

Oil Sands Economics

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

Paul Precht
Energy Economist and Consultant

5 February 2013

Peter Lougheed on Oil Sands Development :

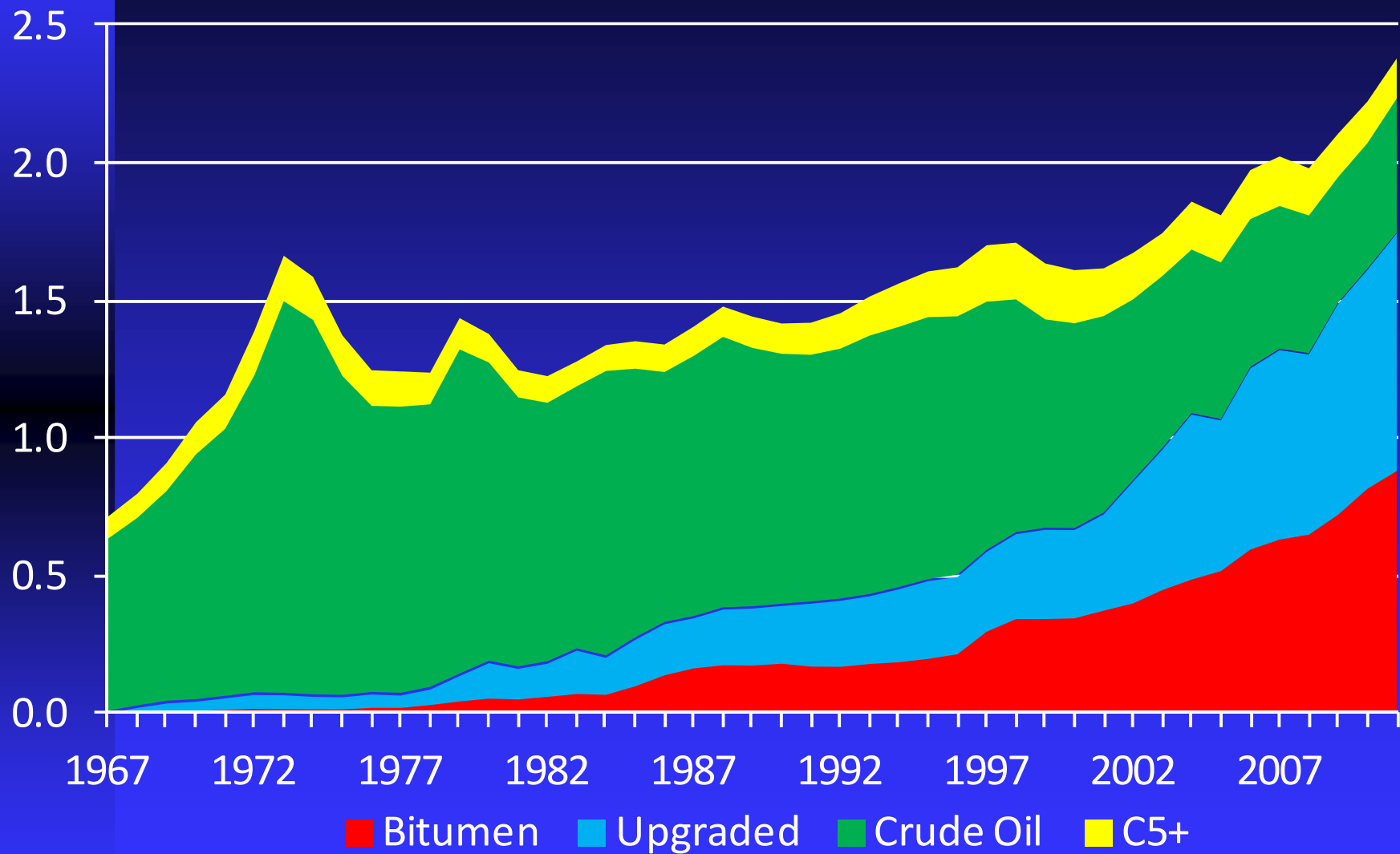
“It’s out of control, and we’re all going to pay a price for it”

Speaking at University of Alberta, March 7, 2007

Outline of Presentation

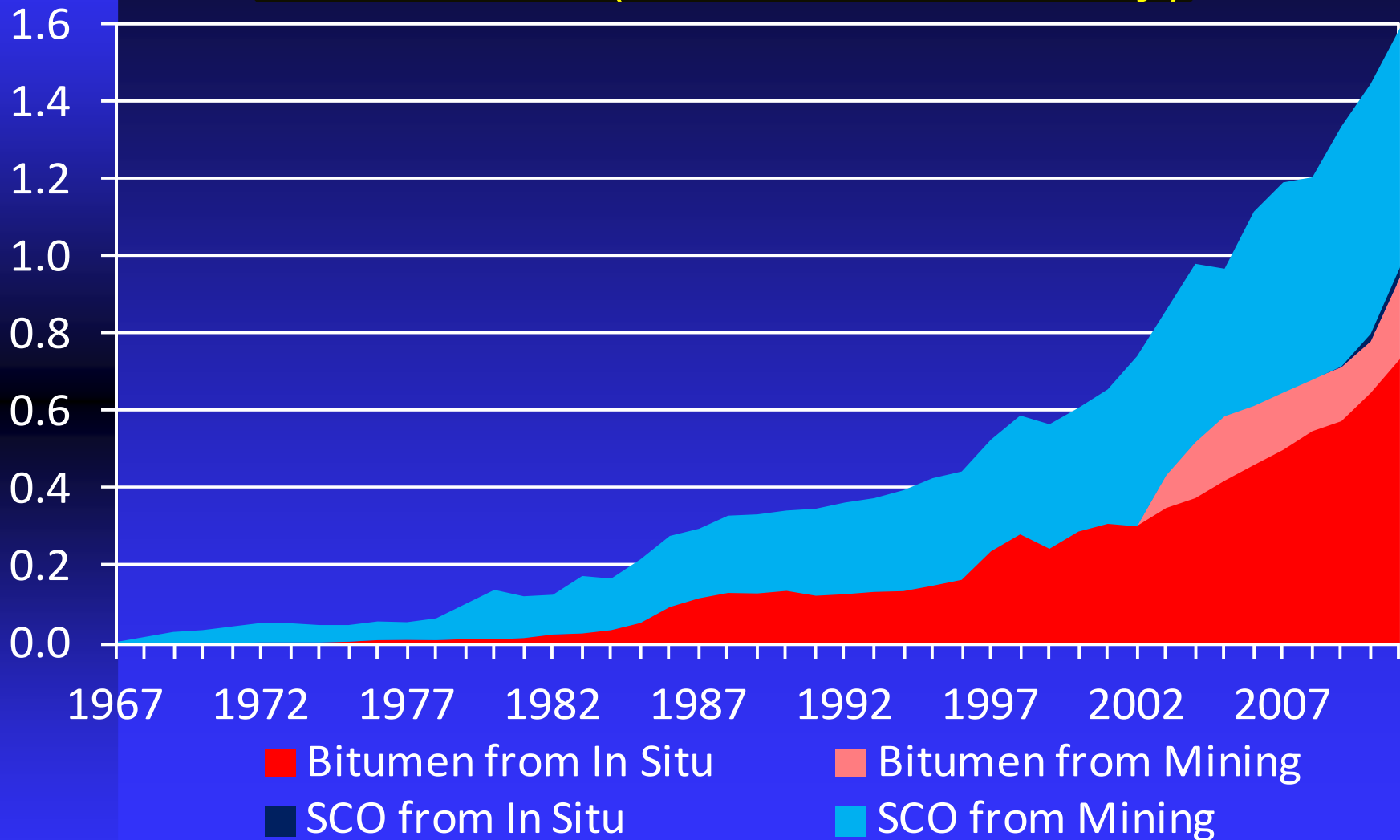
- Oil sands economic indicators
 - ◆ Production
 - ◆ Investment
 - ◆ Prices
 - ◆ Costs
 - ◆ Royalties
- Oil sands outlook
- Economic Rent
 - ◆ Risk of rent dissipation

