

Oil Industry Trends

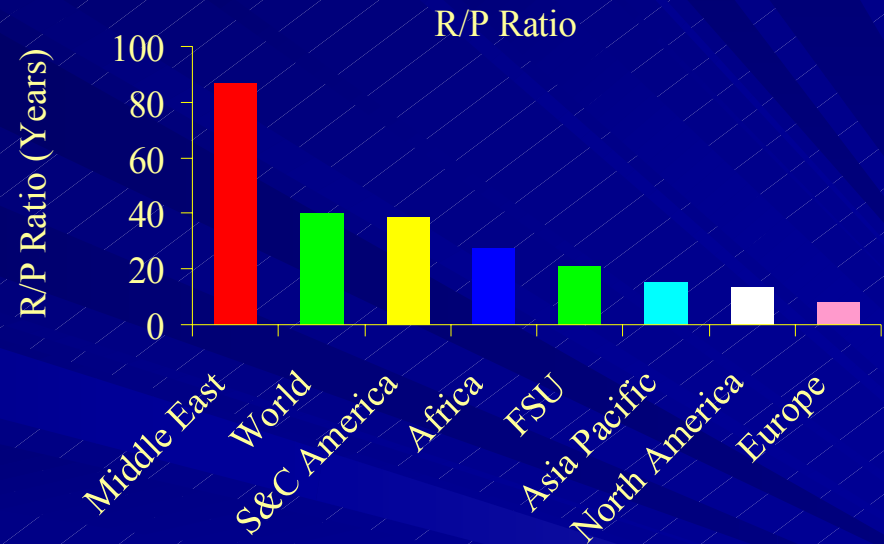
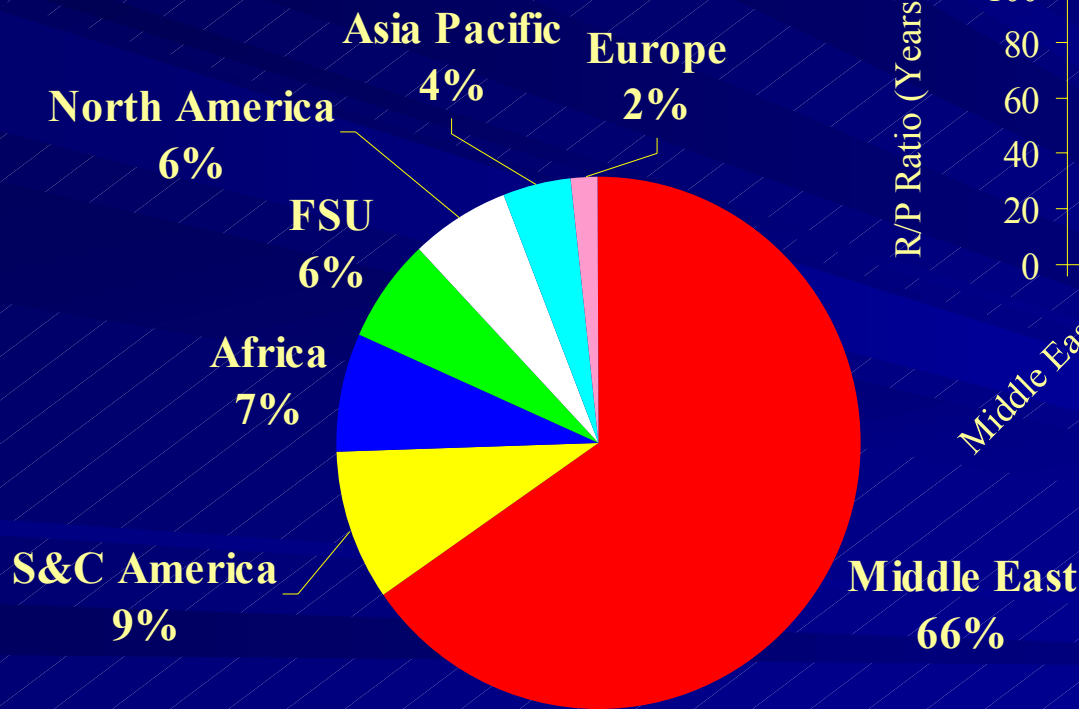
Rob Arnott

26th January 2004

Oil Industry Trends

- Overview of global industry trends
 - Regional costs and capital migration
- Industry costs and implications
 - Why is further consolidation likely?
- Company specific growth
 - Where will growth come from?
- Conclusions
 - How much more risk are companies taking on?

