

YOUNG & PARTNERS
27th Annual Senior Chemical Executive Conference

Conference Summary

**Senior Chemical Executive Conference - “Strategic, Financial and Shareholder Issues
For Chemical Executives” – December 3, 2014**
The Yale Club of New York City

- 12:00 p.m. **Welcoming Comments and Luncheon**
- 12:15 p.m. **Luncheon Keynote Speaker Panel and Fireside Chat**
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*
A Fireside Chat with the Editors
Moderator: Peter Young, President and Managing Director, *Young & Partners*
- 1:30 p.m. **M&A and Financial Trends and Their Strategic Implications**
Peter Young, President and Managing Director, *Young & Partners*
- 2:15 p.m. **Case Studies in Value Creation: The Transformation of Mexichem**
Juan Pablo del Valle Perochena, Chairman, *Mexichem SA*
- 3:00 p.m. **Break**
- 3:15 p.m. **The Changing Global Chemical Industry Structure**
David Witte, SVP, IHS and General Manager, *IHS Chemical*
- 4:00 p.m. **Shareholder Activists: Good, Bad or Ugly?**
Peter Young, President and Managing Director, *Young & Partners*
- 4:30 p.m. **Speaker Roundtable**
Moderator: Peter Young, President and Managing Director, *Young & Partners*
Participants: Conference Speakers
- 5:30 p.m. **Cocktail Reception – Trumbull Room**
- 7:00 p.m. **End of Conference**

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

Keynote Speaker Panel: Outlook for the Chemical Industry

PETER YOUNG

President & Managing Director, Young & Partners

The Fragile State of the Global Economy

Although we are better off than we were in 2008/2009, there is still a measure of economic and financial instability. Economic growth has been weak in Europe, stable in the U.S. and China, and weak in many emerging markets such as Brazil and India. There are concerns about the negative economic trajectory in Europe, the slowdown in growth and structural problems in China, and the economic weakness in Japan. Europe has a long way to go before it achieves stability because the real solution is a euro zone wide structural remedy which requires political action that is not feasible at this time.



Many developing market countries are either in political turmoil (Egypt, Thailand, Ukraine, Turkey, Syria, Iraq, Israel/Gaza) and/or under severe pressure in terms of capital flows, economic performance and exchange rates.

Europe, China and Japan are all taking monetary and interest rate actions to combat slowing economic growth and the threat of deflation. Nonetheless, it is clear that there will be a continuation of global political, economic and financial stress for some time.

The Chemical Industry Today

The chemical industry as a whole has been doing well. The stock market continues to favor chemical companies. As a result, chemical valuations are high and at a premium to the overall market. Earnings have been positive overall, but with pockets of weakness, particularly in Europe and a number of emerging markets.

As Kurt Bock, CEO of BASF, indicated in October, "The economic environment remained challenging in the third quarter of 2014. Geopolitical tensions and increasing uncertainty about the global economic development significantly dampened demand for chemical products."

Although CEOs are optimistic, they are still concerned and are exercising caution. The key issue is whether the fragile global economic and financial conditions remain stable or are negatively disrupted by any number of global economic, political or financial developments.

The Industry Outlook

Young & Partners believes the chemical industry will continue to do well in 2015, with a few pockets of weakness in terms of demand in Europe, China and some of the emerging market countries. The drop in oil prices will be helpful long-term, but will be disruptive in the short-term as customers make decisions about destocking.

The main concern is the low odds scenario that a major economic or financial disruption will occur. The disruption is less likely to be financial and more likely to be an economic disruption or a geopolitical/military event.

YOUNG & PARTNERS
27th Annual Senior Chemical Executive Conference

We also think that the stock market will continue to favor chemicals and that the equity markets will continue to do well, with some volatility, until higher interest rates materialize.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

Keynote Speaker Panel: Outlook for the Chemical Industry

ROBERT WESTERVELT

Editor in Chief, IHS Chemical Week



Today I will share with you some of my thoughts on the outlook and state of the chemical industry. We will talk about the profit peak in the U.S. and some of the impact from the drop in crude prices, the U.S. capital expenditures outlook, and early thoughts on the 2015 macroeconomic outlook. At the end, I will share some potential surprises and trends to watch for in 2015.

Since 2009, U.S. chemical profits have moved steadily and consistently higher. Operating margins across all chemicals was about 12% through the second quarter of this year. These are the best results we have experienced since the late 2000's. North American chemical companies separated from the rest of the world in terms of profit starting in 2009 as a result of the shale gas boom. There was a fairly close correlation between the U.S. and the rest of the world since the mid 1980's until about 2009, when the shale impact kicked in and turned profits up.