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



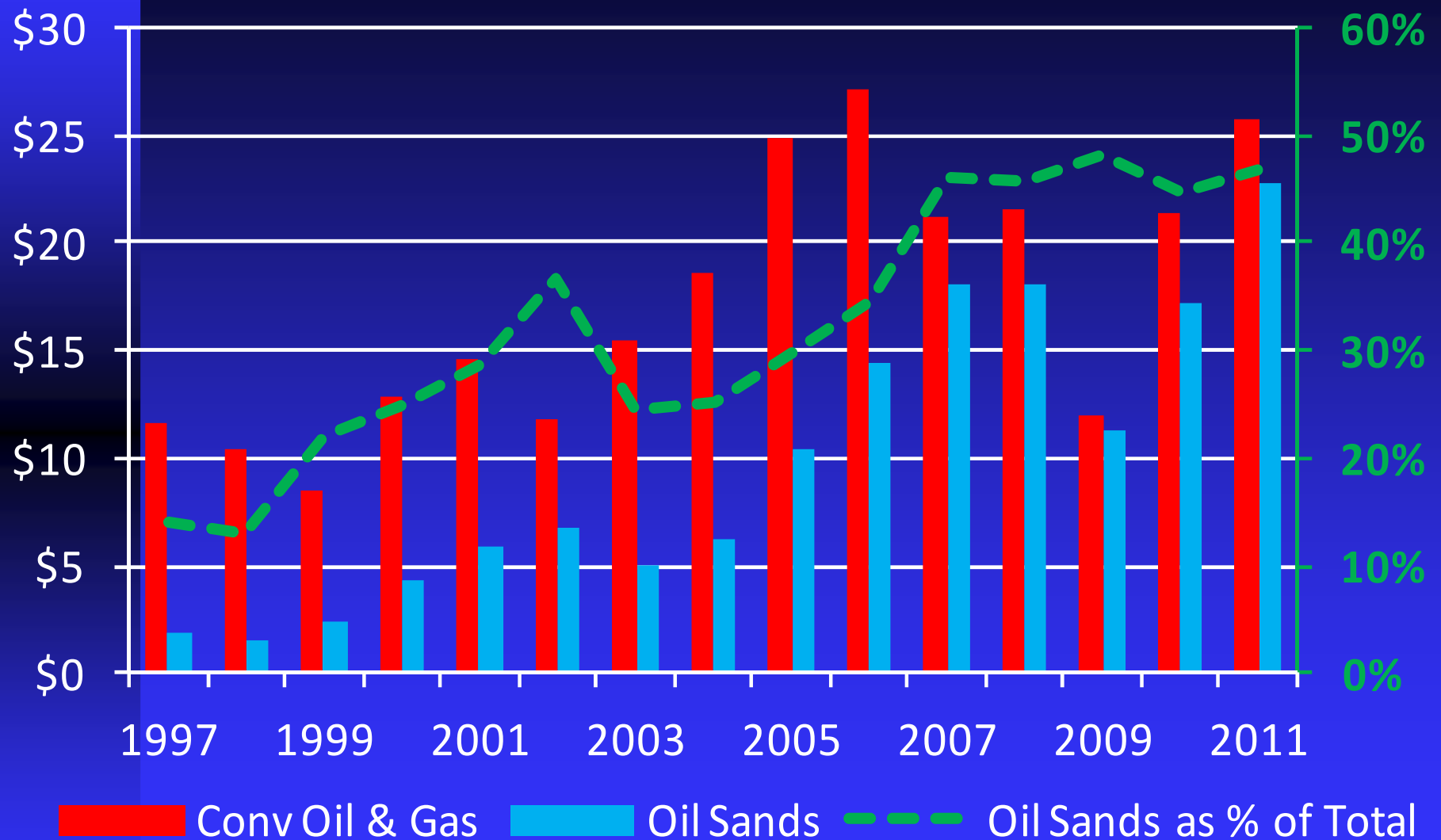
Source: ERCB

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



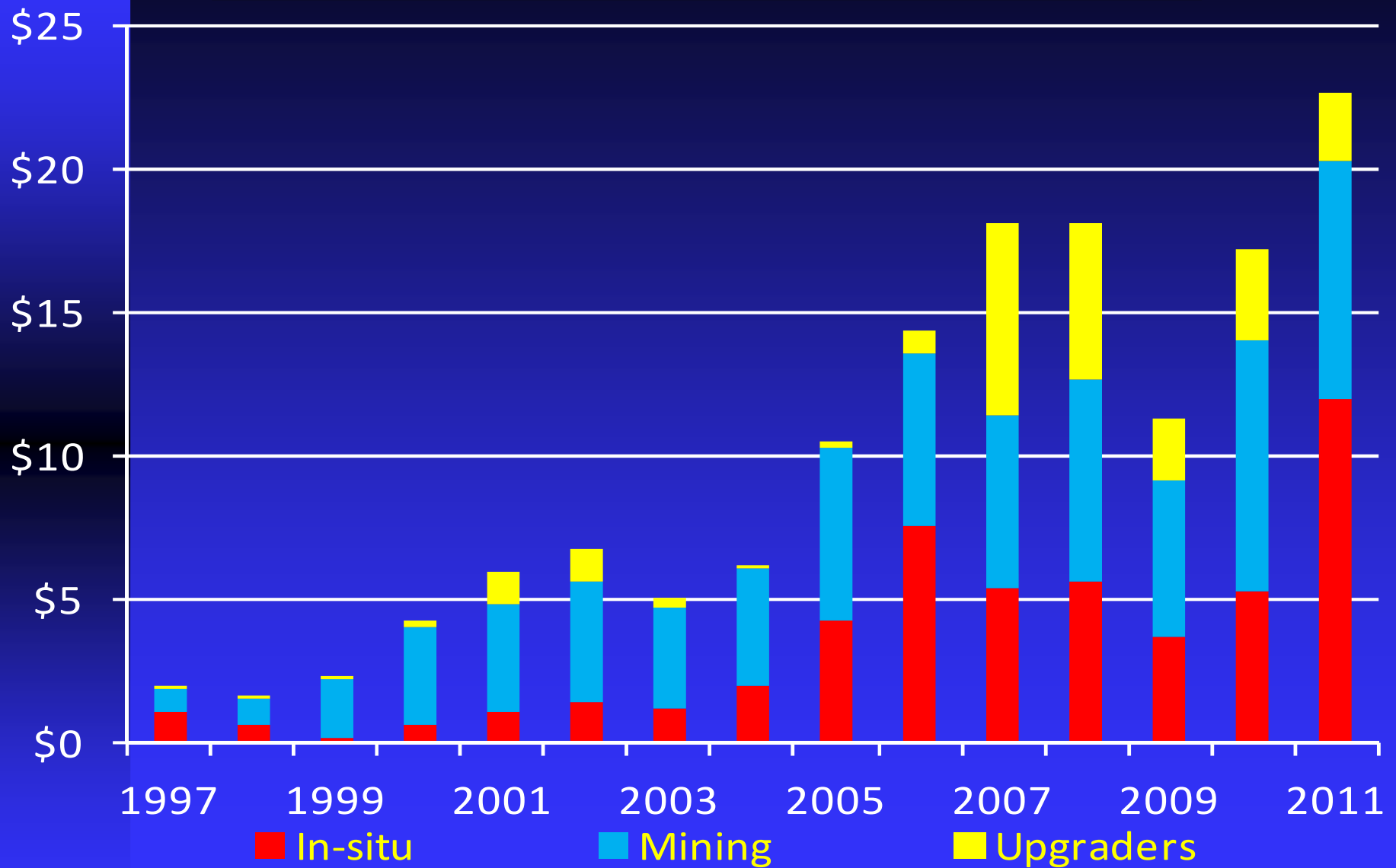
Source: CAPP

Oil Industry Upstream Investment (\$ billions)



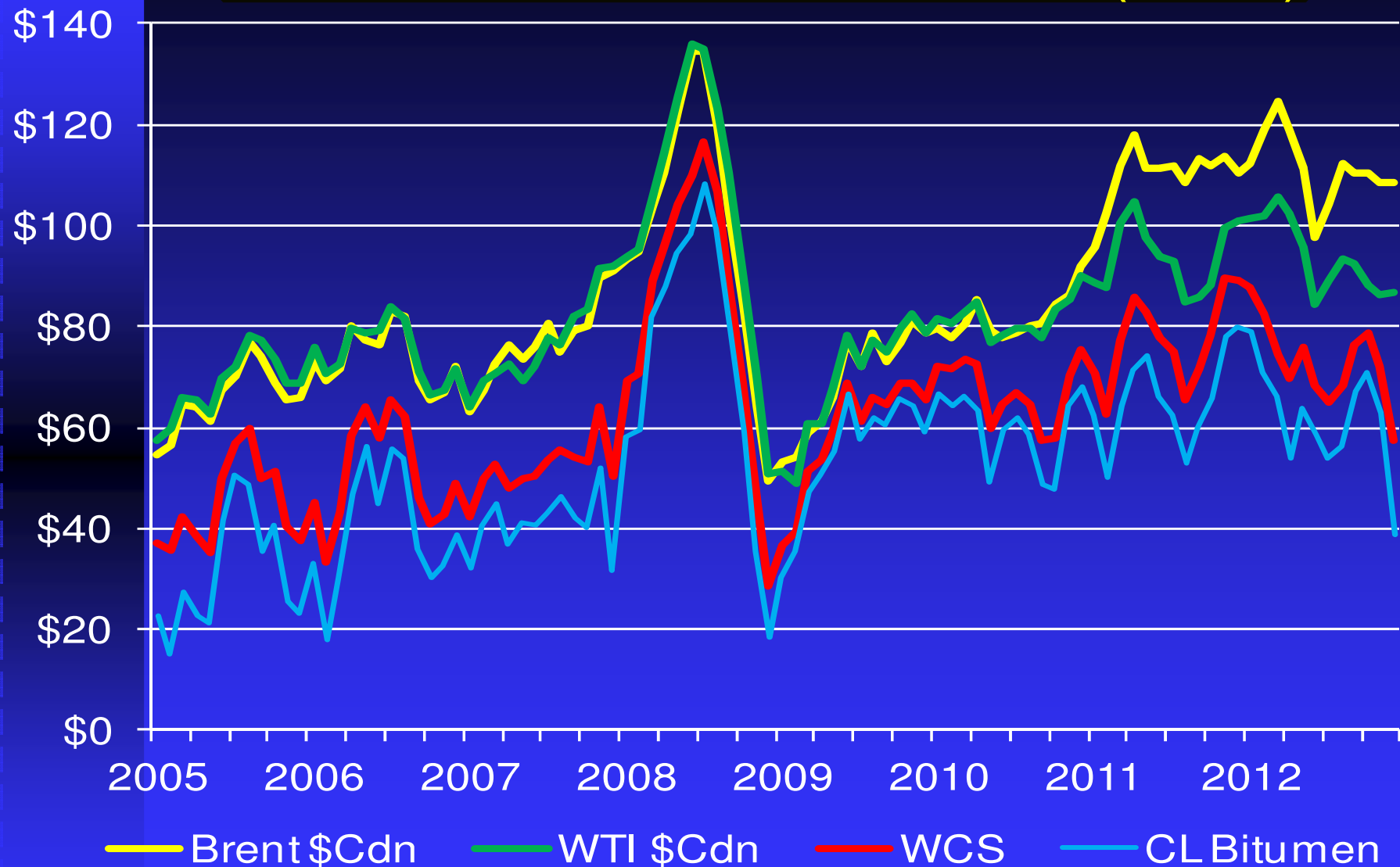
Source: CAPP

Oil Sands Investment (\$ billions)



