



Financial Evaluation of Construction Contract Parties

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Liberty
Specialty Markets

Construction Project Risk Assessment

Key relevant factors:

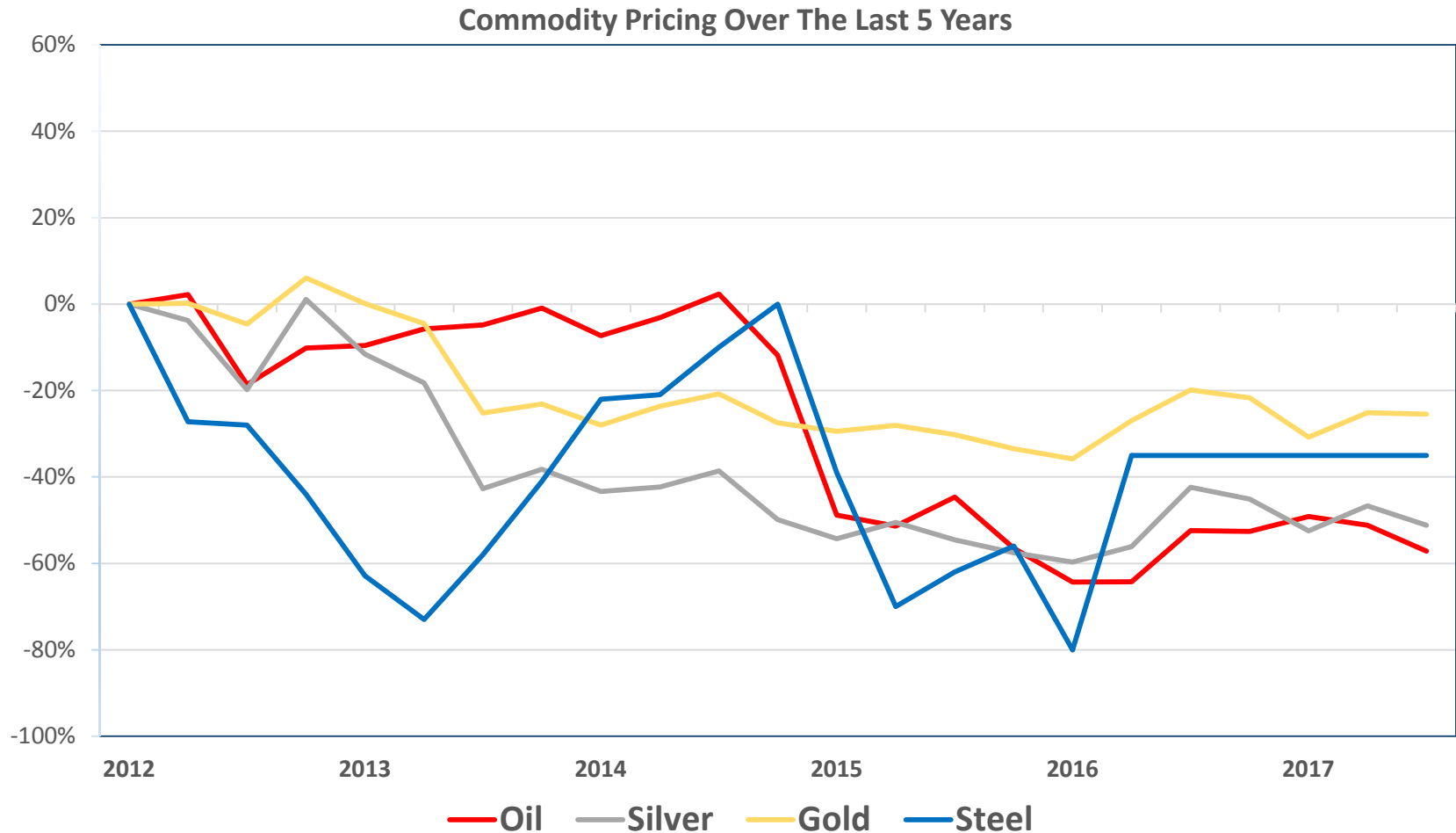
- Integrity and experience of contract parties
- Process technology evaluation - design, material
- Method of construction and workmanship considerations
- Natural perils exposure
- Location characteristics - prospect of extraneous damage
- Underpinned by survey and inspection execution

as indeed the traditional approach should be.....

