Feeder Associations of Alberta Ltd.

Partial Budgeting

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Take Home Message

✓ Sooner or later, a farm business undergoes a change.

✓ The partial budget can help a farmer estimate the net change in the business income before a management decision is made.

✓ The change or adjustment may be extensive, such as a major expansion, or minor such as changing a brand name for input. The effect of such an adjustment, however small, is felt in many parts of the business just as the waves from a stone dropped in a pool lap at every inch of shoreline. Business changes result in a different mixture or combination of basic farm resources - land, labour, capital, and management. The reshuffling of resources has a financial impact, either positive or negative.

Types of Investment Decisions

A partial budget considers all revenue and expenses that would change with an alteration to the farm operation. The partial budget is an excellent planning tool that answers the question "What would happen if…?". Examples of a situation where a partial budget for a feedlot would be appropriate include:

- expanding the feedlot by adding pens;
- leasing or replacing equipment;
- adding aprons to a feed bunk.

Advantages of a partial budget

- A quick method of investment analysis;
- It can show results of projected changes clearly;
- It is not necessary to consider all costs in the business - only the costs and returns that will be changed by the investment under consideration;
- It isolates the impact of a change.

Disadvantages of a partial budget

- It may oversimplify the problem;
- Data may not be readily available;

- It does not show the effects of the proposed investment on the farm's overall financial structure;
- It does not indicate benefits of increased managerial flexibility or point out an increase in managerial problems.

Partial Budget Format

The purpose for doing partial budgeting maybe for many reasons. In a broad context, partial budgeting can help identify and answer five areas of concern. They are:

- Defining the reason for a change.
- Listing the changes that can be done.
- Answering the question: "Will the changes pay?"
- Answering the question: "Is the change affordable?"
- Deciding whether to do the change.

Several formats are commonly used for partial budgeting. The format used in this section is shown below. This format has two features:

1. A calculation for estimating a change in net farm income, and;
2. A cash flow projection.

As mentioned earlier, a partial budget contains only those income and expense items which will change if the proposed alteration in the farm plan is implemented. Those incomes and expenses that remain the same on the farm when a change occurs are not included in the partial budget. The final result is an estimated change in net farm income and the effect on cash flow due to the change to the farm business.

To make these estimates, the partial budget's layout is as follows:

Advantages	Disadvantages
Reduced Costs	Added Costs
Added Returns	Reduced Returns

The left-hand side of the box identifies advantages, which could reduce former costs and/or increase profits by generating additional income from the new proposal. The right-hand side of the box identifies disadvantages, which could reduce profits by increasing the costs of the new proposal and/or reduce income over the former way of doing things. Subtracting the disadvantages from the advantages gives a positive or negative position.

In doing a partial budget, only one alternative at a time should be looked at. When more than one alternative is to be examined, each alternative should be looked at separately before a comparison can be made.

Profitability

One of the purposes of doing a partial budget is to estimate whether a change is profitable and can increase net farm income. In order to measure profitability, all revenue and all expenses associated with that change must be accounted for. That is, all cash and non-cash items incurred by that change must be recorded. Profitability in a partial budget is usually measured by estimated the average change in annual profit. A positive value indicates that the proposed change is profitable (net farm income is increased) and a negative value indicates that the change is not economically sound (net farm income is decreased).

When measuring profitability in a partial budget, the partial budget will not measure the most profitable change because the partial budget is only looking at one change at a time. In order to measure the most profitable change, separate partial budgets related to the change have to be done and then compared.

Cash Flow

Whenever a change on the farm is proposed, it is advisable that a cash flow analysis be done to see if sufficient cash is generated to pay all cash costs including principal and interest payments. A partial budget may show that the proposed change is profitable, but in some cases when money is borrowed, the proposed change may decrease cash flow in the first few years because of the high loan payments. The question then becomes "Can the farm handle a decreased cash flow in the first few years (the length of the loan) for future gains."

Another reason for preparing a cash flow projection is that the highs and lows of income and expenses can be estimated for each year, which is not the case, if income and expenses were averaged.

