



ICIS TOP 100

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The ICIS Top 100

The ICIS list of top players in the global chemical industry confirms that 2009 was a year of turmoil, but many companies have emerged from the downturn in solid shape

NIGEL DAVIS LONDON

Global chemical companies coped remarkably well with the slump in demand at the end of 2008 and the start of 2009. The financial crisis had taken hold and the cold winds of recession swept across the globe. As suppliers of feedstocks and raw materials for a broad range of industries, the chemical sector felt the chill earlier than most. And the impact was deep and long lasting.

Production was cut back sharply towards the end of 2008 and the start of 2009. And it was possible to lift output only slowly through 2009 as inventories were rebuilt down multiple supply chains. China was the huge draw for so many chemicals but strengthening demand in the US and then Europe played a part.

The recovery in demand and in chemical output has persisted into 2010 with the year's second quarter (Q2) marking what many see as a high point. Producers of all sorts, both upstream and down, have continued to benefit from increased underlying demand – not just inventory rebuilding.

The questions being asked now have more to do with the sustainability of growth in a much-changed financial world rather than business survival. China's demand continues to provide the key to volume but recovery in North America, Japan and Europe has yet to help drive output and capacity utilization to the levels reached before the recession.



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The ICIS Top 100 listing of the world's leading chemical firms shows that aggregate sales of the Top 100 declined by 19.7% in US dollars in 2009. Total aggregate profits of the Top 100 fell by 17.5% in US dollars in 2009 after falling by over 50% in 2008.

Production simply stopped in so many in-

dustries and sectors of the economy at the turn of 2008–2009. Many chemical companies were forced to follow suit and shut plants to help preserve cash.

Industry-wide data show how deep the downturn was in output terms at the start of 2009 and chart the recovery over the course of the year.

At the low point, global chemical production was down by more than 8% year on year. For 2009 as a whole, global production of all chemicals, including pharmaceuticals, was down by 3.6%, according to data from the American Chemistry Council (ACC).

The output slump in the developed world was 6%, whereas developing world chemical output fell by 0.7%. US output was down by 4.5%, Western Europe down by 5.9% and that for Japan down by 9.8%. Globally, chemical production was down by 3.6% in 2009.

Global shipments of chemicals, excluding pharmaceuticals, according to the ACC, were down by 12.5%. In the first months of 2009, chemical producers were hit with steep price declines for many products. The combination of the slumps in volume demand and price are reflected in the data in the ICIS Top 100 table of the leading chemical producers in 2009.

COMMODITIES HARDEST HIT

Upstream petrochemical and commodity chemical players bore the brunt of the downturn early on, alongside the plunge in com-

LIST REVEALS TOP PLAYERS IN GLOBAL CHEMICAL INDUSTRY

ICIS is pleased to present its Top 100 listing of the major global chemical producers, ranked by sales for 2009, sponsored this year by leading global logistics provider Damco. The Top 100 provides key financial data for the largest companies in the chemical industry. It lists a range of financial information from top line sales to bottom line profits for players whose products help drive manufacturing and the global economy.

The Top 100 data set extends back over 30 years and helps illustrate the progress of major producers of mainstream commodities and more specialized products. BASF remains the largest chemical company in the world in the latest ICIS Top 100 listing. The company saw sales fall by 18.6% in 2009 but retained its leading position based on group sales. Dow Chemical, whose sales dropped by 32.9%, is in the No. 2 position, with the

chemicals business of ExxonMobil in third place, despite a 29.4% sales fall. ICIS collects a significant amount of data to populate this listing which will be made available on the web at www.icis.com/Top100. The full Top 100 data set, which includes a broader range of financial measures and comparisons and companies just outside the Top 100 in our "bubbling under" category, is also accessible through

this website. Data for these companies – those with sales of more than \$2.0bn (€1.6bn) in 2009 or the latest financial year – are shown on page 32. In coming issues of *ICIS Chemical Business*, we will look at the leading chemicals players on a regional basis (published September 20) and analyze their performance. ICIS makes its Company of the Year Award on September 27, based on the Top 100 financial data. ■

SPONSOR ANTHONY ELWINE GLOBAL HEAD OF CHEMICALS, DAMCO 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, Damco, gives a view on how supply chain management and logistics can play a critical role in success.

Damco, one of the leading global logistics providers to the chemical industry, is honored to be the sponsor for the ICIS Top 100 Chemical Companies.

Over the past two years, the chemical industry has gone from record profits to record lows, as it entered a cyclical downturn largely caused by macroeconomic conditions.

Although the industry is recovering, challenges concerning the future axis of supply and demand and increased globalization remain.

This has led to a number of fresh challenges for the industry, where service differentiation across an extended supply chain has fueled reorganization of how producers manage their businesses.

Demand management is in vogue and process optimization linked to increased visibility with a plan to reduce capital exposure is high on the agenda. Supply chains are also being reengineered to work with these measures, and global partners such as Damco are leading the way through a collaborative approach in redesigning the future of the industry.

With its presence in emerging markets, Damco is well positioned to help chemical producers reach converters in areas of the world where infrastructure is not yet well developed. Through an extensive



Service differentiation across an extended supply chain has fueled reorganization of how producers manage their businesses

network of offices across the globe, Damco can enable chemical producers to sell directly to converters in fast-growing emerging markets with unprecedented service levels and reliability.

As part of the A.P. Moller - Maersk Group, Damco offers a broad range of supply chain management and freight forwarding services to customers all over the world, and has 10,500 employees in more than 280 owned offices across 90 countries, with representation in 120 countries in Africa, Asia, Australia, North America, Europe, Middle East, and Latin America. In 2009, the company had net sales of more than \$2.0bn (€1.6bn), managed more than 2.3m TEUs (20-foot equivalent units) of ocean freight and supply chain management volumes and air freighted more than 60,000 tonnes. ■

modity chemical prices linked closely to the price of oil.