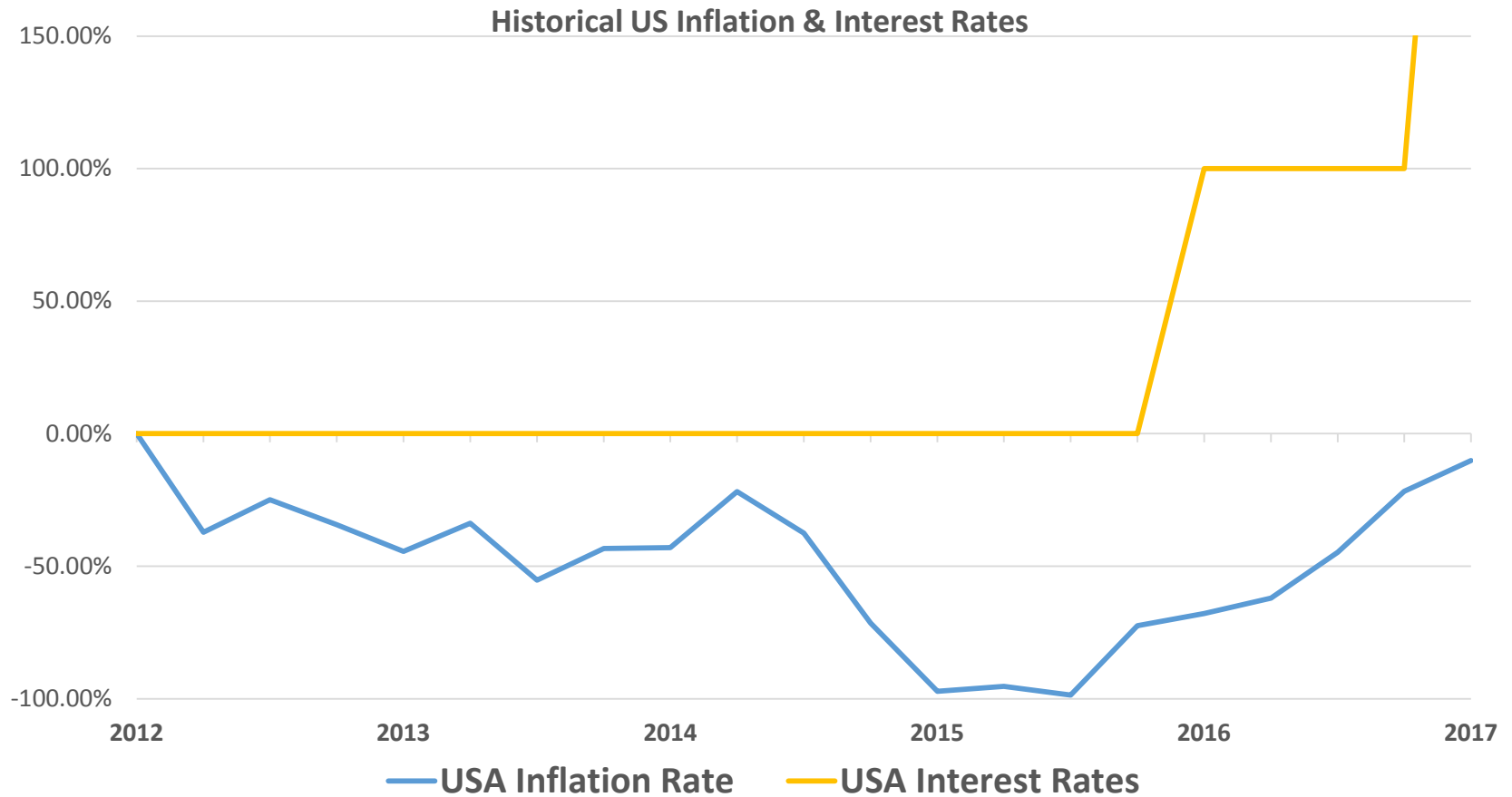
Introduction

- Drivers of Financial Uncertainty
- Reasons for Failure of Construction Projects
- Consequences of Construction Project Failure
- Financial Risk:
 - Assessment
 - Modelling - Case Study
- Analytical Transition - Portfolio Analysis
- Practical Conclusions

Drivers of Financial Uncertainty - Commodities



Interest Rate/Inflation Impact



Reasons for Failure of Construction Projects

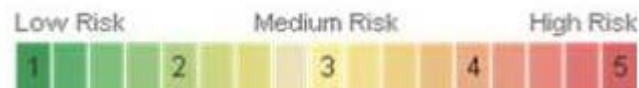
1. Frequent design changes during Construction
- 2. Financial difficulties of Contractor**
3. Obsolete or unsuitable construction methods
4. Incompetence of project team
5. Poor management and supervision
- 6. Slow payment of completed works**
- 7. Financial difficulties of the Owner**
8. Corruption
9. Bureaucratic administrative system
- 10. Interest and inflation rates**



