

Agenda

Trends in the chemicals market

Chemicals segment within BASF

Chemicals: At the core of the Verbund

Chemicals support growth of BASF

Capital expenditures drive profit growth

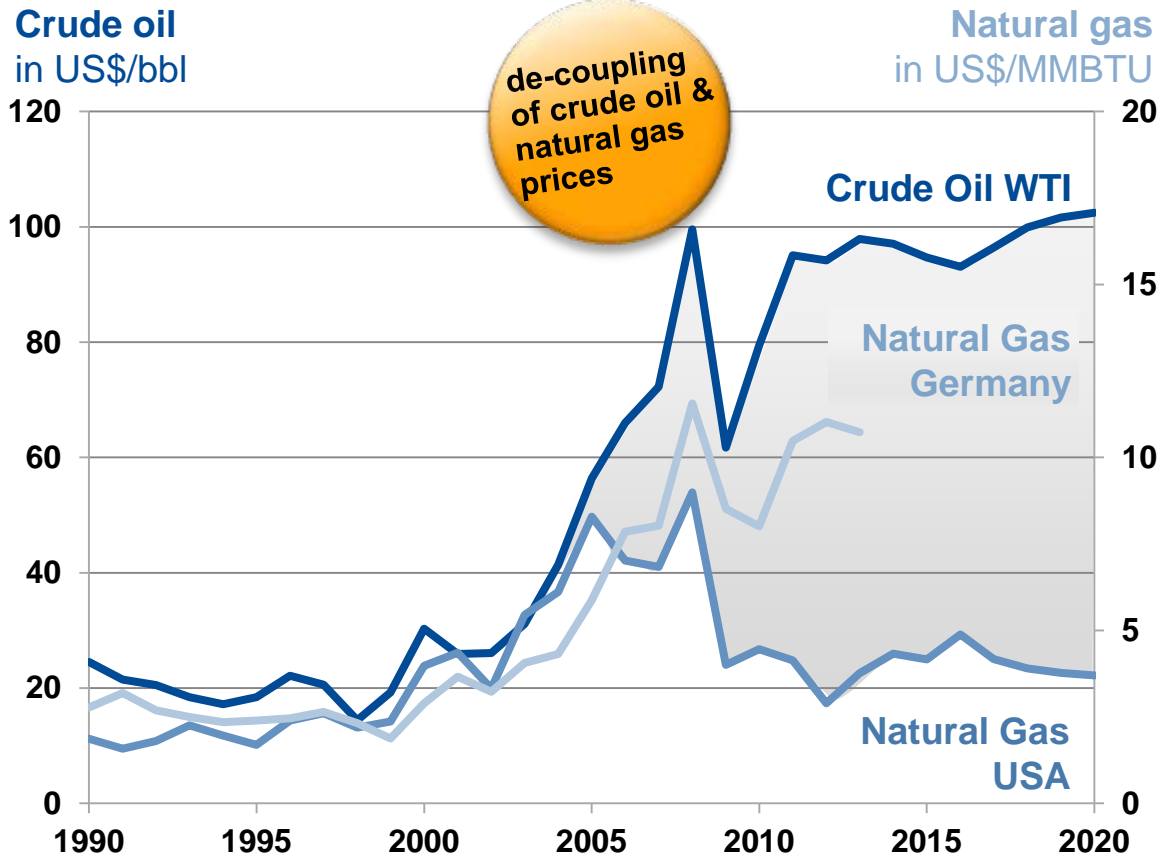
Shale Gas – An opportunity

Chemicals 2020



Shale gas in the U.S.: Lower energy and feedstock cost

Price development of oil / natural gas



Game changer shale gas

- Increased U.S. shale gas production disconnected crude oil prices from natural gas prices in North America
- Increased production of natural gas liquids (NGLs): ethane, propane, butane
- NGL price drop drives shift to lighter cracker feed slates
 - Improved profitability of light feed crackers
 - Narrow cracker output

