

# Oil Sands Economics

Oil Sands 101 Presentation  
Calgary Ass'n of Lifelong Learners  
and  
Petroleum History Society

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5 February 2013

# Peter Lougheed on Oil Sands Development :

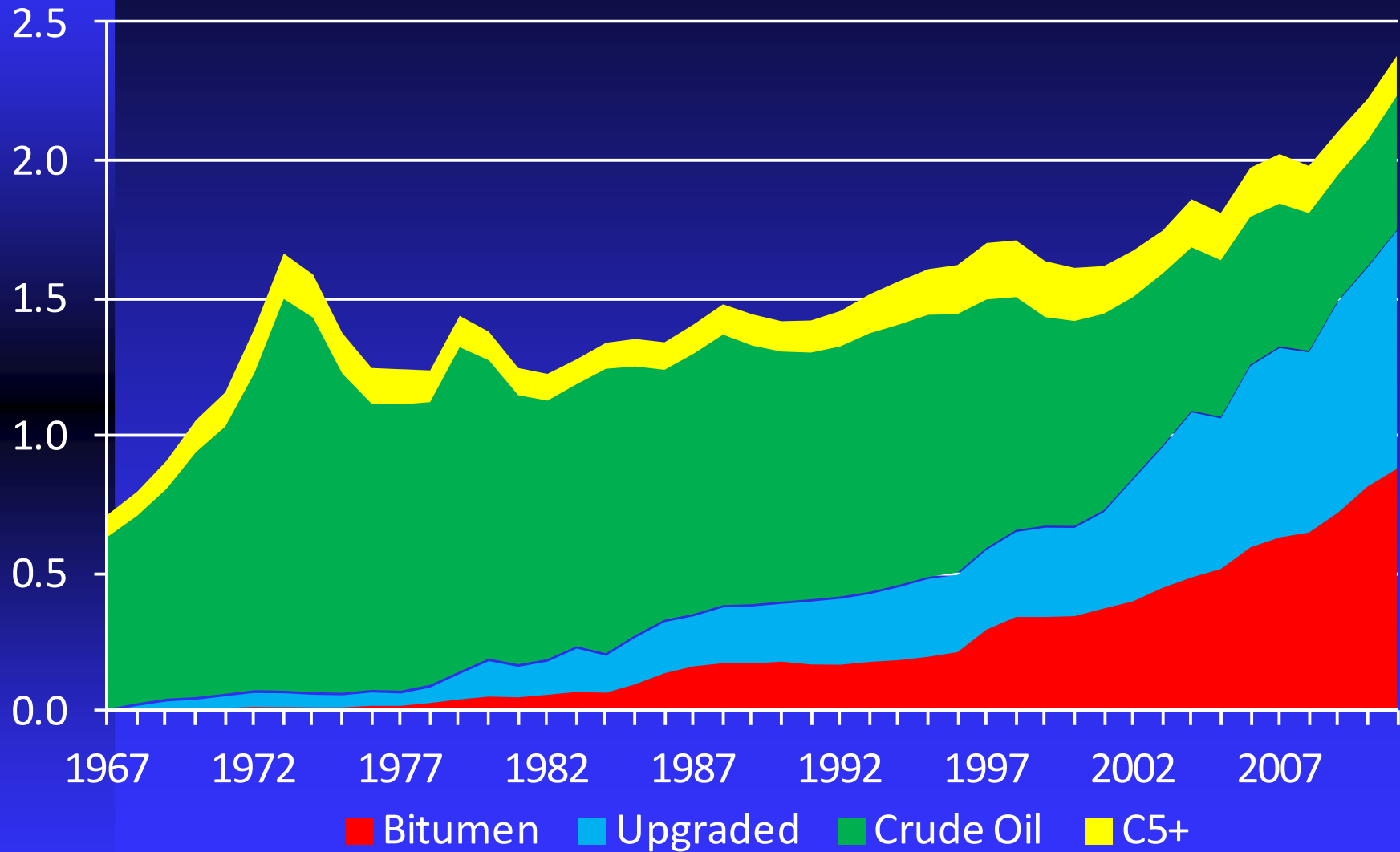
“It’s out of control, and we’re all  
going to pay a price for it”

Speaking at University of Alberta, March 7, 2007

# Outline of Presentation

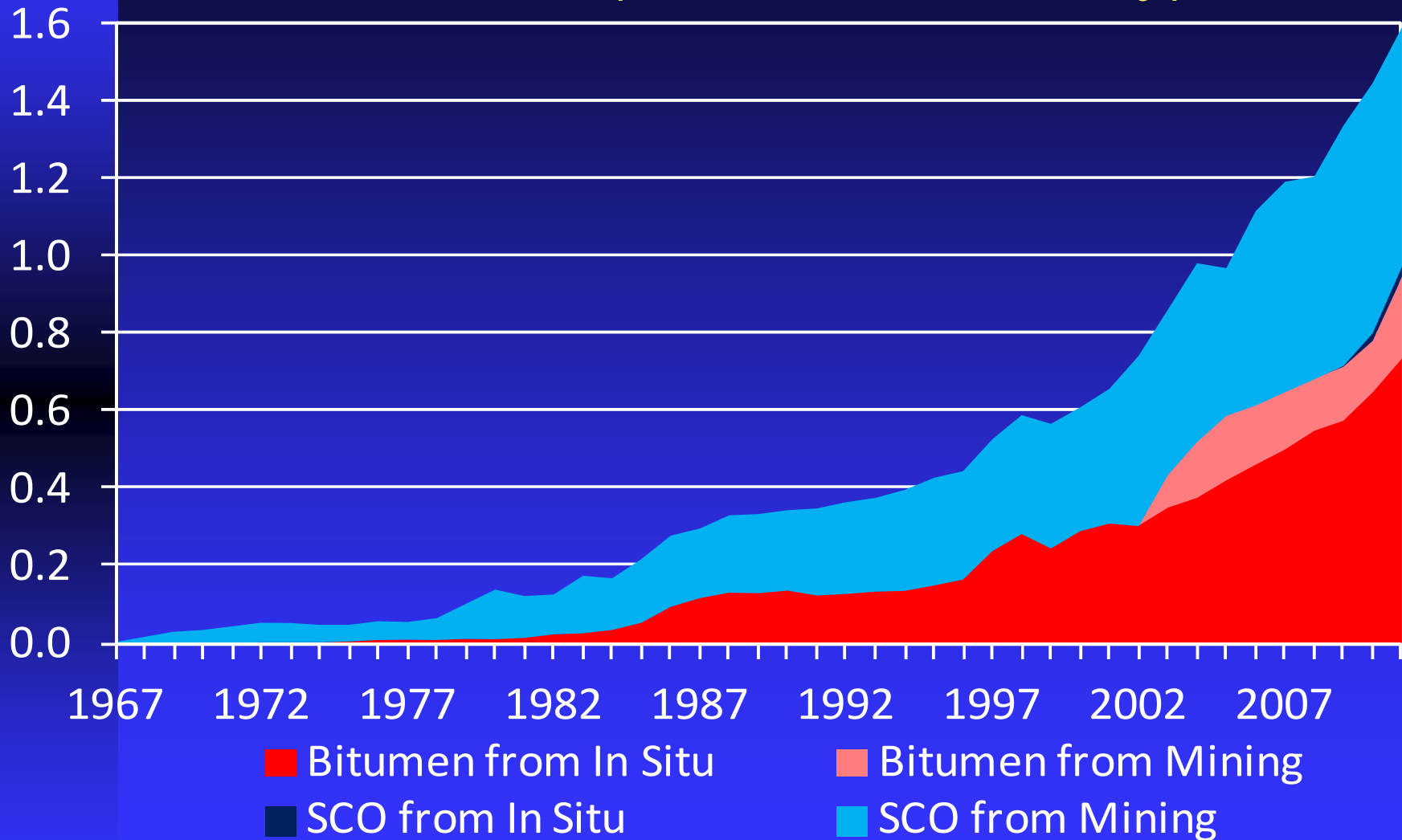
- Oil sands economic indicators
  - ◆ Production
  - ◆ Investment
  - ◆ Prices
  - ◆ Costs
  - ◆ Royalties
- Oil sands outlook
- Economic Rent
  - ◆ Risk of rent dissipation

