



# The water infrastructure market and degree of development of associated insurance market

The private sector point of view

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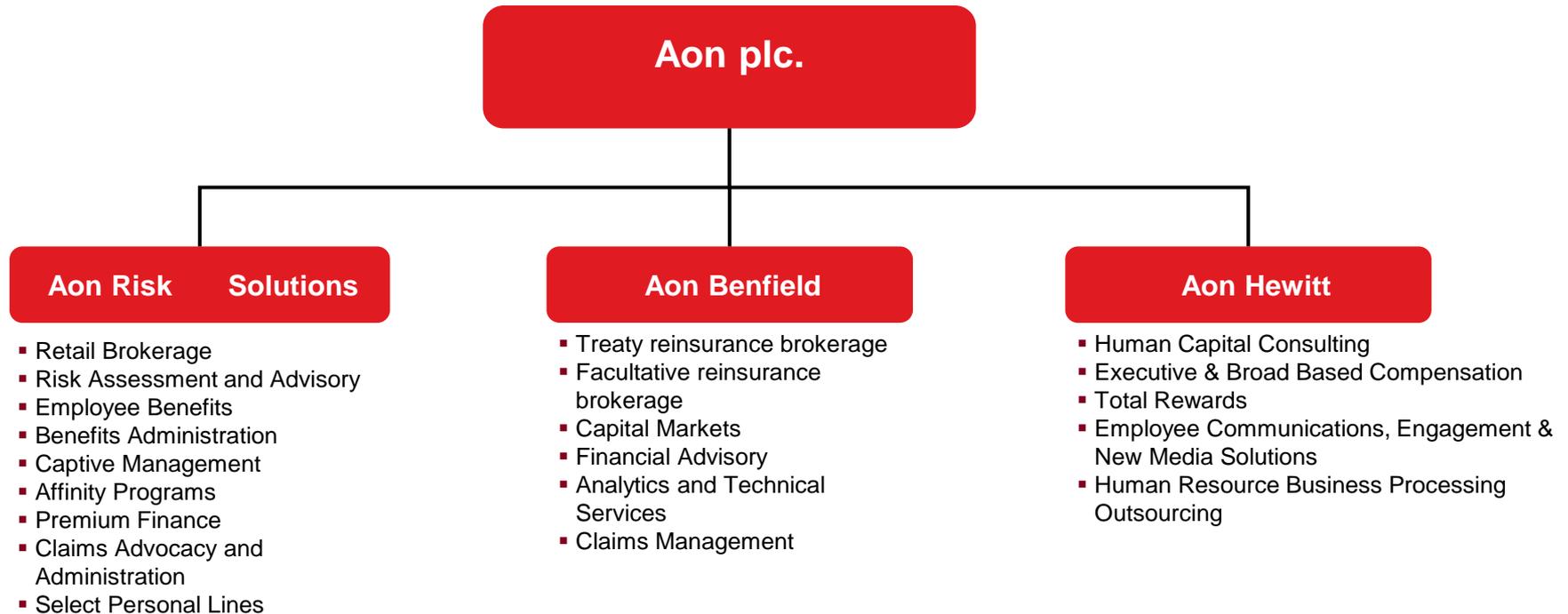
# Agenda

- Criteria of insurability
- Insuring risks
- Risk quality and quantity
- Insurance solutions for PPPs
- Insurance broking & consultancy – key tasks
- Risk based insurance broking and consultancy