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Natural gas price Germany: Statistisches Bundesamt "Grenzübergabepreis" Germany

North American shale gas will only have a limited impact on BASF in Europe



North America

- Low raw material costs to be kept at chemical producer stage
- Impact of low raw material costs to diminish in downstream production



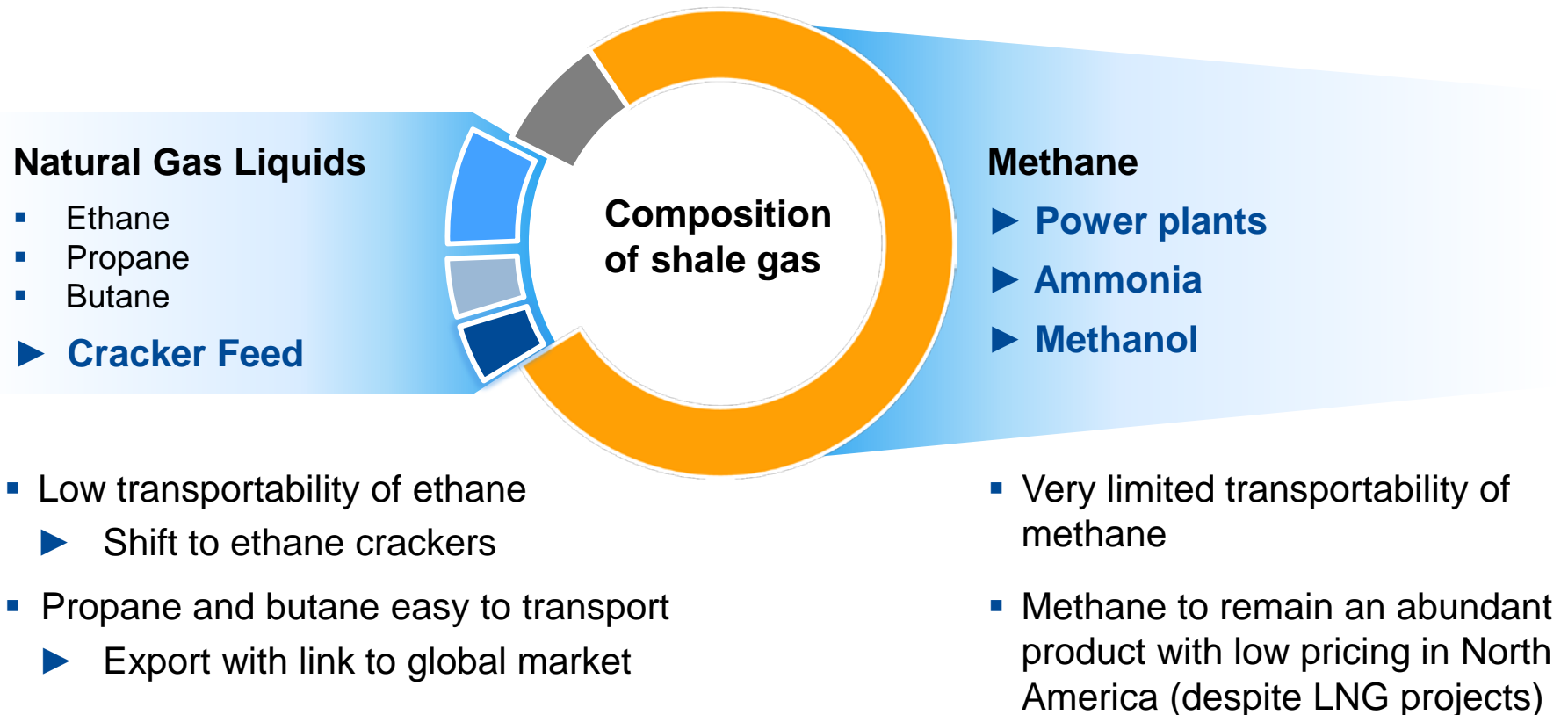
Europe

- BASF exited polyolefins and PVC more than 10 years ago
- BASF is a net purchaser of methanol
- Integrated production sites will remain competitive