# Alberta Liquid Petroleum Production 1967-2011 (millions of bbl/day)



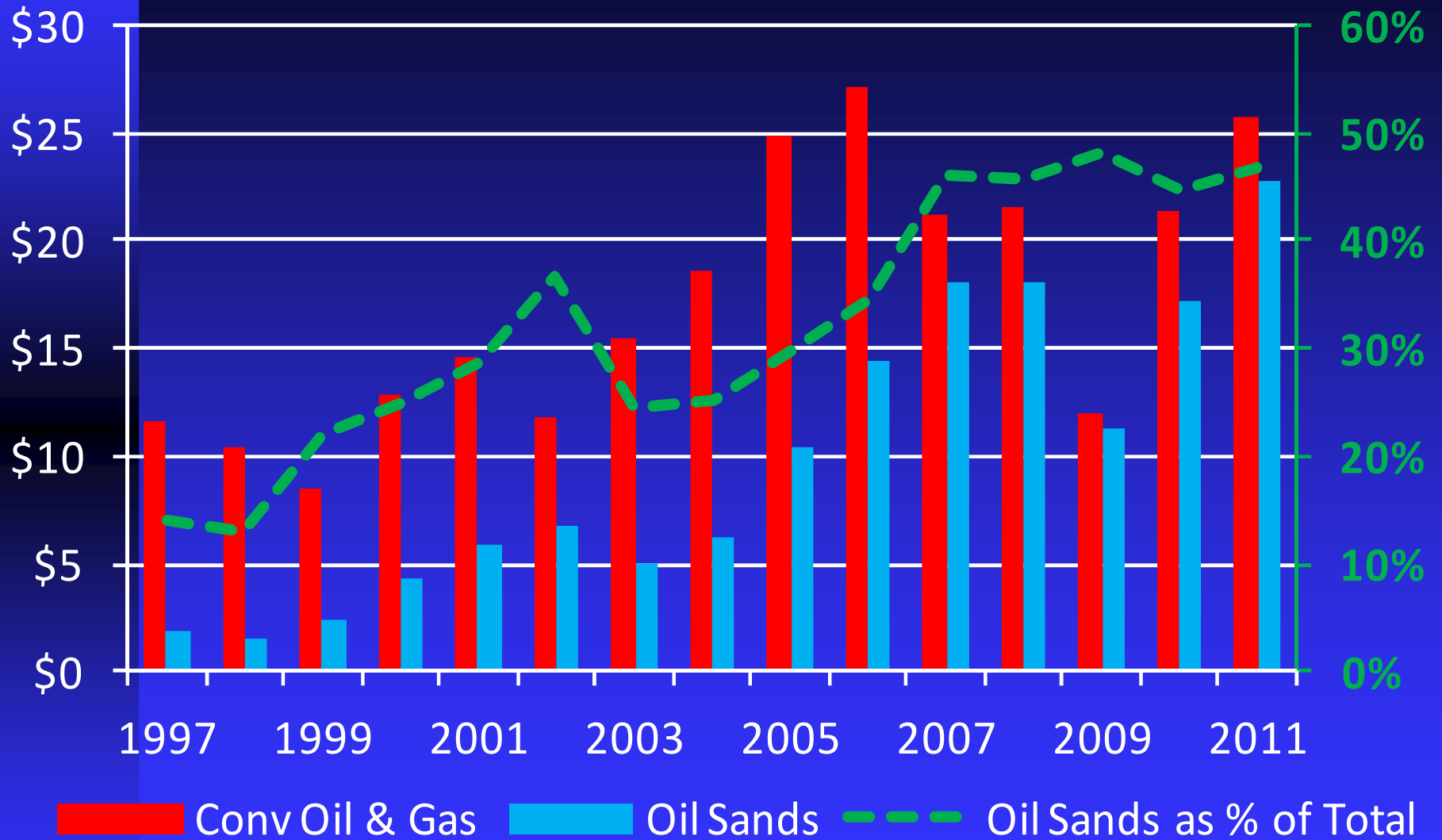
Source: ERCB

# Oil Sands Production History 1967-2011 (millions of bbl/day)



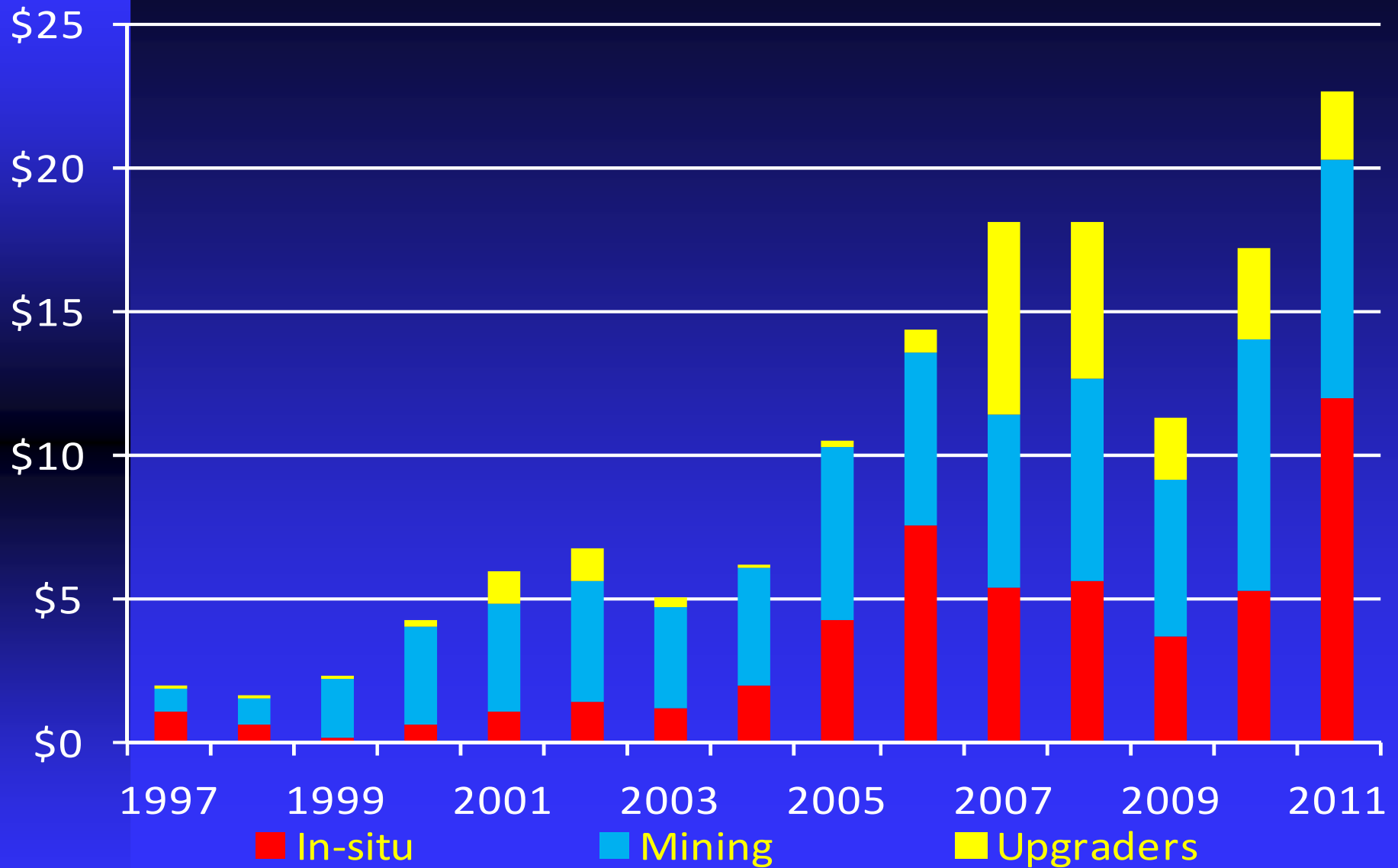
Source: CAPP

# Oil Industry Upstream Investment (\$ billions)



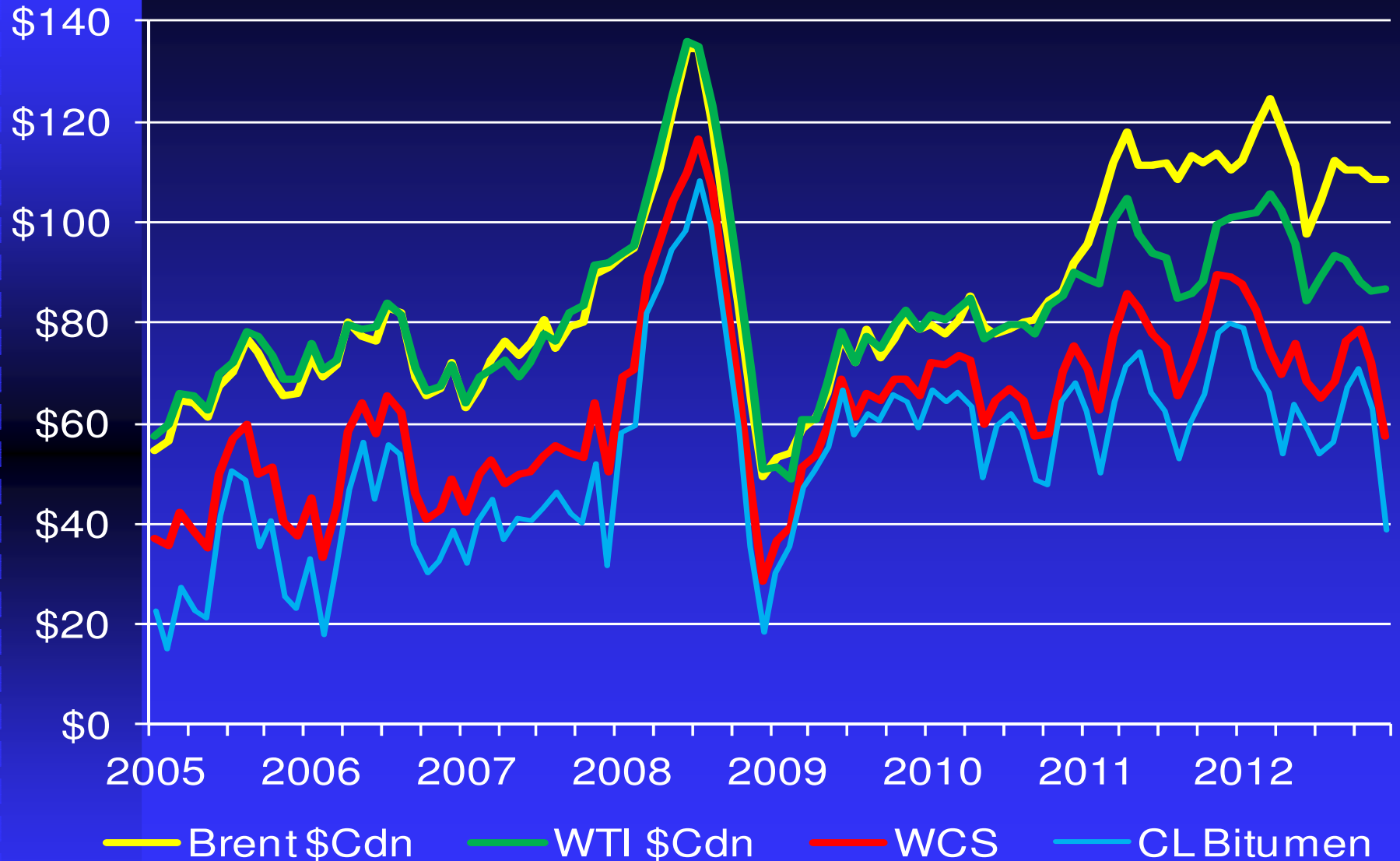
Source: CAPP

# Oil Sands Investment (\$ billions)



Source: CAPP

