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**Cash Flow Trends and Their Fundamental Drivers: A Continuing Look  
Comprehensive Industry Review (Qtr 4, 2008)**

**Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**

**EXECUTIVE SUMMARY**

This research report is one of a series that looks at the cash flow performance of Corporate America. Our primary focus is on free cash margin, or free cash flow measured as a percent of revenue. The current study provides our comprehensive review for the pharmaceuticals, biotechnology & life sciences industry (GICS: 3520) through Q4, 2008.

Free cash margin for the pharmaceuticals, biotechnology and life sciences industry fell 27% from 8.09% in December 2007 to 5.90% in December 2008. This decrease was driven by a drop in operating cash margin of 22% from 14.24% to 11.10% over the respective period. With a low point in median free cash margin of 1.74% in June 2001 it appears the industry, while declining, still performed better in December 2008 than during the last recession.

Data for this research were provided by Cash Flow Analytics, LLC., [www.cashflowanalytics.com](http://www.cashflowanalytics.com).  
Charles Mulford is a principal in Cash Flow Analytics, LLC. May, 2009

**Georgia Tech Financial Analysis Lab  
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**Georgia Tech Financial Analysis Lab**

The Georgia Tech Financial Analysis Lab conducts research on issues of financial reporting and analysis. Unbiased information is vital to effective investment decision-making. Accordingly, we think that independent research organizations, such as our own, have an important role to play in providing information to market participants.

Because our Lab is housed within a university, all of our research reports have an educational quality, as they are designed to impart knowledge and understanding to those who read them. Our focus is on issues that we believe will be of interest to a large segment of stock market participants. Depending on the issue, we may focus our attention on individual companies, groups of companies, or on large segments of the market at large.

A recurring theme in our work is the identification of reporting practices that give investors a misleading signal, whether positive or negative, of corporate earning power. We define earning power as the ability to generate a sustainable stream of earnings that is backed by cash flow. Accordingly, our research may look into reporting practices that affect either earnings or cash flow, or both. At times, our research may look at stock prices generally, though from a fundamental and not technical point of view.

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# Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)

<b>Sub-industries included:</b>	<b>Page</b>
<b>Biotechnology (352010)</b>	<b>16</b>
<b>Pharmaceuticals (352020)</b>	<b>17</b>
<b>Life Science Tools &amp; Services (352030)</b>	<b>18</b>

## Observations

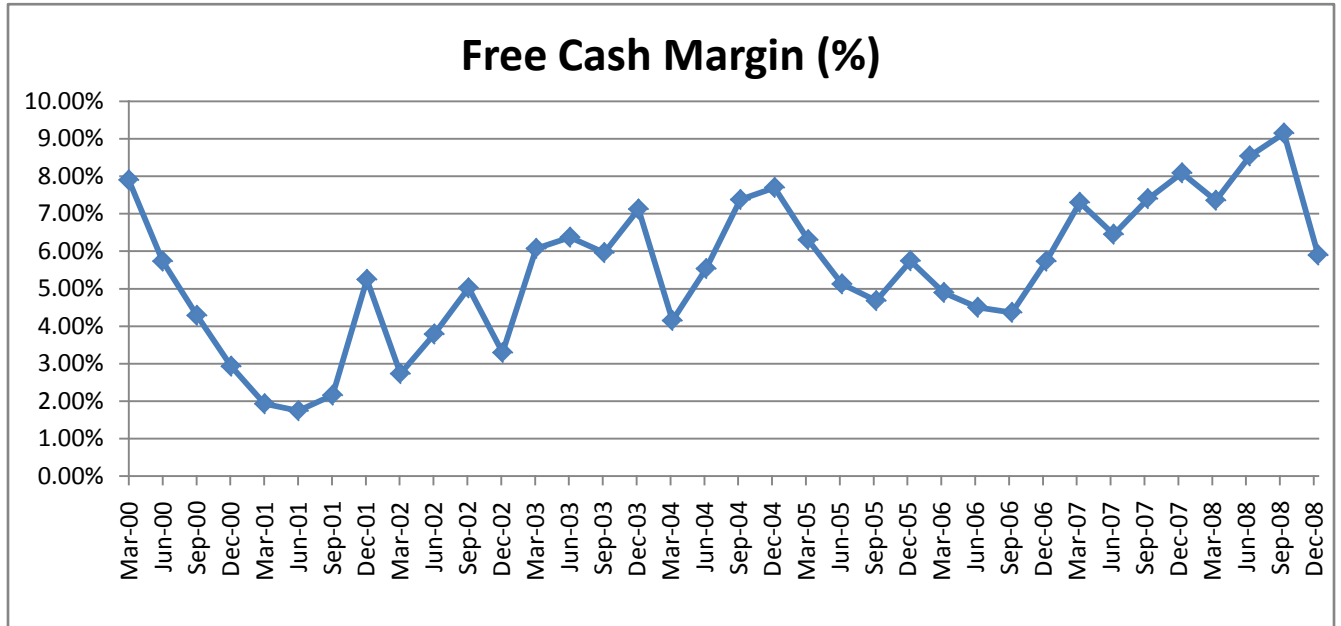
Free cash margin for the pharmaceuticals, biotechnology and life sciences industry fell 27% from 8.09% in December 2007 to 5.90% in December 2008. This decrease was driven by a drop in operating cash margin of 22% from 14.24% to 11.10% over the respective period. With a low point in median free cash margin of 1.74% in June 2001 it appears the industry, while declining, still performed better in December 2008 than during the last recession.

Operating cushion remained flat while the cash cycle improved by more than 11 days as AR Days, AP Days and Inventory Days each improved. Cash cycle decreased from 58.08 days in December 2007 to 46.91 days in December 2008. However net margin fell nearly 10% from 6.37% to 5.74% over the same period.

All three sub industries suffered reduced free cash margin for the 12 months ending December 2008 with the life sciences tools and services sub-industry (GICS: 352030) suffering the greatest drop, declining nearly 25% from 8.04% in December 2007 to 6.04% in December 2008.

