

ADEQUACY OF RETURN ON INVESTMENT

One of the primary objectives for investing in subordinate organizations (operating subsidiaries, service corporations, and their lower-tier entities) is to generate earnings. Since parent savings associations operate on a relatively small interest margin, the need to maximize returns on assets is important. The larger the investment in subordinate organizations, the greater is the need for an adequate return on that investment.

Many factors influence investors when choosing alternative investments. The most significant of these factors are the cost of the funds used to make the investment and the desire to maximize yield and minimize risks. In evaluating the adequacy of the return on a parent association's investment in a subordinate organization(s), you must determine whether the:

- Return provides a reasonable margin in excess of the parent association's cost of funds.
- Yield is reasonable for the risks assumed.

Return versus Cost of Funds

In evaluating the savings association's return on an investment in a subordinate organization, you must determine the amount by which the return differs from the cost of funds. The Uniform Thrift Performance Report (UTPR) provides historical data that you can use to facilitate the analysis.

The following procedures provide a systematic approach for analyzing the margin generated by the investment in the subordinate organizations:

- Determine whether a positive or negative margin is being generated by the investment in the subordinate organization. (See step 1 of the following example.)
- Calculate the dollar effect based on the margin ratio and the investment in the subordinate organization. (See step 2 of following example.)
- Identify or calculate the parent's net income before taxes and nonoperating items as a percentage of average assets. (See step 3 of following example.)
- Calculate earnings of the parent without the contribution or detriment of the subordinate organization investment. (See step 4 of following example.)
- Determine how investment in the subordinate organization affects the parent's net income before taxes and nonoperating items. (See step 5 of following example.)

The materiality of the subordinate organization investment should guide you in applying any or all of these procedures. If the investment in the subordinate organization provides an adequate return with minimal risks, then these procedures would not warrant your use.

For example, Association A has a nominal investment in a subordinate organization. The subordinate organization operates an electronic data processing center that services several clients. The yield on the association's investment averages approximately 15 percent while the average cost of funds is 7 percent. In this example, the above procedures would not warrant your use.

	Association A (000's Omitted)			
	12/31/XX	9/30/XX	6/30/XX	3/31/XX
Total Assets ¹	\$987,535	\$946,916	\$1,019,578	\$937,562
Net Income Before Taxes and Nonoperating Items ¹	3,073	2,475	2,842	4,647
Investment in Subordinate Organization	25,484	25,485	23,359	23,446
Income from Subordinate Organization	1.95%	3.82%	0.26%	47.84%
Cost of Funds1 (As a % of Average Total Assets Annualized)	7.78%	7.57%	7.57%	8.35%

¹ Obtained from UTPR.

1. Calculate the margin between yield on investment in the subordinate organization and the cost of funds.

Return on Subordinate Organization	1.95%	3.82%	0.26%	47.84%
Cost of Funds	<u>7.78%</u>	<u>7.57%</u>	<u>7.57%</u>	<u>8.35%</u>
Margin	<u>-5.83%</u>	<u>-3.75%</u>	<u>-7.31%</u>	<u>39.49%</u>

2. Calculate the dollar effect of margin.

Beginning Investment Subordinate Organization	\$25,485	\$23,359	\$23,446	\$23,378
Ending Investment Subordinate Organization	<u>+25,484</u>	<u>+25,485</u>	<u>+23,359</u>	<u>+23,446</u>
Total	\$50,969	\$48,844	\$46,805	\$46,824
Average Investment Subordinate Organization	\$25,485	\$24,422	\$23,403	\$23,412
(Average investment equals the sum of beginning and ending investments divided by 2)				
Margin	<u>-5.83%</u>	<u>-3.75%</u>	<u>-7.31%</u>	<u>39.49%</u>
Annual Effect of Margin (Margin times average investment)	-\$1,486	-\$ 916	-\$1,711	\$ 9,245
Quarterly Effect of Margin (Annual margin divided by 4)	<u>\$ -372</u>	<u>\$ -229</u>	<u>\$ -428</u>	<u>\$ 2,311</u>

3. Calculate parent ratio of net income before taxes and nonoperating items (NOI) to average assets.

Beginning Assets	\$ 946,916	\$1,019,578	\$ 937,562	\$928,567
Ending Assets	<u>987,535</u>	<u>946,916</u>	<u>1,019,578</u>	<u>937,562</u>
Total	\$1,934,451	\$1,966,494	\$1,957,140	\$1,866,129
Average Assets	\$ 967,226	\$ 983,247	\$ 978,570	\$ 933,065
(Average assets equal the sum of beginning and ending assets divided by 2)				
NOI	\$ 3,073	\$ 2,475	\$ 2,842	\$ 4,647
NOI/Average Assets	<u>1.27%</u>	<u>1.01%</u>	<u>1.16%</u>	<u>1.99%</u>
(NOI divided by average assets times 4)				

4. Calculate parent ratio of net income before taxes and nonoperating items (NOI) and exclude effect of the subordinate organization margin above or below cost of funds to average assets.

