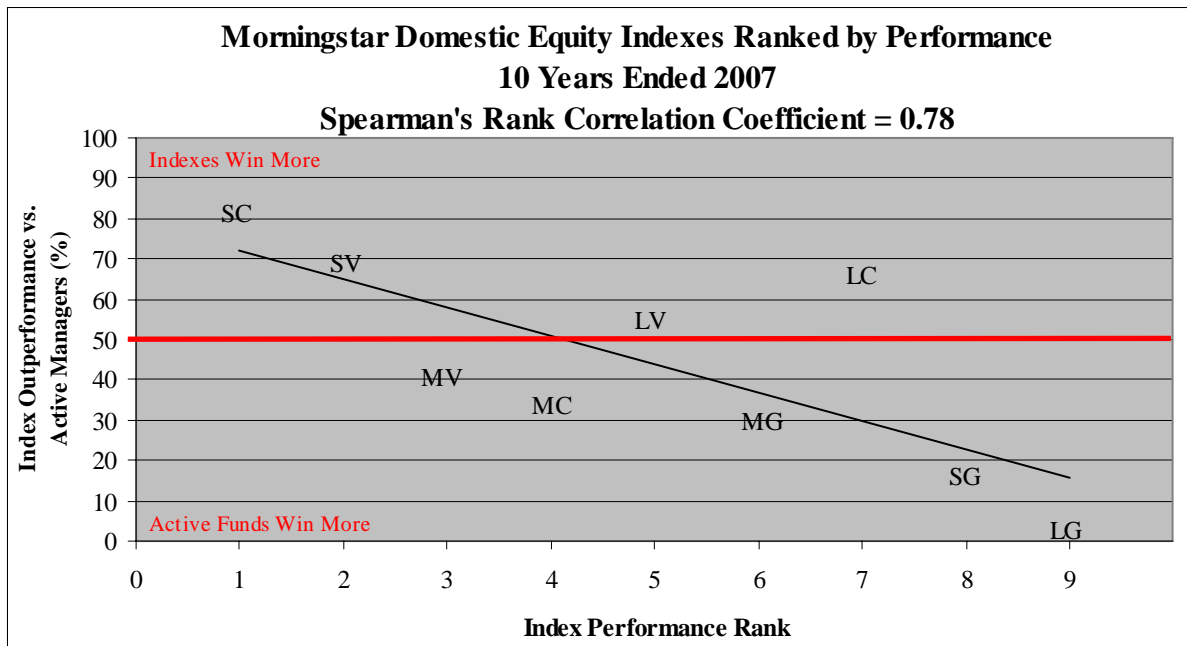
strength of the Purity Hypothesis' claims. However, the following two points argue for the Purity Hypothesis:

- (1) The Purity Hypothesis does not assert that domestic equity indexing always beats active management in high return asset classes and always loses in low return ones. Instead, it holds that in domestic equities, indexing has a tendency to outperform active managers in asset classes with high relative performance and an inclination to underperform in groups with low relative returns.
- (2) Active managers had an easier time beating Russell indexes than they did beating those from S&P, MSCI or Morningstar. Whether this is due to gaming the annual Russell reconstitution, normal performance variation, or a combination of these and other factors is beyond the scope of this commentary.

The Efficiency Hypothesis holds that the three small cap data points will lie below the graph's 50% horizontal line, and the three large cap ones will be above it. Of the Efficiency Hypothesis's six predictions, two were right (SC, SG) and four were wrong (SV, LV, LC, LG).

**EXHIBIT 3**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**10 Years Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Small Core	10.9	1	81	SC (Small Core)
Morningstar Small Value	9.7	2	69	SV (Small Value)
Morningstar Mid Value	9.4	3	41	MV (Mid Value)
Morningstar Mid Core	9.0	4	34	MC (Mid Core)
Morningstar Large Value	7.1	5	55	LV (Large Value)
Morningstar Mid Growth	6.8	6	30	MG (Mid Growth)
Morningstar Large Core	6.2	7	66	LC (Large Core)
Morningstar Small Growth	4.0	8	16	SG (Small Growth)
Morningstar Large Growth	0.9	9	3	LG (Large Growth)



The Purity Hypothesis declares that the data points for the three top performing asset classes will lie above the graph's 50% horizontal line, and those for the three bottom performing groups will be below that line. Of the Purity Hypothesis's six predictions, four were accurate (SC, SV, SG, LG) and two were not (MV, LC). The Efficiency Hypothesis states that the three large cap data points will lie above the graph's 50% horizontal line, and the three small cap ones

will be below it. Of the Efficiency Hypothesis's six predictions, three were right (LV, LC, SG), and three were wrong (SC, SV, LG).

## **APPENDIX 2**

### **SUMMARY RESULTS**

We tested the Purity and Efficiency Hypotheses by analyzing combined results from the S&P, MSCI, Russell and Morningstar analyses for the ten-year period ended 2007. Each hypothesis made 24 predictions (six for each index provider). For the Purity Hypothesis, 19 of these forecasts were correct. For the Efficiency Hypothesis, eight were accurate. These results are summarized in Exhibit 1.

**EXHIBIT 1**  
**Combined Results**  
**Percentage of Correct Predictions Across All Four Index Providers**  
**24 Predictions per Hypothesis**  
**10 Year Period Ended 2007**

	Percentage of Correct Predictions
Purity Hypothesis	79%
Efficiency Hypothesis	33%

We did a similar test using combined results from the S&P, MSCI, Russell and Morningstar analyses for the individual calendar years between 1998 and 2007 inclusive. Each hypothesis made 240 predictions (sixty for each index provider). For the Purity Hypothesis, 178 of those forecasts were right, and for the Efficiency Hypothesis, 102 were accurate. See Exhibit 2 for a summary of these results.

**EXHIBIT 2**  
**Combined Results**  
**Percentage of Correct Predictions Across All Four Index Providers**  
**240 Predictions per Hypothesis**  
**Individual One Year Periods Between 1998 and 2007 Inclusive**

	Percentage of Correct Predictions
Purity Hypothesis	74%
Efficiency Hypothesis	43%

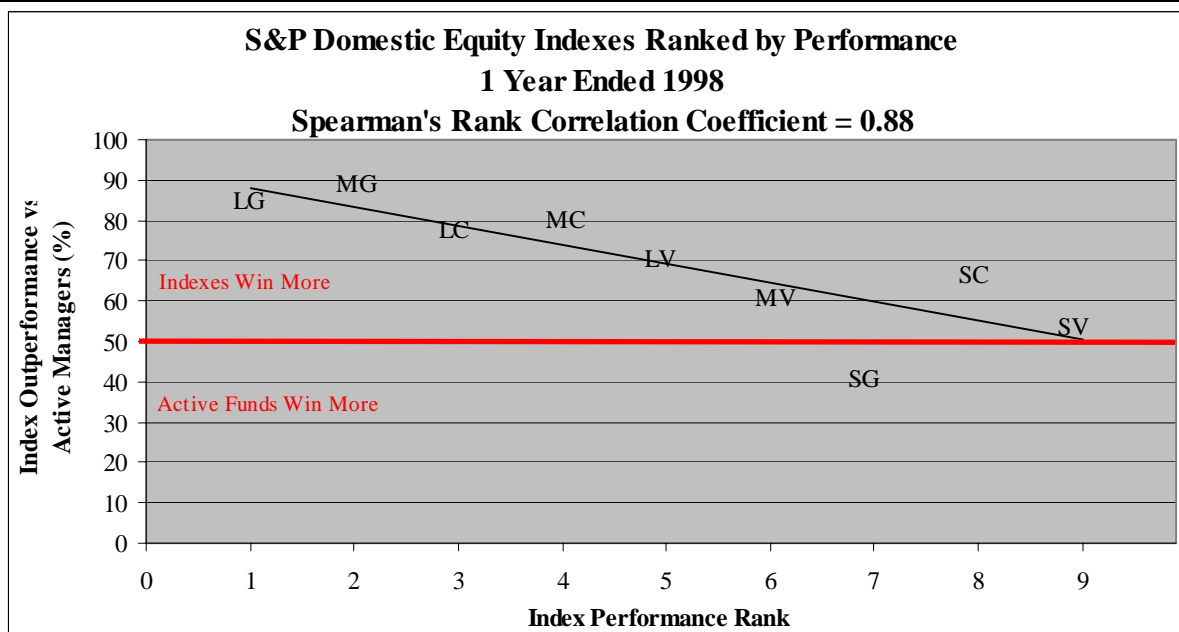
Depending on the time period used, the Purity Hypothesis worked 79% or 74% of the time. Over the same periods, the Efficiency Hypothesis worked 33% or 43% of the time. As a result, we think the Purity Hypothesis outdid the Efficiency Hypothesis as a tool for explaining domestic equity index versus active performance for the ten years ended 2007.

# APPENDIX 3

## INDEX VERSUS ACTIVE PERFORMANCE ANALYSES SINGLE YEAR PERIODS 1998-2007 INCLUSIVE S&P, MSCI, RUSSELL AND MORNINGSTAR

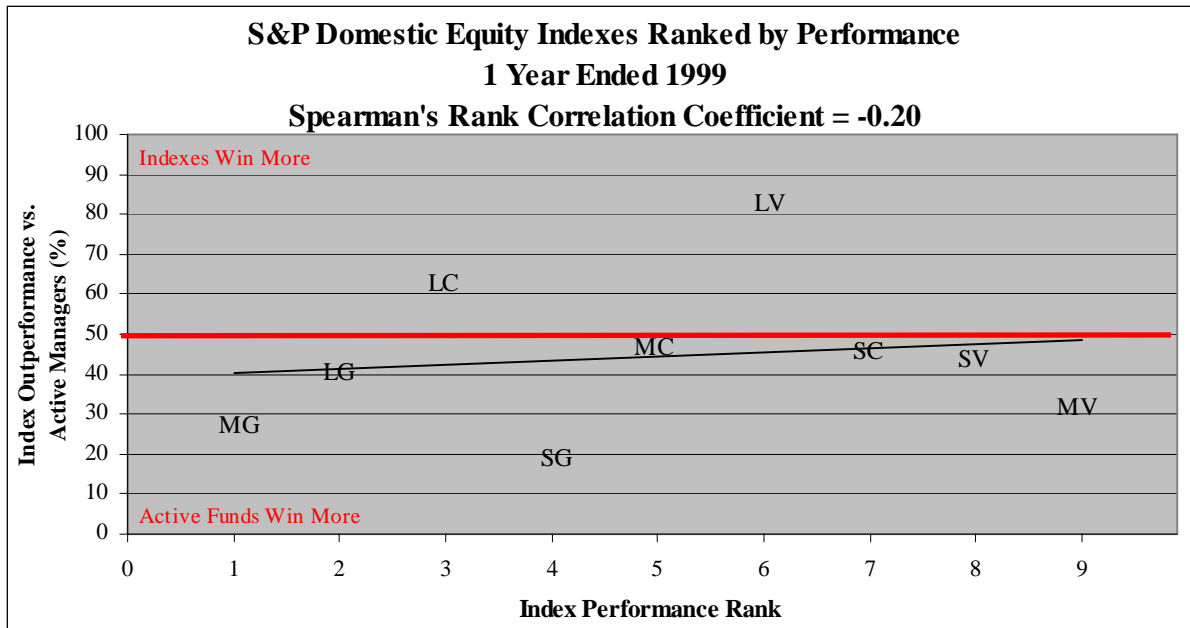
**EXHIBIT 1**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 1998**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P 500/Citigroup Growth	42.2	1	85	LG (Large Growth)
S&P Mid-Cap 400 Growth	34.9	2	89	MG (Mid Growth)
S&P 500	28.6	3	77	LC (Large Core)
S&P Mid-Cap 400	19.1	4	81	MC (Mid Core)
S&P 500/Citigroup Value	14.7	5	70	LV (Large Value)
S&P Mid-Cap 400 Value	4.7	6	60	MV (Mid Value)
S&P Small-Cap 600 Growth	2.3	7	41	SG (Small Growth)
S&P Small-Cap 600	-1.3	8	67	SC (Small Core)
S&P Small-Cap 600 Value	-5.1	9	54	SV (Small Value)



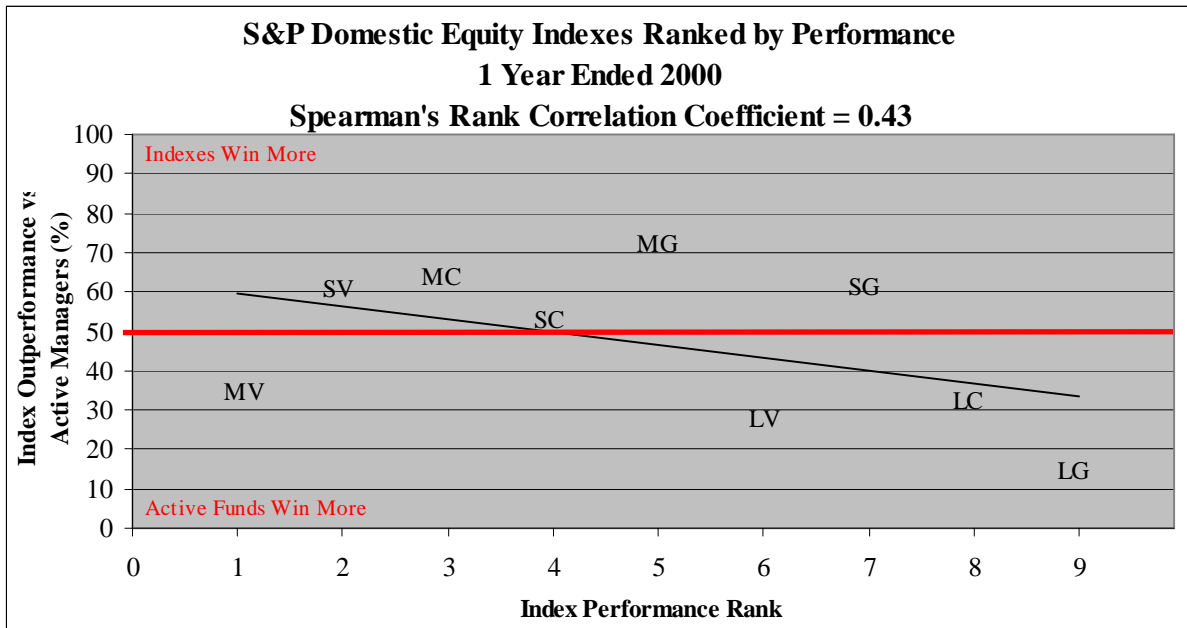
**EXHIBIT 2**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 1999**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P Mid-Cap 400 Growth	28.7	1	28	MG (Mid Growth)
S&P 500/Citigroup Growth	28.2	2	39	LG (Large Growth)
S&P 500	21.0	3	63	LC (Large Core)
S&P Small-Cap 600 Growth	19.6	4	19	SG (Small Growth)
S&P Mid-Cap 400	14.7	5	46	MC (Mid Core)
S&P 500/Citigroup Value	12.7	6	83	LV (Large Value)
S&P Small-Cap 600	12.4	7	46	SC (Small Core)
S&P Small-Cap 600 Value	3.0	8	44	SV (Small Value)
S&P Mid-Cap 400 Value	2.3	9	32	MV (Mid Value)



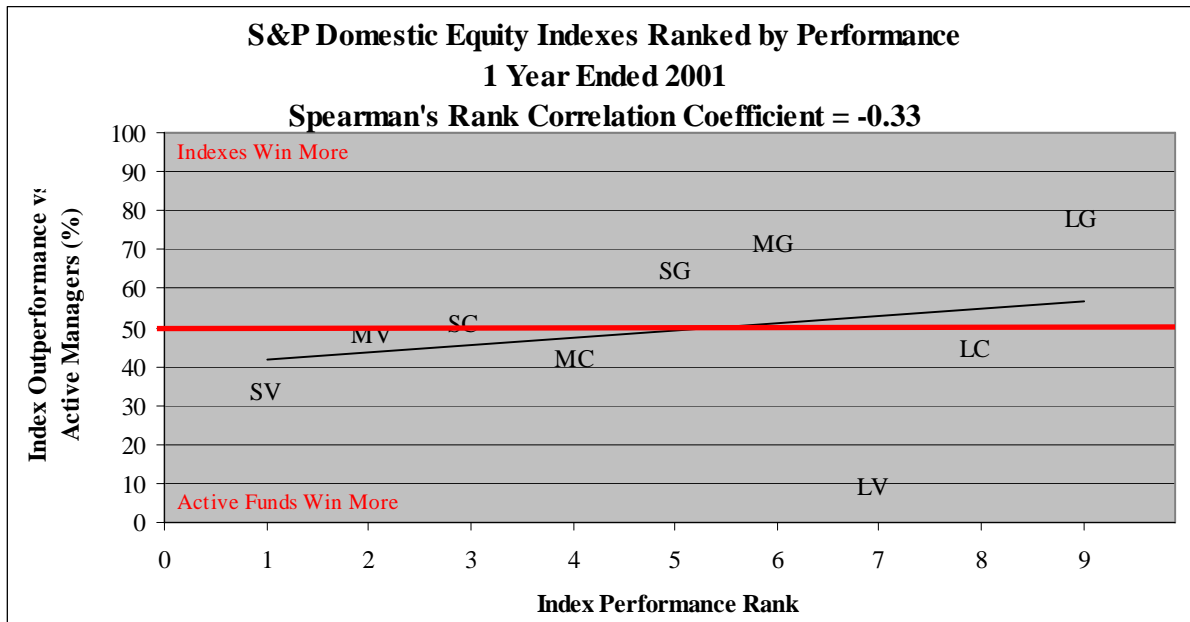
**EXHIBIT 3**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2000**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P Mid-Cap 400 Value	27.8	1	35	MV (Mid Value)
S&P Small-Cap 600 Value	20.9	2	60	SV (Small Value)
S&P Mid-Cap 400	17.5	3	64	MC (Mid Core)
S&P Small-Cap 600	11.8	4	53	SC (Small Core)
S&P Mid-Cap 400 Growth	9.2	5	72	MG (Mid Growth)
S&P 500/Citigroup Value	6.1	6	28	LV (Large Value)
S&P Small-Cap 600 Growth	0.6	7	61	SG (Small Growth)
S&P 500	-9.1	8	32	LC (Large Core)
S&P 500/Citigroup Growth	-22.1	9	14	LG (Large Growth)