As a result of the economic recovery and growing profits, there has been a massive wave of new investment in petrochemical capacity, with announced investment exceeding \$100 billion. The current IHS forecast has new investment peaking in 2018. IHS estimates that \$150 billion will be spent on chemicals from 2014-2025. The largest share of the investment will be directed towards ethylene and half of the total spending will be towards ethylene, ammonia and methanol.

If we look at the cash cost for the U.S., we see the U.S. ethane cash cost is about a third of what it is in Europe and a quarter of what it is in Asia. We expect U.S. ethane to get more expensive by 2023 but continue to be at an advantage relative to the rest of the world.

Many new investments and capacity additions have been announced. We are now at about 14 million metric tons per year of announced grassroots capacity, but the actual figure will probably be more than that. This doesn't include substantial brownfield additions from Ineos, Williams, Lyondell, and Westlake. There will likely be more greenfield expansion, with potential new entrants such as SABIC or Indorama that could be looking to enter the market.

When we look at the macroeconomic outlook in 2015, there is good news and bad news. On balance, IHS expects world GDP growth to finish at 2.7% in 2014, accelerate to 3.2% in 2015, and continue to grow to 3.5% in 2016. The aggressive monetary stimulus in Japan and the drop in oil prices will have some impact on global GDP. IHS estimates that global GDP will probably increase by 0.2-0.4% as a result of the drop in crude prices. On the negative side, the Eurozone continues to remain lackluster, Japan slid back into recession and China's economy continues to slow down. IHS estimates China will end 2014 with 7.3% growth and slow to 7% growth in 2015.

If we take a look at the geographical dynamics in the chemical industry, we can see an extraordinary shift to China over the last 15 years. Chinese chemical company shipments now exceed \$1.5 trillion. Every one percentage decline in China's demand growth shaves 0.25% off global chemical industry growth. As recently as 1998, the Chinese chemical industry was as big as France, so we can see there has been a massive shift to the east for the chemical industry.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

As for demand, China was at 10% of global chemical demand in 2000. This year demand for Chinese chemicals will stand at 30%. America will continue to grow, but its share has shrunk substantially. The North American share of global demand was about 27% in 2000 and is down to 16% now. Western European demand was 21% in 2000 and is now 12%.

As we look forward to the future, the biggest issue is the decline in crude prices since June. Crude forecasts continue to decline and we could potentially see inventory corrections in the U.S. This could lead to substantial volatility in prices in early 2015.

Other noteworthy developments to watch out for, include, Dow and DuPont, and their fights with Dan Loeb and Nelson Peltz, respectively. These activists are calling for management to make serious changes because they feel the companies are undervalued. It will be interesting to see how it plays out since the entire industry has been under attack over the last couple of years.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

Keynote Speaker Panel: Outlook for the Chemical Industry

JOSEPH CHANG

Global Editor, ICIS Chemical Business



Today we are going to talk about the relationship between crude oil prices and chemical prices, project updates, past spending cycles, and the global impact of shale gas.

If you look at the overall macro outlook it is not terrible. The United States is leading economic growth around the world since coming out of the recession. The U.S. recently ended its quantitative easing program, China is cutting its interest rates, the ECB is moving to loosen its monetary policy and Japan is doubling down on its quantitative easing program.

There are a lot of leading economic indicators, but if you are going to pick one for the manufacturing economy, there is the PMI, Purchasing Managers Index, where they survey many managers to gauge activity. The US is posting strong numbers, currently at almost 60, while China and the Eurozone are hovering just above 50.

In North America, 80% of the feedstocks for crackers come from natural gas liquids, ethane in particular. In Asia and Europe, feedstocks are based on naphtha. Natural gas liquids and naphtha have moved together historically. However, in 2007-2008 in particular, natural gas prices have moved with ethane because of the natural gas glut in the United States.

Not surprisingly, contract margins for ethylene are at record highs. Currently, we are at truly unprecedented levels. The polyethylene cost advantage for the U.S. has grown steadily, especially for integrated producers. The cost advantage is far greater for North American countries because of the natural gas glut. LyondellBasell provides a great example. Lyondell's U.S. polyolefin production economics are much more favorable than in its European and Asian segments. Lyondell's 2013 margins were 27.3% in the U.S. compared to 5.7% in Europe and Asia.

