MF275

Cash Flow Projection for Operating Loan Determination

Department of Agricultural Economics — *www.agmanager.info*

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A cash flow statement can be described as a recording of the dollars coming in and the dollars going out of a business. It shows where the money comes from (the inflow of cash), and where the money goes (the outflow of cash).

Actual and Projected Cash Flow

A record of cash inflow and outflow that has already occurred in a business is an actual or historical cash flow. An estimate or forecast of cash inflow and outflow into some future period is a cash flow projection. The actual cash flow of a business provides important information for making a cash flow projection into the future. The cash flow projection provides information on the cash-generating ability and the cash requirements of a business, and it indicates the timing of both.

Total Business and Partial Business Cash Flow

A cash flow can be set up for either the entire farm business (including family living expenses and nonfarm income), or it can be set up to study only a segment of the business. For example, it may summarize all the cash expenses and income from a specific enterprise. A cash flow projection often includes only the cash inflow and outflow effect of a proposed business expansion.

Long-Run Profitability vs. Short-Run Feasibility

Two management questions that need to be studied regarding proposed business changes are:

1. Will the changes be profitable in the long run?
2. Will the changes be feasible in the short run?

Long-run profitability refers to a period of 5 to 10 years or more. Long-run profitability is usually studied through the use of projected income statements. With an income statement, capital expenditures are prorated over the life of the assets using depreciation methods.

Short-run feasibility refers to the income-generating ability of a business in a short period of time, usually 1 to 5 years. Short-run feasibility is usually studied through the use of a projected cash flow. Capital expenditures are counted in the period they are actually paid. Projected cash inflow and outflow during the period are compared, reflecting payment requirements from credit agencies as well as normal expenditures and receipts.

The *Cash Flow Projection* form inside this publication has been developed to project the operating loan balance of a farm business for each monthly period. Total farm and family cash flow projection is illustrated on the form. A Microsoft Excel version of this form titled *Integrated Financial Statements* is available at *www.AgManager.info/tools.*

Preparing a Cash Flow Projection

Information for preparing a cash flow projection comes from many sources including:

1. Records of actual cash flow or other farm records from past years.
2. Tax returns.
3. Publications listing investment requirements for crops and livestock enterprises (to determine projected periodic cash payments).
4. Publications listing feed requirements for livestock enterprises.
5. Price and yield estimates.

A cash flow projection may be on a monthly, bimonthly, quarterly, semiannual or annual basis. The cash flow projection form on the next pages is designed to be used on a monthly basis; however, it can be used for periods other than one month in length. For example, it may be used on a quarterly basis by using the first four monthly columns as quarters changing the column headings to read: 1st, 2nd, 3rd and 4th quarters.

The "Annual Estimate" column should be filled in first. Then, the annual estimate may be allocated to the various months or periods. Directions for arriving at the "Total Cash Inflow," "Total Cash Outflow," "Net Cash Flow," and "Projected Operating Loan Balance" are given on the form.

Interpretation of a Cash Flow Projection

To illustrate the use of the *Cash Flow Projection* form, a sample set of figures has been recorded on the provided form.

In the example, line 15 shows the total cash inflow (not including loan receipts) and line 40 shows the total cash outflow (not including operating loan payments). Net cash flow is the difference between cash inflow and cash outflow, and is shown on line 41 for the annual estimate and for each monthly period.

The net cash flow may be positive or negative. If the cash inflow for the period is greater than the cash outflow for the period, the net cash flow is positive. If the opposite is true, the net cash flow is negative. For example, the January projected total cash inflow of $72,341 is greater than the total cash outflow of $24,950 so the net cash flow for January is $47,391.

