



human energy®

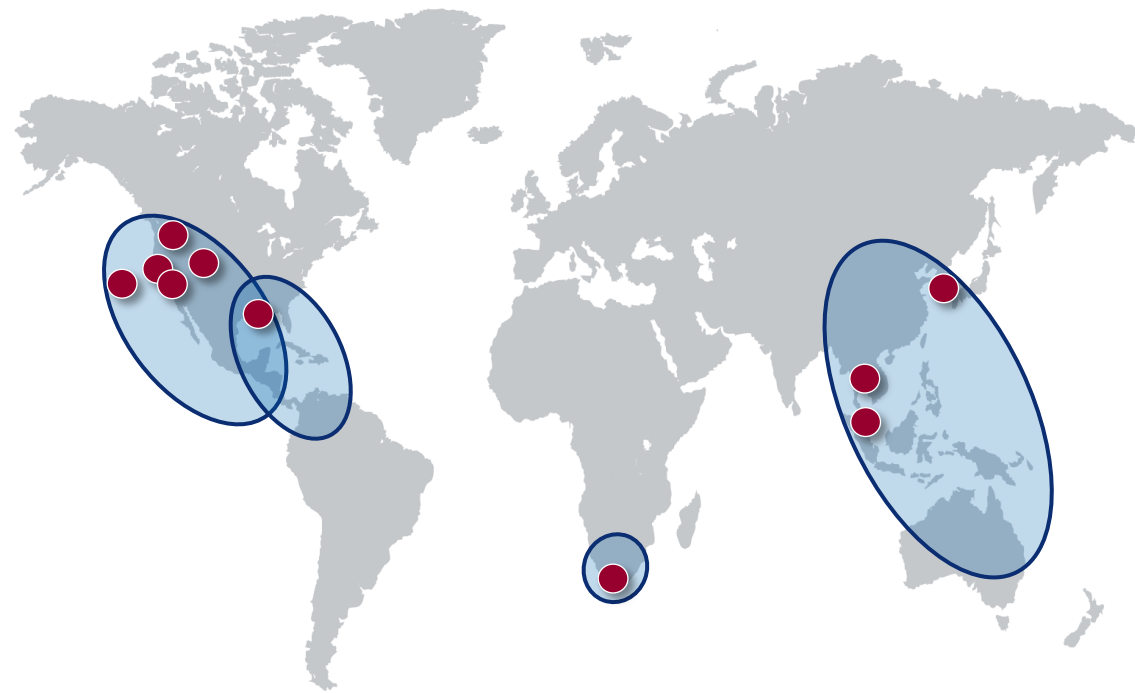
# downstream & chemicals

Pierre Breber  
Executive Vice President

# A strong worldwide portfolio

## Fuels refining & marketing

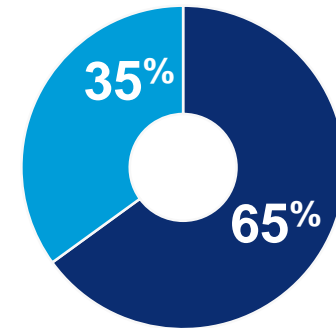
Integrated value chains



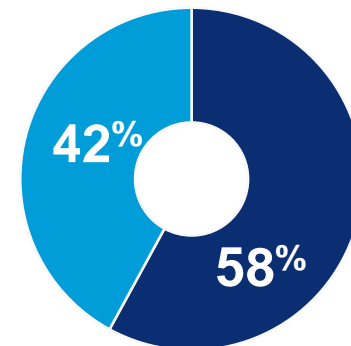
○ Value chains ● Refinery

## Portfolio

2015 capital employed



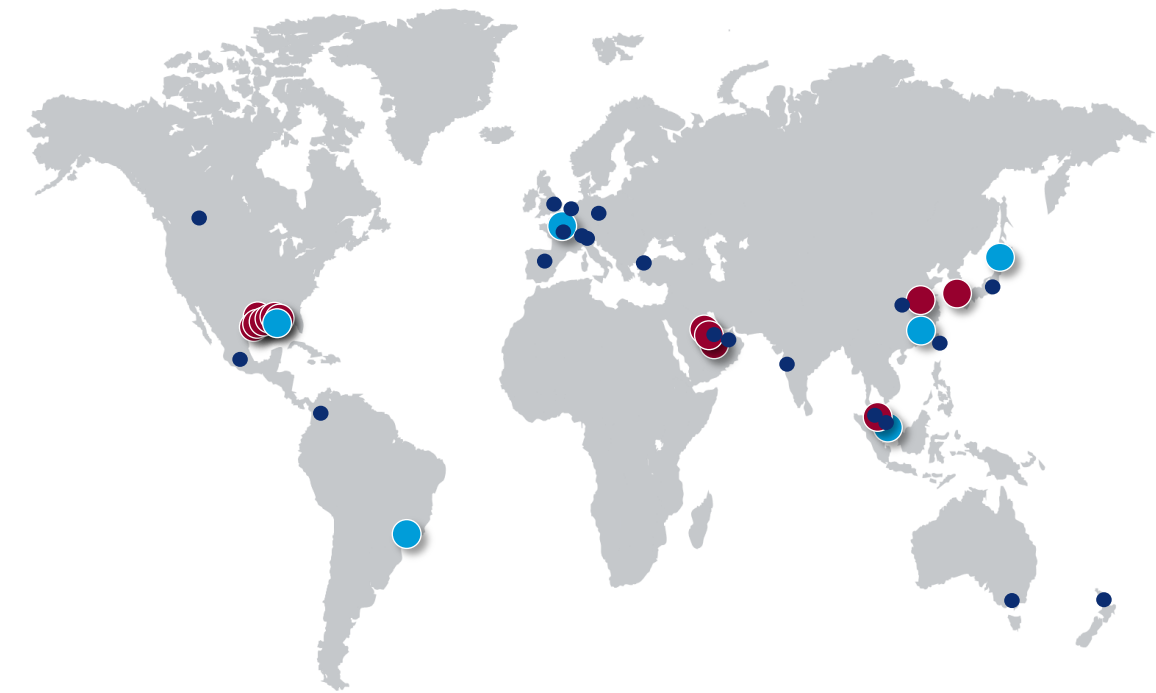
2018 capital employed



▲ Chemicals & lubricants  
▲ Refining & marketing

## Chemicals

Cost advantaged, globally positioned



● Chemical plant  
● Chemical sales office  
● Additives manufacturing & supply



# Strategy focused on competitive returns



## Deliver competitive returns and grow earnings across the value chain

- Improve operational excellence
- Grow higher return segments
  - Petrochemicals
  - Lubricants and additives
- Focused refining and marketing
- Integration with upstream
- Increase near-term cash

