

The Dynamics of the Global Lubricants Industry, 2012 to 2020

A presentation to:



Villa Noah
Sao Paulo, Brazil

October 24, 2012

www.KlineGroup.com

© 2012 Kline & Company

 Kline

- Bom dia (good morning) or Boa tarde(good afternoon) meus caros amigos. Eu me sinto privilegiada e tenho uma grande honra em estar hoje aqui com voces dividindo um pouco da minha visao sobre o mercado de lubrificantes em nível global. Caso vocês não tenham notado, o meu português não é fluente (rrsrrsr), mas eu quis tentar me arriscar a dizer algumas poucas palavras na sua bonita (e difícil) língua materna como prova do profundo respeito e admiração que eu tenho sobre o seu país, sua cultura, história e tradição. Obrigada mais uma vez pela oportunidade.





Contents

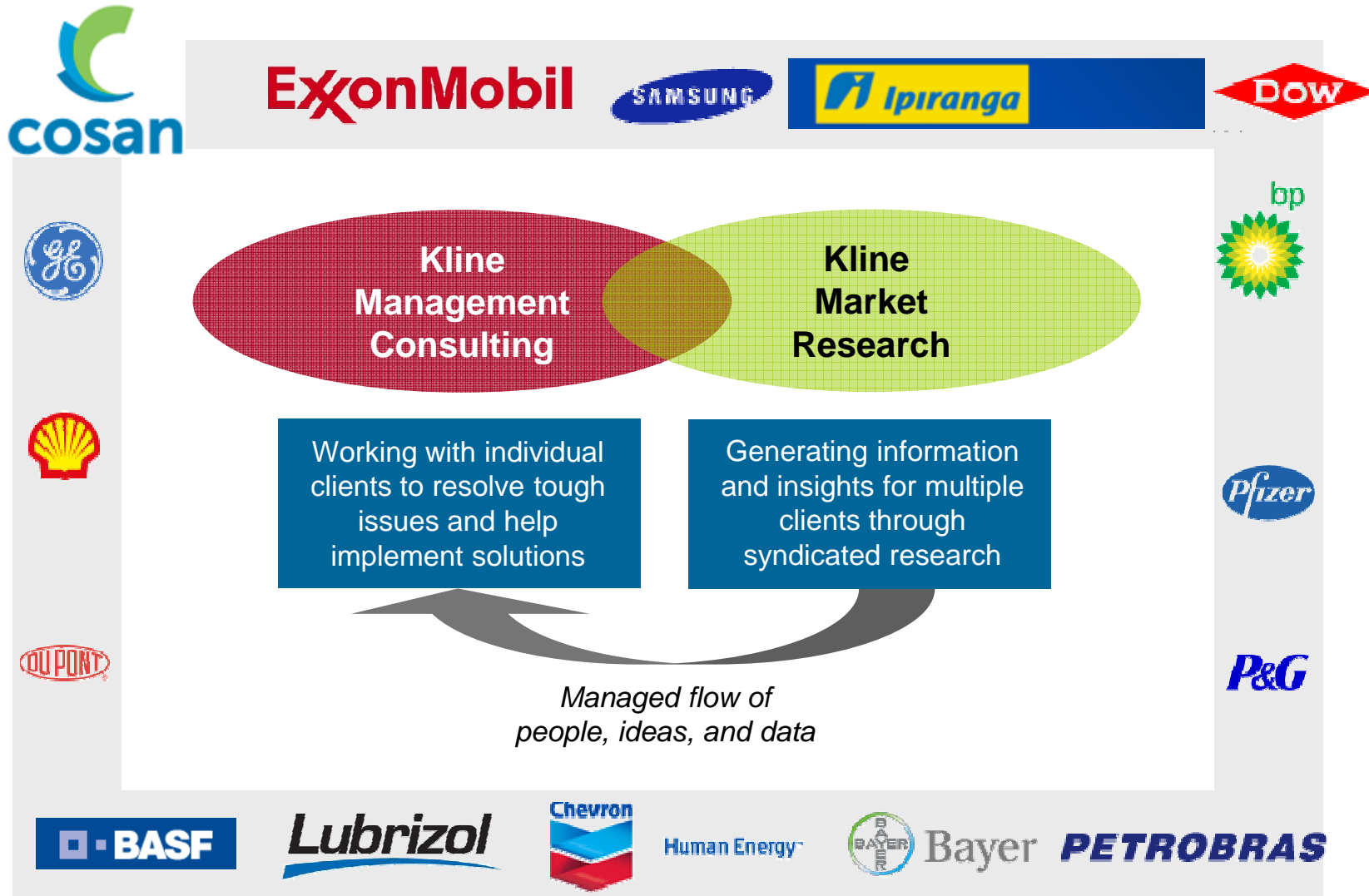
1. Introduction

2. Global Lubricant Market Review

3. Future Trends

4. How do we succeed in this challenging environment?

Kline & Company is a leading management consulting and market research firm.



Our global offices enable us to assemble a team that delivers cohesive, consistent, high-quality advice and analysis

- Americas
 - Parsippany, NJ (headquarters)
 - *Sao Paulo, Brazil*
- Europe
 - Brussels, Belgium
 - London, United Kingdom
 - Prague, Czech Republic
- Asia
 - Shanghai, China
 - Tokyo, Japan
 - New Delhi, India
 - Hyderabad, India



Study background

- This presentation is based on Kline's 10th annual assessment of the global lubricant market
- This presentation covers all leading product categories and lubricant consuming nations of the world
 - Process oils and ocean going marine engine oils are included in our definition of finished lubricants
- All base year data refers to 2011 and projections to 2020. All market numbers are in KB





Contents

1. Introduction

2. Global Lubricant Market Review

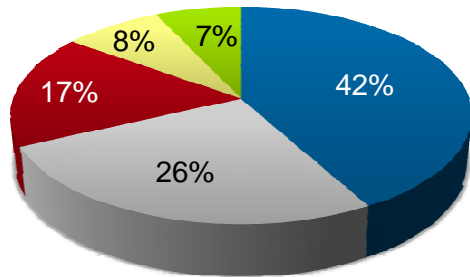
3. Future Trends

4. How do we succeed in this challenging economic environment?

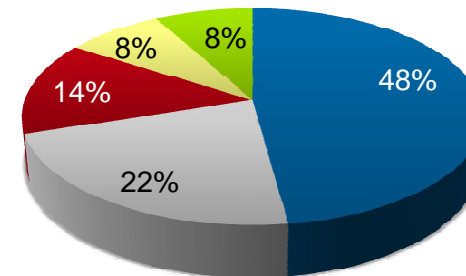
Global lubricant demand is estimated at 274,060 KB in 2011, a 2% growth over 2010.

