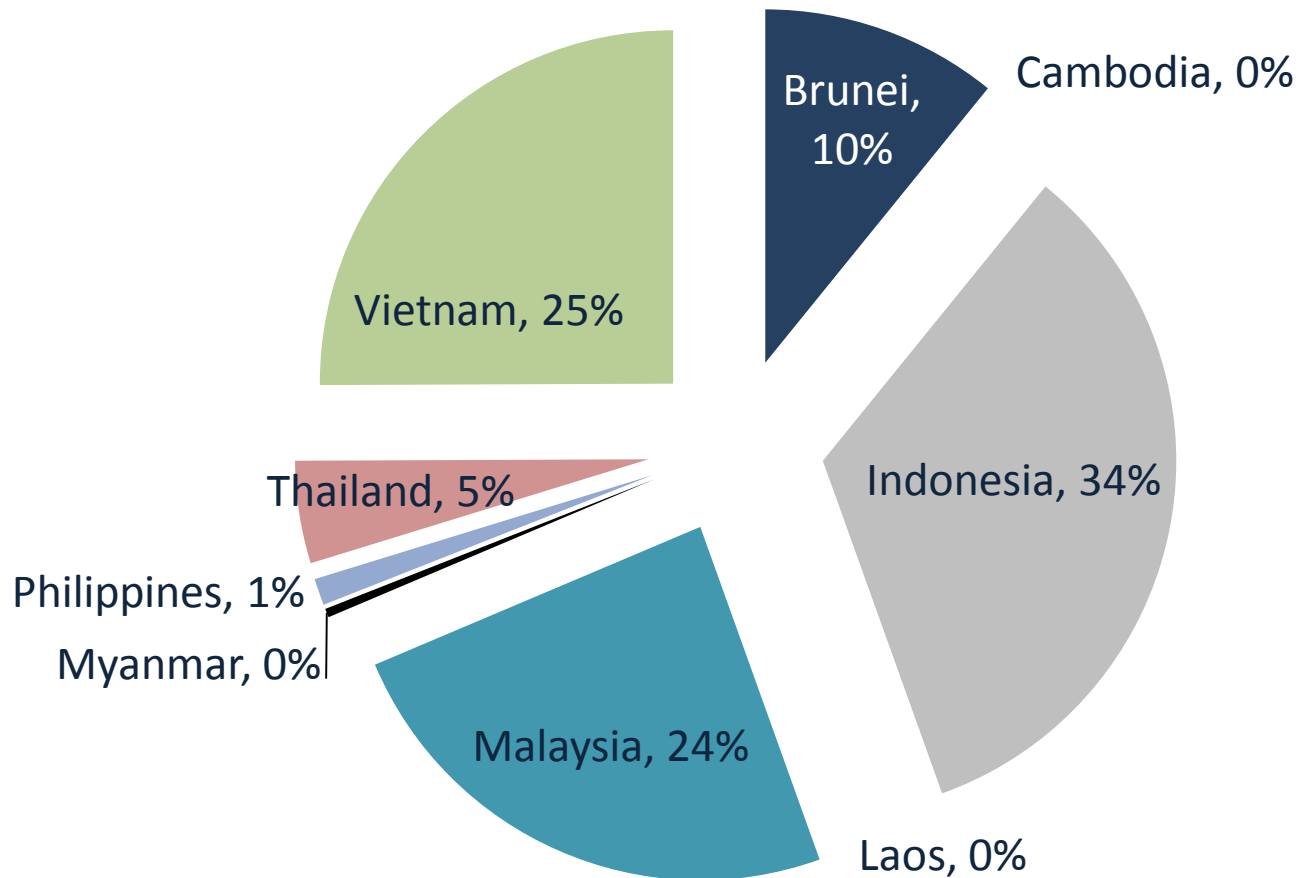
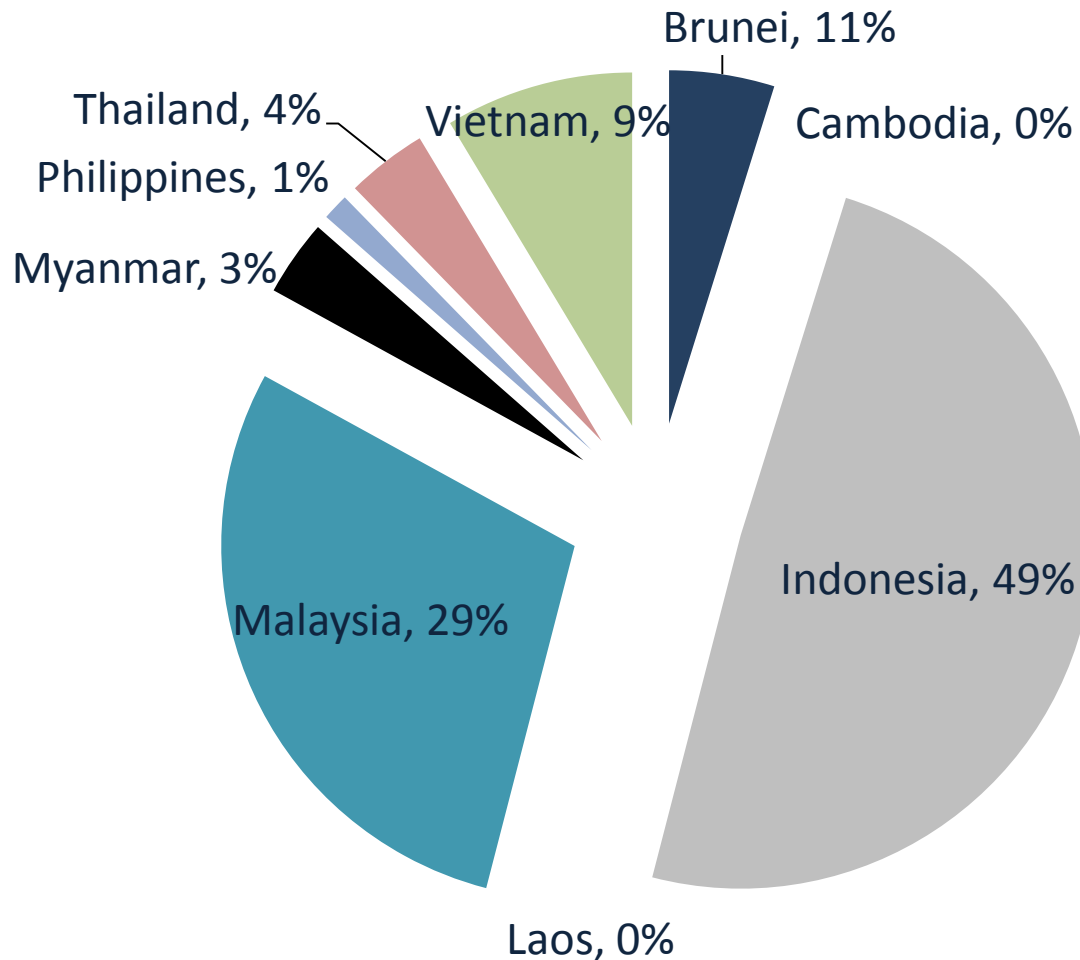


Will the trend of FDI into Oil & Gas in Indonesia change given the global economic uncertainty Indonesia's changing regulations?

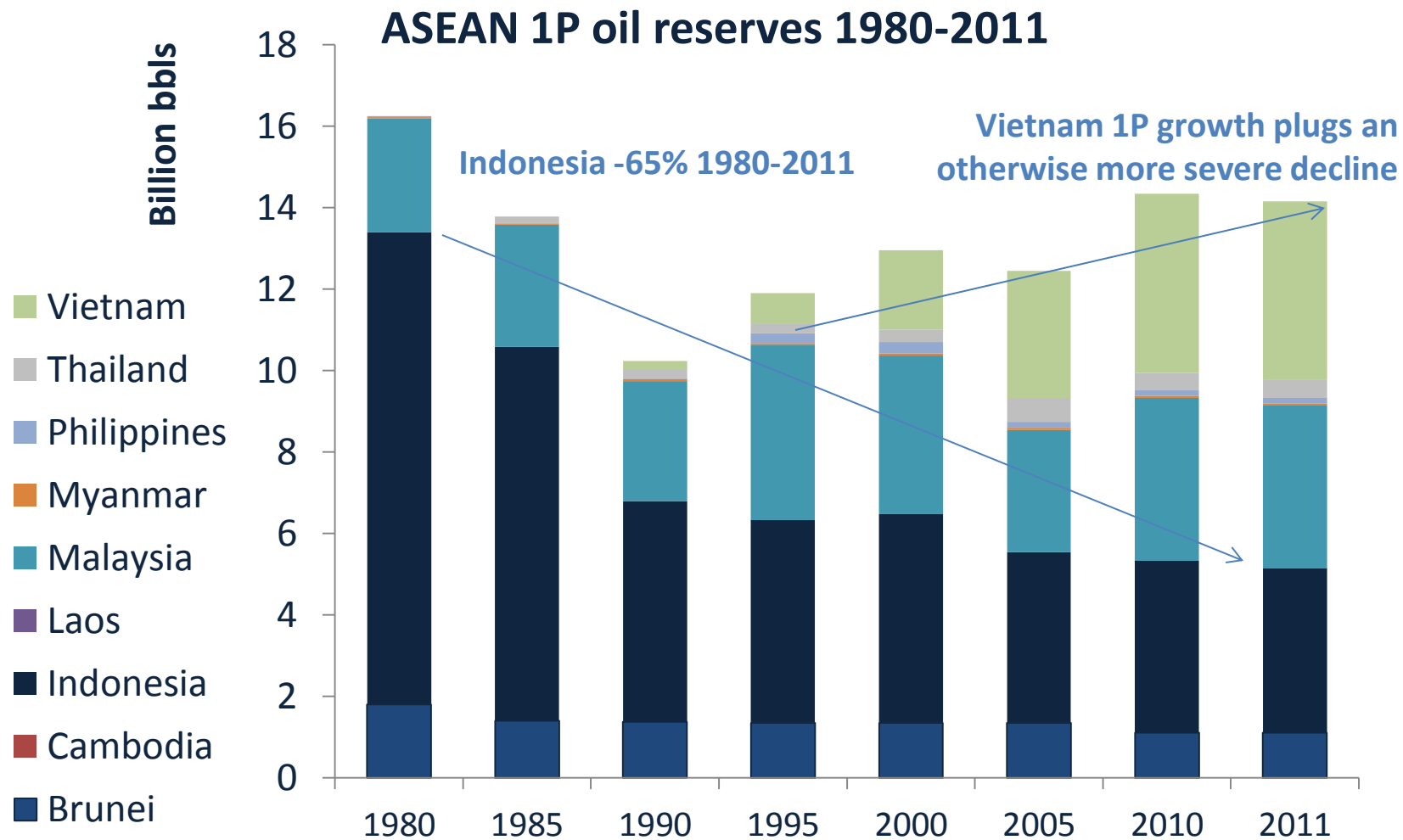
# Indonesia has significant share of ASEAN's oil reserves, but declining



