Summary of Speaker Presentations
Young & Partners Senior Chemical Executive Seminar
"Strategic, Financial, and Shareholder Issues for Chemical Executives"
October 15th, 2003
Yale Club - New York City

Agenda

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What Chemical Companies Must Do: The Investor's Perspective
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Dealing with Debt: The Chemical Industry Under Siege
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Strategic Repositioning Using The Process Centering Concept
James J. O'Brien, Chairman and CEO, Ashland Inc.

The Role of Private Equity in the Chemical Industry
Seth Van Voorhees, Senior Vice President, Young & Partners

Best Practices in Corporate Governance: A Global Perspective
Toby S. Myerson, Partner, Paul, Weiss, Rifkind, Wharton & Garrison

Selected Public Policy Challenges Facing the Chemical Industry
Gregori Lebedev, President and CEO, American Chemistry Council

Summaries of the Speaker Presentations

(These summaries were prepared by Young & Partners and were not reviewed by the speakers.)

Current Chemical Strategic, M&A and Financial Trends

Peter Young, President, Young & Partners

The profit outlook thus far in 2003 continues to be mixed for most chemical industry CEOs, with many structural roadblocks getting in the way of improved earnings.

On the M&A front, the market contniues to be very active with a high volume of deals being completed. Although there have been fewer large transactions thus far this year, the total number of completed transactions remains robust because many companies are driven to complete sale transactions due to high levels of debt or a firm commitment to focus on a particular strategic direction. For example, the Asian M&A market has become more active as Japanese and Korean companies are increasingly seeking M&A solutions to their strategic or financial woes.

Financial buyers have played a major role again thus far this year with 20% of the transactions completed in the chemical industry. Private equity investors and LBO firms continue to take advantage of curtailed competition from strategic buyers, low interest rates, and the high level of divestitures from restructuring chemical companies.

With 49 transactions completed during the first three quarters of 2003, Young & Partners expects the number of completed M&A transactions for all of 2003 to be as robust as it was in 2002. On a dollar volume basis, however, 2003 is expected to end moderately below that of 2002, which was $23 billion. This will be driven entirely by the scarcity of large deals.

On the valuation front, we are moving along the bottom of the M&A valuation trough that started in the first quarter of 2001. There are small signs of some upturn in valuations, we are far away from any significant move out of the trough.

Leveraging Science and Innovation to Drive Growth and Profits: The Sigma-Aldrich Experience

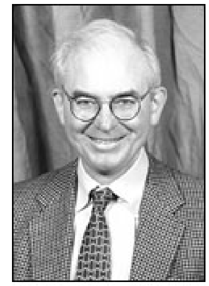
David R. Harvey, Chairman, President and CEO, Sigma-Aldrich Corporation

Sigma-Aldrich, a publicly traded specialty chemical company, remains one of the top performers within the specialty chemicals industry. With $1.3 billion in sales, the company provides more than 85,000 products to research labs worldwide, a significant portion of which are manufactured by the company. Throughout its history, Sigma-Aldrich has successfully implemented its business model of providing high value and high quality chemicals to over 60,000 customer accounts worldwide. Sigma-Aldrich is able to supply its customers chemicals at any volume that is required. Its historical financial performance has been very strong with regard to both growth and profitability.

Within the global chemical research market, Sigma-Aldrich is the clear market leader with 12% market share, ahead of competitors such as VWR, Invitrogen, and Fisher Scientific. To achieve this position and financial performance Sigma-Aldrich has developed three focuses: an obession with service, leadership in life science and technology, and a passion for process improvement. Our focus on innovation has been a key element of the company's success and has allowed it to perform better than its peers in the industry. This is a key message for the specialty chemical industry, since innovation and and process improvement is critical if one hopes to grow and maintain a significant competitive and product advantage.

Case Studies in Innovation: Nanotechnologies

Charles E. Harris, Chairman and CEO, Harris & Harris Group, Inc.



