

Angola's E&P Fiscal Regime In a Global Context



Agenda

- › **Summary of Angola's E&P fiscal regimes**
- › **State / investor revenue-sharing under the fiscal regimes**
- › **Angola's fiscal regimes in a global context**
- › **Angola's prospectivity in a global context**
- › **Recent developments in global fiscal regimes**
- › **Pros and cons of the Angolan fiscal regimes**

Summary of Angola's E&P fiscal regimes

› Offshore / Deepwater PSC

› Bonus

- One of three bid items in acreage auctions

› Cost Recovery

- Normally 50% of production (can be 65%)
- Includes uplift on capex (20%-50%)
- Depreciation over 4 years

› Production Sharing

- Sliding scale linked to IRR of each field
- State share increasing from c.20% - c.85%
- Blocks 2/3 have different terms

› Tax

- 50% of investor profit share

› State Equity

- Sonangol 0-20% of investor equity

› Cabinda Concession

› Bonus

- Negotiated item to extend contract

› Royalty

- 20% of gross production

› Petroleum Transaction Tax (TTP)

- 70% of revenue less depreciation, opex, \$ per bbl production allowance and investment allowance (50% uplift)
- Depreciation over 4-6 years

› Income Tax (IRP)

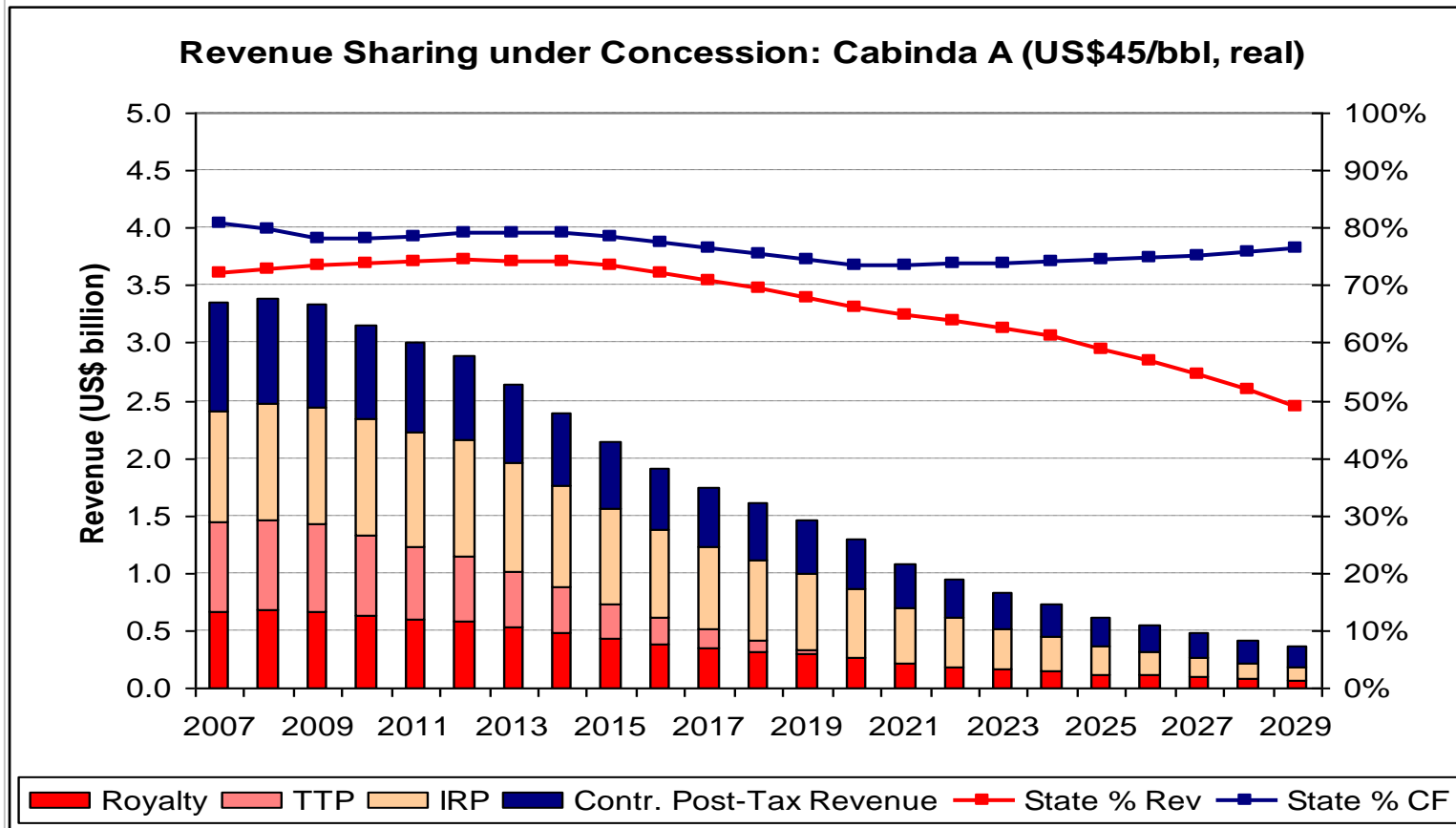
- 65.75% of revenue less depreciation, opex, 50% capex uplift, royalty and TTP

