Agenda and Summary of Speeches

Young & Partners 29th Annual Senior Chemical Executive Conference
"Strategic, Financial and Shareholder Issues"

November 29, 2016
The Yale Club at 50 Vanderbilt Avenue - New York City

11:30 a.m. **Registration**

12:00 p.m. **Welcoming Comments and Luncheon**

12:15 p.m. **Luncheon Keynote Speaker and Fireside Chat**

"Shareholder Value Creation: Lessons From The Transformation of Ashland"
William A. Wulfsohn, Chairman and CEO, *Ashland Global HoldingsInc*

A Fireside Chat with William Wulfsohn
Moderator: Peter Young, President and Managing Director, *Young & Partners*

1:15 p.m. **M&A and Financial Trends – The Death of Conventional Wisdom**
Peter Young, President and Managing Director, *Young & Partners*

1:45 p.m. **Outlook for the Chemical Industry**
Joseph Chang, Global Editor, *ICIS Chemical Business*
Robert Westervelt, Editor-in-Chief, *IHS Chemical Week*
Peter Young, President and Managing Director, *Young & Partners*

2:45 p.m. **The Changing Global Chemical Industry**
David Witte, SVP, IHS and General Manager, *IHS Chemical*

3:15 p.m. **Break**

3:30 p.m. **Creative Divestiture Strategies: Auction Alternatives That Work**
Peter Young, President and Managing Director, *Young & Partners*

4:00 p.m. **Speaker Roundtable**
Moderator: Peter Young, President and Managing Director, *Young & Partners*
Participants: Conference Speakers

4:45 p.m. **The Challenges and Opportunities Facing Private Equity in Chemicals**
Eytan Tigay, Managing Director, *Rhone Capital LLC*

5:30 p.m. **Cocktail Reception**

7:00 p.m. **End of Conference**

Shareholder Value Creation: The Transformation of Ashland

WILLIAM A. WULFSOHN
CHAIRMAN, PRESIDENT AND CHIEF EXECUTIVE OFFICER
ASHLAND GLOBAL HOLDINGS INC.

The majority of Ashland's transformation was executed by my predecessor, Jim O'Brien who did a masterful job re-creating the company. From 1995 to 2016 the company went from $13.4 billion in sales to $4.9 billion. The EBITDA margins increased from 5% to 22%. This was accomplished by exiting areas where the company could not compete effectively and focusing on areas that were truly specialized. Jim O'Brien thought it was important to be consistently predictable, focus on EBITDA margin and prioritize specialty chemicals. This strategy created a lot of value for our shareholders.

When I started at Ashland, it was clear that Valvoline was not a specialty chemical business. There was always a sense that when compared to its specialty chemical peers, Ashland was trading at a discount. So without any prompting by external parties, the decision was made to create two separate companies out of the two great businesses. We recognized that this was shareholder friendly and provided some optionality. It was clear that the businesses had very different needs. Examples included credit card security for Valvoline and global trade compliance for Ashland. We worked through a variety of issues including strategy, scale, financial firepower, costs and talent, to ensure that these two businesses could flourish after separation. Valvoline is a North American cash flow machine. There was an option to saddle the company with debt as a means of creating liquidity for Ashland. We made a conscious decision to avoid this option as it would have, in our minds, impeded the new Valvoline's ability to reach its full potential.

Independently, Valvoline was a fantastic business with strong earnings growth and profitability. There is palpable culture of hands on expertise in the Valvoline business. Through its various acquisitions, Ashland had integrated differential technology streams that were very relevant in attractive markets. We had a very positive reaction from both Wall Street analysts and the market when we made the announcement that we were separating.

However, we have found that there is still a 1x-2x EBITDA multiple gap between Ashland and who we believe we should be compared to. We are now focused on pivoting to premier and taking advantage of the differential opportunities that we have in our space. We surveyed our customers and found that in many cases, they did not know what we stood for. There was no sense of unity under the Ashland brand. Our people could only consistently reference their legacy company. To remedy this, we developed a "blueprint for the future" based on Safe, Compliant and Responsible Operations to unify and focus the company.

The way we can create shareholder value in the future will be to have a truly specialty portfolio of products, delivery top-quartile EBITDA margins and growth, and consistently drive strong cash conversion.

