

Fine Chemicals: Finding a Niche in a Changing World

by Chris Cerimele

For anyone considering an investment in fine chemicals, a key question is whether money can be made in the face of increasing competition from India and emerging strength from China. The global fine chemicals industry is undergoing an unprecedented wave of change as the result of major shifts in the competitive landscape, and pressure on Western firms is intensifying. M&A activity has increased dramatically since 2005, with private equity firms and Indian fine chemicals companies making the majority of acquisitions and Western corporations making the majority of divestitures.

In this article we examine the fundamentals of the business and the key trends over the past several years that have led to the current situation. We examine the role of India and China in the global market for fine chemicals, and offer our observations on how we see Western manufacturers responding to the threats. Finally, we examine recent M&A trends and activity in this highly fragmented market.

Market Fundamentals

According to Frost & Sullivan, the market for fine chemicals in the Western world (North America and Europe) is estimated to be approximately \$31 billion, of which pharmaceuticals represent approximately \$29 billion and agrochemicals represent \$2 billion. The North American market is approximately twice as large as the European market. Both are projected to grow at an annual rate of approximately 5% - 6% overall through 2009. Certain niche sub-segments, such as high potency, are growing at much higher rates than the overall average.

The fine chemicals industry is highly fragmented. We estimate that there are several hundred manufacturers worldwide and the great majority have less than \$100 million in annual fine chemicals sales. Profitability varies, but the more successful companies can earn EBITDA margins well in excess of 30%. Customer concentration is not unusual, and for many firms the top 3-4 customers can represent over 50% of sales. Customer loyalty tends to be strong because the manufacturing process for intermediates and APIs is subject to the FDA approval process. As a result, the customer's cost of switching is often high due to the additional time and expense of process redesign, technology transfer and validation that is required. Furthermore, the more successful custom manufacturers often own technologies and capabilities for which there are few alternatives.

Growth in custom manufacturing is heavily tied

Glossary of Terms

Active Pharmaceutical Ingredient ("API"). Chemical that is provided in bulk form to make a pharmaceutical product and undergoes no further chemical change during production of the pharmaceutical. Active ingredient that has therapeutic effects.

Fine Chemicals. Single, pure and synthetic compounds that may be used either as an intermediate or as a final product such as an API. Vast majority are used in pharmaceuticals and agrochemicals. Also used in food additives and flavors, animal nutrition, cosmetics and industrial chemicals.

Intermediate. Chemical product that is isolated and used as starting material for an API (or other final product if non-pharmaceutical).

Pharmaceutical Fine Chemicals ("PFC"). Fine chemical intermediates and APIs used to make pharmaceutical drugs. PFC represents at least 65% - 70% of fine chemical production.

in at least four ways to trends in the pharmaceutical industry. These include 1) the lifecycle and growth of existing drugs that are currently on the market, 2) the rate of growth of the new drug pipeline, which is determined by the amount of spending and productivity of R&D by pharmaceutical and biotechnology firms, 3) the regulatory process, including both the rate at which new drugs proceed from discovery through clinical trials to commercialization, and the ease of approval by regulatory agencies such as the FDA, and 4) the extent to which pharmaceutical firms choose to outsource production of fine chemicals instead of producing them in-house.

Recent Growth Trends

In the late 1990s, a strong new drug pipeline and the expectation of increasing outsourcing trends led to major investment in fine chemicals capacity. Beginning in 2000, the number of new drugs approved by the FDA and brought to market each year began to decline. This factor, combined with increasing competitive pressure from generic manufacturers, led to a wave of consolidation and restructuring in the pharmaceutical industry. It also led to a pullback in outsourcing trends as pharmaceutical companies faced excess capacity with their own in-house production facilities. This created a ripple effect in the custom manufacturing industry and led to a state of overcapacity in the market. Frost & Sullivan estimates that European and North American PFC production is underutilized by 20% and 30%, respectively.

The Emergence of Asia

As the industry was adjusting to changes in the customer base and demand over the past several years, a second major event occurred with the emergence of Asia as a major competitive threat to the West. When speaking of Asia in relation to fine chemicals, India is strongest, followed by China.

India. According to Hikal, Ltd., in 2005, the Indian pharmaceutical industry was approximately \$8 billion, representing the fourth largest producer in terms of volume and the thirteenth largest in terms of value. Of that amount, domestic consumption was \$5 billion and export was \$3 billion. The Indian pharmaceutical industry is predominantly a generic market, with more than 400 manufacturers. Frost & Sullivan estimates the Indian market for pharmaceutical fine chemicals to be \$1.5 billion.

