



The Importance of Rail to the Petrochemicals Industry

Theo Zwygers

Basell USA Inc, a LyondellBasell company

San Antonio, Texas

February 2010



Agenda

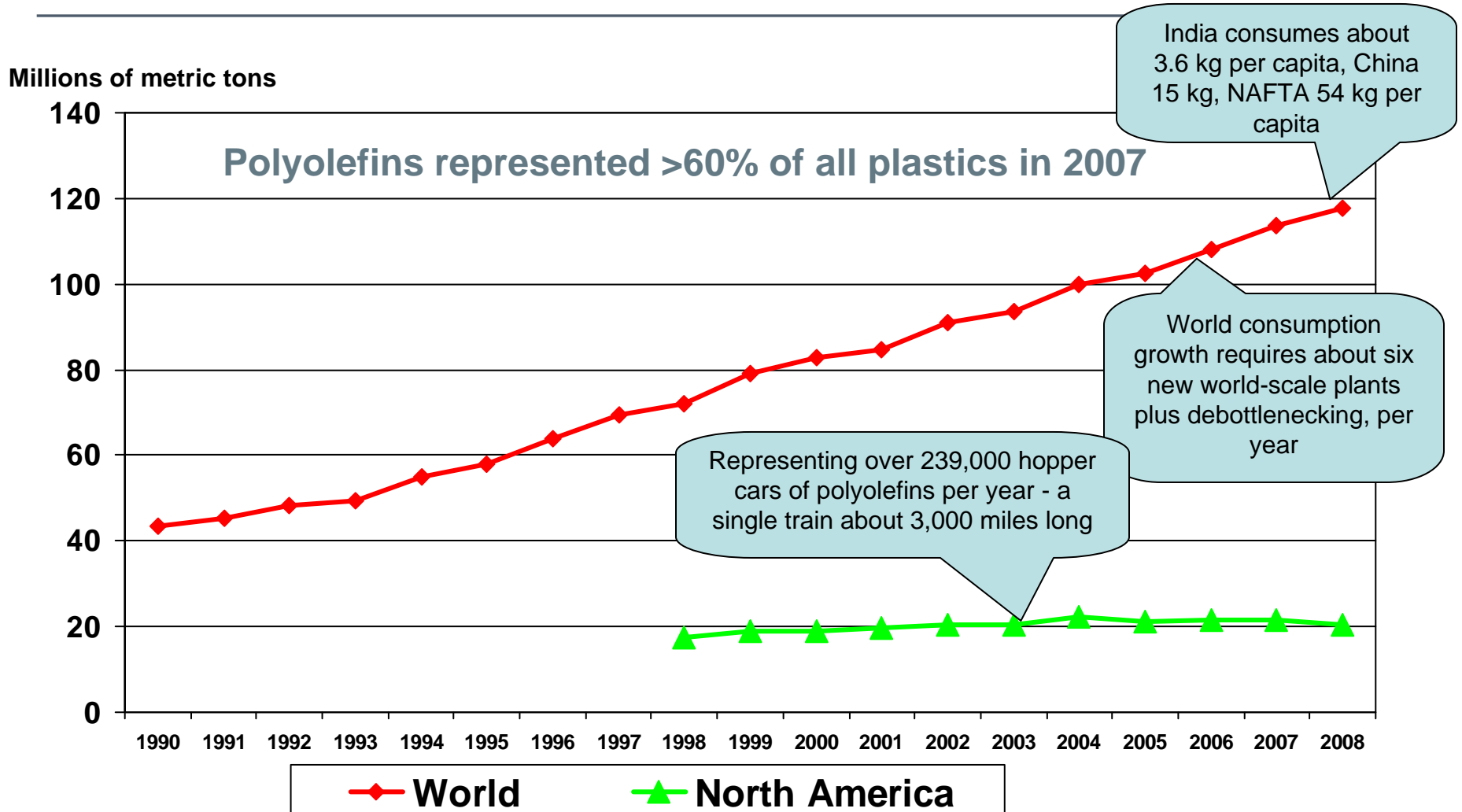
- LyondellBasell polyolefins and chemicals supply chain in North America
- The importance of rail to our industry
- Transportation of polymers and chemicals
- Department of homeland security legislation
 - Regulating movement of dangerous goods (TIH, explosives, radioactive materials, etc.)
- STB Reauthorization Act
 - Rail competition bill
- Summary and conclusions



LyondellBasell 2010 transport dimensions

- 9500 hopper cars (polymers) & 2500 tank cars (liquid chemicals)
- \$250 million in rail freight expenditures
- Average distance of customers from sourcing plant: 1000+ miles
- 19 origins and over 9000 ship-to destinations
- 50 percent of origin locations are closed (captive) to one railroad
- 80 percent of rail destinations are closed (captive) to one railroad