Both North America and Western Europe continue to stagnate below pre-recession levels. Most of Asia has recovered and is growing at pre-recession levels.

Global Lubricant Demand by Region, 2011

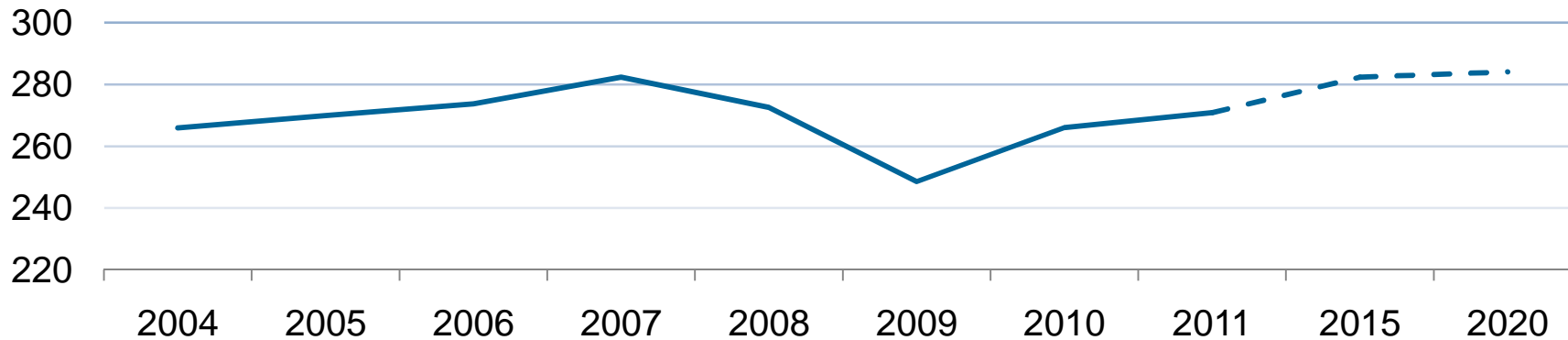


Global Lubricant Demand by Region, 2020



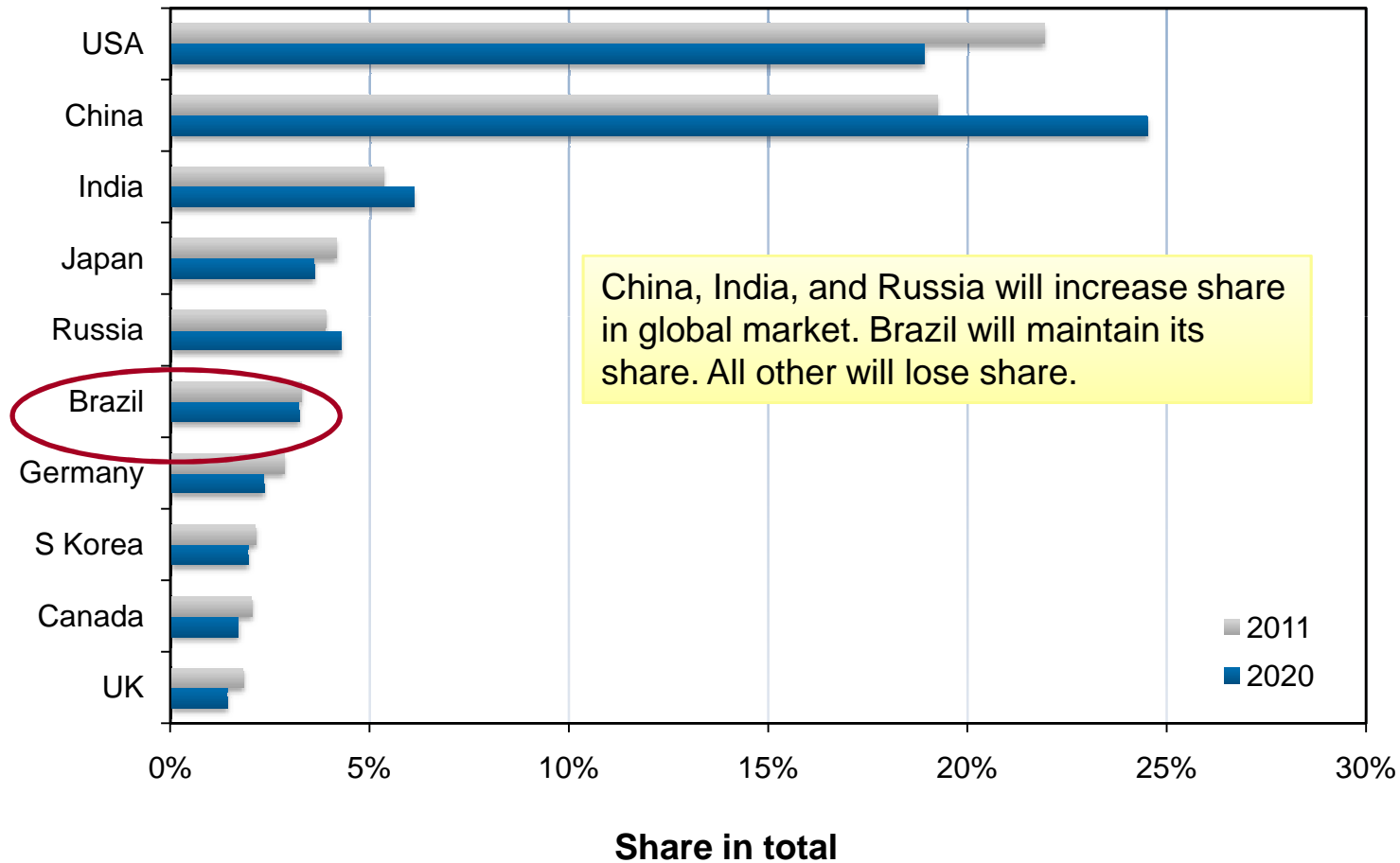
Total: 274,060 KB

Global Lubricant Consumption, 2004-2020 (KB)



The largest country market in terms of lubricant volume consumed continues to be the United States but questions remains just for how long?