Why is India a threat to Western manufacturers? There are several reasons. First, Indian firms can produce sophisticated fine chemicals at a lower cost and, increasingly, at comparable quality to Western manufacturers. According to KPMG, pharmaceutical production costs are approximately 50% lower in India than in the West. India has a strong pool of chemists, and Divi's Laboratories estimates that wages and salaries for chemists are 20% of those in the U.S. Second, environmental regulations are less stringent than in the West, resulting in a lower cost of compliance. Finally, India has become much friendlier with respect to intellectual property rights compliance, having recently passed regulations that recognize international patent laws. India traditionally struggled against Western firms in terms of quality, service and respect for intellectual property rights. They have been making progress on each of these points. As a result, Indian firms continue to grow their international sales.

China. China has traditionally been a secondary threat as far as the West is concerned, as it has generally been a few years behind India in terms of development in fine chemicals. China is more focused on commodity chemicals, with fine and specialty chemicals estimated by Frost & Sullivan to be 25% of output as compared to 35%-45% for

India. As a result, China has typically been viewed more as a supplier of starting materials than of the more complex intermediates and APIs. In some cases, for example Hikal Ltd, we see Indian firms that are sourcing their raw materials and intermediates from China. That, however, may be changing. Lincoln International recently attended the Informex tradeshow in San Francisco, and noted a number of Chinese fine chemicals firms that offer API production. The Chinese are a few years behind the Indians and they continue to struggle with the perception that they are less reliable when it comes to quality. Nonetheless, they appear to be progressing.

Can Western Firms Still Compete?

In an environment of overcapacity and increasing competition from overseas, how have Western manufacturers responded? We have observed at least four different strategies, with firms often pursuing more than one simultaneously. These include the following:

Focus on Technology. The most successful custom manufacturing firms own technologies and capabilities that are in high demand and are difficult and/or expensive for others to obtain. Areas such as energetics, hazardous chemistries, high potencies, and chiral chemistries are examples of difficult or less common technologies. A growing area of investment has been high potency chemicals, which are highly reactive and require exceptional precautions for handling and safety. A sampling of recent capital investments by Western fine chemicals firms shows several instances where firms are expanding capacity in this area (See Table 1). The ability to sustain a technology or know-how advantage is one of the top determinants of success in the current environment.

Emphasize Service. It is no longer enough simply to manufacture production scale quantities. More firms have become involved in the development process by investing in lab scale and pilot scale capabilities. By working with customers in the early clinical trial phases, the hope is to develop an incumbent position as drugs are commercialized. The ability to provide these services requires commitment of additional resources to business development and therefore could provide an advantage to larger firms that can afford the investment.

Add Asian Manufacturing. This could be achieved through direct investment or strategic alliance/ joint venture. An example is Degussa's recently announced supply agreements with LynChem (China) and Hikal (India). Rudolf Hanko, VP/Exclusive Synthesis at Degussa, was recently quoted as saying that the alliance allows Degussa to "get to those parts of the value chain where there is high price pressure, and at the same time, keep quality and intellectual property protection." He further stated that Degussa is predicting average annual sales growth of 5%-10% in its custom fine chemical activities over the next few years.

Restructure Operations. Larger operations need to ensure that their cost base is in line

Table 1: Selected Recent Investments

Company	Date	Spend (\$mm)	Comment
Bachem	Jul-06	\$10	• Peptides expansion
Boehringer Ingelheim	Feb-07	200	• New API plant
Cambrex	Feb-07	30-60	• New capacity for high potency API in U.S. • Expand small-molecule API capacity in Sweden
Ferro Pfanstiehl	Sept-06	0.5	• Kilo-scale lab for high potency API
Helsinn	Sept-06	na	• Multipurpose capacity expansion in Switzerland
ISP	Aug-06	na	• Capacity addition • Commercial validation of cGMP plant to increase polypladone production
Pierre Fabre	Feb -07	34	• API plant and supercritical fluids reactor
Omnichem	Oct-05	na	• Expanded capacity for high potency API
SAFC (Sigma Aldrich)	Feb-07	0.6	• API laboratory expansion
	Oct-06	12	• Opened medicinal chemistry facility in Bangalore, India
	Oct-06	na	• Expanded capacity for cGMP protein purification in U.S.
	Feb-06	12	• Expanded capacity for high potency API in U.S.0
Saltigo (Lanxess)	Feb-07	30	• Plant modernization and upgrading

Source: Public information

with current market conditions. In 2006, BASF announced an extensive restructuring program in its fine chemicals operations in order to reduce costs after the unit posted an operating loss of €58 million for 2005. Restructuring is a less attractive option and it may be more difficult for smaller and mid-sized firms as production operations are usually more capital intensive than labor intensive, and cutting costs may require reducing valuable development staff.