Global proved reserves base

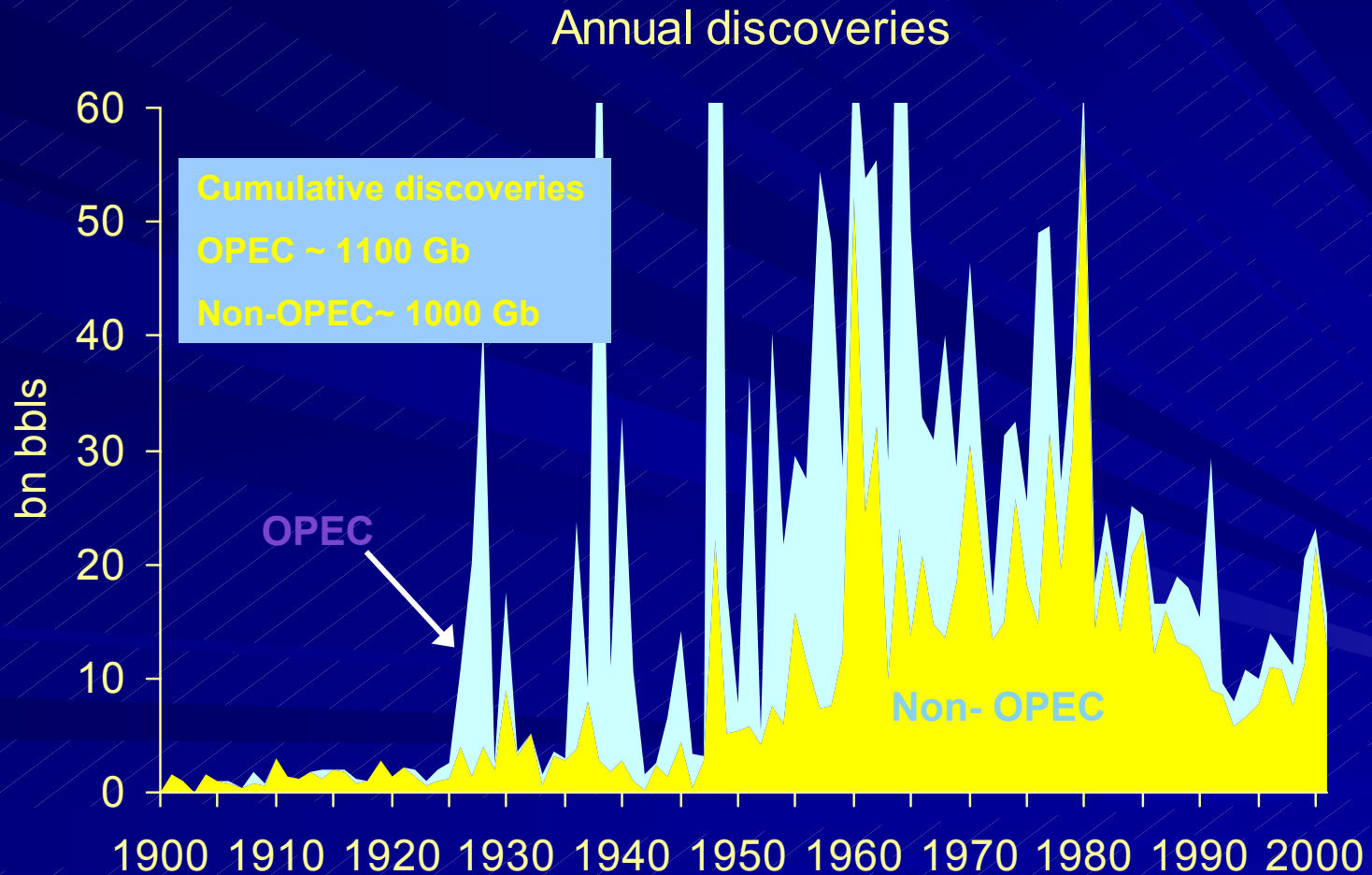


1050 bn barrels

R/P 40 Years

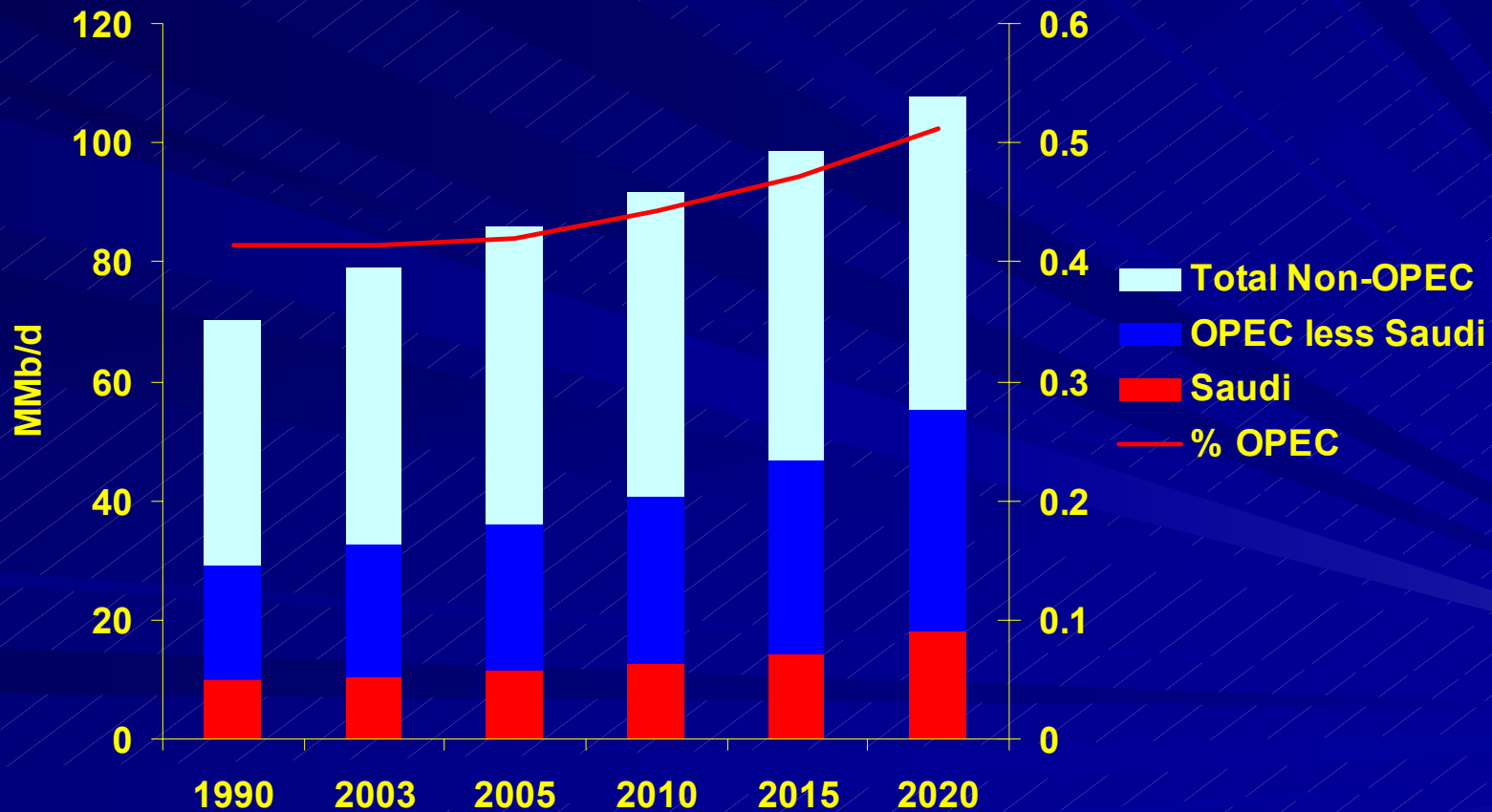
Annual discoveries 1900-2002

Emphasis switches from exploration to exploitation



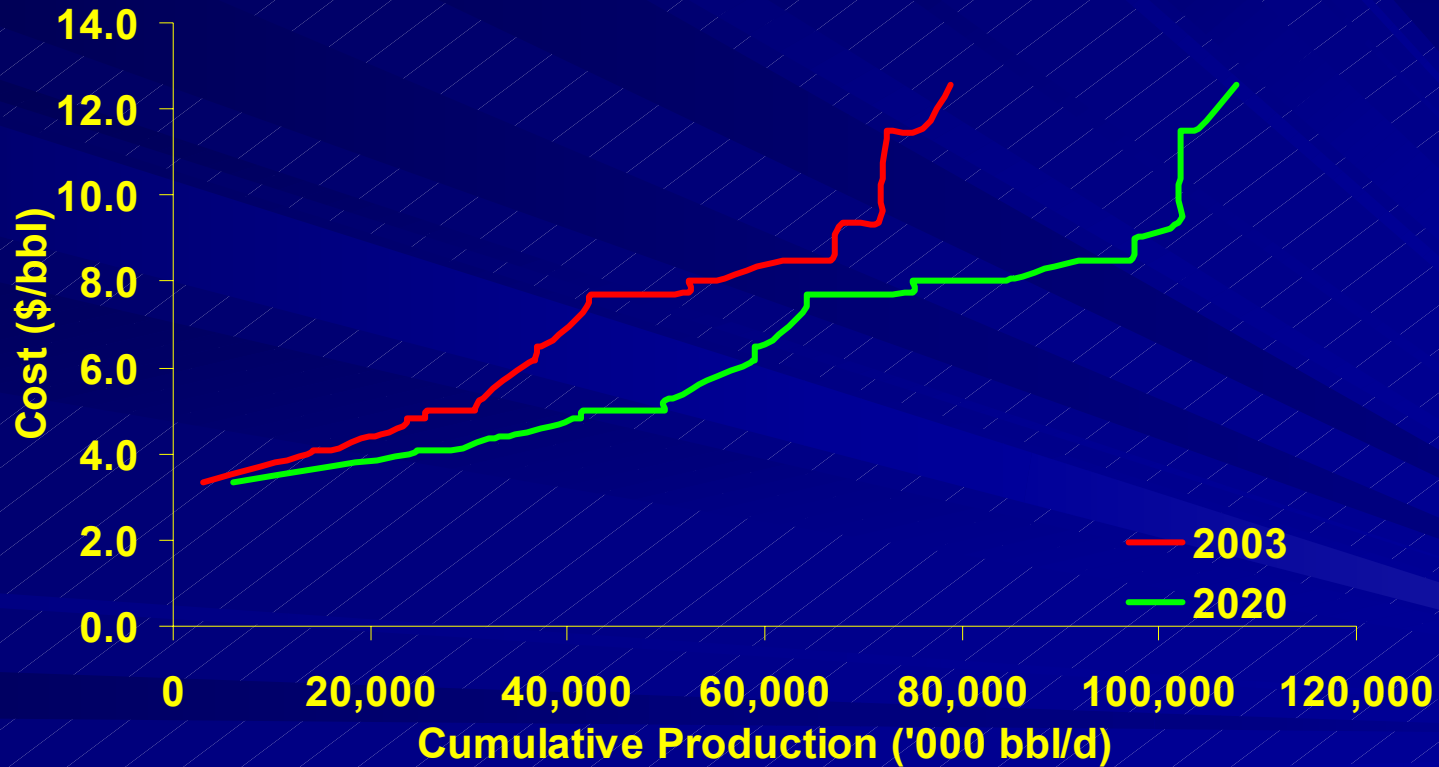
Global Oil Supply 1990-2020

OPEC will start to gain market share after 2010



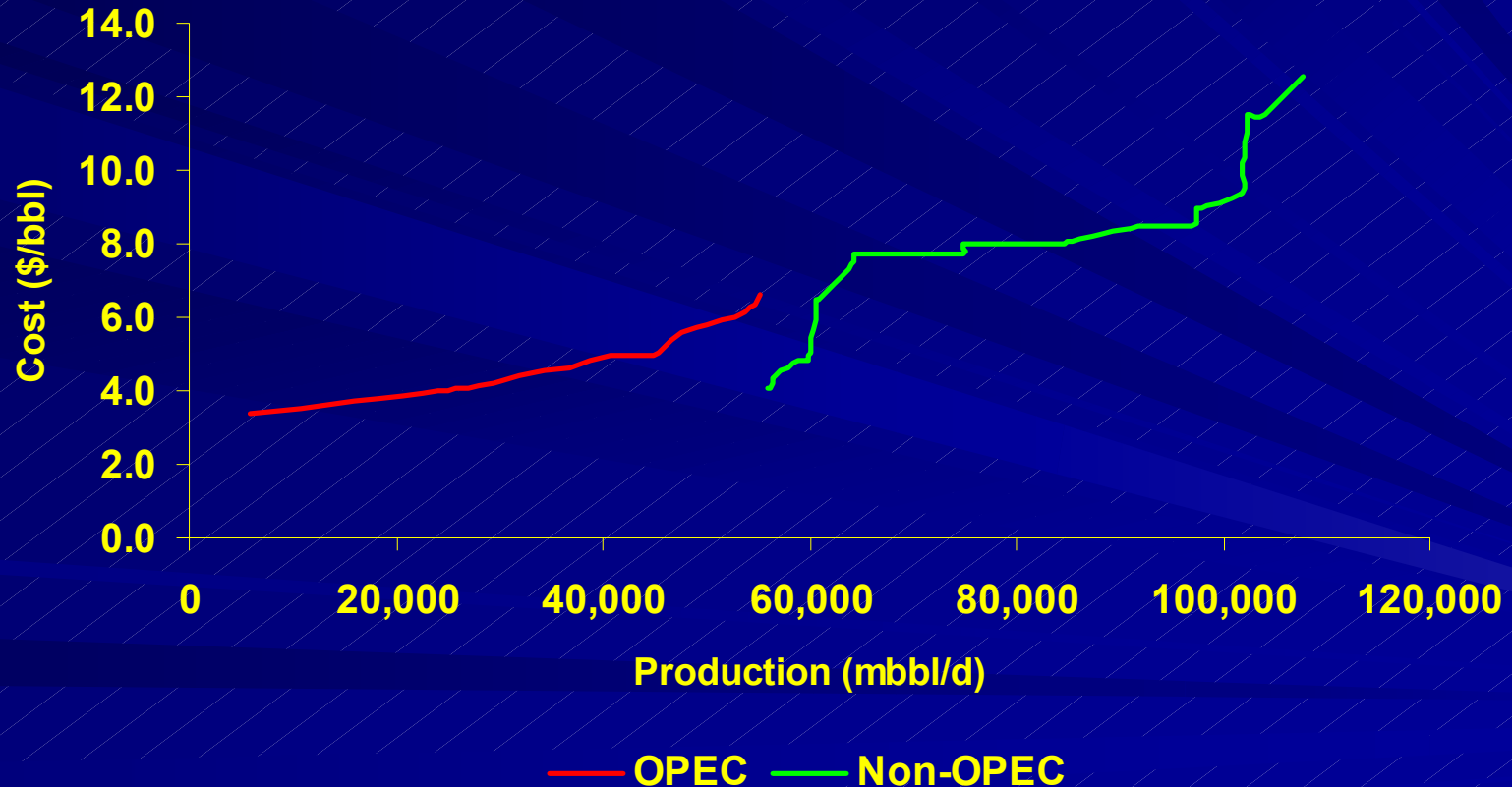
Cost of Supply

Under \$8/bbl for 90 per cent of new capacity



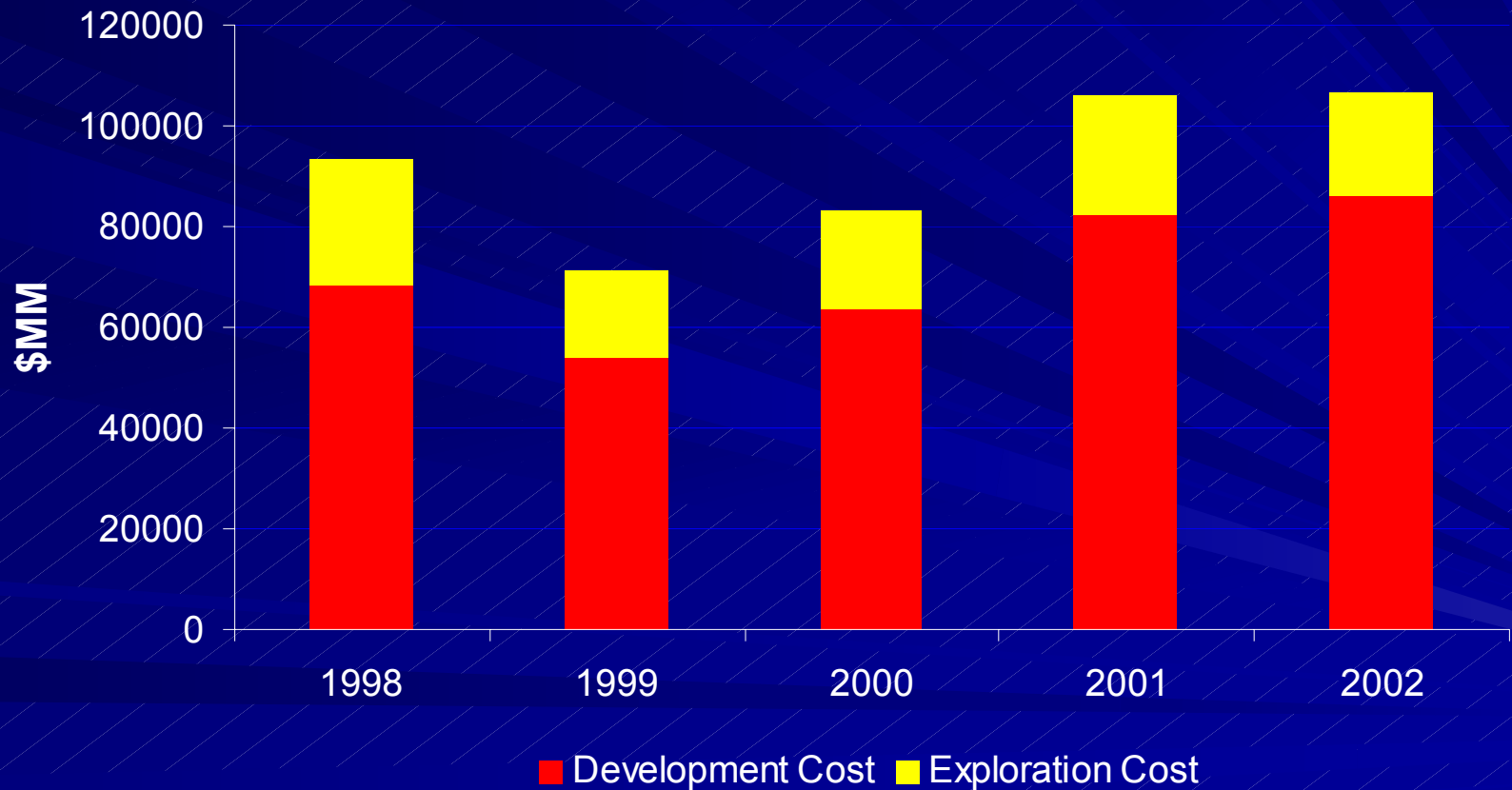
OPEC remains the low cost producer

For private companies access to OPEC is key



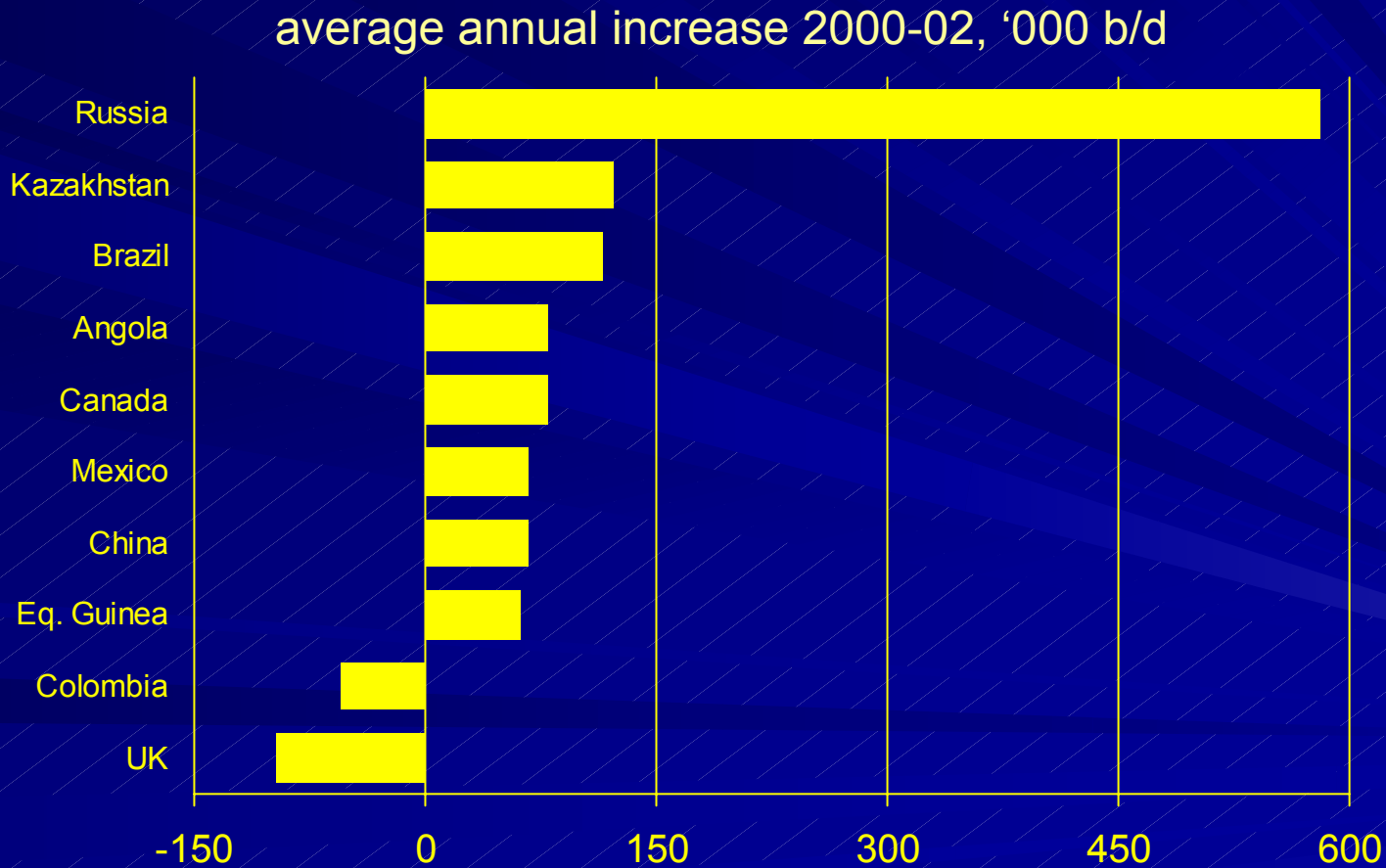
Global Upstream Investment 98-02

■ Private Oil Companies drive upstream investment



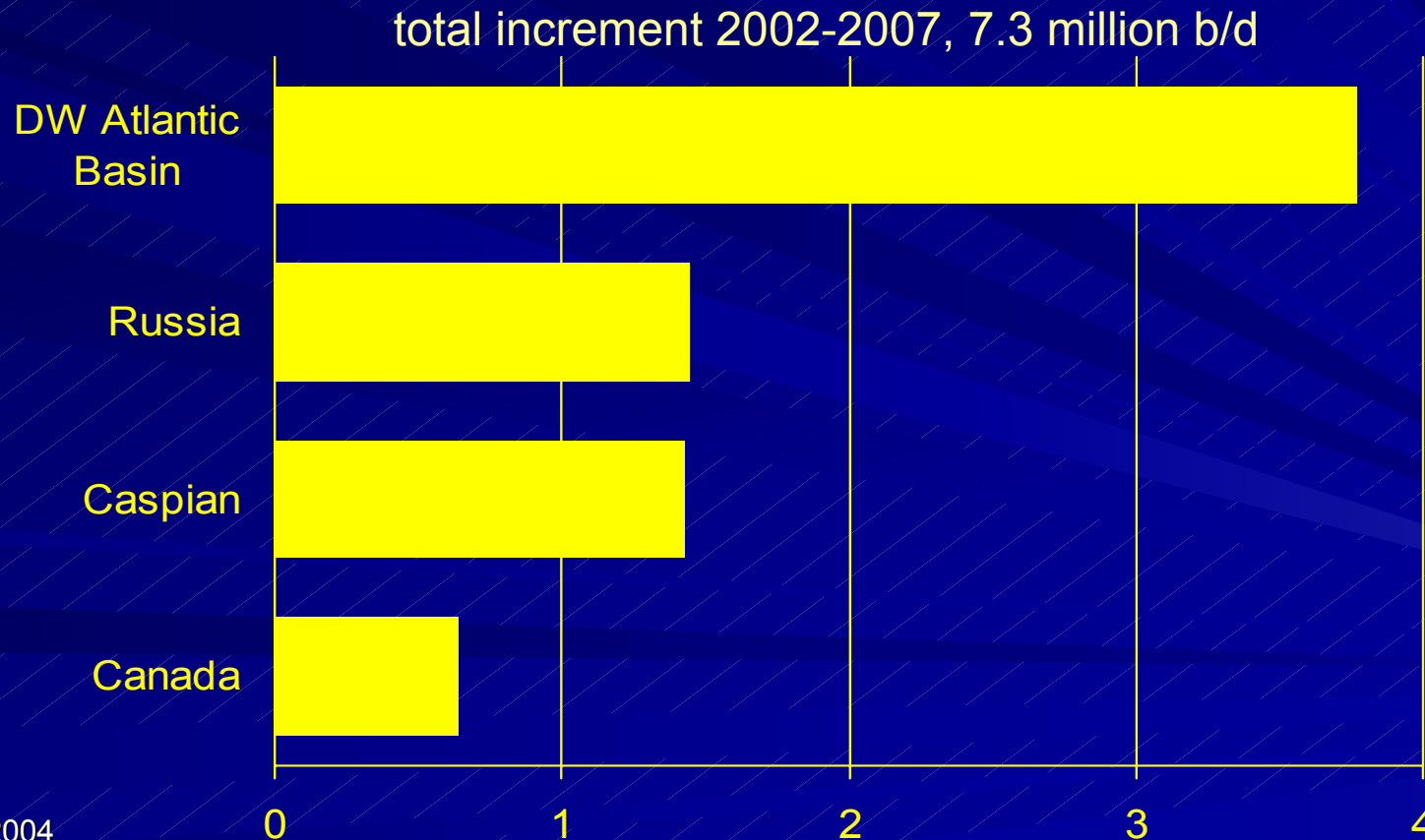
Recent Sources of Non-OPEC growth

Russia has been the big surprise.. But for how long?

