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, such as a specific crop or livestock enterprise. A cash flow projection also can be used to evaluate 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, including principal and interest payments 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. Two Microsoft Excel versions of this form and a blank form to hand-fill out are available at: *www.AgManager.info/tools.* They are titled *KSU-Integrated Financial Statements* (includes Balance Sheet and Income Statement) and *Monthly Cash flow for Operating Loan Determination*.

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. 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 16 shows the total cash inflow and line 41 shows the total cash outflow. Net cash flow is the difference between cash inflow and cash outflow, and is shown on line 42 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.

The projected cash balance and operating loan balance for each month is calculated on lines 43 and 44, respectively. The operating loan and/or cash carried over from the last period (starting balance for this period) should be written in the appropriate space after the captions on lines 43 and 44. In

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CASH FLOW PROJECTION FOR OPERATING LOAN DETERMINATION for Joe and Jean Farmer 2019

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:		$0												
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
Term Loan Proceeds	14	$80,000							$80,000.00					
Off-Farm Income	15	$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)	16	$776,635	$72,341	$2,341	$2,341	$2,341	$2,341	$2,341	$118,341	$2,341	$2,341	$429,274	$20,341	$119,954
CASH OUTFLOW ITEMS														
Feed	17	$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	18	$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	19	$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	20	$68,000			$15,000.00						$13,000.00			$40,000.00
Fertilizer	21	$91,000		$6,000.00		$40,000.00		$15,000.00			$10,000.00			$20,000.00
Herbicide and Insecticide	22	$70,000		$2,000.00	$15,000.00	$25,000.00		$20,000.00						$8,000.00
Veterinarian Expense	23	$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	24	$2,450	$300.00						$400.00			$350.00	$700.00	$700.00
Machinery Hire and Lease	25	$14,500		$2,000.00	$3,000.00	$4,000.00		$3,000.00			$2,500.00			
Fuel and Oil	26	$24,000			$12,000.00						$12,000.00			
Utilities	27	$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	28	$1,420										$1,420.00		
Real Estate Tax	29	$5,000					$2,500.00							$2,500.00
General Farm Insurance	30	$5,500							$5,500.00					
Crop Insurance Premiums	31	$14,184						$1,400.00			$12,784.00			
Cash Rent	32	$46,240			$23,120.00		.							$23,120.00
Miscellaneous Expense	33	$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	34	$44,500			$4,200.00	$4,500.00							$1,800.00	$34,000.00
Term Loan Payments	35	$64,000						$16,000.00					$48,000.00	
Livestock Purchases	36	$5,000			$5,000.00									
Capital Asset Purchases	37	$112,500							$100,000.00					$12,500.00
Other	38	$0												
Family Living Withdrawals	39	$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	40	$12,900		$12,900.00										
TOTAL CASH OUTFLOWS (Add lines 17 through 40)	41	$785,094	$24,950	$37,400	$104,370	$88,000	$14,300	$67,200	$117,700	$11,800	$62,084	$26,820	$75,150	$155,320
NET CASH FLOW (Line 16-Line 41)	42	-$8,459	$47,391	-$35,059	-$102,029	-$85,659	-$11,959	-$64,859	$641	-$9,459	-$59,743	$402,454	-$54,809	-$35,366
CASH BALANCE	43	Starting: $12,532	$59,923	$24,864	$0	$0	$0	$0	$0	$0	$0	$94,249	$39,439	$4,073
OPERATING LOAN BALANCE	44	Starting: $0	$0	$0	$77,166	$162,825	$174,784	$239,644	$239,003	$248,462	$308,205	$0	$0	$0

the example on the inside fold, the operating loan from the previous December is paid off and a $12,532 cash balance exists. For each monthly period, the projected operating loan balance is determined by adding to or subtracting from the previous month's cash balance and operating loan balance. For example, net cash flow for February was –$35,059. Since the cash balance of $59,923 in January is larger than this, the negative cash flow can be a reduction in cash funds and operating funds are not yet needed. In March, a net cash flow of –$102,029 depletes the cash balance and $77,166 of operating loan funds are needed.

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 is displayed as a Cash Balance and the Operating Loan is zero (see October for an example of this).

The projected operating loan balances (line 44) 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. Keep in mind that you will need to keep some cash in checking, so your operating loan balance will be understated by that amount.

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. A cash flow projection can help determine if the farm business generates enough cash to make principal and interest payments if the investment was financed.

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

Publications from Kansas State University are available at: *www.bookstore.ksre.ksu.edu*

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