Western firms that are not already pursuing one of the above strategies have an important strategic decision to make. They need to determine if their fine chemicals businesses are core or non-core. Many Western firms have decided that their fine chemicals businesses are core, and they remain confident in their ability to compete. Absent the ability, resources, or desire to implement an effective competitive strategy, many Western firms have opted to sell or divest their fine chemicals operations. As a result, the market has seen increasing M&A activity over the past 18 months as the industry has commenced a consolidation.

M&A Trends

We have observed a number of trends in custom fine chemicals manufacturing that illustrate how the industry is consolidating as a result of the above factors. In particular, the volume of transactions has increased, the buyer universe has changed and valuations have come down.

Table 2 on the following page provides a summary of global fine chemicals M&A transaction activity from 2000 – 2006. Based on a survey of publicly available data, there was an average of 5 transactions per year from 2000 – 2004. In 2005 and 2006, the number of transactions jumped to at least 17 each year. We are continuing to see

significant activity in 2007. For example, PPG recently disclosed that they are evaluating strategic alternatives (including possible sales) for certain of their operating segments including their fine chemicals business. We are aware of several other, non-public, situations that have arisen recently.

The buyer universe has also shifted. From 2000 – 2004, Western strategic buyers were involved in 70% of fine chemicals transactions. In 2005 and 2006, only 30% of the buyers were Western fine chemicals manufacturers, and of those Sigma-Aldrich represented 11%, with 4 acquisitions. The remaining 70% of buyers were private equity firms (40%) and Indian fine chemicals manufacturers (30%). Financial investors are entering the market to take advantage of consolidation opportunities at relatively moderate prices, and Indian firms are acquiring businesses in order to establish footholds and strengthen their presence in the Western market.

At the same time that M&A activity has increased, valuations are down from previously high levels. For example, in September 2000 Rhodia acquired ChiRex for almost \$600 million, representing over 4.0x revenue and over 18.0x EBITDA. In contrast, in January 2007 Rockwood specialties sold Groupe Novasep to the management team and a group of European private equity firms for €425 million (approximately \$560 million), representing a multiple of approximately 1.5x sales and 8.0x EBITDA.

Conclusion

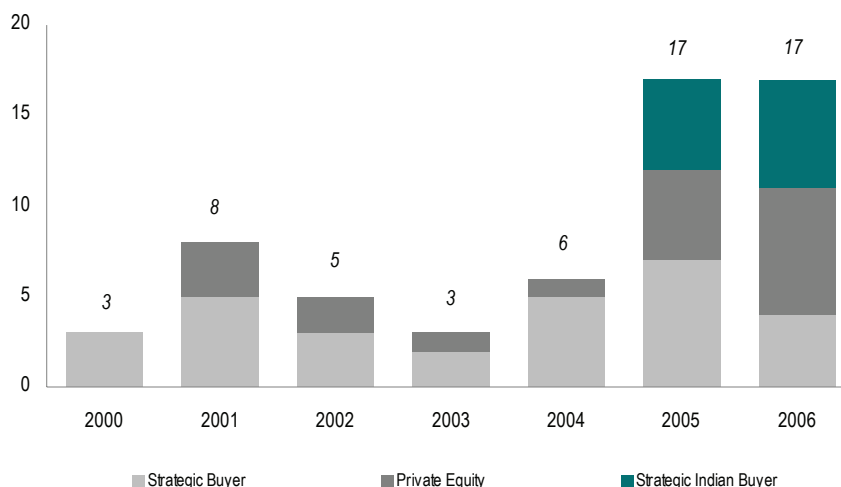
What do recent events tell us about the state of the fine chemicals market? For one thing, these are dynamic times. The competitive landscape, structure and growth opportunities look much different today than they did just a few years ago, and they are likely to change

significantly over the next few years. In one sense, we are seeing the de-coupling of many fine chemicals businesses from larger Western corporations, into the hands of smaller Indian companies and independent private equity firms. Whether a full-scale industry consolidation will follow remains to be seen. However, Asian competitors will continue to put pressure on Western firms that lack sustainable competitive advantages. The nature of those sustainable competitive advantages may evolve over time, but at the moment the emphasis is on unique or difficult technology and know-how, continued emphasis on quality, and a partnership mentality with customers. ■

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Table 2: Fine Chemicals Transaction Activity



