

INDUSTRY ADAPTS TO ERA OF LOW DEMAND

Chemical firms cut costs and lowered expectations during a rough year for **FINANCES**

ALL-AROUND belt-tightening became the new reality for the world's chemical firms in 2009. Chemical company executives shelved their strategies for growth and dusted off and implemented numerous contingency plans. With plants idled or running at historically low rates, firms looked for ways to streamline operations and increase productivity.

At U.S. companies Dow Chemical and DuPont, cost-cutting initiatives ran into the billions of dollars. But even smaller firms resorted to restructurings, plant closures, and layoffs. Many firms benefited from lower input costs for raw materials and energy, but then found it difficult to preserve margins when prices for chemicals also declined.

For a graphic depiction of how the recession hit the chemical industry as a whole, one need only look at the data on chemical shipments and prices. In North America,

shipments topped by 15.0% in the U.S. and a whopping 16.1% in Canada. Contributing to the decline were weak prices, which shrank by 6.6% in the U.S. and 5.3% in Canada. The lower prices reflect weak demand as well as lower energy and raw material costs. Still, the drop looks especially sharp compared with 2008, when U.S. shipments shot up by 9.6% and prices rose 14.4%.

In Europe, where the recession hit earlier during 2008 than in the U.S., chemical powerhouse Germany saw shipments retreat by 14.2% in a second year of decline that followed five years of steady growth. Of the countries tracked by C&EN, all shipped significantly fewer chemicals in 2009, but the 24% decline in the Netherlands was the most dramatic.

Unlike in 2008, chemical company executives were able to communicate their response to the ongoing earnings crisis

in 2009. First-quarter financial results were foreshadowed with a raft of earnings warnings and press releases detailing cost-cutting measures. Many of the announcements used clever phrasing such as "we are working to reduce our business footprint" to hint at massive plant closings and layoffs. In the end, most firms were able to get out the word that financial results would be poor, lessening the punishment their stock prices took on Wall Street.

And the corporate news was, indeed, bad. In the U.S. and Europe, 2009 revenues declined at every chemical firm. In Europe, where the recession hit the hardest but also the earliest, many firms started to see a glimmer of a rebound in the second quarter. Some of them, including Belgium's Solvay, Finland's Kemira, the Netherlands' Akzo-Nobel, and Switzerland's Givaudan were able to wring more earnings out of meager demand in 2009 compared with 2008.

FOR MOST U.S. companies, earnings declined along with revenues. Dow Chemical was an exception; the acquisition of specialty chemical firm Rohm and Haas, though a risky move for Chief Executive Officer Andrew N. Liveris, brought high-margin businesses that cushioned the firm's earnings. In Europe, BASF's acquisition of Ciba did not have the same effect. In fact, BASF, the world's largest chemical firm, saw its earnings sliced neatly in half for the year.

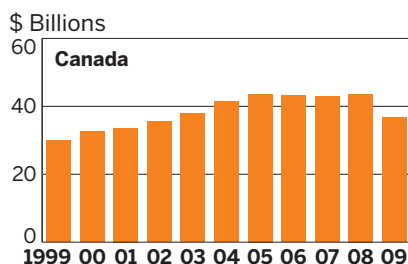
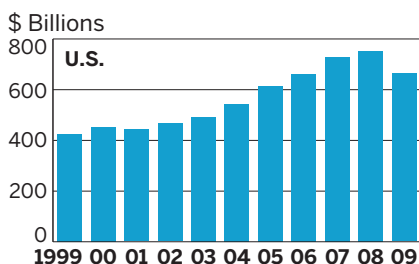
Interestingly, a number of U.S. firms saw earnings for the year fall less sharply than revenues. This was of little benefit to shareholders, who saw their earnings per share erode. But the cost cutting meant profit margins increased, leading some analysts to predict that the industry as a whole might be more profitable when the economy finally regains its footing. Companies in this category include Albemarle, Arch Chemicals, Celanese, Dow, DuPont, H.B. Fuller, Georgia Gulf, Lubrizol, NewMarket Corp., Praxair, Quaker Chemical, and Stepan.

In Japan, though sales were universally down, many chemical firms were able to stabilize their earnings—or at least narrow their losses—during the year. There was even one major acquisition as Mitsubishi Chemical Holdings expanded its dominion by buying Mitsubishi Rayon for \$2.6 billion.

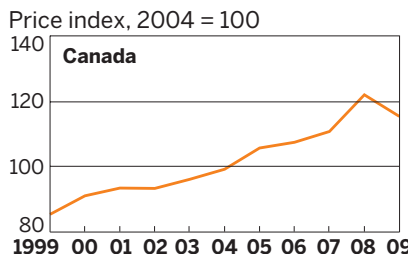
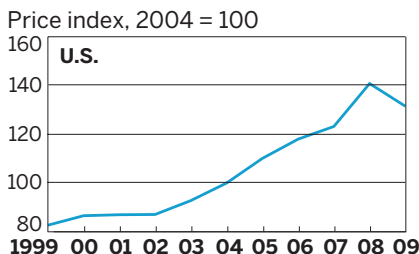
But what continued to trouble chemical company leaders was that it was unclear when demand would start to come back, and if it would ever again return to the golden era of 2007. The jobs picture contin-

DEMAND AND PRICES

U.S. chemical shipments tumbled by 15.0%, and Canada's dropped by 16.1% ...



... while U.S. and Canadian prices declined by 6.6%, and 5.3%, respectively



SOURCES: U.S. Departments of Labor and Commerce, Statistics Canada

ued to worsen, lagging behind all other barometers of economic activity and severely crimping consumer spending. And the easy credit that in years past fueled spending by both consumers and manufacturers appears to be gone for good.

One piece of positive news for the chemical industry was that the downward trend for demand leveled off during the second quarter. But after two full quarters of massive volume contraction, chemical companies continued to cut costs in the April-through-June period, leading finally to earnings improvement in the third quarter. And in the fourth quarter, stronger sales of automobiles, solar panels, and consumer electronics gave executives reason to hope that 2010 would look very different from 2009.

Meanwhile, the comparative strength of the Chinese economy impacted the fortunes of Western chemical firms both positively and negatively. Although developed-

world companies were able to sell more products to China's factories, they were forced in many cases to close down their own domestic plants because local demand was not enough to keep them running. And in contrast to previous recessions, analysts were unanimous in saying that many plant closures and layoffs in the U.S. and Europe would not be reversed even when the economy improves.

FOR THE pharmaceutical industry, 2009 brought a very different set of troubles. Drug companies scrambled to expand earnings in the face of coming patent expirations for blockbuster drugs such as Pfizer's Lipitor, Eli Lilly & Co.'s Zyprexa, and Bristol-Myers Squibb's Plavix. Pfizer and Merck & Co. turned to mergers in an attempt to keep a supply of patented drugs flowing, and the combination of Pfizer with Wyeth and Merck with Schering-Plough also meant the loss of thousands of jobs for chemists.

The large pharma firms cut costs by killing projects deemed unlikely to progress. Spending on R&D by big U.S. drugmakers dropped almost 16% in 2009 after a decade of uninterrupted yearly increases.

Spending on research was also weaker at most U.S. chemical firms, though in most cases the decrease was small. Dow's increased R&D spending was due to its acquisition of Rohm and Haas. Many European chemical firms, however, actually increased their spending on R&D in 2009. BASF boosted its spending for the year after retrenching a bit in 2008. Merck KGaA, Bayer, and Lanxess also spent more.

The bigger cuts came in capital spending. As a group, chemical firms in the U.S. and Japan cut back by more than 30%. In Europe, the decrease was about half that. With chemical plants still operating at lower-than-usual capacity, most chemical executives have promised to refrain from spending on long-term assets through 2011. ■

U.S. SHIPMENTS

Recession slowed shipments of all categories of chemicals after years of steady increases

\$ BILLIONS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	ANNUAL CHANGE	
												2008-09	1999-09
All chemicals	\$422.4	\$450.3	\$440.6	\$464.3	\$490.3	\$541.9	\$613.4	\$659.9	\$726.7	\$750.3	\$662.4	-11.7%	4.2%
Chemicals, excluding pharmaceuticals	312.0	332.4	310.4	321.4	338.3	384.5	444.0	479.0	537.7	556.7	473.0	-15.0	3.9
Agricultural chemicals	22.7	21.4	21.0	21.1	23.6	26.4	29.5	29.4	32.1	40.7	34.6	-15.0	3.9
Coatings & adhesives	29.1	29.7	29.7	29.5	30.1	32.2	34.1	35.3	35.8	34.7	32.3	-6.9	1.0
All other chemicals	260.1	281.4	259.7	270.9	284.6	325.9	380.4	414.3	469.8	481.4	406.2	-15.6	4.1
Pharmaceuticals	110.4	117.9	130.1	142.8	152.0	157.4	169.4	180.9	188.9	193.6	189.4	-2.2	5.0

SOURCE: C&EN calculations using Department of Commerce data

CANADA SHIPMENTS

The chemical and manufacturing sectors saw massive declines in 2009

\$ BILLIONS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	ANNUAL CHANGE	
												2008-09	1999-09
All manufacturing	\$447.3	\$491.9	\$476.1	\$490.6	\$493.9	\$510.5	\$525.1	\$530.6	\$527.9	\$524.2	\$433.1	-17.4%	-0.3%
Chemical manufacturing	30.0	32.6	33.6	35.5	37.8	41.3	43.6	43.1	42.9	43.6	36.6	-16.1	2.0
Basic chemicals	8.1	9.6	10.1	10.3	11.0	11.7	13.1	13.8	13.1	13.1	9.0	-30.9	1.1
Petrochemicals	2.6	3.9	3.9	3.6	4.2	5.3	6.3	7.0	6.3	6.3	3.3	-47.2	2.4
Resins & synthetic rubber	5.3	6.1	5.7	6.2	6.6	8.7	8.9	8.1	7.8	7.4	5.1	-31.0	-0.5
Pesticide, fertilizer & other agricultural chemicals	2.2	2.2	2.2	2.3	2.9	3.2	3.5	3.2	3.7	4.7	3.8	-20.4	5.6
Pharmaceuticals & medicine	4.5	4.8	6.0	6.7	6.9	7.8	8.0	8.3	8.8	9.1	10.3	13.5	8.8
Paints, coatings & adhesives	2.3	2.2	2.3	2.3	2.5	2.5	2.6	2.6	2.5	2.5	2.2	-13.8	-0.4
Soaps, cleaners & toilet preparations	3.3	3.0	2.7	2.7	3.1	2.7	2.6	2.8	2.9	2.6	2.5	-3.3	-2.7

NOTE: Monetary statistics for all years were converted at the 2009 average exchange rate of \$1.00 U.S. = \$1.1412 Canadian. SOURCE: Statistics Canada

EUROPE SHIPMENTS

Markets declined in 2009, but long-term gains held

\$ BILLIONS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	ANNUAL CHANGE	
												2008-09	1999-09
Belgium	\$41.0	\$49.2	\$59.1	\$59.6	\$61.6	\$65.9	\$66.9	\$71.3	\$75.3	\$76.1	\$63.0	-17.2%	4.4%
Germany	169.2	188.2	186.6	184.6	190.1	198.1	211.8	224.5	242.1	235.8	202.3	-14.2	1.8
Netherlands	35.2	45.1	44.8	45.0	47.3	50.7	55.0	63.3	68.3	69.7	53.0	-24.0	4.2
Spain	43.2	49.8	52.2	52.8	54.8	58.0	61.4	65.8	69.3	73.3	66.5	-9.3	4.4

NOTE: Monetary statistics for all years were converted to U.S. dollars at the 2009 average exchange rate of \$1.00 U.S. = 0.7176 euros.

