

YOUNG & PARTNERS
25th Annual Senior Chemical Executive Conference

Conference Agenda

“Strategic, Financial and Shareholder Issues For Chemical Executives”

November 13, 2012

The Yale Club at 50 Vanderbilt Avenue - New York City

- 11:30 a.m. **Registration – Trumbull Room**
- 12:00 p.m. **Luncheon and Welcoming Comments**

 The State of the Chemical Industry: Strategic, M&A and Financial
 Peter Young, President and Managing Director, *Young & Partners*
- 1:00 p.m. **The Role of Shale Gas in the Reshaping of North American Chemicals**
 Peter L. Cella, President & CEO, *Chevron Phillips Chemical Company LP*
- 1:45 p.m. **The Economy and the Chemical Industry**
 Dr. Thomas Kevin Swift, Chief Economist and Managing Director, *American Chemistry Council*
- 2:15 p.m. **A Tour of Asia – Markets Dynamics and Strategies Impacting Global Chemicals**
 Dave H. Witte, General Manager, Chemical Industry Consulting, *IHS*
- 2:45 p.m. **The Stock Market’s View of Chemical Equities**
 Sergey A. Vasnetsov, Senior Vice President, Strategic Planning and Transactions, *LyondellBasell*
- 3:15 p.m. **The Evolving Roles and Strategies of Private Equity**
 Peter Young, President and Managing Director, *Young & Partners*
 Brian R. Hoesterey, Partner, *AEA Investors LP*
- 4:00 p.m. **Innovation and Technology in Latin America**
 Ruben A. Migone, Ph.D., Technology & Catalysis Manager, *Braskem Americas, Inc.*
- 4:30 p.m. **Speaker Roundtable**
 Moderator: Peter Young, President and Managing Director, *Young & Partners*
 Participants: Conference Speakers
- 5:30 p.m. **Cocktail Reception – Saybrook Room**
- 6:30 p.m. **Dinner – Saybrook Room**

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Speaker Presentation Summaries

(Summaries were prepared by Young & Partners and were not reviewed by the speakers)

LUNCHEON and WELCOMING COMMENTS

The State of the Chemical Industry: Strategic, M&A and Financial

PETER YOUNG

President and Managing Director, Young & Partners



After the global financial/economic crisis in 2008-9, the global economy and financial system stabilized as a result of extraordinary governmental intervention. Governments around the world lowered interest rates, provided massive stimulus programs, pumped extensive liquidity into their financial systems and provided rescue loans for countries in financial trouble.

Economic growth revived in the emerging markets and slower growth returned in the US, Europe and Japan. However, unstable economic and financial conditions persist on many fronts.

Economic growth has slowed, particularly in Europe and China. National, state and local government deficits and debt levels are extremely high around the world. Government spending cuts and tax increases adopted by many countries are contributing to slower economic growth. Banks are facing increases in capital requirements and a need to raise equity in a difficult environment. The U.S. is facing an impending "fiscal cliff" at the end of this year as the Bush-era tax cuts expire and the compromise budget process has resulted in potential automatic spending cuts in an election year stalemate in Washington. In Europe the sovereign debt and economic crisis is particularly severe and the European governments and financial institutions are struggling to craft a solution.

The situation is partly different for the chemical industry. Over the last few years, cash flows have been strong and many companies have been accumulating cash.

Structural positives that have been benefiting the industry

- The dramatic increase in shale oil and gas supplies in the U.S. has benefited U.S. chemical companies in terms of both raw material and energy costs. This could spread to other countries.
- Capacity utilization for commodity chemicals has remained high.
- Chemical companies have been reluctant to add capacity and the supply from the Middle East has been less than expected.
- Export-driven demand in Asia and an economic recovery in the West, albeit fragile, created some stability of demand.

But the more recent downturn in economic growth has begun to erode pricing and affect earnings. The key issue affecting the health of the chemical industry going forward is whether the fragile global economic and financial conditions remain stable or are severely and negatively disrupted.

