
Counterparty Tracking for Financial Assurance on Environmental Liabilities

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How To Manage Counterparty Risks



Know Your Counterparties

Listen to how they describe themselves

Insurance policies in play? (cost cap, scope, time limit, other constraints)

Review public data (company histories, 10-Ks, purchase/sale documents)

Compile a full list quickly, consider publishing it

Don't count on consistent professional behavior; trust & verify

Act

Do "ability to pay" analysis

Focus where the risk is: bottom 10%

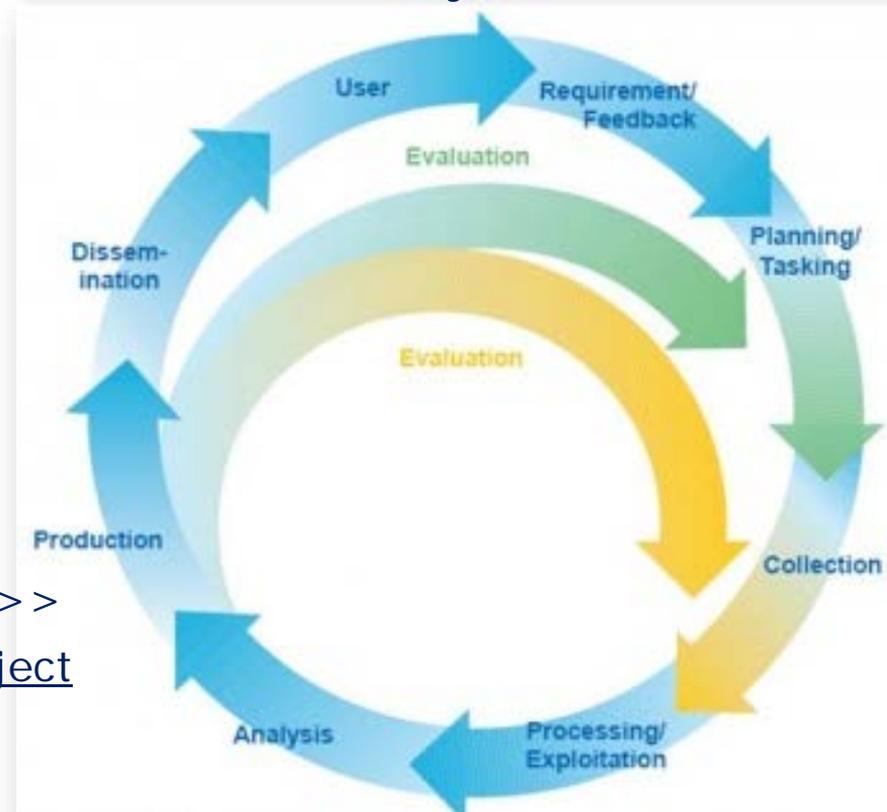
Get parent guarantees or letter of credit