SOURCES: National statistical agencies, trade organizations

U.S. PRICE INDEX

Prices retreated sharply for many raw materials and commodity goods

PRODUCER PRICE INDEX, 2004 = 100	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	ANNUAL CHANGE	
												2008-09	1999-09
All commodities	85.5	90.5	91.5	89.4	94.1	100.0	107.3	112.3	117.7	129.2	117.9	-8.7%	3.0%
Industrial commodities	85.7	91.3	91.9	89.7	94.2	100.0	108.5	114.4	118.6	130.3	118.4	-9.1	3.0
Finished goods	89.6	92.9	94.7	93.5	96.5	100.0	104.8	108.0	112.2	119.3	116.2	-2.6	2.4
Chemicals & allied products	82.7	86.6	87.0	87.1	92.8	100.0	110.1	118.0	123.2	140.8	131.5	-6.6	4.3
Industrial chemicals	73.0	79.3	78.9	78.2	87.0	100.0	115.8	130.5	139.1	168.7	143.8	-14.8	6.4
Prepared paint	89.6	91.5	93.6	95.0	97.2	100.0	106.9	114.6	118.8	126.9	134.5	6.0	3.8
Paint materials	80.2	82.6	83.4	92.3	96.2	100.0	106.0	110.5	117.6	125.2	121.7	-2.8	3.9
Drugs & pharmaceuticals	88.4	90.5	92.0	93.4	96.6	100.0	104.8	109.7	113.6	120.6	128.1	6.2	3.4
Fats & oils, inedible	57.6	45.6	50.5	58.8	80.3	100.0	95.6	96.3	123.3	187.7	136.9	-27.1	8.2
Agricultural chemicals	85.9	86.5	90.9	86.0	94.0	100.0	106.3	110.1	126.0	194.0	139.5	-28.1	4.5
Plastic resin & materials	77.1	86.8	82.3	80.1	89.6	100.0	118.3	121.6	120.1	131.8	117.0	-11.2	3.9
Other chemicals & products	94.1	95.4	97.1	97.1	98.2	100.0	104.9	109.9	112.4	119.9	121.9	1.7	2.4

SOURCE: Department of Labor

CANADA PRICE INDEX

Many products saw a decline in prices in 2009

PRODUCER PRICE INDEX, 2004 = 100	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	ANNUAL CHANGE	
												2008-09	1999-09
All commodities	93.3	97.3	98.3	98.3	97.0	100.0	101.6	103.9	105.6	110.1	106.4	-3.4%	1.3%
Chemicals & chemical products	86.6	92.1	94.4	94.3	97.0	100.0	106.3	108.0	111.2	122.1	115.7	-5.3	2.9
Inorganic industrial chemicals	89.6	90.4	95.7	96.2	97.8	100.0	108.3	116.6	141.0	148.5	139.9	-5.8	4.6
Sulfuric acid	95.5	92.9	103.1	102.8	98.9	100.0	103.2	111.4	117.1	146.2	124.2	-15.0	2.7
Caustic soda	99.3	100.6	130.6	111.7	109.5	100.0	112.3	109.5	106.8	135.4	130.8	-3.3	2.8
Ammonia	83.5	86.0	90.9	88.9	97.2	100.0	114.7	100.9	141.0	236.7	202.8	-14.3	9.3
Organic industrial chemicals	68.3	82.7	89.0	85.9	92.6	100.0	113.6	115.1	117.1	133.6	109.6	-18.0	4.8
Benzene-toluene-xylene	43.5	69.4	57.6	51.6	59.0	100.0	109.1	112.2	118.2	126.4	112.8	-10.7	10.0
Olefins	62.9	77.6	86.3	79.1	92.6	100.0	123.8	124.4	125.0	152.7	120.4	-21.2	6.7
Synthetic resins	89.2	99.2	96.8	95.2	97.4	100.0	106.7	105.4	97.3	105.3	100.7	-4.4	1.2
Polyethylene (a)	95.0	101.4	98.6	94.8	100.2	100.0	106.9	112.1	109.4	119.7	109.8	-8.3	1.5
Polystyrene	85.7	90.3	89.8	89.4	92.7	100.0	104.2	104.3	105.5	106.7	105.1	-1.5	2.1
Thermosets	87.1	95.7	104.9	100.6	100.6	100.0	100.0	101.6	102.4	103.7	103.5	-0.2	1.7
Agricultural chemicals	99.0	98.9	98.9	98.9	99.2	100.0	100.1	100.1	100.4	100.7	100.7	0.0	0.2
Pharmaceuticals	92.9	93.4	94.0	97.8	99.2	100.0	100.8	103.1	103.7	104.9	106.5	1.5	1.4
Paints & varnishes	87.9	90.6	93.8	95.6	97.3	100.0	104.9	110.2	111.5	115.5	115.0	-0.4	2.7
Soaps & cleaners	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.2	100.1	99.9	99.5	-0.4	-0.0
Toilet preparations	94.7	97.0	98.4	99.7	100.7	100.0	98.9	97.4	97.0	98.6	100.3	1.6	0.6
Pigments, lakes & toners	103.6	105.4	103.6	101.8	99.8	100.0	105.2	107.1	105.0	103.9	107.0	2.9	0.3

a Includes high- and low-density polyethylene. **SOURCE:** Statistics Canada

EXPLANATION

Column Headings In Tables Of Company Results

Year. Data are for the calendar year unless otherwise indicated. Data for earlier years are not restated to reflect subsequent acquisitions or divestitures.

Net sales. Gross sales less discounts, allowances, and returns; generally excludes excise taxes and other operating income or revenue.

Earnings. Net sales and other income less operating costs, nonoperating charges, depreciation, depletion, interest expense, deferred charges, minority interest in income, and taxes. Nonrecurring or extraordinary credits and charges may be included.

Profit margin. Earnings divided by net sales, expressed as a percentage.

Total assets. Sum at year's end of current assets, investments, prepaid expenses, net plant and equipment, and other tangible assets. Excludes insofar as possible intangible assets, including goodwill, value of patents, and the like.

Stockholders' equity. Equity at year's end of preferred and common stockholders, including value of capital stock, capital and earned surplus, and surplus reserves, as well as contingency and miscellaneous reserves for which no definite purpose is stated. Intangible

assets are deducted insofar as possible.

Return on equity. The amount of net income returned as a percentage of shareholders' equity.

Capital spending, % of sales. The percentage of sales revenues spent on long-term assets such as property, plant, and equipment.

R&D spending, % of sales. The percentage of sales revenues spent on research.

Earnings per share. Earnings less preferred dividends, divided by the number of shares of common stock outstanding.

Dividend, \$ per share. Cash dividends paid (or declared) on each share of common stock; excludes the value of stock dividends and adjusted for stock splits.

Dividend yield, % of price. Dividend per share divided by the average of the high and low prices of the common stock during the year.

Stock price range. High and low market prices of common stock during the year, adjusted for stock splits but not stock dividends.

Price/earnings ratio. Average of the high and low prices of the common stock during the year divided by earnings per share.

U.S. COMPANY RESULTS

The economic downturn late in the year brought mixed earnings results for chemical and pharma firms in 2009

YEAR	NET		PROFIT MARGIN	TOTAL ASSETS	STOCK-HOLDERS' EQUITY	RETURN ON EQUITY	CAPITAL SPENDING, % OF SALES	R&D SPENDING, % OF SALES	EARNINGS PER SHARE	DIVIDEND \$ PER SHARE	DIVIDEND YIELD, % OF PRICE	STOCK PRICE RANGE, PER SHARE		PRICE/EARNINGS RATIO
	SALES	EARNINGS										HIGH	LOW	
CHEMICALS														
AIR PRODUCTS & CHEMICALS														
2009	\$8,256	\$640	7.8%	\$11,850	\$3,616	177%	14.3%	1.4%	\$3.01	\$1.79	2.9%	\$80.60	\$41.46	20.3
2008	10,415	1,091	10.5	11,354	3813	28.6	10.4	1.3	4.97	1.7	2.0	106.06	65.05	17.2
2007	10,038	1,043	10.4	11,154	3,989.8	26.1	10.5	1.4	4.67	1.48	1.8	98.51	66.19	17.6
2006	8,850	795	9.0	10,079	3,822	20.8	14.3	1.7	3.38	1.34	2.2	69.54	53	18.1
ALBEMARLE														
2009	\$2,005	\$178	8.9%	\$2,328	\$762	23.4%	5.0%	3.0%	\$1.94	\$0.50	1.9%	\$37.62	\$15.54	13.7
2008	2,467	194	7.9	2,427	620	31.3	4.0	2.7	2.09	0.48	1.5	45.90	16.16	14.8
2007	2,336	233	10.0	2,388	837	27.8	4.2	2.7	2.41	0.42	1.0	48.84	32.92	17.0
2006	2,369	201	8.5	2,127	625	32.2	4.2	2.0	1.51	0.35	1.2	37.35	19.29	18.8
ARCH CHEMICALS														
2009	\$1,392	\$47	3.4%	\$824	\$19	250.0%	2.2%	1.7%	\$1.88	\$0.80	3.4%	\$32.22	\$15.00	12.6
2008	1,492	37	2.5	850	-21	def	3.6	1.5	1.49	0.80	2.6	40.19	20.76	20.5
2007	1,488	49	3.3	838	118	41.8	2.8	1.4	1.43	0.80	2.1	48.02	29.29	27.0
2006	1,435	14	1.0	793	10	146.4	1.9	1.3	0.61	0.80	2.3	31.00	37.21	55.9
CABOT														
2009	\$2,243	-\$77	def	\$2,637	\$1,095	def	4.7%	3.2%	def	\$0.72	3.6%	\$32.00	\$7.97	def
2008	3,191	86	2.7%	2,821	1,212	7.1%	6.2	2.3	\$1.34	0.72	2.3	40.49	21.98	23.3
2007	2,616	127	4.9	2,598	1,156	11.0	5.4	2.6	1.87	0.72	1.7	49.87	34.48	22.6
2006	2,543	90	3.5	2,498	1,160	7.8	7.4	2.3	1.32	0.64	1.8	39.50	30.42	26.5

def = deficit.

