Appendix B: Methods to Assess Capital Adequacy

The prescribed methods to assess group-wide capital include the Accounting Consolidation method, the Deduction and Aggregation method, and the Book Value / Requirement Deduction method. In addition, if necessary, you can also combine two or more of these methods to conduct your capital adequacy analysis. The following pages outline the three methods and provide examples of each.

The following is an abbreviated consolidated balance sheet divided into the individual subsidiaries including a banking company that is the parent, an insurance subsidiary that is wholly owned by the parent, a securities company that is 60 percent owned by the parent, and an unregulated finance subsidiary that is wholly owned by the parent. The examples in this appendix are based on the financial information shown below.

	Regulated Banking Parent	Regulated Insurance Subsidiary 100% Owned	Regulated Securities Subsidiary 60% Owned	Unregulated Finance Subsidiary 100% Owned	Eliminations	Consolidated
Most Assets	$315	$150	$225	$120		$810
General Reserves	-4	-2	-2	-2		-10
Investment In:						
Insurance Sub.	10					
Securities Sub.	12					
Finance Sub.	5					
Totals	27	0	0	0	-$27	0
Total Assets	338	148	223	118		800
Total Liabilities	275	138	203	113		729
Minority Interest[1]					8	8
Equity Capital	63	10	20	5	-35	63
Liabilities & Equity Capital	$338	$148	$223	$118		$800

[1] In this example, it is assumed that a third party minority investor owns 40 percent of the securities subsidiary. This minority ownership interest equals $20 of equity capital at the securities subsidiary multiplied by 40 percent, or $8.

Accounting Consolidation Method:

- Uses consolidated financial information to eliminate intra-group transactions and capital gearing.
- Breaks down the consolidated balance sheet into its major sectors.
- Compares the conglomerate's consolidated available capital to capital needs.
- Calculates the capital requirement for each regulated entity and a notional capital proxy for each unregulated entity. If a proxy cannot be developed for an unregulated entity, then you should deduct the parent's investment in that entity (as determined under the equity method of accounting) from the group's capital.
- Determines the transferability of capital.
- Aggregates the individual capital requirements and notional capital proxies (or deduction for unregulated entities for which no proxy can be developed) of each entity or sector and compares this to the group-wide available capital to identify a group-wide capital surplus or deficit.

The group-wide capital surplus equals $12 in the second table on the following page. However, this assumes that the capital surpluses of the other entities are available (transferable) to offset the capital deficit at the finance subsidiary. In such an instance, you will need to determine if the surplus capital is transferable to capital deficient sectors and is also eligible as capital in the capital deficient sectors. If the surplus capital is not transferable or eligible, then capital is considered inadequate at the finance subsidiary.

When minority interests are present, you will need to decide whether to include or exclude the minority interests in your capital assessment. The first table on the following page "Accounting Consolidation Capital Assessment Using Full Consolidation" includes the minority interest as available capital while the second table excludes the minority interests from capital. As a result, the $5 capital surplus of the securities subsidiary is pro rated 60 percent, or $3, reducing group-wide capital by $2. See Appendix C for additional discussion of majority and minority interests. Generally, you are expected to exclude or pro rate capital surpluses when the conglomerate holds less than a 100 percent ownership interest in an entity.

However, you are expected to include, and not pro rate capital deficits, when the conglomerate has less than 100 percent ownership in an entity. For example, if the parent's ownership interest in the finance subsidiary were only a majority interest, you would still include the entire $3 capital deficit in your analysis.

Accounting Consolidation Capital Assessment Using Pro Rata Consolidation					
	Regulated Banking Parent	Regulated Insurance Subsidiary 100% Owned	Regulated Securities Subsidiary 60% Owned	Unregulated Finance Subsidiary 100% Owned	Group-Wide Totals
Equity Capital	$63	$10	$12.0	$5	**$90.0**
General Reserves	4	2	1.2	2	**9.2**
Available Capital[2]	67	12	13.2	7	**99.2**
Deduct Investment In Subsidiaries	-27	0	0	0	**-27**
Capital Required / Proxy [3]	-32	-10	-10.2	-10	**-62.2**
Capital Surplus / - Deficit	$8	$2	$3.0	-$3	**$10.0**[4]

Accounting Consolidation Capital Assessment Using Full Consolidation					
	Regulated Banking Parent	Regulated Insurance Subsidiary 100% Owned	Regulated Securities Subsidiary 60% Owned	Unregulated Finance Subsidiary 100% Owned	Group-Wide Totals
Equity Capital	$63	$10	$20	$5	**$98**
General Reserves	4	2	2	2	**10**
Available Capital	67	12	22	7	**108**
Deduct Investment In Subsidiaries	-27	0	0	0	**-27**
Capital Required / Proxy [3]	-32	-10	-17	-10	**-69**
Capital Surplus / - Deficit	$8	$2	$5	-$3	**$12**

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[2] Note that the capital amounts include general reserves as part of available capital. The use of general reserves, or other items, as available capital will vary in different sectors or industries.