Redocument every year

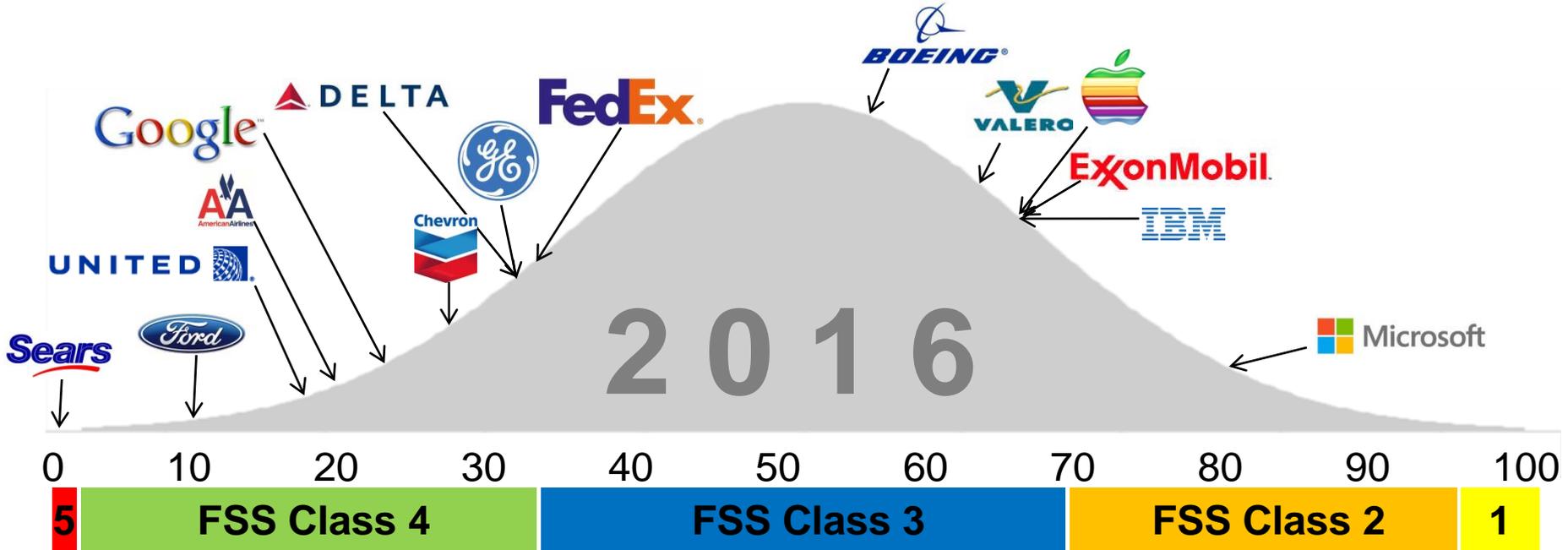
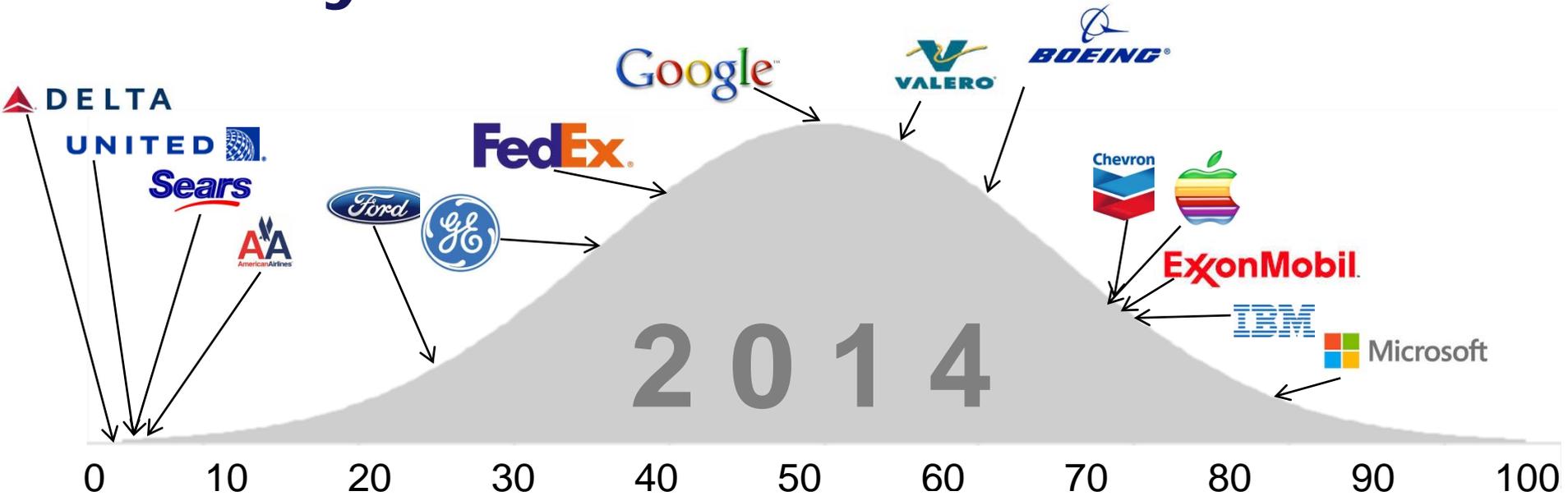
Keep a Scorecard

Share the stories and cautionary tales

Apply the "intelligence cycle" because >>>
counterparty risk is a process, not a project



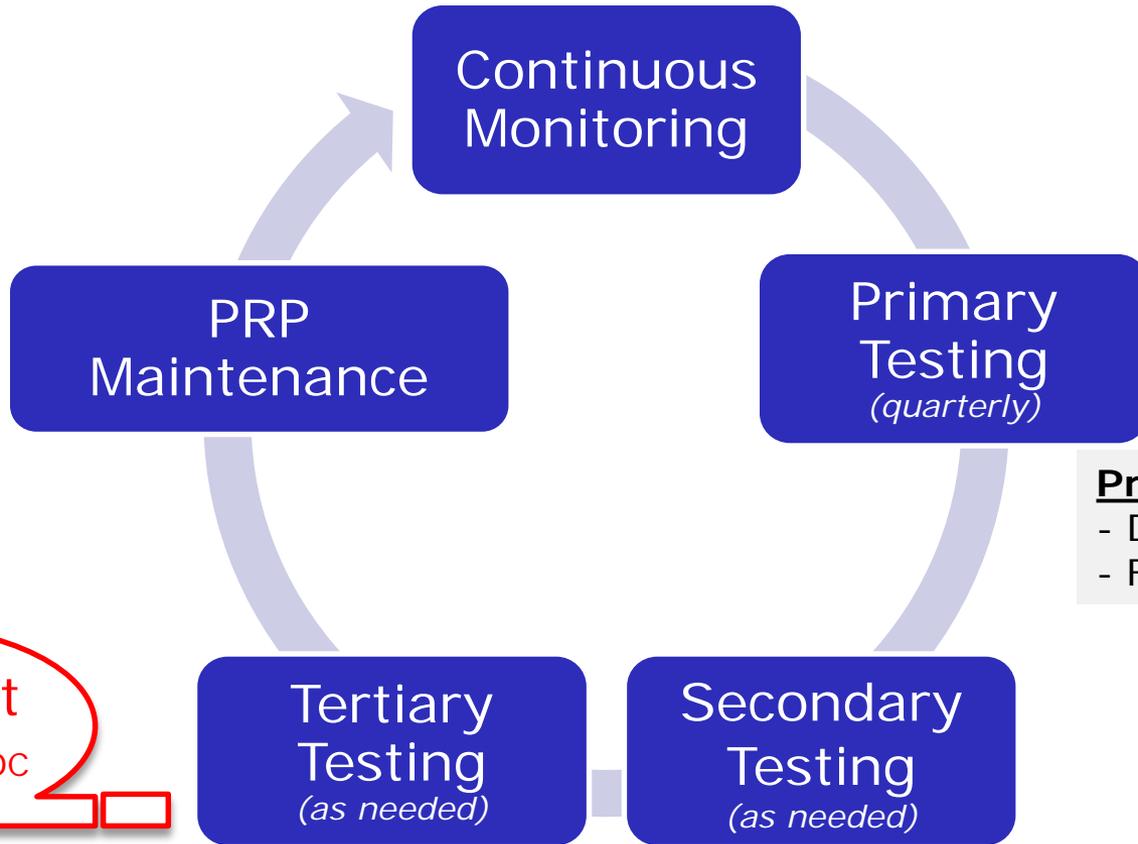
How dynamic are credit scores?



