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The Changing World of Olefins and Polyolefins

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Agenda

**A look at the
external environment,
the changing world of
polyolefins supply,
and how it may impact
the trading environment**

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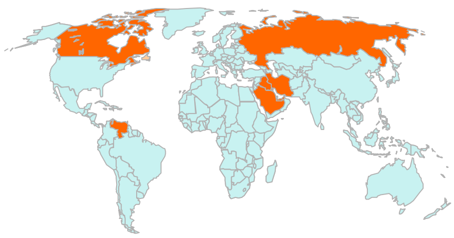
Largest Economic Stimulus in History

The industrial revolution only involved one-third of the world's population at that time…

Today's economic revolution involves most of the people on the globe.

Impact on Feedstock Dynamics



TOP 5 countries in oil reserves @ 1 Jan '05

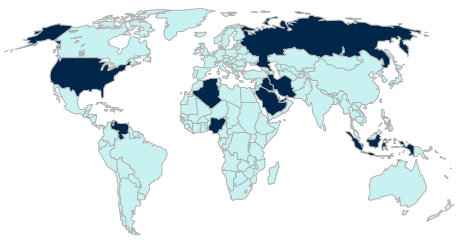
Country	(Bbbl)
1. Saudi Arabia	262
2. Canada	179 (including ~174 Bbbl of oil sands)
3. Iran	126
4. Iraq	115
5. Kuwait	102

80% of the world's proven crude oil reserves* are held by 8 countries that account for only ~5% of the population

While natural gas is more spread out…11 countries hold 80% of the global reserves

TOP 5 countries in gas reserves

Country	(Tcf)
1. Russia	1,680
2. Iran	940
3. Qatar	910
4. Saudi Arabia	235
5. UAE	212



Source: Energy Information Administration (EIA); * estimation @ 1 Jan 2005

Gross Simplification of Three Key Facts!

- Today's **wealthy** nations have little consumption growth
- The **feedstock** owning nations do not have the consumers to develop large domestic markets
- The most **populous** nations do not have the feedstock, and in our industry…

__**Feedstock and Markets are the new driving forces**__!

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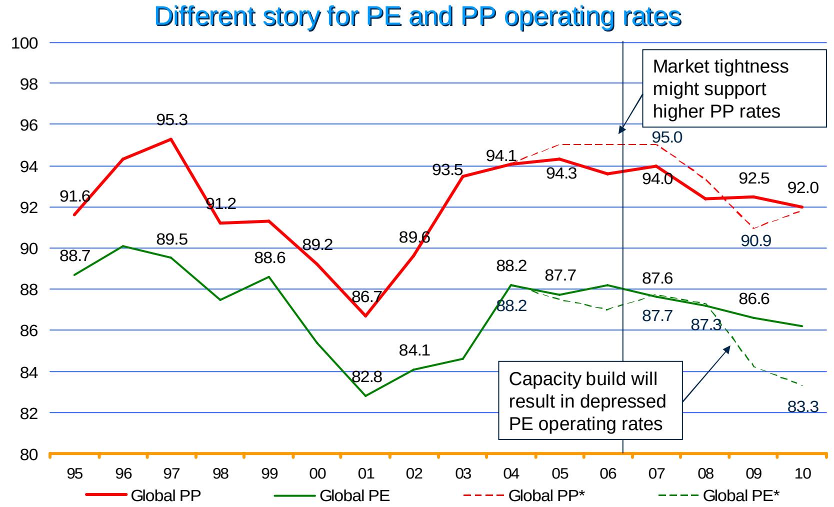
Plant Loading – Expected to Deteriorate



