



ISAAC AFTERMATH
MINIMAL DAMAGE
BUT US PRICES
RISE ON OUTAGES
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10-16 September 2012

Periodicals Entry

ICIS Chemical Business

ANALYSIS OF CHEMICAL MARKETS





ICIS
TOP
100
CHEMICAL
COMPANIES
2011

We present the ICIS Top 100 Chemical Companies, a ranking of the world's largest chemical producers. Sponsored by DKSH, the listing – based on 2011 sales – reveals some surprises. Revenues and profits rose again, backed largely by price gains. Germany's BASF led the pack with \$95.2bn in sales, while China's Sinopec made major strides to capture the number two position, edging out US-based ExxonMobil Chemical. On page 36, the ICIS data team slices and dices the statistics.

RECORDS FALL

30 It was a year of contrasts, with strength in the first half of 2011 overshadowed by weakness in the second half. Yet it was a record year for sales for the Top 100.

ICIS TOP 100 RANKING

33 The list of the world's top chemical producers shows some big movers. See who made the cut and also those "bubbling under" down to number 125.

TOP 100 DRIVEN BY PRICES

36 Sales for the Top 100 chemical companies largely mirrored the ICIS Petrochemical Index. See the forecast for 2012 sales. Is bigger better? Plus, operating margins of the Top 20 reveal an interesting picture.

NIGEL DAVIS LONDON

While on paper it was a good year for the chemical industry, 2011 will be remembered for all the wrong reasons. Having started with such promise, it soon began to run off the rails. Oil prices climbed but demand growth slowed. By the end of the year, manufacturing industry activity globally was subdued and chemical demand had fallen away.

But sector companies' financial results for the calendar year reflect the strength of the first half of 2011, rather than the slump in the fourth quarter. Some companies produced record financial results.

At the start, chemical companies were convinced that 2011 would be a strong year, with demand driven by a recovering US economy and growth in the important China market. But sector growth estimates were revised downward sharply by mid-year.

Earnings reflected the changing macro-economic and industry environment. For upstream players, particularly, the third quarter was difficult, and the fourth quarter even harder.

ICIS collects financial information on the leading global chemical companies for its Top 100 chemical company listing and analysis.

The listing by sales in 2011 reflects a world that continues to change, with emerging market players showing the strongest year-on-year growth.

Some chemical producers hit new sales records in 2011 as rapidly growing international markets compensated for quickly contracting growth in the US and, particularly, in Europe.

EUROZONE IMPACT

The eurozone sovereign debt crisis began to weigh heavily on markets and national economies as the year progressed. Chemical industry players, as suppliers of vital intermediates for manufacturing, construction, transport and consumer products, felt the squeeze on all fronts. The upstream chemical participants and, particularly, those involved with



Some companies have vaulted up the rankings

Records fall in year of contrasts

Profits and sales surged ahead in 2011 and companies with Asia exposure shot up the ranks. Sinopec rose two places to become the second-largest chemical company

more basic chemicals, petrochemicals and plastics, were the first to respond to changing market conditions.

Volumes suffered in some sub-sectors in the second quarter, while others followed suit later on. The third-quarter slowdown was most noticeable in the financial results of upstream petrochemical producers squeezed by still-high oil-based raw material and energy costs and starting to feel the negative impact of lower sales volumes.

During the course of the year, producers gained more on price than on volume. The important emerging markets underpinned growth, while well-established markets and important end-use sectors, such as construction, struggled.

STRONG PERFORMANCE

Against the backdrop of what turned out to be a difficult year, and certainly one of contrasting quarters, most producers in the Top 100 nevertheless performed well.

The year started with cash flowing and companies determined to keep costs under control. Working capital was being managed effectively, while some took the opportunity to pay down or reschedule debt.

The ICIS ranking by sales shows that the Top 100 players – those with sales of \$3.2bn plus – saw healthy sales growth of more than 12% in 2011. The upstream petrochemical players showed the strongest growth for the year, having pushed sales much higher in the first half as volume demand increased.

These companies in particular were able to push their product prices higher as oil prices climbed and feedstock naphtha costs rose. In rough terms, petrochemical prices tend to follow the price of crude oil, whether the feedstock is oil- or natural gas-based.

Product portfolios and regional growth characteristics continue to shape the ICIS Top 100 table. The upstream petrochemical producers achieved particularly strong growth in 2011, while specialty chemical makers tended to grow at a slower rate. Once again, however, the quarter-to-quarter dynamics of the results are masked in the annual figures.

The ICIS Top 100 Chemical Companies listing by sales reflects continued mergers and acquisitions (M&A) activity in the sector, as well as diverse regional growth dynamics.

ASIA GROWTH REFLECTED

The growth and influence of Asian companies is the story behind changes in the 2011 rankings. China's largest petrochemical producer, Sinopec, continued to grow strongly during the year, with its chemical segment sales up by 28.9% in local currencies, and by 34.9% higher in US dollars.

We include the chemical segments of the major oil companies in the ICIS Top 100 list-

DKSH MARIO PRESSLER GLOBAL HEAD, PERFORMANCE MATERIALS

A MESSAGE FROM OUR SPONSOR

The ICIS Top 100 Chemical Companies highlights businesses that have successfully dealt with the challenges of the global market. Our sponsor, DKSH, gives a view on how it can help chemical companies to grow their business in new and existing markets.