Global Lubricant Demand by Leading Country Market, 2011 and 2020





Contents

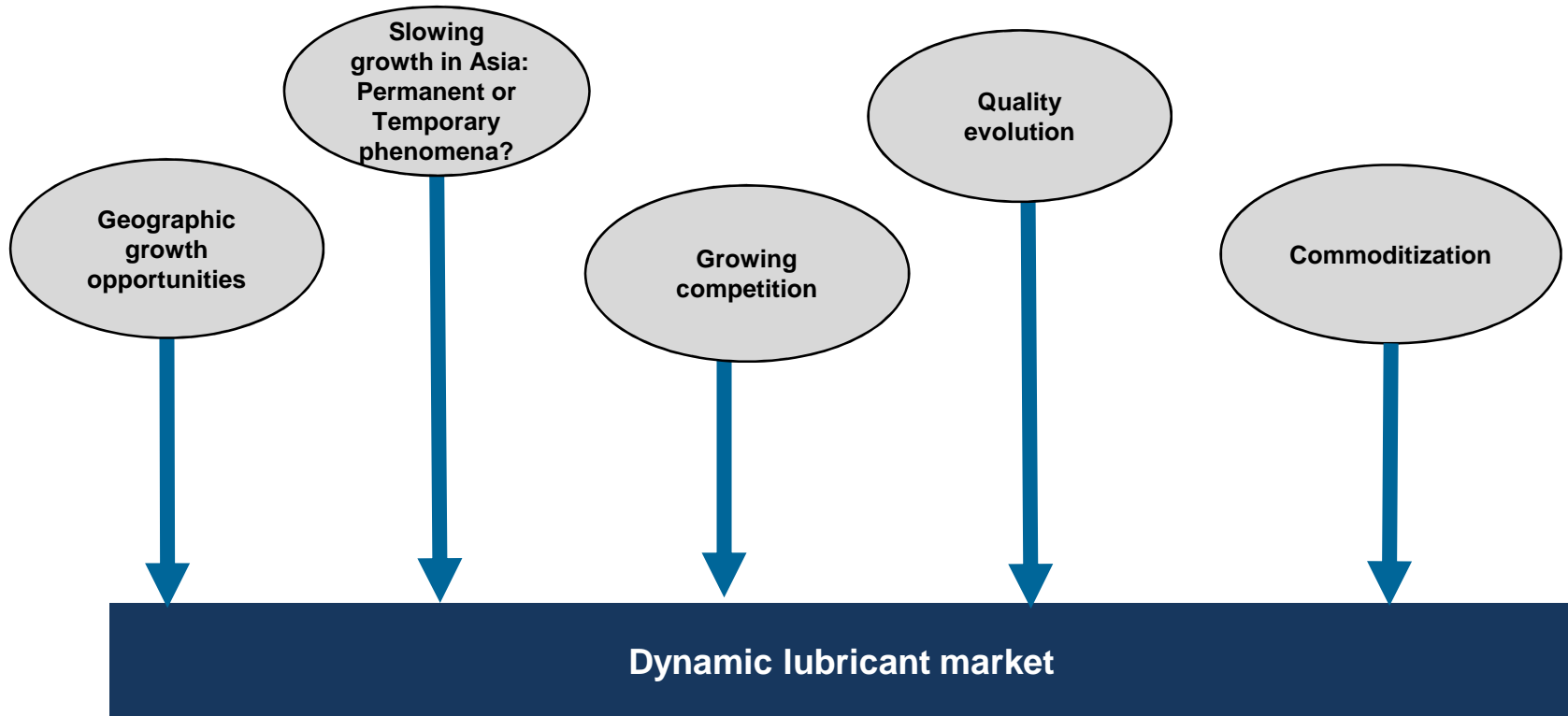
1. Introduction

2. Global Lubricant Market Review

3. Future Trends

4. How do we succeed in this challenging economic environment?

Looking into the future, several important issues are shaping the global lubricants market.

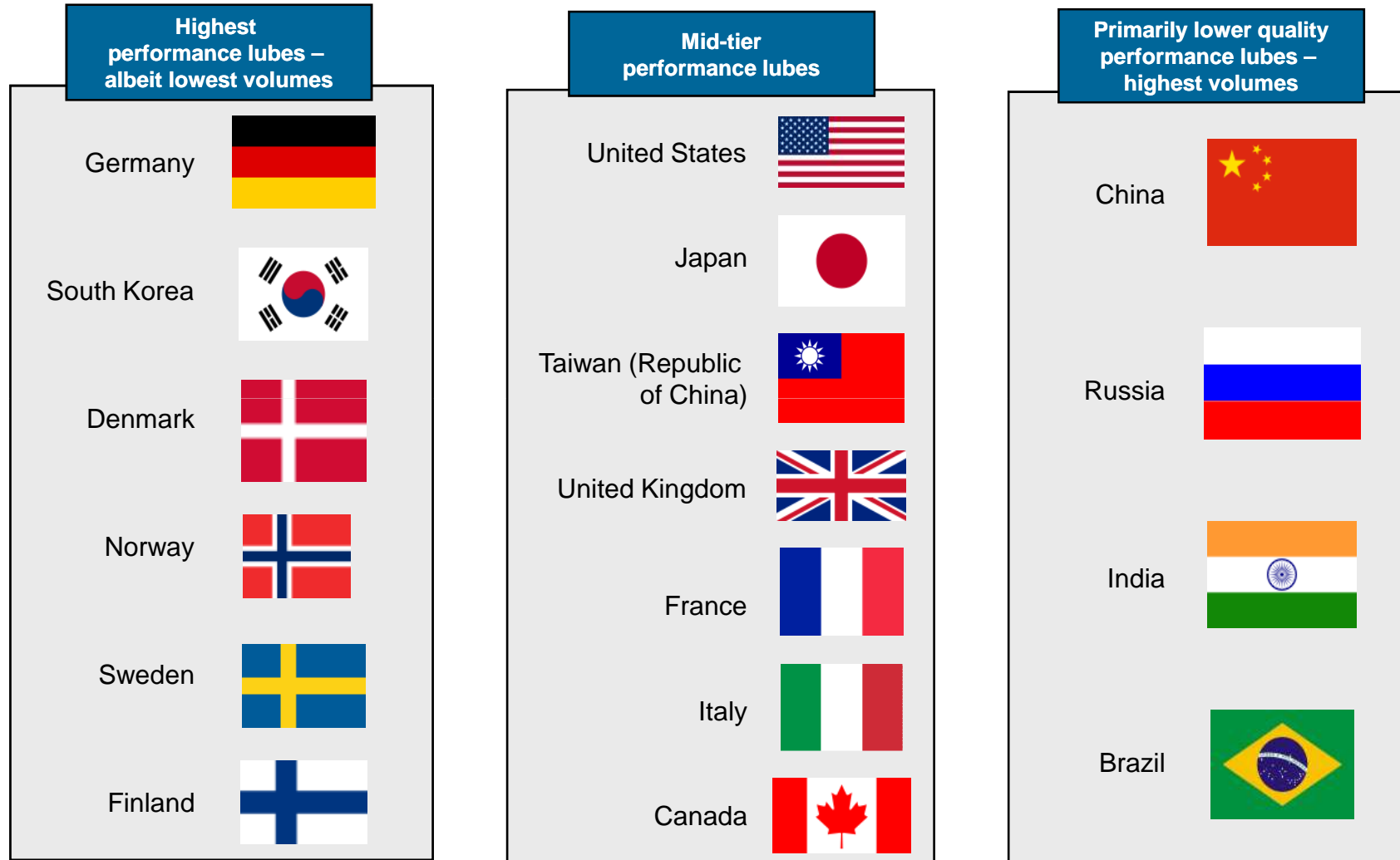




Geographic growth opportunities







Significant disparities exist in the quality of lubricants being consumed globally.