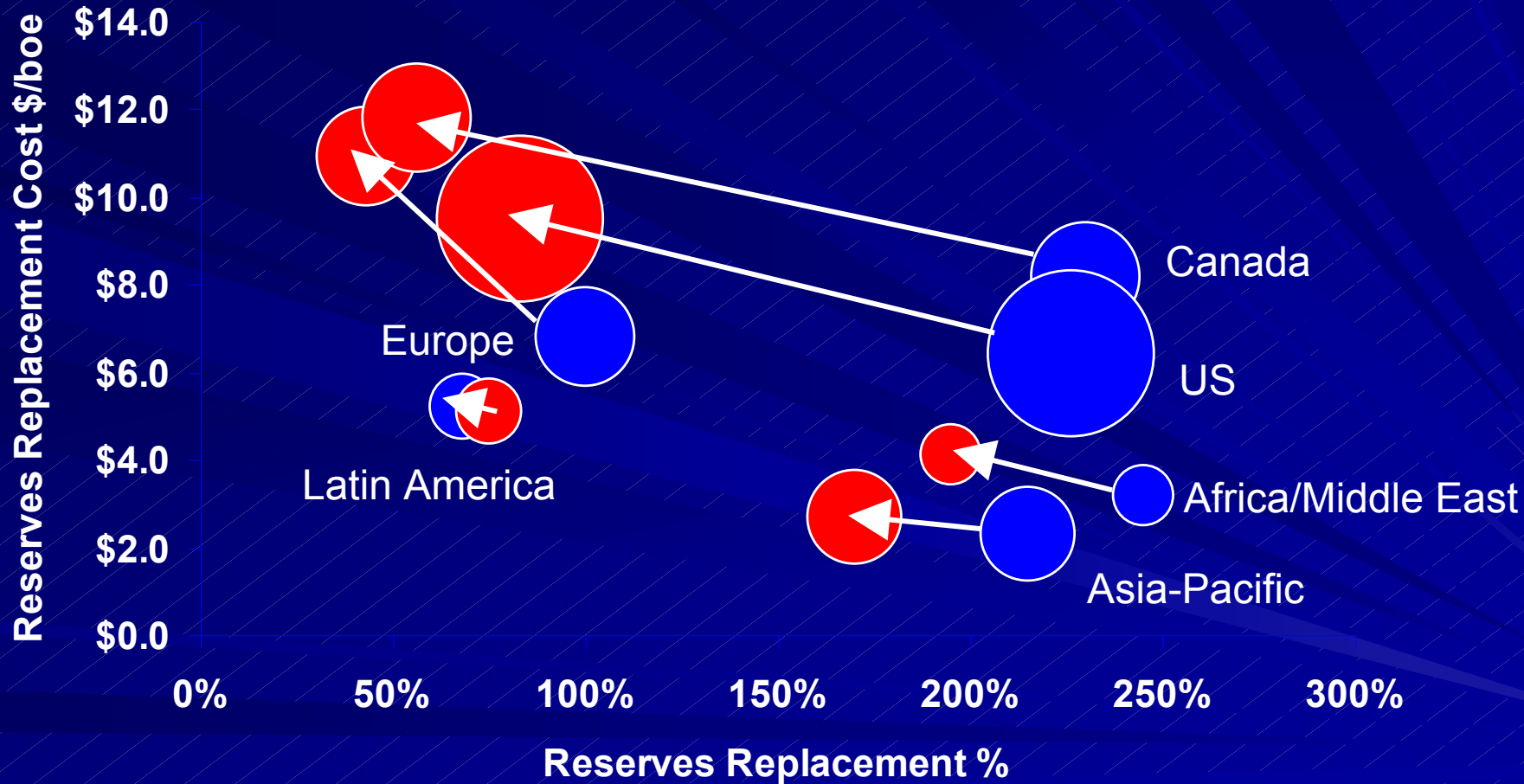


Incremental production 2002-2007

Deepwater developments driving near term growth



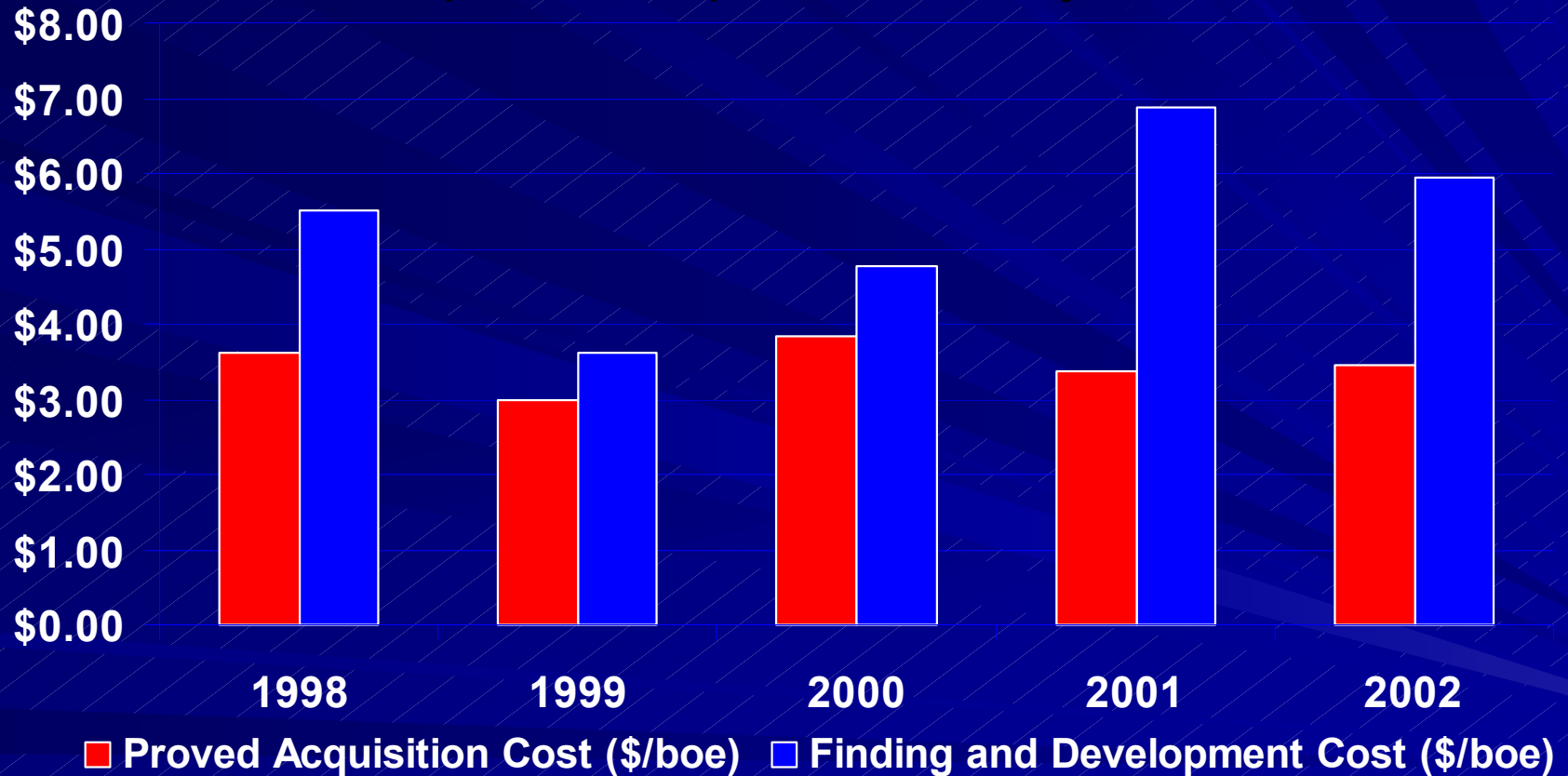
Replacement figures are deceptive



Source: Company data, JS Herold

Acquisitions a cheaper route to growth

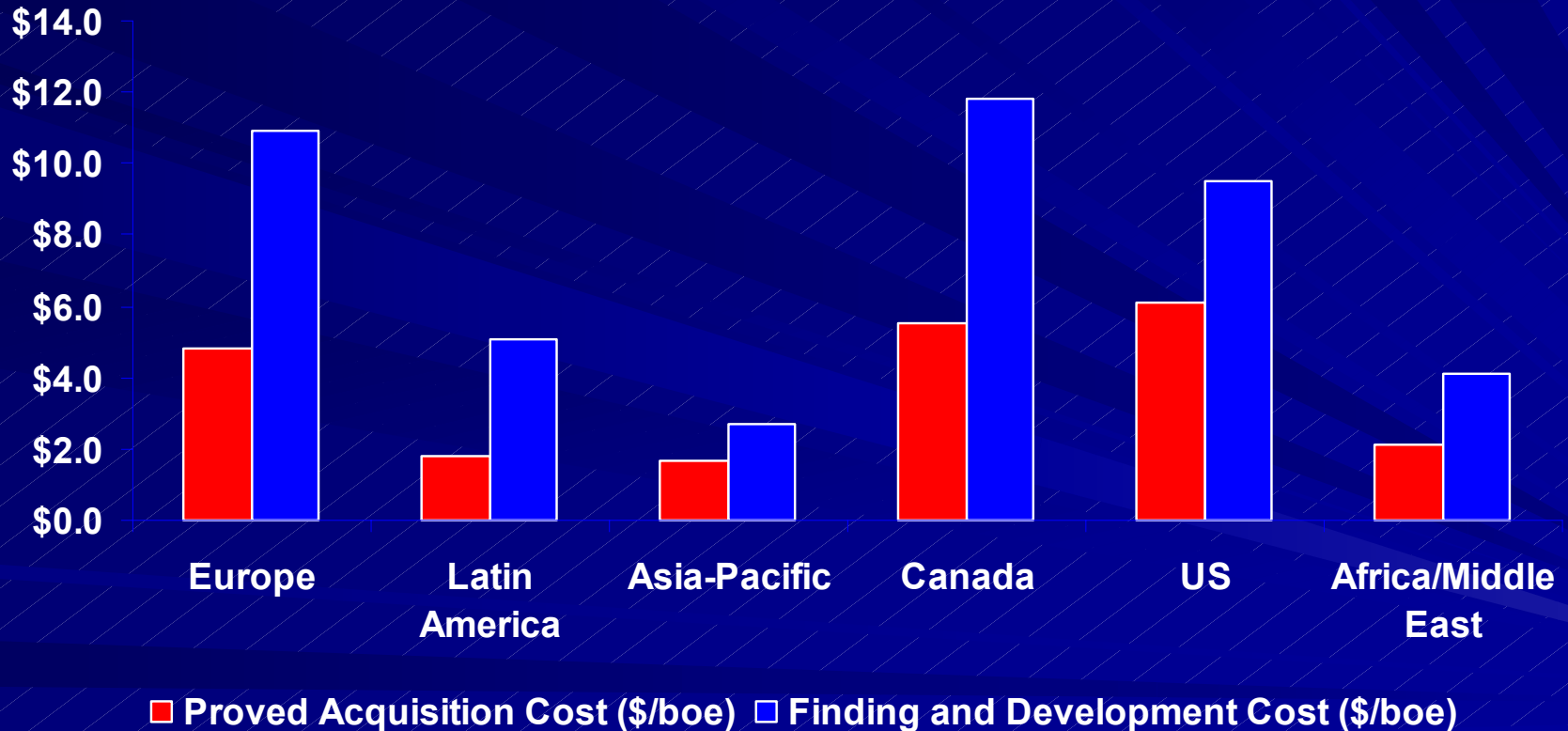
Consistent pattern explains industry consolidation



