合併會計處理

Consolidated Accounting – Chester Bank Example

Chester Bank is a mid sized Canadian bank with total unconsolidated assets of 3,712. The bank's core market is Ontario where a complete line of financial products are offered

Chester Bank also provides retail banking services to is clients through its wholly owned subsidiary, **Zeus Bank**. **Chester Bank** manages the savings and wealth of its retail customer base through traditional banking products plus trust products from **Jazz Trust Company**, which it controls to the extent of **65 per cent.**

Chester Bank is in a joint venture with one other Canadian bank with which it shares equally. **Brandy Investment Management Company** offers financial management services to companies and institutions.

Chester Bank owns **25 per cent** of the voting shares of **Muggins Finance Company** and has representation on Muggins's Board of Directors.

The unconsolidated financial statements of **Chester Bank, Zeus Bank, Jazz Trust Company, Brandy Investment Management and Muggins Finance Company** are presented on the next page.

Chester Bank's Chief Financial Officer has asked you to determine the appropriate consolidation method for each participation and to prepare a consolidated balance sheet for his review.

	Chester Bank	Zeus Bank	Jazz Trust Company	Brandy Investment Management	Muggins Finance Company
ASSETS					
Cash resources	100	75	100	100	40
Securities	700	215	300	516	80
Loans	2,300	1,750	2,050	-	800
Due from related companies	400	450	-	-	-
Shares in subsidiaries	117	-	-	-	-
Investment in Joint Venture	20	-	-	-	-
Other	75	125	40	26	10
	3,712	2,615	2,490	642	930

	Chester Bank	Zeus Bank	Jazz Trust Company	Brandy Investment Management	Muggins Finance Company
LIABILITIES					
Deposits	2,537	1,900	2,100	-	-
Amounts due to related cos	450	400	-	-	-
Other	400	200	250	602	880
Share Capital	225	65	80	40	45
Reserves	100	50	60	-	5
	3,712	2,615	2,490	642	930

Consolidated Accounting
Chester Bank Example
Solution

	Chester Bank	Zeus Bank	Jazz Trust Company	Consol (Subs)	Adjustments: Brandy Investment Mgmnt	Adjustments: Muggins Finance Company	Total Consol
ASSETS							
Cash resources	100	75	100	275	50	-	325
Securities	700	215	300	1,215	258	-	1,473
Loans	2,300	1,750	2,050	6,100	-	-	6,100
Joint Venture	20	-	-	20	(20)	-	-
Other	75	125	40	240	13	-	253
	3,195	2,165	2,490	7,850	301	-	8,151
Amts due from related	400	450	-			-	
Shares in subs	117	-	-				
	3,712	2,615	2,490				
LIABILITIES							
Deposits	2,537	1,900	2,100	6,537	-	-	6,537
Other	400	200	250	850	301	-	1,151
Minority interests	-	-	49	49	-	-	49
Share Capital	225	-	-	225	-	-	225
Reserves	100	50	39	189	-	-	189
	3,262	2,150	2,438	7,850	301		8,151
Amts due to related	450	400	-				
Share capital of subs	-	65	52				
	3,712	2,615	2,490				

Chester Bank – Parent
Zeus Bank – 100% owned subsidiary
Jazz Trust Company – 65% owned subsidiary (minority interest)
Brandy Investment Management – 50% joint venture (pro-rata)
Muggins Finance Company – 25% equity investment (securities)

Exercise No. 1

- Please see the attached chart and financial data.

- These show that Bank A owns 100% of Bank B. Bank B has a head office and two branches.

- Bank A also owns 10% of the shares in Travel Agency Ltd. Bank A carries these shares in its balance sheet at cost (since the shares are unquoted and their fair value cannot be reliably measured).

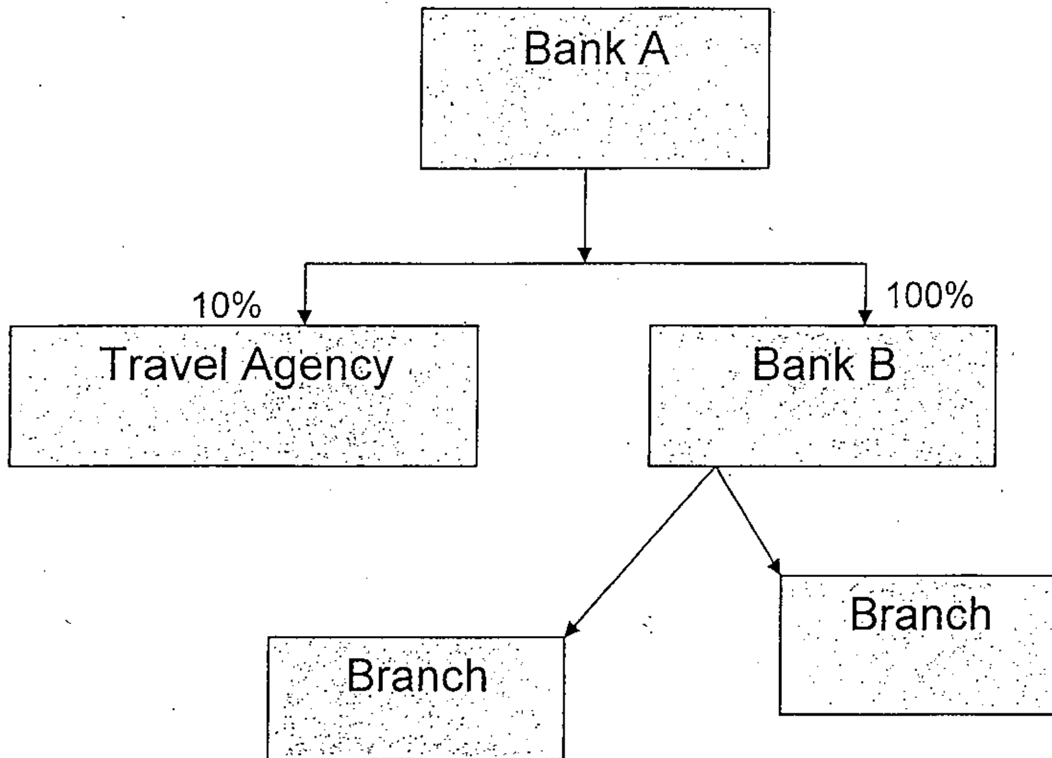
- Starting with column (1) on the worksheet, use the chart and financial data to compute the consolidated balance sheet of the Bank A group.

