

Cash Flow Budgeting A Weather Forecast for Your Business

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Introduction

Cash flow budgets should be thought of in the same way we think about weather forecasts. Many producers complain that cash flow budgets aren't accurate and many times miss the mark by the end of the accounting year. Don't we say the same things about weather forecasts? Producers say it is hard to forecast price, production, input costs and other items needed as they develop the cash flow budget. The budgets are hardly ever 100% accurate. Weather forecasts are similar. Despite the fact the weather forecast isn't accurate; we still look to the forecast every day. It still gives us a better look at the weather around us than if we had no forecast at all. Cash Flow Budget can be looked at in much the same way. While they are not going to be 100% accurate, cash flow budgets give us a very good idea of what the business's future will hold based on the facts and information we have about how the business performed in the past. Most successful producers depend on cash flow budgets like they depend on the weather forecast, even though neither are 100% accurate.

Objectives

1. Help pork producers understand the importance of cash flow budgets to the management of their business.
2. Develop a list of the information needed to do an accurate cash flow budget.
3. Give pork producers a step by step process for developing a cash flow budget.
4. Suggest evaluation concepts as producers seek to understand the consequences of a completed cash flow.

What information is needed to do an accurate cash flow?

Good, Accurate Records

- Livestock production records (Born per litter, weaned per litter, feed per lb of gain, death loss etc.)
- Crop production records (If crop production is part of your business)
- Accounting records (Records should have enough detail to be able to assign income and expenses to enterprises in the farming operation)
- Balance sheet which would include:
 - Accurate inventories of supplies (Fuel, feed, etc.)
 - Accurate inventories of crops in storage, hogs on hand and other current assets: Starting point to determine feed needs and budgeting crop and livestock sales for period in budget.

- Accurate accounts payable: Must be part of the cash flow budget since it is a cash drain on the business
- Accurate starting point for operating line: Accrued interest needs to be calculated and then budgeted.
- Loan balances and loan repayment obligations
- Don't forget personal assets including non-farm businesses and debt including credit cards

Historical Accounting and Production Records

- Improves the accuracy of the cash flow as we refer to the past.
- May indicate trends in the business that need to be accounted for in the cash flow budget. (Feed conversion has been improving over time.)

What software tools are available to do a cash flow?

A computer spreadsheet, like Microsoft Excel, is an excellent tool. You can develop cells for each month across the top and cells for each input item down the side. Use the features of the spreadsheet to add columns and rows and do calculations needed to evaluate the cash flow.

In Minnesota, we use the Finpack program developed by the University of Minnesota through the Center for Farm Financial Management. Other land grant colleges and private vendors may have similar computer programs. This type software does many of the calculations needed to evaluate the cash flow and insures that all the necessary inputs that affect cash flow are accounted for.

What are the steps to establishing a cash flow budget?

1. Start with an accurate Balance sheet.
 - The Balance sheet contains starting point information used to project the flow of cash
 - Checkbook balance indicates cash reserve at beginning of budget year
 - Crop inventories indicate Feed Carried over for use in budget year
 - Crop inventories indicate old crop bushels to sell in budget year
 - Livestock inventories assist with scheduling of sales
 - Loan information is used to schedule loan payments
2. Establish Livestock and Crop budgets –See figure 1 Finpack Enterprise Budget
 - Establish livestock and crop production goals (examples)
 - Pigs sold per litter
 - Pounds of corn per litter or hundred weight
 - Vet Costs per litter or head
 - Purchased Feed per litter or head
 - Include all expected revenue and direct expense including home grown inputs
 - Develop Budget on common units of production—litters, head, hundred weights
 - Multiply costs and incomes in the enterprise budget by the units produced
 - Electronic software can be used to do the math
 - This allows you to vary the production unit amounts easily
 - Budgets developed by electronic software make it easy to change input costs, income and production units
 - Only Direct Expenses are included in enterprise budgets
3. Prepare the budget (See Figure 3)
 - Estimate production units for each budget period (litters farrowed in March)
 - Production units are multiplied by enterprise budgets to get cash flow by month
 - Programs like Finpack make these calculations automatically as input is entered for each month
 - Project livestock sales
 - Estimated sales volume per month and expected price are used
 - Project other expenses not included in enterprise budgets
 - Other direct expenses like fuel and repairs
 - Overhead expenses like insurance, legal fees, utilities, rent