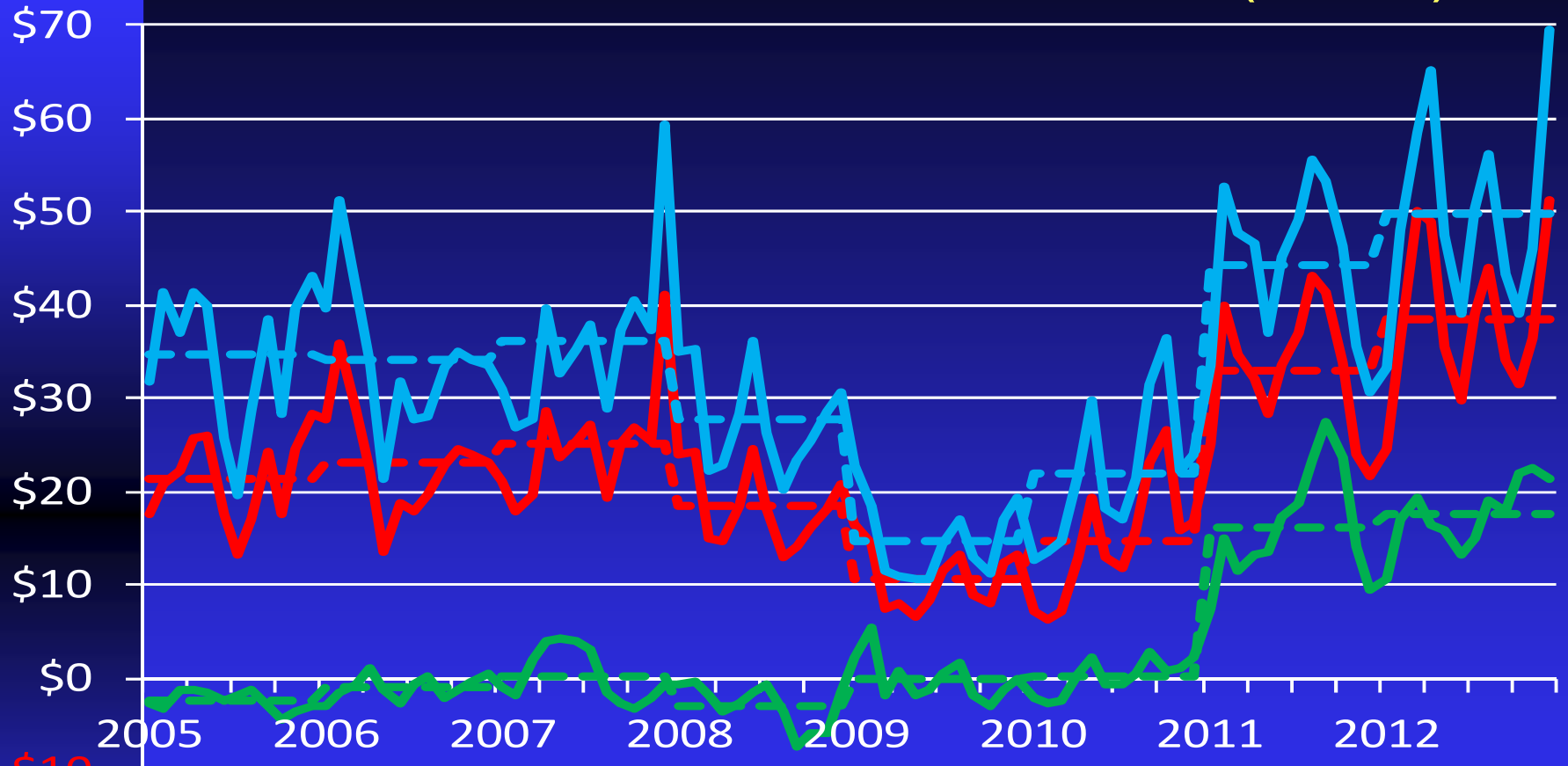
# Crude Oil & Bitumen Prices (\$/bbl)



Source: Calculations based on US DOE, Company Postings, Bank of Canada



# Crude Oil Price Differentials (\$/bbl)

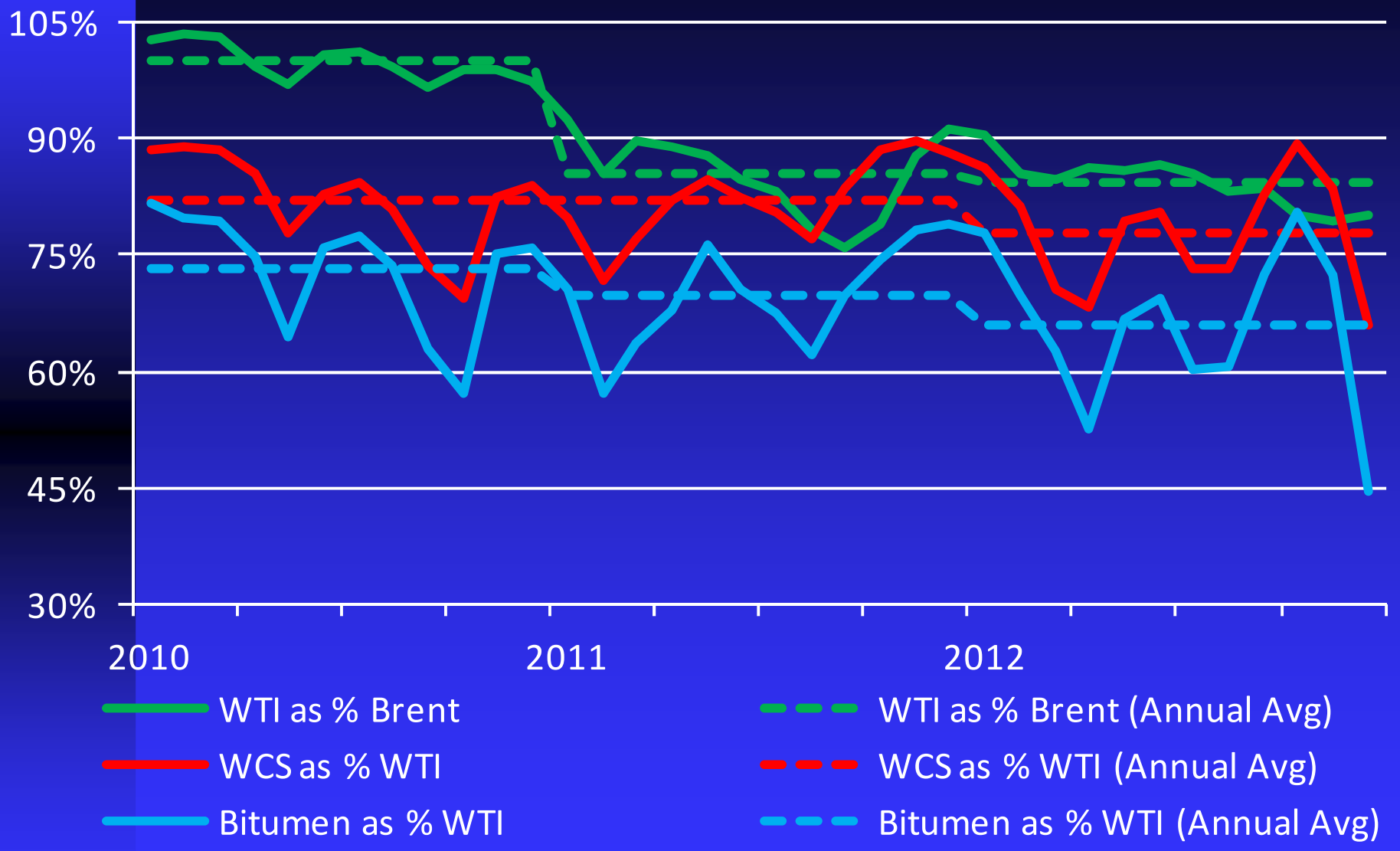


\$10

- Brent-WTI Mthly
- Brent-WCS Mthly
- Brent-Bitumen Mthly
- - Brent-WTI Ann Avg
- - Brent-WCS Ann Avg
- - Brent-Bitumen Ann Avg