- Please complete the worksheet in the working groups and choose a person to present your group's response during the plenary session.

Attachments:

- chart: Exercise 1- the Bank A group
- financial data for Bank A and Bank B
- Exercise 1 worksheet

Exercise 1: the Bank A group



Exercise 1: financial data*

Bank A

Loans	300	Deposits	351
Investment in Travel Agency (10%)	1	Borrowings	90
Investment in Bank B	80	Share capital	40
Other assets	100	Reserves	-
Total	481	Total	481

Bank B head office

Branches	30	Deposits	200
Loans	150	Borrowings	50
Buildings	50	Share capital	80
Other assets	100	Reserves	-
Total	330	Total	330

Bank B branch 1

Cash	10	Deposits	50
Loans	60	Head office	20
Total	70	Total	70

Bank B branch 2

Cash	20	Deposits	50
Loans	40	Head office	10
Total	60	Total	60

Travel Agency Ltd (10%)

Cash	10	Creditors	30
Debtors	20	Share capital	10
Building	30	Reserves	20
Total	60	Total	60

* All figures are in thousands of Local Currency Units (LCUs)

EXERCISE No. 1 ANSWER KEY

	(1) Bank B Head office	(2) Branch 1	(3) Branch 2	(4) Bank B Head office + branches	(5) Eliminations	(6) Bank B consolidated	(7) Bank A	(8) Bank A + Bank B	(9) Eliminations	(10) Bank A consolidated
Assets:										
Cash		10	20	30		**30**	-	30		**30**
Branches	30			30	-30	-	-	-		-
Loans	150	60	40	250		**250**	300	550		**550**
Investment in Travel Agency	-			-		-	1	1		**1**
Investment in Bank B	-			-		-	80	80	-80	-
Buildings	50			50		**50**		50		**50**
Other assets	100			100		**100**	100	200		**200**
Total	330	70	60	460	-30	**430**	481	911	-80	**831**
Liabilities:										
Head office		20	10	30	-30	-	-	-		-
Deposits	200	50	50	300		**300**	351	651		**651**
Borrowings	50			50		**50**	90	140		**140**
Share capital	80			80		**80**	40	120	-80	**40**
Total	330	70	60	460	-30	**430**	481	911	-80	**831**

Exercise No. 2

Exercise 2 involves two phases of consolidation. There is a separate worksheet and data for each phase.

In the working groups, please complete both worksheets, starting with the figures in column (1) of the worksheet for phase 1. The figures in column (1) are the answer to exercise 1.

Use IAS methods of consolidation. Remember that uniform accounting policies should be applied to entities which are being consolidated.

Please designate a person to present your group's response during the plenary session.

The first phase

The object of the first phase is to compute the fully consolidated balance sheet of Bank A. This is necessary because some of Bank A's assets were not separately disclosed in its balance sheet for exercise 1.

These assets are three unquoted equity investments (which were included in the item "other assets" in exercise 1) and a loan by Bank A to one of these companies (included among "loans" in exercise 1).

Please note that Kuala Lumpur Securities J.V. is a 50/50 joint venture in Malaysia in which Bank A and its partner have equal capital participation and voting rights: see IAS 31.

Bank A's policy is to revalue buildings regularly to current market value.

Please use the following attachments:

- exercise 2: chart for the first phase
- financial data for exercise 2, first phase
- worksheet for the first phase

Exercise 2: Financial data for the first phase

Bank A (revised answer to exercise 1)

Cash	30	Deposits	651
Loans	520	Borrowings	140
Loan to Finance Company	30	Share capital	40
Investment in Travel Agency*	1	Reserves	-
Investment in Finance Company*	30		
Investment in Mortgage Bank*	30		
Investment in Kuala Lumpur Securities J.V.*	5		
Buildings**	50		
Other assets	135		
Total	831	Total	831

* at cost ** at market value

Mortgage Bank (45% owned)

Loans	300	Deposits	390
Other assets	190	Share capital and reserves	100
Total	490	Total	490

Kuala Lumpur Securities J.V. (50% owned)