* Forcing Production = Demand

Sources: Basell International database, Global PP and PE Supply Demand Balance

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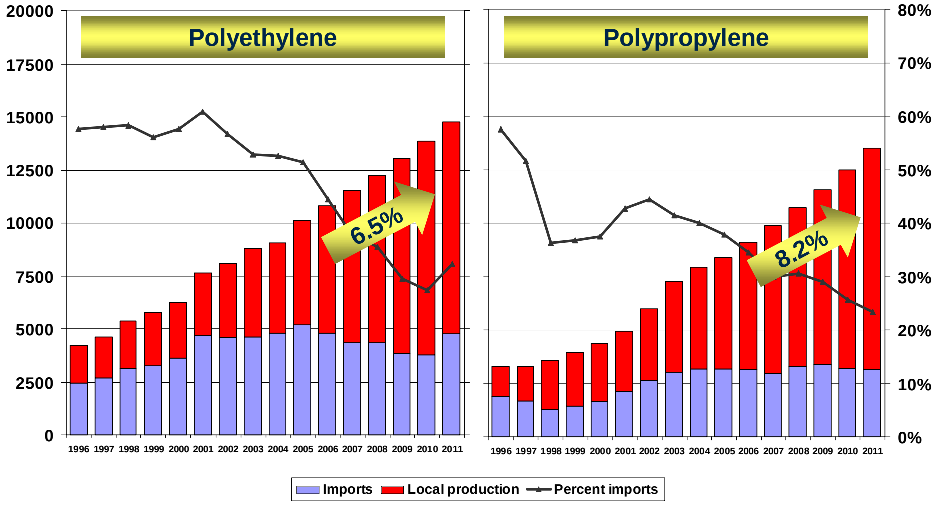
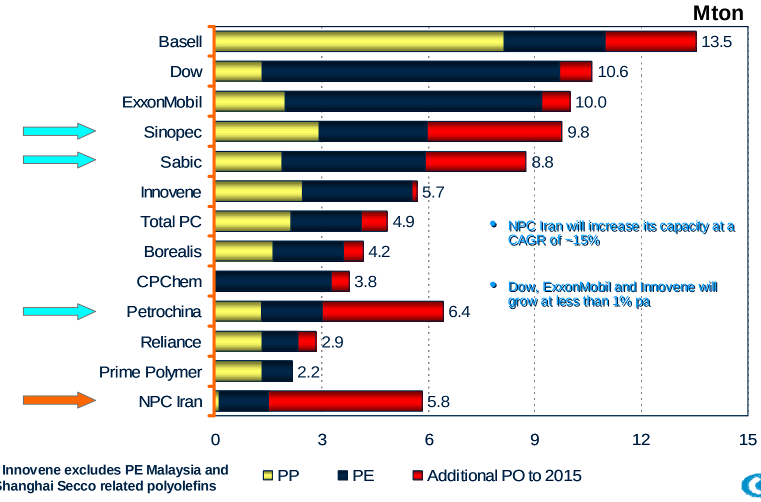
Polyolefins Imports Into China
Demand Growth Mainly Covered by Local Production



Expected Impact on PO Capacity Growth

Western leaders hold much of the PO capacity in 2005…

…but could lose positions to new Middle East and Asian players by 2015

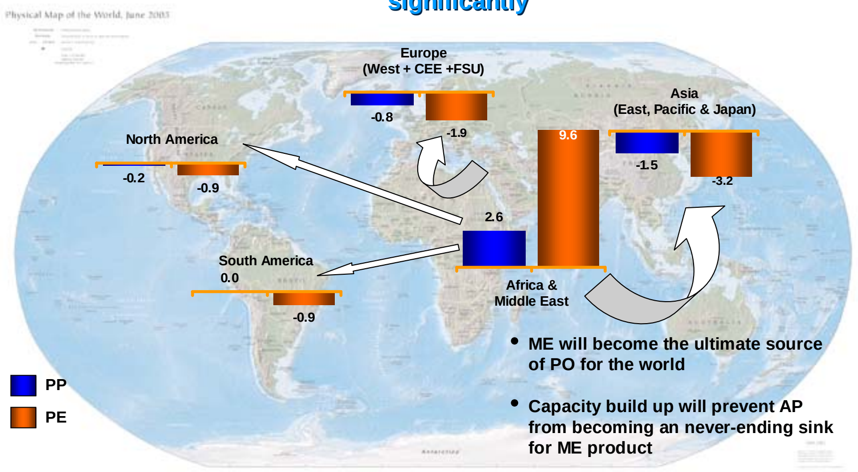


* Innovene excludes PE Malaysia and Shanghai Secco related polyolefins

Source: Basell database

Supply Shift – Middle East Exports

2010 inter-regional product movements expected to increase significantly



- ME will become the ultimate source of PO for the world
- Capacity build up will prevent AP from becoming an never-ending sink for ME product

