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PARTIAL BUDGETING

G. Ray Prigge
Extension Economist
Farm Management Specialist

Budgeting is the paper-and-pencil testing of business adjustments prior to putting them into actual operation. Essentially budgeting consists of projecting the costs and returns associated with a particular adjustment into the future and calculating and probable effect on net earnings of individual farms.

Farm businesses are operated under dynamic conditions, facing such changes as changes in price, changes in demand for products, and changes in technology, so they must undergo constant adjustment if incomes are to be maximized. Deciding on what to change, how much to change, and when to change is the management job.

Adjustments instituted now always have their economic consequences in the future. The primary chore in decision making is to predict the likely outcome of a change, but prediction alone is not sufficient. It can be assumed that whenever a farmer makes a change he has predicted in his own mind that it will be profitable. An individual is unlikely to voluntarily take action which he thinks will lose him money.

The real job, therefore, is one of making more accurate predictions. This involves two major problems. The first is concerned with the accuracy of the information used, and the second with the method of analysis. Our discussion of budgeting is devoted largely to ways in which the necessary facts may be selected, assembled, and interpreted to provide better guides to decision making.

HOW TO PREPARE PARTIAL BUDGETS

With partial budgeting, you examine only the expenses and receipts that would change because of the alternative you are considering. Since you are considering only the new or added costs in a partial budget, be sure to distinguish between variable and fixed costs. Consider only those costs that will change as a result of your action.

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Partial budgeting can help you take the guesswork out of many of your management decisions. A pencil and paper are the only tools you need to prepare a simple comparison of the effects on your farm or ranch income of two management alternatives. Many such analyses have been made on the backs of barn doors! On the other hand, you can also use partial budgeting to prepare a fairly complex analysis which requires a number of detailed considerations - a major capital investment, for example, or the selection of a new crop or livestock program.

In general, a simple partial budget is constructed as follows:

Expected additional income (production x price) plus all reduced costs	\$ _____
Minus expected additional costs plus any reduced income	- _____
Equals change in net income	\$ _____

The use of this budget form is illustrated in the following sample calculation, which was made to determine the profit possibilities in feeding 20 additional steers:

Expected income	
20 steers at 1,000 lbs. = 20,000 lbs.	
20,000 lbs. x 40 cents/lb.	\$8,000
Expected added costs	
\$370/steer x 20	-7,400
Additional net income	\$ 600

The three general categories or basic types of data required for drawing up a partial budget are:

- Production or Yield Expectations. (Records, research data and local community experience furnish good guidelines.)
- Price Expectations. (Outlook analyses give guidelines.)
- Costs of Production. (Records, research data, and local community experience furnish good guidelines.)

You need to secure or estimate each of these general categories of data for any partial budget. In most instances, you will want a more detailed breakdown of costs and returns than is shown in the steer-feeding illustration, particularly in regard to costs.

USES OF PARTIAL BUDGETS

Use partial budgeting to compare costs and returns for any two alternatives. For example, you could use it to:

- Consider the merits of purchasing a new machine to replace an old one.
- Weigh the advisability of replacing hand labor with a labor-saving machine.
- Analyze the merits of substituting a new livestock program or crop for an existing enterprise.
- Consider the effect on net farm income of expanding an existing enterprise.
- Determine the wisdom of hiring a custom operation, rather than purchasing equipment for the job.
- Arrive at the feasibility of making capital improvements.
- Determine the best plan to follow in government programs that have more than one alternative.

Farm and ranch operators who become familiar with this management tool will find many additional uses for it.

EXAMPLES OF PARTIAL BUDGETING

Two examples of partial budgeting are shown for your use. They both analyze management alternatives. Undoubtedly, your expected costs and returns will vary from those given here. However, the illustrations show how you can logically decide between two alternatives in your own operation, with your own costs and returns figures.

EXAMPLE I: SHOULD I DISPOSE OF TWO LOW-PRODUCING COWS?

