

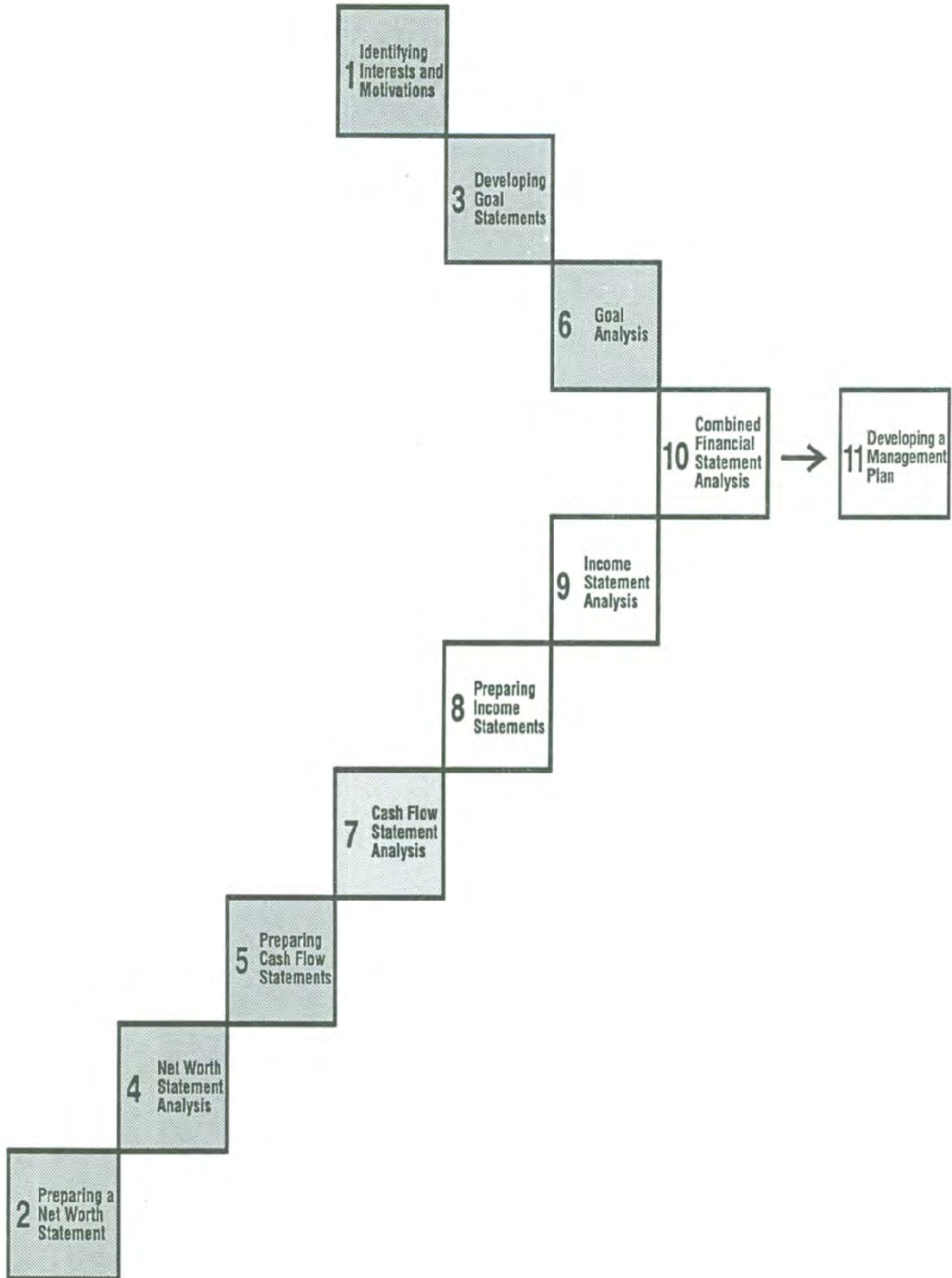


COMPREHENSIVE GUIDE TO FARM FINANCIAL MANAGEMENT

Module 7: Cash Flow Statement Analysis

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Course Map



Cash Flow Statement Analysis

Introduction

The importance of analyzing and applying the information recorded in Cash Flow Statements to make sound farm business management decisions cannot be over emphasized. Lack of cash flow is often the stumbling block to many plans - farm and family. Identifying periods with a potential cash flow surplus or cash flow deficit allows the manager to take advantage of opportunities as they arise or to plan for periods when cash is short.