From a stock market point of view, in the first three quarters of 2012, the S&P 500 did well, increasing by 13%, while the FTSE Euro Top 100 did not fare as well with only a 4% increase. The chemical industry as a whole performed well in the first three quarters of 2012 on an absolute and on a relative basis compared to the S&P 500.

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In terms of the chemical M&A market, on an equity value basis, only \$16.2 billion of deals were completed globally in the first three quarters of 2012 versus \$64.4 billion in the first three quarters of 2011. This a very significant slowdown in dollar terms, a reflection of reduced numbers of deals and very few large deals. There were only four deals over \$1 billion in value completed in the first three quarters compared to 17 for all of 2011. In terms of numbers of transactions, in the first three quarters of 2012 there were 46 deals completed compared to 61 deals completed in the first three quarters of 2011. This represents a moderate slowdown or 25% reduction from last year.

Lastly, with regard to debt financing, there was a noticeable up tick in chemical industry debt financings during the first three quarters of 2012. Global non-bank debt financing was strong, with \$20.6 billion issued in the first three quarters of 2012 versus \$8.2 billion for the first three quarters of 2011. High yield debt issuance revived (except in Europe) and did particularly well, with \$10.7 billion issued in the first three quarters of 2012.

Equity issuance continued to be weak. In the first three quarters of 2012, a mere \$2.4 billion of equity was issued as a result of only 10 offerings by chemical companies.

The outlook for M&A will continue to be a slower period compared to 2011 and financing will continue to be strong overall for debt financing, with some volatility in high yield, and equity financing will continue its historically weak performance.

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The Role of Shale Gas in the Reshaping of North American Chemicals

PETER L. CELLA

President & CEO, Chevron Phillips Chemical Company LP

Chevron Phillips Chemical Company LP is a 50/50 joint venture between Chevron Corporation and Phillips 66. We are one of the world's top producers of olefins and polyolefins and a leading supplier of aromatics, alphaolefins, styrenics, and specialty chemicals. With the recent startup of our Saudi Arabian joint venture petrochemical complex, Saudi Polymers Company, CP Chemical became the largest equity producer of high density polyethylene in the world. We own more than 9 billion dollars in assets which generated 14 billion dollars in revenue in 2011.

Every year we market 10 million tons of polymers to more than 3000 customers in 126 countries around the world. We have ambitious plans to grow our facilities and capabilities thanks to the development of a new feedstock we call shale hydrocarbons.

In the last six years the prices of natural gas and crude oil have diverged from near parity to a situation where the price of crude oil is five times that of natural gas on an equivalent basis. If you are operating in an industry which relies on natural gas to meet your energy needs, or uses a feedstock whose pricing is based on that of natural gas, this is cause for celebration. This is the current situation for US petrochemical producers today. While the global economic environment has slowed in recent years, we see US chemical companies or US arms of global chemical companies enjoying strong margins and making plans for expansion.

While \$3 per million BTU natural gas is a boon to the petrochemical industry, if we are to take full advantage of this new source of energy and/or raw material, we must ensure that all participants in the value chain share in the benefits. We must ensure that the value chain is sustainable over a long period of time and that all of those members of the value chain can maintain margins which enable them to continue to invest in shale hydrocarbon. If all levels within the value chain are not afforded an appropriate return on investment, the supply of natural gas will likely experience disruptions. The current price of natural gas has hurt the profitability of investments in shale natural gas extraction. The potential for returns in wet gas or oil drilling plays is now much higher. As you might expect, drilling rigs follow returns, and thus the number of rigs drilling for wet gas or oil outnumber those drilling for natural gas by a ratio of about 3 to 1. Lower returns mean less drilling for natural gas, which in turn reduces its supply.

However, we believe that, although the supply of natural gas may experience a reduction in the short term, economics will take hold and as supply decreases, prices will rise to a level where investment in natural gas extraction is lucrative. In addition, consumers of natural gas, companies such as power utilities have been and are converting their facilities to utilize natural gas to produce power. The low cost of natural gas and more favorable environmental profile have made conversion to its use attractive. We feel both basic economics and increases in demand at the midstream and downstream level will provide sustainable pricing throughout the value chain.

