

# ***Petroleum and Petrochemicals Economics Program: Petrochemical Market Dynamics***

## ***Polyolefins 2012***

Polyolefins 2012 is one in a series of reports published annually as part of the Petroleum and Petrochemical Economics program.

This report provides an in-depth analysis and forecast of key polyolefins including low density polyethylene (LDPE), linear low density polyethylene (LLDPE), high density polyethylene (HDPE) and polypropylene (PP).

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# Abstract

Global polyolefins demand in 2011 surpassed 125 million tons, after growth of just over 3 percent from 2010.

Following a global market contraction of almost four percent in 2008, Asia staged a major recovery in 2009, while demand in Europe and the Americas continued to fall. The return to growth, coupled with re-stocking in 2010 brought the global market well above pre-crisis levels.

Polyolefin consumption growth is driven by economic growth, as measured by GDP or, in more developed economies, by industrial production indices and consumer consumption. Economic growth tends to be volatile and somewhat cyclical. Polymer consumption tends to experience greater amplitude of volatility than that of the underlying economy, due in part to the cyclical building and reduction of inventories throughout the value chain. This phenomenon was particularly exaggerated in 2008 as a result of the collapse in crude oil and polymer prices from record levels.

The global polyolefins market has become increasingly dependent on Chinese demand growth, therefore the economic controls imposed by the Chinese government have become of global importance. In 2009, polyolefins consumption in China increased by nearly 6 million tons, while consumption in the rest of the world decreased by just over 2 million tons. In 2011, the situation has reversed Chinese consumption grew by 1.5 million tons, while the rest of the world grew by nearly 2.5 million tons. The measures taken by the Chinese government to contain inflation and property prices have involved a significant reduction in the availability of credit. The result of this, coupled with very weak demand for manufactured goods from Europe, resulted in slower growth in 2011 and uncertain demand for polymers during 2012.

The global market is anticipated to exceed 130 million tons by the end of 2012.

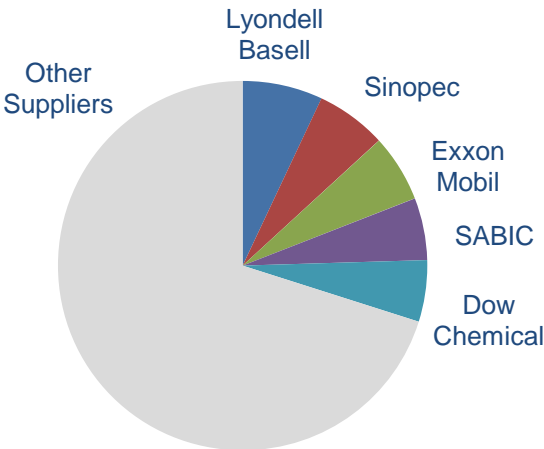
Total polyolefin production has increased from 82 million tons to 125 million tons per year from 2000 to 2010. A more modest amount of polyolefin capacity will come onstream in 2012 compared to the last two years.

The surge in new steam cracker development in the Middle East has now passed. In Saudi Arabia alone, five new steam crackers were brought onstream between 2009 and 2011, each bringing around a million tons per year of polyolefins capacity.

The focus is moving to Asia, Eastern Europe and the United States. The exploitation of shale gas and other unconventional gas resources in the United States is expected to provide additional competitive feedstock for another 5 million tons per year of ethylene by 2020, much of which will be converted into polyethylene.

Polyolefin demand in Asia continues to drive a major proportion of new capacity development, necessitating an increasingly broad range of olefin feedstock options in China.

Global Polyolefin Supplier Share by Capacity, 2011



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### Appendix

- A. Methodology
- B. The Polyolefins Industry – Technology

Each polyolefin (Chapter 3 to 7) is segmented by geography and further segmented into three main sections:

- Consumption: Assesses historic and forecast consumption; forecasts are based on projections of end-use and economic activity in each region.
- Supply: Includes a list of all producers, their production capacity, location, etc., and discussion of the status of new projects.
- Supply, Demand and Trade: Provides historical analysis and forecasts to 2025 of consumption, production, imports/exports, inventory build-up/decline, capacity and capacity utilisation for each region.

This analysis will identify the issues shaping the industry, as well as provide an independent appraisal of the market.

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