



Driving Strategies in a Capital-Constrained Environment

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The Association of
Accountants and
Financial Professionals
in Business

NorthEast Regional Council

THE KSARIA FAMILY OF CABLE AND HARNESS MANUFACTURERS



Fiber Optic & Electrical Cable Assemblies & Harnesses

Military & Commercial Aircraft | Naval Ships & Submarines | Military Vehicles | Defense Systems

kSARIA excels in designing, manufacturing and testing custom fiber optic and electrical cable assemblies & harnesses including breakouts, large complex harnesses and fiber optic flex circuits. Whether you are starting from scratch or have a completed design our Engineering Staff will ensure your fiberoptic or electrical cable assembly is designed and built to meet the demands of your application.

Products & Services Include:

- Fiber Optic Cable Assemblies & Harnesses
- Fiber Optic jumper Cables
- Fiber Optic Flex Circuits
- Electrical Cable Assemblies & Harnesses



Electrical Wiring Harness Manufacturing & Repair Services

Industrial | Aerospace & Defense | Military & Commercial Aircraft Repairs

Co-Operative Industries Aerospace & Defense (CIA&D) produces an array of wiring harnesses and interconnects for both commercial and military aircraft applications, as well as products for the industrial world. CIA&D also provides FAA, EASA CAAC Certified Electrical Wire Harness Repair Services for air carriers and MROs in the Aerospace and Defense Industry.

Products & Services Include:

- Electrical Cable Assemblies & Harnesses
- Industrial Cable Assemblies & Harnesses
- Overbraiding
- Overmolding
- Lasermaking
- FAA, EASA, CAAC Repair Station



Fiber Optic Field Service & Shipboard Fiber Optic Training

Naval Ships & Submarines | Defense Systems

kSARIA Service Corporation provides a full range of fiber optic and electrical cable installation services on NAVY Ships and Submarines. The company also offers VSWR/TDR, waveguide, and cableway services as well as logistics support and training. Operations are located on both the East and West Coast. kSARIA's training offering includes Navy Shipboard Fiber Optic Training, certified under NAVSEA Drawing 8477552C, meeting the requirements of Navy Standard Item 009-123 and MIL-STD-1678

Field Services Includes:

- Fiber Optic Installation Services
- Electrical Installation Services
- VSWR/TDR Services
- Waveguide & Cableway Services
- NAVSEA Certified Fiber Optic Training



Electrical Cable Assemblies & Harnesses

Cable Assemblies & Harnesses for Military | Medical | Industrial | Commercial

Compulink provides custom manufactured cable assemblies and harness for Military, Medical, Industrial and Commercial applications. Compulink also provides electro-mechanical solutions that include integrating cable assemblies, wire harnesses, circuit boards, and other components into a variety of racks and enclosures.

Products & Services Include:

- Custom Molded Cable Assemblies
- Cable assembly solutions for high-reliability
- MIL-C-38999 Harness Assemblies
- RF Cable Assemblies
- Coax Cable Assemblies
- Fabrication and testing of complex wire harnesses, panel, and electromechanical assemblies.

MISSION CRITICAL CONNECTIVITY SOLUTIONS

AGENDA

Allocation of capital resources – The basis

What constitutes a discount rate/hurdle rate?

Hurdle rate determination

A real world example

Establishing the hurdle rate in practical terms

Weighted average cost of capital

Cost of equity capital – A private company framework

Cost of debt capital – A private company framework

Private company WACC – An illustration

The last step in capital allocation for a private a company

ALLOCATION OF CAPITAL RESOURCES

DECISION TO ALLOCATE CAPITAL

- How does a company decide whether to allocate capital to an opportunity? This could be an investment in machinery and equipment, computers or a whole new plant to enter a brand new market segment!
 - Most fundamentally, at the core of this consideration is **value creation**
- How is value creation measured?
 - Cash inflows versus cash outflows
 - Does the inflow exceed the outflow?
 - Payback Period
 - Is the payback shorter than a specified rule?
 - Internal rate of return (IRR)
 - Does the IRR exceed a certain “discount rate” or “hurdle rate”?
 - Net present value (NPV)
 - Is the NPV positive, i.e., the PV of cash inflows higher than that of cash outflows?