# Themes

**fundamentals**

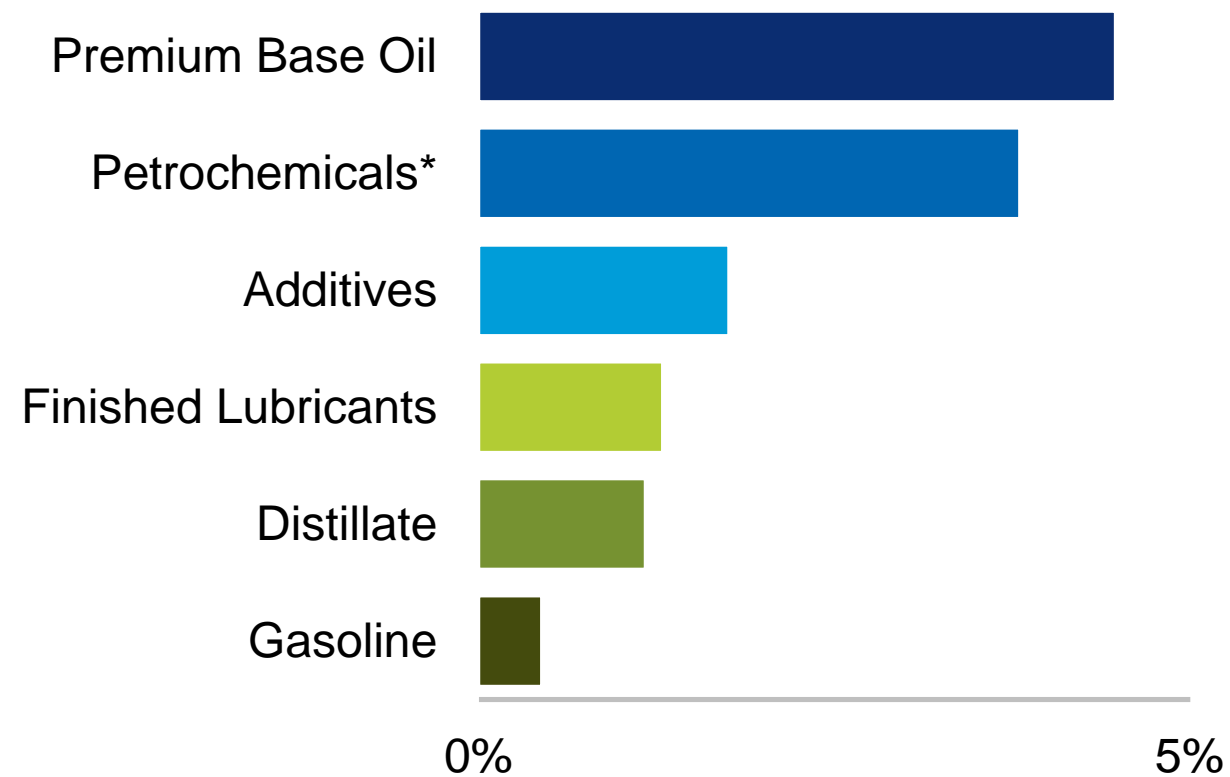
performance

growth



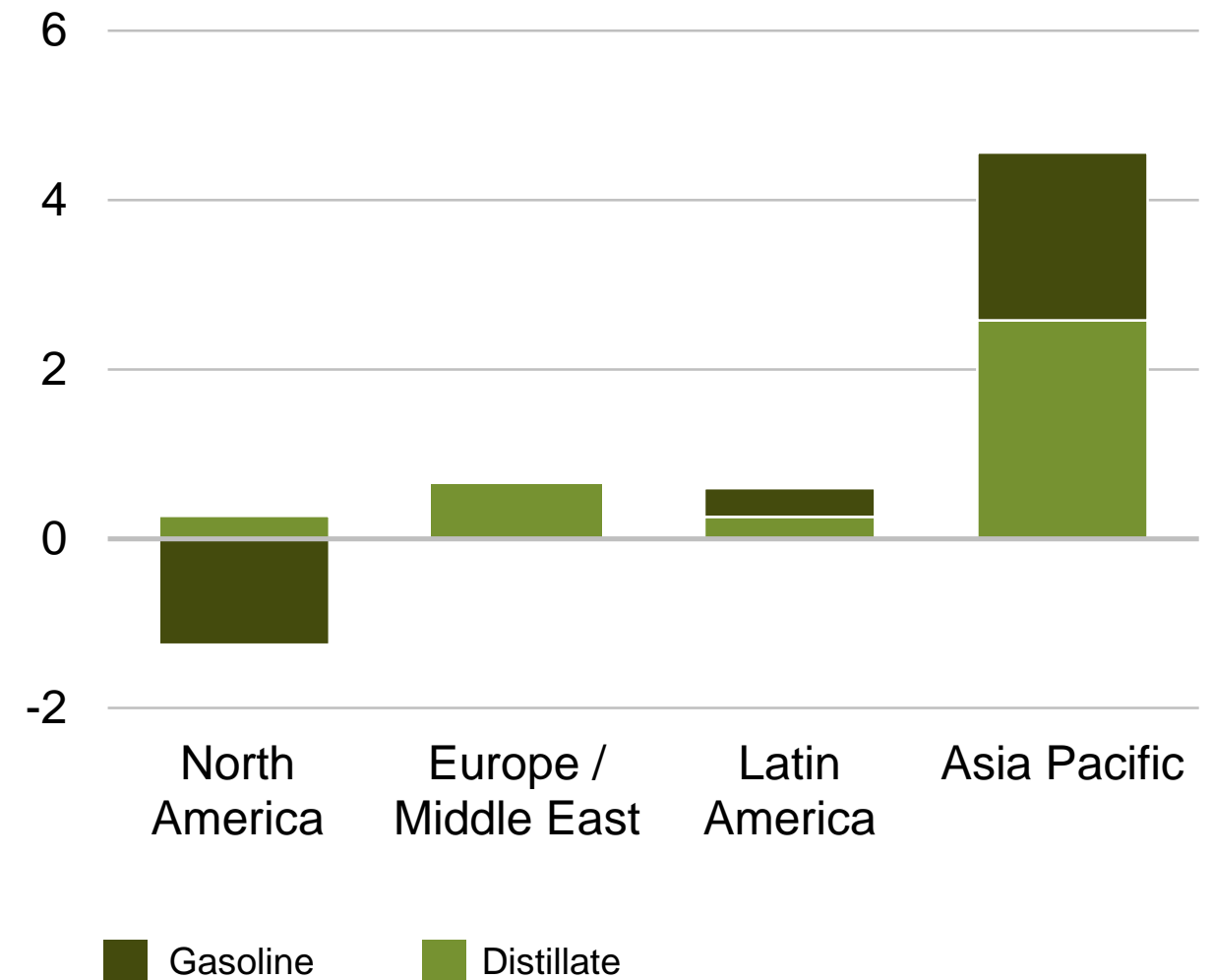
# Demand growth points to attractive segments