Apparent net trade flows (Thickness shows relative importance)

Sources: Basell International database, Global PE Supply Demand Balance June 2005

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Possible Changing Customer Landscape

- **Many customers are mid-size companies squeezed in a supply chain as businesses further globalise**
- **Accelerated development of a conversion industry in feedstock rich countries, from oil export, to polymer export, to film export, to…**
- **New converters' equipment anticipated to be world-scale, latest-generation technologies**
- **Existing customers expected to continue to face intense pressure to innovate and find value-added niches**
- **Global suppliers predicted to seek business globally, giving world-wide access to state-of-the-art products & technologies**

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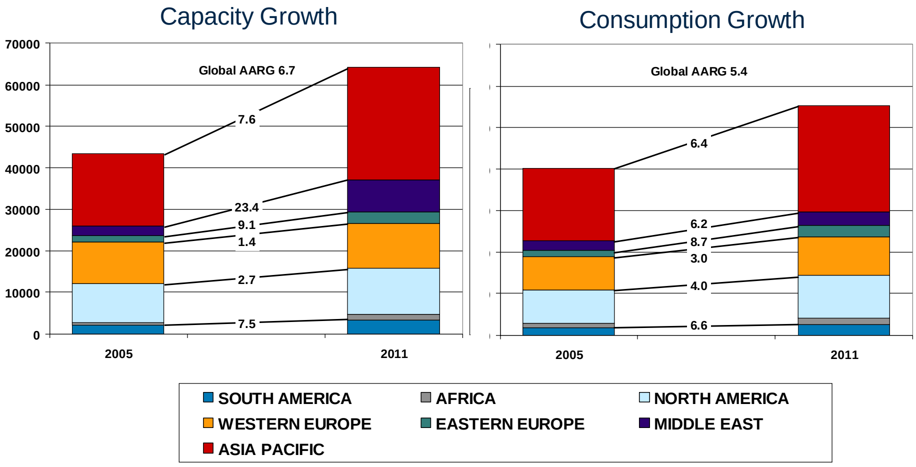
Polypropylene Capacity & Demand Growth



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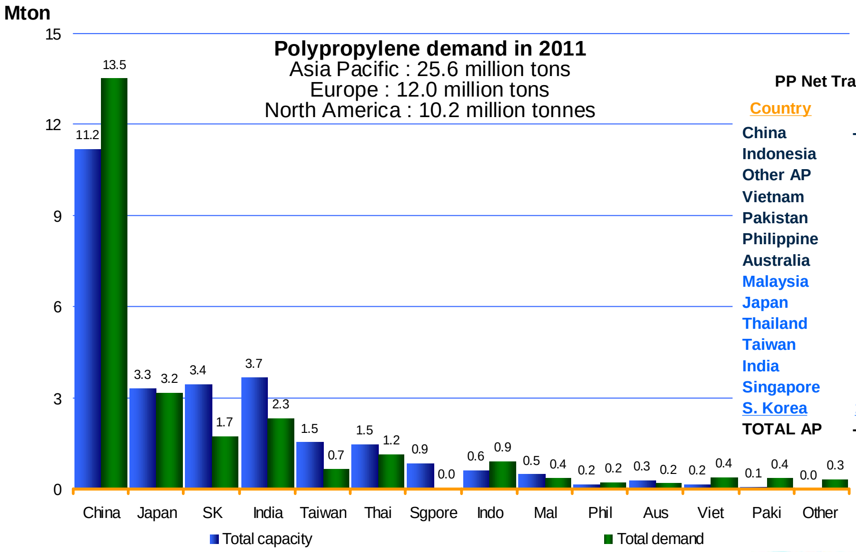
Asian PP Market by 2011

China's Dominance to Increase in Region



PP Net Trade

Country	Kton
China	-3,531
Indonesia	-410
Other AP	-325
Vietnam	-301
Pakistan	-214
Philippine	-142
Australia	-3
Malaysia	15
Japan	17
Thailand	198
Taiwan	455
India	637
Singapore	749
S. Korea	1,297
TOTAL AP	-1,561

