

II. Understanding Financial Statements

Financial Statement Analysis: OISHI

1. How does OISHI's efficiency in generate profits from its total assets and invested capital change in 2014 compare to 2012. Give the reason(s) that cause OISHI's ROIC in 2014 be higher than its ROA in the same year?
2. By looking at OISHI's operating profit margin after tax and the capital turnover ratios in 2014 and 2012, explain why OISHI's ROIC declined in 2014 compared to 2012.
3. Apply DuPont analysis to explain why OISHI ROE decline in 2014 compared to 2012.
4. By looking at OISHI's ratios to measure short-term liquidity risk, analyze OISHI's ability to manage its working capital in 2014 compared to 2012.
5. By looking at OISHI's long-term solvency and default risk ratios, analyze OISHI's default risk in 2014 compared to 2012.

Unit: Bt mn, unless stated

Measures of Profitability: Profitability Ratios	2012	2014	Formula	Calculation: 2014
Return on assets (ROA)	10.1%	6.2%	$ROA = \text{Net Profit} / \text{Total Assets}$	
Return on invested capital (ROIC)	15.5%	10.3%	$ROIC = [\text{NOPAT}] / [\text{Invested Capital}]$	
Net operating profit after tax (NOPAT)	701.4	622.3	$NOPAT = \text{EBIT} (1 - \text{tax rate})$	
EBIT	673.7	396.0	$\text{EBIT} = \text{Net income} + \text{interest expenses} + \text{tax} + \text{EBT} + \text{interest expenses}$	
tax rate	-4.3%	-4.4%	$\text{tax rate} = \text{Income tax expense} / \text{EBT}$	
Invested capital	4,955.5	6,573.7	$\text{Invested capital} = [\text{BV of interest-bearing liabilities} + \text{BV of equity} - \text{Excess Cash}]$	
BV of interest-bearing liabilities	1,836.3	2,939.6	$\text{Interest bearing liabilities} = \text{Short-term loans} + \text{Current portion of long-term loan}$	
BV of equity	3,121.2	3,626.8	$+ \text{Long-term loan} + \text{Debentures} + \text{Finance lease liabilities}$	
Excess cash (Current investment)	2.0	0.0		
Return on invested capital (ROIC)	15.5%	10.3%	$ROIC = \text{Operating profit margin after tax} \times \text{Capital turnover ratio}$	
Operating profit margin after tax	6.0%	5.0%	$\text{Operating profit margin after tax} = \text{EBIT} (1 - \text{tax rate}) / \text{Sales} = \text{NOPAT} / \text{Sales}$	
Capital turnover ratio	2.6	2.1	$\text{Capital turnover ratio} = \text{Sales} / \text{Invested Capital}$	
ROE	21.70%	14.93%	$ROE = \text{Net Profit} / \text{Book Value of Common Equity}$	
DuPont analysis				
ROE	21.70%	14.93%	$ROE = \text{Profit margin} \times \text{Asset utilization} \times \text{Equity multiplier}$	
Profit margin	5.6%	4.2%	$\text{Profit margin} = \text{Net profit} / \text{Sales}$	
Asset utilization	1.79	1.46	$\text{Asset utilization} = \text{Sales} / \text{Total assets}$	
Equity multiplier (average)	2.15	2.42	$\text{Equity multiplier} = \text{Total assets} / \text{Common equity}$	
Measures of Short-Term Liquidity Risk (unit: times)				
Current ratio	0.53	0.35	$\text{Current ratio} = \text{Current Assets} / \text{Current Liabilities}$	
Quick or acid test ratio	0.02	0.04	$\text{Quick or acid test ratio} = (\text{Cash} + \text{Marketable securities}) / \text{Current Liabilities}$	
Accounts receivable turnover	19.2	23.5	$\text{Accounts receivable turnover} = \text{Sales} / \text{Average accounts receivable}$	
Inventory turnover	30.0	20.2	$\text{Inventory turnover} = \text{Cost of goods sold} / \text{Average inventory}$	
Accounts payable turnover	10.2	6.6	$\text{Accounts payable turnover} = \text{Purchases} / \text{Average accounts payable}$; (approximately) $= \text{Cost of goods sold} / \text{Average accounts payable}$	
Days account receivable outstanding	19.0	15.5	$\text{Days account receivable outstanding} = 365 / \text{Account receivable turnover}$	
Days inventory held	12.2	18.1	$\text{Days inventory held} = 365 / \text{Inventory turnover}$	
Days accounts payable outstanding	35.8	55.7	$\text{Days accounts payable outstanding} = 365 / \text{Accounts payable turnover}$	
Required financing period (Cash conversion cycle)	-4.7	-22.1	$\text{Cash conversion cycle} = \text{Days account receivable outstanding} + \text{Days inventory held} - \text{Days accounts payable outstanding}$	
Long-Term Solvency and Default Risk (unit: times)				
Interest coverage ratio	14.8	6.1	$\text{Interest coverage ratio} = \text{EBIT} / \text{Interest expenses}$	
Operating cash flow to CAPEX	0.9	0.7	$\text{Operating cash flow to CAPEX} = \text{Cash flows from operations} / \text{CAPEX}$	
Debt to capital ratio	0.36	0.38	$\text{Debt to capital ratio} = \text{Debt} / (\text{Debt} + \text{Equity})$	
Debt to equity ratio	0.57	0.60	$\text{Debt to equity ratio} = (\text{Debt} / \text{Capital}) / (1 - \text{Debt} / \text{Capital})$	
Debt to equity ratio	0.57	0.60	$\text{Debt to equity ratio} = \text{Debt} / \text{Equity}$	
Long-term debt to capital ratio	0.01	0.16	$\text{Long-term debt to capital ratio} = \text{Long-term debt} / (\text{Long-term debt} + \text{Equity})$	
Long-term debt to equity ratio	0.01	0.19	$\text{Long-term debt to equity ratio} = (\text{Long-term debt} / \text{Capital}) / (1 - \text{Long-term debt} / \text{Capital})$	
Long-term debt to equity ratio	0.01	0.19	$\text{Long-term debt to equity ratio} = \text{Long-term debt} / \text{Equity}$	
MV debt to capital ratio	0.17	0.27	$\text{MV debt to capital ratio} = \text{MV of debt} / (\text{MV of debt} + \text{MV of Equity})$	
MV debt to equity ratio	0.20	0.36	$\text{MV debt to equity ratio} = \text{MV of debt} / \text{MV of Equity}$	
MV equity (market capitalization of equity)	20,344	15,141	$\text{Market capitalization} = \text{share price} \times \text{number of shares}$	
Share price (average) (Bt)	108.5	80.8		
Number of shares (mn)	187.5	187.5	$\text{Paid-up capital} / \text{Par Value}$	
Par value (Bt)	2.0	2.0		
MV of debts	4,139	5,497	approximately equal to BV of total liabilities	