At Chevron Phillips Chemical, we are extremely excited about the emergence of shale hydrocarbons as a domestic, low cost feedstock for the production of ethane and are in the midst of a large capital investment which will take advantage of the current and future economics and availability of natural gas. Our investment, which we call the US Gulf Coast Petrochemicals Project, includes a 1,500 KTA purity ethane cracker at our Baytown, Texas facility and two 500 KTA polyethylene units in Old Ocean, Texas. This investment will cost



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about 5 billion dollars and will create about 10,000 construction and engineering jobs and 400 long term positions.

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The Economy and the Chemical Industry

THOMAS KEVIN SWIFT

Chief Economist and Managing Director, American Chemistry Council



Looking back over the past 5 years we have been through a major global recession and a recovery. However, in a number of countries we are still facing a difficult and uncertain economic environment going forward.

Moving on more specifically to the US economy, in terms of drivers of economic activity, I prefer to use the shopping cart analogy where the four wheels are incomes, sales, production, and employment. When all four wheels of a cart are functioning properly, the cart moves rather effortlessly. However, when one or more wheels malfunction or fall off, other wheels can become affected and the shopping cart is impaired.

A recession such as what we have recently experienced occurs when a decline in a measure of aggregate economic activity initiates declines in the other measures of activity. When a drop in business sales causes a drop in production, it triggers declines in employment and income, which in turn feed back into a further fall in business sales. A domino effect or vicious cycle results and a recession ensues. At some point, the vicious cycle is broken and a self-reinforcing virtuous cycle begins, with increases in output, employment, income and sales feeding into each other. This is what marks a business cycle expansion. The latest expansion began in June 2009.

Moving around the shopping cart looking at the most recent recovery from recession we begin with Personal Incomes. Personal Incomes have recovered to an extent but have lagged and remain lower than other economic indicators. Business sales have recovered nicely and a somewhat v-shaped recovery is under way. This has led to very solid Industrial Production which has improved more quickly than during recoveries from the two most recent recessions. Employment, as you might expect, has recovered in a similar fashion as Personal Incomes. In terms of the shopping cart, most wheels are functioning, with only employment and personal incomes slightly off track. Some have called this a "jobless recovery".

Other economic indicators which signal a recovery from recession include an up-tick in housing starts and permits as well as a very solid recovery in light vehicle sales. While these are encouraging trends, the country is still facing economic and political uncertainty. On the horizon we see the fiscal cliff and battles over the debt ceiling and tax reform. Uncertainty with regard to these issues can cause firms to cut back or defer hiring decisions, and consumers to put off buying new goods.

Focusing for a minute specifically on the chemical industry, I must highlight that the emergence of shale gas has been and could continue to be a manufacturing game changer. Shale gas will help revive American manufacturing and create hundreds of thousands of jobs. The new economics of shale gas create a competitive advantage for US manufacturers, which will lead to greater investment, job creation and economic growth. This oil and gas boom represents a positive shock to the US economy. Long-term economic growth potential could be boosted by 0.3 to 0.8% per annum.

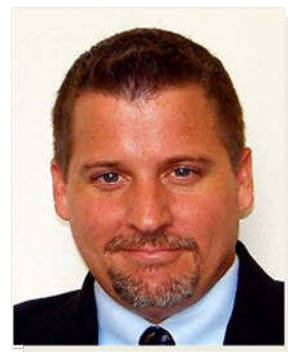
The US economy is slowly recovering from the Great Recession. Exports and business investment are slowing as of late, but housing and light vehicles are improving, with additional bright spots in oil and gas. Unfortunately, there are still many dark clouds lingering over the economy. Global leaders are worried about several problems, including a deeper European recession or new debt crisis, a harder slowdown in the Chinese and other emerging market economies, and looming US debt and deficit problems.

