

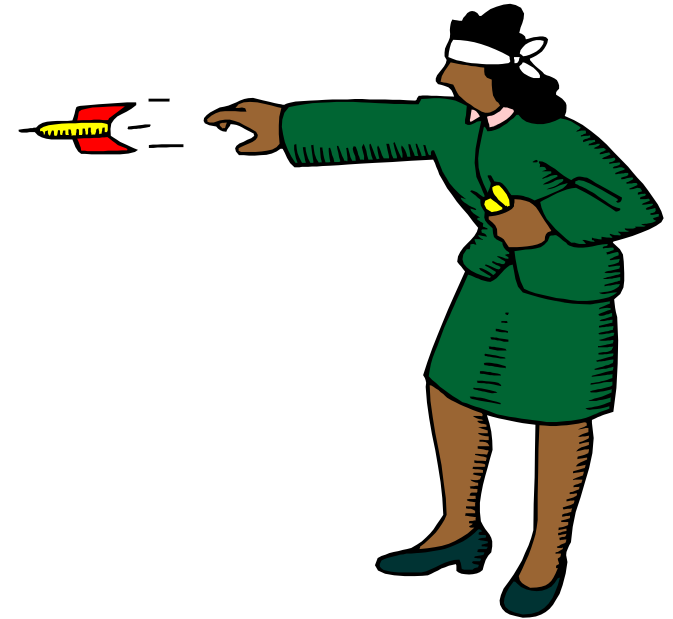
Atelier « Économie de Projet »

Rencontres Métiers

19 Novembre 2008



How Does Total E&P Make Decisions ?

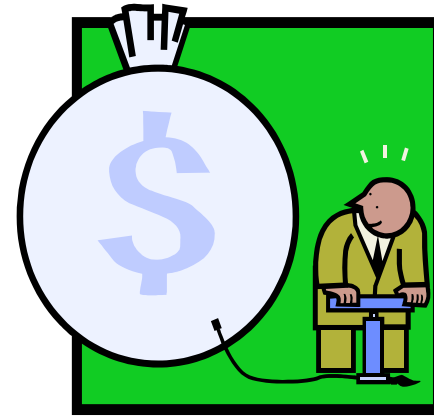


Economic Evaluations – Basic Principles

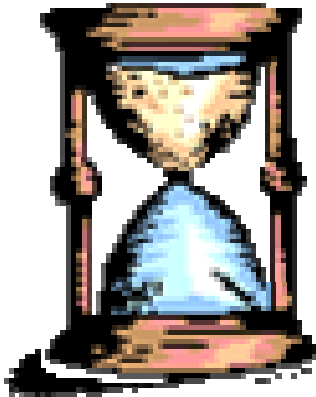
Cash Based



Inflation Adjusted



Discounted – Time Value of Money



Level of Risk



Development Project Economics – Criteria & Definitions

Cash Flow Schedule in Money of the Day (MOD)