› State Equity

- Sonangol 41% of investor equity

Revenue Sharing under Angola Concession Terms

Example: Cabinda A (Block 0, producing) – 1



Field Life
 State % Rev = 71%
 State % CF = 78%

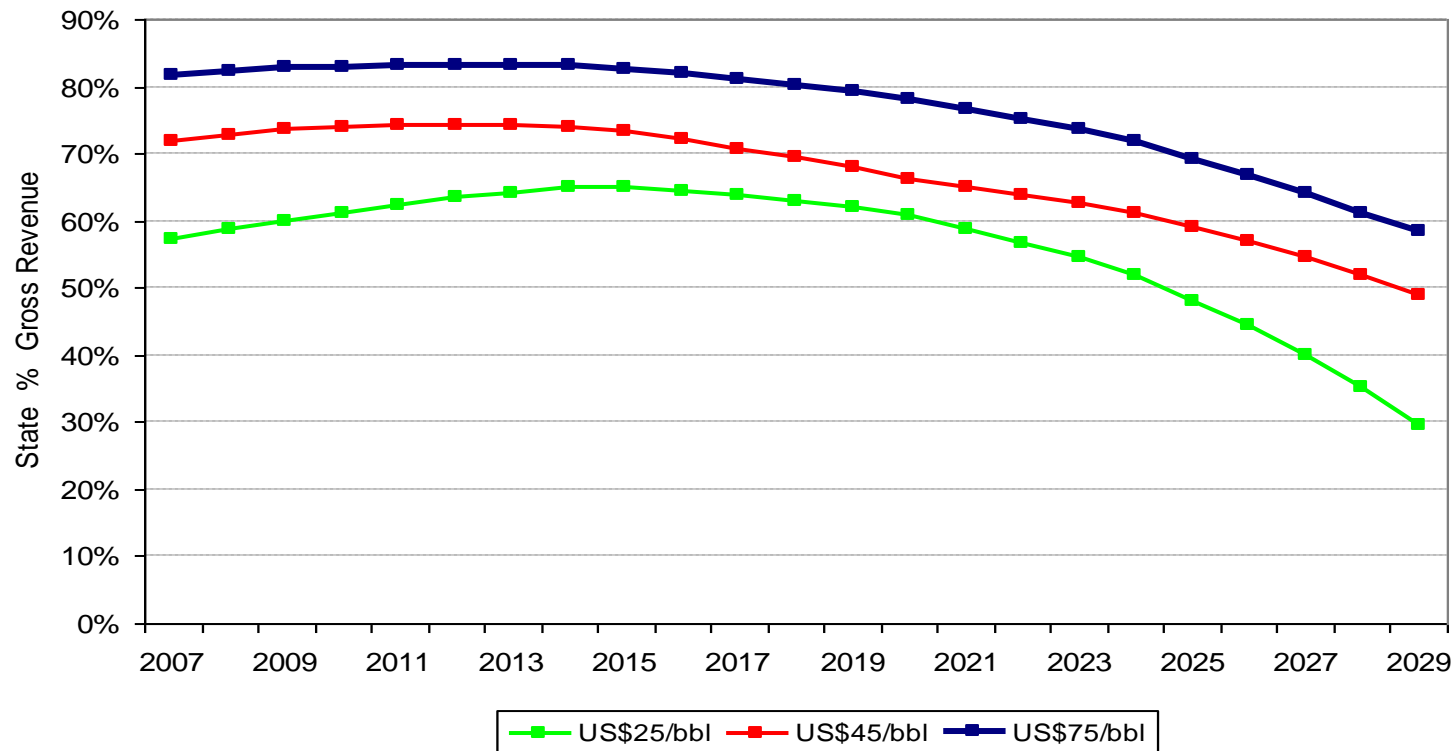
Excludes bonus and Sonangol equity

Source: Wood Mackenzie's Global Economic Model (GEM)