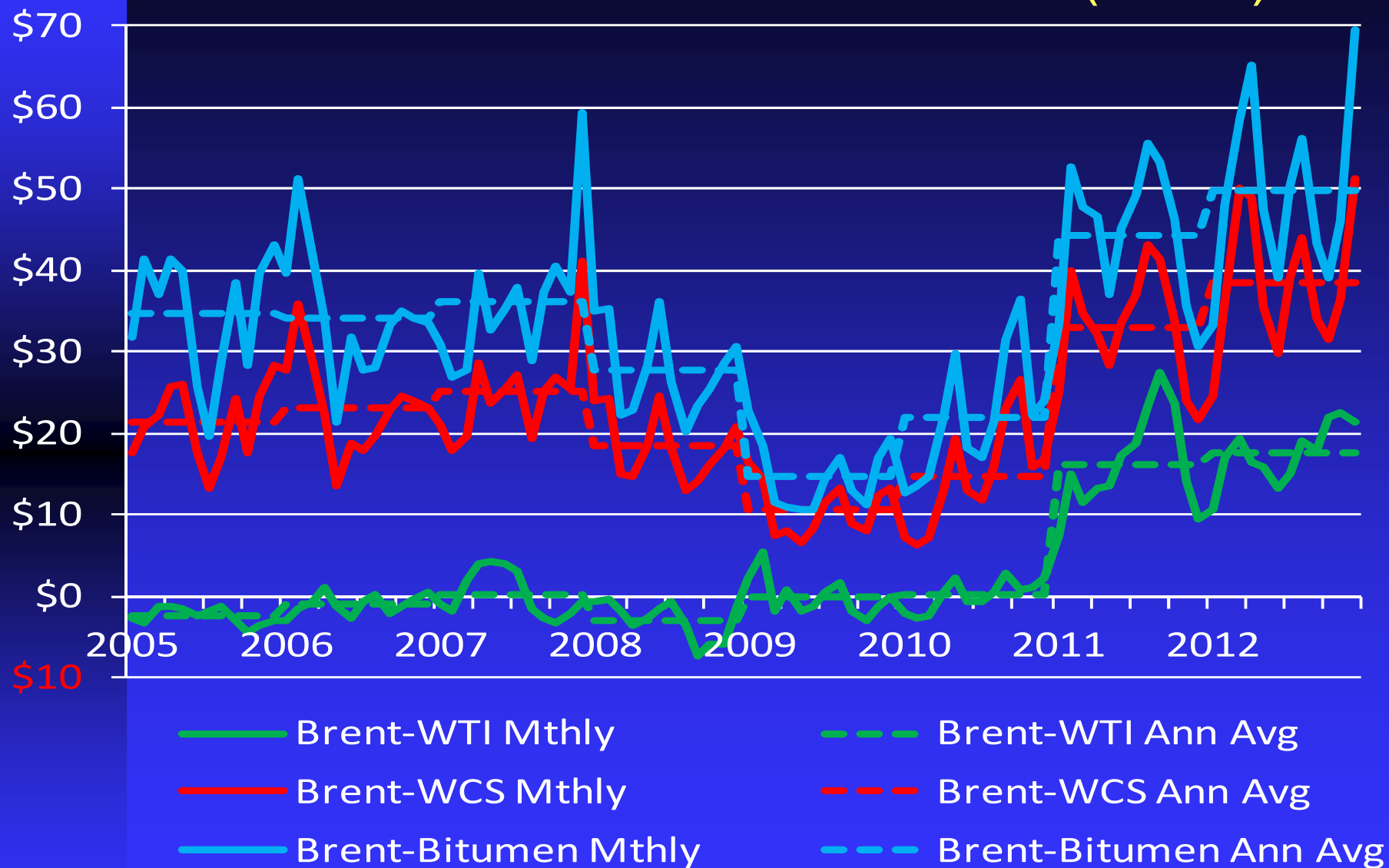
Source: CAPP

Crude Oil & Bitumen Prices (\$/bbl)



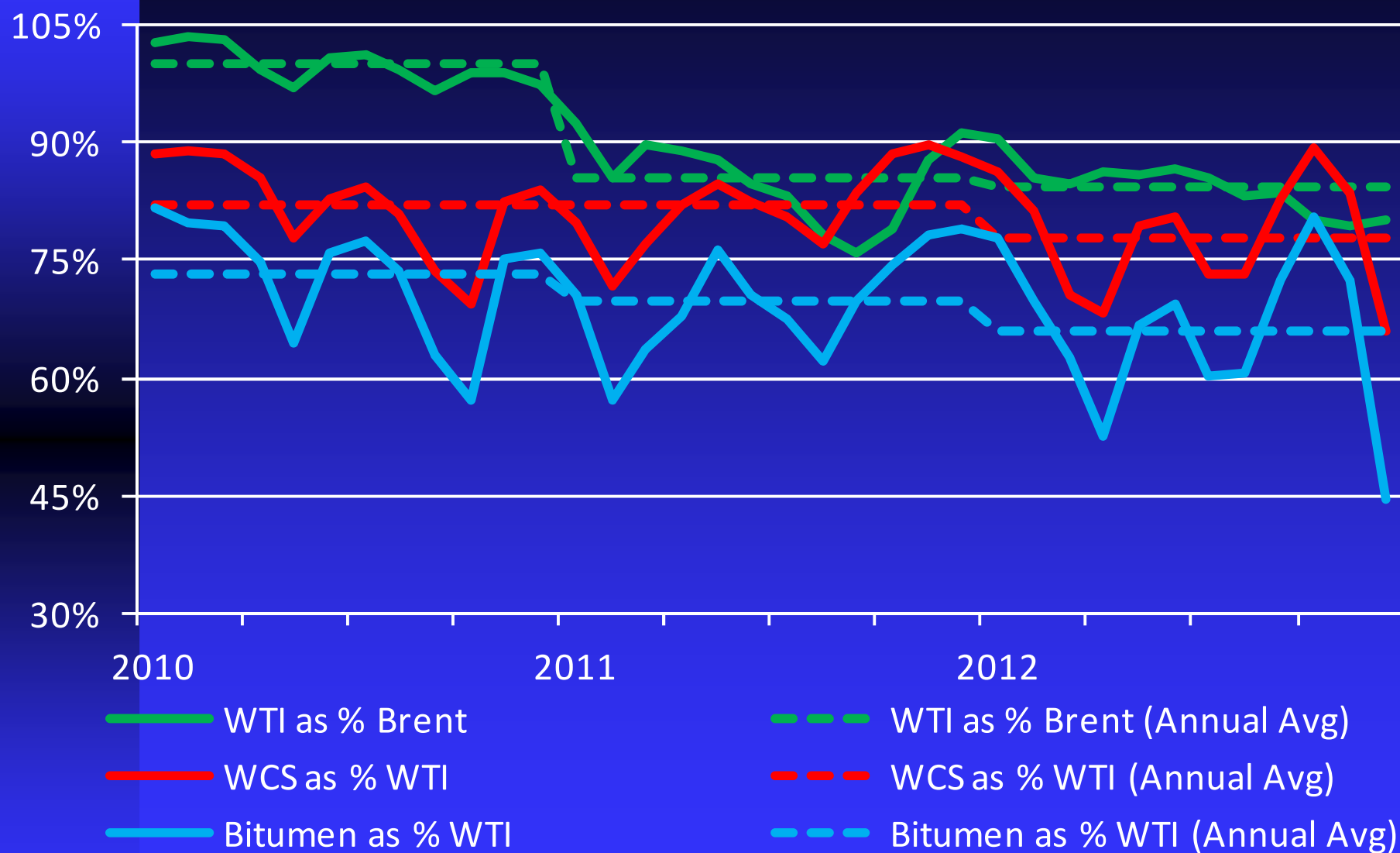
Source: Calculations based on US DOE, Company Postings, Bank of Canada

Crude Oil Price Differentials (\$/bbl)