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CASH FLOW PROJECTION FOR OPERATION LOAN DETERMINATION for Joe and Jean Farmer 2018														
CASH INFLOW ITEMS		Annual Estimate	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Livestock:														
Beef	1	$188,500	$38,500.00									$132,000.00	$18,000.00	
Other	2	$0												
Other	3	$0												
Crops:														
Wheat	4	$36,000							$36,000.00					
Corn	5	$95,256	$31,500.00									$63,756.00		
Sorghum	6	$73,718										$73,718.00		
Soybeans	7	$222,246										$111,123.20		$111,123.20
Hay and Forage	8													
Other	9	$0												
Agricultural Program Payments	10	$46,336										$46,336.00		
Crop Insurance Proceeds	11	$0												
Miscellaneous Income	12	$990												$990.00
Capital Asset Sales	13	$5,500												$5,500.00
Off-Farm Income	14	$28,089	$2,340.75	$2,340.75	$2,340.75	$2,340.75	$2,340.75	$2,340.75	$2,340.75	$2,340.75	$2,340.75	$2,340.75	$2,340.75	$2,340.75
TOTAL CASH INFLOW (Add Lines 1 through 15)	15	$696,635	$72,341	$2,341	$2,341	$2,341	$2,341	$2,341	$38,341	$2,341	$2,341	$429,274	$20,341	$119,954
CASH OUTFLOW ITEMS														
Feed	16	$22,200	$3,200.00	$3,200.00	$3,200.00	$3,200.00	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$3,200.00	$3,200.00
Hired Labor	17	$42,000	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00	$3,500.00
Repairs	18	$58,000	$11,600.00	$1,450.00	$11,600.00	$1,450.00	$1,450.00	$1,450.00	$1,450.00	$1,450.00	$1,450.00	$11,600.00	$11,600.00	$1,450.00
Seed	19	$68,000			$15,000.00						$13,000.00			$40,000.00
Fertilizer	20	$91,000		$6,000.00		$40,000.00		$15,000.00			$10,000.00			$20,000.00
Herbicide and Insecticide	21	$70,000		$2,000.00	$15,000.00	$25,000.00		$20,000.00						$8,000.00
Veterinarian Expense	22	$6,700	$100.00	$100.00	$2,500.00	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	$3,200.00	$100.00	$100.00
Storage & Marketing	23	$2,450	$300.00						$400.00			$350.00	$700.00	$700.00
Machinery Hire and Lease	24	$14,500		$2,000.00	$3,000.00	$4,000.00		$3,000.00			$2,500.00			
Fuel and Oil	25	$24,000			$12,000.00						$12,000.00			
Utilities	26	$3,600	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00	$300.00
Property Tax	27	$1,420										$1,420.00		
Real Estate Tax	28	$5,000					$2,500.00							$2,500.00
General Farm Insurance	29	$5,500							$5,500.00					
Crop Insurance Premiums	30	$14,184						$1,400.00			$12,784.00			
Cash Rent	31	$46,240			$23,120.00		.							$23,120.00
Miscellaneous Expense	32	$11,400	$950.00	$950.00	$950.00	$950.00	$950.00	$950.00	$950.00	$950.00	$950.00	$950.00	$950.00	$950.00
Interest	33	$44,500			$4,200.00	$4,500.00							$1,800.00	$34,000.00
Livestock Purchases	34	$5,000			$5,000.00									
Capital Asset Purchases	35	$12,500												$12,500.00
Other	36	$0												
Other	37	$0												
Family Living Withdrawals	38	$60,000	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00	$5,000.00
Estimated Taxes	39	$12,900		$12,900.00										
TOTAL CASH OUTFLOWS (Add lines 16 through 39)	40	$621,094	$24,950	$37,400	$104,370	$88,000	$14,300	$51,200	$17,700	$11,800	$62,084	$26,820	$27,150	$155,320
NET CASH FLOW (Line 15-Line 40)	41	$75,541	$47,391	-$35,059	-$102,029	-$85,659	-$11,959	-$48,859	$20,641	-$9,459	-$59,743	$402,454	-$6,809	-$35,366
PROJECTED OPERATING LOAN BALANCE (Start with current Operating Loan Balance) (Add Net Cash Flow to previous month's balance)	42	$150,000.00	$102,609	$137,669	$239,698	$325,357	$337,316	$386,176	$365,535	$374,994	$434,737	$32,283	$39,093	$74,459

The projected operating loan balance for each month is calculated on line 42. The operating loan carried over from the last period should be written in the appropriate space after the caption on line 42. In the example on the inside fold, the operating loan carried over from the previous December is $150,000. For each monthly period, the projected operating loan balance is determined by combining the previous balance with line 41 net cash flow for that period. A negative cash flow figure for a month increases the operating loan balance so it is added to the previous projected operating loan balance to determine the projected operating loan balance for that period.

A positive net cash flow for a month has the effect of reducing the previous month's projected operating loan balance. If the net cash flow for a month is greater than the projected operating loan balance for the previous month, the difference can be labeled surplus.

The projected operating loan balances (line 42) for each month can be used as a guide in projecting the approximate amount of loan funds needed and timing of the loan fund needs.

What Will a Cash Flow Projection Do?

As farm businesses grow and as larger quantities of cash are needed, a cash flow projection becomes a more essential tool in the financial management of farm businesses. A cash flow projection provides the farm operator with a basis for studying the financing of the business. It indicates how much needs to be borrowed and when it is needed.

A cash flow projection provides for "control" of the business. By comparing the projected cash flow to the actual cash flow that occurs, the variance of each item can be noted. If receipts are less than expected or expenses more than expected, the cash flow will alert the manager to a possible problem.

A cash flow projection provides the basis for planning additional investments in the farm business. To be sound, an investment must be profitable in the long run. It must also be able to generate enough cash to make the payments on principal and interest.

For further information on other farm financial management topics, see the following publications:

- *Financial Ratios Used in Financial Management,* MF270
- *Balance Sheet–A Financial Management Tool,* MF291
- *Income Statement – A Financial Management Tool,* MF294
- *Computation of Deferred Tax Liability*

Revision of MF275 by Dr. Michael Langemeier

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

MF275 December 2017

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