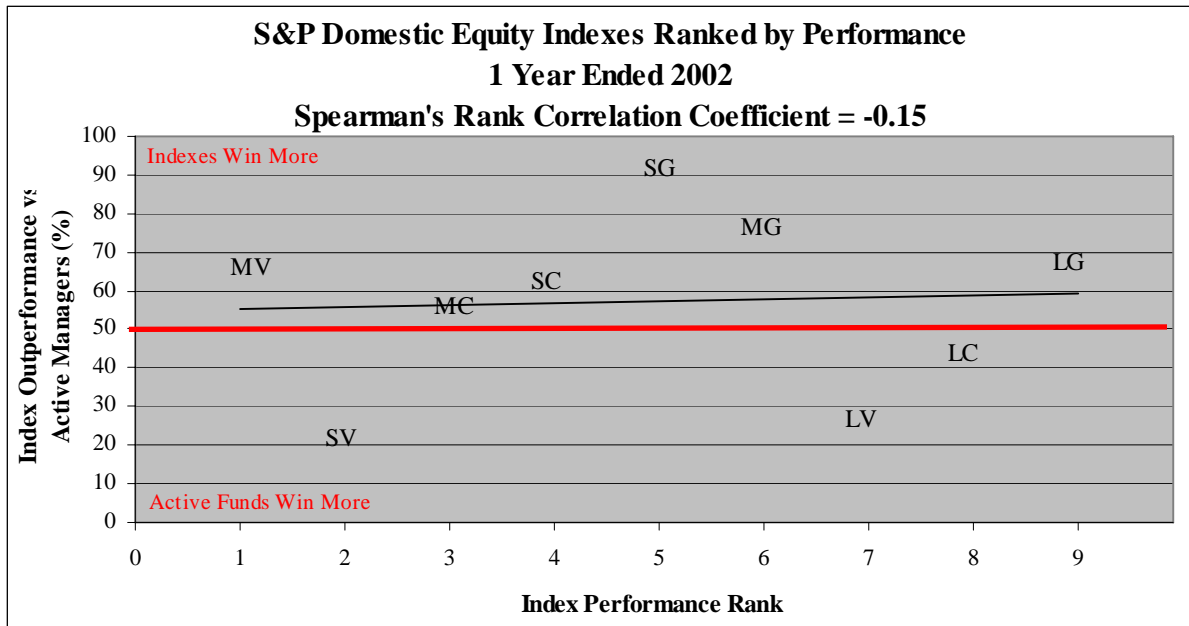
**EXHIBIT 4**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2001**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P Small-Cap 600 Value	13.1	1	34	SV (Small Value)
S&P Mid-Cap 400 Value	7.1	2	48	MV (Mid Value)
S&P Small-Cap 600	6.5	3	51	SC (Small Core)
S&P Mid-Cap 400	-0.6	4	42	MC (Mid Core)
S&P Small-Cap 600 Growth	-1.2	5	64	SG (Small Growth)
S&P Mid-Cap 400 Growth	-8.0	6	71	MG (Mid Growth)
S&P 500/Citigroup Value	-11.7	7	9	LV (Large Value)
S&P 500	-11.9	8	45	LC (Large Core)
S&P 500/Citigroup Growth	-12.7	9	78	LG (Large Growth)



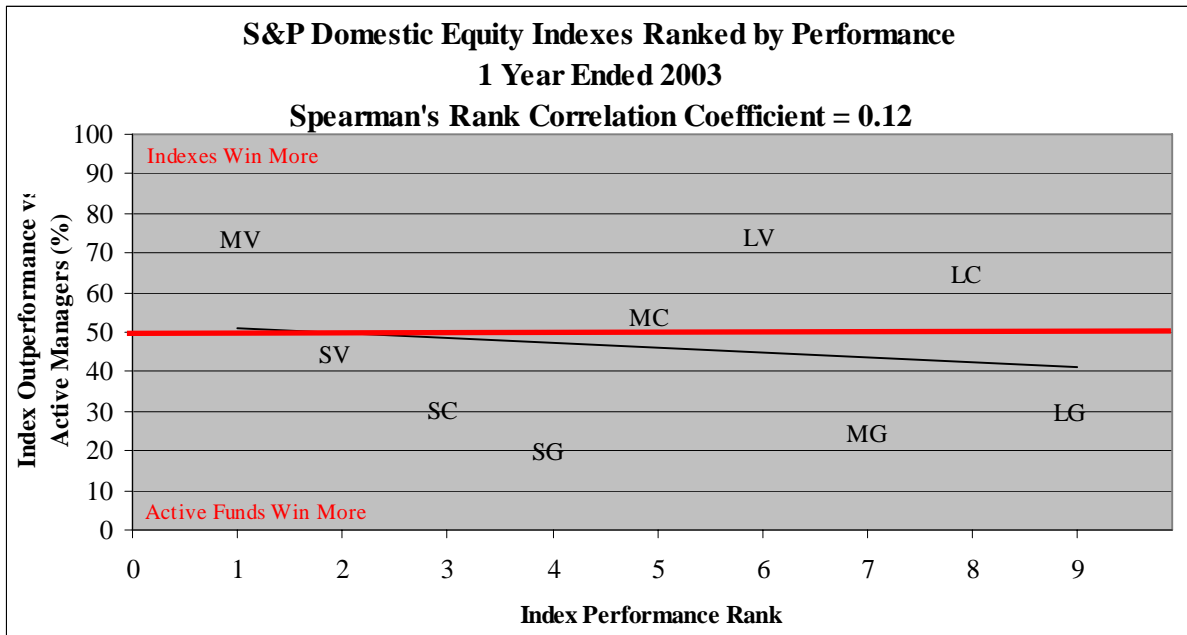
**EXHIBIT 5**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2002**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P Mid-Cap 400 Value	-10.1	1	66	MV (Mid Value)
S&P Small-Cap 600 Value	-14.5	2	22	SV (Small Value)
S&P Mid-Cap 400	-14.5	3	56	MC (Mid Core)
S&P Small-Cap 600	-14.6	4	63	SC (Small Core)
S&P Small-Cap 600 Growth	-15.4	5	92	SG (Small Growth)
S&P Mid-Cap 400 Growth	-19.2	6	77	MG (Mid Growth)
S&P 500/Citigroup Value	-20.9	7	27	LV (Large Value)
S&P 500	-22.1	8	44	LC (Large Core)
S&P 500/Citigroup Growth	-23.6	9	68	LG (Large Growth)



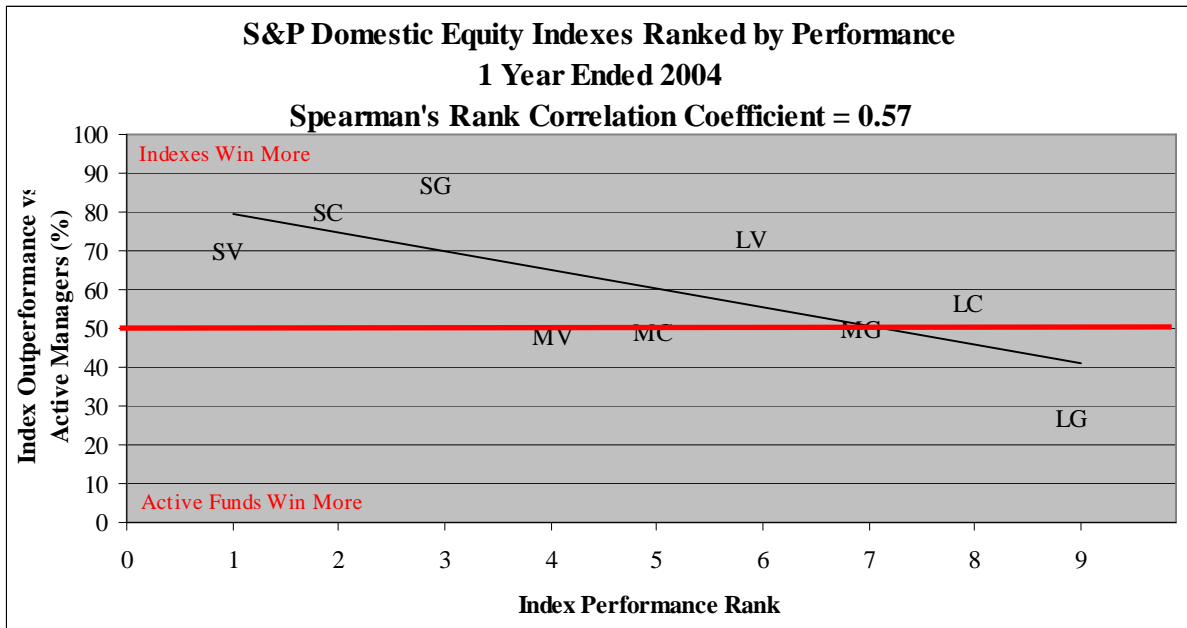
**EXHIBIT 6**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2003**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P Mid-Cap 400 Value	40.2	1	73	MV (Mid Value)
S&P Small-Cap 600 Value	40.0	2	45	SV (Small Value)
S&P Small-Cap 600	38.8	3	30	SC (Small Core)
S&P Small-Cap 600 Growth	37.3	4	20	SG (Small Growth)
S&P Mid-Cap 400	35.6	5	54	MC (Mid Core)
S&P 500/Citigroup Value	31.8	6	74	LV (Large Value)
S&P Mid-Cap 400 Growth	31.0	7	24	MG (Mid Growth)
S&P 500	28.7	8	64	LC (Large Core)
S&P 500/Citigroup Growth	25.7	9	30	LG (Large Growth)



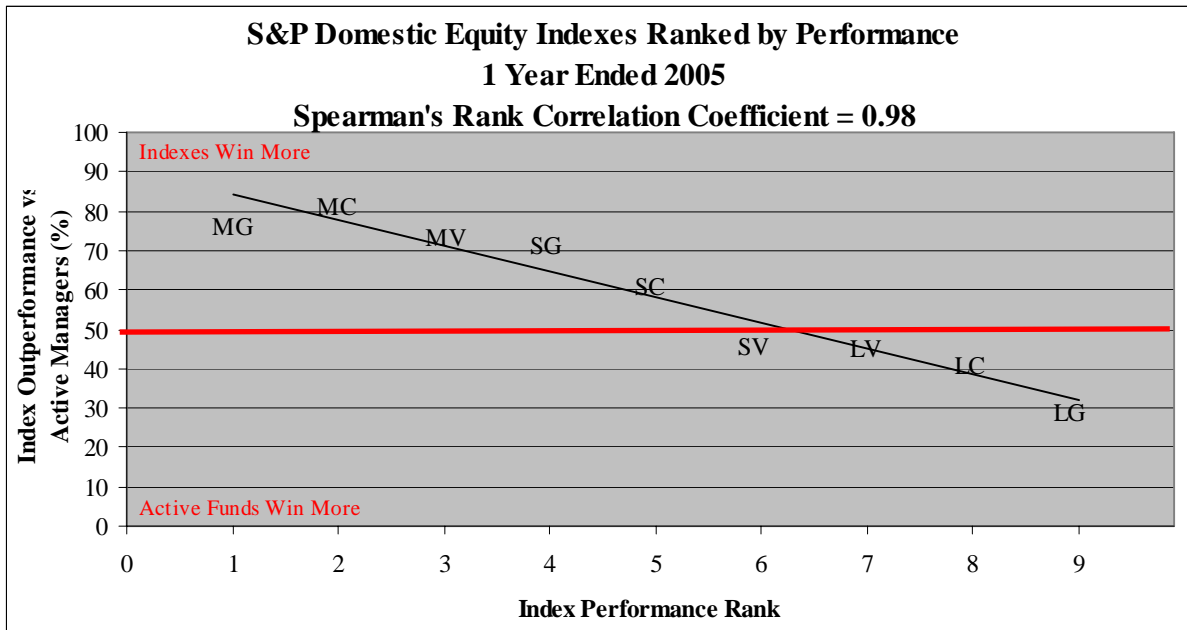
**EXHIBIT 7**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2004**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P Small-Cap 600 Value	23.3	1	70	SV (Small Value)
S&P Small-Cap 600	22.6	2	80	SC (Small Core)
S&P Small-Cap 600 Growth	22.0	3	87	SG (Small Growth)
S&P Mid-Cap 400 Value	18.9	4	48	MV (Mid Value)
S&P Mid-Cap 400	16.5	5	49	MC (Mid Core)
S&P 500/Citigroup Value	15.7	6	73	LV (Large Value)
S&P Mid-Cap 400 Growth	14.0	7	50	MG (Mid Growth)
S&P 500	10.9	8	57	LC (Large Core)
S&P 500/Citigroup Growth	6.1	9	27	LG (Large Growth)



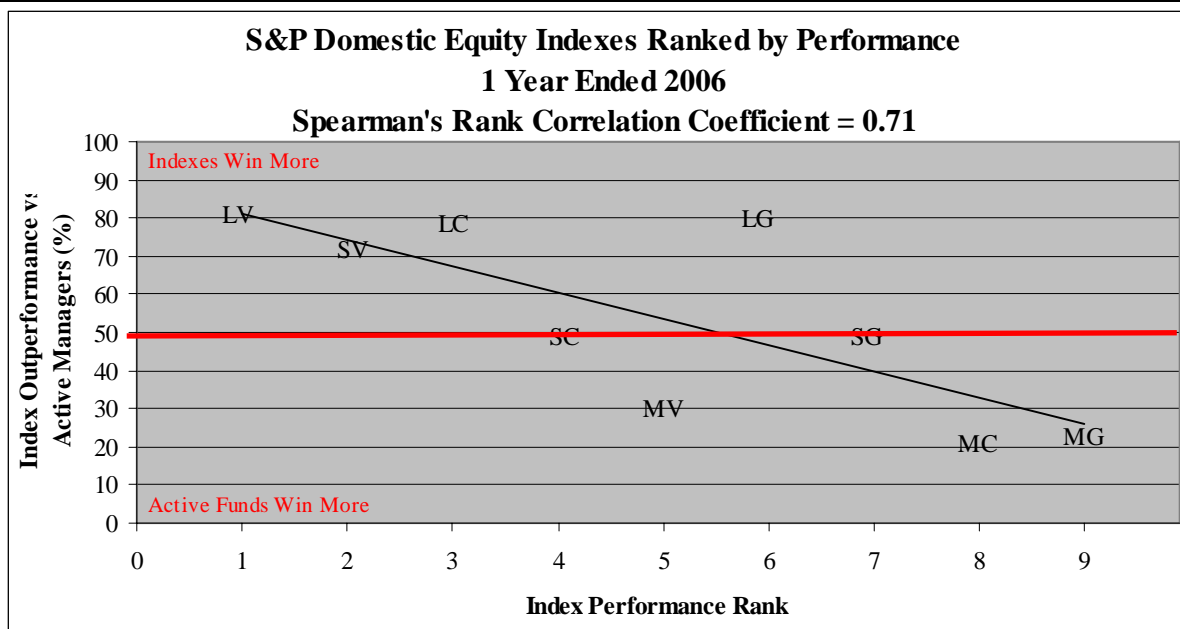
**EXHIBIT 8**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2005**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P Mid-Cap 400 Growth	13.8	1	76	MG (Mid Growth)
S&P Mid-Cap 400	12.6	2	81	MC (Mid Core)
S&P Mid-Cap 400 Value	11.2	3	74	MV (Mid Value)
S&P Small-Cap 600 Growth	8.8	4	71	SG (Small Growth)
S&P Small-Cap 600	7.7	5	61	SC (Small Core)
S&P Small-Cap 600 Value	6.6	6	46	SV (Small Value)
S&P 500/Citigroup Value	5.6	7	45	LV (Large Value)
S&P 500	4.9	8	41	LC (Large Core)
S&P 500/Citigroup Growth	4.2	9	29	LG (Large Growth)



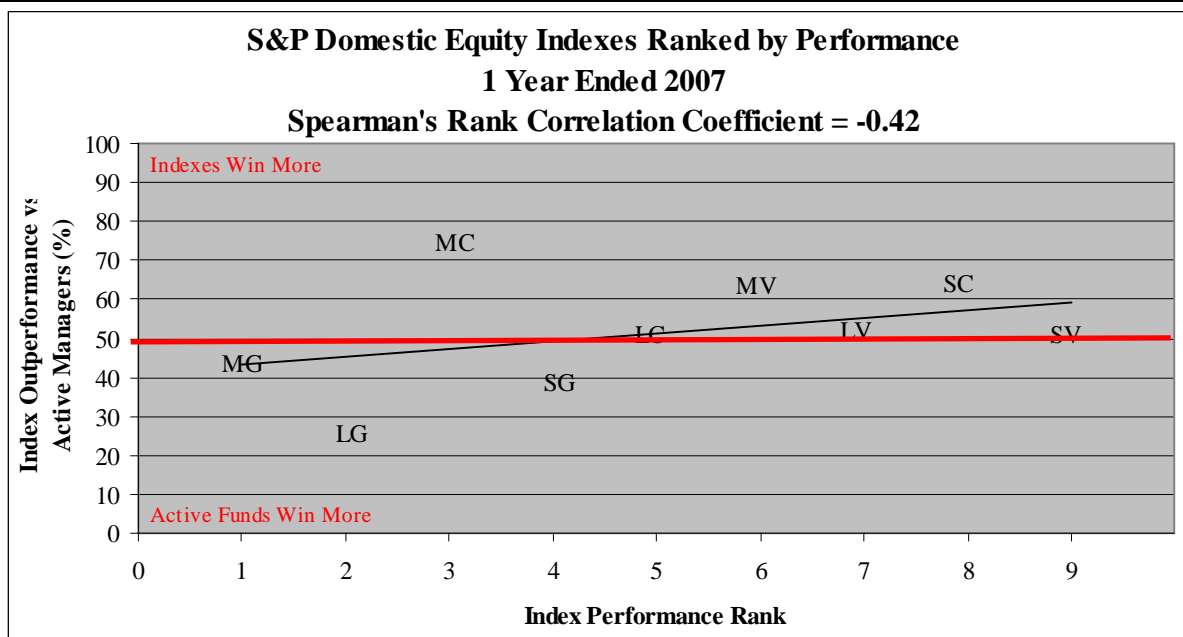
**EXHIBIT 9**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2006**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P 500/Citigroup Value	20.8	1	81	LV (Large Value)
S&P Small-Cap 600 Value	19.6	2	72	SV (Small Value)
S&P 500	15.8	3	78	LC (Large Core)
S&P Small-Cap 600	15.1	4	49	SC (Small Core)
S&P Mid-Cap 400 Value	14.6	5	30	MV (Mid Value)
S&P 500/Citigroup Growth	11.0	6	81	LG (Large Growth)
S&P Small-Cap 600 Growth	10.5	7	49	SG (Small Growth)
S&P Mid-Cap 400	10.3	8	20	MC (Mid Core)
S&P Mid-Cap 400 Growth	5.8	9	23	MG (Mid Growth)



