



Contracts & Costs

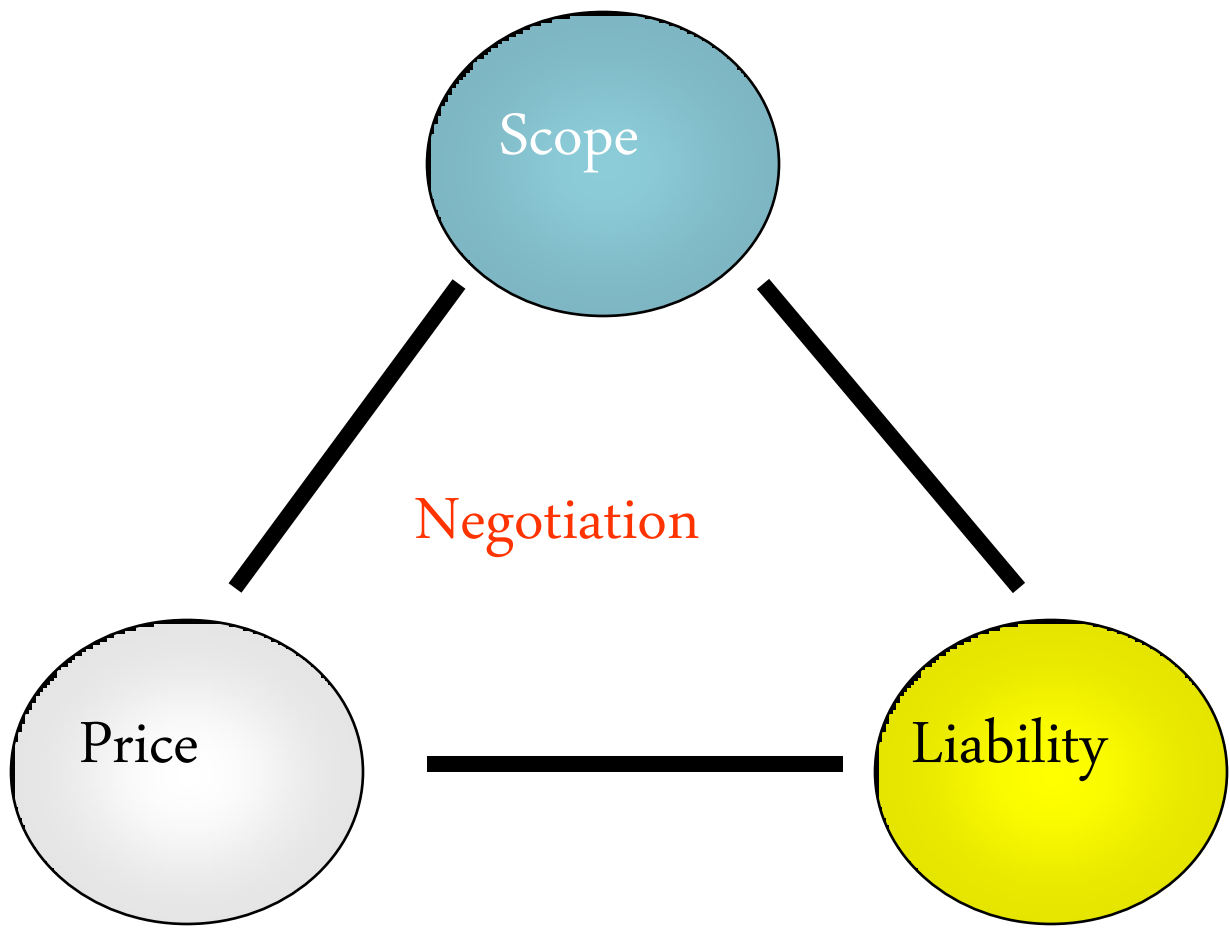
Large Engineering and Construction Projects
in the Oil & Gas Industry