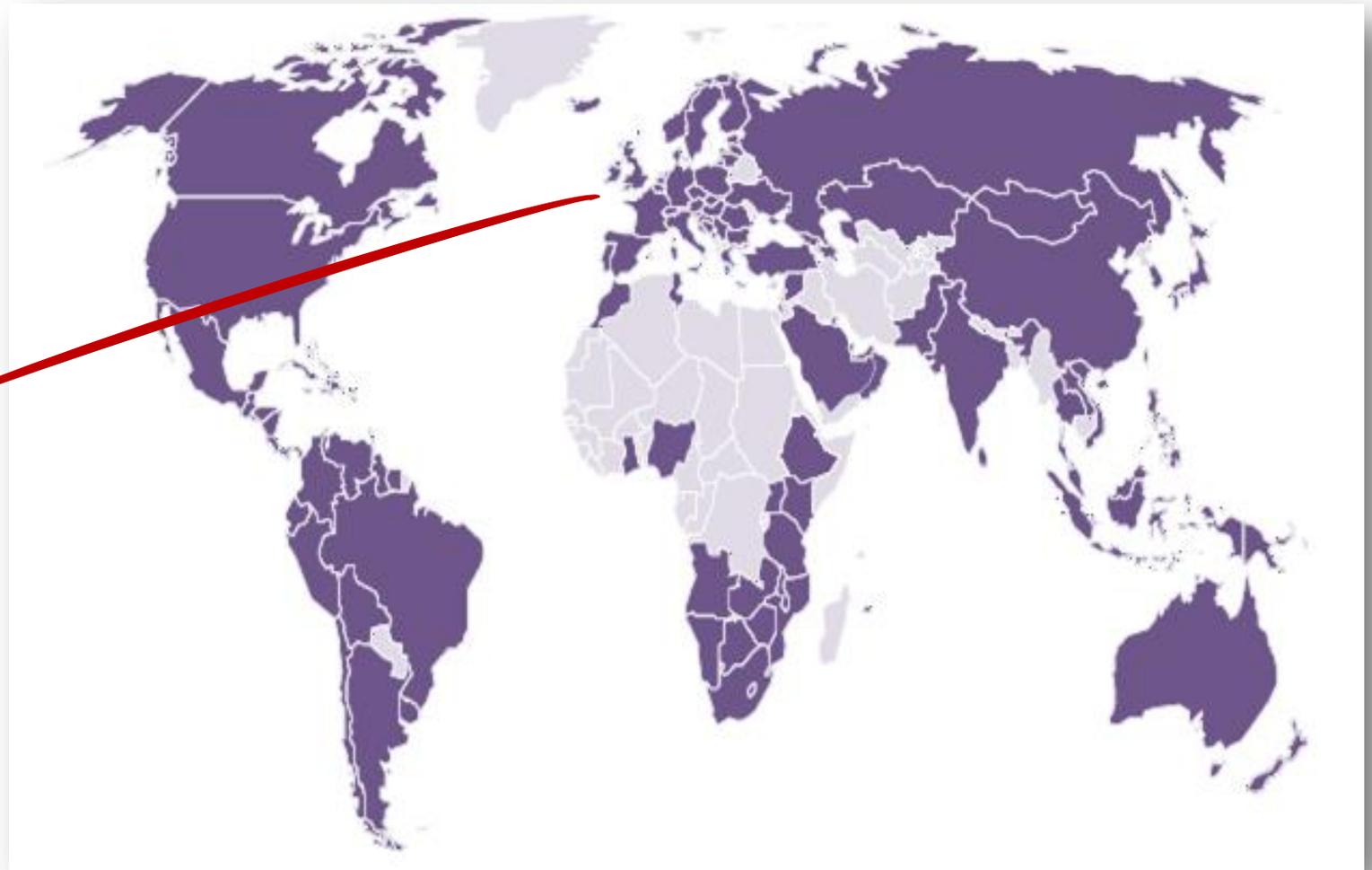


# Aon plc.

## Aon's three main business units



# Aon's Global Presence



The New Aon Centre  
Global HQ, London, England





# The insurance challenges in a PPP

- Risk identification
- Risk analysis & evaluation
- Defining risk management solutions' framework
  - Non insurable risks
  - Partially insurable risks
  - Insurable risks



The Insurance industry  
domain and solutions



# Insurability of a risk

- The risk cannot be catastrophic, or so large that no insurer could hope to pay for the loss.
- The nature of the loss must be definite and financially measurable.
- The loss should be random in nature.
- There must be adequate information available and for each risk to be insured worldwide.



# Insuring Risk

## What is Insurance?

- A definition: The sharing of risk where the losses of the few are met by the resources of the many. i.e. A mechanism to transfer risk
- History: Lloyds Coffee Shop in 16th century



# Risk Quantity and Quality

Quantity of a risk represents the total monetary value which can be lost should the risk occurs.

