

Economic Society of Calgary
Fall Seminar
Price Volatility - Industry and the Economy

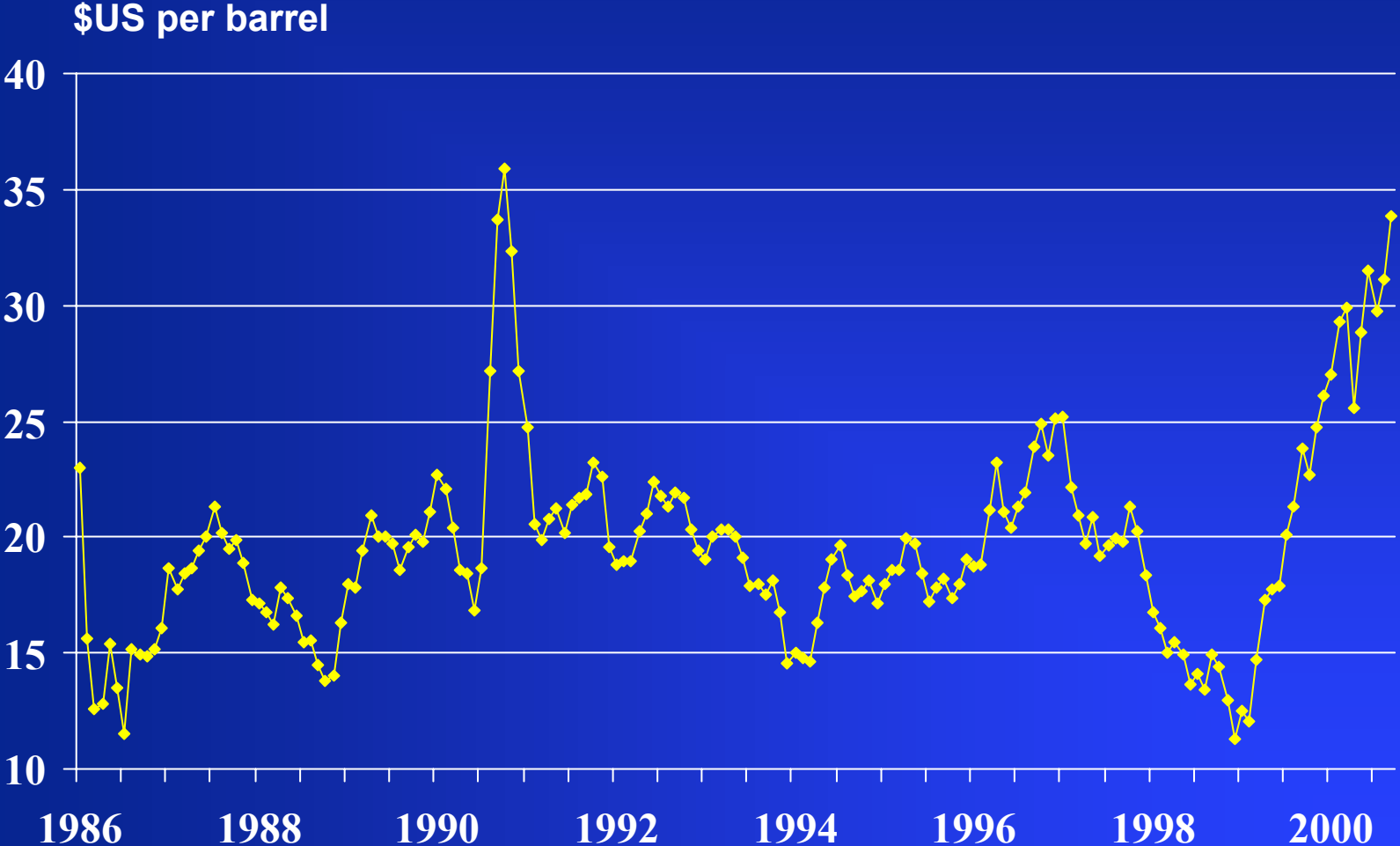
Greg Stringham
Canadian Association of Petroleum Producers
November 30, 2000



State of the Canadian Industry (2000 estimates)

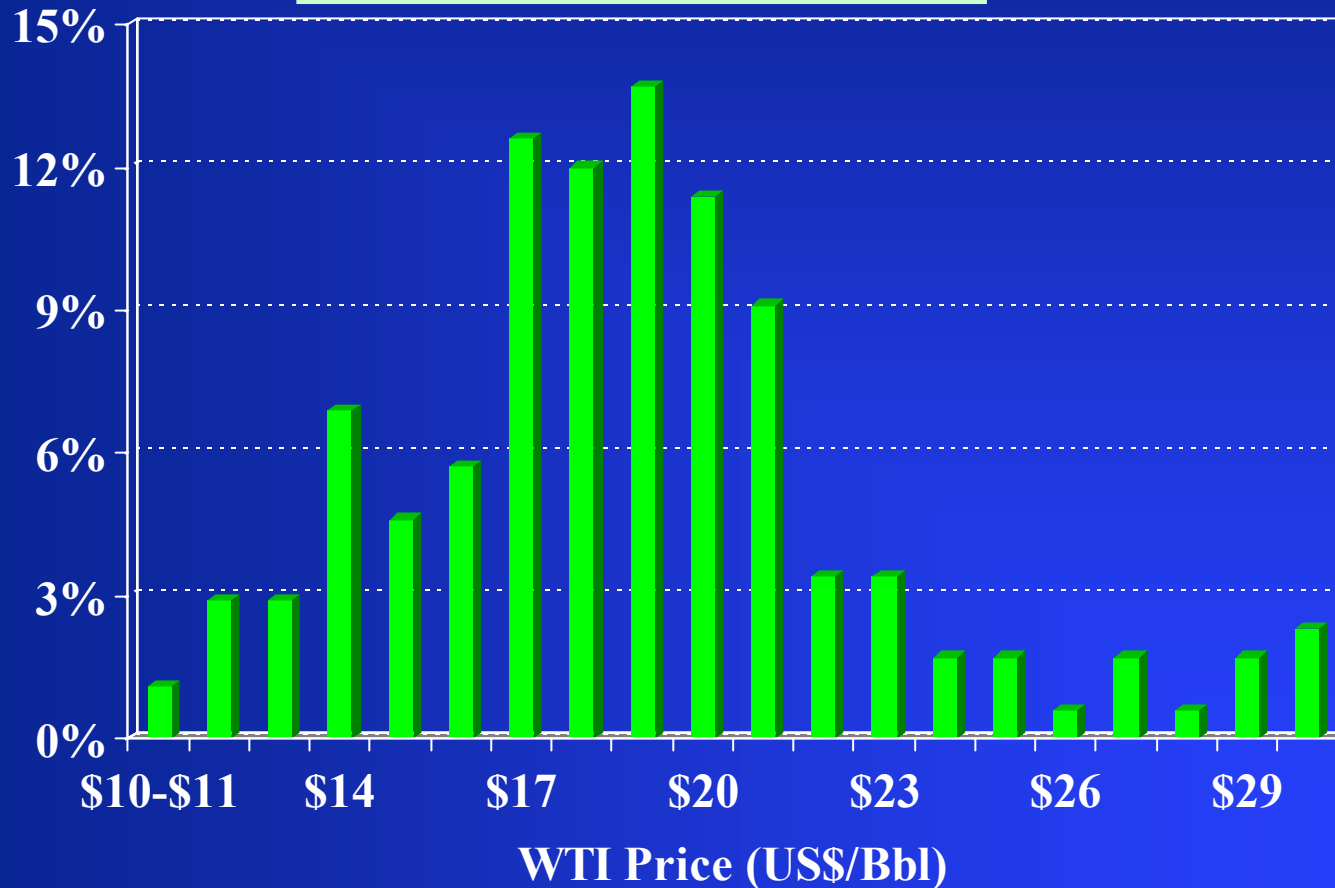
- **Production:**
 - Crude oil: 2.3 million barrels per day (record)
 - Natural gas: 6.3 trillion cubic feet per year (record)
- **Exports:**
 - Crude oil: 1.2 million barrels per day
 - Natural gas: 3.3 trillion cubic feet per year
- **Drilling: over 15,500 wells in Canada**
- **Industry revenues: C\$60 billion**
- **Capital investment levels: close to C\$21 billion**
 - up 25% from last year