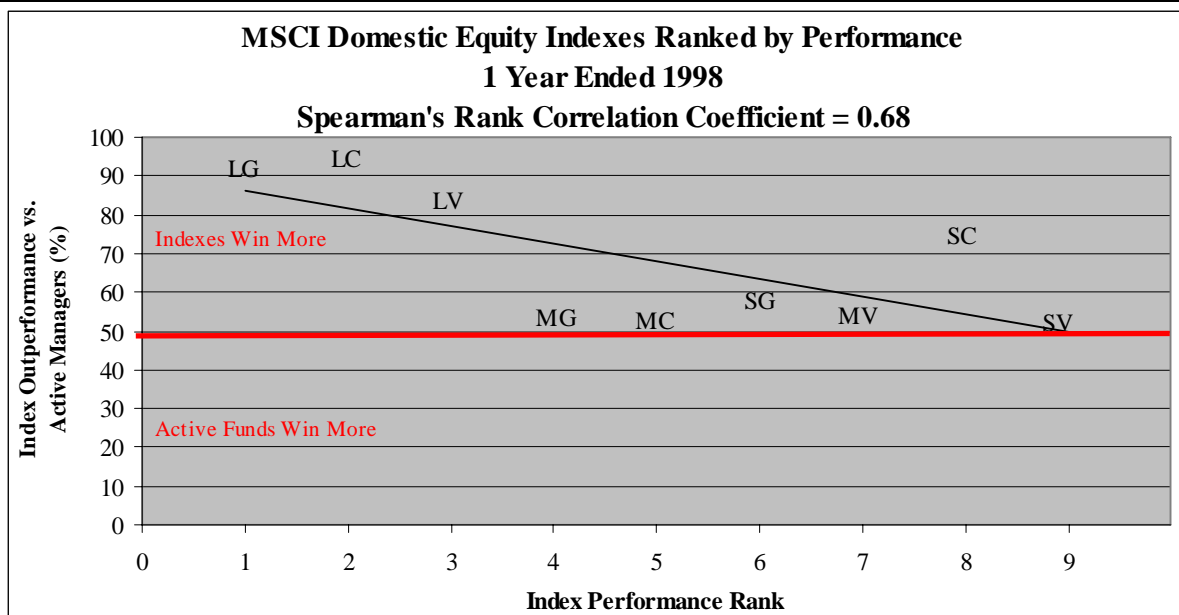
**EXHIBIT 10**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P Mid-Cap 400 Growth	13.5	1	44	MG (Mid Growth)
S&P 500/Citigroup Growth	9.1	2	26	LG (Large Growth)
S&P Mid-Cap 400	8.0	3	74	MC (Mid Core)
S&P Small-Cap 600 Growth	5.6	4	39	SG (Small Growth)
S&P 500	5.5	5	51	LC (Large Core)
S&P Mid-Cap 400 Value	2.6	6	63	MV (Mid Value)
S&P 500/Citigroup Value	2.0	7	52	LV (Large Value)
S&P Small-Cap 600	-0.3	8	63	SC (Small Core)
S&P Small-Cap 600 Value	-5.5	9	51	SV (Small Value)



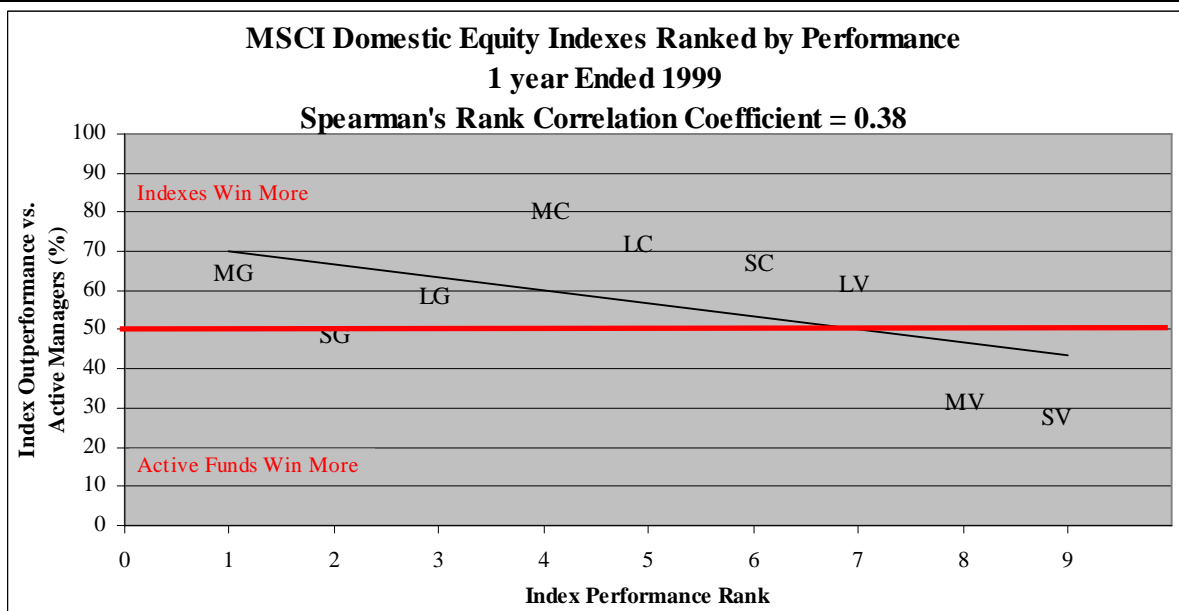
**EXHIBIT 11**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 1998**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Large-Cap Growth	49.7	1	92	LG (Large Growth)
MSCI US Large-Cap 300	33.4	2	94	LC (Large Core)
MSCI US Large-Cap Value	17.6	3	83	LV (Large Value)
MSCI US Mid-Cap Growth	17.3	4	54	MG (Mid Growth)
MSCI US Mid-Cap 450	9.3	5	52	MC (Mid Core)
MSCI US Small-Cap Growth	6.6	6	57	SG (Small Growth)
MSCI US Mid-Cap Value	1.5	7	54	MV (Mid Value)
MSCI US Small-Cap 1750	0.6	8	75	SC (Small Core)
MSCI US Small-Cap Value	-5.1	9	52	SV (Small Value)



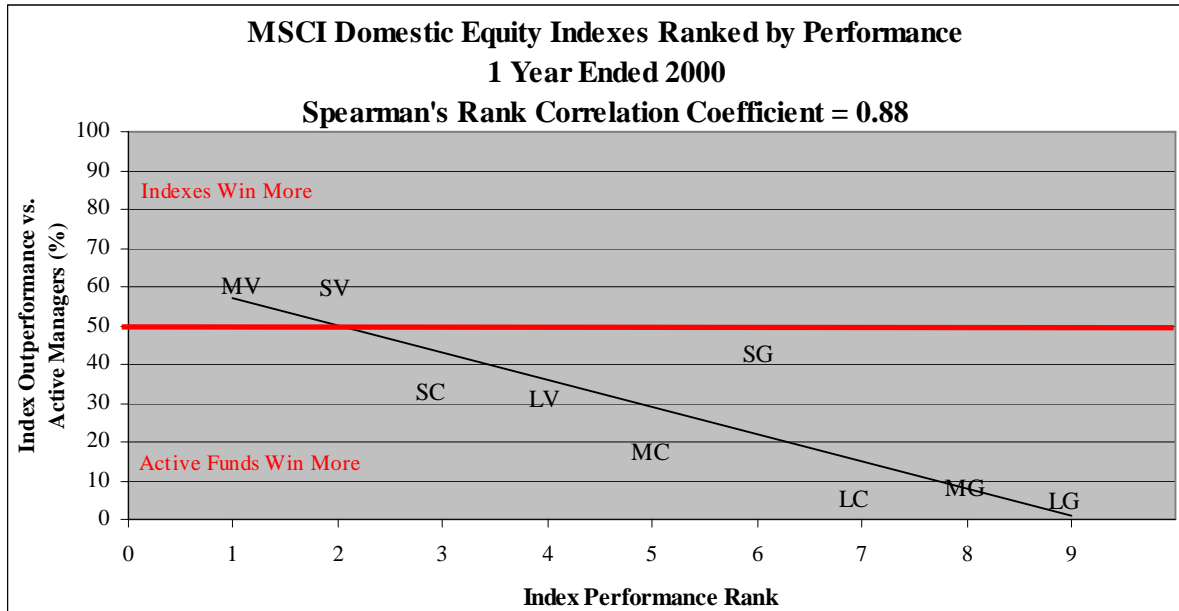
**EXHIBIT 12**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 1999**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Mid-Cap Growth	70.5	1	65	MG (Mid Growth)
MSCI US Small-Cap Growth	49.6	2	47	SG (Small Growth)
MSCI US Large-Cap Growth	39.8	3	59	LG (Large Growth)
MSCI US Mid-Cap 450	34.3	4	80	MC (Mid Core)
MSCI US Large-Cap 300	22.9	5	71	LC (Large Core)
MSCI US Small-Cap 1750	21.9	6	67	SC (Small Core)
MSCI US Large-Cap Value	6.9	7	62	LV (Large Value)
MSCI US Mid-Cap Value	2.2	8	32	MV (Mid Value)
MSCI US Small-Cap Value	-2.2	9	28	SV (Small Value)



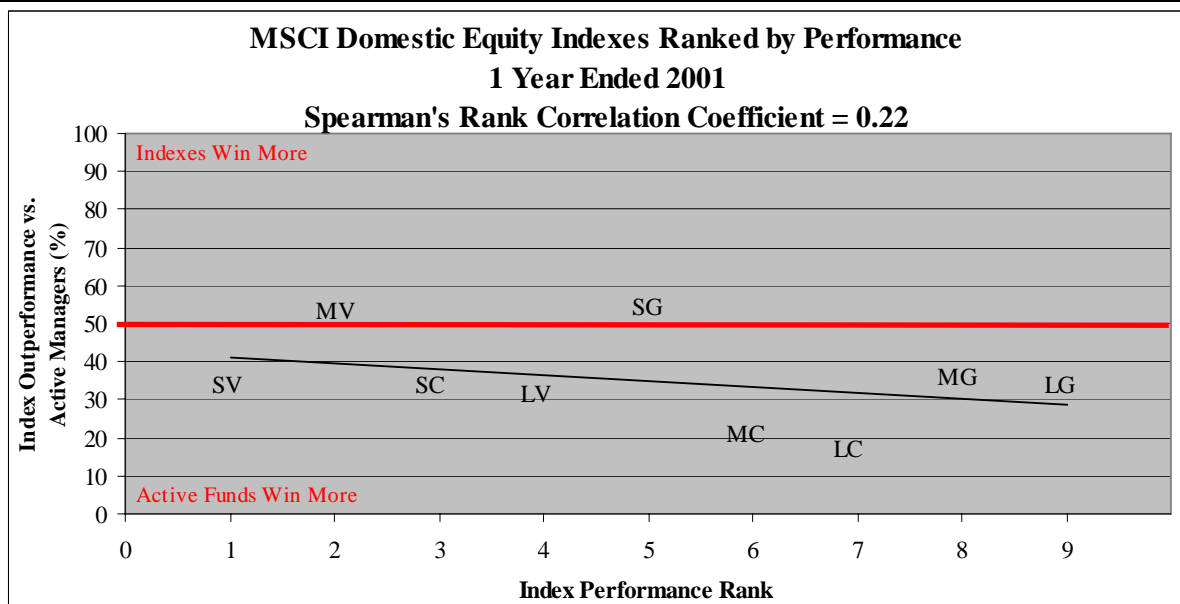
**EXHIBIT 13**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2000**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Mid-Cap Value	22.5	1	60	MV(Mid Value)
MSCI US Small-Cap Value	21.2	2	60	SV (Small Value)
MSCI US Small-Cap 1750	8.7	3	33	SC (Small Core)
MSCI US Large-Cap Value	6.9	4	31	LV (Large Value)
MSCI US Mid-Cap 450	-1.9	5	17	MC (Mid Core)
MSCI US Small-Cap Growth	-8.2	6	43	SG (Small Growth)
MSCI US Large-Cap 300	-13.9	7	5	LC (Large Core)
MSCI US Mid-Cap Growth	-26.3	8	8	MG (Mid Growth)
MSCI US Large-Cap Growth	-29.1	9	4	LG (Large Growth)



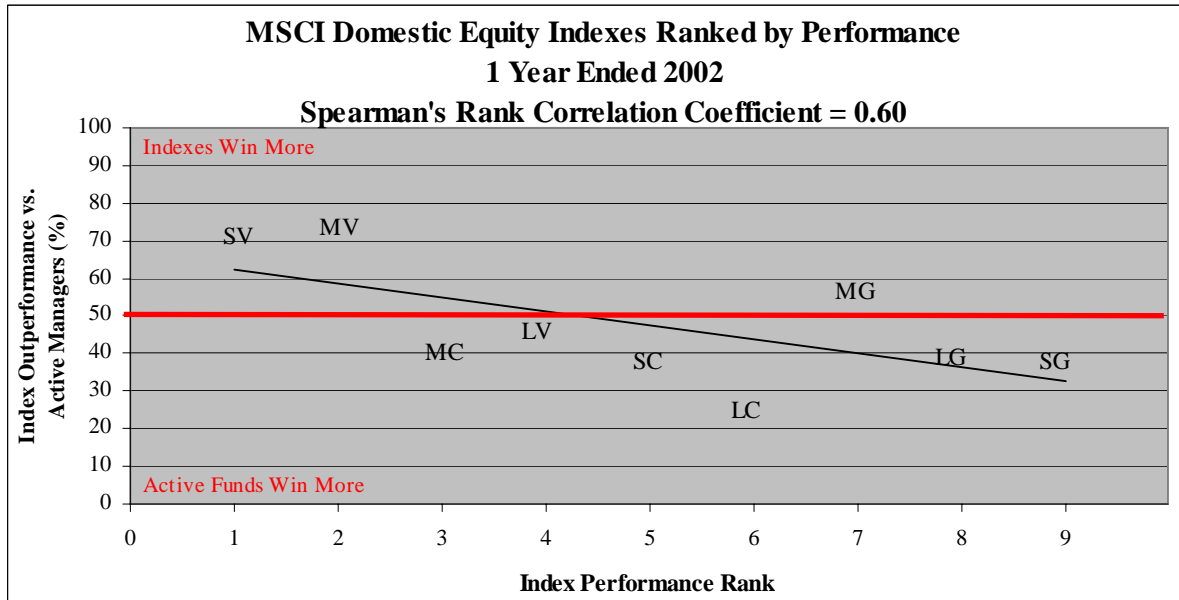
**EXHIBIT 14**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2001**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Small-Cap Value	13.0	1	34	SV (Small Value)
MSCI US Mid-Cap Value	8.8	2	53	MV (Mid Value)
MSCI US Small-Cap 1750	3.2	3	34	SC (Small Core)
MSCI US Large-Cap Value	-5.3	4	31	LV (Large Value)
MSCI US Small-Cap Growth	-6.3	5	54	SG (Small Growth)
MSCI US Mid-Cap 450	-6.4	6	21	MC (Mid Core)
MSCI US Large-Cap 300	-13.9	7	17	LC (Large Core)
MSCI US Mid-Cap Growth	-20.4	8	36	MG (Mid Growth)
MSCI US Large-Cap Growth	-22.5	9	34	LG (Large Growth)



