International Outlook for Upstream Activities

Global trends in activities, players, theatres, contracts and relationships

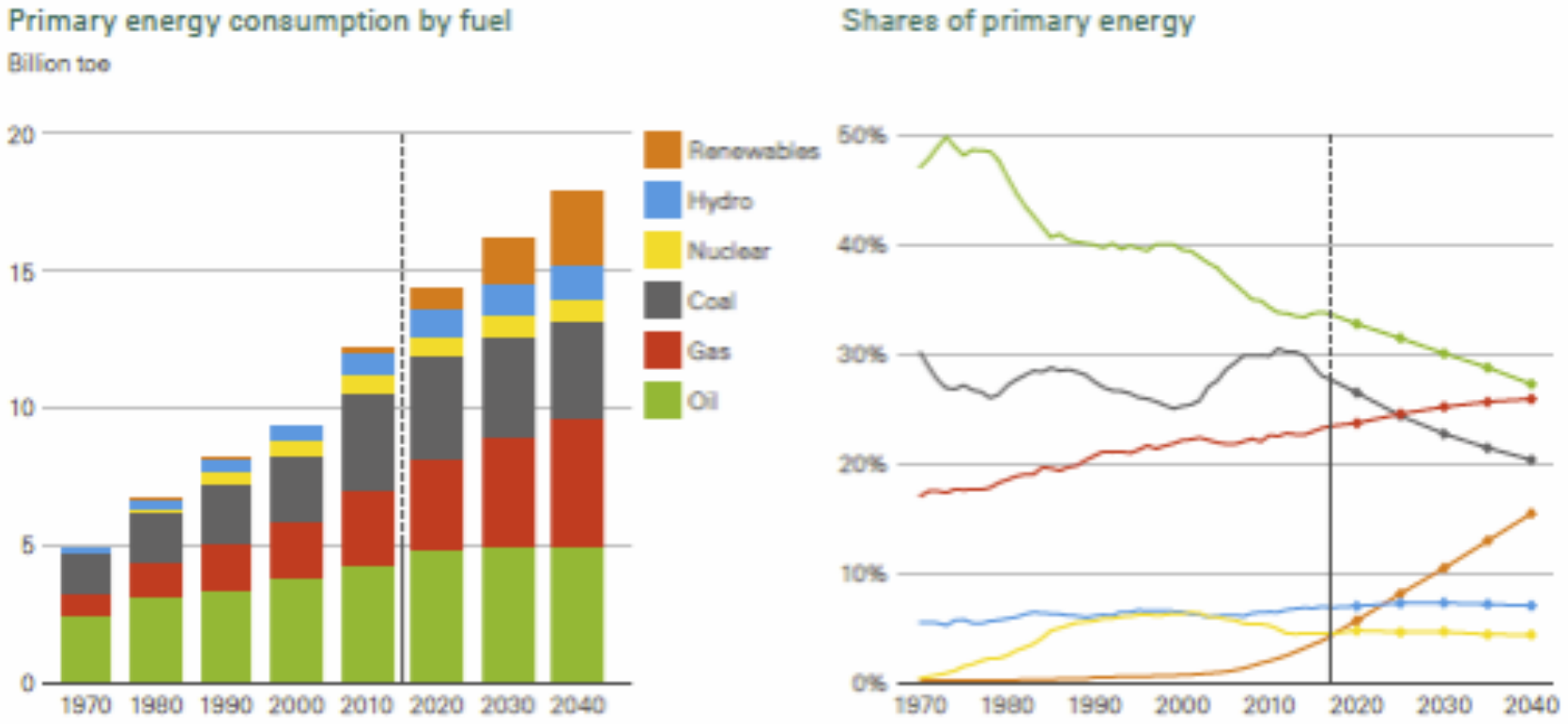
Chris Moore

15th Parker C. Fielder Oil and Tax Conference

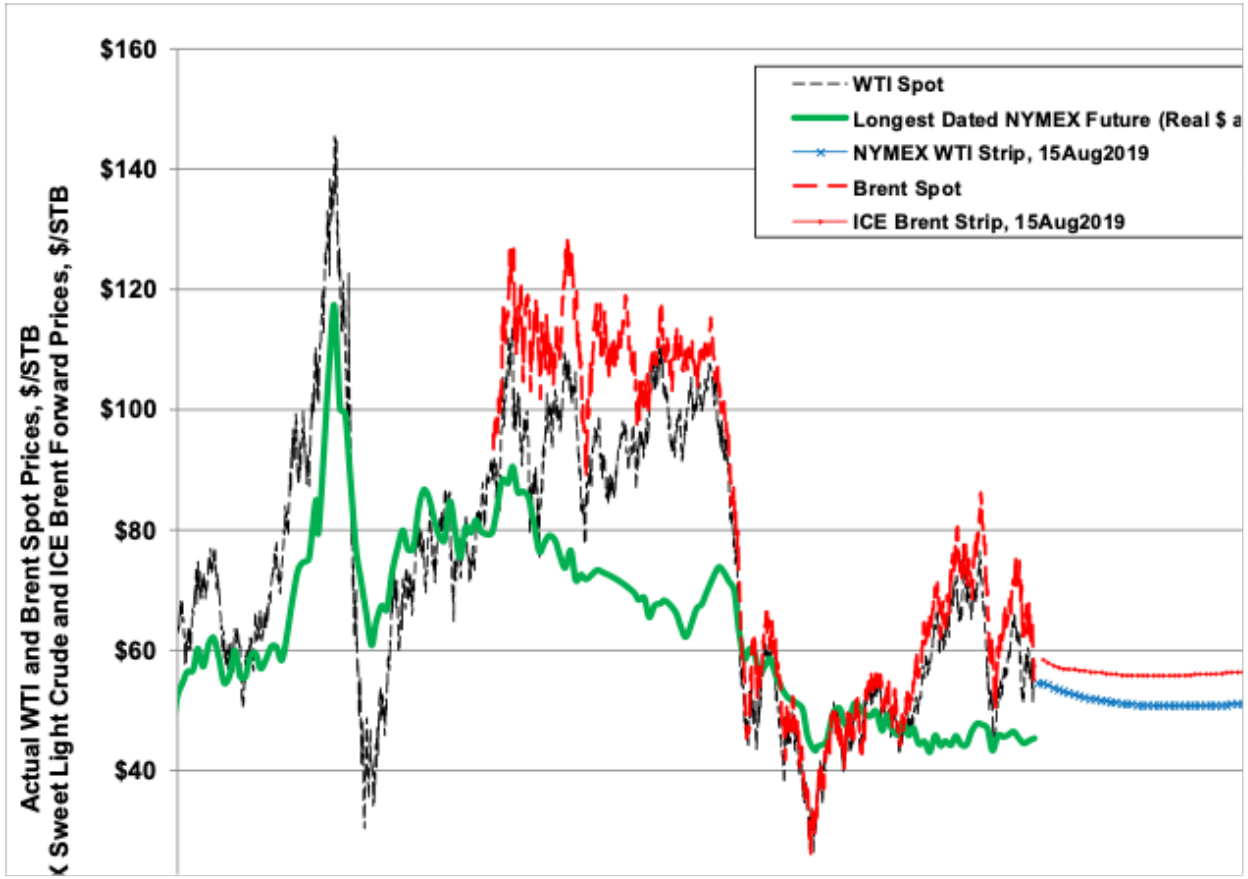
Houston

November 21, 2019

The transition to a lower-carbon fuel mix continues, led by renewables and natural gas



Crude Oil Prices

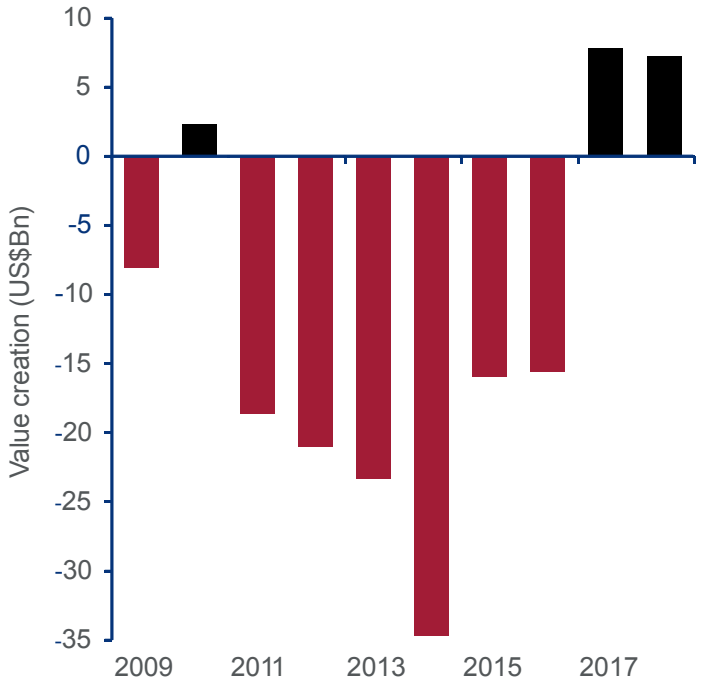


Exploration is now back in the black

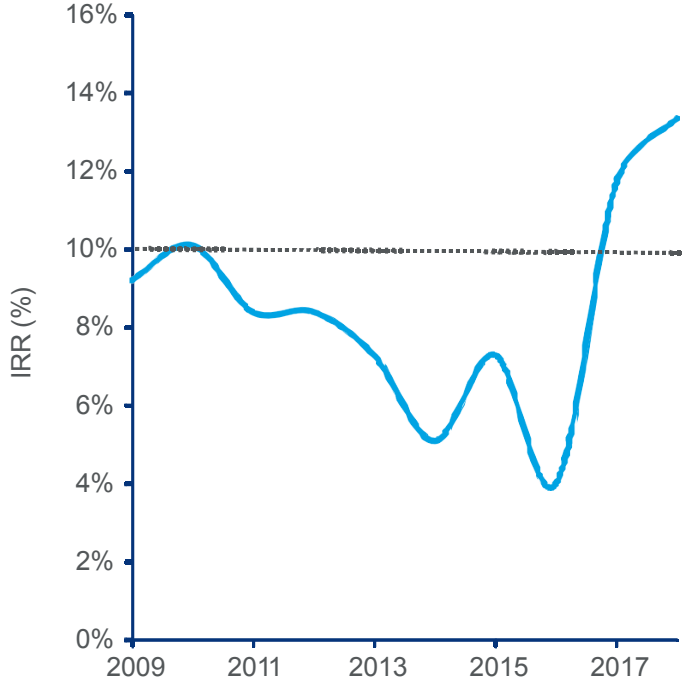
woodmac.com

Reduced costs and quicker commercialisation of discoveries are now creating value

