

PAS No. 39 (Financial Instrument)
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FORWARD CONTRACTS

(Forward Contract == Cash Flow Hedge)

The company is a resort developer that constructs approximately 10 resorts per year. Next year the company will buy 10,000 trees to install in the resorts it builds. In recent years, the price of trees has fluctuated wildly. To eliminate this uncertainty, the company has found a reputable financial institution that will enter into a forward contract for 10,000 trees. On January 1, 2004, the company agrees to buy 10,000 trees on January 1, 2005 from the financial institution. The price is set at P500 per tree. Of course, the financial institution doesn't own any trees. As with most derivative contracts, this agreement will be settled by an exchange of cash on January 1, 2005 based on the price of trees on that date.

A. What net amount will the resort developer pay or receive on January 1, 2005 under the forward contract if the price of each tree on that date is

1. P300?

Pay to purchase under forward contract (P500 x 10,000 trees)	(P5,000,000)
Market value of trees purchased (P300 x 10,000 trees)	<u>3,000,000</u>
Net payment	<u>(P2,000,000)</u>

2. P850?

Pay to purchase trees under forward contract (P500 x 10,000 trees)	(P5,000,000)
Market value of trees purchased (P850 x 10,000 trees)	<u>8,500,000</u>
Net receipt	<u>P3,500,000</u>

3. P500?

Pay to purchase trees under forward contract (P500 x 10,000 trees)	(P5,000,000)
Market value of trees purchased (P500 x 10,000 trees)	<u>5,000,000</u>
No net payment or receipt	<u>P - 0 -</u>

B. The tree forward contract is a cash flow hedge. Make any necessary journal entry on the resort developer's books on December 31, 2004 in connection with the tree forward contract assuming that the price per tree on that date is

1. P300?

Unrealized loss on Forward Contract (Other Comprehensive Income)	P2,000,000	
Forward Contract Payable		P2,000,000
10,000 x (P300 - P500) = P2,000,000		

2. P850?

Forward Contract Receivable	P3,500,000	
Unrealized gain on Forward Contract (Other Comprehensive Income)		P3,500,000
10,000 x (P850 – P500) = P3,500,000		

3. P500?

No adjusting entry is necessary.

Forward Contract – Speculation/Fair Value Hedge

On September 1, 2005, REX Company purchased machine parts from OHIO Company for US\$600,000 to be paid on January 1, 2006. The exchange rate on September 1 is P55.50 = \$1. On the same date, REX enters into a forward contract and agrees to purchase \$600,000 on January 1, 2006 at the rate of P55.50 = \$1.

Make all journal entries necessary on REX's books on three dates:

September 1, 2005,

December 31, 2005, and

January 1, 2006

To record this purchase and the forward contract. On December 31, 2005 and January 1, 2006, the exchange rate is P56.00 = \$1.

2005

Sept. 1	Inventory	33.3 M	
	Accounts Payable		33.3 M

No entry is made to record the forward contract because, as of September 1, 2005, the forward has a fair value of P – 0 – .

Dec. 31	Loss on Forward Contract	0.3 M	
	Accounts Payable		0.3 M

Dec. 31	Forward Contract Receivable	0.3 M	
	Gain on Forward Contract		0.3 M

(Note: In this case, the foreign currency forward contract is technically not accounted for as a fair value hedge. Instead, it is accounted for as a speculation, with gains and losses on the derivative being recognized immediately in income. However, because the foreign currency payable is remeasured using the current exchange rate at December 31, with the resulting gain being recognized in income, the gain on the foreign currency payable and the loss on the derivative cancel out one another, and the net effect is the same as if the derivative had been accounted for as a fair value hedge under PAS 39.)

2006

Jan. 1	Accounts Payable	33.6 M	
	Cash (\$600,000 x P56)		33.6 M

Jan. 1	Cash	0.3 M	
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INTEREST RATE SWAP (Interest Rate Swap – Cash Flow Hedge)

On January 1, 2004, the company entered into a two-year P100,000 variable interest rate loan. In the first year of the loan, the interest rate is 10%. In its second year, the interest rate is equal to the prime lending rate on January 1, 2005. The company does not want to bear the risk associated with the uncertain interest rate in the second year. Accordingly, on January 1, 2004, the company enters into a pay-fixed, receive-variable interest rate swap with a speculator. This swap obligates the company to pay the speculator a fixed amount of P10,000 ($P100,000 \times 0.10$) on December 31, 2005. In return, the company will receive from the speculator on December 31, 2005 a variable amount equal to P100,000 multiplied by the prime lending rate on January 1, 2005. This amount received from the speculator is exactly enough to pay the interest due on the variable-rate loan in 2005. Typically, interest rate swaps such as this are settled with a single net cash payment rather than the actual payment of P10,000 and receipt of the variable amount.

