

In \$ thousands except per share data

30624

A.	Issued		1/1/2000	Matures	1/1/2010
Principal	20,000	x	0.456	1	= 9,128
Coupon	5.00%	1,000	x	13.590	2 = 13,590
Financing cash flow = Proceeds					22,718

Present value factor	20 periods	4.00% rate	=	0.456	1
Annuity factor	20 periods	4.00% rate	=	13.590	2

	Cash Flow from		But in truth CFO = Free Cash Flow Understated
	Operations	Financing	
Premium Bonds	Understated	Overstated	
Discount Bonds	Overstated	Understated	

B. Since the coupon rate equals the effective interest rate, the purchase price is the face value.

Principal	20,000	0.6006	3	=	12,011
Coupon	1,000	9.9856	4	=	9,986
The carrying amount on 7/1/2003					21,997

Present value factor	13 periods	4.00% rate	=	0.601	3
Annuity factor	13 periods	4.00% rate	=	9.986	4

Entries on	01-Jul-03		
Long term Debt		20,000	
Bond premium		1,997	
Cash			20,000
Gain on extinguishment			1,997

C. The gain is not a component of continuing, operating income but should be considered as nonrecurring. It is a consequence of the change in interest rates rather than the firm's operating activities, and can not be expected to recur. (Extraordinary gains or losses SFAS 4)

D. 1 The gain provides a one-time increase in the reported income.

2 The decrease in leverage (as lower amount of higher coupon debt is issued to replace the lower coupon debt) may help the firm avert or delay technical defaults on bond covenants. Even if new debt is issued to raise cash for repurchase (at coupon equal to effective interest rate) equity goes up and debt falls:

	Before repurchase	After repurchase
Long term Debt	20,000	20,000
Bond premium	1,997	
Liability	21,997	20,000
Retained earnings		+ 1,997

Entries	Cash		Long term debt B Credit	Bond premium		Liability B + C	Interest expense 4.00% of B + C Debit	Accrued Interest payable	
	A			C				Debit	Credit
	Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit	
1/1/2000	22,718		20,000		2,718	22,718			
6/30/2000 Entry		1,000			91		909		
Balance			20,000		2,627	22,627			
12/30/2000 Entry							905		905
Balance			20,000		2,627	22,627	1,814		905
For the year	Reported	22,718	(1,000)						
	Should be	22,718	CFO				(91)	(909)	
		CFF					CFF	CFO	
12/31/2000 Entry		1,000			95				905
Balance			20,000		2,532	22,532			
6/30/2001 Entry		1,000			99		901		
Balance			20,000		2,433	22,433			
12/30/2001 Entry							897		897
Balance			20,000		2,433	22,433	1,799		897
For the year	Reported		(2,000)						
	Should be		CFO				(194)	(1,806)	
							CFF	CFO	
12/31/2001 Entry		1,000			103				897
Balance			20,000		2,330	22,330			

With the old Bond

New Bond

		Decrease in		Interest	Interest	Difference in Expense	
		Cash	Premium	Liability	expense		expense
					4.00%	5.00%	
		C last			4.00%		
		- B			x C last		
		A	B	C	D	E	
							F
1-Jan	2000			22,718			
1-Jul	2000	1,000	91	22,627	909		
1-Jan	2001	1,000	95	22,532	905		
1-Jul	2001	1,000	99	22,433	901		
1-Jan	2002	1,000	103	22,330	897		
1-Jul	2002	1,000	107	22,224	893		
1-Jan	2003	1,000	111	22,113	889		
1-Jul	2003	1,000	115	21,997	885		
1-Jan	2004	1,000	120	21,877	880	1,000	
1-Jul	2004	1,000	125	21,752	875	1,000	
1-Jan	2005	1,000	130	21,622	870	1,000	
1-Jul	2005	1,000	135	21,487	865	1,000	
1-Jan	2006	1,000	141	21,347	859	1,000	
1-Jul	2006	1,000	146	21,200	854	1,000	
1-Jan	2006	1,000	152	21,048	848	1,000	
1-Jul	2007	1,000	158	20,890	842	1,000	
1-Jan	2007	1,000	164	20,726	836	1,000	
1-Jul	2008	1,000	171	20,555	829	1,000	
1-Jan	2008	1,000	178	20,377	822	1,000	
1-Jul	2009	1,000	185	20,192	815	1,000	
1-Jan	2009	1,000	192	20,000	808	1,000	
						Sum	
						1,997	
						120	
						125	
						130	
						135	
						141	
						146	
						152	
						158	
						164	
						171	
						178	
						185	
						192	