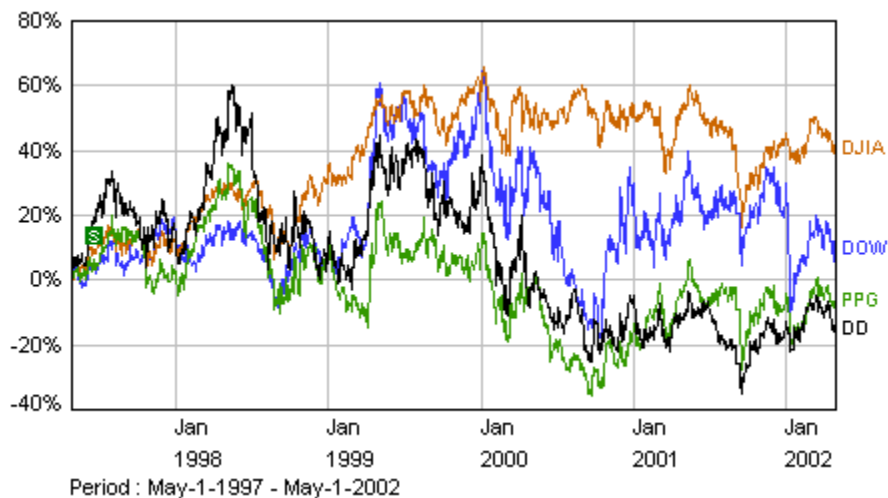
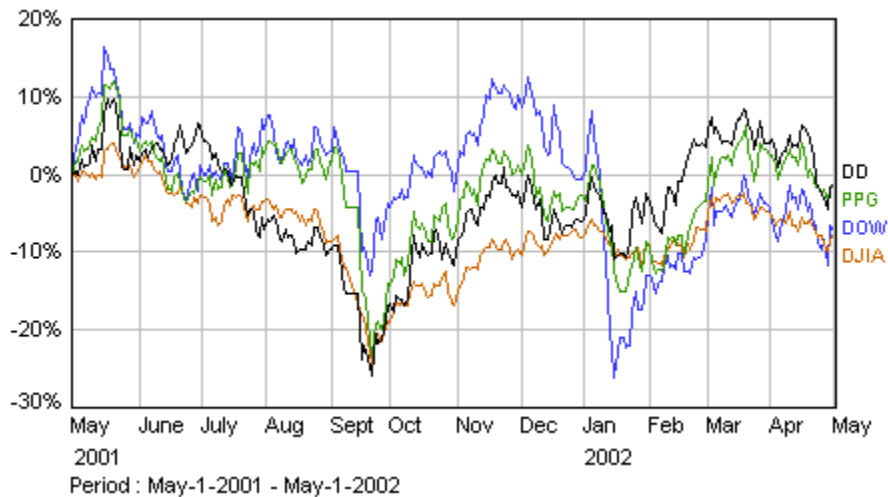


Problem 6.1. Stock Price Charts. Stock prices for three chemical companies for one and five years are presented below [Du Pont (DD), Dow, and PPG] along with the Dow Jones Industrial Average (DJIA).



Provide a brief analysis of stock prices for these companies relative to the DJIA.

Over the last 12 months, the chemical companies outperformed the Dow, although the return was still negative for all three companies. Over the last 5 years, the companies underperformed the Dow, negative for PPG and Du Pont.

Problem 6.2. Price Earnings & Dividend Ratios. Given are stock prices (May 1, 2002 closing); EPS 2001 actual, 2002 forecast, 2003 forecast, and 2001 dividend yield:

	Stock Price	EPS, Actual	EPS, 2002*	EPS 2003*	Dividend
Du Pont	44.63	\$4.15	\$1.75	\$2.38	\$1.40
Dow	31.49	-0.46 RF	1.01	2.37	1.34
PPG	52.22	2.29	2.73	3.50	1.68

* Zacks analysts' estimates from Quicken

Given the information above, calculate PE for the three definitions of EPS, dividend yield, and dividend payout:

	Price / Actual EPS	Price / 2002 EPS	Price / 2003 EPS	Dividend Yield	Dividend Payout
Du Pont	10.75	25.5	18.8	3.14%	33.7%
Dow	NM	31.2	13.3	4.26%	NM
PPG	22.8	19.1	14.9	3.22%	73.4%

Problem 6.3. PE to Annual Earnings Growth (PEG). Given are annual earnings growth rates, both historical and projected.

	5 Year Historic Earnings Growth Rates*	5 Year Projected Earnings Growth Rates*
Du Pont	-18.2%	11.0%
Dow	-22.8	10.0
PPG	-7.1	8.0

* www.quicken.com, Analysts Estimates

Calculate PE to earnings growth rates (PEG), using information above and calculated from Problem 6.2.

	Current PE /5 Year Historic Growth	1 Year Ahead PE Forecast /5 Year Projected Growth	2 Year Ahead PE Forecast /5 Year Projected Growth
Du Pont	NM	2.31	1.70
Dow	NM	3.12	1.33
PPG	NM	2.39	1.86

Classify these companies by cell (1 to 9) based on the PEG matrix. Assume that average PE is 20 and average earnings growth is 12%.

Problem 6.4. Market-to-Book & Sales Ratios. Given are stock price, net assets (total stockholders' equity), shares outstanding, and annual revenues for 2001 of the chemical companies.

- a. Calculate book value per share and the market-to-book ratio for the chemical companies.

	Stock Price	Net Assets (in millions)	Shares Outstanding (in millions)	Sales, 2001 (in millions)	Book Value per Share	Market-to-Book Ratio
Du Pont	44.63	\$14,452	1,002	\$24,726	14.42	3.09
Dow	31.49	9,993	905	27,805	11.04	2.852
PPG	52.22	3,080	169	8,169	18.22	2.87

- b. Calculate Market Value & the Sales-to-Net Assets & Sales-to Market Value ratios.

	Market Value	Sales-to-Net Assets	Sales-to-Market Value
Du Pont	44.7 billion	1.71	.553
Dow	28.5 billion	2.78	.975
PPG	8.8 billion	2.65	.926