U.S. chemical prices track oil prices very closely. Once crude oil crossed below the \$100 per barrel mark, LyondellBasell and Westlake stock prices took sharp downturns, as both of the companies have been beneficiaries of the shale gas boom. The stock market is looking forward to margin compression, despite the massive supply of cheap ethane.

On the new projects front, there are 12 new U.S. ethane crackers based on shale gas. Six of the new crackers are currently under construction and others are being evaluated, but they are expected to move forward. There are also incremental ethylene expansions by companies at their existing facilities, including Lyondell and Westlake. One step downstream is polyethylene where there are a large number of expansions.

Overall, U.S. ethylene capacity could expand by as much as 60%. 12 new crackers would bring on 14.8 million tons of capacity. There are currently eight expansions scheduled at existing facilities, which in itself, would bring on 1.6 million tons of new capacity. Even if only six new U.S. crackers are built and expansions at existing facilities move forward, you will see a 36% increase in capacity. Most expansions are expected to come in 2017 and 2018.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

To get a sense of where we are in terms of profits, we can look at historical EBITDA margins for polyolefins producers like Dow, Westlake and LyondellBassell/Lyondell. Currently, we are seeing 30-40% EBITDA margins for largely commodity businesses.

Expansion in the U.S. has not been just new crackers. There are many new methanol, fertilizer, and LNG projects. For example, Sasol just invested \$15 billion in a new GTL (gas-to-liquids) facility. Natural gas is also being used by many industries for a multitude of purposes, including for the production of power, steel, and locomotives. In addition, there will be several new methane to propylene plants, with BASF building the largest new plant which will start up in 2019.

As far as trade is concerned, a number of countries are looking to import cheap U.S. ethane for their crackers. Large crackers are being built outside of the U.S. and foreign companies are looking to take advantage of U.S. ethane. For example, SABIC, Reliance, INEOS, and Versalis are all set to import large amounts of ethane in 2016.

Spending has increased dramatically as a result of the shale gas boom. Capital investment is expected to double from 2013-2018. In 1994-1995, we had a peak in capital expenditures, but there was a major downturn in the 2000 to 2002 time period. There was a bit of a recovery for a few years leading up to the financial crisis and we have since had a recovery and capital expenditures that are dramatically outweighing depreciation.

In Europe, companies are closing facilities or changing feedstock strategies. For example, Ineos, Borealis, SABIC, and Versalis are importing ethane. Companies will have to continuously evaluate their feedstock strategies and adapt to a shifting and dynamic feedstock environment. A number of European crackers have closed, but most of them were older and smaller.

In the Middle East, the Gulf Cooperation Council thinks its relationships in China are ever more important due to US shale gas. The Gulf Cooperation Council accounted for 34% of China's polyethylene imports and 24% of polypropylene. Overall, polyethylene imports are up 9% year to date as of September 2014.

In Latin America, there is concern about a flood of polymers. Mexico has recently reformed its energy policies and, as a result, has seen more petrochemical investments. According to Luciano Guidolin, an EVP of Braskem, "South America is a 5 million ton per year polyethylene market, with half of the market in Brazil. If you consider the level coming out of the U.S., South America is a small market."

In the East, Asian players have realized that the map has been redrawn. Asian players are discussing the possibility of importing U.S. ethane for petrochemical production, building crackers and downstream facilities in the U.S., and building methanol plants in the U.S. for export to China for methanol to olefin conversion.

In conclusion, we are going to see dramatic changes ahead. The U.S. footprint in the global petrochemicals and derivatives arena will grow substantially. There are 6-12 new crackers, up to 13 methanol plants, 5-7 on-purpose propylene facilities, any many downstream plants that will come on stream. There are already 195 projects and \$125 billion in investment planned. Europe and Asia, in particular, will have to continue adapting their investment strategies as the market dynamics shift. The increasing demand for U.S. ethane means that prices will not stay low forever. Lastly, with so much new investment in crackers and facilities, overcapacity is expected by 2018.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

Fireside Chat with Rob Westervelt and Joseph Chang

PETER YOUNG,
President and Managing Director, Young & Partners

ROB WESTERVELT
Editor in Chief, IHS Chemical Week

JOSEPH CHANG
Global Editor, ICIS Chemical Business

Peter Young: As editors at your respective magazines for the last 15-16 years, what has changed in the publication industry and how much has been driven by changing needs of the industry and how much by the arrival of the internet and digital age?