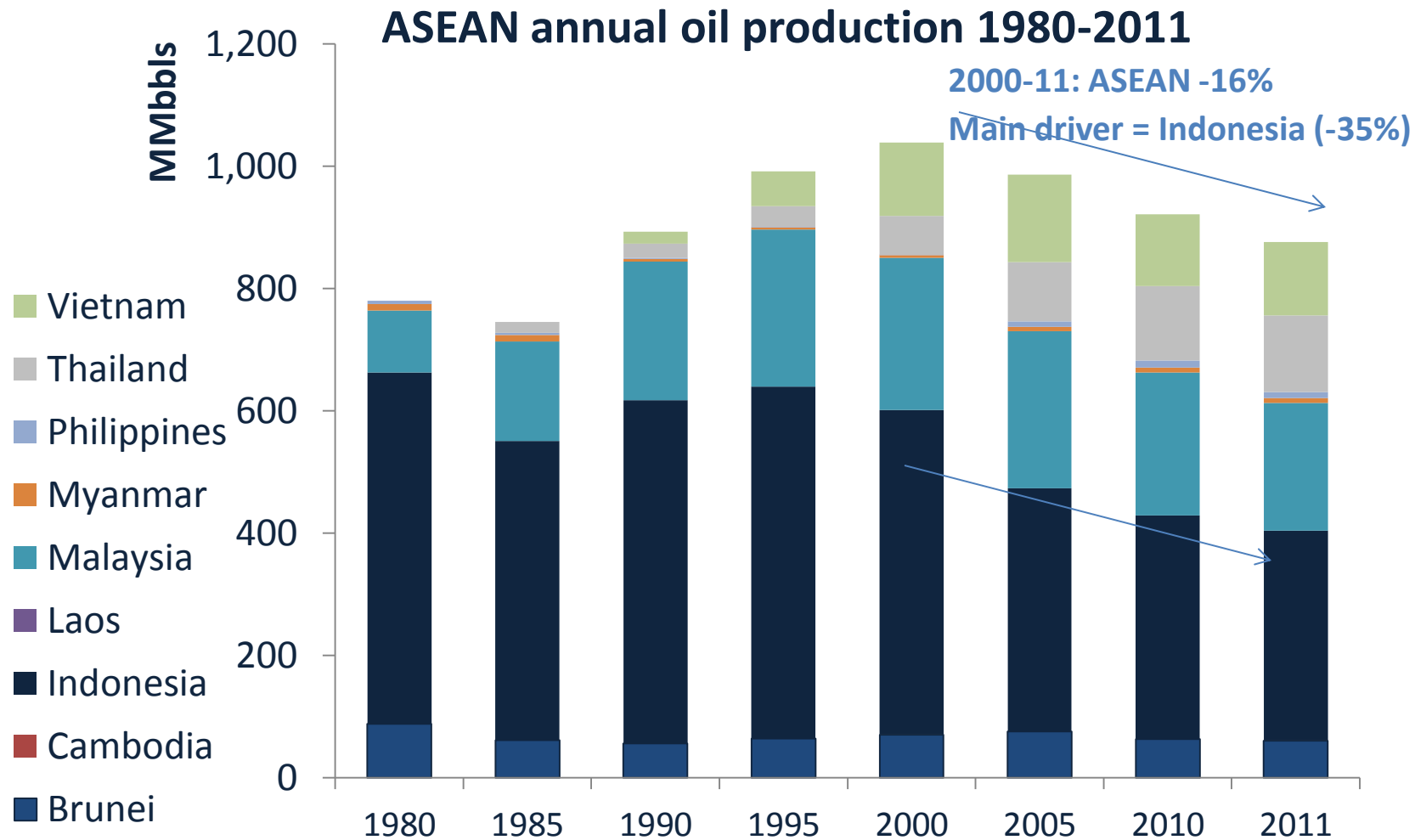
# Indonesia has significant share of ASEAN's gas reserves – slight growth



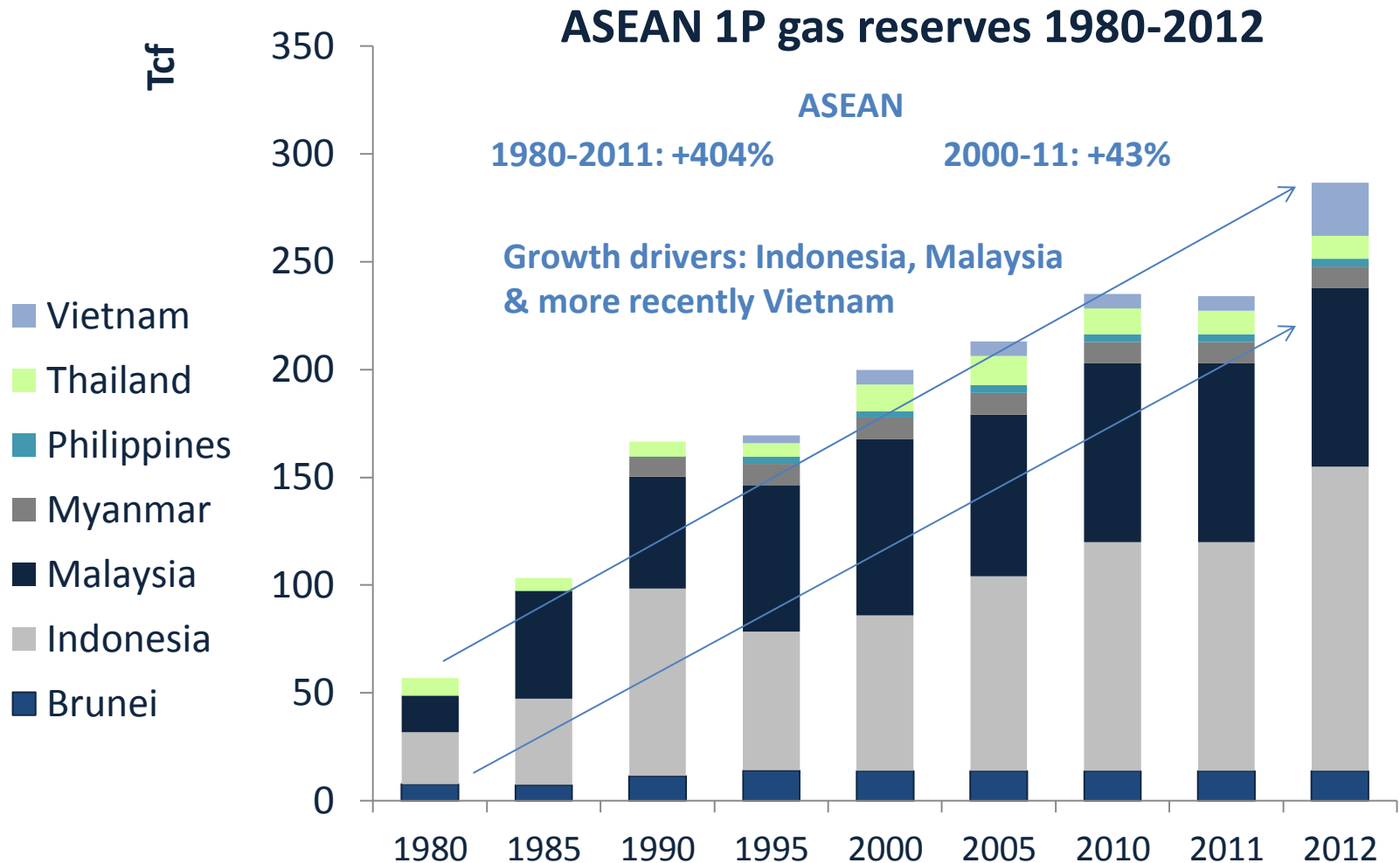
# ASEAN 1P Oil Reserves are in decline, driven by Indonesia



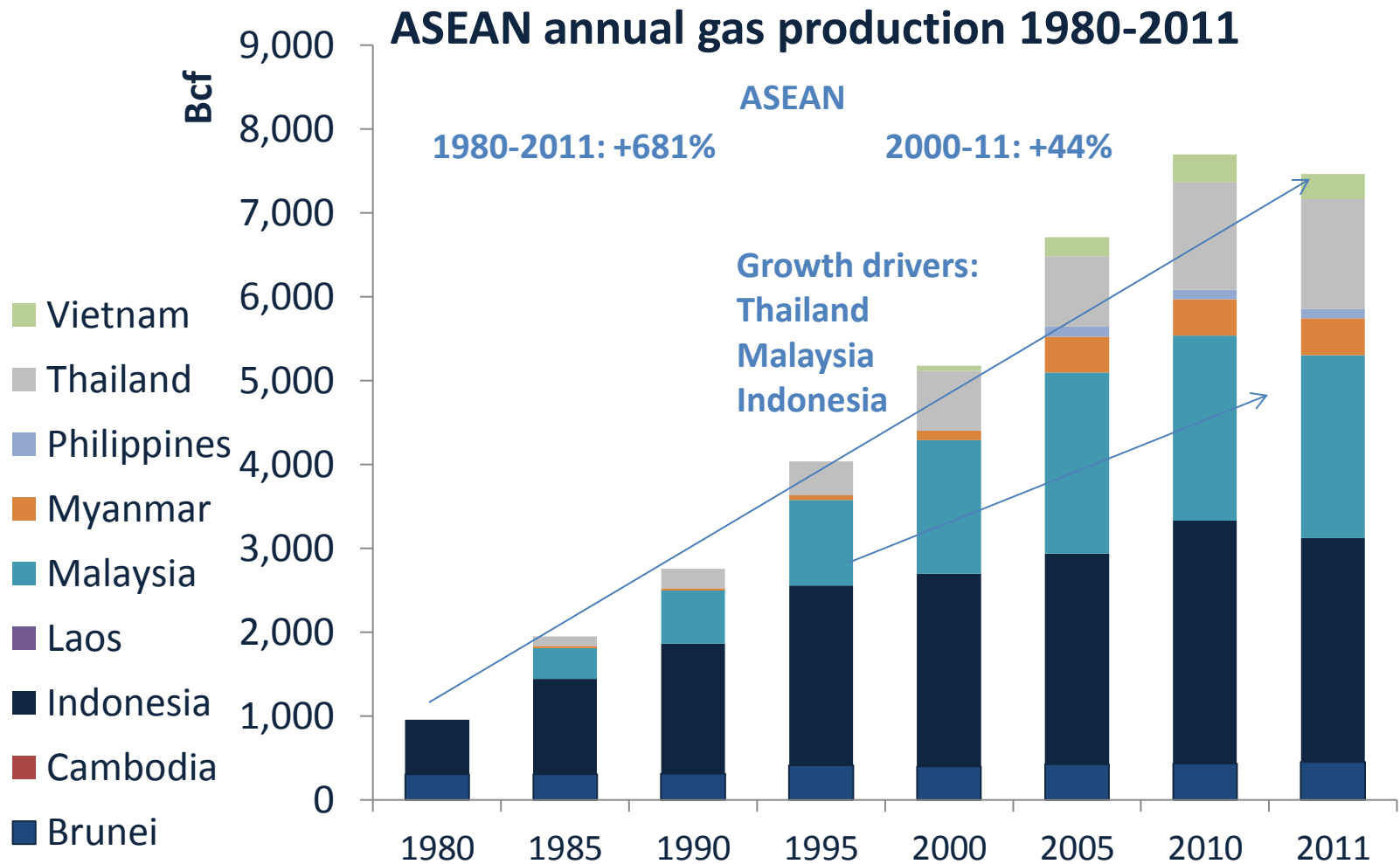
# ASEAN Oil Production has been in decline since 2000, driven by Indonesia