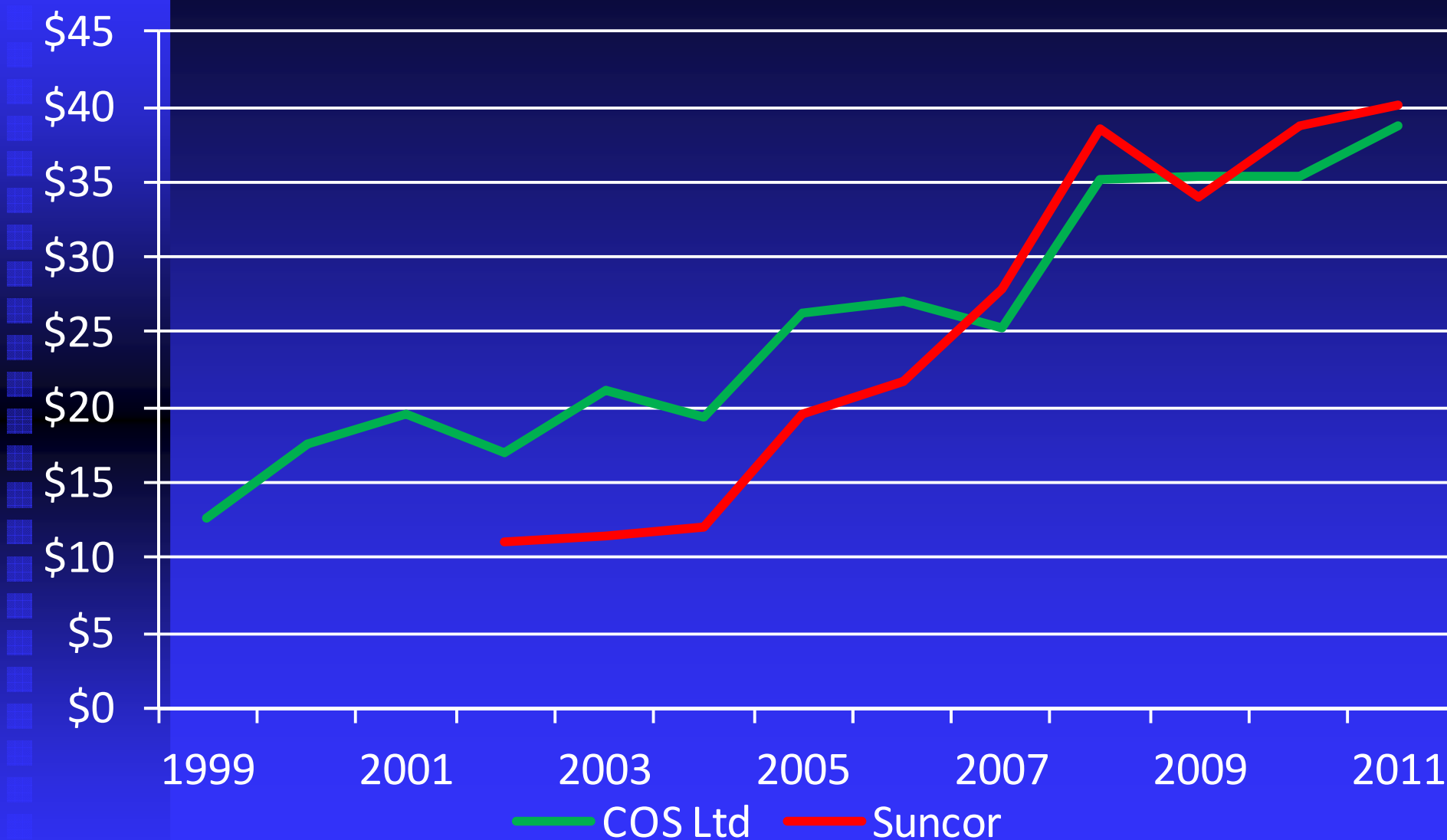
Source: Calculated

Crude Oil Price Differentials (%)



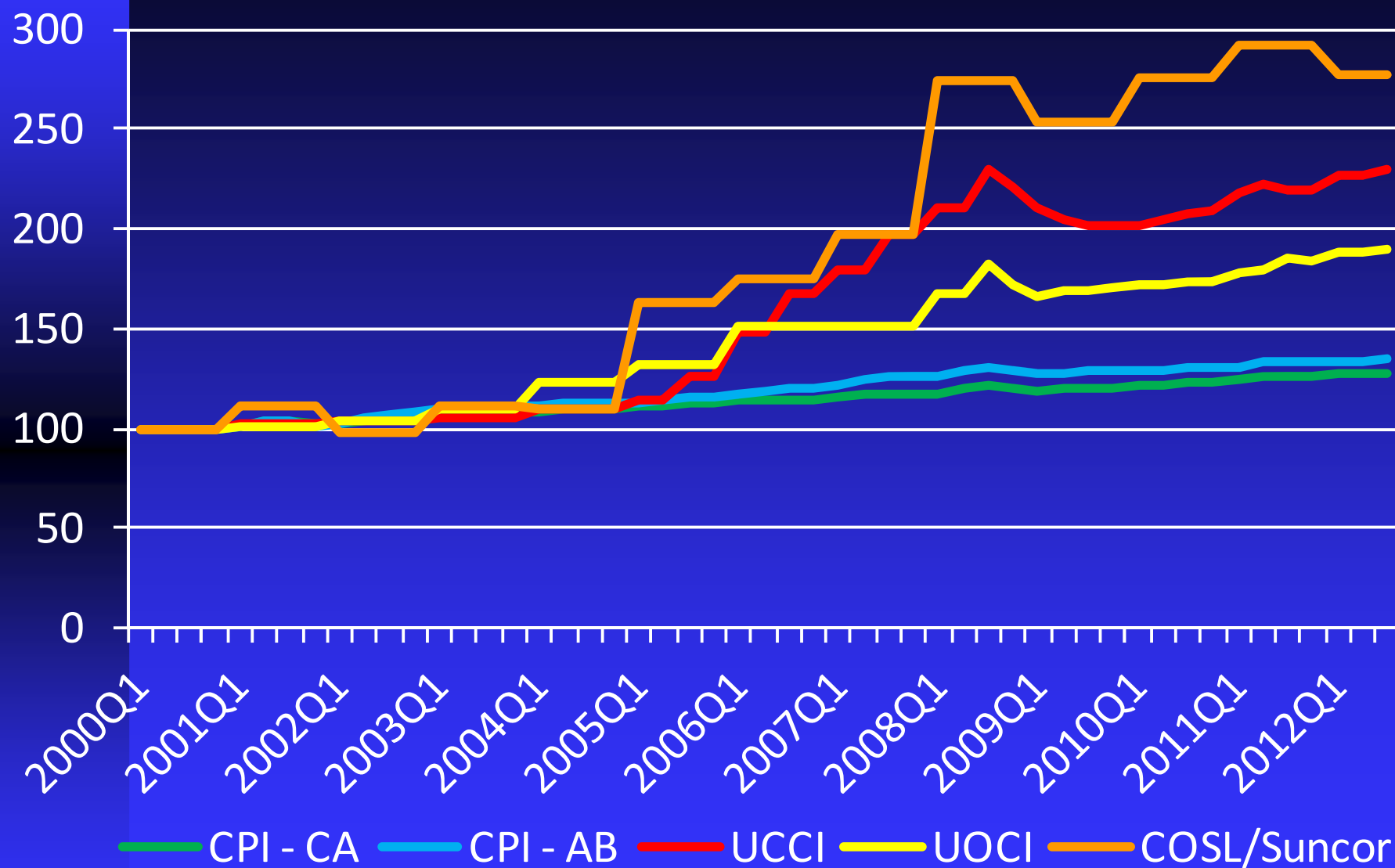
Source: Calculated

Oil Sands Cash Operating Costs (\$/bbl)