- Make sure you budget any accounts payable from previous year
- Project other incomes like government payments, custom work income contracting fees, off-farm income
- Project Family living expense by month (typical farms spent around \$50,000 for living in 2003)
- Project capital purchases you plan to make for the year.
- Project your loan payments for the year
 - Operating note is account where cash flow surpluses and shortages accumulate
 - When cash flow is short, loan advance credited to operating loan
 - When the cash flow has surplus payment made to operating loan
 - When operating loan paid off surplus goes to checking account
 - Be sure to budget accrued interest expense on operating loan
 - Make sure other note payments are scheduled including new capital purchases that are financed
- Be sure you included all expenses and income
 - Check your accounting system to make sure income and expenses are included in cash flow budget
 - Check tax return to be sure all items have been included

What Other factors should be considered in doing a cash flow budget?

Developing cash flow budgets is partially simple number crunching, but it is also an art. There are intangibles that can effect the outcome of the budget and it's accuracy. I call these items producer tendencies. You need to know your tendencies and adjust for them in the cash flow.

Producer Tendencies and solution to offset tendency

- Producers are too optimistic about production
- Offset tendency by using production from 5 year average from farm records
 - Pigs sold per litter
 - Yield per acre
- Don't forget to account for death loss in livestock
- Producers expect higher prices that may be realistic
- Offset tendency by looking at USDA projections of price
- Producers project expenses lower than may be realistic
- Offset this tendency by using 5 year average for expenses that vary a lot from year to year
 - Look to last years records for expenses like utilities and insurance
 - Some expense items increase over time so a 5 year average does not work and does not reflect the current situation
 - Increase these expenses a % amount each year

The key thing to remember is to be aware of your tendencies and adjust for them in your cash flow.

Cash Flow Evaluation

- Operating loan balance—See Figure 3 Finpack Cash Flow Budget
 - If balance is higher at the end of the year than beginning, the business is not cash flowing
 - Large crop inventory can offset high balance at end of year
 - Lenders want operating note to zero out sometime in production year
- Projected check book balance—See Figure 3 Finpack Cash Flow Budget
 - Called cash flow surplus
 - Need enough cash flow surplus to cover the unexpected.
- Cash flow should project a profit—See Figure 2 Cash Flow Analysis
 - If it does not, take a hard look at your projections to see if you can make changes to your business and improve profits
 - You must follow through with the business changes you make
- Cash flow should project net worth gain.—See figure 3 Cash Flow Analysis
 - Net worth gain best indicator of farm financial progress
- Term Debt Coverage Ratio above 125%—See Figure 2 Cash Flow Analysis
 - Insures a 25% cushion for the unexpected

- Interest expense ratio should be no more than 10%--See Figure 2 Cash Flow Analysis
 - Calculated by dividing interest by total revenue

Summary

The process of developing a cash flow budget for the accounting or production year can give producers new insight into their farm business. Cash flow budgeting helps producers focus on the future of their business as they try to project how well the mix of assets, debt, revenue and expense will perform in a future time frame.

Producers are required to think about marketing their products for the coming year as they project out what months hogs will be sold and at what price. In effect they have developed a marketing plan when they establish a cash flow budget.

As producers establish a budget, they develop a loan repayment plan. They have a new sense of what it takes to make these payments and how much more debt they can service.