Source: Public information, Lincoln International

Select Public Comparables: Western and Japanese

Company Name	Stock Price		Enterprise Value	EV / LTM		NTM Est. P/E	1 Year Est. Earn. Growth
	3/7/2007	52-Wk High		Revenue	EBITDA		
Albemarle Corp.	\$ 40.6	\$ 43.3	\$ 4,445.3	1.9x	11.0x	15.6x	77.2%
American Pacific Corp.	11.9	12.2	186.6	1.2x	5.8x	N/A	NMF
Cambrex Corp.	22.7	24.5	770.5	1.6x	10.4x	47.7x	NMF
Chemtura Corporation	10.9	12.4	3,642.1	1.0x	7.6x	18.0x	NMF
Daicel Chemical Industries Ltd.	7.1	9.0	3,764.2	1.3x	7.8x	N/A	N/A
Eastman Chemical Co.	58.8	63.2	5,579.4	0.7x	5.5x	13.6x	NMF
Lonza Group AG	90.0	97.5	5,270.8	2.4x	12.4x	24.6x	27.3%
Nagase & Co. Ltd.	12.7	14.7	1,704.6	0.3x	9.4x	N/A	N/A
PCAS SA	6.8	8.0	196.0	0.7x	7.0x	N/A	NMF
Recordati SpA	7.7	8.9	1,450.5	1.9x	8.0x	16.0x	21.2%
Siegfried Holding AG	147.6	172.5	516.6	1.9x	8.2x	13.8x	6.6%
Sigma-Aldrich Corp.	40.5	42.9	5,695.2	3.2x	11.2x	18.3x	7.5%
Mean				1.5x	8.7x	20.9x	28.0%
Adjusted Mean¹				1.5x	8.7x	17.7x	18.7%
Median				1.5x	8.1x	17.0x	21.2%