Crude Oil Price - WTI Nymex



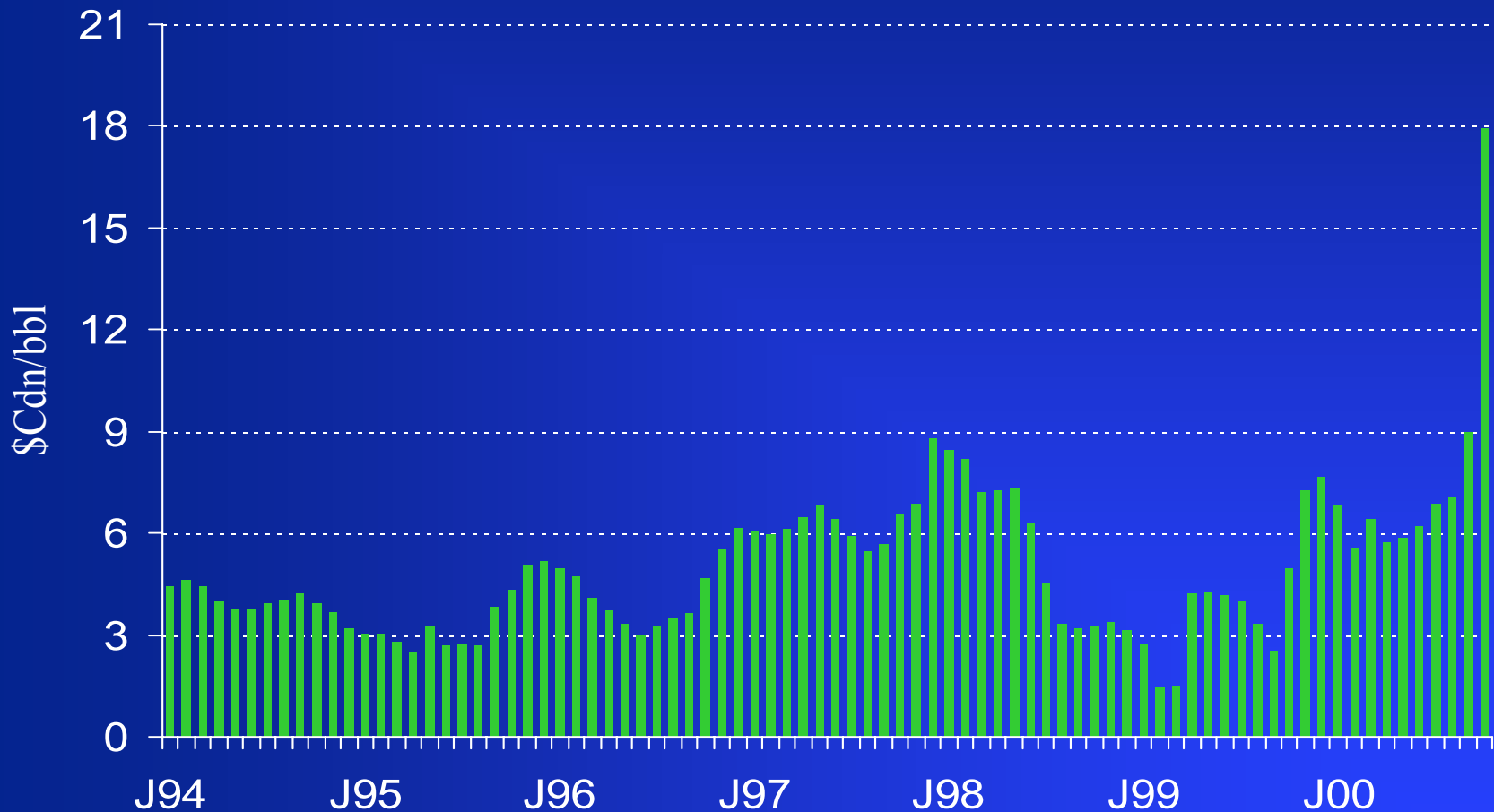
Post 1986 Oil Prices Frequency Distribution

