



## FEEDSTOCK, PETROCHEMICAL AND POLYMER PRICE AND MARGIN FORECASTS THROUGH 2012 (AND 2020) – March, 2008 *EDITION*

- U.S. Gulf Coast Forecasts
- Internally Consistent Models and Data
- Three Scenarios, Including Deflation Impacts

### Key Questions Addressed by Probe's New Price Forecasting Study:

How much longer will the current peak in petrochemical margins last? Will the increased role of overseas governments in the petrochemical industry change the industry's characteristic cycle?

When will the next margin peak occur? Will all chemicals and polymers share equally, with the same timing? If not, which ones will do better?

Has North America lost its petrochemical competitive advantage forever, or will there be a comeback? How will the falling dollar help?

Is North America more competitive in propylene and BTX? Why are BTX prices so high now? What is the role of gasoline regulation?

What will ethanol and other biofuels do to chemical prices?

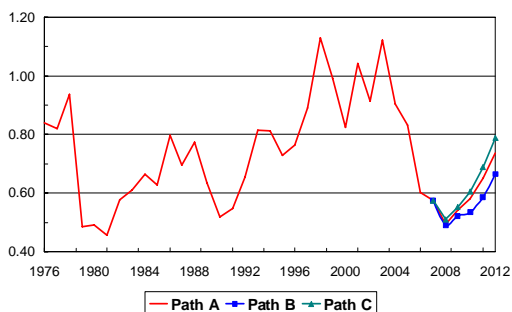
What are the main determinants of chemical and polymer prices – feedstock costs or margins? How high will feedstock costs go?

Are oil and gas becoming permanently scarce, or is the energy industry just in another cycle?

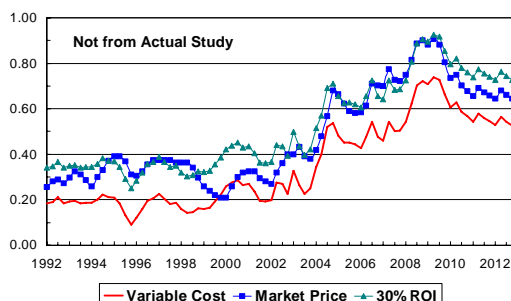
What determines chemical margins? The economy? Feedstock costs? The strongest producer? The weakest one? The industry's capital investment behavior?

What will happen to the prices of by-product chemicals that are becoming oversupplied, including butadiene and acetone? Will benzene become one of those chemicals?

RATIO OF NY GAS TO NY #2 FUEL ON A BTU BASIS



ECONOMICS OF PHENOL BY CUMENE OXIDATION  
PATH A (DOLLARS PER POUND)





## The Probe Approach: Global, Strategic, Consistent, Eclectic

Petrochemical and polymer pricing remains as volatile as ever. Supply is long; so outages and spates of speculative buying are a thing of the past -- but for how long? Falling energy costs have pulled the rug out from under chemical prices, but they could turn around in a heart-beat, given their sensitivity to geopolitical events. How will these forces resolve themselves in the future, and what are the implications for petrochemical pricing and margins?

Probe's latest edition of **Feedstock, Petrochemical and Polymer Price and Margin Forecasts** answers these questions clearly and concisely. To find the answers, Probe has developed the perfect hybrid approach: powerful industry modeling, tempered by two decades of advising and forecasting in the chemical and energy industries. Probe's insights will help you, whether you are deciding about a capacity expansion, purchasing contract or marketing plan.