**2015–25 global product demand growth**  
Compound annual growth rate



\*Ethylene, propylene, butadiene, benzene, and paraxylene

**2015-25 global fuels demand growth**  
MMBD

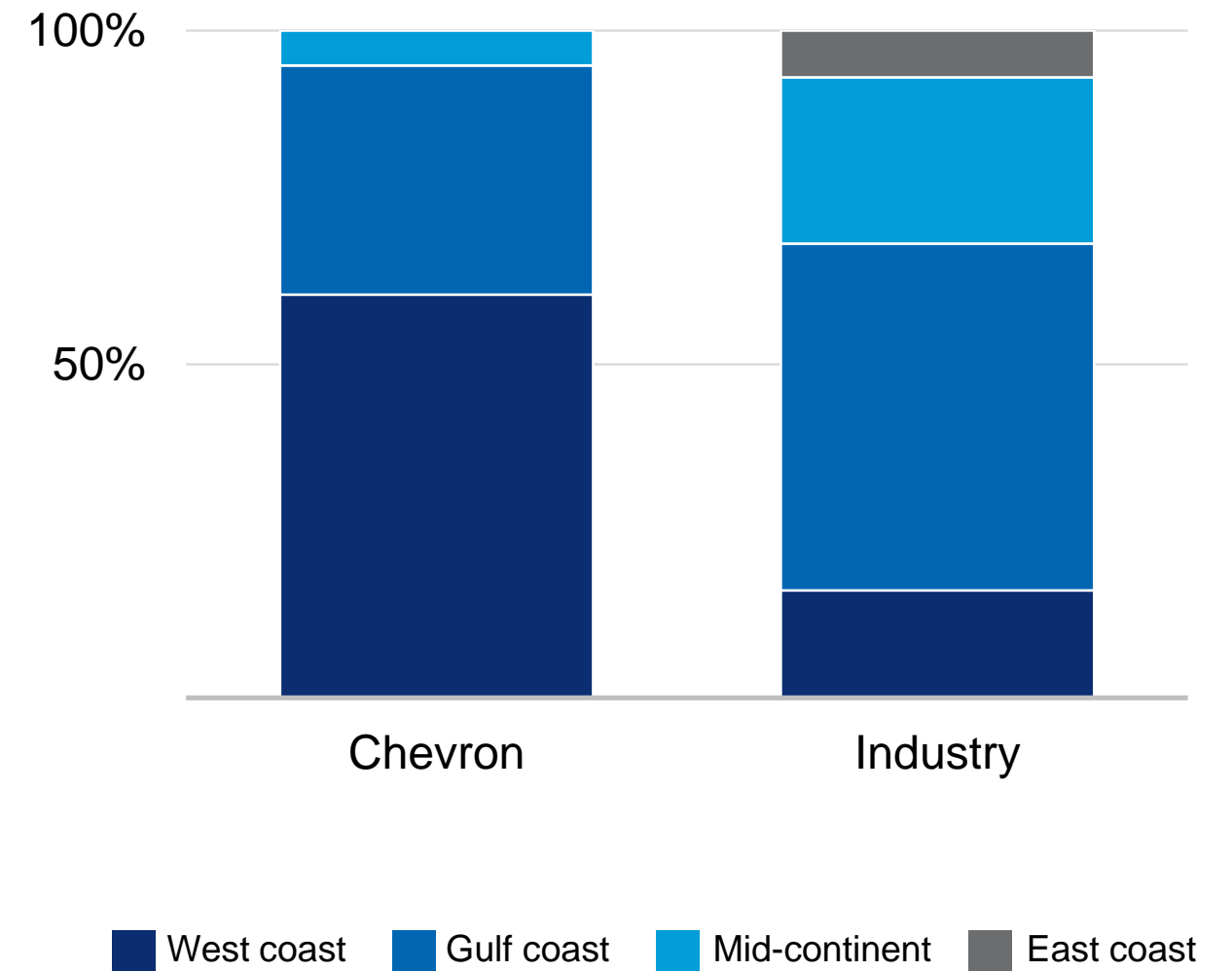


# Impact of lifting the U.S. crude export ban

## Levels the playing field

- U.S. light-sweet crude gets global parity pricing
- U.S. heavy coking margins improve relative to U.S. light cracking margins
- Minimal impact to California refiners

## 2015 U.S. crude capacity by region



# Refining portfolio – in more profitable regions

## Evolving refining landscape

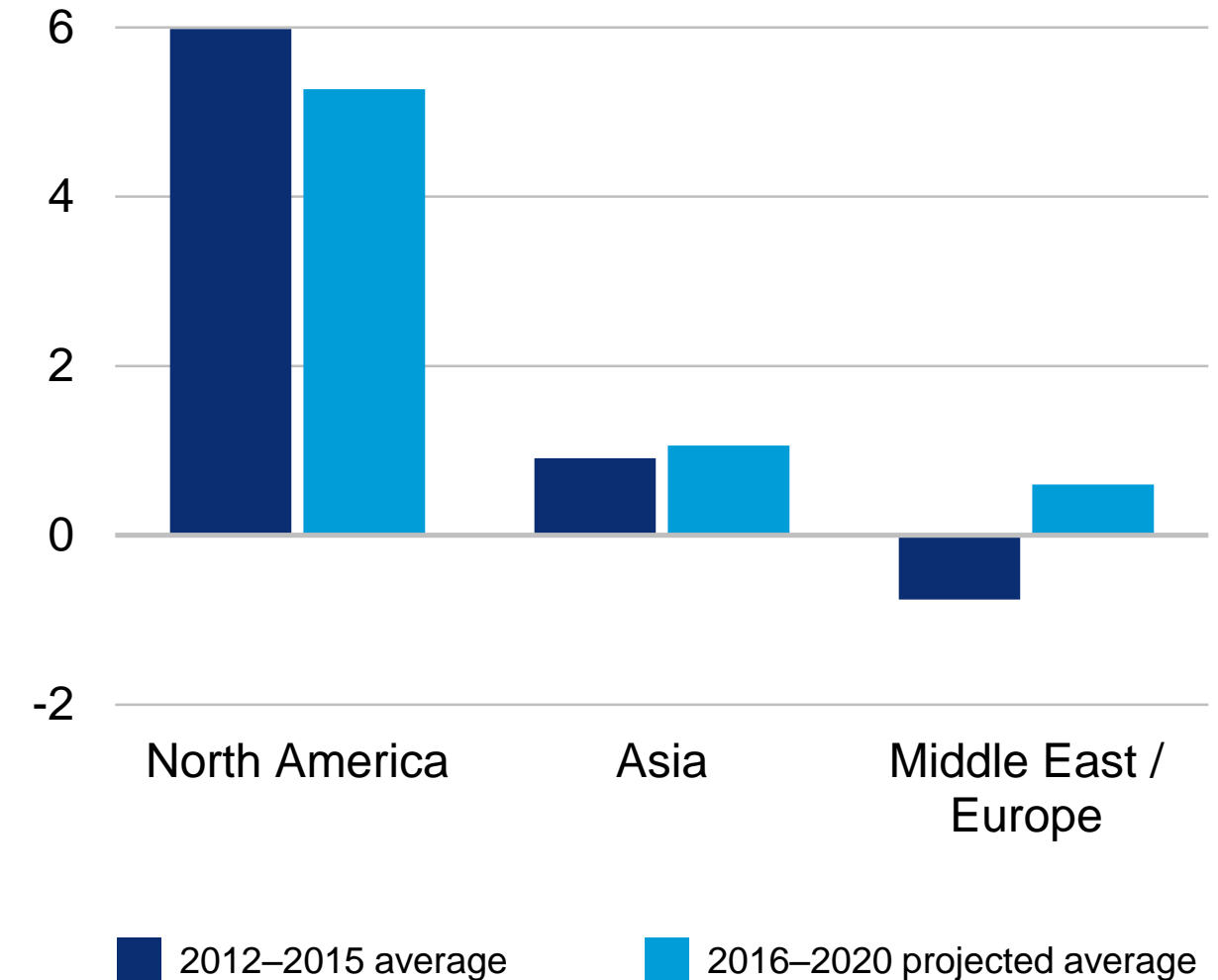
**North America**      Advantage continues