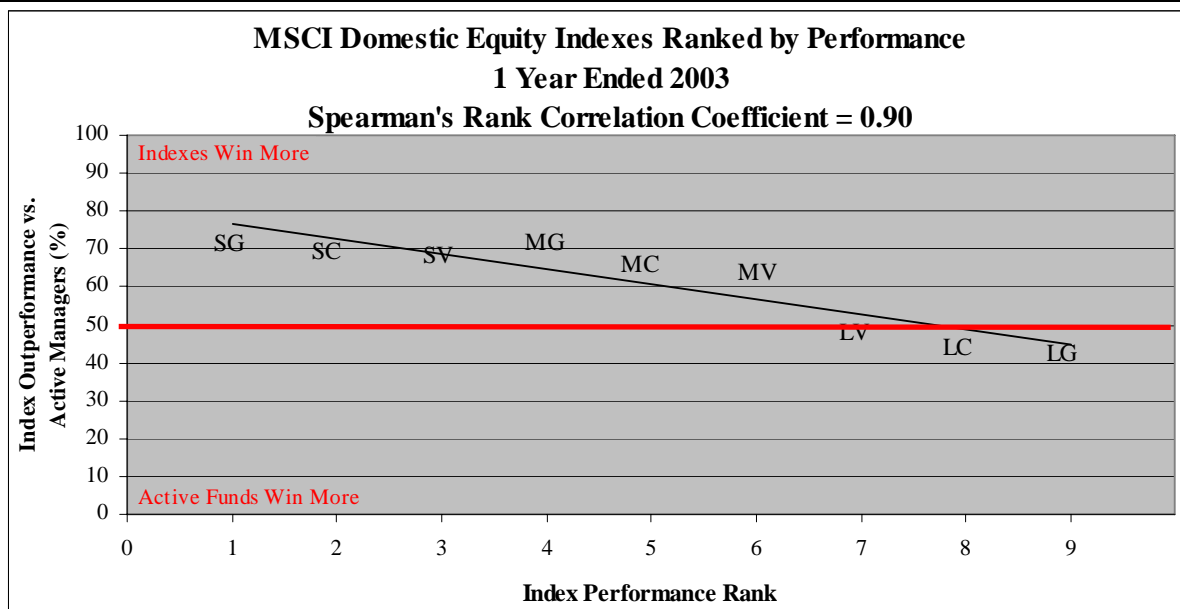
**EXHIBIT 15**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2002**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Small-Cap Value	-6.6	1	71	SV (Small Value)
MSCI US Mid-Cap Value	-9.7	2	74	MV (Mid Value)
MSCI US Mid-Cap 450	-16.5	3	40	MC (Mid Core)
MSCI US Large-Cap Value	-18.1	4	46	LV (Large Value)
MSCI US Small-Cap 1750	-18.4	5	38	SC (Small Core)
MSCI US Large-Cap 300	-22.9	6	25	LC (Large Core)
MSCI US Mid-Cap Growth	-23.3	7	57	MG (Mid Growth)
MSCI US Large-Cap Growth	-28.0	8	39	LG (Large Growth)
MSCI US Small-Cap Growth	-29.3	9	38	SG (Small Growth)



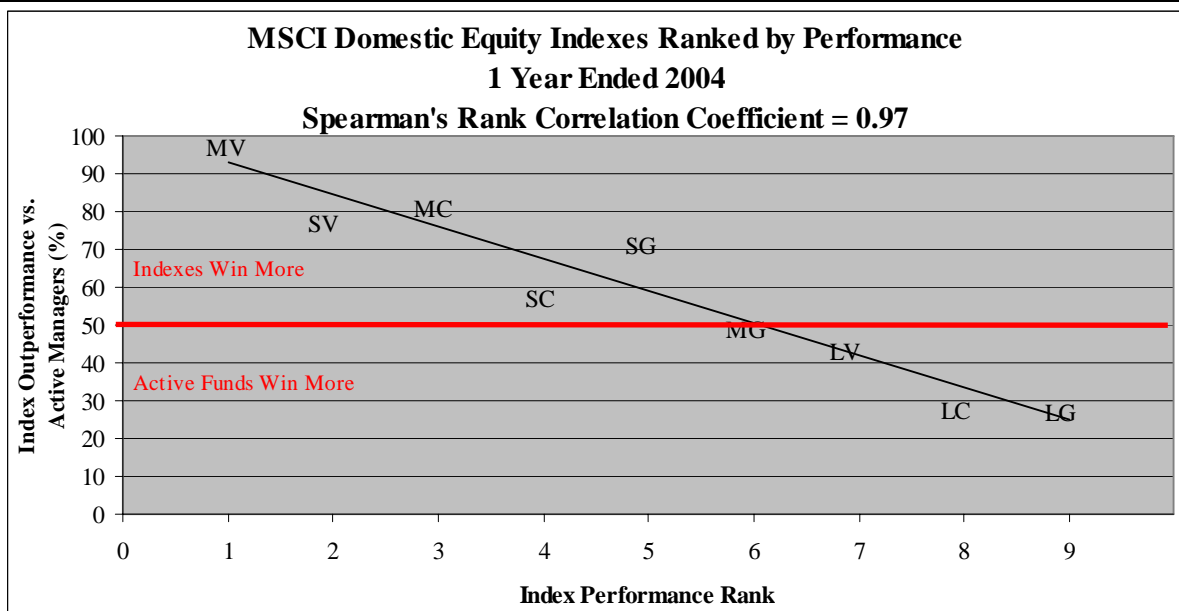
**EXHIBIT 16**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2003**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Small-Cap Growth	50.4	1	71	SG (Small Growth)
MSCI US Small-Cap 1750	47.4	2	70	SC (Small Core)
MSCI US Small-Cap Value	44.3	3	68	SV (Small Value)
MSCI US Mid-Cap Growth	40.3	4	72	MG (Mid Growth)
MSCI US Mid-Cap 450	39.0	5	66	MC (Mid Core)
MSCI US Mid-Cap Value	37.9	6	64	MV (Mid Value)
MSCI US Large-Cap Value	28.4	7	48	LV (Large Value)
MSCI US Large-Cap 300	27.8	8	44	LC (Large Core)
MSCI US Large-Cap Growth	27.3	9	43	LG (Large Growth)



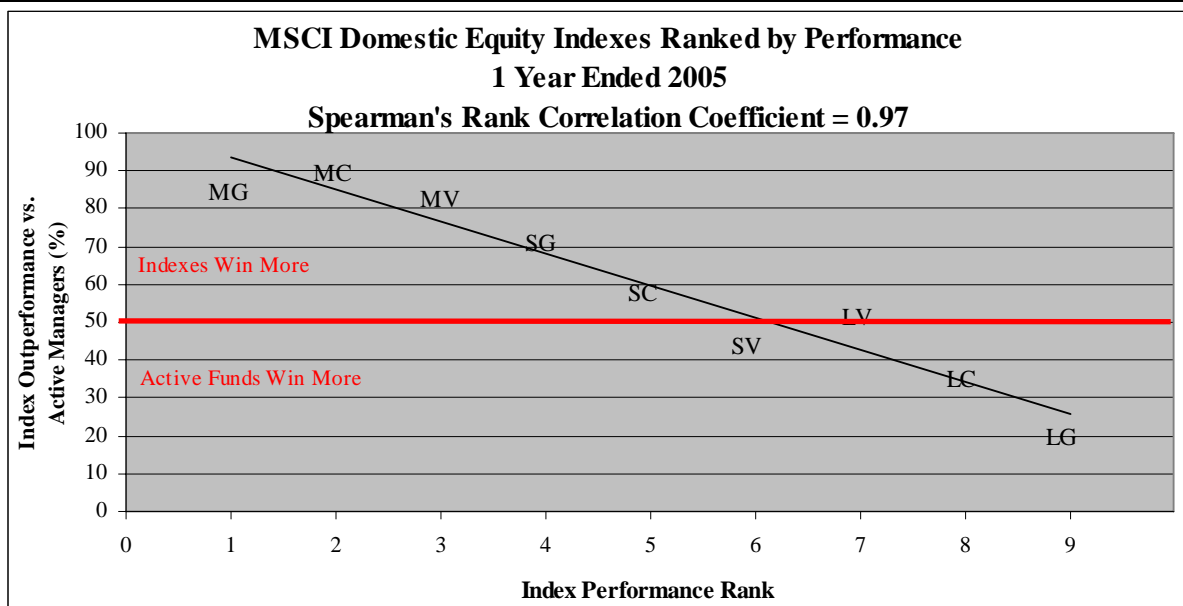
**EXHIBIT 17**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2004**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Mid-Cap Value	27.2	1	97	MV(Mid Value)
MSCI US Small-Cap Value	23.7	2	77	SV (Small Value)
MSCI US Mid-Cap 450	20.5	3	81	MC (Mid Core)
MSCI US Small-Cap 1750	20.0	4	57	SC (Small Core)
MSCI US Small-Cap Growth	16.1	5	71	SG (Small Growth)
MSCI US Mid-Cap Growth	13.8	6	49	MG (Mid Growth)
MSCI US Large-Cap Value	13.2	7	43	LV (Large Value)
MSCI US Large-Cap 300	9.7	8	28	LC (Large Core)
MSCI US Large-Cap Growth	6.1	9	27	LG (Large Growth)



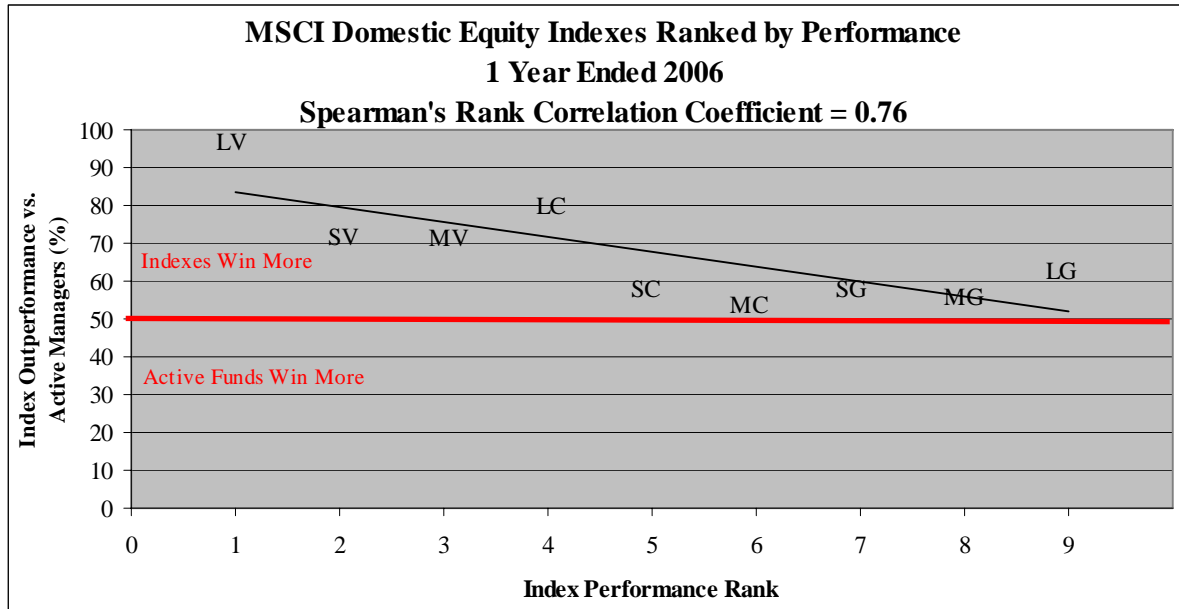
**EXHIBIT 18**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2005**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Mid-Cap Growth	15.0	1	84	MG (Mid Growth)
MSCI US Mid-Cap 450	13.9	2	89	MC (Mid Core)
MSCI US Mid-Cap Value	12.8	3	83	MV (Mid Value)
MSCI US Small-Cap Growth	8.7	4	71	SG (Small Growth)
MSCI US Small-Cap 1750	7.5	5	58	SC (Small Core)
MSCI US Small-Cap Value	6.3	6	44	SV (Small Value)
MSCI US Large-Cap Value	6.1	7	51	LV (Large Value)
MSCI US Large-Cap 300	4.7	8	35	LC (Large Core)
MSCI US Large-Cap Growth	3.3	9	20	LG (Large Growth)



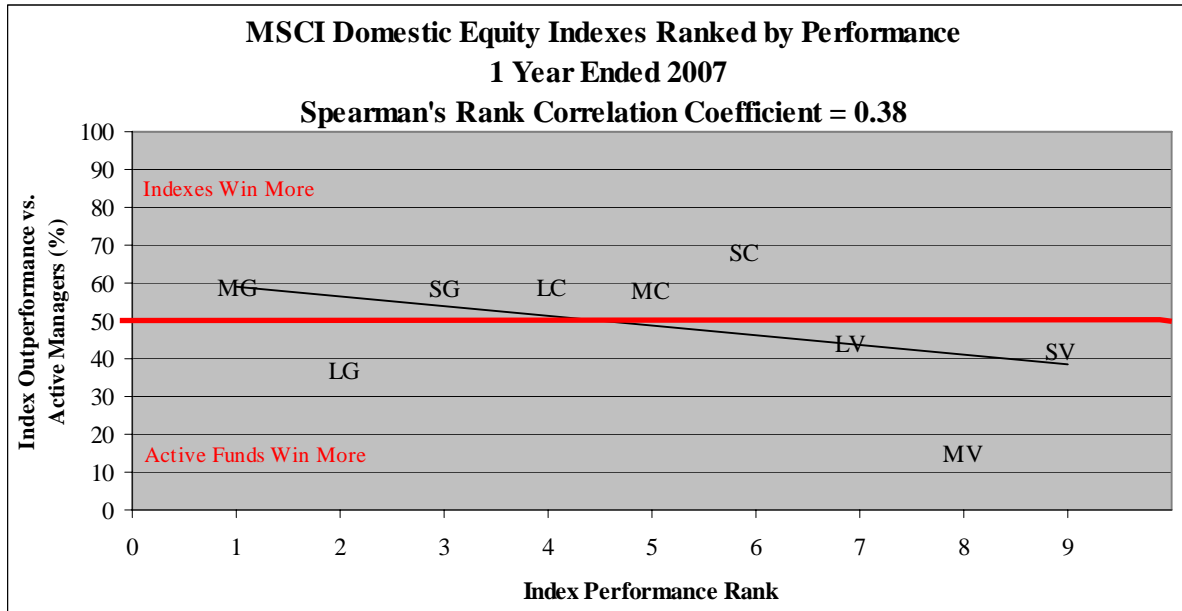
**EXHIBIT 19**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2006**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Large-Cap Value	23.4	1	97	LV (Large Value)
MSCI US Small-Cap Value	19.4	2	72	SV (Small Value)
MSCI US Mid-Cap Value	17.8	3	71	MV (Mid Value)
MSCI US Large-Cap 300	16.1	4	80	LC (Large Core)
MSCI US Small-Cap 1750	15.8	5	58	SC (Small Core)
MSCI US Mid-Cap 450	13.7	6	55	MC (Mid Core)
MSCI US Small-Cap Growth	12.0	7	58	SG (Small Growth)
MSCI US Mid-Cap Growth	9.7	8	55	MG (Mid Growth)
MSCI US Large-Cap Growth	9.1	9	63	LG (Large Growth)



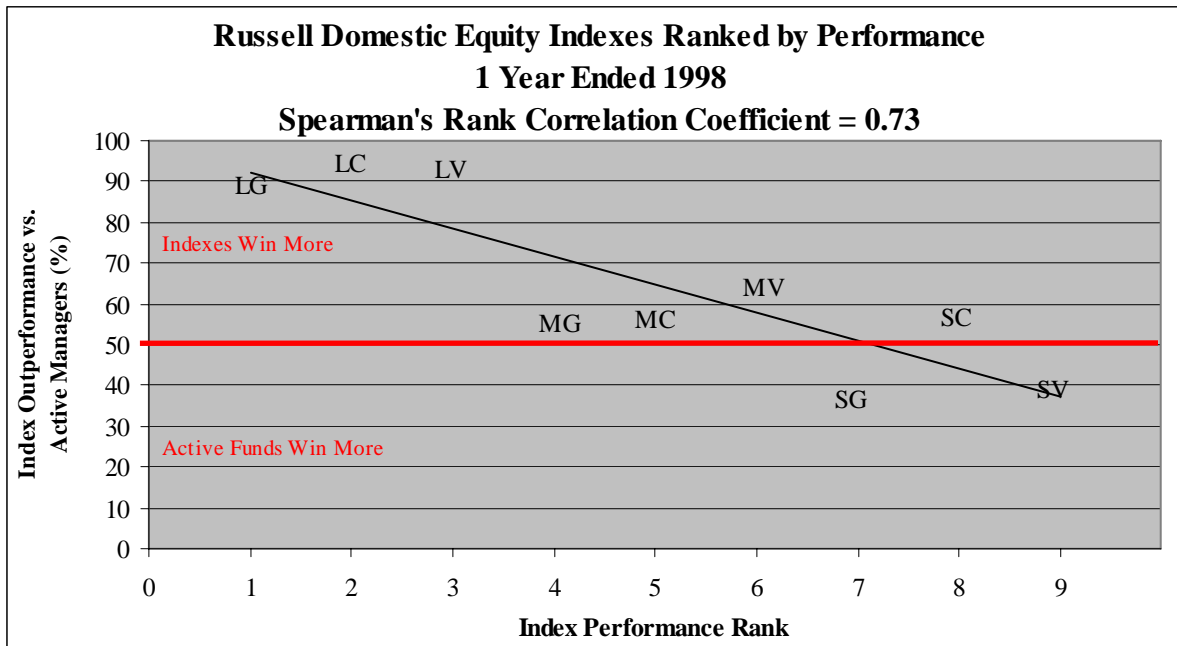
**EXHIBIT 20**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Mid-Cap Growth	17.4	1	59	MG (Mid Growth)
MSCI US Large-Cap Growth	11.7	2	37	LG (Large Growth)
MSCI US Small-Cap Growth	9.7	3	58	SG (Small Growth)
MSCI US Large-Cap 300	6.4	4	59	LC (Large Core)
MSCI US Mid-Cap 450	6.2	5	58	MC (Mid Core)
MSCI US Small-Cap 1750	1.2	6	69	SC (Small Core)
MSCI US Large-Cap Value	1.2	7	44	LV (Large Value)
MSCI US Mid-Cap Value	-4.4	8	14	MV (Mid Value)
MSCI US Small-Cap Value	-6.9	9	42	SV (Small Value)