FINANCES

YEAR	NET		PROFIT MARGIN	TOTAL ASSETS	STOCK-HOLDERS' EQUITY	RETURN ON EQUITY	CAPITAL SPENDING, % OF SALES	R&D SPENDING, % OF SALES	EARNINGS PER SHARE	DIVIDEND \$ PER SHARE	DIVIDEND YIELD, % OF PRICE	STOCK PRICE RANGE, PER SHARE		PRICE/EARNINGS RATIO
	SALES	EARNINGS										HIGH	LOW	
CALGON CARBON														
2009	\$398	\$35	8.8%	\$394	\$275	12.7%	12.1%	1.3%	\$0.72	ne	ne	\$19.31	\$10.93	21.0
2008	400	36	9.0	355	220	16.4	8.3	1.0	0.71	ne	ne	23.03	9.11	22.6
2007	351	15	4.3	312	136	11.0	3.4	1.1	0.31	ne	ne	16.96	5.43	36.1
2006	316	-9	def	286	112	def	4.1	1.3	def	ne	ne	8.69	4.15	def
CELANESE														
2009	\$5,082	\$484	9.5%	\$7,318	-\$508	def	3.5%	1.5%	\$3.30	\$0.16	0.8%	\$33.41	\$7.44	6.2
2008	6,823	372	5.5	6,023	-961	def	4.0	1.2	2.44	0.16	0.6	50.99	5.71	11.6
2007	6,444	336	5.2	6,767	-229	def	4.5	1.1	2.11	0.16	0.5	44.77	24.5	16.4
2006	6,656	319	4.8	6,557	-551	def	3.8	1.1	1.95	ne	ne	26.33	16.8	11.1
CYTEC INDUSTRIES														
2009	\$2,790	\$123	4.4%	\$2,458	\$462	26.6%	7.0%	2.7%	def	\$0.16	0.6%	\$39.20	\$10.58	def
2008	3,640	284	7.8	2,501	350	81.1	5.4	2.3	def	0.50	1.2	63.77	16.28	-9.6
2007	3,504	207	5.9	2,957	825	25.0	3.3	2.2	\$4.20	0.40	0.6	71.78	53.83	15.0
2006	3,330	168	5.0	2,789	528	31.8	3.1	2.2	3.45	0.40	0.7	62.30	45.8	15.7
DOW CHEMICAL (a)														
2009	\$44,875	\$676	1.5%	\$46,857	\$2,044	33.1%	3.1%	3.3%	\$0.32	\$0.60	3.4%	\$29.50	\$5.89	55.3
2008	57,514	579	1.0	41,255	9,292	6.2	4.0	2.3	0.62	1.68	5.8	43.43	14.93	47.1
2007	53,513	2,887	5.4	44,448	15,036	19.2	3.9	2.4	2.99	1.64	3.8	47.96	38.89	14.5
2006	49,124	4,141	8.4	41,882	13,366	31.0	3.6	2.4	4.30	1.46	3.7	45.15	33	9.1
DUPONT														
2009	\$26,109	\$1,755	6.7%	\$33,496	\$2,526	69.5%	5.0%	5.3%	\$1.92	\$1.64	6.3%	\$35.62	\$16.05	13.5
2008	30,529	2,007	6.6	31,364	2,289	87.7	6.5	4.6	2.20	1.64	4.4	52.49	21.32	16.8
2007	29,378	2,988	10.2	29,201	6,206	48.1	5.4	4.6	3.25	1.52	3.2	53.90	42.25	14.8
2006	27,421	3,148	11.5	27,190	4,835	65.1	5.6	4.7	3.38	1.48	3.4	49.68	38.52	13.0
EASTMAN CHEMICAL														
2009	\$5,047	\$136	2.7%	\$5,200	\$1,198	11.4%	6.1%	2.7%	\$1.85	\$1.76	4.4%	\$61.95	\$17.76	21.5
2008	6,726	328	4.9	4,956	1,228	26.7	9.4	2.3	4.31	1.76	3.4	78.29	25.87	12.1
2007	6,830	321	4.7	5,693	1,766	18.2	7.6	2.3	3.84	1.76	2.7	72.44	57.54	16.9
2006	7,450	409	5.5	5,859	1,715	23.8	5.2	2.2	4.98	1.76	3.2	61.29	47.3	10.9
FMC CORP.														
2009	\$2,826	\$239	8.5%	\$2,927	\$924	25.9%	5.7%	3.3%	\$3.37	\$0.50	1.1%	\$58.13	\$34.90	13.8
2008	3,115	322	10.3	2,797	706	45.6	5.6	3.0	4.35	0.48	0.9	80.23	28.53	12.5
2007	2,633	157	6.0	2,553	884	17.8	4.4	3.6	2.08	0.41	0.9	59.00	35.63	22.7
2006	2,347	145	6.2	2,571	856	16.9	4.9	4.1	1.84	0.27	0.8	38.99	25.87	17.6
H.B. FULLER (b)														
2009	\$1,235	\$84	6.8%	\$856	\$346	24.3%	1.9%	1.4%	\$1.70	\$0.27	1.6%	\$23.06	\$9.70	9.6
2008	1,392	19	1.4	845	299	6.4	1.4	1.2	0.36	0.26	1.3	27.84	12.23	55.7
2007	1,400	101	7.2	1,021	455	22.2	1.5	1.2	1.68	0.26	1.0	31.53	20.66	15.5
2006	1,472	81	5.5	1,111	410	19.7	1.4	1.1	1.38	0.25	1.1	15.60	28.25	15.9
GEORGIA GULF (c)														
2009	\$1,990	\$145	7.3%	\$1,570	\$174	83.3%	1.5%	ne	\$9.19	ne	ne	\$50.00	\$5.50	3.0
2008	2,916	-258	def	1,405	-345	def	2.1	ne	def	\$0.24	4.8%	9.00	1.01	def
2007	3,157	-255	def	1,844	-161	def	2.7	ne	def	0.32	2.3	21.54	6.36	def
2006	2,428	52	2.1	1,993	-72	def	3.7	ne	1.51	0.32	1.2	34.65	18.36	17.6
W.R. GRACE														
2009	\$2,825	\$81	2.9%	\$3,850	-\$418	def	3.3%	2.5%	\$0.98	ne	ne	\$26.17	\$4.07	15.4
2008	3,317	122	3.7	3,758	-544	def	4.0	2.5	1.68	ne	ne	27.79	3.01	9.2
2007	3,115	80	2.6	3,747	-472	def	4.4	2.6	1.12	ne	ne	30.65	18.86	22.1
2006	2,827	18	0.6	3,521	-666	def	4.2	2.3	0.27	ne	ne	20.35	8.12	52.7

a Acquired Rohm and Haas in 2009. **b** Fiscal year ends on Dec. 2. **c** Acquired Royal Group Technologies in 2006. **def** = deficit. **ne** = nonexistent.

YEAR	NET SALES		PROFIT MARGIN	TOTAL ASSETS	STOCK-HOLDERS' EQUITY	RETURN ON EQUITY	CAPITAL SPENDING, % OF SALES	R&D SPENDING, % OF SALES	EARNINGS PER SHARE	DIVIDEND \$ PER SHARE	DIVIDEND YIELD, % OF PRICE	STOCK PRICE RANGE, PER SHARE		PRICE/EARNINGS RATIO
												HIGH	LOW	
INTERNATIONAL FLAVORS & FRAGRANCES														
2009	\$2,326	\$196	8.4%	\$1,924	\$48	408.3%	2.9%	8.3%	\$2.46	\$1.00	3.0%	\$41.85	\$25.30	13.6
2008	2,389	230	9.6	2,023	-154	def	3.6	8.9	2.87	0.96	2.7	47.20	24.90	12.6
2007	2,277	247	10.9	1,994	-116	def	2.9	8.7	2.82	0.88	1.8	54.20	46.00	17.8
2006	2,095	228	10.9	1,733	159	143.3	2.8	8.9	2.50	0.77	1.9	49.88	32.53	16.5
LUBRIZOL														
2009	\$4,586	\$501	10.9%	\$3,640	\$1,000	50.1%	3.1%	4.6%	\$7.26	\$1.24	2.5%	\$76.52	\$23.57	6.9
2008	5,028	-66	def	3,007	381	def	4.0	4.4	def	1.23	2.8	61.38	26.72	def
2007	4,499	283	6.3	3,092	399	71.0	4.1	4.9	4.05	1.16	2.0	69.95	48.76	14.7
2006	4,041	182	4.5	2,987	309	58.9	3.2	5.1	3.09	1.04	2.3	50.75	38.02	14.4
MONSANTO (a)														
2009	\$11,724	\$2,109	18.0%	\$13,288	\$5,467	38.6%	7.8%	9.4%	\$3.80	\$1.04	1.1%	\$121.32	\$63.47	24.3
2008	11,365	2,007	17.7	13,328	4,711	42.6	8.1	8.6	3.59	0.83	0.8	141.50	66.26	28.9
2007	8,563	922	10.8	8,943	3,463	26.6	5.9	9.1	1.66	0.55	1.0	70.88	42.75	34.2
2006	7,344	698	9.5	8,977	3,774	18.5	5.0	9.9	1.27	0.40	1.1	47.58	27.80	29.7
NALCO HOLDING														
2009	\$3,747	\$68	1.8%	\$2,109	-\$2,364	def	2.7%	2.0%	\$0.44	\$0.14	0.8%	\$26.05	\$9.38	40.3
2008	4,212	-343	def	2,266	-2,383	def	3.2	1.8	def	0.14	0.8	26.28	7.80	def
2007	3,913	129	3.3	2,398	-2,104	def	2.9	1.7	0.88	0.14	0.5	30.98	19.94	28.9
2006	3,603	99	2.7	2,187	-2,579	def	2.6	1.7	0.67	ne	ne	21.51	15.83	27.9
NEWMARKET CORP. (b)														
2009	\$1,530	\$162	10.6%	\$1,025	\$275	58.9%	2.5%	5.6%	\$10.65	\$1.08	1.5%	\$121.13	\$27.82	7.0
2008	1,617	73	4.5	757	237	30.8	2.0	5.1	4.75	0.80	1.4	93.57	23.37	12.3
2007	1,375	79	5.7	725	271	29.0	2.3	5.6	4.63	0.58	1.2	60.36	38.81	10.7
2006	1,263	54	4.3	693	250	21.5	2.1	5.6	3.08	0.50	1.1	70.00	23.55	15.2
POLYONE (c)														
2009	\$2,061	\$68	3.3%	\$1,157	\$98	69.1%	1.6%	1.1%	\$0.73	ne	ne	\$7.74	\$1.32	6.2
2008	2,739	-273	def	1,045	-57	def	1.6	1.0	def	ne	ne	6.39	2.33	def
2007	2,643	11	0.4	1,288	354	3.2	1.6	0.8	0.12	ne	ne	9.29	5.93	63.4
2006	2,662	126	4.7	1,477	278	45.3	1.5	0.8	1.36	ne	ne	9.89	6.31	6.0
PPG INDUSTRIES (d)														
2009	\$12,239	\$336	2.7%	\$10,040	-\$278	def	2.0%	3.3%	\$2.03	\$2.13	4.7%	\$62.31	\$28.16	22.3
2008	15,849	538	3.4	10,585	-780	def	2.4	2.8	3.25	2.09	3.9	71.00	35.94	16.5
2007	11,206	815	7.3	10,541	2,063	39.5%	3.2	3.2	4.91	2.04	2.8	82.42	64.01	14.9
2006	11,037	711	6.4	8,039	1,252	56.8	3.4	2.9	4.27	1.91	3.0	69.80	56.53	14.8
PRAXAIR														
2009	\$8,956	\$1,254	14.0%	\$12,105	\$3,436	36.5%	15.1%	0.8%	\$4.01	\$1.60	2.3%	\$84.97	\$53.42	17.3
2008	10,796	1,211	11.2	11,024	1,979	61.2	14.9	0.9	3.80	1.50	2.0	99.73	47.40	19.4
2007	9,402	1,177	12.5	11,281	3,041	38.7	14.6	1.0	3.62	1.20	1.6	91.99	58.32	20.8
2006	8,324	696	8.4	9,418	2,870	24.3	13.2	1.0	3.00	1.00	1.7	63.70	50.65	19.1
QUAKER CHEMICAL														
2009	\$451	\$17	3.8%	\$346	\$104	16.3%	3.1%	3.3%	\$1.47	\$0.92	6.5%	\$23.82	\$4.65	9.7
2008	582	11	1.9	338	79	13.9	2.1	2.9	1.05	0.92	4.2	33.82	10.19	21.0
2007	546	15	2.7	347	79	19.0	1.6	2.7	1.55	0.86	3.9	25.00	19.25	14.3
2006	460	12	2.5	311	65	18.0	2.7	2.8	1.19	0.86	4.5	21.94	16.7	16.2
SIGMA-ALDRICH														
2009	\$2,148	\$347	16.2%	\$2,184	\$1,156	30.0%	5.6%	2.9%	\$2.80	\$0.58	1.3%	\$56.29	\$31.45	15.7
2008	2,201	342	15.5	2,048	870	39.3	4.1	3.0	2.65	0.52	1.1	63.04	34.33	18.4
2007	2,039	311	15.3	2,072	1,059	29.4	3.9	2.9	2.34	0.46	1.0	55.87	37.70	20.0
2006	1,798	277	15.4	1,847	924	30.0	4.1	2.9	2.05	0.42	1.2	39.68	31.27	17.3