The key concern for an insurer is to cover a risk which demonstrates “good quality”. Good quality has some of the following meanings:

- There is a solid risk control framework behind that risk.
- The Insured is keen in reducing the overall risk exposure (likelihood & consequence).
- The Insured acts like non-insured. (does not rely on the fact that there is insurance)



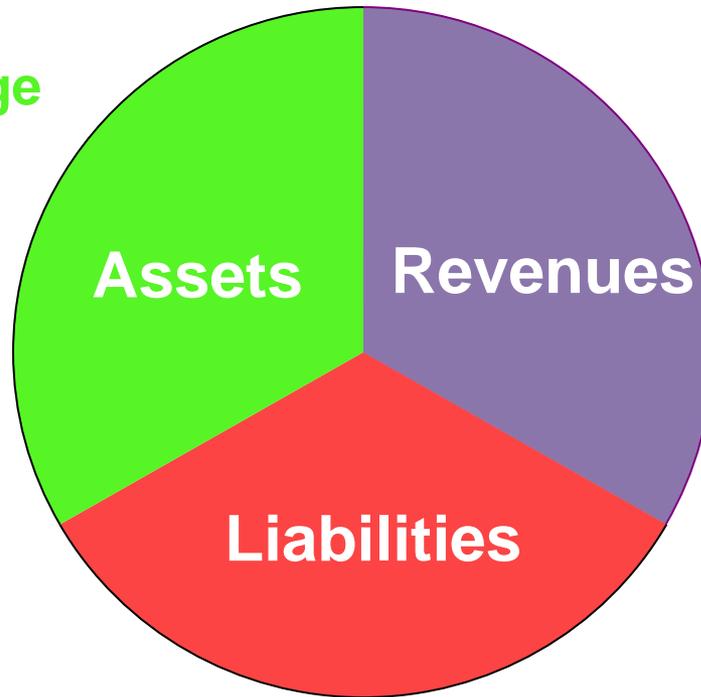
# Insurable Risks

- Mirror a Business:
  - Assets
  - Revenue
  - Liabilities
- When is it value for money
  - Fortuitous Risk
  - Claims history
- What is not insurable
  - Inevitable (excluding life insurance)
  - Penal damages
  - Criminal Acts



# Main categories insurable risk

- Property damage
- Construction
- Design



- Third party damage
- Direct financial loss
- Continuity

- Legal
- Contractual
- Legislation

# The Insurance Market Players

- Insured Parties:
  - composite insureds
  - joint insureds
- Insured 's Advisor/Broker
- Underwriter/Insurer
- Re-Insurer
- Loss Adjuster



# Insurance Legislation

- Free markets
- Registered Insurance Markets
- Restricted Insurance Markets
- Nationalised Insurance Markets
- Statutory Insurances



# Risk challenges in Private Finance

- Service driven
- Non-recourse finance
- Complex contractual structure
- Build-ability and operate-ability
- Individual project risk profile
- Rigid price structure
- Risk transfer from public to private sector  
and many more



# Why insure in Project Finance?

Assurance having but not limited to the following meanings:

- SPV balance sheet/cash flow protection
- Banks' comfort and protection of their loan
- Government's comfort that Project Company can continue to operate in event of losses



# Core insurances available for PPPs

- Construction phase:
  - Contract works
  - Construction plant
  - Existing assets
  - Marine transit (cargo)
  - Advanced loss of profits (works and cargo)
  - Third party liability
  - Professional indemnity
  - Employers liability
  - Motor



# Core insurances available for PPPs

- Operational phase:
  - Material damage
  - Business interruption
  - Third party liability
  - Employers liability
  - Motor



# Other insurances

- Environmental impairment (gradual)
- Latent defects (new assets)
- Directors & officers liability
- Crime
- Archaeological finds
- Keyman
- Liquidated damages
- Political risks
- Terrorism
- Riot/civil commotion



