Financial Statement Analysis – E2200100 Class quiz 13.3.2019

Our simple example considers a firm that engages in business for five periods. In each period, the firm makes an initial investment of $100. This investment generates sales in the next period, and nothing thereafter. The proceeds from these sales are assumed to be collected in cash, and the firm also is assumed to incur additional cash operating costs in generating these sales. Cash sales are assumed to be 165 percent of the prior period's real investment and cash operating costs are assumed to be 55 percent of the prior period's real investment. These are the only consequences of the investment. Thus, the firm invests $100 in each period in order to generate a net cash inflow of $110 (=$165 – $55) in the next period. The economic income on this investment is therefore $110 – $100 = $10 and the economic rate of return is $10/$100 = 10%. We will assume that the firm invests $100 in each of the first four periods, and then ceases to make any further investments in period five and beyond. We also assume that any surplus cash is immediately distributed to the owners of the firm (i.e. $10 in periods 2–5).

Panel A. Perfect Accounting (all investment is capitalized in all years)						
		Period				
		1	2	3	4	5
Accounting Assumptions						
	Capitalized investment costs	100	100	100	100	0
+	Capitalized operating costs	0	0	0	0	0
End. Balance Sheet:						
	Assets = Equity	100	100	100	100	0
	Accruals (change in assets)	100	0	0	0	–100
Measurement Error (ε)						
	Beginning ε	0	0	0	0	0
	Ending in ε	0	0	0	0	0
	Change in ε	0	0	0	0	0
Income Statement						
	Sales	0	165	165	165	165
–	Operating expense	0	–55	–55	–55	–55
–	Depreciation expense	0	–100	–100	–100	–100
–	Investment expense	0	0	0	0	0
=	Operating income	0	10	10	10	10
Return on equity			10.0%	10.0%	10.0%	10.0%

Panel B. Temporarily Aggressive Accounting (perfect accounting, except that $20 of operating costs are capitalized in period 3)						
		Period				
		1	2	3	4	5
Accounting Assumptions						
	Capitalized investment costs	100	100	100	100	0
+	Capitalized operating costs	0	0	20	0	0
End. Balance Sheet:						
	Assets = Equity	100	100			
	Accruals (change in assets)	100	0			
Measurement Error (ε)						
	Beginning ε	0	0			
	Ending ε	0	0			
	Change in ε	0	0			
Income Statement						
	Sales	0	165	165	165	165
–	Operating expense	0	–55			
–	Depreciation expense	0	–100			
–	Investment expense	0	0			
=	Operating income	0	10			
Return on equity			10.0%			

Panel C. Temporarily Conservative Accounting (perfect accounting, except that 80% of investment costs are capitalized in period 3)						
		Period				
		1	2	3	4	5
Accounting Assumptions						
	Capitalized investment costs	100	100	80	100	0
+	Capitalized operating costs	0	0	0	0	0
End. Balance Sheet:						
	Assets = Equity	100	100			
	Accruals (change in assets)	100	0			
Measurement Error (ε)						
	Beginning ε	0	0			
	Ending ε	0	0			
	Change in ε	0	0			
Income Statement						
	Sales	0	165	165	165	165
–	Operating expense	0	–55			
–	Depreciation expense	0	–100			
–	Investment expense	0	0			
=	Operating income	0	10			
Return on equity			10.0%			

Panel D. Permanently Aggressive Accounting (perfect accounting, except that \$20 of operating costs are capitalized in all periods)						
		Period				
		1	2	3	4	5
Accounting Assumptions						
	Capitalized investment costs	100	100	100	100	0
+	Capitalized operating costs	20	20	20	20	0
End. Balance Sheet:						
	Assets = Equity	120				
	Accruals (change in assets)	120				
Measurement Error (ε)						
	Beginning ε	0				
	Ending ε	20				
	Change in ε	20				
Income Statement						
	Sales	0	165	165	165	165
–	Operating expense	20				
–	Depreciation expense	0				
–	Investment expense	0				
=	Operating income	20				
Return on equity						

Panel E. Permanently Conservative Accounting (perfect accounting, except that 80% of investment costs are capitalized in all periods)						
		Period				
		1	2	3	4	5
Accounting Assumptions						
	Capitalized investment costs	80	80	80	80	0
+	Capitalized operating costs	0	0	0	0	0
End. Balance Sheet:						
	Assets = Equity	80				
	Accruals (change in assets)	80				
Measurement Error (ε)						
	Beginning ε	0				
	Ending ε	–20				
	Change in ε	–20				
Income Statement						
	Sales	0	165	165	165	165
–	Operating expense	0				
–	Depreciation expense	0				
–	Investment expense	–20				
=	Operating income	–20				
Return on equity						