CAPITAL ALLOCATION DECISION

RISK VERSUS RETURN

- If the company determines that a certain opportunity creates value, capital should be allocated to that opportunity.
- On the other hand, if multiple value creating opportunities compete for capital, a company may invest in all of them only if it has unconstrained access to capital
 - Complicating this consideration is the fact that operating investments create value over multiple years which should be measured not in nominal terms, but on a risk-adjusted basis – in present value terms
- NPV, IRR and payback are the most widely used financial criteria for making capital allocation decisions
 - Each of these criteria requires a financial target to measure against that will guide the decision to invest or not
 - NPV and IRR each require an objectively determined target (a hurdle rate or a discount rate)
 - Payback doesn't, and uses an arbitrarily set target payback against which an opportunity's payback is compared

WHAT CONSTITUTES A DISCOUNT RATE OR A HURDLE RATE?

DISCOUNT RATES – THE WHAT AND THE WHY?

- The **discount rate** is the **required rate of return** on an investment that reflects investment's riskiness
- In an operating company context, the discount rate comprises the **company's cost of capital** ("COC")
- A company's COC reflects the average riskiness of its portfolio of business investments reflecting its
 - Idiosyncratic or Unsystematic risk, and
 - The variation in Business Unit ("BU") or Project risk
- The **hurdle rate** for a project or BU (i.e., the required rate of return that reflects risk at the project or BU level) could be higher or lower than the required rate of return for the company depending whether the risk of a project or BU is higher or lower than that of the company's portfolio of capital projects

HURDLE RATE DETERMINATION

RISK-ADJUSTED HURDLE RATES

- In order to arrive at a Required Rate of Return for a business unit or a project, one would need to adjust a company's COC or, to be more precise, its weighted average cost of capital ("WACC") for the riskiness of a specific BU or Project
- Most companies using structured capital allocation methods generally use a heuristic method that relies, in part, on collective judgment to assess the risk of a BU or project, and then use structured methods to adjust company's WACC for the riskiness of the BU or Project

RISK-ADJUSTED HURDLE RATES RECAP

- To recap the ground covered so far, we have touched upon the methods typically used to allocate capital (NPV, IRR or Payback) and the concept of hurdle rates (WACC, ROR or Hurdle Rates) without any guidance on how to implement these concepts in your operating company setting
- To illustrate these concepts in greater detail, we will use a hypothetical “private” company example, ProSentinel Inc, that operates in the defense sector
- Using this framework, ProSentinel Inc needs to do the following:
 - **STEP 1:** Use a heuristic to arrive at a risk rating for each BU and each category of projects within the BU (“Risk Points”), which a proxy for business risk of the BU or the project within the BU
 - **STEP 2:** The Risk Points will then be used to adjust the WACC to reflect the risk in a BU or a Project within the BU that the company is seeking to invest in



A REAL WORLD EXAMPLE

RESOURCE ALLOCATION IN A CAPITAL CONSTRAINED ENVIRONMENT

STEP I: ESTIMATION OF RISK POINTS

– A PROXY FOR BUSINESS RISK

- Business Risk measures the risk of
 - Certainty of *Completion*: Likelihood of a project being completed as planned
 - Certainty of *Outcome*: Likelihood that the project will generate the results as planned
- Measurement of Business Risk requires the need to compare across three dimensions:
 - Management (33%): Impacts Completion risk and is an internal factor
 - Right leadership with a strategic vision
 - Team with appropriate skills for execution
 - Predictability (33%): Impacts Completion Risk as well as Outcome Risk, and is an internal factor
 - How has the BU performed against the plan in the past?
 - Does the BU meet its KPIs?
 - Does the BU understand customer needs?
 - Continued...