The price of crude had fallen dramatically from the \$147/bbl peak reached in July 2008 to around \$32/bbl by December 2008. An important feature of the way chemical companies were able to cope with the worst of the downturn in 2009 was the ability to match output closely to slowly developing demand (in most regions).

The focus, given the financial climate, had to be on working capital and cash preservation. Producer and customer inventories were being tightly managed. The climb back to better financial health would take time.

The table records steep year-on-year declines in sales for the large commodity producers and also the impact of the downturn on more broadly based firms.

Not surprisingly, given the collapse in prices, fertilizer producers PotashCorp and Terra Industries reported the steepest decline in year-on-year sales.

NOVA Chemicals and Shell Chemicals saw sales fall by more than 40% with a broad swathe of major producers – from LyondellBasell Industries and INEOS to Dow Chemical, ExxonMobil Chemical and SABIC – recording declines of more than 30%. The more diversified BASF managed to contain the drop in sales to 17%. Mitsubishi Chemical's sales were down by 14% and DuPont's down 14%.

The 13% decline in sales for the petrochemical business of Chinese giant Sinopec

reflects the relative buoyancy of China's chemical markets as they staged a recovery from the downturn.

CHINA DEMAND HELPED

The strength of chemical demand growth in China in 2009 surprised many for much of the year. Driven by the country's massive stimulus program, infrastructure development and, to a degree, financial speculation, chemical and polymers demand rose sharply.

That demand growth was sufficient almost to keep some producers in Europe and North America afloat during the period. It certainly helped raise the fortunes of polymer and other producers for much of the year – at least until stronger North American and European demand took hold.

BUCKING THE TREND

Some chemical companies managed to buck the downward sales trend from a combination of location, fiscal year-end and business mix. In this group were: Merck KGaA with its heavy pharma and liquid crystal display sales mix; Reliance Industries, which continued to benefit from strong demand in India; and Sasol, which had a year end of June 30, 2009.

Fewer firms among the Top 100 Chemical Companies reported a loss at the operating level in 2009 than in 2008 – 9 versus 15 in the earlier year. And majors such as LyondellBasell Industries, Braskem, and INEOS swung back into profit.

A great deal of this was because of the way

firms managed costs through the downturn. Companies lived from hand to mouth during the recession, holding as little inventory as they dared. Cost control measures generally were savage, with short-time working and layoffs commonplace.

Matching output to demand more closely put pressure on some supply chains, which was apparent even into Q2 2010.

Tightness in certain supply chains, which was brought about by routine maintenance, as well as unscheduled shutdowns, has been both a help and a hindrance. It helped to secure margins when demand was weak and production merely filling downstream inventories.

No-more-than-adequate supply also helped sustain prices but the rising cost of oil through 2009 – the oil price more than doubling to \$80/bbl by the end of the year – was the significant factor.

WIDESPREAD LOSSES AND DECLINES

A total of 16 chemical companies among the Top 100 reported a net loss in 2009 – the most significant losses being recorded by LyondellBasell Industries (\$2.87bn – €2.26bn), PEMEX (\$1.54bn) and INEOS (\$881m). LyondellBasell Industries was in Chapter 11 bankruptcy protection for the whole year, emerging at the end of April 2010. INEOS took many months in 2009 to forge a new business and financing plan with its primary lenders and more than 200 bondholders. ■