Business Case for Environmental Counterparty Tracking

- Monetizes the future cash calls of the riskier parties
- Defers/eliminated the need for healthy PRPs to recognize long-term credit risk of many other parties
- If a PRP does file bankruptcy, financial assurance instrument settles liability quickly and the PRP group avoids filing a claim or preferential payment claw-back
- If “agency financial assurance” is required by a government entity, this process provides a credit-weighted basis for allocating the compliance cost
- Compliance with GAAP as ASC 410-30-25-12 “Uncertainties Related to the Allocation of Estimate”

Financial Assurance Tracking Process



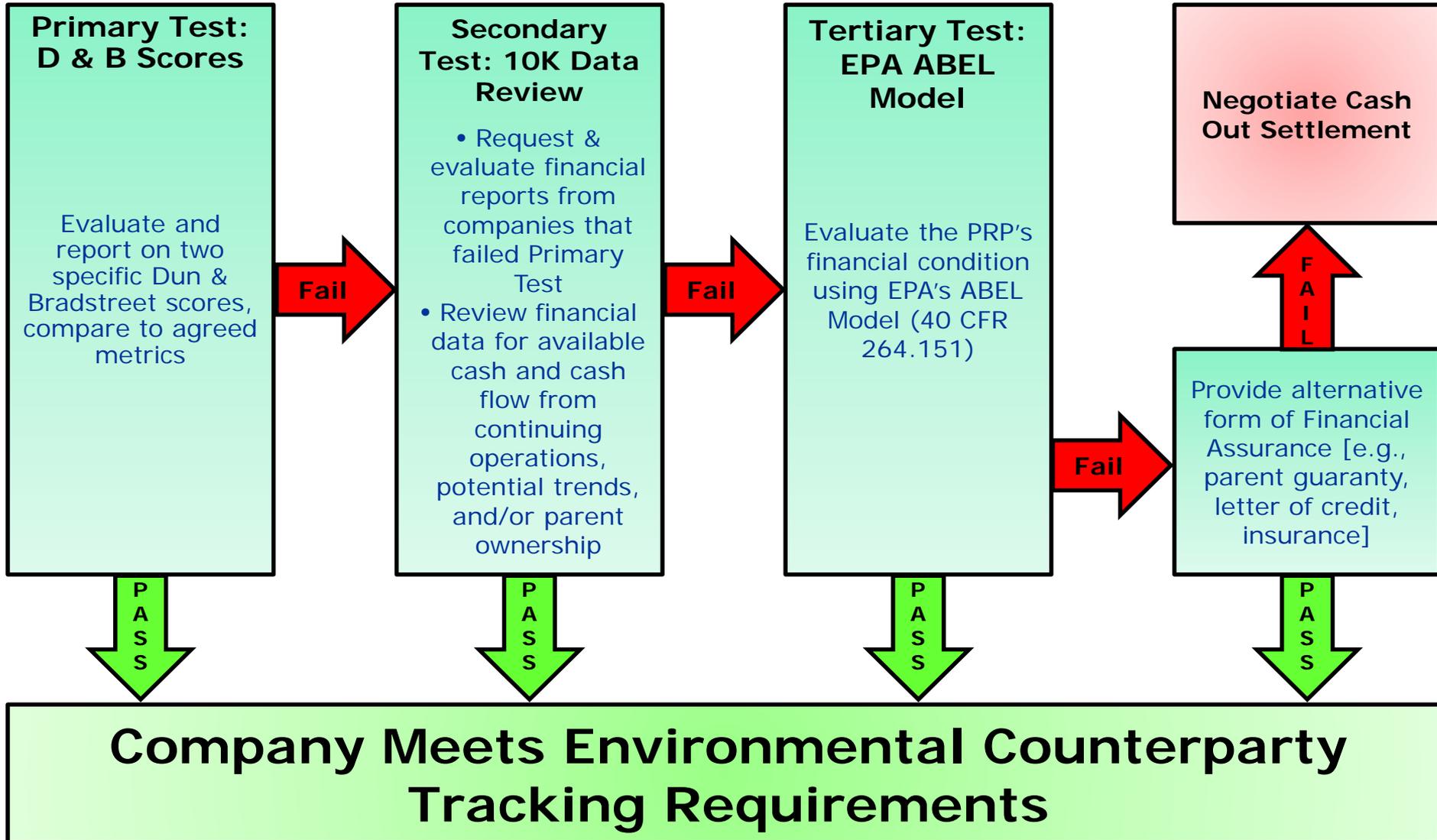
- Primary Tests**
- D&B Rating: 4 or 5
 - Fin Stress: 1, 2 or 3