ESTIMATION OF RISK POINTS

– A PROXY FOR BUSINESS RISK

- Measurement of Business Risk requires the need to compare across three dimensions – *continued from previous slide*
 - Competitive Advantage (33%): Impacts Outcome Risk and is an external factor
 - Is the BU ranked #1 or #2 in the industry?
 - Does the BU benefit from price stability?
 - Barriers to entry
 - On what basis does the BU compete?
 - Price
 - Quality
 - Reliability
 - Length of Contract
 - Is the rate of change of customer needs, products and technologies high or low?

ESTIMATION OF RISK POINTS FOR A BU

PROSENTINEL INC

BUSINESS UNIT RISK

BUSINESS UNIT		RISK FACTORS						BUSINESS UNIT RISK POINTS (Weighted)
		Internal				External		
		Management		Predictability		Competitive Advantage		
		Rating	Points	Rating	Points	Rating	Points	
		33%		33%		33%		
BU 1	Low Risk	0	Mod Risk	15	Mod Risk	15	10.0	
BU 2	Low Risk	0	Low Risk	0	Mod Risk	15	5.0	
BU 3	Mod Risk	15	High Risk	30	Mod Risk	15	20.0	
BU 4	High Risk	30	High Risk	30	High Risk	30	30.0	
Corporate	Low Risk	0	Mod Risk	15	NA		5.0	
Risk Points Matrix		Low Risk	0					
		Mod Risk	15					
		High Risk	30					

ESTIMATION OF RISK POINTS FOR A PROJECT

PROSENTINEL INC

PROJECT HURDLE RATES

	PROJECT TYPE					
	Breakthrough	Platform	Derivative	Product Support	Facilities	IT
Rating - Draft						
Certainty of Completion	High Risk	High Risk	Mod Risk	Mod Risk	Low Risk	Low Risk
Certainty of Outcome	High Risk	Mod Risk	High Risk	Mod Risk	Low Risk	Mod Risk
Risk Points						
Certainty of Completion	6.0	4.0	3.0	3.0	0.0	0.0
Certainty of Outcome	6.0	2.0	6.0	3.0	0.0	3.0
Total Risk Points for Project	12.0	6.0	9.0	6.0	0.0	3.0
Risk Points Matrix						
	Low Risk	0.0				
	Mod Risk	3.0				
	High Risk	6.0				

ESTIMATION OF COMPOSITE RISK POINTS FOR A PROJECT

PROSENTINEL INC

COMPOSITE PROJECT RISK POINTS

	PROJECT TYPE						Business Unit Risk Points (A)
	Breakthrough	Platform	Derivative	Product Support	Facilities	IT	
	(A) + (B)	(A) + (B)	(A) + (B)	(A) + (B)	(A) + (B)	(A) + (B)	
BUSINESS UNIT							
BU 1	22.0	16.0	19.0	16.0	10.0	13.0	10.0
BU 2	17.0	11.0	14.0	11.0	5.0	8.0	5.0
BU 3	32.0	26.0	29.0	26.0	20.0	23.0	20.0
BU 4	42.0	36.0	39.0	36.0	30.0	33.0	30.0
Corporate	17.0	11.0	14.0	11.0	5.0	8.0	5.0
Project Risk Points (B)	12.0	6.0	9.0	6.0	0.0	3.0	

GUIDANCE:

- 1 Maximum BU Risk Points could be 30.0
- 2 Maximum Project Risk Points could be 12.0
- 3 Each project within a BU can be rated up to a maximum of 42.0 risk points
- 4 The model implicitly assumes a 70%/30% risk weighting for BU Risk versus Project Risk



ESTABLISHING THE HURDLE RATE IN PRACTICAL TERMS

RECAP

- To recap what we have covered thus far, we touched upon the methods typically used to allocate capital (NPV, IRR or Payback) and the concept of hurdle rates (WACC, ROR or Hurdle Rates)
- We also went through STEP 1 to arrive at a risk rating, i.e., Risk Points, for each BU and each category of projects within the BU
- We will now proceed to illustrate STEP 2
 - How to use Risk Points to adjust the company's WACC to reflect the risk in a BU or a Project within the BU that the company is seeking to invest in