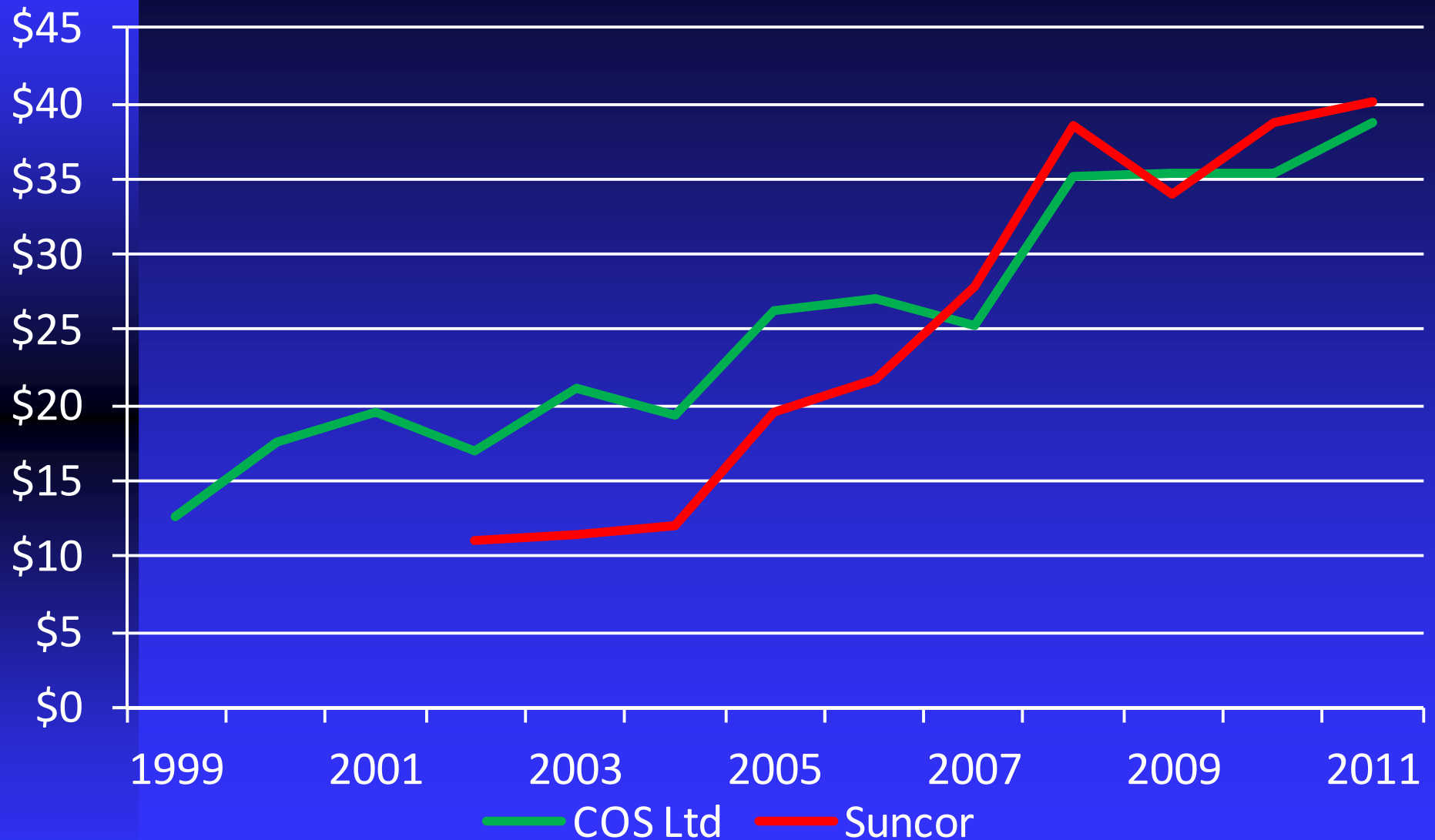
Source: Calculated

# Crude Oil Price Differentials (%)



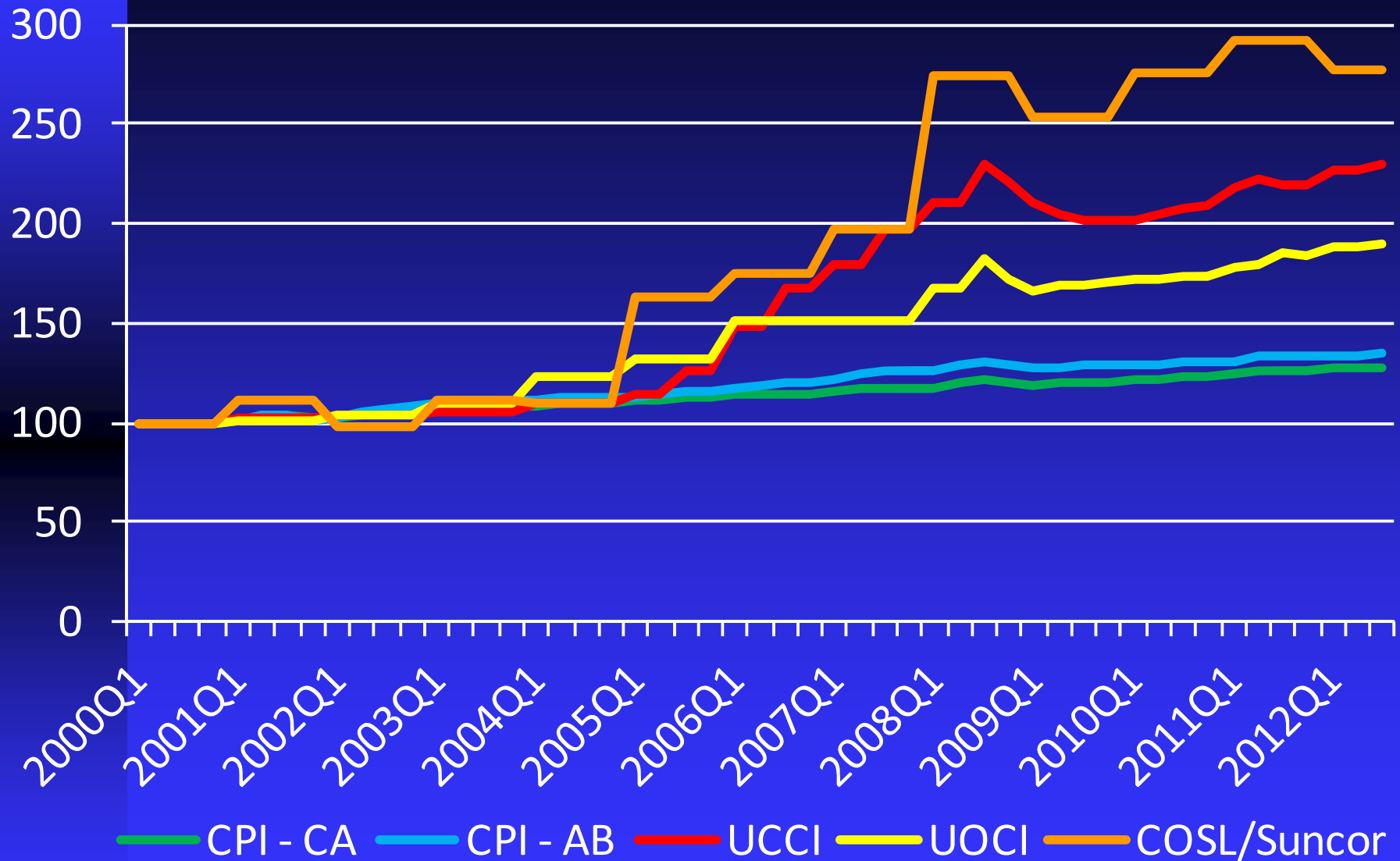
Source: Calculated

# Oil Sands Cash Operating Costs (\$/bbl)