**Asia**      Product balances improve longer-term

**Europe / Middle East**      Higher complexity improves average margins

## Net cash margins

\$ per barrel



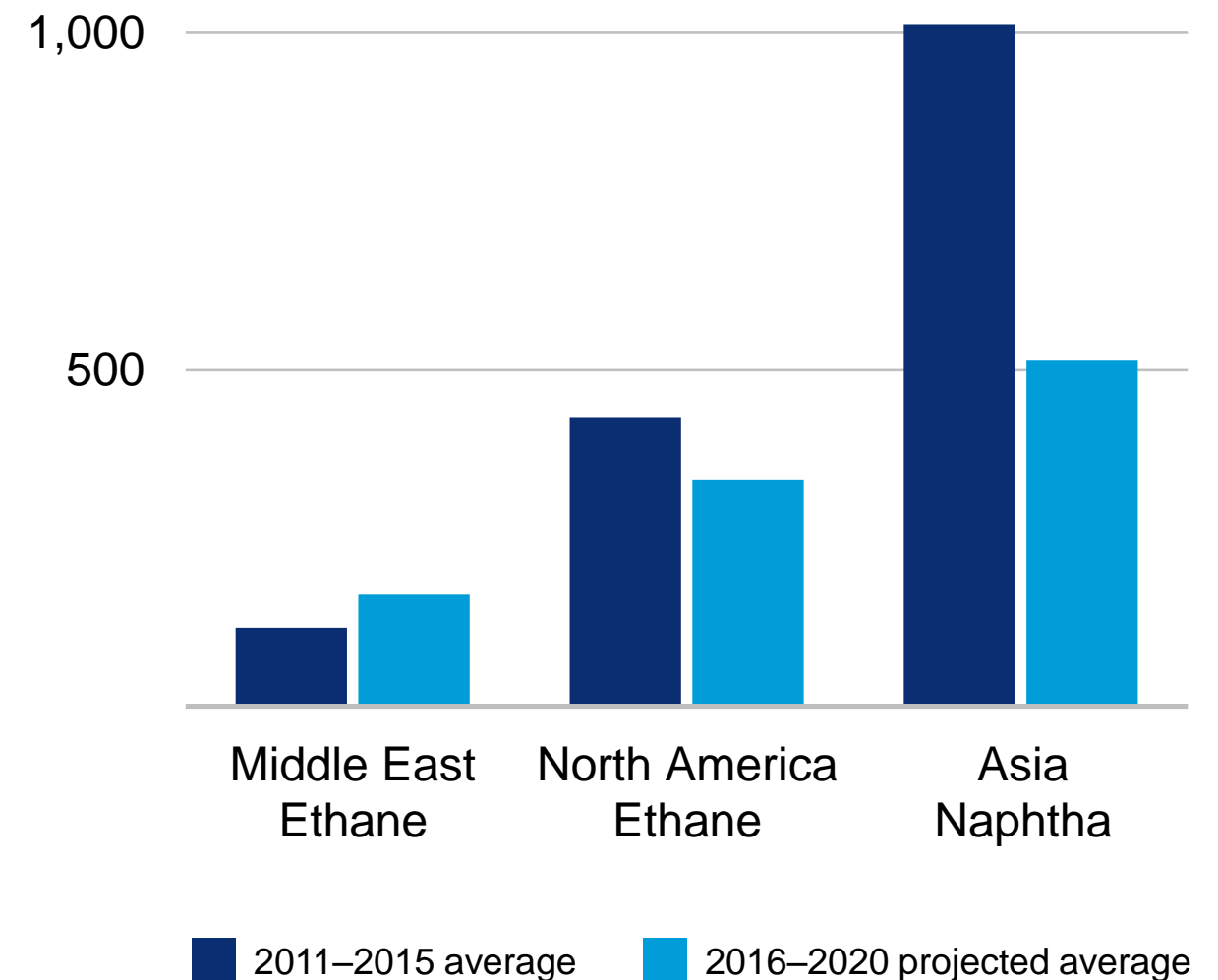
# Chemicals portfolio – advantaged feedstock

## Chemicals profitability

- Oil / gas price ratio continues to benefit lighter feedstocks
- North America ethane remains advantaged
- Lower crude price lessens Asia naphtha disadvantage
- Integrated polyethylene margins remain strong

## Ethylene cash costs

\$ per metric ton





# Themes

fundamentals

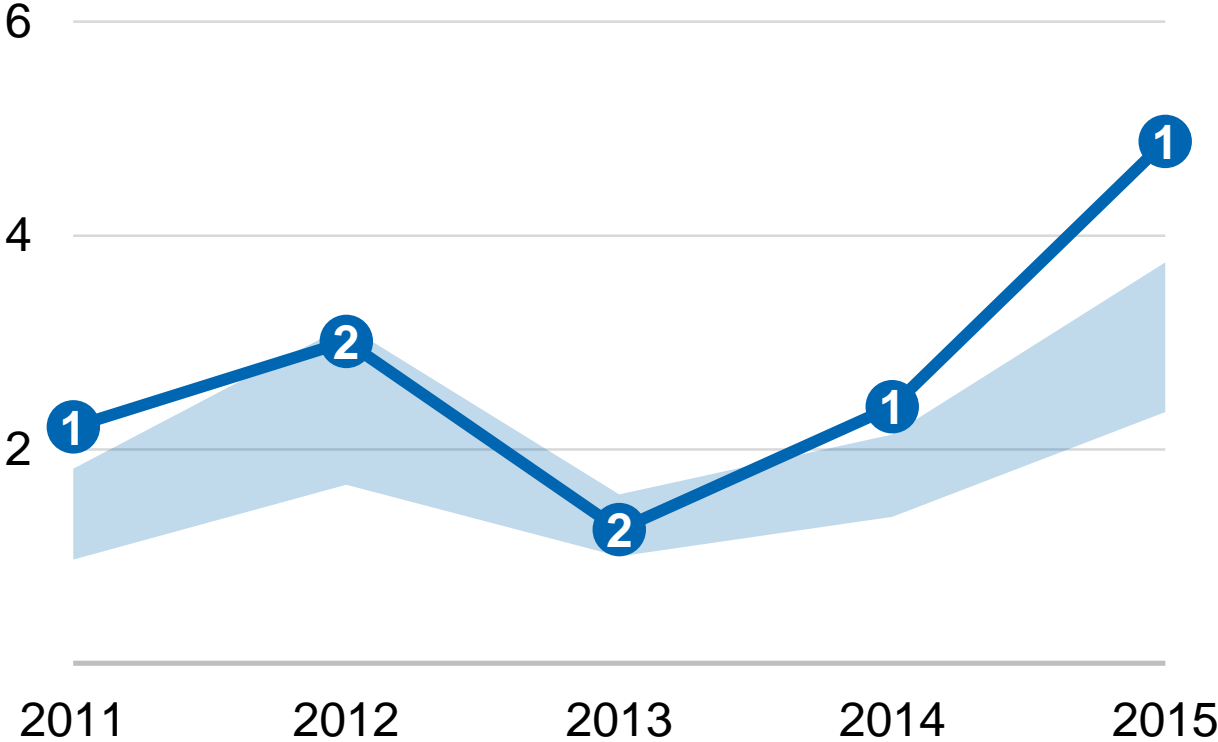
performance

growth



# Strong financial performance

**\$4.88** per barrel\*  
**2015 adjusted earnings**

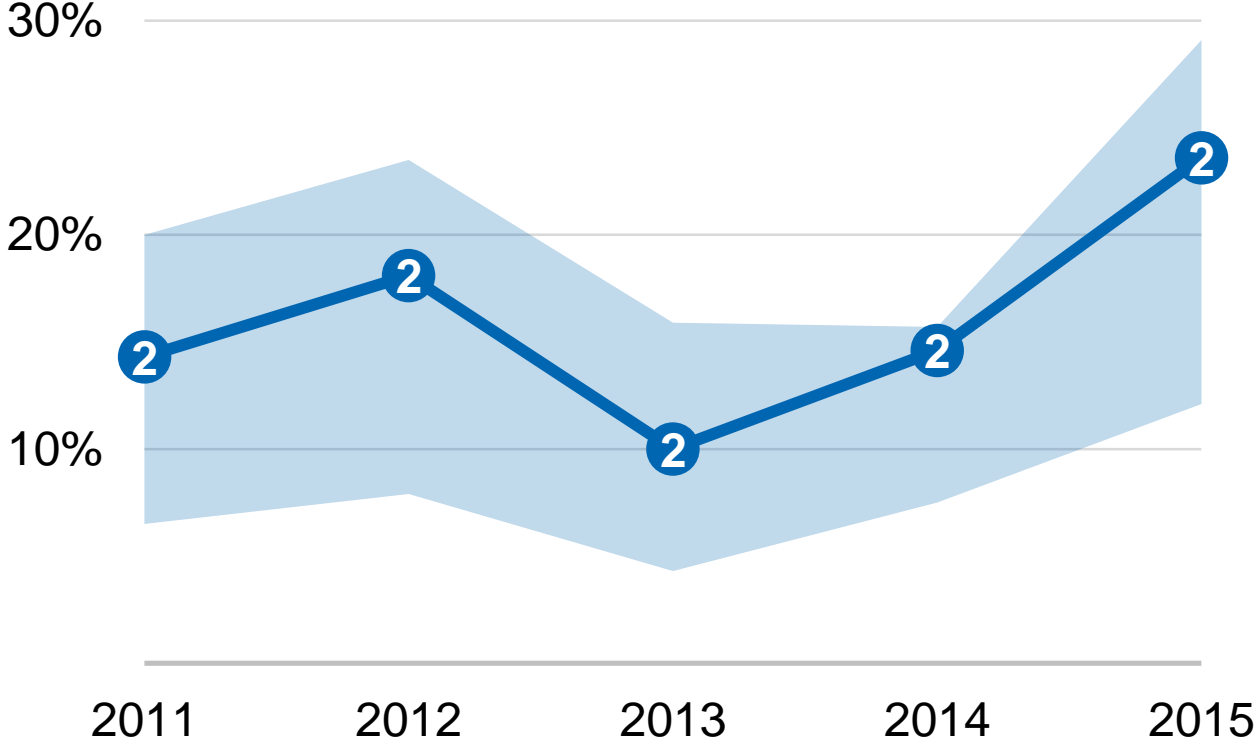


● CVX ranking relative to competitors, 1 being the best  
 ■ Competitor range: BP, RDS, TOT, XOM