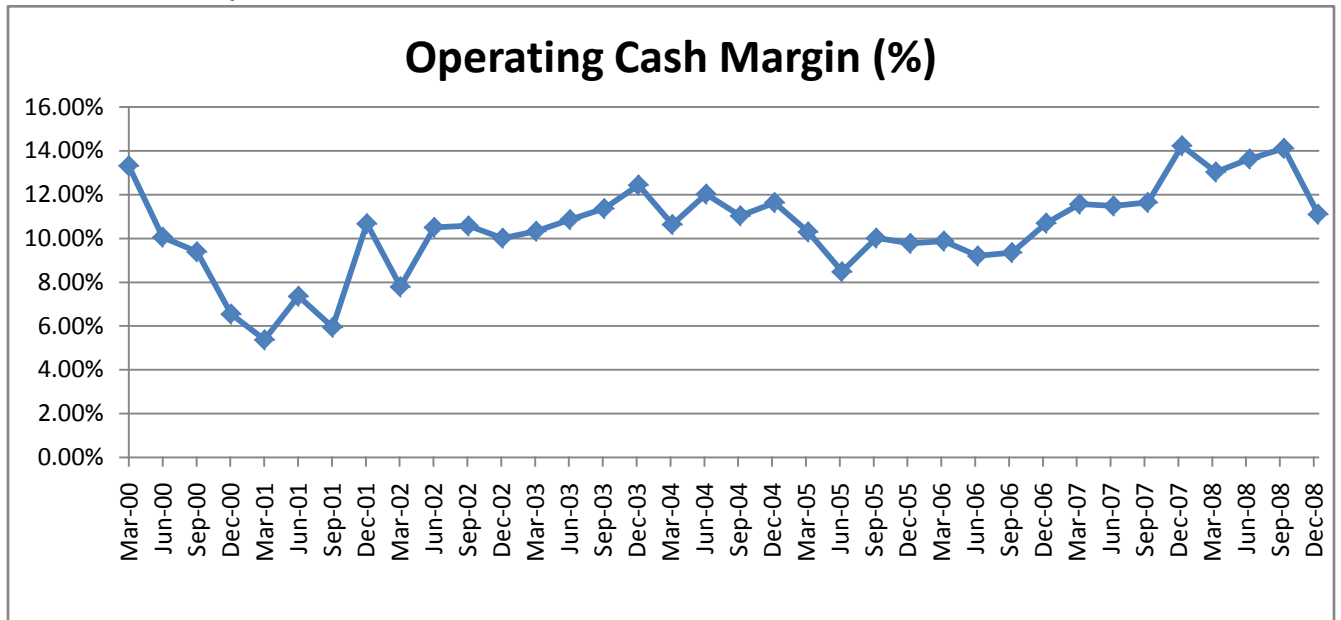
**Cash Flow Margins**

**Exhibit 1: Median Free Cash Margin, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



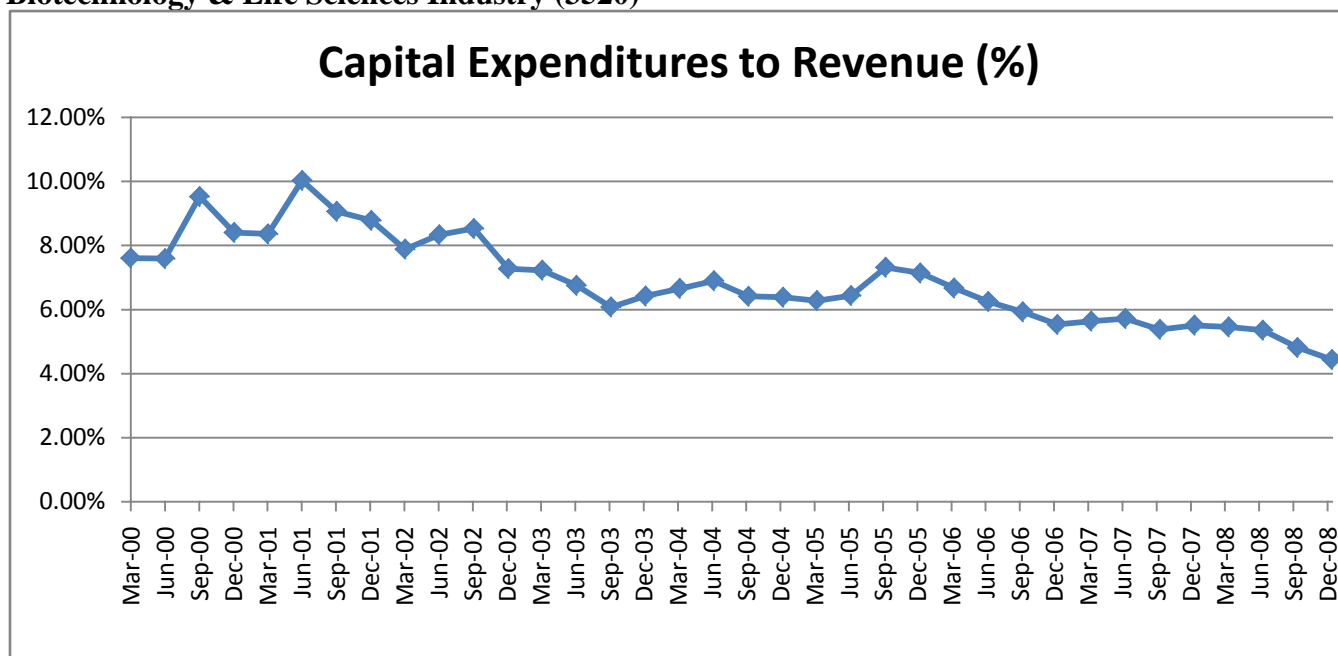
Refer to Table 1 for data supporting the graph.

**Exhibit 2: Median Operating Cash Margin, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



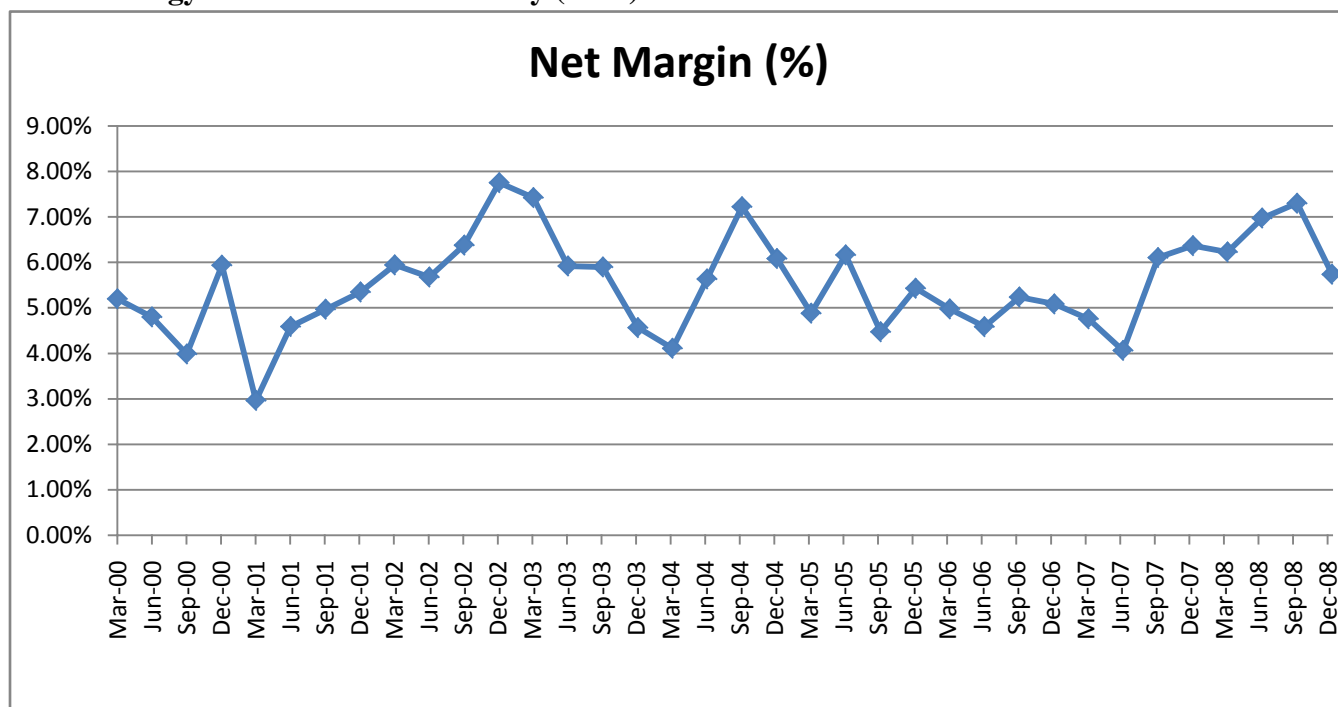
Refer to Table 1 for data supporting the graph.

**Exhibit 3: The Ratio of Capital Expenditures to Revenue, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



Refer to Table 1 for data supporting the graph.

**Exhibit 4: Median Net Margin from Continuing Operations, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



Refer to Table 1 for data supporting the graph.

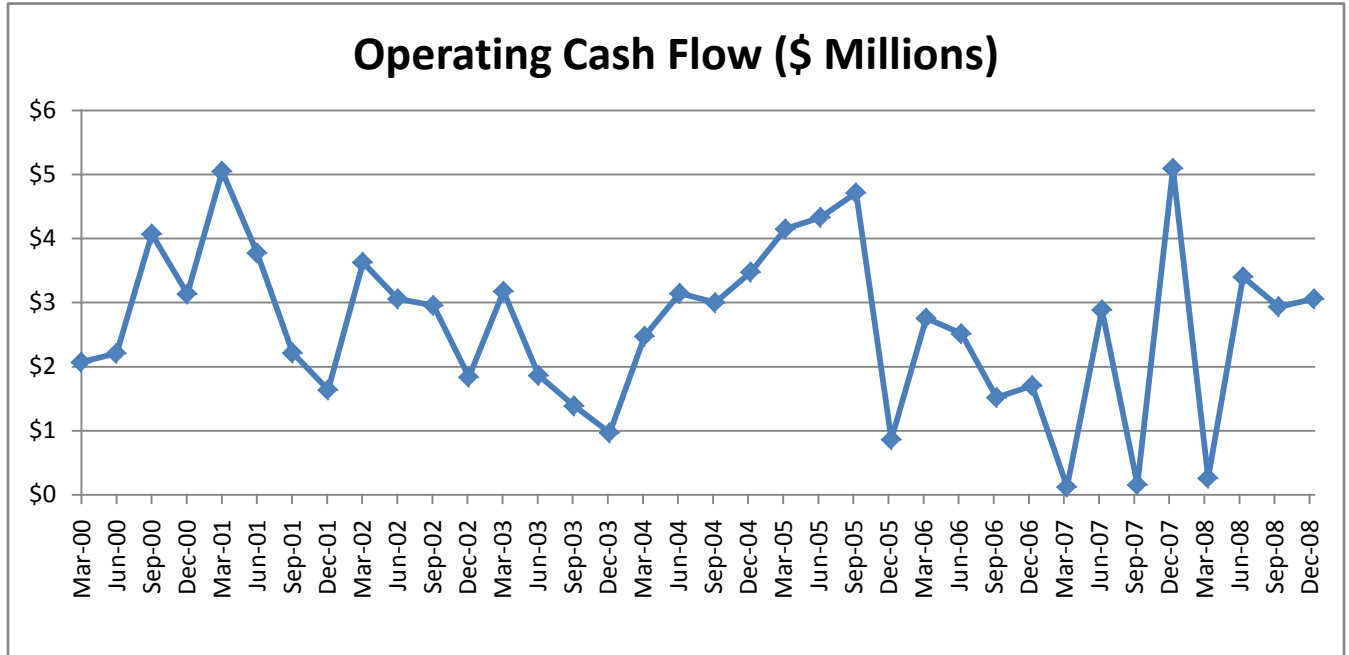
**Table 1: Median Margins, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**