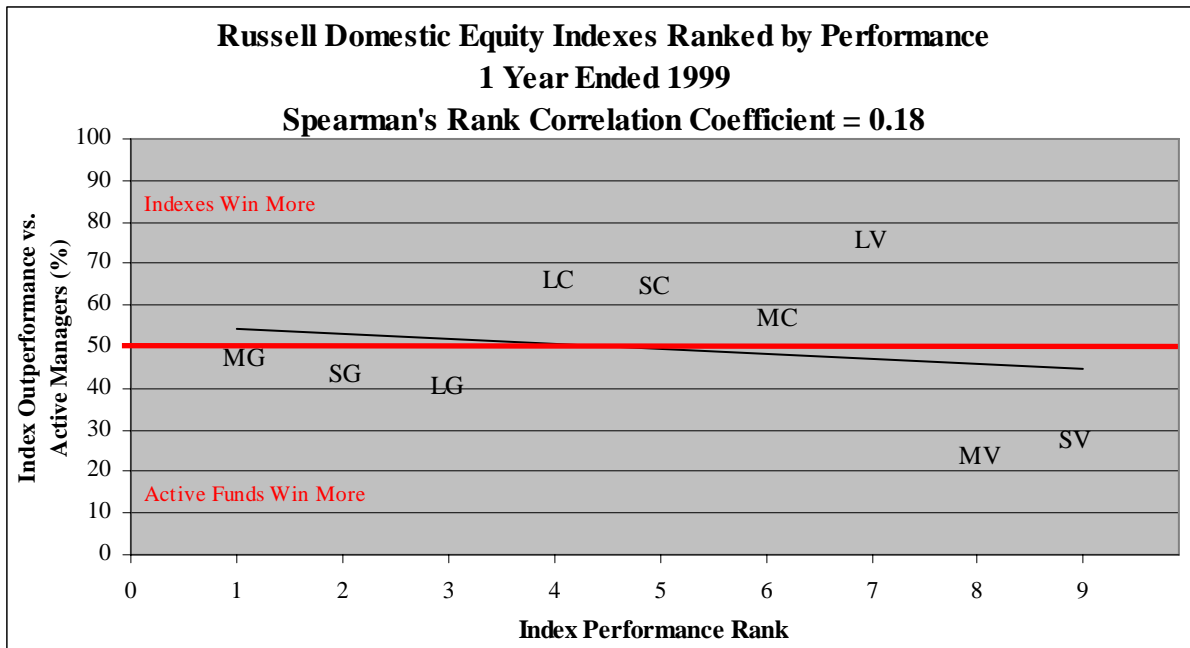
**EXHIBIT 21**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 1998**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell Top 200 Growth	45.1	1	89	LG (Large Growth)
Russell Top 200	34.0	2	94	LC (Large Core)
Russell Top 200 Value	21.2	3	92	LV (Large Value)
Russell Mid-Cap Growth	17.9	4	56	MG (Mid Growth)
Russell Mid-Cap	10.1	5	56	MC (Mid Core)
Russell Mid-Cap Value	5.1	6	63	MV (Mid Value)
Russell 2000 Growth	1.2	7	37	SG (Small Growth)
Russell 2000	-2.5	8	57	SC (Small Core)
Russell 2000 Value	-6.5	9	39	SV (Small Value)



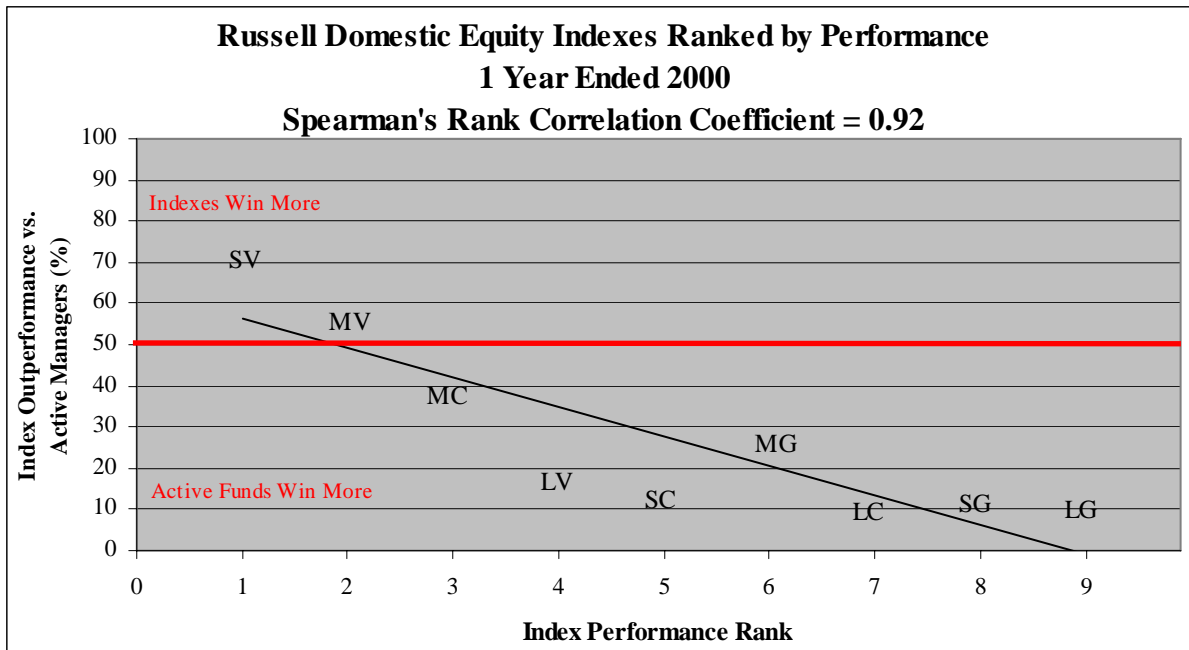
**EXHIBIT 22**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 1999**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell Mid-Cap Growth	51.3	1	48	MG (Mid Growth)
Russell 2000 Growth	43.1	2	42	SG (Small Growth)
Russell Top 200 Growth	29.7	3	41	LG (Large Growth)
Russell Top 200	21.8	4	66	LC (Large Core)
Russell 2000	21.3	5	64	SC (Small Core)
Russell Mid-Cap	18.2	6	57	MC (Mid Core)
Russell Top 200 Value	10.9	7	76	LV (Large Value)
Russell Mid-Cap Value	-0.1	8	24	MV (Mid Value)
Russell 2000 Value	-1.5	9	28	SV (Small Value)



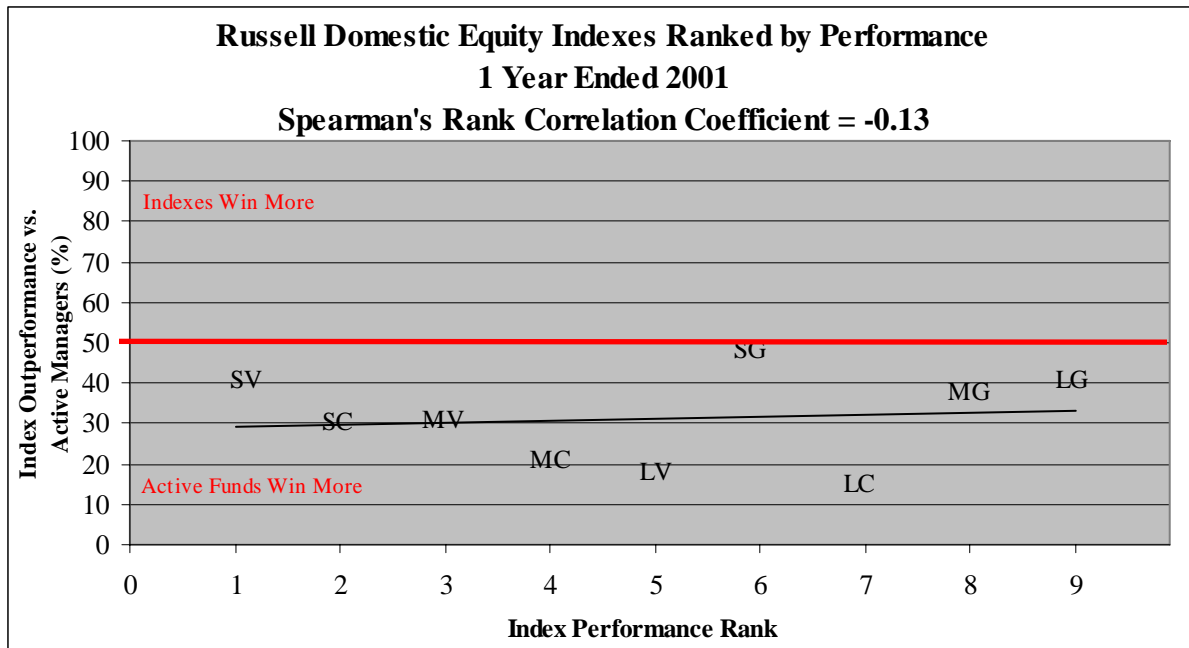
**EXHIBIT 23**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2000**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell 2000 Value	22.8	1	71	SV (Small Value)
Russell Mid-Cap Value	19.2	2	55	MV (Mid Value)
Russell Mid-Cap	8.2	3	38	MC (Mid Core)
Russell Top 200 Value	2.3	4	17	LV (Large Value)
Russell 2000	-3.0	5	12	SC (Small Core)
Russell Mid-Cap Growth	-11.7	6	26	MG (Mid Growth)
Russell Top 200	-12.1	7	9	LC (Large Core)
Russell 2000 Growth	-22.4	8	11	SG (Small Growth)
Russell Top 200 Growth	-24.5	9	9	LG (Large Growth)



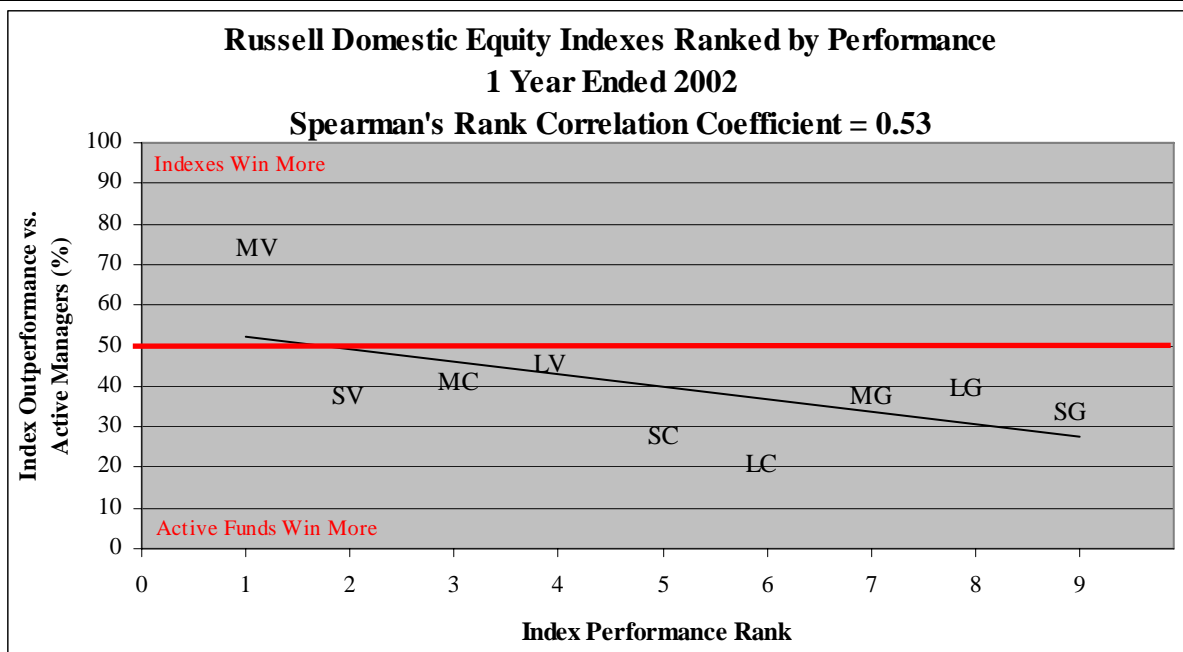
**EXHIBIT 24**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2001**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell 2000 Value	14.0	1	39	SV (Small Value)
Russell 2000	2.5	2	30	SC (Small Core)
Russell Mid-Cap Value	2.3	3	31	MV (Mid Value)
Russell Mid-Cap	-5.6	4	21	MC (Mid Core)
Russell Top 200 Value	-8.8	5	18	LV (Large Value)
Russell 2000 Growth	-9.2	6	48	SG (Small Growth)
Russell Top 200	-14.6	7	15	LC (Large Core)
Russell Mid-Cap Growth	-20.2	8	38	MG (Mid Growth)
Russell Top 200 Growth	-20.5	9	41	LG (Large Growth)



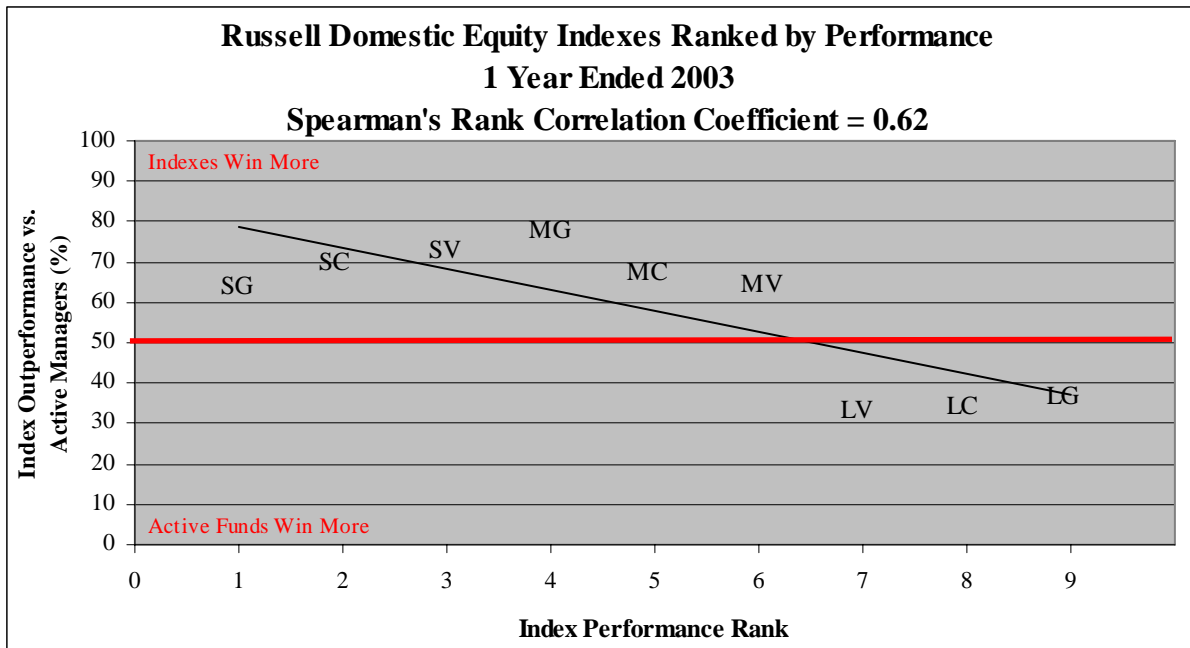
**EXHIBIT 25**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2002**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell Mid-Cap Value	-9.6	1	74	MV (Mid Value)
Russell 2000 Value	-11.4	2	38	SV (Small Value)
Russell Mid-Cap	-16.2	3	41	MC (Mid Core)
Russell Top 200 Value	-18.0	4	46	LV (Large Value)
Russell 2000	-20.5	5	28	SC (Small Core)
Russell Top 200	-23.4	6	21	LC (Large Core)
Russell Mid-Cap Growth	-27.4	7	38	MG (Mid Growth)
Russell Top 200 Growth	-28.0	8	40	LG (Large Growth)
Russell 2000 Growth	-30.3	9	34	SG (Small Growth)



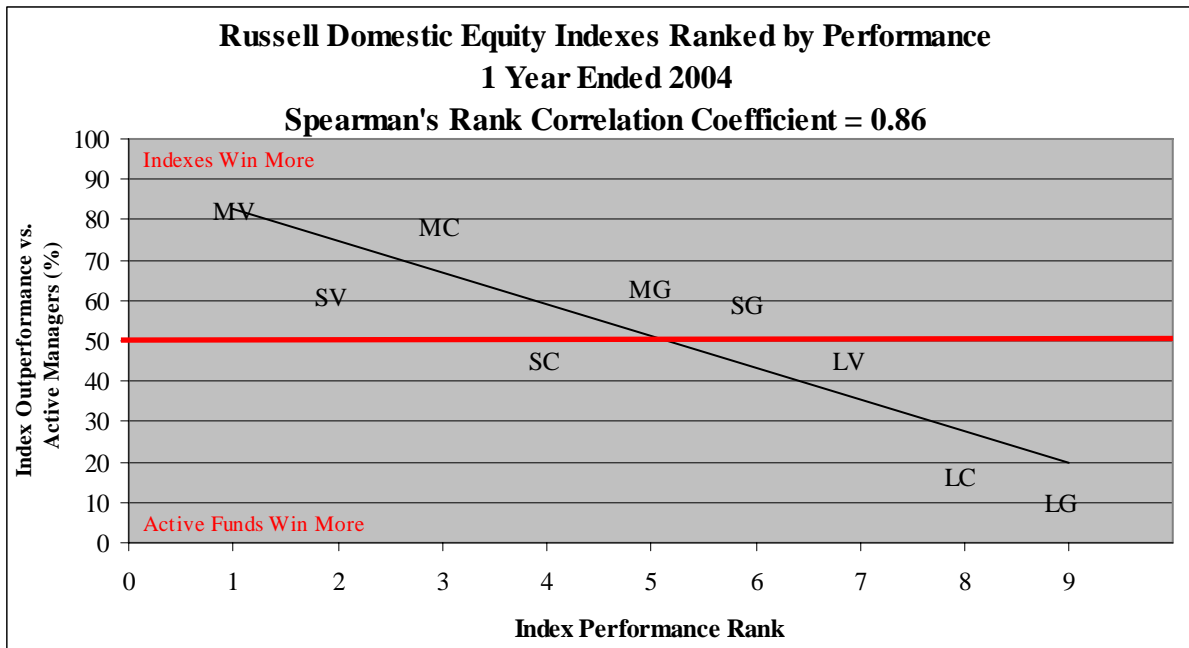
**EXHIBIT 26**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2003**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell 2000 Growth	48.5	1	64	SG (Small Growth)
Russell 2000	47.3	2	71	SC (Small Core)
Russell 2000 Value	46.0	3	73	SV (Small Value)
Russell Mid-Cap Growth	42.7	4	78	MG (Mid Growth)
Russell Mid-Cap	40.1	5	68	MC (Mid Core)
Russell Mid-Cap Value	38.1	6	65	MV (Mid Value)
Russell Top 200 Value	26.8	7	33	LV (Large Value)
Russell Top 200	26.7	8	34	LC (Large Core)
Russell Top 200 Growth	26.6	9	37	LG (Large Growth)