a Fiscal year ends on Dec. 2. b Formerly Ethyl Corp. c Acquired GLS, a provider of specialty thermoplastic elastomers, in 2008. d Acquired coatings firm SigmaKalon Group in 2008. def = deficit. ne = nonexistent.

FINANCES

YEAR	NET		PROFIT MARGIN	TOTAL ASSETS	STOCK-HOLDERS' EQUITY	RETURN ON EQUITY	CAPITAL SPENDING, % OF SALES	R&D SPENDING, % OF SALES	EARNINGS PER SHARE	DIVIDEND \$ PER SHARE	DIVIDEND YIELD, % OF PRICE	STOCK PRICE RANGE, PER SHARE		PRICE/EARNINGS RATIO
	SALES	EARNINGS										HIGH	LOW	
SOLUTIA														
2009	\$1,667	-\$109	def	\$1,952	-\$704	def	2.6%	0.6%	def	ne	ne	\$13.76	\$1.18	def
2008	2,110	786	37.3%	2,400	-823	def	4.0	0.6	\$4.97	ne	ne	17.29	3.64	2.1
2007	3,535	-203	def	2,433	-1,801	def	4.2	1.3	def	ne	ne	0.79	0.18	def
2006	2,905	-47	def	1,935	-1,537	def	3.6	1.5	def	ne	ne	0.75	0.28	def
STEPAN														
2009	\$1,276	\$63	4.9%	\$625	\$281	22.4%	3.4%	2.8%	\$5.84	\$0.90	2.0%	\$67.98	\$22.80	7.8%
2008	1,600	37	2.3	601	197	18.8	3.1	2.1	3.52	0.85	1.9	60.82	27.75	12.6
2007	1,330	15	1.1	562	185	8.1	3.0	2.3	1.50	0.83	2.8	34.90	25.4	20.1
2006	1,173	7	0.6	531	166	4.0	3.9	2.5	0.63	0.81	2.8	33.00	25.05	46.1
TERRA INDUSTRIES														
2009	\$1,577	\$179	11.4%	\$1,600	\$585	30.6%	8.5%	ne	\$1.54	\$7.90	27.4%	\$43.13	\$14.45	18.7
2008	2,891	633	21.9	2,113	1,059	59.8	3.1	ne	6.12	0.30	0.9	57.64	11.21	5.6
2007	2,348	202	8.6	1,884	616	32.8	1.4	ne	1.90	ne	ne	51.15	11.08	16.4
2006	1,837	-1	def	1,567	477	def	2.8	ne	def	ne	ne	12.40	5.45	def
PHARMACEUTICALS														
ABBOTT LABORATORIES														
2009	\$30,765	\$5,746	18.7%	\$32,924	\$3,407	168.7%	3.5%	8.9%	\$3.69	\$1.60	3.2%	\$57.39	\$41.27	13.4
2008	29,528	4,734	16.0	27,281	2,341	202.2	4.4	9.1	3.12	1.44	2.6	60.50	49.45	17.6
2007	25,914	3,606	13.9	23,864	17,779	20.3	6.4	9.7	2.34	1.30	2.4	59.50	48.75	23.1
2006	22,476	1,717	7.6	26,217	14,054	12.2	6.0	10.0	1.12	1.18	2.7	49.87	39.18	39.8
BRISTOL-MYERS SQUIBB														
2009	\$18,808	\$3,239	17.2%	\$22,925	\$6,702	48.3%	3.9%	19.4%	\$1.63	\$1.25	5.8%	\$25.56	\$17.51	13.2
2008	20,597	3,155	15.3	23,574	6,263	50.4	4.6	17.4	1.59	1.24	5.6	27.08	17.54	14.0
2007	19,348	1,968	10.2	19,844	10,562	18.6	4.4	16.7	0.99	1.12	3.9	32.35	25.73	29.3
2006	17,914	1,585	8.8	18,898	9,991	15.9	4.4	16.5	0.81	1.12	4.8	26.32	20.24	28.7
ELI LILLY & CO.														
2009	\$21,836	\$4,329	19.8%	\$25,540	\$7,604	56.9%	3.5%	19.8%	\$3.94	\$1.96	5.8%	\$40.57	\$27.47	8.6
2008	20,378	-2,072	def	25,158	2,681	def	4.6	18.8	def	1.88	4.3	57.18	29.91	def
2007	18,634	2,953	15.8	24,333	13,664	21.6	5.8	18.7	2.71	1.70	3.1	60.56	49.09	20.2
2006	15,691	2,663	17.0	21,955	10,981	24.3	6.9	19.9	2.45	1.60	2.9	58.86	50.41	22.3
JOHNSON & JOHNSON														
2009	\$61,897	\$12,266	19.8%	\$63,497	\$19,403	63.2%	3.8%	11.3%	\$4.40	\$1.93	3.5%	\$65.41	\$46.25	12.7
2008	63,747	12,949	20.3	57,217	14,816	87.4	4.8	11.9	4.57	1.80	2.9	72.76	52.06	13.7
2007	61,095	10,576	17.3	52,191	14,556	72.7	4.8	12.6	3.65	1.62	2.6	65.45	59.72	17.1
2006	53,324	11,053	20.7	41,868	39,318	28.1	5.0	13.4	3.73	1.46	2.3	69.41	56.70	16.9
MERCK & CO. (a)														
2009	\$27,428	\$13,024	19.8%	\$52,512	\$49,569	63.2%	5.3%	21.3%	\$5.65	\$0.26	3.5%	\$38.42	\$16.32	4.8
2008	24,850	7,808	31.4	45,232	16,794	46.5	5.2	19.3	3.64	1.52	3.6	61.18	22.82	11.5
2007	24,197	3,275	13.5	46,183	18,185	18.0	4.2	20.2	1.51	1.52	2.9	61.62	42.35	34.4
2006	22,636	4,334	19.1	42,194	17,560	24.7	4.3	21.1	1.03	1.52	3.9	46.37	31.81	38.0
PFIZER (b)														
2009	\$50,009	\$8,635	19.8%	\$102,558	\$48,070	63.2%	2.4%	\$0.16	\$1.23	\$0.80	3.5%	\$18.99	\$11.62	12.4
2008	48,296	8,026	16.6	71,963	18,371	43.7	3.5	16.5	1.19	1.28	6.6	24.08	14.45	16.2
2007	48,418	8,213	17.0	73,388	65,010	12.6	3.9	16.7	1.19	0.96	3.8	28.6	22.16	21.3
2006	48,371	11,024	22.8	69,611	71,358	15.4	4.2	15.7	1.52	0.96	3.8	28.6	22.16	16.7

a Acquired Schering-Plough in 2009. **b** Acquired Wyeth in 2009. **def** = deficit. **ne** = nonexistent.

YEAR	NET SALES	EARNINGS	PROFIT MARGIN	TOTAL ASSETS	STOCK-HOLDERS' EQUITY	RETURN ON EQUITY	CAPITAL SPENDING, % OF SALES	R&D SPENDING, % OF SALES	EARNINGS PER SHARE	DIVIDEND \$ PER SHARE	DIVIDEND YIELD, % OF PRICE	STOCK PRICE RANGE, PER SHARE		PRICE/EARNINGS RATIO
												HIGH	LOW	

(Monetary figures, except per-share amounts, are in millions of dollars)

BIOPHARMACEUTICALS

AMGEN

2009	\$14,351	\$4,605	19.8%	\$2,824	\$11,332	63.2%	3.7%	20.0%	\$4.51	ne	ne	\$64.41	\$45.11	12.1
2008	14,687	4,196	28.6	22,116	6,059	69.3	4.6	20.6	2.82	ne	ne	75.85	46.44	21.7
2007	15,858	2,950	18.6	3,366	5,921	49.8	8.0	20.6	2.48	ne	ne	80.36	63.92	29.1
2006	12,022	3,674	30.6	2,314	5,038	72.9	10.1	28.0	2.93	ne	ne	86.17	57.20	24.5

BIOGEN IDEC

2009	\$3,153	\$977	31.0%	\$7,413	\$5,123	19.1%	5.3%	40.7%	\$3.35	ne	ne	\$54.00	\$41.75	14.3
2008	2,840	783	27.6	5,180	2,506	31.2	9.7	37.7	2.65	ne	ne	73.59	55.68	24.4
2007	2,137	638	29.9	4,999	5,534	12.8	13.3	43.3	2.82	ne	ne	84.75	42.86	22.6
2006	1,781	214	12.0	4,652	7,150	4.6	11.1	40.3	0.63	ne	ne	52.72	40.24	73.8

GENZYME

2009	\$4,077	\$422	31.0%	\$8,657	\$6,280	19.1%	16.2%	21.2%	\$1.54	ne	ne	\$73.75	\$47.09	39.2
2008	4,197	421	10.0	5,615	4,250	7.5	14.2	31.2	1.50	ne	ne	83.97	52.16	45.4
2007	3,458	480	13.9	5,343	6,613	9.0	11.9	21.3	1.82	ne	ne	76.90	58.71	37.3
2006	2,887	-17	def	4,400	5,611	def	11.6	22.5	def	ne	ne	75.34	54.64	def

def = deficit. ne = nonexistent.