Exploration industry value creation



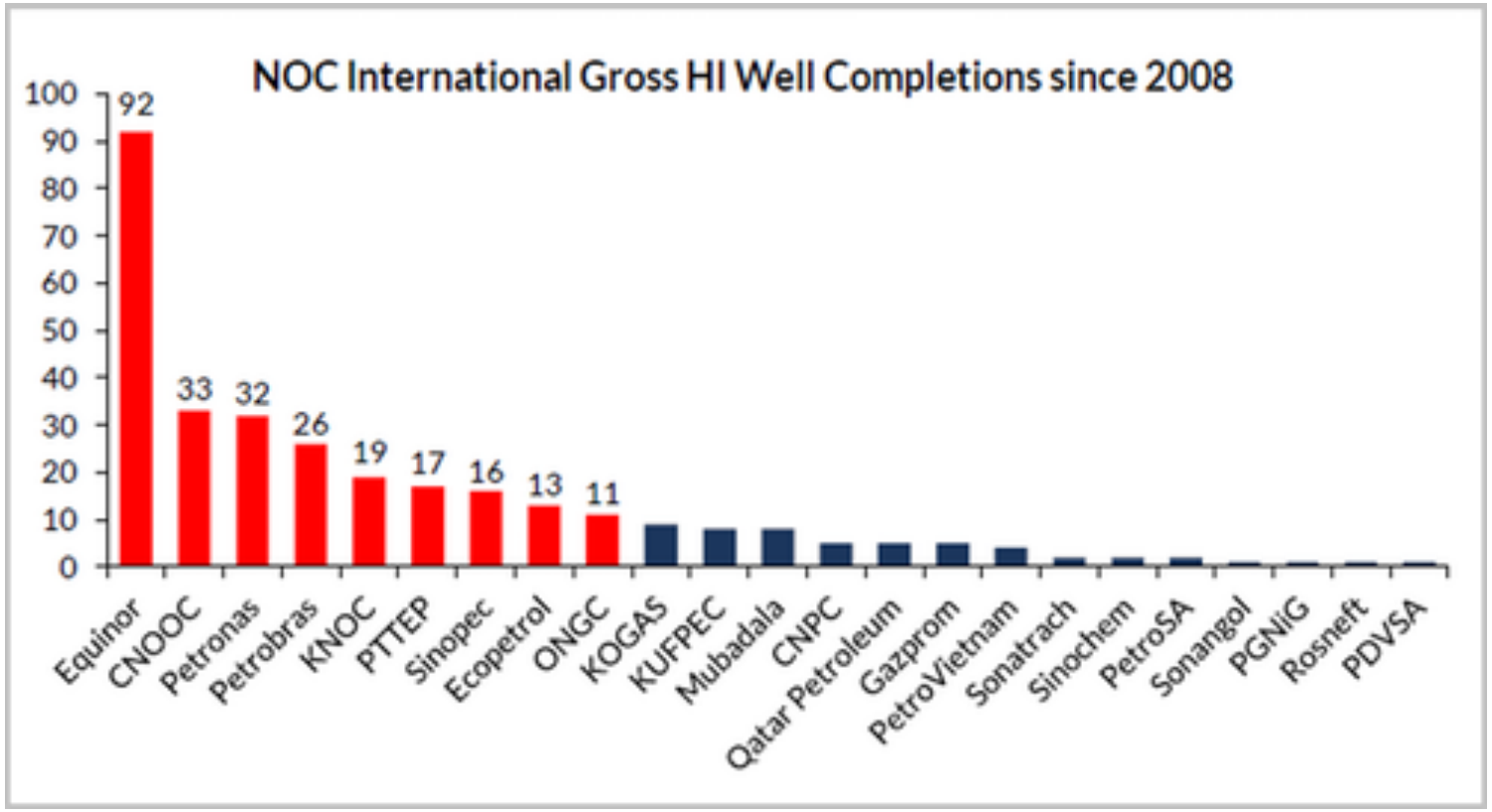
Exploration industry returns



Source: Wood Mackenzie Exploration Service . Value creation and returns at US$65/bbl Brent.

Global Participation – NOC's Overseas Participation

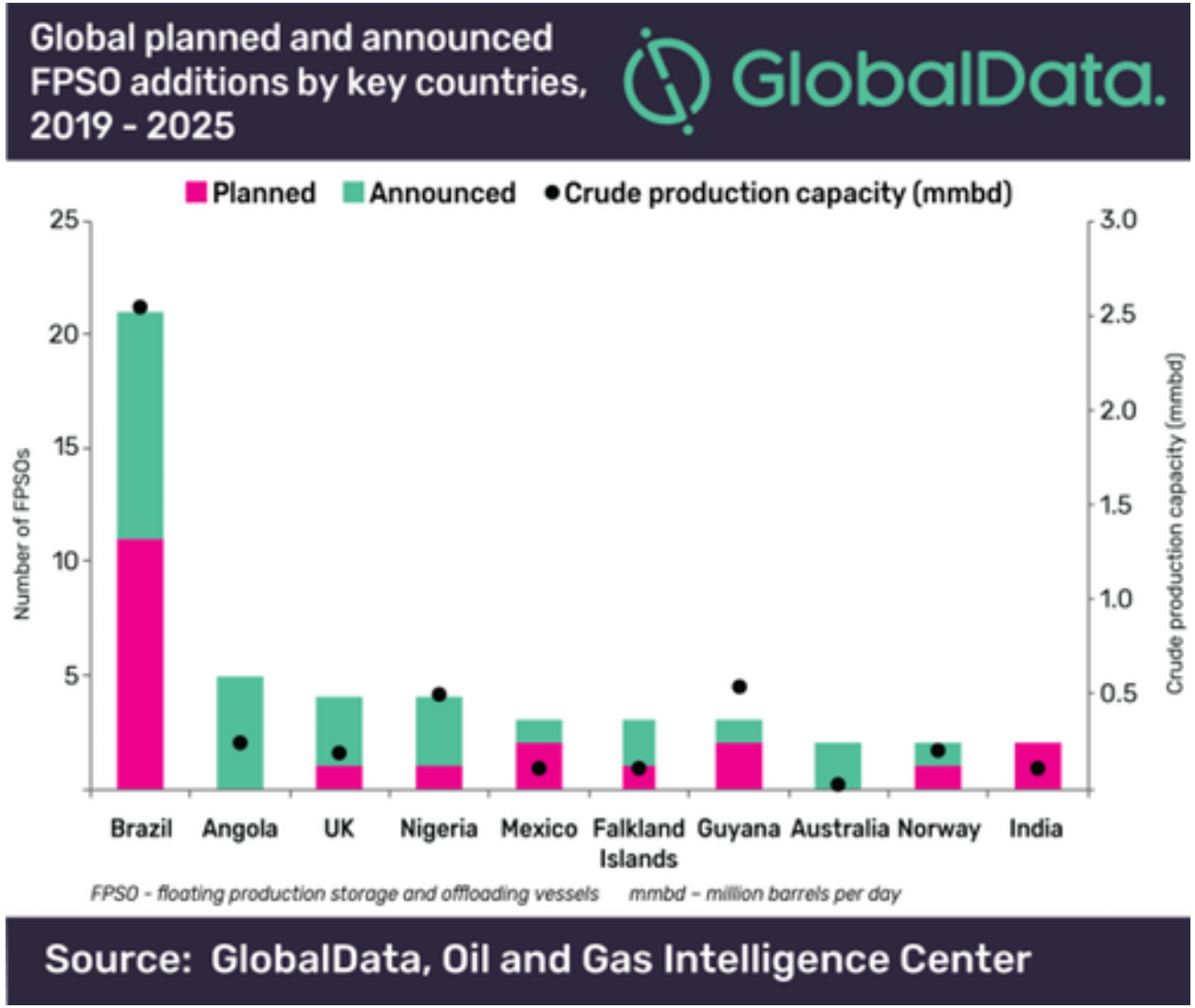
Offshore



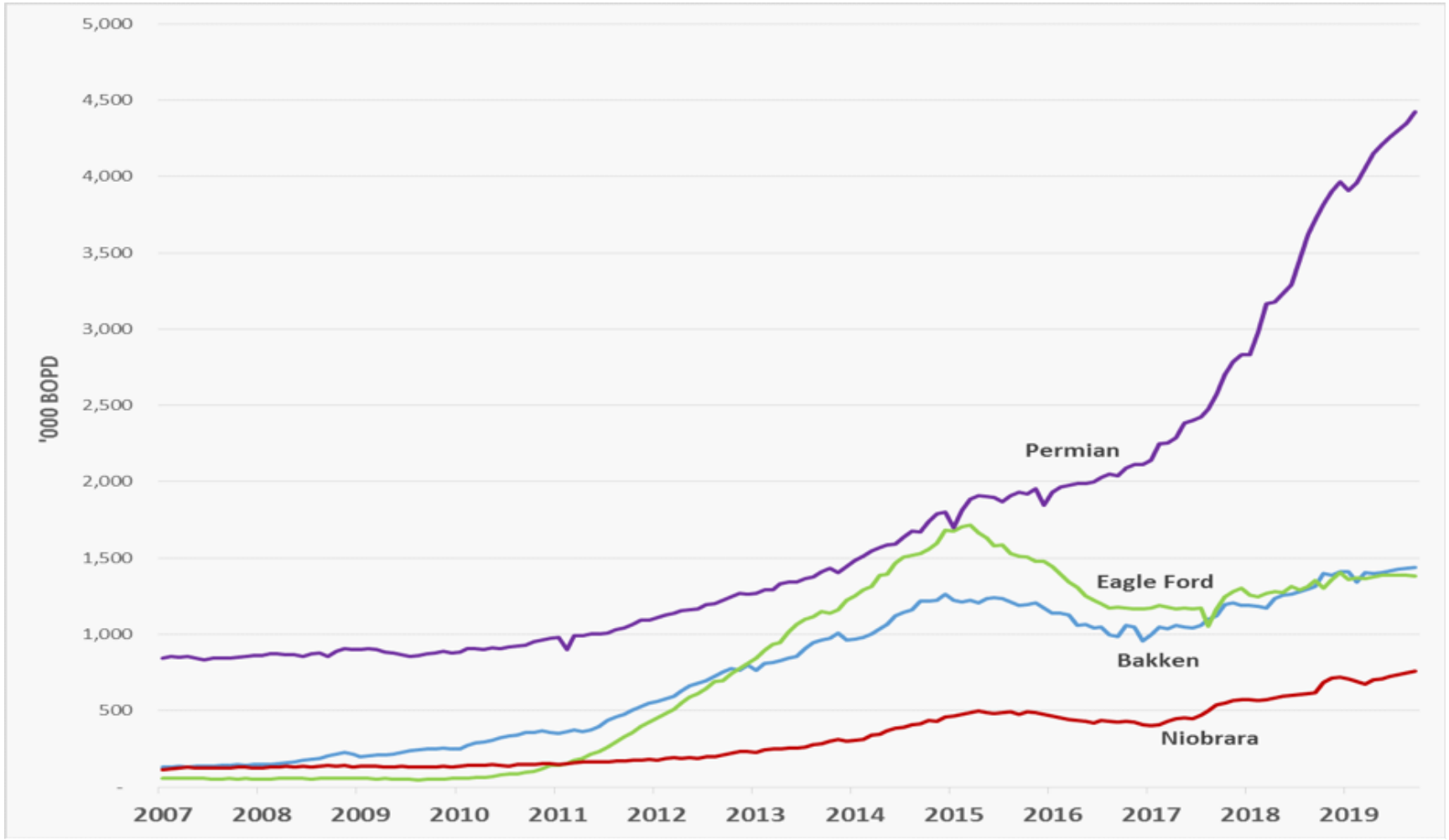
The number of high impact wells (frontier play tests and/or prospect bigger than 100 MMbbl or 1 tcf) that each NOC had an equity stake in outside of its home country from 2008 to the end July 2019. The nine most active NOCs in the period are highlighted in red and were in 84% of the total 270 wells in which non-domestic NOCs participated. (Source: Westwood Analysis)