# Principal construction insurances

- Contract works
- Plant and equipment
- Existing assets
- Third party liability
- Employers liability
- Professional indemnity
- Delay in start up



# Operational Material Damage

- Coverage
  - All Risks of Physical Loss or Damage to Project Assets
- Sum Insured
  - Full value
  - First Loss
- Extensions
  - Professional fees
  - Debris removal
- Exclusions
  - Wear/tear
  - Defects
- Deductibles
  - Custom



# Operational Business Interruption

- Coverage
  - Loss of SPV Revenue due to interruption in the business due to insured damage
- Sum Insured
  - Revenue for indemnity period
- Extensions
  - Additional Increased cost of Working
  - Utilities
  - Suppliers
- Deductibles
  - Various – time/amount
- Key Issues
  - Placed in conjunction with Material Damage



# Operational Third Party Liability

- Coverage
  - Legal liability for injury/damage to third parties
- Limit of Indemnity
  - As appropriate
- Exclusions
  - Employees
  - Inevitable Damage
  - Professional Advice – separate insurance
  - Medical Malpractice – separate insurance
- Extensions
  - Defence Costs (including associated criminal charges)
- Deductibles
  - Custom
- Key Issues
  - Adequacy of limit of indemnity



# Making insurance work

- Identify what is required
- Price vs quality of cover/service
- Align with contracts
- Full disclosure
- Work with insurers – risk management
- Claims
  - Timely notification
  - Realistic quantum
  - Cost Record retention
- Use professional advisors



# Insurer Security

- Prudent insurer selection
- Metrics (Aon Market Security)
- Rating Agencies: Standard & Poors, AM Best



# Insurer Broker Services

- Authority Advisory
  - Risk analysis
  - Insurance Requirement Analysis and Drafting
  - Tender Analysis
  - Bidder Negotiation
  - Regular Audit
  - Claims Advice



# Insurer Broker Services

- Financier Advisory
  - Risk analysis
  - Bid documentation Analysis
  - Loan Agreement Analysis and Drafting
  - Negotiation
  - Regular Audit
  - Claims Advice