DKSH Business Unit Performance Materials, a leading specialty chemicals distributor, is honoured to be the sponsor for the ICIS Top 100 Chemical Companies.

As an industry, chemical distribution will see continued growth, especially since chemical producers are strengthening their global reach and further expanding their business to the fast growing markets, especially in Asia. Another visible trend is that outsourcing of key activities by chemical producers is increasing – a trend that is opening many new opportunities.

DKSH is ranked No 3 in Asia in the ICIS Top 100 Chemical Distributors list, published in July 2012, and we



“As an industry, chemical distribution will see continued growth”

aim to continue consolidating our leadership position in the region. We have been at home in Asia for nearly 150 years, reliably safeguarding the interest of our business partners.

DKSH is already a leader in its traditional strongholds such as Southeast Asia and Japan. In Japan we are the strongest non-Japanese chemical distributor. Our strategy is to grow our leading position across Asia by strengthening operations in China, India, and Korea.

Our clients, leading chemical producers, appreciate our unparalleled geographical spread covering the whole of Asia (and Western Europe), as well as our application- and service-driven business model, which enables us to work and think like a specialty chemicals company. Our specialists act in the market on behalf of key clients as if they were their employees. They are supported by a Key Client Management team providing a single point of contact while still leveraging our group's network and resources for our clients' best interests.

To support the philosophy of offering more than just distribution, we have opened a series of innovation centres – presently totalling 23 globally; 20 of these in Asia. In these centres, DKSH technical specialists work on new and improved formulations to meet and anticipate clients' and customers' needs. ■

Visit us at: dksh.com/chemicaldistribution and youtube.com/DKSHGroup

ing and analysis. We convert reported financial data to US dollars at the relevant financial year-end exchange rate, so the strength of certain currencies against the dollar plays a part in the rankings. Columns in the ICIS Top 100 table give year-on-year sales and profits percentage changes in US dollar and reporting currency terms.

Other major Asia players making important gains in 2011 were Thailand's PTT Global Chemical, which represents the combined businesses of the former PTT Chemical and PTT Aromatics, and Indorama, one of the most prolific acquirers of assets in the chemical industry over the past two years.

South Korea's Honam Petrochemical saw sales jump by 47.6%, while petrochemical sales for India's Reliance Industries increased by 28.2%.

Fertilizer makers also grew strongly in 2011, as did important regional players in chemicals such as Mexichem, Russia's SIBUR, Brazil's Braskem, Poland's PKN Orlen and Saudi Arabia's SABIC.

The major changes in rankings by sales in the ICIS Top 100 largely reflect these gains.

SINOPEC CLIMBS LADDER

Sinopec's petrochemical operations jump two places in the table to claim second place behind leading industry giant BASF despite strong growth by others in this leading group of producers.

US-based Dow Chemical slips to fourth in the table from second last year, reflecting its realignment as a more specialty-oriented materials producer.

Five companies showed sales growth of more than 40%; 12 achieved growth of more than 30%.

Not surprisingly, perhaps, the strongest top-line growth was shown by Asian companies and fertilizer producers. However, petrochemical groups based outside Asia but with a strong presence there also did well.

Only 12 of the Top 100 companies saw sales contract in 2011. Among them were some of Japan's leading chemical producers that were hit hard by the earthquake and tsunami that struck the north-east of the country's main island.

M&A activity helped push Belgium's Solvay and PTT Global Chemical into the top

» 30 group in 2011. France's Rhodia is no longer included in the rankings, having merged with Solvay in 2011.

PETROCHEMICALS GAIN

Volume demand growth earlier in the year and pricing power helped the large petrochemical producers make gains in 2011, despite the fourth-quarter slump. In 2011, the West Texas Intermediate (WTI) oil price fluctuated between \$75/bbl and \$112/bbl, with the high point early in the second quarter and the low point at the start of the fourth quarter, and lower prices in the second half of the third quarter. The ICIS Petrochemical Index (IPEX), which reflects prices of a group of 12 important petrochemical and polymer products in three regions, moved from 300.45 in January to a peak of 374.94 in June and then down to 300.78 by December.

Producers in Europe tied to naphtha and other oil-related feedstocks faced a challenge in passing their feedstock price increases on to customers in polymers and intermediates downstream from the cracker. Companies cracking ethane in the Middle East continued to achieve high returns. Those cracking ethane in the US benefited greatly from low and competitive ethane prices brought about by the North American shale gas revolution.

US fertilizer producers also benefited greatly from low natural gas prices in North America, but were also boosted by demand growth.

Intermediates and specialty chemical makers were squeezed by higher upstream chemical costs but, once again, demand in the first months of the year helped them to retain and increase prices.

Industrial gases producers, which are also included in the ICIS Top 100 analysis, made the most of the industrial demand for gases in the emerging economies, particularly China.



China's Sinopec grew strongly during the year, to reach second place in the listings

PROFITS RISE

Volume demand growth, lower costs and higher prices translated into increased profits for most chemicals players in 2011. Earnings before interest and tax (EBIT) surged for CF Industries, Agrium and Occidental Chemical of the US, and for Norway's Yara International and South Korea's SK Energy, as well as Sinopec. Profits data are not available for all the companies listed in the ICIS Top 100, but the table shows both EBIT and the net profit results. We also list the important assets, spending and employee data on which the ICIS Company of the Year award is based. The winner will be announced in our 24 September issue. ICIS collects a considerable amount of financial data on the major chemical companies, not all of it shown in the table published

in ICIS Chemical Business. The additional data are available on request.