THE ICIS TOP 100

Rank 2009	Company	Sales		Operating profit		Net profit		Total assets		R&D		Capital spending		Employees		
		\$m	% Change	\$m	\$m	\$m	\$m	\$m	% Change	\$m	% Change	\$m	% Change	Numbers	% Change	
																Reporting currency
1	BASF ^a	72,660	-18.6	-17.3	5,270	9,111	2,021	4,105	73,484	2.5	2,004	4.9	8,560	67.1	104,779	8.1
2	Dow Chemical ^b	44,875	-32.9	-32.9	469	3,731	336	1,061	65,937	19.1	1,492	-8.9	1,410	-49.6	52,200	-15.2
3	ExxonMobil ^c	40,979	-29.4	-29.4	2,408	3,144	2,309	2,957	24,161	19.9			3,148	11.7	13,100	0.8
4	Sinopec ^c	31,371	-13.4	-13.4					18,641	4.7			3,698	22.2	68,991	-0.1
5	LyondellBasell Industries	30,828	-39.2	-39.2	317	-5,928	-2,865	-7,321	27,761	-3.1	145	-25.3	779	-22.1	14,860	-0.9
6	Shell ^c	27,559	-43.9	-43.9		-55	462	-405				1,988	-4.7			
7	SABIC	27,481	-31.7	-31.6	5,014	10,153	2,420	5,872	79,158	9.3					33,000	0.0
8	Mitsubishi Chemical ^d	27,138	-13.5	-9.3	716	84	138	-691	36,201	28.5	1,477	12.4	1,284	-10.1	53,907	30.0
9	DuPont	26,109	-14.5	-14.5	2,184	2,391	1,769	2,010	38,185	5.5	1,378	-1.1	1,308	-33.9	58,000	-3.3
10	INEOS	25,911	-37.8	-36.8	775	-278	-881	-807	15,938	-4.0	85	-10.5	378	-57.0	11,949	-20.2
11	Bayer ^e	21,758	-13.3	-11.9	525	1,921			34,065	0.7	1,289	0.3	1,582	-18.2	55,000	-0.9
12	Total ^c	21,107	-26.9	-25.7	357	1,231	390	942							44,667	-1.9
13	AkzoNobel	19,913	-9.9	-8.4	1,247	-813	408	1,531	27,061	2.5	484	-2.6	765	1.7	57,100	-4.8
14	Sumitomo Chemical ^d	17,490	-9.4	-4.9	555	22	159	-608	25,722	23.7	1,266	-6.1	1,114	-19.2	27,828	3.4
15	Air Liquide	17,166	-8.6	-7.1	2,794	2,748	1,763	1,720	29,564	1.7	312	-1.1			42,300	-1.6
16	Linde ^f	16,115	-10.3	-8.8	3,709	3,784			34,946	4.1	128	-13.0	1,630	-21.4	44,489	-4.1
17	Toray ^d	14,670	-7.6	-3.0	433	370	-153	-168	16,798	7.2	498	-3.0	584	-37.7	37,936	0.0
18	Evonik Industries ^c	14,431	-15.2	-13.8	1,000	811							720	-29.8	29,723	-6.3
19	Mitsui Chemicals ^d	13,031	-18.8	-14.8	-102	-468	-302	-979	13,359	9.3	411	-1.5	529	-36.5	12,892	-0.6
20	Reliance Industries ^{d/j}	12,277	4.7	20.4	1,907	1,323						8,479	1.8			
21	Johnson Matthey ^d	11,815	-0.1	5.9	410	424	247	247	4,356	13.7	138	11.0	173	-30.7	8,949	4.8
22	LG Chem	11,769	8.3	17.1	1,671	1,068	1,295	797	7,184	12.5			743	31.1	10,000	0.0
23	DSM ^g	11,275	-15.4	-14.0	1,068	1,273	483	813	13,780	1.3	563	1.4	573	-24.3	22,738	-3.4
24	Merck KGaA	11,104	2.1	3.8	930	1,594			23,955	8.6	1,928	10.8	669	20.2	33,062	0.8
25	Syngenta	10,992	-5.4	-5.4	1,766	1,858	1,374	1,385	16,696	14.5	960	-0.9	652	46.8	25,000	4.2
26	SK Energy ^j	10,834	-9.8	-2.5	536	105			1,440	26.7						
27	Asahi Kasei ^{d/m}	10,646	-9.6	-5.1	362	67			13,523	1.0			616	-28.7		
28	Yara International	10,577	-30.8	-16.2	219	1,746	651	1,170	10,620	-6.4					7,629	-4.3
29	PPG Industries ^k	10,397	-18.8	-18.8	990	1,275					388	-14.0			32,100	-4.7
30	Shin-Etsu ^d	9,893	-23.6	-19.9	1,265	2,394	905	1,591	19,089	10.2	362	-5.9	1,336	-18.5	16,955	-11.6
31	Sekisui Chemical ^d	9,263	-8.1	-3.5	388	345	125	10	8,495	9.2	259	-0.9	475	33.9	19,761	0.1
32	Agrium	9,129	-9.0	-9.0	581	2,016	366	1,322	9,785	-0.5			313	-38.1	11,153	1.6
33	Praxair	8,956	-17.0	-17.0	1,575	1,883	1,254	1,211	14,317	9.7	74	-23.7	1,352	-16.1	26,164	-2.9
34	Henkel (adhesive segment) ^u	8,921	-7.1	-5.6	416	928									24,138	-9.4
35	Braskem ^l	8,792	-15.1	14.6	1,023	-1,091	443	-1,064	12,799	32.0	33	9.9	488	-32.0	4,570	-4.8
36	Chevron Phillips Chemical	8,406	-33.5	-33.5	707	401	615	276	7,418	11.1	38	-5.0	155	-60.8	4,800	-4.0
37	Teijin ^d	8,263	-18.8	-14.8	145	185	-385	-442	8,881	-1.2					18,778	-3.5
38	Air Products ^o	8,256	-20.7	-20.7	846	1,496	631	910	13,029	3.6	116	-11.5			18,900	-10.4
39	DIC ^d	8,177	-18.7	-14.7	300	261	27	27	8,091	6.6					22,583	-4.4
40	Solvay ^e	8,163	-16.1	-14.7	457	708					199	21.8	813	-28.2	18,992	-3.9
41	Sasol ^{h/p}	8,045	10.3	10.5	163	687									6,919	-3.4
42	Huntsman	7,763	-24.0	-24.0	-71	165	114	609	7,693	3.6	145	-5.8	189	-54.8	11,000	-12.7
43	LANXESS	7,248	-23.1	-21.8	214	455	57	258	7,264	12.2	145	5.9	490	-2.3	14,338	-3.1
44	NPC (Iran) ^{d/z}	7,192	-4.2	-4.2	345	1,060	207	627	24,910	5.8	8	-33.3	1,678	28.8	13,648	-3.3
45	Sherwin-Williams	7,094	-11.1	-11.1			436	477	4,324	-2.1	40	8.1	91	-22.2	29,220	-4.7
46	Formosa Chemicals & Fibre Corp. ⁿ	6,860	-9.8	-9.8			919	77	10,630	16.3					4,932	-8.3
47	BP ⁱ	6,800	-19.0	-19.0												
48	Tosoh ^d	6,784	-14.3	-10.0	141	-209	74	-260	7,981	1.8					11,089	-0.7
49	Mosaic ^l	6,759	-34.4	-34.4	1,271	2,401	827	2,350	12,708	0.3			911	16.6	7,400	0.0
50	Borealis	6,757	-29.6	-28.4	34	230	54	337	6,903	1.4	113	-9.8	441	-29.6	5,215	-3.3