Global Hotspots – Additional FPSOs

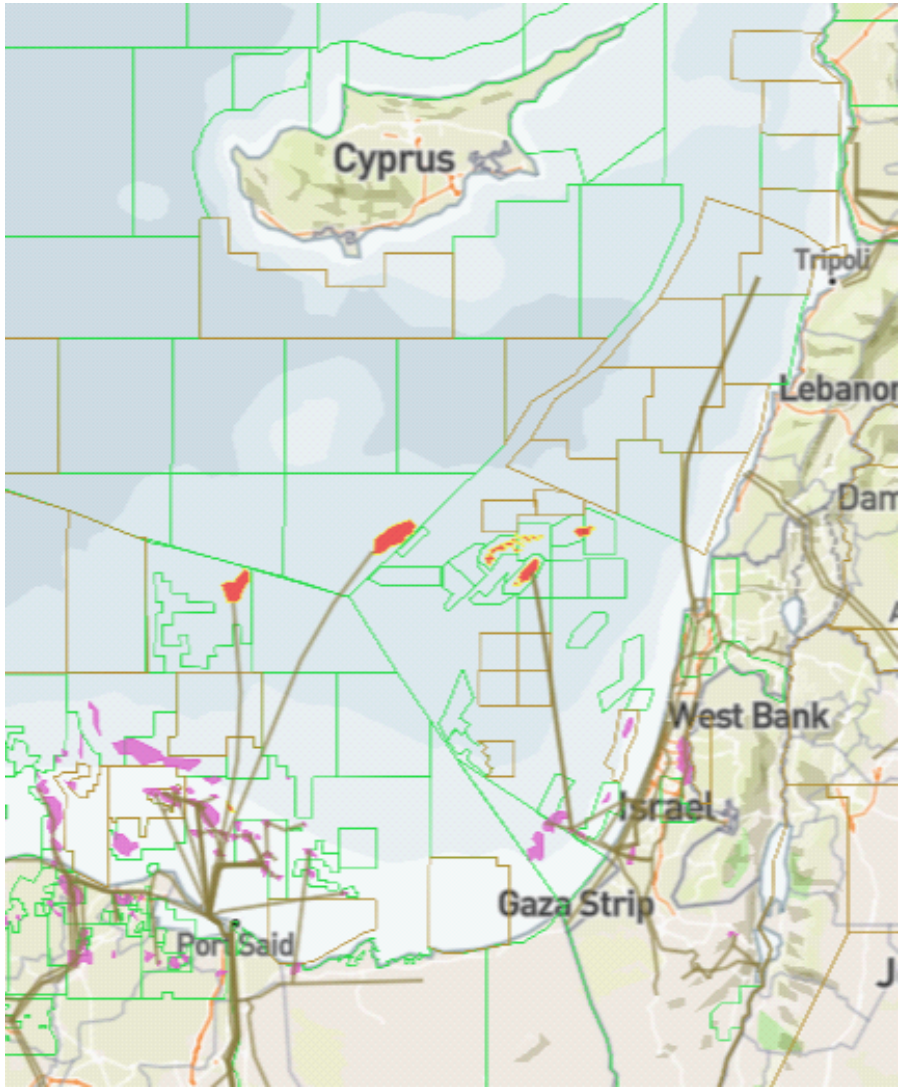
Offshore



Global Hotspots – US Unconventional Oil

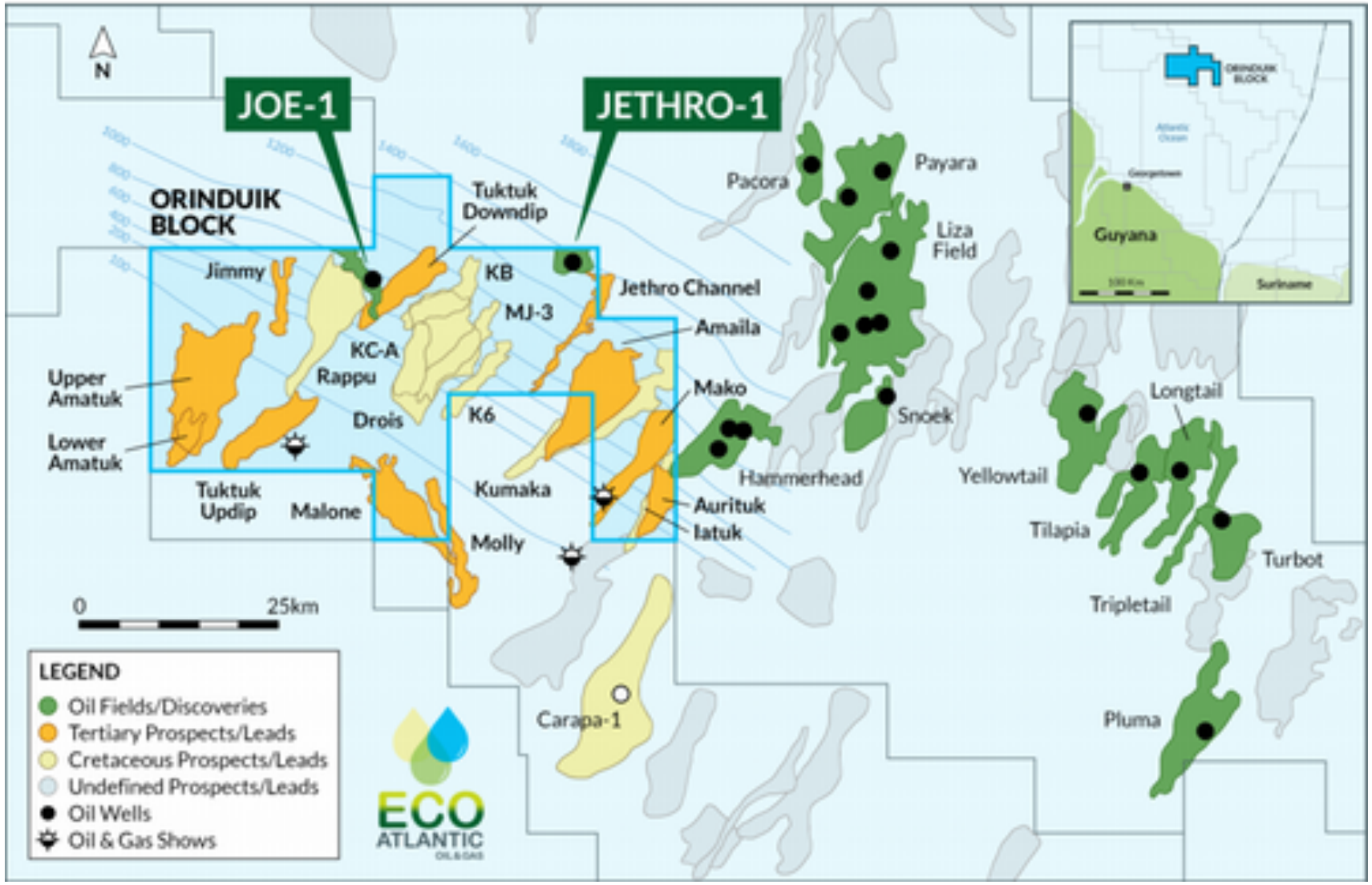


Global Hotspots – Noble and Eni in Egypt and Cyprus

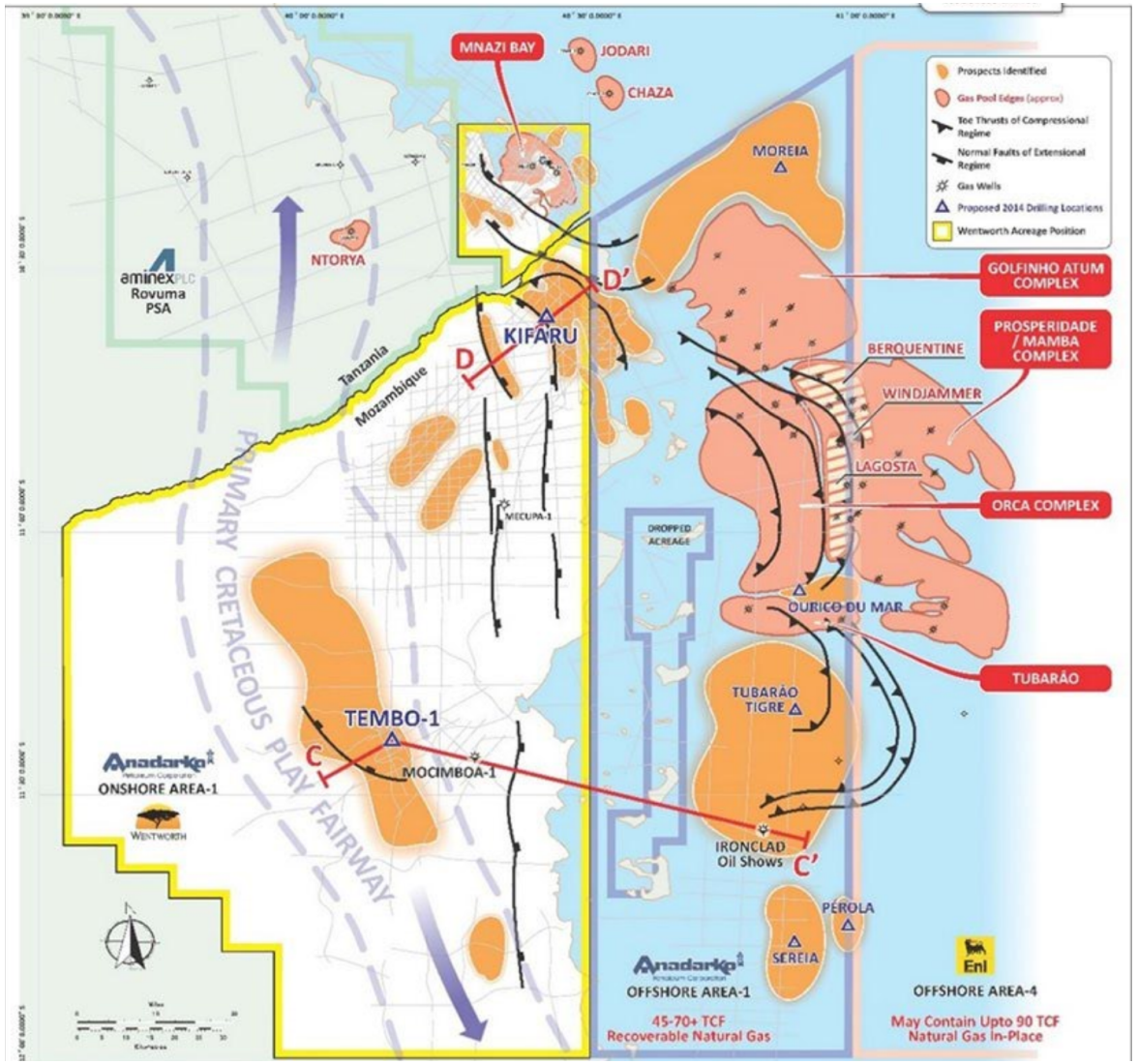


Global Hotspots – ExxonMobil and Tullow in Guyana

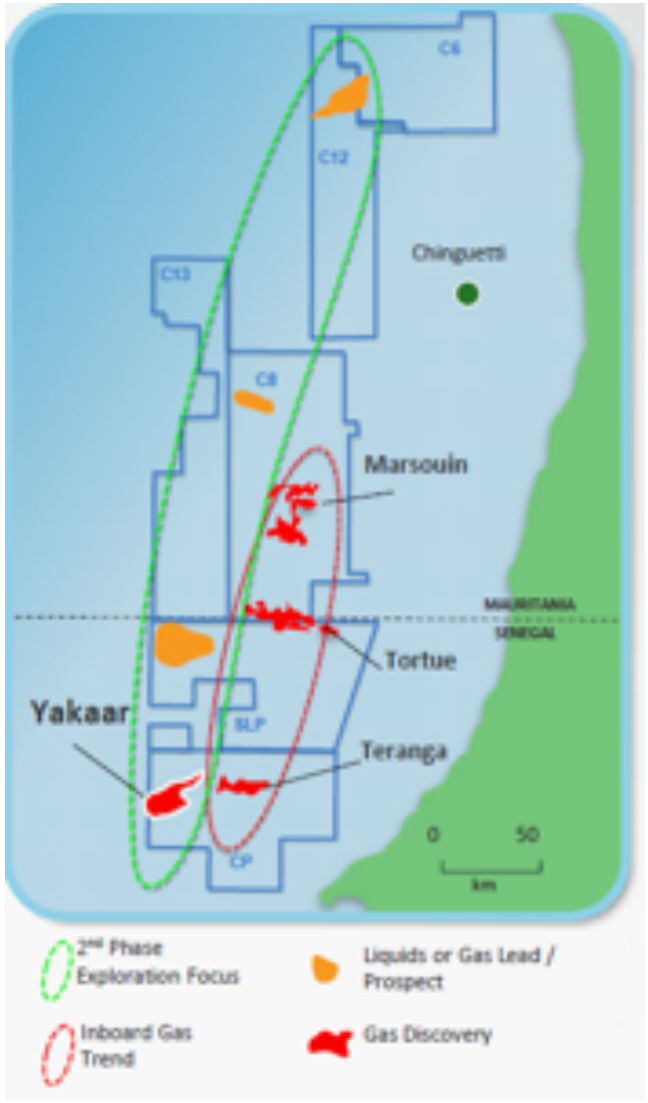
Offshore



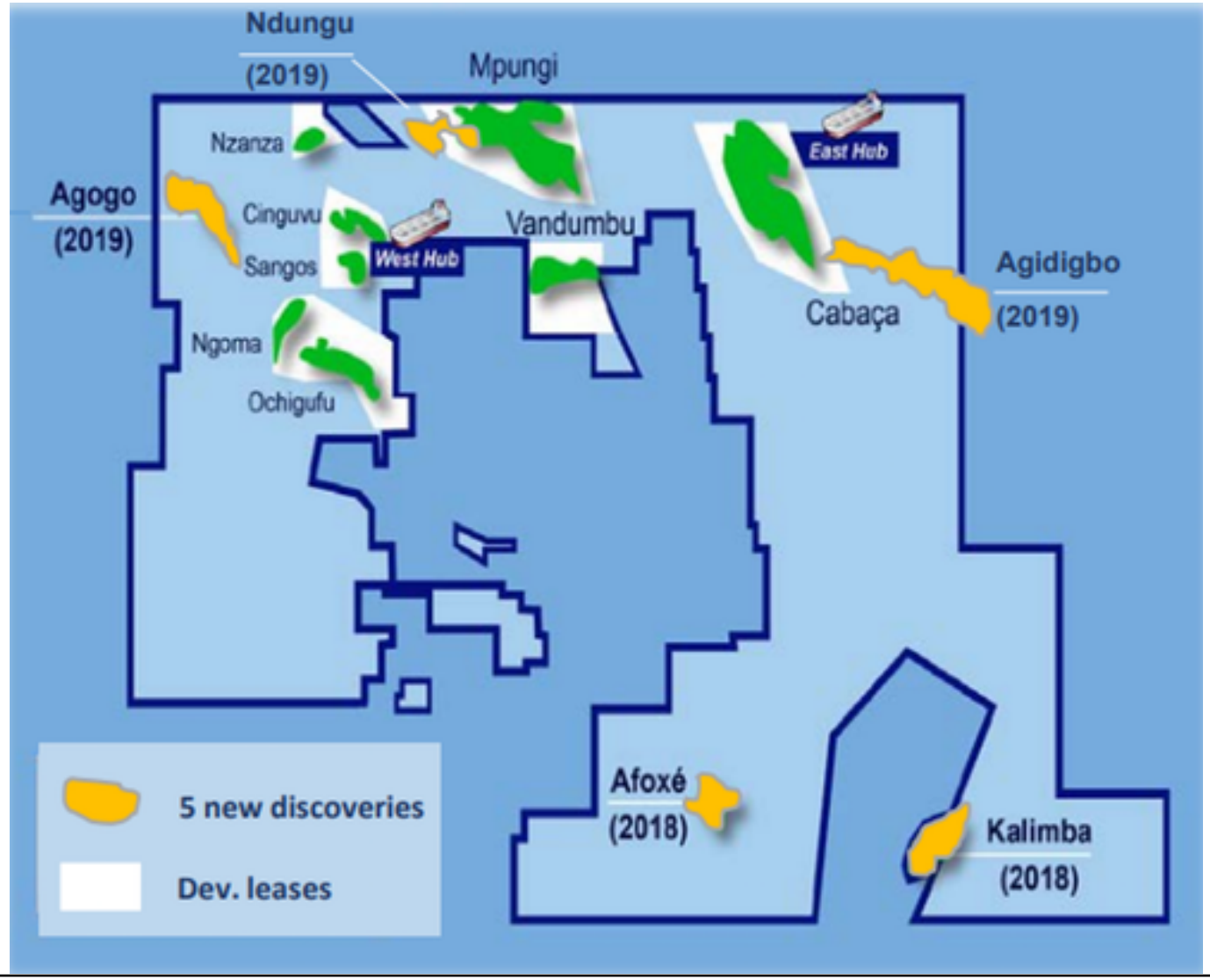
Global Hotspots – Anadarko (now Total) and Eni in Mozambique



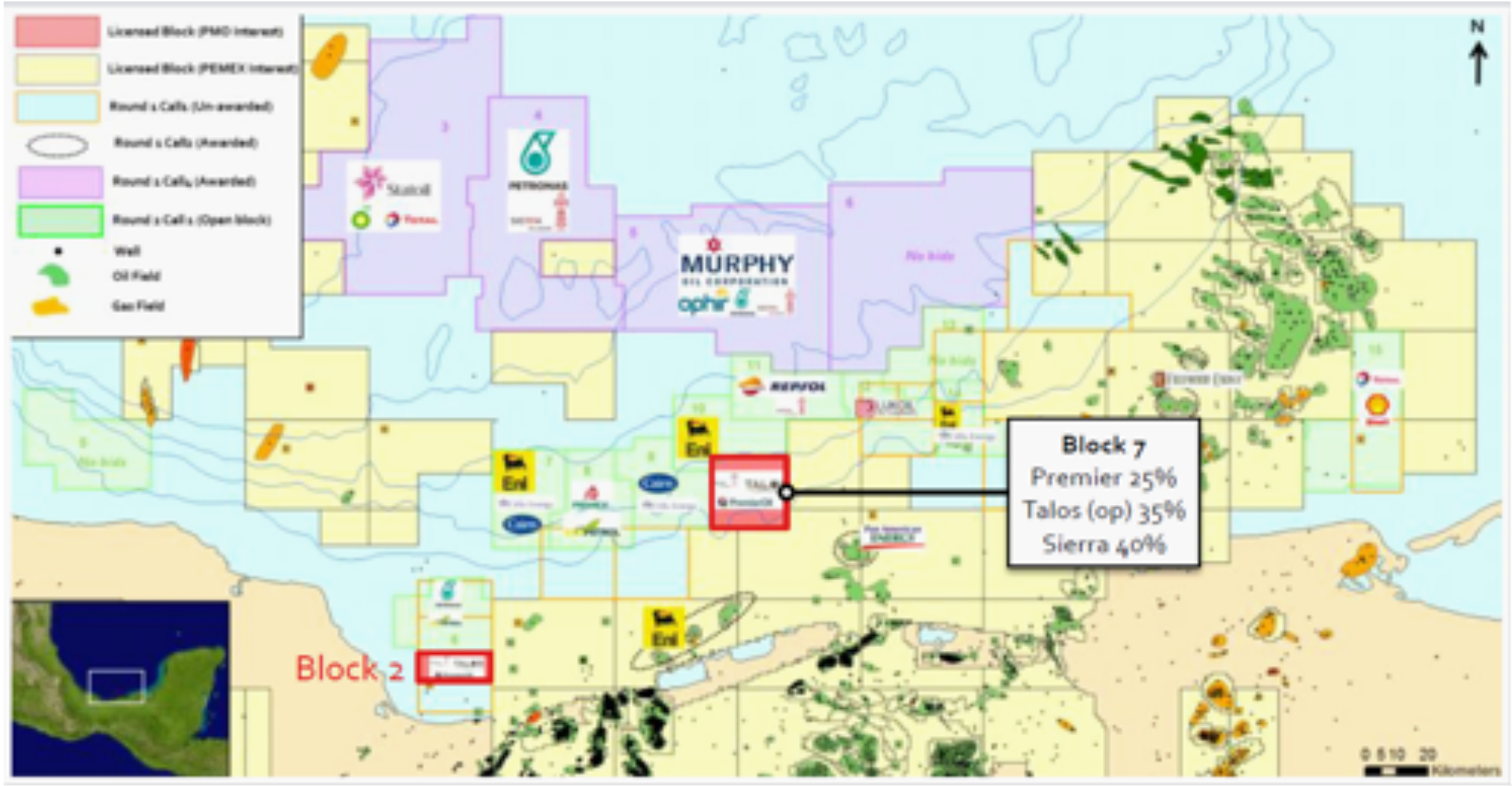
Global Hotspots – BP in Mauritania/Senegal



Global Hotspots – Eni in Angola



Global Hotspots – Pemex, Talos, Eni and BHP in Mexico