T. P. Nguyen/N. Chilashe - Association of Researchers in
Construction Management, September 2013

Country Risk Ratings - Corruption

Rank	Country	Overall Rating	Political (25%)	Economic (25%)	Legal (15%)	Tax (15%)	Operational (10%)	Security (10%)
1	Singapore	1.30 Negligible	1.50	1.50	1.00	1.00	1.00	1.25
2	Sweden	1.34 Negligible	1.25	1.50	1.00	1.25	1.50	1.50
3	Canada	1.40 Negligible	1.50	1.75	1.00	1.00	1.50	1.00
90	Mexico	2.76 Medium	2.50	2.75	2.50	2.25	3.25	3.75
91	Grenada	2.78 Medium	2.75	3.50	2.50	2.00	2.75	2.25
91	Jordan	2.78 Medium	2.75	3.00	2.50	2.75	2.50	3.00
174	Gambia	3.75 High	4.25	4.00	3.50	3.50	3.50	2.50
175	Chad	3.76 High	3.50	3.50	4.00	4.00	3.75	4.25
176	Niger	3.78 High	4.00	3.75	3.50	3.75	3.50	4.00
205	Afghanistan	4.55 Extreme	4.75	4.50	4.50	4.25	4.50	4.75
206	Central African Republic	4.68 Extreme	4.75	4.75	4.50	4.50	4.75	4.75
207	Somalia	4.74 Extreme	4.50	4.75	5.00	5.00	4.50	4.75



Reference: Banking Risk/Methodology

Reasons for Failure of Construction Projects

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Financial Integrity Consideration

‘Number crunching has always been a big part of construction – a commonly heard phrase is that construction companies are accounting companies which happen to erect buildings. It’s an industry where 35% of costs are accounted for by material waste and remedial work. So counting the cost of every screw could be the difference between delivering on budget and bankrupting an organization (or several organizations) financing a build.’

Reference: ‘How big data and analytics are transforming the Construction Industry’ – Bernard Marr. 23rd June 2016

Financial Integrity Consideration

Driving Principle:

‘If the Construction Underwriter was aware that the primary Contract Party (ultimate insurance buyer) was suffering from financial distress and even potential bankruptcy, would this have an impact on their decision to write the Construction Project or influence the proposed terms and conditions?’

Significant deterioration in financial status can lead to:

- Undermining of consumer and investor confidence
- Temporary construction contract suspension
- Potential significant project delay
- Contract cancellation and abandonment
- An increase in claims probability?



Construction Project Impact - Commercial

The consequences of financial default can mean:

- Financial structure impacted - banks, financial institutions
- Contractual implications e.g. supply of machinery/materials
- Projected revenue streams disturbed e.g. niche commodities
- Government and state require project scope re-evaluation
- Legislative change may mean design, workmanship re-review
- Inflationary impact exacerbated and cost overruns inevitable



Construction Project Impact - Technical

The consequences of financial default may mean:

- Commitment to project completion is threatened
- Re-bidding by less reputable contractors
- Changes to original manufacturer's and suppliers
- Cessation of work
- Cost of 'care and maintenance' programmes
- Integrity of manufacturer's guarantee's diluted
- Sustaining contract site security
- Contractor's plant and equipment hire
- Continuity of skilled workforce
- Project inherent hazard increased e.g. weather windows



Principal/Owner - Project Risk Assessment

Potential qualifying financial features:

- Financial position
- Cash flow - loan, interest, progress (re)payments
- Acquisition and Divestiture activity
- Level of integrity of CapEx budgets
- Operating rates/utilisation
- Plant unit/closures
- Health and safety incidents
- Staffing level turnover



Contractor - Project Risk Assessment

Potential qualifying financial features:

- Ability to execute value proposition
- Financial stability
- Credit Rating
- History, brand, size and reputation
- Project alignment/expertise
- Similar reference projects - type, product and scale
- Territorial familiarity



A positive assessment can provide a 'guide' but is not a 'tangible' nor 'prescriptive' measure in terms of outcome or conclusion

Financial Risk Modelling

Hardware:

- Standard and Poor Capital IQ Model: Principal, Operator, Contractor.
- Forms the basis of risk acceptance across Surety and Director's and Officer's Insurance

Key potential financial performance indicators:

- Market signal probability of default
- Fundamental probability of default
- Credit/Model Score - S and P Capital IQ



Financial Risk Modelling

Three main categories of financial assessment are included:

Operational:

Metrics that look at the business operations as a whole and would include: Size, Profitability, Operational Efficiency.