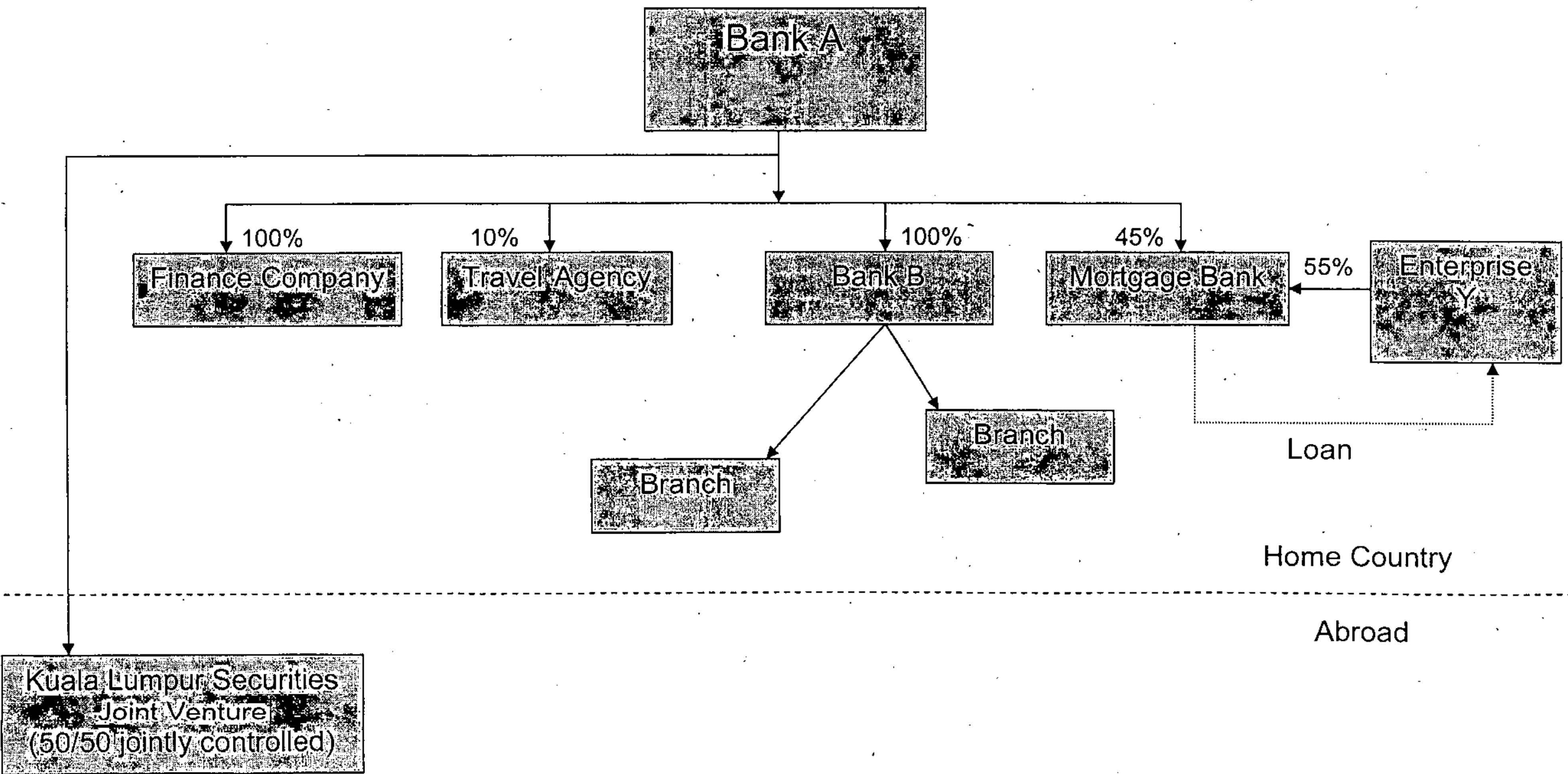
Trading portfolio	60	Borrowings	140
Other assets	160	Share capital	10
		Reserves	70
Total	220	Total	220

Finance Company (100% owned)

Buildings***	10	Loan from Bank A	30
Other assets	140	Other liabilities	70
		Share capital	30
		Reserves	20
Total	150		150

*** at cost; current market value: 15.

Exercise 2: Chart for first phase



EXERCISE 2: Answer Key for first phase

Computing the fully consolidated balance sheet of Bank A (column 10)

ASSETS	Bank A consolidated (answer from exercise 1) (1)	Finance Company (2)	Adjustments (3) +	Adjustments (3) -	(1) + (2) + (3) = (4)	Mortgage Bank (5)	Adjustments (6) +	Adjustments (6) -	(4) + (5) + (6) = (7)	K L Securities (8)	Adjustments (9) +	Adjustments (9) -	Bank A (fully consolidated) (7) + (8) + (9) = (10)
Cash	30				30				30				30
Loans	520				520				520				520
Trade portfolio	-				-				-	60		-30	30
Loan to Finance Company	30			-30	-				-				-
Investment in Travel Agency (10%)	1				1				1				1
Investment in Finance Comp (100%)	30			- 30	-				-				-
Participation: Mortgage Bank (45%)	30				30		+15		45				45
Joint venture: K L Securities (50%)	5				5				5			-5	-
Buildings	50	10	+5		65				65				65
Other assets	135	140			275				275	160		-80	355
Total	831	150	+5	-60	926		+15		941	220		-115	1046
LABILITIES													
Deposits	651				651				651				651
Borrowings	140				140				140	140		-70	210
Loan from Bank A	-	30		-30	-				-				-
Other liabilities	-	70			70				70				70
Share capital	40	30		-30	40				40	10		-10	40
Reserves	-	20	+5		25		+15		40	70		-35	75
Total	831	150	+5	-60	926		+15		941	220		-115	1046

The second phase

Begin this after completing the worksheet for phase 1. In this phase you learn that Bank A belongs (100%) to a larger banking and financial group which is headed by a company called Financial Holding Company. ***The object is to compute the consolidated balance sheet of this wider group.*** Your answer for the first phase should be entered in column (2) on the worksheet for this phase.

Please use the attachments:

- exercise 2: chart for the second phase
- financial data for exercise 2, second phase
- worksheet

Exercise 2: Financial data for the second phase

Finance Holding Company

Investments (at cost) in:		Borrowings	1,500
Bank A (100%)	40	Share capital	1,000
Bank C (85%)	85	Reserves	-
Hong Kong Leasing (30%)	25		
Brokerage Firm (20%)	5		
Bank D (10%)	125		
Other companies	1,700		
Total investments	1,980		
Other assets	520		
Total	2,500	Total	2,500

Bank C (85% owned)

Loans	450	Deposits	500
Investment in Shoe Factory	50	Share capital	100
Other assets	100	Reserves	-
Total	600	Total	600