Revenue Sharing under Angola Concession Terms

Example: Cabinda A (Block 0, producing) – 2

Revenue Sharing under Concession: Cabinda A Price Sensitivity



State % Revenue

US\$ 25/bbl = 61%

US\$ 45/bbl = 71%

US\$ 75/bbl = 81%

State % Cash Flow

US\$ 25/bbl = 72%

US\$ 45/bbl = 78%

US\$ 75/bbl = 85%

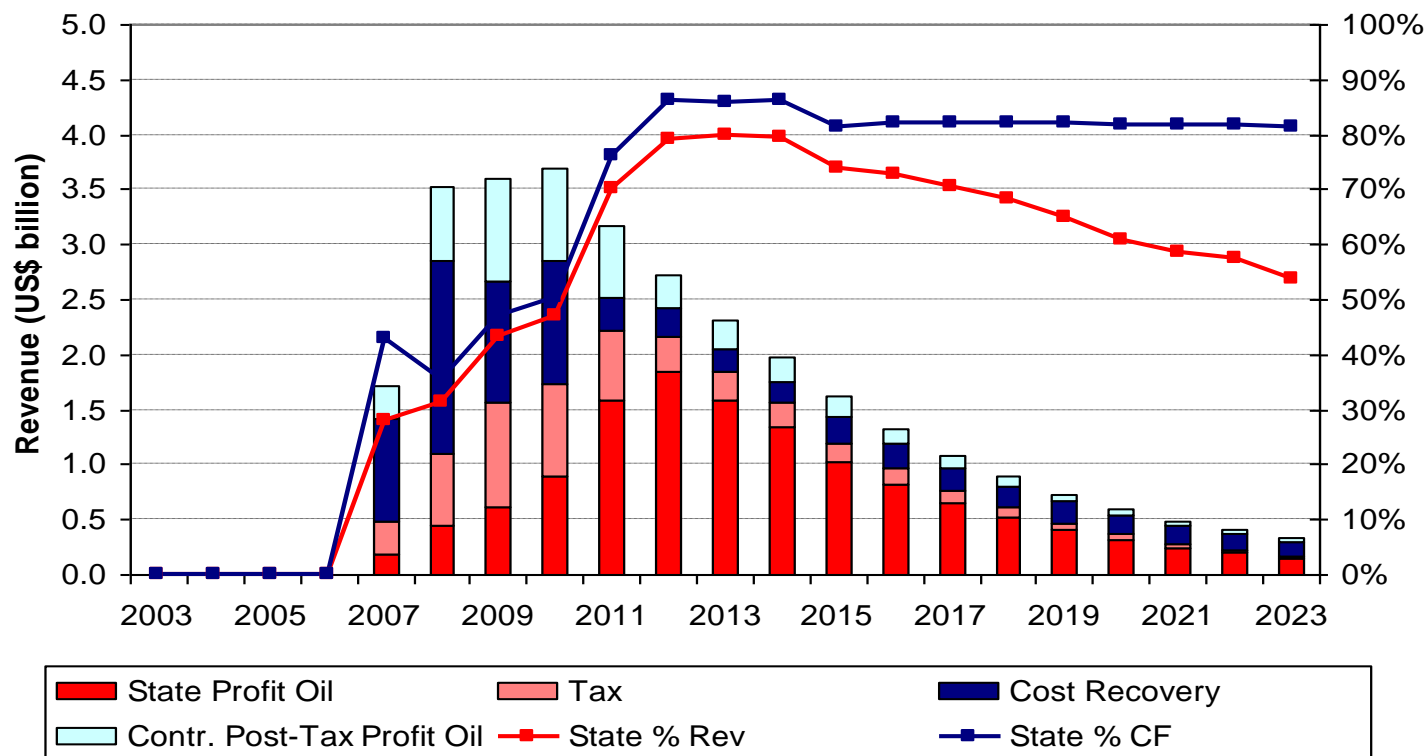
Excludes bonus and
Sonangol equity

Source: Wood Mackenzie's Global Economic Model (GEM)

Revenue Sharing under Angola PSC Terms

Example: Greater Plutonio (under development) – 1

Revenue Sharing under PSC: Greater Plutonio (US\$45/bbl, real)