A Fireside Chat with William Wulfsohn

PETER YOUNG, PRESIDENT AND MANAGING DIRECTOR, YOUNG & PARTNERS
WILLIAM WULFSOHN, CHIEF EXECUTIVE OFFICER, ASHLAND GLOBAL HOLDINGS INC.

Young: I understand that an important part of your upbringing was studying chemical engineering at the University of Michigan. How has that experience affected your thinking?

Wulfsohn: In one of my first courses, the professor gave an assignment with very specific instructions on how to structure the document. He gathered all the assignments and started examining them one by one. Whenever he came across a submission that deviated from the criteria he had outlined, he tore it in half and threw the pieces away. He said that if the students who had submitted those torn assignments were to build a chemical reactor, they would have killed people because they did not follow the instructions. Chemical Engineers need to do things to a degree of precision in order to be effective.

Young: You have had the opportunity to work for a number of companies with household names. Are there any lessons that progressing through these various companies taught you?

Wulfsohn: At Honeywell where I was in charge of the caprolactam system, I learned that I did not want to be in commodity chemicals. You are right when the market was short and wrong when the market was long. I grew up in specialty chemicals and I enjoyed driving innovation and selling value. The diversity I encountered at PPG taught me that while there are a number of approaches to solutions, the effectiveness of the individual implementing them is the ultimate driver of success.

Young: What elements of the culture/ management style of those firms have you tried to implement at Ashland?

Wulfsohn: The environments at Honeywell and PPG were very different. PPG had a lot of people who had spent their entire careers with the company. Honeywell was more edgy and confrontational. When they merged with AlliedSignal, the stark difference in cultures created problems. In any case, it’s important for leaders to be very agile. In the case of Carpenter, the company was very insular. It needed to change to become more contemporary.

Young: Carpenter was smaller than both PPG and Honeywell. Was that a big adjustment for you?

Wulfsohn: The size actually didn’t matter. At PPG, decision-making was impeded by the large number of people who needed to be involved in the process. I liked having an environment where we could move nimbly. While you don’t have the same resources available at a smaller firm, I found it more appealing.

Young: Could you provide some more detail on what specifically you found more appealing about the smaller environment?

Wulfsohn: One of my roles was the General Manager of a small coatings facility for Morton International. It was a very small team but we had all major corporate functions represented (R&D, Quality Control, Manufacturing etc.). As such, there were a number of conflicts between the various departments. I found that the best way to resolve these conflicts was to put the conflicting parties in my office, present the arguments as they had been relayed to me, and then leave and let them resolve it themselves.

Young: How do you achieve growth and innovation in a maturing specialty chemical market?

Wulfsohn: There is a certain part of specialty chemical portfolios that is attractive today but will inevitably mature. There is platform innovation where you can hit home runs. However, in many cases innovation is really about how to improve the product for the very specific solution the customer needs. Sometimes this entails a small re-formulation, packaging or providing a service component. Innovation is not only discovering earth-moving, new molecules, but providing solutions to our customer’s existing problems. This creates more value that constantly shooting for breakthrough home runs.

Young: Can you comment on which big picture geopolitical events with affect Ashland specifically?

Wulfsohn: Ashland is a part of the global economy. The new Ashland will be evenly split among North America, Europe and Asia. We need to focus on the things that we can control. We are not above what is happening in the global economy. We need to be concerned with the market share we gain, the productivity improvements we make, the pricing actions we get through innovation.

M&A and Financial Trends – The Death of Conventional Wisdom

PETER YOUNG
PRESIDENT AND MANAGING DIRECTOR
YOUNG & PARTNERS

The best investment banking advice comes from highly skilled senior bankers who have extensive experience, manage projects rather than delegating to less experienced staff, have no conflicts of interest, have extensive industry knowledge, and are armed with the right information about what is actually going on in the market. The combination of an experienced senior banker working with bad information will likely result in bad advice.

For this reason, Young & Partners, for the past 20 years, and the head of the firm with his predecessor firms, has conducted highly precise R&D on the financial markets, M&A activity and financing. The following are some of today's conventional wisdom opinions in the financial community, what our analyses indicate instead, and the implications for management.