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A Tour of Asia – Markets Dynamics and Strategies Impacting Global Chemicals

DAVID H. WITTE
General Manager, Chemical Industry Consulting IHS



The Importance of Asia cannot be overstated. Asia will be the most important market for the global chemical industry, and China will continue to be the major driver within Asia for at least the next decade. Population and economic growth are driving Asia to a greater than 50% share in industry capacity and demand. Centers of Asian demand growth are China, India, & Southeast Asia. These locations will continue to thrive long-term and other parts of the world must adjust their strategies toward a maturing and more globalized industry

Asia's disposable income will grow, increasing consumption and changing the nature of the chemical product mix, and while a large share of capacity will be centered in low-cost hydrocarbon-rich centers such as the US, more than 50% of global capacity will also be centered in Asia. As you all know, Asian countries initially used low cost manufacturing to gain a significant share of manufactured goods. As a result, the petrochemical industry grew in order to supply these manufacturers. It is our expectation that a significant amount of future growth will be driven by domestic Asian consumption.

With regard to China, which is the largest and most important Asian country economically, the latest Chinese government 5 year plan included a goal to enhance the chemical industry, which includes developing key integrated petrochemical clusters in strategic locations, enhancing the industry's competitiveness, controlling excess investment in energy-intensive and high-pollution sectors including urea, soda ash, carbide, PVC and methanol, and controlling coal-chemical project development in an orderly fashion. In addition, China has made it an initiative to utilize the country's major coal reserves. They are taking advantage of the abundant resource by employing coal to olefin conversion. As a result there are a large number of projects all around China focused on coal chemistry.

Looking at prospects for foreign players within China, their role will shift over time, but there is and will remain going forward many opportunities for investment. Foreign players will be able to leverage their strengths in low cost position, high product quality, excellent service, and leading technologies. While in the short-term the market is depressed by weak demand and excess supply, longer-term demand growth outlook remains strong.

As we look at the rest of Asia, there are some significant differences country by country. In general, in northern Asia, chemical companies will continue to rely heavily on exports into China, and will depend heavily on technology advantages and a shift towards specialty chemicals.

Singapore will continue to be a major business friendly center for refineries and petrochemicals. Clearly the advantage has been strong government support and infrastructure rather than a feedstock advantage.

Thailand's cheap feedstock and integration have been the keys to success for the Thai chemical industry. Within Thailand there will be continued expansion of ethane, naphtha, etc, as well as a movement downstream.

Malaysia is expecting moderate long term growth. The country produces some high-value end products. Many firms within Malaysia, such as Petronas, rely heavily on certain advantages such cheap gas feedstocks and diverse end-use products.

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Within the Philippines, although they do expect growth, they do have disadvantages such as a lack of feedstock and the small size of their market.

With regard to Vietnam, we see a rapidly growing manufacturing sector due to open foreign investment and cheap labor and the government emphasizing refining and petrochemical investments.

Opportunities within Australia will be limited due to unionized workforces, state and federal regulations, foreign exchange fluctuations between the Aussie dollar and the US dollar, and an early adoption of carbon taxes and trading schemes. While there are many obstacles to successful chemical projects and/or investments within Australia, the country does also enjoy some positive aspects such as availability of gas feedstocks, its proximity to Asian markets, sufficient salt supply for chlor-alkali products, and available caustic disposition.

With regard to India, while there is a growing population and expected long-term growth in domestic demand, the country suffers from a number of disadvantages including lack of feedstocks.

In general, we believe companies should follow a strategy which involves a focus on rapid demand and investment growth in China, India, and Southeast Asia, increasing cost competitiveness via integration with upstream and refining or leveraging lower cost feedstocks such as coal, and upgrading product portfolio into specialties or value-added commodities.

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The Stock Market's View of Chemical Equities

SERGEI A. VASNETSOV

Senior Vice President, Strategic Planning and Transactions, LyondellBasell



Chemical equities are more diverse than I have seen in many years. Originally chemicals equities were petrochemicals and specialty chemicals. More recently I have seen an emergence of agrochemical equities being covered due to fertilizers being reclassified as chemicals. Today a typical chemical equity analyst is covering many different companies across many different sectors.

