

Three decades of scenario planning in Shell: experience and possible extension in the future

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Motivation

Changes, triggered by unexpected events, can occur abruptly and have very negative consequences...



... or they can create new opportunities like opening new



Motivation

- conditional opportunities
- Holding options is risky
- dependence on external environment
- Forecasts based on the past are unsuitable

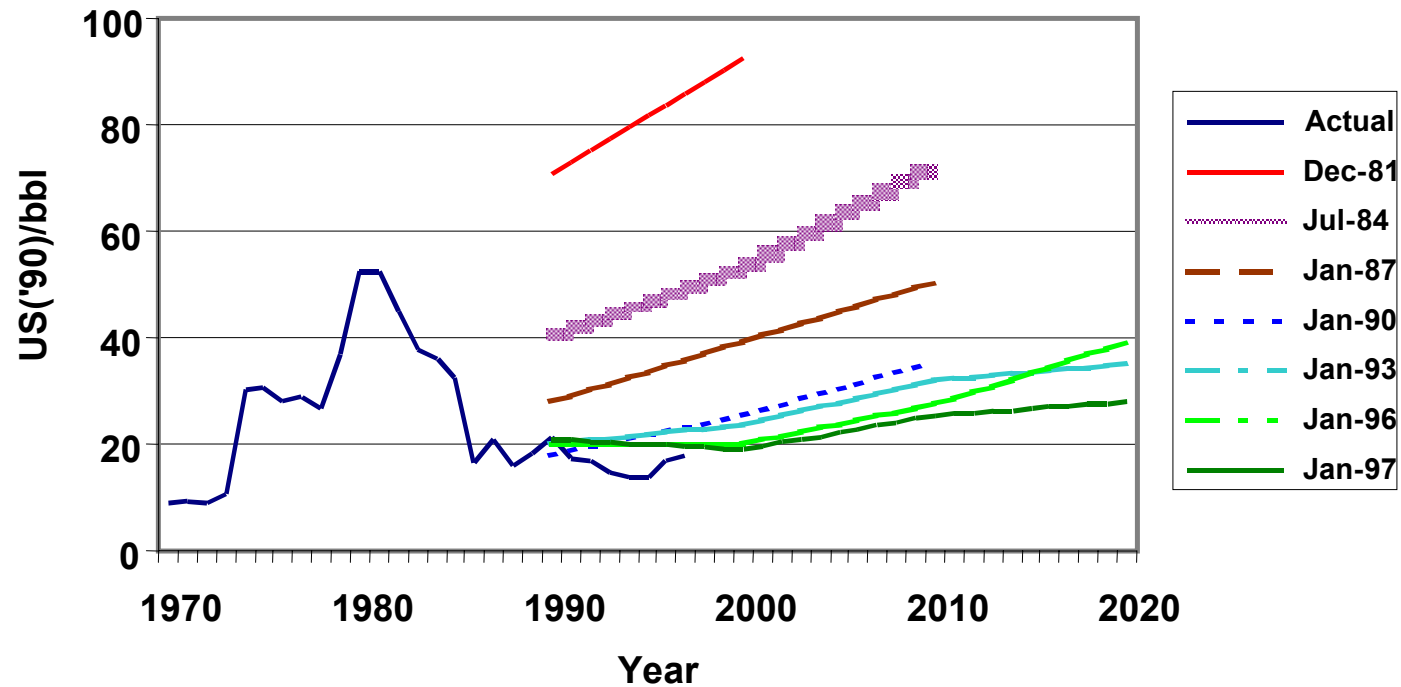
***"Prediction is very difficult, especially if
it's about the future."***