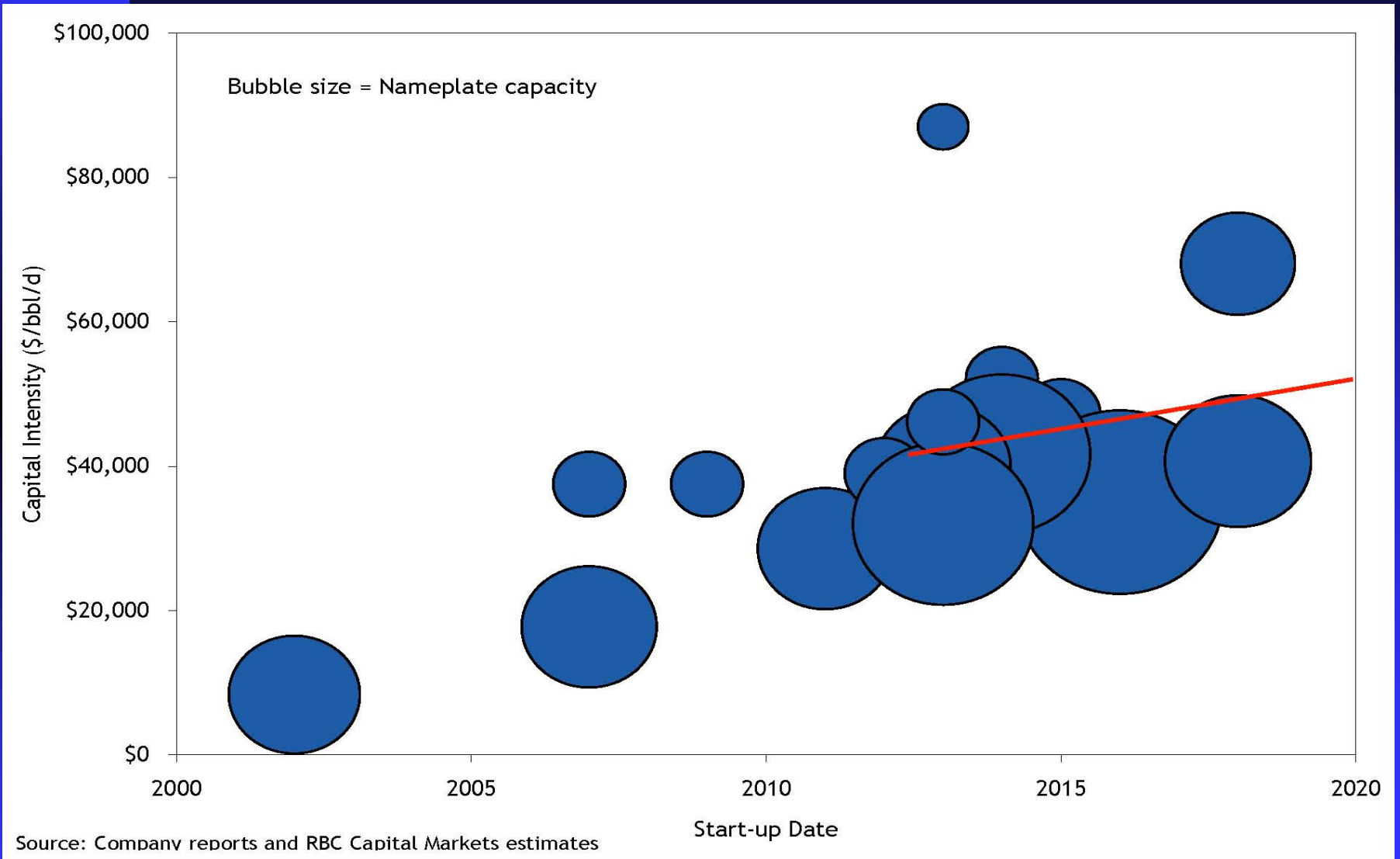
Source: Company Annual Reports

# Cost Indices: 2000=100



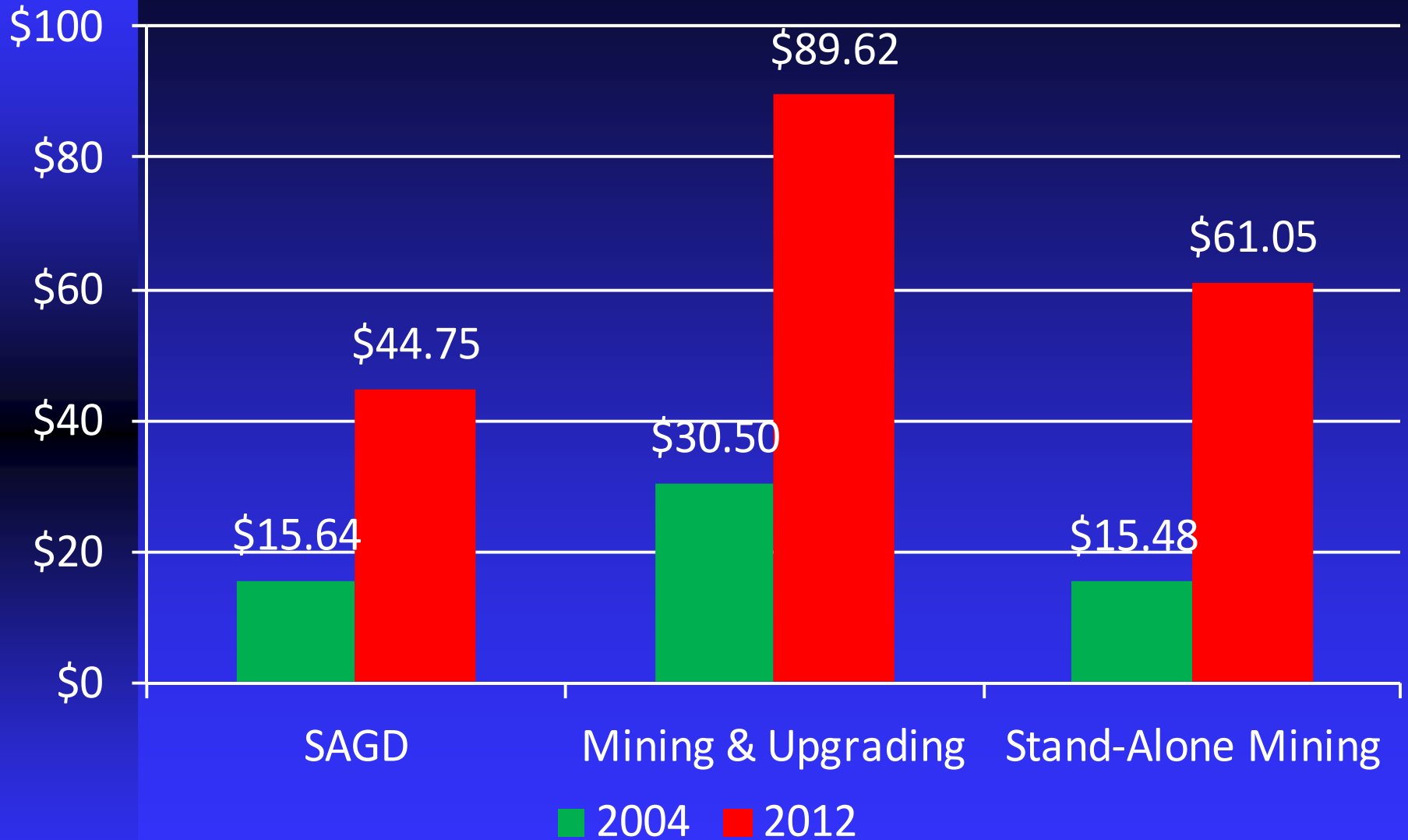
Source: Statistics Canada, IHS CERA, Company Annual Reports