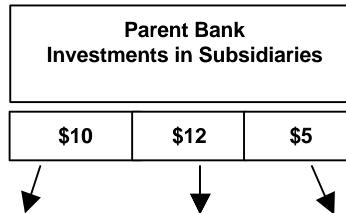
[3] In this example we have developed a notional capital proxy for the unregulated finance subsidiary. If it is not possible to develop a proxy for an unregulated entity, you will need to deduct that entity from the conglomerate's group wide totals. In this example you would need to deduct the unregulated finance subsidiary's $7 of available capital and the $10 capital proxy from the group totals. You would not need to change the $27 deduction for investment in subsidiaries because you would still want to eliminate the parent's $5 investment in the finance subsidiary. Once you have deducted the unregulated entity, you would assess the remainder of the conglomerate's balance sheet as described in this Section of the Handbook. You will need to rely on other tools to assess the capital adequacy of the unregulated entity such as peer comparisons, debt to equity ratios, and cashflow analyses as described in Section 300 of the Handbook.

[4] The table above, “Accounting Consolidation Capital Assessment Using Full Consolidation” includes the minority interest as available capital while the first table “Accounting Consolidation Capital Assessment Using Pro Rata Consolidation” excludes the minority interests from capital. As a result, in the first table the $5 capital surplus of the securities subsidiary is pro rated 60 percent, or $3, reducing group-wide capital by $2, which is the difference in the group-wide capital results of $10 versus $12. See Appendix C for additional discussion of majority and minority interests.

Deduction and Aggregation Method:

- Uses unconsolidated statements and is predicated on pro rata inclusion of subsidiaries.
- Sums the available capital for each regulated and nonregulated entity or sector.
- Sums the capital requirements for each regulated and nonregulated entity or sector with the book value of the investments in the entities or sectors in the group.
- Determines the transferability of surplus capital.
- Compares required capital to available capital to identify a surplus or deficit on a group-wide basis.

The group-wide capital surplus equals $10 in this example. However, this assumes that the capital surpluses of the other entities are available to offset the capital deficit at the unregulated finance subsidiary. In such an instance, you will need to determine if the surplus capital is transferable to capital deficient sectors and if the company is regulated, the surplus capital is also eligible as capital in the capital deficient sectors. If the surplus capital is not transferable, then capital is considered inadequate at the finance subsidiary. Generally, you are expected to exclude or pro rate available capital and required capital when the conglomerate holds less than a 100 percent ownership interest in an entity. However, you are expected to include and not pro rate capital deficits when the conglomerate has a majority interest in an entity. For example, if the parent's ownership interest in the finance subsidiary were less than 100 percent, you would still include the entire $3 capital deficit in your analysis. See Appendix C for additional discussion of majority and minority interests.



	Regulated Banking Parent	Regulated Insurance Subsidiary 100% Owned	Pro Rated Regulated Securities Subsidiary 60% Owned	Unregulated Finance Subsidiary 100% Owned	Group-Wide Totals
Available Capital [5]	$67	$12	$13.2	$7	**$99.2**
Capital Required / Proxy [6]	-32	-10	-10.2	-10	**-62.2**
Inv. in Subsidiaries	-27				**-27.0**
Capital Surplus / - Deficit	$8	$2	$3.0	-$3	**$10.0**

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[5] Note that the capital amounts below include general reserves as part of available capital. The use of general reserves, or other items, as available capital will vary in different sectors and countries.

[6] In this example we have developed a notional capital proxy for the unregulated finance subsidiary. If it is not possible to develop a proxy for an unregulated entity, you will need to deduct that entity from the conglomerate's group wide totals. In this example you would need to deduct the unregulated finance subsidiary's $7 of available capital and the $10 capital proxy from the group totals. You would not need to change the $27 deduction for investment in subsidiaries because you would still want to eliminate the parent's $5 investment in the finance subsidiary. Once you have deducted the unregulated entity, you would assess the remainder of the conglomerate's balance sheet as described in this Section of the Handbook. You will need to rely on other tools to assess the capital adequacy of the unregulated entity such as peer comparisons, debt to equity ratios, and cashflow analyses as described in Section 300 of the Handbook.