NOI	\$3,073	\$2,475	\$2,842	\$4,647
Quarterly Effect of Investment	<u>(-372)</u>	<u>(-229)</u>	<u>(-428)</u>	<u>(2,311)</u>
NOI Excluding Effect of Investment	\$3,445	\$2,704	\$3,270	\$2,336
Net Income Before Taxes, Nonoperating Items & Effect of Investment/Average Assets	<u>1.42%</u>	<u>1.10%</u>	<u>1.34%</u>	<u>0.93%</u>
(Ratio was annualized by multiplying by 4)				

5. Determine how investment in the subordinate organization affects the parent's net income before taxes and nonoperating items.

Investment's Dollar Effect	-\$1,486	- \$916	- \$1,711	\$9,245
Percent of Average Assets	-0.15%	-0.09%	-0.18%	0.99%
Net Income Before Taxes, Nonoperating Items & Effect of Investment/Average Assets	1.42%	1.10%	1.34%	0.93%
Percentage Effect of Investment on NOI	<u>-10.56%</u>	<u>-8.18%</u>	<u>-13.43%</u>	<u>106.45%</u>
(Dollar effect of subordinate organization investment stated as a percentage of average assets/parent institution's net income before taxes, nonoperating items, and the effect of investment stated as a percentage of average assets, i.e., $-0.15\%/1.42\% = -0.1056$ or -10.56%)				

You also should compare data from period to period to identify any trends. You can compare quarterly data for all quarters of the review period, and annual data for the three previous years to identify the cause(s) of any negative trends.

Although historical data provides useful information for evaluating the return on investment, you must also consider management's projected return. Using the preceding example, if you had done an analysis of the return on the investment as of March 31 of that year, your conclusion might have been that the subordinate organization was extremely profitable. Although this may have been true then, a realistic operating budget would have tempered the assessment of profitability based on the return for the remainder of the year. A comprehensive analysis of the adequacy of the return on the investment should include the following determinations and comparisons:

- Determining the projected return on investments in subordinate organizations by reviewing management's operating budget(s).
- Comparing the projected return with historical data and investigating differences from historical patterns by interviewing management and reviewing the budget(s) assumptions for reasonableness.
- Comparing the most recent cost of funds ratio for the parent association with the projected yield on the investment in subordinate organizations.
- Determining the significance of any projected negative margins, by comparing the dollar amount of the negative margin to the capital and projected net income of the parent association.

It is equally important to determine the reasons for changes in the return on investment and whether the changes are a safety and soundness concern. You must determine whether a change is the result of sale of assets, accounting changes, market collapse, etc.

Risk Versus Return

Once you have determined the margin, you should evaluate the level of risk assumed to generate the margin. Generally, the higher the return, the higher the risk. Subordinate organizations, like all other businesses, assume certain types of business risk in the process of generating earnings. Determining the types of risk associated with the subordinate organization's activities and comparing the return on investment with the yield on other earning assets establishes a foundation for evaluating the organization's risk and reward position.

A return on investments that is significantly higher than yields on other earning assets may indicate that the subordinate organization(s) has assumed an excessive level of risk. A return that is lower than other earning assets may indicate an inefficient use of investment funds. By understanding the characteristics of all earning assets, you can establish a subjective correlation between yields and risks. You can then use this subjective correlation to evaluate the level of risk assumed or to evaluate the adequacy of the yield earned. For example, investors would expect an investment in a mortgage banking subordinate organization to yield more than the parent's investment in short term investment securities. This higher

expected yield is due to the higher level of business risk assumed. On the other hand, if a subordinate organization activity yields more than the parent's investment in commercial loans, that activity is likely to be more risky than commercial lending.

You can compare the yield from a parent's investment in a subordinate organization(s) with the parent's return on the following accounts:

- Mortgage loan portfolio
- Other loan portfolio
- Investment portfolio.

Tax considerations can distort the risk reward correlation. If the parent and the subordinate organization do not file consolidated tax returns, there is an incentive to record income for the parent (which has a lower tax rate) instead of the subordinate organization. For example, the subordinate organization may pay an above market rate on a loan from the parent. To avoid a distorted analysis, you should make comparisons over several periods. As a guide, you should make the comparison for each quarter of the examination review period. You can further enhance your analysis by comparing returns over the two previous years. In addition to making the comparison with a weighted return for the other assets, you should be alert to current yields on new investments in these assets. You can use this data to evaluate new investments in subordinate organizations. [Examination Handbook Section 650, Interest Rate Risk Management](#), provides further assistance in identifying and evaluating the risk assumed by subordinate organizations.

You must exercise sound judgment in evaluating the risk and reward position of the subordinate organization(s) since the risk and reward position involves many variables. For instance, ancillary business obtained by the parent as the result of the subordinate organization's activities may be a valuable source of business to the parent. Even though the return on a subordinate organization of this nature may be lower than other assets, the overall benefit to the parent may be significantly greater due to this ancillary business.