\*Excludes chemicals; TOT 2012-2015 data includes base chemicals



**23.6%**  
**2015 adjusted ROCE**



● CVX ranking relative to competitors, 1 being the best  
 ■ Competitor range: BP, RDS, TOT, XOM

Source: Public information handled on a consistent basis and Chevron estimates. Excludes special items  
 Reconciliation to non-GAAP earnings measure for Chevron can be found in the Appendix of this presentation

# Chevron Phillips Chemical delivers results

## Strong earnings

Growing pre-productive capital

## Competitive portfolio

Cost, technology and scale

## Advantaged feed

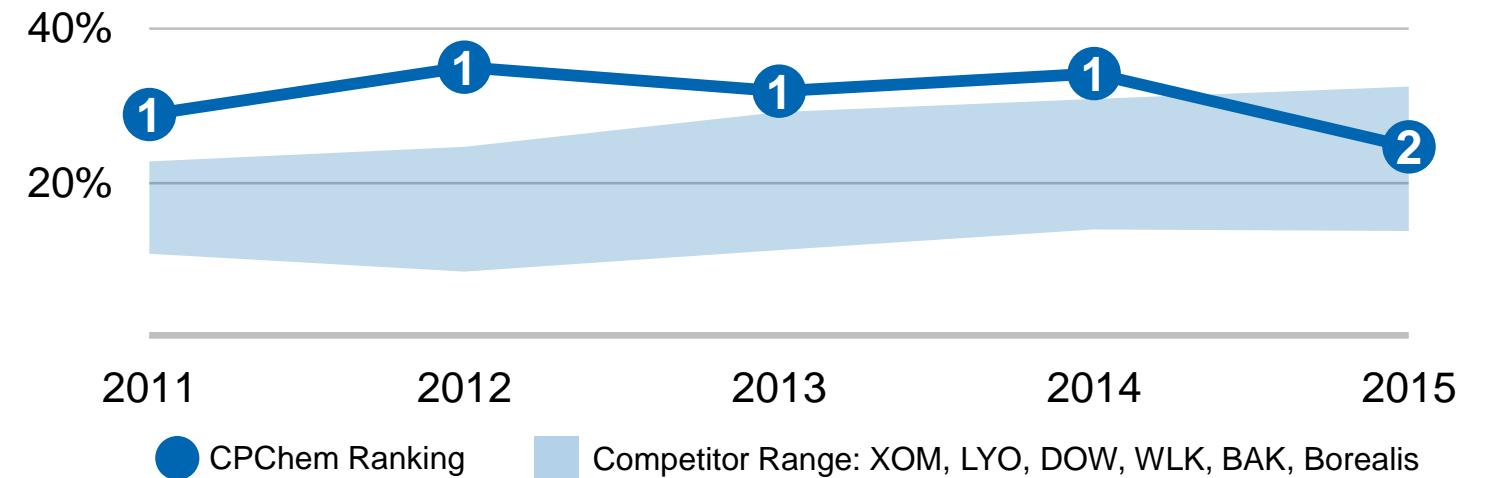
North America & Middle East

## Reliable supplier

Peer-leading customer satisfaction

## Returns

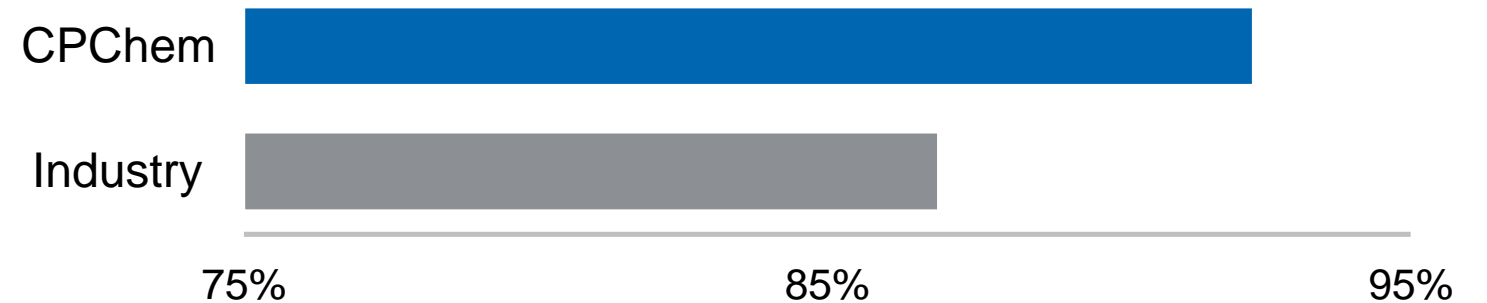
EBITDA / Average assets\*



\* Adjusted for non-operational earnings

## Utilization

2011–2015 average\*\*



\*\* Ethylene, polyethylene & polypropylene



Source: Public information handled on a consistent basis and CPChem estimates. Excludes special items  
Utilization based on NexantThinking™ and CPChem data