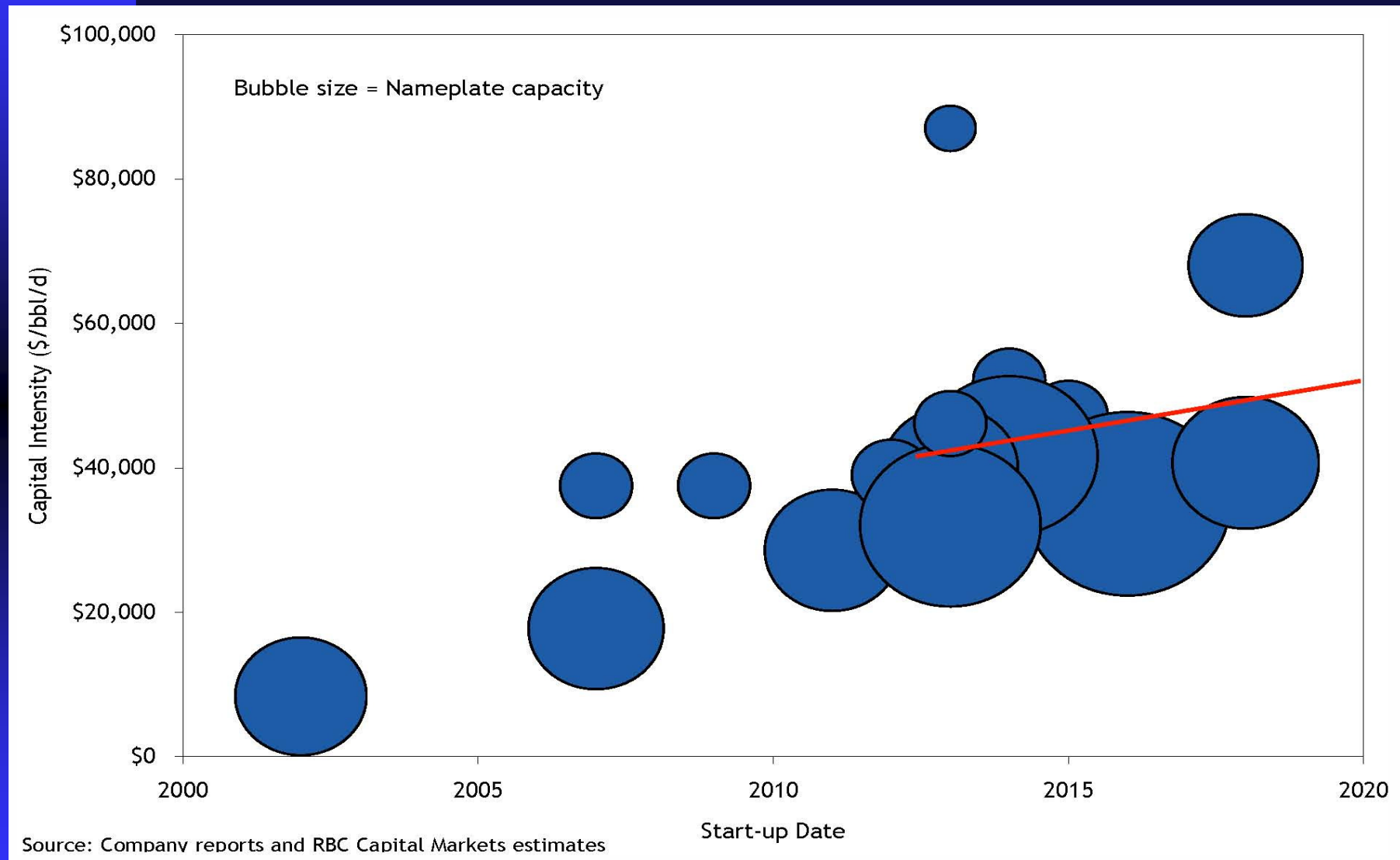
Source: Company Annual Reports

Cost Indices: 2000=100

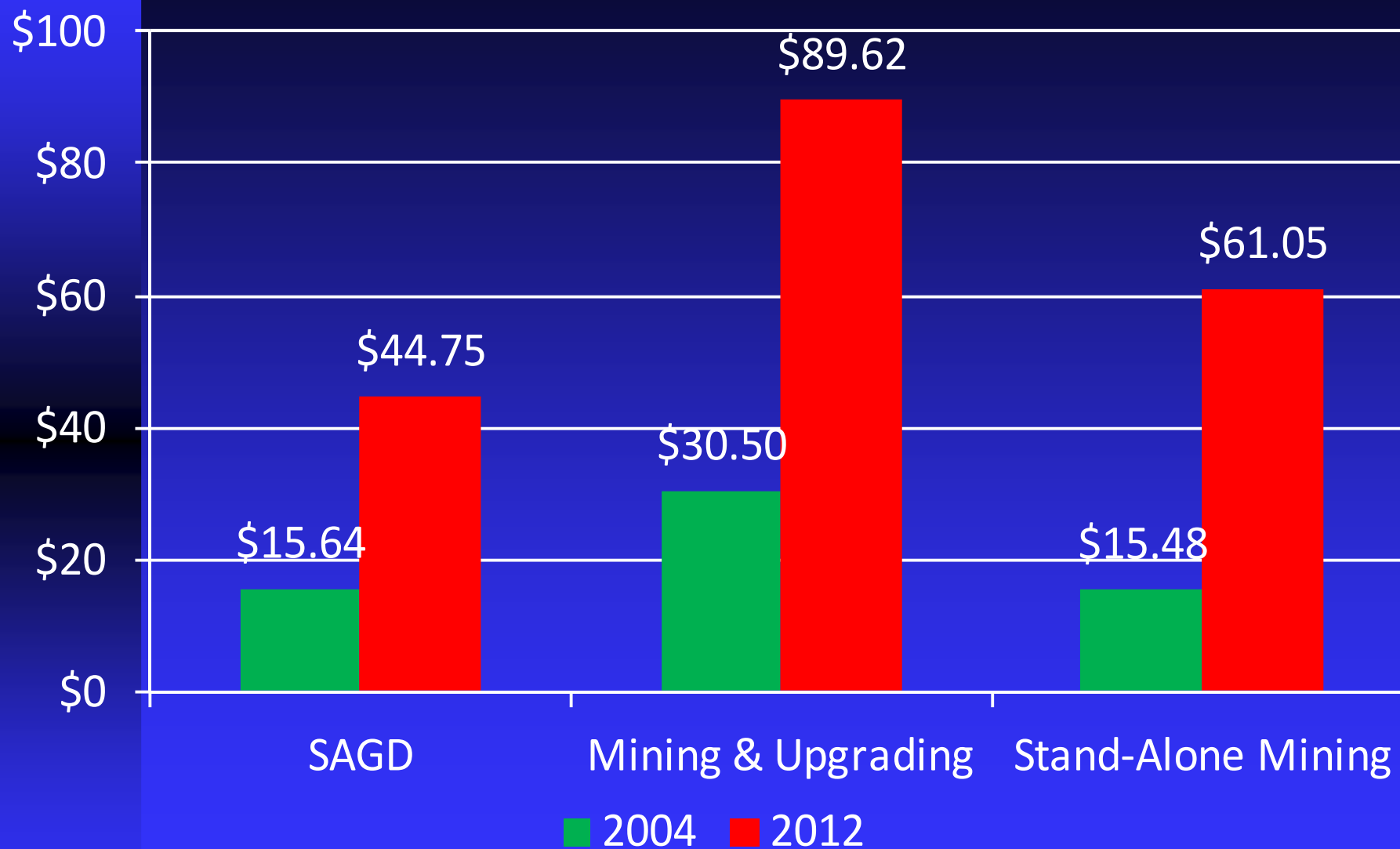


Source: Statistics Canada, IHS CERA, Company Annual Reports

Oil Sands Capital Cost Inflation

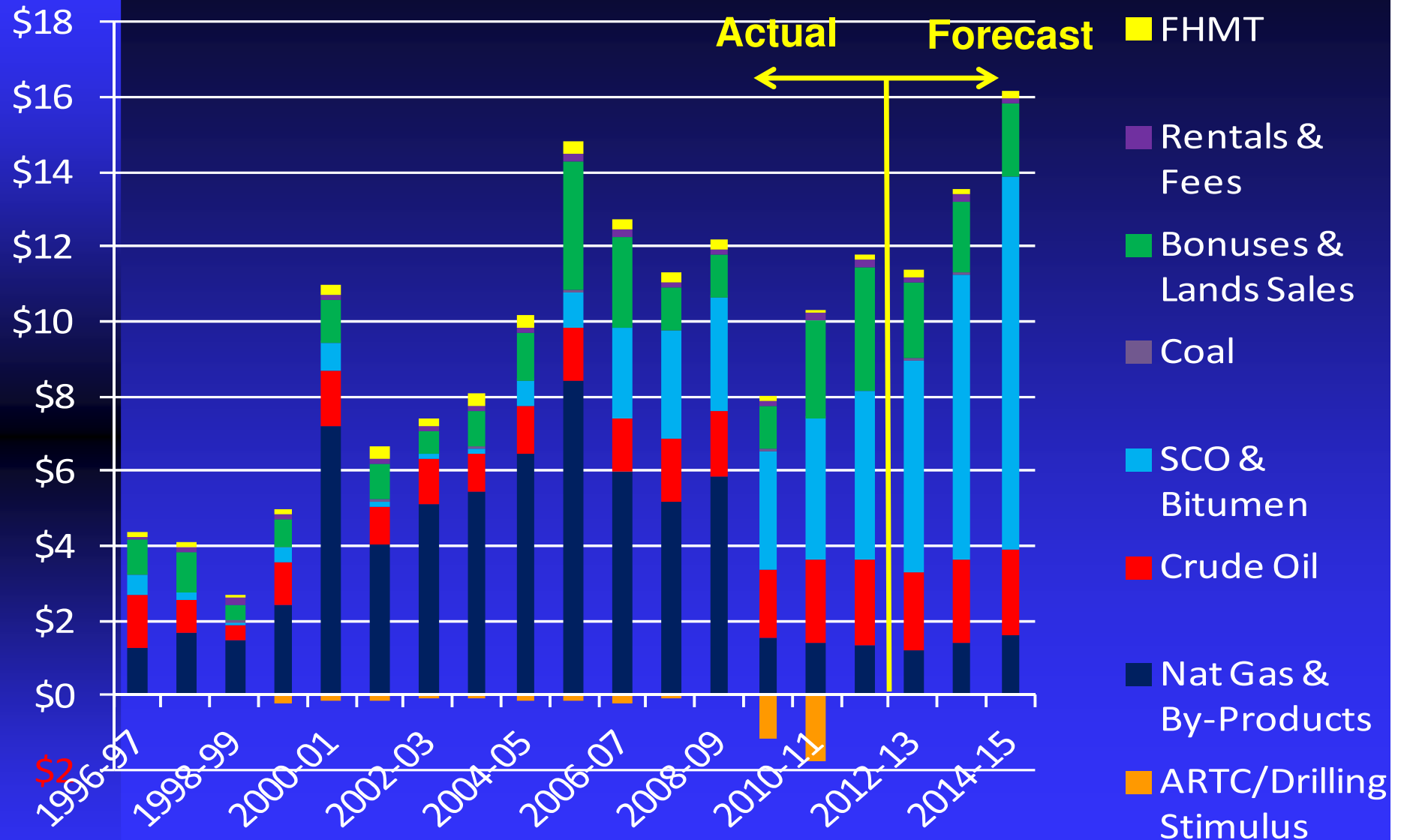


Supply Costs (\$/bbl)