Consumption of polyolefins

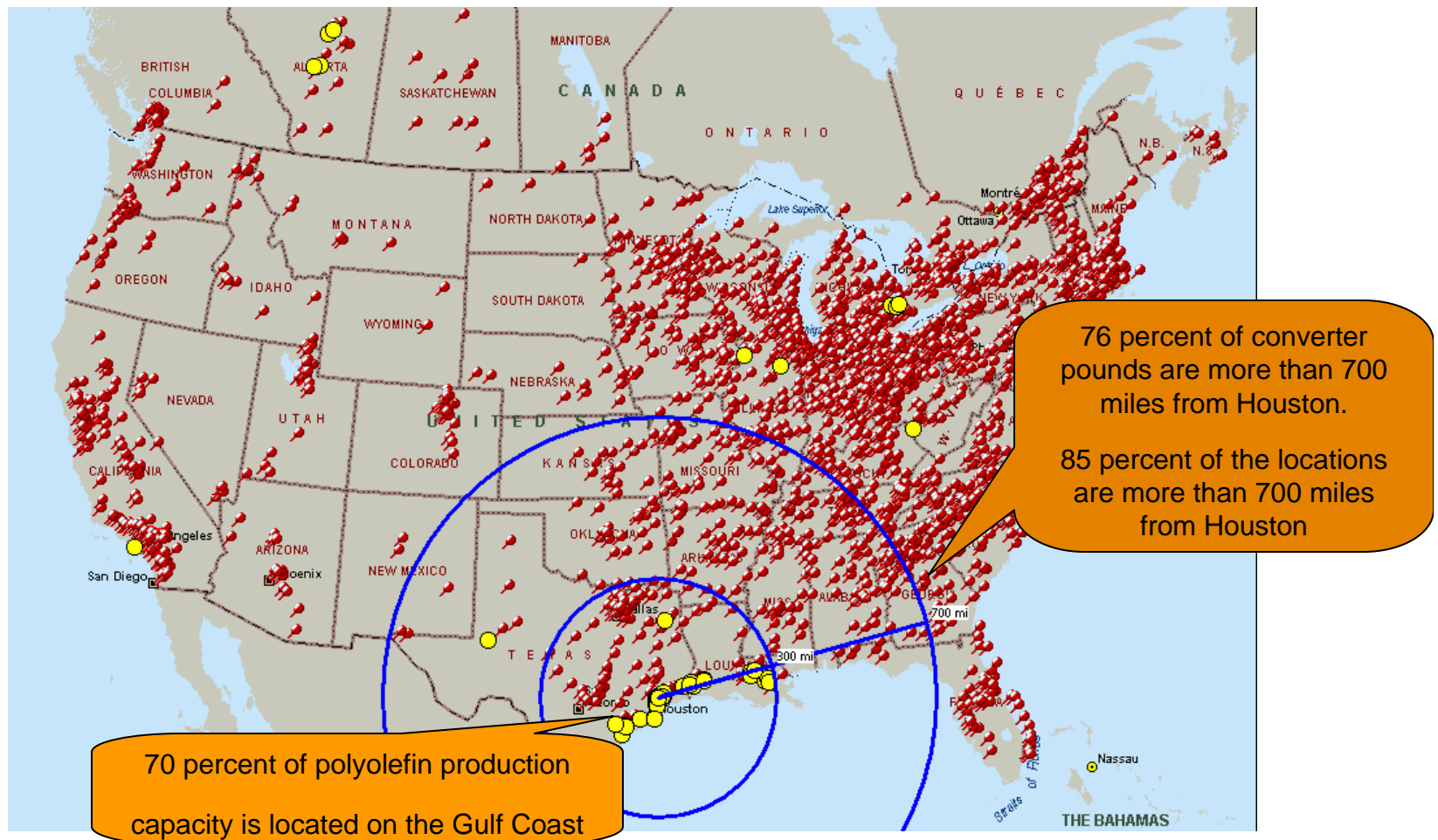


Source: LyondellBasell

Household and durable goods produced by customers using LyondellBasell polyolefins