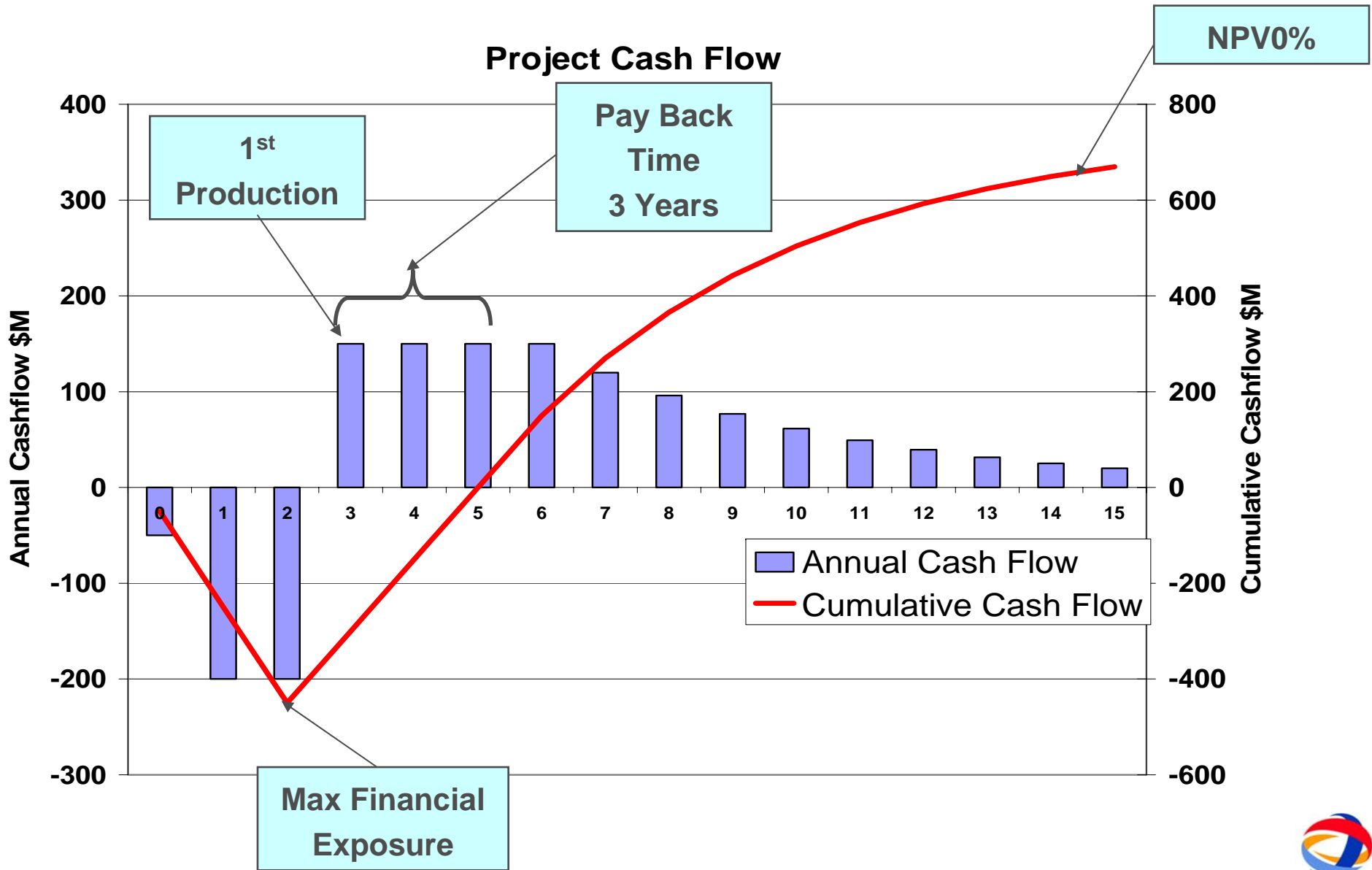
Year	0 ..to...N
Receipts	(1)
Capex	(2)
Opex	(3)
Interest Paid	(4)
Depreciation	(5)
Taxable Income	(6) = (1-3-4-5)
Taxes Paid	(7)=(6)*(Tax Rate)
Shadow Cash Flow (MOD)	(8) = (1-2-3-7)
Shadow Cash Flow (Real Terms)	(9) = (8)/Inflation

$$NPV = \sum_{n=0}^N \frac{(CF)_n}{(1 + DR)^n}$$

Where DR = Discount Rate

Internal Rate of Return IRR = DR which gives an NPV of 0

Project Economics – Other Criteria & Definitions



Project Economics – Other Criteria & Definitions

Enrichment on Maximum Financial Exposure (ERF)