Date	Operating Cash Margin (%)	Free Cash Margin (%)	Net Margin (%)	Capital Expenditures / Revenue (%)
Mar-00	13.32%	7.90%	5.20%	7.61%
Jun-00	10.06%	5.73%	4.80%	7.59%
Sep-00	9.39%	4.29%	3.98%	9.53%
Dec-00	6.54%	2.93%	5.94%	8.41%
Mar-01	5.37%	1.93%	2.96%	8.36%
Jun-01	7.36%	1.74%	4.59%	10.03%
Sep-01	5.94%	2.16%	4.97%	9.07%
Dec-01	10.67%	5.25%	5.35%	8.78%
Mar-02	7.79%	2.73%	5.94%	7.89%
Jun-02	10.51%	3.79%	5.68%	8.33%
Sep-02	10.57%	5.02%	6.38%	8.53%
Dec-02	10.01%	3.29%	7.75%	7.28%
Mar-03	10.33%	6.07%	7.42%	7.23%
Jun-03	10.86%	6.37%	5.92%	6.75%
Sep-03	11.36%	5.96%	5.90%	6.08%
Dec-03	12.44%	7.12%	4.56%	6.42%
Mar-04	10.64%	4.15%	4.11%	6.66%
Jun-04	12.03%	5.53%	5.63%	6.90%
Sep-04	11.03%	7.38%	7.22%	6.41%
Dec-04	11.64%	7.70%	6.08%	6.38%
Mar-05	10.30%	6.30%	4.88%	6.28%
Jun-05	8.48%	5.12%	6.16%	6.44%
Sep-05	10.02%	4.68%	4.47%	7.32%
Dec-05	9.77%	5.74%	5.43%	7.14%
Mar-06	9.88%	4.90%	4.97%	6.67%
Jun-06	9.20%	4.50%	4.58%	6.25%
Sep-06	9.35%	4.37%	5.24%	5.93%
Dec-06	10.70%	5.73%	5.08%	5.53%
Mar-07	11.57%	7.30%	4.76%	5.64%
Jun-07	11.48%	6.45%	4.06%	5.72%
Sep-07	11.64%	7.40%	6.10%	5.38%
Dec-07	14.24%	8.09%	6.37%	5.51%
Mar-08	13.04%	7.36%	6.23%	5.46%
Jun-08	13.63%	8.54%	6.97%	5.36%
Sep-08	14.12%	9.15%	7.30%	4.81%
Dec-08	11.10%	5.90%	5.74%	4.44%

Cash Flow Trends and Their Fundamental Drivers: A Continuing Look. Comprehensive Industry Review (Qtr 4 2008). (c) 2009 by the College of Management, Georgia Institute of Technology, Atlanta, GA 30332-0520.

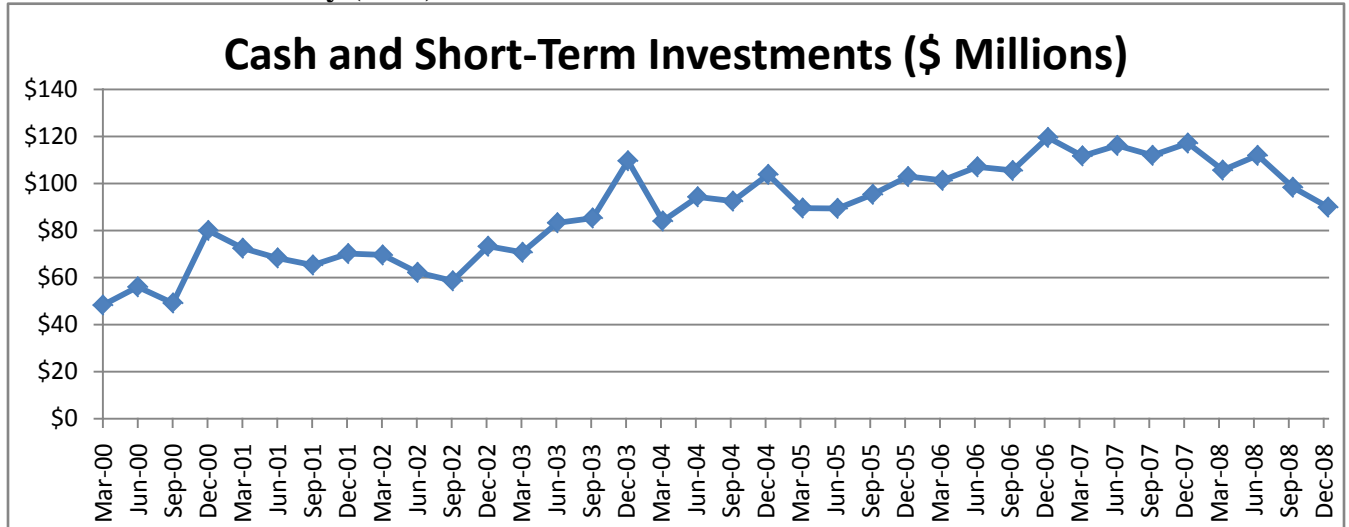
**Cash Flow Measures**

**Exhibit 5: Median Operating Cash Flow, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



Refer to Table 2 for data supporting the graph.

**Exhibit 6: Cash and Short-term Investments, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



Refer to Table 2 for data supporting the graph.

**Table 2: Cash Flow Measures, 2000–2008, Pharmaceuticals, Biotech & Life Sciences (3520)**

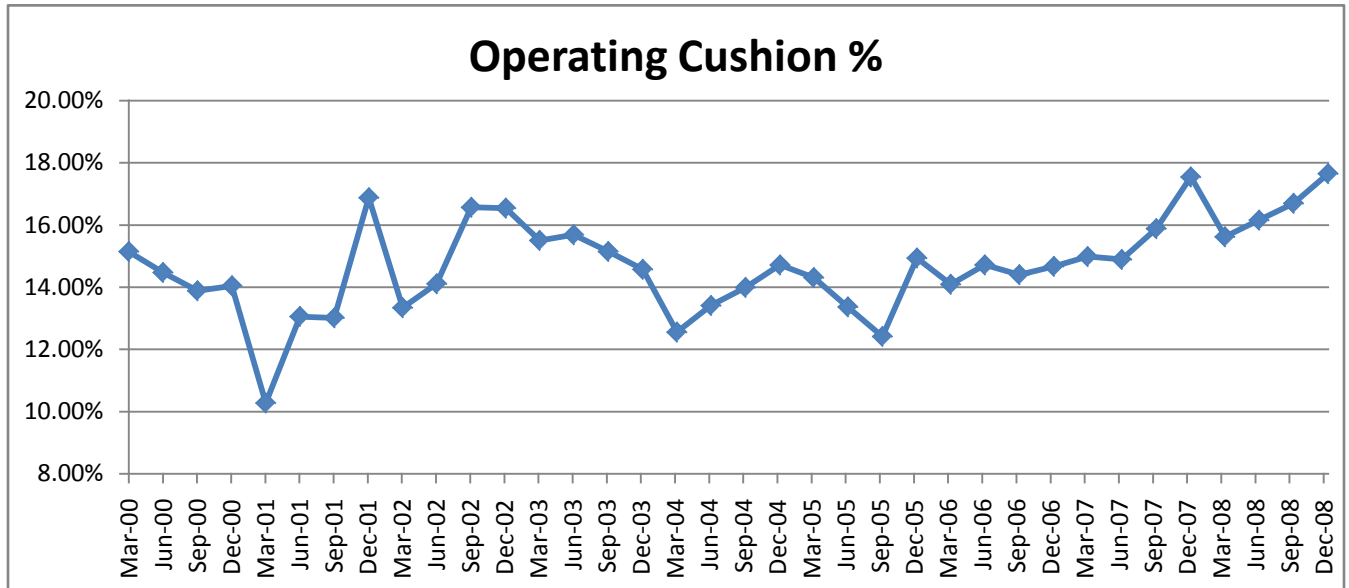
Date	Operating Cash Flow	% Change	Cash and Short-Term Investments	% Change
Mar-00	2,068,500		48,232,000	
Jun-00	2,207,000	6.70%	55,978,000	16.06%
Sep-00	4,070,000	84.41%	49,106,000	-12.28%
Dec-00	3,135,000	-22.97%	79,960,500	62.83%
Mar-01	5,050,000	61.08%	72,421,000	-9.43%
Jun-01	3,775,000	-25.25%	68,276,000	-5.72%
Sep-01	2,213,500	-41.36%	65,266,500	-4.41%
Dec-01	1,636,000	-26.09%	70,131,000	7.45%
Mar-02	3,628,000	121.76%	69,530,000	-0.86%
Jun-02	3,058,000	-15.71%	62,136,000	-10.63%
Sep-02	2,956,000	-3.34%	58,530,000	-5.80%
Dec-02	1,836,000	-37.89%	73,248,000	25.15%
Mar-03	3,176,000	72.98%	70,669,500	-3.52%
Jun-03	1,862,000	-41.37%	83,256,500	17.81%
Sep-03	1,386,500	-25.54%	85,265,000	2.41%
Dec-03	966,000	-30.33%	109,617,000	28.56%
Mar-04	2,474,000	156.11%	83,977,000	-23.39%
Jun-04	3,144,000	27.08%	94,296,500	12.29%
Sep-04	2,998,500	-4.63%	92,443,500	-1.97%
Dec-04	3,476,500	15.94%	103,816,000	12.30%
Mar-05	4,149,000	19.34%	89,504,000	-13.79%
Jun-05	4,331,500	4.40%	89,352,000	-0.17%
Sep-05	4,714,000	8.83%	95,337,000	6.70%
Dec-05	860,500	-81.75%	102,895,000	7.93%
Mar-06	2,757,000	220.40%	101,261,000	-1.59%
Jun-06	2,514,000	-8.81%	107,042,000	5.71%
Sep-06	1,517,000	-39.66%	105,465,000	-1.47%
Dec-06	1,702,500	12.23%	119,541,000	13.35%
Mar-07	120,500	-92.92%	111,699,500	-6.56%
Jun-07	2,886,500	2295.44%	116,135,000	3.97%
Sep-07	154,000	-94.66%	111,913,000	-3.64%
Dec-07	5,096,000	3209.09%	117,146,500	4.68%
Mar-08	258,000	-94.94%	105,642,000	-9.82%
Jun-08	3,401,000	1218.22%	111,901,000	5.92%
Sep-08	2,936,000	-13.67%	98,346,000	-12.11%
Dec-08	3,058,000	4.16%	89,887,000	-8.60%