Source: Company data, JS Herold

US, Canada and Europe overheated

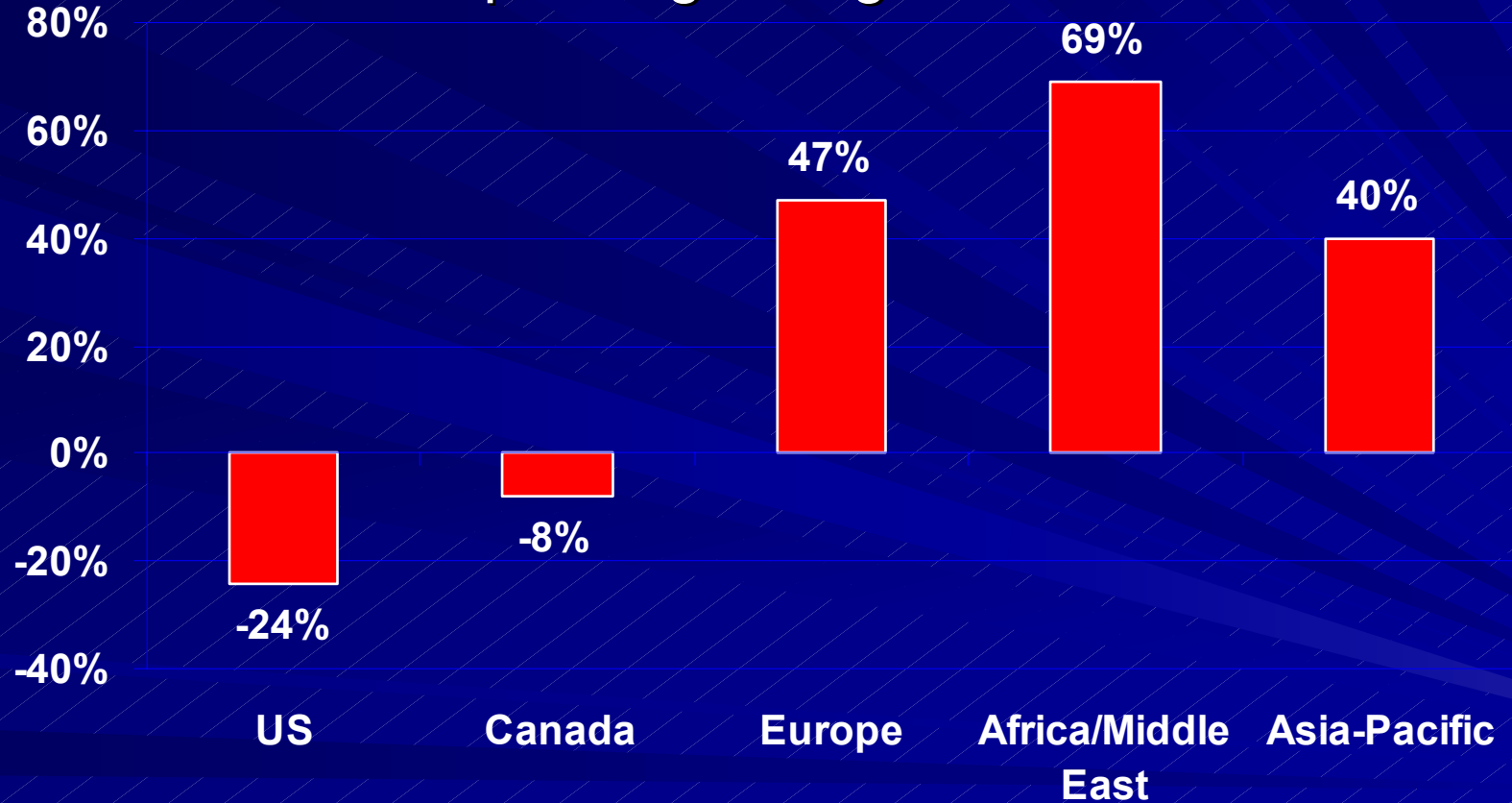
Companies overpaying to achieve growth



Source: Company data, JS Herold

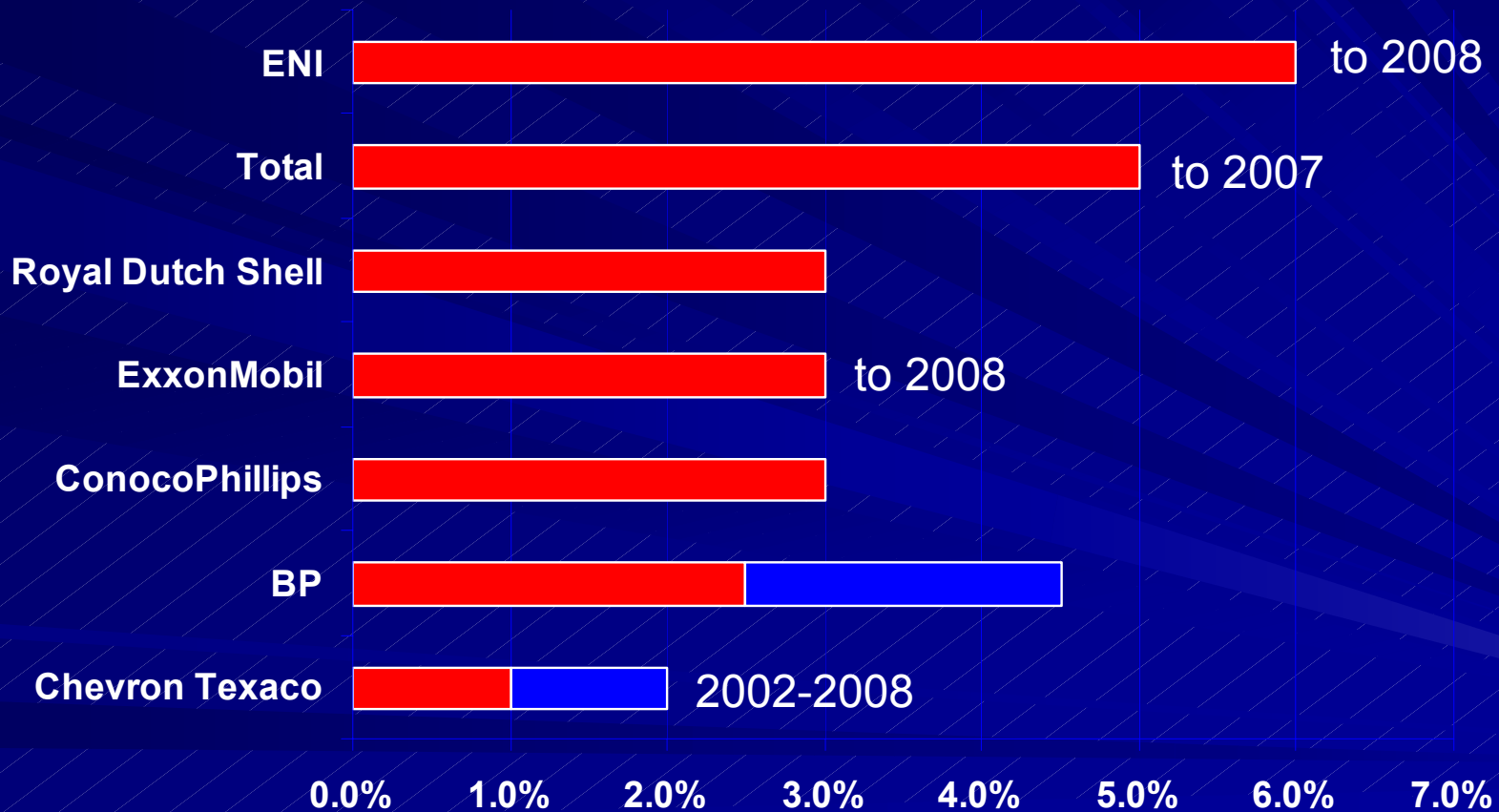
Migration of capital away from US

Spending changes 2000-2002



Source: Company data, Harrison Lovegrove

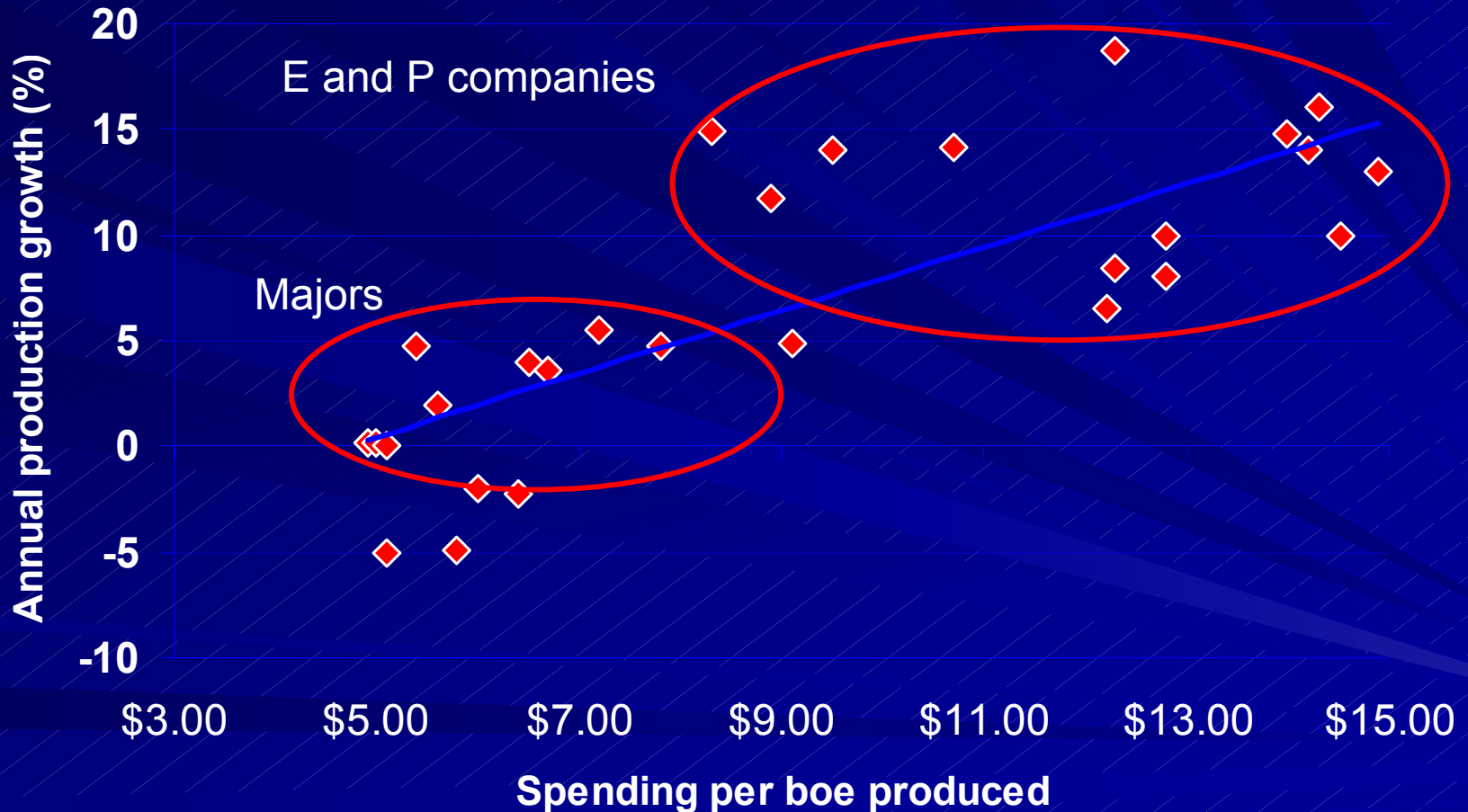
Private oil company growth targets



Source: Company data

The real cost of growth

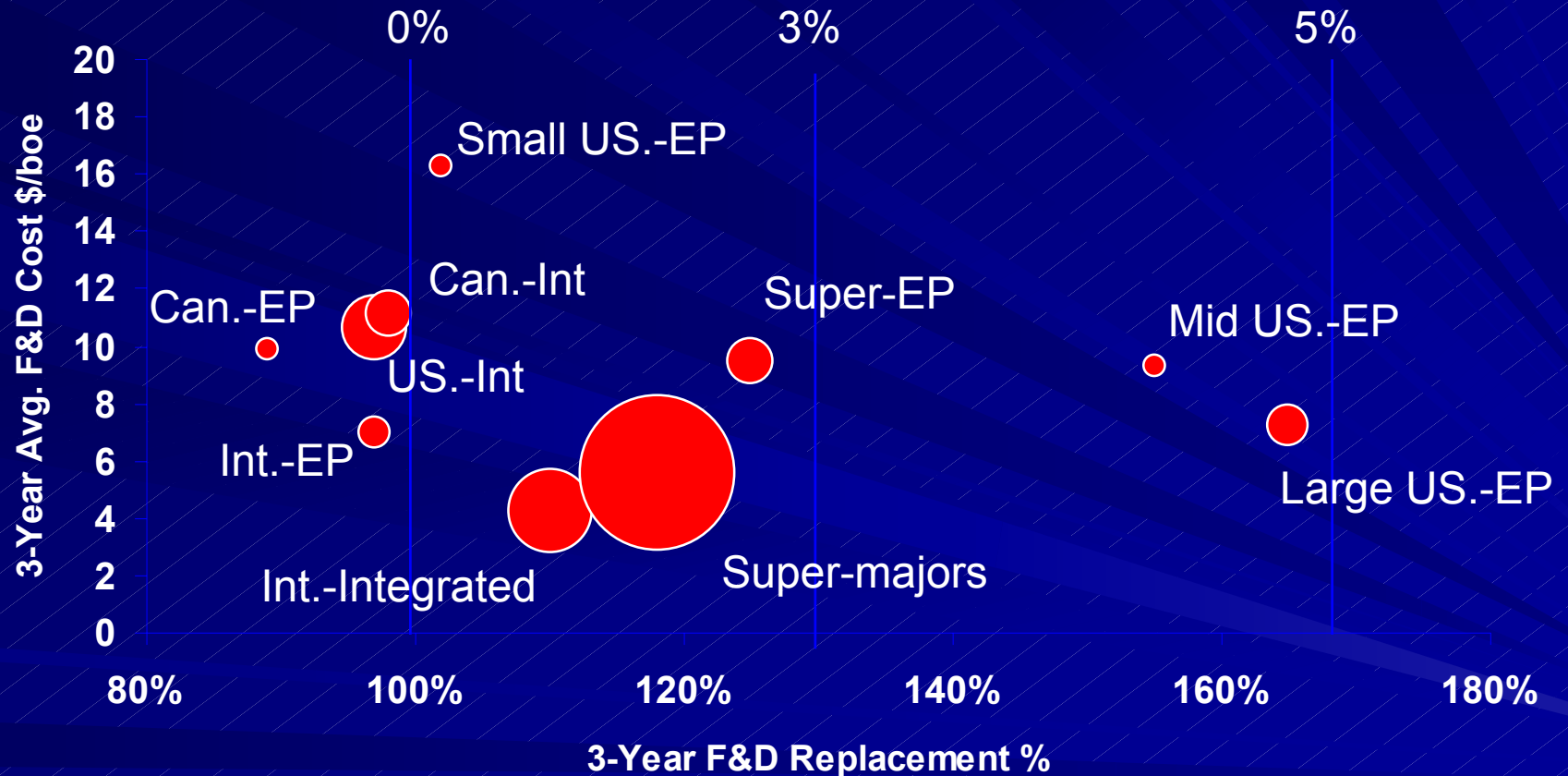
Smaller companies chase growth at shareholders expense