50% in the \$17-\$20 range

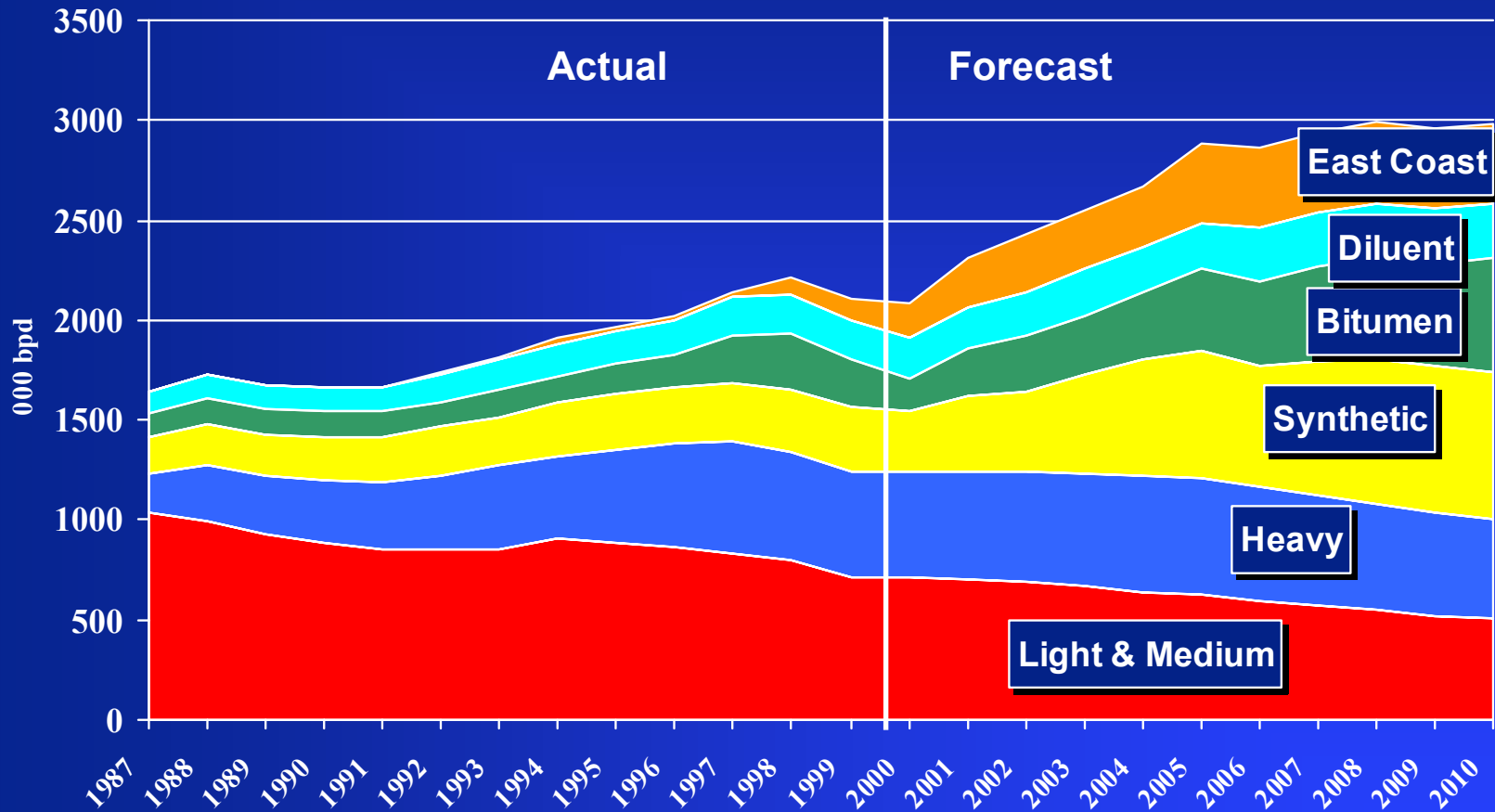


Light/Heavy Oil Price Differential

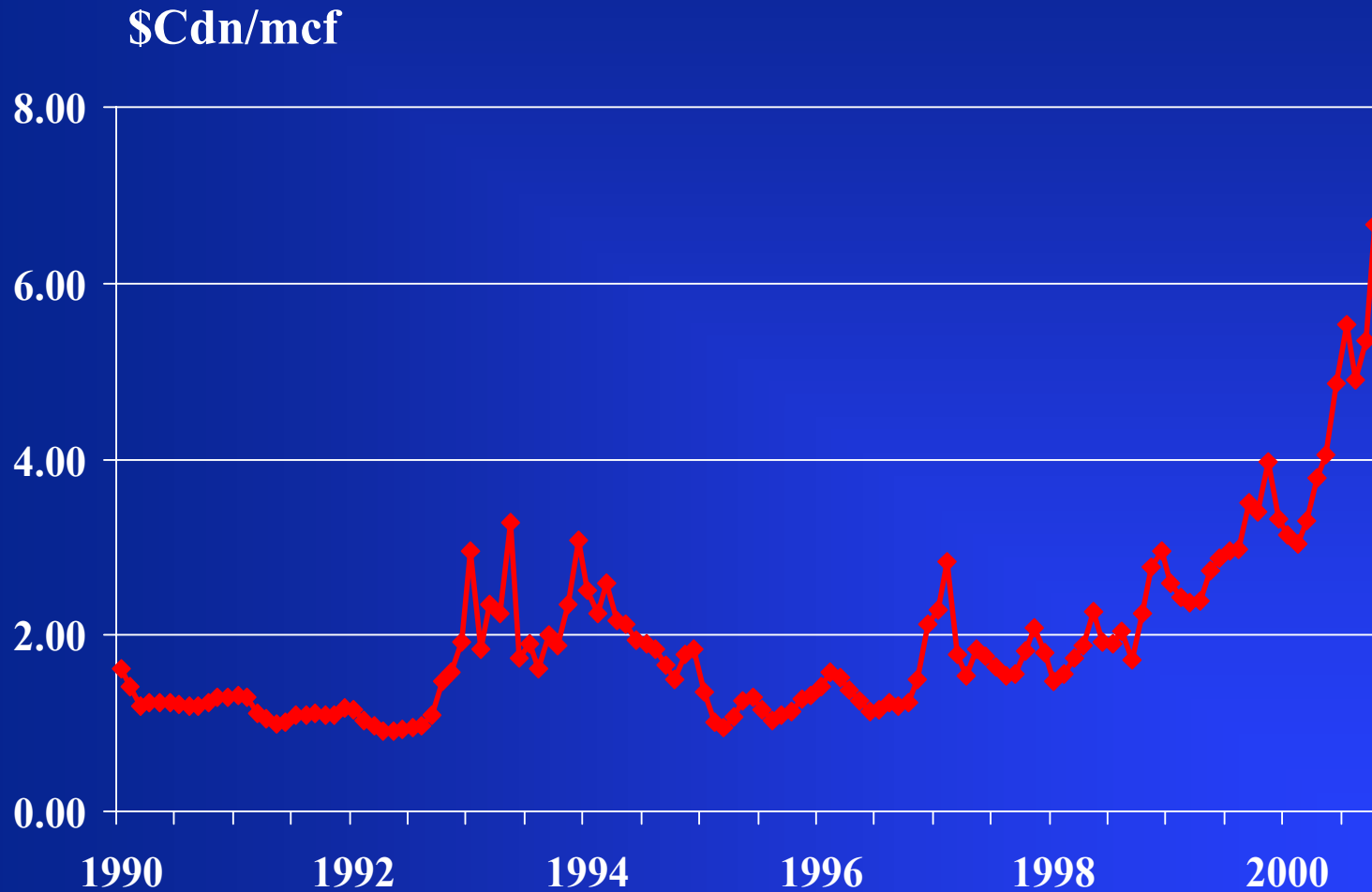
Canadian Par minus Hardisty Heavy



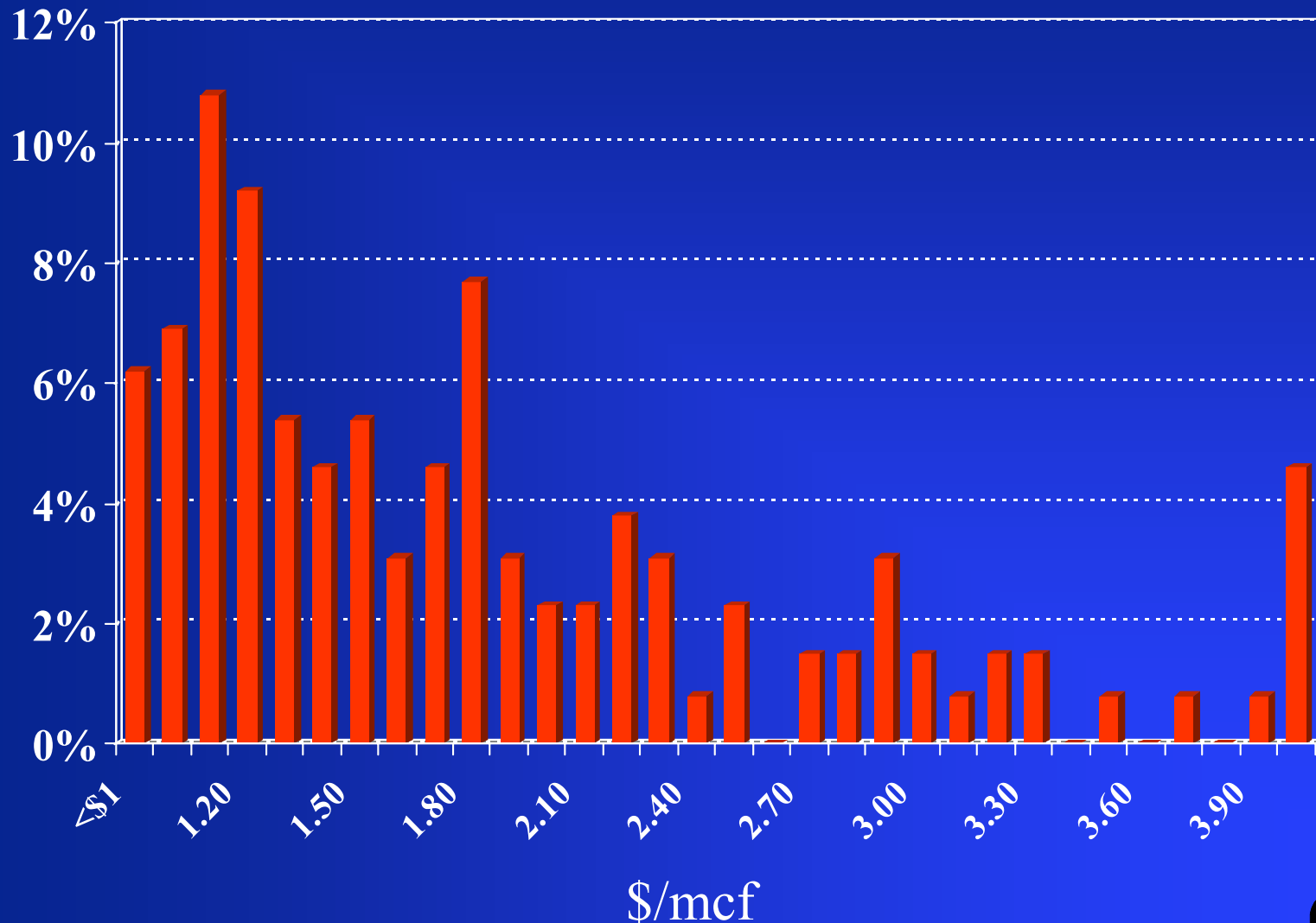
Canadian Crude Oil Supply



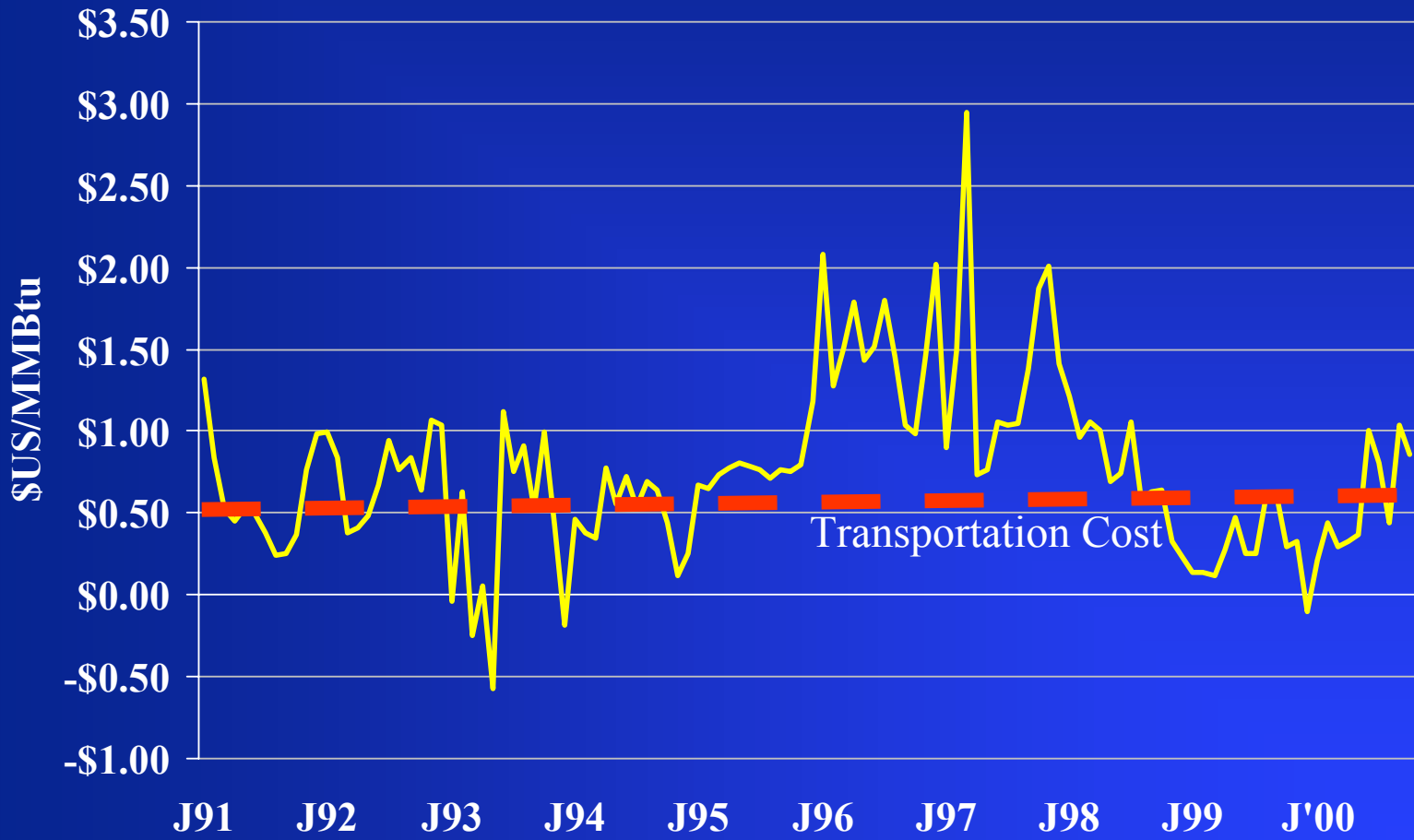
Natural Gas Price - AECO Monthly Averages