Workout
Keep valid LOC

- Tertiary Tests**
- Provide D&B with current data
 - Review tax returns (privileged)
 - USEPA ABEL model
 - Altman Z-Score
 - CFO/Treasurer/Auditor interviews

- Secondary Tests**
- Liquidity: most recent "cash & equivalents" are $\geq 25 \times$ site liability
 - Profitability: Most recent annual "cash flow from continuing operations" are $\geq 25 \times$ site liability

Financial Assurance Tracking Process (version 2)



Takeaways on Counterparty Risk



- **Opportunity cost...and a tax on inexperience**
 - GAAP said “track it”...from 1996 onward
 - Known issue
 - Benefits >>> costs
- **Counterparty risk grows with time**
 - Protracted negotiations over PRP allocations
 - Extended studies and decelerated pace to closure/remediation
 - “No look” agreements on acquired assets
 - Temporary lack of regulatory enforcement
 - Low-profile approach seems to lack any consequences
- **Larger economy, more dynamic and leveraged than ever**
 - Regulatory mindset is simplified; “just need one PRP”
 - Companies change: who will go out in the next recession?
- **Value of counterparty risks keeps growing**
 - 10-K reserves/AROs are at records in 2016
 - Increasing regulation worldwide adds to costs

Steps Forward

- Website: www.erci.com
- YouTube page – select webinar recordings
- Email **john@erci.com** or call **(415) 336-5085**
 - PDF of this presentation (original PPTX format on request)

Appendix



Deployment Process

- Assemble first round of key PRPs: MOA signers, large tenants, key insurers
- Convert Defender forecasts to lifecycle estimate with appropriate premium
 - Add typical project escalation risks, develop “risk premium” issues
 - Assemble each PRP’s allocation and corporate parent information
 - Include known and probable recoveries
 - Determine update cycle (annually, unless an ASC 410-30-25-15 benchmark occurs)
- Activate DNBi® database (D&B)
 - Use the proper corporate entity; advise PRPs if they are proposing a dissolved or poorly-rated or consolidated entity with no financial statements (complete guarantees)
- Test each entity
 - Complete Primary, Secondary, and Tertiary Criteria Tests
- Report to the remediation staff and bring failing PRPs to workout stage
- Complete reviews every quarter; develop second and third rounds of PRPs

What Do We Know About Counterparties Already?

- Identity; successors/assigns
- Terms of any leases or Purchase & Sales Agreements
- Current credit rating and capacity
- If publicly-traded, financials and possibly their reserve policy

What Don't We Know About Counterparties?

- If they have transferred a liability onward
- If they have a reasonable reserve for the counterparty liability
- If they have bought any insurance coverage, including self-insurance

- **FASB: ASC 410-30-30-1(b)** *[Environmental Obligations section]*
 - **Assess the likelihood** that other potential responsible parties will pay their full allocable share of the joint and several remediation liability.

- **FASB: ASC 410-30-30-7**
 - An entity should **assess the likelihood** that each potentially responsible party will pay its allocable share of the joint and several remediation liability. That assessment should be based primarily on the **financial condition** of the participating potentially responsible party. This assessment requires the entity to **gain an understanding of the financial condition of the other participating potentially responsible parties** and to **update and monitor** this information as the remediation progresses. The entity shall include in its liability its share of amounts related to the site that will not be paid by other potentially responsible parties or the government.

