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Commodity Vs. Speciality Chemicals – A comparison

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It pays to specialize. According to a CRISIL Ratings study covering its portfolio of 24 chemical companies, speciality chemical players score over their commodity chemical counterparts in terms of the bottom-line. Although the latter have significantly superior operating margins (at the Earnings before interest, tax, depreciation and amortisation (EBITDA) level), this is more than offset by their high interest and depreciation costs, given their capital intensive nature of operations. As a result, their net margins (profit after tax (PAT)/operating income) are comparable to or even weaker than those of speciality chemical players. This is also evident in the speciality chemical companies' superior return on capital employed (RoCE). Moreover, their margins and RoCE are more stable than those of commodity chemical companies. Hence, CRISIL Ratings believes that the speciality chemicals industry is less risky than its commodity counterpart.

The CRISIL Ratings study covers the financial performance of 14 commodity chemical companies and 10 speciality chemical companies between 1998 and 2003 (see Key characteristics of commodity and speciality chemical players).

Box: Key characteristics of commodity and speciality chemical players

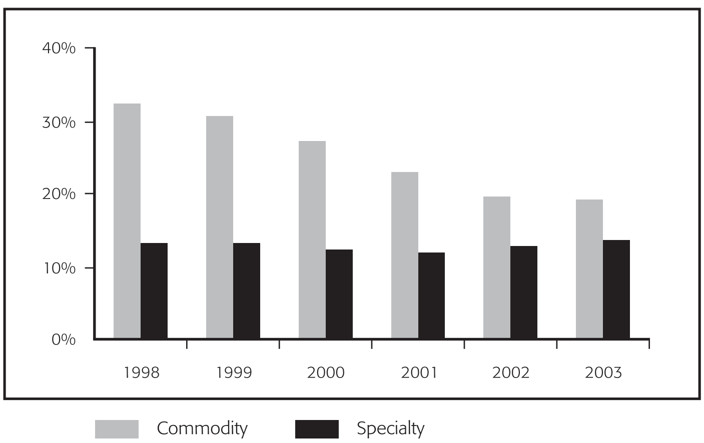
Commodity chemicals are high-volume products, which offer a low degree of value addition. Commodity chemical industries such as petrochemicals and their derivatives, intermediates and inorganic chemicals are primarily price-driven and are characterized by highly intense competition at a global scale. Their high capital intensity acts as an entry barrier. But technological barriers are relatively low since mature technologies are mostly licensed. With little or no product differentiation, there is less emphasis on marketing and product development.

Conversely, speciality chemicals are low-volume, high value-addition products. They are designed for extremely specific applications like enhancing manufacturing processes or imparting a certain attribute or performance characteristic to products. The term speciality chemicals is somewhat nebulous and covers a wide range of products such as adhesives and sealants, catalysts, coatings, dyes and pigments, electronic chemicals, industrial gases, plastic additives, paints and water management chemicals. Some of the principal characteristics of speciality chemical companies are differentiated product lines, focus on research and development, value-added pricing, significant customer service requirements and a marketing orientation.

Commodity chemicals: Higher but declining operating margins

Commodity chemical companies have much higher operating margins than speciality chemical companies as can be seen from the chart below.

OPERATING (EBITDA) MARGINS

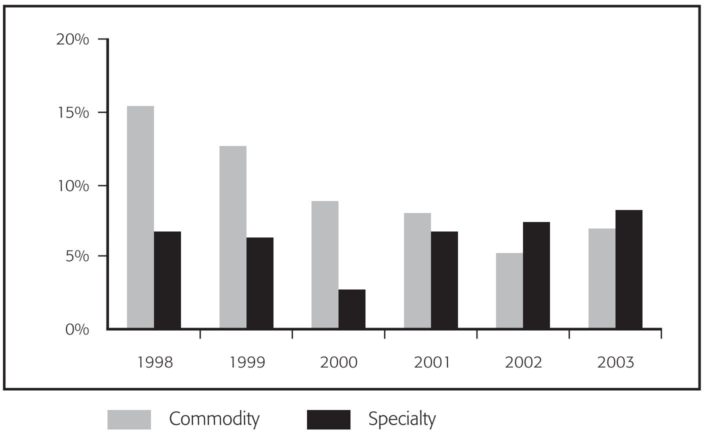


Their margins have, however, declined consistently from 32% in FY1998 to 19% in FY2003. This is primarily due to falling import duties, which have had a negative impact on product realisations, which are linked to landed prices. According to a CRISIL Ratings study published in December 2002, the steady downward revision in import duties on commodity chemicals (polymers, fibre intermediates and the like) through the mid-1990s to date has affected the operating margins of most integrated and non-integrated manufacturers. For instance, import duties on fibre intermediates and polymers have fallen from over 60% in 1995 to around 20-30% in 2003. Consequently, operating margins of petrochemical manufacturers have fallen by nearly 20% in the same period.

On the other hand, the speciality chemical companies' operating margins have been relatively stable at around 13-14% over the last six years. This stability accrues from their relatively diversified end-users and niche market position, which, to some extent, insulates them from economic downturns.