--Nils Bohr, Nobel laureate in Physics



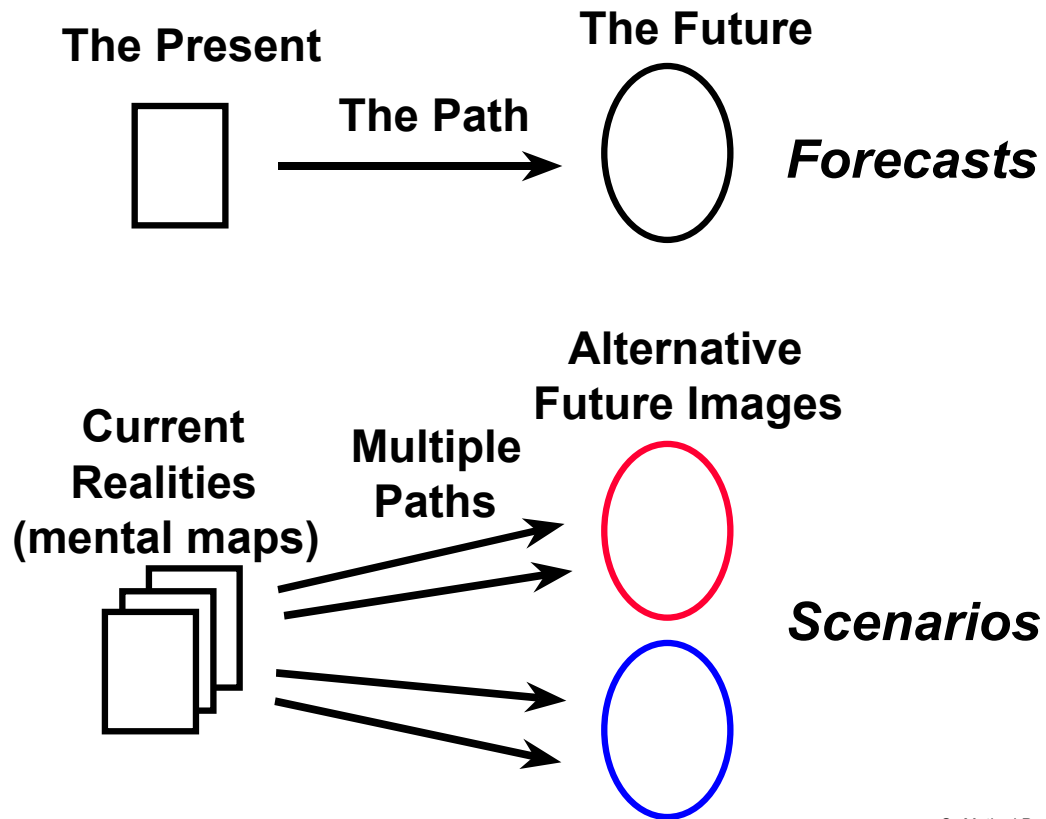
Bad forecasts

International Crude Oil Prices, Actual and IEW Medians



Scenarios at Shell

Scenarios vs Forecasts

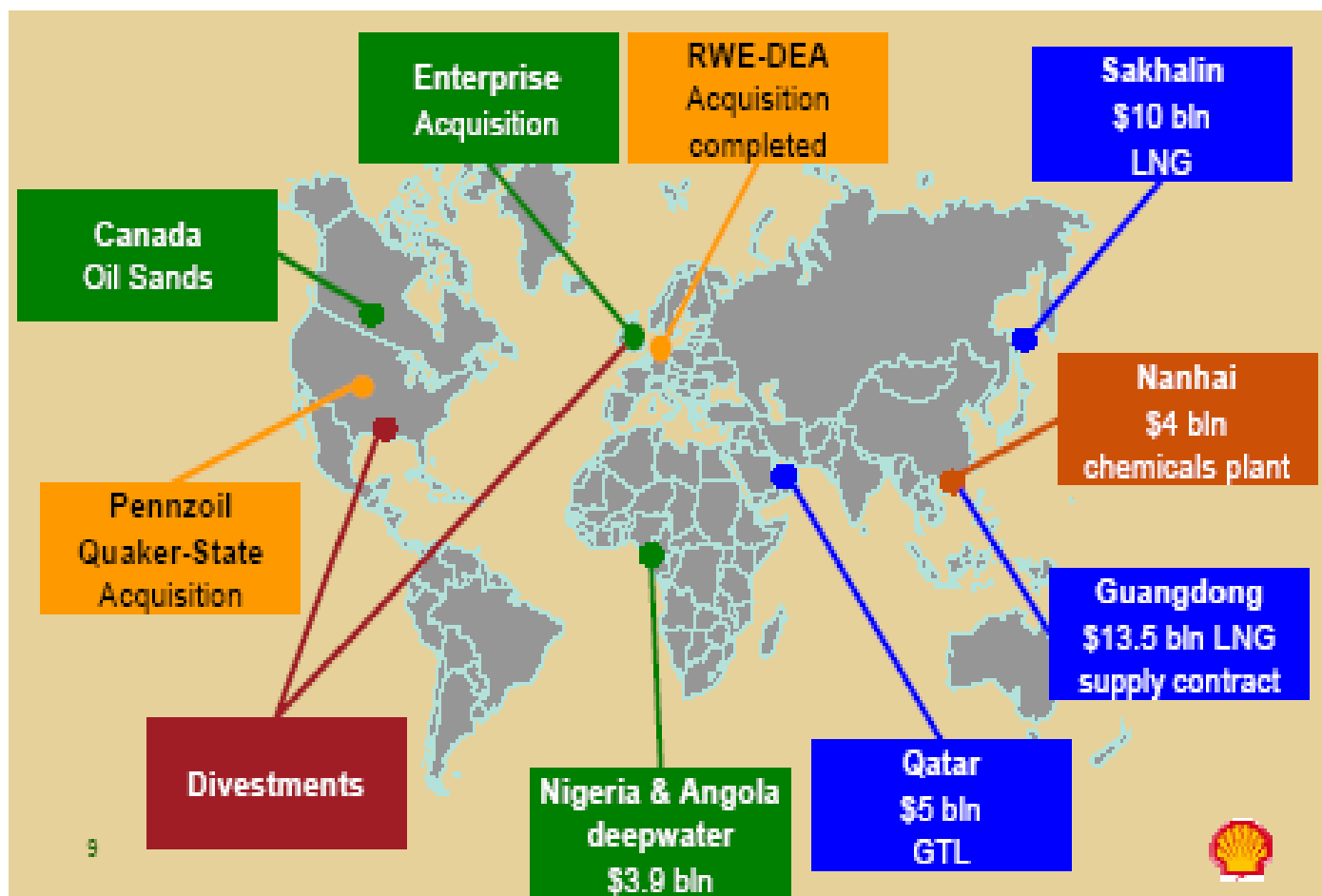


ScdMethod Pack2.ppt

For more info on Shell scenarios see:
www.shell.com/scenarios

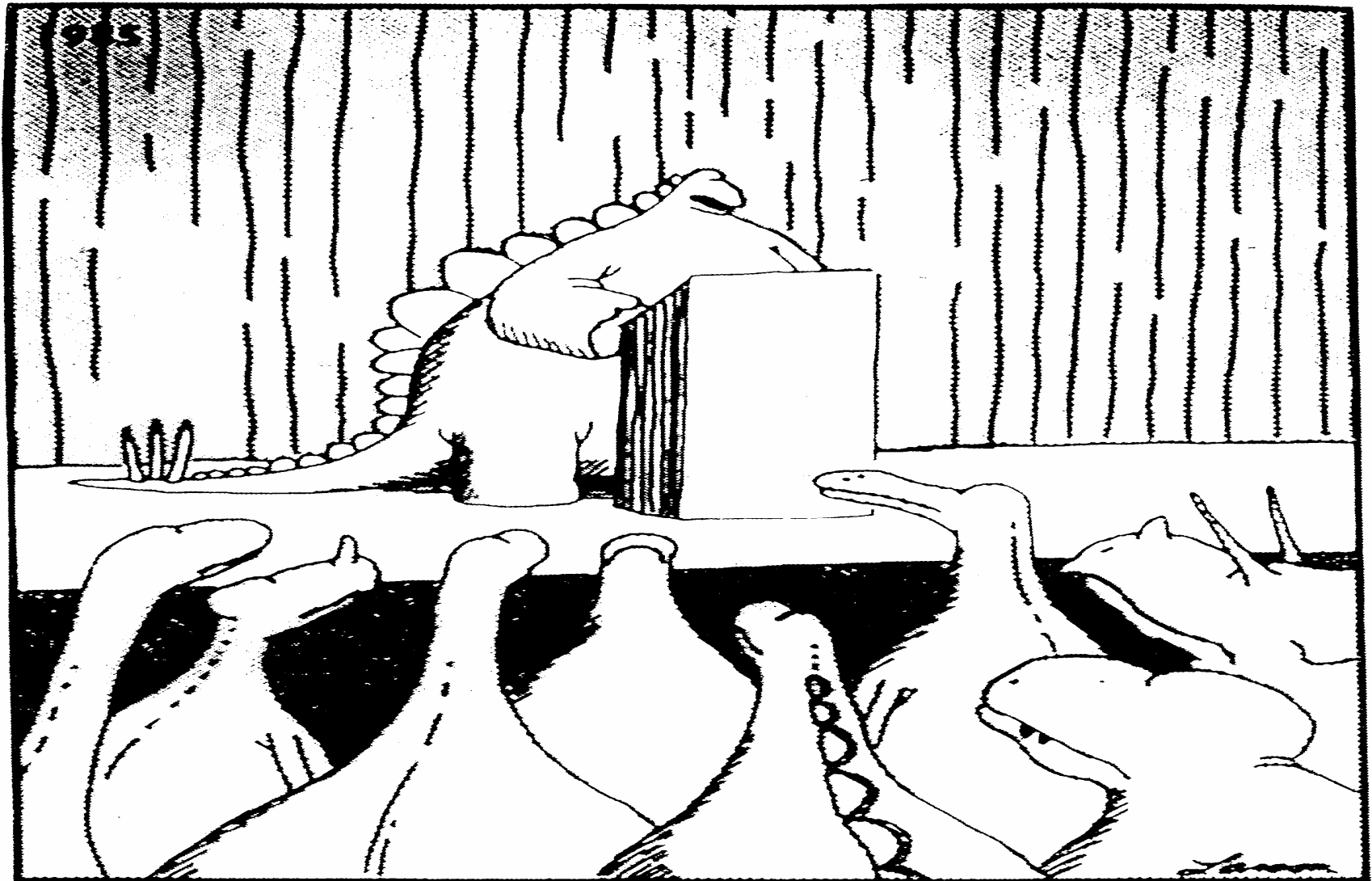


Scenarios and the aspired portfolio



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“The picture’s pretty bleak, gentlemen.....The world’s climates are changing, the mammals are taking over, and we