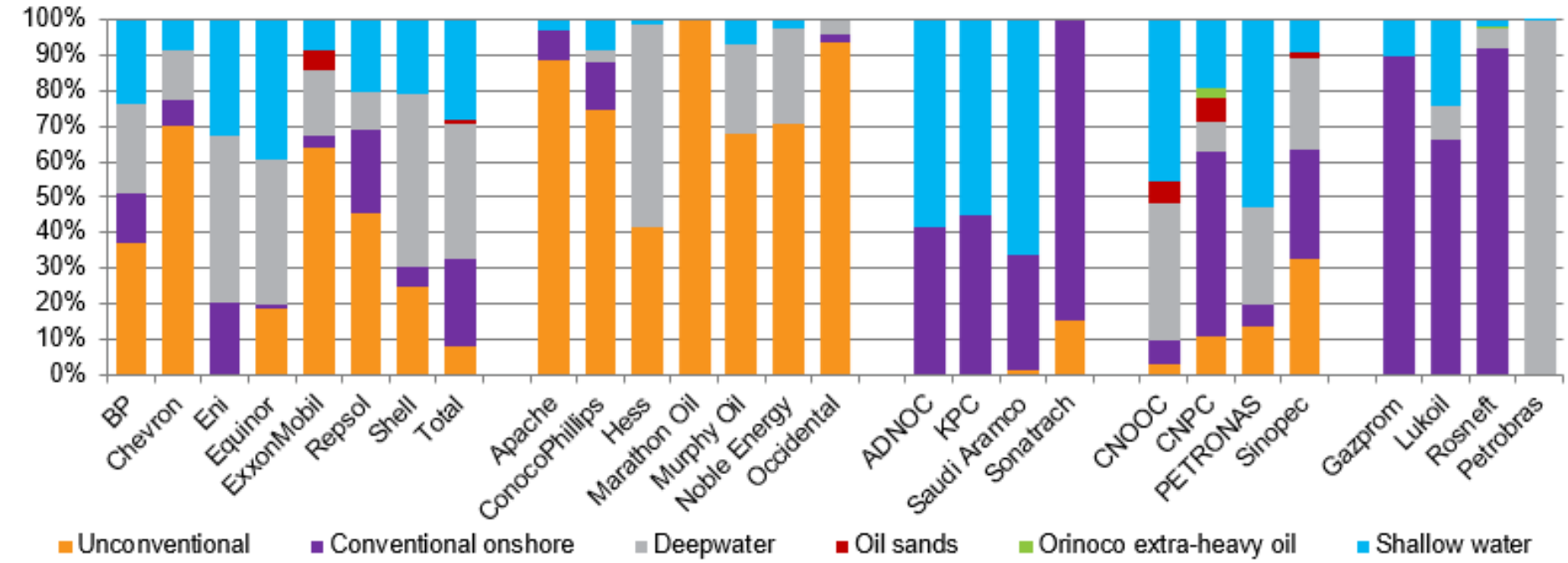
Global Participation – Portfolio Variability

IHS Markit

Company challenge

Companies strategies split ….
Big bets get placed but what happened to diversity

Share of Incremental New Source Volumes by Asset Type (2019-2028)



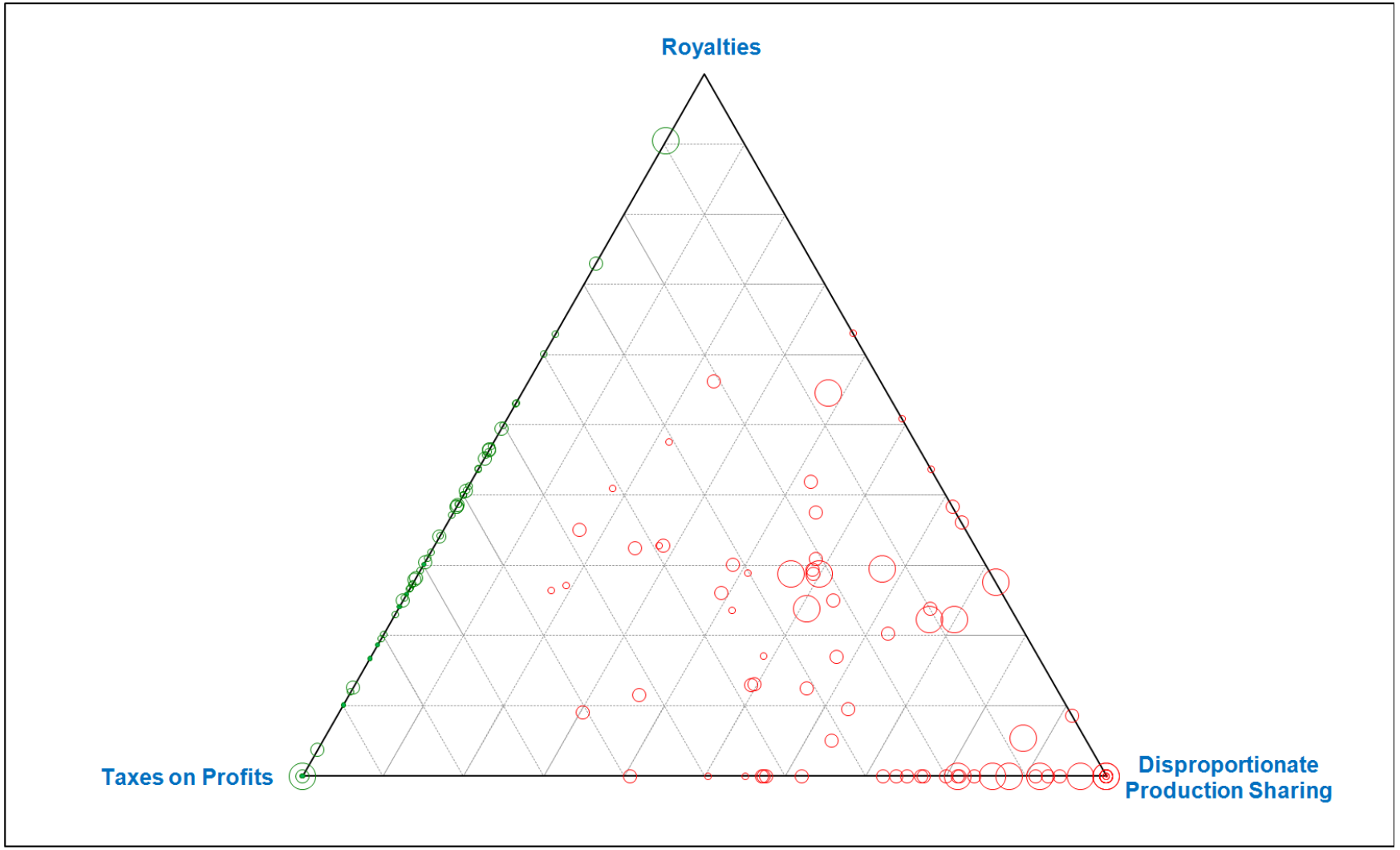
Source: IHS Markit

Notes: Production volumes considered in this analysis include sanctioned and unsanctioned new source incremental volumes. CNPC = China National Petroleum Corporation; CNOOC = China National Offshore Corporation; ADNOC = Abu Dhabi National Oil Co.; KPC = Kuwait Petroleum Corp.