Producers who do a cash flow budget have set cost control goals as well. They have projected costs, both direct and overhead, that will be incurred by the business during the year. They develop a good sense of the margin they are working with and work to preserve that margin by controlling costs.

| Livestock Budget No. 1 Livestock Enterprise: Hogs, Farrow to Finish Budget Unit: Per Litter | | |
|---------------------------------------------------------------------------------------------------|------------|--------|
| Description: | Long Range | Year 1 |
| Raised Hogs | | |
| Quantity (head) | 7.5 | 7.5 |
| Weight (lb) | 245 | 245 |
| Price (cwt) | 40.00 | 40.00 |
| Product Income | 735.00 | 735.00 |
| Marketing | 10.00 | 10.00 |
| Bedding | - | - |
| Purchased Feed | 187.00 | 187.00 |
| Breeding Fees | 26.00 | 26.00 |
| Total Direct Expense | 243.50 | 243.50 |
| Labor Hours | - | - |
| Corn Equivalents (bu) | 75.0 | 75.0 |
| Hay Equivalents (ton) | - | - |
| Silage Equivalents (ton) | - | - |
| Pasture Equiv (aum) | - | - |
| Soybeans Equiv (bu) | 10.0 | 10.0 |
| Feed Expense | 223.75 | 223.75 |
| Return over budget expense | 307.75 | 307.75 |

Figure 1. Finpack Enterprise Budget

| Projected Net Farm Income | |
|----------------------------------|------------------|
| Gross Cash Farm Income | 6266521 |
| Cash Farm Expense (Exc Int) | (-) 430027 |
| Farm Interest Paid | (-) 10020 |
| Net Cash Farm Income | (=) 186474 |
| Current Inventory Change | (+/-) -51290 |
| Estimated Depreciation | (-) 57662 |
| Projected Net Farm income | (=) 77523 |
| Depreciation | (+) 57662 |
| Term Debt interest | (+) 10288 |
| Balance for Term Debt Pay | (=) 87151 |
| Scheduled Term Debt Payments | 52160 |
| Refinance & Capital Sales | (-) 0 |
| Normal Term Debt Payments | (=) 52160 |
| Term Debt Coverage Ratio | 167.1% |
| Capital Replacement Margin | 34991 |
| Projected Net Worth Change | |
| Projected Net Farm Income | 77523 |
| Efficiency Measures | |
| Operating Expense Ratio | 74.6% |
| Depreciation Expense Ratio | 10.0% |
| Interest Expense Ratio | 2.0% |
| Net Farm Income Ratio | 13.4% |

The cash flow budget can be used by producers to measure how well they are advancing to meet the goals they established for their business.

Yes the cash flow budget may be required for the acquisition of capital from lenders. But if we look at this exercise of projecting income and expenses as a way of taking more control of our farm business and make us a more disciplined marketer and purchaser of inputs, we will see the true economic impact of spending the time to develop the cash flow budget.

References

Finpack Computer Software and User's Manual from Center for Farm Financial Management, University of Minnesota, 249 Classroom Office Building, 1994 Buford Avenue, St. Paul, Minnesota 55108 Phone 800-234-1111