# Oil Sands Capital Cost Inflation



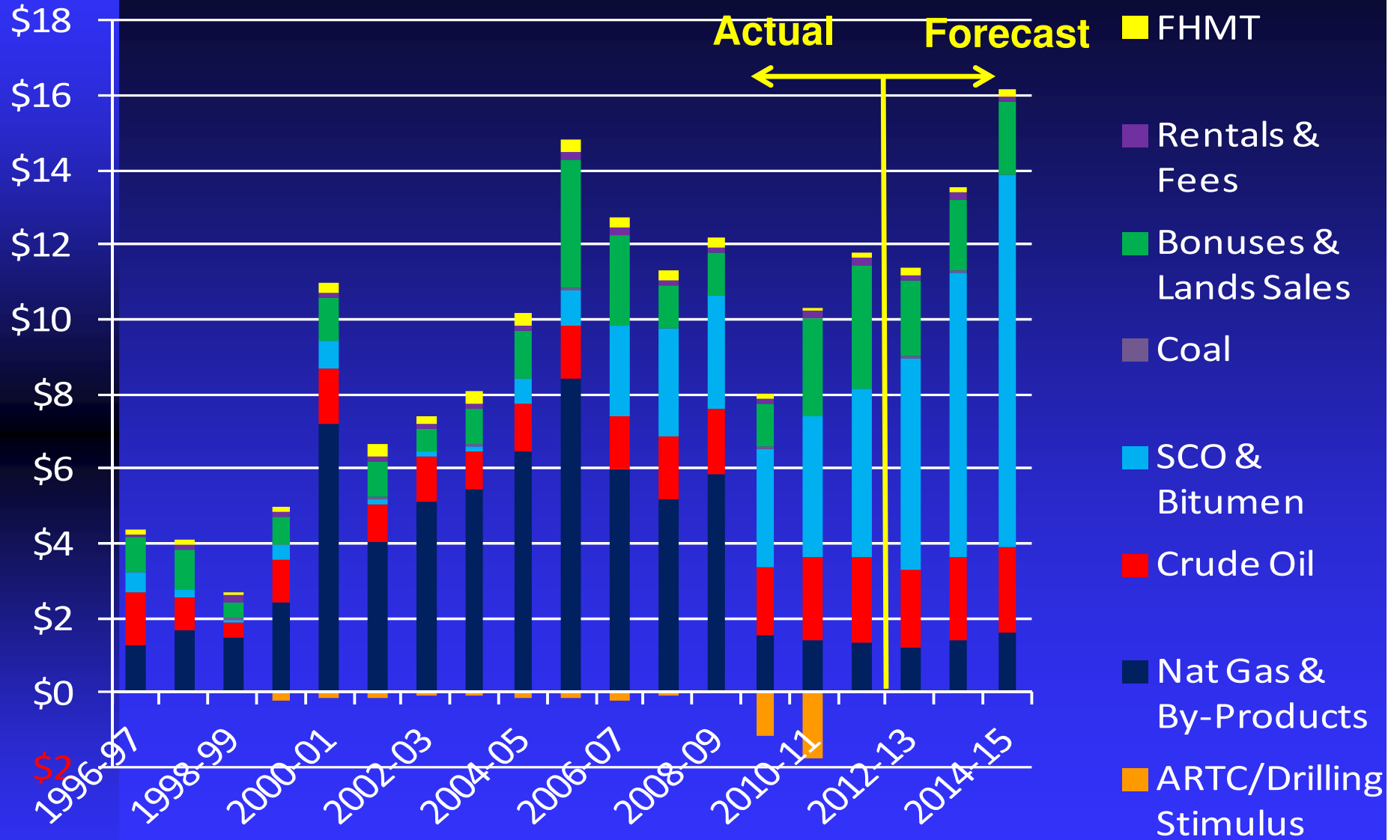
Source: RBC Capital  
5 February 2013

# Supply Costs (\$/bbl)



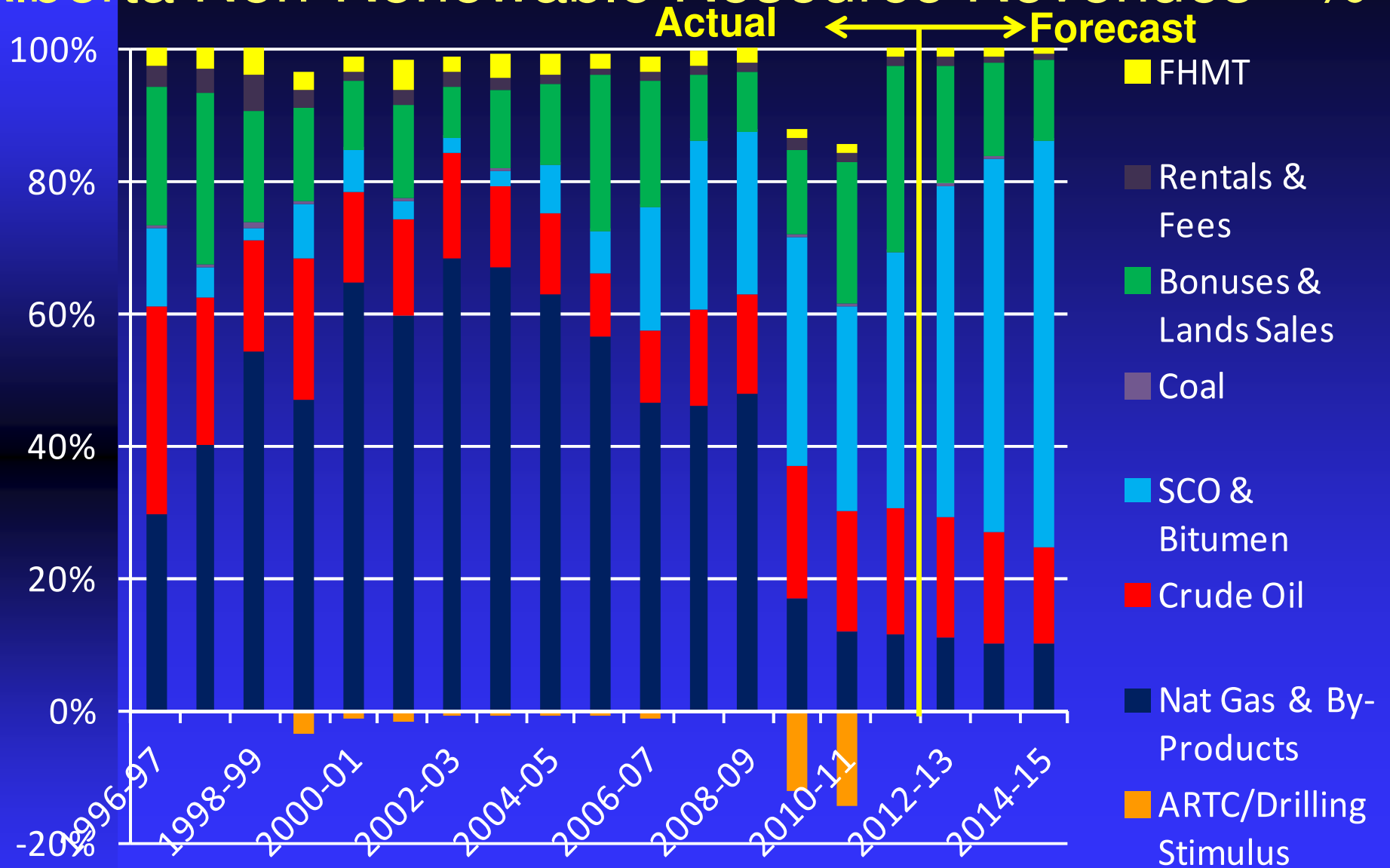
Source: CERI

# Alberta Non-Renewable Resource Revenues - \$mm



Source: Alberta Treasury Board & Finance

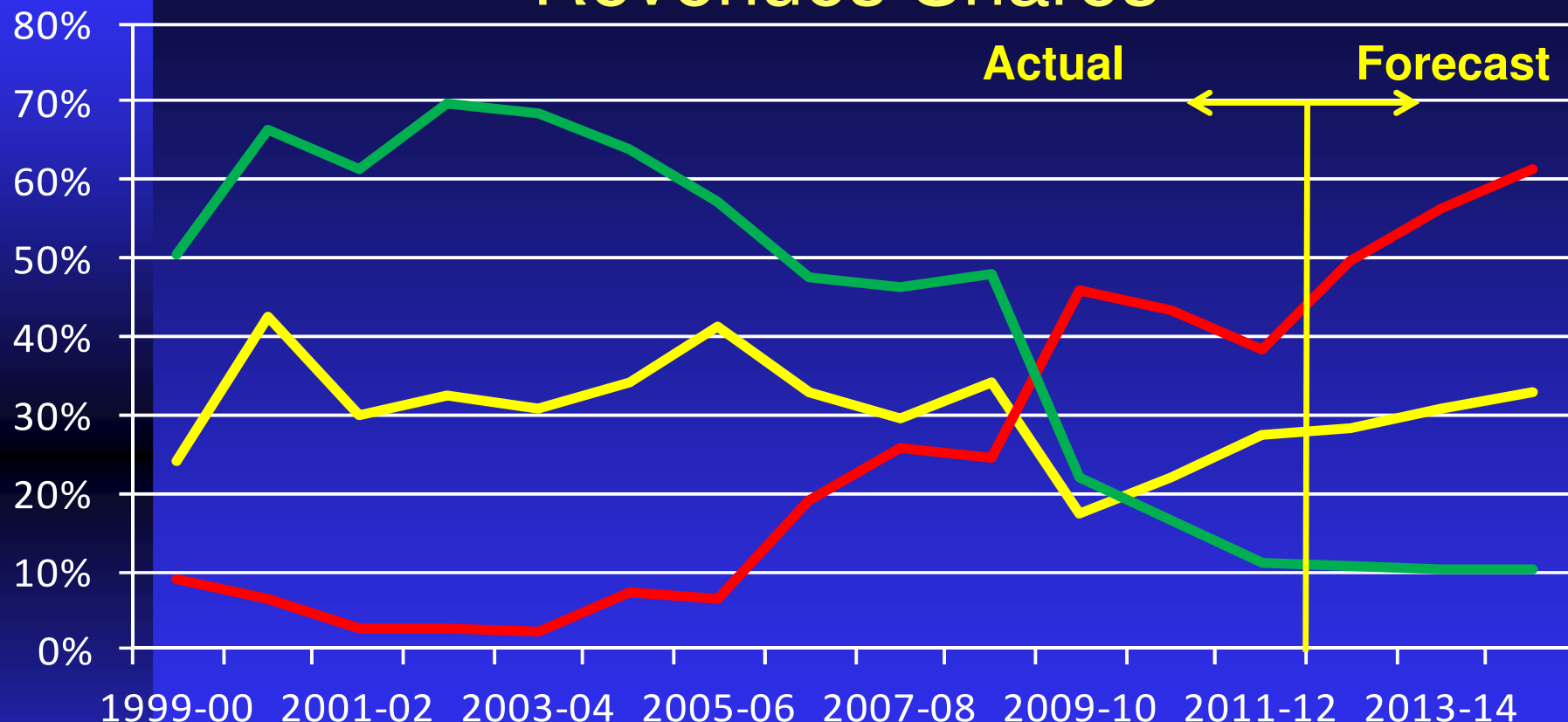
# Alberta Non-Renewable Resource Revenues - %



Source: Alberta Treasury Board & Finance



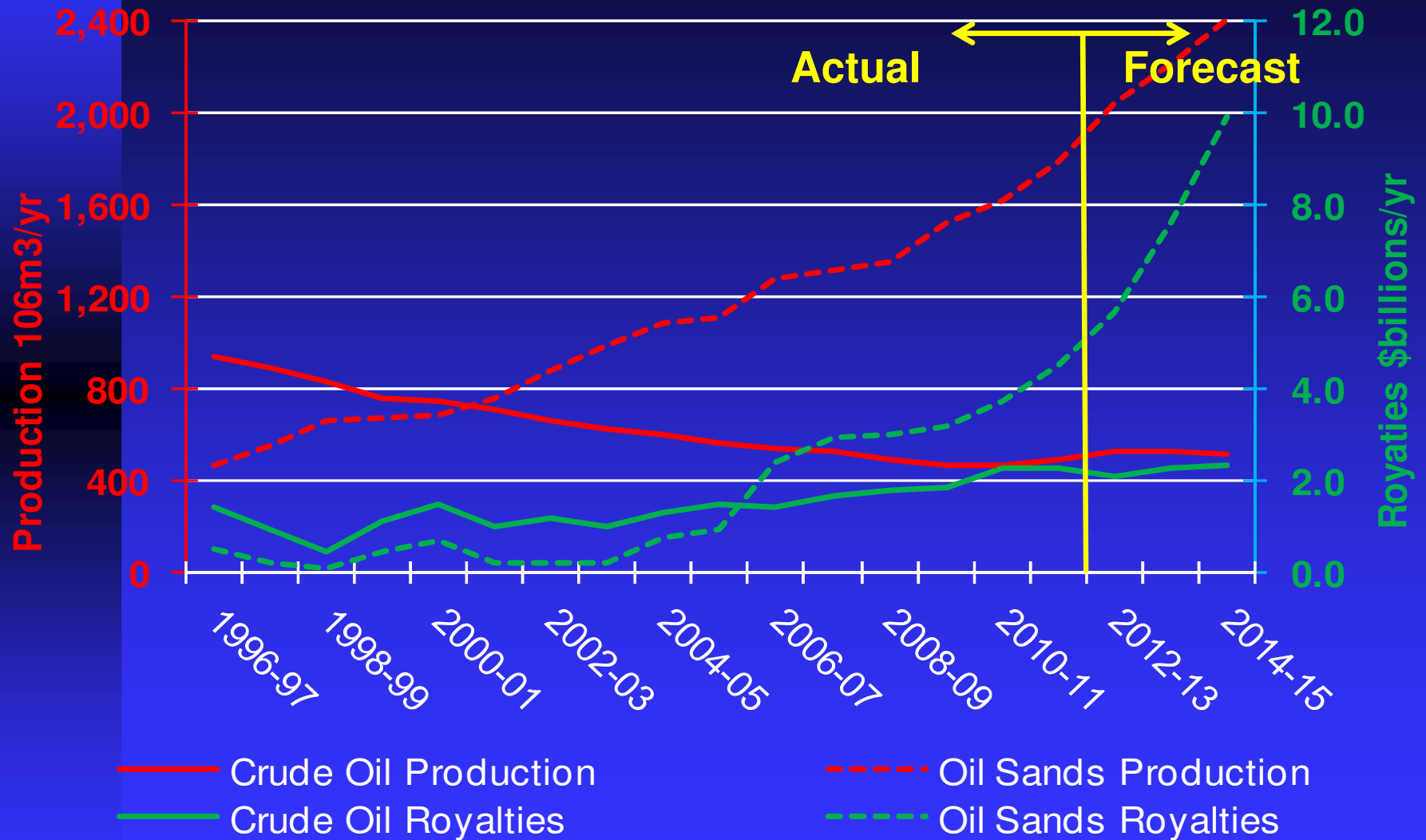
# Alberta Non-Renewable Resources Revenues Shares