# Sustained reliability

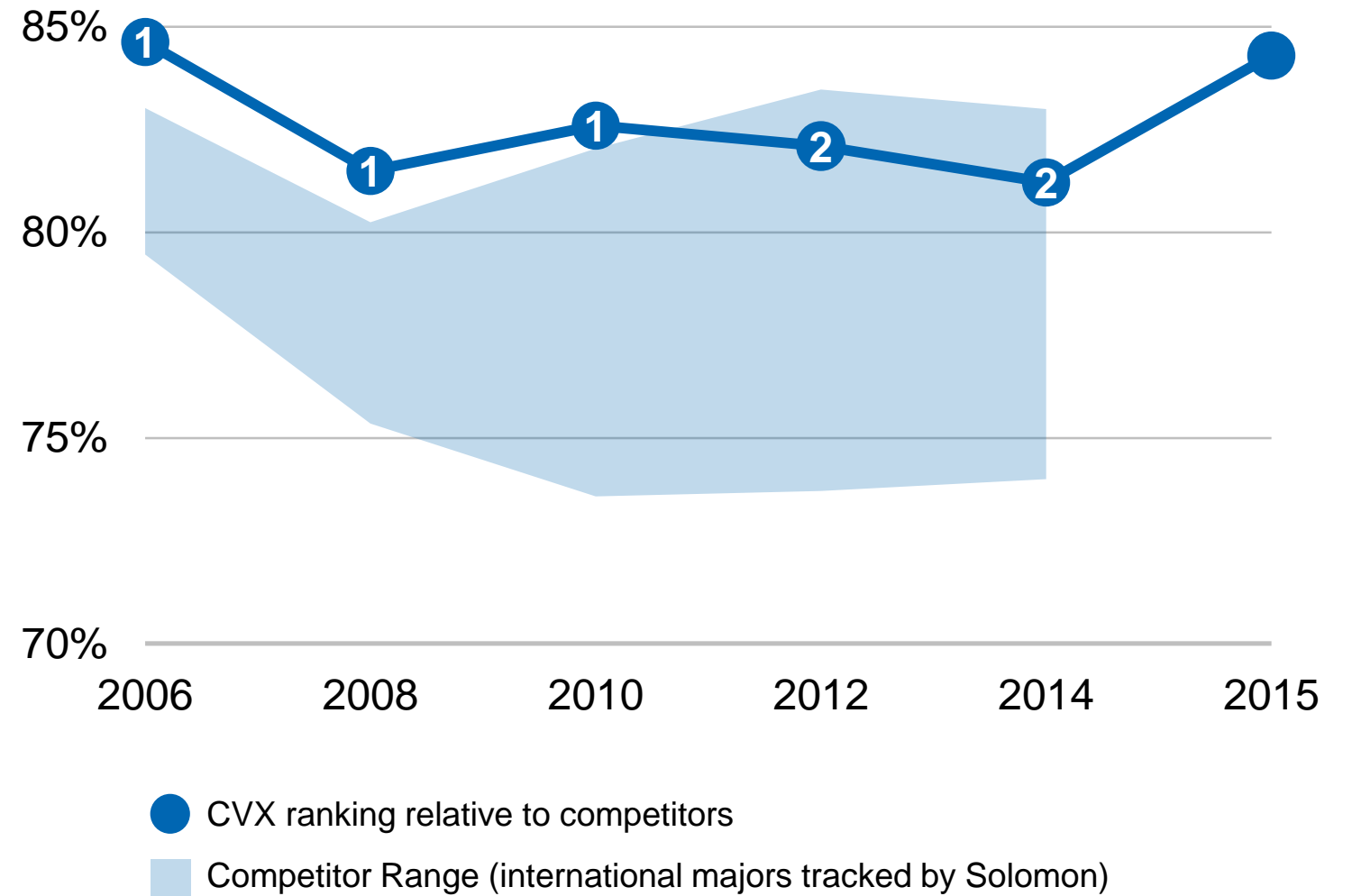
**Top-tier**  
sustained performance

**Results**  
from base business  
investments

**Improved**  
turnaround performance

## Solomon utilization

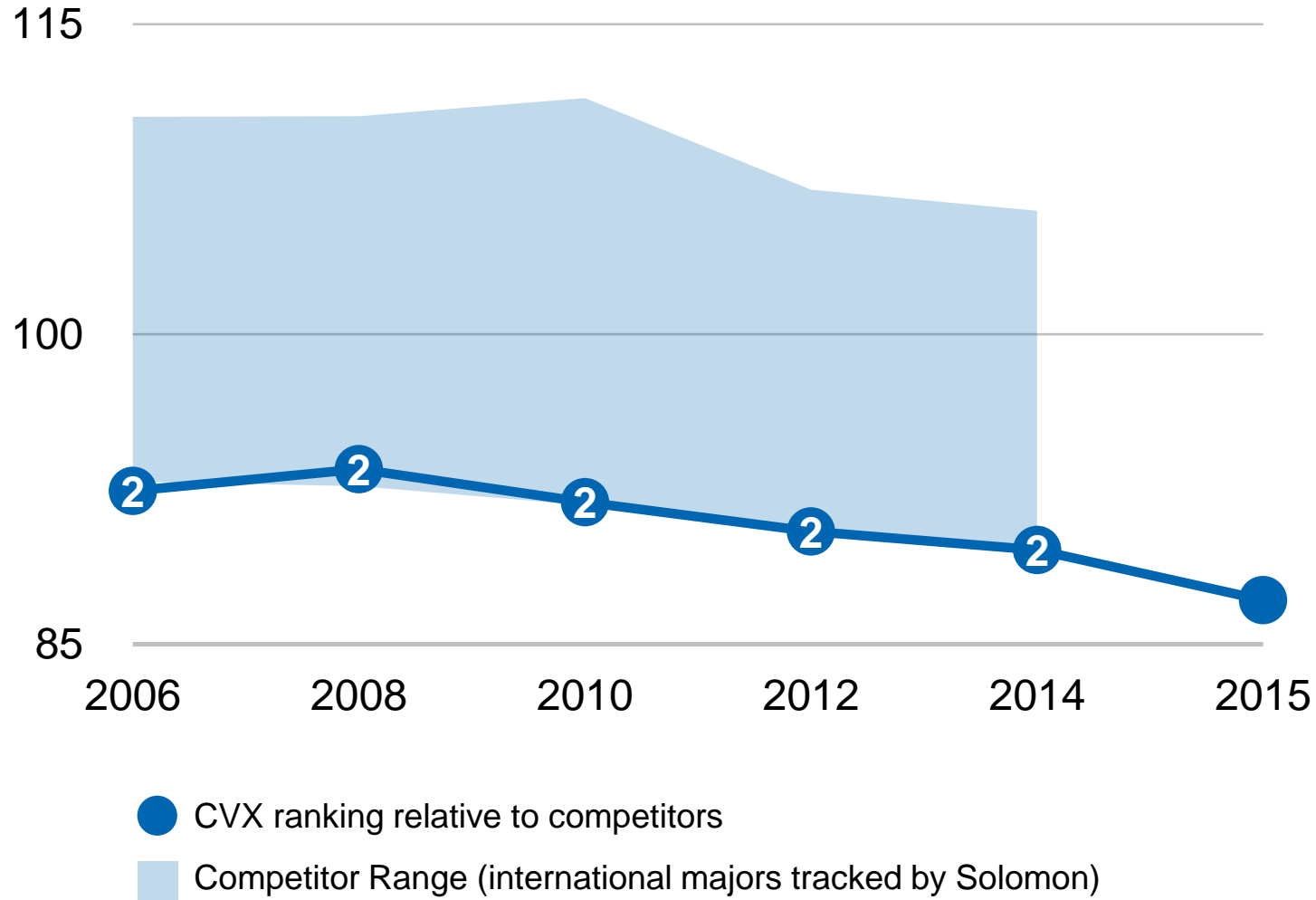
Chevron vs. international majors



# Superior energy efficiency

## Energy efficiency performance

Chevron vs. international majors



**Top-tier**  
sustained performance

**Continued**  
energy use reduction

**Improved**  
reliability



# Portfolio actions

## 2015 divestments

Caltex Australia, Pakistan fuels, New Zealand refining, other fuels

## 2015 initial public offering

Star Petroleum Refining Public Company Limited

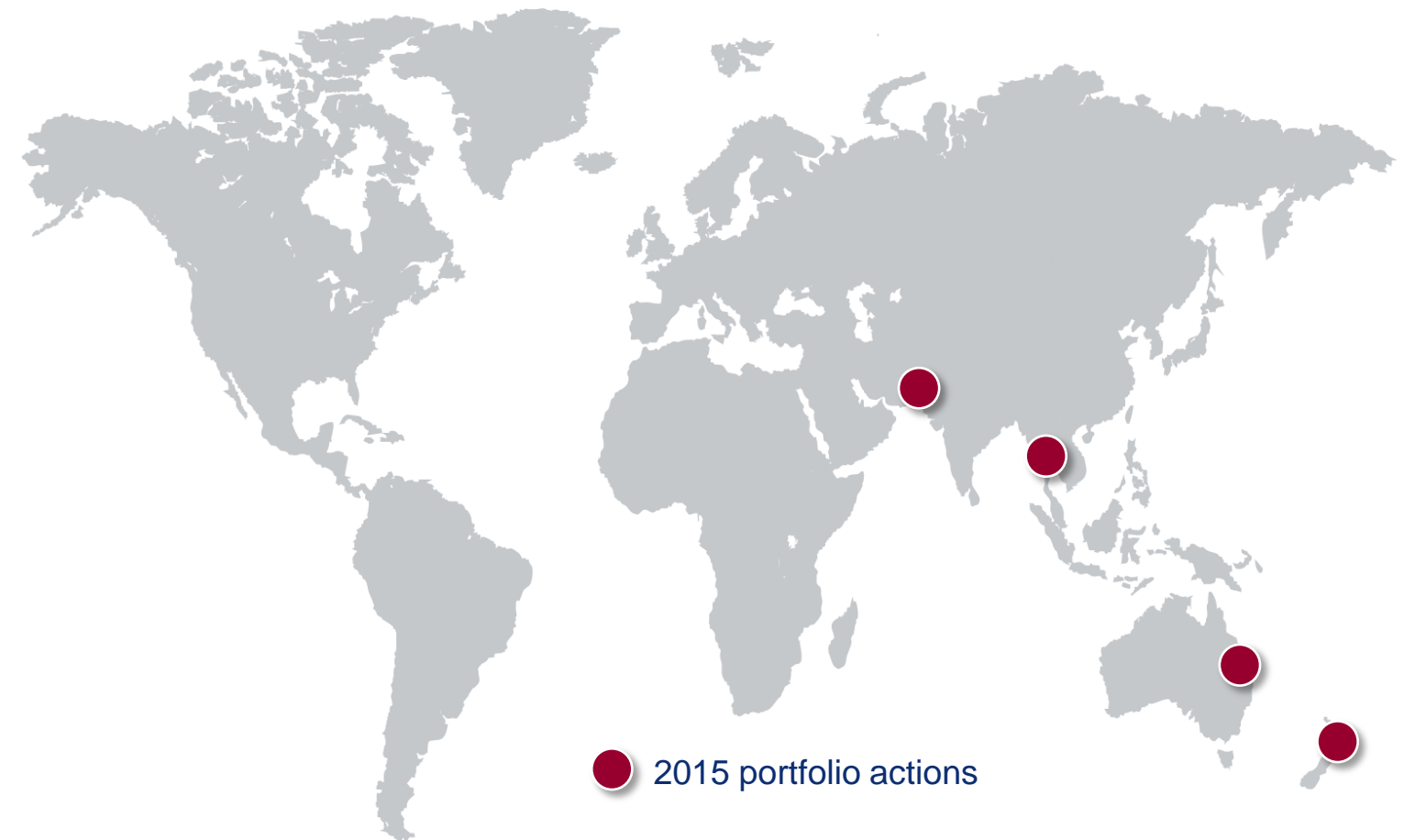
## 2016–18 divestments

Hawaii, New Zealand retail, South Africa