Rank 2009	Company	Sales		Operating profit		Net profit		Total assets		R&D		Capital spending		Employees		
		\$m	% Change	\$m	\$m	\$m	\$m	\$m	% Change	\$m	% Change	\$m	% Change	Numbers	% Change	
																Reporting currency
51	Orica ^o	6,469	13.2	20.4	945	796	473	443	6,419	-2.4	37	20.7			15,140	-0.8
52	Clariant	6,373	-18.1	-16.6	260	502	-187	-35	5,870	4.2	145	-17.1	130	-49.1	17,536	-12.8
53	Arkema	6,370	-21.1	-19.8	-99	278	-245	142	5,654	-10.3	46	-78.3	431	-8.6	13,800	-8.0
54	Polimeri Europa (part of ENI) ^j	6,024	-33.3	-32.2	-945	-1,224	-735	-956	2,460	-4.8			189	-33.9	6,074	-5.3
55	Rhodia	5,778	-15.4	-14.0	229	436	-189	148	6,115	0.3	105	1.7	274	-31.1	13,600	-6.2
56	Sibur ^j	5,334	-6.8	-10.0	839	1,173	638	529							50,000	0.0
57	WACKER Chemie	5,331	-13.5	-12.0	39	914	-107	617	6,510	-0.2	235	2.3	1,061	-17.9	15,618	-1.9
58	Ashland ^{q/o}	5,220	25.0	25.0	309	145			6,515	180.2	96	100.0				
59	Honam Petrochemical ^v	5,130	92.7	108.4	617	72	685	-36	4,879	72.9						
60	K+S	5,122	-25.5	-24.2	347	1,680	134	1,380	7,472	52.6	27	5.0	255	-8.6	15,208	23.0
61	Dow Corning	5,093	-6.6	-6.6			580	739	10,840	17.5					9,000	-11.8
62	Celanese	5,082	-25.5	-25.5	290	440	488	282	8,410	17.4	75	-6.3	176	-35.8	7,400	-11.4
63	Eastman Chemical	5,047	-25.0	-25.0	317	519	136	328	5,515	4.4	137	-13.3	310	-51.1	10,000	-4.8
64	Formosa Plastics ⁿ	4,901	-11.5	-11.5			922	552	9,711	17.4					4,986	-0.7
65	Taiyo Nippon Sanso ^d	4,676	-12.6	-8.2	297	300	170	170	6,660	21.2			712	80.6		
66	Lubrizol	4,586	-8.8	-8.8	859	478	501	-66	4,770	14.9	212	-4.1	140	-31.1	6,727	-3.4
67	Israel Chemical Ltd.	4,554	-34.0	-34.0	938	2,335	774	1,994	5,008	-13.0	54	-5.3	346	8.1	10,625	-0.6
68	PKN Orlen ^j	4,535	-12.3	-10.5	-68	191										
69	Kaneka ^d	4,451	-8.3	-3.7	189	78	91	-19	4,671	8.6			262	-24.9	7,715	5.4
70	Mitsubishi Gas Chemical ^d	4,149	-14.1	-9.8	44	-32	63	72	5,820	6.7	175	15.7	297	-17.6	4,920	0.4
71	Honeywell ^r	4,144	-21.3	-21.3			605	721	4,657	-11.0			153	-21.1		
72	ALPEK (Grupo Alfa)	4,134	4.9	9.9	323	146	143	-94	3,126	14.3					4,000	-2.1
73	NOVA Chemicals ^x	4,050	-45.0	-45.0	-125	56	-241	-40	5,533	38.1	40	-23.1	101	-39.2	2,500	-12.3
74	Hexion	4,030	-33.9	-33.9	94	-893	92	-1,190	2,973	-6.5	61	-16.4	132	-1.5	6,200	-8.8
75	PotashCorp	3,977	-57.9	-57.9	1,192	4,635	988	3,495	12,922	26.1			1,764	47.2	5,136	-3.1
76	Petronas ^{l/d}	3,958	-10.4	-10.4	2,202	2,303			7,305	30.1			286	-22.1		
77	Mitsubishi Rayon ^{d/y/w}	3,939	5.8	11.0	59	-78	-54	-298	6,123	45.6	148	7.3			8,427	9.5
78	Airgas ^d	3,864	-11.2	-11.2	400	525	196	261	4,496	1.6			253	-28.1	14,000	0.0
79	PEMEX ^j	3,838	-37.6	-34.6	-1,565	-1,417	-1,536	-1,369	6,680	16.1						
80	Givaudan	3,815	-3.1	-1.5	443	359	193	106	6,825							

THE ICIS TOP 100 – BUBBLING UNDER

Rank 2009	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	\$	2009	2008	2009	2008	2009	2008	% Change	\$m	% Change	\$m	% Change	Numbers	% Change
101	Nippon Shokubai ^d	2,636	-15.5	-11.3	150	6	117	-55	3,355	7.7			236	11.4	3,430	0.4
102	PTT Chemical	2,619	2.3	5.6	326	472	205	342	4,819	8.6					1,530	29.1
103	CF Industries	2,608	-33.5	-33.5	680	1,150	366	685	2,495	4.5			236	66.0	1,500	0.0
104	Hanwha Chemical (Korea)	2,607	-0.1	8.1	353	205	295	33	414	-88.3						
105	Lonza	2,592	-8.4	-6.8	230	418	153	397	4,764	-10.6	99	-4.8	492	23.8	8,386	-0.9
106	Ube ^{c/d}	2,552	-21.1	-17.1	133	89										
107	Chemtura	2,541	-28.3	-28.3	-100	-929	-293	-973	3,118	2.0	38	-25.5	56	-53.7	4,400	-6.4
108	Asahi Glass ^c	2,522	-22.9	-19.1	-83	40			2,709	-3.9			190	-22.3	4,623	-2.3
109	Zeon ^d	2,437	-16.0	-11.8	101	30	54	25	3,033	1.0					2,815	-2.3
110	EuroChem	2,432	-34.4	-36.6	354	1,399	366	954	4,256	1.7			618	-4.0	20,034	-8.1
111	Mexichem	2,359	-1.2	3.6	859	683	213	10	3,113	27.6					10,000	0.0
112	IFF	2,326	-2.6	-2.6			196	230	2,645	-3.8	194	-7.2	67	-21.2	5,377	0.7
113	Westlake Chemical	2,326	-37.0	-37.0	195	69	53	-30	2,446	7.0			100	-42.0	1,827	-6.8
114	Cabot ^o	2,243	-29.7	-29.7	-55	164	127	86	2,636	-7.8	71	-4.1	102	-48.7	3,950	-8.1
115	Tata Chemical ^d	2,121	-21.5	-9.7	309	305	135	125	2,279	4.1			131	-7.9	4,656	-6.7
116	Momentive Performance Materials	2,084	-21.0	-21.0	40	-837	-42	-998	3,307	-7.7	63	-17.1	77	-44.5	4,600	-8.0
117	PolyOne	2,061	-24.8	-24.8	98	-129	68	-273	1,386	8.4	23	-13.6	32	-25.4	3,900	-11.4
118	Albemarle	2,005	-18.7	-18.7			194	245	2,772	-3.5	61	-9.0	101	1.0	3,950	-4.4