The Powerhouse for API Solutions

- 2 production sites
- 186,000 m² total surface area (about 46 acres)
- 6 manufacturing units
- 1 launch/small cGMP production plant
- 1,711 m³ production capacity (about 450,000 US gal)
- 86 reactor trains
- 5 micronization mills
- 500 tons/year active ingredients produced
- 40 active ingredients
- 600 employees
- 1,000 partners worldwide

www.fisvi.com

F.I.S. - Fabbrica Italiana Sintetici SpA
Viale Milano, 26 - 36075 Montecchio Maggiore - (Vicenza) - Italy



Fabbrica Italiana Sintetici
The Powerhouse for API Solutions

EUROPE COMPANY RESULTS

Revenues declined for every chemical company in 2009

YEAR	NET SALES	EARNINGS	PROFIT MARGIN	TOTAL ASSETS	STOCK-HOLDERS' EQUITY	RETURN ON EQUITY	CAPITAL SPEND-ING, % OF SALES	R&D SPEND-ING, % OF SALES	EARNINGS PER SHARE	DIVIDEND, \$ PER SHARE	DIVIDEND YIELD, % OF PRICE	STOCK PRICE RANGE, PER SHARE		PRICE/EARNINGS RATIO
												HIGH	LOW	
CHEMICALS														
BELGIUM														
Solvay														
2009	\$11,824	\$719	6.1%	\$17,152	\$6,859	10.5%	6.7%	6.5%	\$8.75	\$3.07	3.7%	€ 77.80	€ 42.00	9.5
2008	13,225	564	4.3	13,756	3,278	17.2	13.9	5.9	13.10	3.07	2.9	97.90	51.45	7.9
2007	13,332	1,088	8.2	14,650	5,289	20.6	8.1	5.8	13.18	3.07	2.0	123.20	92.00	11.4
2006	13,092	1,102	8.4	14,458	5,204	21.2	6.2	6.0	13.27	2.93	2.1	116.20	83.10	10.5
FINLAND														
Kemira														
2009	\$3,484	\$113	3.2%	\$2,866	\$709	15.9%	3.2%	1.9%	\$0.85	ne	ne	€ 11.63	€ 3.87	12.7
2008	3,947	-3	def	2,917	292	def	5.3	2.5	def	\$0.32	2.5%	13.43	4.93	def
2007	3,914	89	2.3	3,155	592	15.0	8.7	2.3	0.67	0.63	3.1	17.45	11.92	30.6
2006	3,514	162	4.6	2,853	514	31.6	6.5	2.0	1.14	0.61	3.4	15.61	10.06	15.7
FRANCE														
Air Liquide (a)														
2009	\$16,689	\$1,714	10.3%	\$22,222	\$4,282	40.0%	11.8%	1.3%	\$6.55	\$3.14	3.2%	€ 84.40	€ 55.03	14.8
2008	18,260	1,700	9.3	22,222	3,107	54.7	14.6	1.2	6.51	3.14	3.0	95.65	55.78	16.2
2007	16,576	1,564	9.4	19,441	3,025	51.7	11.4	1.1	5.88	2.84	2.4	93.14	75.08	19.9
2006	15,250	1,396	9.2	18,542	4,992	28.0	10.3	1.1	11.54	5.56	5.4	83.00	63.76	8.9
Arkema (b)														
2009	\$6,193	-\$240	def	\$2,586	-\$385	def	6.8%	3.1%	def	\$0.84	3.0%	€ 29.94	€ 9.94	def
2008	7,850	139	1.8%	3,301	-120	def	5.9	2.7	\$2.30	0.84	2.1	45.75	10.93	17.2
2007	7,905	170	2.1	3,412	-71	def	5.7	2.8	2.80	1.05	1.7	50.88	36.35	21.7
2006	8,171	63	0.8	4,079	453	13.9%	5.7	2.9	1.05	ne	ne	41.48	24.94	44.3
Rhodia (c)														
2009	\$5,617	-\$184	def	\$5,376	-\$1,593	def	4.1%	1.8%	def	\$0.35	3.3%	€ 13.28	€ 2.02	def
2008	6,637	146	2.2%	5,499	-1,049	def	5.1	1.5	\$1.45	ne	ne	27.35	3.93	15.0
2007	6,662	180	2.7	5,694	-1,085	def	5.3	1.9	1.77	0.35	10.1	2.99	1.96	1.9
2006	6,749	86	1.3	6,214	-1,472	def	5.4	2.1	0.07	ne	ne	2.71	1.35	40.6
GERMANY														
Altana (d)														
2009	\$1,647	\$14	0.9%	\$1,713	\$974	1.5%	4.6%	6.1%	\$0.11	\$0.06	0.3%	€ 15.59	€ 12.39	174.9
2008	1,870	144	7.7	1,727	931	15.4	8.0	5.4	1.06	0.14	0.8	16.90	7.53	16.1
2007	1,922	179	9.3	1,694	878	20.4	6.6	4.9	1.32	0.71	1.4	55.89	14.57	37.1
2006	1,802	79	4.4	8,115	7,302	1.1	5.8	5.2	0.57	1.81	2.8	51.65	42.46	114.8
BASF (e)														
2009	\$70,642	\$1,965	2.8%	\$56,883	\$11,371	17.3%	4.9%	2.8%	\$2.15	\$2.37	5.3%	€ 43.95	€ 20.71	21.0
2008	86,823	4,058	4.7	57,094	12,309	33.0	4.1	2.2	4.36	2.72	5.4	52.41	19.95	11.6
2007	80,719	5,663	7.0	51,868	14,964	37.8	4.4	2.4	5.80	2.72	4.5	50.81	35.98	10.4
2006	73,280	4,830	6.6	50,652	13,457	35.9	4.6	2.4	4.45	2.09	4.5	37.12	29.49	10.4
Bayer														
2009	\$43,434	\$1,894	4.4%	\$58,999	\$14,280	13.3%	5.1%	8.8%	\$2.37	\$1.95	3.1%	€ 56.45	€ 32.69	26.2
2008	45,872	2,395	5.2	61,126	10,720	22.3	5.3	8.1	3.09	1.95	2.7	65.68	36.83	23.1
2007	45,108	6,562	14.5	60,115	11,993	54.7	5.7	8.0	8.14	1.88	2.6	62.53	40.20	8.8
2006	40,333	2,345	5.8	66,385	6,444	36.4	6.0	7.9	3.09	1.39	2.8	40.92	30.56	16.1

NOTE: Monetary statistics for all years were converted at the 2009 average exchange rate of \$1.00 U.S. = 0.7176 euros, 1.0860 Swiss francs, and 0.6385 pounds sterling. **a** Stock split two-for-one in June 2007. **b** Spun off from Total in 2006; prior figures are pro forma. **c** One-for-12 reverse stock split in June 2007. **d** Divested pharmaceuticals in 2006. **e** Stock split two-for-one in 2008; acquired Ciba in 2009. **def** = deficit. **ne** = non-existent.

YEAR	NET SALES	EARNINGS	PROFIT MARGIN	TOTAL ASSETS	STOCK-HOLDERS' EQUITY	RETURN ON EQUITY	CAPITAL SPENDING, % OF SALES	R&D SPENDING, % OF SALES	EARNINGS PER SHARE	DIVIDEND \$ PER SHARE	DIVIDEND YIELD, % OF PRICE	STOCK PRICE RANGE, PER SHARE		PRICE/EARNINGS RATIO
												HIGH	LOW	
Lanxess														
2009	\$7,047	\$56	0.8%	\$6,789	\$1,741	3.2%	5.4%	2.0%	\$0.67	\$0.70	2.6%	€ 27.64	€ 11.06	40.3
2008	9,164	255	2.8	6,197	1,664	15.3	5.2	1.5	3.07	0.70	2.2	34.37	10.28	10.1
2007	9,204	156	1.7	5,506	1,926	8.1	4.3	1.3	1.84	1.39	2.8	43.75	26.72	26.7
2006	9,672	274	2.8	5,799	1,932	14.2	3.8	1.3	3.25	0.35	0.7	43.55	24.46	14.6
Linde (a)														
2009	\$15,623	\$824	5.3%	\$19,183	-\$1,990	def	10.1%	0.8%	\$4.85	\$2.51	2.6%	€ 87.95	€ 49.66	19.8
2008	17,646	999	5.7	19,167	-2,538	def	11.6	0.8	5.91	2.51	2.5	97.90	46.51	17.0
2007	17,141	1,326	7.7	19,259	-2,672	def	8.4	0.8	7.94	2.37	2.0	91.75	75.26	14.7
2006	17,326	2,560	14.8	23,173	-4,366	def	7.8	1.6	17.41	2.09	2.2	79.56	56.32	5.4
Merck KGaA														
2009	\$10,281	\$510	5.0%	\$12,701	\$2,669	19.1%	6.3%	18.2%	\$2.34	\$1.39	1.5%	€ 74.37	€ 57.24	39.2
2008	10,532	512	4.9	10,370	1,895	27.0	5.2	16.3	2.36	2.09	2.0	93.79	57.67	44.8
2007	9,830	4,875	49.6	9,407	724	673.8	4.0	14.6	22.59	1.67	1.3	106.55	79.96	5.8
2006	8,717	1,369	15.7	9,803	3,821	35.8	4.0	12.0	7.07	1.25	1.2	89.10	63.96	15.1
Wacker														
2009	\$5,183	-\$99	def	\$6,299	\$2,676	def	20.7%	4.4%	def	\$1.67	1.4%	€ 122.60	€ 46.60	def
2008	5,990	612	10.2%	6,411	2,868	21.3%	17.4	3.8	\$12.32	2.51	1.4	197.70	62.23	14.7
2007	5,266	588	11.2	5,443	2,585	22.8	14.9	4.0	11.83	3.14	1.5	197.70	98.05	17.4
2006	4,648	434	9.3	4,515	2,186	19.8	14.5	4.6	9.00	2.79	2.0	127.35	74.31	15.6
NETHERLANDS														
AkzoNobel (b)														
2009	\$19,360	\$397	2.1%	\$16,014	\$1,194	33.3%	3.8%	2.4%	\$1.69	\$1.88	3.7%	€ 46.52	€ 26.01	30.0
2008	21,481	-1,513	def	16,112	1,033	def	3.5	2.3	def	2.51	4.5	57.11	22.85	def
2007	14,232	808	5.7	25,871	14,569	5.5	3.5	2.8	2.05	2.51	3.3	65.56	44.41	37.4
2006	19,134	1,606	8.4	16,858	4,987	32.2	3.9	6.4	5.57	1.67	2.7	49.41	38.30	11.0
DSM														
2009	\$11,597	\$470	4.1%	\$11,930	\$5,516	8.5%	5.7%	4.7%	\$2.80	\$1.67	4.6%	€ 34.84	€ 16.93	12.9
2008	13,154	804	6.1	11,780	4,870	16.5	6.2	4.2	4.78	1.67	4.2	41.27	15.76	8.3
2007	12,426	597	4.8	12,244	6,053	9.9	5.3	4.2	3.25	1.67	3.4	39.87	31.63	15.3
2006	11,633	767	6.6	12,683	6,351	12.1	6.0	3.9	3.93	1.39	2.9	39.70	28.58	12.1
SWITZERLAND														
Clariant														
2009	\$6,090	-\$190	def	\$5,339	\$1,475	def	2.0%	2.3%	def	ne	ne	CHF 12.22	CHF 3.71	def
2008	7,432	-41	def	5,215	1,569	def	3.3	2.3	def	ne	ne	12.64	6.10	def
2007	7,851	4	0.1%	6,391	1,871	0.2%	3.6	2.5	def	\$0.23	1.6%	22.30	9.44	33.1
2006	7,453	-72	def	6,305	1,931	def	4.4	2.6	def	0.23	1.4	20.54	14.10	def
Givaudan														
2009	\$3,645	\$183	5.0%	\$3,747	-\$186	def	2.4%	8.2%	\$22.99	\$18.97	2.9%	CHF 878.50	CHF 567.00	28.9
2008	3,763	102	2.7	3,604	-912	def	4.7	8.4	13.69	9.21	1.1	1071.00	710.00	59.9
2007	3,802	87	2.3	3,882	-916	def	4.7	9.0	12.03	17.94	1.7	1264.00	996.00	86.5
2006	2,676	380	14.2	3,099	1,347	28.2%	5.8	8.5	53.61	17.30	1.8	1160.00	888.50	17.6
Lonza														
2009	\$2,477	\$149	6.0%	\$3,890	\$1,537	9.7%	18.8%	3.8%	\$2.92	\$1.61	1.8%	CHF 120.10	CHF 71.50	30.2
2008	2,704	387	14.3	4,499	1,099	35.2	21.2	3.7	7.50	1.61	1.4	158.30	83.95	14.9
2007	2,641	277	10.5	4,047	1,156	24.0	20.8	3.1	5.41	1.61	1.4	138.00	103.50	20.5
2006	2,682	204	7.6	3,444	1,323	15.4	12.7	2.6	3.96	1.38	1.6	108.74	78.30	21.7