Robert Westervelt: One thing that strikes me is that in 2009 we thought we had to hunker down and that was going to be it and things were going to be bad, but now we come back 5 years later and we see \$150 billion of investment over the next two years. So one thing that strikes me is how quickly fortunes and dynamics can change. Twenty years ago, print was dynamic and mostly advertiser driven, so we had cheap subscription revenue, but now we are much more dependent on subscription and digital revenue. I think that is one of the big changes that has happened and trade magazines are not what they used to be. Now we have more readers than ever in terms of website traffic. It is not focused on the print form, but people are consuming information in many different forms and formats.

Joseph Chang: Now we have digital versions of the magazine so we have online news and keep the news summary in the weekly magazine round up. Through the years for the chemical sector itself, it is really interesting how things go in and out of fashion. In particular, in the late 1990's there were spinoffs and companies were becoming "pure plays". Then the world changed and companies were being told that diversified was good. Yet now we are back to promoting pure plays.

Peter Young: The two of you as editors have the great privilege of speaking to top CEOs around the world. Can you comment about what sentiment you are feeling from the conversations you are having with senior executives about where they feel the industry is headed, what they are excited about, and what are they worried about?

Joseph Chang: Overall, we are having good conversations with CEOs. Overall, CEOs are relatively positive and see pockets of opportunities, whether it is cheap feedstock, making acquisitions in certain areas, or integrating supply chains. Of course, there is some caution because of geopolitical concerns and an overall sluggish economy. Companies have been more cautious about capital allocation, like LyondellBasell and Westlake. They are trying to take a more disciplined approach to investing and expansion.

Robert Westervelt: Where you sit determines your view. In the U.S., I think people are very happy. With that said, there is concern out there about macroeconomic risk and political risk that cannot be quantified, such as China and Ukraine. That reflects itself in the fact that there aren't very many large deals. The deal activity is very high, but it is mostly house cleaning, tucking in businesses where they want to get stronger and selling off divisions and segments they don't like. With that said, Europe and Asia are quite different and the sentiment isn't as positive.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

M&A and Financial Trends and Their Strategic Implications

PETER YOUNG

President and Managing Director, Young & Partners



On an equity value basis, \$30.9 billion of deals greater than \$25 million in value were completed globally in the first three quarters of 2014. This is more than double the \$14.6 billion of value through the first six months.

This matches our prediction that the M&A market would strengthen considerably in the second half. On the other hand, it is well off the record \$82 billion pace in 2011. Although there were a couple of deals in the \$2 to \$3 billion range, there were no very large deals.

In terms of numbers of transactions, in the first three quarters of 2014 there were 64 deals completed compared to 59 deals completed in the first three quarters of 2013. This is an 8% increase in the number of deals completed and a pick-up in the pace compared to the first half.

CEO concerns about global economic and financial issues have constrained the pursuit of the very large deals.

Asia/ROW led in terms of the region where deals are being completed with just over 45% of the deals completed worldwide. Europe and the United States account for 33% and 22% of the total, respectively.

Asia/ROW has been in the lead for more than six years for a number of obvious reasons, ranging from the attractiveness of the growth in Asia to the gradual maturing of the Asian companies. M&A has always been less relevant in early emerging markets and becomes more important as markets achieve scale and begin to mature.

Financial buyers significantly increased their share of the number of deals completed. They accounted for 25% of the total number of deals completed and 29% of the dollar value (\$9.3 billion). This is an increase from the pace earlier this year and last year. The large amounts of unspent funds, the easy availability of low cost debt, and the lowering of equity return expectations have fueled this increase.

Looking forward, the value of deals announced but not closed as of September 30, 2014 was \$28.1 billion (40 deals) compared to \$17.7 billion (23 deals) as of June 30, 2014.

Chemical industry debt financing slowed moderately in the first three quarters of 2014, primarily due to a decrease in high yield issuance.

In the first three quarters of 2014, only \$3.8 billion of equity was issued as a result of 16 offerings by chemical companies. With strong cash flows, excess cash, access to low cost debt financing, and few large M&A deals requiring subsequent balance sheet adjustments through the issuance of equity, the chemical industry's need for public equity has been limited.

The number of chemical IPO's has also been very limited.

Outlook

Young & Partners believes the recovery of the M&A market in 2013 will continue through the end of 2014 and into 2015. M&A market volume increased from \$22 billion in 2012 to the stronger level of \$31 billion in 2013.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

We are now at an annualized pace closer to \$40 to \$45 billion, which was our prediction at the beginning of the year.

Valuations will continue to stay relatively high, coming off the significant increase last year, making it somewhat of a seller's market.

