

A Cash flow from operations		Indirect Method	
			90310
Net income		123,510	
- Increase in accounts receivable		(70,033)	
+ Depreciation expense		122,265	
+ Net Interest expense		13,198	
Interest revenue (footnote 7)		1,118	
Interest expense		14,316	
Interest paid (footnote 7)		10,739	
+ Non cash interest expense			
- Increase in inventories		(8,610)	
+ Increase in accounts payable		46,440	
+ Increase in taxes payable		3,808	
+ Increase in deferred income taxes (Note 8)		1,000	
+ Increase in deferred credits and other liabilities		16,339	
- Increase in other assets		(6,265)	
+ Increase in salaries payable		12,220	
+ Increase in accrued expenses etc..		16,052	
Marketing, general and administrative expenses			
Federal income taxes (Note 8).			
Cash flow from operations		<u>256,726</u>	
Cash flow from investing			
Purchase of Property plant and equipment,		(364,160)	
Sales and retirements Cost		117,273	
Accumulated depreciation		(110,648)	
Cash flow from investing		6,625	(357,535)
Cash flow from financing			
Payment of current portion of debt			
Increase in long - term debt		105,500	= 105,500
Minority interest			2,592
Net Income		Change in Retained earnings	
123,510		- 109,596	= 13,914
Dividends			(13,914)
Sale of common stock		17,917	
		(9,500)	8,417
Acquisition of treasury stock			(78)
			8,339
Cash flow from financing			102,517
Total cash flow			(255,018)
Ending cash		Beginning cash	
27,255		- 25,547	1,708

B	Nucor's tax rate in 1993	63,600	÷	187,110	=	33.99%					
B1	Return on equity.										
	Net income			123,510							
	÷ Average equity		÷	843,199	=	14.65%					
B2	Interest expense =	13,198	+	Net interest expense	1,118	=	14,316				
	Return on assets (after tax).										
	Net income			123,510		123,510					
	+ (1 - Tax rate)		+	65.00%							
	x Interest expense		x	14,316		9,305					
	÷ Average assets		÷	1,668,325		1,668,325	=	7.96%			
B3	Debt to equity ratio										
	Average total debt										
	Short term			200							
	+ Long term		+	299,500		299,700					
	÷ Average equity		÷	843,199		843,199	=	35.54%			
	Debt to equity ratio (alternate)										
	Average total liabilities (=assets - equity)					825,127					
	÷ Average equity					843,199	=	97.86%			
B4	Average interest rate.										
	Interest expense					14,316					
	÷ Average total debt					299,700	=	4.78%			
	Average interest rate. (alternate)					14,316	÷	825,127 =	1.74%		
	After tax interest rate					65.00%	x	1.74% =	1.13%		
	ROE =	ROA	+	[ROA	-	After tax interest rate]	x	(Debt/equity)	
	=	7.96%	+	[7.96%	-	1.13%]	x	97.86%	
	=	7.96%	+		6.69%					=	14.65%
B5	Book value of equity per share on December 31, 1993										
	Net income	123,510		Ending equity		902,166					
	÷ EPS	1.42		Number of							
	= No. of shares	86,979		shares			÷	86,979			
				Book value of equity per share			=			10.37	
C	C1	Relative age of property, plant and equipment as a percentage of the depreciable life.									
	Accumulated Depreciator	÷	Ending gross investment								
	459,952	÷	1,820,987				=			25.26%	
C2	Average depreciable life of all the property, plant and equipment.										
	Ending gross investment	÷	Depreciation expense								
	1,820,987	÷	122,265				=		14.89	years	
C3	Average age of the firm's fixed assets (property, plant equipment).										
	Accumulated Depreciator	÷	Depreciation expense								
	459,952	÷	122,265				=		3.7619	years	

D

		1993	
Total inventory as reported			215,015
LIFO reserve			67,128
FIFO value (= current cost)			282,143
LIFO inventories valued at FIFO	85%	x 282,143	= 239,822
FIFO inventories valued at FIFO	282,143	- 239,822	= 42,321
LIFO inventories as reported	215,015	- 42,321	= 172,694
	239,822	- 67,128	= 172,694

		1992		
Total inventory as reported			206,405	Increase 37,497
LIFO reserve			29,631	
FIFO value (= current cost)			236,036	
LIFO inventories valued at FIFO	75%	x 236,036	177,027	
FIFO inventories valued at FIFO	236,036	- 177,027	= 59,009	
LIFO inventories as reported	206,405	- 59,009	= 147,396	
	177,027	- 29,631	= 147,396	

LIFO Inventories increase	172,694	- 147,396		25,298
LIFO reserve increase	67,128	- 29,631	=	37,497
Specific inflation rate	37,497	÷ 177,027	=	21.18%
Additional LIFO cost of the FIFO layer that was so	21.18%	x 59,009	=	12,499

	Partial LIFO	100% FIFO	100% LIFO
Effect on cost of goods sold		37,497	(12,499)
After tax effect 65%		24,373	(8,124)
Income as reported	123,510	123,510	123,510
Income	123,510	147,883	115,386

Answer

D1

D2

D3 FIFO value (=approximates current cost) of inventories at the end of 1993 282,143
 If Nucor maintains the same real level of inventories, then the
 FIFO value of the inventories at the end of 1993 should be 236,036 x 121.18% = 286,032
 Real increase in inventories (3,889)

OR

Beginning FIFO inventory ending value	59,009	x 1.2118	=	71,508
Increase in FIFO Inventory	42,321	- 71,508	-	= (29,187)
Increase in LIFO inventory				25,298
				(3,889)