NOTE: Monetary statistics for all years were converted at the 2009 average exchange rate of \$1.00 U.S. = 0.7176 euros, 1.0860 Swiss francs, and 0.6385 pounds sterling. **a** Acquired BOC in September 2006. **b** Divested pharmaceuticals in 2007; acquired ICI in 2008. **def** = deficit. **ne** = nonexistent.

FINANCES

YEAR	NET SALES	EARNINGS	PROFIT MARGIN	TOTAL ASSETS	STOCK-HOLDERS' EQUITY	RETURN ON EQUITY	CAPITAL SPENDING, % OF SALES	R&D SPENDING, % OF SALES	EARNINGS PER SHARE	DIVIDEND, \$ PER SHARE	DIVIDEND YIELD, % OF PRICE	STOCK PRICE RANGE, PER SHARE		PRICE/EARNINGS RATIO
												HIGH	LOW	

(Monetary figures, except per-share amounts, are in millions of dollars)

SWITZERLAND (continued)

Syngenta

2009	\$10,992	\$1,371	12.5%	\$13,594	\$4,053	33.8%	5.9%	8.7%	\$14.62	\$5.52	2.4%	CHF 292.10	CHF 211.00	15.8
2008	11,624	1,385	11.9	11,501	2,818	49.1	3.8	8.3	14.63	5.52	2.4	342.50	162.90	15.9
2007	9,240	1,109	12.0	10,490	3,251	34.1	3.4	9.0	11.42	4.42	1.9	292.00	212.04	20.3
2006	8,046	634	7.9	9,128	2,970	21.3	2.7	9.9	6.46	3.50	2.0	234.40	146.93	27.2

PHARMACEUTICALS

FRANCE

Sanofi-Aventis

2009	\$40,839	\$7,337	18.0%	\$111,551	\$67,511	10.9%	6.1%	15.6%	\$5.62	\$3.34	5.0%	€ 56.78	€ 38.43	11.8
2008	38,417	5,366	14.0	100,316	62,808	8.5	5.8	16.6	4.10	3.07	4.3	66.90	36.06	17.5
2007	39,073	7,331	18.8	100,167	62,288	11.8	5.7	16.2	5.42	2.88	3.2	71.95	56.20	16.5
2006	39,520	5,580	14.1	108,315	63,822	8.7	5.1	15.6	4.11	2.44	2.4	79.25	64.85	24.4

SWITZERLAND

Novartis

2009	\$44,267	\$8,454	19.1%	\$95,505	\$57,462	14.7%	4.3%	16.9%	\$3.69	\$1.93	4.4%	CHF 56.90	CHF 39.64	12.1
2008	41,459	8,233	19.9	78,299	50,437	16.3	5.1	17.4	3.59	1.84	3.6	66.25	45.62	14.3
2007	38,072	11,968	31.4	75,452	49,396	24.2	6.7	16.9	5.13	1.47	2.4	74.60	58.05	11.9
2006	36,031	7,175	19.9	68,008	41,294	17.4	5.0	14.8	3.04	1.24	1.9	76.80	64.20	21.4

Roche

2009	\$45,167	\$7,836	17.3%	\$68,660	\$8,669	90.4%	6.1%	20.1%	\$8.31	\$5.52	3.8%	CHF 182.10	CHF 130.30	17.3
2008	42,005	9,985	23.8	70,064	49,560	20.1	6.9	19.4	9.42	4.60	2.6	229.50	155.20	18.8
2007	42,447	10,524	24.8	71,938	49,049	21.5	7.6	18.2	10.28	4.23	1.9	266.70	210.20	21.4
2006	38,664	7,256	18.8	68,470	43,075	16.8	8.5	15.7	8.33	3.12	1.5	252.50	198.00	24.9

UNITED KINGDOM

AstraZeneca

2009	\$32,804	\$7,521	22.9%	\$54,920	\$20,821	36.1%	2.9%	13.4%	\$5.19	\$2.21	5.6%	£29.47	£21.47	7.7
2008	31,601	6,101	19.3	46,784	16,060	38.0	3.5	16.4	4.20	2.08	5.7	28.88	17.48	8.6
2007	29,559	5,595	18.9	47,957	14,915	37.5	3.8	17.5	3.74	1.46	3.6	29.84	21.44	10.7
2006	26,475	6,043	22.8	29,932	15,416	39.2	3.0	14.7	3.85	1.41	4.7	23.60	14.68	7.8

GlaxoSmithKline

2009	\$44,429	\$9,624	21.7%	\$67,129	\$16,824	57.2%	5.0%	13.9%	\$1.69	\$0.96	5.3%	£13.34	£9.87	10.7
2008	38,139	8,522	22.3	61,696	13,027	65.4	5.9	14.4	1.38	0.89	4.8	13.85	9.95	13.5
2007	35,612	8,734	24.5	48,605	15,536	56.2	6.7	14.2	1.47	0.83	4.0	14.77	11.69	14.1
2006	36,410	8,449	23.2	40,060	15,125	55.9	5.9	14.9	1.49	0.75	3.3	15.77	13.26	15.3

NOTE: Monetary statistics, except stock prices, for all years were converted at the 2009 average exchange rate of \$1.00 U.S. = 0.7176 euros, 1.0860 Swiss francs, and 0.6385 pounds sterling.

JAPAN COMPANY RESULTS

Although sales went down in 2009, profits improved or losses narrowed at most firms