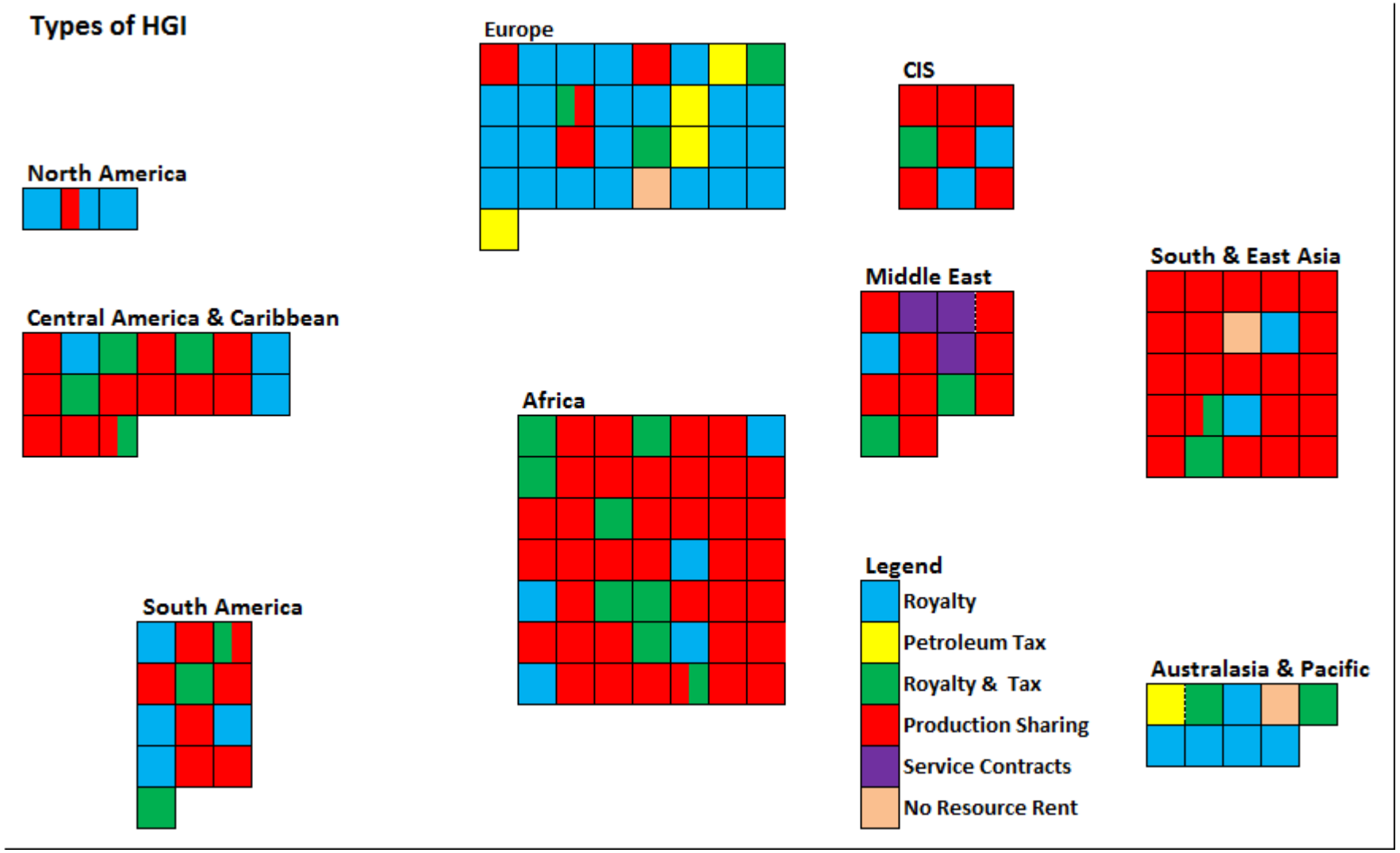
HGIs can be categorized by three mechanisms by which State extracts resource rent for the use of (and depletion of) its natural resources

- ***Royalties***
  - ***Levies based on gross sales revenues without regard to investments***
  - ***Includes severance and ad valorem taxes***
- ***Taxes***
  - ***Corporate Income Tax levied at a higher rate for petroleum activities***
  - ***Special Petroleum Taxes levied on profits, not sales revenues***
- ***Disproportionate Production Sharing***
  - ***State receives production share disproportionate to its contribution, if any, to costs***
- ***Convenient not to distinguish between resource rent component of taxes and "standard" taxes on business enterprises***
- ***Summarize as Host Country Take***
  - ***Cash Flow to State and State Entities / (Revenues – Costs)***

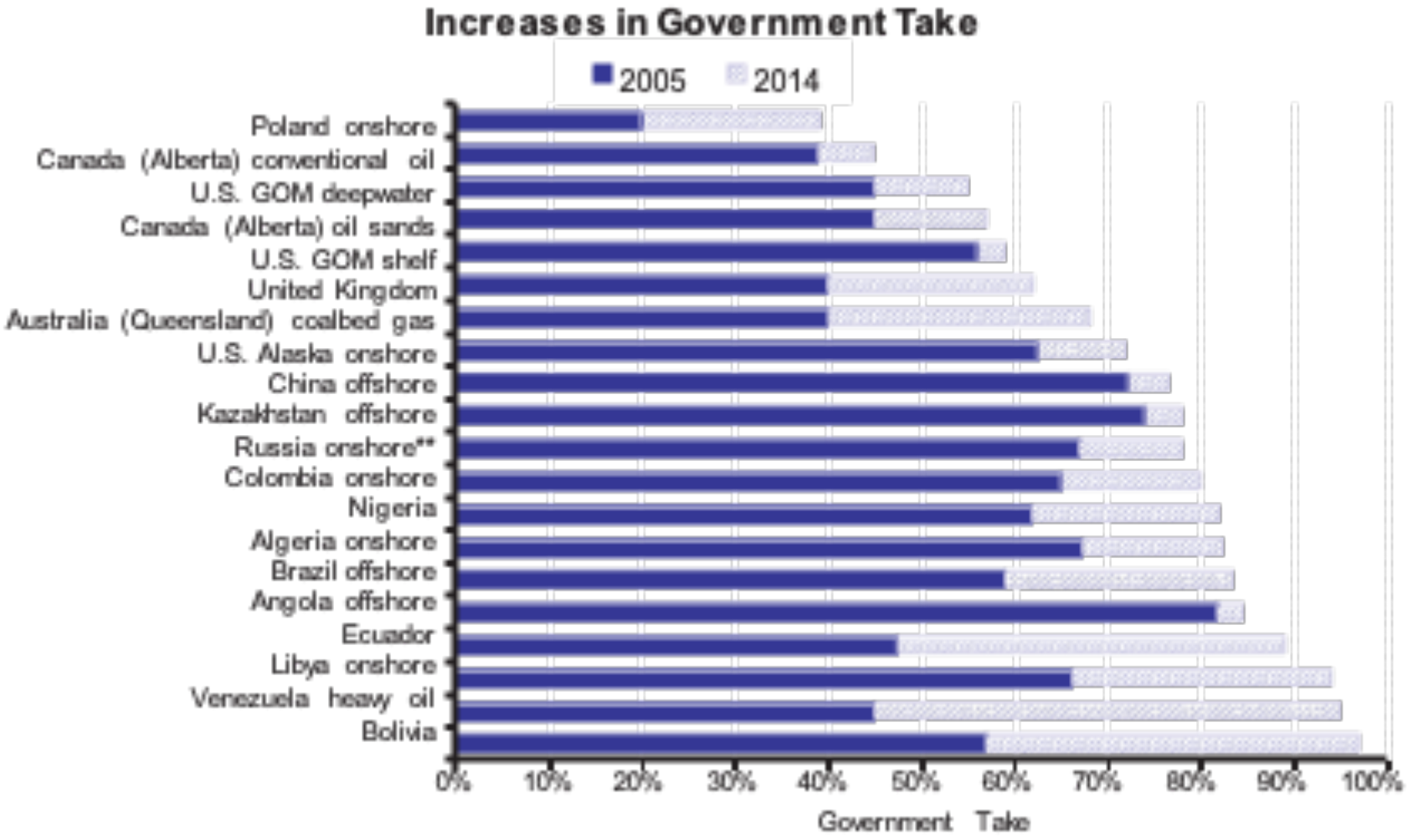
Ternary diagram showing the relative proportions of Royalties, Taxes and Production Sharing (Circles show relative size of take)