20 September 2012

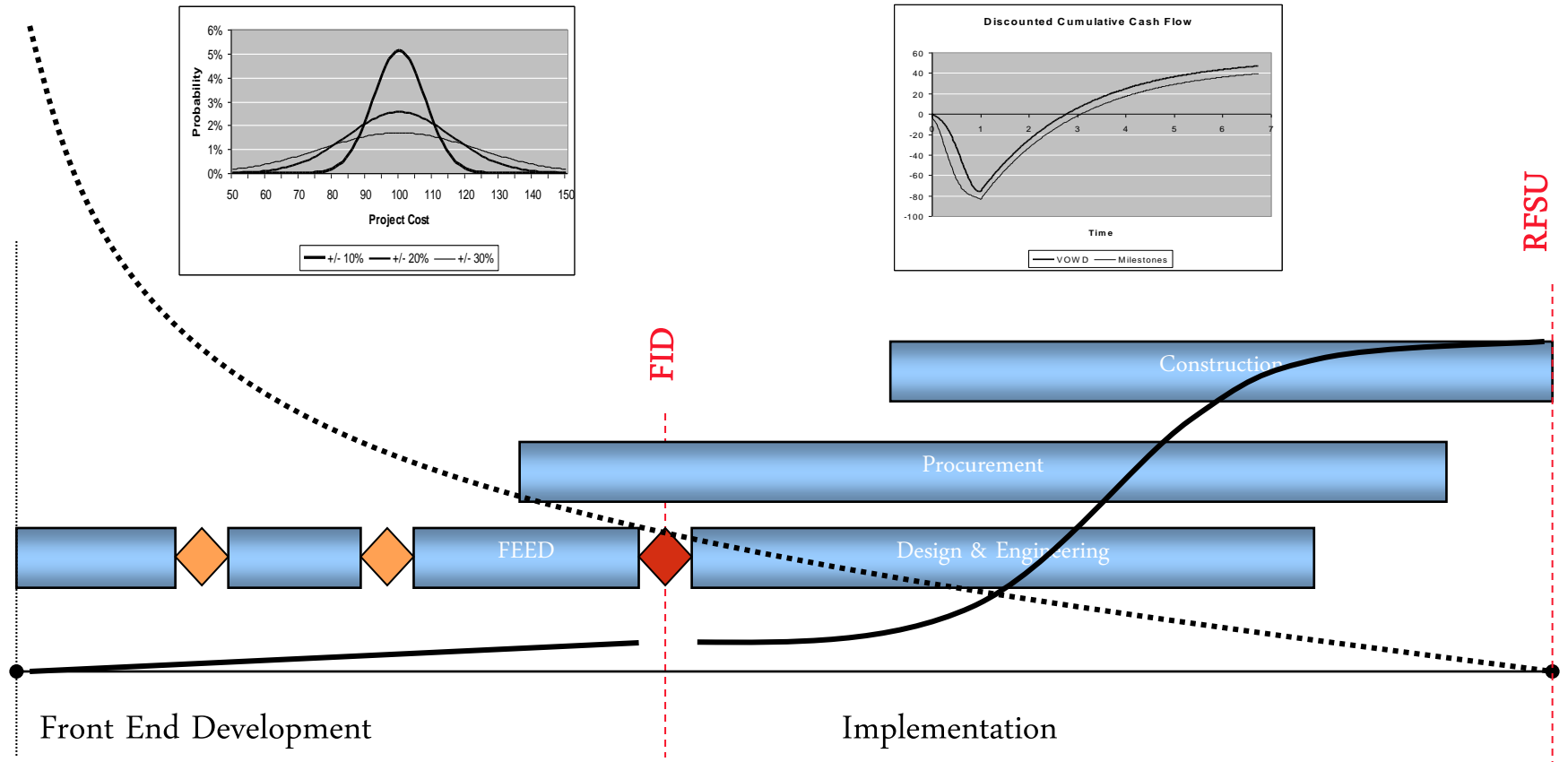
Kees Berends

General Manager CP Projects

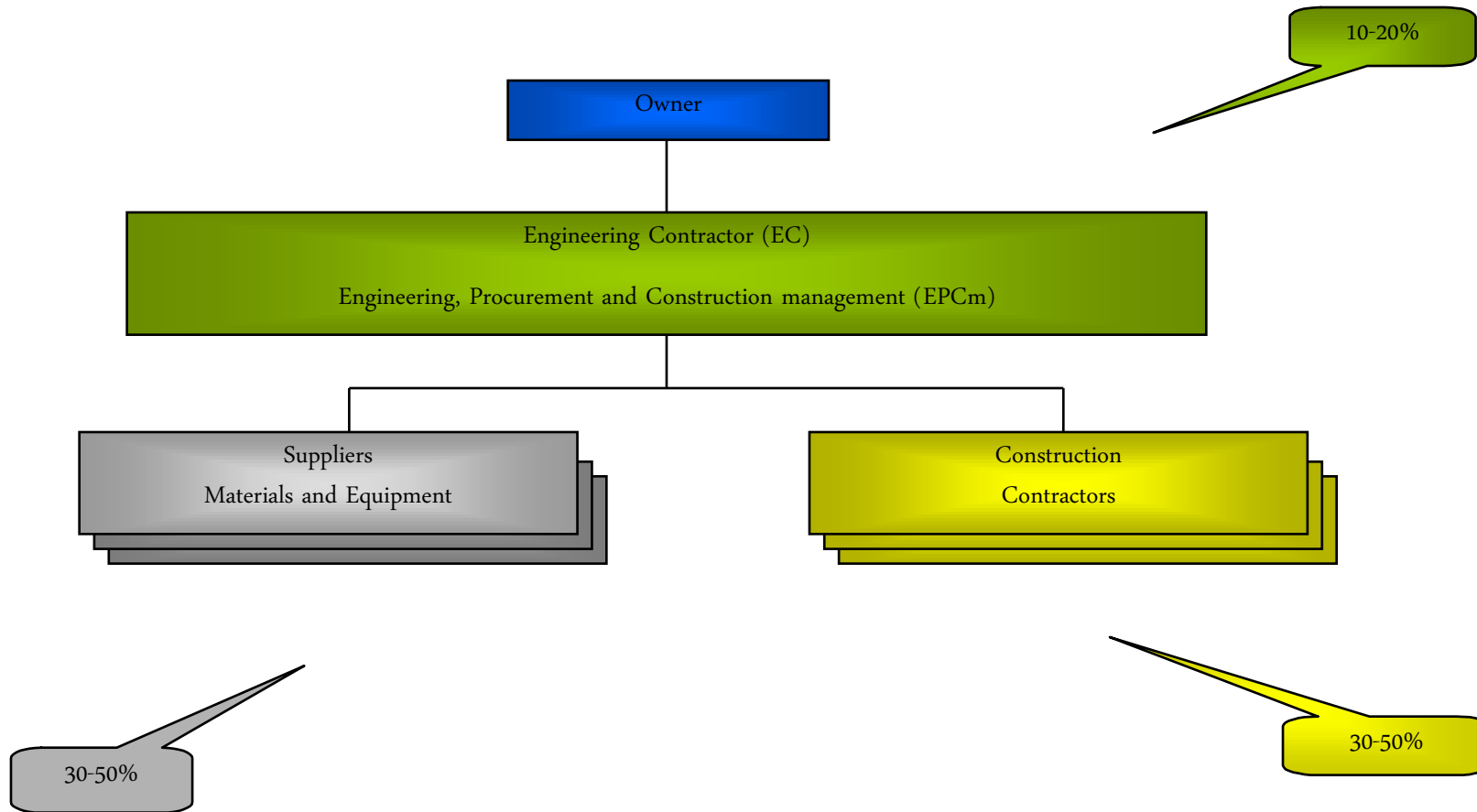
Strategy - Assurance - Standards



Project Life-Cycle

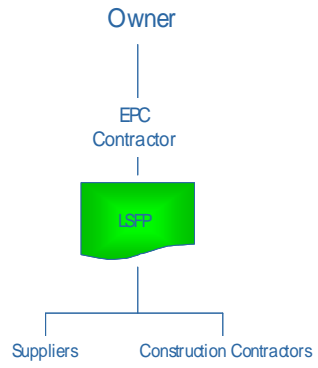


Generic Work Breakdown Structure (WBS)