Sources: Basell International database, Global PP Supply Demand Balance June 2006

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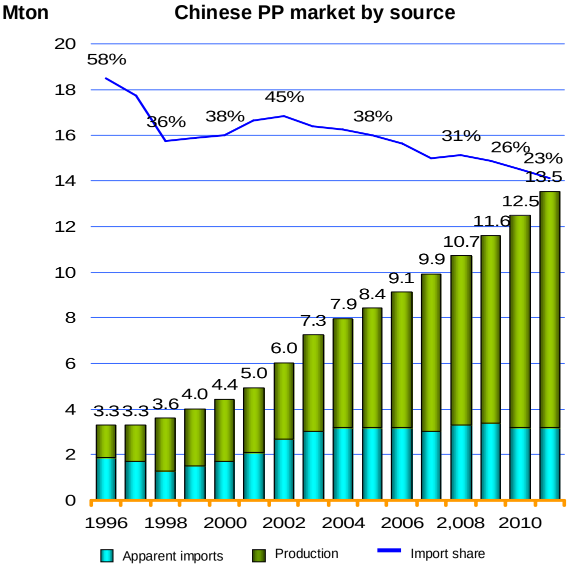
Polyolefin Imports Into China Could Shrink



Chinese growth predicted to remain strong - near 8%

China expected to remain the major global import market for PP.

China expected to build capacity to keep pace with growth.

Small refinery integrated plants are likely to remain in operation.

The share of imports in the market expected to decline.

Domestic producers predicted to have increasing pricing influence on global stage.

Prices expected to be forced down by excessive amounts of low-cost, feedstock-based imports.

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Sources: Basell International database, Global PP Supply Demand Balance June 2006

Polyolefins World is One of Change - Not Expected to Slow Down

- **Market dominance is shifting from the 'west' to the 'east'**
- **Supply dominance is shifting from markets to feedstock**
- **Cost leadership predicted to exist in the Middle East**
- **Leading technology is available to all**
- **Chinese domestic capacity expected to grow in line with domestic demand**
- **The Chinese import market not expected to grow significantly, if at all**
- **It will become difficult to compete against the new Middle East capacity**

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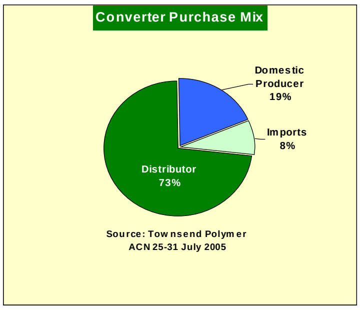
Distributors Play Key Role in China Today



- Distributors play a key role in logistics, inventory & credit management.

- Can or will producers take some role here in future?

Container Flow

- **As China further develops to become the manufacturing engine of the world, the flow of empty containers back to China are expected to further increase**
- **Shipping lines are, for the foreseeable future, interested in "repositioning rates", to move these containers filled with goods**
- **Global shipping rates anticipated to continue to become more competitive, and routes and frequencies more effective**
- **As congestion in ports will increase, more accurate planning and tracking tools will be enforced to guarantee on-time deliveries**

Changes Anticipated - PO Importers in China

- Competition predicted to force importers to excel in supply chain operations
- Excellence in on-time deliveries to ports, supported by distribution platforms spread over multiple ports
- Cost leadership with imported goods expected to drive conversion by customers to direct service and bulk deliveries
- Importers predicted to increasingly be ready to trade in local currencies and run currency and credit risks
- Imbalance in supply/demand predicted to force imports (especially PE) to compete in local market consumption
- Traders may need to change to an agent type of role and serve the more fragmented, smaller markets as distributors

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Conclusions

- Huge polymer industry shift to feedstock markets predicted
- 2009/2010 supply/demand unbalance is predicted
- A deep trough, forcing survival of the fittest
- Excellence in supply chain operations becomes crucial
- Main industry in China predicted to move to bulk
- Traders’ roles in China could see significant change
- Cost leadership & product excellence may take on a new meaning

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Thank you

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