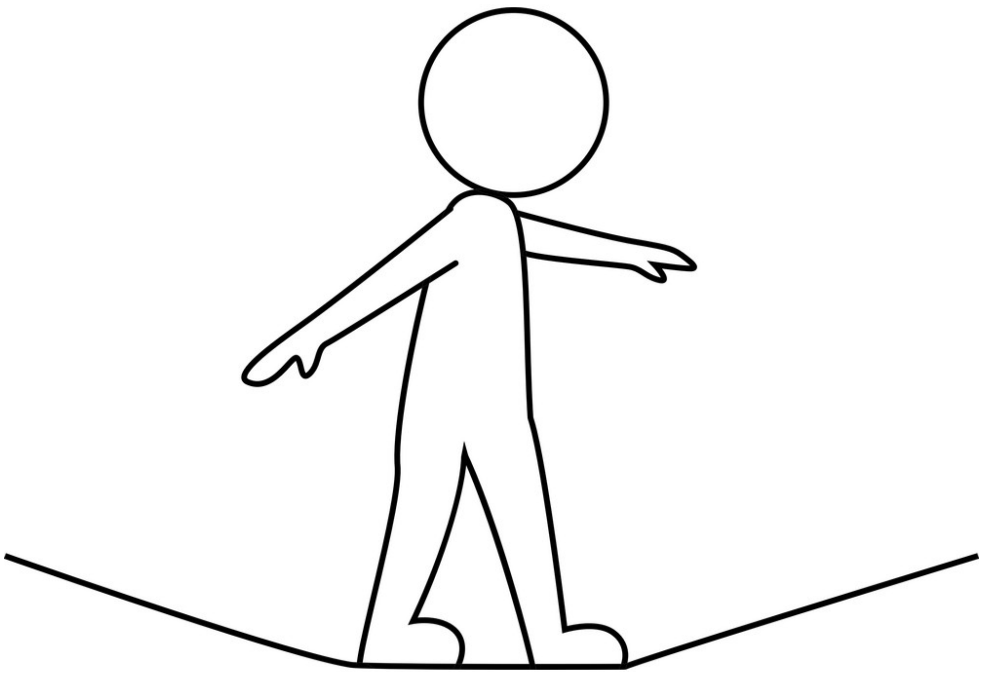
FINANCIAL ANALYSIS TRAINING

TRANSPORT

Infrastructure Finance and Guarantees

October 2021

MAKING INTERVENTIONS FISCALLY/FINANCIALLY SUSTAINABLE AND AFFORDABLE FOR USERS



1. **Macro-fiscal level: fiscal sustainability**
   Projects' budget impact should not undermine the client government's fiscal sustainability.

2. **Sector, entity and project level: financial sustainability**
   Project entities depending on cost recovery for sustainability should eventually be able to self-finance their activities.

3. **Customer level: affordability to the customer**
   Project/entities resulting cost of service should be affordable for customers to ensure feasibility of the project

TECHNICAL FOUNDATIONS

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ACCRUAL VS. CASH-BASED ACCOUNTING

	Cash-Based	International Accounting Standards Accrual
Revenues	**Cash-ins**	**When revenues are earned** *(invoiced)*
Costs	**Cash-outs**	**When expenses are incurred**
Examples	▪ Customer pays its bill ▪ Company pays supplier	▪ Customer is billed ▪ Materials previously purchased get utilized

ONLY THE TIMING OF RECOGNITION OF REVENUES AND EXPENSES DIFFERS

INTRODUCTION TO THE THREE FINANCIAL STATEMENTS (1/3)

- **Income Statement**
  - Measures the operating performance of a company over a given period of time
  - Accrual-based and subject to the applied accounting policies (e.g. depreciation, write-offs, revaluation, etc.)
  - “Paper” profit/loss that may not necessarily translate into a positive/negative cash flow