Harris & Harris Group is one of the few publicly-traded U.S. venture capital funds specialized in tiny technologies, including nanotechnology. In 1994, Harris & Harris made its first nanotechnology investment which was in Nanophase Technologies. Nanophase Technologies went public in 1997 on the NASDAQ exchange. Due to a lack of solid innovations in the nanotechnology field after its first investment, the group decided to invest its funds elsewhere for a period of time. Harris & Harris made its second nanotechnology investment seven years later. Since then, however, the group has made 12 more investments in nanotechnology companies as the state of the industry and the companies has progressed. Mr. Harris believes that nanotechnology will have a dramatic and positive effect on the chemical and related industries. Harris & Harris currently has over 400 companies in its nanotechnology database and, over the past 12 months, has looked at over 125 deals. From a venture capitalist's perspective, Harris & Harris believes there are certain key factors to consider when reviewing an investment. The company must have a seasoned management team composed of a CEO who is a serial entrepreneur and other team members who have had strong careers. The company's business model must leverage its proprietary technology platforms. Products targeted by the company must address very large markets and have reasonable time to ship product horizons. Finally, a demonstrated ability to interest strategic partners and top-tier co-investors can also help to make an investment opportunity shine.

Barry J. Weinbaum, President and CEO, NanoOpto Corporation

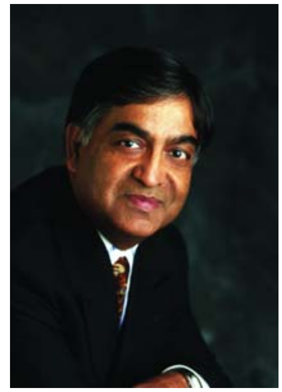
NanoOpto is a leader in the development of integrated optical components based on modular nano-optic building blocks and wafer scale nano-fabrication. I believe that nanotechnology is not just a market. It represents a vast range of technologies addressing multiple markets with infinite possibilities. Within nanotechnology there are a wide range of short term hits/misses and long term bets. In order for a company in nanotechnolgy to succeed the company must show that its technology can solve problems its customers care about. The successful nanotechnology company must also consider the learning curve required to fully apply its technology, as customers today generally have no patience for long learning curves. Sometimes to achieve these qualities a nanotechnology company must deviate from its original vision and mission. By embracing and implementing these factors, NanoOpto has achieved great success within the nanotechnology field.

Lawrence Bock, President and CEO, Nanosys, Inc.

Nanosys is fortunate to be a highly successful nanotechnology compan. Nanosys' mission is to develop nanotechnology enabled systems that will revolutionize multiple industries, such as chemical and biological sensing, photovoltaics, electronics, displays, etc. Nanosys has developed true nanomaterial display characteristics that are fundamentally different than those of their bulk counterparts. With $55 million of private equity raised and over 140 exclusive licenses to patents, including patents from top institutions such as MIT, Harvard, UCLA, and Columbia University, NanoSys has already initiated a number of commercial development projects using its technology with partners such as Matsushita Electric Works, SAIC, and In-Q-Tel. NanoSys sees an opportunity to build a new industry of nanotechnology that crosses over multiple markets. We believe that successful nanotechnology companies will have the following characteristics: a powerful platform technology, a wide intellectual property base, proven serial entrepreneurs, world-class partners, and first-tier venture investors.

Overcoming Structural Changes in the Industry: The Rohm and Haas Perspective

Raj L. Gupta, Chairman and CEO, Rohm and Haas Company



The manufacturing industry continues to undergo hard times. The service industry is increasingly becoming the major contributor of GDP in developed countries such as the U.S., Germany and Japan, while the manufacturing industry continues to decline. In the U.S. in 2002, production represented only 20% of the country's nominal GDP, while service industries represented 80%. In addition to the geographic shift of the overall manufacturing industry, there are a number of external factors that are having a significant impact on the global chemical industry; including deflationary pressures, changing global competitiveness, the impact of the internet and IT, and the poor overall global reputation of the chemical industry.

All these factors have led to a squeezing of the value chain for specialty chemicals. From the consumer side we are seeing the "Wal-Mart" effect. With 138 million shoppers weekly at 4,750 stores, chains like Wal-Mart have implemented nearly $20 billion in cost efficiencies wrung mostly from suppliers. The chemical industry is also seeing its customers move to China, a country that more than doubled its exports to the U.S. market in 2002. Not only does China produce luggage, toys, and shoes, it also produces half of the world's cameras, a third of the world's air conditioners and TV's, and a quarter of the refrigerators.

