

Appendix 2A

Financial Statement Analysis Using a Return on Equity (ROE) Framework

Between 1992 and 2000 the commercial banking industry experienced a period of record profits. This was quite a change from the late 1980s and early 1990s, when banks were failing in record numbers. Despite record profits, many FIs have areas of weakness and inefficiency that need to be addressed. One way of identifying weaknesses and problem areas is through an analysis of financial statements. In particular, an analysis of selected accounting ratios—ratio analysis—allows FI managers to evaluate the current performance of an FI, the change in an FI's performance over time (*time series analysis* of ratios over a period of time), and the performance of an FI relative to competitor FIs (*cross-sectional analysis* of ratios across a group of FIs).

Figure 2A–1 provides a summary of the breakdown of the return on equity (ROE) framework. This framework is similar to the DuPont analysis frequently used by managers of nonfinancial institutions. The ROE framework starts with a frequently used measure of profitability—return on equity (ROE)—and then decomposes ROE to identify strengths and weaknesses in an FI's

FIGURE 2A–1
Breakdown of
ROE into Various
Financial Ratios

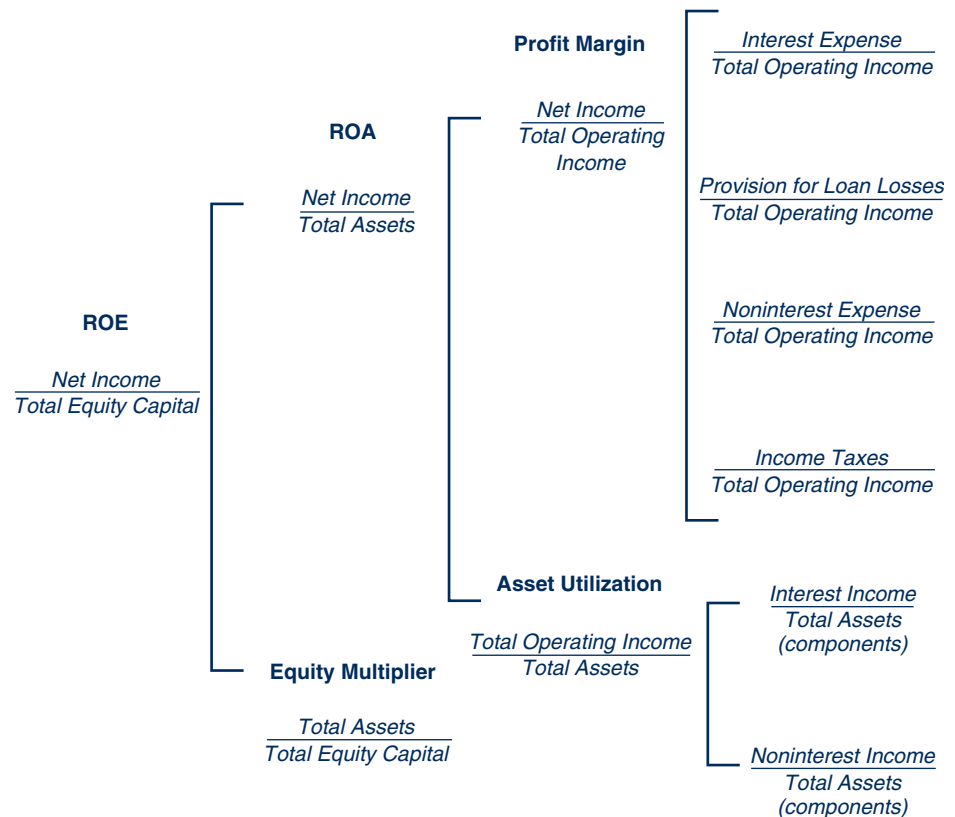


TABLE 2A–1
Role of ROE, ROA,
EM, PM, and AU in
Analyzing an FI's
Performance

<p>Return on equity (ROE): Measures overall profitability of the FI per dollar of equity.</p> <p>Return on assets (ROA): Measures profit generated relative to the FI's assets.</p> <p>Equity multiplier (EM): Measures the extent to which assets of the FI are funded with equity relative to debt.</p> <p>Profit margin (PM): Measures the ability to pay expenses and generate net income from interest and noninterest income.</p> <p>Asset utilization (AU): Measures the amount of interest and noninterest income generated per dollar of total assets.</p>
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performance.¹ Such a decomposition provides a convenient and systematic method for identifying the strengths and weaknesses of an FI's performance. Identification of strengths and weaknesses and the reasons for them provide a useful tool for FI managers as they look for ways to improve performance. Table 2A–1 summarizes the role of ROE and the first two levels (from Figure 2A–1) of its decomposition in analyzing an FI's performance.

These ratios are related as follows (see Figure 2A–1):

$$ROE = ROA \times EM$$

$$ROA = PM \times AU$$

In turn, the PM and AU ratios can also be broken down and shown to depend on key financial ratios (see Figure 2A–1).

¹Many large banks also use a risk-adjusted return on capital (RAROC) measure to evaluate the impact of credit risk on bank performance. ROE does not consider the bank's risk in lending as does RAROC. RAROC is described in Chapter 11.