A Few Conventional Wisdom Examples

- The current M&A market volume is very strong and has been for some time and expectations are for even higher dollar volumes and numbers of deals this year.
- Thus far this year, the activity level is higher than last year, aided by a number of large deals that have closed.
- M&A valuations were high across the board last year and continue to be high this year.
- Private equity firms continue to be active, aggressive buyers.
- IPOs are a consistently useful way to create shareholder value and liquidity that can be accessed when the overall general IPO market is strong.
- There are many more, but these are typical beliefs that are widely expressed and have been relied on by many companies.

Published Quotes

- According to one magazine, "A high level of M&A activity has occurred this year. [We have] counted 177 M&A transactions in the chemical industry and adjacent services, such as distribution and logistics, so far in 2016, with the total deal value approaching $80 billion, both figures are higher than last year. Large-scale mergers and acquisitions (M&A) continue to transform the industry. While the parade of multibillion dollar deals cannot go on forever, dealmakers expect the strong activity to continue for the foreseeable future."
- One banker said, "The second half [of this year] should be fairly strong like the first half, and that will likely continue into 2017."
- Another banker said, "Everyone has talked about low interest rates and low returns on fixed income. I think you have the private equity community willing to accept lower returns, strategic [corporate] buyers willing to accept lower returns, and these translate into higher valuations and a longer market peak."
- All of the investment bankers quoted in major M&A articles have indicated that M&A valuations have been high and will only gradually soften. "I think the market has peaked from a valuation perspective, and the question is what's the next phase", said one banker. "I think... the landing is going to be soft and prolonged."

Action Implications

- If one relied on these pieces of wisdom, one would do the following:
  - Push to do acquisitions if you need to in order to achieve your growth targets and pay the indicated high market prices
  - Aggressively sell businesses, commodity and specialty, with the expectation that you will be able to capture the high valuations that are being touted
  - Not worry about starting a sale now since the high prices are going to last for a long time
  - Include many private equity firms on the list of potential buyers if one is selling a business
  - Strongly consider or move ahead with an IPO of a business that you own

M&A Trends –Through Third Quarter 2016

- The M&A market in dollar terms increased in substantial steps each year starting from the trough of $22 billion in 2012, to $31 billion in 2013, $49 billion in 2014, and $65 billion in 2015.
- The pace has slowed considerably this year. On an equity basis, only $6 billion of deals were completed in the first quarter, $18 billion in the second quarter when the Air Liquide deal closed ($10.3 billion equity value) and $7 billion in the third quarter.
- That totals to $31 billion of deals greater than $25 million in value through the third quarter, well below last year's pace.
- In terms of number of transactions, 61 deals were completed through three quarters versus 92 deals in 2015. Again, on an annualized basis, we are on a slower pace compared to last year. Even last year was already a slowdown in volume from the 109 deals in 2014.
- In terms of the location of M&A targets, Asia/ROW dominated in 2015, accounting for 51% of deals completed worldwide. That dominance has continued through the first three quarters of 2016 as Asian/ROW deals rose to 52% of all transactions completed globally.
- Activity has slowed elsewhere for a variety of economic and other reasons.
- Private equity firms receive a lot of publicity, but continue to lose market share in terms of acquisitions. They accounted for only 7% of the total number of deals completed through three quarters of 2016, a startling loss of share compared to the historical norm of 20-25%. Even their share of the dollar volume was low at only 3% of the dollar volume through three quarters of 2016.
- Commodity and specialty chemicals have been on very different M&A cycles, with commodity chemicals falling into a trough last year and now recovering and specialties reaching a peak last year and now falling off the peak.
- Last year, commodity chemical valuations dropped 25% from the previous year and are up by 34.7% in the first nine months of 2016. Commodity chemical deal volume fell last year and revived this year.
- In contrast, specialty chemical valuations increased by 39.8% last year from the previous year and are down by 25.4% in the first nine months of 2016. Specialty chemical deal volume increased last year, but has fallen this year.
- Looking forward, the value of deals announced but not closed as of September 30, 2016 was $227 billion (59 deals). However, the list is dominated in dollar terms by just a few mega deals (greater than $5 billion) such as the Dow merger with DuPont, the Bayer acquisition of Monsanto, the ChemChina acquisition of Syngenta, the Potash merger with Agrium, and Sherwin Williams' acquisition of Valspar.
- Some of these deals when announced indicated that the close would be next year (Sherwin Williams/Valspar, Bayer/Monsanto, Evonik/Air Products Performance Materials, and Potash/Agrium).
- Others were supposed to close this year, but are seriously delayed and will not close this year as a result or may fail all together for anti-trust or other regulatory reasons (Dow/DuPont, ChemChina/Syngenta).
- One deal, the CF Industries/OCI NV North American transaction, failed earlier this year for anti-trust reason.