## Asset divestment proceeds B/T

2005-14  
**\$14** billion

2015  
**\$4** billion

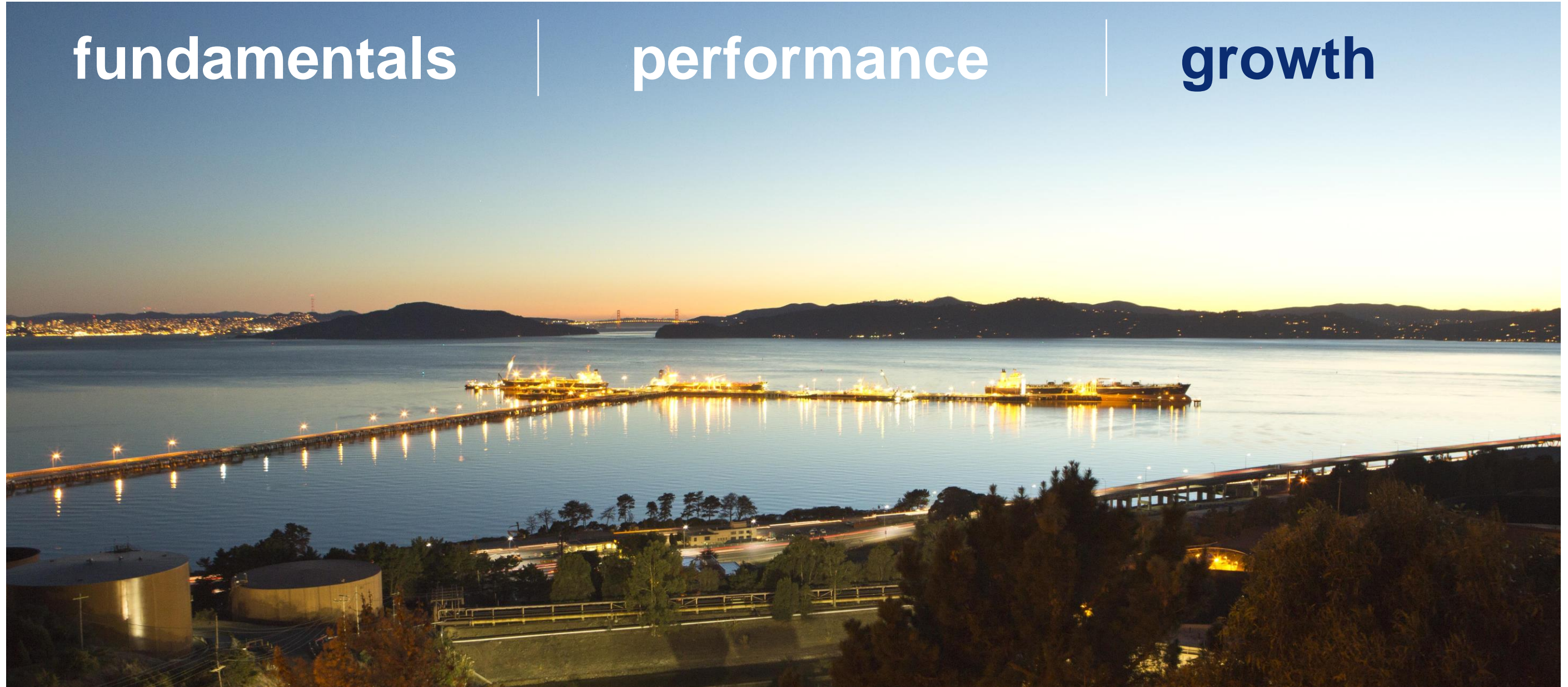


# Themes

fundamentals

performance

growth



# Chevron Phillips Chemical USGC petrochemicals project

## Overview

- 1,500 kMTA ethylene, Baytown, Texas
- 1,000 kMTA polyethylene, Old Ocean, Texas
  - 500 kMTA HDPE
  - 500 kMTA LDPE
- Advanced proprietary technology

## Progress

- 70% complete (>6,000 people onsite)
- Polyethylene reactors in-place
- Ethylene major compressors in place; furnace erection in progress
- Projected start-up 2017





# Integrated lubricants business positioned for growth

## Premium base oil

- Leading producer, global slate
- Well positioned for evolving specifications globally