The strongest operating profit margins (operating profits to sales ratio) in 2011 were shown by the fertilizer producers – Potash Corp of Saskatchewan, CF Industries and EuroChem. Russia's SIBUR and SABIC also produced strong operating margins, as did industrial gases companies including Germany's Linde, and Praxair of the US.

The ICIS Top 100 data also show that companies were using their cash to add new production capabilities in 2011. Capital spending across the Top 100 companies listed in 2011 increased by an average of 28%. ■

To access the 2012 ICIS Top 100 chemical companies listing package online, visit icis.com/top100chem

FOOTNOTES

- ^a Chemical segment figures. Includes inter-segment revenues, e.g. revenue for sales of by-products to other divisions. For ExxonMobil, inter-segment revenue was \$22.8bn in 2011 and \$18.1bn in 2010. For Sinopec = external sales with inter-segment sales. Ube figures = Chemicals & Plastics + Specialty Chemicals & Products.
- ^b 2010 finances are based on the sum of predecessor and successor components after emergence from bankruptcy, 30 April, 2010.
- ^c Financial year-end 31 March, 2012.
- ^d Net sales includes inter-segment sales; data excludes HealthCare division (2011 sales €17.2bn; 2010 sales €16.9bn).
- ^e Excludes real estate and energy business areas.

- ^f Linde Gas & Engineering sales, operating profit and employee figures only.
- ^g Pro-forma results include the acquisition of Rhodia from January 2011.
- ^h PTT Global Chemical Public Company Limited was formed by the amalgamation of PTT Chemical Public Company Limited and PTT Aromatics and Refining Public Company Limited and was registered as a new entity on 19 October, 2011.
- ⁱ Petrochemical figures. For SK Energy, the sales revenue figure includes inter-segment sales.
- ^j Optical segment and glass segment figures have not been included.
- ^k Asahi Kasei excludes homes and healthcare segments.
- ^l Financial year-end 30 June, 2011 – business segments' total turnover

- figures: polymers, solvents, olefins, surfactants, waxes and nitro used.
- ^m Financial year-end 31 May, 2012.
- ⁿ ICIS estimates. BP Petrochemicals figures only. Revenue represents third-party sales as well as other operating revenues and excludes the sales made by joint ventures, which are equity accounted. BP's underlying replacement cost profit, excluding joint venture interests in Europe.
- ^o Net sales figure. The total of NPC and its associated companies in 2011 is \$25bn.
- ^p Adhesive Technologies segment only.
- ^q Net profit is pre-tax.
- ^r Sud-Chemie sales consolidated for the eight-month period following acquisition in April 2011.
- ^s All figures for SIBUR are based on

- combined financial information, which excludes results of the mineral fertilizers and tires businesses divested by SIBUR in December 2011.
- ^t 2011 and 2010 figures (re-stated) exclude the vinyl products business segment, announced as having been sold to the Klesch Group.
- ^u Nalco was fully acquired by Ecolab in December 2011.
- ^v 2010 income statement and cash-flow statement adjusted to reflect disposal of the COMPO business. 2011 figures refer to continued operations, excluding COMPO, which was sold to Triton with effect from 18 October, 2011.
- ^w Includes the assets and results of the operations acquired from Eastman Chemical, from 1 February, 2011.