Looking at forecast GDP growth, volumetric growth will primarily come from non-OECD countries. Also watch for Kazakhstan, Ukraine, Myanmar, Thailand

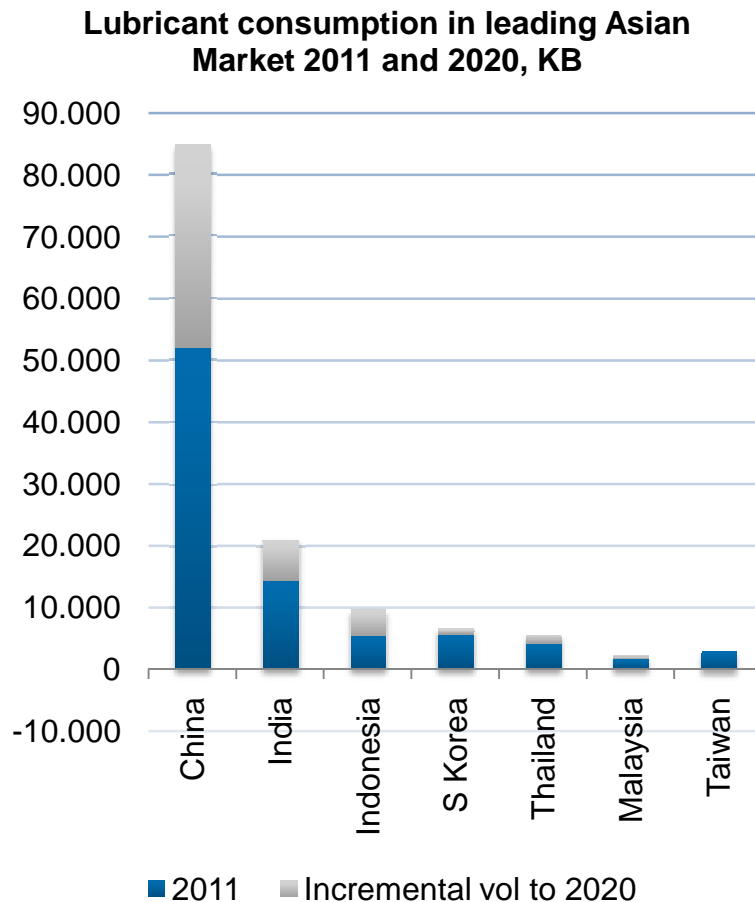
BRIC + K

Russia	
Brazil	
South Korea	
China	
India	

Next -10

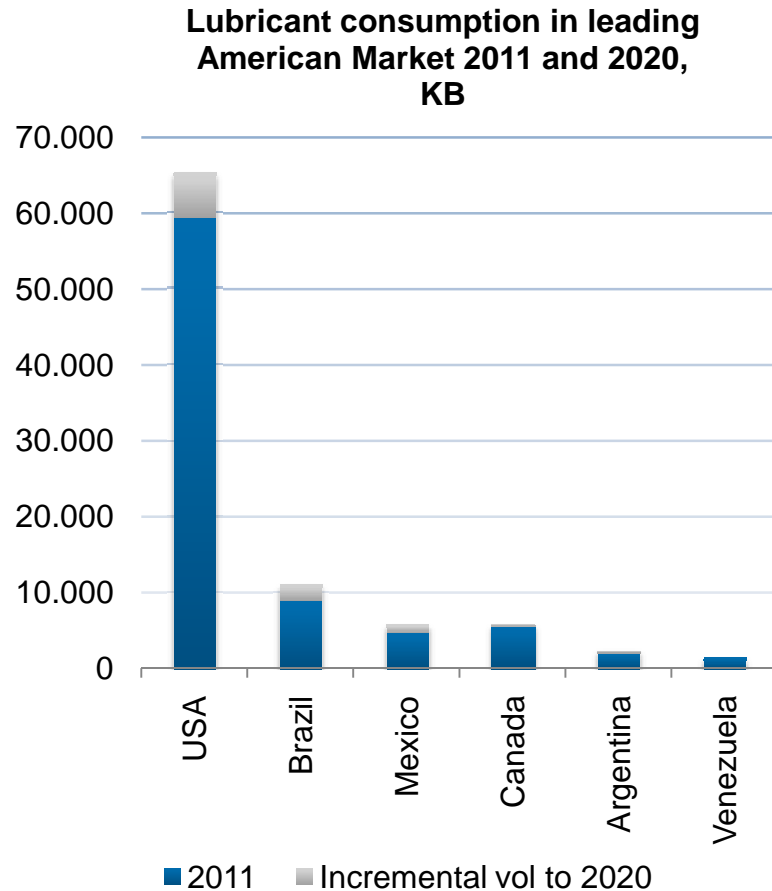
Vietnam		Turkey	
Indonesia		Philippines	
Egypt		Pakistan	
Mexico		Bangladesh	
Nigeria		Iran	