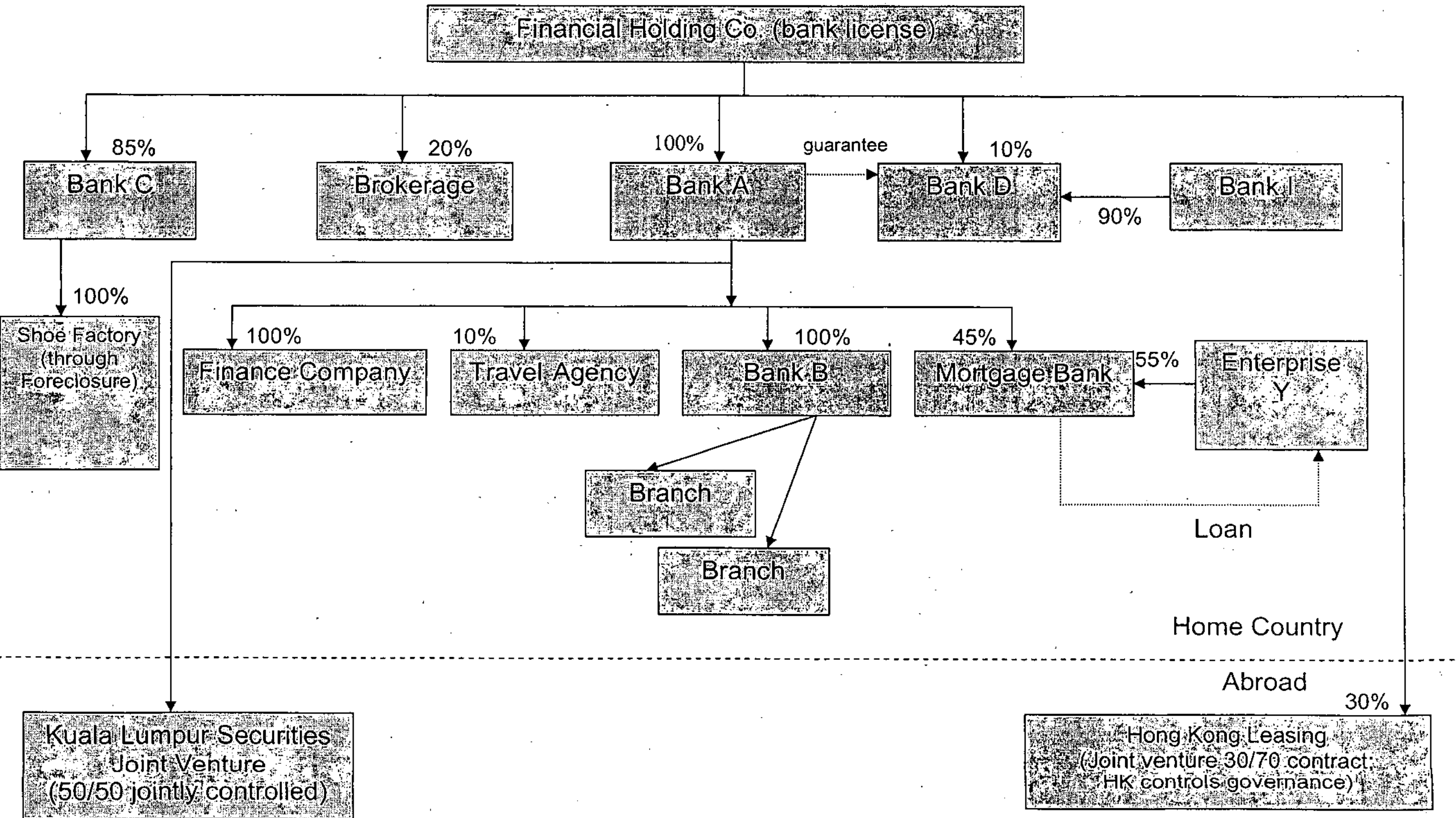
Hong Kong Leasing (30% owned)

Leasing operations		Borrowings	300
Outstanding amounts	400	Share capital	100
Less provisions	(50)	Reserves	(50)
Total	350	Total	350

Brokerage Firm (20% owned)

Debtors	150	Liabilities	100
		Share capital and reserves	50
Total assets	150	Total liabilities	150

Exercise 2: Chart for second phase



Exercise 2 : Answer Key for the Second phase - computing the consolidated balance sheet of Financial Holding Co - column (13)

Assets	(1) Financial Holding Co.	(2) Bank A (cons'd). (from Phase 1)	(3) Adjust-ments	(4) = (1) + (2) + (3)	(5) Bank C	(6) Adjust-ments	(7) = (4) + (5) + (6)	(8) Hong Kong Leasing	(9) Adjust-ments	(10) = (7) + (8) + (9)	(11) Broker-age	(12) Adjust-ments	(13) = (10) + (11) + (12)
Cash		30		30			30			30			30
Loans		520		520	450		970			970			970
Trade Portfolio		30		30			30			30			30
Investment: T.A		1		1			1			1			1
Inv: Mortgage Bank		45		45			45			45			45
Inv. in HKL	25			25			25		-10	15			15
Inv. in Brokerage.	5			5			5			5		+5	10
Inv. In Bank A	40		-40	-			-			-			-
Inv. In Bank D	125			125			125			125			125
Inv. In Bank C	85			85		-85	-			-			-
Buildings		65		65			65			65			65
Other assets	520	355		875	100		975			975			975
Other Investments.	1700			1700	50		1750			1750			1750
Total	2500	1046	-40	3,506	600	-85	4,021		-10	4,011		+5	4,016
Liabilities													
Deposits		651		651	500		1151			1151			1151
Borrowings	1500	210		1710			1710			1710			1710
Other liabilities		70		70			70			70			70
Share capital	1000	40	-40	1000	100	-100	1000			1000			1000
Reserves.		75		75			75		-10	65		+5	70
Minority interests				-		+15	15			15			15
Total	2500	1046	-40	3,506	600	-85	4,021		-10	4,011		+5	4,016

Exercise No. 2: Notes for Instructors on how to complete the worksheets

First Phase

Column (1)

This column (Bank A consolidated) is the solution for Exercise 1. However, column (1) also reveals certain investments of Bank A which were included among Bank A's "other assets" and "loans" in Exercise 1, but ***not shown separately there***. These are Bank A's investments in Finance Company (30), Mortgage Bank (30) and Kuala Lumpur Securities J.V.(5) and its loan to Mortgage Bank (30).

The chart for Exercise 2 also shows these investments of Bank A (which were not shown on chart 1 for the sake of simplicity).