YEAR	NET SALES	EARNINGS	PROFIT MARGIN	TOTAL ASSETS	STOCK-HOLDERS' EQUITY	RETURN ON EQUITY	CAPITAL SPENDING, % OF SALES	R&D SPENDING, % OF SALES	EARNINGS PER SHARE	DIVIDEND, \$ PER SHARE	DIVIDEND YIELD, % OF PRICE	STOCK PRICE RANGE, PER SHARE		PRICE/EARNINGS RATIO
												HIGH	LOW	
ASAHI KASEI														
2009	\$15,303	\$270	1.8%	\$14,612	\$6,542	4.1%	5.9%	4.4%	\$0.19	\$0.11	2.3%	¥513	¥355	24.0
2008	16,579	51	0.3	14,724	6,396	0.8	8.2	3.9	0.04	0.11	2.1	636	295	137.3
2007	18,113	747	4.1	15,215	6,544	11.4	4.9	3.3	0.53	0.14	1.8	902	505	14.1
2006	17,333	732	4.2	15,584	6,976	10.5	5.2	2.3	0.52	0.13	1.5	906	661	16.0
DIC (a)														
2009	\$8,090	\$27	0.3%	\$8,005	\$1,311	2.1%	3.1%	1.6%	\$0.03	\$0.04	2.5%	¥205	¥118	50.3
2008	9,952	28	0.3	7,883	1,163	2.4	4.7	1.6	0.04	0.06	2.4	367	124	73.3
2007	11,506	331	2.9	10,443	2,727	12.1	3.6	1.4	0.42	0.09	1.8	576	312	11.3
2006	10,842	240	2.2	10,587	2,479	9.7	4.9	1.5	0.30	0.05	1.1	510	370	15.5
JSR CORP.														
2009	\$3,311	\$146	4.4%	\$3,988	\$2,670	5.5%	5.7%	5.9%	\$0.60	\$0.28	1.7%	¥1,966	¥1,145	27.8
2008	3,763	149	4.0	3,624	2,613	5.7	5.4	6.1	0.60	0.34	2.0	2,455	801	28.9
2007	4,341	395	9.1	4,451	2,750	14.4	7.1	4.8	1.57	0.34	1.3	3,010	2,045	17.2
2006	3,905	359	9.2	4,365	2,387	15.1	6.0	4.8	1.42	0.26	0.8	3,590	2,300	22.1
KANEKA														
2009	\$4,403	\$90	2.0%	\$4,621	\$2,664	3.4%	5.9%	4.0%	\$0.26	\$0.17	2.7%	¥706	¥484	24.0
2008	4,799	-20	def	4,467	2,633	def	7.6	3.8	def	0.17	2.5	798	471	def
2007	5,369	201	3.7	4,832	2,707	7.4	6.3	3.3	0.59	0.17	1.8	1,207	605	16.4
2006	5,051	196	3.9	4,986	2,582	7.6	7.5	3.6	0.57	0.17	1.3	1,448	970	22.6
MITSUBISHI CHEMICAL (b)														
2009	\$26,848	\$137	0.5%	\$35,814	\$7,190	1.9%	4.7%	5.4%	\$0.10	\$0.09	2.1%	¥481	¥294	41.6
2008	22,310	-717	def	29,258	7,141	def	6.7	6.1	def	0.13	2.3	758	299	def
2007	31,275	1,751	5.6	29,524	8,837	19.8	5.8	3.8	1.28	0.17	1.8	1,155	634	7.5
2006	27,998	1,071	3.8	24,753	7,602	14.1	5.0	3.5	0.78	0.15	1.6	1,003	741	11.9
MITSUI CHEMICALS														
2009	\$12,892	-\$299	def	\$13,216	\$4,108	def	4.1%	3.2%	def	\$0.03	1.0%	¥382	¥202	def
2008	15,880	-1,017	def	12,691	3,889	def	5.4	2.8	def	0.10	2.0	685	206	def
2007	19,072	265	1.4%	15,684	5,119	5.2%	4.7	2.4	\$0.34	0.13	1.3	1,179	648	28.4
2006	18,019	558	3.1	15,993	4,973	11.2	4.3	2.2	0.71	0.11	1.1	1,084	660	13.1
SHIN-ETSU CHEMICAL														
2009	\$9,787	\$895	9.1%	\$18,885	\$15,277	5.9%	13.2%	3.7%	\$2.11	\$1.07	2.0%	¥6,000	¥4,200	25.8
2008	12,818	1,652	12.9	17,986	14,582	11.3	13.3	3.1	3.87	1.07	1.9	6,920	3,400	14.2
2007	14,692	1,960	13.3	20,480	15,359	12.8	19.5	3.5	4.55	0.96	1.2	9,500	4,970	17.0
2006	13,927	1,644	11.8	19,855	14,093	11.7	16.1	3.2	3.82	0.75	1.0	8,150	5,460	19.0
SHOWA DENKO														
2009	\$7,240	-\$405	def	\$10,230	\$3,061	def	5.7%	3.1%	def	\$0.03	1.8%	¥217	¥109	def
2008	10,716	26	0.2%	10,269	2,834	0.9%	5.5	2.0	\$0.02	0.05	2.0	386	114	127.6
2007	10,923	353	3.2	10,991	3,188	11.1	6.8	1.7	0.29	0.05	1.3	472	313	14.3
2006	9,762	308	3.2	11,078	2,834	10.9	9.9	2.1	0.27	0.04	0.8	540	414	19.1
SUMITOMO CHEMICAL														
2009	\$17,303	\$157	0.9%	\$25,447	\$8,769	1.8%	6.4%	7.2%	\$0.10	\$0.06	1.5%	¥484	¥325	45.3
2008	19,089	-632	def	21,590	8,280	def	7.5	7.3	def	0.10	1.7	785	264	def
2007	20,245	673	3.3	25,181	10,739	6.3	7.5	5.6	0.41	0.13	1.4	1,035	637	21.9
2006	19,108	1,002	5.2	24,818	11,000	9.1	8.9	5.5	0.61	0.13	1.3	1,073	751	16.1

NOTE: Monetary statistics, except stock prices, for all years were converted at the 2009 exchange rate of \$1.00 U.S. = 93.68 yen. Statistics were prepared on the basis of consolidated results. The fiscal year ends on March 31 of the following calendar year, except for Showa Denko's, which ends on Dec. 31. **a** Formerly Dainippon Ink & Chemicals. **b** Holding firm made up of Mitsubishi Chemical, Mitsubishi Rayon, Mitsubishi Tanabe Pharma, and Mitsubishi Plastics. **def** = deficit.

FINANCES

YEAR	NET SALES	EARNINGS	PROFIT MARGIN	TOTAL ASSETS	STOCK-HOLDERS' EQUITY	RETURN ON EQUITY	CAPITAL SPENDING, % OF SALES	R&D SPENDING, % OF SALES	EARNINGS PER SHARE	DIVIDEND, \$ PER SHARE	DIVIDEND YIELD, % OF PRICE	STOCK PRICE RANGE, PER SHARE		PRICE/EARNINGS RATIO
												HIGH	LOW	
TAIYO NIPPON SANSO														
2009	\$4,626	\$168	3.6%	\$6,589	\$2,267	7.4%	8.9%	1.0%	\$0.42	\$0.13	1.3%	¥1,145	¥641	22.7
2008	5,292	176	3.3	5,704	2,074	8.5	13.3	0.8	0.44	0.13	1.6	989	521	18.3
2007	5,420	234	4.3	5,842	2,325	10.1	7.1	0.6	0.58	0.13	1.2	1,137	802	17.8
2006	4,895	214	4.4	5,847	2,306	9.3	7.8	0.6	0.53	0.13	1.2	1,131	849	19.8
TEIJIN														
2009	\$8,175	-\$381	def	\$8,786	\$2,896	def	4.7%	4.4%	def	\$0.02	0.7%	¥335	¥213	def
2008	10,071	-459	def	9,331	3,262	def	8.0	4.0	def	0.05	1.6	441	168	def
2007	11,066	135	1.2%	10,845	4,390	3.1%	8.2	3.5	\$0.14	0.09	1.5	682	374	40.1
2006	10,777	364	3.4	10,674	4,352	8.4	7.5	3.5	0.39	0.11	1.3	895	596	20.3
TORAY														
2009	\$14,514	-\$151	def	\$16,618	\$2,896	def	4.2%	3.4%	def	\$0.05	1.0%	¥568	¥395	def
2008	15,708	-174	def	16,264	3,262	def	6.3	3.4	def	0.08	1.4	691	352	def
2007	17,610	513	2.9%	18,128	4,390	11.7%	8.9	2.8	\$0.37	0.11	1.3	967	567	22.3
2006	16,508	625	3.8	17,874	4,352	14.4	8.2	2.7	0.45	0.11	1.0	1,109	807	22.9

NOTE: Monetary statistics, except stock prices, for all years were converted at the 2009 exchange rate of \$1.00 U.S. = 93.68 yen. Statistics were prepared on the basis of consolidated results. The fiscal year ends on March 31 of the following calendar year. **def** = deficit.

U.S. CAPITAL SPENDING

Consolidation and the economic recession pared capital budgets

\$ MILLIONS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Air Products & Chemicals (a)	\$889	\$768	\$708	\$628	\$613	\$706	\$930	\$1,261	\$1,055	\$1,085	\$1,179
Albemarle	78	52	50	38	41	58	70	100	99	100	101
Arch Chemicals	59	62	45	35	20	18	18	27	42	53	30
Cabot (a)	166	137	122	146	129	119	186	188	141	199	106
Cytec Industries	77	77	64	62	94	89	105	103	115	196	194
Dow Chemical (b)	1,412	1,349	1,587	1,623	1,100	1,333	1,597	1,775	2,075	2,276	1,410
DuPont (c)	2,055	1,925	1,634	1,280	1,713	1,232	1,340	1,532	1,585	1,978	1,378
Eastman Chemical	292	226	234	427	230	248	343	289	518	634	137
FMC Corp. (d)	236	240	146	84	87	85	94	116	115	175	93
H.B. Fuller (e)	56	49	31	36	39	31	25	21	21	20	23
W.R. Grace	83	65	63	91	86	63	81	119	137	132	94
Lubrizol (f)	65	86	66	65	88	133	137	131	183	203	140
Monsanto (g)	976	582	382	224	206	210	281	370	509	918	916
NewMarket Corp. (h)	14	14	10	13	12	15	18	26	31	32	38
PPG Industries	490	561	291	238	217	244	288	372	353	383	239
Praxair	653	704	595	498	983	668	877	1,100	1,376	1,611	1,352
Quaker Chemical	6	6	8	11	13	9	7	12	9	12	14
Solutia	257	221	94	59	78	61	81	106	150	84	44
Stepan	33	28	34	36	33	34	42	46	40	50	43
TOTAL (i)	\$8,352	\$7,698	\$6,702	\$6,101	\$6,209	\$5,743	\$6,716	\$8,226	\$9,088	\$10,782	\$7,531

NOTE: Prior years are not restated to reflect company revisions. **a** Fiscal year ends on Sept 30. **b** Acquired Rohm and Haas in 2009 and Union Carbide in 2001. **c** Acquired all of Pioneer Hi-Bred in 1999; sold drug operations in 2001. **d** Split off machinery business in December 2001. **e** Fiscal year ends on Nov. 30. **f** Acquired Noveon in 2004. **g** Merged with Pharmacia in 1999; spun off from Pharmacia in August 2002. **h** Formerly Ethyl Corp. **i** For companies reporting.

EUROPE CAPITAL SPENDING

Expenditures declined in 2009 after peaking the year before

\$ MILLIONS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Air Liquide (France)	\$1,574	\$1,268	\$1,073	\$1,268	\$1,020	\$1,219	\$1,359	\$1,572	\$1,894	\$2,659	\$1,966
AkzoNobel (Netherlands) (a)	1,111	1,010	1,145	960	810	768	713	737	500	744	744
Altana (Germany) (b)	ne	ne	ne	ne	ne	ne	ne	105	127	151	75
Arkema (France) (c)	ne	ne	ne	ne	412	418	464	468	453	467	419
BASF (Germany) (d)	3,852	5,060	4,232	3,730	3,195	2,690	2,715	3,360	3,572	3,513	3,494
Bayer (Germany)	3,668	3,689	3,647	3,321	1,989	1,388	1,934	2,423	2,592	2,451	2,195
Clariant (Switzerland)	391	493	465	312	277	266	320	330	282	249	124
DSM (Netherlands)	902	857	909	701	603	465	559	698	662	818	658
Givaudan (Switzerland) (e)	152	120	105	85	145	137	148	156	179	179	87
Kemira (Finland)	234	304	415	339	326	223	157	228	343	210	112
Lanxess (Germany) (f)	ne	ne	ne	ne	435	389	350	372	396	477	383
Linde (Germany)	1,233	1,364	1,013	1,208	1,193	1,001	1,204	1,353	1,441	2,048	1,584
Lonza (Switzerland)	256	136	243	320	390	229	250	342	549	573	465
Merck (Germany)	500	595	655	525	392	326	373	353	394	550	651
Rhodia (France)	518	701	673	521	325	277	354	372	355	336	233
Solvay (Belgium)	1,281	1,132	1,005	871	773	786	704	810	1,083	1,839	790
Syngenta (Switzerland)	ne	185	253	165	211	166	174	217	317	444	652
Wacker (Germany) (g)	ne	ne	ne	ne	ne	ne	424	674	785	1,041	1,074
TOTAL (h)	\$15,672	\$16,914	\$15,833	\$14,327	\$12,497	\$10,748	\$12,203	\$14,569	\$15,922	\$18,749	\$15,708

NOTE: Monetary statistics for all years were converted at the 2009 average exchange rate of \$1.00 U.S. = 0.7176 euros and 1.0860 Swiss francs. **a** Divested pharmaceuticals in 2007 and purchased ICI in 2008. **b** Divested pharmaceuticals in 2006. **c** Spun off from Total in 2006; prior figures are pro forma. **d** Purchased Ciba in 2009. **e** Spun off from Roche in 2000; prior figures are pro forma. **f** Spun off from Bayer in January 2005; prior figures are pro forma. **g** Became a publicly traded company in 2005. **h** For companies reporting, **ne** = nonexistent.