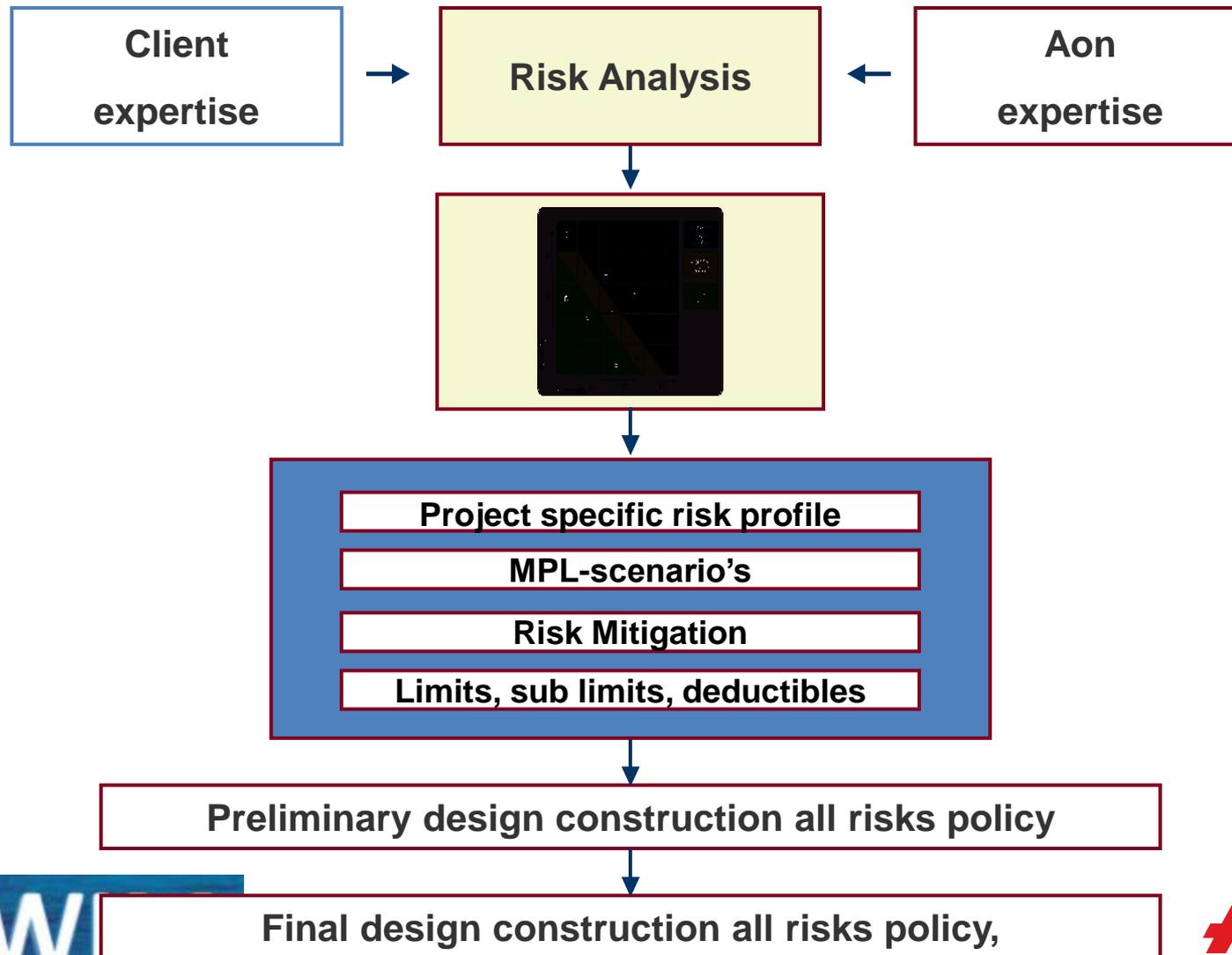


# Insurance Broker Services

- Bidder/SPV Services

Stage	Broker Input
Pre-qualification	Support bidder
Competitive bid	Analyse risks Review/negotiate contracts Define and quote insurances
Preferred bidder	Refine bid Finalise insurance programme
Construction phase	Effect construction insurances and service
Operational phase	Effect operational insurances and service Accommodate change

# Aon – risk based broking



# Risk matrix – workable example (sample)

No.	Risk category	Risk	Cause	Consequence	Insurable	Type of insurance
16.	Material, Technical, Spatial	Obstacles on the premises or in the ground.	Presence of contaminated soil, archaeological finds, explosives, radon, protected flora and fauna, cables/ pipes and/or insufficiently stable surface soil.	Interruption of project/ delay  Additional soil investigation.  Adjustments construction process  Impact on operation	No	NA
17.	Material, Technical, Spatial	Flood, inundation, landslide, subsidance, fall of rocks, trees etc.	Natural hazards	Material damage  Business Interruption	Yes	EAR/Property Insurances  ALOP/Business interruption
18.	Material, Technical, Spatial	Damage or loss of any part of the spare parts / equipment during transport.	Accident to the vehicle.  Fire  Lack of due care on the part of carrier.	Delay of the maintenance  Material damage.	Yes  Yes	Contingent Marine insurance  Marine insurance, Carrier's Liability insurance
19.	Material, Technical, Spatial	Errors in the realisation of the construction work discovered after construction period	Use of inferior materials.  Use of insufficient material.  Use of incorrectly composed materials    Failure to carry out part of the Output Specs	Failure to meet the Output Specs.  Making adjustments to building / installations.  Delay in construction process  Breaking down part of the construction / installation and correct reconstruction.	Partially  Yes  No  No	EAR (extended maintenance) Isn't it only about  PI  Products liability



# Financiers' insurance needs

- Broad coverage
- Various specific clauses
  - Co insured status
  - Non vitiation
- Minimum insurer security ratings