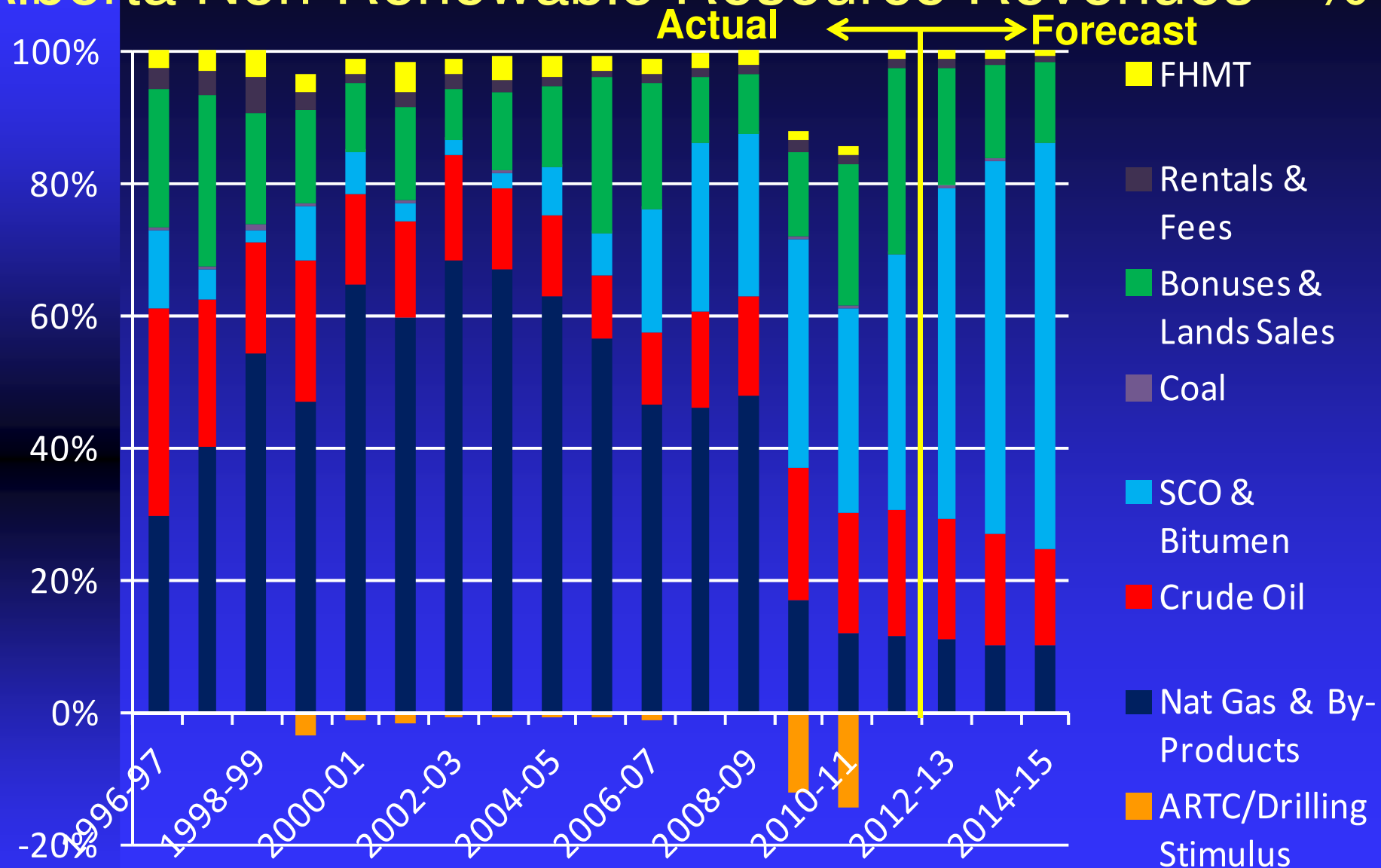
Source: CERI

Alberta Non-Renewable Resource Revenues - \$mm



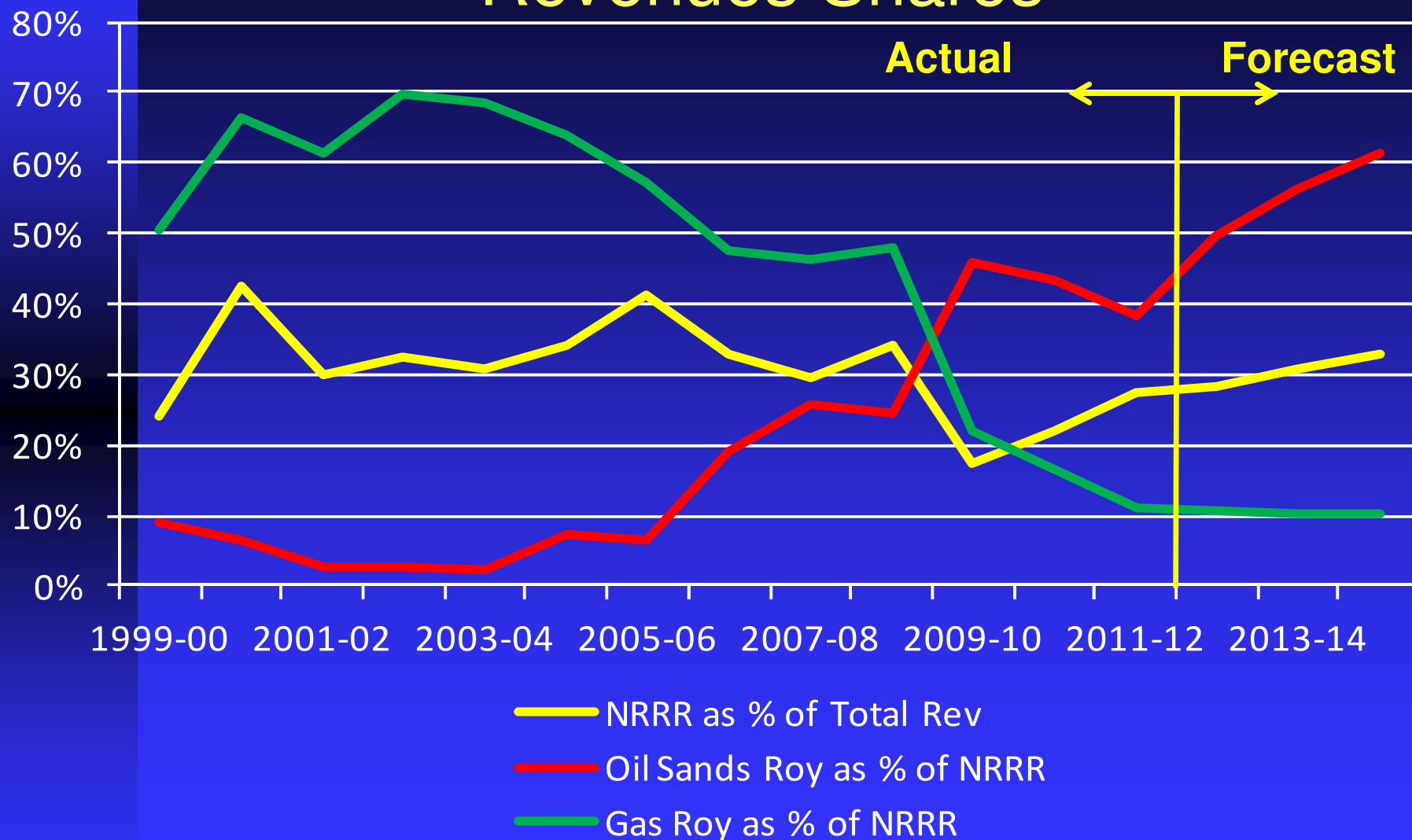
Source: Alberta Treasury Board & Finance

Alberta Non-Renewable Resource Revenues - %



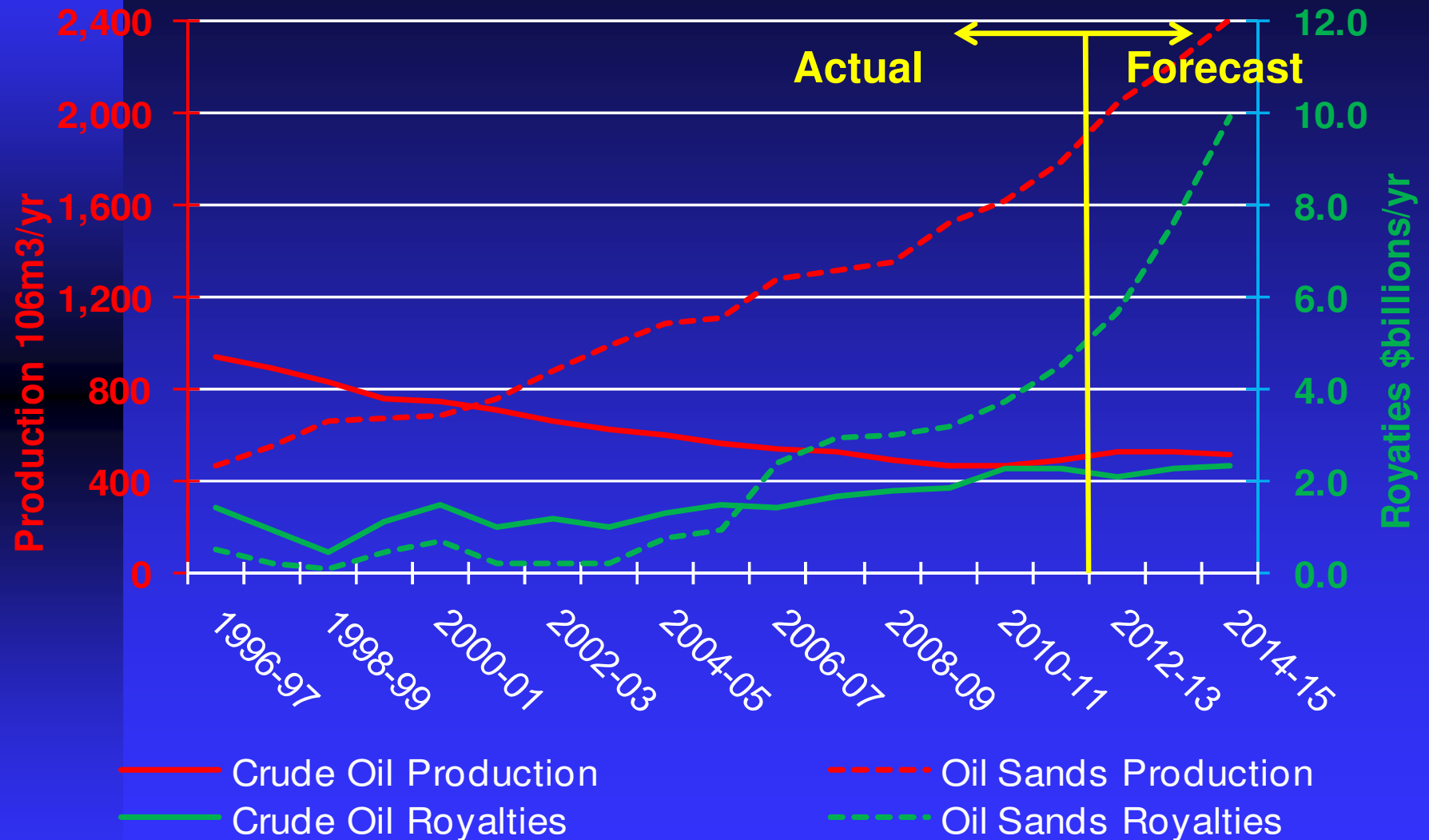
Source: Alberta Treasury Board & Finance