**Cash Flow Drivers**

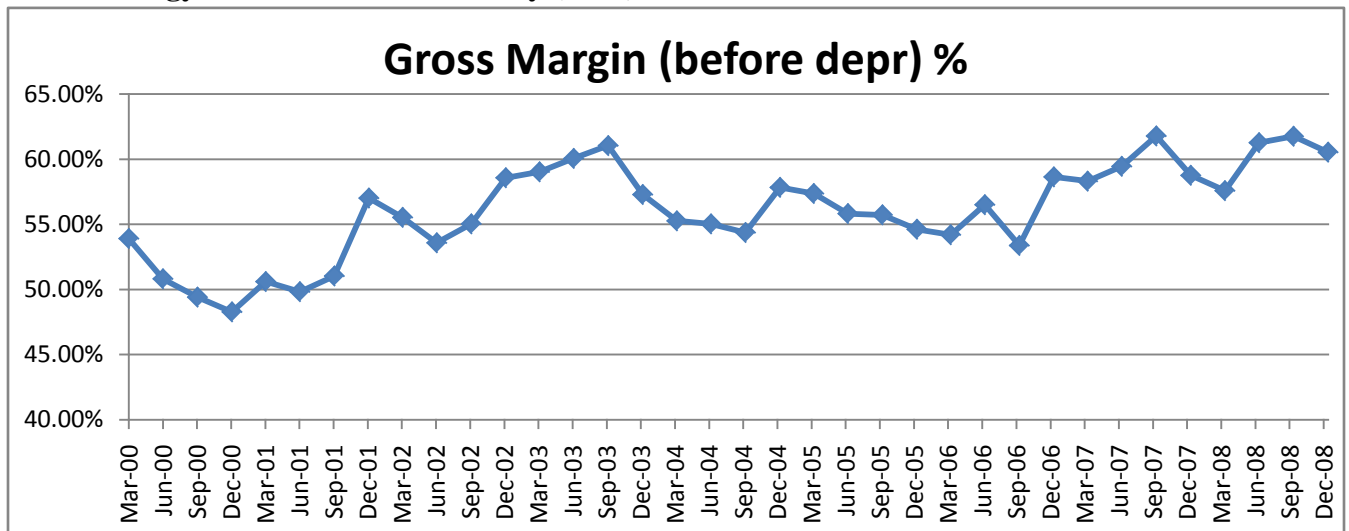
**Profitability**

**Exhibit 7: Median Operating Cushion, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



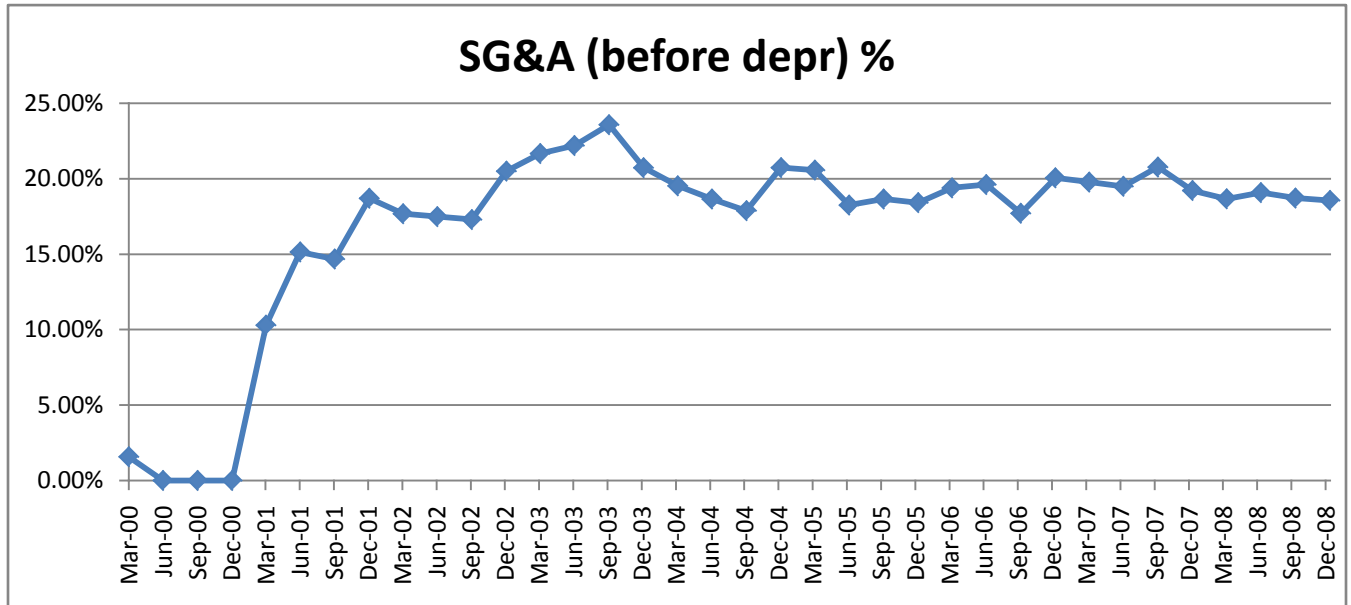
Refer to Table 3 for data supporting the graph.

**Exhibit 8: Median Gross Margin % (before depreciation), 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



Refer to Table 3 for data supporting the graph.

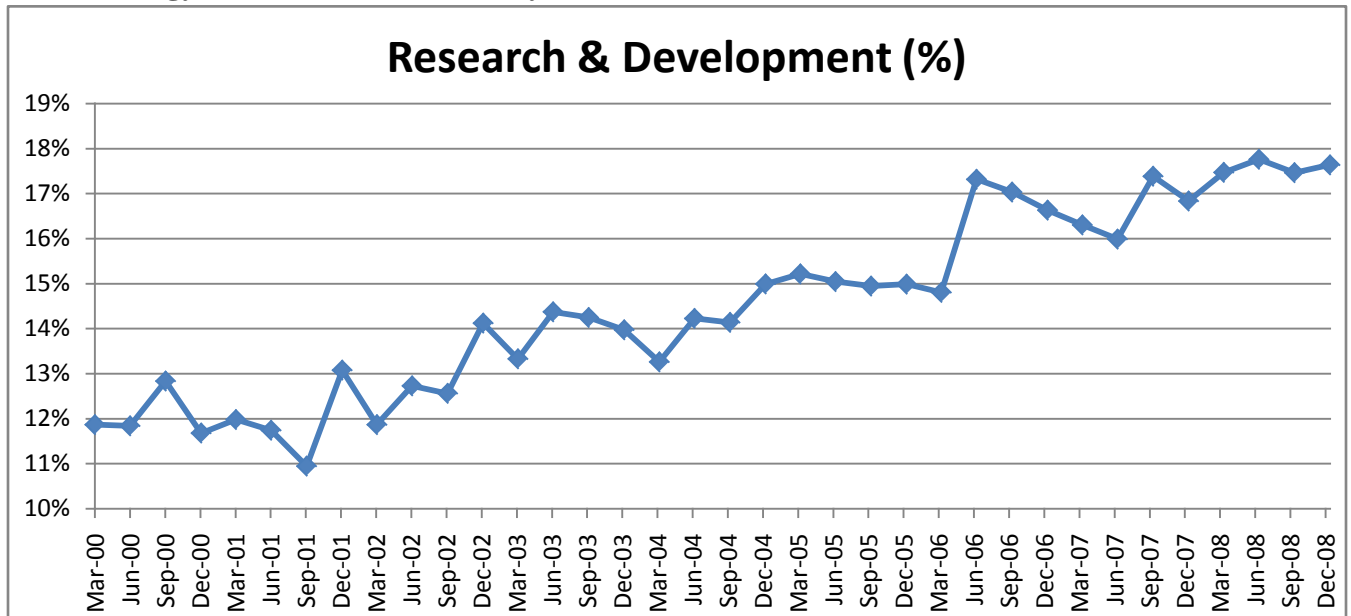
**Exhibit 9: Median Selling, General and Administrative Expense % (before depreciation), 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



\* - In periods where SG&A expense is 0%, SG&A expense was included with cost of sales and subtracted in arriving at gross margin (before depreciation)%