Performance Objectives

Upon completing the material in this module you will be able to:

- identify areas of the Projected Cash Flow Statement used in analysis; and
- analyze your Projected Cash Flow Statement.

Projected Cash Flow Statement Analysis

Accurate Projected Cash Flow Statements are developed by going through the “question process” and listing all sources, uses, amounts and timing of cash inflow and cash outflow. If all information has been recorded as accurately as possible (based on current knowledge of projected farm and family plans), then you can use the information to make a reliable analysis and apply it in planning your farm business management activities.

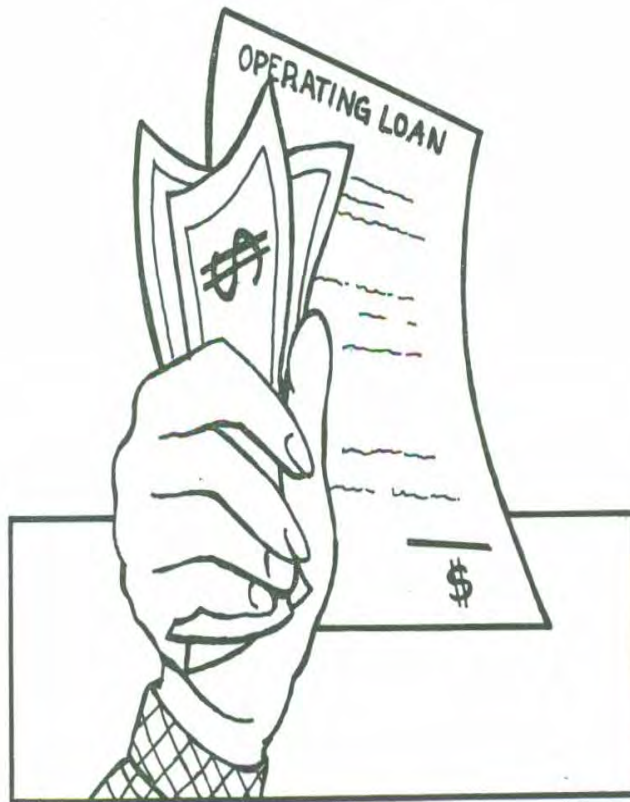
You will recall that a Projected Cash Flow Statement is defined as a record of all cash projected to flow into and out of the farm business in the year. The year is broken down into smaller time periods (monthly or quarterly) to provide an indication of times of the year that have a cash surplus or deficit. This information is contained in the summary section. It indicates the surplus or deficit created in each period and the surplus or deficit accumulated from one time period to the next.

	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
TOTAL CASH INFLOW	\$300,325	\$77,630	\$78,695	\$66,400	\$77,600
TOTAL CASH OUTFLOW	\$292,885	\$52,500	\$107,045	\$58,445	\$74,895
SUMMARY					
Surplus (Deficit)	\$7,440	\$25,130	(\$28,350)	\$7,955	\$2,705
+ Previous Ending Balance	(\$12,250)	(\$12,250)	\$12,880	(\$15,509)	(\$7,900)
= Net Cash Balance	(\$4,810)	\$12,880	(\$15,470)	(\$7,554)	(\$5,195)
- Interest on Operating Loan	\$581	0	\$39	\$346	\$196
= ENDING CASH BALANCE	(\$5,391)	\$12,880	(\$15,509)	(\$7,900)	(\$5,391)

Minimizing Ending Cash Balance Deficits

A deficit net cash balance for any period in the cash summary section occurs when cash inflow falls short of meeting cash outflow for that period. The operation is short of the cash required to meet commitments and management must seek funding from other sources to make up the shortfall. Funding may come from savings or from an operating loan.

Therefore, the primary application of the Projected Cash Flow Statement is to indicate periods of deficit cash funds. If these cash deficits are to be made up by operating funds, the structure of the statement allows the farm manager to determine the amount, timing and duration of the operating loan required (minimum amount is the largest of the period accumulated deficits found in the ending cash balances).



Let's look at the Summary section of the Projected Cash Flow Statement for the Shady Bend Farm to explain further.