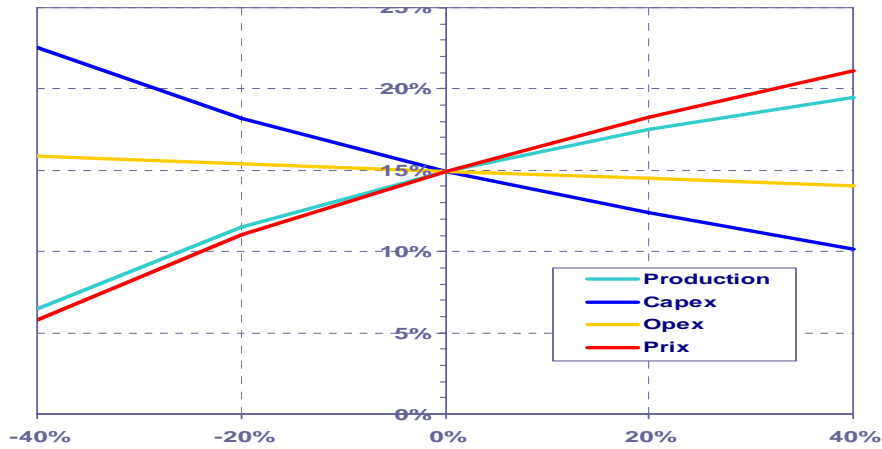
- ▶ NPV0% of Project divided by Max Financial Exposure

Breakeven Point

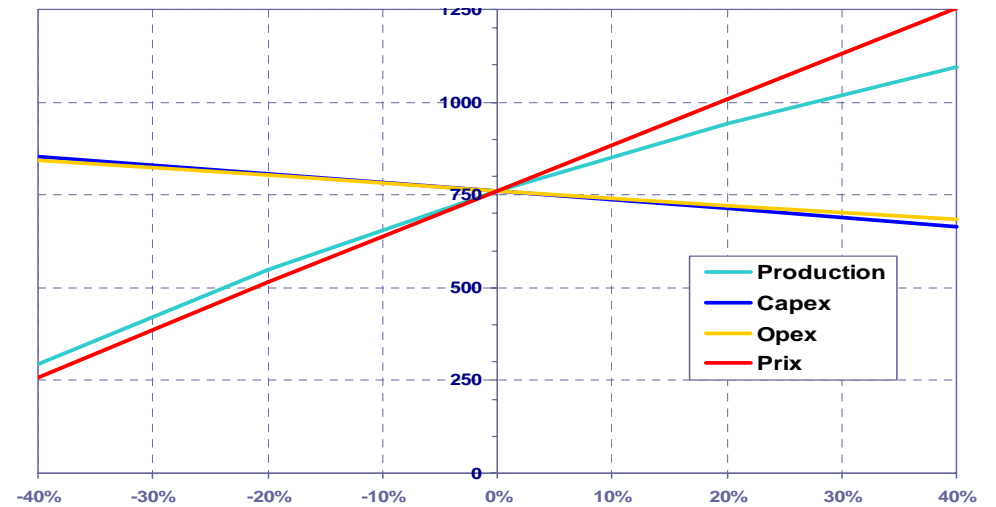
- ▶ Oil (or gas) price that gives an NPV0% = 0