Resource rent extraction mechanisms by jurisdiction by region



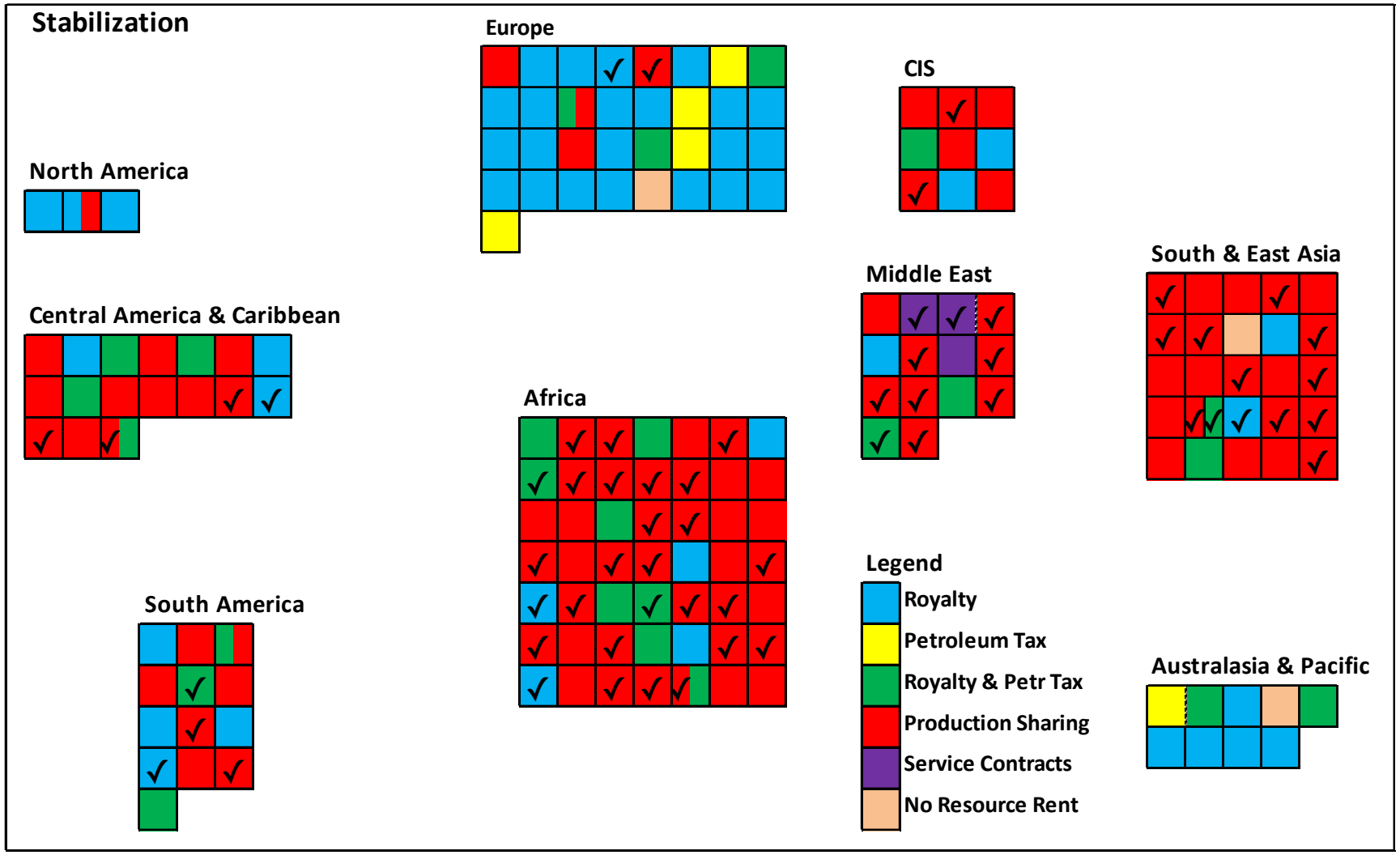
Seizing the Upside



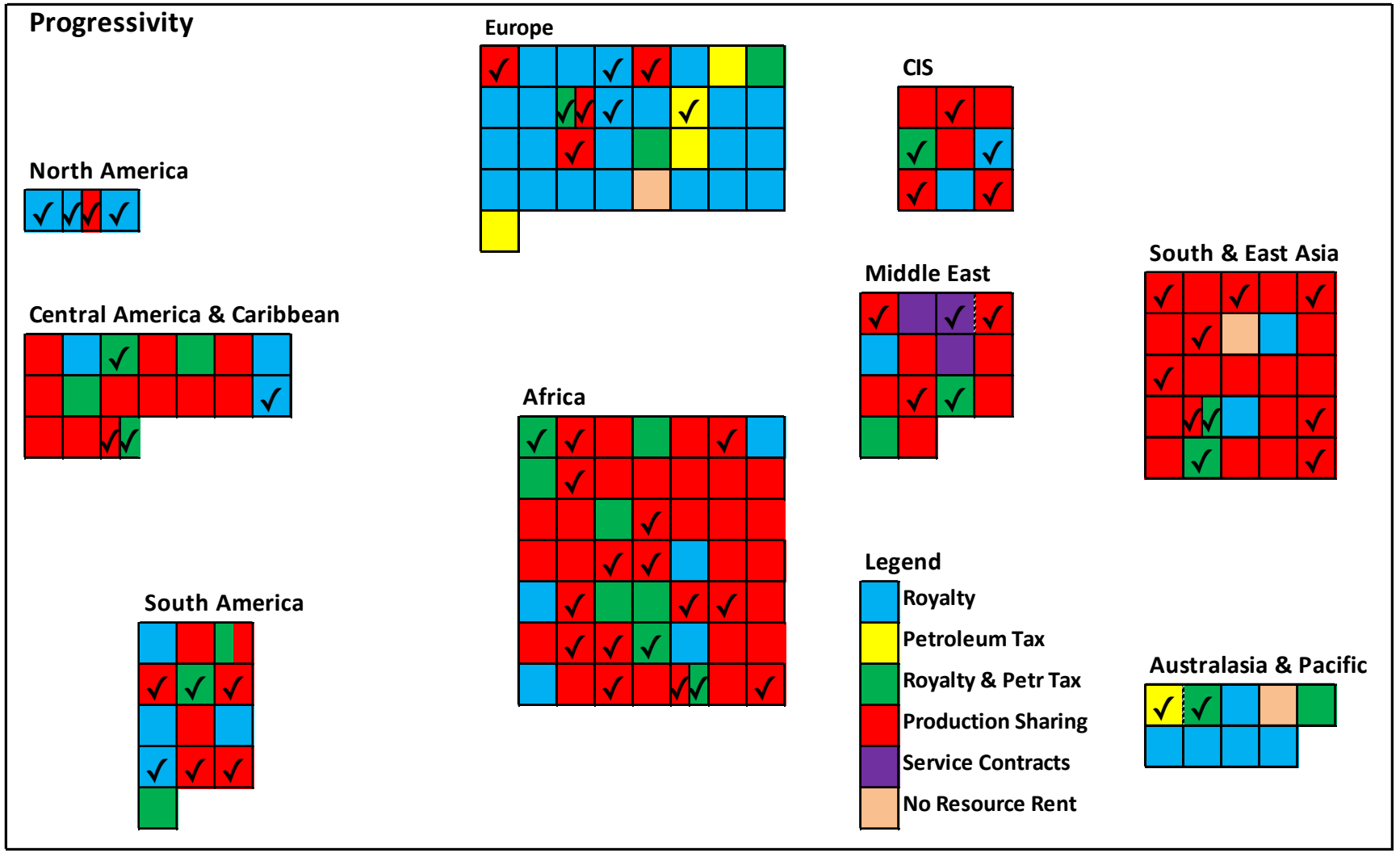
Stabilization

- ***Contractual stabilization raises serious legal issues and enforcement challenges, but three forms are in use with varying effectiveness***
  - ***Fixed terms, where the fiscal terms for the contract are fixed contractually or in law for the life of the contract***
  - ***"Tax paid", where the fiscal burden and therefore risk is transferred to the State/ NOC who discharges the IOC's liabilities on its behalf out of the State/NOC share of production***
  - ***Equilibrium clauses requiring renegotiation to re-establish "equilibrium" (whatever that means) when required (usually in response to tax increases)***
- ***Progressive fiscal terms provide that the royalty, tax or production sharing rates increase with increasing profitability or price***
  - ***Host country take is responsive to "windfalls" and the State less likely to attempt to change terms***
  - ***Should be appropriately responsive to maintaining profitability if prices drop***

Global incidence of some element of fiscal stabilization (some element present if checked)



Global incidence of some element of fiscal progressivity (some element present if checked)



Overview of Statistical Analysis of Host Government Instruments

- *Concentrate on Top 50 Oil Producers*
  - *Experience in development and production phase*
- *Not necessarily current or most recent practice*
  - *Pick vintage reflecting history of production*
  - *Partly subjective*

HGIs in the Top 50 Oil Producing Nations

Type	*Number*	*%*
Production Sharing Contracts	*28*	*51%*
Royalty/Tax Regimes	*23*	*42%*
Risk Service Contracts	*4*	*7%*
	55	*100%*
Total Contractual Systems (RSC, PSC or Royalty/Tax)	*45*	*82%*

Statistical Analysis of Stabilization Clauses

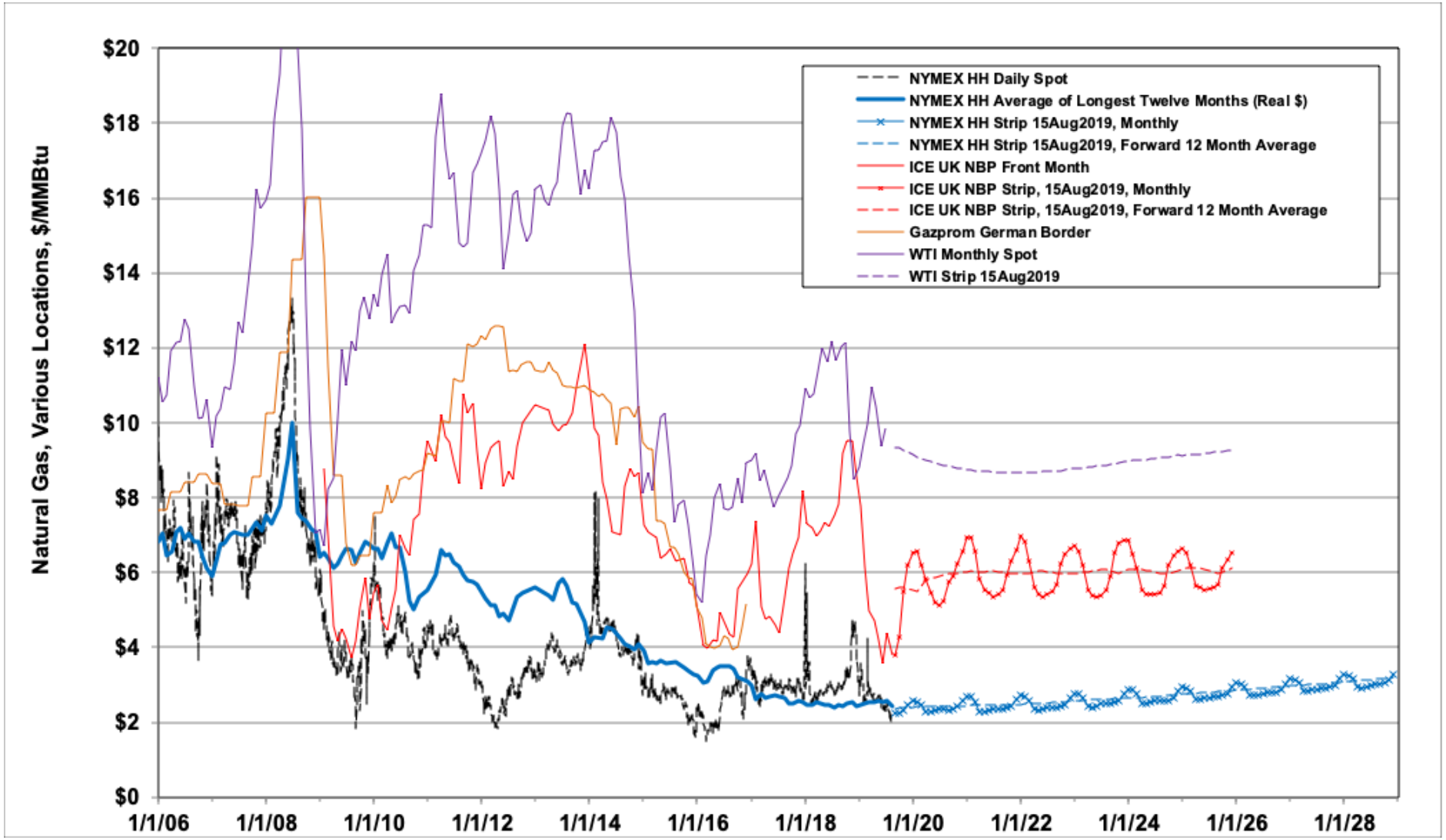
Number of Stabilization Provisions	*Number of Contracts*	*%*
No stabilization provisions	*12*	*27%*
One stabilization provision	*19*	*42%*
Multiple stabilization provisions	*12*	*27%*
Not inspected	*2*	*4%*

Frequency of Stabilization Provisions	*Number*	*%*
Freezing or intangibility	*11*	*22%*
Equilibrium – asymmetrical	*11*	*22%*
Equilibrium – symmetrical	*10*	*20%*
Tax paid	*13*	*27%*
Force of Law	*4*	*8%*

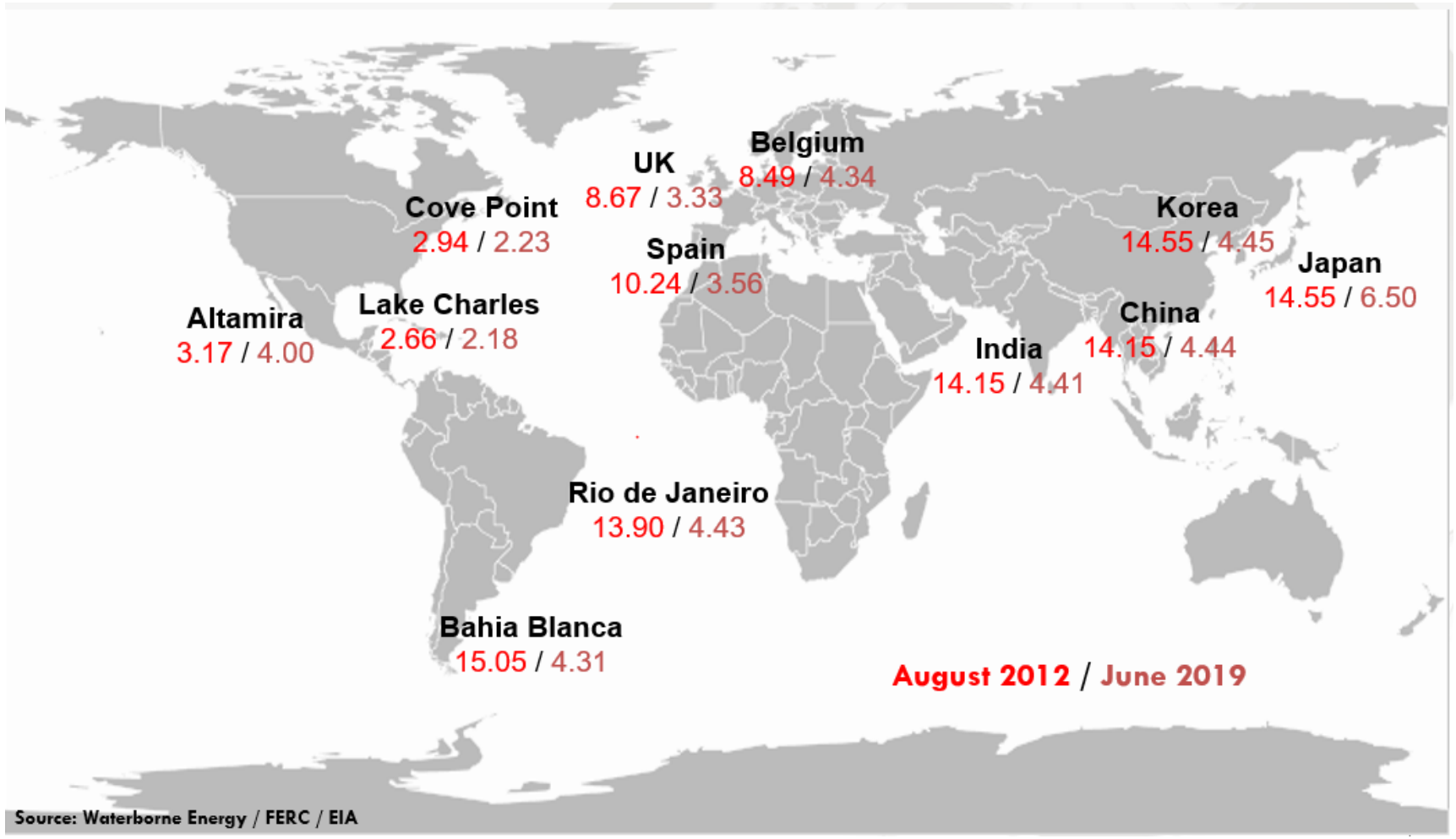
Hot Topics – Natural Gas Economics

- *Global LNG contracts moving away from long term single destination indexed to competing fuels*
- *Significant US export volumes anticipated priced at Henry Hub plus liquefaction plus transportation*
- *Asian long-term contracts inconsistent with likely future market pricing*
  - *Some experts predict significant disputes over price re-openers*
  - *Surprisingly few Asian long-term contracts in public domain*
- *Gas market development and pricing still in infancy outside major supply/demand hubs*