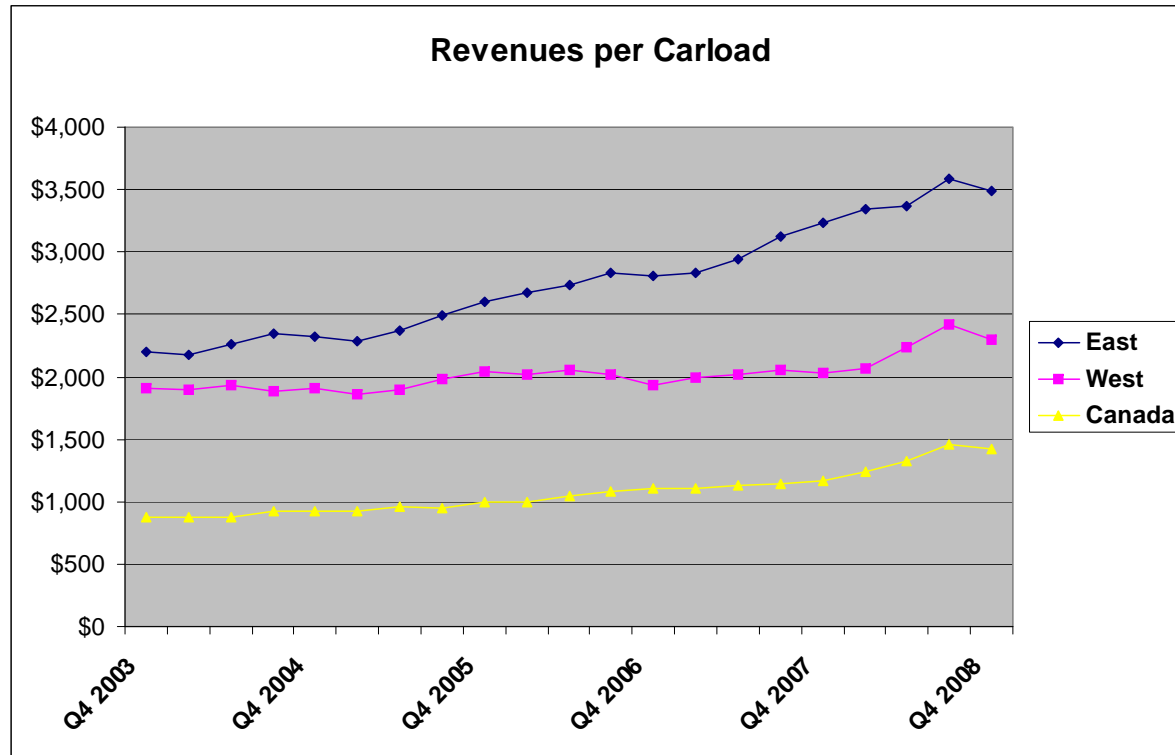


North America polyolefins production and converter locations



Source: LyondellBasell

Rate escalation – Plastic pellet cars (industry data)



East

As customer base is largely captive, Eastern railroads have significantly driven up rates

West

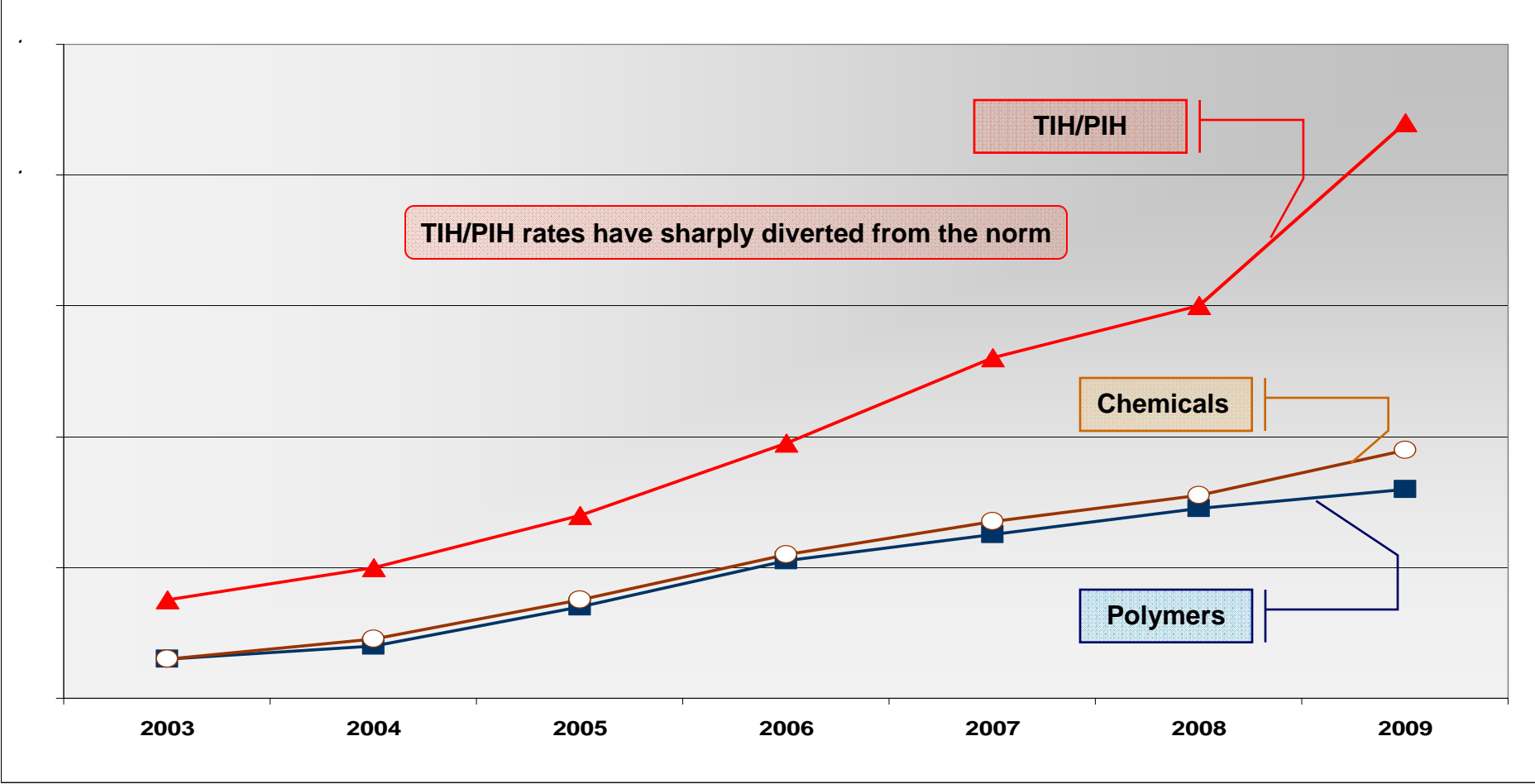
As manufacturing plants are a mix of “captive” and “open” sites, rates have increased to a lesser extent