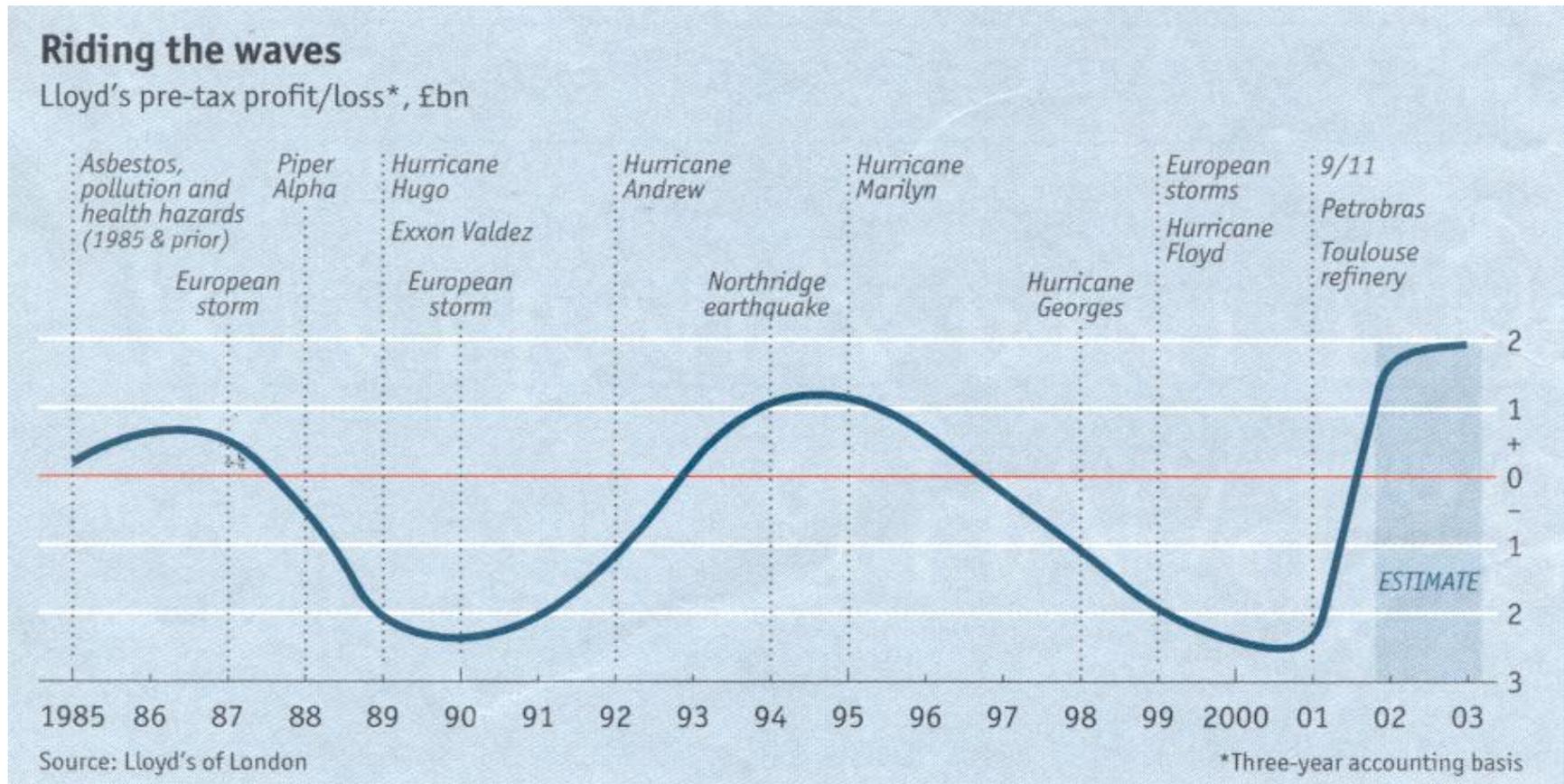


# Risks around insurance

- Premium fluctuation
- Unavailability of coverage



# The insurance cycle



# Insurance programme design

- Project centric
- Recognition of needs of all parties
- Interfacing insurance protection with self retained exposures
  - Breakdown
  - Latent defects
  - Consequences of defects
- In-built ability to change
- Longevity and price stability
- Reward for risk management/low claims



# What Questions Do You Have?



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