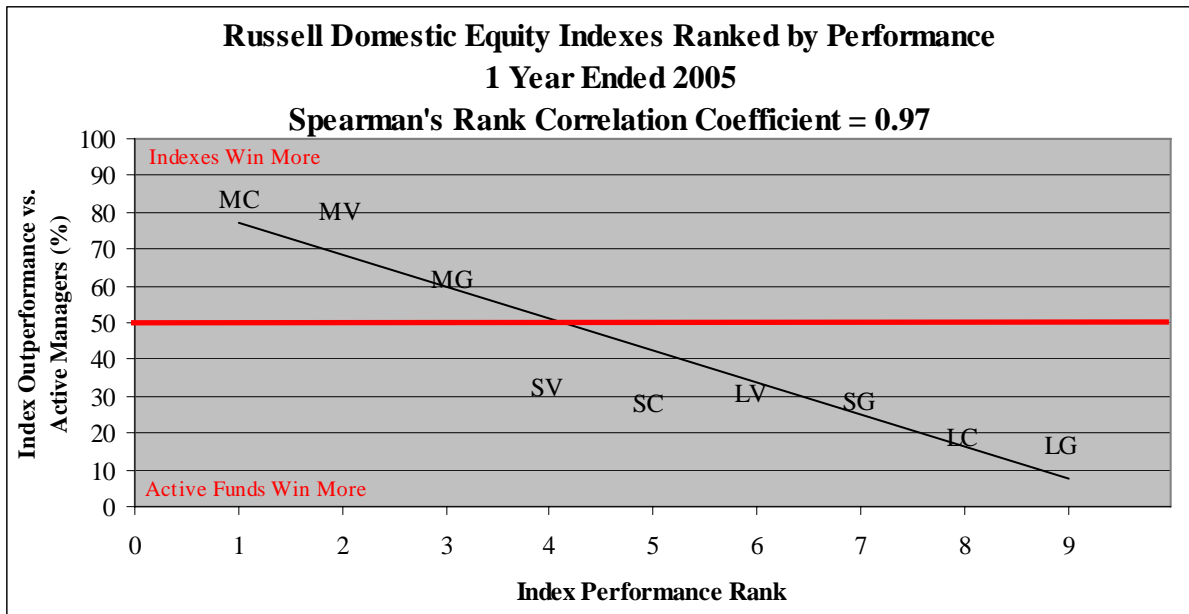
**EXHIBIT 27**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2004**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell Mid-Cap Value	23.7	1	82	MV (Mid Value)
Russell 2000 Value	22.2	2	61	SV (Small Value)
Russell Mid-Cap	20.2	3	78	MC (Mid Core)
Russell 2000	18.3	4	45	SC (Small Core)
Russell Mid-Cap Growth	15.5	5	63	MG (Mid Growth)
Russell 2000 Growth	14.3	6	59	SG (Small Growth)
Russell Top 200 Value	13.3	7	45	LV (Large Value)
Russell Top 200	8.3	8	17	LC (Large Core)
Russell Top 200 Growth	3.7	9	10	LG (Large Growth)



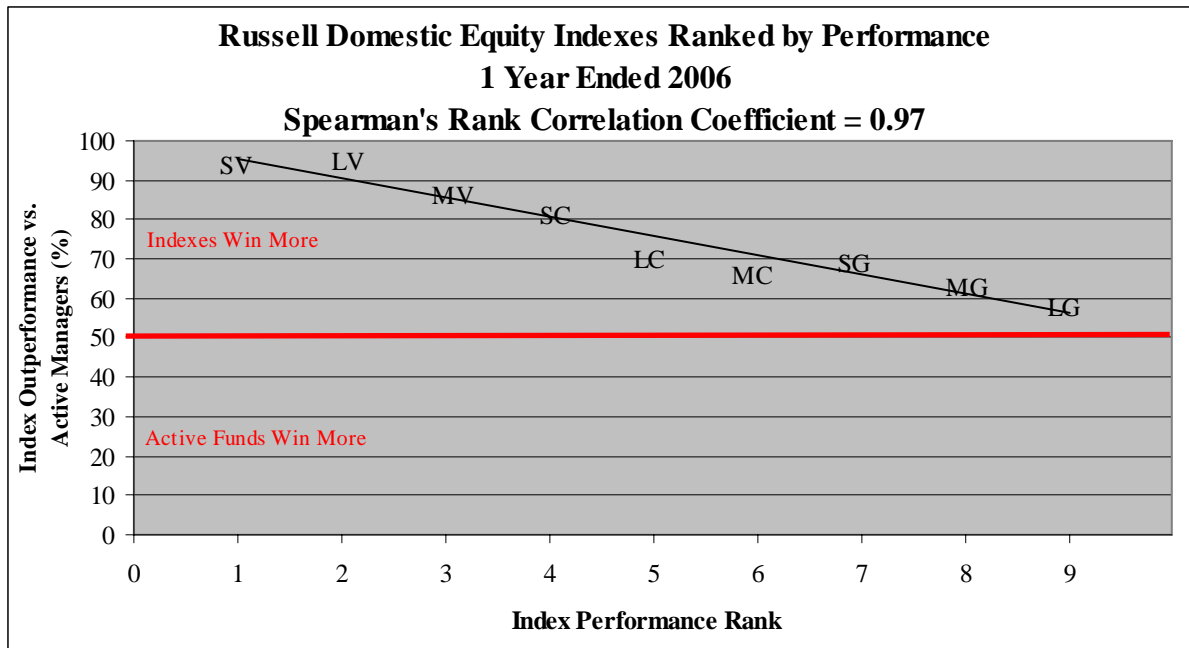
**EXHIBIT 28**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2005**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell Mid-Cap	12.7	1	83	MC (Mid Core)
Russell Mid-Cap Value	12.6	2	81	MV (Mid Value)
Russell Mid-Cap Growth	12.1	3	63	MG (Mid Growth)
Russell 2000 Value	4.7	4	32	SV (Small Value)
Russell 2000	4.6	5	28	SC (Small Core)
Russell Top 200 Value	4.6	6	31	LV (Large Value)
Russell 2000 Growth	4.2	7	28	SG (Small Growth)
Russell Top 200	3.8	8	19	LC (Large Core)
Russell Top 200 Growth	2.9	9	17	LG (Large Growth)



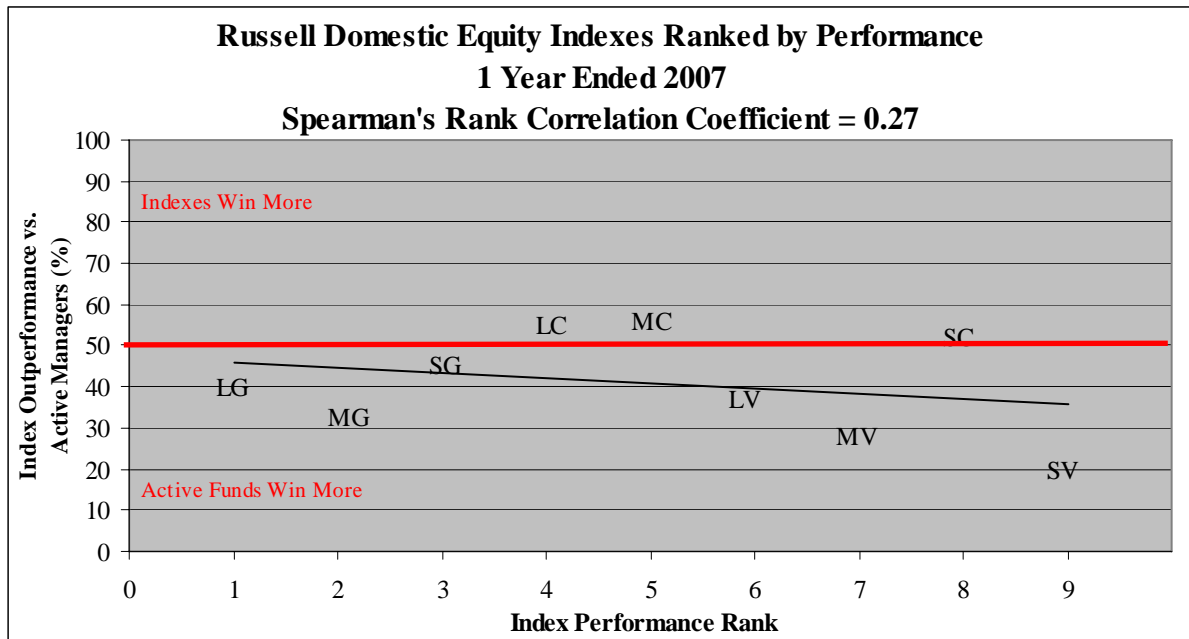
**EXHIBIT 29**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2006**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell 2000 Value	23.5	1	94	SV (Small Value)
Russell Top 200 Value	23.0	2	95	LV (Large Value)
Russell Mid-Cap Value	20.2	3	86	MV (Mid Value)
Russell 2000	18.4	4	81	SC (Small Core)
Russell Top 200	15.5	5	70	LC (Large Core)
Russell Mid-Cap	15.3	6	67	MC (Mid Core)
Russell 2000 Growth	13.3	7	69	SG (Small Growth)
Russell Mid-Cap Growth	10.7	8	62	MG (Mid Growth)
Russell Top 200 Growth	8.6	9	58	LG (Large Growth)



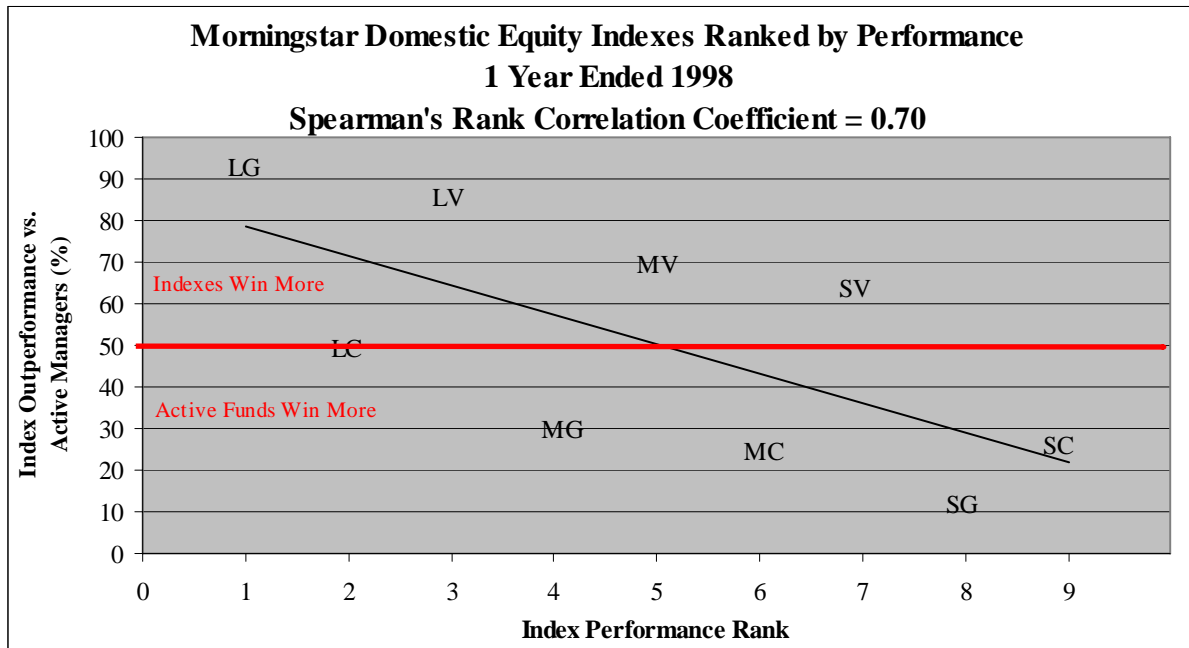
**EXHIBIT 30**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell Top 200 Growth	12.2	1	40	LG (Large Growth)
Russell Mid-Cap Growth	11.4	2	33	MG (Mid Growth)
Russell 2000 Growth	7.0	3	45	SG (Small Growth)
Russell Top 200	5.9	4	55	LC (Large Core)
Russell Mid-Cap	5.6	5	56	MC (Mid Core)
Russell Top 200 Value	0.2	6	38	LV (Large Value)
Russell Mid-Cap Value	-1.4	7	28	MV (Mid Value)
Russell 2000	-1.6	8	51	SC (Small Core)
Russell 2000 Value	-9.8	9	20	SV (Small Value)



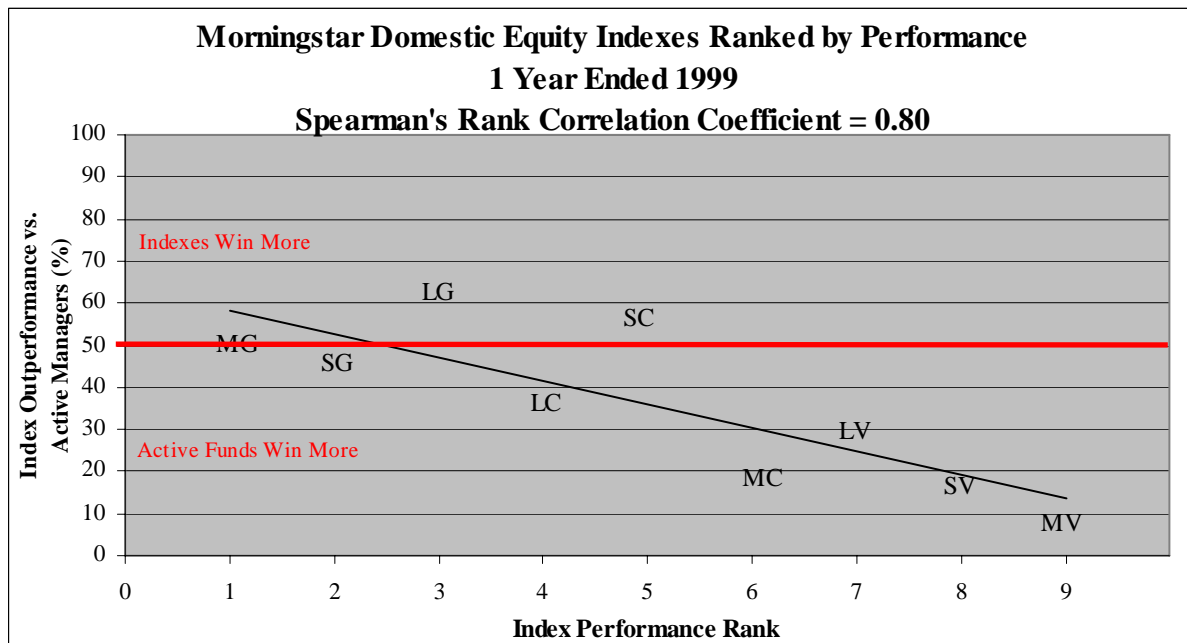
**EXHIBIT 31**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 1998**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Large Growth	51.2	1	93	LG (Large Growth)
Morningstar Large Core	23.2	2	49	LC (Large Core)
Morningstar Large Value	17.9	3	85	LV (Large Value)
Morningstar Mid Growth	9.5	4	30	MG (Mid Growth)
Morningstar Mid Value	5.9	5	69	MV (Mid Value)
Morningstar Mid Core	2.9	6	24	MC (Mid Core)
Morningstar Small Value	-3.7	7	64	SV (Small Value)
Morningstar Small Growth	-6.5	8	12	SG (Small Growth)
Morningstar Small Core	-7.6	9	26	SC (Small Core)



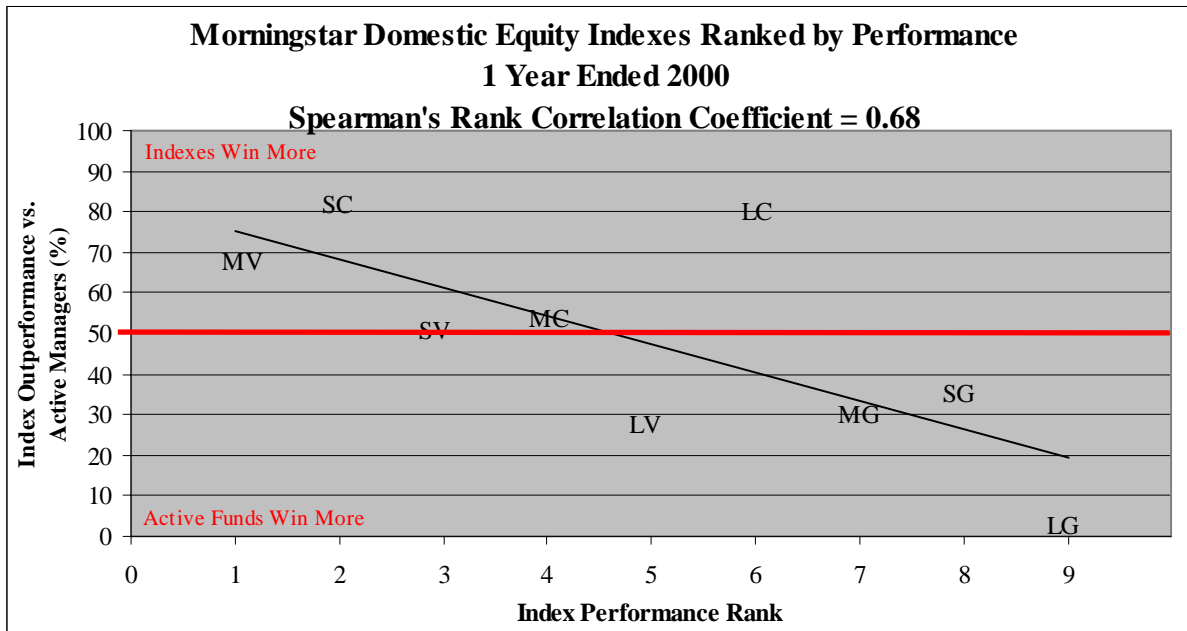
**EXHIBIT 32**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 1999**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Mid Growth	52.5	1	51	MG (Mid Growth)
Morningstar Small Growth	46.8	2	44	SG (Small Growth)
Morningstar Large Growth	42.6	3	63	LG (Large Growth)
Morningstar Large Core	17.8	4	36	LC (Large Core)
Morningstar Small Core	16.7	5	56	SC (Small Core)
Morningstar Mid Core	1.9	6	19	MC (Mid Core)
Morningstar Large Value	0.6	7	30	LV (Large Value)
Morningstar Small Value	-5.2	8	17	SV (Small Value)
Morningstar Mid Value	-6.8	9	8	MV (Mid Value)