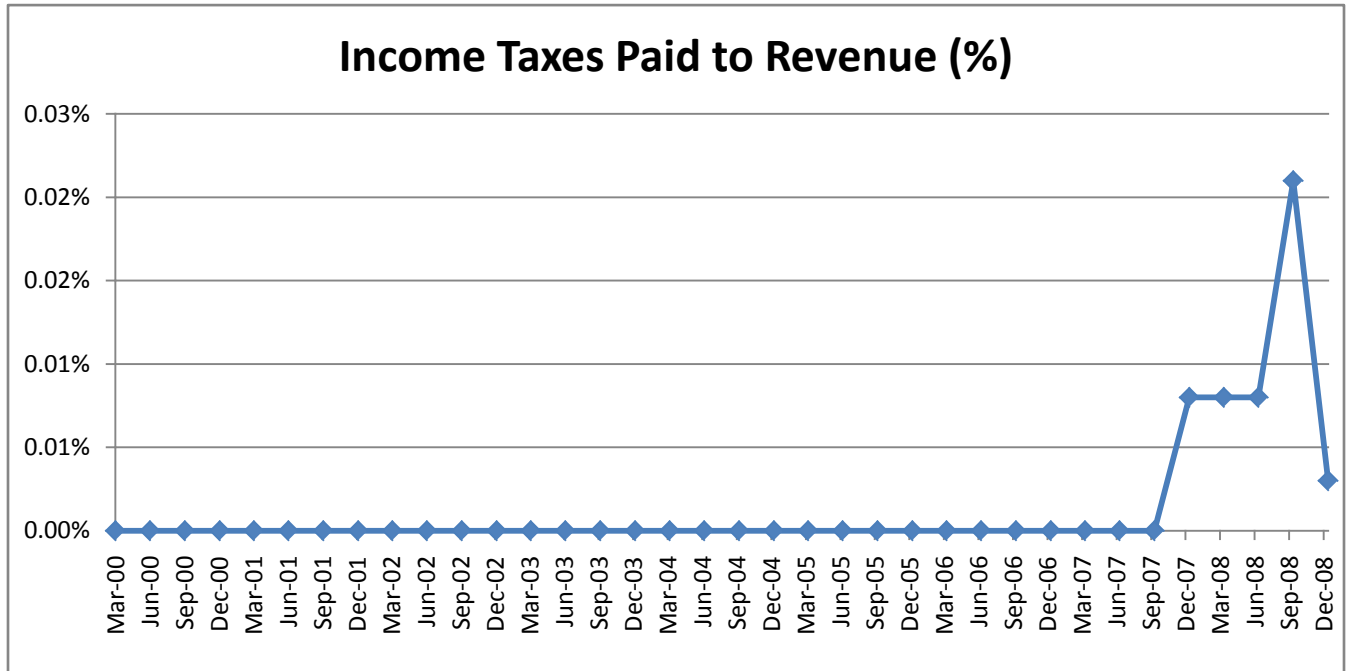
Refer to Table 3 for data supporting the graph.

**Exhibit 9a: Median Research and Development Expense %, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



Refer to Table 3 for data supporting the graph.

**Exhibit 10: Median Income Taxes Paid % (before depreciation), 2000 – 2008,  
Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



Refer to Table 3 for data supporting the graph.

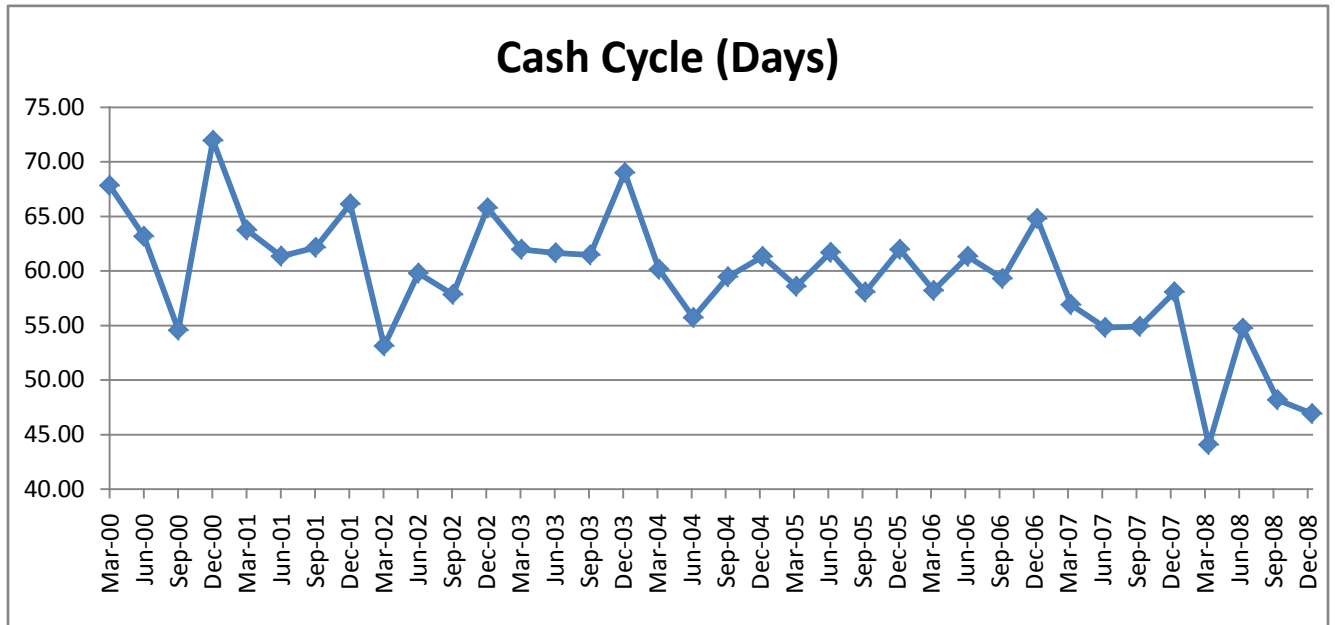
**Table 3: Profitability, 2000–2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**

Date	Operating Cushion %	Gross Margin (before depr.) %	SG&A (before depr.) % <sup>a</sup>	R&D %	Revenue	% Change	Income Taxes Paid to Revenue
Mar-00	15.15%	53.91%	1.57%	11.86%	32,788,500		0.00%
Jun-00	14.47%	50.81%	0.00%	11.84%	34,013,000	3.73%	0.00%
Sep-00	13.89%	49.40%	0.00%	12.83%	32,039,000	-5.80%	0.00%
Dec-00	14.05%	48.27%	0.00%	11.68%	29,342,500	-8.42%	0.00%
Mar-01	10.28%	50.60%	10.29%	11.98%	25,981,000	-11.46%	0.00%
Jun-01	13.06%	49.82%	15.14%	11.74%	27,777,000	6.91%	0.00%
Sep-01	13.02%	51.03%	14.68%	10.94%	31,936,500	14.97%	0.00%
Dec-01	16.88%	57.02%	18.70%	13.08%	41,006,000	28.40%	0.00%
Mar-02	13.34%	55.53%	17.68%	11.86%	34,472,000	-15.93%	0.00%
Jun-02	14.11%	53.58%	17.48%	12.73%	41,226,500	19.59%	0.00%
Sep-02	16.57%	55.03%	17.29%	12.56%	37,203,000	-9.76%	0.00%
Dec-02	16.54%	58.58%	20.50%	14.12%	46,373,000	24.65%	0.00%
Mar-03	15.50%	59.03%	21.67%	13.33%	47,278,500	1.95%	0.00%
Jun-03	15.69%	60.06%	22.20%	14.37%	50,075,000	5.91%	0.00%
Sep-03	15.15%	61.05%	23.58%	14.25%	51,635,500	3.12%	0.00%
Dec-03	14.58%	57.29%	20.73%	13.97%	53,341,000	3.30%	0.00%
Mar-04	12.56%	55.27%	19.53%	13.26%	51,102,000	-4.20%	0.00%
Jun-04	13.41%	55.03%	18.65%	14.22%	45,095,500	-11.75%	0.00%
Sep-04	13.99%	54.37%	17.88%	14.14%	47,802,500	6.00%	0.00%
Dec-04	14.72%	57.84%	20.73%	14.99%	54,932,500	14.92%	0.00%
Mar-05	14.31%	57.37%	20.57%	15.21%	48,505,000	-11.70%	0.00%
Jun-05	13.37%	55.82%	18.25%	15.04%	49,384,500	1.81%	0.00%
Sep-05	12.42%	55.73%	18.65%	14.94%	48,452,000	-1.89%	0.00%
Dec-05	14.94%	54.62%	18.41%	14.99%	63,882,500	31.85%	0.00%
Mar-06	14.09%	54.20%	19.39%	14.80%	64,033,000	0.24%	0.00%
Jun-06	14.72%	56.51%	19.61%	17.32%	64,060,000	0.04%	0.00%
Sep-06	14.40%	53.38%	17.71%	17.03%	64,089,000	0.05%	0.00%
Dec-06	14.67%	58.64%	20.06%	16.63%	69,855,000	9.00%	0.00%
Mar-07	14.99%	58.31%	19.77%	16.30%	63,710,500	-8.80%	0.00%
Jun-07	14.89%	59.45%	19.49%	15.99%	68,316,500	7.23%	0.00%
Sep-07	15.88%	61.79%	20.77%	17.39%	76,886,000	12.54%	0.00%
Dec-07	17.54%	58.76%	19.22%	16.83%	77,814,000	1.21%	0.01%
Mar-08	15.62%	57.59%	18.67%	17.47%	79,739,000	2.47%	0.01%
Jun-08	16.16%	61.27%	19.08%	17.76%	85,953,000	7.79%	0.01%
Sep-08	16.70%	61.77%	18.71%	17.47%	89,526,000	4.16%	0.02%
Dec-08	17.65%	60.54%	18.56%	17.64%	79,412,000	-11.30%	0.00%

a - In periods where SG&A expense is 0%, SG&A expense was included with cost of sales and subtracted in arriving at gross margin (before depreciation)%