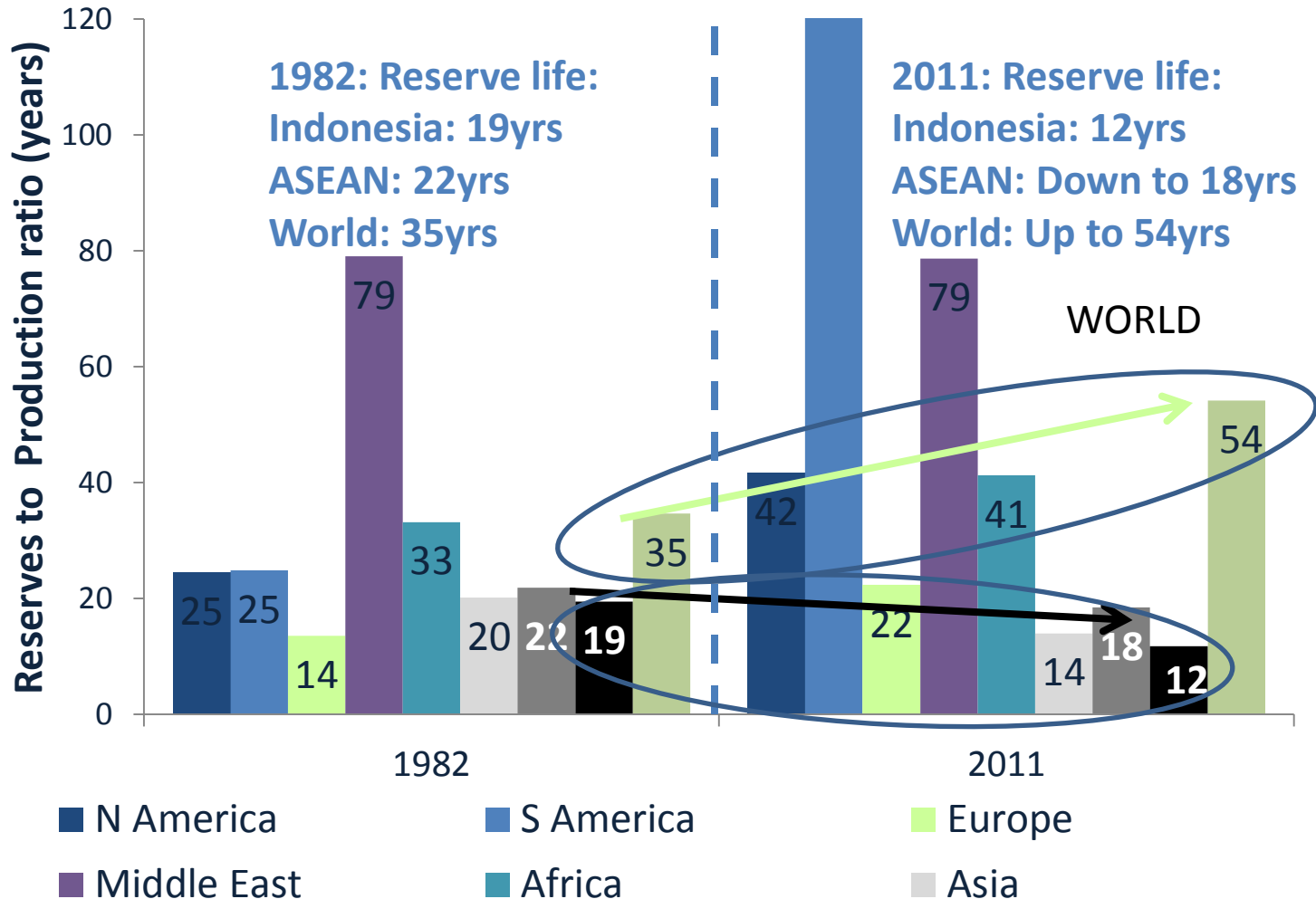
# In contrast, ASEAN Gas Reserves carry on growing, driven by Indonesia