Expected key exports:

- Polyolefines
- PVC
- Methanol

Shale gas is beneficial for methane and ethane based chemistry



Methane and ethane to retain their advantageous cost position in North America

Shale gas is a major opportunity for BASF

BASF **#2** chemical producer in the U.S.*

Converted **Port Arthur cracker** with high feed flexibility

BASF will maximize opportunity of **low-cost methane**

Low energy costs
(energy bill dropped by 55% compared to 2007**)

Substantial profit improvement

Strengthen profitability of the **Verbund**
Grow selected C1 value chains

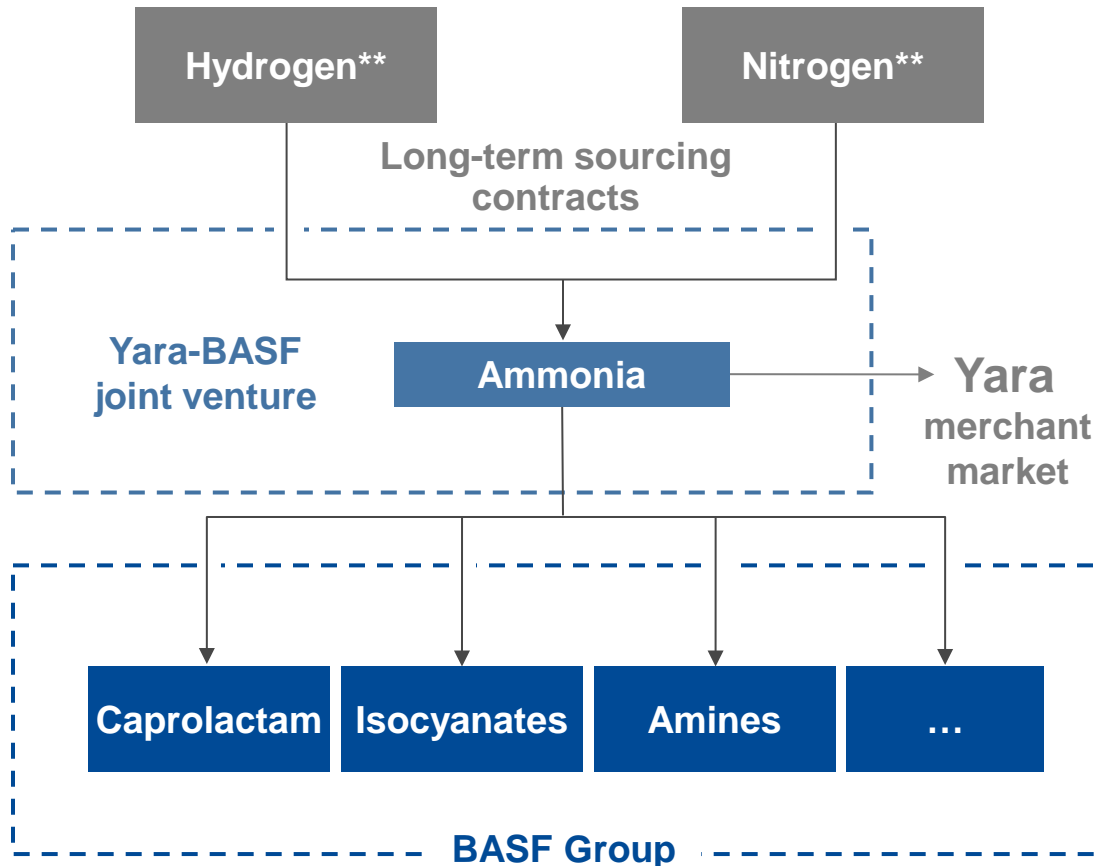
Port Arthur cracker* has full feed flexibility benefiting from low raw materials costs