Alberta Non-Renewable Resources Revenues Shares



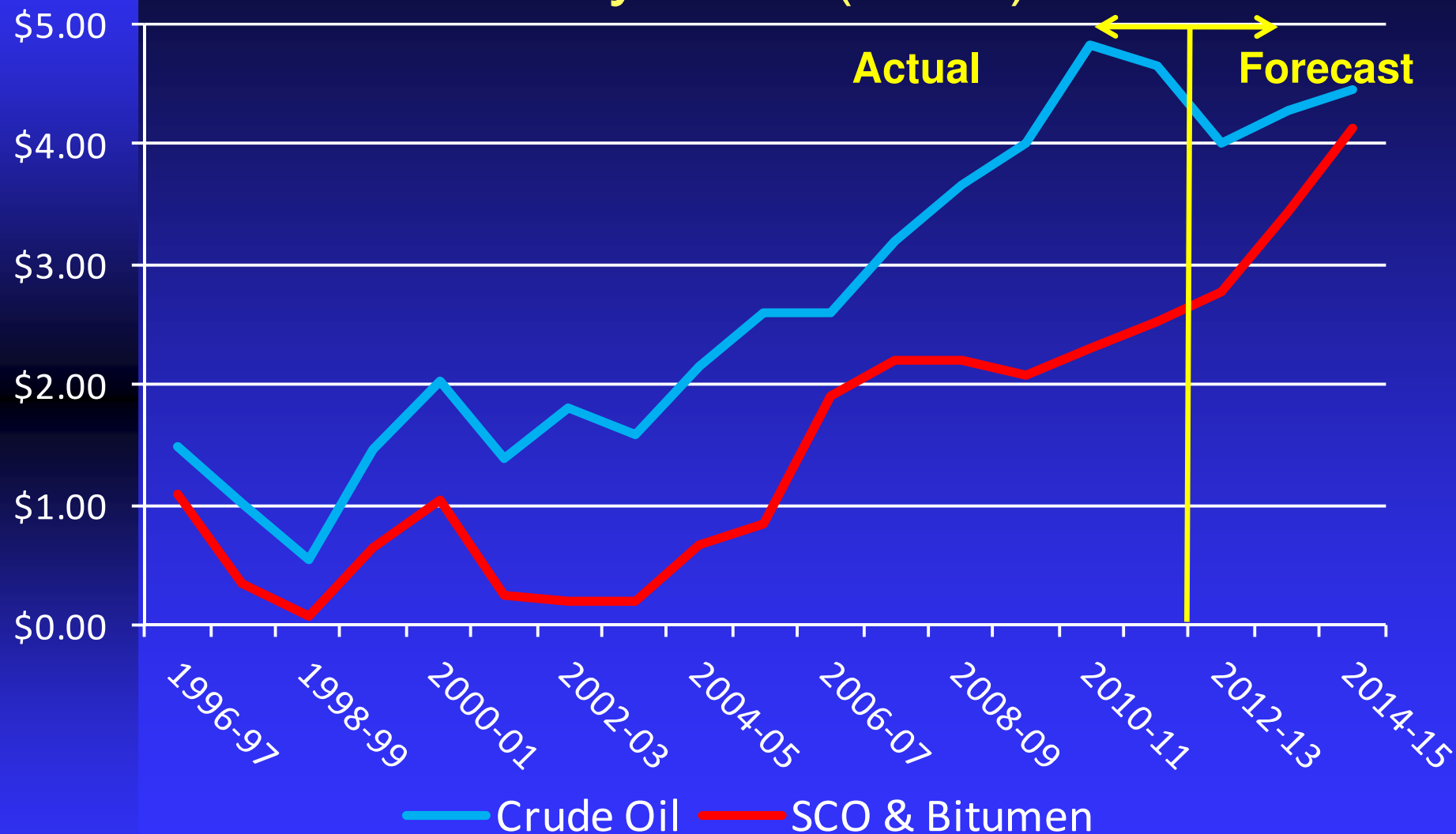
Source: Calculations based on Alberta Treasury Board & Finance

Alberta Crude Oil & Oil Sands Royalties and Production



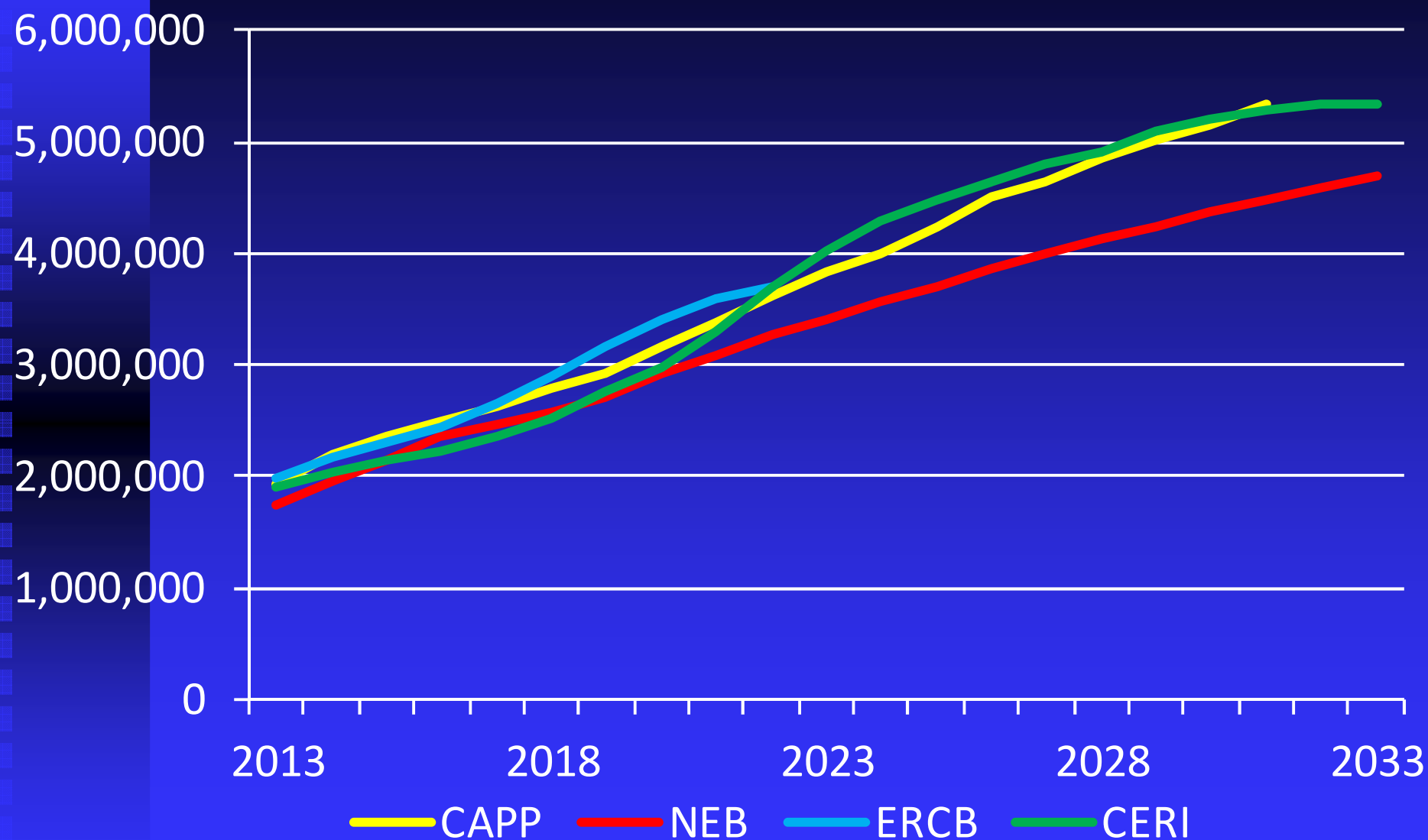
Source: ERCB, Alberta Treasury Board & Finance

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



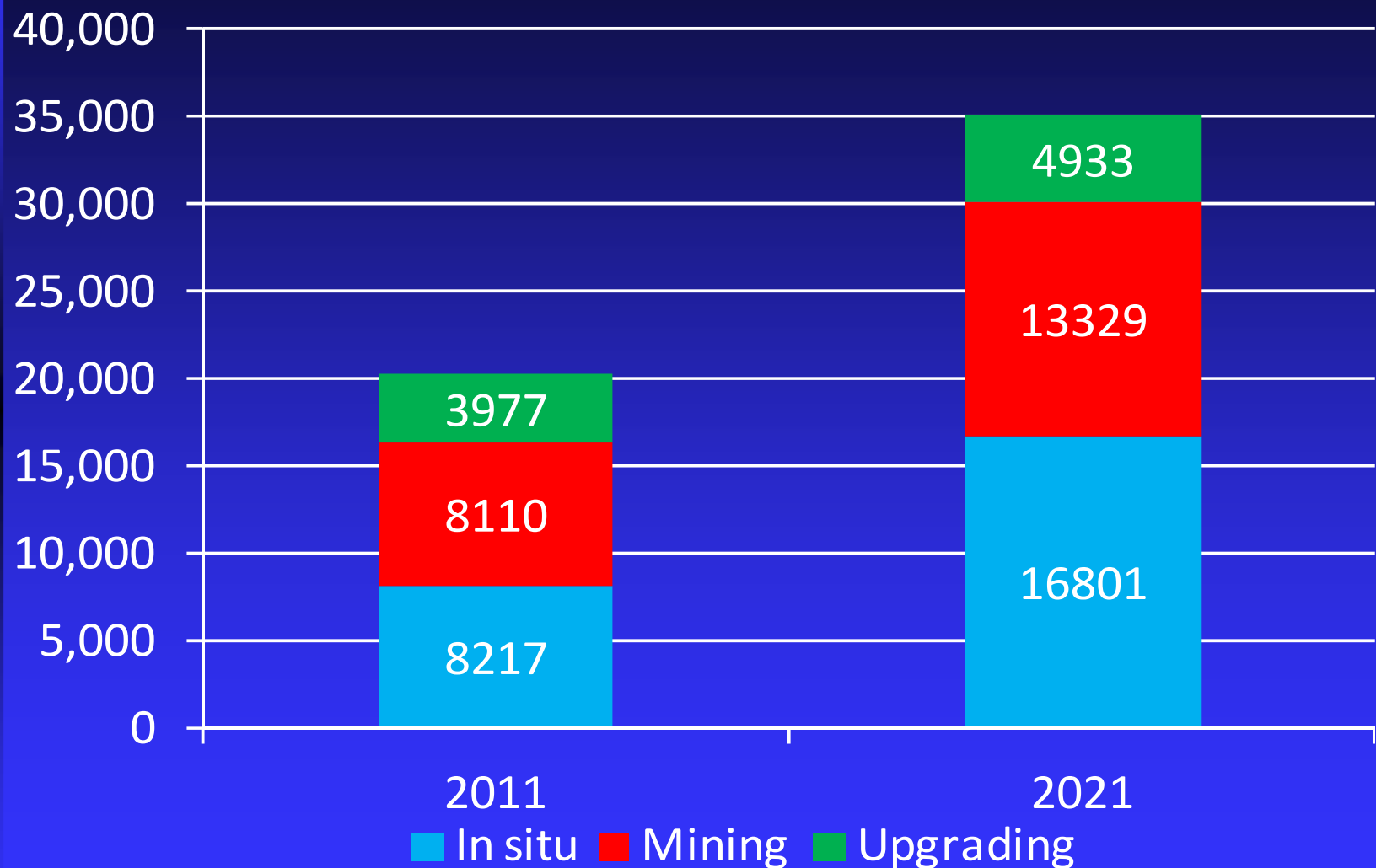
Source: Calculations based on ERCB, Alberta Treasury Board & Finance