# Similarly, ASEAN Gas Production has risen multifold

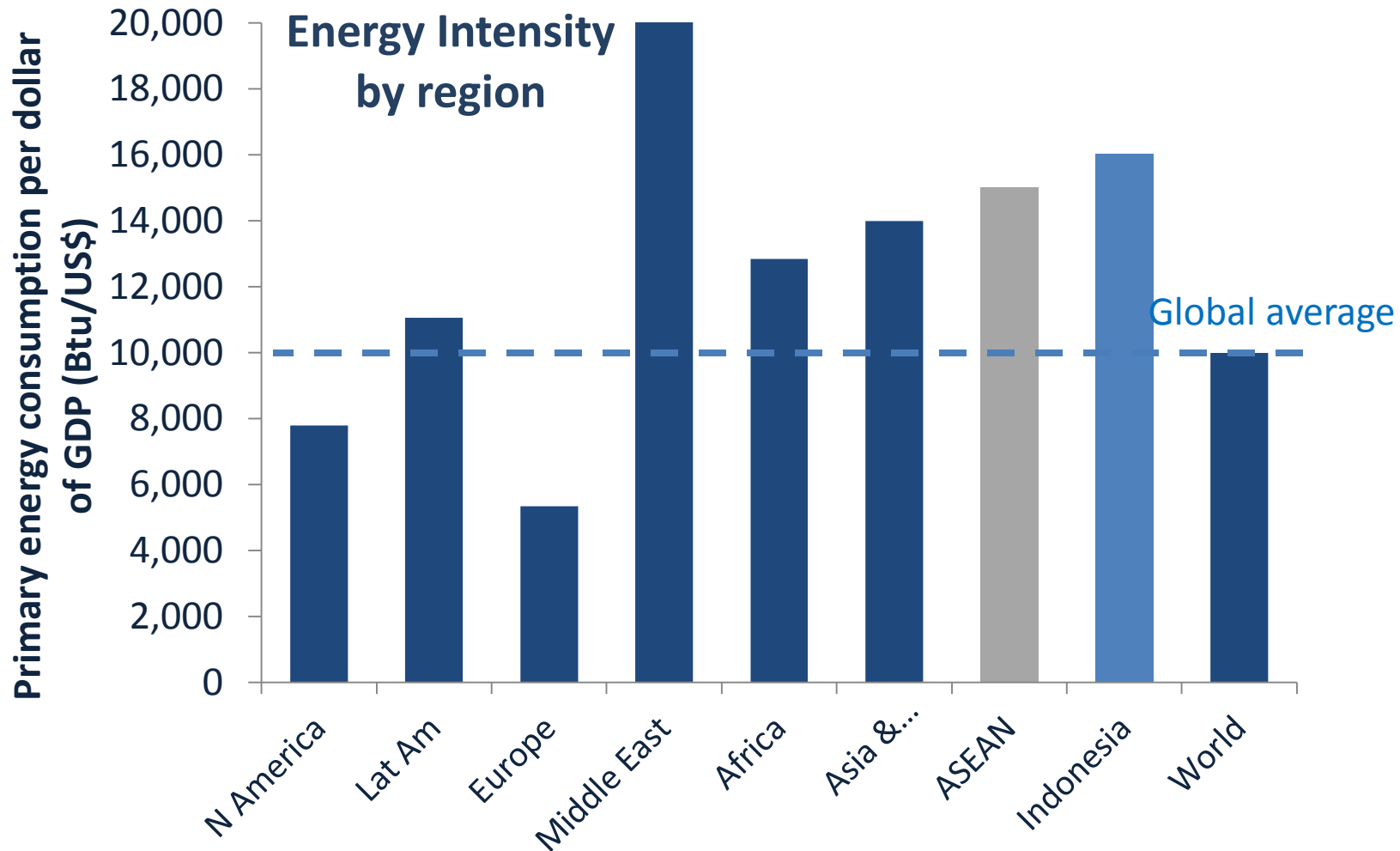


# Indonesia's Oil/Gas reserve life DOWN -40% over 30 yrs vs World +56%

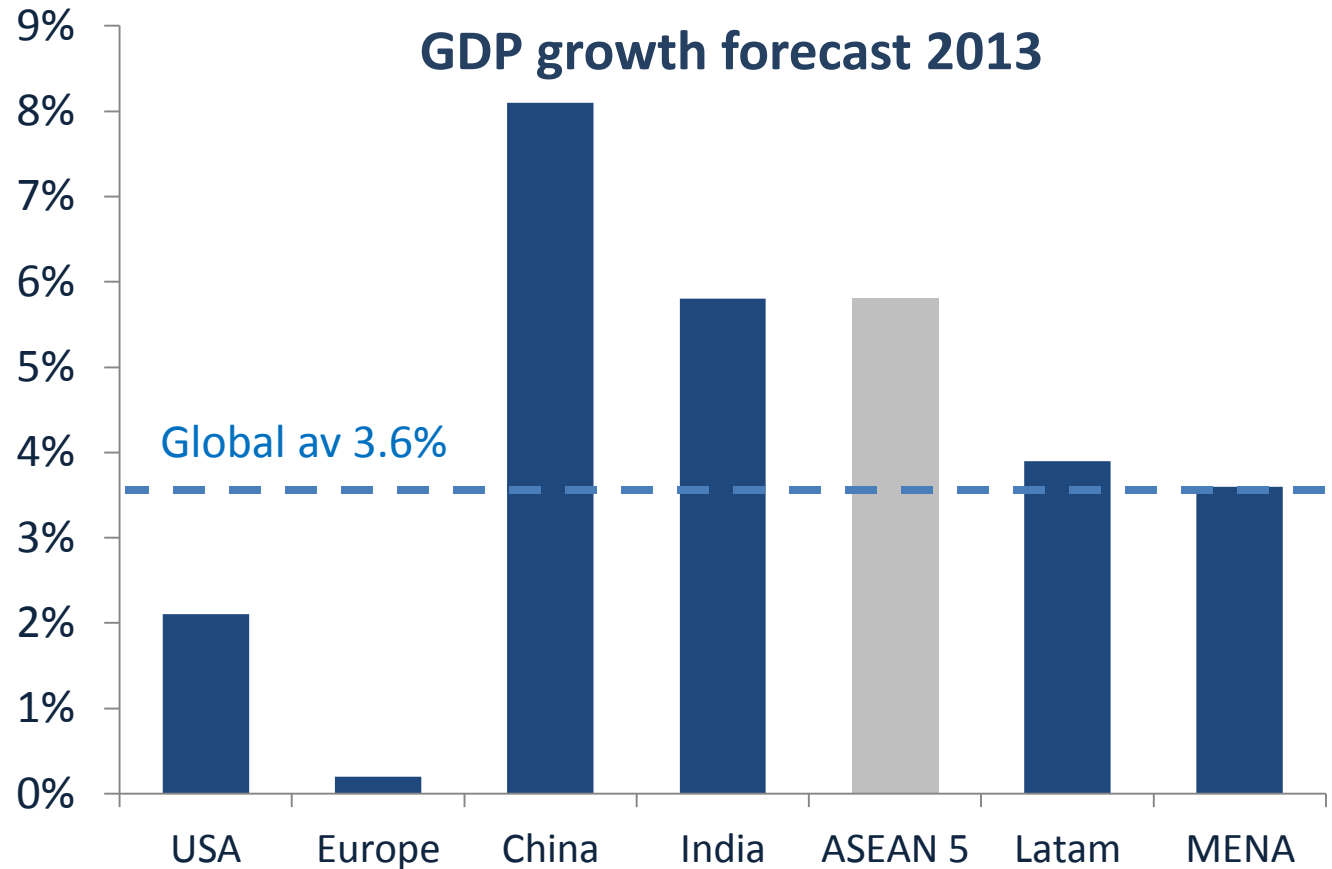




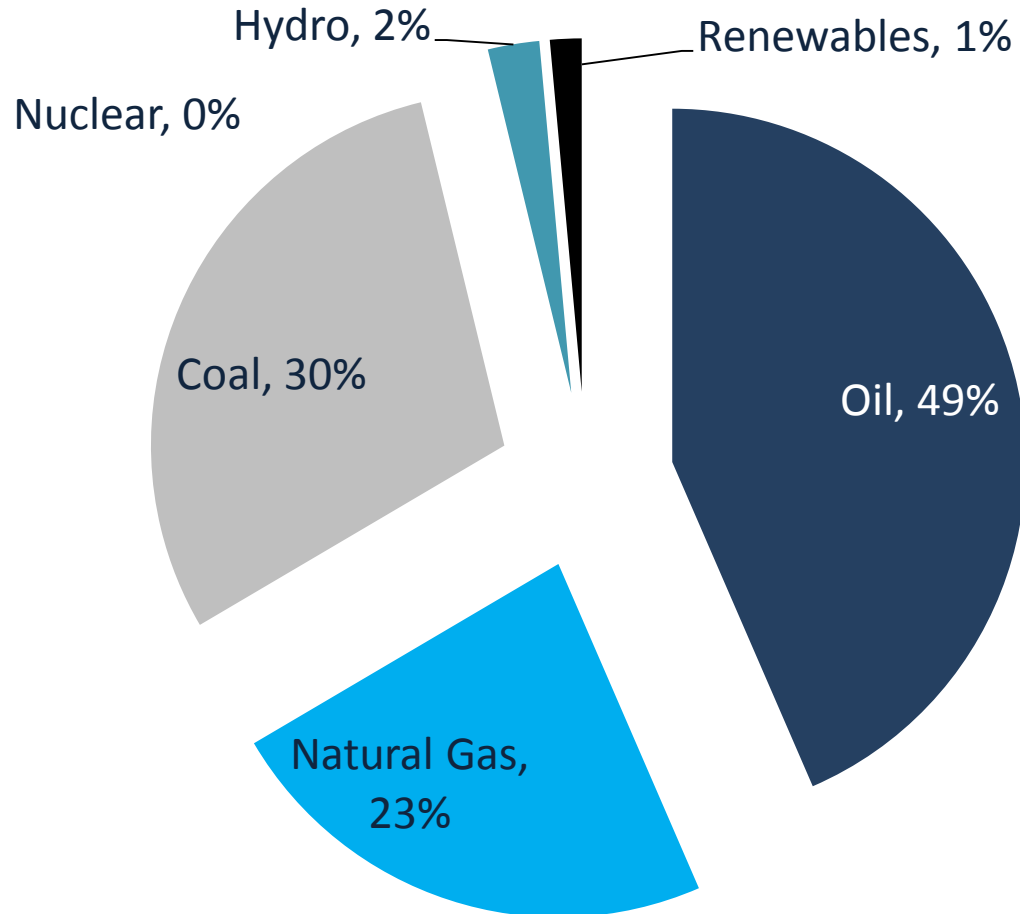
# Indonesia uses a disproportionate amount of energy per economic output



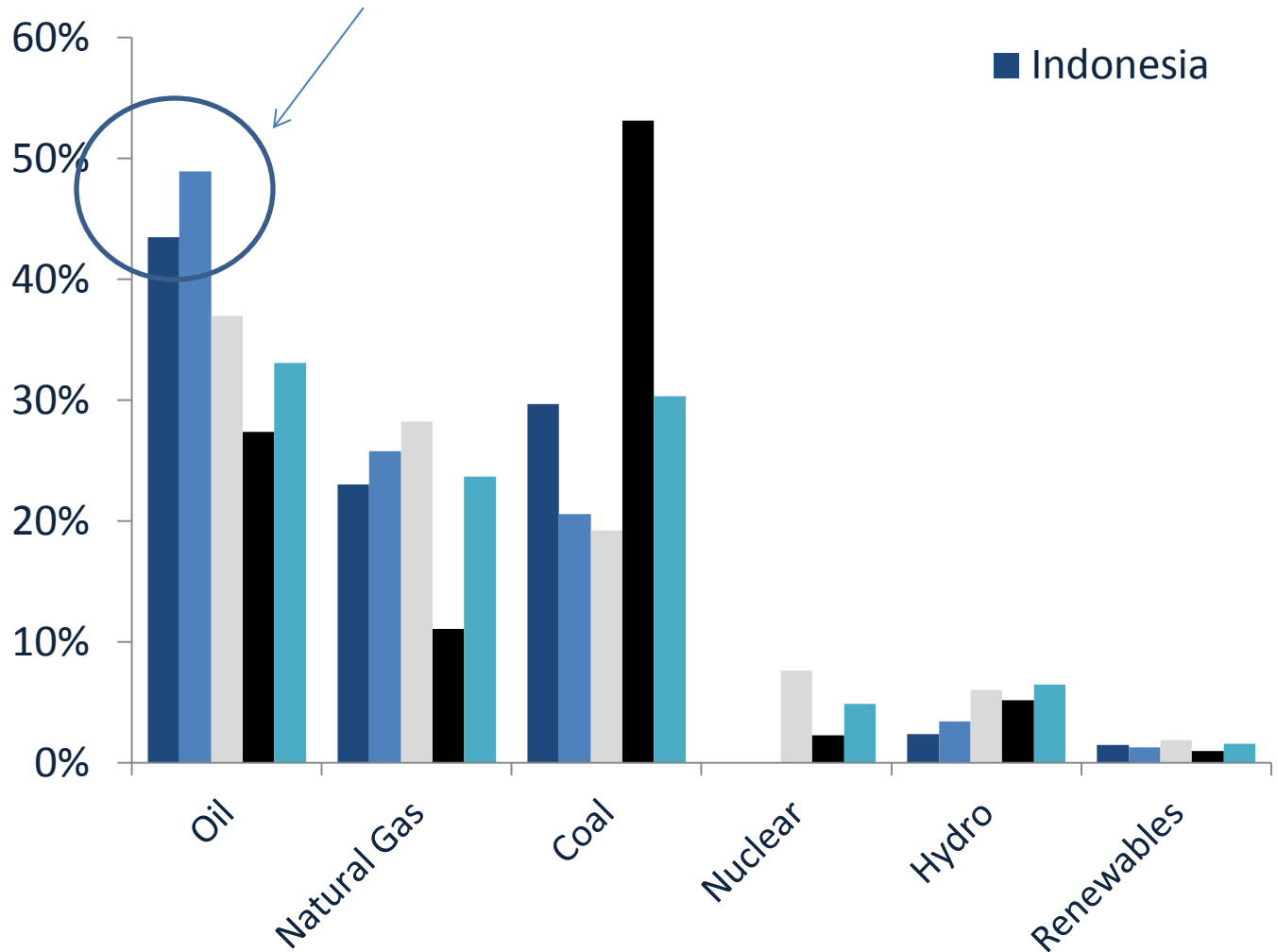
# ...and economic growth is set to continue well above global averages



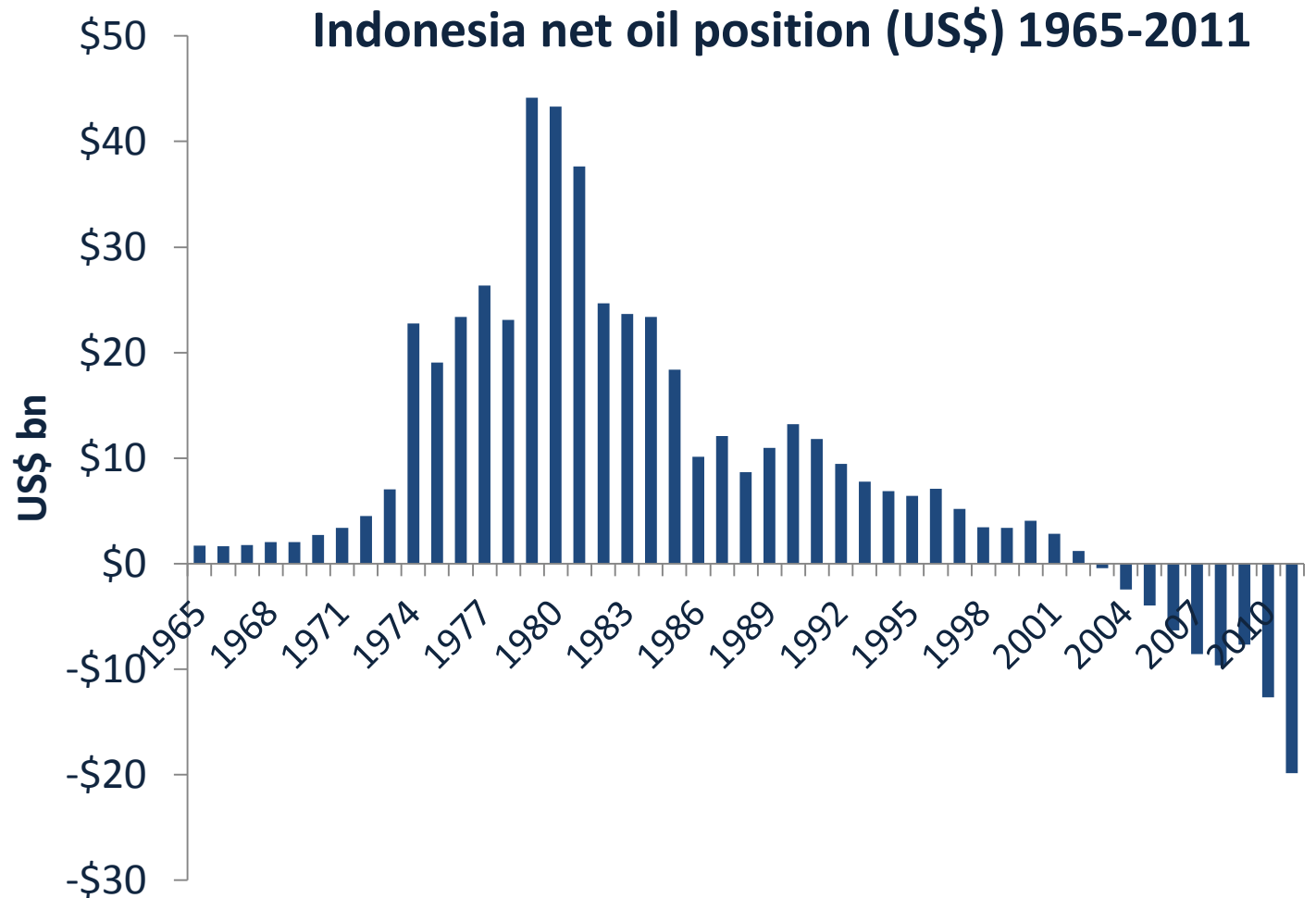
# Indonesia's energy mix is significantly weighted to oil