THE ICIS TOP 100

Rank 2011	Company	Sales			Operating profit		Net profit		Total assets		R&D		Capital spending		Employees	
		\$m	% Change		\$m	\$m	\$m	\$m	\$m	%	\$m	%	\$m	%	Numbers	%
			Reporting currency	in \$												
1	BASF	95,245	15.1	12.5	11,127	10,286	8019	6039	79,277	0.7	2,080	5.2	4,419	30.9	111,141	1.8
2	Sinopec ^a	65,752	28.9	34.9	4,018	2,240			22,677	18.5			2,385	21.9	71,607	9.1
3	ExxonMobil ^a	64,731	20.7	20.7	5,875	5,996	4383	4913	27,107	3.3			1,450	-34.5		
4	Dow Chemical	59,985	11.8	11.8	3,601	2,802	2402	1970	69,224	-0.5	1,646	-0.8	2,687	26.2	51,705	4.4
5	LyondellBasell Industries ^b	51,035	24.0	24.0	3,998	2,944	2147	10151	22,839	-9.7	196	27.3	1,050	51.7	14,000	0.0
6	SABIC	50,636	25.0	24.9	13,023	10,105	7797	5741	88,736	5.2	219	25.7	2,838	-33.9	40,000	21.2
7	Shell ^a	46,963	18.5	18.5			2054	1511					634	-21.6		
8	Mitsubishi Chemical ^c	38,713	1.3	1.2	1,576	2,735	428	1009	38,301	-3.7	1,672	5.8	1,402	-1.5	53,979	0.2
9	DuPont	37,961	20.5	20.5	4,282	3,711	3474	3031	48,492	20.0	1,956	18.5	1,843	22.2	70,000	16.7
10	INEOS	27,529	-18.5	-20.3	1,849	1,528	240	-32	14,714	-17.9					12,807	-6.4
11	Total ^a	26,839	12.1	9.6	903	1,278							1,098	29.2	41,665	0.0
12	Bayer ^d	24,975	6.5	4.2	1,241	1,152			34,766	2.7	1,275	-2.5	1,367	1.5	56,100	0.7
13	Sumitomo Chemical ^e	23,505	-1.7	-1.8	732	1,062	67	295	28,201	-1.4	63	1.9	200	-32.3		
14	AkzoNobel	20,342	7.2	4.8	1,350	1,616			25,748	-3.3	461	4.2	917	29.6	57,240	3.0
15	LG Chem	19,580	16.5	12.6	2,448	2,520	1873	1965	13,199	16.6			1,896	31.2		
16	Johnson Matthey ^c	19,252	20.4	20.1	694	449	505	291	5,227	0.1			241	9.4		
17	Toray ^c	19,170	3.2	3.1	1,300	1,209	775	699	19,084	0.8	621	10.4	1,138	70.1	40,227	3.8
18	Air Liquide	18,735	7.2	4.8	3,157	2,987	1989	1860	31,262	4.7	326	4.7	2,274	18.4	46,200	6.0
19	Evonik ^{a/e}	18,308	9.6	7.1	2,498	1,987			21,958	-19.3	473	5.6	980	21.0	32,421	-2.7
20	Linde Group ^f	17,867	7.1	4.8	4,160	3,877	1521	1332	37,471	5.2	127	1.9	1,743	10.3	50,417	4.1
21	Braskem ^g	17,813	30.1	16.0	1,036	1,937	-277	1138	20,056	-3.4	53	12.1	1,209	18.9	7,164	6.1
22	Mitsui Chemicals ^c	17,546	4.5	4.4	260	490	-12	300	15,160	-3.1			541	-0.7		
23	Solvay ^g	16,449	14.4	11.9			1069	538	15,634	131.8	283	56.9	1,654		29,121	73.5
24	PTT Global Chemical Public Co. Ltd. ^h	15,996					952		11,823							
25	Reliance Industries ^{c/i}	15,937	28.2	13.4	1,781	2,121			8,341	-17.9			432	254.1		
26	Agrium	15,470	44.0	44.0	2,223	1,113	1375	713	13,140	1.9			663	50.3	14,800	4.6
27	Honam Petrochemical	14,169	47.6	47.6	1,449	1,122	1022	812	9,318	22.2	26	23.8	867	-41.8	1,657	6.4
28	Chevron Phillips Chemical	13,935	24.4	24.4			1970	1388	8,634	7.7						
29	Yara International	13,441	22.9	19.7	2,215	1,282	2018	1499	12,361	10.0	21	17.5	485	-8.6	7,627	3.8
30	Merck KGaA	13,317	10.6	8.2	1,277	1,476	800	838	28,665	-3.4	1,966	6.2	475	-9.6	40,676	0.3
31	Syngenta	13,268	14.0	14.0	2,051	1,793	1599	1397	17,241	-0.3	1,127	9.2	479	21.0	26,333	0.1

^x 2010 figures re-stated.

^y Momentive companies listed separately as fiscal-year 2011 financials for the Momentive holding company have not been filed.

^z Financial year ending 30 September, 2011.

^{aa} Adopted new and revised Thai financial reporting standards (TFRS) from 1 January, 2011. Figures for 2010 re-stated according to new standards.

^{bb} Specialty Materials figures used.

^{cc} Figures are for petrochemicals and fertilizers only.

^{dd} Figures exclude PVC/chlor-alkali and part of the organic chlorine derivatives activities sold to Kerling (through INEOS ChlorVinyls) in June 2011. 2010 figures are re-stated to reflect the disposal.

^{ee} Excludes Winchester segment.

^{ff} Includes Arch acquisition on 20 October, 2011.

^{gg} Includes operating results from International Specialty Products from date of acquisition (August 2011), and excludes Ashland Distribution, divested in March 2011.

^{hh} Financial year end 28 October, 2011.

ⁱⁱ Formerly known as Cementhai Chemicals.

Reasons for exclusions

PetroChina Does not segment chemicals from refining business.

Repsol No longer discloses its chemical figures.

OMV Includes petrochemical operations in its refining and marketing segment.

Shanghai Petrochemical Majority

owned by Sinopec.

Koch Does not segment chemical data.

Samsung Total Sales equity accounted in Total and Samsung figures.

ChemChina Accounts not made public by the company.

China Blue Star Chem Majority owned by ChemChina.

Formosa Plastic Corp US Not segmented in Formosa reports.

Formosa Petrochemical Corp Does not segment chemicals from its refining business.

Nan Ya Plastics Sales a mixture of chemicals and processed items.

Yeochoon NCC Results included with Hanwha and Daelim.

Daelim Below Top 100 in sales because Yeochoon NCC is accounted as

an equity company.

Samsung Does not consolidate various chemicals-company interests into one area.

Hanwha Chemical 2011 accounts not yet made public by the company.

Flint Group Accounts not made public by the company.

Lubrizol Acquired by Berkshire Hathaway on 16 September, 2011; Lubrizol business not segmented.

PIC Accounts not made public by the company.

Exchange rates

Key financial exchange rates used for 2011 data (2010 in parentheses): €/ \$ 1.296 (1.325) based on 31 December year end; \$/Yen 82.9 (82.8) based on 31 March year end.