Sensitivity Analysis

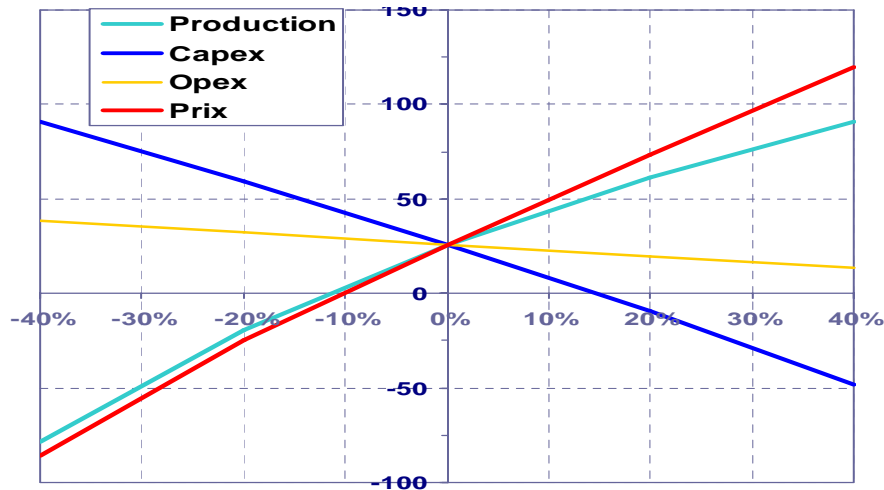
IRR



NPV 0%



NPV 11%

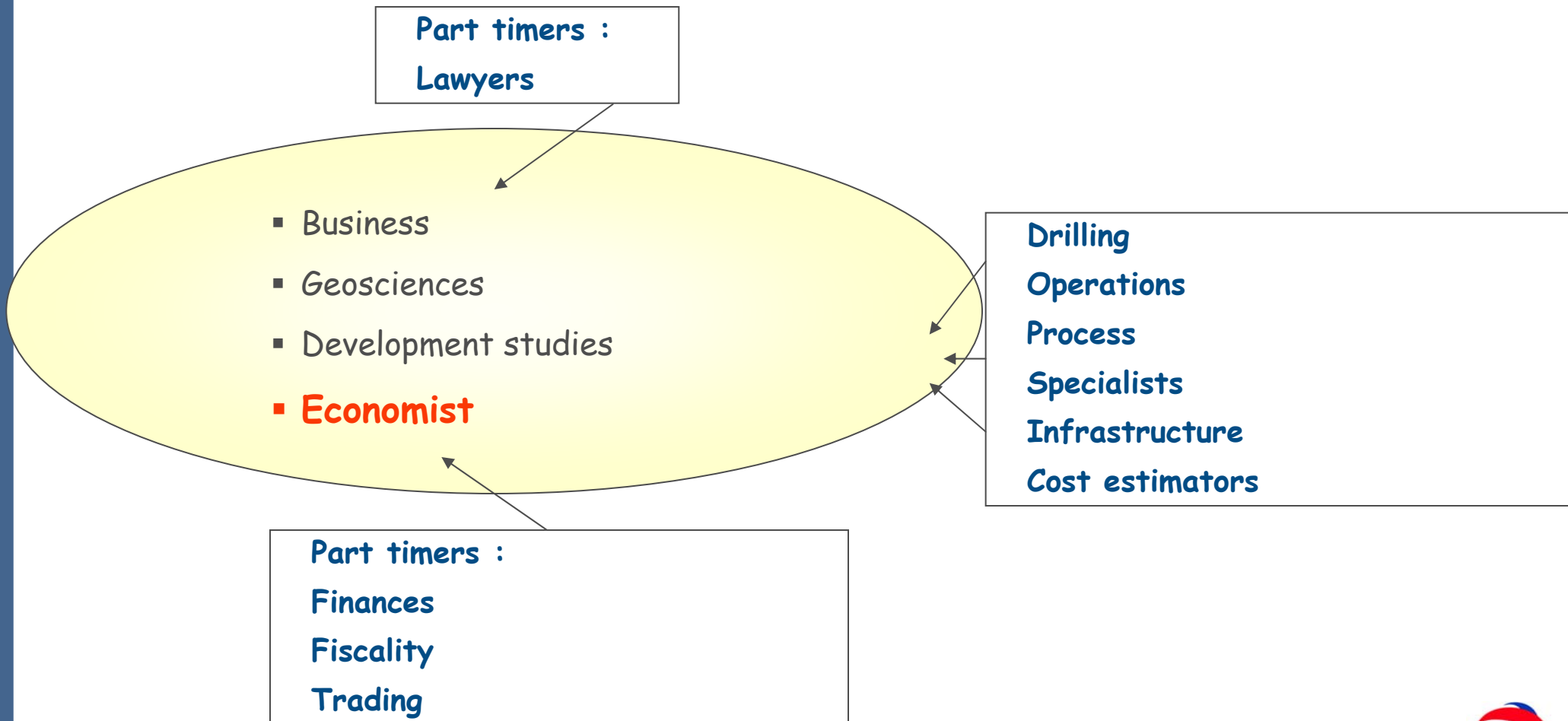


PROJECT SPECIFIC CASES

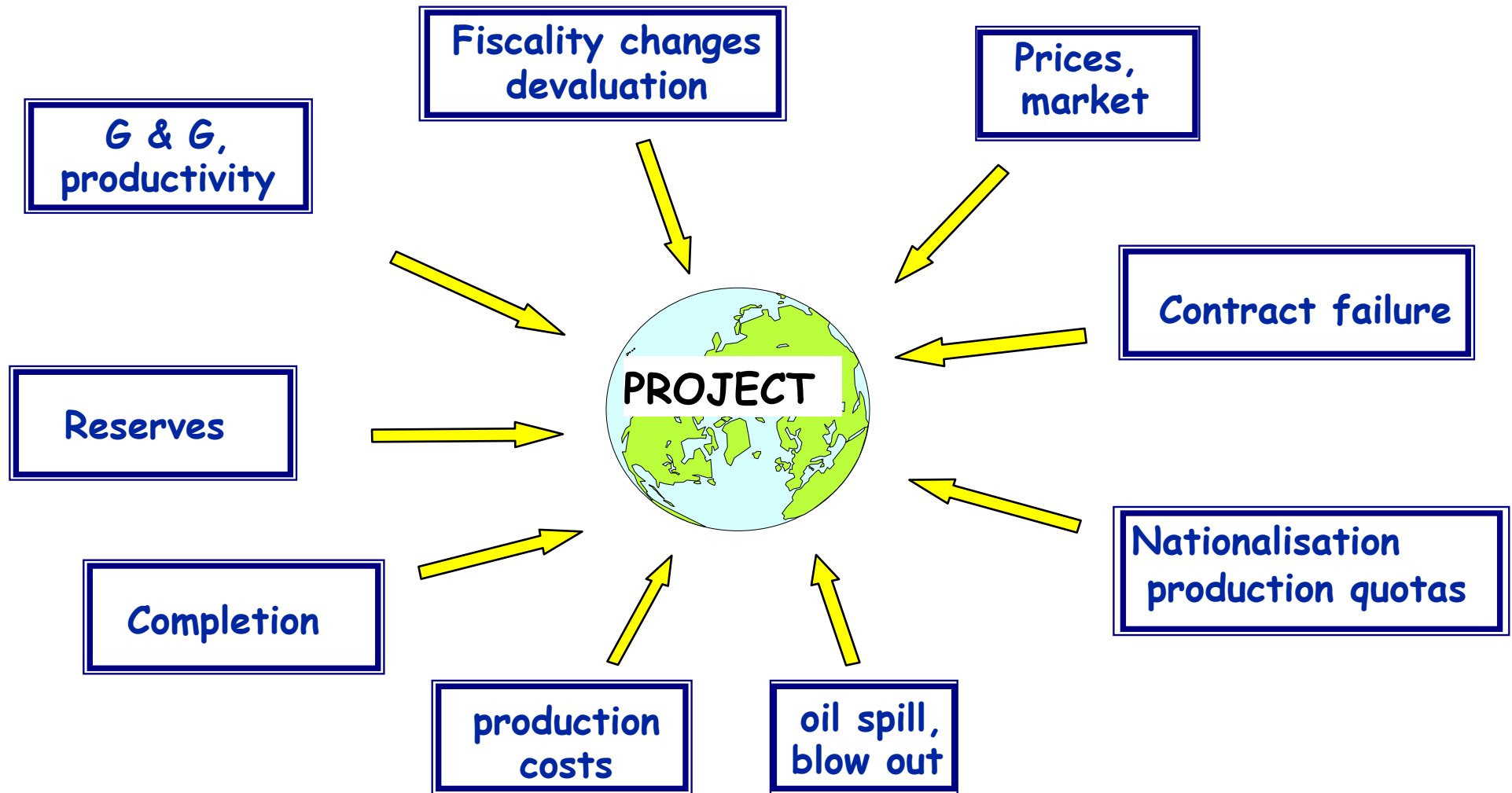
- Investments timing, phasing
- Contractual & fiscal Terms
- Impact on 'Bénéfice Consolidé'

Working in a a multi-disciplinary team ...

one responsible per speciality



... with complex Risk Analysis



Economist in Total E&P

- A good introduction to the oil activity
- Multiple interlocutors
- The entry gate to the “metiers Business”