Solvency:

A longer term financial assessment and outlook of the company and would cover: Interest, Leverage and Indebtedness

Liquidity:

Flexibility available to pay short term obligations and/or mitigate unforeseen contingencies.

Financial models can include up to **thirty different metrics** for review



Practical Application

Potential prioritisation of a simplified 'Underwriting Scorecard' review for Construction/Engineering insurers:

- Equity)
- EBITDA margin)
- EBITDA to Interest Expense) Each category is scored out of '4'
- Net debt to EBITDA) Total = 24
- Current Ratio)
- Quick Ratio)



Potential Segmentation Approaches?

Low Risk:

The financial integrity of Contract Parties on the account are considered 'good' and therefore the risk associated with potential insolvency is reduced.

Medium Risk:

An 'adequate' financial risk rating - however, a regular review of relevant financial influences should takes place?

Additional policy conditions to be applied e.g. clear cessation of work clause?
Extensions in period to be agreed at terms to agreed? Etc.

High Risk:

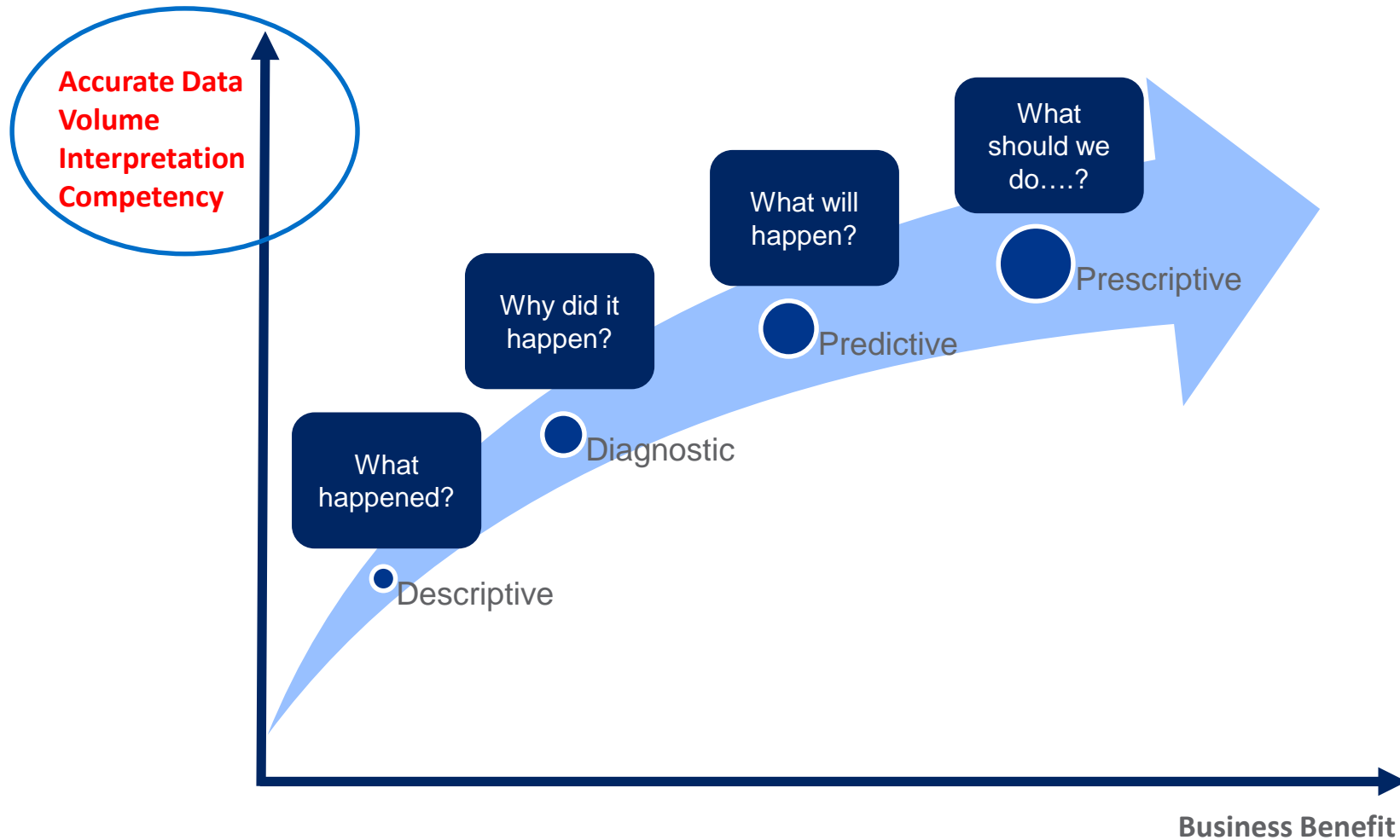
The contract parties are considered to be at a higher probability of imminent bankruptcy potentially prompting a more detailed line of financial enquiry and/or more decisive underwriting action?