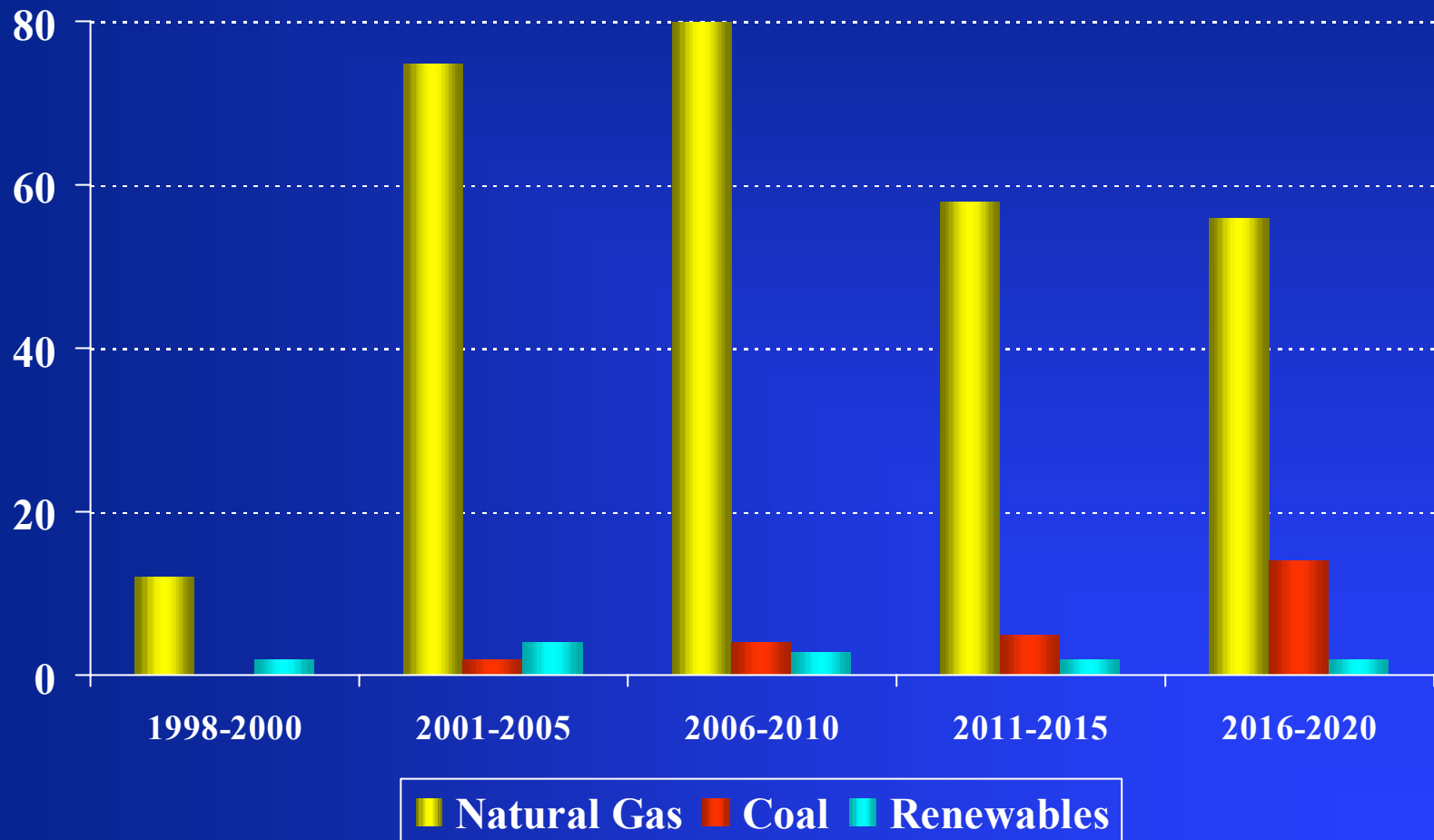
Distribution of Natural Gas Prices 'AECO C' (1990 - 2000)