Rank 2011	Company	Sales			Operating profit		Net profit		Total assets		R&D		Capital spending		Employees	
		\$m	% Change		\$m	\$m	\$m	\$m	\$m	%	\$m	%	\$m	%	Numbers	%
			Reporting currency	in \$												
32	SK Energy ^j	13,000	-5.8	-9.0	669	346										
33	Shin-Etsu ^c	12,643	-1.0	-1.1	1,806	1,802	1214	1209	21,840	1.4	431	-4.3	969	-31.7	16,167	-18.2
34	PPG Industries ^l	12,620	11.7	11.7												
35	Asahi Kasei ^{c/k}	12,088	-6.6	-6.7	594	959							822	30.1		
36	DSM	11,913	1.6	-0.7	1,203	1,063	1055	672	14,458	4.1	494	15.0	618	12.1	22,000	0.4
37	Sekisui Chemical ^c	11,646	5.4	5.3	659	596	339	285	9,981	4.6					20,855	5.5
38	Sasol ^l	11,576	17.0	32.1	1,295	730									9,787	0.0
39	LANXESS	11,372	23.2	20.5	1,006	804	656	502	8,913	18.7	187	21.4	880	32.5	16,390	11.9
40	Praxair	11,252	11.2	11.2	2,468	2,082	1672	1195	16,356	7.1	90	13.9	1,797	29.5	26,184	-0.3
41	Mosaic ^m	11,108	11.8	11.8	2,612	2,664	1930	2515								
42	Huntsman	11,041	22.0	22.0	606	410	247	27	8,657	-0.7	166	9.9	330	39.8	12,000	-7.7
43	BP ⁿ	10,832	33.5	33.5	1,120	1,232										
44	NPC (Iran) ^{c/o}	10,419	7.7	7.7	1,063	691	857	642	20,470	-18.9	3	-3.2	656	-27.7	11,206	-5.5
45	Teijin ^c	10,310	4.7	4.7	411	586	145	304	9,197	0.0	384	0.9	334	8.5	18,778	7.0
46	Air Products ^z	10,082	11.7	11.7	1,622	1,389	1224	1029	14,291	5.8	119	3.6	1,352	31.1	18,900	3.3
47	Henkel (Adhesive segment) ^p	10,038	6.0	3.7							324	6.0	213	33.6	24,105	0.7
48	Formosa Chemicals & Fibre (Taiwan) ^q	9,271	-4.6	-4.6			1206	1729	12,059	-7.0					5,258	7.2
49	Borealis	9,196	13.2	10.7	369	463	656	439	7,941	6.4	118	5.9	314	144.0	5,160	1.7
50	DIC ^c	8,861	-5.7	-5.8	422	449	219	190	8,146	-4.1			287	19.1		
51	Sherwin-Williams	8,766	12.7	12.7	784	749	442	463	5,229	1.2	42	4.5	154	22.8	33,000	3.1
52	Potash Corp	8,715	33.3	33.3	4,306	2,597	3081	1775	16,257	4.6			2,176	4.7	5,703	4.0
53	Versalis (part of ENI) ⁱ	8,412	5.7	3.4	-549	-114	-270	-113					280	-15.9	5,804	-2.8
54	Tosoh ^c	8,292	0.4	0.3	286	405	113	121	8,552	-2.4			234	-30.3		
55	Clariant ^r	7,853	3.5	18.1	540	342	242	168	9,676	75.0	188	48.7	394	88.4	22,149	36.9
56	Arkema ⁱ	7,646	21.2	18.5	929	733	-25	460	6,910	8.2	171	4.9	549	31.6	12,937	18.1
57	Eastman Chemical	7,178	22.9	22.9	1,021	862	696	438	6,184	3.3	158	3.9	457	88.1	10,000	0.0
58	ICL	7,068	24.2	24.2	1,926	1,346	1512	1025	7,283	14.1	72	12.6	496	48.6	11,910	7.9
59	Ecolab ^u	6,799	11.6	11.6	754	807	463	530	18,241	274.4	96	9.1	342	31.0	40,200	51.7
60	Celanese	6,763	14.3	14.3	690	503	607	377	8,518	2.9	96	37.1	349	73.6	7,600	4.8
61	K+S ^v	6,675	11.2	8.7	1,233	953	731	595	7,849	6.3	23	26.1	356	36.6	14,496	2.2
62	ALPEK (Grupo Alfa) ^w	6,509	48.4	31.3	579	387			4,091	27.2			44	-21.3	4,502	10.5
63	Ashland ^{z/eg}	6,502	13.3	13.3	130	249	414	141	12,966	36.1	89	3.5	201	4.7	15,000	3.4
64	Dow Corning	6,427	7.2	7.2			806	866	13,571	7.3					12,000	33.3
65	Wacker-Chemie	6,362	3.4	1.1	792	1,064	457	650	8,083	10.9	224	2.4	1,012	23.7	17,168	5.2
66	Formosa Plastics ^q	6,194	-7.2	-7.2			1339	1758	11,177	24.8					5,362	6.5
67	Styron	6,193	24.7	24.7					2,577	-3.7					2,100	5.0
68	SCG Chemicals ⁱⁱ	6,116	33.7	27.1			355	754	5,596	1.7						
69	CF Industries	6,098	53.8	53.8	2,791	896	1539	349	8,975	2.5			247	-4.2	2,400	0.0
70	Orica ^z	6,025	6.4	7.6	1,002	900	626	1271	7,434	10.4	46	24.7	646	27.2	14,000	0.0
71	Indorama Ventures ^{aa}	5,899	92.1	82.7	388	344	489	366	4,623	77.9			196	142.7		
72	Taiyo Nippon Sanso ^c	5,761	-1.3	-1.3	375	428	256	154	7,325	-1.8						
73	Kaneka ^c	5,663	3.4	3.3	159	256	65	140	5,636	2.5			370	16.1		
74	Honeywell ^{bb}	5,659	19.7	19.7	1,042	749			5,402	9.4			282	50.0		
75	Mitsubishi Gas Chemical ^c	5,457	0.3	0.2	110	281	149	229	7,183	3.1			313	-25.2		
76	NOVA Chemicals	5,241	14.5	14.5	1,007	597	615	263	6,208	11.4	41	10.8	158	25.4	2,450	0.2
77	Tasnee	5,239	22.9	22.8	1,442	837	651	393	10,647	15.1			277	-20.1		
78	Momentive Specialty Chemicals ^y	5,207	13.3	13.3	368	546	118	214	3,108	-0.9	70	6.1	139	16.8	5,300	-11.7
79	PKN Orlen ^{a/i}	5,136	29.8	11.5	4	165			3,790	-15.6			187	-68.5		
80	Occidental Chemical ^{ba/i}	4,815	19.9	19.9	861	438							241	-2.8		
81	Airgas ^c	4,746	11.6	11.6	556	469	313	250	5,321	7.6			357	39.3	15,000	7.1
82	Showa Denko ^{a/i}	4,593	14.2	14.2	67	95			3,976	-3.0			114	-65.5		
83	Petronas ⁱ	4,576	23.9	18.3												