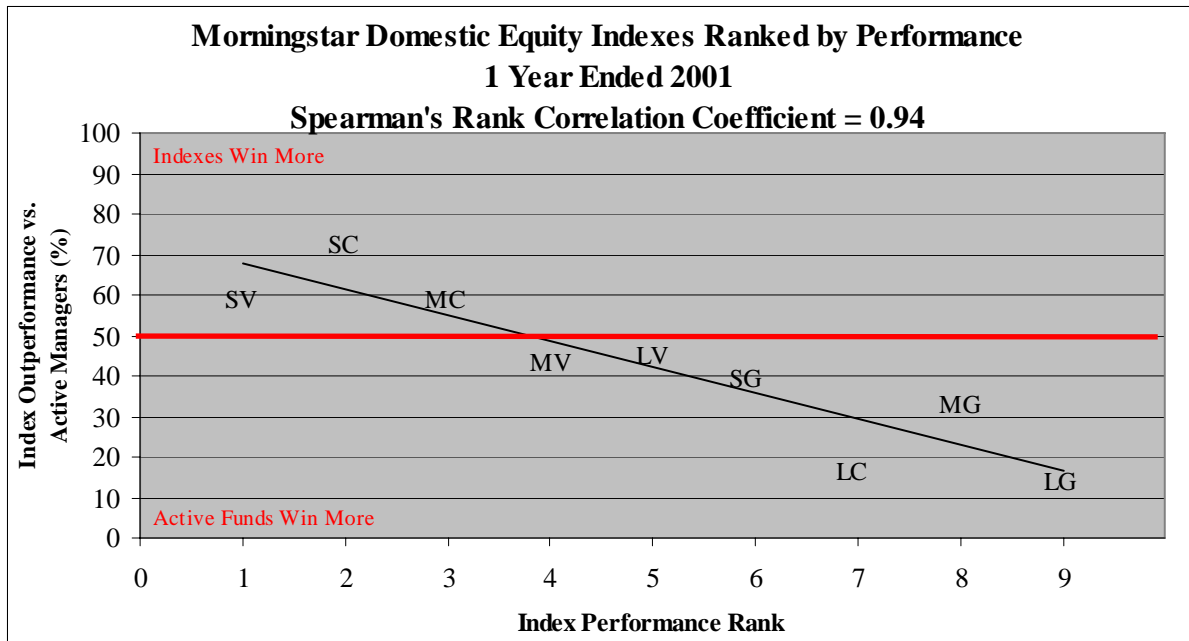
**EXHIBIT 33**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2000**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Mid Value	24.6	1	68	MV (Mid Value)
Morningstar Small Core	23.2	2	81	SC (Small Core)
Morningstar Small Value	18.6	3	51	SV (Small Value)
Morningstar Mid Core	14.8	4	54	MC (Mid Core)
Morningstar Large Value	5.7	5	27	LV (Large Value)
Morningstar Large Core	4.2	6	80	LC (Large Core)
Morningstar Mid Growth	-11.1	7	29	MG (Mid Growth)
Morningstar Small Growth	-12.1	8	35	SG (Small Growth)
Morningstar Large Growth	-33.5	9	2	LG (Large Growth)



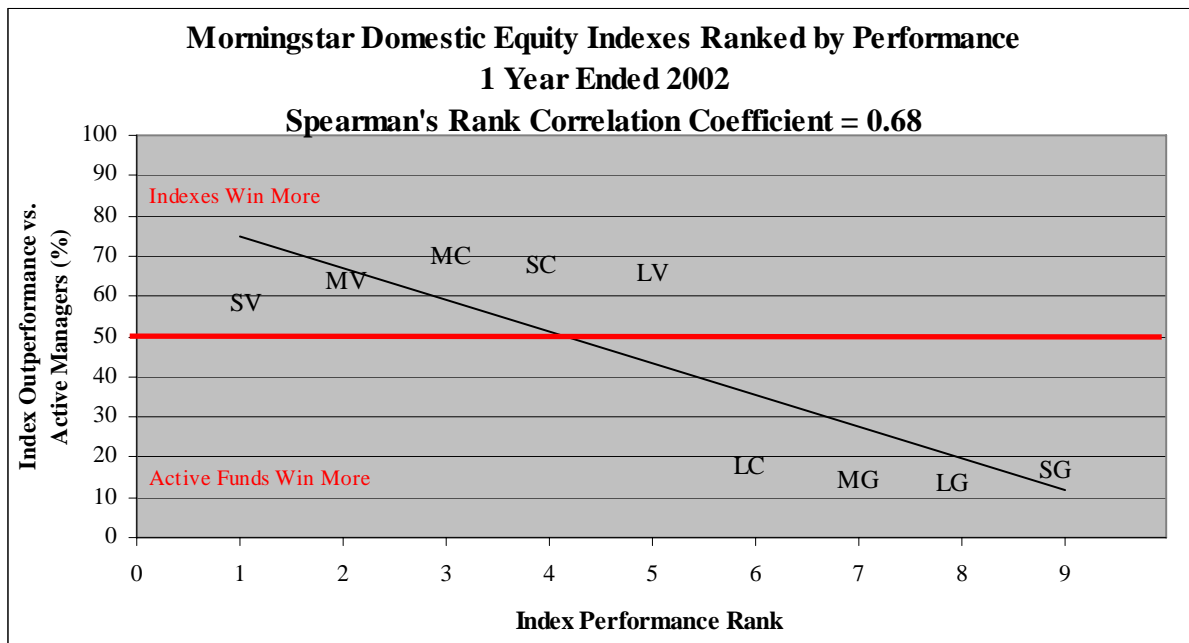
**EXHIBIT 34**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2001**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Small Value	18.6	1	59	SV (Small Value)
Morningstar Small Core	14.6	2	72	SC (Small Core)
Morningstar Mid Core	6.1	3	59	MC (Mid Core)
Morningstar Mid Value	5.1	4	43	MV (Mid Value)
Morningstar Large Value	-3.4	5	45	LV (Large Value)
Morningstar Small Growth	-12.9	6	39	SG (Small Growth)
Morningstar Large Core	-14.3	7	16	LC (Large Core)
Morningstar Mid Growth	-21.6	8	33	MG (Mid Growth)
Morningstar Large Growth	-29.1	9	14	LG (Large Growth)



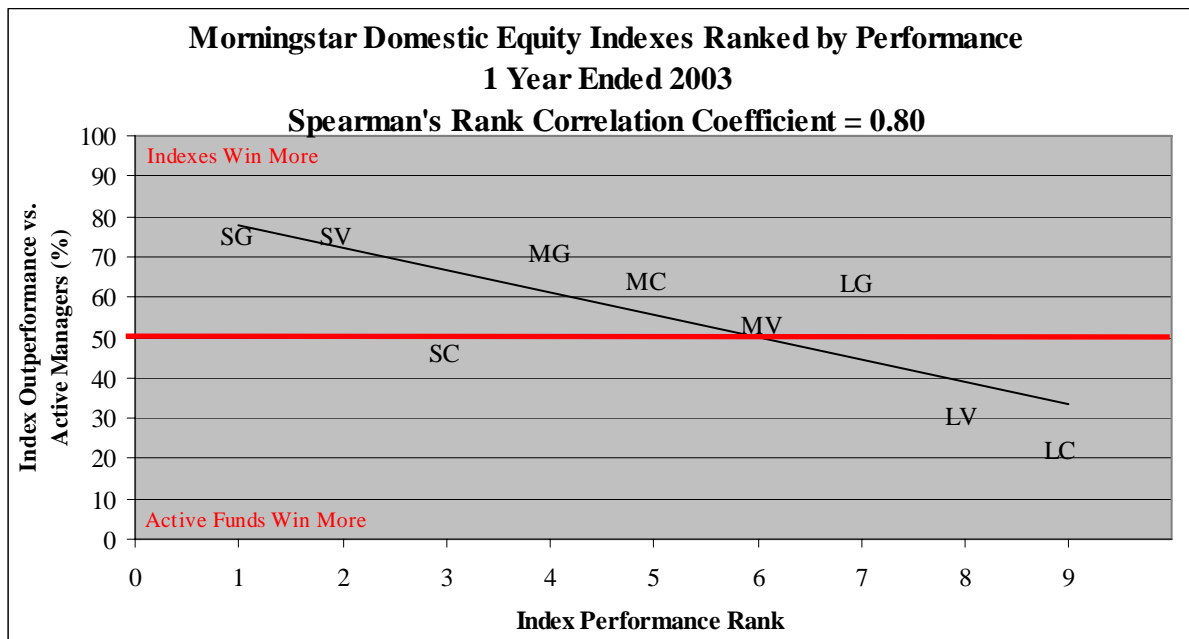
**EXHIBIT 35**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2002**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Small Value	-8.3	1	58	SV (Small Value)
Morningstar Mid Value	-10.0	2	64	MV (Mid Value)
Morningstar Mid Core	-12.4	3	70	MC (Mid Core)
Morningstar Small Core	-14.2	4	68	SC (Small Core)
Morningstar Large Value	-15.1	5	66	LV (Large Value)
Morningstar Large Core	-23.8	6	18	LC (Large Core)
Morningstar Mid Growth	-32.5	7	15	MG (Mid Growth)
Morningstar Large Growth	-33.2	8	14	LG (Large Growth)
Morningstar Small Growth	-36.9	9	17	SG (Small Growth)



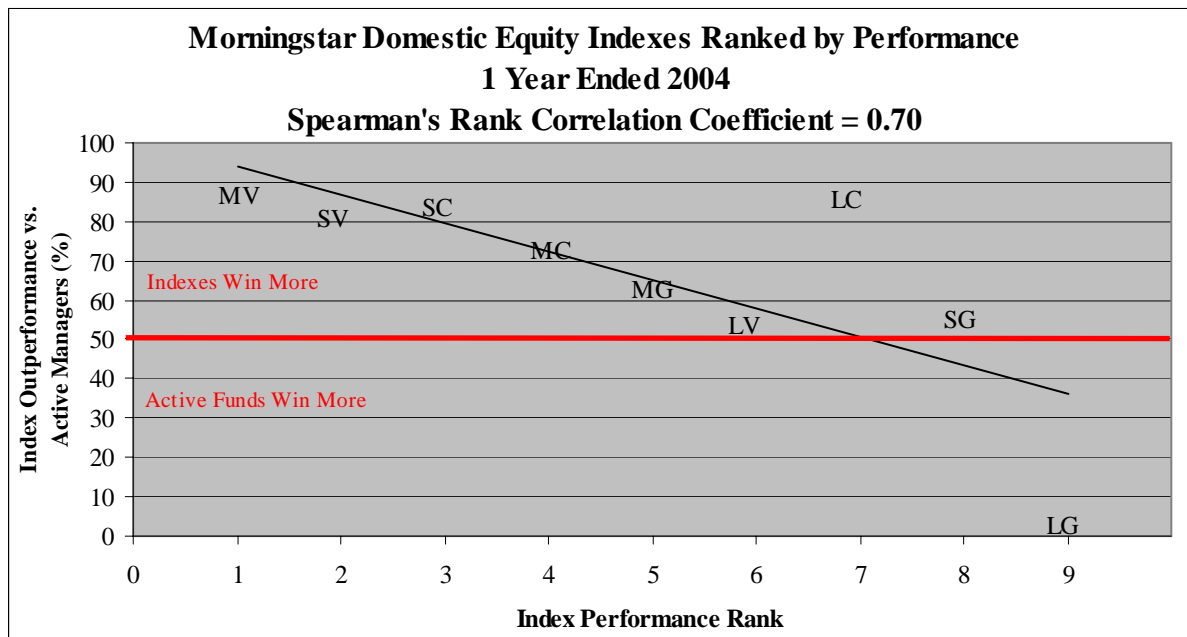
**EXHIBIT 36**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2003**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Small Growth	52.7	1	75	SG (Small Growth)
Morningstar Small Value	48.9	2	76	SV (Small Value)
Morningstar Small Core	42.6	3	46	SC (Small Core)
Morningstar Mid Growth	40.0	4	71	MG (Mid Growth)
Morningstar Mid Core	38.7	5	64	MC (Mid Core)
Morningstar Mid Value	35.9	6	53	MV (Mid Value)
Morningstar Large Growth	30.7	7	63	LG (Large Growth)
Morningstar Large Value	26.3	8	30	LV (Large Value)
Morningstar Large Core	24.7	9	22	LC (Large Core)



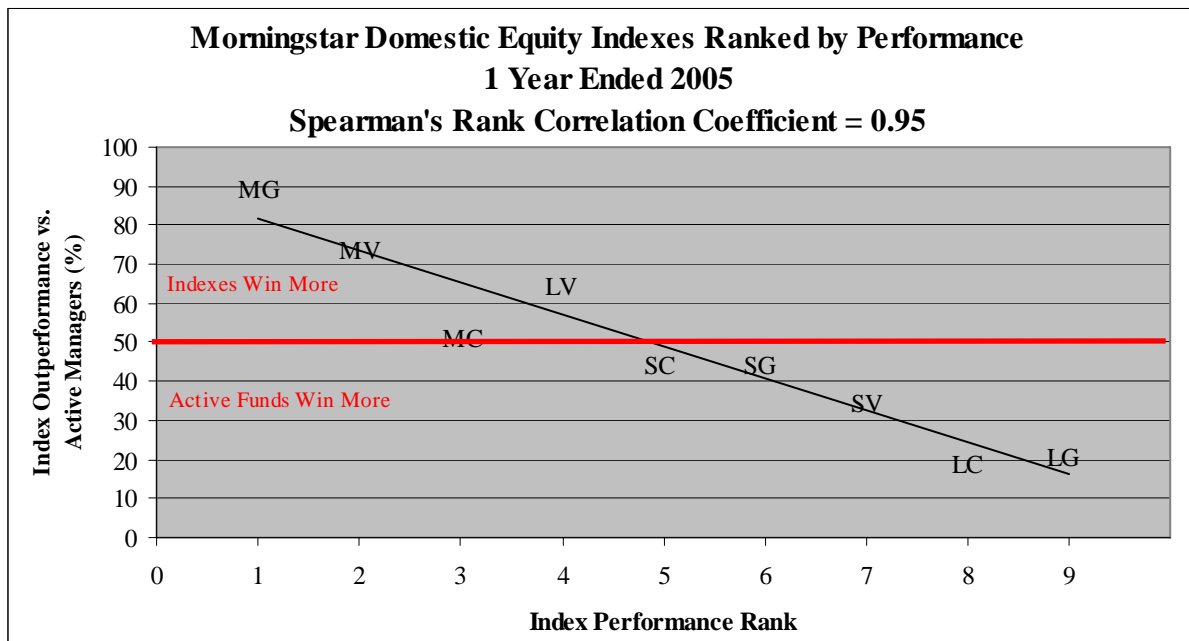
**EXHIBIT 37**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2004**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Mid Value	24.3	1	87	MV (Mid Value)
Morningstar Small Value	24.0	2	81	SV (Small Value)
Morningstar Small Core	23.6	3	84	SC (Small Core)
Morningstar Mid Core	19.1	4	73	MC (Mid Core)
Morningstar Mid Growth	15.4	5	63	MG (Mid Growth)
Morningstar Large Value	14.1	6	54	LV (Large Value)
Morningstar Large Core	14.0	7	86	LC (Large Core)
Morningstar Small Growth	13.5	8	56	SG (Small Growth)
Morningstar Large Growth	0.2	9	1	LG (Large Growth)