» The big players in the industry suffered steep sales declines in 2009 but managed to produce significant net profits. SABIC's net result of \$2.42bn was down by 59% year on year. The ExxonMobil Chemical net result of \$2.31bn was down by 22%. BASF was down 52% at \$2.02bn and DuPont down 12% at \$1.77bn.

No part of the industry was immune from the downturn, but the industrial gases players fared much better than most. Air Liquide saw its net profits rise by 1% to \$1.76bn.

CUTS IN CAPEX, R&D AND HEADCOUNT

In a world cautious in the extreme and armed against the impact of a further downturn, it is predictable that the Top 100 analysis for 2009 records much lower capital expenditure (capex) across the sector. The average fall for the Top 100 that disclosed capex was 16.5%.

For the Top 100 that disclosed research and development (R&D) spending, the average decline was 4.4%. A total of 37 made cuts of more than 5%, which is perhaps unwise given the importance that new product and process development is to the sector. That companies should be forced to slash R&D illustrates the tough financial regimens that most adopted over the course of the year.

The Top 100 analysis produces an extensive data set and the employee numbers also illustrate how hard companies had to cut back in 2009. INEOS made the steepest cuts among the Top 100, reducing headcount by 20.2% to 11,949 employees. The data set here is limited, given the reluctance of many firms to publish comparable numbers but Dow Chemical's

head count fell by 15% to 52,200. Clariant made cuts of 13% to 17,536, while Huntsman and NOVA Chemicals made cuts around this level. In this analysis, 11 companies cut employee numbers by more than 10%.

Download the complete ICIS Top 100 listings in pdf format icis.com/Top100

FOOTNOTES

- a** From April 9, 2009, Ciba is included in BASF.
- b** The 2009 financial results for Dow Chemical have been taken from the company accounts. Pro-forma financial results have been used for 2008; this reflects the acquisition by Dow of Rohm and Haas, which was completed on April 1, 2009.
- c** Chemical segment figures only. Includes intersegment revenues, e.g. revenue for sales to other divisions of by-products. For ExxonMobil, intersegment revenue was \$1,413m in 2009 and \$1,967m in 2008. Also for ExxonMobil, the operating profit figure was calculated by adding the earnings after income tax for the US and non-US with the income taxes for the US and non-US. Operating profit in 2009 was \$2,408m and \$3,144m in 2008. For Shell in 2009, intersegment chemical figs including trading and intersegment sales of \$2,973m and \$5,591m in 2008. For Sinopec = external sales with intersegment sales. Ube figs = Chemicals & Plastics + Specialty Chemicals & Products. For Evonik Industries in 2009, external sales = €9,978m and €11,762m in 2008 and internal sales in 2009 = €90m and €116m in 2008.
- d** Financial year end March 31, 2010
- e** Bayer data excludes HealthCare division with 2009 sales of €15,980m and 2008 sales of €15,400m. Solvay data excludes pharmaceutical business with sales of €2,800m in 2009 and €2,700m in 2008. In February 2010, Solvay completed the sale of its pharmaceutical business to Abbott Laboratories.
- f** Linde Gas & Engineering sales, operating profit and employee figures only.
- g** DSM basic instead of diluted earnings per share used.
- h** Financial year end June 30, 2009
- i** BP estimated revenue excluding equity accounted joint ventures in China, Malaysia and Germany.
- j** Petrochemical figures only. For SK Energy, the sales revenue figure includes intersegment sales, for 2009 in won (W) 2,945,553m and for 2008, W3,616,254m.
- k** In January 2008, PPG acquired Sigma Kalon – in the 2009 and 2008 figures, the segment is reported as Architectural Coatings – EMEA. Optical segment and glass segment figures have not been included.
- l** Financial year end May 31, 2010
- m** Asahi Kasei excludes homes and health care segments.
- n** Net profit is pretax.
- o** Financial year end September 30, 2009.
- p** Sasol turnover figures from polymers, solvents, olefins and surfactants added together.
- q** Ashland excludes distribution business and includes Hercules from November 13, 2008.
- r** Specialty materials figures used.
- s** Petrochemicals + chemicals figs used.
- t** Financial year end October 31, 2009.

- u** Adhesive Technologies segment only.
- v** In January 2009, Honam Petrochemical completely absorbed its 100% subsidiary, Lotte Daesan, to operate its businesses more efficiently under a single entity.
- w** In November 2009, Mitsubishi Rayon merged with Mitsubishi Chemical Holdings Corp. (MCHC) and is now a subsidiary of MCHC.
- x** On July 6, 2009, International Petroleum Investment Co. completed the acquisition of NOVA Chemicals.
- y** In May 2009, Mitsubishi Rayon completed the acquisition of Lucite International.
- z** The total of NPC and its associated companies in 2009 adds up to \$14bn.
- I** In April 2010 Braskem acquired control of Quattor.