Gas Price Differential: NYMEX vs. Alberta



U.S. Electricity Generation & Co-Generation Capacity Additions - Gigawatts

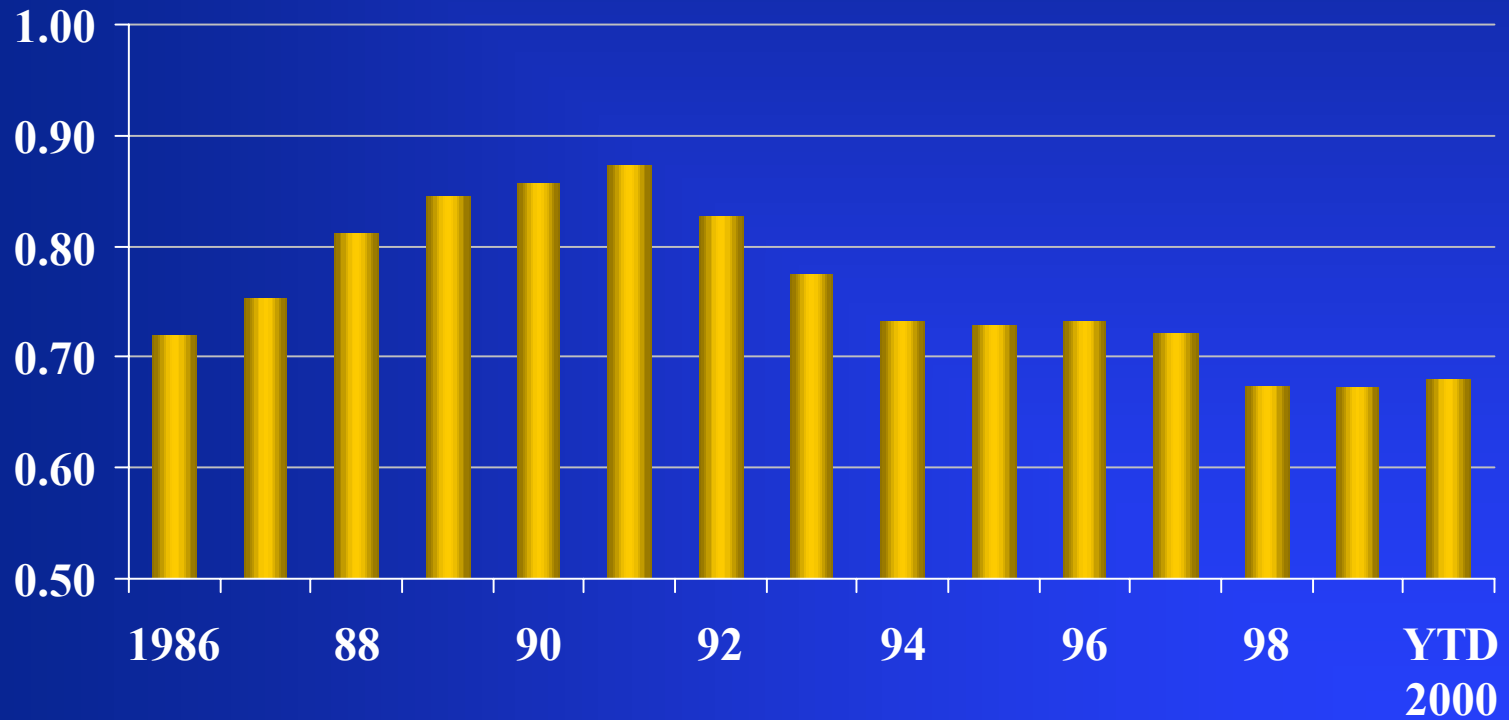


Source: U.S. DOE EIA



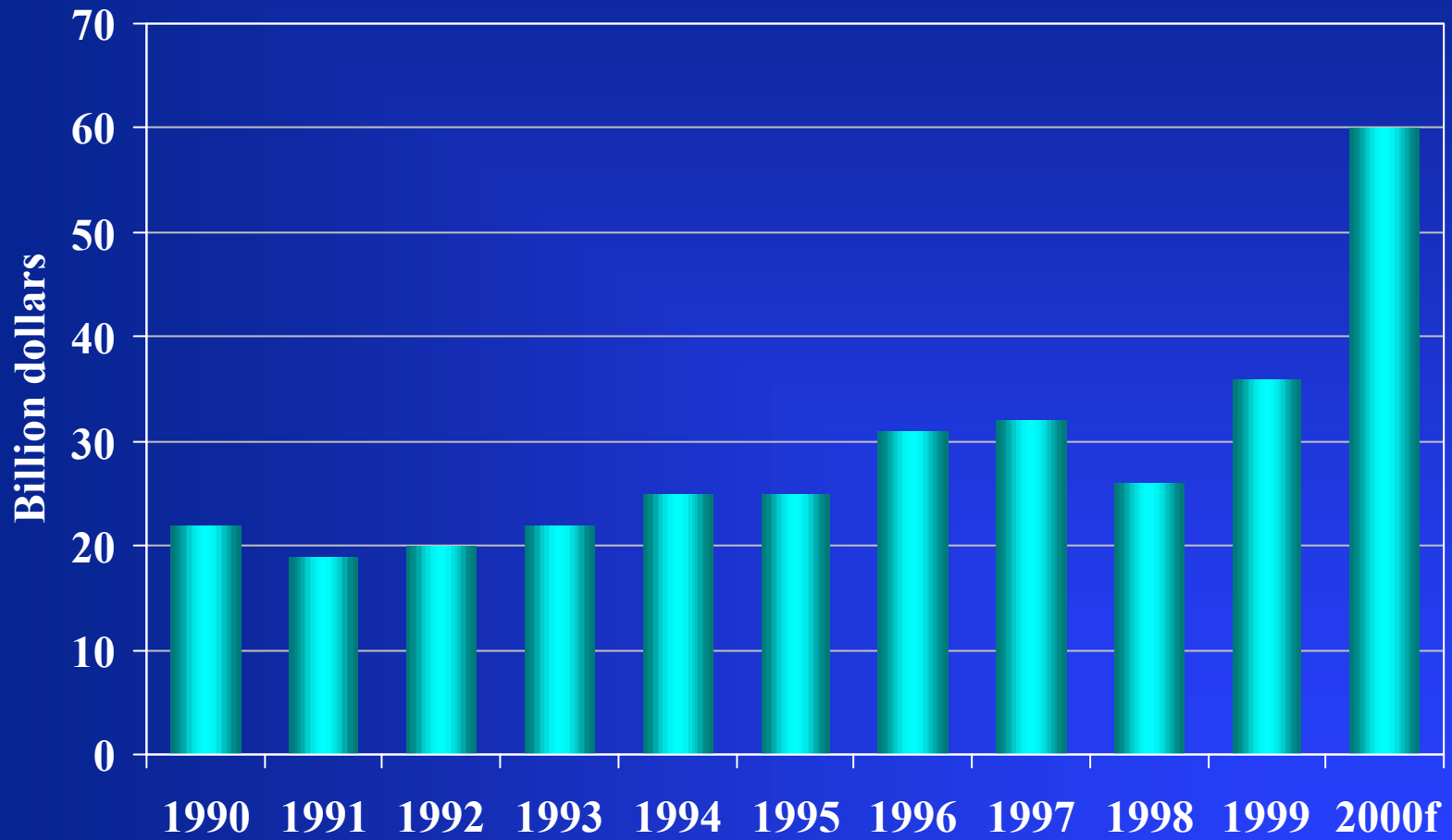
US/Canadian Exchange Rate

US\$/Cdn\$

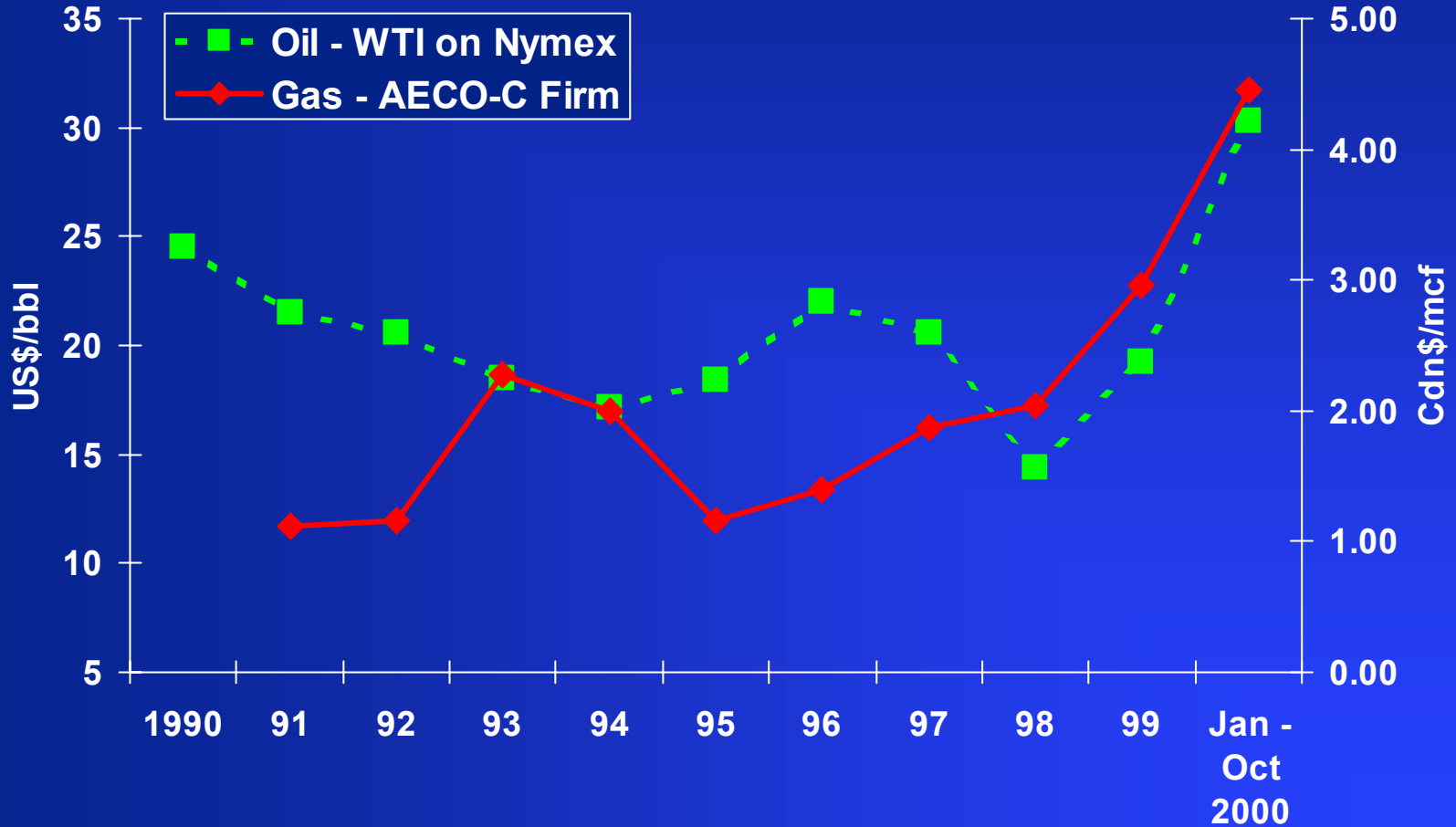