Column (2)

The unconsolidated balance sheet of Finance Company should be entered in this column.

Columns (3) and (4)

These two columns deal with the consolidation of Finance Company with Bank A. Column (3) is for the adjustments which need to be made:

(1) Before any amounts are consolidated, both entities should adopt uniform accounting policies. In their separate accounts they are valuing buildings differently: Finance Company carries its buildings at cost (10) while Bank A is already carrying its buildings at market value (50). Therefore, as a first step, Finance Company's buildings should revalued by 5 to market value (15). This property revaluation means that consolidated reserves have to be increased by 5.

(2) Bank A's loan to Finance Company (30) is an intra-group transaction and needs to be eliminated from both assets and liabilities in consolidation.

(3) Bank A's investment in the share capital of Finance Company is another intra-group position which has to be eliminated. Bank A carries this asset at cost (30). This asset and Finance Company's share capital are both eliminated.

(4) Finally, according to column (2), Finance Company has reserves of 20. These belong to Bank A and have to be included in consolidated reserves. Therefore +20 appears as an adjustment to reserves.

Column (5)

This column is left completely blank because Mortgage Bank is not a subsidiary of Bank A. In the absence of any other information, a 45% shareholding does not indicate control but does raise a presumption that Mortgage Bank is an associate of Bank A. It is therefore consolidated using the ***equity method.***

Column (6)

This shows the application of the equity method to Bank A's investment in Mortgage Bank.
In Bank A's balance sheet the investment in Mortgage Bank is carried at cost (30). However, using equity accounting, the value is Bank A's share of Mortgage Bank's net assets. This is 45 (45% x 100 = 45). An adjustment of 15 is therefore needed to reflect the difference between share of net assets (45) and cost (30). Accordingly, we increase the value of the investment in Mortgage Bank by 15, and credit consolidated reserves (a liability) with 15.

Column (7)

This shows the results of consolidating Mortgage Bank by the equity method.

Column (8)

The unconsolidated balance sheet of Kuala Lumpur Securities J.V. should be entered here.

Column (9)

Since KL Securities is a joint venture in which Bank A and a partner share control equally. IAS 31 requires Bank's investment to be consolidated using the ***proportional method***.

The necessary adjustments are:

(1) the 50% of KL Securities' assets and liabilities which do ***not belong*** to bank A have to be deducted

(2) Bank A's investment in the share capital KL Securities (5), and KL Securities' entire share capital (10) should both be eliminated

(3) only Bank A's share of KL Securities' reserves should be in included in the consolidation. KL Securities has reserves of 70 and these must therefore be reduced by 35 (= 50%). Bank A's share of KL Securities' reserves can also be calculated as Bank A's share of KL Securities' net assets (40) ***less*** the cost of its investment (5).

Column (10)

This shows the fully consolidated balance sheet of Bank A.

Second Phase

Column (1)

The unconsolidated assets and liabilities of Financial Holding Company should be entered here.

Column (2)

The answer from the first phase - Bank A's fully consolidated balance sheet - is entered here.

Column (3)

The consolidation of Finance Holding Company with Bank A (its wholly owned subsidiary) requires the elimination of its investment in the bank (40) and the elimination of Bank A's share share capital (40).

Column (4)

This shows the balance sheet of Finance Holding Company after consolidation of Bank A.

Column (5)

The balance sheet of Bank C should be entered here. Finance Holding Company owns 85% of the shares in Mortgage Bank. This means - in the absence of any information to the contrary – that it is a subsidiary of Finance holding Company and has to be fully consolidated.

Column (6)

This shows the necessary consolidating adjustments:

(1) Finance Holding Company's investment in the share capital of Bank C (85) has to be deducted from consolidated assets

(2) the entire share capital of Bank C (100) has to be eliminated from consolidated share capital

(3) minority interests of 15 are added to liabilities. These represent the share of Bank C's net assets which ***do not belong*** to Finance Holding Company*.

Column (7)

This shows the balance sheet of Finance Holding Company after consolidation of Bank A and Bank C.

---

* Minority interests in banks are treated as capital for capital adequacy purposes. Although the minority interests do not control Bank C, they may be able and willing to inject more share capital, if the need arises.

Column (8)

This column is for Hong Kong Leasing which is described on the chart as a joint venture in which Finance Holding Company has a 30% stake. Participants need to decide the accounting treatment for this investment. In the absence of additional information, a 30% stake cannot be presumed to give control and it cannot therefore be treated as a subsidiary. Although the chart describes it as a joint venture, it also makes clear that Finance Holding Company does not exercise joint control with its partner. Consequently, it does not fall within the definition of a joint venture in IAS 31 and cannot be consolidated using the proportional method. However, the 30% shareholding means that there is a presumption that it is an associate of Finance Holding Company and it should therefore be consolidated using the equity method. No figures should be entered in this column.

Column (9)

This shows the application of the equity method to the investment in Hong Long Leasing. Finance Holding Company's carries the investment at cost (25) in its own balance sheet. However, using equity accounting, the value is only 15: this reflects Finance Holding Company's 30% share of Hong Kong Leasing's net assets (30% x 50 = 15). Accordingly, we reduce the value of the investment in Hong Kong Leasing by 10 to reflect the difference between share of net assets (15) and cost (25). Consolidated reserves are also reduced by 10 on the liabilities side.

Column (10)

This shows the balance sheet of Finance Holding Company after consolidation of Bank A, Bank C and its investment in Hong Kong Leasing..

Column (11)

The investment in the Brokerage is 20%. Applying IAS means that there is a presumption that it is an associate and should therefore be valued by the equity method. No figures should be entered in this column.

Column (12)

This shows the application of the equity method to the investment in the Brokerage. Finance Holding Company carries this investment in its balance sheet at cost (5). However, using equity accounting, the value is 10: this reflects Finance Holding Company's 20% share of the Brokerage's net assets (20% x 50 = 10). Accordingly, we adjust the value of the investment in the Brokerage by 5 from cost (5) to net asset value (10). We also credit consolidated reserves with 5.