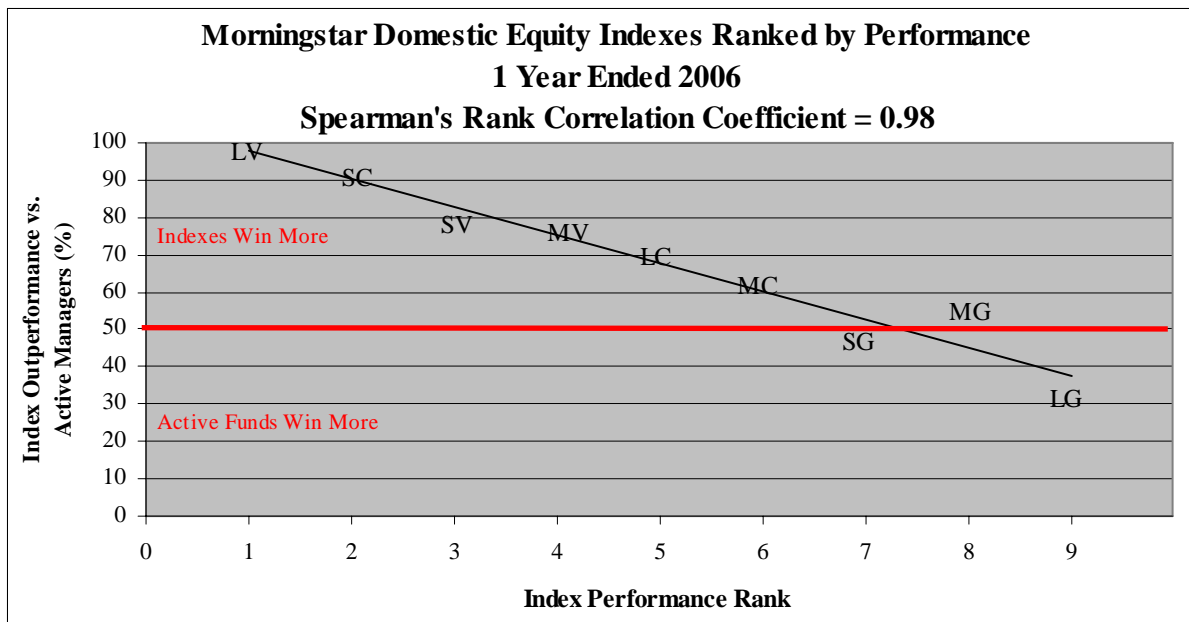
**EXHIBIT 38**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2005**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Mid Growth	16.3	1	89	MG (Mid Growth)
Morningstar Mid Value	11.5	2	73	MV (Mid Value)
Morningstar Mid Core	10.1	3	52	MC (Mid Core)
Morningstar Large Value	7.1	4	64	LV (Large Value)
Morningstar Small Core	6.3	5	44	SC (Small Core)
Morningstar Small Growth	5.8	6	44	SG (Small Growth)
Morningstar Small Value	5.1	7	34	SV (Small Value)
Morningstar Large Core	3.8	8	19	LC (Large Core)
Morningstar Large Growth	3.4	9	21	LG (Large Growth)



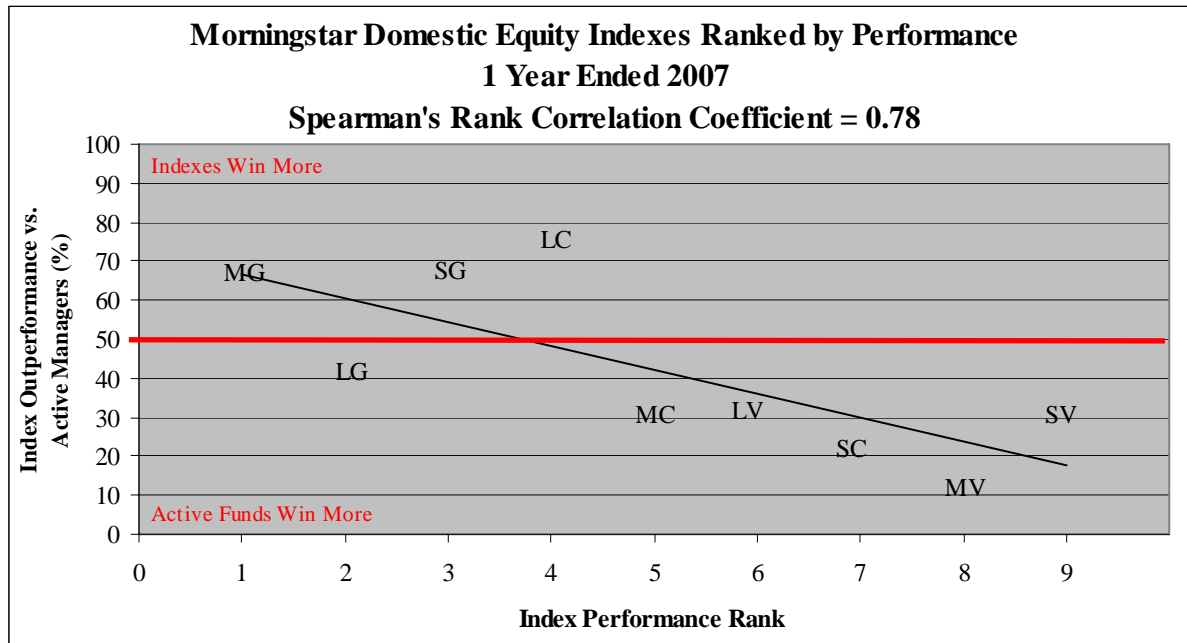
**EXHIBIT 39**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2006**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Large Value	25.8	1	98	LV (Large Value)
Morningstar Small Core	21.2	2	91	SC (Small Core)
Morningstar Small Value	20.0	3	78	SV (Small Value)
Morningstar Mid Value	18.8	4	76	MV (Mid Value)
Morningstar Large Core	15.5	5	70	LC (Large Core)
Morningstar Mid Core	14.7	6	63	MC (Mid Core)
Morningstar Small Growth	10.0	7	47	SG (Small Growth)
Morningstar Mid Growth	9.6	8	54	MG (Mid Growth)
Morningstar Large Growth	5.7	9	32	LG (Large Growth)



**EXHIBIT 40**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes Ranked by Performance**  
**1 Year Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Mid Growth	19.7	1	67	MG (Mid Growth)
Morningstar Large Growth	12.3	2	42	LG (Large Growth)
Morningstar Small Growth	11.1	3	67	SG (Small Growth)
Morningstar Large Core	8.7	4	76	LC (Large Core)
Morningstar Mid Core	2.0	5	31	MC (Mid Core)
Morningstar Large Value	-0.4	6	33	LV (Large Value)
Morningstar Small Core	-5.4	7	22	SC (Small Core)
Morningstar Mid Value	-5.5	8	11	MV (Mid Value)
Morningstar Small Value	-8.2	9	31	SV (Small Value)



## **APPENDIX 4**

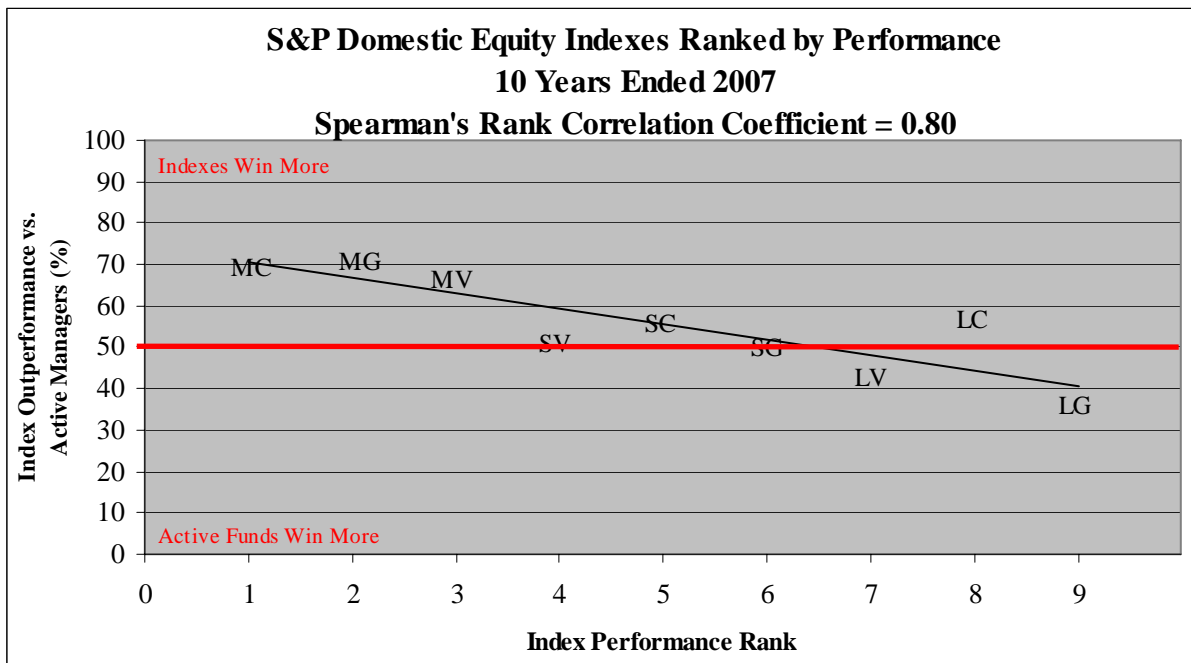
### **EFFECT OF MANAGER CASH**

We performed tests in an attempt to measure the extent to which active manager cash contributes to the Purity Hypothesis for the ten year period ended 2007. To do this, we gave each S&P, MSCI, Russell and Morningstar index a 5% position in 90-day T-bills and a 1% annual fee. Next, we recalculated these indexes' annualized performance for the ten years ended 2007. Using these adjusted returns, we then redid the ten-year "Index Versus Active Performance Analysis" for each index provider. These four analyses are shown in Exhibits 1-4.

Overall, the higher cash levels and expenses had only a small effect. If the effect had been large, then the slope of each index provider's reconfigured trend line would have lessened significantly (reflecting much lower returns in the top asset classes and much higher returns in the bottom ones). However, the slope of these trend lines changed little from the originals. In the best-returning asset classes, performance declined slightly, and in the worst-returning categories, returns improved a small amount. These results help show that manager cash explains only a small amount of the Purity Hypothesis for the ten year period ended 2007. However, these tests are not definitive as they incorporate simplifying assumptions (5% cash level and 1% expenses). Actual cash positions of the managers in the best and worst performing asset classes would be needed to do a more authoritative analysis.

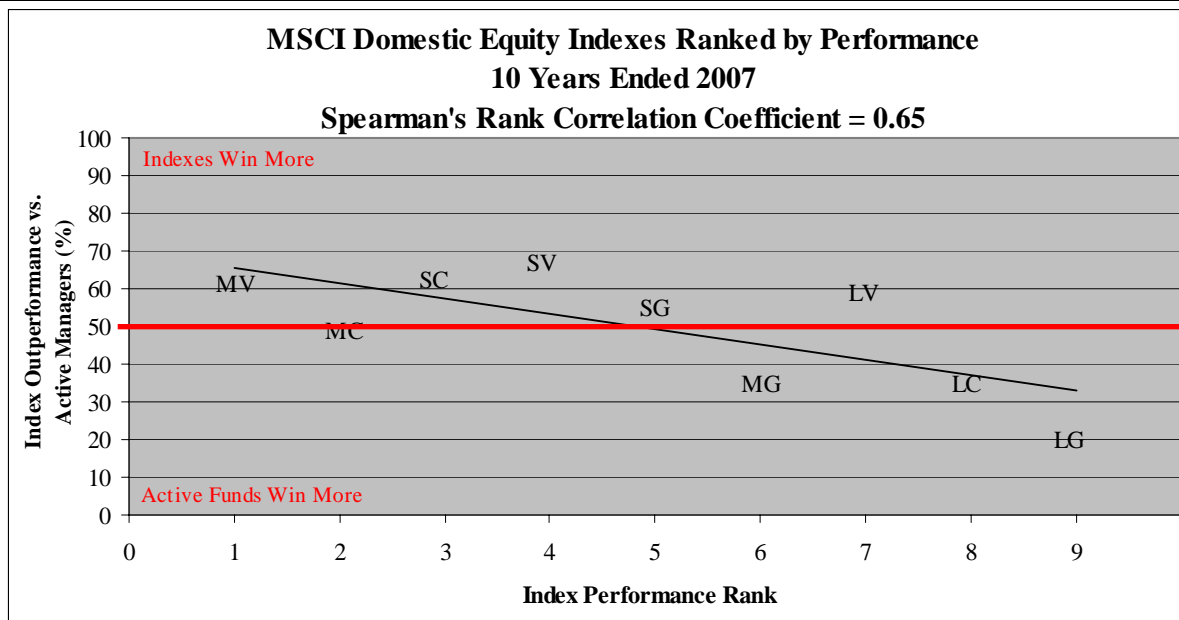
**EXHIBIT 1**  
**Index Versus Active Performance Analysis**  
**S&P Domestic Equity Indexes by Asset Class**  
**Adjusted for 5% Cash and 1% Fee**  
**10 Years Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
S&P Mid-Cap 400	10.9	1	69	MC (Mid Core)
S&P Mid-Cap 400 Growth	10.9	2	71	MG (Mid Growth)
S&P Mid-Cap 400 Value	10.8	3	67	MV (Mid Value)
S&P Small-Cap 600 Value	8.8	4	51	SV (Small Value)
S&P Small-Cap 600	8.8	5	56	SC (Small Core)
S&P Small-Cap 600 Growth	8.0	6	50	SG (Small Growth)
S&P 500/Citigroup Value	6.5	7	43	LV (Large Value)
S&P 500	5.9	8	57	LC (Large Core)
S&P 500/Citigroup Growth	4.8	9	36	LG (Large Growth)



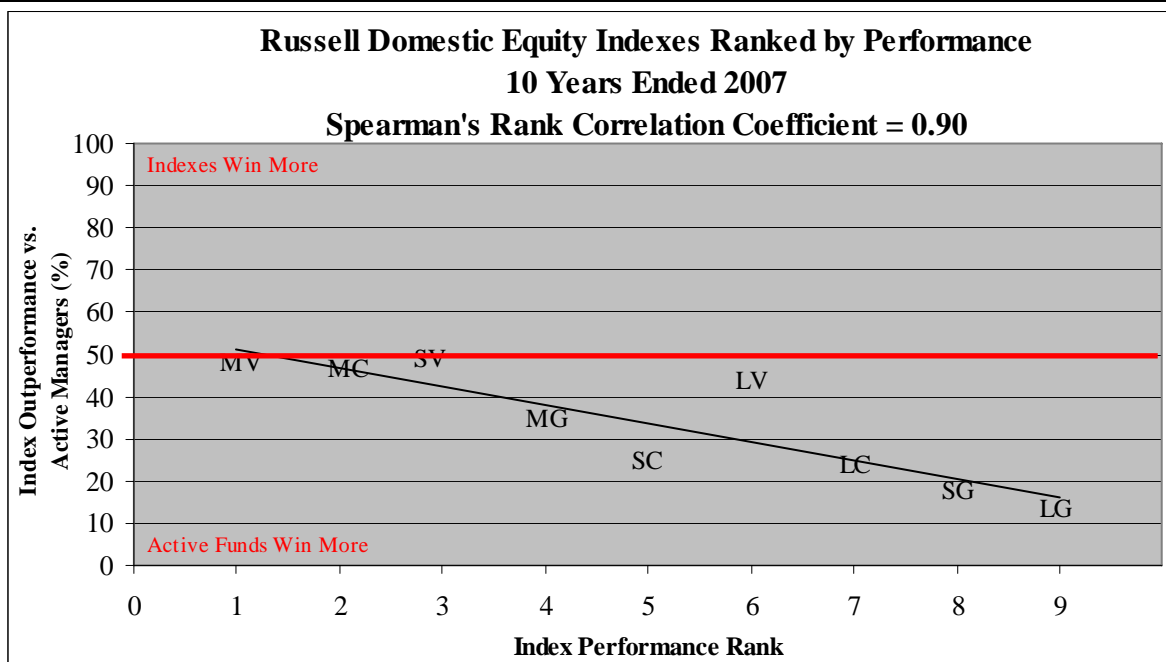
**EXHIBIT 2**  
**Index Versus Active Performance Analysis**  
**MSCI Domestic Equity Indexes by Asset Class**  
**Adjusted for 5% Cash and 1% Fee**  
**10 Years Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
MSCI US Mid-Cap Value	10.5	1	61	MV(Mid Value)
MSCI US Mid-Cap 450	9.8	2	49	MC (Mid Core)
MSCI US Small-Cap 1750	9.4	3	63	SC (Small Value)
MSCI US Small-Cap Value	9.4	4	67	SV (Small Core)
MSCI US Small-Cap Growth	8.4	5	55	SG (Small Growth)
MSCI US Mid-Cap Growth	7.8	6	35	MG (Mid Growth)
MSCI US Large-Cap Value	7.2	7	59	LV (Large Value)
MSCI US Large-Cap 300	5.4	8	35	LC (Large Core)
MSCI US Large-Cap Growth	3.6	9	20	LG (Large Growth)



**EXHIBIT 3**  
**Index Versus Active Performance Analysis**  
**Russell Domestic Equity Indexes Ranked by Performance**  
**Adjusted for 5% Cash and 1% Fee**  
**10 Years Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Russell Mid-Cap Value	9.9	1	48	MV (Mid Value)
Russell Mid-Cap	9.7	2	47	MC (Mid Core)
Russell 2000 Value	8.8	3	49	SV (Small Value)
Russell Mid-Cap Growth	7.5	4	35	MG (Mid Growth)
Russell 2000	7.0	5	25	SC (Small Core)
Russell Top 200 Value	6.6	6	44	LV (Large Value)
Russell Top 200	5.0	7	24	LC (Large Core)
Russell 2000 Growth	4.5	8	18	SG (Small Growth)
Russell Top 200 Growth	3.1	9	14	LG (Large Growth)



**EXHIBIT 4**  
**Index Versus Active Performance Analysis**  
**Morningstar Domestic Equity Indexes by Asset Class**  
**Adjusted for 5% Cash and 1% Fee**  
**10 Years Ended 2007**

Index	Annualized Performance %	Index Performance Rank	Index Outperformance Versus Active Managers %	Asset Class Abbreviation
Morningstar Small Core	10.6	1	79	SC (Small Core)
Morningstar Small Value	9.4	2	67	SV (Small Value)
Morningstar Mid Value	9.2	3	38	MV (Mid Value)
Morningstar Mid Core	8.8	4	32	MC (Mid Core)
Morningstar Large Value	7.0	5	53	LV (Large Value)
Morningstar Mid Growth	6.8	6	30	MG (Mid Growth)
Morningstar Large Core	6.1	7	64	LC (Large Core)
Morningstar Small Growth	4.2	8	17	SG (Small Growth)
Morningstar Large Growth	1.2	9	4	LG (Large Growth)