Impact on Producers

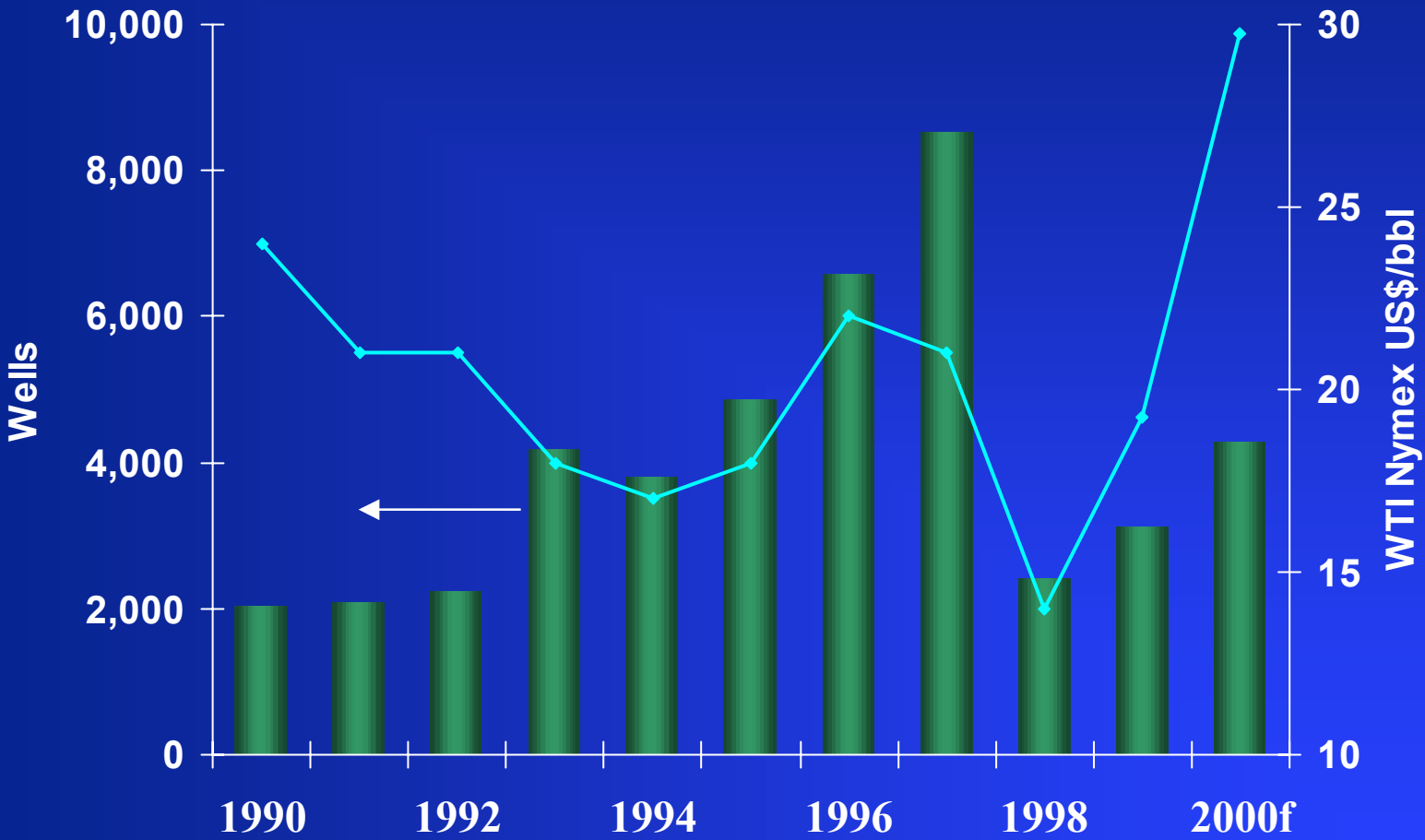
Value of oil and gas sales



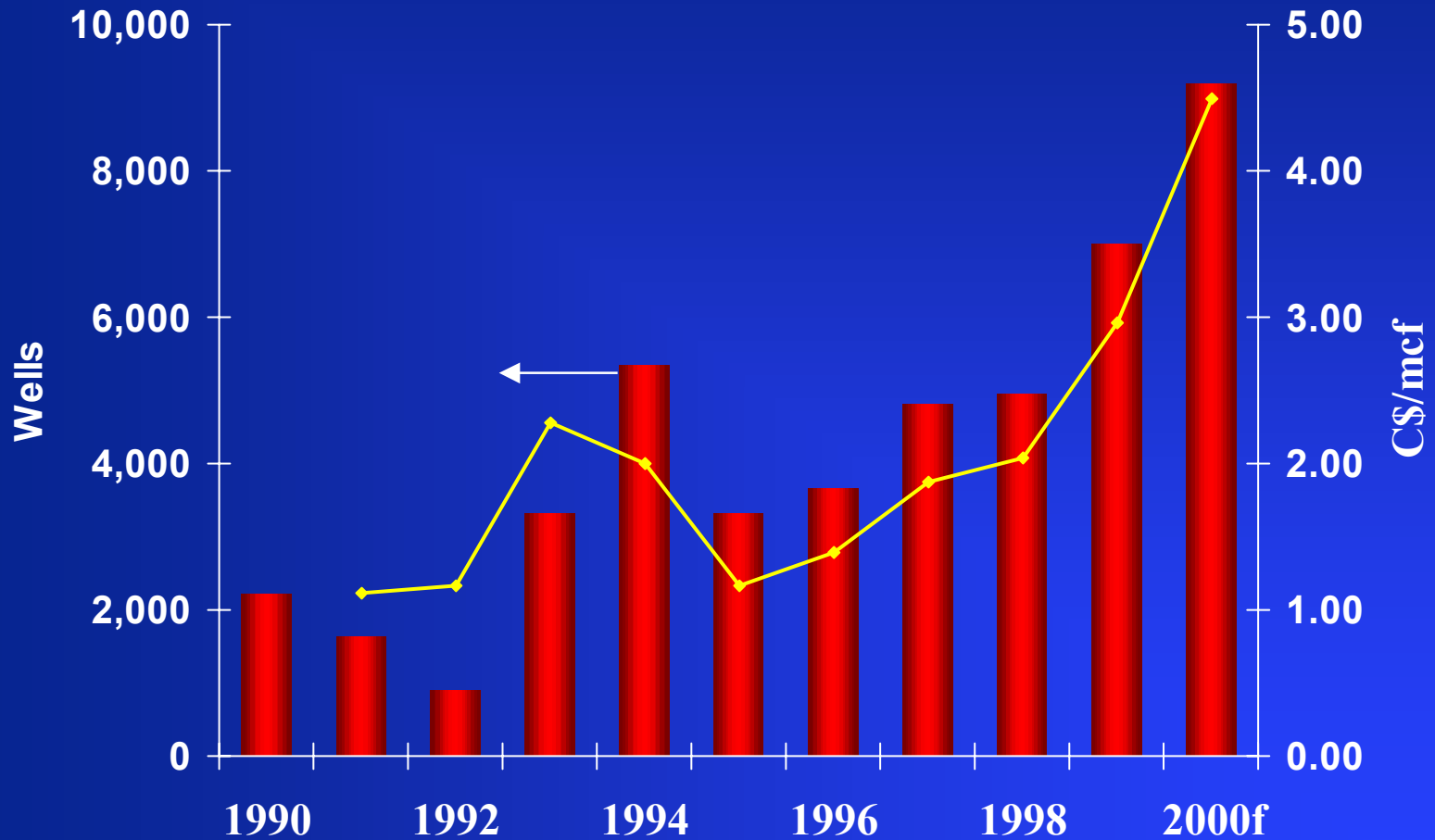
Crude Oil & Natural Gas Prices



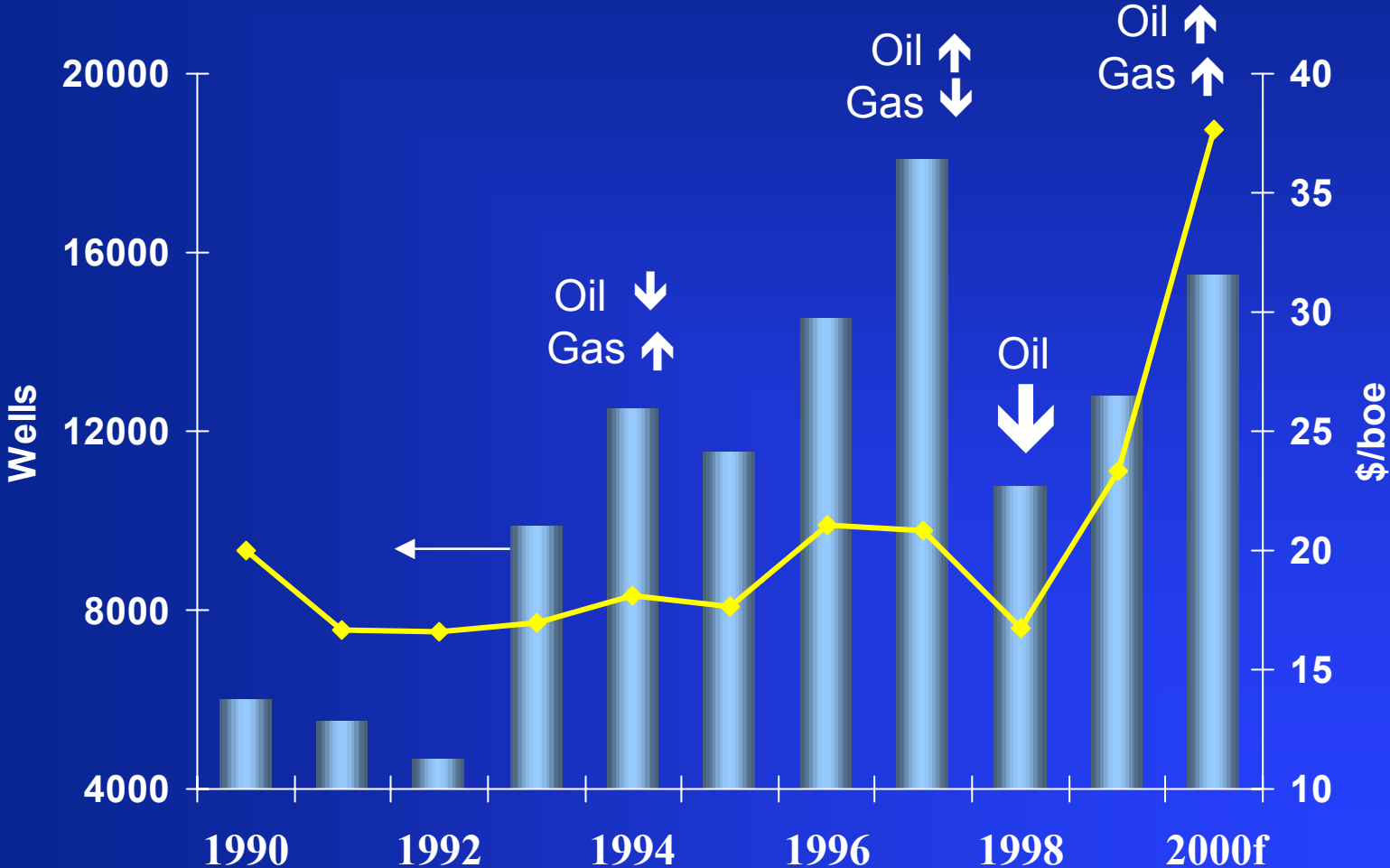
Oil Wells Drilled & Oil Price



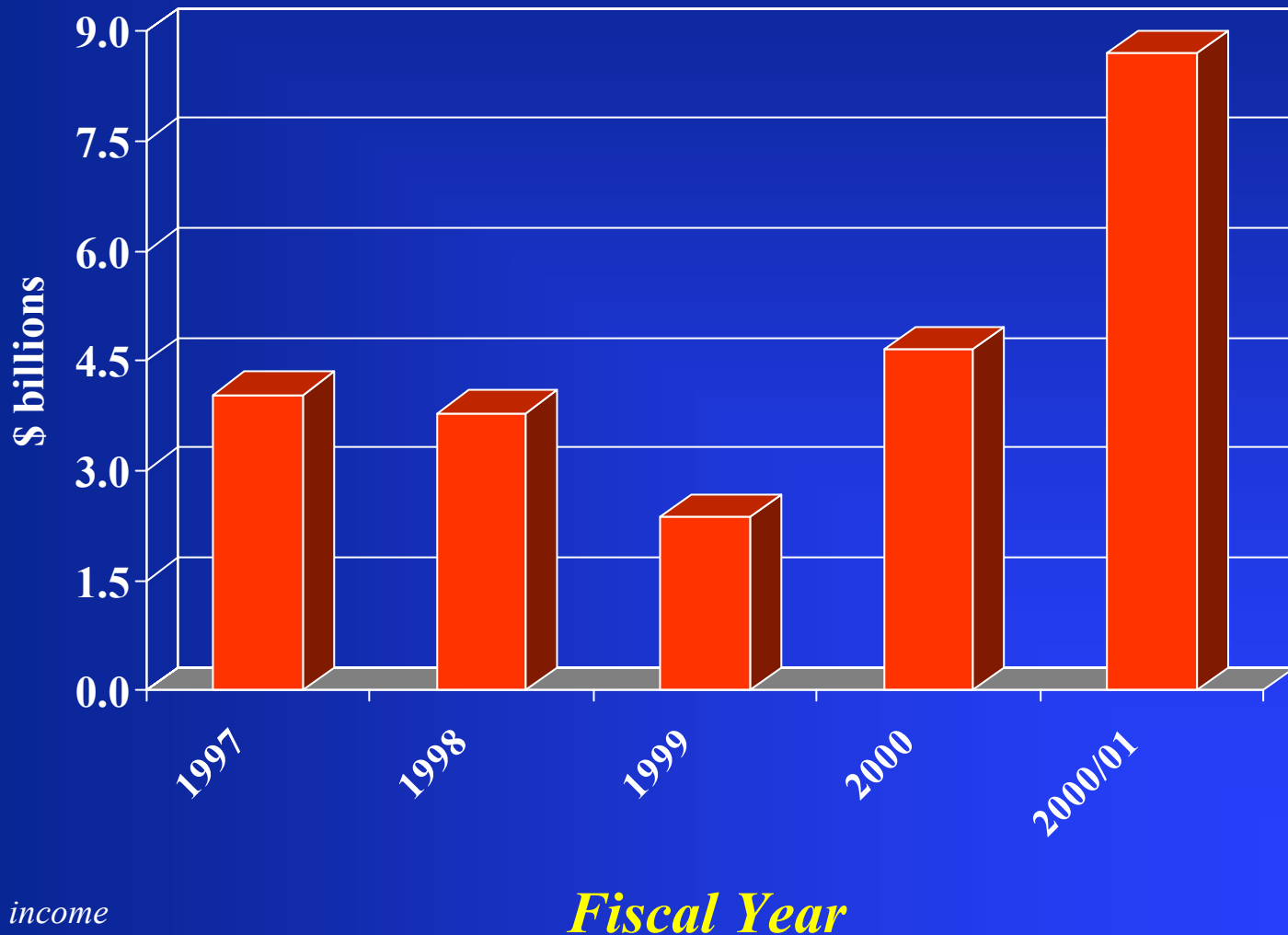