Field Life

State % Rev = 59%

State % CF = 73%

Contr. IRR = 33%

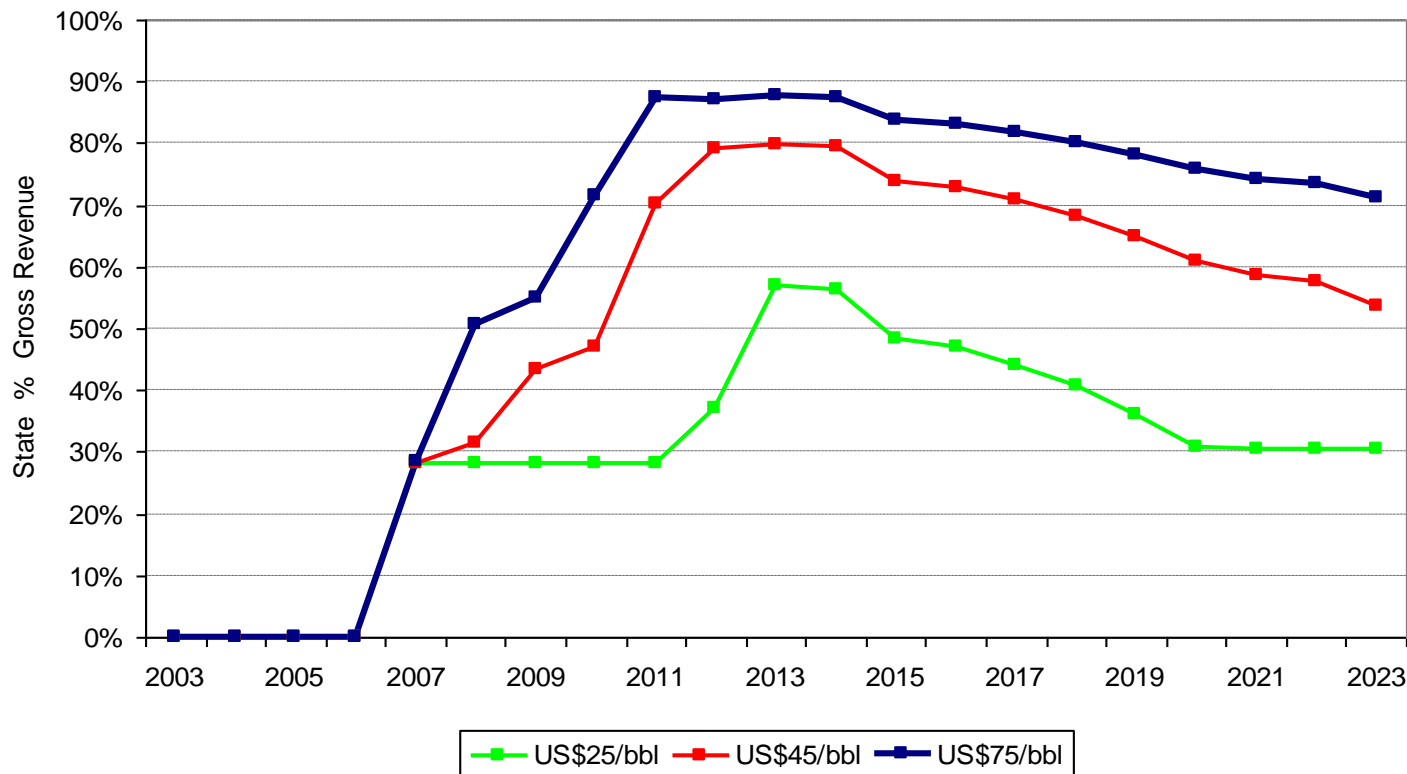
Excludes bonus and Sonangol equity

Source: Wood Mackenzie's Global Economic Model (GEM)