The strategic implications are straightforward. Companies contemplating the possible sale of any business, particularly those candidates that are non-core or not perfect, should pursue a sale now while we are still in a seller's/peak market. M&A peaks generally last two years or so and we are a year into the peak. But try to stay away from selling processes or divestiture structures that rob value from the seller. An auction does not always produce the best value and how you configure the business to be sold is critical.

If you are on the other side of the table and a buyer of businesses, one should look for defective sale processes or divestiture structures that create a market inefficiency in favor of the buyer.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

Case Studies in Value Creation: The Transformation of Mexichem

JUAN PABLO DEL VALLE PEROCHENA
Chairman, Mexichem SA



Today I would like to tell you about our story and where we were as a company in 2003, where we are now, and where we would like to go in the future. Mexichem is a public company with 40% floating with many investors and 60% owned by my family.

A month ago I was at a conference and I saw what Jack Welch had to say about General Helmut Von Moltke and I thought I would share it with you. Helmut Johannes Ludwig von Moltke said, "Strategy is not a lengthy action plan, but rather the evolution of a central idea through continually changing circumstances." I like this quote and this is really how Mexichem has evolved and I will try to express the central idea of Mexichem over these years.

In 2003, we were a Mexican company with 90% of our company in Mexico. We had a fluorspar mine, a salt mine, and we produced chlorine and caustic soda. We also had a steel business that we eventually sold.

In 2003, we operated in two countries, had 10 facilities, one R&D center and 1,800 employees. After continuous growth and synergies, we are now a company that operates in 31 countries, with 102 facilities, eight R&D centers, and 17,500 employees. Our revenue has grown 17 times to \$5.4 billion, our EBITDA has grown 17 times to \$863 million, and our market capitalization has grown 53 times to \$8.9 billion.

We have grown this way while sticking to a sound financial profile and have been extremely responsible with regard to our debt levels. We have never taken on a debt load that is more than 2 times EBITDA. Today we have \$2.5 billion in debt and our average maturity is 17 years. We recently issued \$750 million of investment grade bonds that will mature in 2045.

In 2004, we bought the 43% of Mexichem that was owned by Total S.A. Total, in 2004, decided that they would move completely into oil and gas and divest their petrochemical assets. Another issue at that time was the fact that my father was 65 years old and he wanted to retire. He decided to give me and my four siblings 20% each of the company and told us that we should decide what we wanted to do. Eventually, we decided that we wanted to stick together, establish some rules and try to grow the company together. Our central idea evolved to utilize and maximize the value of our raw materials like fluorspar and salt.

In 2005, we bought Quimica Fluor, a producer of hydrofluoric acid. Hydrofluoric acid is the next step in the value chain from fluorspar and this acquisition became the first step towards integrating and utilizing our cheap fluorspar. The result was that Quimica Fluor was buying fluorspar at \$300 per ton and in 18 months we were able to substitute our fluorspar instead for \$30 per ton and effectively reduced the cost by \$270 per ton.

In 2006, we sold our steel business, Camesa Aceros SA, and, as a result, we changed our holding company name to Mexichem to create a greater identity with the chemical sector. The next important step for us was to integrate into plastics and polyvinyl chlorides given our supply of chlorine. We did so by acquiring Amanco, the leader in Latin American pipes and fittings. At the same time, we acquired PETCO, a leader in vinyl manufacturing. We also acquired Geon Polimeros Andinos, a leading producer of vinyl compound which further integrated our supply chain.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

The next big step for us came in 2012 when we bought Wavin. Wavin is the leading producer of plastic pipes and fittings in Europe. The thesis was that we would produce plastics in North America where the situation was attractive and to sell into end markets all over the world to mitigate cyclicalities.

In 2013, we signed a joint venture with PEMEX for ethylene supply. Most importantly, starting in 2017, we will have 500,000 tons of ethylene from OxyChem. This last summer we acquired Duraline, a leader in polyethylene pipes. This acquisition helps us diversify our end markets into several applications, such as residential, infrastructure, water, irrigation and gas. The acquisition of Vestolit will help us improve our technology position and to continue to diversify our end markets.