SUMMARY	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Surplus (Deficit)	\$7,440	\$25,130	(\$28,350)	\$7,955	\$2,705
+ Previous Ending Balance	(\$12,250)	(\$12,250)	\$12,880	(\$15,509)	(\$7,900)
= Net Cash Balance	(\$4,810)	\$12,880	(\$15,470)	(\$7,554)	(\$5,195)
- Interest on Operating Loan	\$581	0	\$39	\$346	\$196
= ENDING CASH BALANCE	(\$5,391)	\$12,880*	(\$15,509)**	(\$7,900)	(\$5,391)

***Surplus Ending Cash Balance at end of first quarter**

****Largest Ending Cash Balance deficit**

The largest Ending Cash Balance deficit (\$15,509) is found in the second quarter. The Shady Bend Farm will require an operating loan of (at least) \$15,509 for the year and it will reach its peak requirement in the second quarter. Further analysis of the summary section tells you that operating fund requirements taper off significantly in the third and fourth quarters. Also note that the Ending Cash Balance in the first quarter was a surplus of \$12,880.

The Projected Cash Flow Statement identifies periods throughout the year when cash is available and when it is in short supply. Thus, the manager can use the Projected Cash Flow Statement to develop an orderly management of cash inflow and outflow. This is especially helpful to farm managers because of the extremely close connection between personal and business affairs (remember - net non-farm income and family living costs are included in the Cash Flow Statement).

The Projected Cash Flow Statement may indicate the need to:

- shift purchases (if possible) to periods having a cash surplus
- re-schedule debt repayment to periods having a cash surplus
- improve marketing to shift sales of farm production into periods of net cash balance deficits
- invest cash in short term interest bearing certificates in periods having a cash surplus

This is really a process of fine tuning the Projected Cash Flow Statement to smooth out cash flow and reduce operating loan requirements.

The Shady Bend Farm has a major cash deficit projected in the second quarter. The major reason for the deficit is a cash outflow of \$25,000 to purchase breeding stock (review page 5-3). The cash inflow section for the same period shows a corresponding new loan of \$10,000, which is significantly short of the breeding stock purchase price.

Let's see what would happen if this capital purchase and the corresponding loan was shifted to the first quarter (where the Shady Bend Farm had the largest surplus).

Consider the original Projected Cash Flow Statement first.

ORIGINAL CASH FLOW PROJECTION

	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
TOTAL CASH INFLOW	\$300,325	\$77,630	\$78,695	\$66,400	\$77,600
TOTAL CASH OUTFLOW	\$292,885	\$52,500	\$107,045	\$58,445	\$74,895
SUMMARY					
Surplus (Deficit)	\$7,440	\$25,130	(\$28,350)	\$7,955	\$2,705
+ Previous Ending Balance	(\$12,250)	(\$12,250)	\$12,880	(\$15,509)	(\$7,900)
= Net Cash Balance	(\$4,810)	\$12,880	(\$15,470)	(\$7,554)	(\$5,195)
- Interest on Operating Loan	\$581*	0	\$39	\$346	\$196
= ENDING CASH BALANCE	(\$5,391)	\$12,880**	(\$15,509)***	(\$7,900)	(\$5,391)

***Projection of total operating loan interest charges for the year.**

****Period with largest Ending Cash Balance**

*****Period in which capital purchase and corresponding loan occurred. Period with largest Ending Cash Balance.**

You might think that since the first quarter has the largest (and only positive) Ending Cash Balance, the Shady Bend Farm should shift the purchase of the capital item and the corresponding loan to the first quarter.

Let's see if this improves the situation.

“NEW” CASH FLOW PROJECTION

	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
TOTAL CASH INFLOW	\$300,325	\$87,630	\$68,695	\$66,400	\$77,600
TOTAL CASH OUTFLOW	\$292,885	\$77,500	\$82,045	\$58,445	\$74,895
SUMMARY					
Surplus (Deficit)	\$7,440	\$10,130	(\$13,350)	\$7,955	\$2,705
+ Previous Ending Balance	(\$12,250)	(\$12,250)	(\$2,336)	(\$15,956)	(\$8,360)
= Net Cash Balance	(\$4,810)	(\$2,120)	(\$15,686)	(\$8,001)	(\$5,655)
- Interest on Operating Loan	\$1,055*	\$216	\$270	\$359	\$210
= ENDING CASH BALANCE	(\$5,865)	(\$2,336)**	(\$15,956)***	(\$8,360)	(\$5,865)

***Projection of total operating loan interest charges for the year.**

****Period with largest Ending Cash Balance. Period in which capital purchase and corresponding loan occurred.**

*****Period with largest deficit Ending Cash Balance.**

Not so good! The Shady Bend Farm will still require an operating loan of approximately \$16,000 for the year and the need will reach its maximum in the second quarter. The main disadvantage is the increase in projected operating loan interest charges. In this new scenario, they increase by \$474 (\$1,055 - \$581).