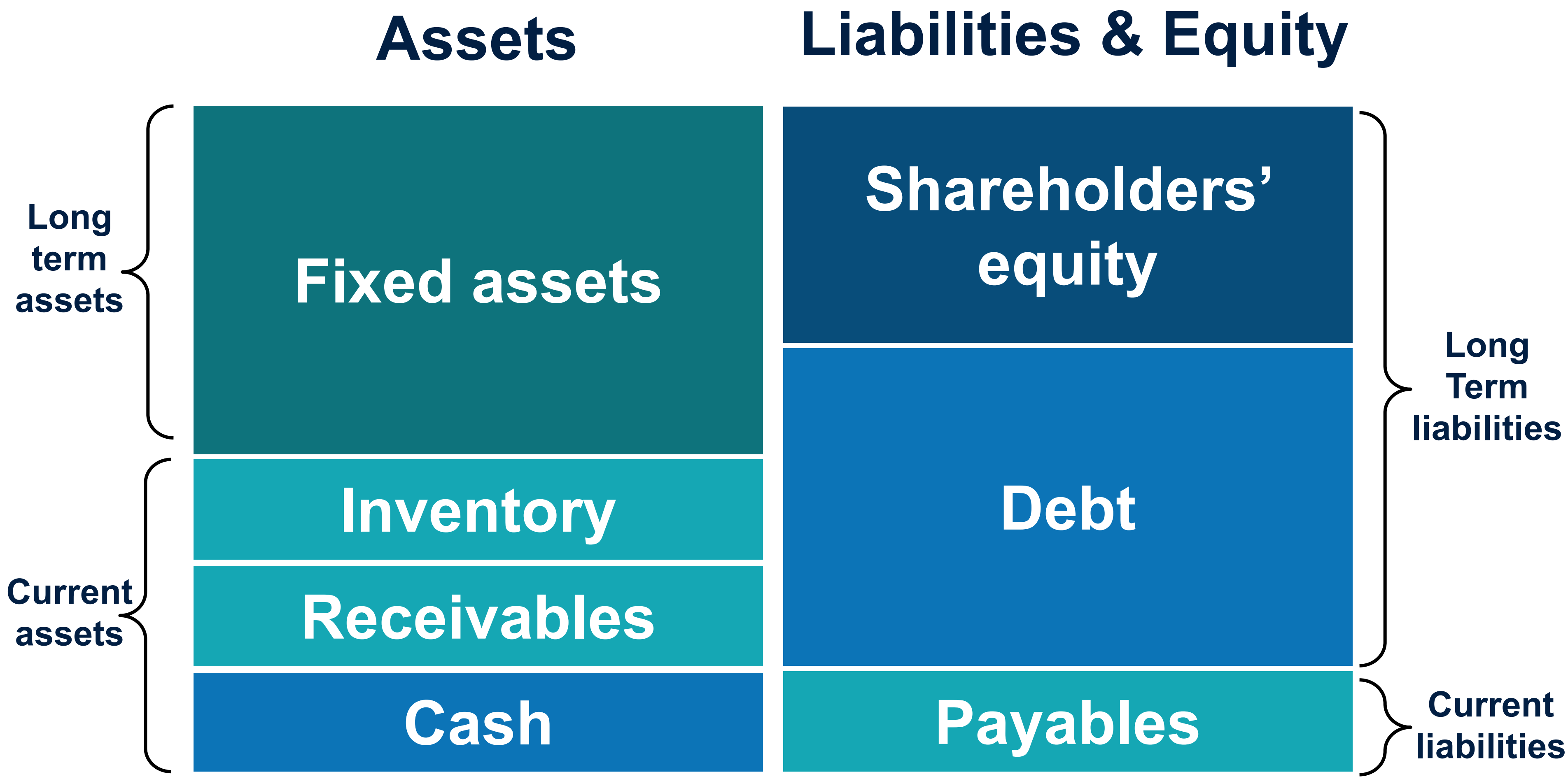
THE INCOME STATEMENT *(ACCRUAL-BASED)*

	Revenues	***Tolls, other revenues billed etc.***
-	**Operating costs**	***Costs expensed***
=	**EBITDA**	***Earnings Before Interest, Tax, Depreciation & Amortization***
-	**Depreciation**	***Accounting allocation of the cost of a tangible asset over its useful life***
=	**EBIT/Operating Income**	***Earnings Before Interest & Tax***
-	**Interest**	***Interest paid/received on debt***
=	**Taxable Income**	***Basis on which corporate tax is calculated***
-	**Corporate tax**	***Tax paid on profits***
=	**Net Income**	***Profit or Loss made by the company***

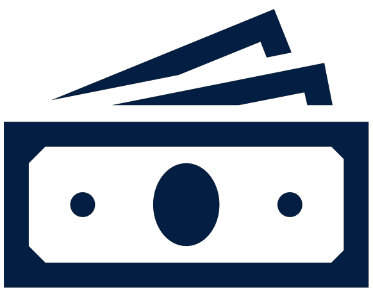
INTRODUCTION TO THE THREE FINANCIAL STATEMENTS

- **Balance Sheet**
  - Snapshot of a company's assets, liabilities and shareholders' equity at a specific point in time
  - Ties Income Statement and Cash Flow Statement together
  - Assets must always be equal to Liabilities + Shareholders’ equity

THE BALANCE SHEET



INTRODUCTION TO THE THREE FINANCIAL STATEMENTS (2/3)



- **Cash Flow Statement**
  - Shows the sources & uses of cash over a given period of time
  - Illustrates the change in cash position between two dates

THE CASH FLOW STATEMENT *(CASH-BASED)*

EBITDA

\- Change in Working Capital

Conversion from accrual to cash

\- Corporate tax

= Cash Flow From Operating Activities (A)

Sale/Purchase of assets

= Cash Flow From Investing Activities (B)

Change in Debt

\- Interest payment

\- Dividend payment

= Cash Flow From Financing Activities (C)

A + B + C

=

Change in cash

KEY RATIOS AND METRICS

- **EBITDA, EBIT and Net Income margins**
  ➔ profitability ratios
- **Debt-to-Equity Ratio**
  ➔ leverage
- **Current ratio: short-term assets / short-term liabilities**
  ➔ ability to pay short-term obligations
- **Cash Flow Available for Debt Service (CFADS)**
  ➔ capacity to repay debt
- **Debt Service Coverage Ratio (DSCR)**
  ➔ ability to service its debt repayment obligations