(1) - Adjusted mean excludes the highest and lowest values

NMF - not meaningful; N/A - not available

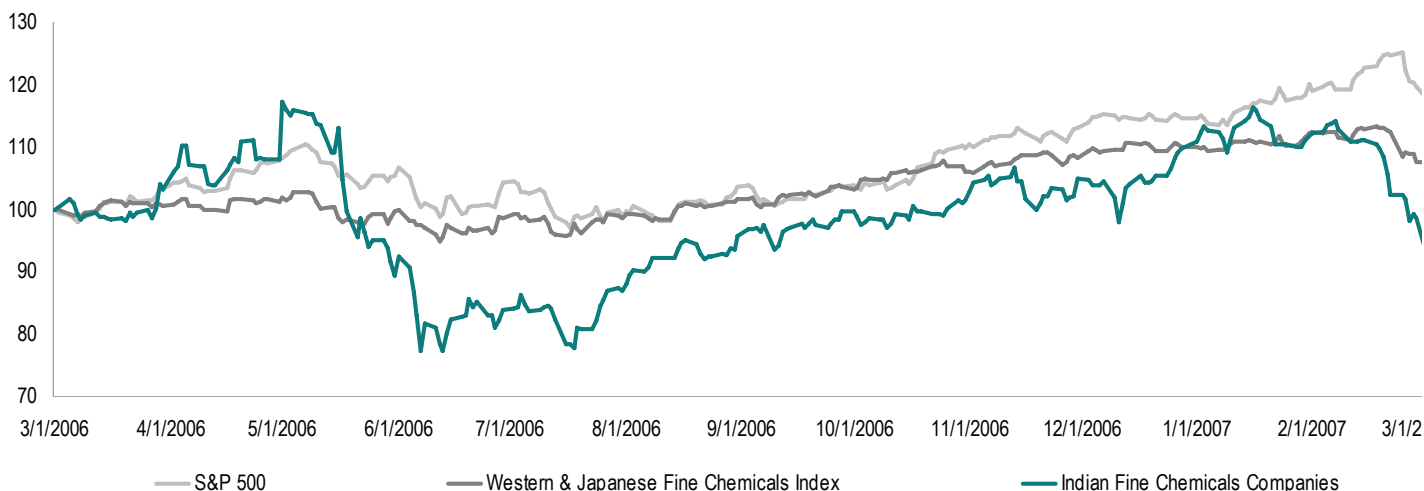
Select Public Comparables: India

Company Name	Stock Price		Enterprise Value	EV / LTM		NTM Est. P/E	1 Year Est. Earn. Growth
	3/7/2007	52-Wk High		Revenue	EBITDA		
Alembic Ltd.	\$ 1.3	\$ 1.9	\$ 219.3	1.4x	6.5x	N/A	NMF
Atul Ltd.	2.0	3.9	130.4	0.7x	3.6x	N/A	NMF
Aurobindo Pharma Ltd.	14.3	17.1	1,027.0	2.9x	25.5x	N/A	N/A
Dishman Pharmaceuticals and Chemicals Ltd.	4.6	6.1	357.6	4.8x	17.1x	N/A	N/A
Dr. Reddy's Laboratories Ltd.	14.0	19.7	2,668.3	2.1x	12.6x	15.8x	3.6%
DIVI'S Laboratories Ltd.	62.2	79.7	828.9	6.9x	20.0x	33.1x	53.4%
Hikal Ltd.	7.8	14.4	182.2	1.8x	14.5x	N/A	N/A
Ipca Laboratories Ltd.	13.5	15.2	380.1	2.3x	15.0x	N/A	NMF
Jubilant Organosys Ltd.	5.5	6.6	910.7	2.3x	12.4x	16.0x	20.8%
Jupiter Bioscience Ltd.	2.9	4.8	102.1	5.5x	12.3x	N/A	N/A
Nicolas Piramal India Limited	4.7	6.4	1,047.5	2.4x	6.0x	21.2x	115.7%
Ranbaxy Laboratories Ltd.	7.2	11.9	3,096.8	2.4x	21.4x	23.4x	127.3%
Shasun Chemicals & Drugs Limited	2.2	3.1	122.3	0.8x	3.6x	8.4x	18.1%
Suven Life Sciences Ltd.	3.0	4.1	80.1	4.0x	29.6x	N/A	NMF
Mean				2.9x	14.3x	19.7x	56.5%
Adjusted Mean¹				2.7x	13.9x	19.1x	52.0%
Median				2.3x	13.6x	18.6x	37.1%

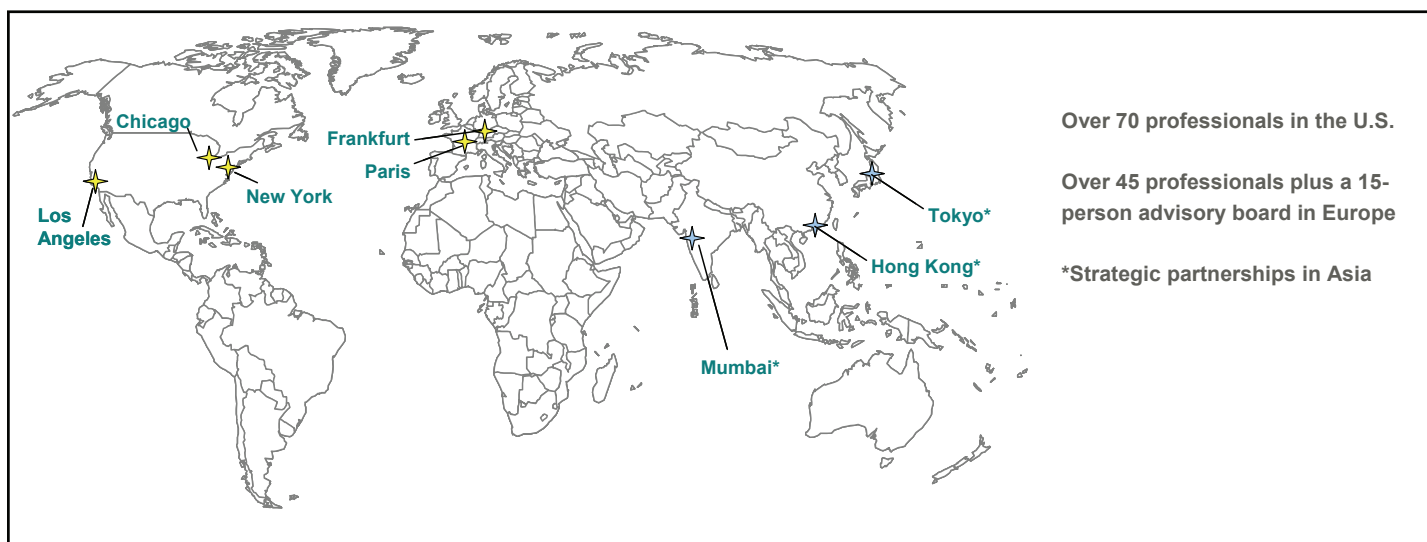
(1) - Adjusted mean excludes the highest and lowest values

NMF - not meaningful; N/A - not available

Relative Stock Price Performance (March 1, 2006 = 100)



Lincoln International's Global Footprint



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