| Cash Inflows | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Total |
|----------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Beg Cash Bal | -64093 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 14583 | 1000 | -64093 |
| Raised Hogs | 84143 | 39249 | 39249 | 40993 | 40993 | 40993 | 40993 | 39249 | 34888 | 34888 | 34888 | 34888 | 505415 |
| Feed Corn | - | - | - | - | - | 42000 | - | - | - | - | - | - | 42000 |
| Feed Soybeans | - | - | - | - | - | - | - | - | - | 24450 | - | - | 24450 |
| Cull Stock | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 2440 | 29280 |
| DCP Payments | - | - | 10656 | - | - | - | - | - | - | 10656 | - | - | 21312 |
| Custom Work | - | - | - | - | - | - | - | - | 3464 | - | - | - | 3464 |
| Pat Dividend | - | - | - | - | 600 | - | - | - | - | - | - | - | 600 |
| Total Inflow | 22490 | 42689 | 53345 | 44433 | 45033 | 86433 | 44433 | 42689 | 41792 | 73434 | 51911 | 38328 | 562428 |
| Cash Outflows | | | | | | | | | | | | | |
| Seed | - | - | - | 14448 | 8440 | - | - | - | - | - | - | - | 22888 |
| Fertilizer | - | - | - | - | - | - | - | - | - | - | - | 13760 | 13760 |
| Chemicals | - | - | - | - | - | - | - | - | - | - | - | 26810 | 26810 |
| Crop Insur. | - | - | - | - | - | - | - | - | - | 6225 | 3956 | - | 10181 |
| Drying Fuel | - | - | - | - | - | - | - | - | - | - | 5160 | - | 5160 |
| Pur. Soybean | - | - | - | - | - | 433 | 5793 | 5793 | 5793 | - | - | - | 17811 |
| Purch Feed | 8045 | 7870 | 7719 | 7578 | 8824 | 10667 | 10667 | 10667 | 10667 | 10667 | 10667 | 10667 | 114709 |
| Breedubg | 1586 | 1586 | 1586 | 1586 | 1586 | 1586 | 1586 | 1586 | 1586 | 1586 | 1586 | 1586 | 19032 |
| Veterinary | 486 | 492 | 498 | 504 | 550 | 609 | 609 | 609 | 609 | 609 | 609 | 609 | 6793 |
| Lstk supply | 426 | 433 | 441 | 448 | 502 | 572 | 572 | 572 | 572 | 572 | 572 | 572 | 6257 |
| L. Marketing | 1212 | 487 | 487 | 487 | 487 | 487 | 487 | 487 | 487 | 487 | 487 | 487 | 6568 |
| Fuel & Oil | 905 | 905 | 905 | 1810 | 1810 | 1810 | 905 | 905 | 2714 | 2714 | 2714 | 905 | 19000 |
| Repairs | 1762 | 1762 | 1762 | 3524 | 3524 | 3524 | 1762 | 1762 | 5286 | 5286 | 5286 | 1762 | 37000 |
| Labor | 1458 | 1458 | 1458 | 1458 | 1458 | 1458 | 1458 | 1458 | 1458 | 1458 | 1458 | 1458 | 17500 |
| Land rent | - | - | 7510 | 38373 | 3742 | - | - | - | - | - | 16234 | 7966 | 73825 |
| RE Taxes | - | - | - | - | 1767 | - | - | - | - | - | 1767 | - | 3534 |
| Farm insur. | - | - | - | - | - | 3400 | - | - | - | - | - | 3400 | 6800 |
| Utilities | 1667 | 1667 | 1667 | 1667 | 1667 | 1667 | 1667 | 1667 | 1667 | 1667 | 1667 | 1667 | 20000 |
| Misc. | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 2400 |
| Fam living | 4167 | 4167 | 4167 | 4167 | 4167 | 4167 | 4167 | 4167 | 4167 | 4167 | 4167 | 4167 | 50000 |
| Income Taxes | - | - | - | 7834 | - | - | - | - | - | - | - | - | 7834 |
| Min end bal | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |
| Tot. outflow | 22913 | 22027 | 29399 | 85083 | 39724 | 31579 | 30873 | 30873 | 36206 | 36638 | 57530 | 77016 | 488861 |
| Opr Surplus | -423 | 20662 | 23946 | -40650 | 5310 | 54854 | 13561 | 11816 | 5586 | 36796 | -5619 | -38688 | 73568 |
| Annual Operating Loan Transactions & Balances | | | | | | | | | | | | | |
| Beg AO Bal | 59176 | 60224 | 59911 | 37235 | 82017 | 77701 | 38459 | 25891 | 15068 | 10756 | - | 6612 | 59176 |
| AO Borrowing | 1048 | - | - | 44783 | - | - | - | - | - | - | 6612 | 42565 | 95008 |
| AO Int Pay | - | - | 645 | - | - | 698 | - | - | 281 | - | - | 62 | 1685 |
| AO Prin. Pay | - | 313 | 22676 | - | 4317 | 39242 | 12568 | 10823 | 4312 | 10756 | - | - | 105007 |
| End AO Bal | 60224 | 59911 | 37235 | 82017 | 77701 | 38459 | 25891 | 15068 | 10756 | - | 6612 | 49177 | 49177 |
| Accrued int. | 219 | 433 | - | 132 | 422 | - | 136 | 228 | - | 38 | 38 | - | - |
| End Cash Bal | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 |

Figure 3, Finpack Balance Sheet, Partial Print Out

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