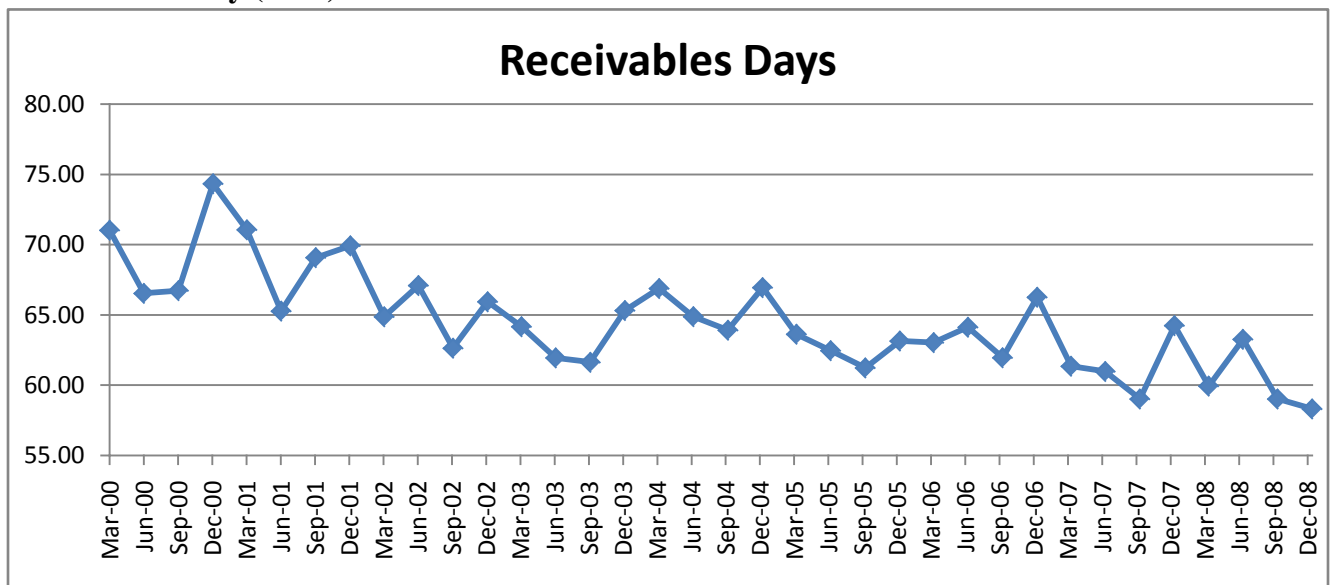
**Efficiency**

**Exhibit 11: Median Cash Cycle, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



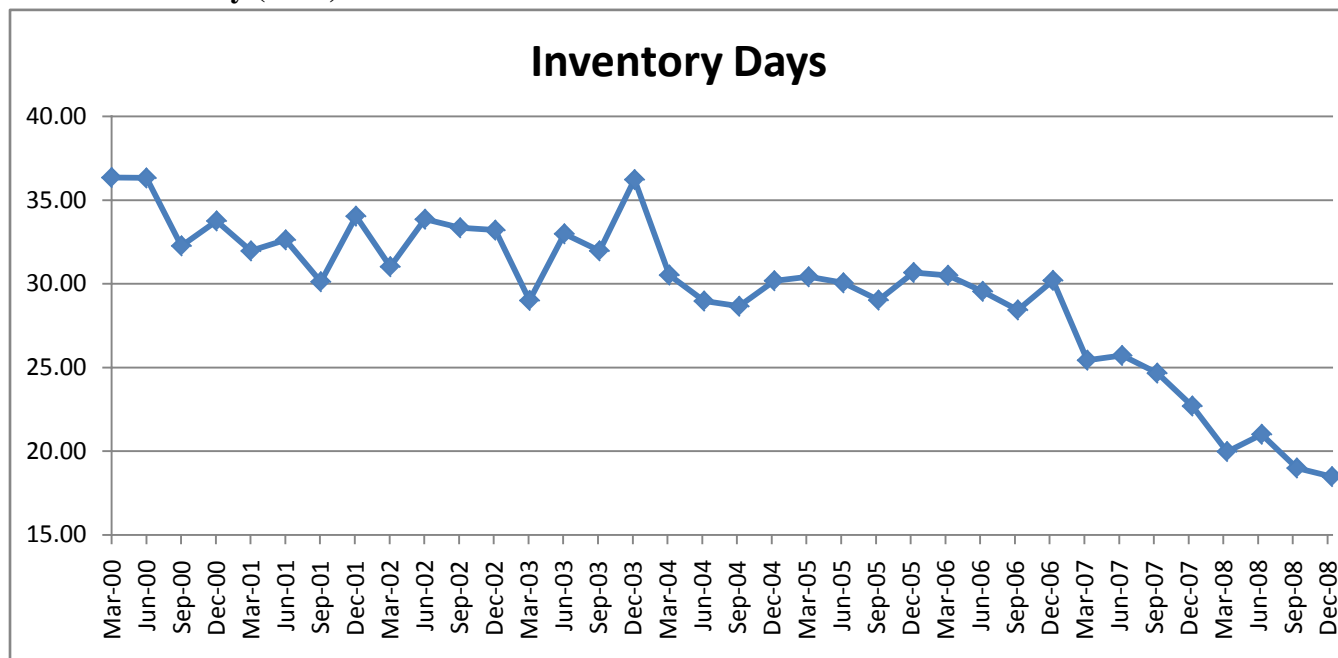
Refer to Table 4 for data supporting the graph.

**Exhibit 12: Median Receivables Days, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



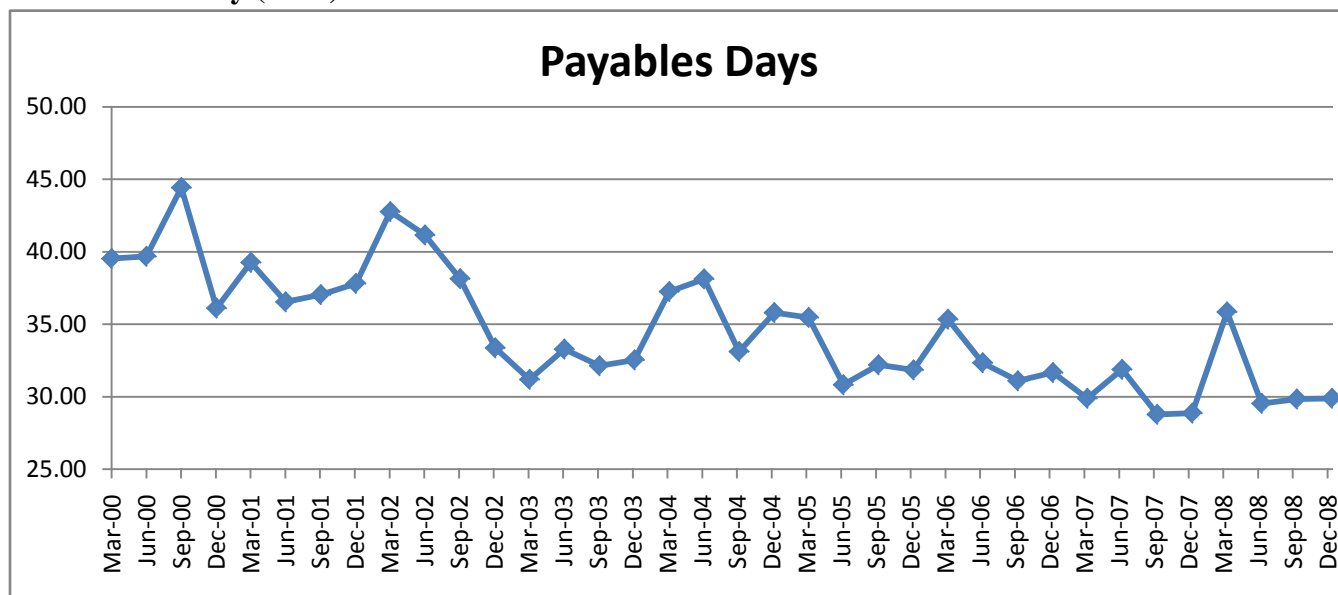
Refer to Table 4 for data supporting the graph.

**Exhibit 13: Median Inventory Days, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



Refer to Table 4 for data supporting the graph.

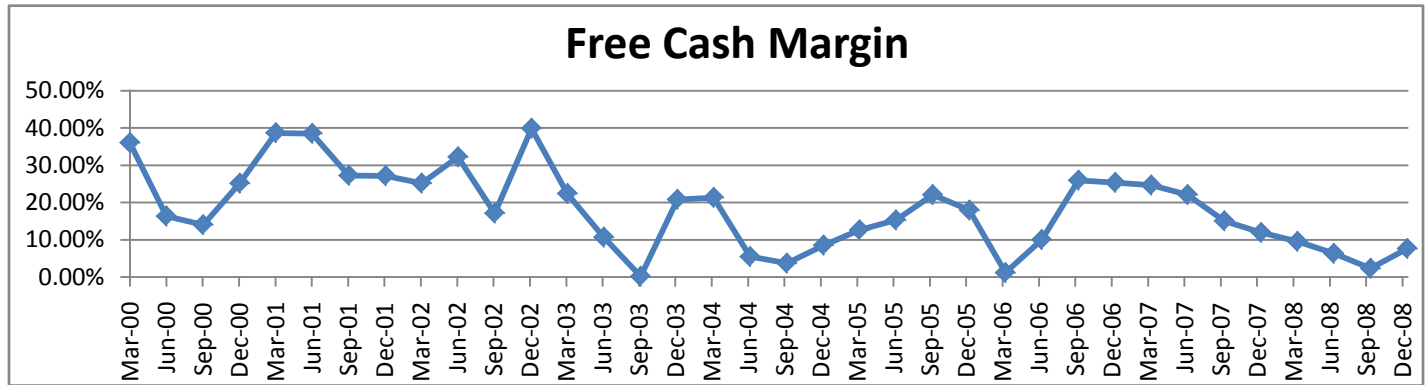
**Exhibit 14: Median Payables Days, 2000 – 2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**



Refer to Table 4 for data supporting the graph.