Natural Gas Wells Drilled & Gas Price



Total Wells Drilled & Combined Oil/Gas Price

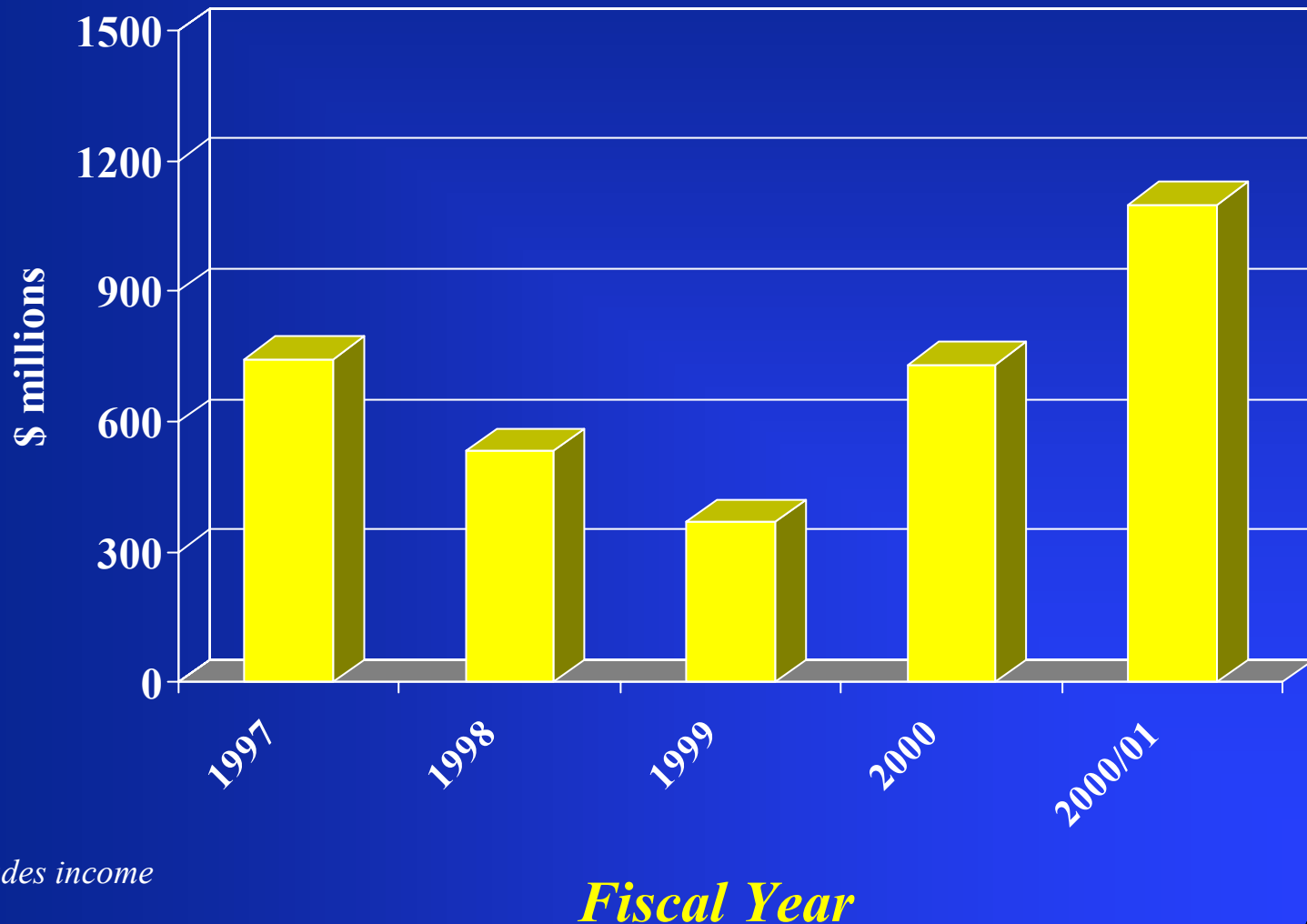


Impact on Government Revenues - Alberta Non-Renewable Resource Revenues



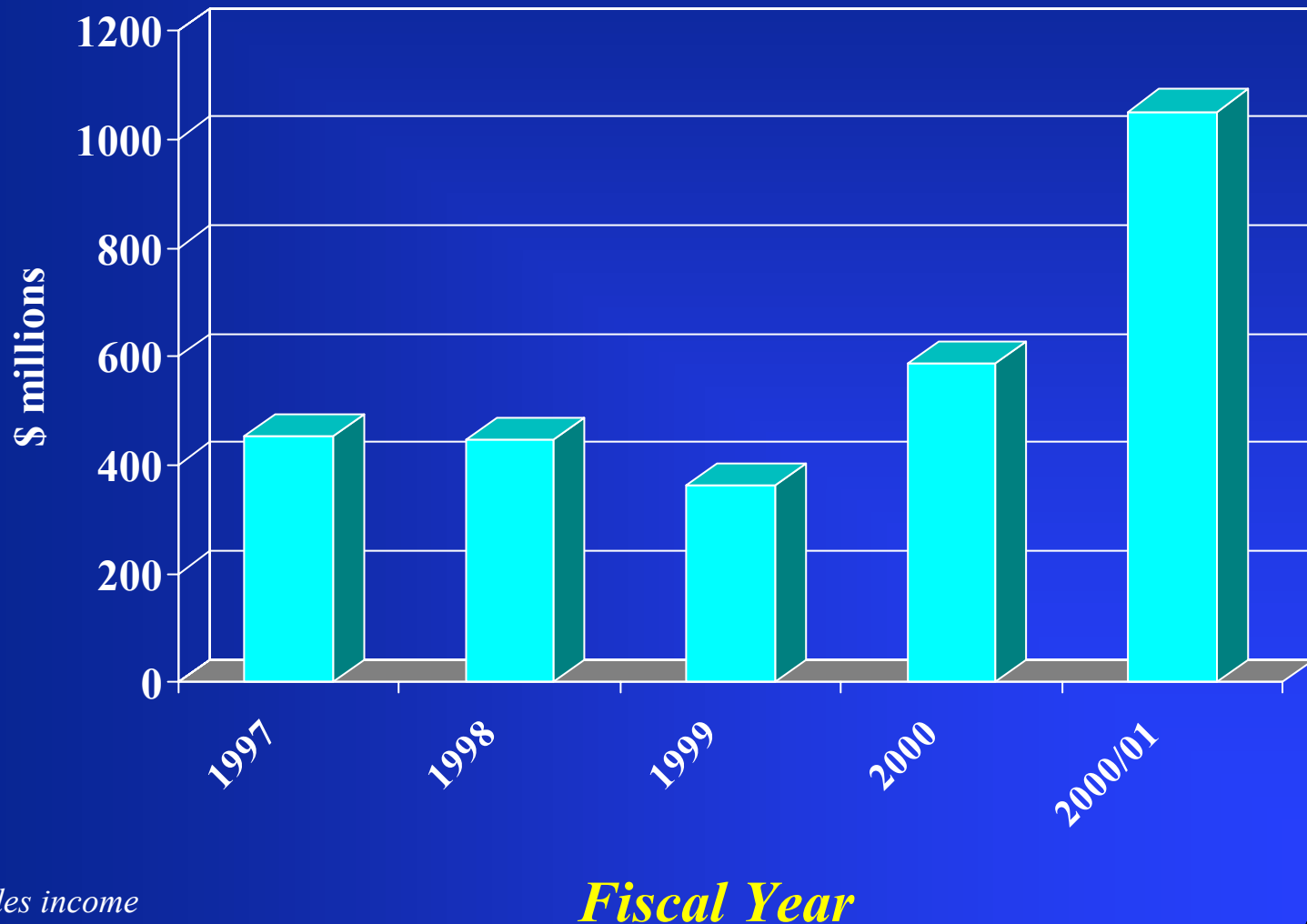
Note: Excludes income taxes.

