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Return on invested capital (ROIC) can be a useful construct to compare investment opportunities, identify inconsistencies in forecasts, understand valuation discrepancies and focus on value creating strategies. It has several limitations too. Here's a quick checklist.

ROIC FRAMEWORK TO EVALUATE BUSINESS

NOTES BY BHAVIN/.

VALUE DRIVERS:

1. EXCESS RETURNS — ROIC (–) WACC
2. REINVESTMENT OPPORTUNITY — NPV '+'ve OPPORTUNITY
3. COMPETITIVE ADV PERIOD (CAP) — >CAP >VALUE
4. RISK PROFILE — >RISK >WACC <VALUE

CALCULATING ROIC:

ROIC = NOPAT ÷ INVESTED CAPITAL

NOPAT = EBITA (–) CASH TAX (UNLEVERAGED) ← Proxy for maintenance capex

EBITA = REVENUE – OP. EXPENSES – DEPRETIATION – AMORTISATION (EXCEPT GOODWILL)

TWO APPROCHES TO CALCULATE INVESTED CAPITAL

	1. OPERATING APPROACH (ASSET SIDE OF BAL SHEET (B/S))		2. FINANCING APPROACH (LIABILITY SIDE OF B/S)	
	A. NON CASH CURRENT ASSET	X	A TOTAL DEBT	X
(–)	B. CURRENT LIABILITY	(X)	+ B DEFERRED TAX	X
=	C NET WORKING CAPITAL	XX	+ C OTHER LONG TERM LIAB	X
+	D NET PPE	X	+ D MINORITY INTEREST	X
+	E NON GOODWILL INTANGIBLE	X	+ E PREFERRED EQUITY	X
+	F OTHER LONG TERM ASSET	X	+ F SHAREHOLDER EQUITY	X
	TOTAL INVESTED CAPITAL (C+D+E+F)	XX	(–) G CASH	(X)
			(–) H UNCONSOLIDATED INT	(X)
			(–) I GOODWILL *	(X)
			TOTAL INVESTED CAPITAL	XX

* GOODWILL: Purpose of cal. ROIC is to find out payout business can make while sustaining growth. Since G/W is relating to past acquisitions – it does not affect the ability to payout – hence it is deducted.

USING ROIC TO EVALUATE PROJECTIONS:

$$ROIC = \frac{NOPAT}{INVESTED\ CAPITAL} = \frac{NOPAT}{REVENUE} \times \frac{REVENUE}{INVESTED\ CAPITAL}$$

NOPAT / REVENUE: OP. MARGINS %. ; REVENUE / INVESTED CAPITAL: ASSET TO.

FACTORS TO EVALUATE:

1. OP. MARGINS: Driven by industry dynamics & competitive intensity
2. ASSET TO: Should remain unchanged unless there is specific reason
3. REINVESTMENT RATE: Should adequately provide for growth
   - Reinv. opportunities available
   - Total capex (–) Maintenance capex → only growth capex to be considered.
   - Use Capex/Rev. as a check.

USING ROIC TO EVALUATE DCF:

- 60-70% value attributable to terminal value
- Terminal value = $\frac{\text{Normalised CF}}{\text{WACC} - G}$; G = Reinvt Rate × ROIC → check if both are adequately provided.

VALUE OF ROIC DIMINISHES AS IT INCREASES:

→ High ROIC co's should focus on inc. growth

COMPANY	ROIC	GROWTH	DIVIDEND (ASSUMING EPS=1) (Payout = 1 – G/ROIC)
A	10	5	0.5
B	20 (2×)	5	0.75 (50%)
C	40 (2×)	5	0.875 (17%)

FOR 2× INC. IN ROIC ABILITY TO PAYOUT DIMINISHES.

LIMITATIONS OF ROIC: MAKE SUITABLE ADJUSTMENT FOR

1. R&D expenses
2. LEASES
3. RESTRUCRING CHARGES.