So to wrap up, I am going to share some key numbers with you. We have invested \$2.8 billion in the last 5 years through acquisitions and joint ventures. We are now in 31 countries because of our growth and acquisitions. Our objective is to have zero lost time due to accidents and environmental concerns. In 2014, we issued a code of ethics that we take very seriously. We are committed to environmental sustainability, safety and community development. Mexichem's market capitalization has grown tremendously in the last decade and we hope to continue this trend. Our historical EBITDA margin has been 19.7% and our net debt to EBITDA ratio is very conservative and will continue to remain below 2.0x. Finally, we estimate that we have had a positive impact on 1.9 billion lives so far, and we hope to continue to make more people's lives better. We hope to continue to grow in a responsible manner, remain profitable, and maintain financial soundness.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

The Changing Global Chemical Industry Structure

DAVID WITTE

SVP of IHS and General Manager of IHS Chemical



I will discuss the petrochemical landscape, the major trends within the space, and what the future looks like for the petrochemical industry.

Certainly from a demand side, growth has been relatively weak and still concentrated in the developing world. The global economy has been sub-par relative to where we were before the recession. On the supply side, the industry is adapting to new energy frameworks. From an earnings point of view, crude oil prices have been putting a damper on where the party has been in 2014 versus 2015 for primary basic chemical producers.

Over the last three months I have been in five continents and 17 cities. The questions I have been asked recently have been similar and revolve around a number of issues. What is the nature of declining oil prices and the impact on OPEC, the economy, shale gas and chemicals? What is the status of China coal to chemicals? What about Chinese PDH investments? How about methanol as a feedstock for olefins and use as a fuel? What about naphtha? What is the regional and global impact with regard to balances and trade?

Let me explain by going into the fundamentals and drivers from a macro level, then delve into the industry impacts, what is happening in specific regions, and then discuss some of the key risks and sensitivities.

Since China joined WTO in 2001, we have seen China taking manufacturing market share across so many export products. Now you are seeing China pivot and focus on consumption and turning inward for growth. The U.S. is now seeing a return to an improved downstream manufacturing position. The U.S. is now the economic leader and China has slowed down, but is still growing at 7%. The Brazilian and Russian economies have faded. Although the economies of India and China have slowed down, they still have massive populations that are noteworthy.

The market is in a bit of disequilibrium. The drop in crude prices does not help, but I do not believe we have reached a steady state with regard to what is happening to crude and shale. Product mixes are changing and there are different consumers. For example, China's consumers are different than American consumers and will continue to change. Therefore, product development is changing. There is intense competition for local customers in the high-growth/value sectors.

Chemical companies are continuing to seek sustainable advantages from their feedstock positions since 60-70% of the cost of chemical production comes from one's feedstock position. In addition, chemical companies attempt to get to into markets that are close to where demand is growing and continue to use technology to improve production and create high value performance products.

In North America, the focus is still on the monetization of shale resources, whether it may be propane dehydrogenation, natural gas to propylene, or ethane to ethylene. Non-U.S. ammonia costs have increased from 2008 levels for all regions and ethylene costs have declined dramatically for the U.S. relative to others. China has shown improvement in C2 production costs due to their position in methanol to olefin conversion.

From a profit point of view, shale is shifting global chemical earnings and North America will account for an increasing share of global profits. As well, there will be \$140 billion of investment in C1, C2, C3 conversion

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

from 2014-2023 in North America. As a result of this investment and North America's shale advantage, polyethylene, polyvinyl chloride and methanol exports from North America will increase significantly.

In the Middle East, the relative cash cost of producers is still significantly lower than the rest of the world and remains highly competitive. For light feedstocks (C1,C2), the Middle East still has extremely high margins that are substantially higher than the industry averages. In mixed feedstocks (C1/C2/C3/C4/Lt. Naphtha) margins have come down, but are still very competitive and above the industry average. As for heavy feedstocks, such as naphtha, there have been drastic reductions in margins. As a result, investment decisions in naphtha have become quite difficult.

In China and the Far East, there has been significant domestic investment focused on import substitution. China has been a massive driver of demand growth. China has shifted its focus from petrochemicals to unconventional feedstock chemicals, such as coal to olefins and propane dehydrogenation, with significant investments expected from 2015-2017. North American capacity and investment, while significant, still lags China and Asia as a whole. North American capacity will increase 30% from 2013 levels and capacity additions are forecasted to peak in 2017 at 23 million metric tons. In addition, global demand will continue to grow much faster than U.S. capacity additions. World ethylene demand is expected to grow between 5-6 million metric tons per year and the U.S., on average, will add 1 million metric tons of ethylene capacity every year.