Growth opportunities in China and beyond – AP 2011 - 2020



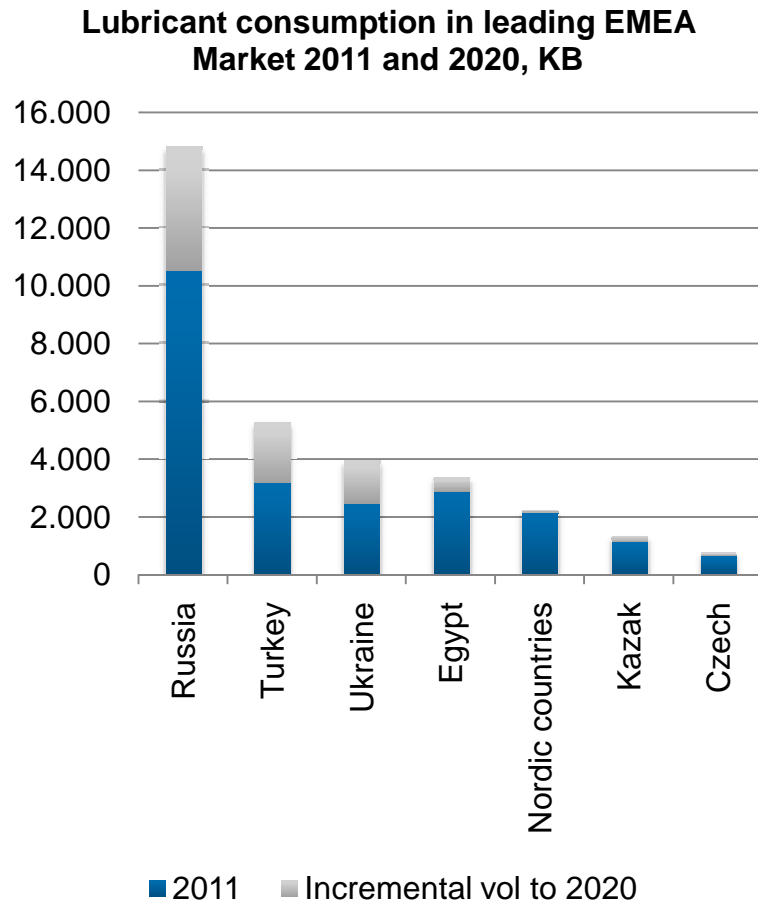
- Despite the current hiccups, rapid growth in passenger car and motorcycles will drive lubricant consumption growth (for example China has 34 cars per thousand people compared to 439 in North America, indicating significant growth potential)
- In the commercial segment, increased mechanization of agriculture, mining, and infrastructure building will drive HDMO demand
- Driven by easy availability of Group III and also by a desire to give best protection to their vehicle, synthetics will grow twice as fast as the overall market

Between 2011 and 2020, the Americas region will add 11,620 KB of volume, opportunities for growth in USA synthetics, Mexico, Brazil and Peru for conventional



- This region seems to be improving
 - Opportunities exist in certain key geographies including Brazil, Mexico, Peru and others in specific segments including mining, automotive production and others
- The US market is flat to declining but significant opportunities exist to up sell customers to synthetics
 - Especially as mass car marketers as Honda, Toyota and others move to 0W grades

EAME Opportunities for growth in Russia, Turkey, Ukraine, Egypt and Kazakhstan



- Primarily, European non-OECD countries will demonstrate the most volume growth opportunities
- Lubricant consumption in Western Europe is in a long term decline primarily due to declining population factors, industrial production moving East of the Suez, financial un-certainty due to the Euro Zone crisis, **softness in Asia** and improving quality levels
 - Spain, Portugal, Italy, Ireland, Greece, France are all expected to go down a slippery slope
 - Germany might provide some beacon of hope to reverse this trend
 - Opportunities in Western Europe are more focused on synthetics

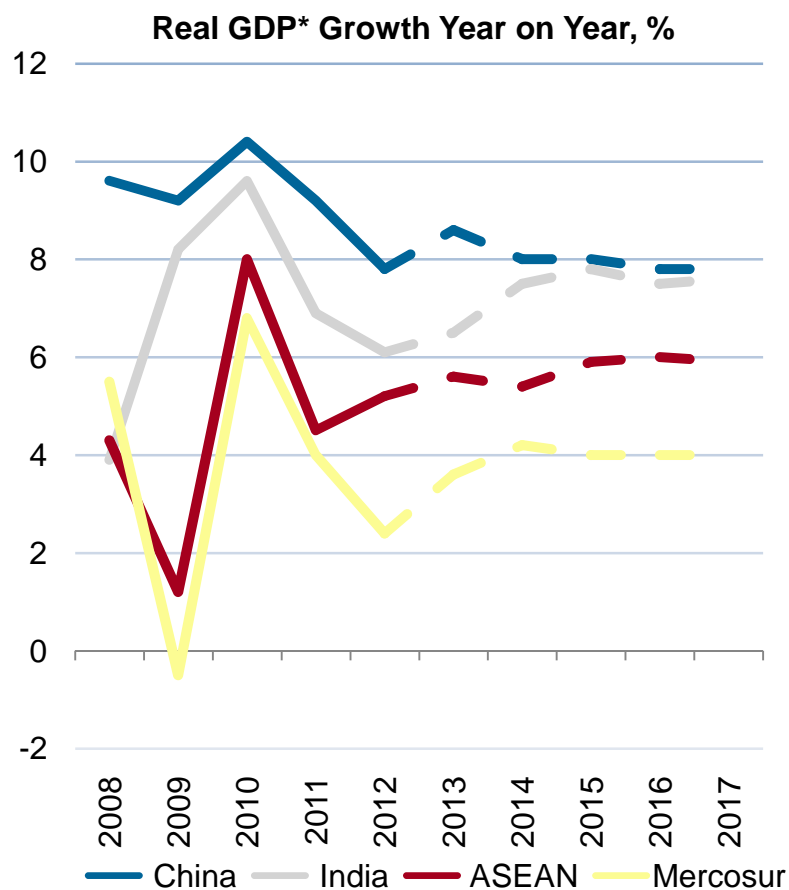


Slowing growth in Asia: Permanent or Temporary Phenomena?

Looking at a variety of factors, it is apparent that Asia is slowing down

- 2012 Jan-Jun auto production vs 2011 Jan-Jun production:
 - China: PC up 4% / CV down 9%
 - Japan: PC up 55% / CV up 45%, but this follows a 30% (PC) and 25% (CV) decline in 2011 vs 2010 due to Tsunami
 - India: up just 2%. In-fact production in July/Aug cut back due to rising inventory
 - Thailand: Up 30%. But this compensates a similar drop in 2011 due to floods
 - S Korea: PC up 2% / CV down 8%
 - Production has slowed down. Full Year 2012 may show minimal or no growth compared to 2011
- Steel production 2012 Jan – Jun production vs 2011 Jan- Jun
 - China: up just 0.9%!!
 - India: up 7%
 - Japan: no growth
 - S Korea: up 3%
- Purchase Managers Index data is uniformly bad
 - China index is at 10 month low and in contraction territory
 - India – still expanding but slowest in last 9 months
 - S Korea – Fastest contraction in output in 8 months
 - Japan – Accelerated decline in new business

In our opinion, the China slowdown is temporary . . . growth fundamentals still in place