- NRRR as % of Total Rev
- Oil Sands Roy as % of NRRR
- Gas Roy as % of NRRR

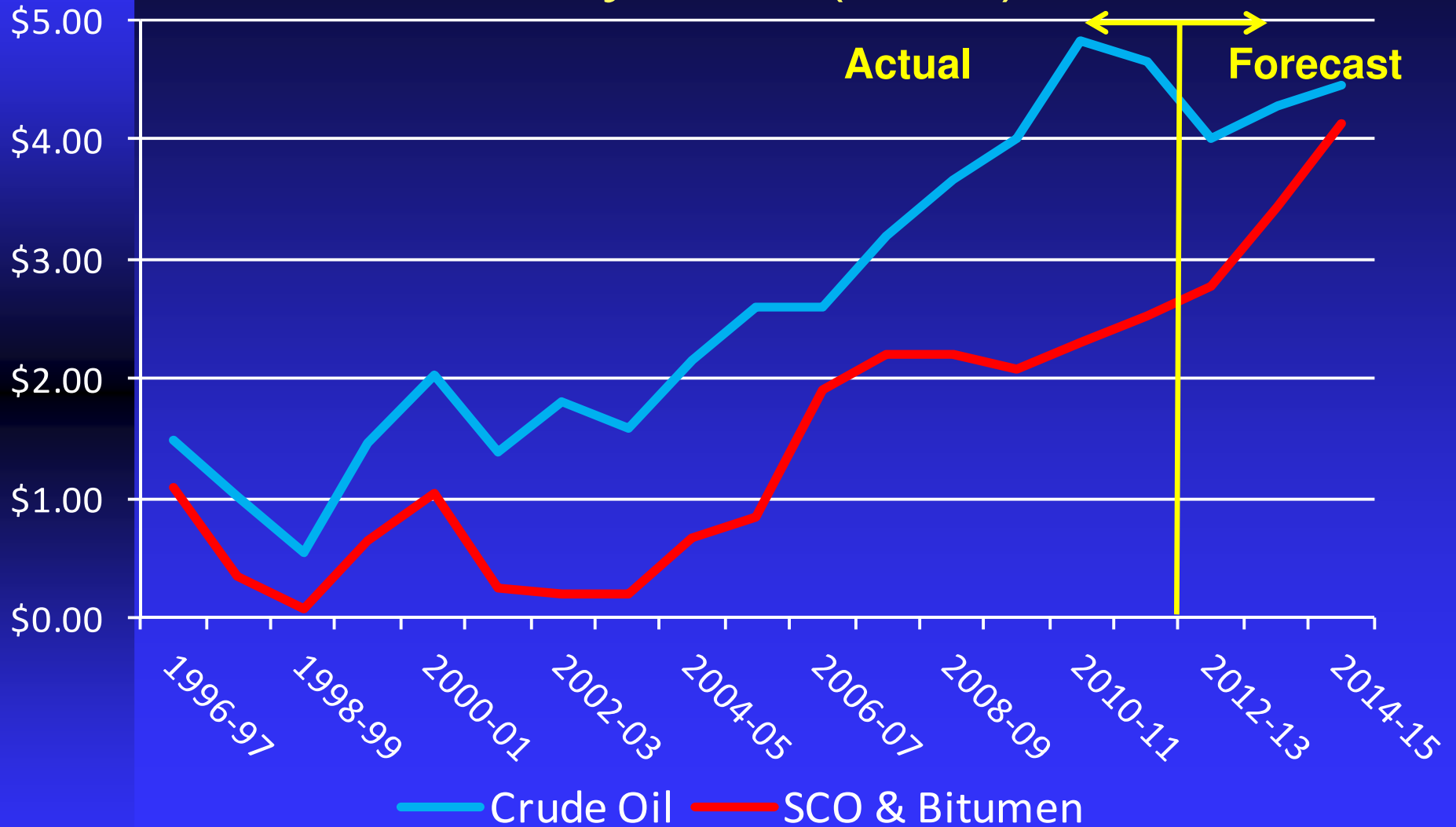
Source: Calculations based on Alberta Treasury Board & Finance

# Alberta Crude Oil & Oil Sands Royalties and Production



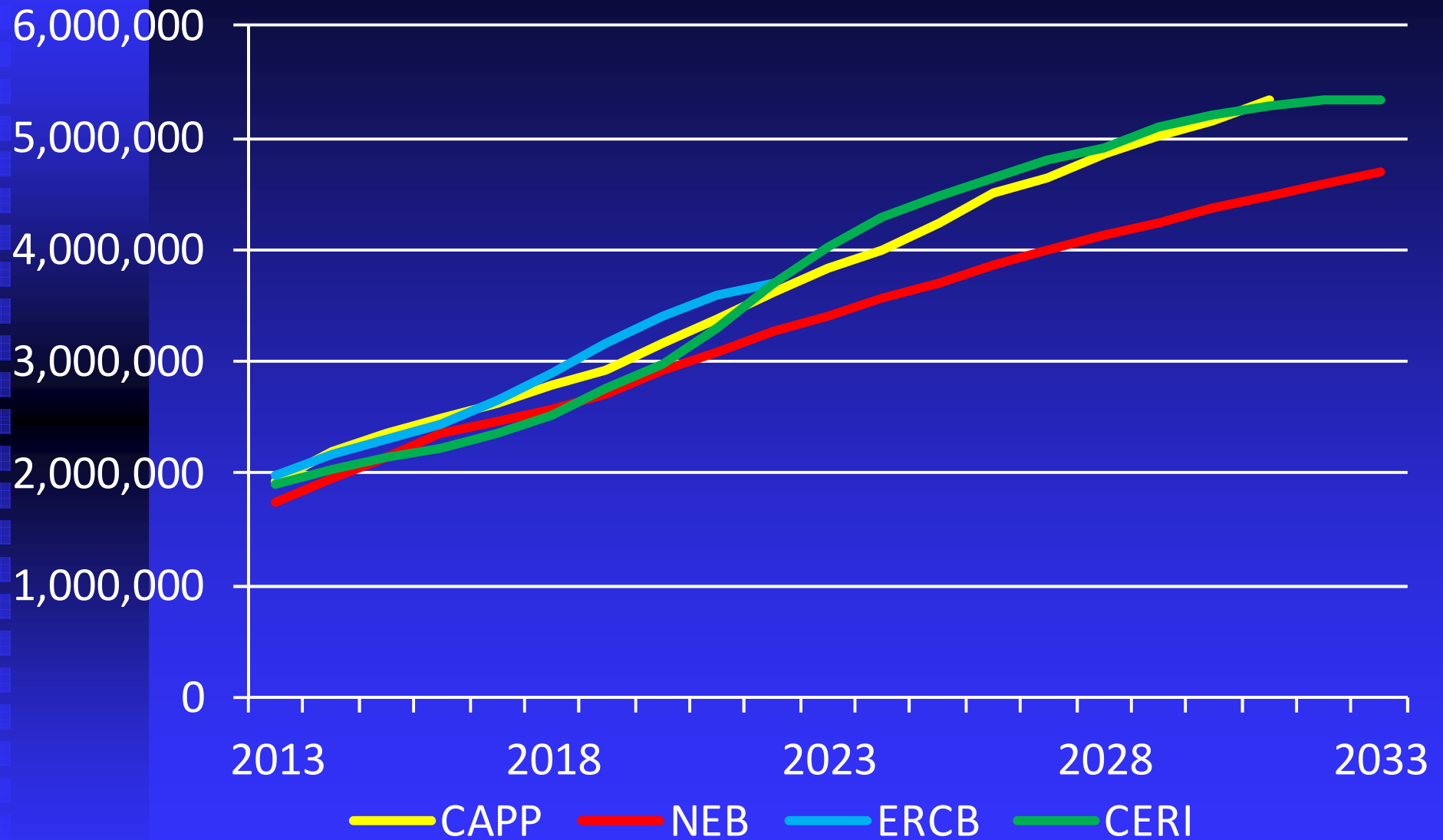
Source: ERCB, Alberta Treasury Board & Finance

# Alberta Crude Oil & Oil Sands Royalties (\$/bbl)



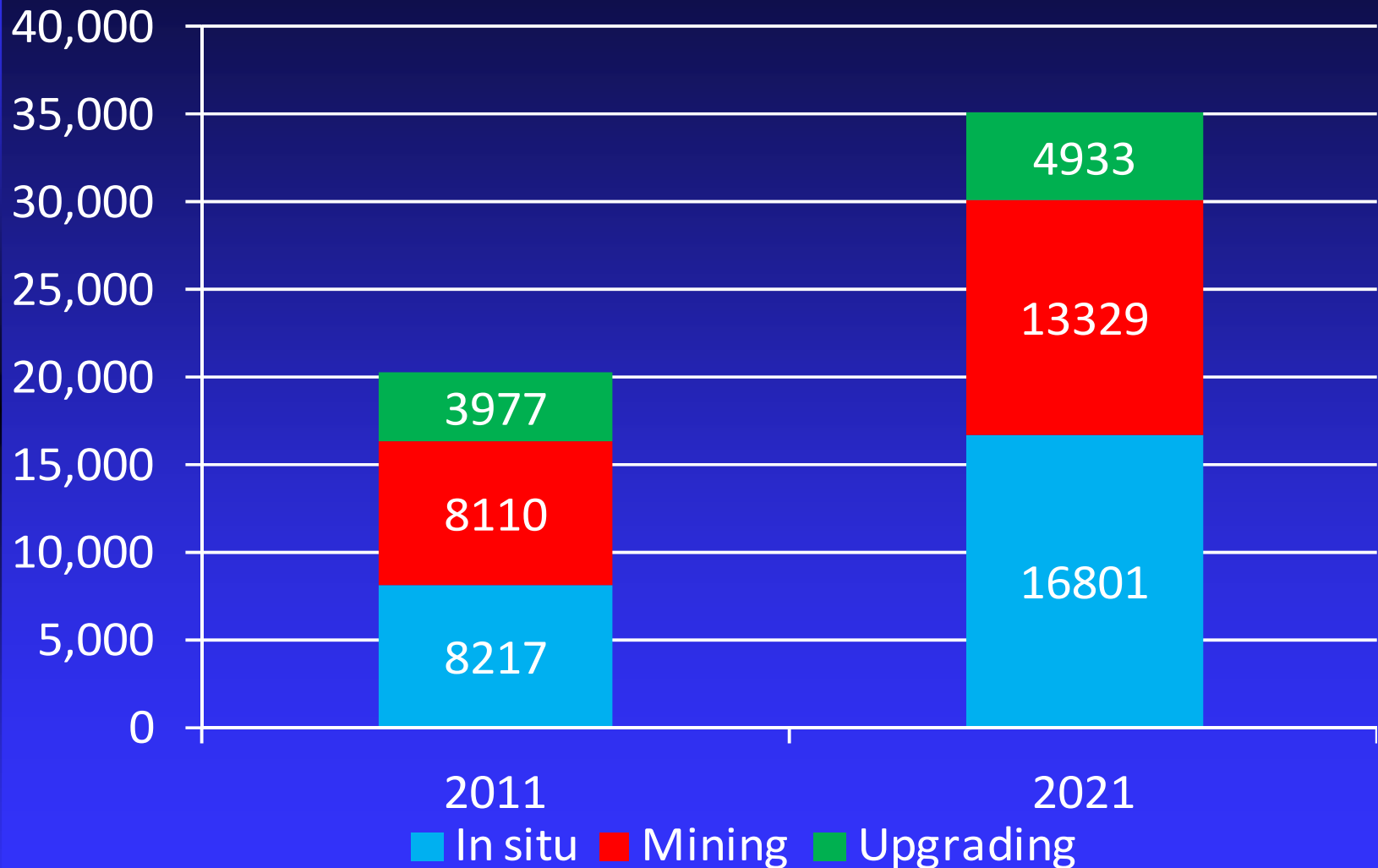
Source: Calculations based on ERCB, Alberta Treasury Board & Finance