It may be wiser to shift the breeding stock purchase to the third or fourth quarter (if possible) or increase the size of the accompanying loan. You need to know more about the Shady Bend Farm before you can really smooth out its cash flow situation. There are several factors to consider which will have major impact on cash inflow and cash outflow.

Cash Flow “Budgeting”

Projected Cash Flow Statements are also beneficial when anticipating a major change to farm and family plans (purchase of a new piece of equipment, add an additional enterprise, undertake a house renovation, take a major holiday, etc.). The effects of these changes on cash flow can be incorporated into the existing Projected Cash Flow Statement to allow the farm manager to study the net effect “on paper” before dollars are committed. Here again the question process serves as an analyzer:

- Will the change in the operation produce sufficient cash inflow to offset its associated cash outflow?
- What effect will the proposed change have on the present cash flow situation? Will additional operating funds be required?
- Does the operation have sufficient cash available to undertake this change or is a term loan required?
- If a loan is required for the change, what repayment terms would allow for suitable cash flow in the operation?



Actual Cash Flow Statement Analysis

An Actual Cash Flow Statement shows where cash actually came from and how it was used in the operation. It can be compared with a Projected Cash Flow Statement for the same year to assess the overall operation on a cash flow basis. This can be done on a quarterly basis as the year progresses if quarters in the statement are divided into two parts - projected and actual.

Cash Flow Statement

Name: _____ Period Covered: _____

CASH INFLOW	Total		1 st Quarter		2 nd Quarter		3 rd Quarter		4 th Quarter	
	Proj.	Actual	Proj.	Actual	Proj.	Actual	Proj.	Actual	Proj.	Actual
Crop Sales										
Livestock Sales										
Other Farm Income										
Government Payments and Rebates										
New Borrowings										
Capital Sales										
Net Non-farm Income										
TOTAL CASH INFLOW										
CASH OUTFLOW										
Seeds and Cleaning										
Fertilizer and Chemicals										
Hail and Crop Insurance										
Machinery and Equipment Repairs										
Fuel, Oil and Grease										
Feeder Livestock Purchases										
Livestock Feed and Supplement										
Livestock Supplies, Veterinary Fees and Drugs										
Breeding Stock Purchases										
Land Rent										
Property Taxes										
Insurance and Licenses										
Building and Fence Repairs										
Utilities										
Hired Labour										
Accounting and Legal Fees										

Family Living Allowance										
Income Tax (farm portion)										
Purchase of Capital Assets										
Debt Repayment (principal and interest)										
TOTAL CASH OUTFLOW										
SUMMARY										
Surplus (Deficit)										
+ Previous Ending Balance (Opening Balance)										
= Net Cash Balance										
- Interest on Operating Loan										
= ENDING CASH BALANCE										

Cash Inflow Considerations

If cash flows in the two statements differ significantly, the manager needs to examine the reasons for the difference and the impact on his operation.

If cash inflow was less than projected, what was the reason:

- Was it due to poor production, poor prices, or poor marketing opportunities?
- What changes can be made in your production or marketing practices to improve cash inflow?
- Was there a decrease in net non-farm income?
- Are these factors an abnormal or a repeating occurrence on your farm?