all have a brain about the size of a walnut”



Real options (r.o.)

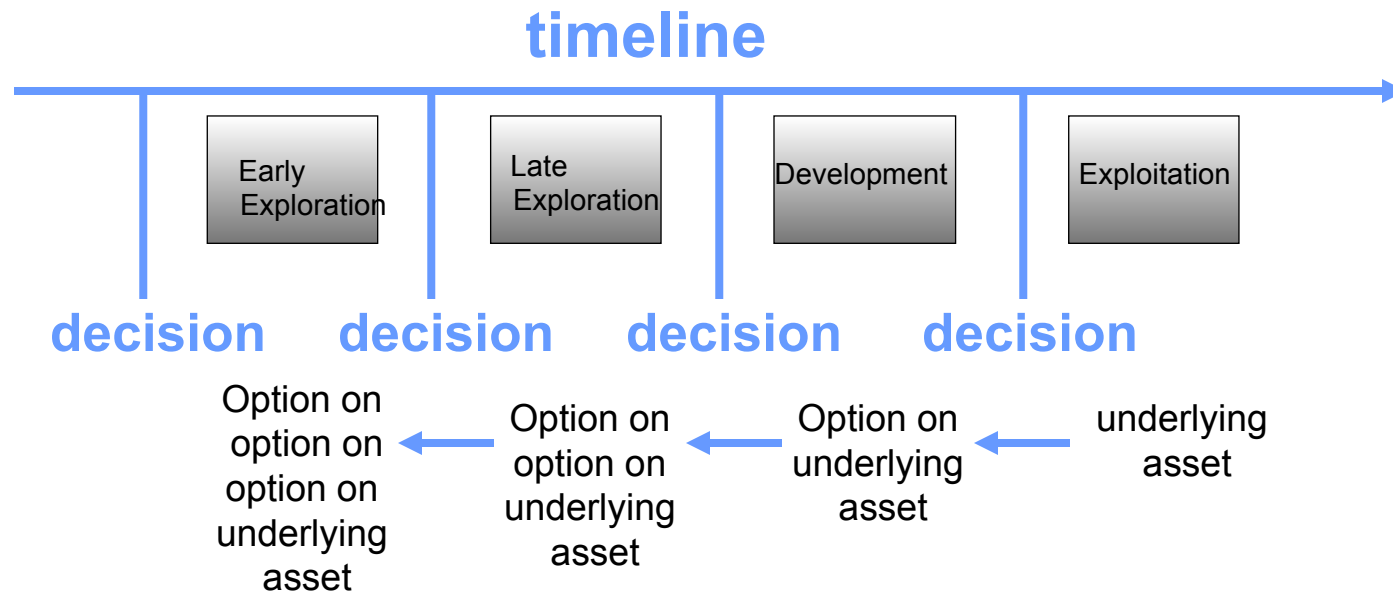
- Real options right, but not the obligation, to take an action
- acquired through investment
- they are a valuation methodology
- A alternative to Discounted Cash Flow (DCF)