Despite these negative factors, there is much to be optimistic about when one thinks about the future of the chemical industry. In the 20th century, every major innovation had its origins in chemistry. This will continue to be true for the 21st century, as a number of innovations are on the cusp of amazing breakthroughs, such as nanotechnology, biomedical applications, light as an electronic materials platform, and more.

The Global Economic Outlook

Allen Sinai, President and Chief Global Economist, Decision Economics, Inc.

While no one can guarantee a secular expansion, Mr Sinai believes there will be a pronounced a cyclical economic upturn that has just started and will continue in 2004. The rising tide of this pending cyclical upturn should be strong enough to carry all sectors up, including chemicals. There is a 3 in 4 chance that we will see a sustainable business upturn with better than average GDP growth rates. Already in the current third quarter, we are seeing 6% GDP growth and a surge in consumer confidence. This growth should flatten out to more reasonable rates in the fourth quarter of this year and rise up again to 5-6% in nominal terms for the first half of 2004. The upturn will be helped by a variety of factors, such as tax cuts, and will help drive funding of maintainence and technology equipment capital expenditures.

Throughout this recent economic downturn, a number of the U.S. and multinational firms have restructured and tightened their belts. As the downturn ends, these companies will be in a much stronger position structurally and financially to venture out. However, this is likely to take place in 2004, as most companies will hold off on striking out until profit and sales growth is seen.

Successful Divestiture Strategies in the M&A Trough

Peter Young, President, Young & Partners

The current chemical industry M&A valuation trough started at the beginning of 2001 and will likely last for at least two more years. Typically, the M&A cycle in the chemical industry lasts approximately 10 years. The last peak was in 1999 and we expect the next peak to occur roughly in 2009. A variety of factors that make the current M&A market challenging for selling companies beyond the lower valuations. Industrial buyers have become more conservative and focused on pure play, bolt-on and synergistic acquisitions. Earnings uncertainties and depressed stock market valuations have also contributed to lower M&A valuations. Anti-trust constraints are also becoming more prevalent.

Despite these negative factors, however, there is a short list of positive factors in this M&A trough. There is a large pool of private equity raised that needs to be invested, especially in the chemical industry which has had a track record of successful LBOs. Currently low interest rates also make acquisition financing cheaper for credit worthy buyers. In addition, the M&A market is still quite active in terms of market volume, unlike in the last trough in 1991-1992.

Executing chemical industry M&A deals is challenging even in the best of times given the environmental, vertical integration; supply contract, intellectual property sharing. One must couple these industry specific deal elements with a creative and tailored approach. It is particularly important to consider the strategic thinking of the potential buyers. Examples include the creative processes we conducted in the sale of Reichhold's Synthomer Europe operations, Perkin Elmer's Perceptive Biosystems GmBH business, Bayer's Chemdesign operation, and Henkels Paper and Construction Chemicals business.

Case Studies in Corporate Value Creation: The Ultrapar Experience in Brazil

Paulo G. A. Cunha, President, Ultrapar Participações S/A

During the past 20 years Brazil has been an extremely volatile economy. From exchange rate fluctuations to wild interest rate swings, Ultrapar has weathered the volatile domestic market and survived as one of the leading Latin American LPG and petrochemical companies. Its success demonstrates the importance of certain business principles when one operates in the every changing Latin American markets.

Ultrapar was founded in the 1900s with the explosion of the Hindenburg and the end of dirigible flights. In 1937, the company's founder Mr. Ernesto Igel acquired 6,000 gas cylinders and introduced them domestically for use in cooking. In 1966, the founder died and his son took over. With new leadership, the company diversified into a variety of industries, including fertilizers, transportation, petrochemicals, engineering, farming, and storage. This diversification led to the beginning of structured professional management of the company. In the 1990s, the globalization of Brazilian economy and the deregulation of the main industrial sectors in Brazil began. Ultrapar decided to focus on its core businesses of petrochemicals and storage and sold a significant number of non-core assets. Finally, in 1999, Ultrapar went public on the NYSE. It was the first IPO that succeeded after the Asian crisis and the subsequent cancellation of 6 IPOs.