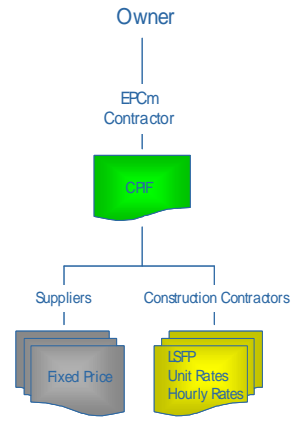


Generic Contracting Options

LSFP/EPC (goods)



CPIF/EPCm (services)



Strengths
&
Opportunities

- Relative cost certainty
- Simple contractual arrangement
- Inherent performance incentive
- Small owners team
- Bankable

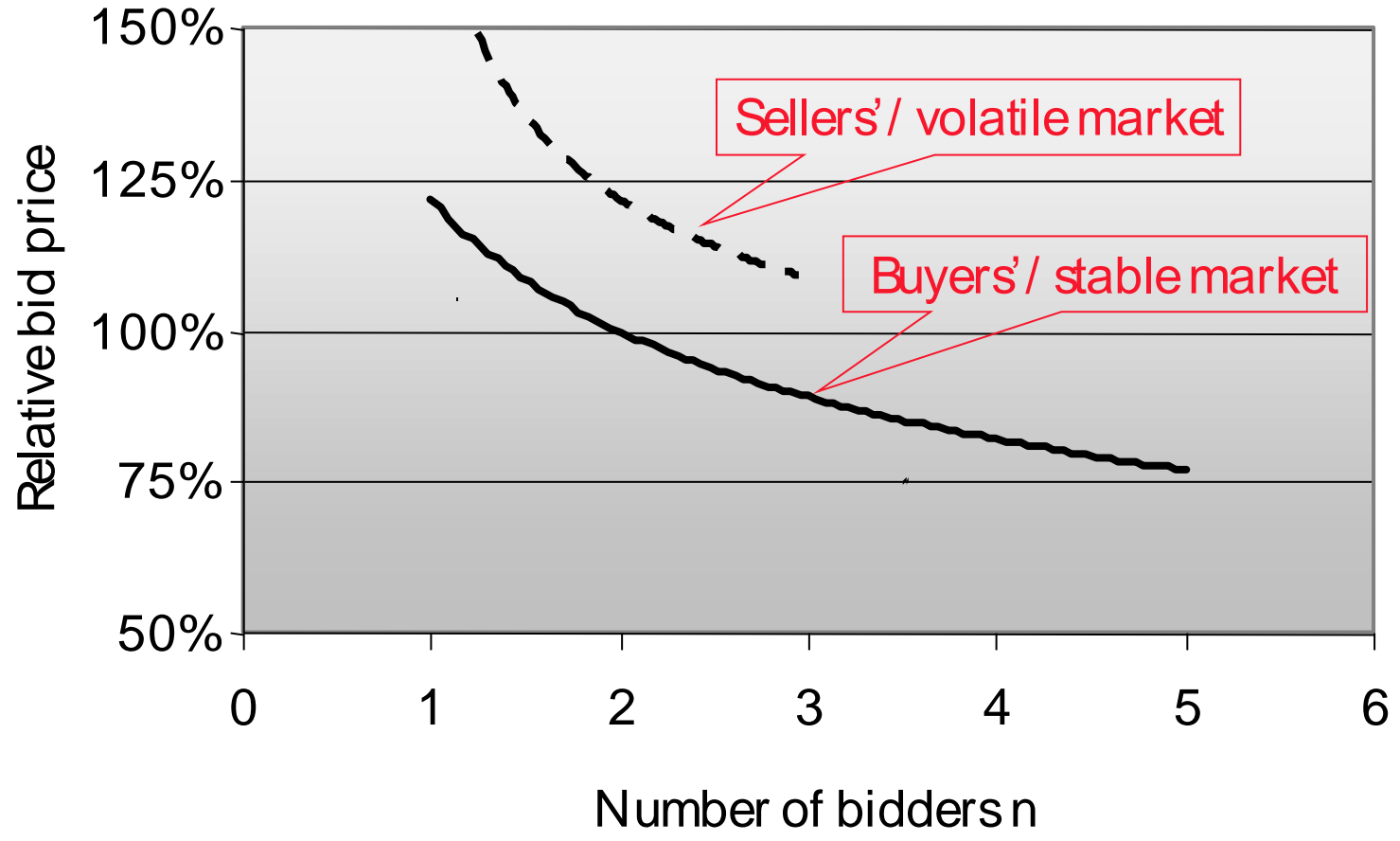
- Market interest
- Lowest cost
- No risk premium
- Owner influence
- Schedule