Exchange rate

Key financial year end exchange rates used for 2009 data (2008 in parentheses): \$/€1.433 (1.410), Yen/\$92.70 (97.29) based on March 31 year end.

Reasons for companies excluded

- PetroChina** Does not segment chemicals from refining business
- Repsol** Repsol no longer discloses its chemical figures. The company indicated an operating loss of €223m in 2009 and €352m in 2008, compared with an operating profit of €100m in 2007.

- INEOS NOVA** In 2009, INEOS NOVA had approximately \$2.1bn in sales revenue.
- Koch** Does not segment chemical data.
- OMV** Includes petrochemical operations in its refining and marketing segment.
- Shanghai Petrochemical Corp.** Majority owned by Sinopec.
- Samsung Total** Sales equity accounted in Total and Samsung figures.
- ChemChina** Estimated 2009 sales Rmb122.6bn (\$18bn). No relevant public domain data found for 2008.
- China Blue Star Chem** Majority owned by ChemChina.
- Formosa Plastic Corp. USA** Not segmented in Formosa reports.
- Formosa Petrochemical Corp.** Does not segment chemicals from 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 as Yeochoon NCC accounted as equity company.
- Samsung** Does not consolidate various chemical company interests into one area.
- PTT Group** Results included as IRPC and PTT Chemical businesses.
- Indorama Group** Figures not disclosed.

TOP 100 JOHN BAKER LONDON

THE DECADE'S CLIMBERS AND FALLERS

Most companies in the Top 15 of the ICIS Top 100 ranking have been there for more than a decade, but there have been some casualties and some newcomers.

During the past 34 years in which ICIS has been publishing its ranking of leading chemical companies by turnover, companies have inevitably come and gone. But in the past decade, the top tier of producers has remained remarkably stable, albeit with a few notable exceptions.

Of the 15 top chemical producers in 2000, 10 are still firmly positioned in the Top 15. Those that have lost their place among the leaders at the turn of the millennium are ICI, now part of AkzoNobel; BP, much reduced in size after disposals to INEOS; and Asahi Kasei, Huntsman and Solvay, eased out by faster growing companies.

Among the relative newcomers, two stand out simply because of the scale of their organic growth over the past 10 years: SABIC and Sinopec. Two more have joined the top tier through merger and acquisition (M&A) activity, notably LyondellBasell Industries and INEOS. The fifth newcomer slot has

gone to Sumitomo Chemical, which has hovered between 14th and 16th place over the past five years.

The diagram below charts the rise and fall of turnover over the past decade for these industry leaders. The sharp decline between 2008 and 2009 is clearly evident, as is the earlier, smaller contraction in 2003–2004. Also notable is the leadership that BASF has held and enhanced over the period, through the growth of its oil and gas interests and more recently its active M&A strategy. In addition, the chart shows the strong organic growth achieved by ExxonMobil Chemical.

But the real story of the decade is the rapid advances of Sinopec and SABIC. In 2000, these two companies were ranked 25th and 26th, respectively, with sales of just over \$7.0bn (€5.5bn) each. In 2009, they ranked fourth and seventh, with sales of \$31.4bn and \$27.5bn, respectively. In 2008, they were seventh and eighth, indicating that even in a very difficult climate, the Chinese major has managed to limit contraction in turnover.

Also notable is the lack of progress in sales terms of DuPont, which has seen sales oscillate be-

tween \$24bn and \$30bn over the past 10 years. Compare this to BASF's advance from sales of around \$29bn in 2001 to \$87bn in 2008 and ExxonMobil's from \$16bn in 2001 to \$58bn in 2008.

The decade in question has seen several major upheavals through M&A, but largely within the Top 15 tier. Shell Chemicals and BASF created their Basell polyolefins businesses in 2000, only to sell it in 2005 to Access Industries and see it merge with Lyondell Chemical at the end of 2007. The chart offers a rough pro forma combination for the years in between.

INEOS, which had grown at the start of the decade through acquisition of several business units from ICI, made a transformational step at the end of 2005 with the purchase of the Innovene business from BP. It has since acquired several smaller assets in Europe.

Active European petrochemicals restructuring also featured as Total, Fina and Elf put together their chemical and petrochemical assets to create AtoFina at the start of 2000. Total, as the merged oil groups came to be known, subsequently spun off Arkema in 2004,

with Total holding on to the main petrochemical activities. The Total line in the chart begins with the figures for the precursor AtoFina business.

Note that the Bayer line is for the group over the decade – the full ICIS Top 100 has used figures discounting the pharma business turnover for the past three years.