Source: Company data, JS Herold

Growth without acquisitions unrealistic

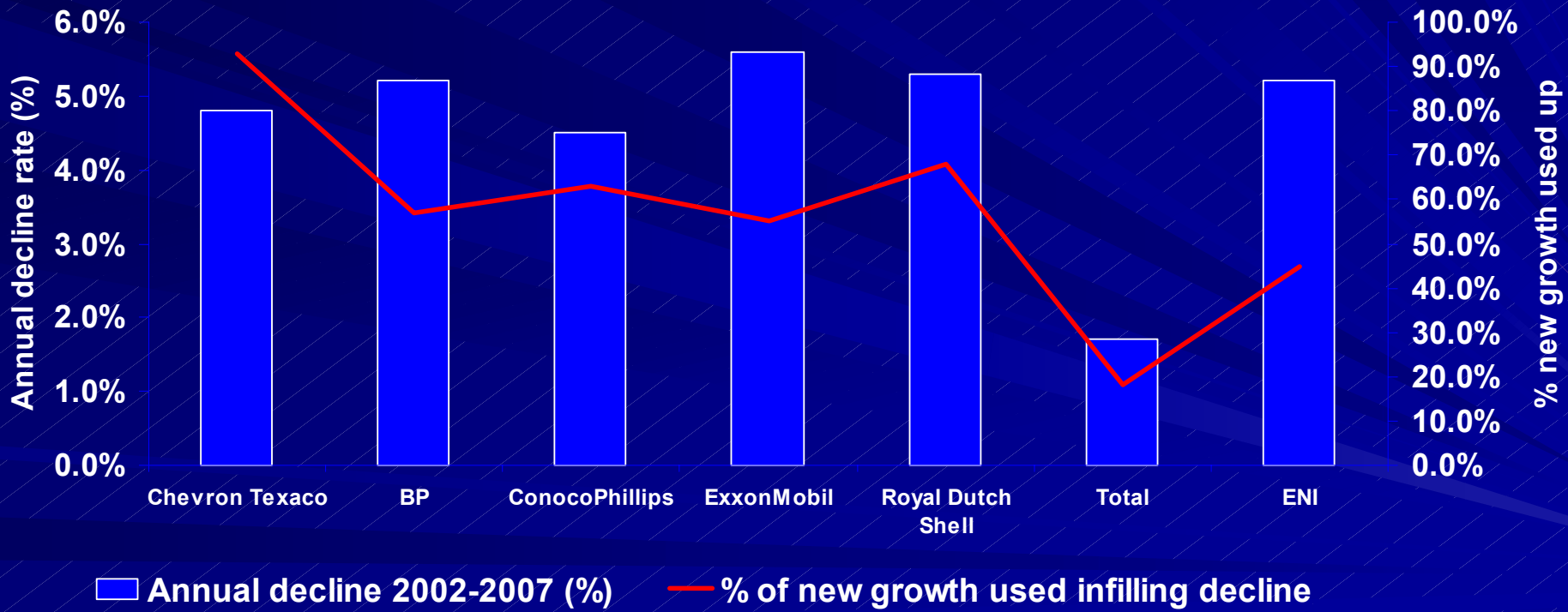
Even revised targets are unlikely to be achieved



Source: Company data, JS Herold, OIES

Decline versus growth

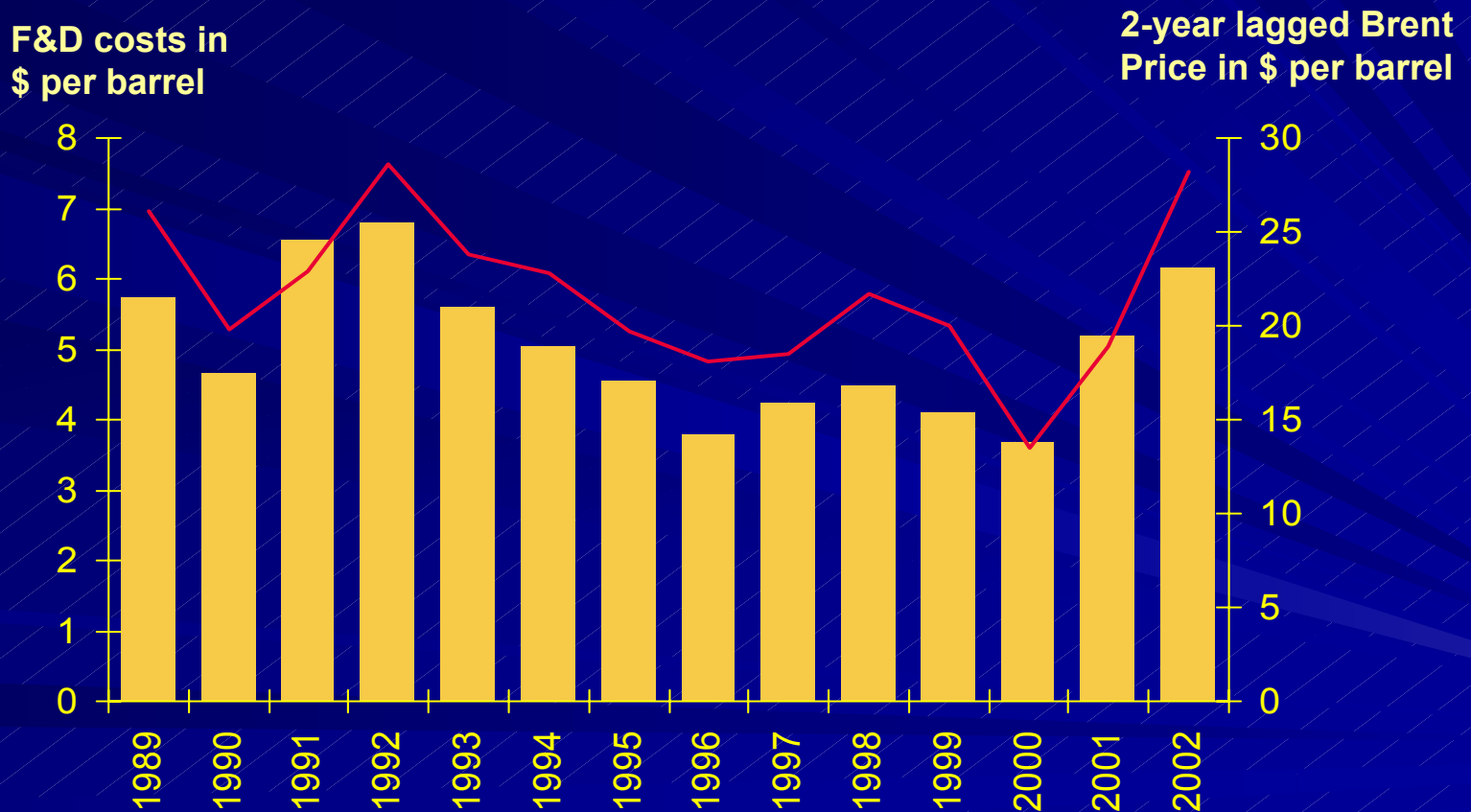
More and more growth projects are needed to infill decline



Source: Company data, OIES

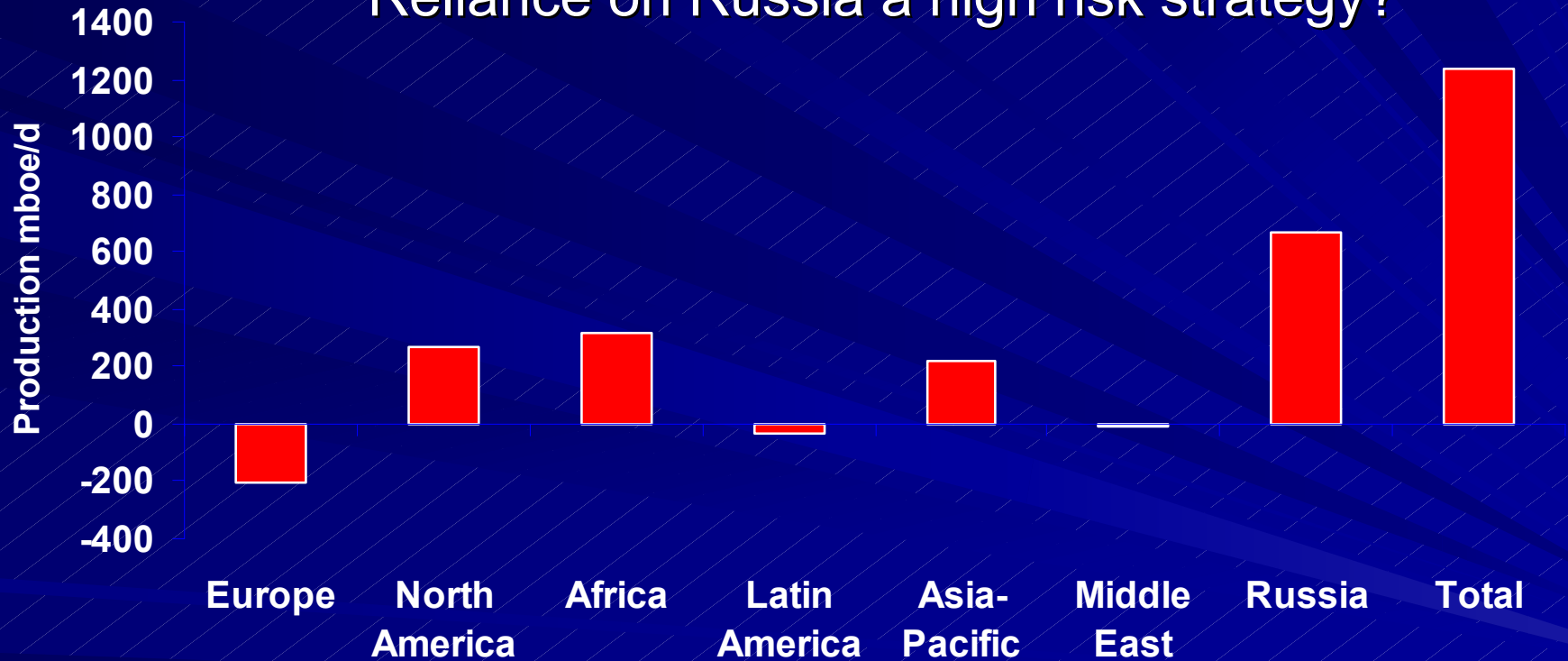
Industry costs rising

Unit costs rise as oil price climbs and decline rates increase



BP's oil production growth 2002-2007

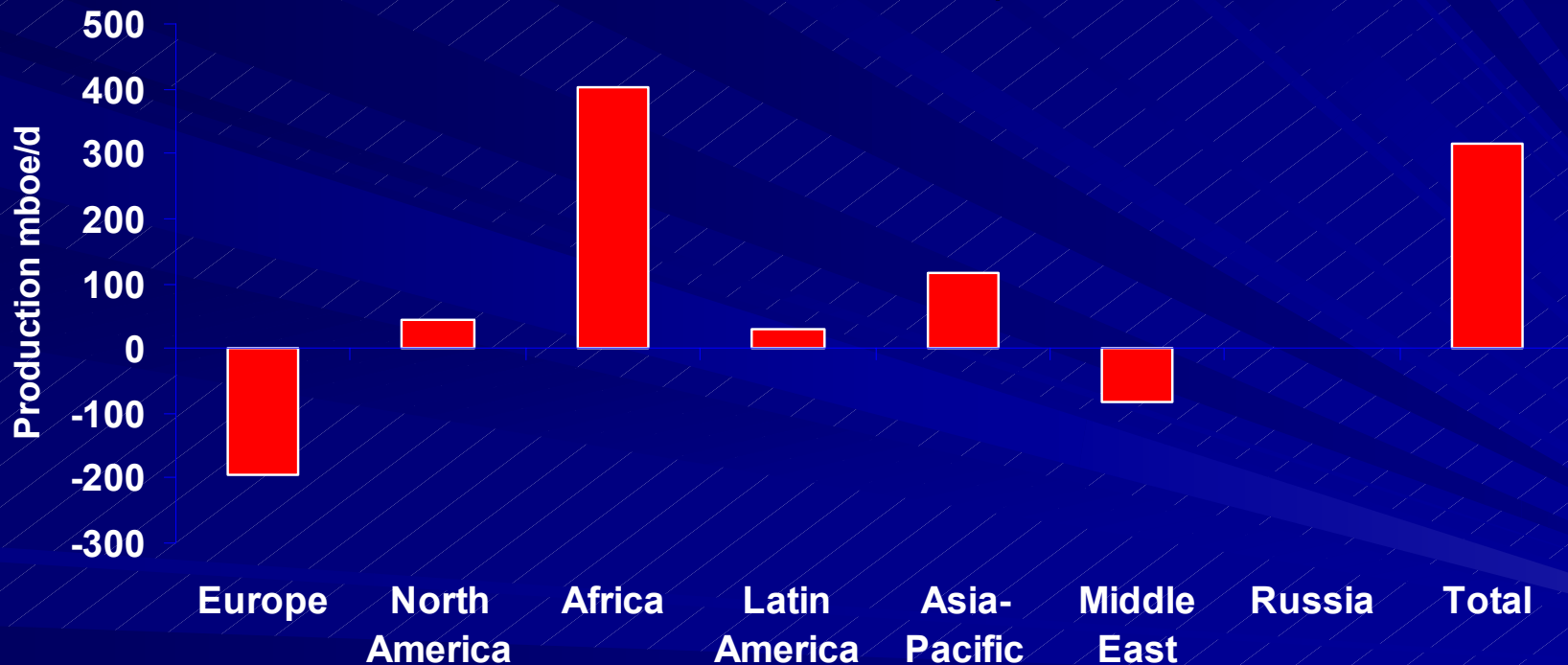
Reliance on Russia a high risk strategy?



Source: Company data, OIES

Shell's oil production growth 2002-2007

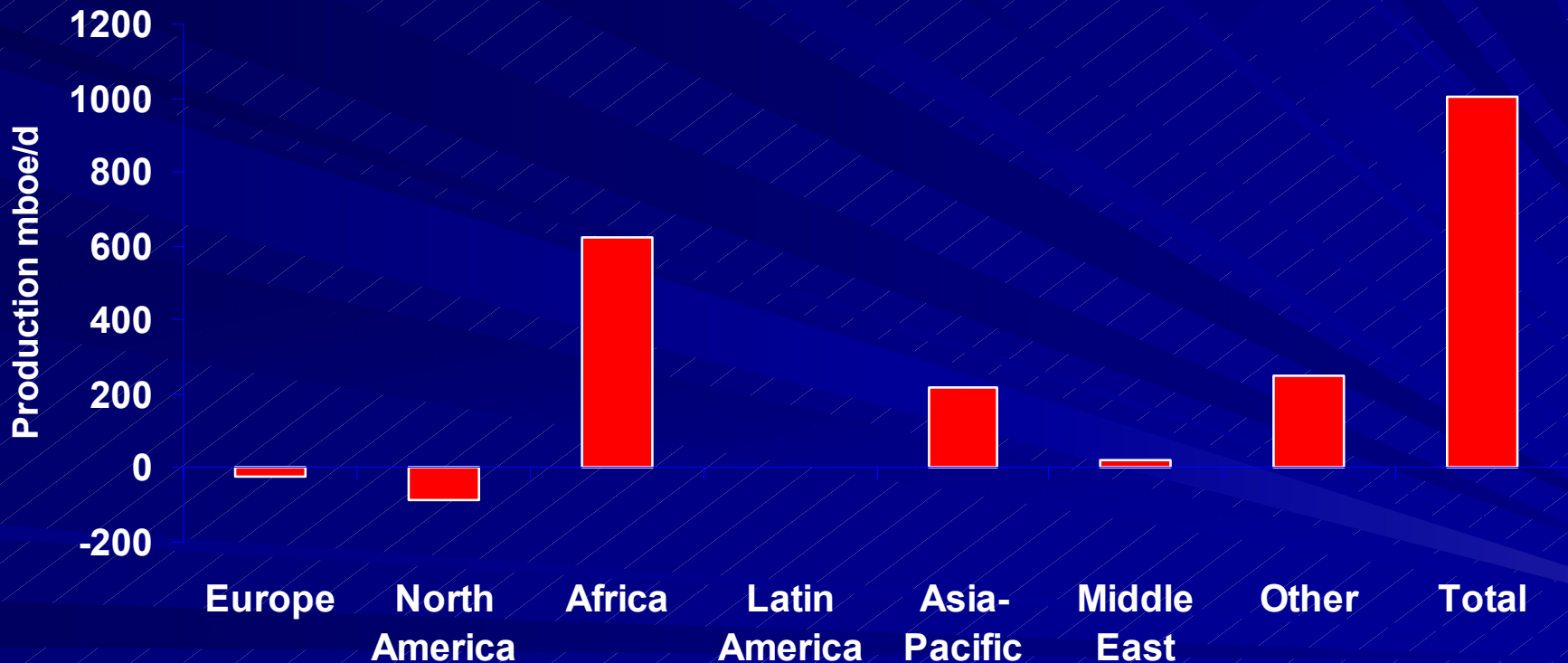
Growth reliant on Nigeria (Bonga, NLNG liquids)