* - GDP at market prices

Source: www.eiu.com

ASEAN Includes
Indonesia, Malaysia, Philippines, Singapore, Thailand, and
Vietnam

Mercosur includes Argentina, Brazil, Paraguay, Uruguay, and
Venezuela

- Growth rate in China is expected to pick up in 2013 before settling down to 8%
 - Interest rate cuts and other stimulus measures introduced in 2012H2 will take effect in 2013
 - Political transition will be completed
 - QE3 in North America and Euro zone bail out will stimulate exports

- China continues to transition from investment / export driven growth to consumption driven growth
 - Wage increases, interest rate cuts in 2012 and strengthening currency will help
 - Increasing manpower costs in China is pushing secondary manufacturing to Bangladesh, Vietnam, Cambodia, S Lanka, Indonesia, and Myanmar. This trend will accelerate in 2013

- Brazil exhibited a strong rebound in 2010 due to policy stimulus
 - Growth declined in 2011 and 2012 due to poor demand growth in North America and Europe and the impact on China.
 - With recovery in China, Brazil and the region will show recovery in 2013.

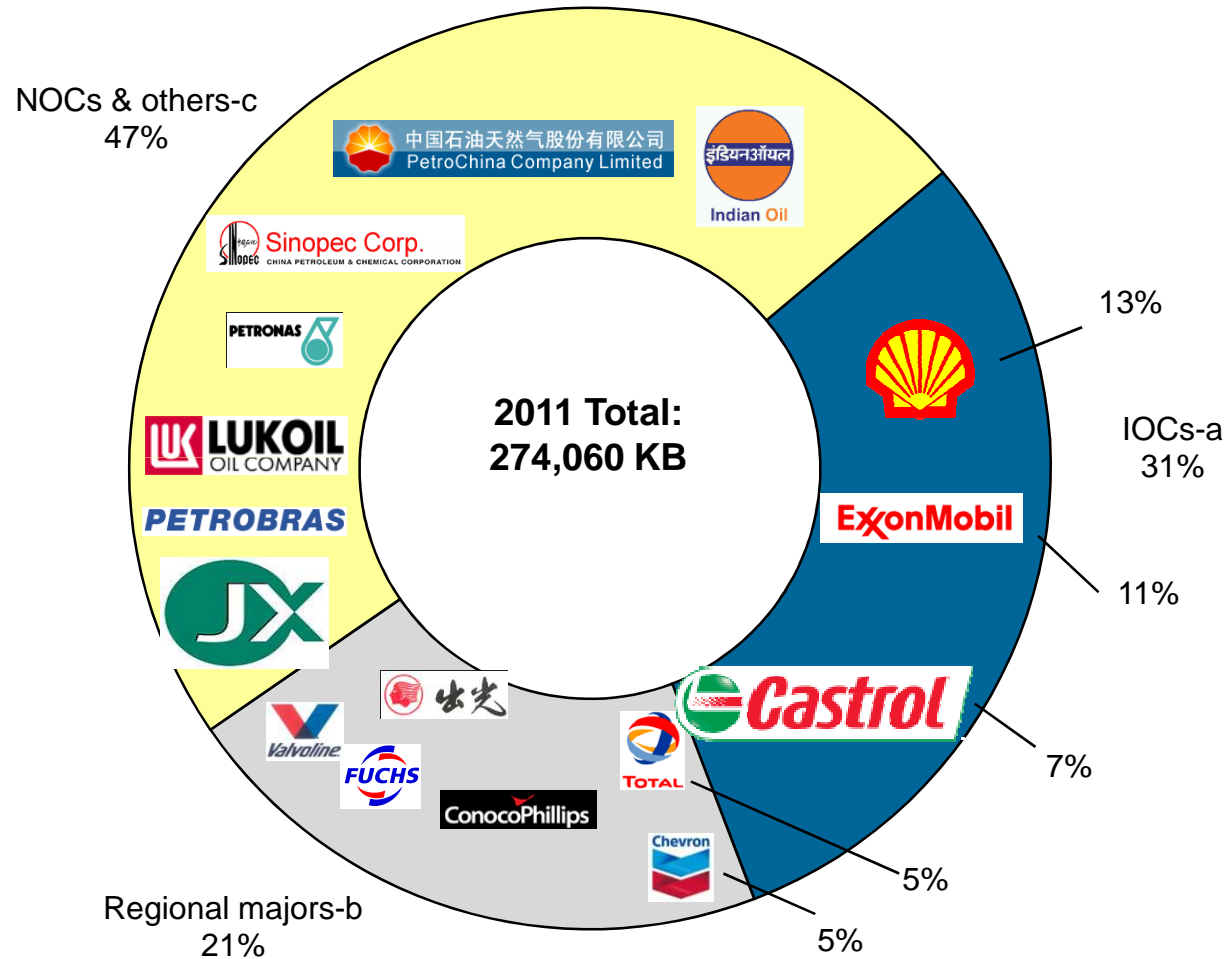


Competition



IOCs account for 31% of the global volume.

Estimated Global Supplier Market Share by Supplier Type, 2011



a- Includes Shell, ExxonMobil and BP.

b- Includes Chevron, TOTAL, FUCHS, Idemitsu, CP, Valvoline, ENI, PETRONAS, and others.