methodology



Real options– example and limitations

The four phases of oil exploration



But...

- **underlying financial asset?**
- **valuation uncertainties**
- **‘price-taker’?**
- **guidance of history**



Scenarios and real options

Scenarios and real options:

1. Help identify real options
2. Evaluate real options and linked uncertainties:
 1. Endogenous: project related, relatively easy to identify and evaluate.
 2. Exogenous: socio-economic-political environment

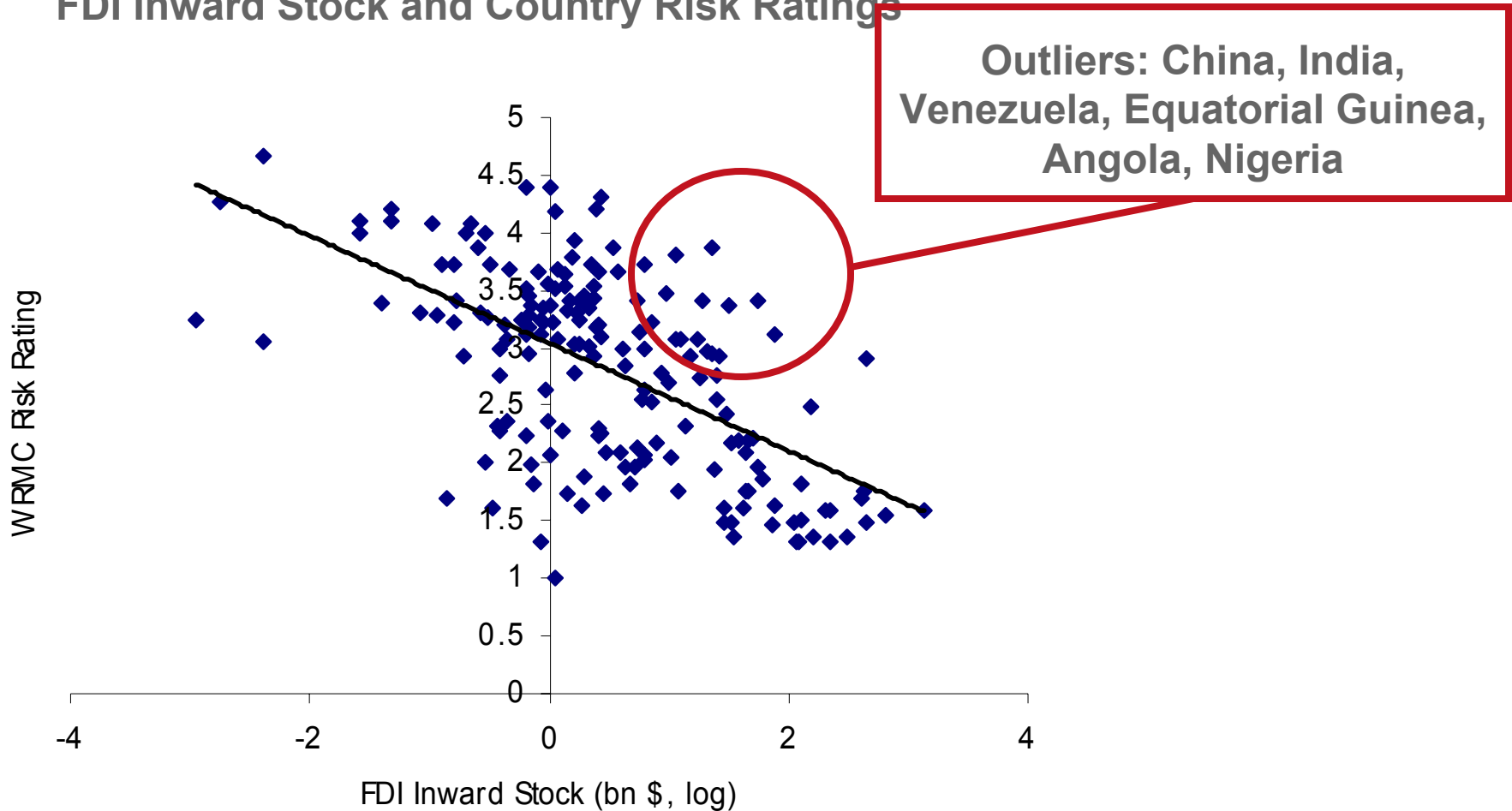


- Scenarios provide the volatility
- They can help identify, create, evaluate and time a r.o.