Source: Company data, OIES

Exxon's oil production growth 2002-2007

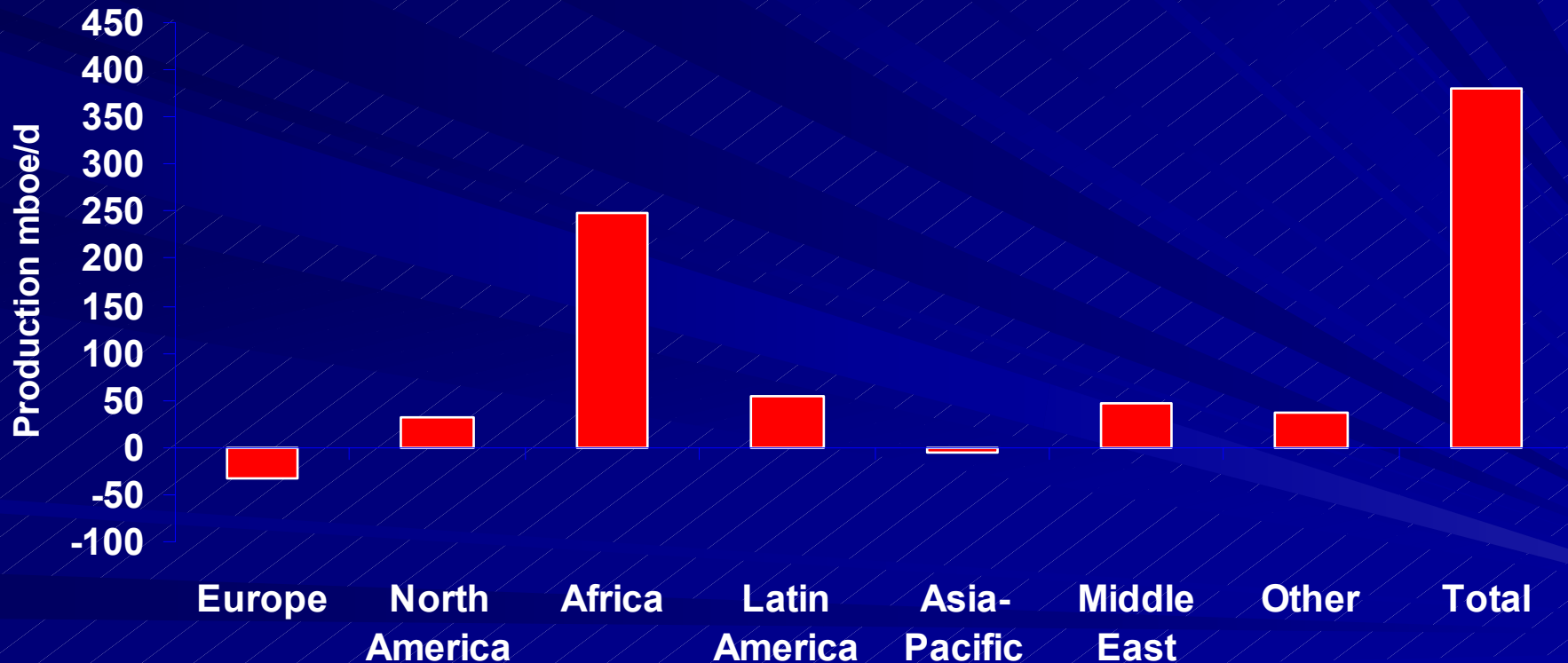
Growth from Bonga (Nigeria) + Kizomba/Dalia (Angola)



Source: Company data, OIES

Total's oil production growth 2002-2007

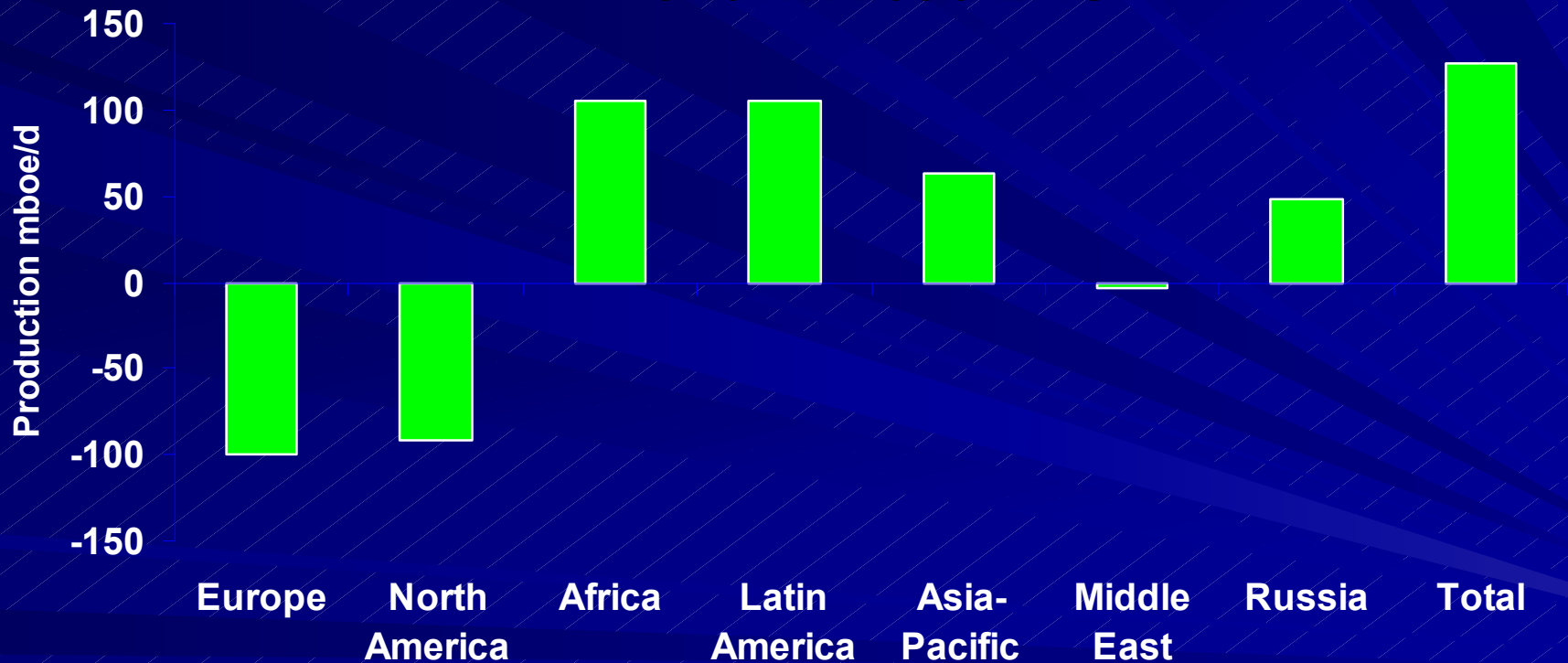
Deepwater Africa the key (Nigeria: BongaMain, Congo: Moho, Angola: Dalia)



Source: Company data, OIES

BP's gas production growth 2002-2007

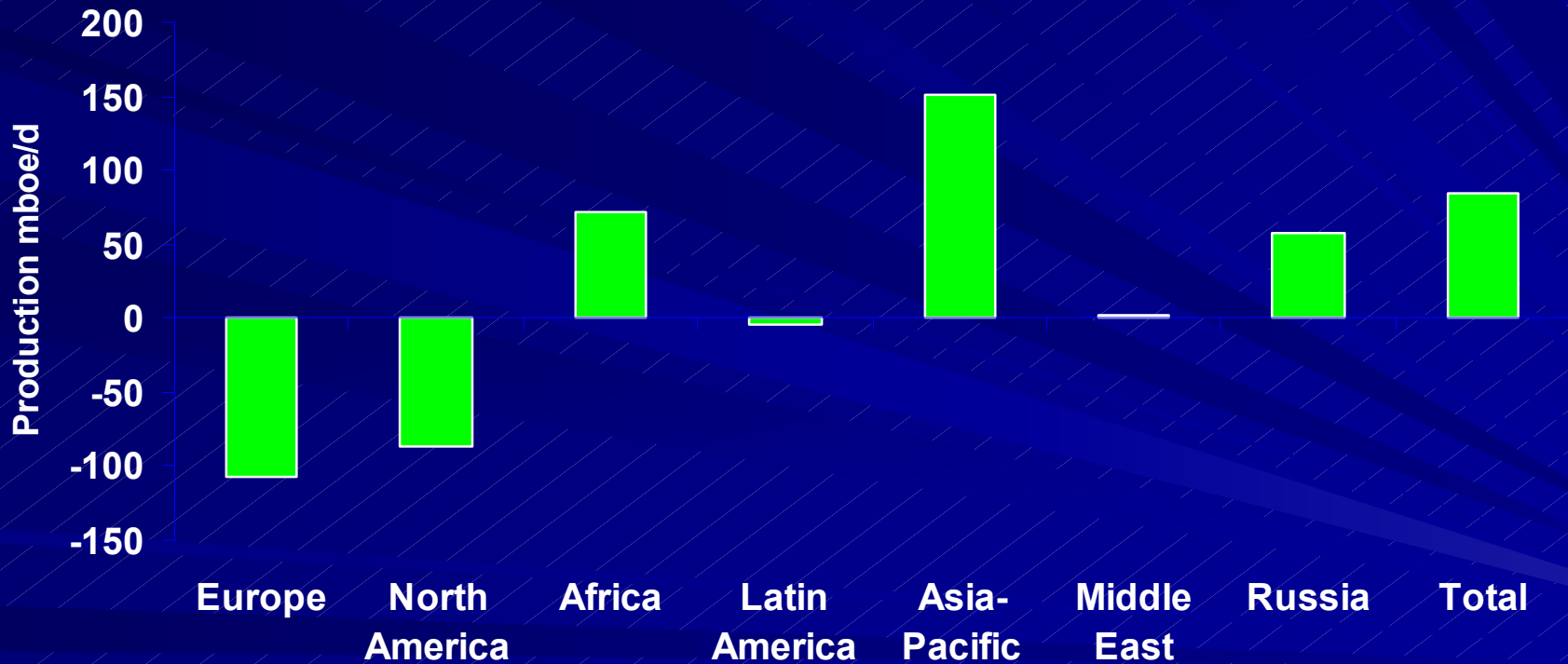
A switch from Europe and North America to Egypt, Algeria and Trinidad LNG



Source: Company data, OIES

Shell's gas production growth 2002-2007

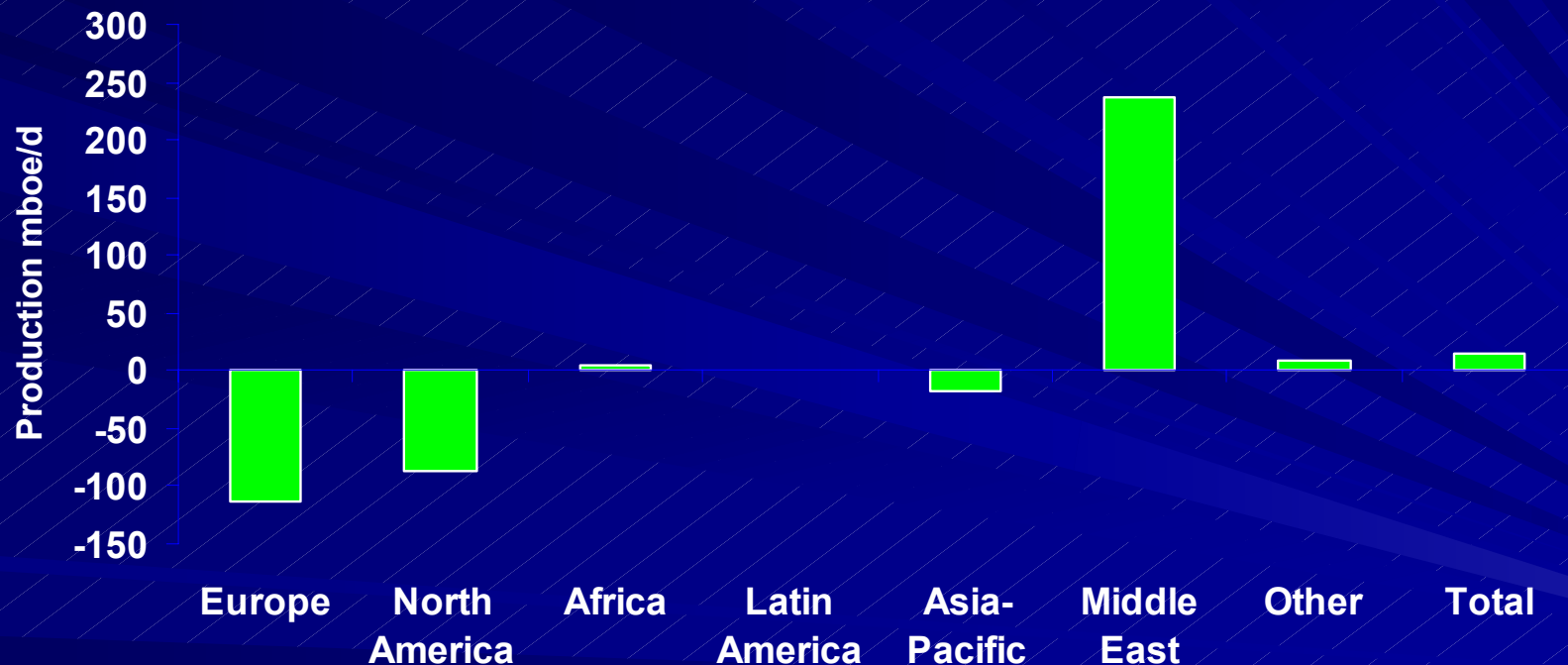
NW shelf Australia and Nigeria LNG the drivers