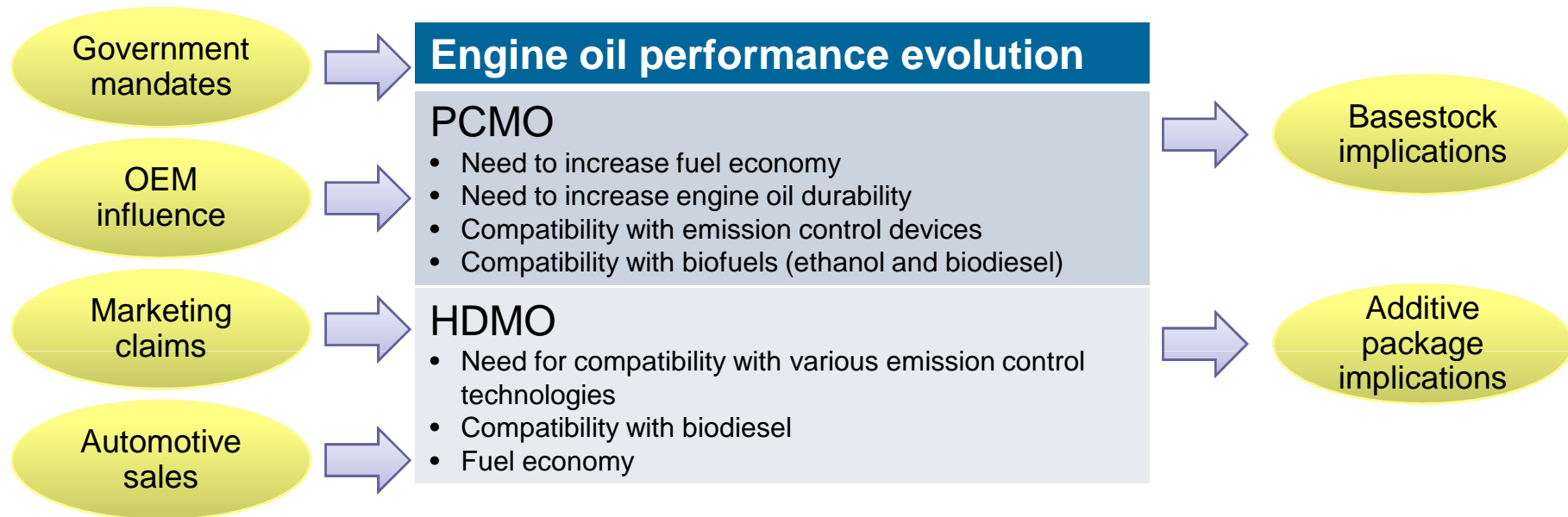
c- Includes Indian Oil, Lukoil, Petrobras, Sinopec, PetroChina, AGIP, and others.



Performance evolution



Lubricant performance evolution



In the industrial lubricant segment too, quality is improving driven by:

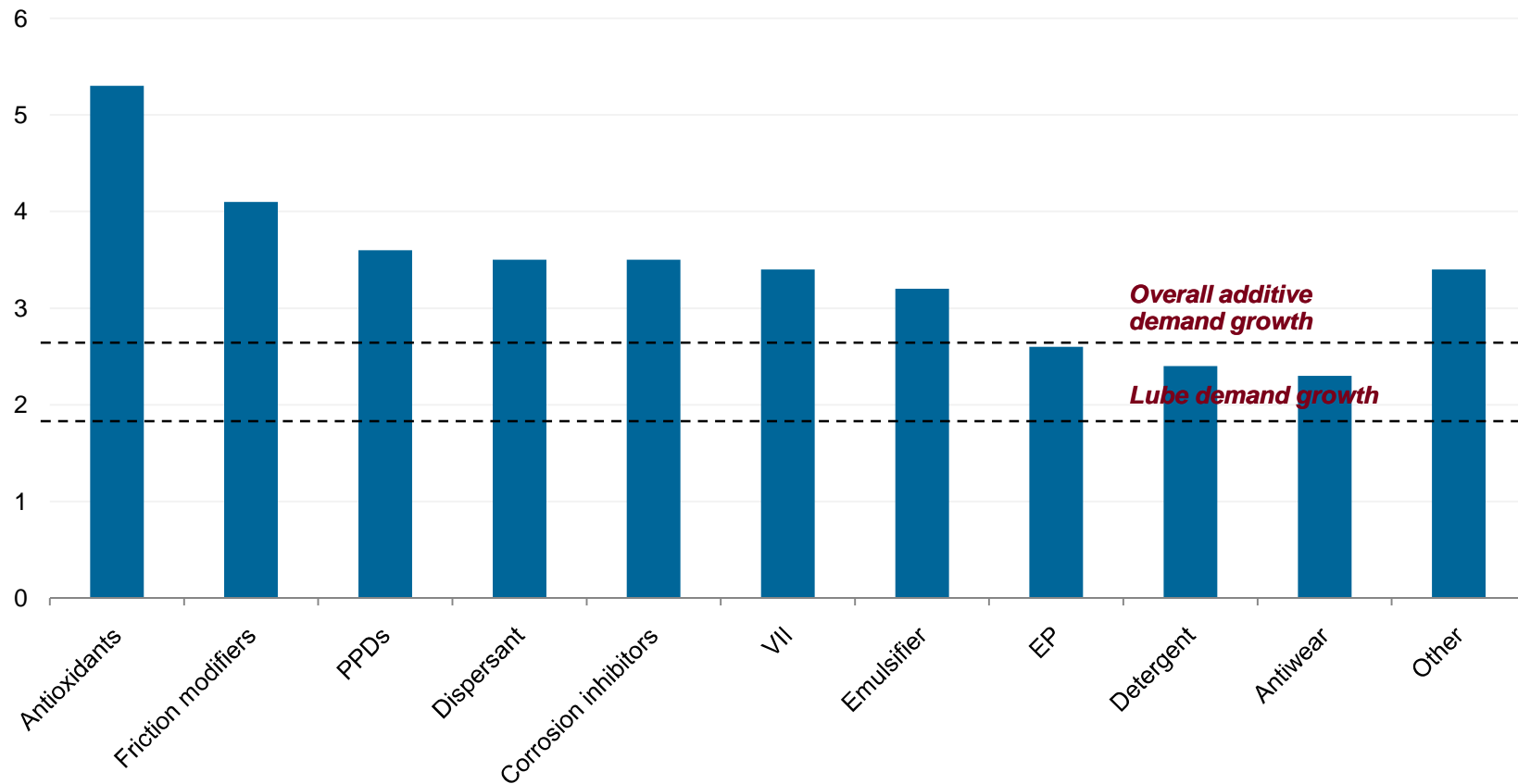
- Reducing equipment size and longer drain intervals → lubricants need to be more sturdy
- HSE factors drive the usage of environmentally benign lubricants (bio-degradability, oil disposal, protection of flora and fauna)

Basestock Implications

- Group I baseoils out of most automotive formulations in the developed world
- Previously low sulfur content and high saturates were key factors for differentiating basestocks, but with the massive growth in Group II, it no longer implies a premium
- With growth in low viscosity engine oils, NOACK volatility and low temperature performance has greater importance. High VI is important for wide grades like 0W40 and 5W50. Thus Group III/III+ and PAO are premium products while Group II/II+ are slowly becoming mainstream products
- For industrial products, reducing supply of high viscosity Group I basestocks is a worrying trend, and is driving a premium of brightstocks. Group II is penetrating where high temperature performance, oxidation and thermal stability is required
- HSE factors drive the usage of vegetable oil based products and synthetic esters

Additive implication – Certain classes will grow faster than others.