Natural Gas Prices



Global Landed LNG Price $/MMBtu (2012 vs 2019)



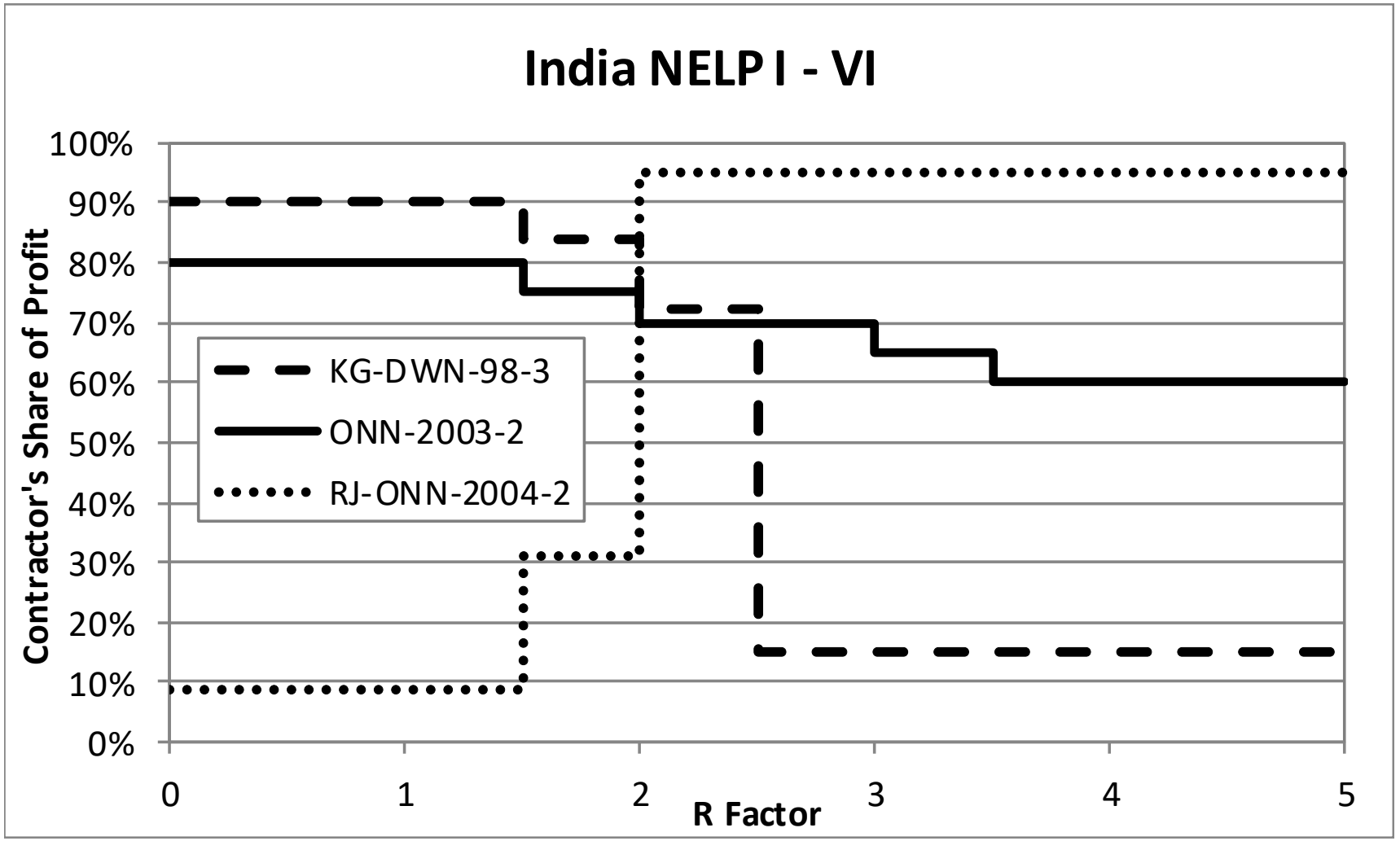
Statistical Analysis of Natural Gas Terms

Natural Gas Terms where contemplated in HGI	*Number of HGIs*	*%*
Terms included – same as liquids	*15*	*30%*
Terms included – different from liquids	*25*	*50%*
Terms to be determined at a later date	*10*	*20%*

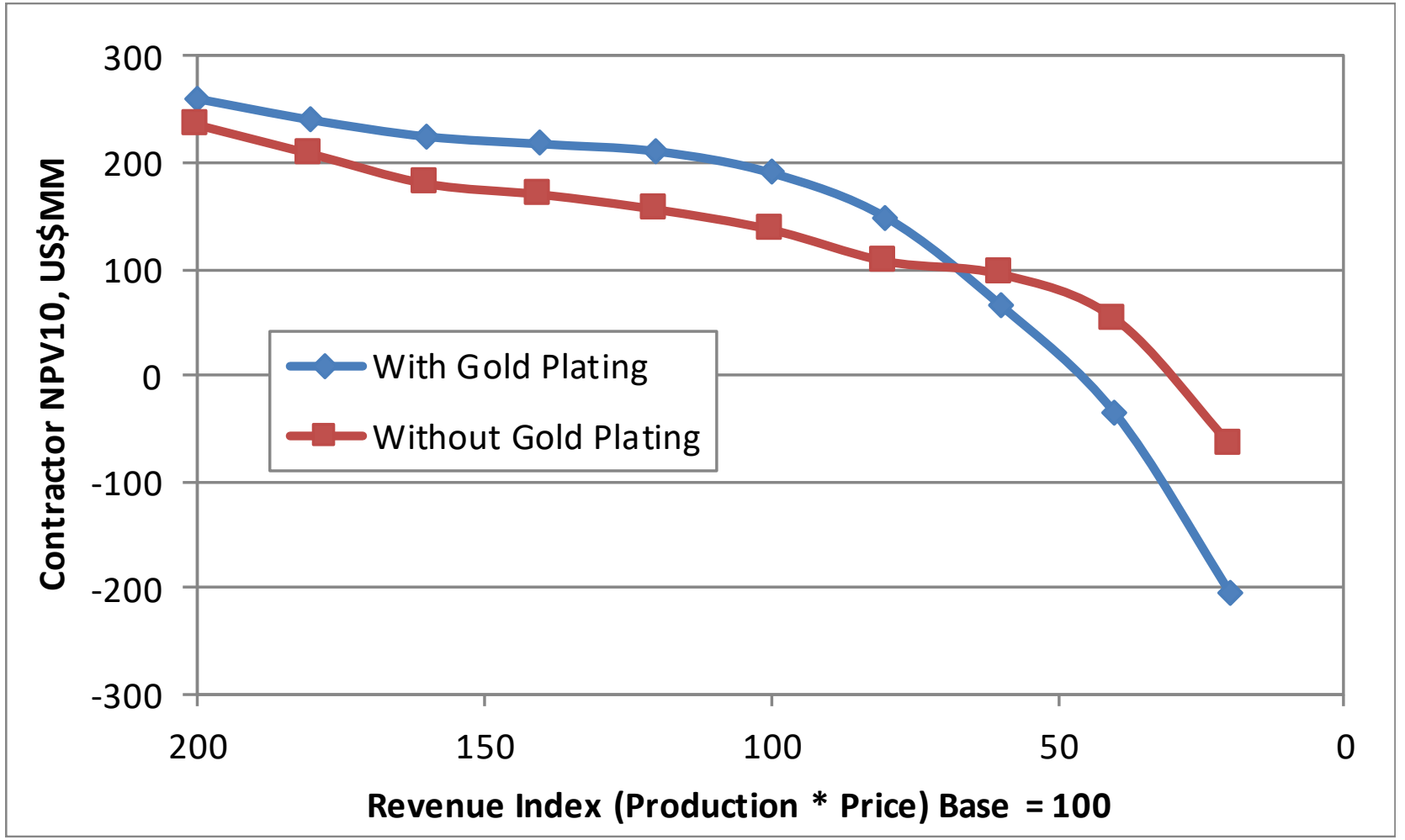
Hot Topics – Gold Plating and Gross Revenue PSCs

- ***Progressive production sharing systems using R Factors and ROR generally implemented using stair steps rather than continuous functions***
- ***Critics argue contractors can manipulate development and operating costs (or production rates) to enhance contractor share of profit***
- ***Criticism extends more generally (but less obviously) to all PSCs with cost recovery***
- ***India and Indonesia have moved to gross revenue production sharing***
- ***In a tax/royalty setting this would be the equivalent of eliminating all capital allowances and deductions for expenses (effectively, royalty at the combined royalty and tax rate)***

R Factor Profiles – Examples from India



Performance Risk – Disincentive to Gold Plate



Hot Topics – Gold Plating and Gross Revenue PSCs

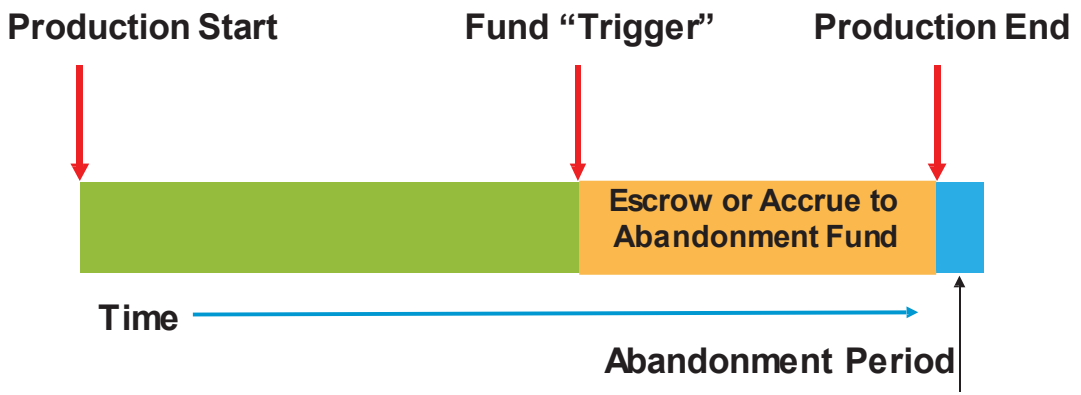
- ***Reminder – costs are not free; incremental cost recovery reduces profit***
- ***Opportunistic manipulation does not occur if profitability measure is insensitive to operating costs***
- ***Strategic manipulation at sanction is unlikely (too risky)***
- ***Opportunity to manipulate diminished with continuous functions rather than sudden major changes***

Hot Topics – Foreign Decommissioning Costs

- ***Any decommissioning costs incurred by a contractor should fall within the definition of petroleum costs and should be cost-recoverable and/or tax-deductible***
- ***Problem at end of economic life – no (or not enough) revenues to allow for cost recovery or tax deductions (ring fencing is very common)***
- ***Requires proactive method to accrue for costs through life of field***

Accounting for Decommissioning

- ***If the contractor has a decommissioning obligation, it is a liability that is typically provided for in Profit & Loss Statement and recorded on the Balance Sheet***
- ***Problem solved by making provisions cost recoverable and/or tax deductible***
  - ***May or may not require actual cash deposits to an escrow account***
  - ***Start date and provision calculation may vary***