If the estimated change in net farm income is negative, a projected cash flow would usually also be negative. Thus, further analysis of the proposed change should not be needed.

In working through a partial budget, the following steps can help a person organize one's thoughts to deal with a proposed change in a systematic way.

1. Define the reason for the change

Rationalize the reason for a change. That is, what is the objective of the change?

2. List the possible alternatives

List all possible alternatives available to obtain the desired objective.

3. State the proposed change

Write a descriptive statement of the proposed adjustment or change to be made. Where more than one alternative exists, each alternative requires a separate budget.

4. List the reduced costs

A proposed change may cause an enterprise or operation to be discontinued or scaled down. This would result in reduced variable expenses (feed, supplies, hired labour, etc.) and fixed expenses (depreciation, interest, and unpaid labour) if the change results in eliminating or reducing the investment in machinery, equipment, buildings, breeding livestock, or land.

5. List the expected added returns

A proposed change may cause farm income to increase when a new enterprise is added, when an enterprise is expanded or if the change causes production levels to increase. As with all parts of a partial budget only the additional income expected is listed under this section and not the total income (unless a new enterprise is added).

6. List the added costs

A proposed change may cause increased costs because a new or expanded enterprise might require the purchase of additional or new inputs. These costs are usually variable or operating costs and are normally cash expenses. If the proposed change requires the purchase of new machinery, buildings, land or livestock, there will be additional fixed costs, which should also be included. Fixed costs such as depreciation and interest on investment should be average annual values and are classified as non-cash costs.

7. List the reduced returns

Income may be reduced if the proposed change eliminates an enterprise, reduces the size of an enterprise, or causes a reduction in production levels. Compute the receipts that will be given up when the proposed change is in effect and enter the amount in the budget.

8. Estimate change in net farm income

To estimate a change in net farm income, add up the total advantages. Then add up the total disadvantages. By subtracting the total disadvantages from advantages, an estimated change in net farm income or annual profit is calculated.

9. Cash flow projection

If the estimated change in net farm income is positive, then it is advisable to do a cash flow projection on the proposed change to see how the cash position on the farm is affected yearly. If the estimated change in net farm income is negative, then the proposed change is not economically viable and a cash flow projection would enforce the net farm income conclusion. Thus, a cash flow projection should not be needed. The format for the projection is the same as steps 3 - 7 except that only cash income and expenses are accounted for including principal and interest payments on loans. In the cash flow projection, do not include depreciation and interest on investment used to estimate a change in net farm income. Depreciation is a non-cash item and interest on investment is an opportunity cost concept. Although the worksheet provided has only space for five years, extending the years on a separate page may be needed, if a cash flow for more than five years is desired.

10. List other considerations

A proposed change may also include other considerations, which are not included in the above steps. These considerations may be major or minor in nature, but should be kept in mind. For instance, can a loan be acquired from a financial institution or from other sources? Is enough labour available to undertake the proposed change? What is the time lag between initial start and full production? What tax savings are involved in the change? How does the proposed change fit into the overall farm operation? How much risk is involved? There may be other questions that come into play and they should also be listed.

11. Deciding whether to make the change

Once the economic benefits have been calculated and other considerations accounted for, the decision rests with the individual on whether or not to implement the change.

Summary

Partial budgeting is an excellent managerial tool to help evaluate the financial considerations caused by changes in a business. It is 'pencil farming' to estimate the likely outcome of a particular alternative on paper before wasting time, money and resources trying it out on the farm. It measures only those inputs and outputs that will actually change. The budget is inexpensive to use and can be used to assess the merits of a number of different alternatives so that the best one can be selected.

The partial budget weighs the advantages (reduced costs and added returns) and disadvantages (added costs and reduced returns) to arrive at profitability. In addition, this budget form allows one to calculate the cash flow and the feasibility of the proposal. The partial budget is the basic tool of all farm management decision making. The results should be used as a guide, in conjunction with other management tools, to reach a decision.