Global Lubricant Additive Demand Growth, 2010-2015 (CAGR %)





Commoditization



Commoditization of lubricant products is an increasing threat

- With abundant supply of Group III baseoils and readily available additive packages, almost, everyone has the capacity to formulate a synthetic
- With increasing OEM FF spec of synthetics and significant increases in Group III supply, will synthetic PCMO face commoditization pressure?
 - As it becomes more ubiquitous, Synthetic PCMO is becoming bucketed into three tiers: “Flagship” synthetics (i.e. Mobil 1, Castrol Edge, Pennzoil ULTRA), “Premium” Synthetics (i.e. Castrol Magnatec, Pennzoil Platinum,) and “Competitive” Synthetics (I.E. Wal-Mart Super Tech, NAPA)
- There exist same concerns regarding the synthetic blend and conventional products
- Question: What can you do better/do differently in order to create differentiation in the minds of the customer?
 - Innovation, R & D, strong technical support, easier financing terms, advertising and promotion, others?



Contents

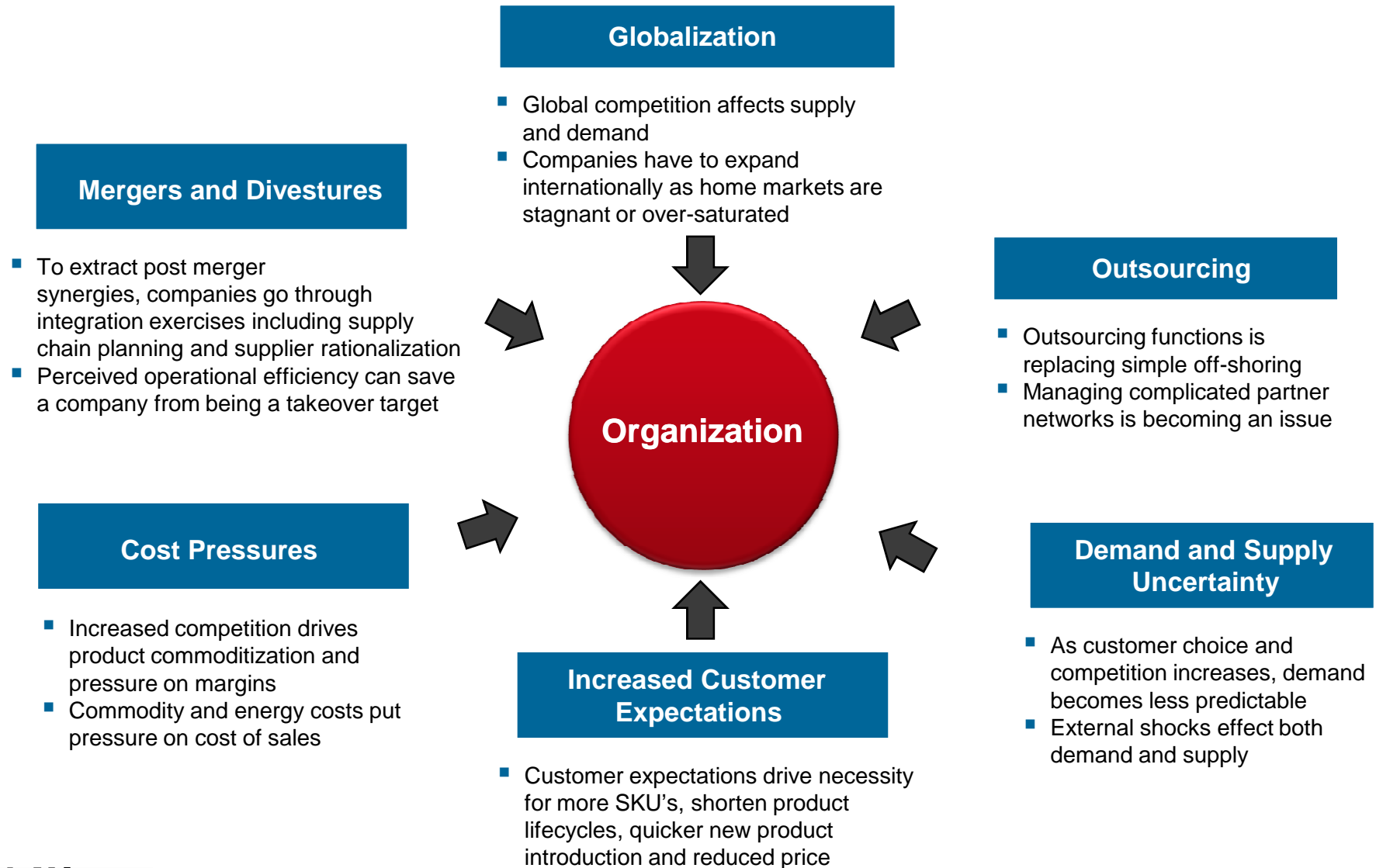
1. Introduction

2. Global Lubricant Market Review

3. Key Trends and Outlook

4. How do we succeed in this challenging environment?

A number of external forces are changing the way lubricant organizations need to operate.



Looking forward to 2020, lubricant marketers will have had to be flexible given significant impacts of.

OEMs

ODI

Additive suppliers

Counterfeit products

Commoditization

GTL

Proliferation vs. product line optimization

Substitutes

NOCs

Consolidation

Growing Regional's




It will also be critical to ensure assurance of consistent supply across various geographies

- Good understanding of current and future market and technological conditions
- Strong global relationships with customers as well as suppliers
- Multiple scenario planning in case of “acts of nature” leading to disruptions



In closing, we would like to thank **YOU** for your un-divided attention!

- The global lubricants market is very competitive; however, therein, lie significant growth opportunities – both on a volume as well as value basis
 - Significant changes are impacting our industry along different dimensions
 - Strong, flexible organizations with a pulse on end users, governmental regulators, OEMs, and suppliers will survive and thrive
 - When the going gets tough, the tough get tougher!!
- 

Kline is a worldwide consulting and research firm dedicated to providing the kind of insight and knowledge that helps companies find a clear path to success. The firm has served the management consulting and market research needs of organizations in the chemicals, materials, energy, life sciences, and consumer products industries for over 50 years. For more information, visit www.KlineGroup.com.

If you require additional information about the contents of this document or the services that Kline provides, please contact:

Geeta Agashe
Vice President, Energy
Phone: +1-973-435-3484
E-mail: Geeta.Agashe@KlineGroup.com

Milind Phadke
Director, Energy
Phone: +1-973-435-3489
E-mail: Milind.Phadke@KlineGroup.com

Kline & Company, Inc.
35 Waterview Blvd.
Suite 305
Parsippany, NJ 07054
Phone: +1-973-435-6262
Fax: +1-973-435-6291

www.KlineGroup.com



Americas

Asia

Europe