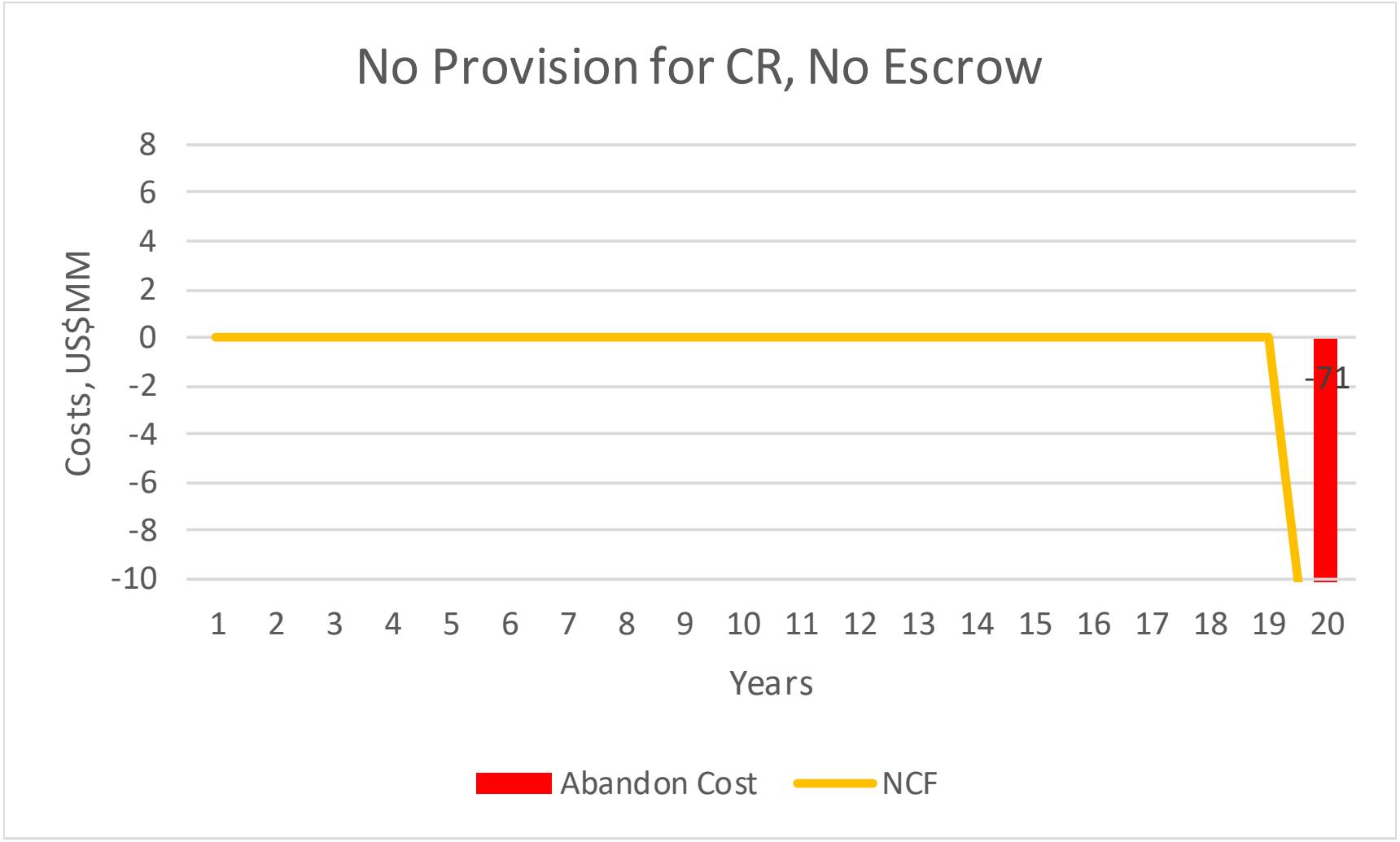


Statistical Analysis of Decommissioning Clauses

	Number of HGIs	*%*
No discussion	*13*	*30%*
Discussed but no financial provision allowed or required	*10*	*23%*
Cost-recoverable and/or tax-deductible provision	*20*	*47%*
Of which, current cost, unit of production	*9*	*21%*
Of which, calculation different or not prescribed	*11*	*26%*
Of which, funding into escrow required	*17*	*40%*
Of which, parent guarantee or insurance alternatives	*3*	*7%*

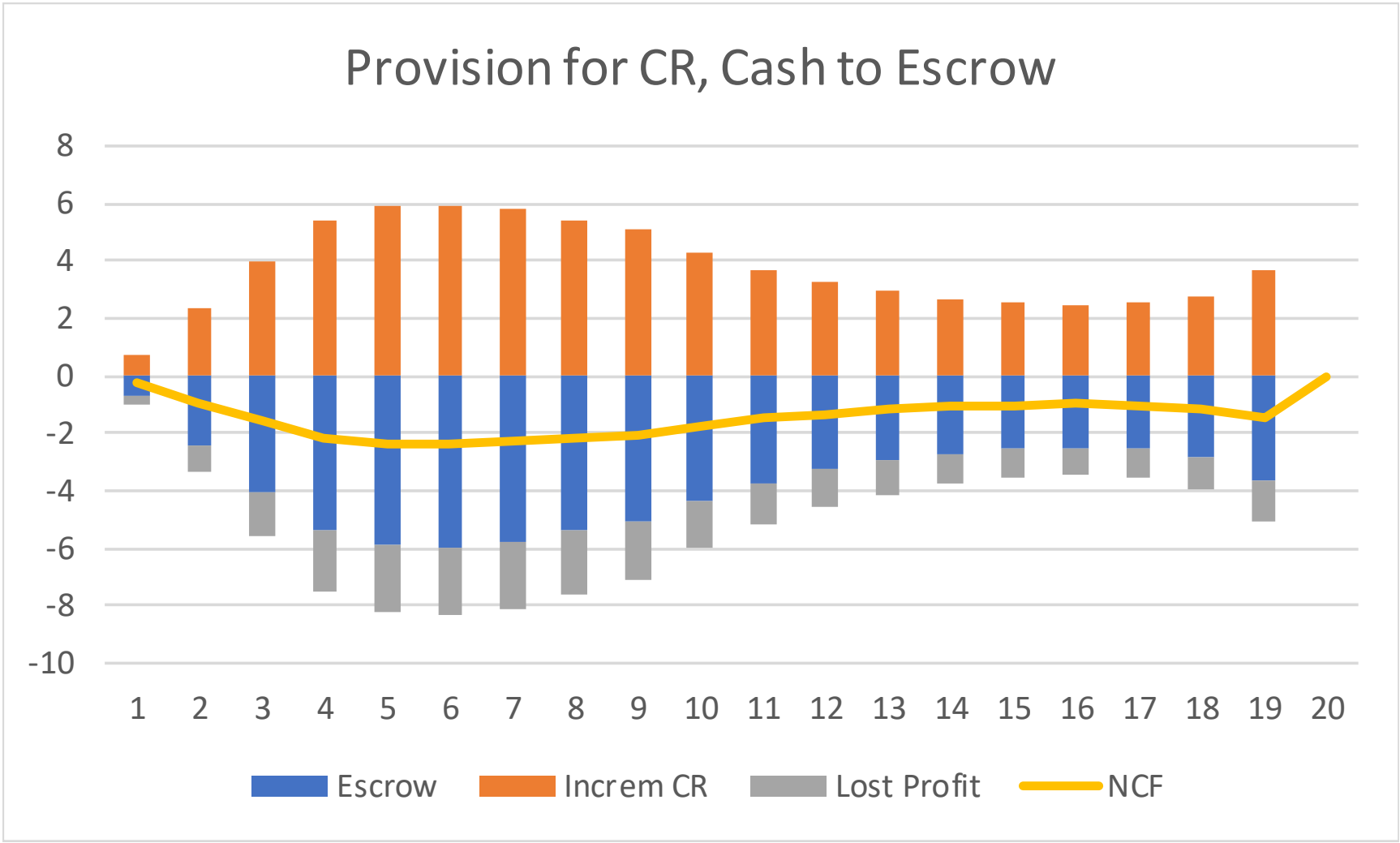
Money of the day Cash Flow impact of decommissioning

No fiscal provisions; $50MM current cost inflated to $71MM in year 20 (at 2% pa)



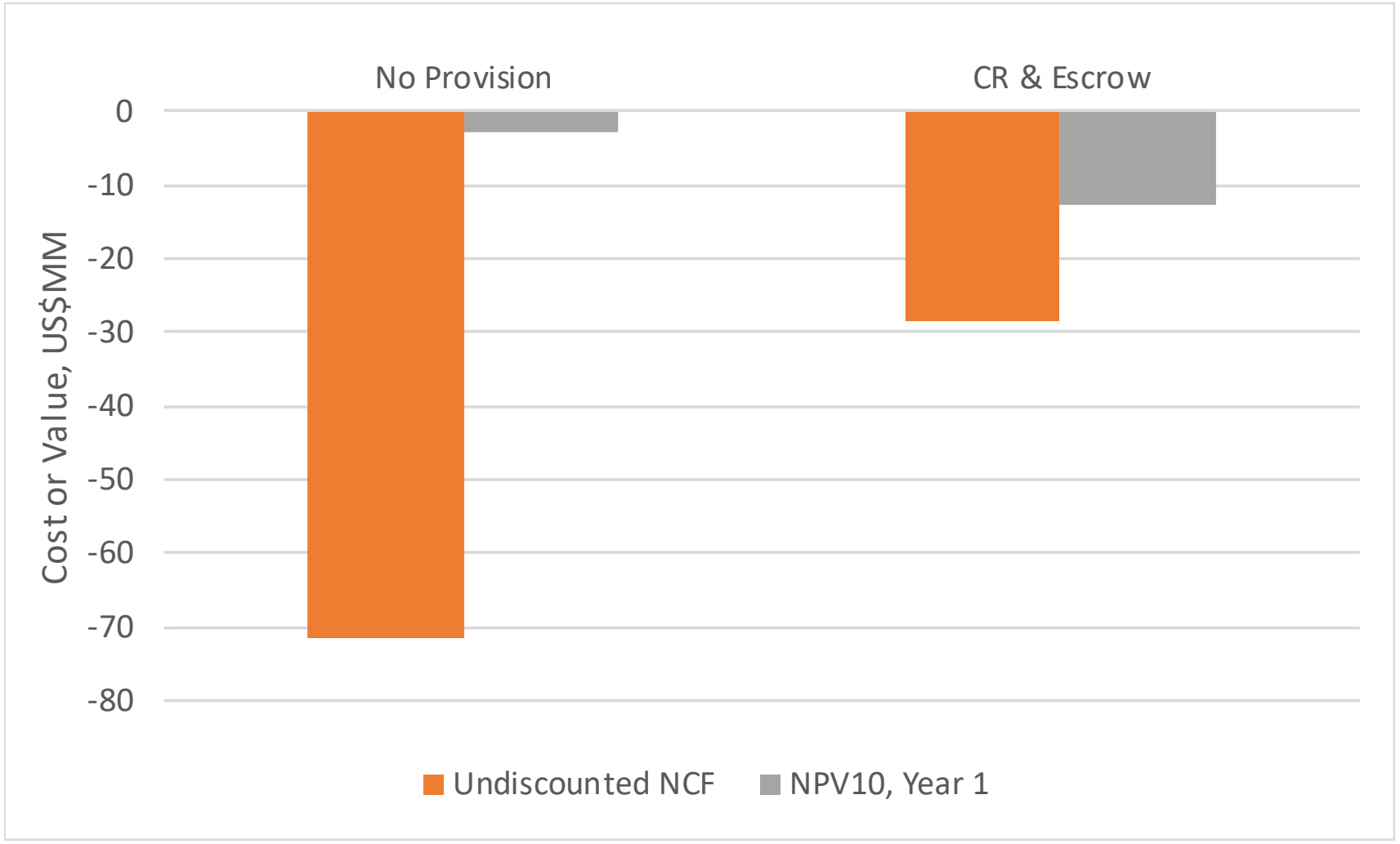
Cash Flow impact of decommissioning

Cost-recoverable current cost UOP provision into escrow fund; 40% contractor profit share after tax



Cash Flow impact of decommissioning

With and without fiscal treatment



Issues with retroactive fiscal treatment of Decommissioning Costs

- *Most jurisdictions have limits on carry back of losses for tax purposes*
- *Cost recovery accounts for prior years need to be re-opened*
- *Tax calculations for prior years need to be re-opened*
- *Accounting for time value of money and/or interest may be controversial*

The transition to a lower-carbon fuel mix continues, led by renewables and natural gas