# Oil Sands Production Forecasts (b/d)



Source: CAPP, NEB, ERCB, CERI

# Oil Sands Employment



Source: Petroleum Human Resources Council

# Peter Lougheed on Oil Sands Development :

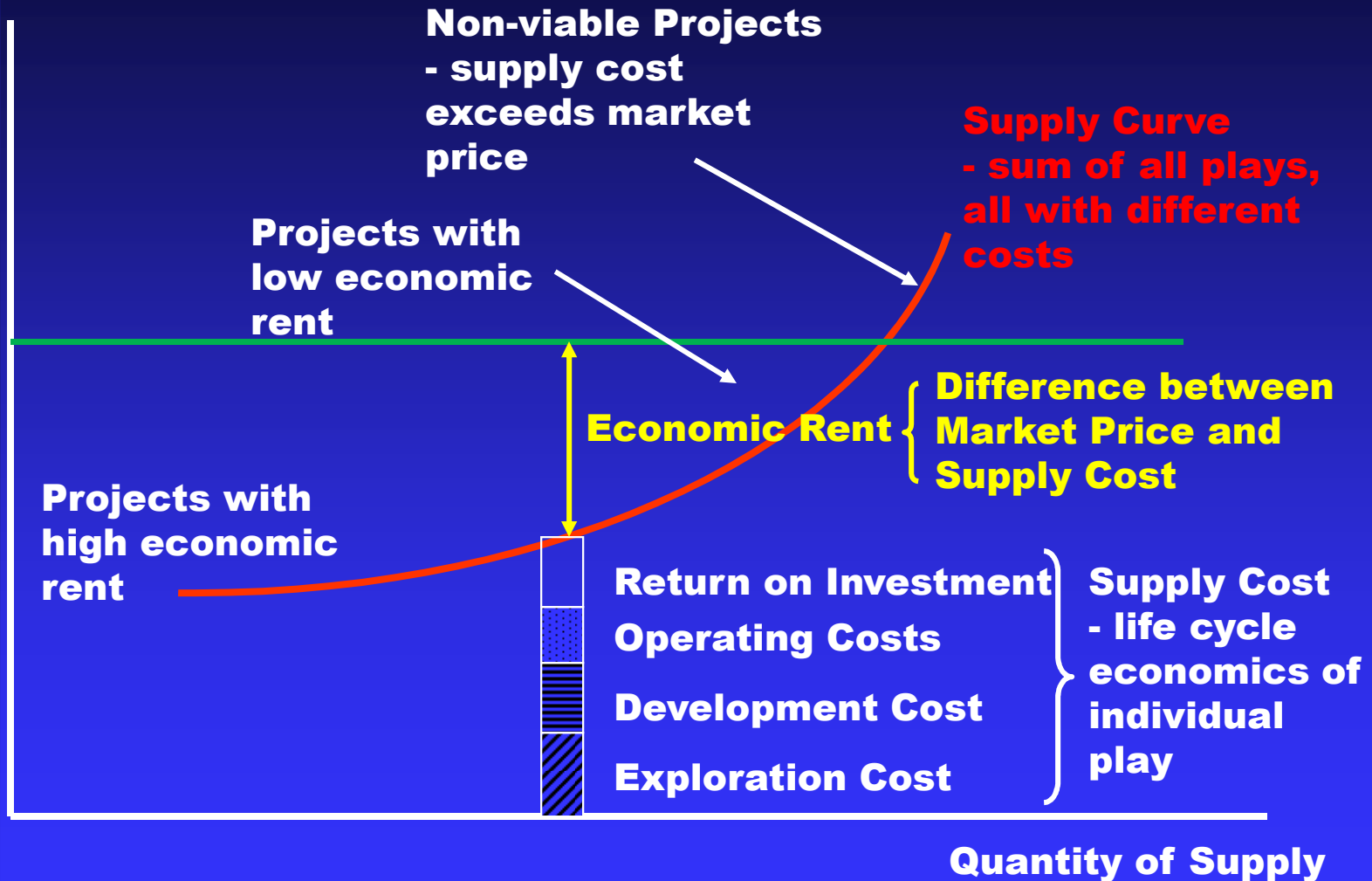
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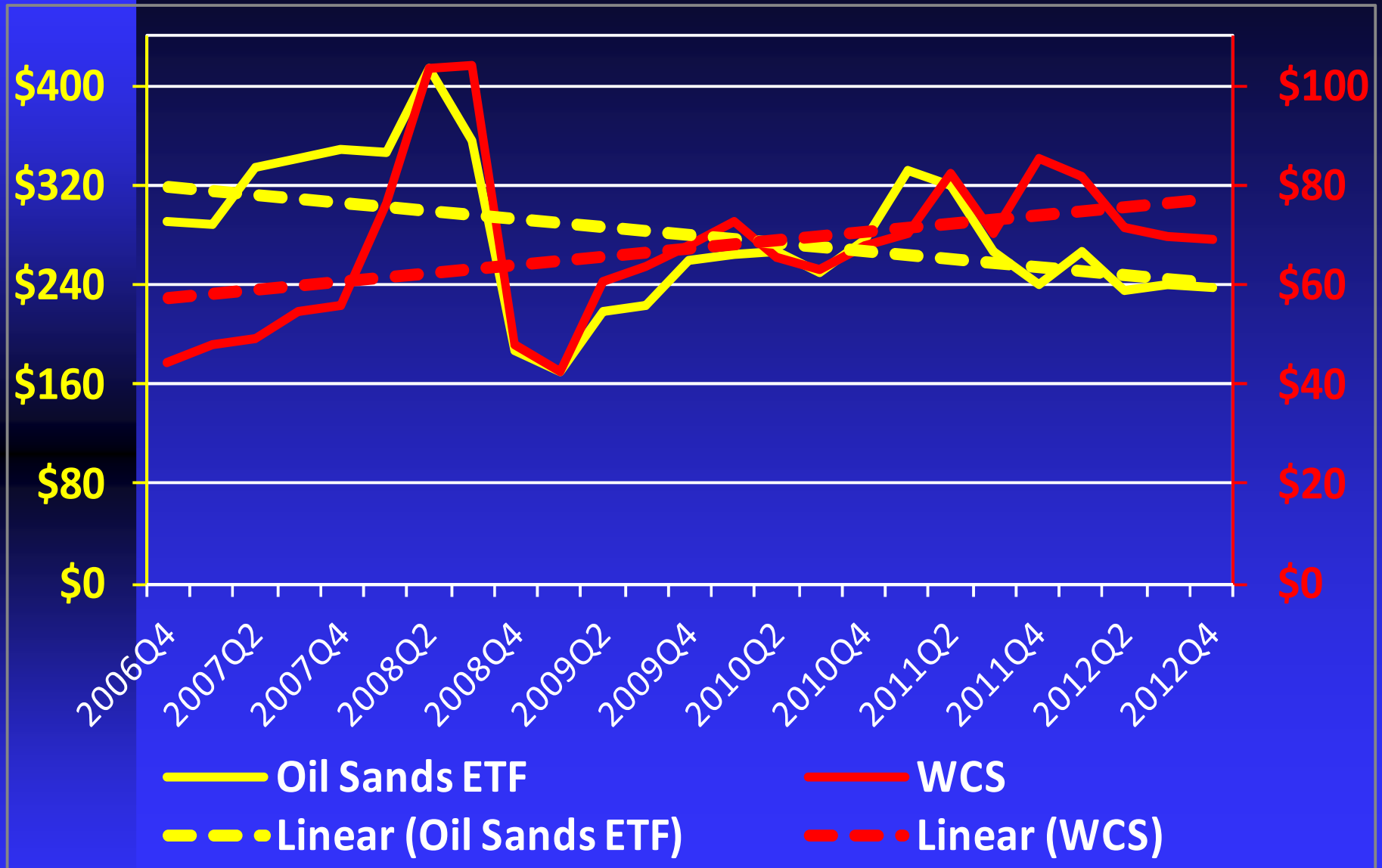
# Economic Rent

Price  
Per unit

Market  
Price



# Oil Sands Equities vs Price per Bbl



Source: iShares.com, Company Postings