What could be different in the coming years? Certainly market access could change dramatically as a result of geopolitics or economic concerns. Any market shocks, such as economic crises and demand/price for oil and chemicals, could dramatically change the status quo and predictions. A technology disruption, such as a technology that enables rapid uptake of methane into transportation fuels, could also be highly disruptive.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

Shareholder Activists: Good, Bad, or Ugly?

PETER YOUNG

President & Managing Director, Young & Partners

For as long as there have been public markets for equities, shareholder activists have taken ownership positions in public companies and then taken action against the targeted companies for a variety of reasons.

In most cases it has been to pressure management to take certain business actions such as changes in strategies, cost reduction measures, divestitures of non-core businesses, spin-offs, increases in dividends, repurchases of shares, changes in leadership, replacement of board members, or the sale of the entire company. This is distinct from strategic or financial buyers who may initially acquire shares of a target in order to try to acquire the entire targeted company.



A large number of chemical companies have been targeted by shareholder activists over the last three years. At eleven, the number is more than any other industry over this same time period and more are coming. Examples in the U.S. include American Pacific (Cornwall Capital), Ashland Chemical (Jana Partners), Ferro (FrontFour Capital Group and Quinpario Partners), Air Products (Pershing Square), Calgon Carbon (Starboard), DuPont (Triam), Dow Chemical (Third Point), LSB Industries (Engine Capital), and Omnova Solutions (Barrington Capital).

Although the targets have been almost entirely U.S. companies, there have been at least two exceptions, Agrium (Jana Partners – 2013, ValueAct – 2014), and DSM (Third Point).

In each case, the companies have had to deal with the activist and have reacted in a number of different ways.

A Short History

Activist/hedge funds have been most active in the U.S. and Canada due to the more open corporate governance structure and the nature of the regulatory environment. Europe is more challenging due to widespread family and government ownership of companies and extensive local regulations, with the UK being the easiest location in Europe. Most other countries such as Japan and Korea are highly challenging environments for activists.

Traditionally the chemical industry was not a target of shareholder activists because of the nature of its products, the environmental regulatory considerations, the cyclicity of commodity chemicals, and the integration of many business units with each other – making it difficult to sell or spin off individual businesses.

However, the long periods of undervalued chemical share prices and the industry's strong cash flows ultimately attracted shareholder activists in the 1980s such as Harold Simmons, who targeted Georgia Gulf, and Sam Heyman, who targeted GAF, Union Carbide, Hercules and Dexter. Their track record was a mixture of successes and failures.

Since then, there has been an increasing comfort level by shareholder activists in the chemical industry and the tools available in chemicals to enhance shareholder value.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

But the motives and the perceived opportunities in the current chemical industry activist shareholder situations vary greatly.

Advice to Management

It is our belief that less than half of the shareholder activists have been or will be successful.

The activist campaigns that have been the most successful are those where the shareholder has sufficient clout and there are legitimate actions that the company can take that the shareholder activist is promoting that will significantly improve the company operationally, strategically or with regard to its equity value in the public or M&A markets. The ones that have failed have been situations where the activist shareholder does not have sufficient clout/leverage to cause the company to consider constructive changes or where the basic value creation premise of the activist shareholder is false.

How should senior management and the board of directors react when they believe or know that a shareholder activist has taken a stake in the company?

First, there is a tendency for companies to overreact. Targeted companies tend to feel threatened and ascribe more clout to the activist shareholders than the activists actually have. After all, it is very difficult to put directors on the board of a public company (with staggered boards, the proxy and nomination process, and the fact that board seats only change once a year generally at the annual meeting), and only the board can change the CEO of the company.

Second, companies should, as a standard practice, put in place legitimate devices such as poison pills before any actual shareholder activist actions or, for that matter, before attempts are made to acquire the company by any party.

Third, any shareholder should be treated respectfully and thoughtfully as an owner of the company. However, great care should be taken not to give one shareholder more rights or value than what is available to the broader set of shareholders of the company. It is the duty of the board to protect the interests of all shareholders. The board also must recognize that they have a duty to other company stakeholders as well.

Fourth, targeted companies should consider suggestions that the activist shareholder may make, but, in the end, senior management and the board should not take actions that are perceived to entrench existing management, cater to short-term benefits that could accrue to the shareholders or to the specific activist shareholder, and be willing at times to just say "no" if what is being proposed does not make sense.

Fifth, it is important to hire an investment banking firm, such as Young & Partners, to review your company's situation with regard to shareholder value and company structure, determine whether you are vulnerable to a potential attack by a shareholder activist on either a legitimate or illegitimate basis, and make changes that make sense proactively instead of defensively.