Rank 2011	Company	Sales			Operating profit		Net profit		Total assets		R&D		Capital spending		Employees	
		\$m	% Change		\$m	\$m	\$m	\$m	\$m	%	\$m	%	\$m	%	Numbers	%
			Reporting currency	in \$												
84	Compania Espanola de Petroleos (CEPSA) ^j	4,489	21.7	19.0												
85	Kuraray ^c	4,452	1.6	1.5	660	641	380	347	6,314	3.1			444	96.8		
86	Denki Kagaku Kogyo (Denka) ^c	4,401	1.9	1.8	250	297	137	173	4,858	0.0						
87	JSR ^c	4,223	2.7	2.7	434	472	319	333	5,197	10.2			200	24.4		
88	SIBUR ^s	4,195	27.2	21.1	654	585										
89	Givaudan	4,171	-7.6	5.4	472	519	268	318	7,156	10.7	313	-0.2	199	77.8	8,913	3.4
90	Daicel Chemical Industries ^c	4,126	-3.3	-3.4	246	395	143	203	4,805	-3.2			202	47.1		
91	EuroChem	4,103	34.3	27.8	1,371	854	1001	656	6,401	30.5			744	11.0	20,801	6.1
92	Valspar ^{hh}	3,953	22.5	22.5	-40	376	-139	222	3,500	-9.5	115	15.2	67	-1.8	10,020	-1.6
93	Nippon Shokubai ^c	3,870	11.2	11.1	375	360	257	255	4,301	8.1	134	6.2	252	36.4		
94	RPM ^m	3,777	11.7	11.7	396	345	216	189	3,560	1.3	45	10.0	72	80.9	9,700	7.8
95	Rockwood Holdings	3,669	15.0	15.0	567	358	411	239	4,588	-2.9	59	19.9	280	55.1	9,700	1.0
96	Westlake Chemical	3,620	14.1	14.1	447	378	259	221	3,267	10.6			177	117.5	1,811	-3.3
97	Ube ^{a/c}	3,563	8.1	8.0	341	347										
98	Mexichem	3,392	34.4	19.0			364	285	4,335	5.5			215	21.0	11,173	
99	FMC	3,378	8.4	8.4	587	387	366	173	3,744	12.8	105	4.7	190	33.2	5,000	2.0
100	Asahi Glass ^a	3,224	-4.4	2.6	234	215			3,327	6.6			253	37.8		