Weaknesses
&
Threats

- Scope definition
- Difficult to obtain tenders
- Risk premium
- Schedule
- Limited owner influence

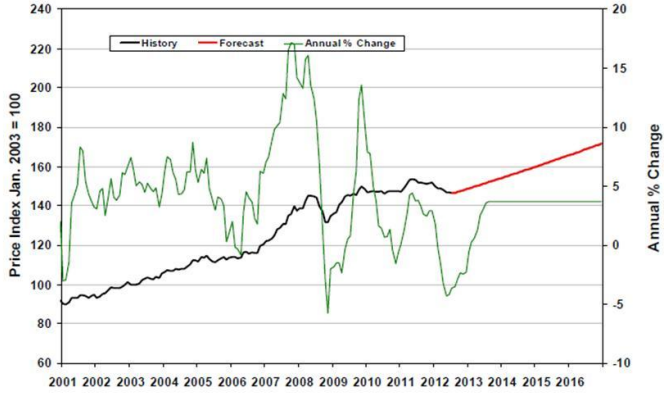
- Cost uncertainty
- EC Performance
- Complex contractual arrangement
- Large owner team
- Bankability

Competitive Tendering LSFP/EPC Contracts

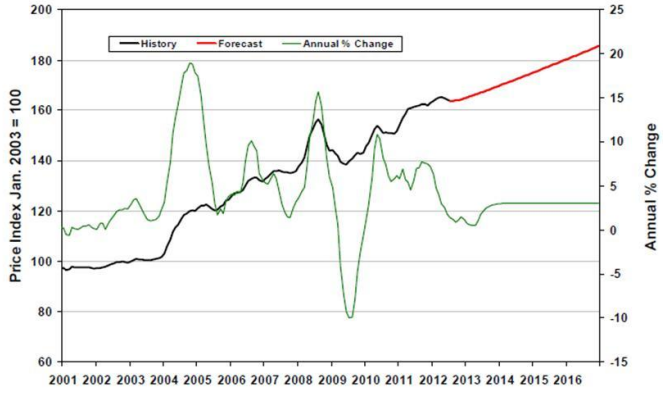


Supply Chain Volatility

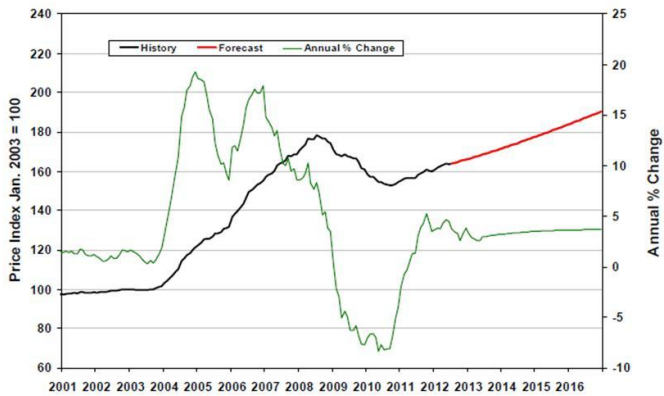
Global Engineering Price Index



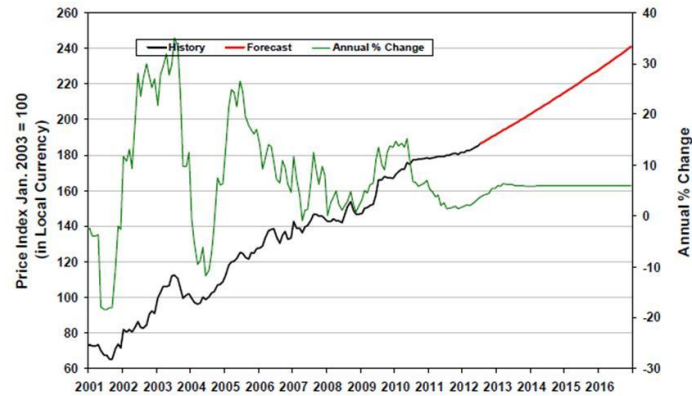
Bulk Materials Price Index

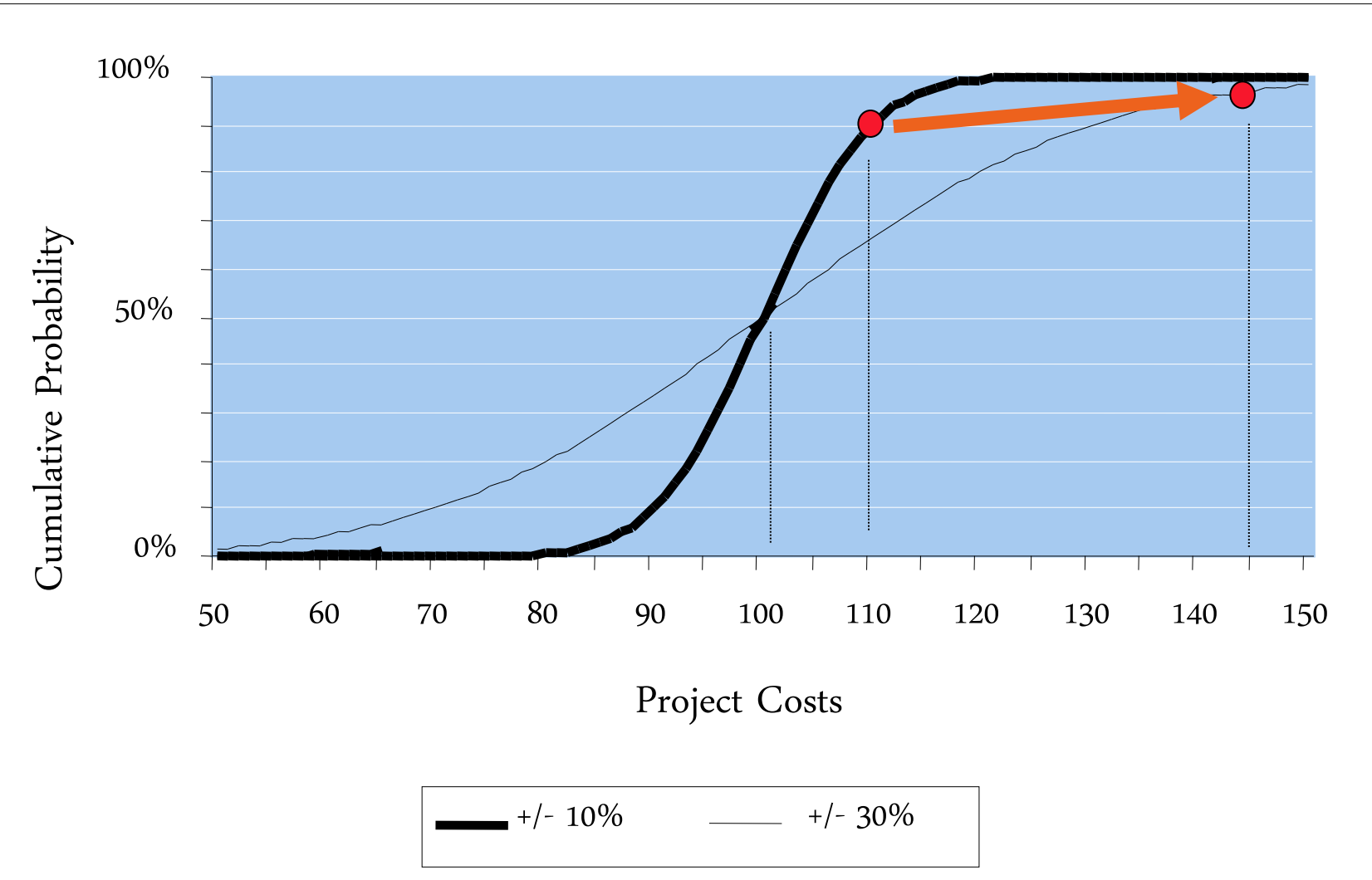


IPA Heavy Equipment Price Index



Australia Construction All-in Wage Index







Q & A