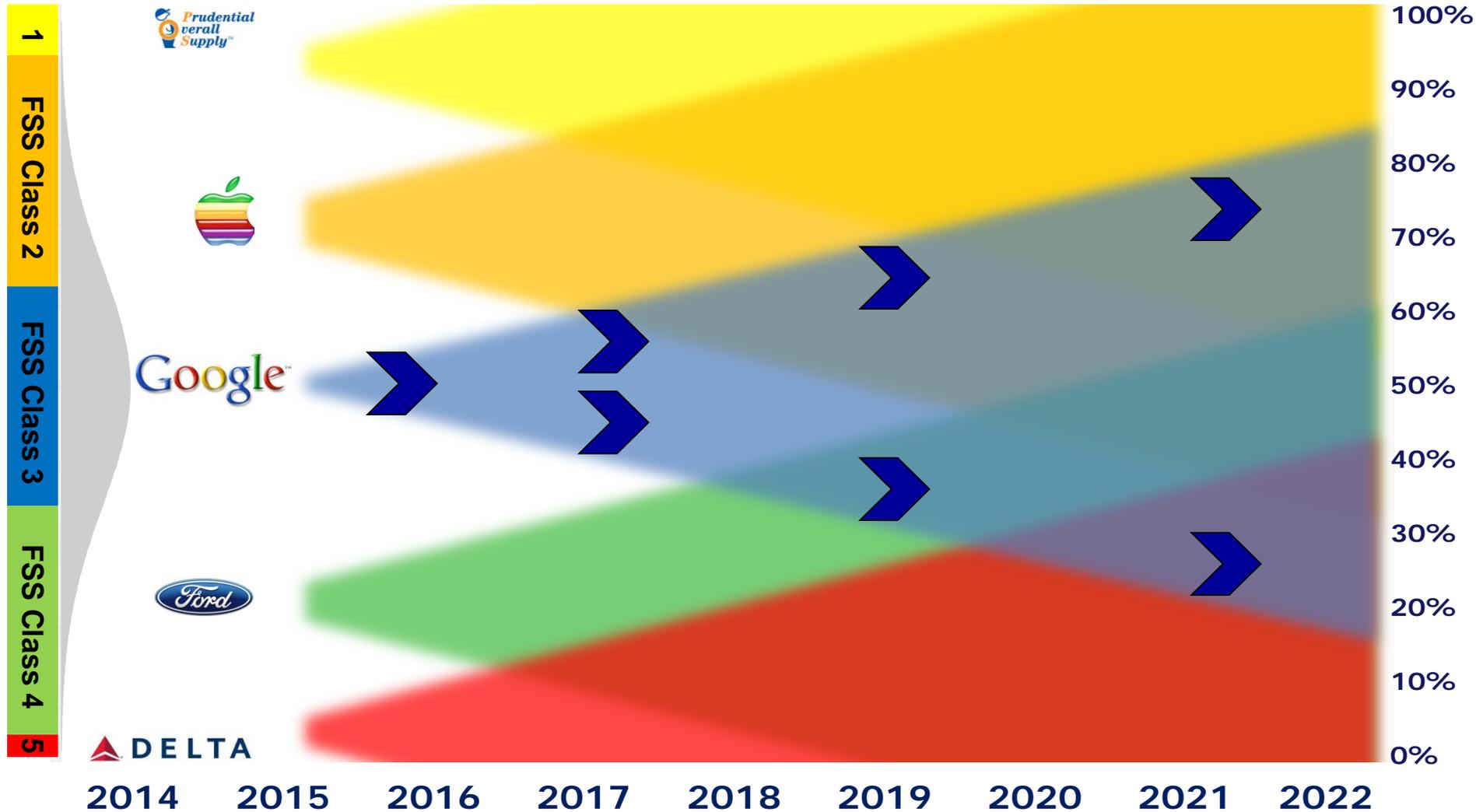
○ FASB: ASC 820-10-35-17 *[“Fair Value” topic]*

- The fair value of a liability reflects the **effect of nonperformance risk**. Nonperformance risk includes, but may not be limited to, a reporting entity’s own credit risk. *(continues)*

○ GASB: GASB 72 ¶62

- The fair value of a liability reflects the **effect of nonperformance risk**. Nonperformance risk includes, but may not be limited to, a government’s own credit risk. Nonperformance risk is assumed to be the same before and after the transfer of the liability. When measuring the fair value of a liability, a government should take into account the effect of **its credit risk** (credit standing) and any other factors that might influence the likelihood that the obligation will or will not be fulfilled. *(continues)*

Over 14 years, ERCI has built a data set and process that forecasts where each PRP will be in one year, in five years, in 30 years.

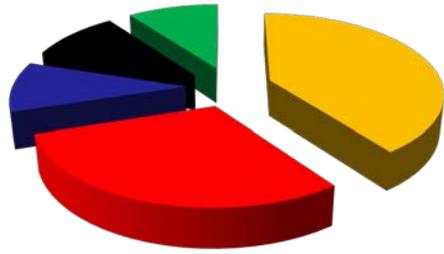


Takeaway: uncertainty sets in quickly

How to Value Counterparty Risk (Portfolio)



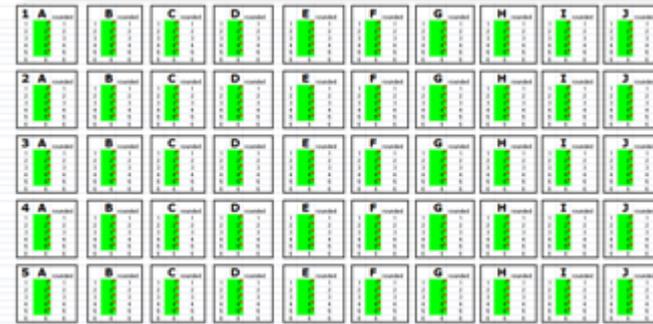
1 2 3 4 5



Allocation by Each Site

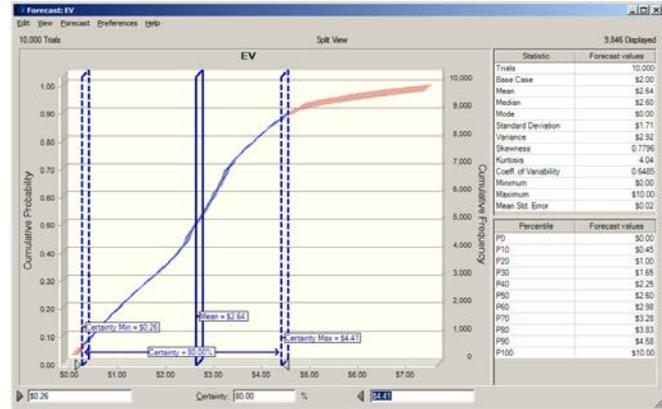
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Forecasting Engine