Revenue Sharing under Angola PSC Terms

Example: Greater Plutonio (under development) – 2

Revenue Sharing under PSC: Greater Plutonio Price Sensitivity



State % Revenue

US\$ 25/bbl = 36%

US\$ 45/bbl = 59%

US\$ 75/bbl = 72%

State % Cash Flow

US\$ 25/bbl = 56%

US\$ 45/bbl = 73%

US\$ 75/bbl = 82%

Contractor IRR

US\$ 25/bbl = 21%

US\$ 45/bbl = 33%

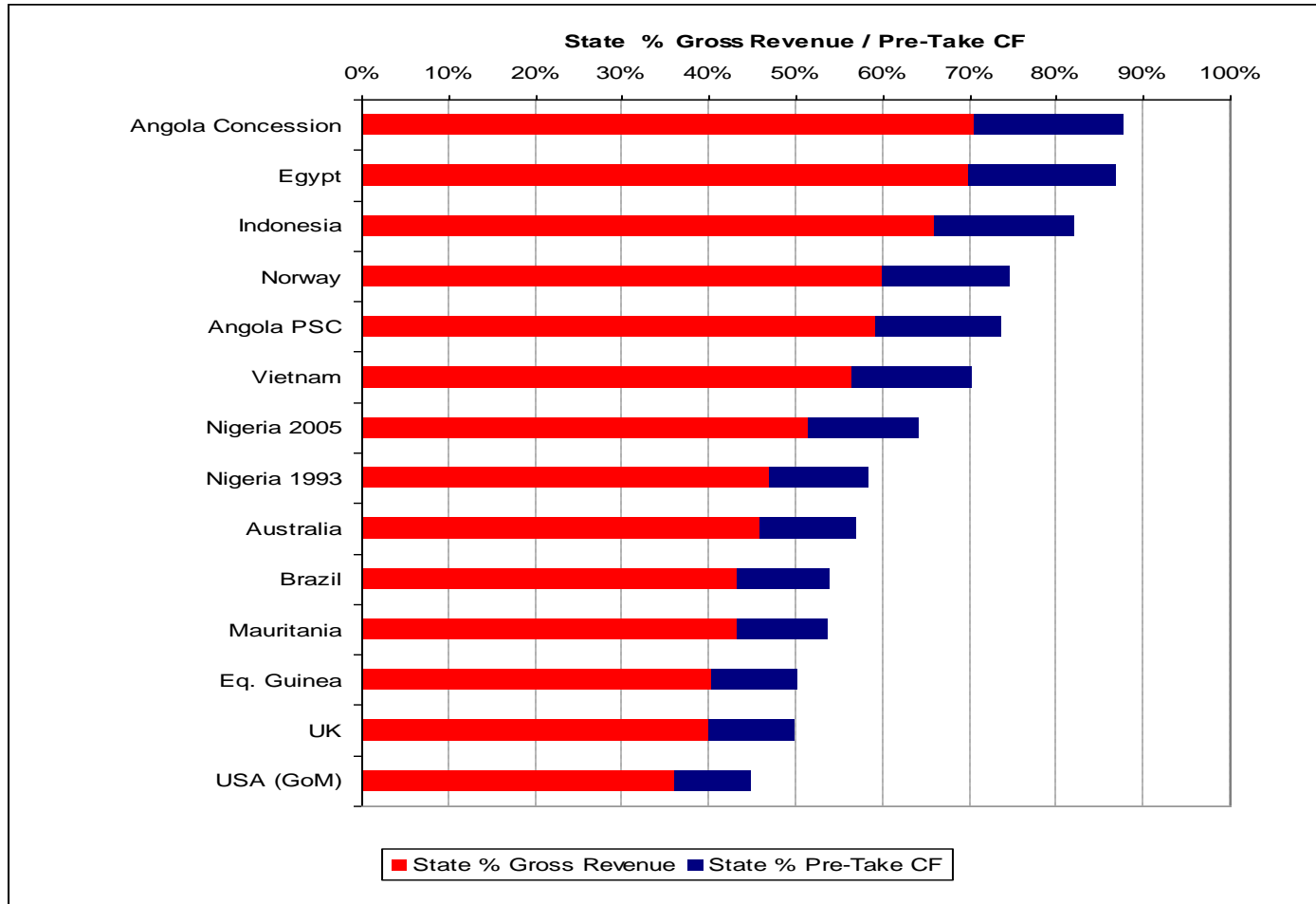
US\$ 75/bbl = 44%

Excludes bonus and
Sonangol equity

Source: Wood Mackenzie's Global Economic Model (GEM)

Comparison of Global Deepwater Fiscal Regimes

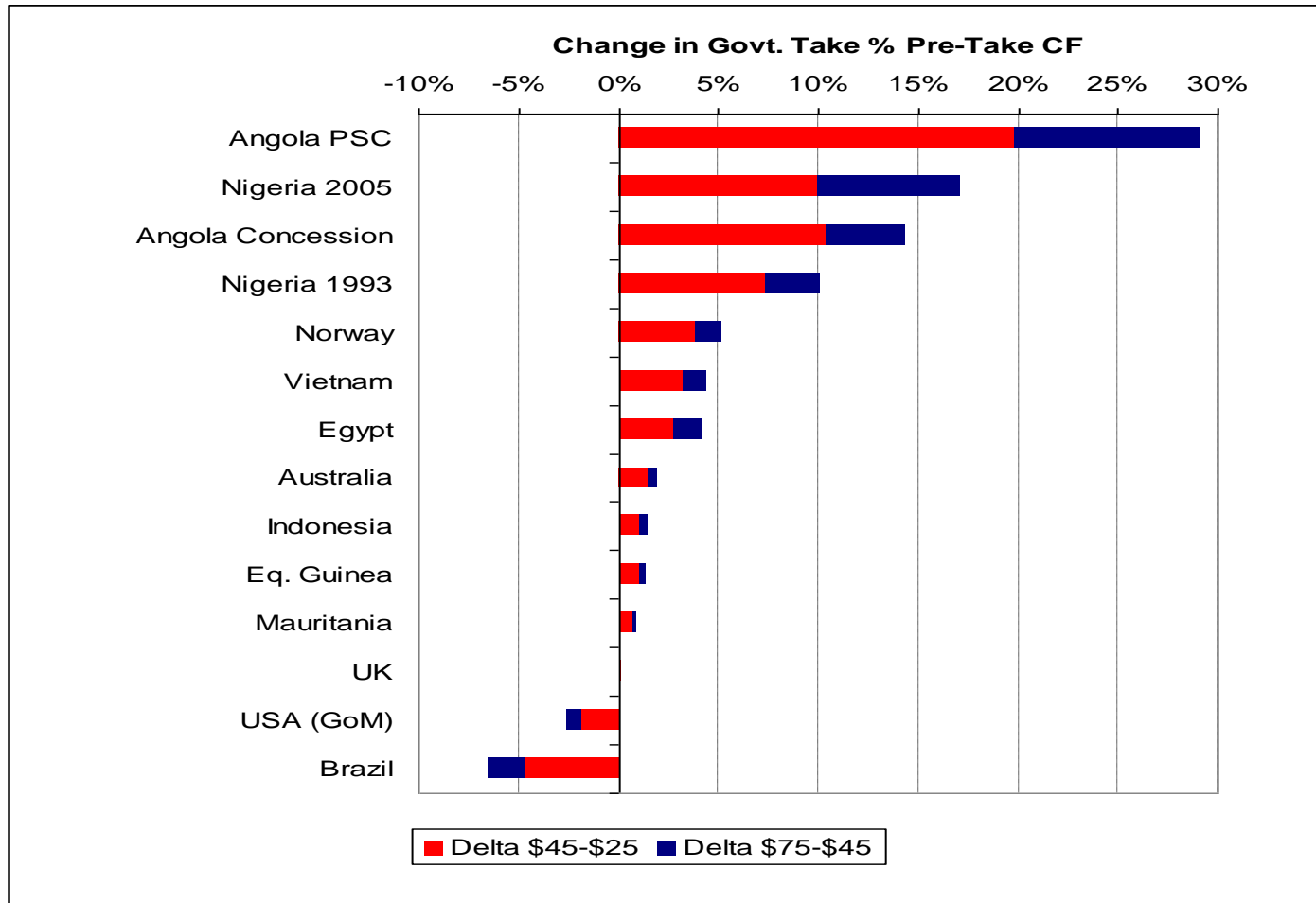
Example: Greater Plutonio (US\$45/bbl)