Over the past year and a half chemical equity performance has really been driven more by macro events such as the global recession and political situations than industry-specific performance. Therefore it is challenging for equity analysts to really pick out differentiating factors of certain companies over others. In this environment investors have significant challenges in outperforming the broader market and therefore many individual investors have been taking money out of individual stocks and putting it into ETFs and low cost mutual funds.

Shale gas is a relatively new trend and I would attribute the boom specifically to March of 2008. Investors did not notice this boom because they were more focused on the destruction of the financial sector and the onset of a global recession. The shale gas boom is a boon to the chemical industry, and the only question now is how long will low prices of natural gas feedstocks last.

Looking at chemical equities, I have seen a growing trend in that investors do not understand the free cash flow which chemical companies generate and do not reward them as such. Chemical companies generate significant free cash flow and many analysts on Wall Street are not looking at this aspect of the industry in the right way. Many investors feel that this cash should be returned to investors in the form of share buybacks or dividends when in actuality the best use of cash for chemical companies, in my opinion, is to invest in new projects and infrastructure.

The chemical industry on the whole is in a very strong position. Balance sheets are in good shape and cash flow is strong. One worry about the industry is growth. However, this is an issue holding back the broader markets and most industries.

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The Evolving Roles and Strategies of Private Equity

PETER YOUNG

President and Managing Director, Young & Partners



Leveraged buyouts were first conceived after World War II, but became popular in the 1970's and 1980's. They generally involved businesses with some combination of the following: steady cash flows, significant profit improvement potential through cost cutting and other means, the potential for follow-on consolidation acquisitions, break-up values in excess of the purchase value, and multiple exit options (sale, IPO, 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 the financial buyers in the early years.

This was due to the greater complexity of the industry, the need to understand environmental issues, the cyclicity of commodity chemicals, the high prices of specialty chemical businesses and the industry's weak public image.

The early pioneers of chemical industry LBOs were Gordon Cain, D. George Harris, and others. But the number of chemical LBO transactions completed each year was low and the competition for deals very limited. The main factors that favored early chemical industry LBOs were the long history of easy access to the debt markets, the regular supply of high overhead orphaned and diversified businesses from large companies, and the attractive values during the trough periods of the chemical M&A cycle.

It is a commonly held belief that LBOs have been numerous in the chemical industry for years, but the reality is that financial buyers have only been highly active since 2000. Prior to that time, industrial buyers generally outbid the financial buyers and financial buyer interest was modest. For example, financial buyers were the successful buyers of only 4% to 8% of all deals sold each year from 1996 to 1999.

As the chemical M&A market peaked in mid-1999 and industrial buyers began to retreat, the financial buyers stepped in. As a result, financial buyers increased their share to a range of 20% to 28% each year from 2000 to 2005. This has fallen to around 15% since then.

They have been particularly successful where the industrial buyers have either retreated or are legally unable to compete, such as diversified businesses where industrial buyers have business fit problems or pure play targets where the anti-trust considerations prohibit the major industry players from bidding.

There have been a sufficient number of success stories at this point that financial sponsors feel, as a group, that the sector is an attractive one to either include in their industry target list or, in a few cases, to specialize in.

However, the financial sponsors will always be at the mercy of the debt markets, the level of competition from strategic buyers, and their ability to create value through various means such as improving profitability and executing growth (organically and through acquisitions).

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The Evolving Roles and Strategies of Private Equity

BRIAN R. HOESTEREY
Partner, AEA Investors LP



AEA is a private international private equity firm. The firm currently manages over 6 billion dollars across all lines of business with a total of over 100 employees. The firm is made up of three segments, including a middle market private equity segment with three current active funds, a small business private equity segment with two current active funds, and a private debt segment with four currently active funds.