FINANCIAL ANALYSIS OF PROJECTS

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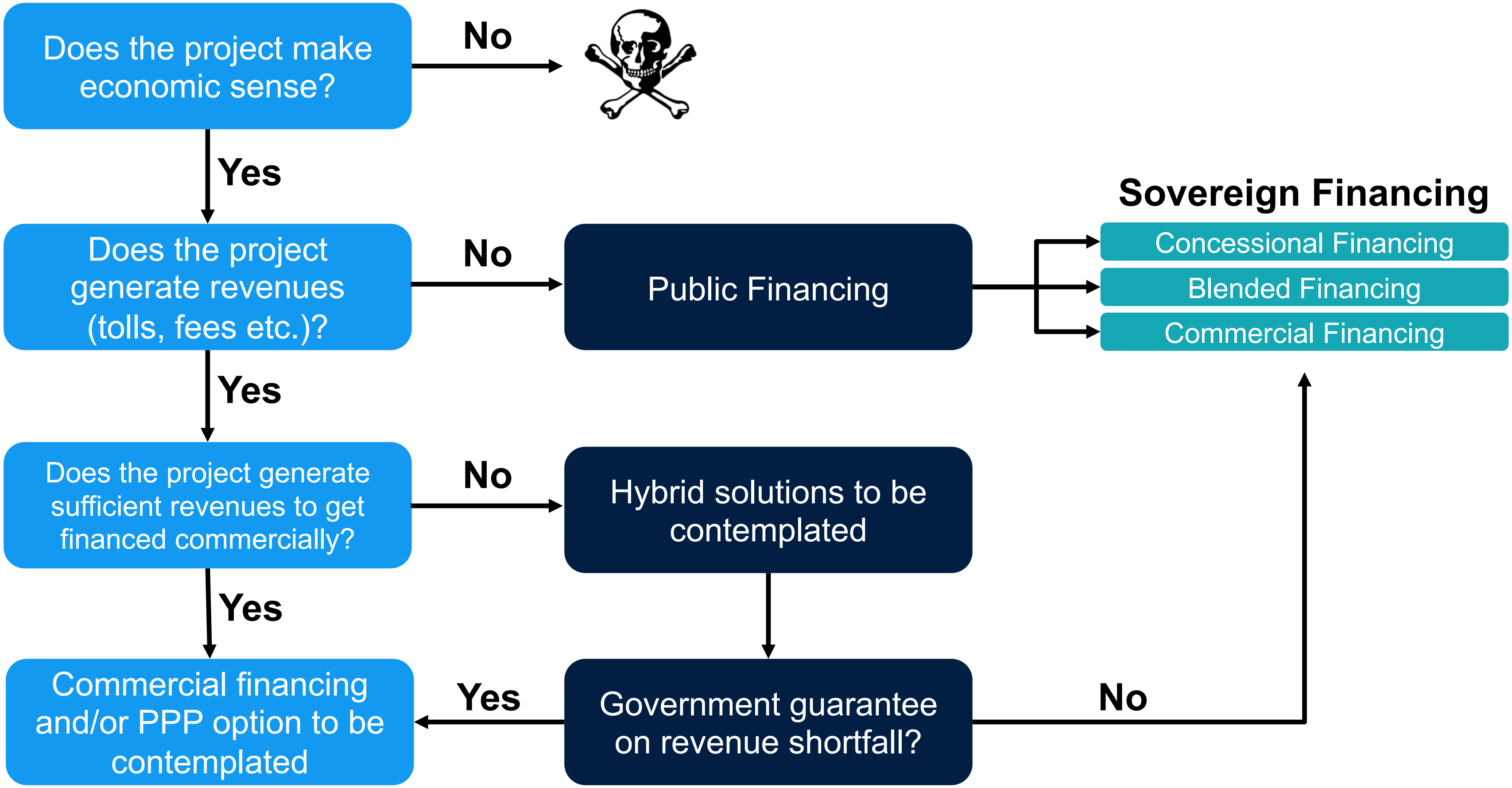
HOW TO LOOK AT A PROJECT FROM A FINANCIAL PERSPECTIVE?



FINANCIAL ANALYSIS OF A PROJECT LOOKS AT ITS ABILITY TO GENERATE POSITIVE CASH FLOWS

EBITDA

\- Change in Working Capital

\- Corporate tax

= Cash Flow From Operating Activities (A)

Sale/Purchase of assets

= Cash Flow From Investing Activities (B)

Free Cash Flow (A) + (B)