WEIGHTED AVERAGE COST OF CAPITAL

- Weighted Average Cost of Capital (“WACC”) is the rate that a company is expected to pay on an average to its security holders (or, funding parties) in order to finance its assets
 - It is calculated as a weighted average of the cost of a company’s various sources of funding

$$WACC = \frac{E}{V} * K_e + \frac{D}{V} * K_d * (1 - T_c)$$

COST OF EQUITY CAPITAL

- Conventional risk and return models in finance are built on the assumption that *a marginal equity investor in a company is fully diversified and, as such, cares only about the risk that cannot be diversified*
 - This risk, commonly referred to as the systematic risk or beta, can be estimated by looking at past stock prices or returns versus that of the market
 - The return sought by such equity investors is estimated using the Capital Asset Pricing Model (“CAPM”)

$$K_e = R_f + \beta_e * (\bar{R}_M - R_f)$$

COST OF DEBT CAPITAL

- The cost of debt capital, on the other hand, is the borrowing rate for a company
 - It reflects not only a company's risk of default, but also the level of interest rates in the market



COST OF EQUITY CAPITAL

A FRAMEWORK FOR PRIVATE COMPANIES

ESTIMATION OF COST OF EQUITY CAPITAL

A FRAMEWORK FOR PRIVATE COMPANIES

- Estimation of Cost of Equity
 - *Marginal equity investors in a private company are not fully diversified* and, hence, do care about the company-specific risk that they cannot diversify away
 - Hence, such equity investors' return expectations are driven not by just the beta risk (the systematic risk) of the company, but also the company-specific (or, unsystematic) risk
 - ✓ *This dictates the use of a “**total beta**” approach for estimating the cost of equity for a private company*

ESTIMATION OF COST OF EQUITY CAPITAL

A FRAMEWORK FOR PRIVATE COMPANIES

- At a more technical level, since a private company does not have traded stocks, market prices or returns on its equity shares can not be readily established
- As a result, determination of the beta or systematic risk using a regression analysis is not possible and an alternative approach will need to be used
 - This will be demonstrated later

ESTIMATION OF COST OF EQUITY CAPITAL

A FRAMEWORK FOR PRIVATE COMPANIES

- Additionally, in order to convert the beta reflecting just the systematic risk of the company to the total beta, we need a measure of how much of the risk in the company emanates from the market (i.e., systematic factors) and how much is firm-specific
 - This approach is commonly referred to as the “Bottom-up Beta” approach
- This approach is outlined in the next few slides

ESTIMATION OF COST OF EQUITY CAPITAL

A FRAMEWORK FOR PRIVATE COMPANIES

- The Bottom-up Beta approach requires the following steps:
 - First identify the closest comparable industry group of companies that is traded in the stock market
 - ProSentinel Inc. (our example company) falls within the Aerospace/Defence industry group
 - Determine the unlevered beta for the identified industry group (Aerospace/Defence)
 - Unlevered beta for the industry group is publicly available from [NYU Stern Dataset](#) (Dataset called “*Total Betas by Sector (for computing private company costs of equity) – US*”)
 - Caution: Dataset is updated in January of each year
 - Re-lever the unlevered beta for the comparable industry group using ProSentinel’s debt-to-value ratio to estimate ProSentinel’s Levered Beta (i.e., systematic risk of ProSentinel that reflects its capital structure)
 - ProSentinel’s Levered Beta is then converted into its Total Beta by incorporating its industry group’s correlation with the rest of the market

ESTIMATION OF COST OF EQUITY CAPITAL

A FRAMEWORK FOR PRIVATE COMPANIES

- ProSentinel's Levered Beta

$$\beta_L = \beta_U * [1 + (1 - T_c) * \frac{\frac{D}{V}}{1 - \frac{D}{V}}]$$

Where

β_L : Levered Beta for ProSentinel

β_U : Unlevered Beta for Comparable Industry Group (NYU Stern Dataset)