Column (13)

This shows the fully consolidated balance sheet of Finance Holding Company.

Exercise 2: worksheet for the First phase: computing the fully consolidated balance sheet of Bank A (column 10)

ASSETS	Bank A consolidated (answer from exercise 1) (1)	Finance Company (2)	Adjust-ments + - (3)	(1) + (2) + (3) = (4)	Mortgage Bank (5)	Adjust-ments + - (6)	(4) + (5)+ (6) = (7)	K L Securities (8)	Adjust-ments + - (9)	Bank A (fully consolidated) (7) + (8) + (9) = (10)
Cash	30									
Loans	520									
Trade portfolio	-									
Loan to Finance Company	30									
Investment in Travel Agcy (10%)	1									
Investment in Finance Co (100%)	30									
Participation: Mortgage Bank (45%)	30									
Joint venture: K L Securities (50%)	5									
Buildings	50									
Other assets	135									
Total	831									
LABILITIES										
Deposits	651									
Borrowings	140									
Loan from Bank A	-									
Other liabilities	-									
Share capital	40									
Reserves	-									
Total	831									

Exercise 2: worksheet for phase 2: computing the consolidated balance sheet of Financial Holding Company (column 13)

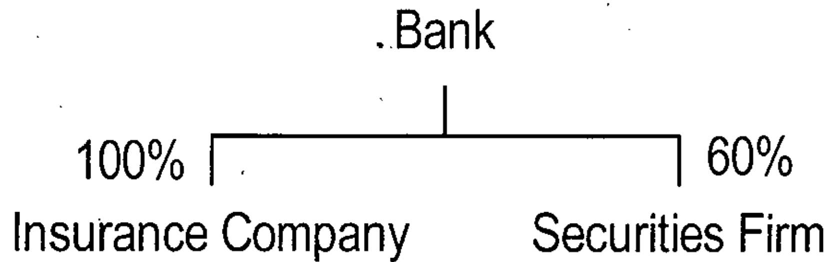
	(1) Financial Holding Co.	(2) Bank A fully consolid-ated	(3) Adjust-ments	(4) = (1) + (2) + (3)	(5) Bank C	(6) Adjust-ments	(7) = (4) + (5) + (6)	(8) Hong Kong Leasing	(9) Adjust-ments	(10) = (7) + (8) + (9)	(11) Broker-age	(12) Adjust-ments	(13) = (10) + (11) + (12)
Assets													
Cash													
Loans													
Trade Portfolio													
Inv in Travel													
Inv in Mort.													
Inv in HK													
Inv in													
Inv in Bank A													
Inv in Bank D													
Inv in Bank C													
Buildings													
Other assets													
Other													
Total													
LIABILITIES													
Deposits													
Borrowings													
Other liabilities													
Share capital													
Reserves.													
Minority													
Total													

Capital Adequacy Calculation Case Exercise No. 3

CORPORATE STRUCTURE

The bank has two regulated subsidiaries:

- a wholly owned insurance company which is accounted for at its historic cost of 40, and a 60% participation in a securities firm, recorded at 60.



THE SOLO CAPITAL REQUIREMENTS OF THE BANK AND ITS REGULATED SUBSIDIARIES.

	Requirement	**Actual**
Bank	90	100
Insurance	25	40
Securities	25	100

QUESTIONS

1. For the Bank & Insurance Company

   a) calculate the <u>solo</u> capital surplus/(deficit) for each
   b) calculate the capital adequacy at the group level
   c) as the regulator, what would you recommend?

2. Incorporate the participation in the Securities Firm.

   a) calculate the solo capital surplus/(deficit)
   b) calculate the group capital position using

      i) full integration
      ii) <u>pro rata</u> integration

   c) as the regulator, what would you recommend?

Solution for Exercise No. 3

QUESTION 1(a) & 1(b)

Only know solo capital amounts of entities (actual and requirement) so use risk-based aggregation method.

	Bank	Insurance	Eliminate Intra-Group Holdings	Group- Wide Capital
Solo Capital Required	90	25		115
Actual Capital	100	40	(40)	100
Surplus/ (Deficit)	**10**	**15**	**(40)**	**(15)**

QUESTION 1(c) Supervisor's recommendation (double gearing)

- Increase capital of bank.
- Reduce bank's or subsidiary's risks.

QUESTION 2(a) & b(i)

	Bank	Insurance	Securities (100%)	Eliminate Intra-Group Holdings	Group-Wide Capital
Solo Capital Required	90	25	25		140
Actual Capital	100	40	100	(60) + (40) = (100)	140
Surplus/ (Deficit)	**10**	**15**	**75**	**(60) + (40) = (100)**	**0**

QUESTION 2(b)(ii) – Pro-rata

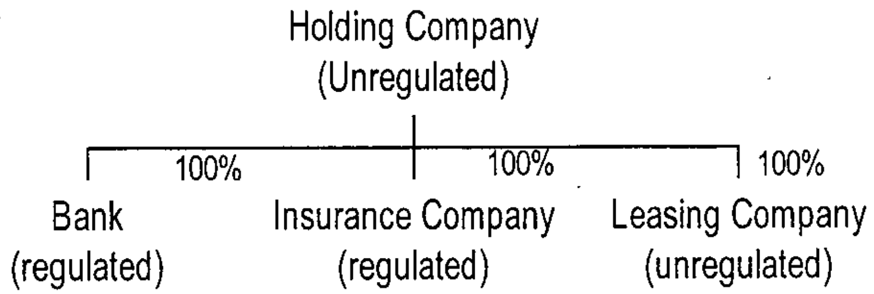
	Bank	Insurance	Securities (60%)	Eliminate Intra-Group Holdings	Group-Wide Capital
Solo Capital Required	90	25	15		130
Actual Capital	100	40	60	(60) + ((40) = (100)	100
Surplus/ (Deficit)	**10**	**15**	**45**	**(60) + (40) = (100)**	**(30)**

QUESTION 2(c)

- Surplus (75) in securities firm compensates for previous deficit (15) at group level.
- Full integration regards capital attributable to minority shareholders as available to group unless supervisor limits inclusion of excess capital.