Ultrapar owes its current success to its deep understand of the local market. The company successfully fended off foreign competitors by maintaining its relationships with its customers and leveraging the company's knowledge of local situations. In its bid to globalize, Ultrapar aims to become "local" in all markets worldwide and provide the same high quality service and product to customers globally.

What Chemical Companies Must Do: The Investor's Perspective

Graham Copley, Senior Research Analyst, Sanford C. Bernstein & Co.

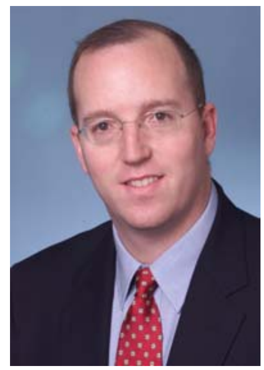
The face of Wall Street has changed drastically. With the uncoupling of research and banking, research institutions are facing lower budgets, research staff, and research quality and more regulation. At the same time, the importance of hedge funds to sell-side analysts has grown. Further, with commission dollars falling, research analysts have no incentive to cover illiquid small cap stocks, especially since the only revenue for the analysts is through trading commissions.

With fewer analysts, all of whom are less well paid, less secure in their job, and under increasing scrutiny, equity research analysts are becoming far less friendly than before. From 1998 to 2003, the average number of analysts per institution covering chemical stocks has fallen from 1.7 to 1.3. As the research analysts disappear, only the large cap companies with name recognition such as Dow and DuPont are retaining coverage. In addition, with fewer analysts, buy-side analysts are expected to cover multiple sectors. These money managers are increasingly less focused on the chemical sector benchmark and have shifted to basic industries altogether.

As a publicly traded chemical companies lose their research coverage, they are fighting for attention by presenting financial statements that are as transparent as possible. In light of all the corporate scandals that has risen recently, if a company reports obscure financials and complicated reporting then the analysts are likely to assume that the company is hiding something. In addition, having difficult to understand financials will cause the company to play right into the hands of the hedge funds, who play on uncertainty and misinterpretation.

Dealing with Debt: The Chemical Industry Under Siege

Kyle Loughlin, Director, Chemicals Group North America, Standard & Poor's



In the last 10 years, the credit quality of the North American chemical industry has declined significantly. This trend is deeply rooted in the capital markets and M&A boom of the late 1990s. During that period, there were a tremendous number of new high-yield issuers and debt funded capacity expansions and high levels of M&A activity. As a result, 18 chemical companies have defaulted in just the past 4 years. Even today, a large number of companies are still debt-burdened and over 40% of the chemical companies have negative outlooks. Median ratings in the North American chemical sector have declined from BBB in 1998 to BB today. Lastly, over 80% of the issuers are performing below Wall Street earnings expectations.

In trying to deal with these difficulties, a number of chemical companies are working hard to manage their credit risk. All of these companies have been reducing costs, working capital, and capital outlays. A significant number of companies have also been aggressively selling assets or tapping the capital markets to extend their debt maturities. On a smaller scale, a few companies have been actively pursuing new investments, within the constraints of their debt burden, to transform their business profiles for the future.

Strategic Repositioning Using The Process Centering Concept

James J. O'Brien, Chairman and CEO, Ashland Inc.

Ashland is a market-focused, process-centered organization that develops and delivers innovative solutions to its customers, consistently outperforms its peers, produces predictable earnings for its shareholders and provides a dynamic and challenging work environment for its employees.

Generating consolidated annual sales of approximately \$7.5 billion and with assets of \$6.7 billion, the company is a Fortune 500 company, operates four wholly owned businesses and holds a 38% interest in Marathon Ashland Petroleum, the 6th largest U.S. refiner and a leading marketer in five Midwest states. Ashland's APAC division, contributing \$2.7 billion in annual sales, is the largest U.S. highway contractor and a leading supplier of construction materials. Ashland Distribution is the number two distributor of chemicals and thermoplastics in North America and generates \$2.5 billion in annual sales. Ashland Specialty Chemical sells higher-margin specialty products that add value to manufacturing process or products. The specialty chemical division generates \$1.3 billion in annual sales and holds either the number one or number two market positions in businesses representing 76% of its revenues. Ashland's Valvoline division is a leading provider of lubricants and automotive care products with sales in 141 other countries. Valvoline represents Ashland's best-known brand and generates \$1.2 billion in annual sales.