Cash Flows by Each Site

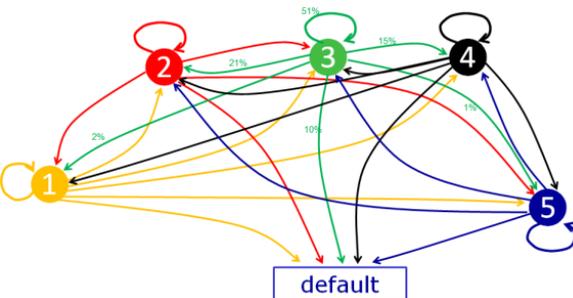
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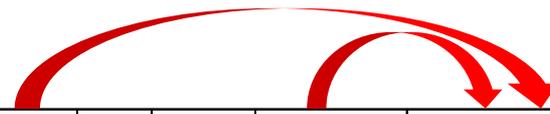
Portfolio Forecast

Index	ASTM	2013	2014	2015	2016	2017	2018	2019	2020
Reserve Case	WBS Code								
Project Management									
Project Management (Internal)	02.30	\$0.00	\$25,000	\$25,000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Project Management/Support/Admin (External)	02.01	\$0.00	\$25,000	\$25,000	\$25,000	\$25,000	\$0.00	\$0.00	\$0.00
Subcontractor/Instruments (External)	02.02	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Technical Team Support	02.01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Contractor Construction Management (Includes Incent)	02.03	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal	\$ 5,000,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Assessment / Study									
Environmental Investigation Report	04.01	\$25,000	\$25,000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Human Health Risk Assessment	04.02	\$0.00	\$300,000	\$150,000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Remedial Design / Design									
Remedial Design/Facility Design Engineering	04.12	\$0.00	\$0.00	\$150,000	\$150,000	\$150,000	\$0.00	\$0.00	\$0.00
Document Feasibility Study (Corrective Measure Staff)	04.10	\$0.00	\$25,000	\$25,000	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal	\$ 300,000.00	\$25,000	\$325,000	\$150,000	\$150,000	\$150,000	\$0.00	\$0.00	\$0.00
Construction / Remediation									
Clearing	18.03	\$0.00	\$0.00	\$150,000	\$150,000	\$150,000	\$0.00	\$0.00	\$0.00
Dredging/Excavating	17.01	\$0.00	\$0.00	\$46,500	\$46,500	\$29,000	\$29,000	\$0.00	\$0.00
Subtotal	\$ 4,722,000.00	\$0.00	\$0.00	\$444,750	\$744,750	\$464,000	\$29,000	\$0.00	\$0.00
Operations, Maintenance, and Monitoring									
Sampling and Analysis Plan	08.03	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Monitoring Well Installation	07.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Groundwater Sampling/Monitoring (Includes Well Dev)	07.09	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Groundwater Sample Analysis	08.02	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Finalization and Site Preparation	08.01	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Material/Waste Sampling	08.11	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Subtotal	\$ 2,250,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Default Probabilities [Transition Matrix]