Debt

Equity

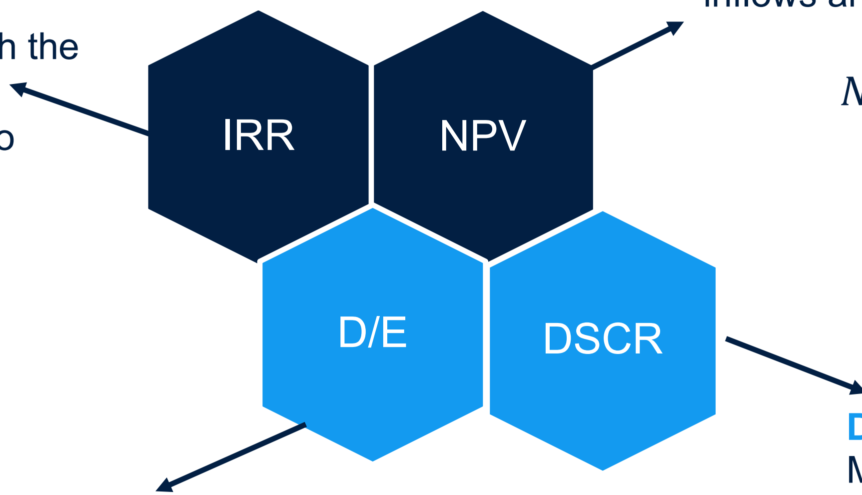
Project FNPV and Project FIRR will be calculated on Free Cash Flows

KEY INDICATORS TO LOOK AT IN FINANCIAL ANALYSIS

(Financial) Internal Rate of Return
Discount rate at which the NPV of a project or investment equal zero

(Financial) Net Present Value
Difference between the present value of cash inflows and the present value of cash outflows:

$$NPV = \sum_{t=1}^{T} \frac{Cf_T}{(1+r0)^t} - Cf_0$$

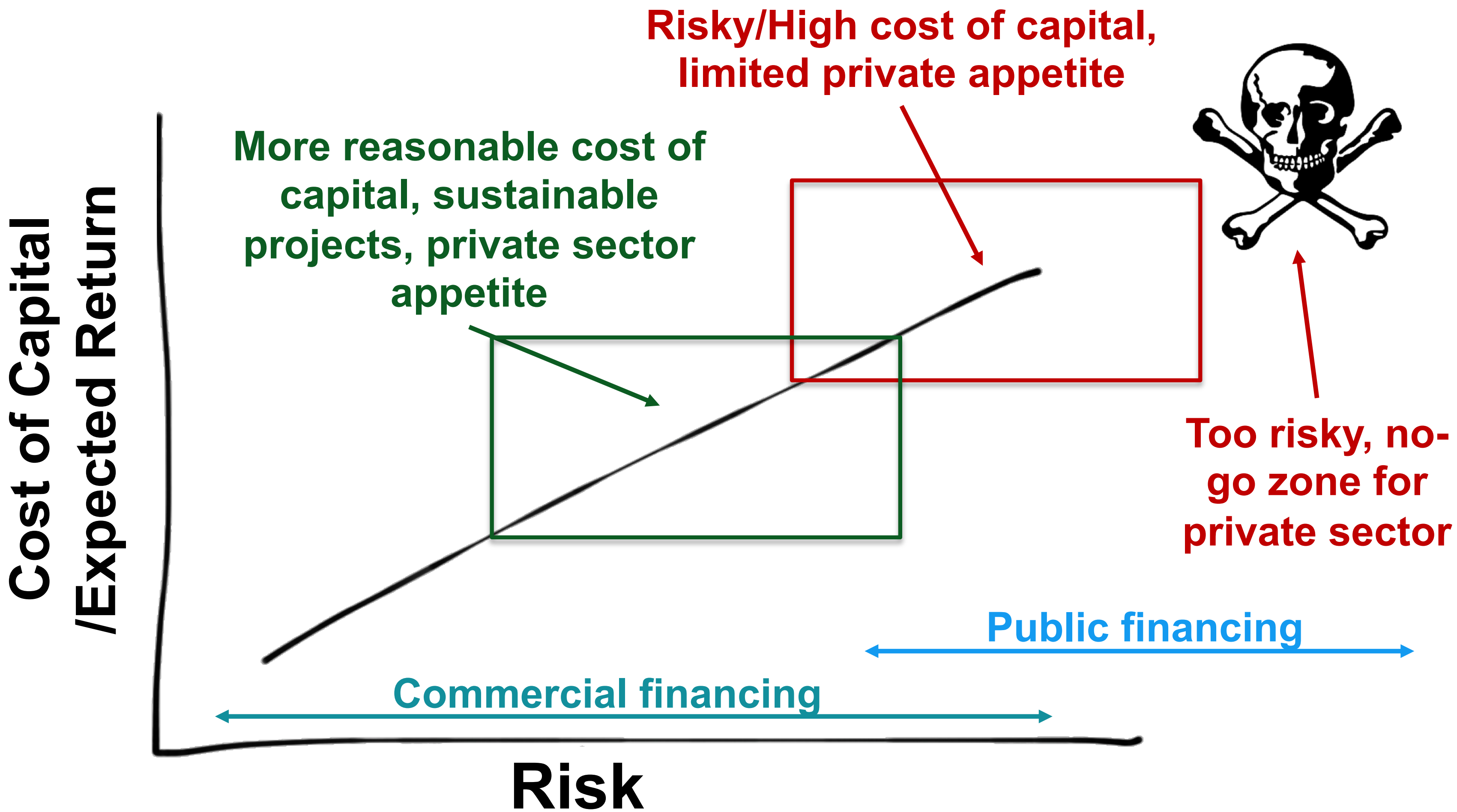


Debt-to-Equity ratio
Level of a company's debt related to its equity capital

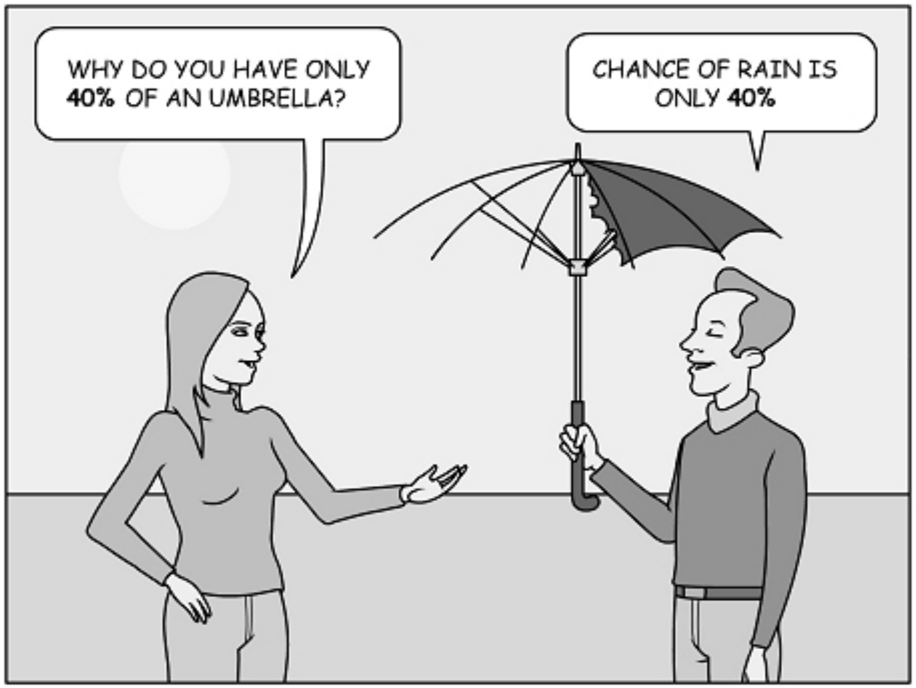
Debt Service Coverage Ratio
Measurement of an entity's ability to produce enough cash to cover its debt payments:

$$DSCR = \frac{CFADS}{DS}$$

USING RISK-RETURN ANALYSIS TO DECIDE BETWEEN CONCESSIONAL AND PRIVATE FINANCING



RISK ANALYSIS



The party most able to manage a particular risk should be responsible for it

RISK CATEGORIZATION AND ALLOCATION

Risk/Allocation	Government	Sponsors	Lenders
Political Risk	✓		
Construction risk		✓	
Operational Risk		✓	✓
Macroeconomic Risk	✓		
Commercial Risk		✓	✓
Payment Risk		✓	✓