T_c : Corporate Income Tax Rate for ProSentinel

$\frac{D}{V}$: Debt to Value (Debt + Equity) for ProSentinel

- ProSentinel's Total Beta

$$\beta_{TOTAL} = \beta_L / \rho_{iM}$$

Where

β_{TOTAL} : Total Beta for ProSentinel

β_L : Levered Beta for ProSentinel

ρ_{iM} : Coefficient of Correlation between industry group and market (NYU Stern Dataset)

ESTIMATION OF COST OF EQUITY CAPITAL

A FRAMEWORK FOR PRIVATE COMPANIES

- Now that we have the total beta for ProSentinel, we can use it to estimate ProSentinel's Cost of Equity Capital
- ProSentinel's Cost of Equity Capital

$$K_e = R_f + \beta_{TOTAL} * (\bar{R}_M - R_f)$$

Where

K_e : ProSentinel's Cost of Equity Capital

R_f : Riskfree Rate of Return estimated using
current 30 – yr US Treasuries

β_{TOTAL} : Total Beta for ProSentinel

\bar{R}_M : Return on Market Portfolio (NYU Stern Dataset)

$\bar{R}_M - R_f$: Implied Market Equity Risk Premium, estimated
using NYU Stern Dataset

COST OF DEBT CAPITAL

A FRAMEWORK FOR PRIVATE COMPANIES

ESTIMATION OF COST OF DEBT CAPITAL

A FRAMEWORK FOR PRIVATE COMPANIES

- While a private company does not have an objectively established credit rating and may not have any unsecured loans to use as a proxy, a synthetic credit rating can be constructed using the financial characteristics of the firm, and the published S&P Credit Rating Criteria
- In its simplest form, a credit rating for ProSentinel Inc., our example company, can be estimated from its interest coverage ratio by correlating it with a rating category based upon historical relationships documented by S&P Credit Rating Criteria

$$\text{Interest Coverage Ratio} = \text{EBIT} / \text{Interest Expense}$$

ESTIMATION OF COST OF DEBT CAPITAL

A FRAMEWORK FOR PRIVATE COMPANIES

- Once the rating is established, credit default spread can be inferred using historical credit default spread data published by S&P for each credit rating category
- The private company cost of debt is estimated as the sum of the Riskfree Rate (estimated by the current 30-year T-Bond Rate) and the historical credit default spread consistent with the company's synthetically-constructed rating





PRIVATE COMPANY WACC

AN ILLUSTRATION

ESTIMATION OF COST OF DEBT CAPITAL FOR PROSENTINEL

PROSENTINEL INC SYNTHETIC CREDIT RATING ESTIMATION

Inputs

Current Earnings Before Interest and Taxes (EBIT)
Current interest expenses
Current Long Term Government Bond Rate

8444	ProSentinel Inc actual (FY2021)
3110	ProSentinel Inc actual (FY2021)
2.696%	Current 30-Year T-Bond Rate

Outputs

Interest Coverage Ratio for ProSentinel Inc	2.72	ProSentinel Inc actual (FY2021)
Estimated Bond Rating for ProSentinel Inc	B+	per S&P Ratings Table
Estimated Default Spread for ProSentinel Inc	4.75%	per S&P Ratings Table
Estimated Cost of Debt for ProSentinel Inc	7.45%	

Ratings table - S&P Ratings Criteria

If interest coverage ratio is			
greater than	≤ to	Rating is	Spread is
-100000	0.499999	D	14.00%
0.5	0.799999	C	12.70%
0.8	1.249999	CC	11.50%
1.25	1.499999	CCC	10.00%
1.5	1.999999	B-	8.00%
2	2.499999	B	6.50%
2.5	2.999999	B+	4.75%
3	3.499999	BB	3.50%
3.5	4.499999	BBB	2.25%
4.5	5.999999	A-	2.00%
6	7.499999	A	1.80%
7.5	9.499999	A+	1.50%
9.5	12.499999	AA	1.00%
12.5	100000	AAA	0.75%