Source: Wood Mackenzie's Global Economic Model (GEM) - excludes bonus and state equity

Comparison of Global Deepwater Fiscal Regimes

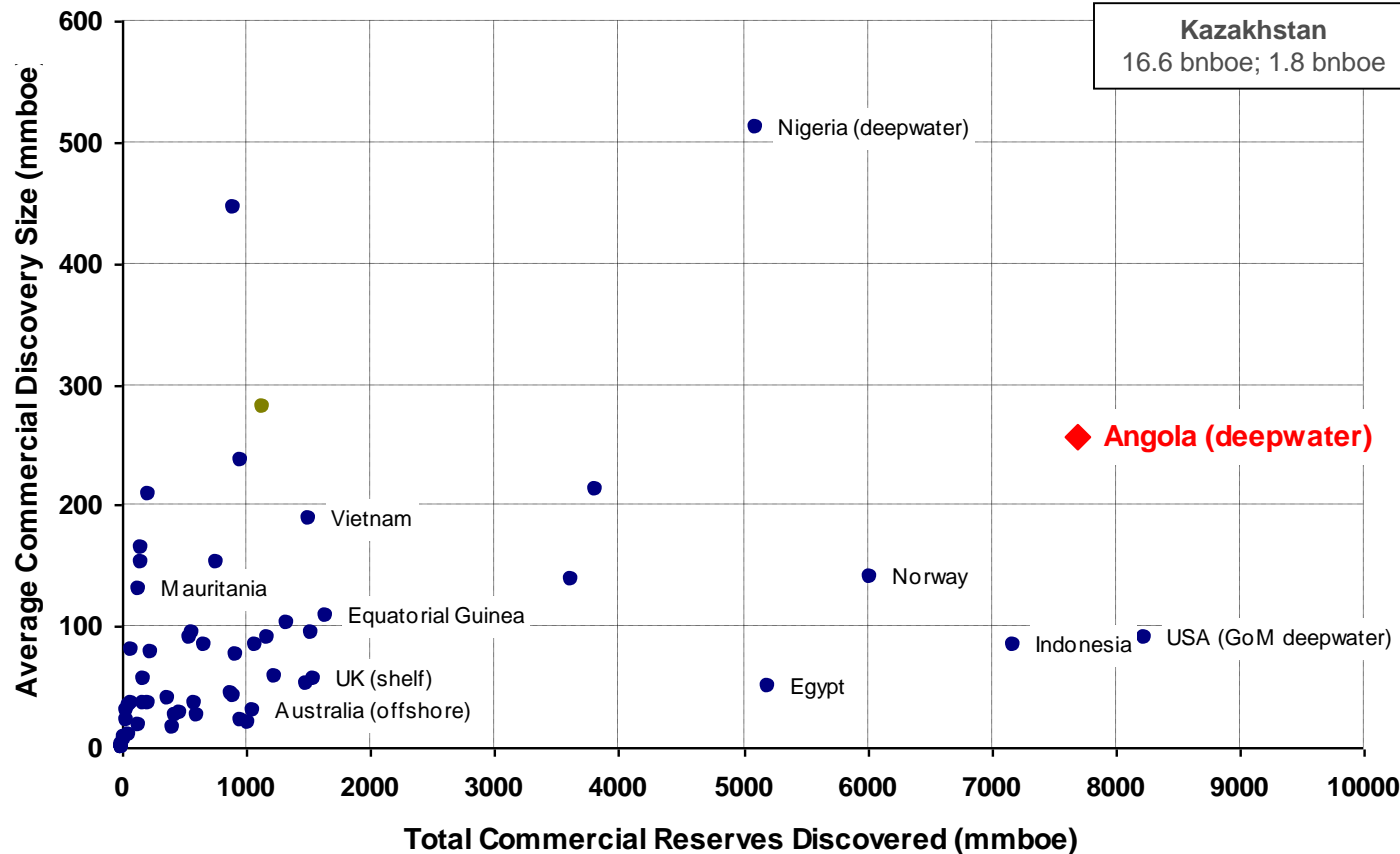
Example: Greater Plutonio Price Sensitivity (US\$25-US\$75/bbl, real)