Would a man be better off without low-producing cows if he concentrated his time and efforts on a smaller number of higher producers? This the situation: Farm milk records indicated a herd average of 14,000 lbs. production per cow. Two cows produced less than 9,000 lbs. each. The operator wanted to sell them because he thought they "didn't pay". The cows were raised by the dairyman. This is what would happen to costs and returns if they were sold and not replaced with better cows:

ADJUSTMENT: CHANGE IN INCOME RESULTING FROM SELLING TWO LOW-
PRODUCING COWS AND NOT REPLACING THEM WITH HIGHER
PRODUCERS

	AMOUNT
A. ADDITIONAL RECEIPTS	
Value of hay and silage saved	\$328
Interest on capital released (\$800 salvage value x 6%)	48
B. REDUCED COSTS	
Grain, protein, salt & mineral (8,000 lbs. @ 5¢)	400
Bedding	48
Miscellaneous (insurance, vet, and med., and breeding)	160
Total Additional Receipts and Reduced Costs (A + B)	\$936
C. ADDITIONAL COSTS	
None	0
D. REDUCED RECEIPTS	
Milk (17,600 lbs. x \$9/cwt. net)	1584
Calves (2 x \$50)	100
Total Additional costs and Reduced Receipts (C + D)	1684
NET CHANGE IN FARM INCOME	minus 748

Under his price conditions, he would be more than \$700 worse off in yearly income without these two cows than he would be to keep them, even though they produced only 8,800 pounds of milk each. The price of milk is an important factor in this situation. But even if it had been \$8 milk instead of \$5, the loss would still have been \$472. The point to remember is that fixed costs are not considered before deciding to eliminate seemingly unprofitable activities.

If we consider the operator labor saved by reducing the herd size by two cows, it would be necessary to discount the \$748 income by the value of labor saved.

EXAMPLE II: SHOULD I RENT OR CUSTOM HIRE COMBINING?

You have been hiring custom combining for 500 acres of crop at \$6 per acre. You can rent a self-propelled combine for \$5 per acre but will need to furnish your own fuel, oil, and grease. You estimate that the latter changes will amount to \$.70 per acre.

Assume your labor to be worth \$3 per hour because of other uses at this time with .2 hour of labor needed per acre. You feel that you will be able to get an additional \$1.75 worth of crops per acre by operating the machine yourself rather than hiring the job done.

ADJUSTMENT: WHAT IS THE ESTIMATED EFFECT ON NET INCOME IF YOU CHANGE FROM CUSTOM HIRING TO RENTING?

	AMOUNT
A. ADDITIONAL RECEIPTS	
Improved harvesting (500 A. x \$2.75)	\$1375
B. REDUCED COSTS	
Custom hire (500 A. @ \$16)	8000
Total Annual Additional Receipts and Reduced Costs	9375
C. ADDITIONAL COSTS	
Rent combine (500 A. @ \$12)	6000
Fuel, oil, grease (500 A. @ \$.70)	350
Labor (500 A. @ .2 hr. x \$3)	300
D. REDUCED RECEIPTS	
None	0
Total Annual Additional Costs and Reduced Receipts	6650
NET CHANGE IN FARM INCOME	plus \$2725

PARTIAL BUDGET

ADJUSTMENT: _____

A. ADDITIONAL RECEIPTS:

	\$	
Total additional receipts		\$ _____

B. REDUCED COSTS

		Annual Ownership ^a		Operating	
	\$		\$		
Subtotal	\$		\$		
Total reduced costs					\$ _____
Total of additional receipts and reduced costs					\$ _____

C. ADDITIONAL COSTS:

		Annual Ownership ^a		Operating	
	\$		\$		
Subtotal	\$		\$		
Total additional costs					\$ _____

D. REDUCED RECEIPTS:

	\$	
Total reduced receipts		\$ _____
Total of additional costs and reduced receipts		\$ _____

E. NET CHANGE IN FARM INCOME:

(Total of additional costs and reduced receipts subtracted from total of additional receipts and reduced costs.) \$ _____

^a Annual ownership costs are taxes, insurance, interest, depreciation, and possible storage. (Include only those which change with the proposed enterprise change.)