BUBBLING UNDER

Rank 2010	Company	Sales			Operating profit		Net profit		Total assets		R&D		Capital spending		Employees	
		\$m	% Change		\$m	\$m	\$m	\$m	\$m	%	\$m	%	\$m	%	Numbers	%
			Reporting currency	in \$												
101	Georgia Gulf	3,223	14.4	14.4	125	114	58	43	1,644	-1.3			66	45.3	3,744	3.5
102	W.R. Grace	3,212	20.1	20.1			269	207	4,497	5.3	69	13.6	142	25.4	6,300	5.0
103	Zeon ^c	3,172	-2.8	-2.9	388	426	231	221	3,764	7.3						
104	Pemex ⁱ	3,114	5.1	-7.0	-883	-1,215	-912	-1195	7,857	-11.1			174	-12.8	13,541	0.0
105	Cabot ^t	3,102	14.2	14.2			236	154	3,141	8.8	66	1.5	230	113.0	4,100	5.1
106	Cytec Industries	3,073	11.8	11.8	273	234	208	172	3,537	-3.7	85	16.7	117	0.8	5,500	-8.3
107	Chemtura	3,025	9.6	9.6	227	38	119	-586	2,855	-2.0	43	2.4	154	24.2	4,500	7.1
108	Industries Qatar ^{cc}	2,966	42.1	42.1												
109	Albemarle	2,869	21.4	21.4	587	415	464	324	3,204	4.4	77	32.8	191	152.5	4,260	6.0
110	Lonza ^{ff}	2,868	0.4	0.0	278	400	164	312	7,480	46.2	100	-5.5	264	-13.4	11,001	32.9
111	PolyOne	2,864	9.2	9.2	233	174	173	163	2,081	24.5	37	9.2	54	37.0	4,700	17.5
112	Kemira	2,860	2.1	-0.1	205	207	182	154	3,468	2.9	51	-6.7	127	27.8	5,006	0.6
113	IFF	2,788	6.3	6.3	428	416	267	264	2,966	3.2	220	0.5	128	19.9	5,644	2.4
114	Tessenderlo Group ^{dd}	2,755	5.0	2.7	136	97	-124	27	1,788	-20.5	15	5.8	138	-11.1	7,457	-9.7
115	Makhteshim-Agan Industries	2,691	13.9	13.9	243	6	121	-132	3,766	1.3	26	12.9	93	-5.7	4,072	3.4
116	Tata Chemical ^e	2,675	22.6	8.4	453	414	165	145								
117	Momentive Performance Materials ^v	2,637	1.9	1.9	142	262	-141	-64	3,165	-3.9	78	6.8	111	16.8	4,750	0.7
118	Methanex	2,608	32.6	32.6	344	157	228	94	3,396	8.1			128	4.9		
119	IRPC Public Company Limited	2,372	-3.3	-8.0	7	128										
120	Petkim Petrokimya Holding	2,330	20.2	20.2	98	85	61	87	1,414	-8.0	2	7.1	87	71.7	2,586	5.3
121	Fuchs Petrolub	2,162	14.4	11.8	338	320	237	227	1,282	8.2	36	7.1	49	13.1	3,722	3.9
122	Ferro	2,156	2.6	2.6	66	24	32	6	1,441	0.4	30	11.4	73	62.6	5,120	1.7
123	SQM	2,145	17.2	17.2	811	554	554	387	1,956	15.4			501	49.1		
124	Solutia	2,097	7.5	7.5	404	331	262	78	3,526	-0.3	24	33.3	105	59.1	3,400	3.0
125	Altana	2,095	5.3	3.0	281	305	191	201	2,594	0.7	114	4.6	121	23.9	5,313	7.6

ICIS Top 100 gains driven by prices

Higher prices translate to sales gain and improved profitability for the ICIS Top 100 chemical companies. We also highlight capital spending patterns

REGAN HARTNELL LONDON

Despite many headwinds, the global chemical industry has surged to a new record level of chemical sales. The ICIS Top 100 chemical company listing shows that the top 100 had combined sales of \$1.40 trillion (€1.08 trillion) in the 2011 financial year, representing growth of 13.4% compared with 2010. Top 100 sales in 2010 were almost 24% greater than in 2009, when chemical sales suffered greatly amid the 2008–2009 financial crisis.

Year-on-year sales growth in 2011, albeit

down from the surge in 2010, is still close to 1.5 times the 9.0% average level of annual growth seen since 2000. The ICIS Top 100's \$1.4 trillion of chemical sales represents 35.2% of the \$3.98 trillion worth of global chemical production (excluding pharmaceuticals), according to the American Chemistry Council.

SALES MIRROR IPEX

The rise in 2011 sales was mostly in line with the level of growth suggested by the dollar-denominated ICIS Petrochemical Index (IPEX), which suggests that sales growth was primarily attributed to higher

chemical prices rather than to any significant additional volume growth.

The IPEX is a monthly calculated, capacity-weighted index that tracks the price levels of a basket of 12 commodity-type chemicals and polymers in each of three regions – Asia, Europe and the US.

By using a similar methodology and the average IPEX reading for the first seven months of 2012, this forecasts a level of sales in 2012 of around \$1.36 trillion, or a decrease in chemical sales of just under 3%.

The continued worries about the financial stability and fate of the eurozone, the health of

TOP GAINS

Top 100 rankings gained this year over last

Ecolab	22
Indorama Ventures	22
Solvay	20
CF Industries	15
Sasol	10

BIG BOTTOM LINE

Top five net profits in the Top 100, \$bn

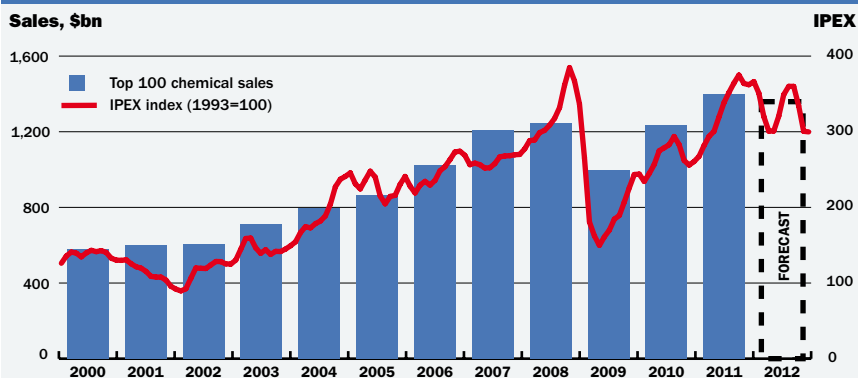
BASF	8.0
SABIC	7.8
ExxonMobil	4.4
DuPont	3.5
Potash Corp	3.0