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 :

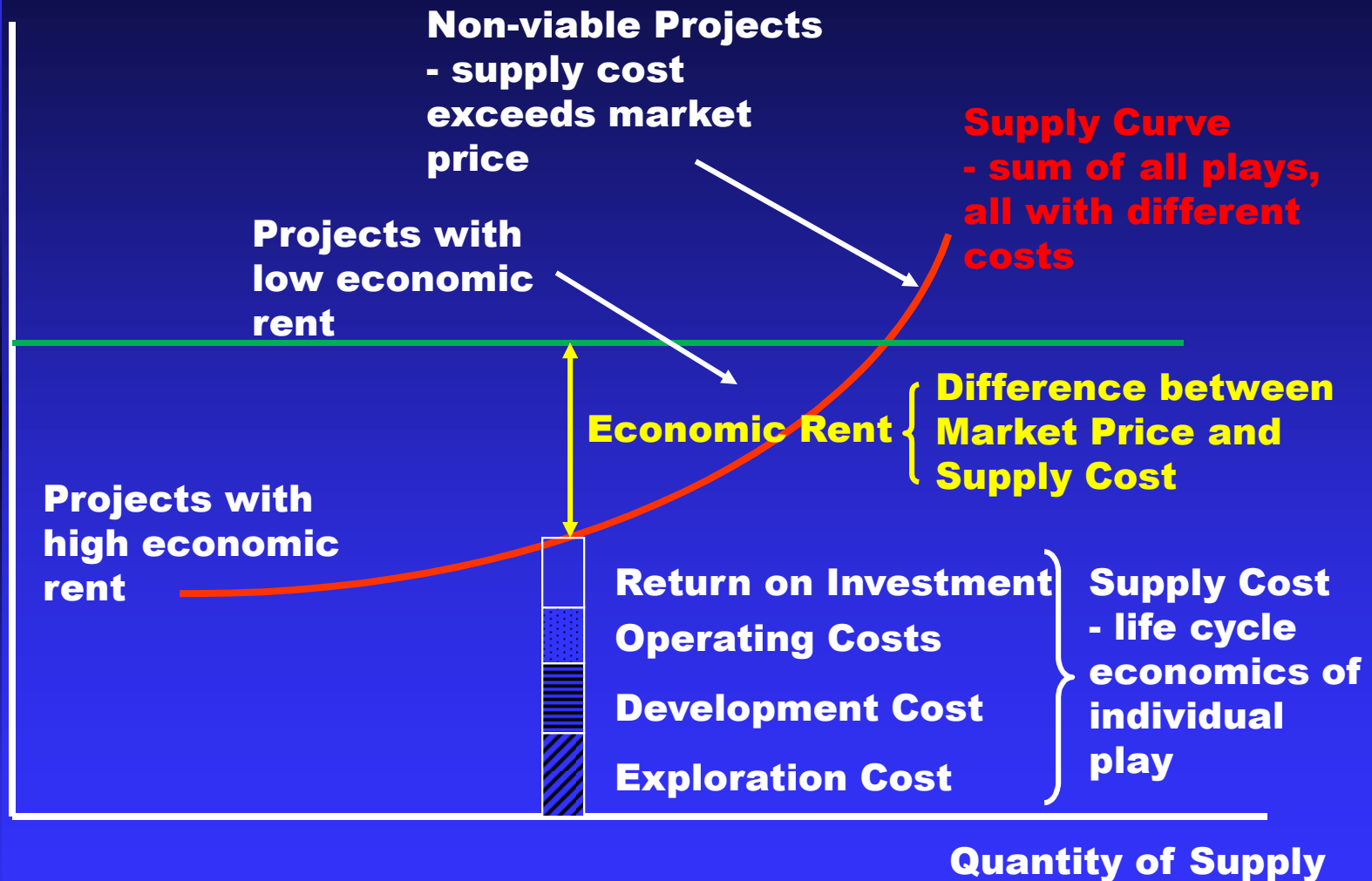
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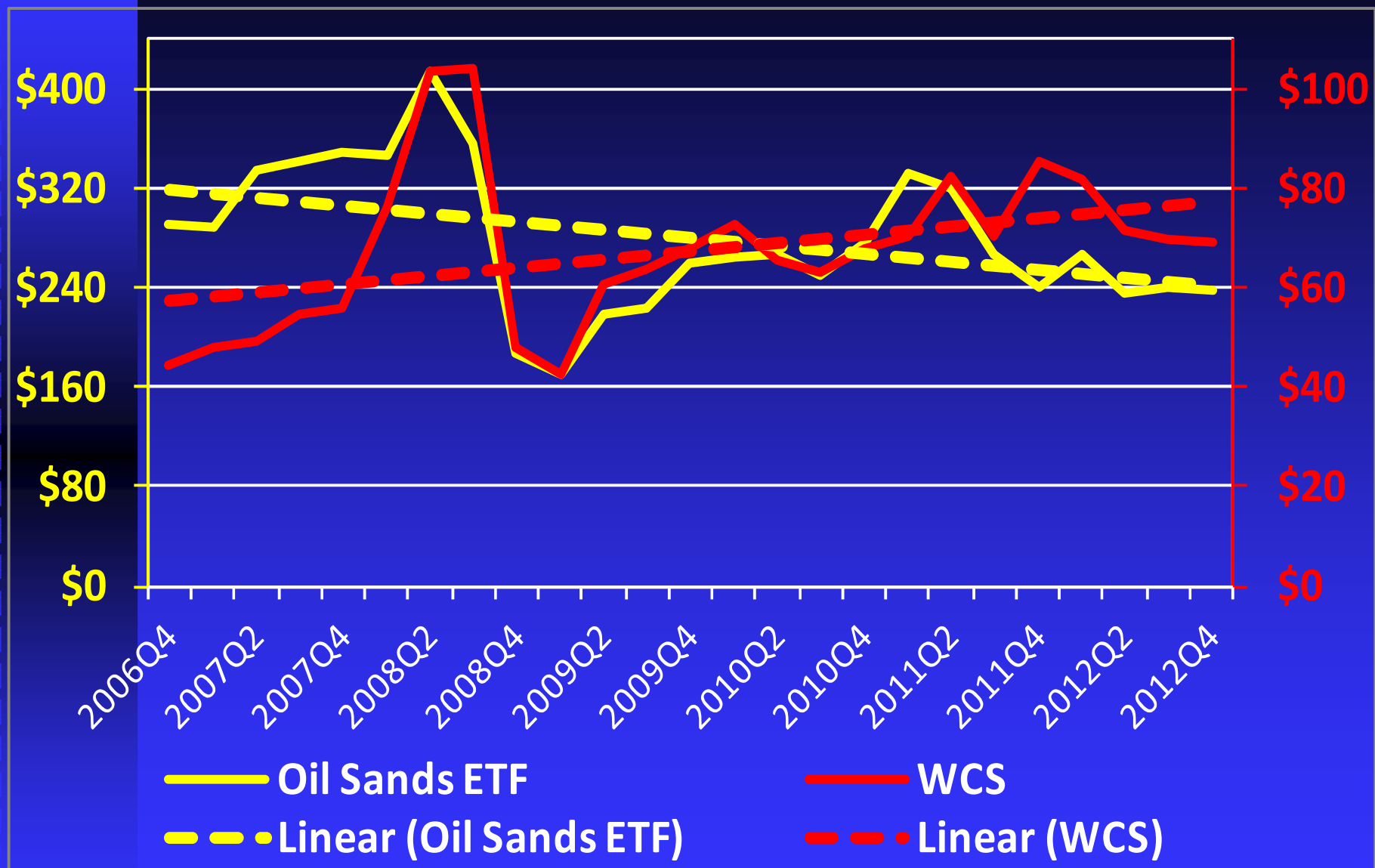
Economic Rent

Price
Per unit

Market
Price



Oil Sands Equities vs Price per Bbl



Source: iShares.com, Company Postings