Portfolio Management Techniques

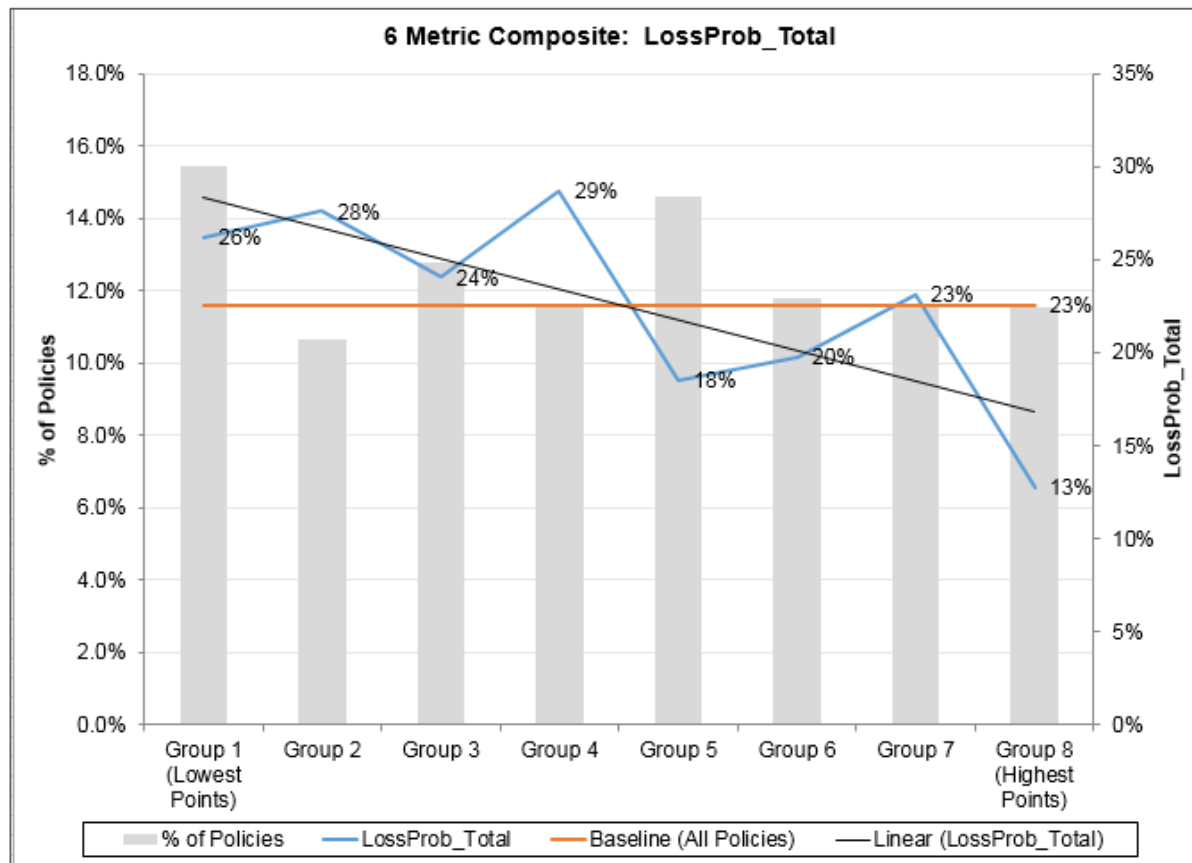
- **Reporting:** The process of organising data into informational summaries in order to **monitor** how different areas of a business are performing;
- **Analytics:** The process of exploring and visualising (big) data in a creative environment to extract meaningful insights, which can be used better **understand and improve** business performance e.g. risk selection, pricing adequacy, etc.



Analytical Outcomes



Construction Project Portfolio Case Study



Practical Conclusions:

- Financial considerations are becoming more influential in risk assessment processes across global Specialty product lines
- Current portfolio 'Reporting' functions and disciplines are being extended to embrace more profound 'Analytical' approaches
- A regular assessment of the primary Contract Parties would allow an informed evaluation on financial integrity to be made
- Contract party financial evaluations may form part of Construction/Engineering on-site survey content for the future
- Conclusions may drive a change in risk evaluation criteria and underwriting behaviour geared to improving underwriting results