JAPAN CAPITAL SPENDING

Companies cut expenditures to the lowest level since 2004

\$ MILLIONS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Asahi Kasei	\$675	\$739	\$799	\$1,003	\$922	\$731	\$708	\$901	\$885	\$1,353	\$897
DIC (a)	990	583	539	460	488	488	450	527	416	469	252
JSR Corp.	131	117	142	171	183	194	249	236	310	204	189
Kaneka	261	261	258	190	245	247	371	380	337	363	260
Mitsubishi Chemical	904	921	1,065	911	740	717	1,045	1,397	1,815	1,484	1,271
Mitsui Chemicals	581	657	1,255	734	488	503	869	776	904	865	524
Shin-Etsu Chemical	854	1,033	870	700	1,087	1,134	1,279	2,248	2,866	1,702	1,294
Showa Denko	397	427	345	304	436	319	440	970	740	585	413
Sumitomo Chemical	871	663	779	1,623	1,176	1,343	1,334	1,706	1,521	1,431	1,102
Taiyo Nippon Sanso (b)	151	128	185	189	79	407	237	383	387	705	410
Teijin	461	526	597	749	566	578	713	808	904	809	388
Toray Industries	1,169	641	698	611	521	780	1,112	1,350	1,567	986	609
TOTAL	\$7,446	\$6,695	\$7,531	\$7,646	\$6,932	\$7,440	\$8,804	\$11,681	\$12,652	\$10,955	\$7,606

NOTE: Monetary statistics for all years were converted at the 2009 average rate of \$1.00 U.S. = 93.68 yen. Fiscal year ends on March 31 of the following calendar year, except Showa Denko's, which ends on Dec. 31. **a** Formerly Dainippon Ink & Chemicals. **b** Nippon Sanso became Taiyo Nippon Sanso when it acquired Taiyo Toyo Sanso in October 2004; for 2003 and earlier, figures are for Nippon Sanso.

U.S. R&D SPENDING

Most chemical firms continued to increase R&D spending despite revenue declines late in the year, while pharma spending was up on average

CHEMICAL

\$ MILLIONS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Air Products & Chemicals (a)	\$123	\$124	\$123	\$121	\$121	\$127	\$133	\$151	\$140	\$131	\$116
Albemarle	34	26	22	17	18	31	42	46	63	67	61
Arch Chemicals	18	17	25	23	24	15	21	18	20	22	23
Cabot (a)	73	43	48	48	64	53	59	58	69	74	71
Cytec Industries	44	39	32	34	35	40	69	74	76	82	75
Dow Chemical (b)	845	892	1,072	1,066	981	1,022	1,073	1,164	1,305	1,310	1,492
DuPont (c)	1,617	1,776	1,588	1,264	1,349	1,333	1,336	1,302	1,338	1,393	1,378
Eastman Chemical	187	149	160	159	173	154	162	167	156	158	137
FMC Corp. (d)	152	155	100	82	87	93	94	97	95	94	93
H.B. Fuller (e)	21	18	19	18	18	16	16	17	17	17	17
W.R. Grace	42	46	50	52	52	51	59	64	80	83	70
Lubrizol (f)	78	86	88	94	94	190	205	206	219	221	212
Monsanto (g)	695	588	560	527	510	511	588	725	780	980	1,098
NewMarket Corp. (h)	41	40	33	30	28	33	65	70	77	82	86
PPG Industries	284	282	266	289	306	303	309	318	354	451	403
Praxair	67	65	66	69	75	77	80	87	98	97	74
Quaker Chemical	9	9	9	9	10	14	14	13	15	17	15
Solutia	58	67	58	39	53	44	45	45	45	12	10
Stepan	13	13	14	15	15	15	30	30	31	34	36
TOTAL (i)	\$4,705	\$4,779	\$4,645	\$4,298	\$4,303	\$4,437	\$4,725	\$5,010	\$5,380	\$5,703	\$5,467

PHARMACEUTICAL

\$ MILLIONS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Abbott Laboratories	\$1,194	\$1,351	\$1,578	\$1,562	\$1,734	\$1,697	\$1,821	\$2,255	\$2,506	\$2,689	\$2,744
Bristol-Myers Squibb (j)	1,843	1,939	2,259	2,218	2,279	2,500	2,746	3,067	3,282	3,585	3,647
Eli Lilly & Co.	1,739	1,784	2,019	2,235	2,350	2,149	3,025	3,129	3,487	3,841	4,327
Johnson & Johnson	2,768	3,105	3,591	2,957	4,684	5,203	6,312	7,125	7,680	7,577	6,986
Merck & Co.	2,068	2,344	2,456	2,677	3,178	4,010	3,848	4,783	4,883	4,805	5,845
Pfizer (k)	4,036	4,435	4,847	5,176	7,131	7,684	7,442	7,599	8,089	7,945	7,845
TOTAL (i)	\$16,579	\$17,979	\$19,932	\$20,330	\$24,919	\$27,311	\$29,808	\$33,255	\$36,110	\$37,344	\$31,394

NOTE: Prior years are not restated to reflect company revisions. **a** Fiscal year ends on Sept 30. **b** Acquired Rohm and Haas in 2009 and Union Carbide in 2001. **c** Acquired all of Pioneer Hi-Bred in 1999; sold drug operations in 2001. **d** Machinery business split off in December 2001. **e** Fiscal year ends on Nov. 30. **f** Acquired Noveon in 2004. **g** Merged with Pharmacia in 1999; spun off from Pharmacia in August 2002. **h** Formerly Ethyl Corp. **i** For companies reporting. **j** Acquired DuPont Pharmaceuticals in 2001. **k** Acquired Wyeth in 2009.

EUROPE R&D SPENDING

Outlays for research rose in 2009 despite the recession

\$ MILLIONS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Air Liquide (France)	\$127	\$133	\$126	\$128	\$131	\$144	\$149	\$162	\$187	\$223	\$224
AkzoNobel (Netherlands) (a)	1,012	1,101	1,180	1,256	1,236	1,147	1,129	1,233	393	492	471
Altana (Germany) (b)	ne	ne	ne	ne	ne	ne	ne	95	93	100	100
Arkema (France) (c)	ne	ne	ne	ne	266	255	245	234	220	209	190
BASF (Germany) (d)	1,858	2,127	1,738	1,582	1,540	1,374	1,483	1,780	1,923	1,888	1,948
Bayer (Germany)	3,138	3,335	3,566	3,591	3,116	2,761	2,409	3,201	3,593	3,697	3,827
Clariant (Switzerland)	333	381	377	324	284	252	201	191	194	169	138
DSM (Netherlands)	361	368	415	378	373	399	404	187	518	549	548
Givaudan (Switzerland) (e)	144	171	183	190	200	192	203	227	342	317	300
Kemira (Finland)	67	67	54	64	67	54	60	71	92	99	65
Lanxess (Germany) (f)	ne	ne	ne	ne	234	176	141	121	123	135	141
Linde (Germany)	199	254	234	238	240	231	240	280	135	145	124
Lonza (Switzerland)	90	88	96	94	64	65	58	70	82	101	95
Merck (Germany)	694	761	804	847	843	835	994	1,048	1,432	1,720	1,874
Rhodia (France)	247	270	275	280	261	318	144	145	130	102	102
Solvay (Belgium)	481	502	475	553	563	576	658	785	775	786	773
Syngenta (Switzerland)	769	745	723	697	727	809	822	796	830	969	960
Wacker (Germany) (g)	ne	ne	ne	ne	ne	ne	205	212	213	227	229
TOTAL (h)	\$9,519	\$10,302	\$10,246	\$10,222	\$10,144	\$9,586	\$9,543	\$10,837	\$11,274	\$11,929	\$12,107

NOTE: Monetary statistics for all years were converted at the 2009 average exchange rate of \$1.00 U.S. = 0.7176 euros and 1.0860 Swiss francs. **a** Divested pharmaceuticals in 2007 and purchased ICI in 2008. **b** Divested pharmaceuticals in 2006. **c** Spun off from Total in 2006; prior figures are pro forma. **d** Purchased Ciba in 2009. **e** Spun off from Roche in 2000; prior figures are pro forma. **f** Spun off from Bayer in January 2005; prior figures are pro forma. **g** Became a publicly traded company in 2005. **h** For companies reporting, **ne** = nonexistent.

JAPAN R&D SPENDING

Even with poor economic conditions, research expenditures dropped only slightly

\$ MILLIONS	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Asahi Kasei	\$534	\$531	\$529	\$526	\$388	\$389	\$382	\$398	\$600	\$649	\$671
DIC (a)	114	128	137	138	160	170	158	166	165	157	132
JSR Corp.	64	55	142	150	161	177	169	186	209	228	194
Kaneka	131	140	140	149	154	168	180	180	177	184	174
Mitsubishi Chemical	711	726	903	972	945	952	956	973	1,196	1,364	1,461
Mitsui Chemicals	407	390	416	396	351	373	397	394	450	438	407
Shin-Etsu Chemical	288	277	301	291	281	298	342	446	512	397	359
Showa Denko	240	177	165	165	167	188	186	208	186	214	221
Sumitomo Chemical	633	631	712	777	803	835	981	1,043	1,125	1,399	1,252
Taiyo Nippon Sanso (b)	43	37	37	27	24	22	24	29	31	42	44
Teijin	304	323	340	319	350	320	333	375	387	401	357
Toray Industries	414	414	397	381	381	410	424	451	489	534	493
TOTAL	\$3,882	\$3,830	\$4,219	\$4,291	\$4,166	\$4,302	\$4,531	\$4,849	\$5,528	\$6,007	\$5,766

NOTE: Monetary statistics converted from yen on the basis of the 2009 average exchange rate of \$1.00 U.S. = 93.68 yen. Fiscal year ends on March 31 of following calendar year, except Showa Denko's, which ends on Dec. 31. **a** Formerly Dainippon Ink & Chemicals. **b** Nippon Sanso became Taiyo Nippon Sanso when it acquired Taiyo Toyo Sanso in October 2004; for 2003 and earlier, figures are for Nippon Sanso.