Ref: [Ratings table – S&P Ratings Criteria](#)

ESTIMATION OF COST OF EQUITY CAPITAL FOR PROSENTINEL

PROSENTINEL INC WEIGHTED AVERAGE COST OF CAPITAL

Inputs

Equity

Unlevered beta for ProSentinel Inc based upon industry	0.94	NYU Stern Total Beta Dataset (Aerospace/Defence)
Correlation of industry sector with market for total beta calculation	30%	NYU Stern Total Beta Dataset (Aerospace/Defence)
Riskfree Rate	2.696%	Current 30-yr T-Bond rate
Equity Risk Premium	4.50%	NYU Stern Historical Implied Risk Premium Dataset

Debt

Effective Tax Rate for ProSentinel Inc	18.54%	ProSentinel Inc actual (FY2021)
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Debt Ratio

Target Debt Ratio (Debt to Capital Ratio) for ProSentinel Inc	26.60%	ProSentinel Inc actual (FY2021)
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Output

Debt Ratio (Debt to Capital Ratio) for ProSentinel Inc	26.6%	
Levered beta for ProSentinel Inc	1.22	Calculated
Total Beta for ProSentinel Inc	4.01	Calculated

PROSENTINEL INC	Equity	Debt (A/T)	WACC
Weight in Cost of Capital	73.40%	26.60%	100.00%
Component Cost of Funding based upon Source	20.75%	6.07%	16.84%

Ref: [Total Beta Dataset](#)
[Historical Implied Risk Premium](#) (Use
 ERP - FCFE with sustainable payout)



THE LAST STEP IN CAPITAL ALLOCATION

CONTINUING WITH THE ILLUSTRATION

ESTIMATION OF RISK-ADJUSTED HURDLE RATES

PROSENTINEL INC PROJECT HURDLE RATES

Total Risk Points		Risk Rate Modifier (A)	ProSentinel COC (B)	Risk Premium (A-1) * (B) = (C)	Adjusted Discount Rate (B) + (C)
LOW (\geq)	HIGH (\leq)				
0.00	5.00	0.0%	16.84%	0.00%	16.84%
5.01	10.00	105.0%	16.84%	0.84%	17.68%
10.01	15.00	110.0%	16.84%	1.68%	18.52%
15.01	20.00	115.0%	16.84%	2.53%	19.37%
20.01	25.00	120.0%	16.84%	3.37%	20.21%
25.01	30.00	130.0%	16.84%	5.05%	21.89%
30.01	35.00	140.0%	16.84%	6.74%	23.58%
35.01	40.00	150.0%	16.84%	8.42%	25.26%
40.01	NA	160.0%	16.84%	10.10%	26.94%

COMPOSITE RISK POINTS – A RECAP FROM SLIDE 18

PROSENTINEL INC

COMPOSITE PROJECT RISK POINTS

	PROJECT TYPE						Business Unit Risk Points (A)
	Breakthrough	Platform	Derivative	Product Support	Facilities	IT	
	(A) + (B)	(A) + (B)	(A) + (B)	(A) + (B)	(A) + (B)	(A) + (B)	
BUSINESS UNIT							
BU 1	22.0	16.0	19.0	16.0	10.0	13.0	10.0
BU 2	17.0	11.0	14.0	11.0	5.0	8.0	5.0
BU 3	32.0	26.0	29.0	26.0	20.0	23.0	20.0
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GUIDANCE:

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- 3 Each project within a BU can be rated up to a maximum of 42.0 risk points
- 4 The model implicitly assumes a 70%/30% risk weighting for BU Risk versus Project Risk