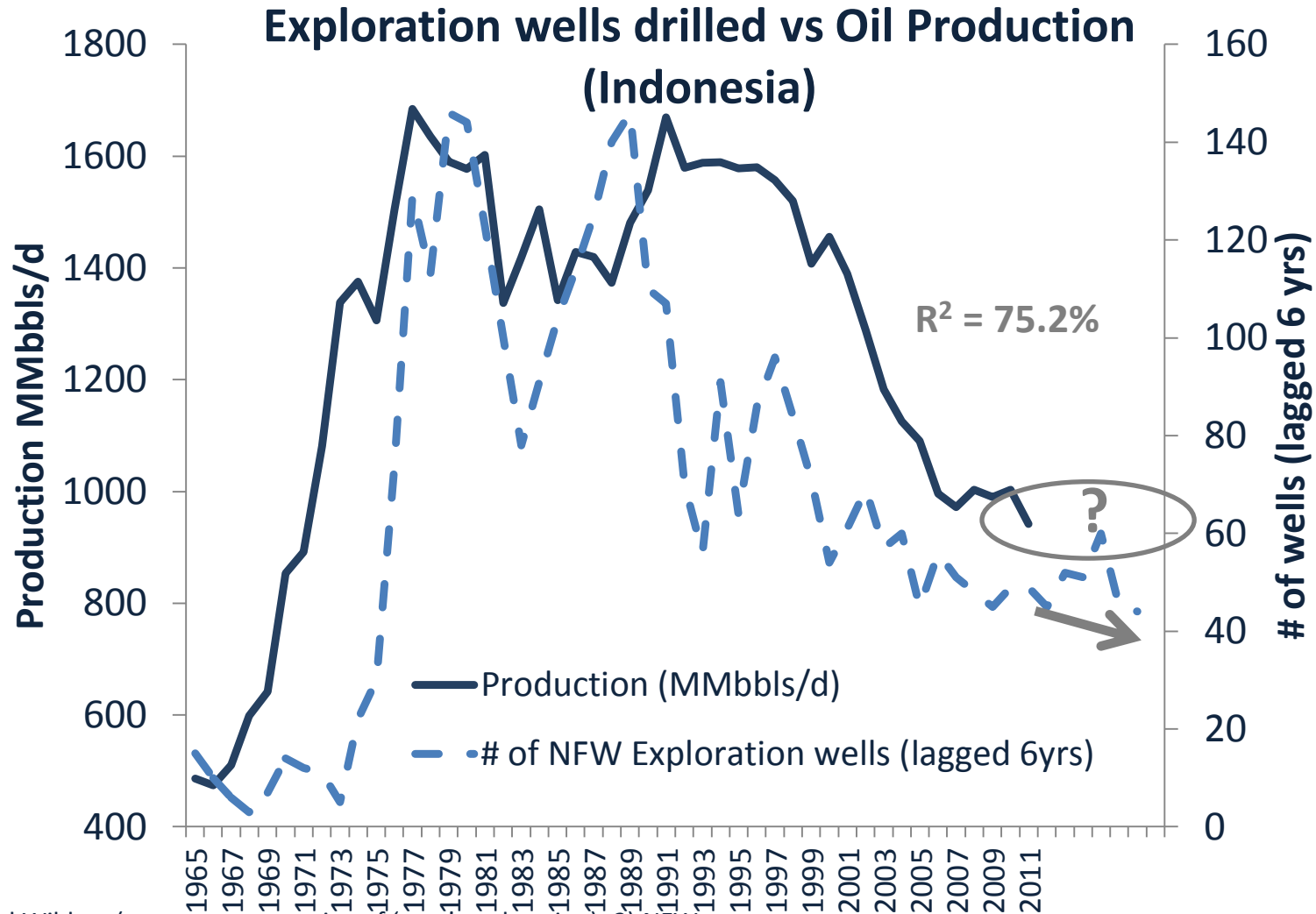
# ASEAN is disproportionately dependent on oil vs the rest of the world



# Prompting an increasingly costly net oil position



# Exploration is strongly correlated to future production growth (or decline)



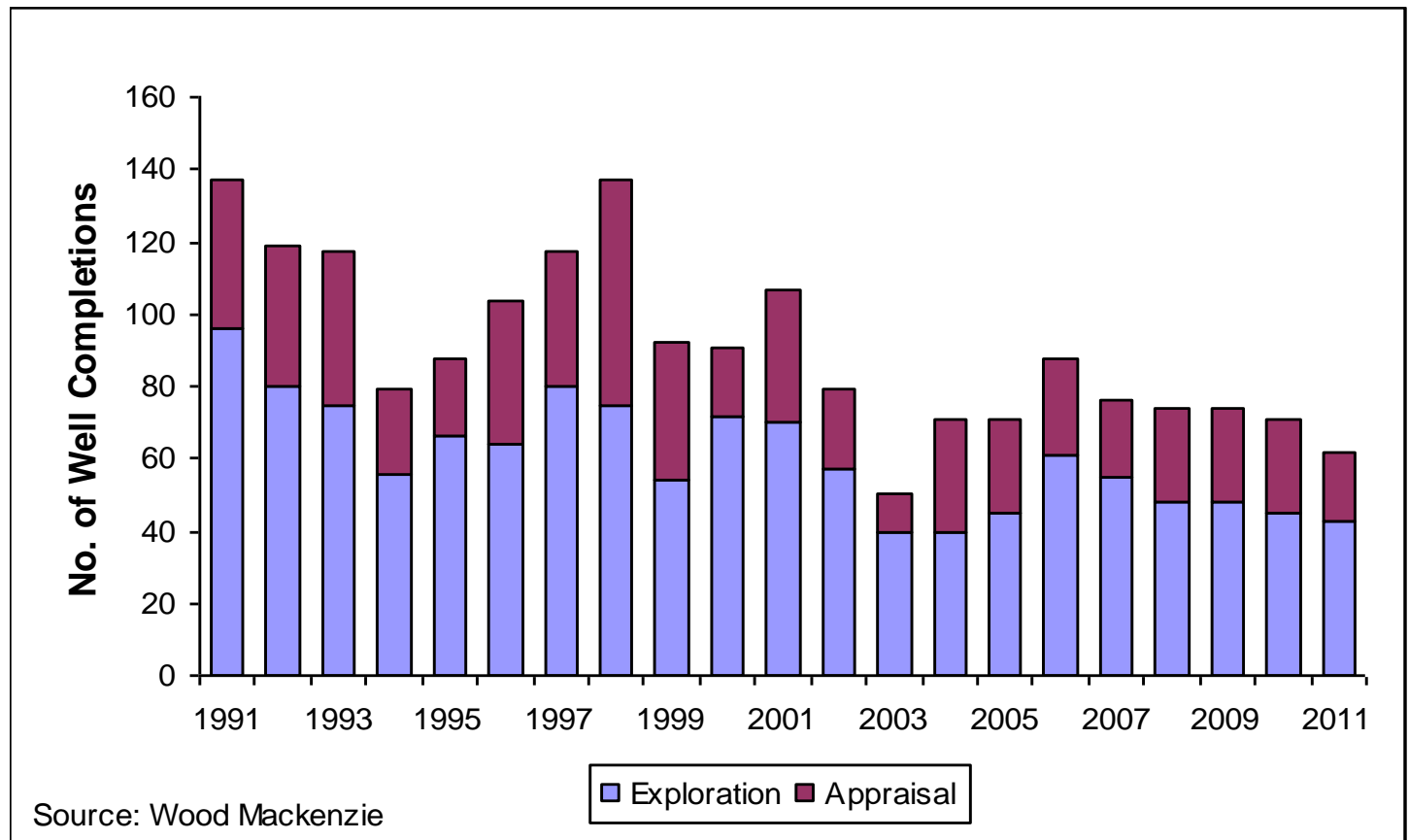
Note: 1) New Field Wildcat (more representative of 'new' exploration); 2) NFW

Exploration drilling data is lagged by 6 yrs (i.e. 2006 drilling shown as 2000) to reflect a development period of 6 years before production impact

Source: BP, IHS, Risco Energy

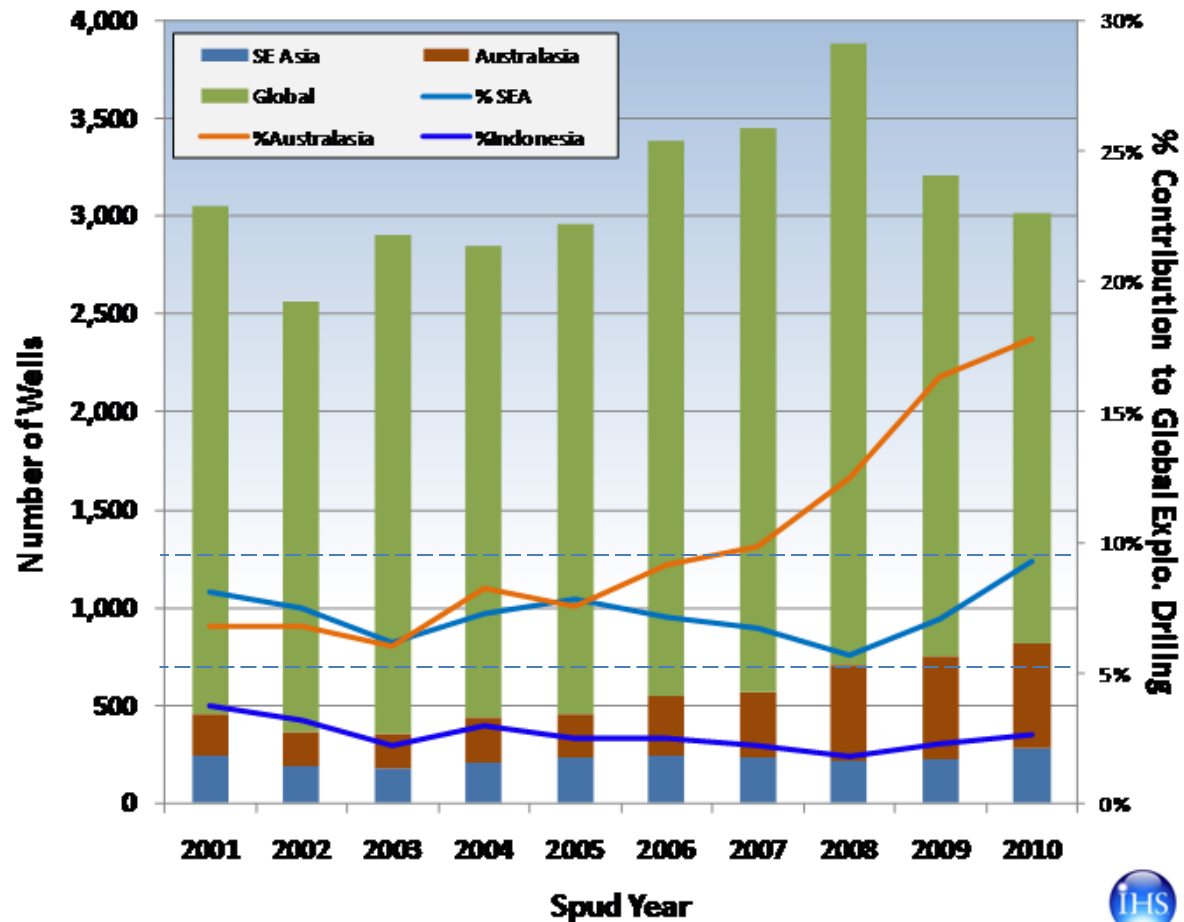
# Absolute # of exploration wells drilled in Indonesia is not growing

## Indonesian Exploration & Appraisal wells drilled 1991-2012



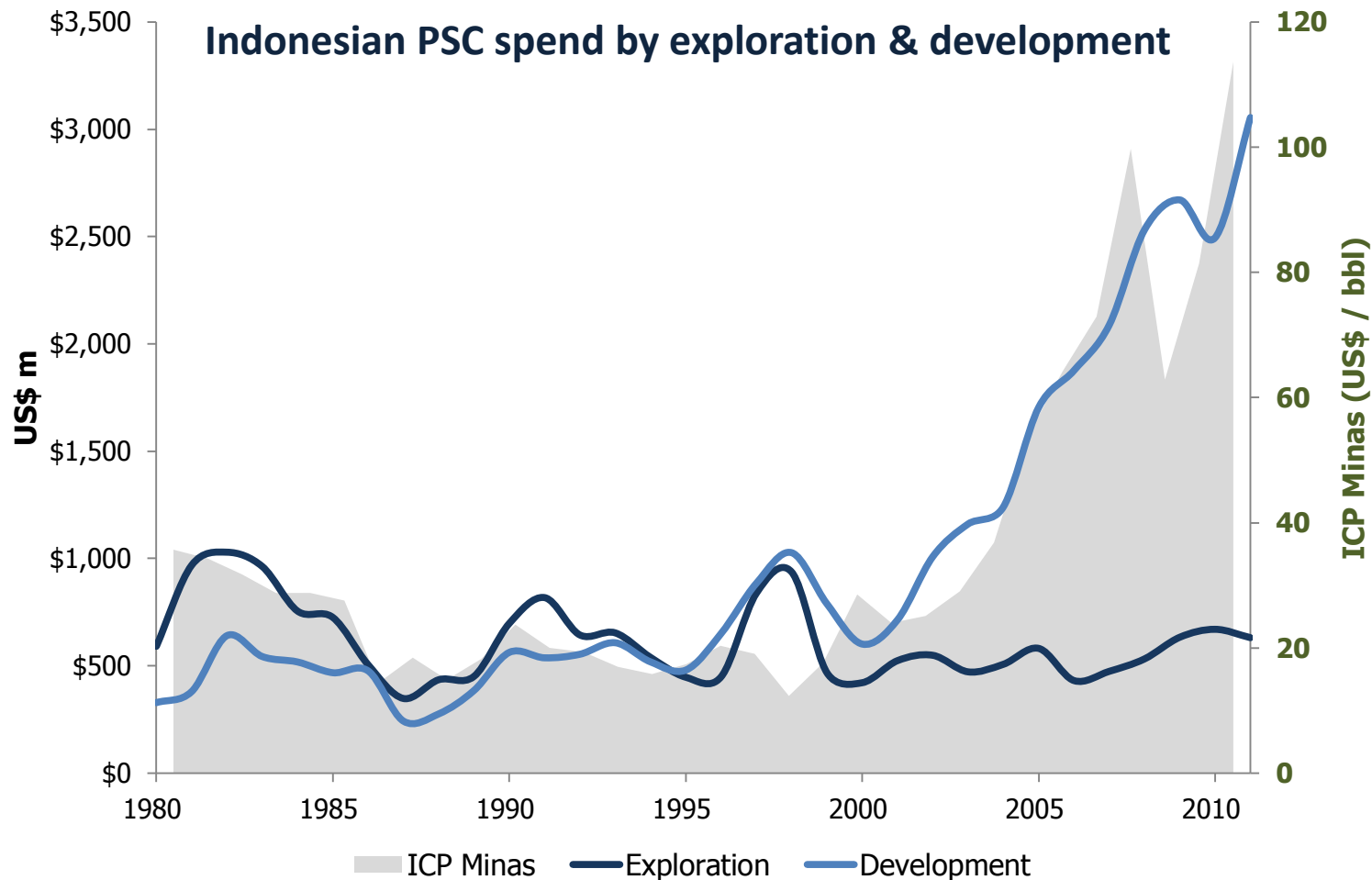
# Indonesia's share of global exploration drilling continues to decline