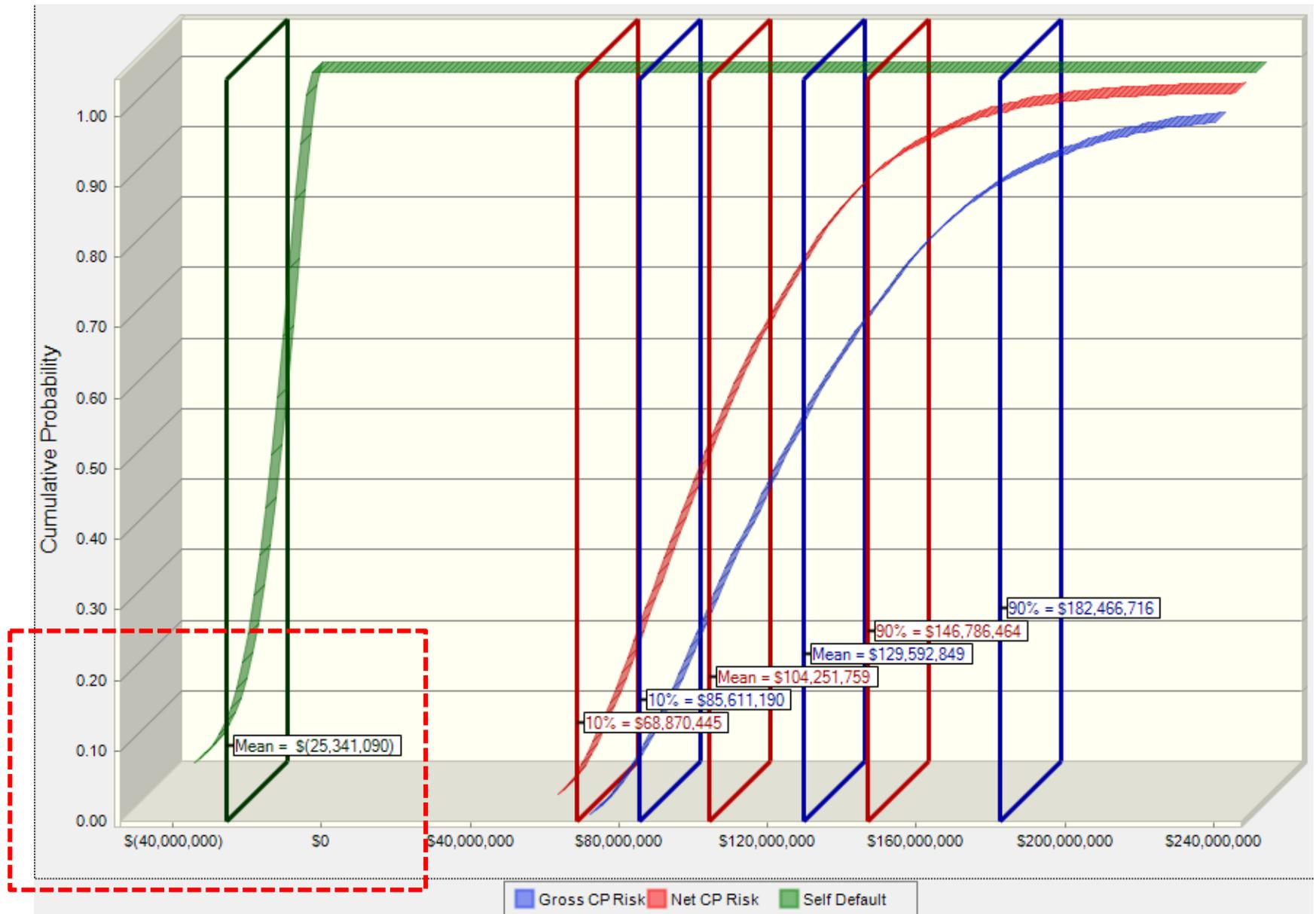


How to Value Counterparty Risk (Portfolio)



Site	Recognition Benchmark	Type	Current CP Score (max = 1600)	10-year prob(default)	Risk opens	Risk closes	Loss Given Default	Gross E-CP Risk	Less: Self Default	Net E-CP Risk	
A	Counterparty defaults on new	ASC 410-20 ARO	1586	20%	Now	1/1/2020	\$9,020,000	\$ 1,804,000	\$ (135,300)	\$ 1,668,700	
C	35% counterparty fails	ASC 410-20 ARO	1319	40%	Now	Never	\$11,275,000	\$ 4,510,000	\$ (1,014,750)	\$ 3,495,250	
D	Insurer denies coverage	ASC 410-20 ARO	1138	15%	Now	1/1/2020	\$13,530,000	\$ 2,029,500	\$ (152,213)	\$ 1,877,288	
E	JV partner fails, four sites revert, RCRA closures	ASC 410-20 ARO	752	35%	Now	Never	\$28,187,500	\$ 9,865,625	\$ (2,219,766)	\$ 7,645,859	
E	Insurer for JV denies coverage	ASC 410-20 ARO	1186	50%	Now	1/1/2020	\$28,187,500	\$ 14,093,750	\$ (1,057,031)	\$ 13,036,719	
F	Landfill operator CH11, 11 NPL sites	ASC 410-20 ARO	920	35%	Now	Never	\$45,100,000	\$ 15,785,000	\$ (3,551,625)	\$ 12,233,375	
H	10 AROs for asbestos, enforcement	ASC 410-20 ARO	696	60%	Now	Never	\$22,550,000	\$ 13,530,000	\$ (3,044,250)	\$ 10,485,750	
A	20% counterparty fails by 2020	ASC 410-30 ERL	713	99%	Now	1/1/2021	\$225,500	\$ 223,245	\$ (16,743)	\$ 206,502	
B	GW P&T add'l 5 years	ASC 410-30 ERL	1083	80%	Now	Never	\$2,255,000	\$ 1,804,000	\$ (405,900)	\$ 1,398,100	
B	GW P&T add'l 5 years	ASC 410-30 ERL	1063	75%	Now	Never	\$2,818,750	\$ 2,114,063	\$ (475,664)	\$ 1,638,398	
B	GW P&T add'l 5 years	ASC 410-30 ERL	1465	70%	Now	Never	\$3,382,500	\$ 2,367,750	\$ (532,744)	\$ 1,835,006	
B	20% counterparty fails by 2020	ASC 410-30 ERL	998	20%	Now	1/1/2021	\$2,255,000	\$ 451,000	\$ (33,825)	\$ 417,175	
B	10% counterparty fails by 2015	ASC 410-30 ERL	601	40%	Now	1/1/2016	\$2,818,750	\$ 1,127,500	\$ (39,463)	\$ 1,088,038	
B	25% counterparty fails by 2020	ASC 410-30 ERL	1450	75%	Now	1/1/2021	\$3,382,500	\$ 2,536,875	\$ (190,266)	\$ 2,346,609	
C	Buy back property	ASC 440 Commitment	1472	90%	Now	Never	\$11,275,000	\$ 10,147,500	\$ (2,283,188)	\$ 7,864,313	
G	Low-profile strategy fails	ASC 440 Commitment	1207	33%	Now	Never	\$5,637,500	\$ 1,860,375	\$ (418,584)	\$ 1,441,791	
A	Remedy fails, new remedy	ASC 450 Contingency	1270	50%	Now	Never	\$9,020,000	\$ 4,510,000	\$ (1,014,750)	\$ 3,495,250	
C	Deminimis not pursued	ASC 450 Contingency	1595	80%	Now	Never	\$2,255,000	\$ 1,804,000	\$ (405,900)	\$ 1,398,100	
D	Remedy fails, new remedy	ASC 450 Contingency	1460	33%	Now	1/1/2020	\$4,510,000	\$ 1,488,300	\$ (111,623)	\$ 1,376,678	
F	Counterparty pool shrinks	ASC 450 Contingency	1242	60%	Now	Never	\$22,550,000	\$ 13,530,000	\$ (3,044,250)	\$ 10,485,750	
C	Provide financial assurance for entire group	ASC 460 Guarantees	1180	50%	Now	Never	\$33,825,000	\$ 16,912,500	\$ (3,805,313)	\$ 13,107,188	
SUM								\$ 122,494,983	\$ (23,953,146)	\$ 98,541,837	
								p10	\$ -85,611,190	\$ -(16,740,745)	\$ -68,870,445
								Mean	\$ 129,592,849	\$ (25,341,090)	\$ 104,251,759
								p90	\$ 182,466,716	\$ (35,680,252)	\$ 146,786,464