This is how the Probe approach differs from more traditional analyses:

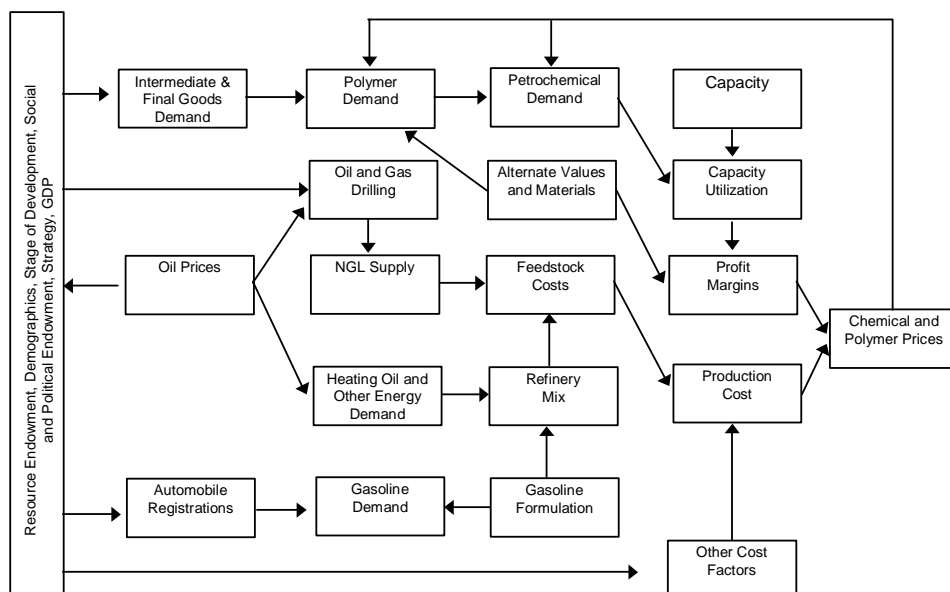
**It is Global.** Probe made its mark with its extensive global assessments of the world chemical industry. We understand the underlying fundamentals of global economics and trading patterns for chemicals like methanol, styrene and polyethylene, and know how to simplify analyses so you can see the big picture -- one you can act on -- instead of page after page of superfluous detail.

**It is Strategic.** Decisions to build an ethylene unit or sign a long-term contract take years to play out. Companies must live with their mistakes well into the future, so they need a strategic analysis that does not just use past trends and conventional wisdom to forecast volumes, prices or margins. Companies that do not look further and deeper during a time of structural change are asking for trouble.

**It is Consistent.** When you trace back the logic of many studies, they are simply not consistent. With scores of interacting variables, only a comprehensive economic model can separate cause from effect and balance competing forces. Probe's world chemical, energy and general economic model includes all external factors and sectoral interactions. Our forecasts consider a range of possible environmental regulations, energy policies, and economic scenarios.

**It is Eclectic.** Economic models that are not tempered by experience and common sense can be misleading. Probe never falls into that trap. Probe has been forecasting energy and petrochemical markets for two decades, and the authors of this study have many years of experience in the field. We bring an eclectic mixture of skills and insights to this report that is not easily duplicated by other consultants or planning staffs.

### PROBE FEEDSTOCK/CHEMICAL/POLYMER PRICING MODEL





## FEEDSTOCK, PETROCHEMICAL AND POLYMER PRICE AND MARGIN FORECASTS THROUGH 2012

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**PROBE ECONOMICS, INC.**

### ABOUT PROBE

**Probe Economics, Inc.**, has provided chemical industry forecasting and consulting services since 1976. Probe combines state-of-the-art industry models with many years of industry experience. Our professionals have held senior operating, staff or teaching positions in industry, government, academia and consulting. For more information, visit our website, at [www.probeeconomics.com](http://www.probeeconomics.com). Key personnel working on this study include:

**John E. Johnson** has analyzed world energy, feedstock, and petrochemical markets for more than 30 years. Before joining Probe, he served Union Carbide as Manager of Hydrocarbon Supply Planning, and held various policy and engineering positions. John received an M.S. in Chemical Engineering from University of Wisconsin, and was a guest researcher at Oak Ridge National Laboratories.

**Frederick M. Peterson** has 28 years of experience with chemical industry forecasting, strategic analyses and consulting. Prior to serving on the staffs of the President's Council of Economic Advisers and Council on Environmental Quality, he was a sales representative with Stauffer Chemical. He received a B.S. in Chemical Engineering at Berkeley, earned a Ph.D. in Economics at Princeton, and taught at University of Maryland.

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