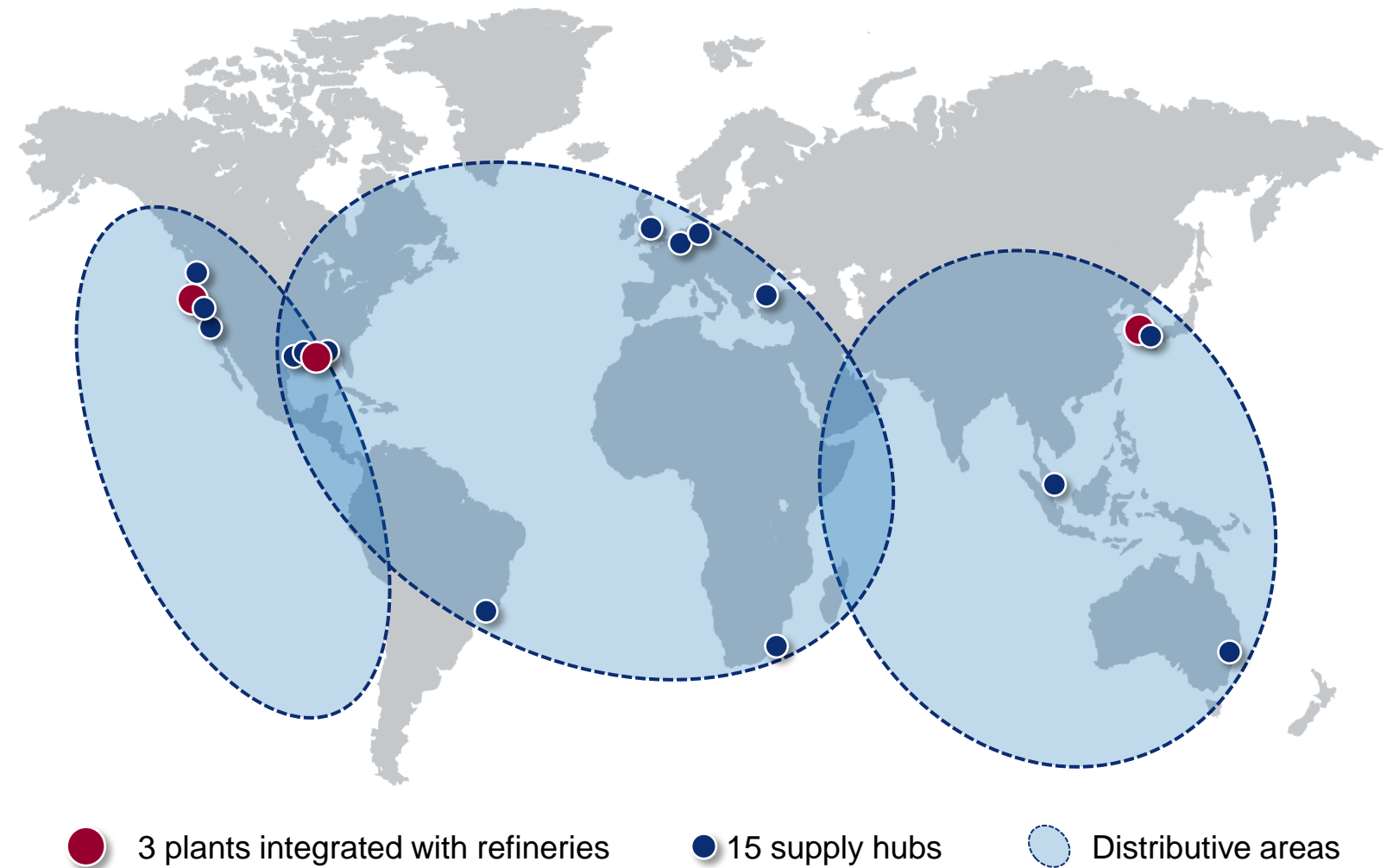
## Finished lubricants

- Targeting key growth markets
- Formulation technology expertise
- Strong global brands

## Additives

- Increasing supply capabilities across Asia Pacific

## Flexible global base oil supply chain



# Other major projects

## Oronite Singapore Carboxylate Addition

- Doubles global capacity of key, next-generation lubricants component
- Projected start-up 2017



## Singapore Refining Co. Clean Fuels & Cogeneration

- Increases capability to produce higher-value gasoline
- Improves energy efficiency
- Projected start-up 2017



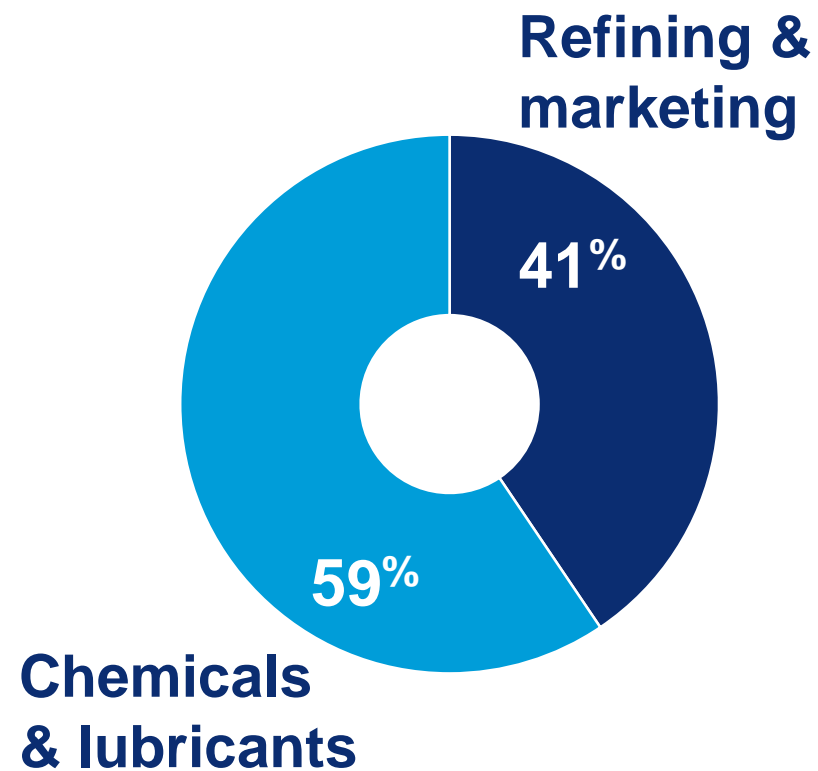
## Richmond Refinery Modernization

- Improves efficiency, reliability
- Creates crude and product flexibility
- Projected start-up 2018



# Paced capital spending

## 2016 capital expenditures by segment



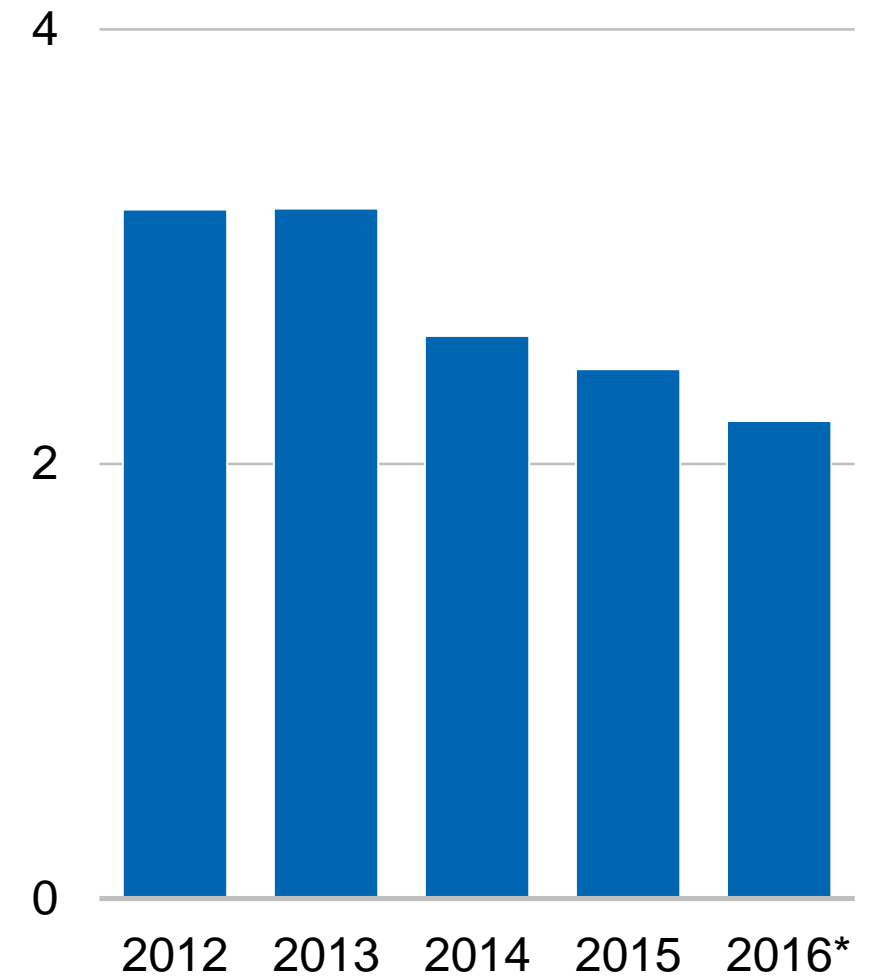
Enables **growth** in chemicals and lubricants

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Supports **safe and reliable** refinery operations

## Capital expenditures by year

\$ Billion



# Well positioned for today and the future

## fundamentals

Sustain returns

- Operational excellence
- Focused portfolio
- Competitive assets

## performance

Top-tier performance

- Safety
- Reliability
- Profitability

## growth

Targeted growth

- Asia
- Chemicals
- Lubricants