A. What net amount will the company pay or receive on December 31, 2005 if the prime lending rate on January 1, 2005 is

1. 8%?

Pay ($P100,000 \times 0.10$)	(P10,000)
Receive ($P100,000 \times 0.08$)	<u>8,000</u>
Net payment	<u>(P 2,000)</u>

2. 15%?

Pay ($P100,000 \times 0.10$)	(P10,000)
Receive ($P100,000 \times 0.15$)	<u>15,000</u>
Net payment	<u>P 5,000</u>

3. 10%?

Pay ($P100,000 \times 0.10$)	(P10,000)
Receive ($P100,000 \times 0.10$)	<u>10,000</u>
Net payment	<u>P - 0 -</u>

B. Make any necessary journal entry on the borrowing company's books on December 31, 2004 in connection with the interest rate swap, assuming that the prime lending rate on December 31, 2004 is

The interest rate swap is a cash flow hedge.

1. 8%?

Other Comprehensive Income (unrealized)

gain (loss) on swap contract	P2,000	
Interest Rate Swap Payable/ Obligation		
Under Swap- Contract		P2,000

2. 15%?

Interest Rate Swap Receivable	P5,000	
Other Comprehensive Income		P5,000
P100,000 x (0.15 - 0.10) = P5,000		

3. 10%?

No adjusting entry is necessary.

OPTIONS

(Call Option – Cash Flow Hedge)

The company makes colorful 100% cotton shirts that are very popular among sophisticated business executives. The company uses 50,000 pounds of cotton each month in its production process. On December 1, 2004, the company purchased a call option to buy 50,000 pounds of cotton on January 1, 2005. The option exercise price is P25.44 per pound. It cost the company P69,125 to buy this option. As with most derivative contracts, this option contract will be settled by an exchange of cash on January 1, 2005 based on the price of cotton on that date.

A. What net amount will the shirt company pay or receive on January 1, 2005 under the option contract if the price of cotton per pound on that date is

1. P38.00

Pay to purchase cotton under option contract (P25.44 x 50,000 pounds)	(P1,272,000)	
Market value of cotton purchased (P38.00 x 50,000 pounds)		<u>1,900,000</u>
Net receipt		<u>P 628,000</u>

2. P17.70

Pay to purchase cotton under option contract (P25.44 x 50,000 pounds)	(P1,272,000)	
Market value of cotton purchased (P17.70 x 50,000 pounds)		885,000

In this case, the shirt company would choose not to exercise the option. No cash would change hands, but the party who wrote the call option would keep the P69,125 received on December 1, 2004.

3. P25.44

Pay to purchase cotton under option contract (P25.44 x 50,000 pounds)	(P1,272,000)	
Market value of cotton purchased (P25.44 x 50,000 pounds)		<u>1,272,000</u>
No Net receipt or payment		<u>P - 0 -</u>

In this case, the shirt company would be indifferent between exercising the option or not since the option exercise price is exactly equal to the market price. No cash would change hands, but the party who wrote the call option would keep the P69,125 received on December 1, 2004.

B. The cotton option is a cash flow hedge. Make any necessary journal entry on the shirt company's books on December 31, 2004 in connection with the cotton option contract, assuming that the price of cotton per pound on that date is

1. P38.00

Cotton Option Contract (asset)	P558,875	
Unrealized Gain on Option Contract (Other Comprehensive Income)		P558,875
50,000 x (P38.00 - P25.44) = P628,000		
The option is already recorded at its cost of P69,125, so the necessary adjustment is P558,875 (P628,000 - P69,125).		

2. P17.70

Unrealized Loss on Option Contract (Other Comprehensive Income)	P 69,125	
Cotton Option Contract		P 69,125

The option will not be exercised because the market price of cotton is less than the exercise option contract. Thus, the option contract has no value. Because the option is already recorded at its cost of P69,125, this amount must be removed from the books.

3. P25.44

Unrealized Loss on Option Contract (Other comprehensive Income)	P 69,125	
Cotton Option Contract		P 69,125

The option will not be exercised because the market price of cotton is equal to the exercise price in the option contract. Thus, the option contract has no value. Because the option is already recorded at its cost P69,125, this amount must be removed from the books.

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