IPOs

- IPO volume through the third quarter was only $660 million, a tiny dollar amount and, on an annualized basis, well below the $2 billion from last year. Oddly, there have been 14 IPOs, but all 14 were very small and completed by Asian companies. Almost all were Chinese. So the long history of relatively modest chemical IPOs continues in 2016.

Implications for Management

- Challenge what investment bankers say is true about the M&A and financial markets/valuations and be suspicious of advice that would tend to create more investment banking activity and fees.
- Insist on the combination of very senor advice from investment bankers who have extensive experience, are willing to personally run your project,and have highly accurate data on what is happening that is consistent and strategic.
- Since various parts of the market are moving in very different directions (by type, by geography, etc.), assess whether to buy or sell a business based on the specific dynamics of the relevant market and what the real valuations are.
- Only sell to a private equity firm if they can truly produce the best value or structure for you. Be wary of investment banks who have a large "financial sponsors" group and potential conflicts of interest when it comes to their priorities relative to private equity firms.
- Expect the Asian companies to continue to dominate the Asian M&A market and the IPO market, but do not worry about it unless your company wants to participate in the Asian M&A market yourself.
- Be very skeptical about IPO pitches or "dual track" IPO/Divestiture recommendations give the almost total absence of a Western chemical company IPO market at this point.

Outlook for the Chemical Industry

JOSEPH CHANG
GLOBAL EDITOR
ICIS CHEMICAL BUSINESS

What will the Trump presidency mean for US chemicals? Trump primarily ran on an anti-trade platform, threatened to withdraw from NAFTA, labeled China as a currency manipulator, talked up tariffs for both China and Mexico and targeted the US's trade deficits with both Japan and South Korea. In talking to CEOs and consultants we found that there is some optimism and denial. Some are hopeful that a renegotiation of NAFTA would not be terrible and that Trump will moderate his views. In addition to his anti-trade plans, Trump has talked of his plans to invest in infrastructure which would include $550 million of investments directly into roads, bridges, ports, airports and transit systems and $1 trillion in private investment. An infrastructure boost such as this could be beneficial to the chemicals industry. This optimism can be seen in chemical and industrial stocks. Another part of the platform was energy deregulation, which entails lifting the restrictions on American energy. Trump also wants to streamline the permitting process for all energy projects and possibly chemical projects as well.

In analyzing the US chemical trade balance, excluding pharma, we can see that Mexico is the country that the US exports to the most by far. In fact Mexico represents approximately 40% of the US's overall trade surplus in chemicals. The Transpacific Partnership (TPP), which Obama put together with 12 countries in South America and Asia, would have helped to eliminate and reduce tariffs among the US and the other countries in the partnership. Even when excluding pharma exports and exports to Mexico and Canada, in 2015 the US chemical exports and chemical trade balance surplus with TPP countries was $14.8 billion and $4.3 billion, respectively. The establishment of the TPP has the potential to greatly benefit the US chemical industry, however in a Trump administration the TPP is unlikely to come to fruition.

Trade will become more important as the US ramps up its capacity coming online for ethylene and derivatives. Currently there are eight US crackers under construction, six of them world scale. A majority of the derivatives are polyethylene, which will be exported mostly to Asia but also to other parts of the world. The startup dates for many of these crackers are in 2017 and 2018, consequently there will be a tremendous amount of capacity coming on in just a couple of years. Additionally, the total number of expansions/restarts of existing US crackers between 2016 and 2018 is expected to be five. As a result of new US crackers and US cracker expansion, we are expecting about 10 million tonnes a year in new US capacity by 2018.

A lot of CEOs especially in the US have been optimistic about the outlook for ethylene and derivatives, and one of the reasons for this optimism is the picture in China. Coal to Olefin (CTO), and Methanol to Olefin (MTO) plants being built in China with ethylene capacities are a lot less than what people expected. Earlier estimates for 2016-2017 were about 15 million tonnes of new capacity but, current estimates for 2016-2017 are only about 3 million tonnes of new capacity.