Cash Outflow Considerations

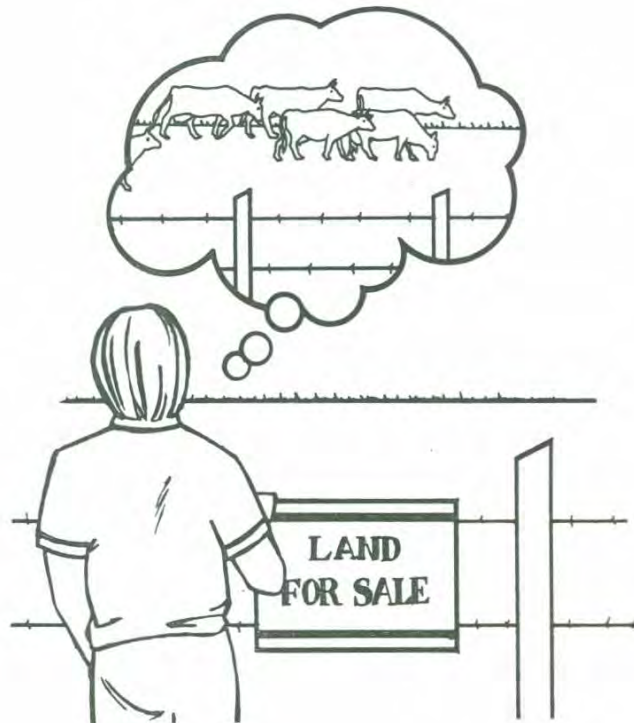
If cash outflow was more than projected:

- Was it due to an increase in production costs, family living costs, purchase of a capital asset, or an increase in debt repayment?
- What changes can be made to production practices or family living expenses to reduce costs?
- Can capital asset purchases be financed over a longer period of time?
- Is there a need to re-structure current debt (operating loans or accounts payable) over a longer period of time via a loan consolidation?
- Are these factors an abnormal or a repeating occurrence?

Maximizing Cash Flow Potential

If cash flow is more favourable than anticipated:

- What caused this favourable event and is it likely to occur again?
- What is the best use of these surplus funds?



Cash Flow Statements and Profitability

Cash Flow Statements (either projected or actual) do not provide a measure of profitability. They only record all cash inflow and all cash outflow which includes non-business income and expense items. The sale of capital assets, net non-farm income, principal debt payments, and family living costs are all included. Remember - family living costs have a major impact on cash flow and could well contribute to cash shortages.



Cash Flow Statements do not account for changes in product and supply inventory or depreciation. Farm businesses can have successive and increasing periods of cash flow deficits and still be very profitable if there is a corresponding increase in product inventory. This is because the conversion of production to cash lags behind cash expenses. A negative cash flow could also be due to cash purchases of capital assets or debt repayment schedules that were not properly related to the farm's repayment ability.

Conversely, the farm could show a large cash flow surplus and be losing money if inventories were being reduced and/or depreciation was large.

Exercise 16

Go to the Farm Business Planner and analyze your Projected Cash Flow Statement. Review the material presented in this module and determine if changes can be made to your projections to reduce (or eliminate) periods of cash deficits. Be very thorough in your analysis - go through the "question process". There is potential to save a significant amount of operating loan interest charges or to have surplus funds available for investment in short term interest bearing certificates.

As the new year progresses, at the end of each time period you have chosen (monthly or quarterly), complete the "Actual" column prepared earlier. Compare these actual figures to those that were projected. Determine the reasons for significant differences. If your plans are off target, it is important to take corrective action immediately.

Summary

You have identified information contained in Cash Flow Statements that can be analyzed and applied in farm operations to make management decisions. As is the case with all financial statements, the value of the information obtained in analysis is directly proportional to the accuracy of the information recorded in the statement.

Maintaining accuracy in Projected Cash Flow Statement preparation is best accomplished by reviewing past Actual Cash Flow Statements and going through the “question process” when making projections for a new year.

Analyzing and comparing Actual Cash Flow Statements from a number of years will allow a broader base on which to make your decisions. Determine if the statements establish trends in your operation. If the trends are positive, determine if you can make further improvements. If they are negative - find out why.

Remember, you are analyzing and applying information from your Projected Cash Flow Statement. Be thorough when preparing it. Indicate all sources and all uses of cash. Ensure that the amounts recorded are accurate and are placed in the proper time period. Understand the theory behind the analysis before applying the information to your operation.

Don't forget the objective - to produce meaningful information that can be used by you, the farm business manager, to make sound management decisions.

Don't make decisions based only on information derived from the Cash Flow Statements. Information created in the analysis of all financial statements dealt with in this course is highly interactive and should only be applied when the impact of information derived from each is fully considered. Using all available information from all sources is the soundest management practice.