Canada

Rate escalation in Canada has been much less drastic, as Canadian laws allow for reciprocal switching (i.e., competition)

Source: Escalation consultants

LyondellBasell - TIH/PIH vs. polymers and chemicals Eastern Carriers



Eastern carriers dramatically raised rates on TIH/PIH as contracts renewed

Consequences of Homeland Security legislation

- Department of Homeland Security, Transportation Security Administration, 49 CFR Parts 1520 and 1580, Rail Transportation Security
- Cost escalation and potential transit time increases
 - TSA regulations force detailed security and management controls on trains containing cars with TIH/PIH materials
 - TSA regulations force route changes to avoid HTUA - High Threat Urban Areas

Consequences of Homeland Security legislation

- **Railroad posture**
 - Dramatically raising TIH/PIH rates, citing TSA regulations
 - Limit liabilities, arguing that shippers should stop making the TIH/PIH chemicals*
 - “We will continue to raise rates until you stop shipping”*
- **The impact for our business**
 - Rates will excessively increase until the government steps in
 - Most petrochemical industry traffic moves under contract, hence not regulated by the STB
 - Competition not a controlling factor

TSA regulations have exposed shipping community to unregulated freight increases

* Comments from rail carrier personnel

The STB Reauthorization Act of 2009

- **Main regulatory reform items:**
 - **Paper Barriers:** Future paper barriers must be “reasonable and in the public interest”
 - **Bottleneck Rates and Competitive Switching:** After the date of enactment, railroads must quote bottleneck rates when requested by a rail customer. Combines bottleneck and competitive switching concepts
 - **Terminal Access:** Revises standards for one railroad to obtain terminal trackage rights over another railroad
 - **Arbitration:** A binding arbitration process, including an appeal process, to resolve rail rate, practice and common carrier service components

The STB reauthorization Act of 2009

- This new legislation provides some excellent base elements for those shippers that are regulated under STB oversight (i.e. non-contract shippers)
- Contract shippers will have to leverage this legislation as contracts renew

This new legislation will take time to implement and prove its true value

Summary and conclusions

- Plastic and chemical movements have seen excessive rate increases over the past six years, especially in the East
- TIH/PIH rates have doubled (on average) in the past four years
- Railroads proactively use new TSA regulations to drive up TIH/PIH rates, discouraging movement by rail
 - Although it is the safest transportation method for our industry
- The STB Reauthorization Act has a number of excellent base elements for creating additional competition among the Class 1 Railroads
- Contract shippers (not regulated under STB) should leverage this new legislation as contracts renew

lyondellbasell

Thank you for your attention





Disclaimer

All information contained herein is provided without compensation and is intended to be general in nature. You should not rely on it in making any decision. LyondellBasell accepts no responsibility for results obtained by the application of this Information, and disclaims liability for all damages, including without limitation, direct, indirect, incidental, consequential, special, exemplary or punitive damages, alleged to have been caused by or in connection with the use of this Information. LyondellBasell disclaims all warranties, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, that might arise in connection with this information.