FINANCIAL MODELING

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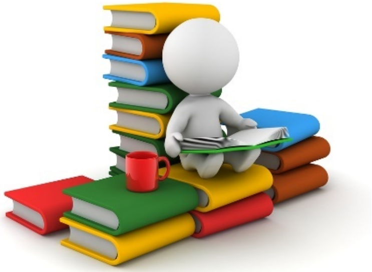
DATA COLLECTION, ANALYSIS, AUDIT

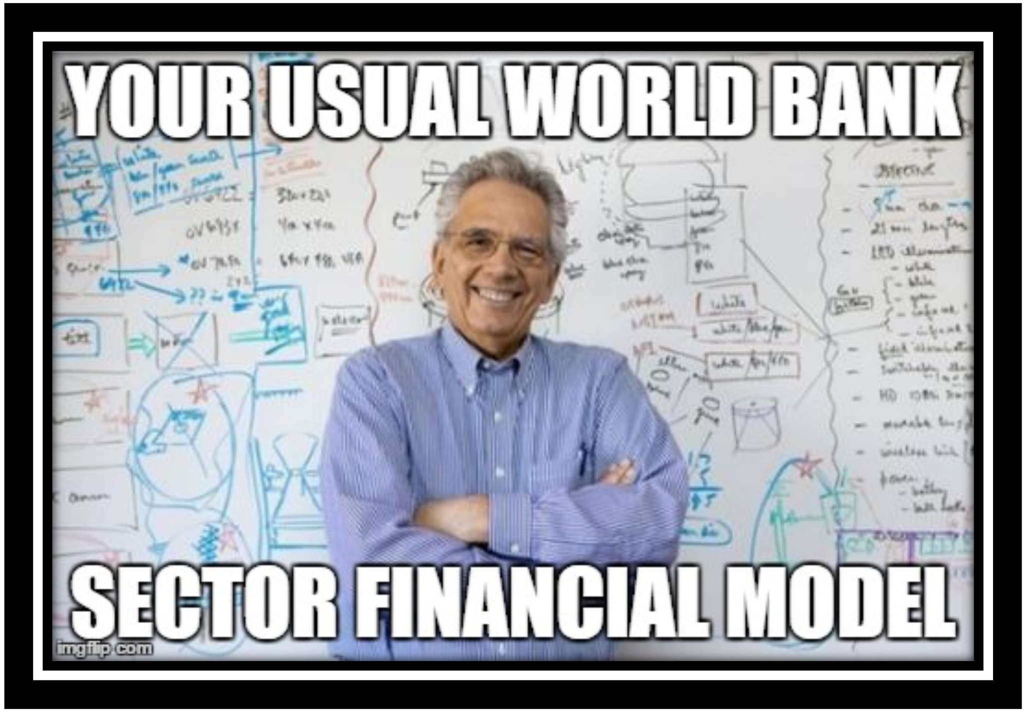
- Ensure accuracy and consistency of data collected
➔ Will form the basis of your analysis and recommendations

- If available, going through audited financial statements is the best way to understand the financial situation of a company



- Organize follow up meetings to confirm your understanding of the financial statements and/or get clarifications

FORECASTING OF ENTITY AND SECTOR FINANCIALS



Key Principles

1. Keep it simple
2. Focus on the 20% of the inputs that make up 80% of the results
3. Know why you build the model and what you want to achieve with it

A financial model is a tool to inform decision makers on policies, actions and investment decisions

EXAMPLES OF DECISIONS THAT CAN BE INFORMED WITH THE SUPPORT OF FINANCIAL ANALYSIS

State-Owned Entity Level

- **Restructuring of balance sheet**
  Debt refinancing, take over of debt by government, equity injections by government, etc.
- **Tariff review**
- **Action plans to improve collection**

Project Level

- **Financing type: public vs private**
- **If commercial financing involved, adequacy of rate of return for project sponsors or, adequacy of interest rate charged by lenders**

FINANCIAL ANALYSIS IN PROJECT FINANCE – WHAT IS DIFFERENT FROM CORPORATE FINANCE?