Capital Adequacy Calculation Exercise No. 4

CORPORATE STRUCTURE



SUMMARY BALANCE SHEETS

Holding Company

Assets		Liabilities	
Book-value participations:		Capital	300
Bank	800	Other liabilities (long term loan)	800
Insurance	200		
Leasing	100		
Total	1,100	Total	1,100

Bank

Assets		Liabilities	
Loans	900	Capital	800
Other assets	400	Other liabilities	500
Total	1,300	Total	1,300

Insurance

Assets		Liabilities	
Investments	7,000	Capital	200
		General reserves	100
		Technical provisions	6,700
Total	7,000	Total	7,000

Leasing

Assets		Liabilities	
Leases	2,000	Capital	100
		Other liabilities	1,900
Total	2,000	Total	2,000

Group (consolidated)

Assets		Liabilities	
Bank loans	900	Capital	300
Other bank assets	400	General reserves	100
Insurance investments	7,000	Other bank liabilities	3,200
Leases	2,000	Technical provisions	6,700
Total	10,300	Total	10,300

THE SOLO CAPITAL REQUIREMENTS/SOLVENCY MARGINS

	Requirement	Actual	Surplus/(Deficit)
Bank	100	800	700
Insurance	300	300	0
Leasing (notional capital proxy)	150	100	(50)

As shown, each of the regulated entities meets their own solo or sector solvency requirements.

QUESTIONS

1. Calculate the solvency surplus/(deficit) of the group under:

   a) the building-block prudential approach

   b) the risk-based aggregation method

   c) the risk-based deduction method

2. Determine whether, and explain why, the financial conglomerate is adequately capitalized on a group wide basis.

3. Why is the total deduction method not applicable to this case?

SOLUTION – EXERCISE NO. 4

1(a) Building-block prudential approach **(uses consolidated financial statements)**

	Bank	Insurer	Leasing	Group
Capital Required (proxy)	100	300	150	550
Actual Capital	---	---	---	400
Group deficit				**(150)**

Therefore, the group has a solvency deficit of 150 under the building-block prudential approach.

1(b) Risk-based aggregation method **(uses unconsolidated financial statements)**

	Holdco	Bank	Insurer	Leasing	Elimination	Group
Capital Required (proxy)	0	100	300	150		550
Actual Capital unconsolidated	300	800	300	100	(1100)	400
Group deficit						**(150)**

Therefore, the group has a solvency deficit of 150 under the risk-based aggregation method.

1(c) Risk-based deduction method **(uses unconsolidated financial statements)**

	Bank	Insurer	Leasing
Solo Capital Required	100	300	150
Actual Capital	800	300	100
Surplus (deficit)	700	0	(50)

Parent Capital 300
Deduct: Capital Investments in Dependants
Bank .... -800
Insurer .... -200
Leasing .... -100

Substitute Dependants' Surplus or (Deficit)
Bank 700
Insurer 0
Leasing .... (50)

Adjusted Parent Capital .... -150

Deduct Parent Solo Capital Requirement 0

Resulting Group Wide Deficit .... -150

Revised Holdco Balance Sheet

Assets		**Liabilities**	
Participation in:			
Banks	700	Capital	(150)
Insurance	0	Other	800
Leasing	(50)		
Total	650	Total	650

As shown, the group has a solvency deficit of 150 under the risk-based deduction method.

2. Financial conglomerate on a group wide basis is undercapitalized notwithstanding that the regulated entities meet their own solo capital requirements.

   - Why?

- Excessive leverage in the group.
  - ➢ Parent has downstreamed debt to its subs in the form of equity capital.
- Undercapitalized unregulated entity in the group.

- Undercapitalization can be revealed by applying appropriate measurement techniques for the assessment of capital adequacy at the group level.

3. Total deduction method not applicable where there is an unregulated holding company

Exercise No. 5: Big Bank Case Study

Part 1: Prepare a consolidated 2004 balance sheet and income statement for Big Bank and its subsidiary - Big Securities.

Part 2: Compute the analytical ratios shown in the exercise on a consolidated basis and compare to the pre-computed unconsolidated ratios.

Part 3: Discuss amongst your group the ratios computed in Part 2. Answer the questions listed below, and be prepared to discuss your questions with the rest of the class when the class reconvenes.

Part 1- Consolidation

Please see Table 1 in the Exercise 5 Worksheet

This table shows the unconsolidated balance sheets and income statements of Big Bank and Big Securities in columns B and C. You must enter any adjusting entries necessary because of consolidation into column D, which is entitled 'Adjusting Entries.' Then, add columns B, C, and D line-by-line to arrive at the consolidated figures in column E.

Adjusting entries will be required due to the following inter-company transactions:

(1) Big Bank loaned 1700 to Big Securities in early 2004 to purchase a portfolio of liquid securities.

(2) Big Securities paid Big Bank 170 in interest on the loan during 2004.

(3) Big Bank invested 300 in the capital of Big Securities during 2004. (Big Securities used this 300 of cash to purchase liquid securities, for a total of 2000 in liquid securities purchased.)

(4) Big Securities paid rent of 50 for its premises to Big Bank during 2004.

Part 2 - Analytical Ratios

Table 2 in the worksheet shows several financial performance ratios for Big Bank on a 'bank only,' or unconsolidated, basis. Compute the same ratios based upon the consolidated financial statements prepared in Part 1.

Part 3 - Discussion and Analysis

Discuss the financial condition of the bank, comparing the 'bank only' and consolidated ratios. Answer the following questions, and be prepared to discuss them in class:

1. Is the bank's capital ratio stronger before or after consolidation? Why?

2. Does the bank appear to be more liquid before or after consolidation with the subsidiary? Why?

3. What is the reason for the difference in the bank's net interest margin (ratio of net interest income to total assets) on a 'bank only' and consolidated basis? Which net interest margin is stronger ('bank only' or consolidated)?