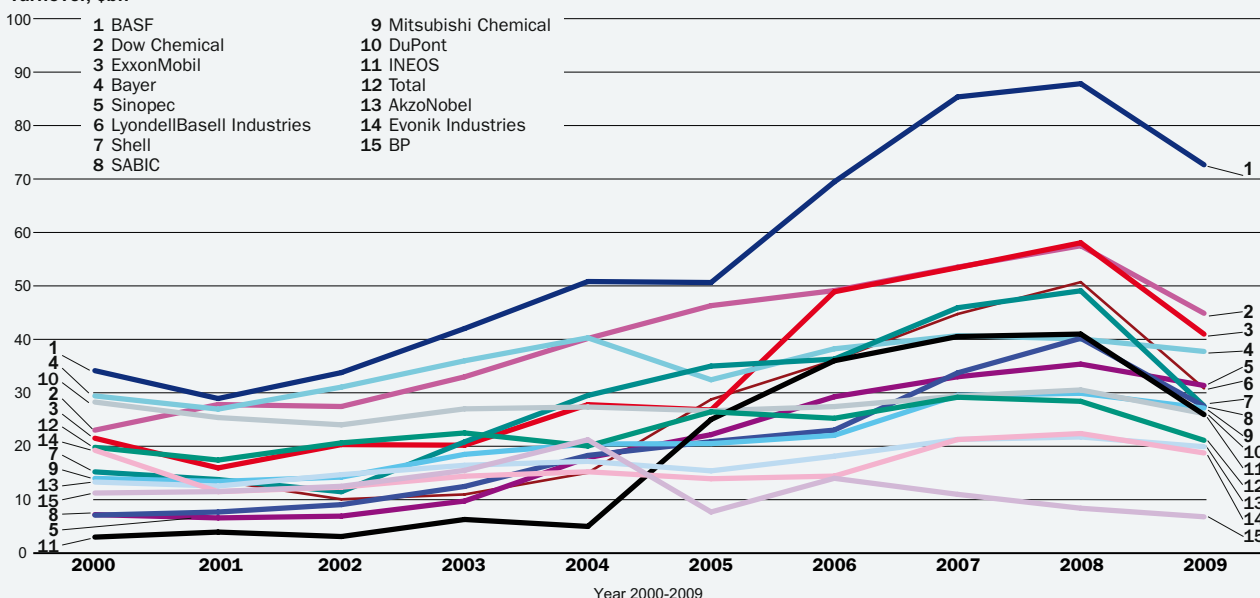
Who knows what the next decade holds? The top tier may well be under attack shortly by rapid climbers such as PetroChina and Reliance Industries. Reliance is a candidate for a major acquisition, although it has failed to consummate deals recently.

The sale of BP's remaining chemical assets, as rumored following the Gulf of Mexico oil spill, might give a potential buyer a significant leg up the ranking, sooner rather than later. Inevitably, the major cracker investments of Sinopec, SABIC, ExxonMobil and Shell will keep them firmly in the top tier – if not right at the top.

In the meantime, BASF seems unassailable at No. 1, given its recent purchases of Ciba Specialty Chemicals and now Cognis. ■

TOP 15 PLAYERS OVER THE LAST DECADE

Turnover, \$bn



SOURCE: ICIS

Trillion dollar club no more?

This year's near 20% fall in revenues assessed against the ICIS Top 100 industry players marks a demotion from above the trillion-dollar point. Regardless, the numbers remain eye-wateringly large

PAUL RAY AND LARA MCNAMEE LONDON

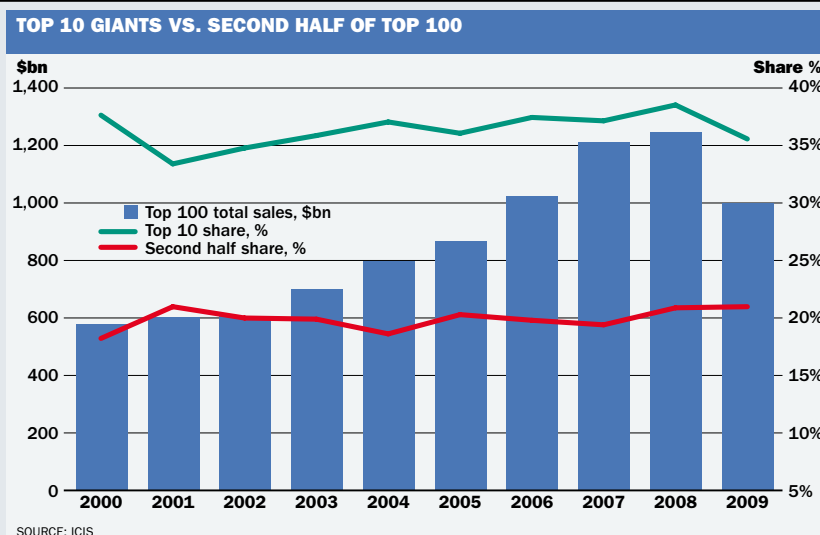
Companies are characterized by many aspects, but the bare-faced financial data tends to be one of the strongest focus points for everyone.

What is clear is that we are almost all directly and indirectly impacted by the chemical industry and this league table of the sector giants is hugely important. ■

TOP 10 GIANTS

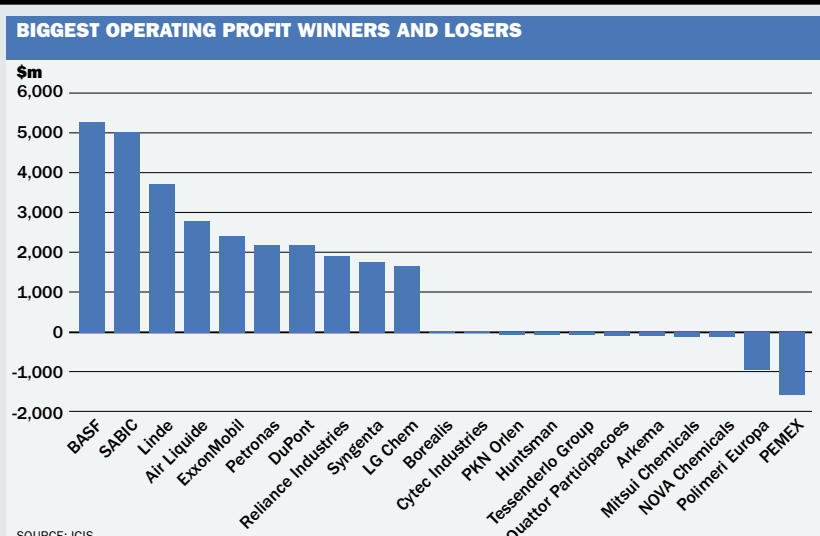
Despite the sharp reduction of revenues in 2009, the Top 10 giants have broadly maintained their share of the Top 100 at about 36%. This is larger than the second tier of 50 players by around 70%. This scale effect could be even larger when considering the impact of equity accounting, where joint venture revenues are excluded from most consolidated accounts.