How to Value Counterparty Risk (Portfolio)



How Do You Report the Risks? (1 of 2)



- **Display the financial exposures (single site)**
 - Who are our counterparties?
 - How stable are the allocations? (actual % may be privileged)
 - When does risk start, peak, end?
- **Display preventive options (single site)**
 - Results of counterparty monitoring
 - Status of requested parental guarantees (successors/assigns paperwork)
 - Status of credit enhancements: letter of credit, insurance policy, prepayment(s) issued, expiration dates
- **Identify cost/benefit of current counterparty risk approach**
- **Display variance analysis of current v. baseline risk**

How Do You Report the Risks? (2 of 2)



- **Display reserve recommendation (portfolio report)**
 - Liability Type: AROs, ERLs, Commitments, Contingencies, Guarantees
 - By counterparty: confirm any concentrations of risk
 - Variance (by source) from last year's report
- **Share tracking insights with corporate finance team**
 - Preventive actions (like monitoring) and what we learned
 - Review "watch list" of future reserve increases
 - "What is the value of commitments from others to us"
 - "How does this compare to our commitments to others?"
 - "What is the sum of all counterparty risks we have with company XYZ over the next ten years? How does that sum compare with the credit limit in place at our operating business units for XYZ?"
- **Create risk benchmarks for acquisition/divestiture team**
 - Buying embedded env. liabilities is worth a discount of x%
 - Selling embedded liabilities contains counterparty risk, which is y%

Why do Your Environmental Counterparties Matter?



- Top source of new environmental projects
- Principal reason for increased allocations at multiparty sites
- Clear benefits from thoughtful preemptive action
 - Buy back a formerly-owned site before an enforcement action
 - Join a PRP group before a formerly-utilized landfill enters CERCLA
 - Cash out a PRP before they enter Chapter 7 (liquidation) or 11 (reorganization)
- FASB wants you to understand and quantify this risk
- Tracking is mandatory per GAAP
- This is no presumption of immateriality; this is a determination of senior management based on data, not assertion

Principles for an Environmental Counterparty Tracking Process

- *Transparent*: Each PRP is tested equally, using an agreed process
- *Timely*: Minimize cycle time to respond promptly to changes; do not defer analysis for fully-audited financial statements
- *Simple*: Use 3rd-party credit scoring service, transparent criteria, with backup analysis if a PRP is in special circumstances
- *Value-Adding*: Current cost projections are aligned to related uses
 - Reserve-setting by individual PRPs
 - Financial assurance required by State or Federal agencies
 - Cashout calculations
 - Bankruptcy affidavits concerning future cost projections

Alternative to a Letter of Credit



- On several CERCLA sites, single PRPs asked ERCI to monitor their financial condition continuously, in lieu of a letter of credit. Common factors in this request: long-running business, major recapitalization underway, publicly-traded stock, CFO confidence that LC was not cost –effective.
- ERCI directly monitored the PRPs, in one case for more than four years.
- ERCI short-term monitoring criteria:
 - Quarterly reports on cash and equivalents trended upward in two of the most recent three quarters.
 - Commercial paper rating never downgraded by Fitch or similar ratings agency.
 - Market capitalization trended upward.