22-29 Ranking of capital budgeting projects, alternative selection methods, capital rationing. (CMA adapted) Franklin Industries has four divisions, each operating in a different industry (tobacco products, cable television, cosmetics, and home appliances). The divisions are currently preparing their capital expenditure budgets for the coming year. The Caledonia Division, located in the northeastern United States, manufactures home appliances that it distributes nationally. The manufacturing and marketing departments of Caledonia have proposed six capital expenditure projects for next year. The division manager must analyze these investment proposals and select those projects that will be included in the capital budget to be submitted to Franklin Industries corporate headquarters for approval. The proposed projects are listed below and are considered to have the same degree of risk.

- **Project A**: Redesign and modification of an existing product that is currently scheduled to be dropped. The enhanced model would be sold for six more years.

- **Project B**: Expansion of a line of cookware that has been produced on an experimental basis for the past year. The expected life of the cookware line is eight years.

- **Project C**: Reorganization of the plant’s distribution center, including the installation of computerized equipment for tracking inventory. This project would benefit both administration and marketing.

- **Project D**: Addition of a new product, a combination bread-and-meat slicer. In addition to new manufacturing equipment, a significant amount of introductory advertising would be required. If this project is implemented, Project A would not be feasible due to limited manufacturing capacity.

- **Project E**: Automation of the packaging department, which would result in cost savings over the next six years.

- **Project F**: Construction of a building wing to house offices presently located in an area that could be used for manufacturing. The change would not add capacity for new lines but would alleviate crowded conditions that currently exist, making it possible to improve the productivity of two existing product lines that have been unable to meet market demand.

Franklin Industries has established an after-tax required rate of return of 12% for capital expenditures for all four divisions. Additional information about each of the proposed projects is presented in Exhibit 22-11.

**Required**

1. Assume that Caledonia Division has no budget restrictions for capital expenditures. Franklin Industries directs the division to identify the capital investment projects that will maximize the value of the company. You are presented with information on the net present value, excess present value index, internal rate of return, and payback period for each project. What projects should be included in the Caledonia Division's capital budget submitted to Franklin Industries corporate headquarters? Explain the basis for your selection.

2. Assume that Franklin Industries specifies that Caledonia Division will be restricted to a maximum of $450,000 for capital expenditures, and Caledonia should select projects that maximize the value to the company. Further, assume that any budget money not spent on any of these projects will be invested at the after-tax required rate of return. Identify the capital investment projects Caledonia should include in its capital expenditures budget submitted to Franklin. Explain the basis for your selection.

3. Should Franklin Industries use the same after-tax required rate of return for all of its four divisions?