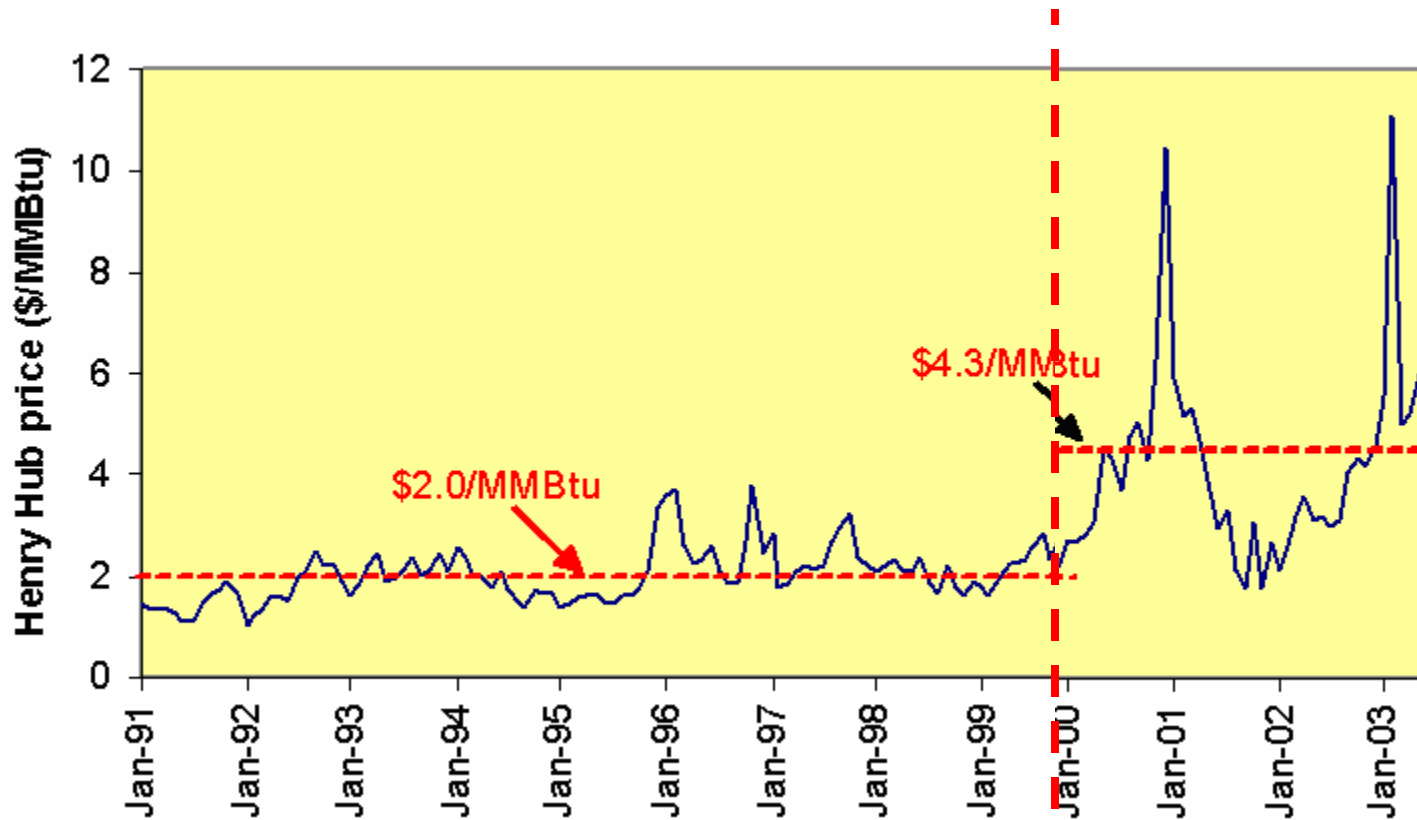


Growing exogenous uncertainties

FDI Inward Stock and Country Risk Ratings

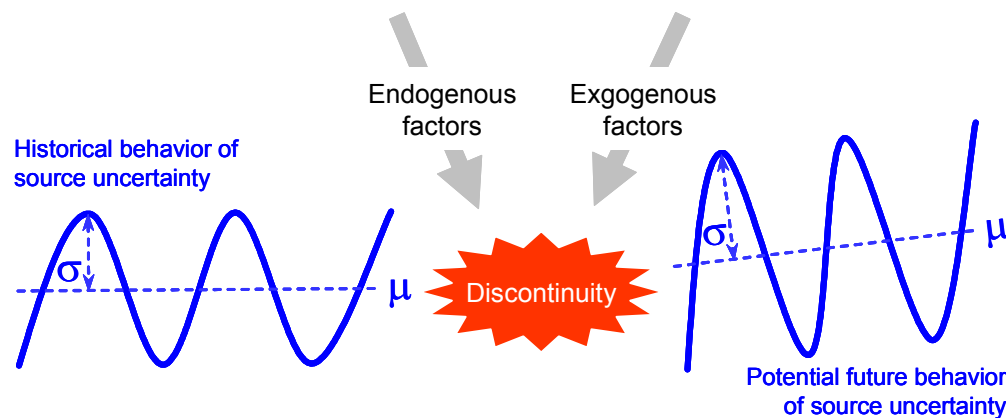
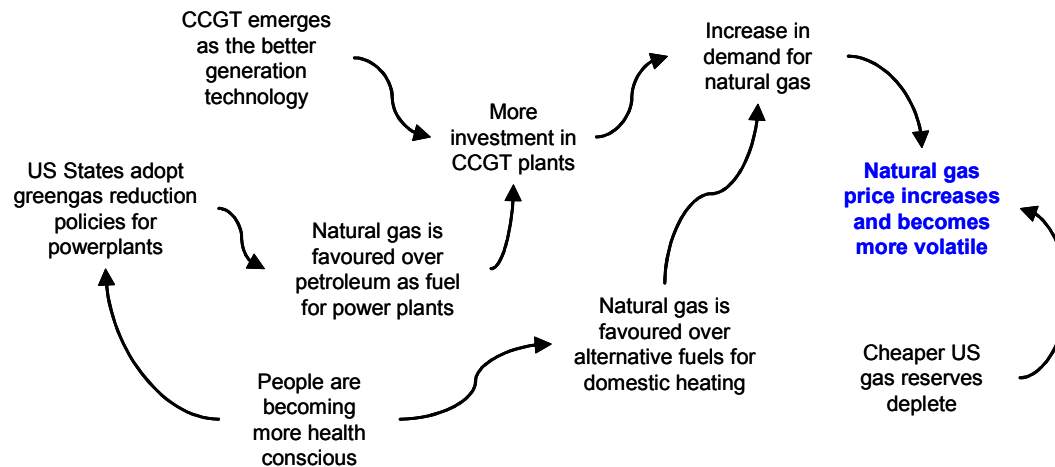


Example: the US natural gas market



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Qualitative casual thinking on the US natural gas market



Conclusions

- **Scenarios not fully used for investment decisions**
- **Real options are difficult to apply**
- **Increasingly uncertain business environment**
- **Scenarios and real options:**
 - **As a tool to identify real options**
 - **As an alternative way of evaluating real options**
- **Help close the gap finance vs strategic planning**