Source: Company data, OIES

Exxon's oil production growth 2002-2007

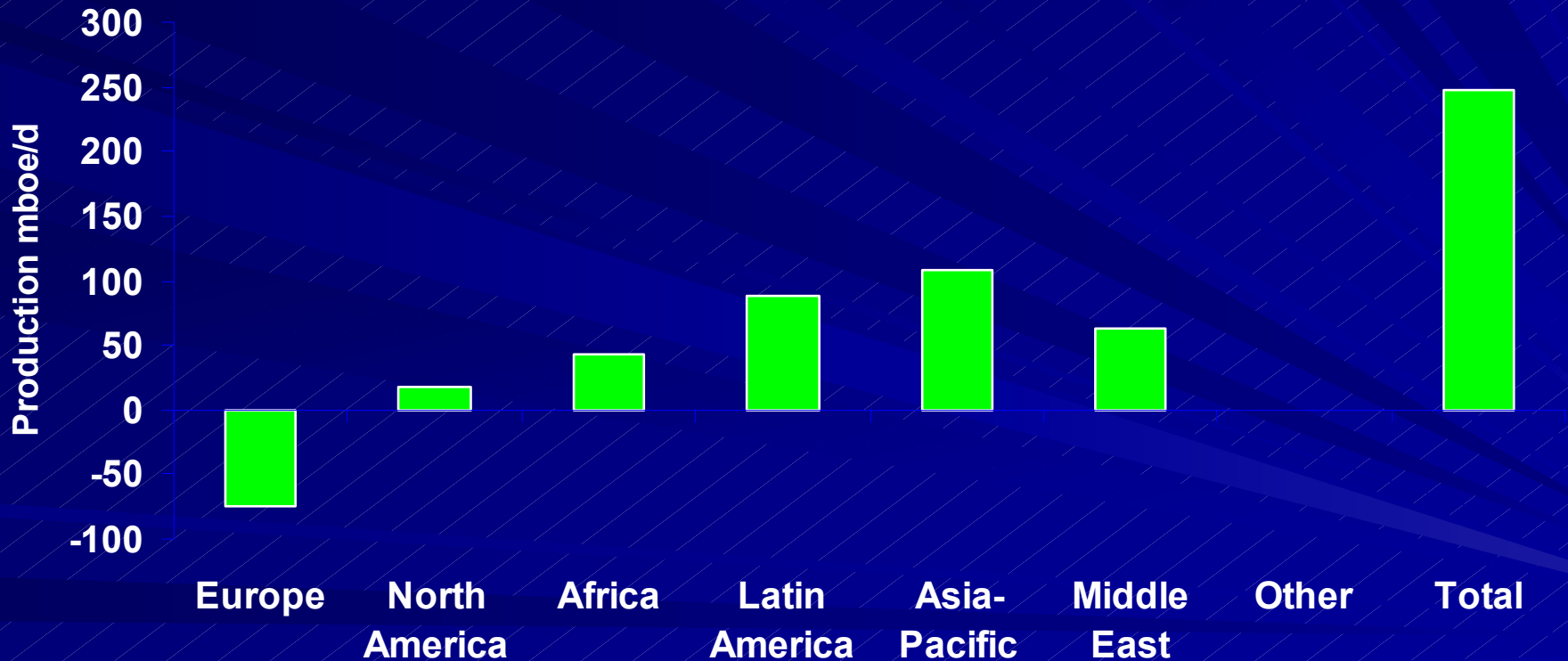
Middle East gas project (RasGas LNG trains 3 and 4 + Qatar) driving growth



Source: Company data, OIES

Total's gas production growth 2002-2007

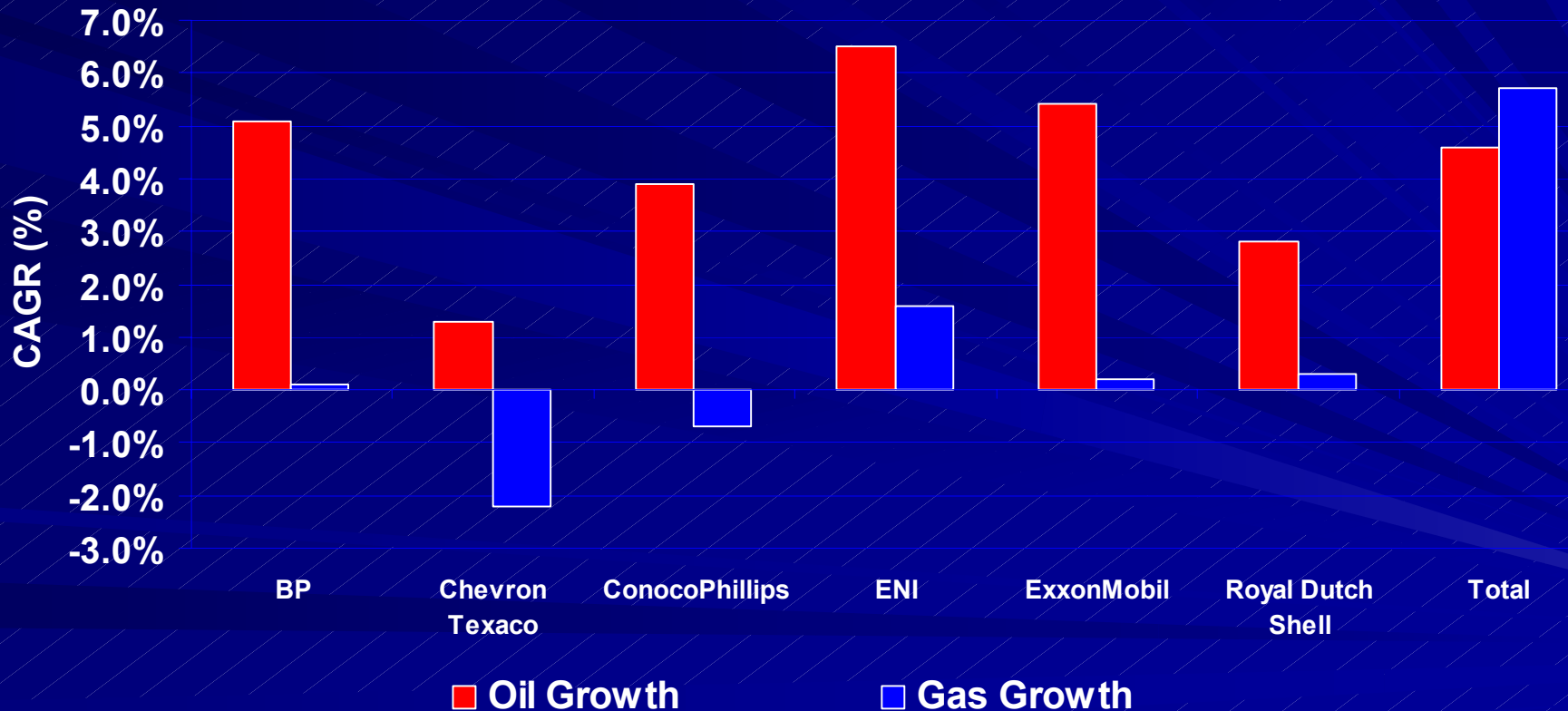
A more even spread from Indonesia, Venezuela (Yucal), Argentina (Carina/Aries),



Source: Company data, OIES

Oil is still driving production growth

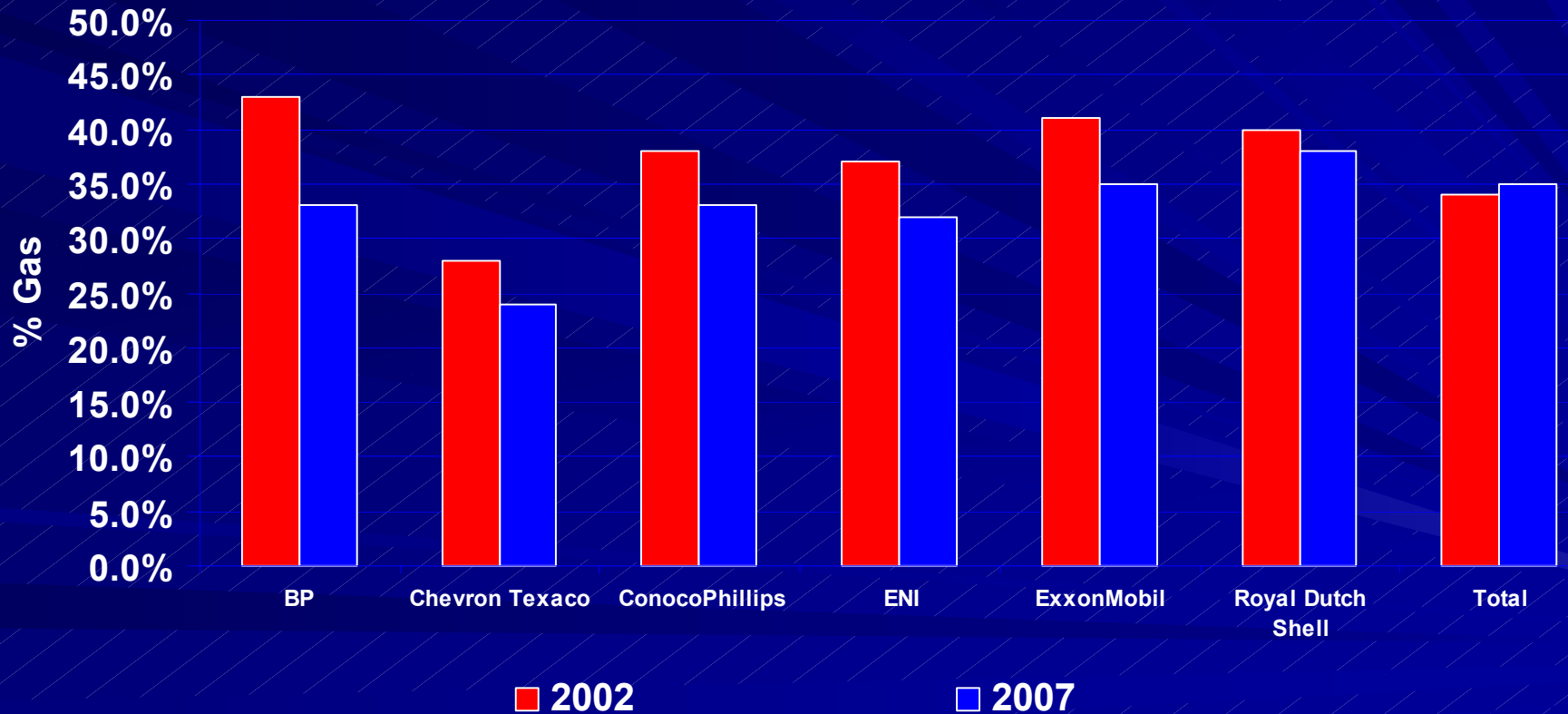
Targets will only be met if 'oil' developments proceed as planned



Source: Company data, OIES

Oil regaining share of production mix

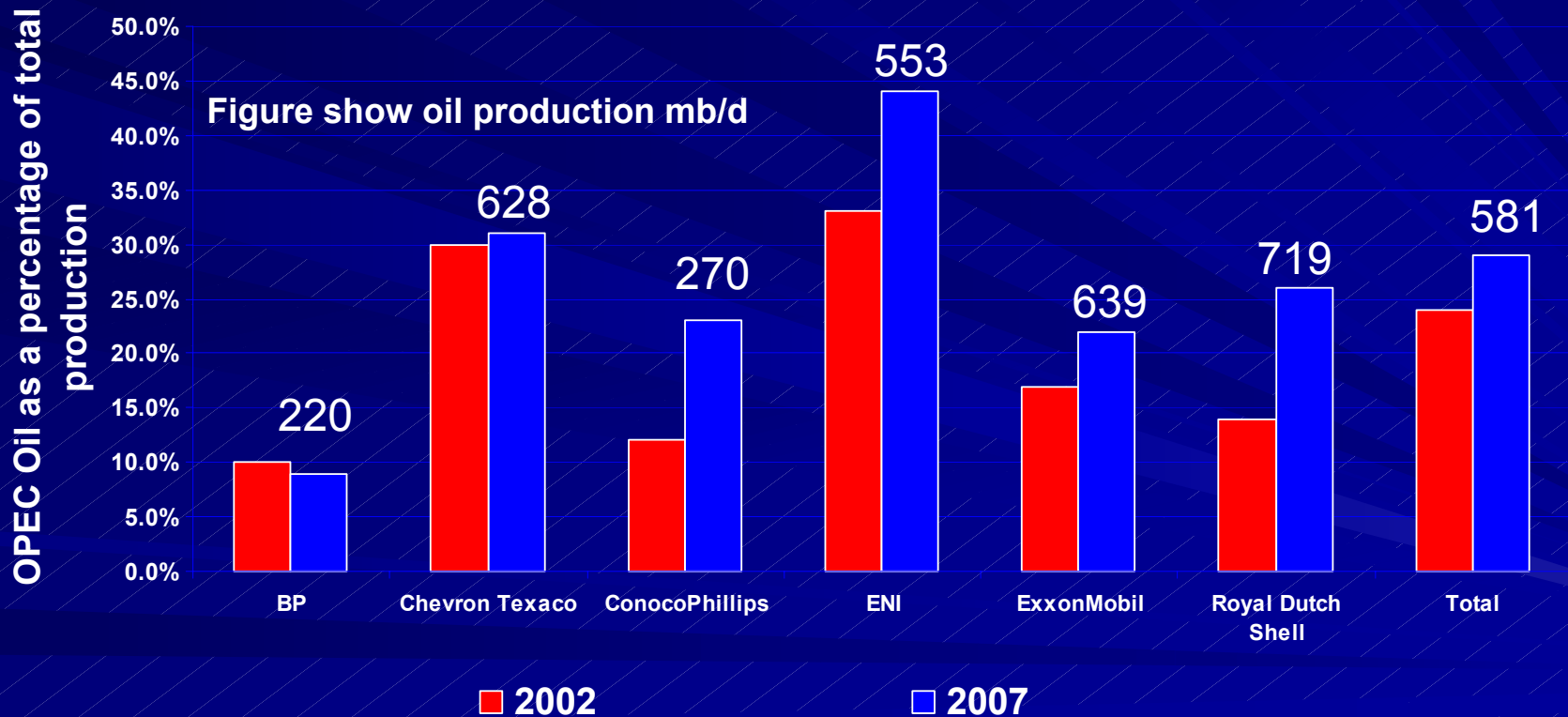
Only in Total does gas increase proportionately