Net margins move in line with operating margins

NET MARGINS



A comparison of the two segments' net margins (profit after tax) reveals that commodity chemical sample's net margins have declined in tandem with their operating margins. The average PAT margins of the speciality chemical sample, on the other hand, have been reasonably stable, moving within an extremely narrow band of 6-7%[1] since FY1998.

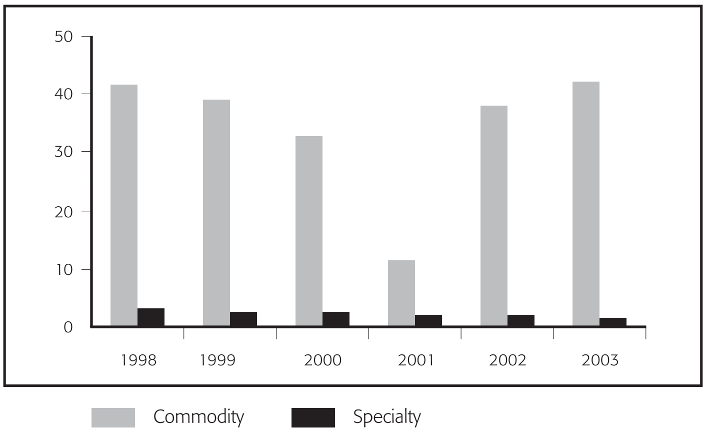
Also, there is a 15-16% differential between the operating and PAT margins of the capital-intensive commodity chemical companies. These players finance their large fixed assets through a commensurately large capital base (vis-à-vis speciality chemical companies). Hence, the differential between their operating and net margins is essential to support their higher interest outgo

[1] In FY 2000, an extraordinary one – time loss reported by one company skewed the sample average

and depreciation costs. Speciality chemical companies, on the other hand, have interest & depreciation costs of only around 7%, reflecting lower capital intensity.

Commodity chemical players: High capital costs

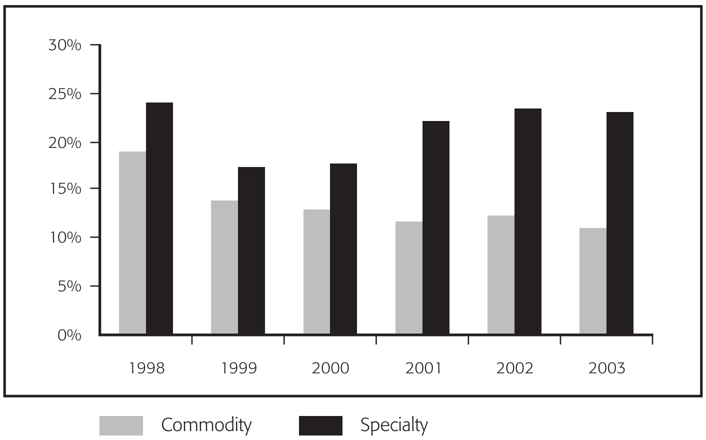
CAPITAL EXPENDITURE



The chart above reflects the capital intensity of commodity chemicals industries. Capital expenditure is measured as the gross addition to assets. The commodity sample incurred an average annual capex of around Rs. 34 billion between FY1998 and FY2003 whereas speciality players incurred a modest Rs. 2.30 billion. The commodity sample exhibits some supply-side cyclicality as well with the capex peaking in 1998, then declining before rising again in 2002.

Speciality chemical companies: Higher and stable profitability

RETURN ON CAPITAL EMPLOYED



The RoCE is the true test of a business' inherent profitability. This figure indicates that speciality chemical businesses are less risky than commodity chemical ones. At around 18-22% on an average between FY1998 and FY2003, the speciality chemical companies in CRISIL's sample have a higher RoCE than commodity chemical players. Moreover, their RoCE is more stable than that of the commodity chemicals group, whose RoCE declined steadily to around 12% in FY2003 from 19% in FY1998.

Conclusion

Thus, speciality chemical companies exhibit lower volatility, both in margins and profitability while with their higher but declining operating margins and large balance sheets, commodity players have a lower profitability. Moreover, earnings of commodity chemical companies are more volatile because of the inherently cyclical nature of these businesses. Hence, CRISIL Ratings believes that the speciality chemicals industry is less risky than its commodity counterpart.

Sample

The sample includes 14 commodity chemicals and 10 speciality chemicals companies. Commodity chemical companies represent a wide range of industries like petrochemicals and their downstream derivatives and basic chemicals like soda ash and caustic soda. Speciality chemical companies include paints and coatings, adhesives and sealants, dyes and pigments, crop protection chemicals, fine chemicals, water treatment chemicals and plastic additives.

Computations

Operating margin = EBITDA/operating income
EBITDA = Earnings before interest, tax, depreciation and amortisation
Operating income = Net sales + other related income
Net margins = Profit after tax/operating income
RoCE = Profit before interest and tax (PBIT)/total debt + tangible networth.