Book Value / Requirement Deduction Method:

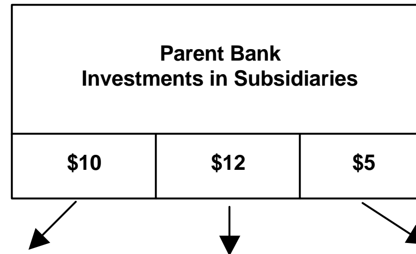
- Uses unconsolidated statements.
- Performs analysis from parent company perspective.
- Predicated on pro rata consolidation of subsidiaries.
- Focuses on capital surplus or deficit of each dependent (subsidiary) and the transferability of available capital to the parent or elsewhere in the group.

Summary Steps to Complete the Book Value / Requirement Deduction Method:

- Calculate the parent's available capital according to the relevant capital rules for that sector.
- Calculate the parent's required capital according to the relevant capital rules for that sector.
- Calculate the higher of the book value of the parent's investment in other entities or sectors, or these entities' capital requirements, pro rated as appropriate.
- Sum the parent's required capital and the higher of the book value of the parent's investment in other entities or sectors and these entities' capital requirements.
- Determine the transferability of surplus capital.
- Calculate the group-wide capital surplus / deficit by comparing the parent's available capital to the sum of the parent's required capital and the higher of the book value of the parent's investment in other entities or sectors, or these entities' capital requirements.

The group-wide capital surplus equals $3 in this example. While this method excludes the available capital of the subsidiaries, it also only takes into account the higher of the subsidiary capital requirements or the investment in the subsidiary, ignoring the lower of the two items. The net result in this case is that surplus capital is estimated to be $3 versus $10 in the prior two methods. While the example calculates a capital surplus, it assumes that the capital surpluses of the other entities are available to offset the capital deficit at the unregulated finance subsidiary. In such an instance, you will need to determine if the surplus capital is transferable to capital deficient sectors and if the company is regulated, the surplus capital is also eligible as capital in the capital deficient sectors. If the surplus capital is not transferable, then capital is considered inadequate at the finance subsidiary. Generally, you are expected to exclude or pro rate required capital when the conglomerate owns less than 100 percent of an entity. However, you are expected to include and not pro rate capital deficits when the conglomerate has a majority interest in an entity. For example, if the parent's ownership interest in the finance subsidiary were less than 100 percent, you would still include the entire $3 capital deficit in your analysis. See Appendix C for additional discussion of majority and minority interests.

Book Value / Requirement Deduction Method (Continued):



	Unconsolidated Regulated Banking Parent	Regulated Insurance Subsidiary 100% Owned	Regulated Securities Subsidiary 60% Owned	Unregulated Finance Subsidiary 100% Owned
Available Capital [7]	$67	$12	$13.2	$7
Capital Required / Proxy [8]	32	10	10.2	10
Surplus/ (Deficit)	$35	$2	$3.0	-$3

Parent's Available Capital ($63 Equity Capital plus $4 General Reserves)		$67
Sum:		
Parent's Capital Required	$32	
Calculate the higher of the book value of the parent's investment in each individual entity or sector or these entities' capital requirements:		
Insurance Subsidiary	10	
Securities Subsidiary	12	
Unregulated Finance Subsidiary	10	
Total Capital Required		64
Group-Wide Capital Surplus / - Deficit		**$3**

[7] Note that the capital amounts below include general reserves as part of available capital. The use of general reserves, or other items, as available capital will vary in different sectors and countries.

[8] In this example we have developed a notional capital proxy for the unregulated finance subsidiary. If it is not possible to develop a proxy for an unregulated entity, you will need to deduct that entity from the conglomerate. In this example you would need to eliminate the $10 deduction for the capital proxy and instead subtract the Parent's $5 investment in the Finance Subsidiary from the $64 of Total Capital Required. Once you have deducted the unregulated entity, you would assess the remainder of the conglomerate's balance sheet as described in this section of the Handbook. You will need to rely on other tools to assess the capital adequacy of the unregulated entity such as peer comparisons, debt to equity ratios, and cashflow analyses as described in Section 300 of the Handbook.