In summary the global economic environment is stable with low growth. A US infrastructure/fiscal spending boost appears likely with a Trump administration and a Republican Congress. However, there are many uncertainties regarding the future of the chemicals industry. Examples of these uncertainties include Trump's impact on global trade, the manner in which the Federal Reserve will manage rate hikes, Brexit implications and whether China's economy is slowing down and transitioning.

Outlook for the Chemical Industry

ROB WESTERVELT
EDITOR IN CHIEF
IHS CHEMICAL WEEK

As has been the case for the past four or five years, we end the year on a somewhat underwhelming note but generally okay conditions across the industry. Since the Great Recession global GDP has been stuck at a 2.5% range, and the chemicals industry global growth has been a percent or two above that. Although growth has disappointed over the past few years, we expect some improvement in the near future, according to IHS forecasts. Despite the fact that chemicals demand has been muted, it has been better than the demand of most other sectors. I also plan to discuss the arrival of the peak of US capex and the potential impact of a Trump administration on the chemicals industry.

Aside from the 2010 rebound, industrial production has never returned to the 4% global range that it was at prior to the Great Recession. IHS believes that in 2017 there will be some acceleration in industrial production growth and global GDP growth will hit 2.8% and increase even further to 3% in 2018. Looking more specifically, US GDP growth should be 2.2% in 2017, up from 1.5% this year, Eurozone GDP growth will decrease slightly from 1.6% this year to 1.4% in 2017, China will continue its cooling from 6.7% this year to 6.4% in 2017, and India will stay at around 7.5% for 2017. Lastly one bright spot is that the recessions should end in both Russia and Brazil in 2017.

Looking ahead the chemicals industry should continue to show modest growth, but we expect to see some slight acceleration ahead. Additionally a quick broad look at industrial materials prices reveals that commodities and industrial materials prices are worth watching and may signal some inflation ahead. Both commodities and industrial materials prices have rebounded over the 2016 lows and this might be sustained even though it appears that Trump's policy tend to be more reflationary.
There will be nearly 13 million tonnes of ethylene capacity added to North America by 2020, which is roughly a 40% increase from the 2014 base. Although the timing of individual projects may shift, the projects should all be complete by 2020. Generally we see a lot of these projects around the US Gulf Coast. The next wave of crackers will come more slowly and will be less concentrated around the US Gulf Coast. Briefly touching on capex, the US chemical capex has peaked in 2016 at about $20 billion dollars, and over the next few years I expect to see a dramatic drop in US chemical capex.

Regarding the Trump administration, some positive impacts could be the stimulative economic policies, regulatory relief, changes in energy policy which could increase confidence around upstream and infrastructure investment, and tax reform. Some negative impacts that could result from the Trump administration are trade protectionism, a deceleration of global trade, and a stronger dollar which would hurt US exports.

To wrap up, growth is flat but the number of risks is growing. Chemicals demand remains a bit sluggish but still is a standout compared to that of other industries. The US ethylene wave is arriving as chemical capex reaches its peak. Lastly, assuming there are no severe actions regarding trade the Trump administration impacts are generally favorable however, there are still some significant risks out there.

Outlook for the Chemical Industry

PETER YOUNG
PRESIDENT AND MANAGING DIRECTOR
YOUNG & PARTNERS

Economic/Financial

- We believe that much of the world will struggle to achieve growth in a very difficult geopolitical and economic environment. Although production volume has been steady, product pricing has been difficult and has produced headwinds.
- China and India will have high growth rates on a comparative basis, but both will struggle to maintain their higher growth rates. Emerging markets outside of China and India will continue to struggle.
- The U.S. will have solid, but modest growth.
- Europe will continue to be weak and emerging market countries and oil based economies will continue to be difficult places to do business.
- Oil revenue centric economies such as Russia, Saudi Arabia, and Venezuela will experience substantial deficits and recessions.
- Geopolitical challenges such as the South China Seas, North Korea, and Middle Eastern conflicts involving terrorists, ISIS, Syria, Yemen (and the US, Russia and Saudi Arabia) will result in a high level of perceived global risk and uncertainty.

Stock Market

- The stock market has been favoring the chemical industry due to the industry's strong earnings fundamentals and the industry has been trading at a premium to the overall market. However, their relative valuation has weakened recently.
- It is unclear where the industry valuation is heading given the overall uncertainty and recent volatility in the economic and financial markets.
- Disruptive news on a regular basis has driven stock market uncertainty, volatility and the recent losses, but the chemical industry is still at relatively strong valuations in the West.
- In the near-term, the global equity markets will continue to be volatile, driven by the long list of economic, financial and geopolitical stresses.