Global exploration drilling 2001-10

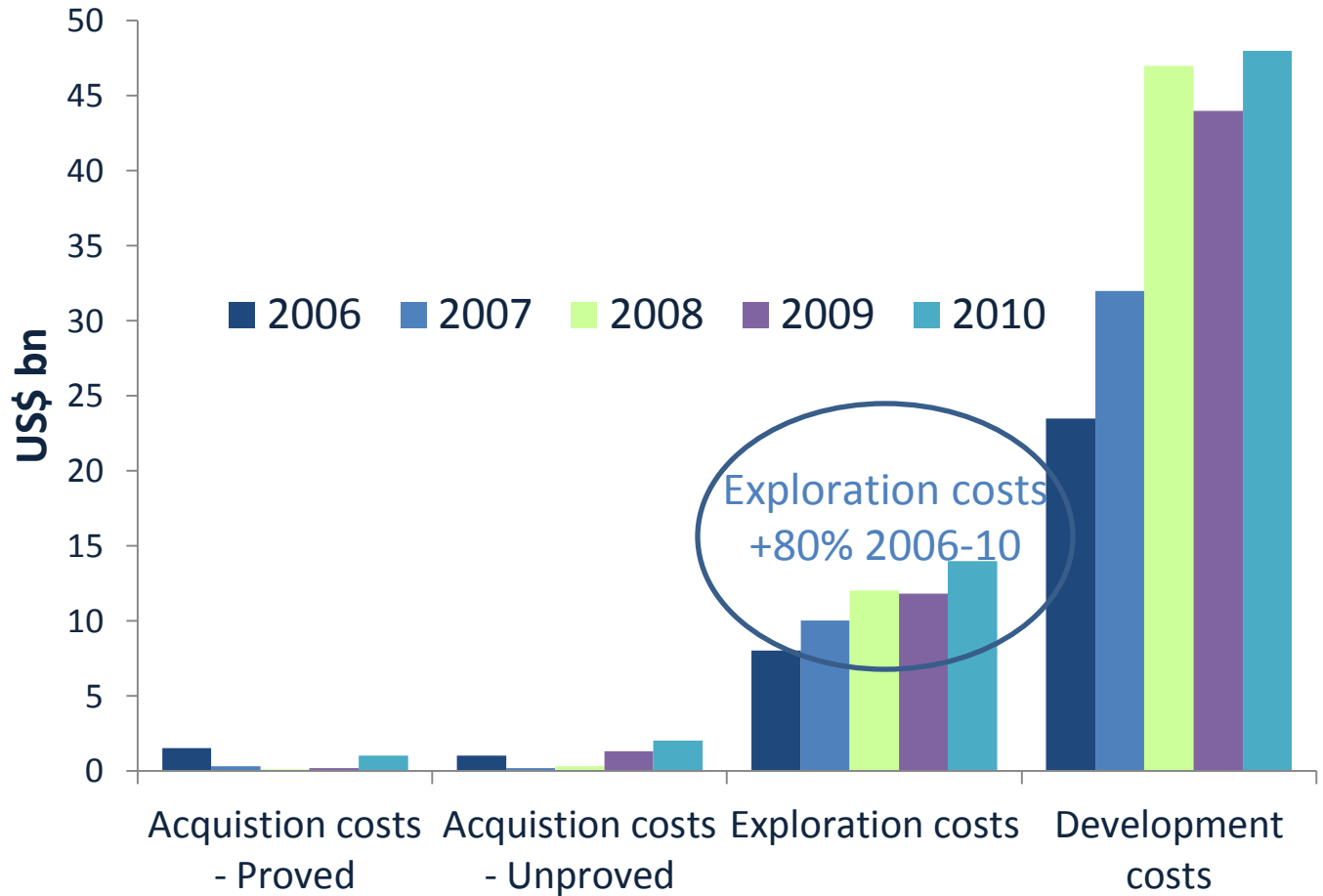




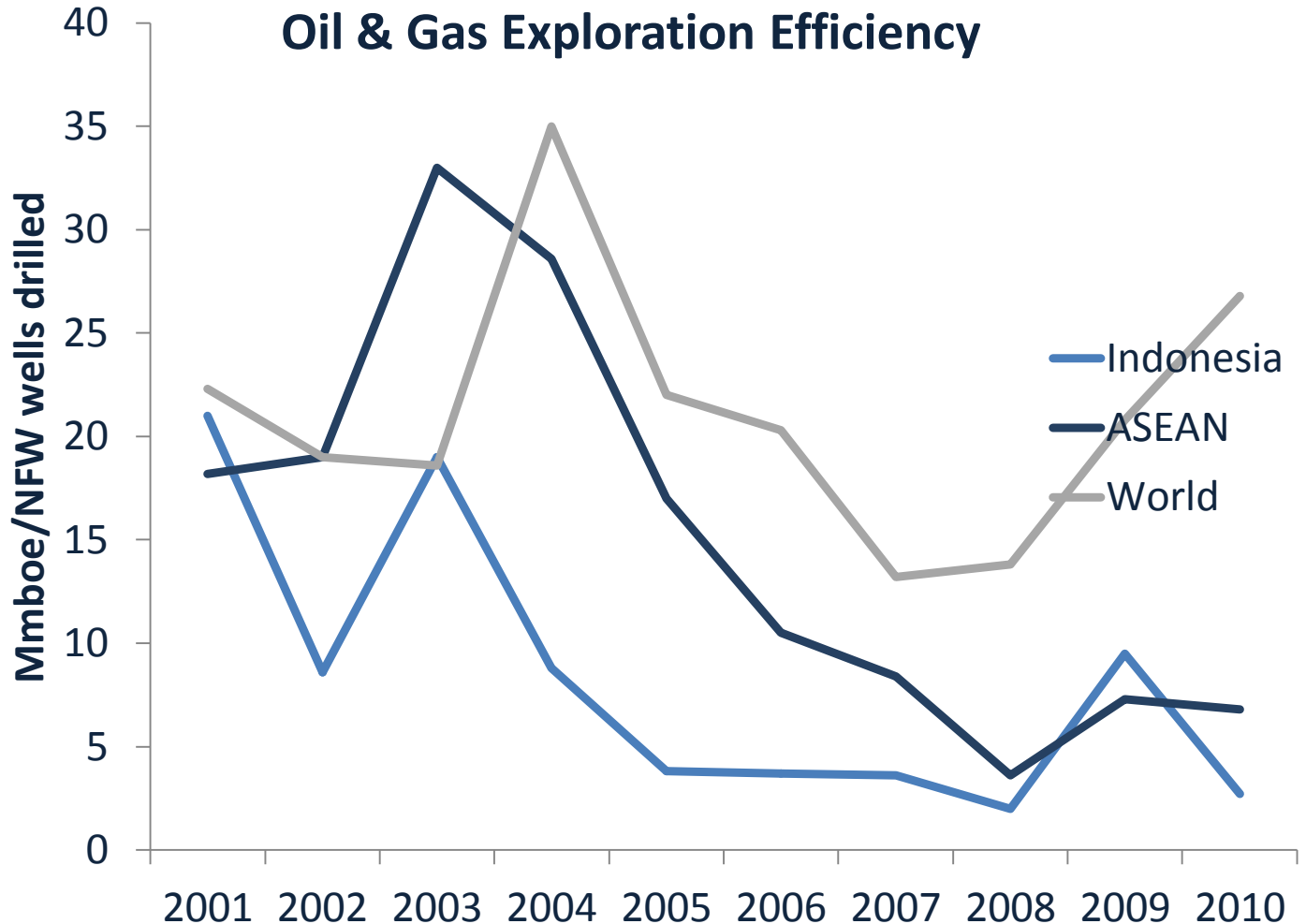
# Indonesia: higher oil prices prompted development NOT exploration spend