**Table 4: Efficiency, 2000–2008, Pharmaceuticals, Biotechnology & Life Sciences Industry (3520)**

Date	Cash Cycle (Days)	Receivables Days	Inventory Days	Payables Days
Mar-00	67.84	71.02	36.36	39.54
Jun-00	63.18	66.53	36.33	39.68
Sep-00	54.57	66.73	32.28	44.44
Dec-00	71.98	74.32	33.77	36.11
Mar-01	63.75	71.05	31.97	39.27
Jun-01	61.36	65.27	32.63	36.55
Sep-01	62.16	69.07	30.13	37.04
Dec-01	66.14	69.91	34.05	37.82
Mar-02	53.12	64.87	31.03	42.77
Jun-02	59.80	67.09	33.87	41.16
Sep-02	57.85	62.64	33.35	38.14
Dec-02	65.78	65.94	33.21	33.37
Mar-03	61.98	64.16	29.01	31.19
Jun-03	61.66	61.95	33.00	33.28
Sep-03	61.47	61.63	31.98	32.14
Dec-03	69.01	65.31	36.24	32.54
Mar-04	60.15	66.88	30.53	37.26
Jun-04	55.72	64.88	28.98	38.13
Sep-04	59.46	63.91	28.66	33.12
Dec-04	61.33	66.94	30.19	35.80
Mar-05	58.58	63.63	30.43	35.47
Jun-05	61.70	62.46	30.07	30.82
Sep-05	58.06	61.23	29.03	32.20
Dec-05	61.98	63.14	30.68	31.85
Mar-06	58.21	63.03	30.52	35.34
Jun-06	61.34	64.13	29.55	32.34
Sep-06	59.31	61.96	28.44	31.09
Dec-06	64.80	66.26	30.21	31.67
Mar-07	56.91	61.35	25.44	29.89
Jun-07	54.82	60.98	25.72	31.88
Sep-07	54.91	59.02	24.67	28.78
Dec-07	58.08	64.24	22.70	28.86
Mar-08	44.07	59.94	19.98	35.85
Jun-08	54.74	63.27	21.01	29.53
Sep-08	48.18	59.03	19.00	29.84
Dec-08	46.91	58.32	18.48	29.89

**Biotechnology Sub-industry (352010)****Exhibit 15: Median Free Cash Margin, 2000 – 2008, Biotechnology (352010)****Table 5: 2000 – 2008, Biotechnology Sub-industry (352010)**

Date	Free Cash Margin (%)	Operating Cash Margin (%)	Capital Expenditures / Revenue (%)	Net Margin (%)	Operating Cushion %	Income Taxes Paid to Revenue (%)	Cash Cycle (Days)
Mar-00	36.06%	21.27%	11.28%	24.94%	13.80%	0.00%	4.74
Jun-00	16.34%	4.54%	12.22%	19.90%	10.40%	0.00%	3.51
Sep-00	14.02%	12.30%	13.44%	15.24%	16.19%	0.00%	0.31
Dec-00	25.16%	35.93%	17.01%	19.59%	31.37%	0.00%	37.32
Mar-01	38.70%	31.91%	17.73%	20.73%	29.71%	0.00%	14.96
Jun-01	38.53%	28.12%	17.96%	20.32%	36.95%	0.00%	(5.50)
Sep-01	27.26%	13.22%	15.00%	20.42%	24.69%	0.00%	17.12
Dec-01	27.17%	10.31%	17.46%	21.36%	19.25%	0.00%	17.38
Mar-02	25.18%	17.22%	19.56%	14.59%	20.53%	0.00%	(1.96)
Jun-02	32.24%	27.49%	20.78%	13.16%	17.40%	0.00%	0.95
Sep-02	17.13%	2.03%	16.20%	28.23%	21.33%	0.00%	6.57
Dec-02	39.90%	31.03%	12.79%	33.73%	22.25%	0.00%	22.64
Mar-03	22.40%	27.71%	12.59%	42.43%	23.07%	0.00%	20.27
Jun-03	10.68%	10.21%	12.34%	39.90%	10.20%	0.00%	5.73
Sep-03	0.18%	0.99%	10.83%	30.57%	14.16%	0.00%	21.39
Dec-03	20.83%	10.67%	11.15%	17.60%	15.41%	0.00%	24.17
Mar-04	21.34%	13.07%	10.79%	13.86%	22.07%	0.00%	8.52
Jun-04	5.47%	0.05%	10.98%	15.47%	12.33%	0.00%	(7.91)
Sep-04	3.71%	8.26%	11.19%	12.88%	1.90%	0.00%	2.33
Dec-04	8.55%	0.50%	11.57%	14.70%	7.72%	0.00%	8.77
Mar-05	12.64%	5.49%	12.33%	21.06%	17.49%	0.00%	2.62
Jun-05	15.30%	7.98%	12.67%	29.06%	20.30%	0.00%	(12.25)
Sep-05	22.10%	9.06%	12.96%	21.76%	8.92%	0.00%	(7.48)
Dec-05	17.94%	7.32%	11.33%	17.43%	8.87%	0.00%	13.11
Mar-06	1.17%	6.33%	9.75%	19.63%	10.68%	0.00%	16.13
Jun-06	10.02%	5.92%	9.84%	24.05%	17.91%	0.00%	12.20
Sep-06	25.97%	13.55%	9.83%	19.10%	21.56%	0.00%	19.61
Dec-06	25.37%	20.79%	8.56%	31.14%	14.66%	0.00%	28.30
Mar-07	24.66%	16.38%	9.55%	28.46%	20.66%	0.00%	11.43
Jun-07	22.11%	15.29%	9.55%	23.65%	15.55%	0.00%	(0.98)
Sep-07	15.06%	12.50%	8.72%	22.53%	10.00%	0.00%	1.62
Dec-07	11.93%	0.87%	8.33%	14.32%	3.77%	0.00%	9.20
Mar-08	9.55%	3.70%	7.93%	12.58%	6.95%	0.00%	(1.24)
Jun-08	6.34%	0.00%	8.27%	27.81%	1.05%	0.00%	1.83
Sep-08	2.33%	14.12%	7.72%	2.65%	11.70%	0.00%	5.64
Dec-08	7.64%	3.01%	5.57%	1.13%	6.96%	0.00%	7.29



## Pharmaceuticals Sub-industry (352020)

## Exhibit 16: Median Free Cash Margin, 2000 – 2008, Pharmaceuticals (352020)

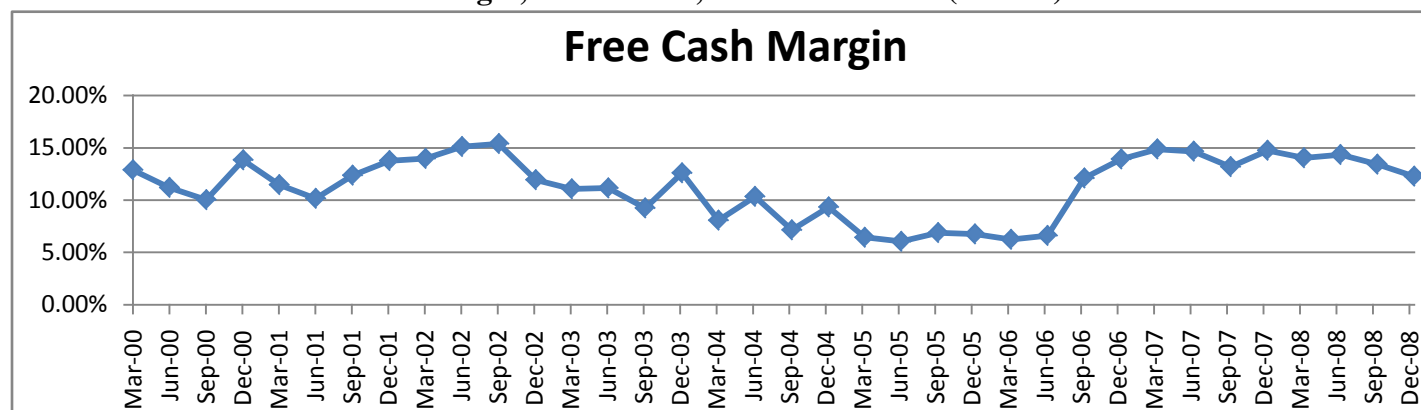


Table 6: 2000 – 2008, Pharmaceuticals Sub-industry (352020)