TOP INNOVATORS

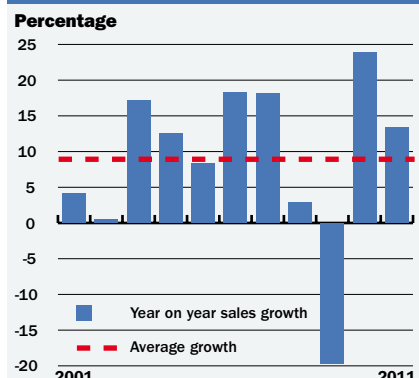
Top five R&D expenditures as a % of sales

Merck KGaA	14.8%
Syngenta	8.5%
Givaudan	7.5%
DuPont	5.2%
Bayer	5.1%

ICIS TOP 100 SALES TRACK IPEX ON PRICE INFLATION



TOP 100 SALES GROWTH



Average operating profit margin for the top 20 companies in the listing was 9.7%, higher than the average 8.0% margin since 2001

the US economy and continued growth in emerging markets have capped volume growth and demand-pull price rises in the first two quarters of 2012. Price increases reflected in the IPEX have generally resulted from higher feedstock costs flowing through to increased product prices.

OPERATING PROFIT MARGINS RISE

The average operating profit margin (operating profits to sales ratio) for the top 20 companies in the listing was 9.7%, higher than the average 8.0% margin since 2001. It was the second consecutive operating profit margin increase since the 2009 slump.

For the second year running, fertilizer producers have returned the best operating margins and have dominated half of the top 10 places in the winners and losers chart. Although well down from their pre-crisis peak, fertilizer prices have remained resilient due to strong demand from emerging nations.

After its reorganisation and release of company financials, Russian chemical producer SIBUR has ousted Middle East producers from the top margin spot for petrochemical producers, although Saudi Arabia's SABIC does feature in the top 10.

Understandably, a handful of Japanese companies are among the worst performers at the operating level, as they were greatly affected by the disastrous tsunami of early 2011 and are still facing difficult operating conditions of reduced electricity supply after the shutdown of nuclear generating capacity.

The only producers to declare negative operating profit margins are the Italian producer Versalis (formerly Polimeri Europa), which suffers from some legacy operating issues, and US-based Valspar as it struggled with a multi-year downturn of the US construction sector.

FERTILIZERS SPEND BIG

For the second year running, the biggest spenders were dominated by fertilizer producers and industrial gas companies, as represented by an analysis of the ratio of capital expenditures to revenue levels. Fertilizer producers are undergoing a multi-year capital investment cycle to bring new fertilizer capacity on stream.

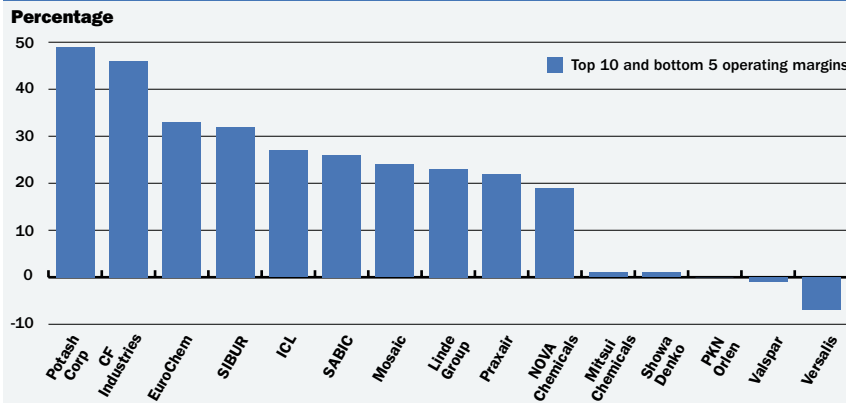
Industrial gas companies are seeing strong

demand for their products from Asia and higher levels of capital expenditures are an integral part of their business model to supply their customers with their gaseous needs.

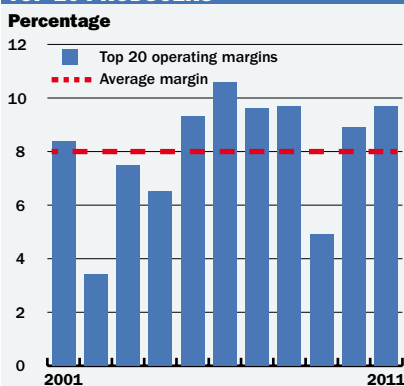
SIBUR is the only petrochemical producer to feature on the big spender chart, as it has ambitious investment plans to supply a strongly growing Russian market. On an absolute level, the larger petrochemical companies show their presence. Germany-based BASF takes top spot with close to \$4.5bn worth of investment in 2011, followed by SABIC, US-based Dow Chemical and China's Sinopec, each with \$2bn-3bn of expenditure. ■

Visit the landing page for this year's Top 100 chemical companies listing and analysis on the ICIS website at icis.com/top100chem

WINNERS AND LOSERS



AVERAGE OPERATING MARGINS OF TOP 20 PRODUCERS



FERTILIZER COMPANIES INVEST TO FEED A HUNGRY WORLD