# ...and Exploration is costing more

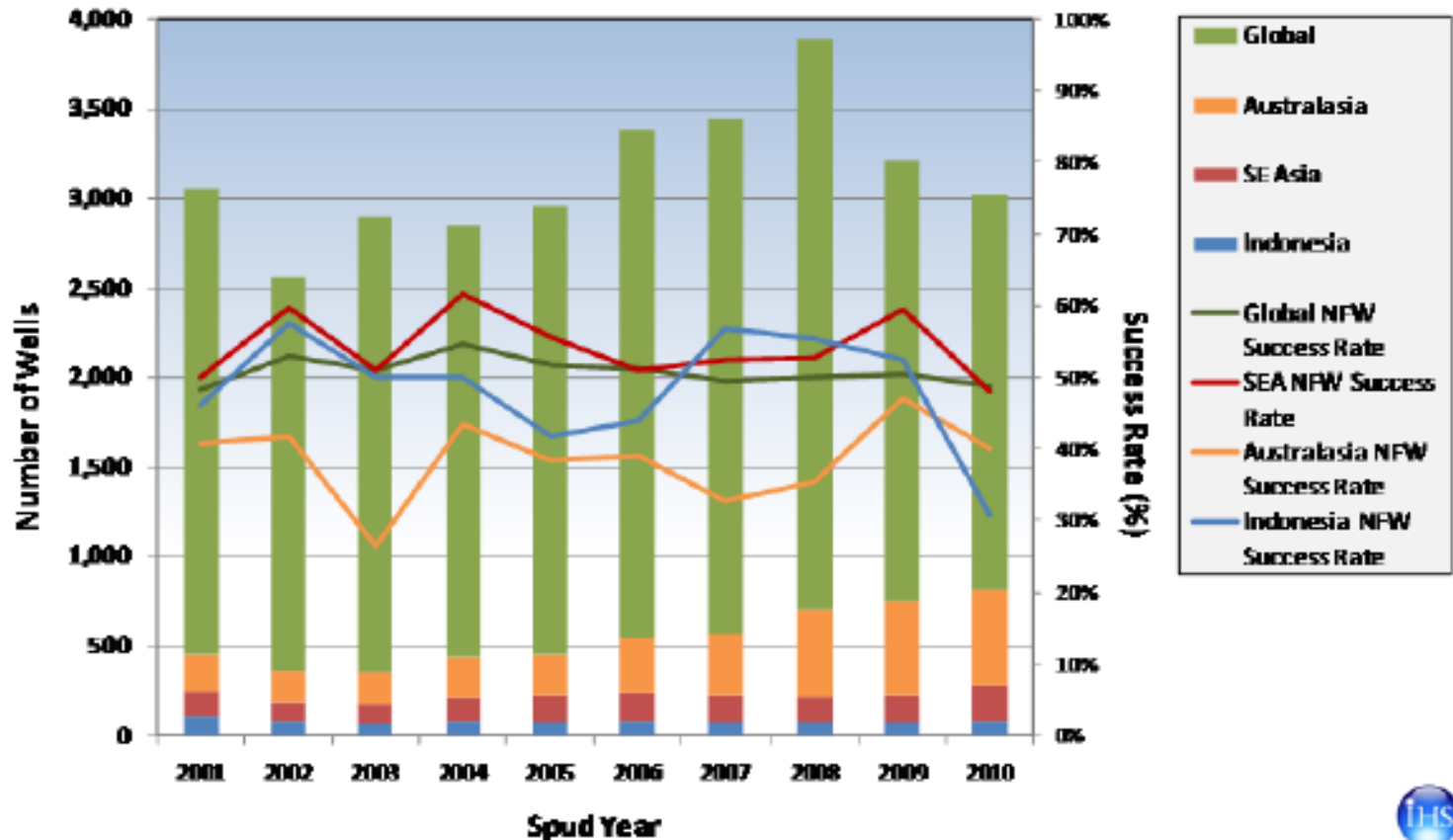


# BUT crucially, discovery size per well drilled is down & below global average



# Low exploration efficiency partly driven by Indonesia's low success rates

## NFW Exploration Success Rates



# Creating an attractive investment climate for hydrocarbon investment:

The 10 Point Check List

# The 10 point check list\* for Governments

- 1. ENERGY POLICY?**
- 2. IS THERE A COHERENT SECTOR STRATEGY?**
- 3. WHAT IS THE AGREED ROLE OF THE NOC IN STRATEGY?**
- 4. WHAT IS THE AGREED ROLE OF THE IOGC?**
- 5. IS THEIR CLEAR LINKAGE BETWEEN THE IOGC AND THE NOC?**
- 6. UNDERSTAND THE IOGC'S MOTIVES?**
- 7. CLARITY AND TRANSPARENCY?**
- 8. BUREAUCRACY?**
- 9. FISCAL TERMS?**
- 10. ASSESS YOUR GEOLOGICAL POTENTIAL.**

\* This list was obtained from *"Institutional Cooperation in Oil and Gas: Governments, Companies and the Investment Climate,"* presented by Vahan Zanoian, President and CEO of the Washington-based Petroleum Finance Company (PFC) at the 9th International Energy Forum 2004, held on 22-24 May, Amsterdam, the Netherlands

# ASEAN Investment Climate Survey

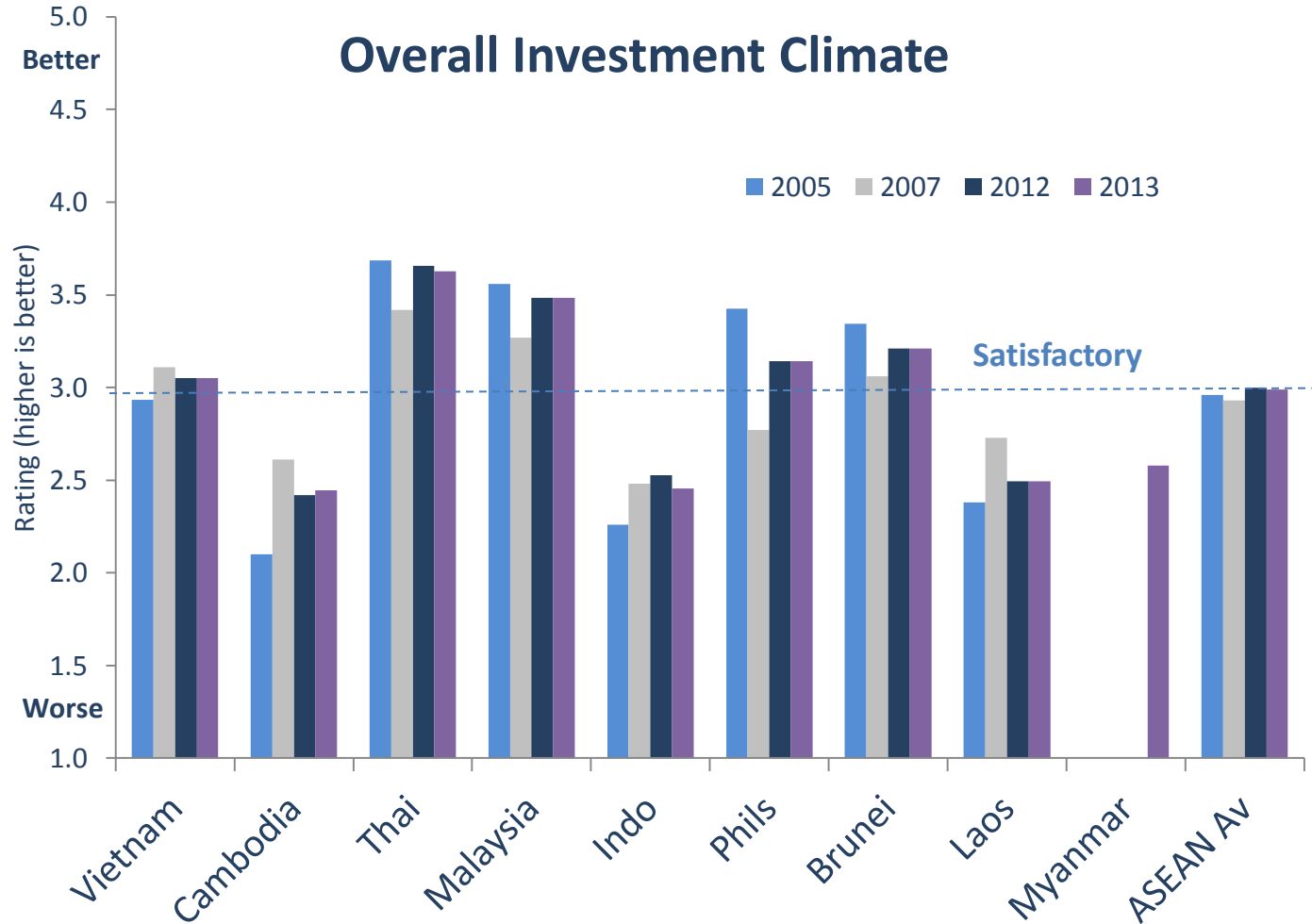
Overall, ASEAN's Oil & Gas Investment Climate is not compelling in absolute terms and many countries are sub par as oil & gas investment choices on a global basis

# The Survey

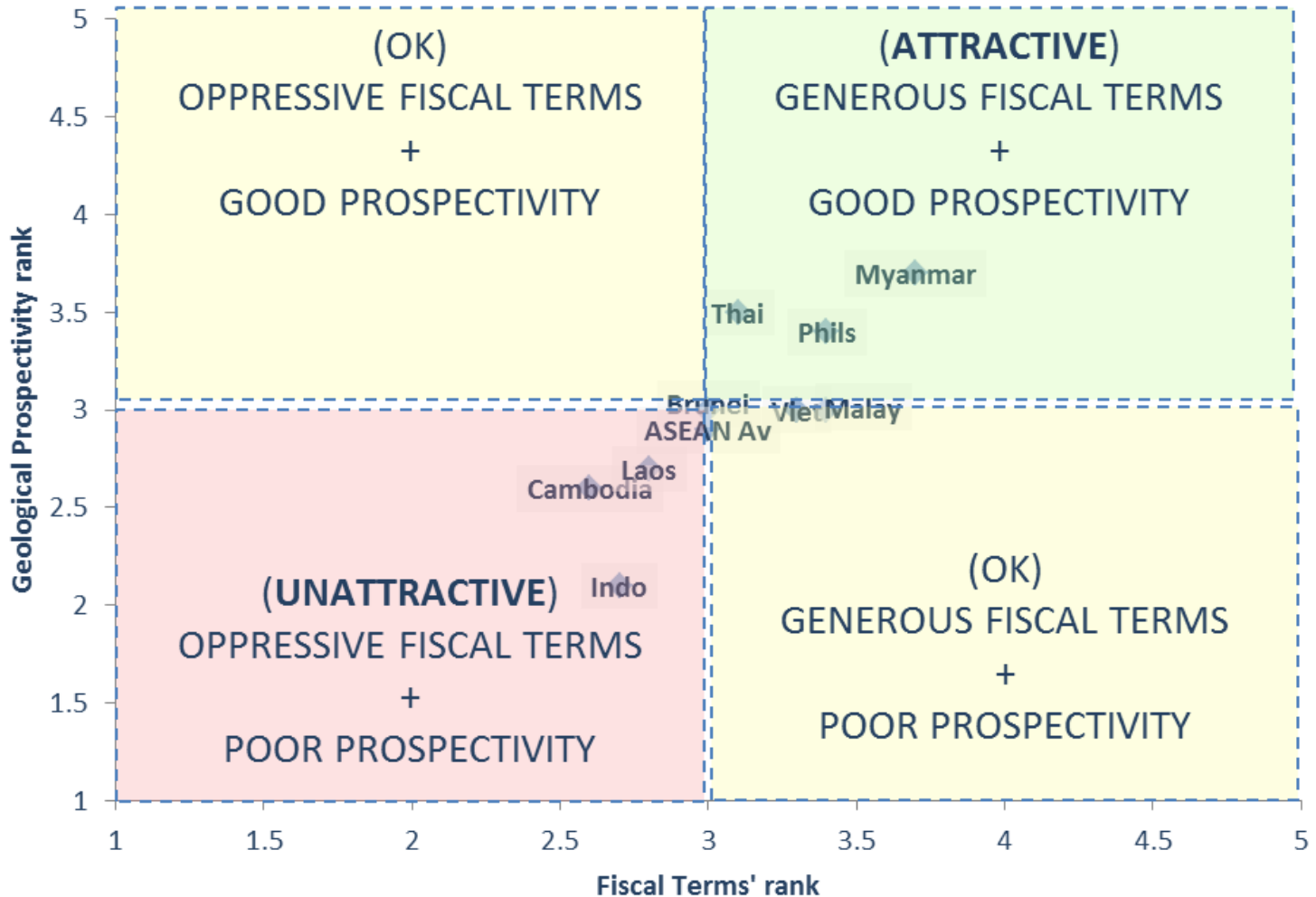
- The survey focuses on respondents' views of how ASEAN countries' Governments have fared on each point of The 10 Point Check List - which in total defines the "Investment Climate" and its attractiveness
  
- Over a period from 2005 to 1Q 2013, four surveys have been conducted, providing back data and allowing for trend over time and relative comparison:
  - 2005 & 2007 focused solely on Oil & Gas industry professionals
  - 2012 included all elements in the Oil & Gas investment decision process (E&P professionals, industry specific consultants, financiers and lawyers). Sample size 40.
  - 2013 was one-on-one follow ups to identify any changes from 2012 survey
  
- ASEAN countries included in the survey 2005-13: Brunei, Cambodia, Indonesia, Laos, Malaysia, Philippines, Thailand and Vietnam.
  - Myanmar was historically excluded, but has been included 2013.
  
- A higher/better score implies greater investment attractiveness in capturing global capital
  - 'Unsatisfactory' (lowest), through 'Satisfactory' (median) to 'Very Good' (highest).