Date	Free Cash Margin (%)	Operating Cash Margin (%)	Capital Expenditures / Revenue (%)	Net Margin (%)	Operating Cushion %	Income Taxes Paid to Revenue (%)	Cash Cycle (Days)
Mar-00	12.90%	17.86%	6.01%	12.78%	25.52%	0.53%	68.76
Jun-00	11.21%	14.75%	5.51%	12.06%	24.42%	0.69%	78.29
Sep-00	10.05%	15.77%	5.29%	13.27%	25.36%	0.40%	71.97
Dec-00	13.85%	19.05%	5.35%	13.23%	23.35%	0.11%	83.85
Mar-01	11.48%	15.26%	4.96%	9.23%	20.76%	0.16%	73.31
Jun-01	10.17%	16.23%	5.04%	8.10%	23.85%	1.29%	71.74
Sep-01	12.38%	17.98%	5.24%	12.50%	24.94%	0.97%	76.51
Dec-01	13.78%	19.62%	5.71%	13.19%	26.75%	0.16%	77.80
Mar-02	13.98%	20.50%	5.55%	12.84%	27.22%	0.60%	56.10
Jun-02	15.12%	19.34%	5.49%	15.50%	28.79%	0.98%	69.53
Sep-02	15.40%	20.45%	5.57%	15.17%	29.16%	0.75%	71.63
Dec-02	11.95%	18.30%	5.39%	15.66%	27.84%	0.49%	76.04
Mar-03	11.08%	17.57%	5.77%	12.11%	25.65%	1.10%	72.16
Jun-03	11.17%	18.09%	5.80%	11.95%	27.12%	0.82%	75.35
Sep-03	9.26%	16.19%	5.34%	12.44%	24.86%	0.82%	69.26
Dec-03	12.61%	18.37%	5.19%	12.50%	27.97%	0.09%	75.44
Mar-04	8.09%	17.36%	3.92%	8.21%	27.49%	0.27%	63.93
Jun-04	10.36%	15.28%	3.91%	9.30%	24.72%	0.11%	71.90
Sep-04	7.16%	12.74%	4.16%	9.19%	23.60%	0.06%	75.67
Dec-04	9.35%	15.97%	4.36%	9.93%	21.91%	0.07%	80.87
Mar-05	6.45%	11.14%	4.28%	10.14%	20.17%	0.02%	76.62
Jun-05	6.06%	11.19%	3.88%	9.03%	18.38%	0.02%	80.62
Sep-05	6.90%	11.55%	3.76%	5.97%	18.42%	0.02%	83.58
Dec-05	6.77%	12.55%	4.29%	6.84%	22.52%	0.07%	78.56
Mar-06	6.26%	12.95%	4.05%	5.31%	21.72%	0.08%	64.67
Jun-06	6.63%	12.85%	4.50%	6.73%	21.64%	0.05%	73.88
Sep-06	12.11%	16.15%	4.26%	7.88%	21.82%	0.07%	76.94
Dec-06	13.93%	16.42%	4.26%	10.36%	21.48%	0.27%	80.99
Mar-07	14.89%	18.08%	4.01%	12.18%	25.33%	0.27%	73.74
Jun-07	14.67%	19.08%	4.15%	10.38%	22.43%	0.27%	64.28
Sep-07	13.20%	16.05%	3.66%	11.49%	20.99%	0.29%	63.24
Dec-07	14.76%	19.43%	3.97%	11.45%	23.49%	0.52%	69.49
Mar-08	14.04%	16.60%	3.85%	7.54%	21.77%	0.52%	61.65
Jun-08	14.35%	16.32%	3.56%	8.51%	22.24%	0.52%	66.14
Sep-08	13.43%	18.42%	3.53%	8.46%	23.71%	0.52%	59.34
Dec-08	12.29%	16.47%	3.41%	7.20%	23.07%	0.23%	57.74

## Life Science Tools &amp; Services Sub-industry (352030)

Exhibit 17: Median Free Cash Margin, 2000 – 2008, Life Science Tools &amp; Services (352030)

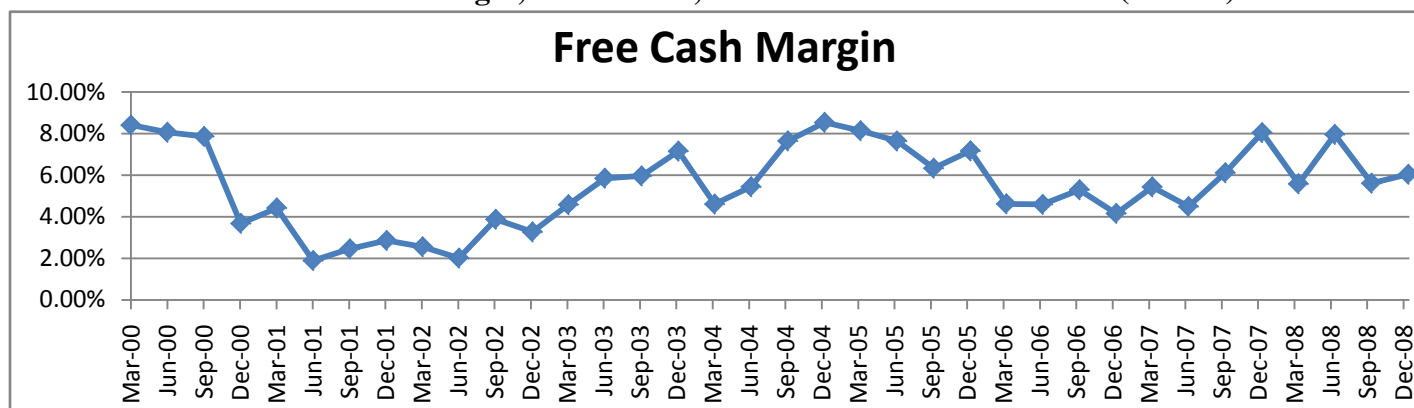


Table 7: 2000 – 2008, Life Science Tools &amp; Services Sub-industry (352030)

Date	Free Cash Margin (%)	Operating Cash Margin (%)	Capital Expenditures / Revenue (%)	Net Margin (%)	Operating Cushion %	Income Taxes Paid to Revenue (%)	Cash Cycle (Days)
Mar-00	8.41%	11.99%	5.07%	5.07%	13.66%	1.99%	103.75
Jun-00	8.06%	9.01%	6.00%	4.80%	13.92%	2.02%	101.14
Sep-00	7.86%	9.31%	6.56%	4.22%	13.77%	1.77%	101.67
Dec-00	3.68%	7.44%	6.17%	5.29%	14.12%	1.69%	103.31
Mar-01	4.42%	8.72%	5.44%	5.06%	15.27%	1.60%	98.68
Jun-01	1.89%	8.80%	5.69%	5.84%	15.98%	1.40%	102.25
Sep-01	2.45%	6.84%	6.54%	5.37%	13.42%	1.81%	101.90
Dec-01	2.85%	9.36%	8.11%	5.09%	13.62%	1.26%	99.83
Mar-02	2.55%	8.03%	6.95%	4.34%	13.69%	1.36%	93.98
Jun-02	2.00%	8.44%	7.50%	5.25%	15.03%	1.36%	93.70
Sep-02	3.87%	10.33%	7.56%	6.62%	16.68%	1.36%	94.33
Dec-02	3.27%	11.02%	7.49%	7.12%	14.61%	2.60%	96.28
Mar-03	4.58%	11.04%	6.11%	7.74%	14.90%	2.60%	102.44
Jun-03	5.85%	11.42%	5.41%	8.13%	14.80%	2.64%	97.66
Sep-03	5.96%	10.95%	5.67%	5.80%	14.46%	2.53%	89.19
Dec-03	7.15%	10.67%	4.98%	4.82%	14.10%	1.74%	91.84
Mar-04	4.61%	10.92%	5.04%	4.89%	14.49%	1.70%	89.68
Jun-04	5.44%	11.87%	5.12%	5.87%	14.38%	1.70%	86.94
Sep-04	7.65%	11.47%	5.12%	6.38%	14.54%	1.64%	90.94
Dec-04	8.54%	11.99%	5.87%	6.29%	16.14%	1.69%	88.28
Mar-05	8.14%	11.35%	5.95%	6.13%	16.39%	1.75%	93.68
Jun-05	7.64%	10.35%	5.70%	6.51%	15.30%	1.75%	91.92
Sep-05	6.33%	10.32%	6.25%	6.90%	15.08%	2.08%	86.93
Dec-05	7.17%	11.90%	6.42%	5.74%	16.07%	1.38%	89.96
Mar-06	4.62%	10.59%	5.93%	5.73%	15.46%	1.29%	92.43
Jun-06	4.59%	10.11%	5.83%	6.00%	15.65%	1.29%	92.69
Sep-06	5.29%	10.83%	5.78%	6.28%	15.65%	1.26%	92.63
Dec-06	4.16%	9.45%	5.44%	4.31%	14.67%	2.06%	92.44
Mar-07	5.43%	10.47%	5.79%	4.55%	14.68%	2.06%	90.96
Jun-07	4.49%	11.18%	6.09%	5.63%	15.17%	2.06%	97.61
Sep-07	6.11%	10.85%	5.65%	6.48%	16.57%	1.61%	89.91
Dec-07	8.04%	13.11%	5.82%	5.76%	15.37%	1.52%	85.15
Mar-08	5.58%	12.80%	5.54%	6.88%	15.50%	1.68%	87.60
Jun-08	7.96%	12.65%	5.77%	6.88%	17.10%	1.99%	87.24
Sep-08	5.61%	12.17%	5.33%	6.75%	16.70%	1.99%	88.14
Dec-08	6.04%	13.26%	4.93%	5.86%	17.86%	2.26%	85.57