The Top 100 total revenue of \$997bn (€782bn) is around 39% of total world chemical shipments revenue excluding pharmaceuticals in 2009, as measured against data assessed by the American Chemistry Council.



WINNERS AND LOSERS

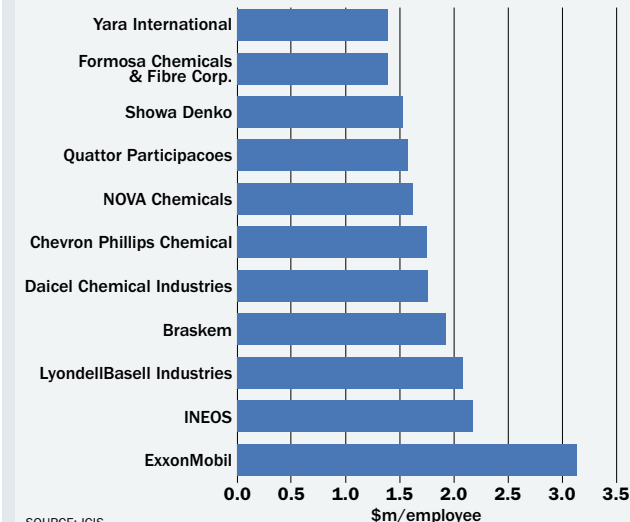
SABIC lost the top position this year to BASF. Six of the Top 10 earners were there a year ago. The solid delivery from industrial gases players is clear. The new arrivals in the Top 10 were Petronas, Reliance, Syngenta and LG Chem. The departures from the Top 10 were Rohm and Haas (absorbed into Dow Chemical), Shin-Etsu, PotashCorp and Mosaic – the latter two because of weaker performance from the fertilizer market. At the bottom, the staggering impairment losses of LyondellBasell Industries were not repeated, but significant losses were recorded again for PEMEX and Polimeri Europa.



MOST SALES/EMPLOYEE

The chemical arms of oil majors dominate this area, but those with higher volume commodity chemical and refinery footprints are also apparent.

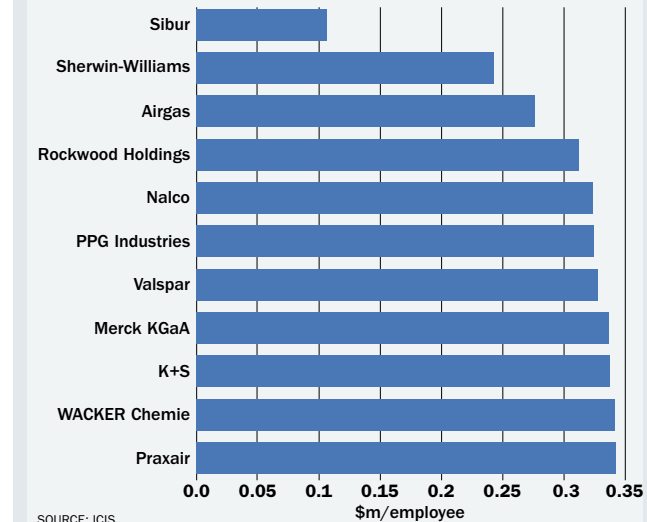
HIGHEST SALES/EMPLOYEE



LOWEST SALES/EMPLOYEE

As specialization and moves away from commodities are seen, a common result is a reduced level of sales/employee.

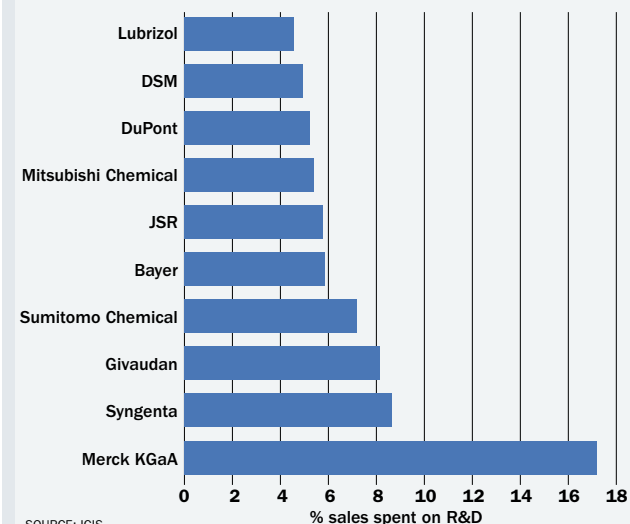
LOWEST SALES/EMPLOYEE



INVESTING TO STAY IN THE GAME

Companies operating in specialties and advanced materials remain the biggest investors in research and development. Note that for the declared data, BASF is the largest spender in this area in absolute terms. The Top 100 total spend fell by \$100m (€78m), or by 0.5% in 2009, compared with 2008, which certainly is not a major retrenchment, despite the impact of the global financial crisis and ensuing recession. It confirms the continued drive of the industry to innovate.

INVESTING TO STAY IN THE GAME



CHEAPEST BACK OFFICE

One measure of a company's efficiency is how much it spends on selling, general and administrative (SG&A) expenses. Leading players do appear to have driven more efficiency in absolute terms this year, but costs have increased relative to sales as total revenues were down by some 20% for the Top 100.

CHEAPEST BACK OFFICE