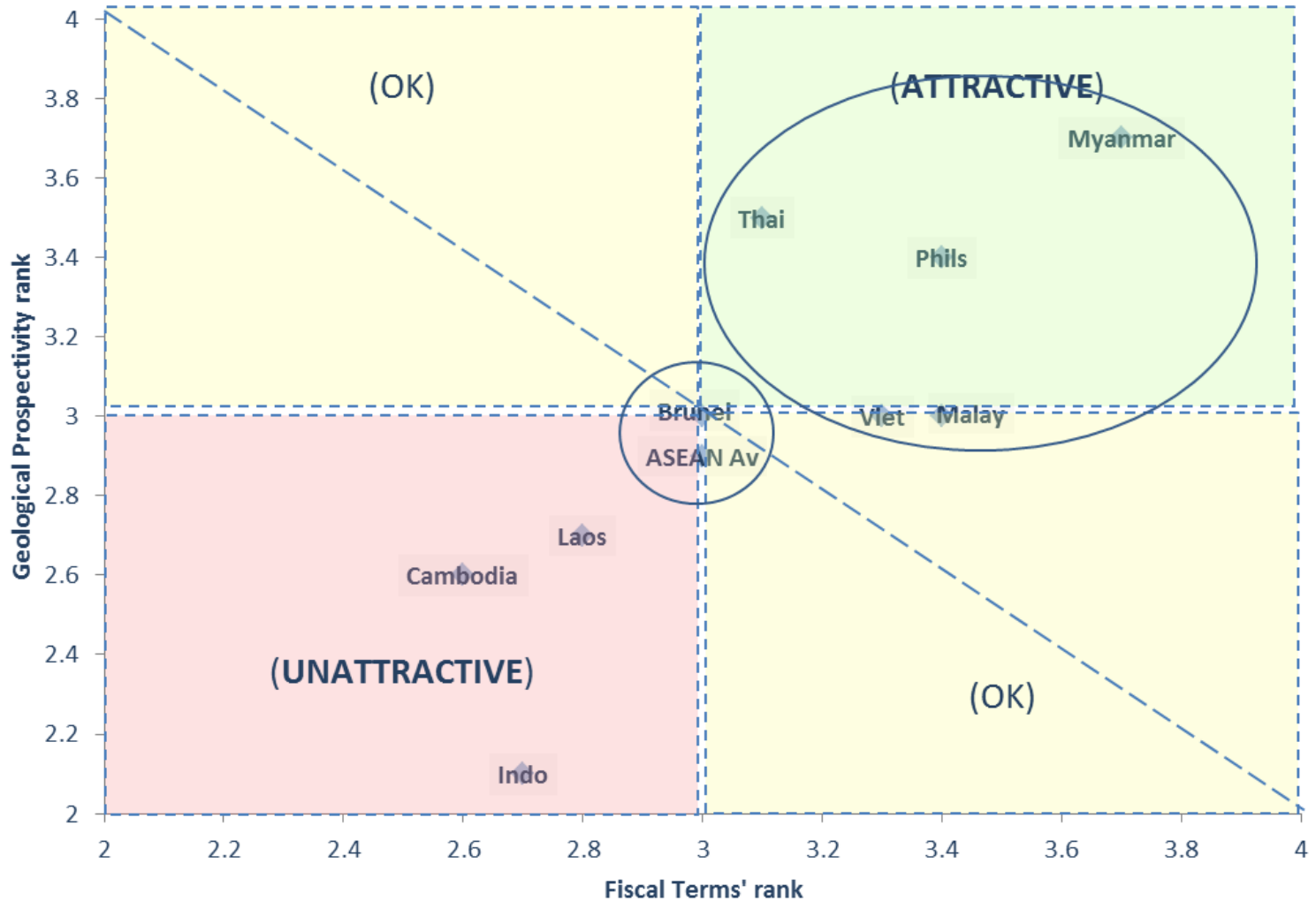
# Overall Investment Climate



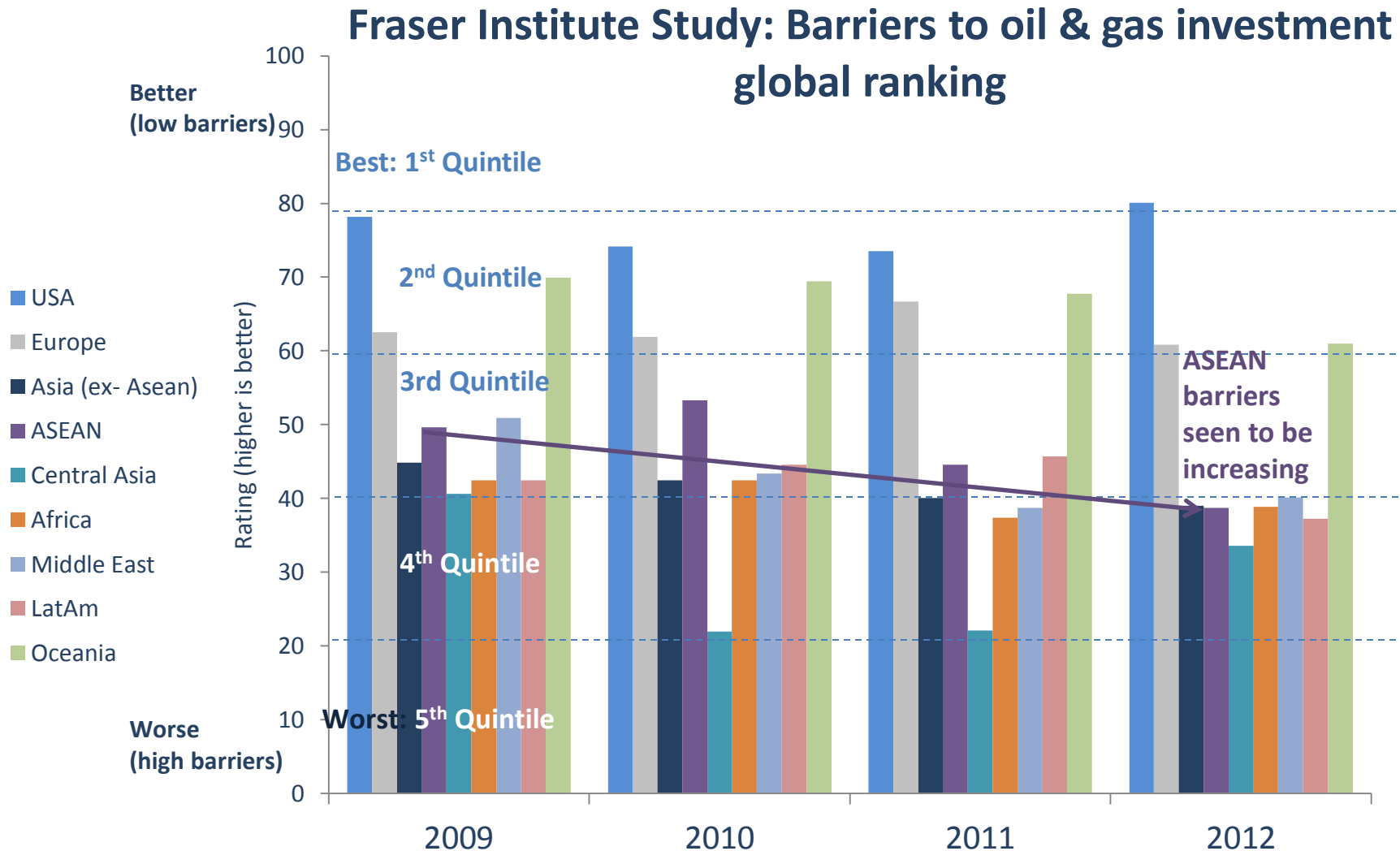
# Correct balance of government take vs prospectivity -> attracts investment



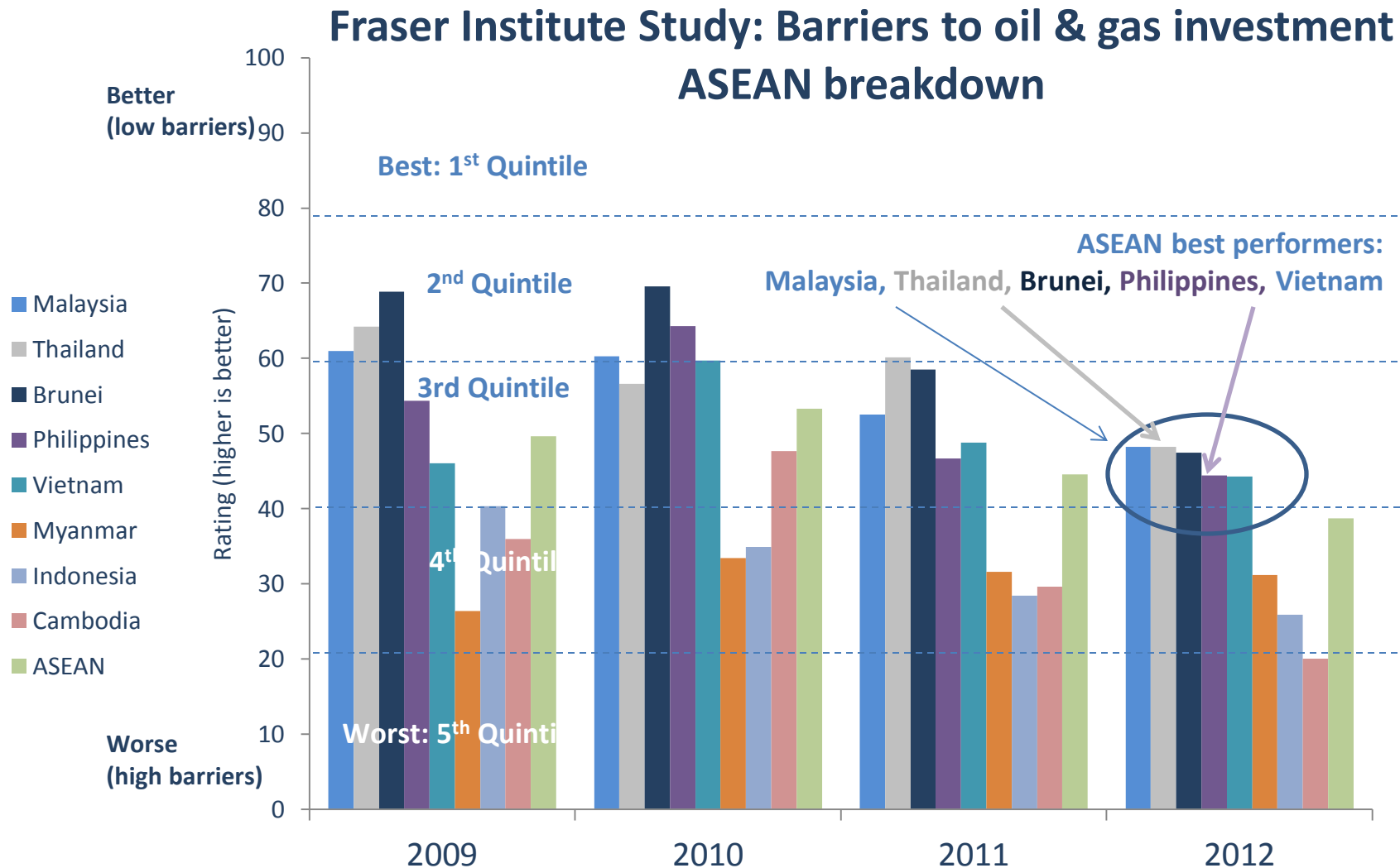
# Closer look: most of ASEAN has the balance wrong to attract investment



# ASEAN barriers to investment are rising and some of the highest globally



# Within ASEAN, best performers are same: Thai, Malay, Phils



Thank You