AEA focuses on selected industry sectors, one of which has been specialty chemicals. Examples of AEA specialty chemical investments have been Noveon, Symrise, Houghton, and Sovereign Specialty Chemicals.

With regard to our investment philosophy we focus in sectors where we have deep industry knowledge and significant relationships. AEA Operating Partners bring significant knowledge and expertise to our investments. We place an emphasis on utilizing platform investments where we invest in an original company and help the company expand geographically and economically via bolt-on acquisitions and organic growth. Our typical investment horizon is 3 – 5 years, but it has ranged anywhere from 18 months to 11 years. The timing of our exit is based on our assessment of investment value generated as well as future growth of the company.

The general perception of private equity firms is that they receive and/or focus on generating the bulk of their returns from the pay-down of debt. However, for AEA the largest amount of value creation historically has come via economic growth. After growth, value creation has come respectively from multiple expansion, margin improvement and lastly, from debt pay-down.

The role of private equity within the chemical industry has evolved over the last 15 years. When I started making private equity investments in chemicals there were a limited number of private equity firms in the space and there were very few success stories. Most private equity investments at the time were corporate carve-outs or public-to-private situations. Chemical firms at the time had high private market valuations. There were very few market advisors geared to assist with private equity investments in chemical firms, and very few chemicals managers with any private equity experience. In addition, at the time the public markets were a very popular exit option for chemical company investments.

Things have changed quite a bit since then. Today there are a large number of private equity firms investing in chemicals businesses. The results for private equity firm chemical investments have been mixed, but overall returns in the sector are better than average. There are a large number of secondary buyouts and a new wave of public-to-private investments on the horizon. Today there are many market advisors targeting private equity and more chemicals managers with private equity experience. Public markets today have become a less attractive exit option, but strategic, sponsor and recapitalization options remain possible.

As far as lessons for private equity investors in the chemical space go I have compiled a few. First, one must have a plan for the business in 3-5 year increments. Don't focus too much on the short term and lose sight of strategic goals which take time to develop and achieve. Have a group of very talented managers internally and

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externally. Focus on the balance sheet and cash flows, not simply the P&L, and spend the majority of monthly or quarterly reviews on strategic initiatives and talent management and succession planning, not past financials.

Innovation & Technology in Latin America

RUBEN A. MIGONE, Ph.D.
Technology and Catalysis Manager, Braskem Americas, Inc.



The emergence of Braskem began with a company called Odebrecht, a Brazilian company focused in engineering and construction which decided to enter the petrochemicals market in 1979. During the 1980s, Odebrecht acquired stakes in Salgema, a chlor-alkali manufacturer; Poliolefinas, a polyethylene producer; PPH, a polypropylene producer; and Unipar, a petrochemical company. In the 1990s the Brazilian government began privatizing the petrochemical industry and under this privatization program, Odebrecht was able to expand via additional acquisitions. In 2002 Braskem was formed through the consolidation of six chemical companies. Throughout the decade from 2000 to 2010 Braskem became a market leader and a major innovator in the production of polyethylene, polypropylene, and PVC via organic growth, acquisition, and partnerships such as with Petrobras.

Brazil has been a very successful and lucrative place for the innovation and the development of the chemical industry. A particular area of strength and future growth is in biopolymers. Part of this is due to the fact that Brazil has significant resources for the production of bio-based feedstocks such as sugarcane. This has an advantage both for the Brazilian chemical industry in terms of growth, but also the positive connotation that goes along with “green” chemicals.

Braskem has a unique way of managing its R&D and innovation activities. This has been a foundation for its success in becoming a leader in biopolymers. One example of Braskem’s success in biopolymers and a reason why we will be successful going forward is the green polyethylene cycle. This cycle begins with sugarcane. The sugarcane crop, which is abundant within Brazil, metabolizes CO₂ to produce sucrose. At a distillery the sucrose is fermented and distilled to produce ethanol, and through dehydration the ethanol is transformed into ethylene. The ethylene is then polymerized into polyethylene production units, and the “green” polyethylene is then transformed into final products which are 100% recyclable.