

Indicator 41. Rates of Return on Investment

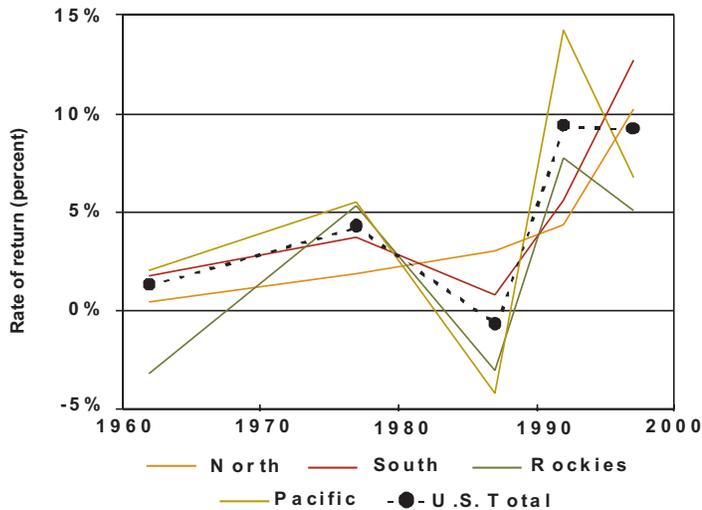


Figure 41.1 Implied long-run rates of return to timber assets by region, 1962–1997.

What Is the Indicator and Why Is It Important?

Rate of return on investment is an indicator of the financial attractiveness of the forest sector to capital. Rates of return must be competitive to attract investment in the forest sector versus other land uses or other businesses. This may include investment in forest land, wood and paper product mills, or ecotourism. A detailed analysis by type of investment and location may be needed to discern local competitiveness. Aggregate returns by region includes active and passive investment and may not represent local competitive conditions.

What Does the Indicator Show?

Ideally, data would be provided for local areas comparing rate of return for holding land in forests (e.g., timber, nonwood products, recreation) to rate of return from other uses (agriculture, housing, business development). And data would be provided on rate of return for wood

and nonwood products businesses, recreation, and other businesses compared to rate of return for their local, national, and international competitors to discern how readily they may provide jobs in local areas. Such detailed data is not currently available. We present data that explains, in general terms, rate of return to forest land for timber values by region. This data, along with data on return for other values such as recreation (both monetary and intangible), could be used to evaluate, in general, where returns are highest to support retaining land in forest. Rates of return require measures of revenues from the resources and asset values of the resources. Timber value can be estimated by summing up the asset values of all timber in a region. The preferred method for valuing timber assets (capital) is to use estimates of harvest age, anticipated revenues, and the value of subsequent rotations to calculate rents for forests of different types. Such detail is not available, so we use stumpage prices and inventory volumes to provide a rough estimate of forest asset value. Revenue from timber is the estimated stumpage price for different timber products. Capital gains from forests are measured as the change in asset values. Rate of return to timber assets (capital) is the ratio of total return (revenue plus capital gains) to asset value.

The long-run rate of return to timber assets for the United States as a whole has fluctuated and reflects changes in market conditions between measurement periods. Capital gains strongly influenced this rate of return and were negative between 1977 and 1987 but were strongly positive between 1987 and 1997. The long-run implied rate of return has risen to about 9 percent for the United States as a whole, and ranges from 5.1 percent in the Rockies to 12.7 percent in the South. Rates of return are generally higher in the Eastern United States than in the West. One measure of competitiveness for forest products firms is shown in Indicator 29, profit as a percent of shipments. This percent has been declining for lumber and wood products and paper and allied products industries in recent decades.