- Corporate Finance looks at the strength of the ***Balance Sheet*** of the company
- Project Finance looks to the ***Cash Flow Statement*** of the project
- The creditworthiness of the project is determined by the strength of contracting parties to the project, not the project's balance sheet, and the strength of the contracts

- ***Sensitivity analysis*** is conducted to determine project's robustness and ***any potential interruption in the project revenues*** as well as required risk mitigation.

EXAMPLE OF KEY RESULTS OF A TOLL ROAD FINANCIAL MODEL – PROJECT FINANCE

Index

BASE CASE

O & M Cost Sensitivity: 1

ROI: XXXX *Total Net Profit* XXXXX

Other income: XXXX

	Year 1	Year 2
Schedule of Construction	xxxx	xxxx

	Debt	*Equity*	*WACC*
Cost of	xxxx	xxxxx	xxxxx

Dashboard

Cost of the project

Capital Cost of the project			XXXX
VGF	0%		XXXX
Net Cost of Project			XXXX
Interest During Construction (IDC)			
Total Cost of Project (Including IDC)		XXXX	
Means of Financing			Total
Equity	XXXX	-	-
Debt	XXXX	-	-
Total	XXXX	-	-
GoP Interest free - Operating Loan (Re-paytt in yr 11)			-

NPV of Project		IRR - Project	
NPV of Equity		IRR - Equity	
		Pay back	

Description	AADT				
From					
To					
Distance in KM					
Cars / Jeeps / Pick-up					
Hiace					
Coasters					
Large Buses					
2 Axle Trucks					
3 Axcle Trucks					
4 Axcle Trucks					
5 Axcle Trucks					
6 Axcle Trucks					
Total per Day		-	-	-	-

TOLL RATE ESCALATION
XXXX%

TRAFFIC ESCALATION		
2019-31	2032-41	2042-46
5.00%	4.75%	4.50%
4.75%	4.50%	4.25%
4.75%	4.50%	4.25%
4.50%	4.25%	4.00%
3.50%	3.25%	3.00%
3.75%	3.50%	3.25%
3.75%	3.50%	3.25%
3.75%	3.50%	3.25%
3.75%	3.50%	3.25%


QUIZ

CORPORATE FINANCE QUIZ

Money Owed to you by customers, or vendors for goods/services that you provide is called

a) Accruals
b) Cash Inflows
c) Accounts Receivables
d) Accounts Payables

Five main categories of accounts are: ____, Assets, Liabilities, Revenues, Expenses

a) Cash
b) Equity
c) Taxes
d) Working Capital

Which one of these items does Cash Flow from Operations NOT include:

a) EBITDA
b) Changes in Working Capital
c) Taxes
d) Payment of Debt Service Obligations

PROJECT COMPARISON

	Project A	Project B	Project C
Cost of Service	120	140	130
Equity IRR	20.0%	18.0%	23.0%
Debt-to-Equity	70 - 30	50 - 50	75 - 25
Average DSCR	1.30x	1.70x	1.25x
Min. DSCR	1.20x	1.55x	1.05x

Which project is the best for:

Government

Commercial lenders

Equity providers/ private sponsors

KEY TAKEAWAYS

1. Project finance is a complex off-balance sheet financing approach involving multiple parties and relying on strong contractual arrangements (“financing by contract”)
2. Proper risk identification and allocation is key to bankability
3. Project finance analysis is used to assess impacts on consumers, offtaking entity and the whole sector
4. Good financial models rely on accuracy of information and can help inform decision making at the level of both a state-owned entity or company or a project.

QUESTIONS/DISCUSSION

THANK YOU!

Infrastructure Finance and Guarantees

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