The Changing Global Chemical Industry

DAVID WITTE
SVP, IHS AND GENERAL MANAGER
IHS CHEMICAL

The global economy is stuck in low gear, being led by the developed world and is subject to substantive geo-political risk. There is an oversupply of energy but petroleum balances are directionally tightening. In chemicals, uncertainties in energy and the economy are delaying investment and increasing M&A. Good returns on many of the investments in the US on the Gulf Coast will be challenging giving the cost of construction. Generally, margins are widening but this is highly variable by value chain position and geography.

Macro-economic growth is driving petrochemical demand while energy markets are driving supply decisions. IHS is projecting world growth to remain subdued. Global GDP growth is projected to rise to 2.7% in 2017 from 2.4% in 2016. Growth in the BRIC economies remains depressed for the medium term before recovering in 2017/18. In Brazil, recession and inflation are easing but the recovery is still delayed. In Russia, the economy is improving. India has been a star amongst the BRICs recently making improvements to the taxation system. The Chinese government will continue to stimulate their economy. The wave of populism in the world's leading economies is creating economic uncertainty.

Two years of low oil prices has increased pressure on many major producing states. Nigeria, Angola, Venezuela and Iraq are particularly vulnerable. Falling oil prices creates fiscal weakness resulting in lower spending and cuts in public services. The response to this will be civil unrest and potential regime change. IHS sees the demand and production of oil converging resulting in recovering crude prices. The US had a significant advantage in Natural Gas feedstocks attracting additional investment.

For chemical companies, organic investment decisions must evaluate factors beyond energy and the economy including regional capex differentials. IHS projects global chemical capex to fall through 2021. Market uncertainty streamlining strategic focuses and low debt costs are catalyzing chemical M&A deals. Capacity is being built primarily in North America, the Middle East & Africa and China. China is focusing on competitiveness & consolidation, safety & the environment and value-add industries/specialties. The Middle East is adding feedstock & product diversity and focusing on operational efficiencies.

Creative Divestiture Strategies: Auction Alternatives that Work

PETER YOUNG
PRESIDENT AND MANAGING DIRECTOR
YOUNG & PARTNERS

- In a high percentage of cases, companies are advised by investment banks to auction a business that the company has decided to sell.
- The reasons given are very familiar:
  - "An auction assures you of getting the best price by creating a competitive environment."
  - "Doing a traditional auction and forcing buyers to submit preliminary and final bids on the same basis allows you to spend time and resources with the buyers who are willing to place the highest value on the business."
- There are also reasons why most investment banks prefer auctions with first round and second round bids. First, it is a very cookie cutter process that allows the use of junior people to run the auction. Second, the investment banking firm since the process reach out to a large number of buyers in a mechanical fashion and "let the market speak".
- When is an auction potentially not the best alternative?
  - The businesses require very different deal structures for different buyers or buyers will want different pieces.
  - The buyers are from many different countries, some of whom have dramatically different decision processes and decisions speeds, such as Japanese and German versus American and British.
  - The business has highly sensitive, proprietary technology where exposure to more than a handful of potential buyers will damage the business and will reduce the perceived value by the buyer universe.
  - There are buyers with very different bidding philosophies and it is difficult to determine the buyer's real view of value in early bidding rounds.
  - There are significant tax related issues that dictate what alternative and structure will produce the highest shareholder value.
  - The non-price issues are important criteria when choosing who to sell to.
- The following are examples of alternative processes:
  - Asset or Business Swap
  - Hybrid Preemptive Auction
  - Two Step Joint Venture Sale
  - Spin-off or Equity Carve-out
  - Reverse Mergers
  - Joint Venture LBOs
  - Sale with Contingent Value Right
  - Sale with an Earn-Out
  - Full Auction
  - Limited Auction
  - One-on-One Offer and Negotiation
  - Knock-out Early Interviews Before Initial Bids
  - First Over the Finish Line Parallel Processes
- Mr. Young then went through four of the alternative processes, described how they work, and laid out the advantages of each and when they might prevail as the best alternative. The key is to tailor the process to the situation.