Improved cash margins through feed flexibility

- Since Q1 2013, full flexibility to switch to most economic feed: naphtha, ethane, propane, butane
- Cracker includes splitting unit, which optimizes quality of shale gas feed
- Added 10th cracker furnace, increased capacity to 1 million metric tons

Ammonia joint venture* enables low raw materials costs for BASF downstreams



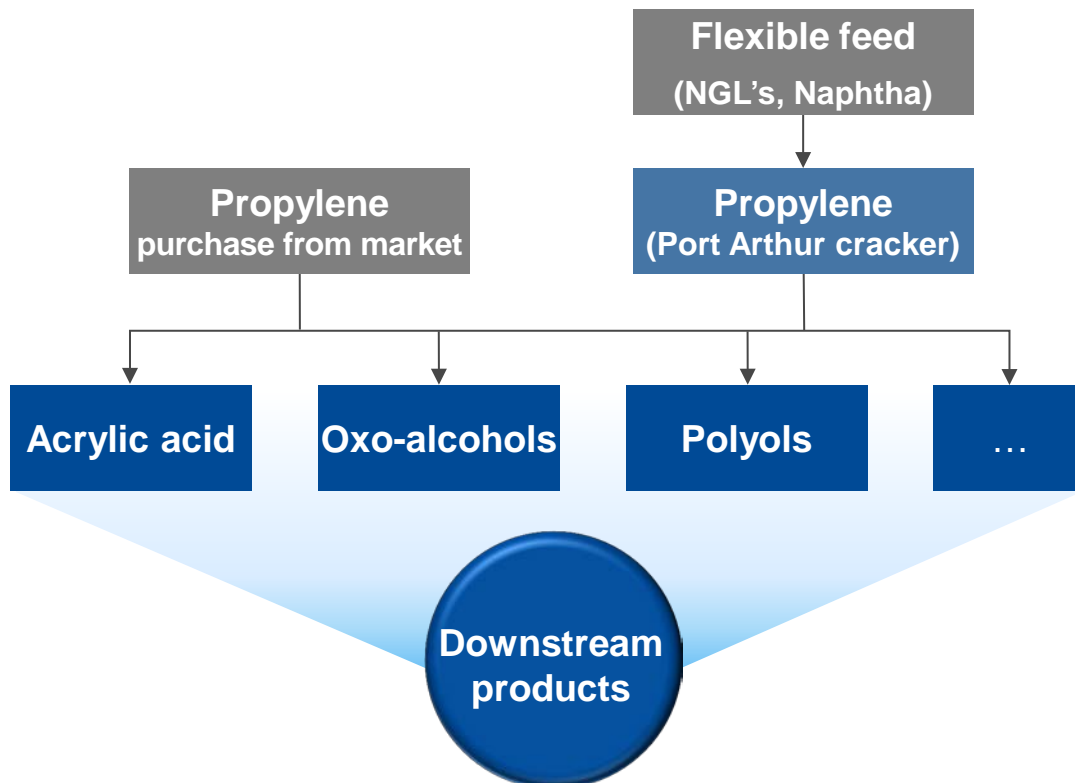
Improved cost position for BASF's downstream products

- World-scale producer economics plant with focus on captive demand only (BASF)
- Site: BASF Verbund site Freeport, Texas
- Capacity: 750 kt p.a.
- Advantages of hydrogen & nitrogen based technology:
 - Lower capital investment
 - No greenhouse gas emissions
 - Faster execution