4. Does the bank appear to be more profitable or less profitable after consolidation? Why?

5. Does the bank's overall financial condition appear to be better or worse after consolidation? Explain.

6. Which financial statements show a truer picture of the bank's performance, 'bank only' or consolidated? Explain.

33

Exercise 5: Big Bank Case Study

Answer Key

Part 1 - Consolidation

The steps required to perform the consolidation, and the results of the consolidation, are shown in the attached spreadsheet (Table 1 - Answer Key).

Note:

- Big Securities purchased 2000 of securities during 2004, the value of which declined to 1500 by the reporting date. The mark-to-market entry is shown in the income statement of Big Securities on the line item "Securities gains (losses)."
- Big Securities' year-end capital position (-140) already reflects the year's net loss (-440) because 2004 net income has already been "closed out" to capital (300 – 440 = -140).

Part 2 - Analytical Ratios

The computations for the consolidated ratios are also shown in the attached spreadsheet (Table 2 - Answer Key).

Part 3 - Discussion and Analysis

1. Is the bank's capital ratio stronger before or after consolidation? Why?

The capital ratio is much lower after consolidation – the bank goes from having a seemingly adequate level of capital to being insolvent. This is because:

- *Consolidated capital decreased by 440, which is the amount of the subsidiary's 440 net loss for the year. (The elimination of the bank's 300 contribution to the subsidiary has no net effect on consolidated capital).*

Bank only capital	400	Big Securities initial capital	300
+ Big Securities capital	-140	Less net loss	-440
- inv. in Big Sec	-300	Year end 2004 capital	-140
Cons. year-end capital	-40		

- *Total assets on a consolidated basis are lower than on a bank only basis --but not enough to bring up the capital ratio.*

2. Does the bank appear to be more liquid before or after consolidation with the subsidiary? Why?

The bank appears much more liquid after consolidation. This is due to:

- *A 1510 increase in liquid assets caused by adding in the securities portfolio of the sub of 1500 and its cash of 10 (this explains the increase in the Liquid Assets/Total Assets ratio).*
- *The significant decrease in the loan book on a consolidated basis, caused by eliminating the big loan of 1700 to the subsidiary (this explains the large decline in the Loans/Deposits ratio).*

3. What is the reason for the difference in the bank's net interest margin (ratio of net interest income to total assets) on a 'bank only' and consolidated basis? Which net interest margin is stronger ('bank only' or consolidated)?

The NIM is much stronger on a consolidated basis than a bank only basis. The reasons for this are:

- *A net increase in total interest income of 230, after eliminating 170 of interest paid to the bank by the sub and adding in 400 from the sub's interest income earned on its securities portfolio.*
- *No change in interest expense after eliminating the sub's interest paid to the bank of 170.*
- *A small decrease in total assets on a consolidated basis.*

4. Does the bank appear to be more profitable or less profitable after consolidation? Why?

The bank's profitability ratio (ROA, or Net Income/Total Assets) is much worse after the consolidation, changing from a 'bank only' net profit of 0.47% to a consolidated loss of – 10.74%. This is from a combination of factors affecting the income statement:

- *The most significant factor is the 500 securities depreciation of the subsidiary. Apparently the 2000 securities purchased with the bank's money was not such a good investment!*
- *The big increase in interest income explained in question 3 (interest income on the sub's securities portfolio).*
- *No net change in profits from the rental arrangement (income and expense are both eliminated).*
- *Inclusion of the sub's non-interest expense (probably salaries and the like) and taxes of 20.*
- *Looking only at the bottom line (net income), adding the sub's 440 loss to the bank's profit of 20 (bank only) results in a loss of 420 – this is a big swing in the bank's earnings performance before and after consolidation.*

5. Does the bank's overall financial condition appear better or worse after consolidation? Explain.

    - *The bank is much weaker in fact it fails its capital test. After consolidating its subsidiary's loss the bank is insolvent.*
    - *The bank now reports a loss versus a small net income on an unconsolidated basis.*
    - *The loan book has decreased by more than 50%*

6. Which financial statements show a truer picture of the bank's performance, 'bank only' or consolidated? Explain.

    - *The consolidated financial statements show a truer picture of the bank's performance because they show the total results for itself and the company which it controls.*
    - *The board and management look poor versus looking alright before consolidating the operating results.*

Exercise 5 - Answer Key

Table 1

A	Big Bank B	Big Securities C	Elimination D	Consolidated (B+C+D) E
Balance Sheet				
Cash	100	10		110
Securities	500	1500		2000
Loans	3000		*-1700*	1300
Investment in Big Securities	300		*-300*	0
Fixed assets	300	0		300
Other assets	100	100		200
TOTAL ASSETS	4300	1610		3910
Deposits	3500			3500
Loans payable		1700	*-1700*	0
Other liabilities	400	50		450
TOTAL LIABILITIES	3900	1750		3950
Capital	400	(140)	*-300*	-40
TOTAL LIABILITIES & CAPITAL	4300	1610		3910
Income Statement				
Interest income	600	400	*-170*	830
Interest expense	450	170	*-170*	450
NET INTEREST INCOME	150	230		380
Noninterest income	200		*-50*	150
Noninterest expense	250	150	*-50*	350
Securities gains (losses)		(500)		-500
Provision for loan losses	60			60
Taxes	20	20		40
				0
NET INCOME	20	(440)		-420

Table 2 - Analytical Ratios

Description	Bank Only		Consolidated	
Capital to Total Assets	400/4300	*9.30%*	-40/3910	*-1.02%*
Liquid Assets to Total Assets	(100+500) / 4300	*13.95%*	(110+2000) / 3910	*53.96%*
Loans to Deposits	3000/3500	*85.71%*	1300/3500	*37.14%*
Net Interest Income to Total Assets	150/4300	*3.49%*	380/3910	*9.72%*
Net Income to Total Assets	20/4300	*0.47%*	-420/3910	*-10.74%*