The Challenges and Opportunities Facing Private Equity in Chemicals

EYTAN TIGAY
MANAGING DIRECTOR AND CHIEF INVESTMENT OFFICER
RHÔNE GROUP LLC

Approximately 1/3 of our last fund was invested in Chemicals & Materials companies. Throughout the history of our firm we have invested in six chemical companies.

Today, the biggest challenge of investing in the chemicals sector is bull market valuations. Investing with that headwind is a not a recipe for success. Central Bank balance sheets have ballooned in the last ten years, 5x for the Federal Reserve and 2x for the European Central Bank and the Bank of Japan. A significant amount of that printed money has ended up in financial assets inflating their value. As interest rates were driven to near zero post-crises, investors sought higher returns elsewhere. One of the sources of higher returns was Leveraged Buyout Loans. Cheap and easy money has inflated the value of the assets that the loans are meant to finance. Private Equity firms have raised equity capital faster that they have been spending it or returning it such that the "Dry Powder" available for investment is around $500 billion globally.

As a result, valuations have not been this high since before the crises. LBO multiples are actually above pre-crises levels. In the chemicals industry, earnings multiples are at historically high levels. In terms of M&A EBITDA multiples, deals are happening at previously unheard of valuations.

There are also a number of industry specific challenges at this moment in time. The chemical industry is high correlated with global GDP and exhibits cyclical tendencies. The global recovery is now seven years in and has started to slow in certain geographies. This means that the volumes of chemicals demanded are at cyclically high levels. We need to be very careful about investing for the long term at these valuations at the top of the market. Margins are also currently elevated due to lower absolute prices of raw materials. With declining input costs, per ton margins earned in many intermediate and downstream sectors are inflated and may be subject to reversal. These sectors, as it happens, are those generally more suitable for private equity investment.

The key determinants for success are timing, business selection, execution, company resilience and sector expertise. There is a good chance that your timing is always wrong therefore, the other dimensions are more important. You should only get involved in opportunities where you can actually make improvements. Limited competition for the investment is also desirable. The business plan that you hypothesized for the investment needs to be executed very well. Investments should be made in companies and business models that are resilient to changes in demand/oil prices/foreign currency rates as well as competition from Asia. Sector expertise, while not necessarily the decisive factor, also helps.

There are a lot of investment opportunities available and you should only invest in those where you have the ability to make a good return starting the day after the deal. When you can't make money by buying cheap, you have to make money by operating better. Therefore, you need to find situations that lend themselves to the private equity approach in any marketplace. Examples include carve-outs, family situations, build-ups, public-to-privates or secondaries.

Specific opportunities for improvement are growth & expansion, innovation, capital allocation, working capital management, costs, talent, quality of earnings, M&A and scale.

Execution is focused around making sure the right people are in the right positions, incentivizing those people properly, refocusing the overall culture on shareholder value, making sure the right processes are in place, increasing the companies risk appetite, reinvesting capital into the business and making sure the right governance is in place.

The importance of expertise on the actual chemical engineering is only moderate and can be outsourced. Having a good understanding of the customers and end markets are more important. Good competitive analysis, especially around Asia where transparency can be difficult, is necessary. Chemicals is a global industry and foreign exchange rates can change costs very quickly. Understanding the Environmental, Health and Safety impact on the investment is critical. For corporate carve-outs, there are certain skills associated with standing up a business on its own that are mission critical.

Rhone has had significant success investing in the chemicals. Carlyle carved Axalta out of DuPont just as the auto industry was beginning a strong recovery. SK timed the acquisition of Ascend from Solutia when Solutia was in deep need and Ascend was at a cyclical low. Advent improved the margins of Oxea significantly before selling to a sovereign buyer who had strategic motivations to own the company. Apollo made possibly the best gains ever when purchasing the distressed debt of LyondellBasell. Arsenal bought and merged a series of smaller colorant businesses into Chromaflo which was able to attract a premium on its exit due to the scale and diversity it achieved.

Investing in commodities is difficult as commodity prices are unpredictable. Asian competition has brought down a number of seemingly strong business models. Businesses with significant concentration risk should be avoided. Even if execution is handled well, the benefit will not outweigh the detriment of having overpaid. The business needs to be intrinsically capable of bearing the debt used to acquire it. That debt also needs to have a benign structure. Wrong management, incentives and governance can all hurt your chance of success.