Partial Budgeting

Partial budgeting is a primary tool to use in planning and decision making. It enables a manager to determine the profitability of an existing or an alternative management practice before any money is invested. In light of the "cost" of making poor decisions, using "paper and pencil management" first, may be a very profitable practice.

All budgeting is guided by five basic economic principles:

1. Invest money where it will earn the largest returns (Maximum Profit Principle) -- with limited resources, use each resource where it will give the greatest return.

2. Invest more if the returns increase -- continue to add units of input as long as the resulting output or return is greater than the added costs.

3. Invest as little as possible in costs (inputs) -- as long as output is maintained, substitute one input for another if the costs of the new input are less than the costs of the input it replaced.

4. Invest in a different product if the return (output) is greater -- with costs remaining constant, substitute one product for another as long as the value of the new product (output) is greater than the one it replaced.

5. Discount for time and risk -- if different problems or decisions involve different time periods or levels of risk, adjustments (discounts) must be made in order to make comparisons.

The budget process can involve any one, a couple or all five principles in making decisions. The type of budget is not tied to any one principle or vice versa. These economic principles are used as required in the decision making process while the type of budget determines what will be planned.

A partial budget is used to determine the change in profit for a proposed change in a management practice or business activity. It is best thought of as a type of marginal analysis, intermediate in scope because it is suited only for small changes. It is different from an enterprise budget in that it may involve several enterprises and is not used for preparing whole farm plans.

A partial budget considers only those items that will change if the new activity is adopted. It records only the difference -- what the income or expense is compared to what it will be with the change. The final result is an estimate of the gain or loss in profit. In order to determine this estimate, the partial budget organizes the answers to the following four questions:

1. What new or additional costs will be incurred?
2. What current income will be lost or reduced?
3. What new or additional income will be received?
4. What current costs will be reduced or eliminated?

The first two questions consider any decreases to the profit level through increased costs and decreased income. The second two consider any increases in the profit level through increased income and decreased costs. The following formula may better describe this relationship:

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\text{additional costs (1) + reduced income (2) = A}
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\[
\text{additional income (3) + reduced costs (4) = B}
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\[
B - A = \text{net change in profit (negative = decrease in profit)}
\]
The information is usually organized into a "T" account like the following example:

![Partial Budget Table]

Both variable and fixed costs should be considered. The main objective is to identify and review each component (income and expenses) in question and determine what effect the proposed change will have on it. If the outcome is an increase in profit, the manager should still consider risk and uncertainty, two areas that may not show up in the "numbers."

There are three general areas in which a partial budget analysis can be useful for determining the effect of changes in the farm plan or organization:

1. **Enterprise Substitution** -- this can be for a partial or complete substitution of one enterprise for another. Examples would include replacing the beef cow/calf enterprise with a stocker enterprise or replacing 5 acres of hay production with strawberries.

2. **Input Substitution or Level** -- changes involving the substitution of one input for another or the amount of an input used. Examples include using custom hire work instead of owning the machinery, changing the type of feed ration or increasing/decreasing the amount of fertilizer or chemicals used.

3. **Size or Scale of Operation** -- this would include changes involving the total farm operation or of a single enterprise. Examples include expanding the number of beef cows in the herd, selling off 50 acres of woodland, or renting another 100 acres of pasture. These three types of changes are not mutually exclusive; one or all can be used in a single proposal.

The advantages of partial budgeting include:
- simplicity and ease of use,
- standard format and procedure, and
- concentration on just the costs and revenues affected by the change.

A disadvantage of partial budgeting is that it compares only two alternatives, typically what is being done now with a proposed change. It is not necessarily the best alternative but it will show which is the better of the two being considered.

In developing a partial budget, first define and describe the proposed change. It is important to define the problem and set realistic boundaries around it. This will save time by avoiding information that is not needed. Second, identify the cost and revenue data required. Remember to consider only the cost and revenue items that will change and the amount of the change if the proposal is adopted. Organize the amounts according to the outline above (T account format) and find the difference. The final amount will determine if the proposal has a positive or negative effect on profitability.