Source: Wood Mackenzie's Global Economic Model (GEM) - excludes bonus and state equity

Comparison of Global Prospectivity

Commercial Reserves Discovered vs Av. Discovery Size 1994-2003



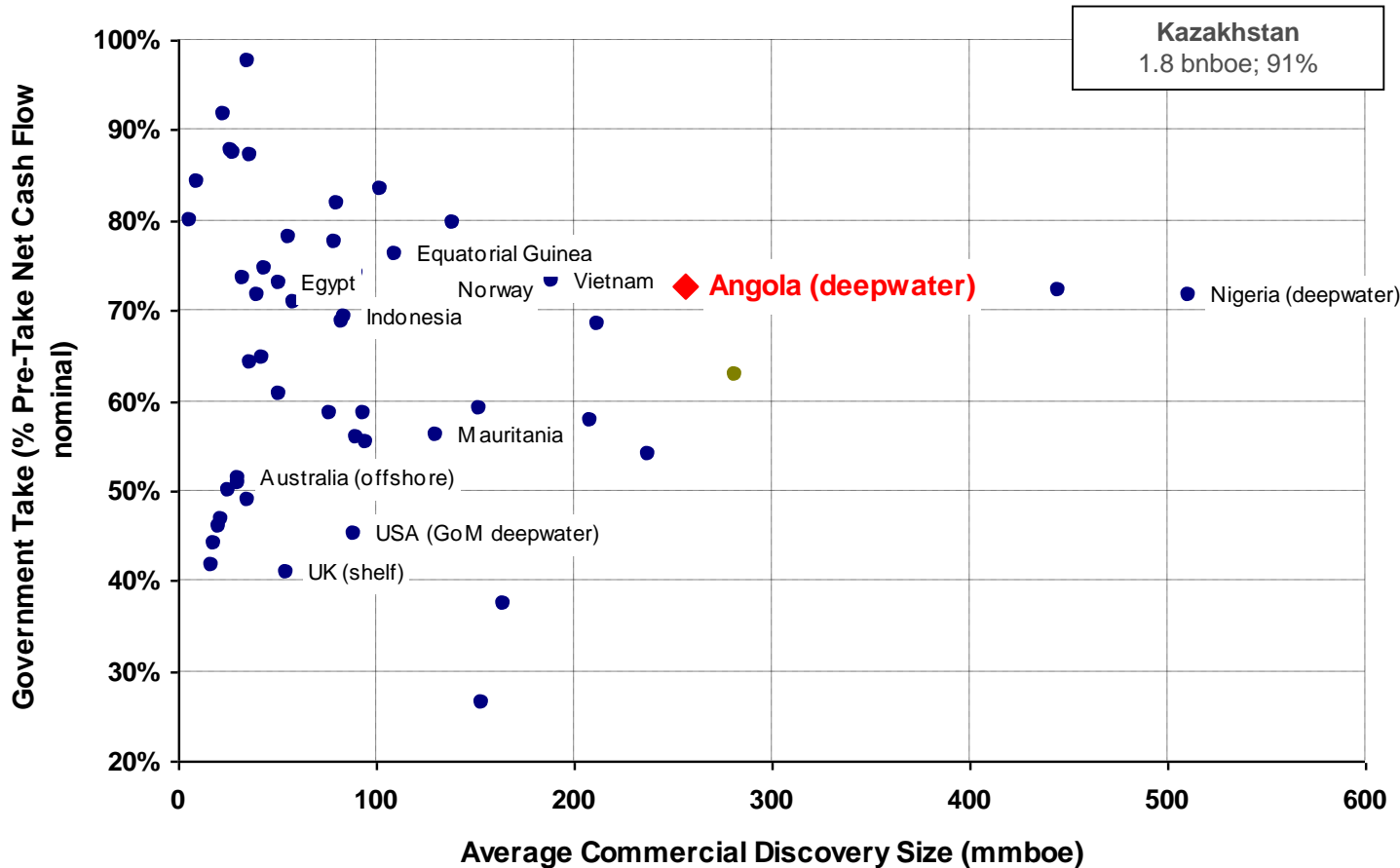
Angola deepwater
 Commercial Reserves
 Discovered = # 3 / 66
 Average Discovery Size
 = # 6 / 66
 Commercial Success
 Rate = #6 / 66