There has been a major transformation of Ashland. The process-centering process is one of the tools that we have employed. What is a process-centered organization? It is an organization in which all work is thought of, performed and managed as process work. The use of this method has allowed us to drive operational excellence though process redesign and to achieve and maintain stretch goals.

The Role of Private Equity in the Chemical Industry

Seth Van Voorhees, Senior Vice President, Young & Partners

Leverage buyouts were first conceived after World War II, but became popular in the 1970s and the 1980s. They generally involved businesses that had one or more of the following attributes: steady cash flows, significant profit improvement potential through cost cutting and other means, the potential for follow-on consolidation acquisitions, break-up value in excess of the purchase value, and the potential for multiple exit options such as a sale, IPO, or a recapitalization.

Although the first LBO may have been the purchase of a U.S. government chemical plant by J.H. Whitney & Co. in the late 1940s, the chemical industry was not the target of the majority of financial buyers in the early years due to the greater complexity of the industry. Early pioneers such as Gordon Cain, D. George Harris, and others took on the chemical industry successfully with a number of LBO transactions. Thenumber of these transactions, however, were low.

Recently, however, there has been a significant pick-up in private equity interest in the chemical industry. Investors such as KKR, Industri Kapital, Civen, Schroder Ventures, Investcorp, CVC, Advent, and others have all made multiple investments in the chemical industry. There has also been a number of strategic financial buyers such as Geo Specialty Chemicals and Sovereign Specialty Chemicals who make acquisitions using the LBO model, but who can also create synergies through portfolio companies. Since 2000, financial buyers has represented approximately 20% of the overall chemical industry M&A market and we expect that level to remain high.

Best Practices in Corporate Governance: A Global Perspective

Toby S. Myerson, Partner, Paul, Weiss, Rifkind, Wharton & Garrison

This past decade has seen a series of corporate governance failures. From Royal Ahold's overstatement of earnings by $500 million to Vivendi's opaque accounting used to mask the company's inflated debt levels, companies worldwide are showing a breakdown in corporate governance.

There seems to be a common theme if one examines companies like Aldephia, Enron, Vivendi, Royal Ahold and others. Senior management often enjoyed excessive pay that wass decoupled from real corporate performance and is often equity linked. The companies generally used opaque or misleading accounting to shield the company's financial troubles from the investment community. Most lacked strong internal controls. Finally, all lacked independent and vigilant directors.

The regulatory responses to these corporate scandles have been harsh. For example, the U.S. Department of Justice gave Aurther Andersen the equivilant of the death sentence, corporate executives are being prosecuted, and a group of major investment banks paid fines totalling $1.2 billion to settle government's charges related to Enron. Criminal sentences for financial fraud in the U.S. now exceed the penalties for drug dealing and shareholder lawsuits are being directed against company officers and directors.

Increasingly there is an emerging global concensus that there must be greater management and director accountability, director independence, transparency in accounting and financial disclosure, and leadership integrity. While conforming corporations to these themes is a dauting task for the global corporate and regulatory community, they will ultimately benefit the companies by lowering cost, increasing shareholder receptivity, avoiding potential problems and creating better executives and directors.

Selected Public Policy Challenges Facing the Chemical Industry

Gregori Lebedev, President and CEO, American Chemistry Council

Business executives are constantly searching for new markets, cost savings and product innovations in order to enhance their company's productivity and profitability. Businessmen and women are coming to recognition that there is an extra ingredient that is not found on the balance sheet, but is embedded in the bottom line. Public policy and public perception, if not managed by companies and by industries, are unseen and relentless drains on the cost of doing business. And because they have a cumulative effect and industry-wide impact, they ultimately and imperceptibly dilute market valuation for everyone in a sector.

There are five public policy issues confronting the industry. The number one issue is energy, and in particular the escalation of natural gas prices in the U.S. The second is the deteriorating transportation system in the U.S. Third is the European White Paper, now commonly referred to as REACH (Registration Evaluation and Authorization of Chemicals). The fourth is security of our chemical industry sites and infrastructure. The last is the emerging debate about the prevalence of chemicals in the environment and the public image of the chemical industry. The American Chemistry Council is actively working in all of the five areas to help formulate and communicate solutions and the industry's view.