Impact on Government Revenues - Saskatchewan Non-Renewable Resource Revenues



Note: Excludes income taxes.

Impact on Government Revenues - British Columbia Oil & Gas Revenues



Note: Excludes income taxes.

Announced Projects in the Oil Sands



Syncrude Gulf
 Suncor Koch
 Albian (Shell) JCOS
 Mobil PetroCanada
 PanCanadian

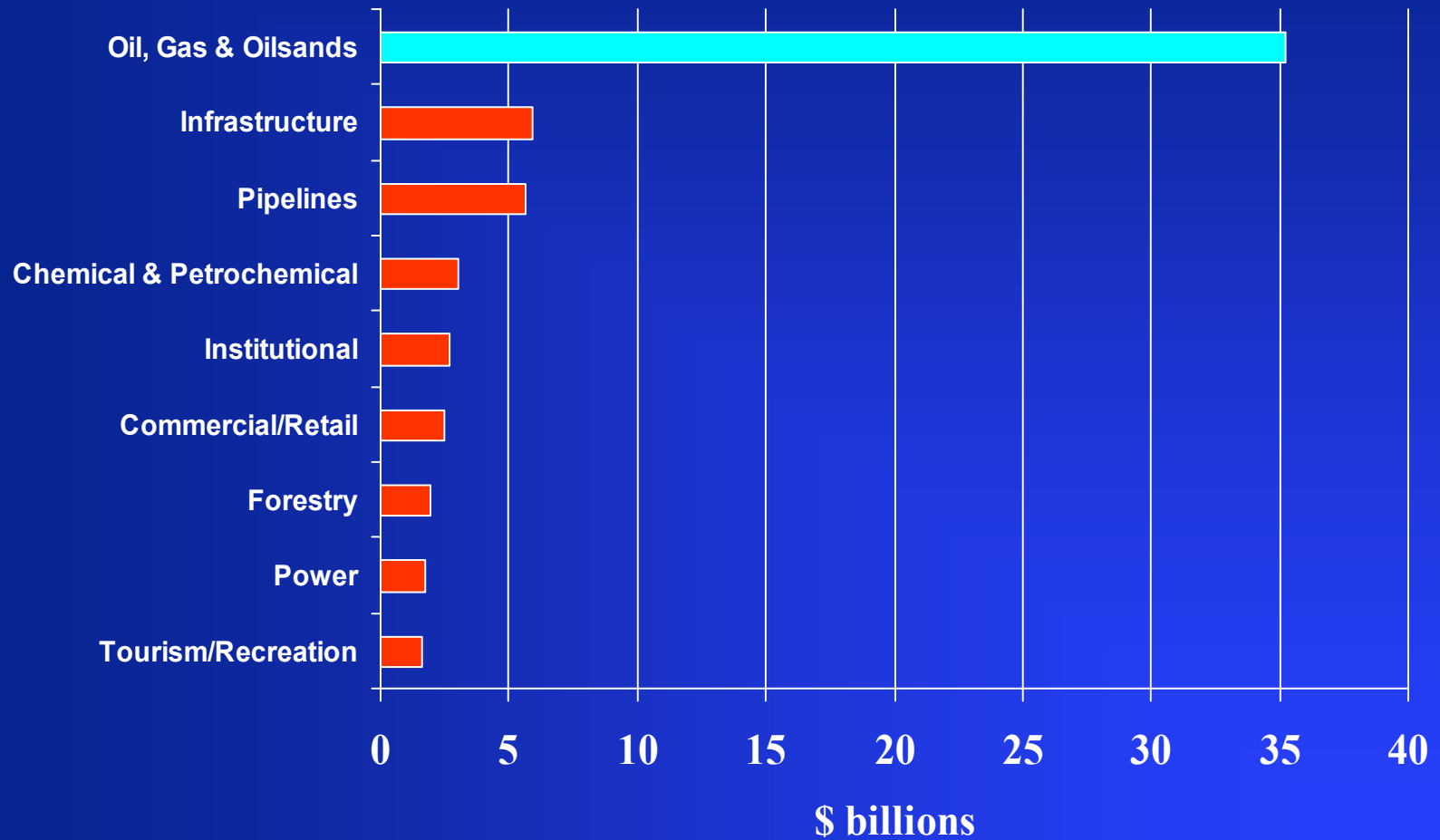
Alberta Energy
 CNRL

Shell

Imperial Koch
 AEC Murphy
 CNRL Suncor
 Petrovera Husky

- Projects in each of northern Alberta's three oil sands deposits
- \$9 billion invested since 1998
- \$33 billion in new or expanded oil sands projects announced

Inventory of Major Alberta Projects



Source: Alberta Economic Development

Inventory of Major Alberta Projects - Sept 2000

Labrador Sea

Eastern Canadian Supply Basins

Sable Offshore Energy Project
530 mmcf/d - 2000
630 mmcf/d - Tier 2 (2004)

Anticosti Basin

Magdalen Basin

Halifax

St. Anthony Basin

St. John's

Jeanne d'Arc Basin

Scotian Basin

White Rose

Hibernia

Hebron

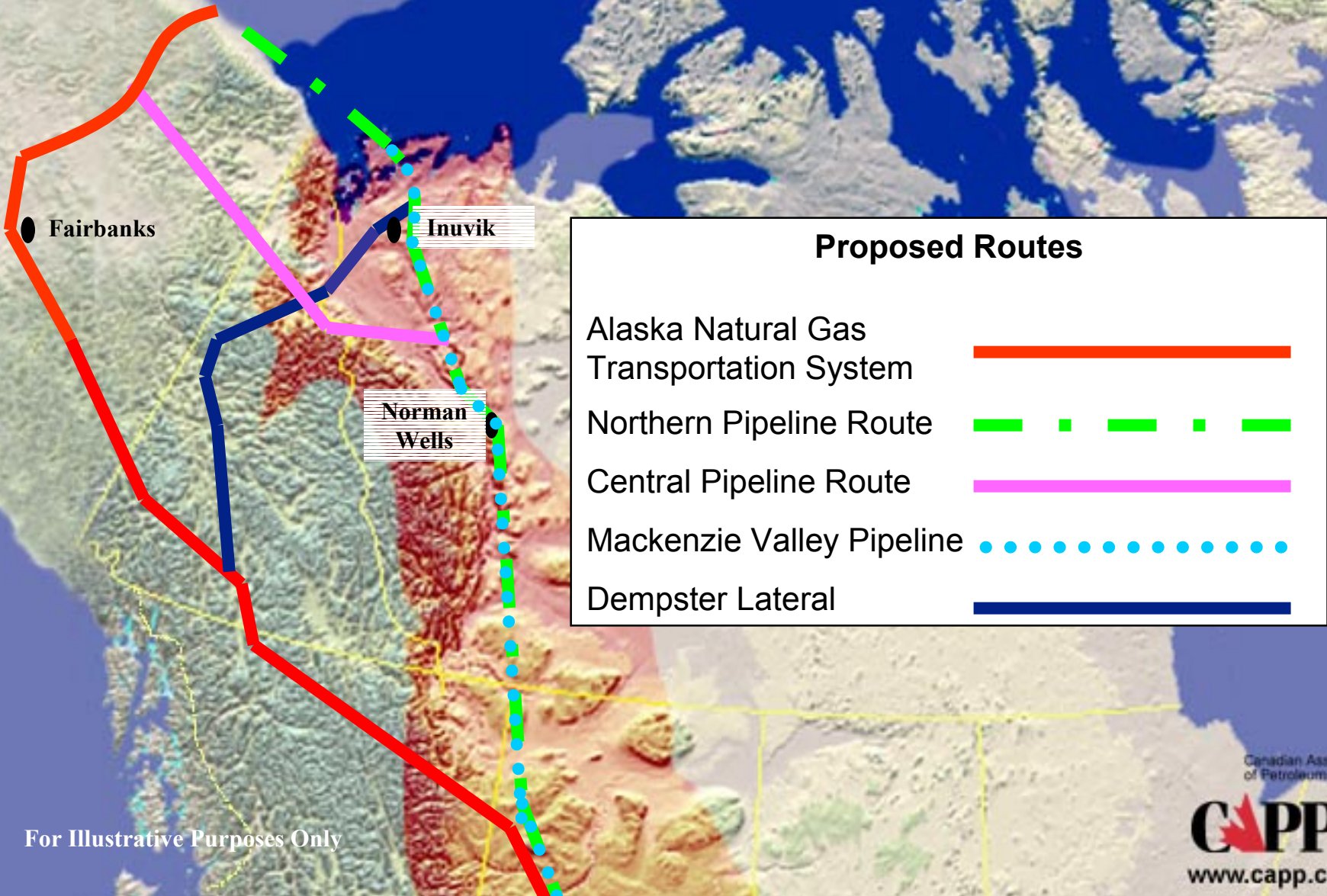
Terra Nova

Sable

Site of recent PanCanadian gas discovery

Canadian Association of Petroleum Producers

Transportation Proposals for Northern Gas



Proposed Routes

Alaska Natural Gas
Transportation System



Northern Pipeline Route



Central Pipeline Route



Mackenzie Valley Pipeline



Dempster Lateral



For Illustrative Purposes Only

Canadian Association
of Petroleum Producers

CAPP

www.capp.ca

Impacts of Price Volatility

- Producers
 - recognize the volatility - managing within the swings
 - don't bank on the peak to last and don't forget the lows easily
- Shareholders
 - buy oil/gas stock for growth and exposure to prices
- Governments as resource owners
 - base budget with large swings
- Consumers
 - in general have not connected supply to price
 - choices provided by market will help