Such a review, at a minimum, will help you identify where you are vulnerable and to take actions that will protect you and your shareholders, make changes where legitimate arguments exist, establish lines of communication across all stakeholders and the media, and be prepared to react in a more thoughtful and timely manner. It is critical to use a firm that has the right blend of chemical industry investment banking expertise and does not have the conflicts of interest that most investment banks have.

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

Speaker Roundtable – Selected Questions and Answers

Moderator: Peter Young, President and Managing Director, Young & Partners

Participants: Conference Speakers and Guests

Peter Young (Young & Partners): Question - A number of our speakers expressed their opinions about chemical industry investment in the United States and North America. What is your perspective on China, India and the rest of developing Asia as a region for investment and expansion? How has it changed from the recent past?

Joseph Chang (ICIS Chemical Business): It is really interesting to look at the expansions in China and India and the fact that very few are being undertaken by Western producers of olefins. It could be interesting to look at coal to olefins production given the low Chinese cost position. I think you will continue to see Chinese and Indian companies importing shale gas.

Juan Pablo del Valle Perochena (Mexichem): For us, there is a lot of opportunity in the U.S. and the rest of North America. We see Asia and Africa as great places for downstream applications that are not as capital intensive. For example, with Duraline, we are thinking of doing downstream expansions in India for telecom applications. Would we do something radical as far as an upstream business in China? No, not at all.

David Witte (IHS Consulting): Certainly you see a lot more investment in China, whether it is BASF or Bayer. The investment on the upstream side has slowed down quite a bit. The state owned oil companies that were bringing in Western technologies are now doing it themselves and do not need investment from outsiders. India has been a different beast and especially difficult for outsiders. There is a little more excitement around the new president, Narendra Modi, because of his pro-business views, but it is still quite uncertain.

Peter Young (Young & Partners): Question - We talked a little bit about the M&A market, but does anyone have any comments on the M&A market with regard to the frenzied private equity activity or other thoughts more generally on M&A?

Joseph Chang (ICIS Chemical Business): You still see plenty of private equity activity in the chemicals sector. There is no lack of funds to put to work. For example, SK Capital just closed a \$1 billion fund and they are going to be targeting carve outs and orphan businesses that large multinational companies do not want. The returns some of them have generated have attracted more private equity money and now they have to put it to work.

Rob Westervelt (IHS Chemical Week): SK Capital just closed a fund and Arsenal is about to close a new fund, so I think for private equity you are seeing the "Apollo" effect. People are seeing home runs like Lyondell and this is continuing to attract investment.

Juan Pablo del Valle Perochena (Mexichem): Private equity, from our perspective, is a great option for strategic companies who want to take on new projects but do not want to take on as much risk. Private equity also can help companies improve operations and turn less successful companies into stronger companies. Of course, there are investors whose goals are not aligned with a company.

Peter Young (Young & Partners): Question - Mexichem has obviously been extremely successful in M&A while at the same time maintaining a stable financial structure, so my question is, how have you been able to

YOUNG & PARTNERS

27th Annual Senior Chemical Executive Conference

navigate the M&A terrain and remain competitive while at the same time remaining financially conservative? Many people are often outbid, but you seem to have been able to get the assets you want.

Juan Pablo del Valle Perochena (Mexichem): I think part of the answer is that we are very focused on what we want to do. The central idea is that we are interested in chlorvinyls, ethylene, and fluor-related things that represent significant synergies for us. We will pay high prices for those because it makes sense for us. Anything outside of our central thesis is not of interest to us and we remain very disciplined.

Peter Young (Young & Partners): Question - What industry structural changes have you seen in the last five years that have affected the industry or that you expect to happen in the future?

Dave Witte (IHS Chemical Week): I think you have to look at some of the geographic markets to see the changes. I mentioned the Chinese market earlier and if you look at the change over the last 20 years it has been significant. Companies have gone from state-owned-enterprises to multinational and state-owned enterprises. Also, companies have been taking domestic profits and investing it elsewhere including the United States.

Juan Pablo del Valle Perochena (Mexichem): I think it is much easier to do business in North America than other markets. For example, doing business in Europe today is much more difficult than 10 years ago due to the rules, policies, and environmental concerns, among others. I think there is a fundamental shift into North America that is independent of the shale gas boom.

Frederic Jung (Arizona Chemical): Europe has been extremely difficult to operate in due to policies and regulations as well as a lack of demand. In addition, China is too close to Europe and their products derived from naphtha find their way into Europe and make it very difficult to operate.