BASF is currently a net-purchaser of propylene in North America

Propylene supply North America

2013

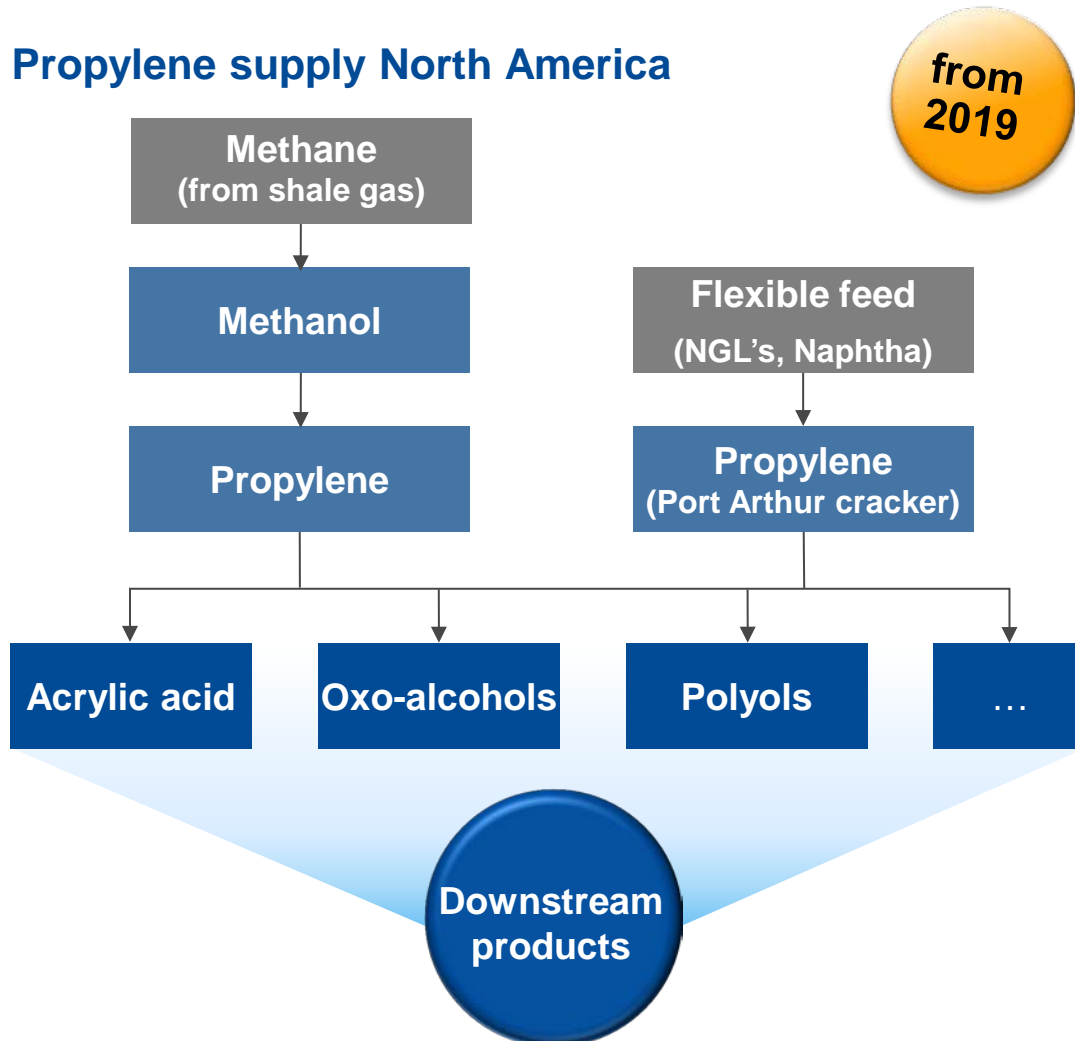


Propylene is a key raw material for several value chains

- Port Arthur propylene production insufficient to cover growing captive demand
- Additional quantities are purchased from the market

Gas-to-propylene complex* covers internal demand at attractive conditions

Propylene supply North America



Cost leading gas-to-propylene technology covers supply gap

- U.S. Gulf Coast location
- World-scale plant
- Start-up: ~2019
- Port Arthur cracker and new on-purpose propylene complex to cover entire captive propylene demand
- Mid-term no sales to merchant market
- Lower cost than alternative PDH technology

Shale gas-driven investments will significantly improve BASF's earnings

- Cost position of BASF plants in North America will be in top quartile
- Shale gas based projects mostly to supply downstreams
- Shale gas based projects will drive bottom line growth
- Further selected projects under evaluation