BUSINESS UNIT AND PROJECT RISK-ADJUSTED HURDLE RATES

PROSENTINEL INC

BUSINESS UNIT AND PROJECT HURDLE RATES

	PROJECT HURDLE RATES BASED UPON BUSINESS UNIT & PROJECT TYPE						Business Unit Hurdle Rate
	Breakthrough	Platform	Derivative	Product Support	Facilities	IT	
	1	2	3	4	5	6	
<u>BUSINESS UNIT</u>							
BU 1	20.21%	19.37%	19.37%	19.37%	17.68%	18.52%	17.68%
BU 2	19.37%	18.52%	18.52%	18.52%	16.84%	17.68%	16.84%
BU 3	23.58%	21.89%	21.89%	21.89%	19.37%	20.21%	19.37%
BU 4	26.94%	25.26%	25.26%	25.26%	21.89%	23.58%	21.89%
Corporate	19.37%	18.52%	18.52%	18.52%	16.84%	17.68%	16.84%

CAPITAL ALLOCATION STRATEGY - ASSUMPTIONS

PROSENTINEL INC

CAPITAL ASSUMPTIONS

CRITERIA	ASSUMPTIONS					
	BREAKTHROUGH	PLATFORM	DERIVATIVE	PRODUCT SUPPORT	FACILITIES	IT
Desired % Allocation	25.0%	25.0%	15.0%	10.0%	10.0%	15.0%
Maximum Consolidated Available Capital	\$10,000,000					
Maximum Available Capital by Project Type	\$2,500,000	\$2,500,000	\$1,500,000	\$1,000,000	\$1,000,000	\$1,500,000

CAPITAL ALLOCATION STRATEGY

EXAMPLE – BREAKTHROUGH PROJECTS

PROSENTINEL INC

CAPITAL ALLOCATION ALGORITHM - BREAKTHROUGH PROJECTS

YEAR	BREAKTHROUGH PROJECT CASH FLOWS (USD)			
	BU 1	BU 2	BU 3	BU 4
0	\$ (1,000,000)	\$ (500,000)	\$ (600,000)	\$ (1,050,000)
1	\$ 400,000	\$ 250,000	\$ 300,000	\$ 625,000
2	\$ 350,000	\$ 500,000	\$ 300,000	\$ 750,000
3	\$ 350,000	\$ 200,000	\$ 262,500	\$ 500,000
4	\$ 350,000	\$ 200,000	\$ 262,500	\$ 500,000
5	\$ 350,000	\$ 150,000	\$ 262,500	\$ 375,000
6	\$ 350,000		\$ 262,500	\$ 200,000
7	\$ 350,000		\$ 262,500	\$ 200,000
8	\$ 350,000		\$ 262,500	\$ 100,000
9	\$ 280,000			\$ 75,000
10	\$ 224,000			

CAPITAL ALLOCATION STRATEGY – THE END GAME

PROSENTINEL INC

CAPITAL ALLOCATION ALGORITHM - BREAKTHROUGH PROJECTS

		CAPITAL ALLOCATION FOR PROJECT TYPE → BREAKTHROUGH			
		BU1	BU2	BU3	BU4
CRITERIA					
	Hurdle Rate	20.21%	19.37%	23.58%	26.94%
	Required Investment	\$ 1,000,000	\$ 500,000	\$ 600,000	\$ 1,050,000
	Max Available Capital	\$ 2,500,000			
	Net Present Value	\$ 387,081	\$ 283,473	\$ 294,224	\$ 447,046
	Rank	2	4	3	1
	Internal ROR	34.0%	51.1%	44.7%	52.0%
	Rank	4	2	3	1
	Profitability Index	1.39	1.57	1.49	1.43
	= PV(Inflows) / PV(Outflows)				
	Rank	4	1	2	3
	Allocated Capital	\$ -	\$ 500,000	\$ 600,000	\$ 1,050,000

Q&A

IMA NERC 14th Annual Conference and 50th Year Celebration



The Association of
Accountants and
Financial Professionals
in Business

NorthEast Regional Council