

CHEMSYSTEMS POPS PROGRAM

Report Abstract

Executive Report Global Commercial Analysis

Global Polyolefins Market Dynamics, Polyethylene (LDPE, LLDPE, HDPE), Polypropylene (PP), Supply, Demand, Trade, Economics

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Executive Report – Global Commercial Analysis

INTRODUCTION

The global polyolefins industry has shown strong character in recovering from the economic crisis of 2008 and 2009. Growth returned to the industry in many regions as early as 2010 and global demand has continued to grow above global GDP levels. A certain amount of stability has returned to the global markets in 2011 and 2012, despite some residual volatility and continued economic difficulties in the more mature markets. The long term consequences of the economic crisis will be felt for many years to come as the governments of Western Europe, Japan and the United States address the problems of large amounts of debt and falling competitiveness.

The lasting economic difficulties have affected the polyolefins industry in many regions, where restructuring has been a feature over the last few years. Demand growth has remained relatively weak in mature regions. The housing and automobile industries (a major end-use market for polyolefins) have continued to struggle in many countries. Polyolefins producers have looked to developing regions such as Asia Pacific to maintain high growth rates and to drive the global markets. The progress in China will be key to the future direction of the global polyolefins industry, with a large expansion in the regional market expected over the next few years and the development of coal to olefin technologies. Polyolefins producers have also looked at the continued progress of shale gas developments in North America, which are anticipated to reposition the region in the global polyolefins market.

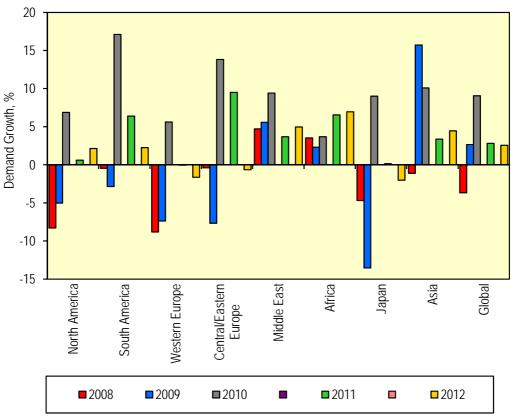
Such are the findings of a new study by Nexant which has just published its 2012 Global Executive Report on the polyethylene and polypropylene market as part of its PolyOlefins Planning Services (POPS).



Demand

In 2012, global polyolefin consumption growth declined marginally from the previous year, decreasing to 2.6 percent. The low growth was maintained as mature regions continued to struggle with the long term effects from the economic crisis in 2008. Polyolefins markets in Japan and Western Europe contracted in 2012, while in North America growth was positive but below the global average. Global consumption growth continued to be driven by strong Asian polyolefin demand, which increased by 4.5 percent.

Global Polyolefin Demand (2008-2012)



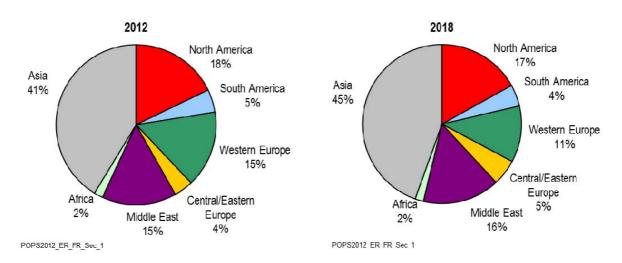
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Supply

On supply, the emphasis to invest in locations of advantaged feedstocks or to build in regions of high market growth has led to Asia Pacific increasing its share of world polyolefin capacity from 33 percent ten years ago to 41 percent last year, and the Middle East from six to 15 percent. The capacity increase in Asia Pacific was largely driven by growth in China and this is set to continue with the development of coal to olefins technology. The United States and Western Europe markets combined have fallen substantially from 50 to 33 percent over the same period. Although Western Europe markets are projected to decline further, North America markets will stabilise as shale gas developments are realised.

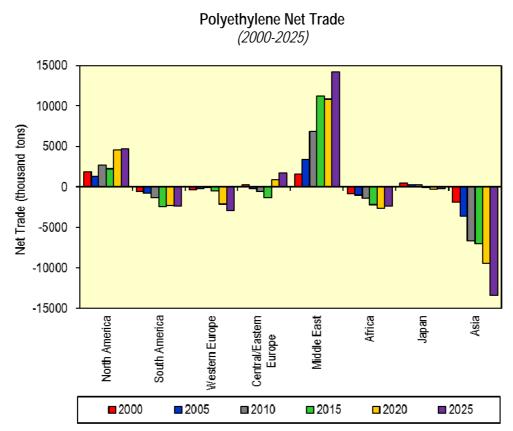
Polyolefins Capacity Split





Trade

In terms of trade, the Middle East continues to cement its position as the major global supplier. The region is forecast to export of over 11 million tons per year by 2015, rising to 18 million tons in 2025: under the same scenario, Asia is set to import over 16 million tons per year in 2025. The advances with shale gas in North America will allow the region to remain as a strong exporter and improve its position by 2025. Western Europe will remain a large polyolefin importer, with net imports increasing each year. Meanwhile, Central and Eastern Europe is projected to swing from a net importer to a net exporter over the forecast period due to anticipated capacity developments.



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The report also finds that:

- Global operating rates are marginally depressed in 2012 as demand growth remains weak, although a large decline in operating rates has been avoided as there were fewer new capacity additions, which are at the lowest level since 2008
- Crude oil prices come under the spotlight as current political unrest in North Africa and the Middle East push oil prices once again over \$100 per barrel, putting pressure on polyolefin pricing and purchasing arrangements
- Polypropylene, the largest polyolefin market, has shown the strongest performance of all the polyolefins in 2012, with 3.7 percent growth
- LLDPE continues to penetrate the LDPE market, displacing LDPE with easy processing LLDPE, while use of single site/metallocene LLDPE continues to rise across the world

Nexant's comprehensive report has been produced using Nexant's proprietary simulation model, the ChemSystems Online Simulator, and provides global petrochemical consumption, production and trade data forecasts to 2030. The model analyses the market dynamics of product flows, the economics of production costs, logistics, prices and profitability, as well as consumption of enduse materials into major sectors, to produce an extensive report which fully assesses the industry's current and future performance.

The study shows that the volatile economic conditions of the past five years have continued to affect the global markets. The polyolefins markets are in transition, moving to establish new positions and regional relationships, while the effects of shale gas and coal to olefins technology have not yet been fully realised. The journey will continue, with the projected developments over the next six years defining the future direction of the global markets.

The report *PolyOlefins Planning Service: Executive Report, Global Commercial Analysis* is published by Nexant as part of its POPS program. Subscriptions or single copies of the report are available from www.chemsystems.com. For further information, please contact Mazlan Razak, POPS Program Manager at mrazak@nexant.com.





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