Source: Company data, OIES

OPEC exposure is increasing

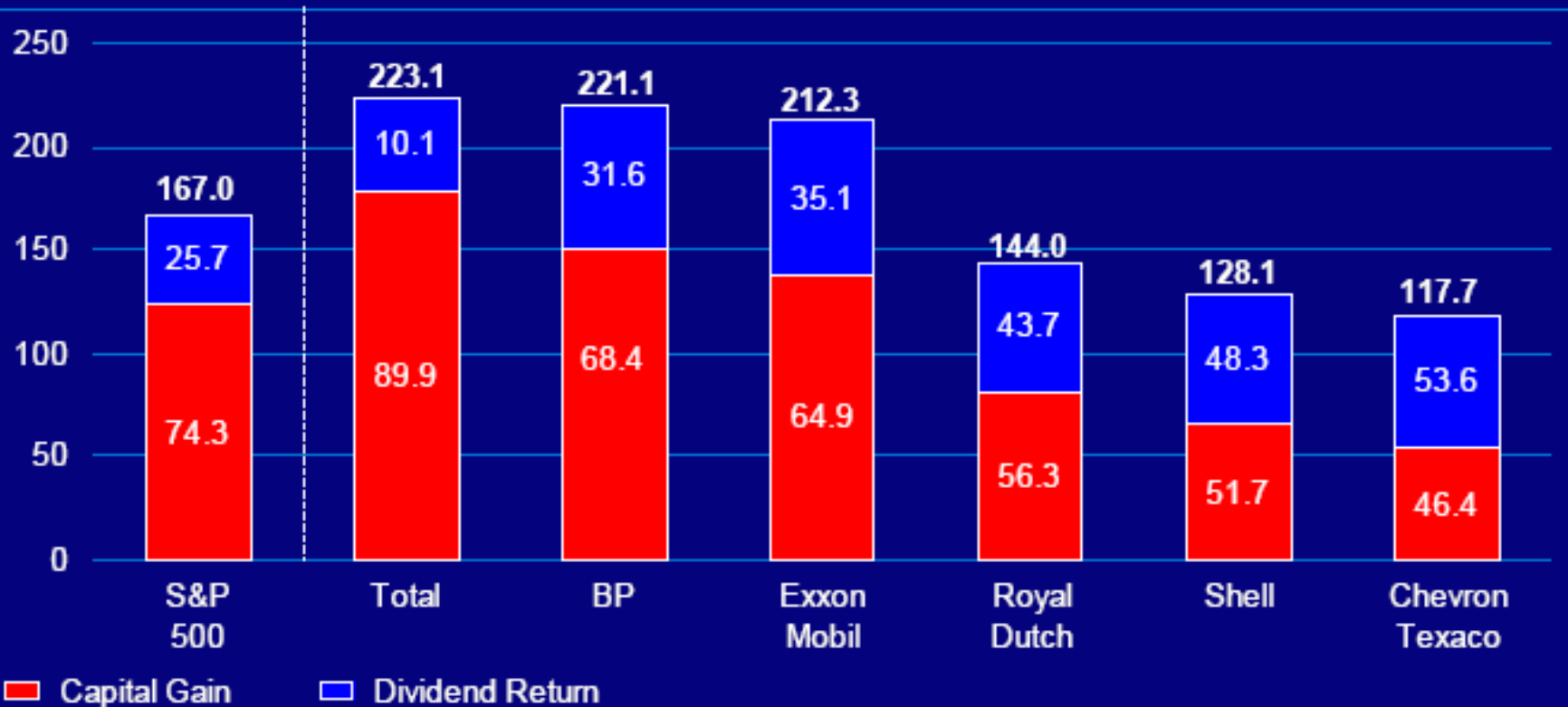
3.6 million b/d out of 15.8 million b/d will come from OPEC in 2007



Source: Company data, OIES

Capital growth is key to equity investors

Total Return in Local Currency
Last 10 Years, %

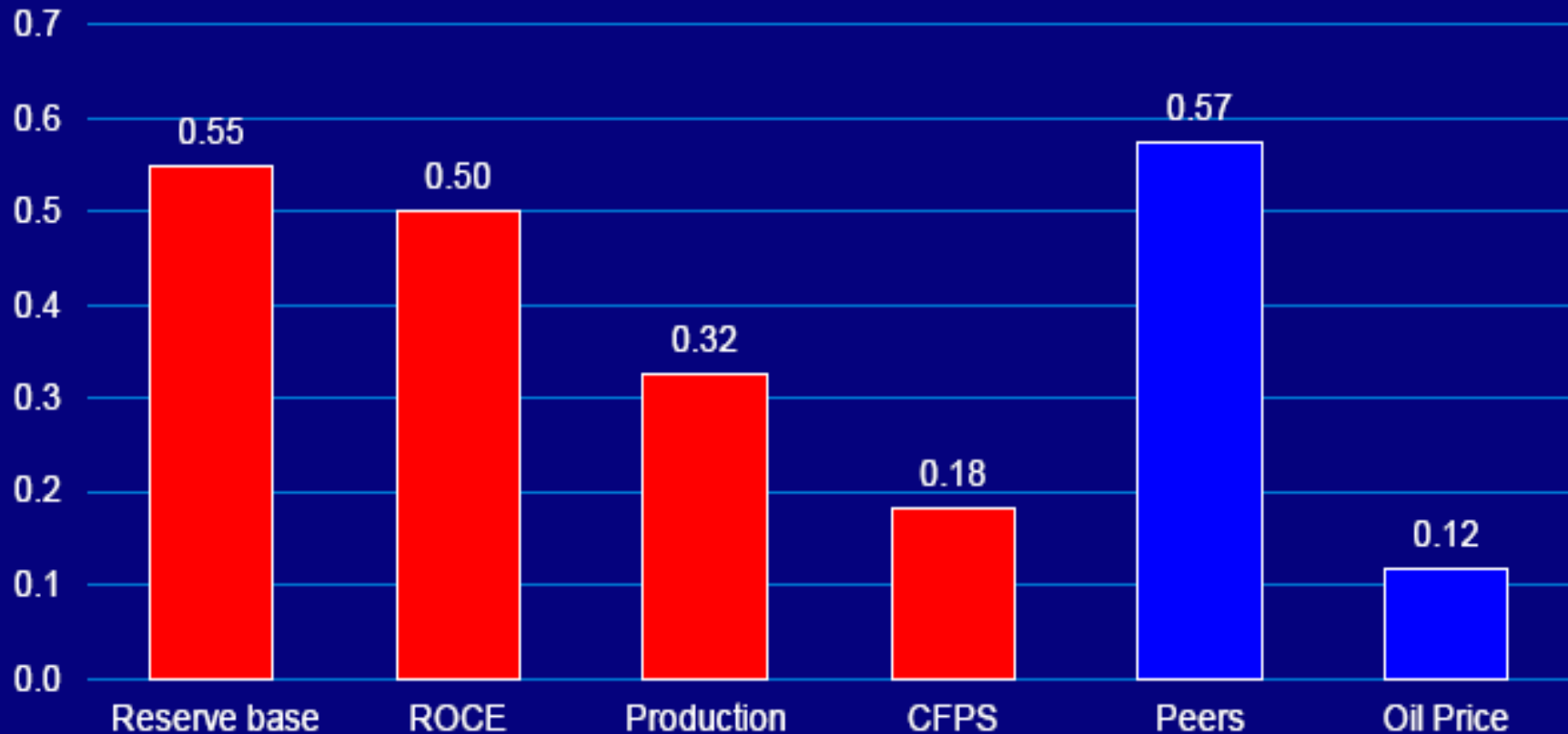


Source: LSE, NYSE

Reserve growth influences share price

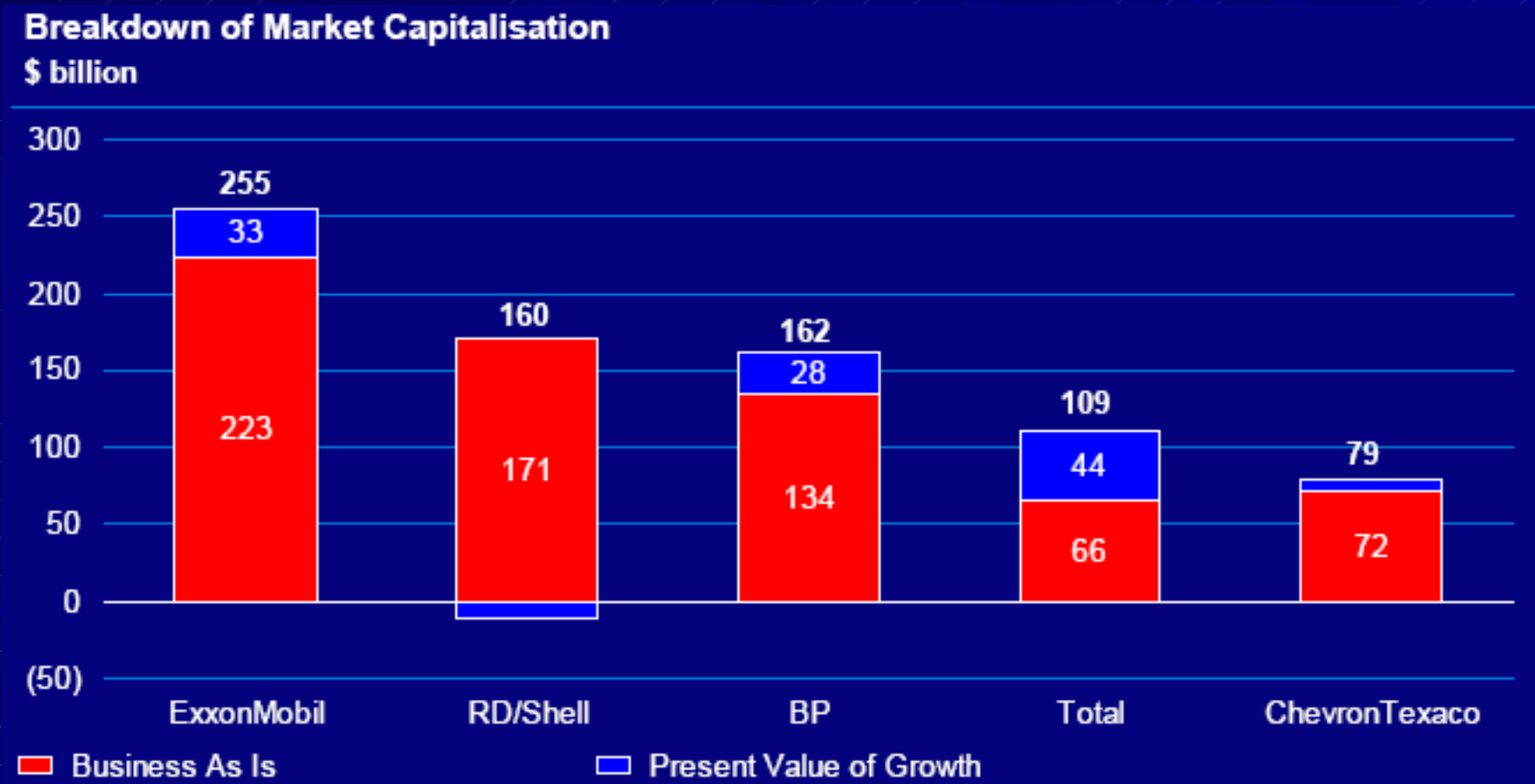
Correlation Between Relative Changes in Key Variables and Share Price

Illustration



Source: LSE, NYSE, Morgan Stanley

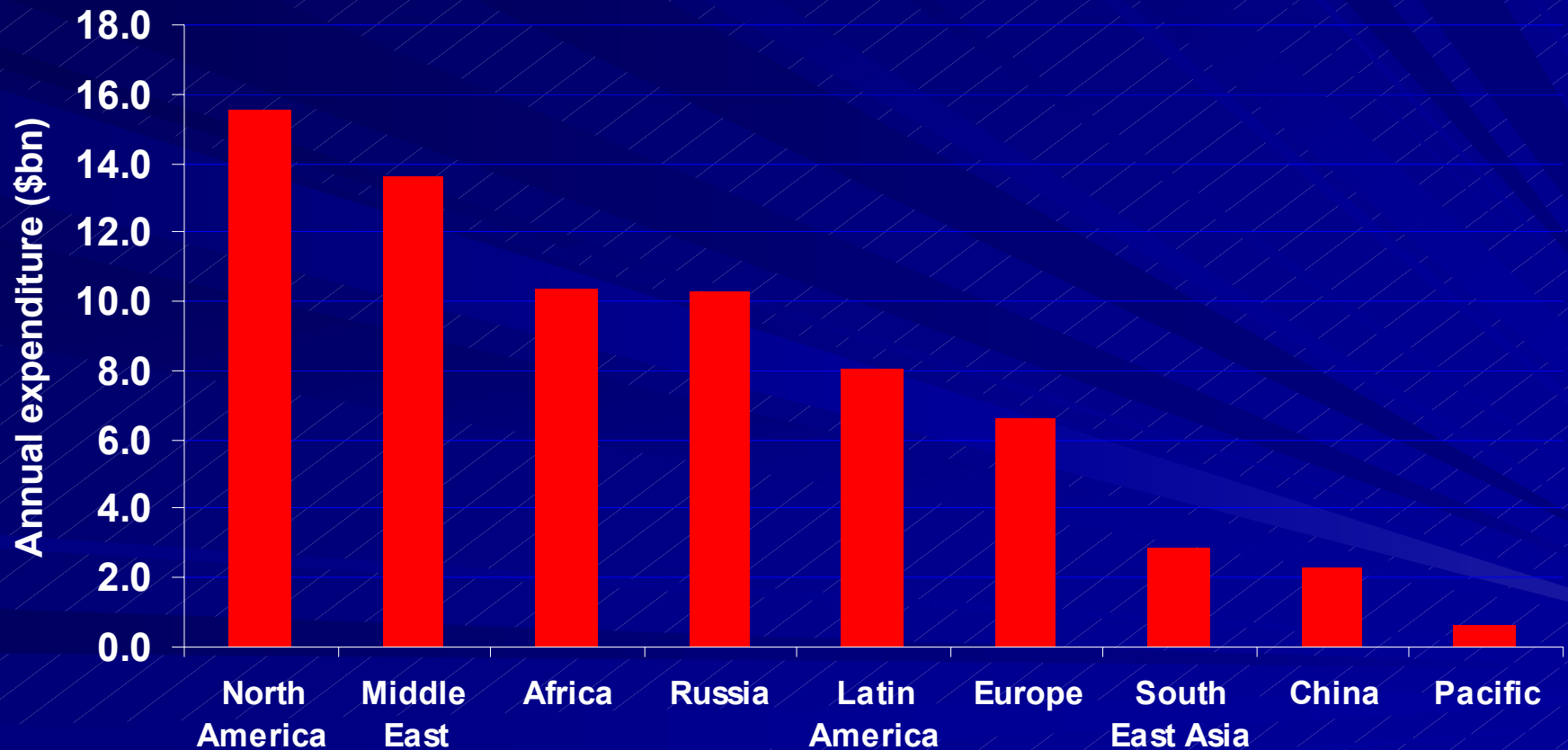
The equity market expects growth but delivery is at risk



Source: Morgan Stanley

The Opportunity

■ Annual expenditure 2001-2030 required to meet demand



Source: IEA

Main trends and outlook

- Further consolidation inevitable
 - US, Canada and Europe are ex-growth
 - Acquisition costs still below FD costs
- Oil continues to drive POC production growth
 - Companies are not shifting to gas
 - Increasing differentiation between companies
- Capital flowing from low risk to high risk
 - OPEC exposure increasing
 - Technical and political risk increasing

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Presentation to Paradigm

26th January 2004