**Study ranks 66 areas
 on basis of IOC
 exploration 1994-2003**

Source: Wood Mackenzie's Global Oil & Gas Risks & Rewards

Comparison of Global Prospectivity vs Government Take

Av. Discovery Size vs Full Cycle Govt. Take



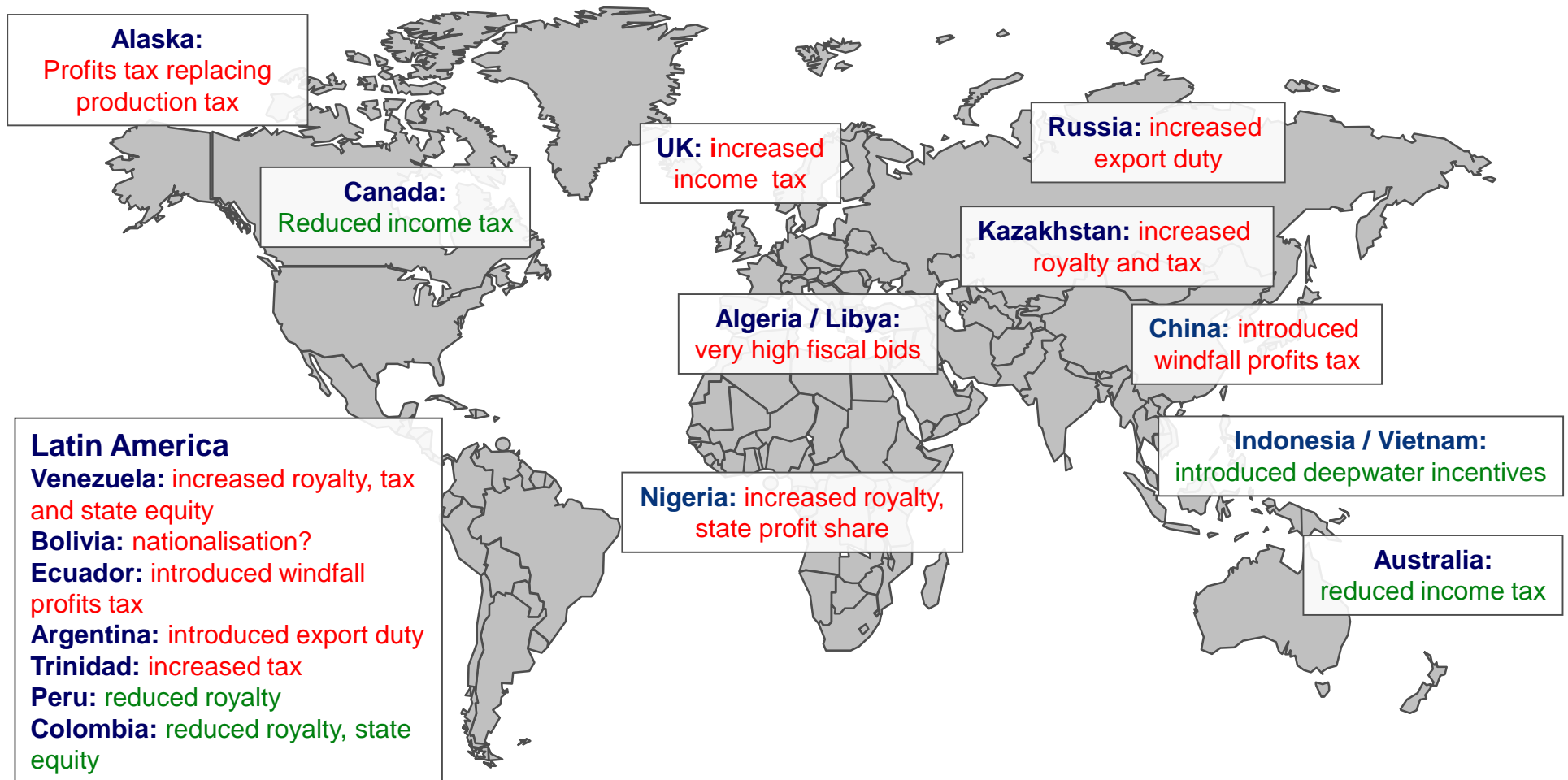
Angola deepwater
 Full Cycle Govt. Take
 = # 33 / 66
 Full Cycle Investor Value
 = # 2 / 66

**Study ranks 66 areas
 on basis of IOC
 exploration 1994-2003**

**Future Price =
 US\$25/bbl, real**

Source: Wood Mackenzie's Global Oil & Gas Risks & Rewards

Recent Changes in E&P Fiscal Terms



Angola's Fiscal Regimes: Pros and Cons

- ✓ **PSC is one of the most progressive regimes in the world**
- ✓ **Royalty or cost ceiling ensures early revenue for state**
- ✓ **Fiscal incentives easily introduced for higher risk blocks**
- ✓ **Government Take high, but appropriate given prospectivity**
- ✓ **Fiscal terms unlikely to deter development or exploration**
- ✓ **Emphasis on signature bonus (rather than fiscal terms) in auctions ensures significant, risk free income for the state for prospective acreage - Angolan bonuses are largest in world**
- ✗ **High capex uplift rates may drive lease / build development decisions – compounded in PSC by IRR calculation**
- ✗ **Very high marginal take (up to 95%) could deter incremental / late life investment**

Thank you for your attention

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