Risk Management

# Cash Flow Projection for Operating Loan Determination Danny Klinefe

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A cash flow statement can be simply described as a record 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 reveals 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 the entire farm business (including family living expenses and nonfarm income) or it can be set up to study only the business or a segment of the business. For example, it may summarize all the cash expenses and income from a specific enterprise. A cash flow projection will be used to consider the cash inflow and outflow effect of a proposed investment or change in the business.

# Long-Run Profitability vs. Short-Run Feasibility

Two management questions that need to be studied in regard to proposed business changes are long-run profitability and short-run feasibility. Long-run profitability refers to a period of 5 years or more and is usually studied through the use of projected income statements.

Short-run feasibility refers to the income-generating ability of a business in a short period of time, usually 1 year to 3 or 5 years. It is usually studied through the use of a projected cash flow. The Cash Flow Projection form in this leaflet can be used to study the short-run feasibility of a business change. It has been designed specifically to project the operating loan balance of a farm business for each monthly period.

#### Preparing a Cash Flow Projection

Information for preparing a cash flow projection may come from historical farm records, tax returns, and other applicable information you may have.

A cash flow projection is made periodically—monthly, bimonthly, quarterly, semiannually or annually. This cash flow projection form is designed to be used on a monthly basis.

The "Annual Estimate" column is frequently filled in first. Then the annual estimate is 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.



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#### **CASH FLOW PROJECTION FOR**

Address Name Annual **Estimate** Feb. lan. Mar. **CASH INFLOW ITEMS** Livestock: Background Cattle 144,200 99,200 800 47,000 Market Hogs-Sows 191,200 Wheat 52,500 26,500 Crops: 2,700 4 Grain Sorghum 5 6 Distributions from cooperatives 400 400 3,100 1,550 Agricultural program payments Commodity credit loans Crop insurance proceeds 10 Custom hire 5,500 11 Other farm income, gas refunds, etc. 7,500 TOTAL FARM CASH INFLOW (Add lines 1 - 11) 12 401,600 6,300 48,950 125,700 4,200 800 900 Non-farm business income and wages 900 14 Non-farm dividends and interest 200 15 Gifts, inheritance and other non-farm income 16 TOTAL CASH INFLOW (Except Loans) (Add lines 12 - 15) 406,000 7,100 49,850 126,600 **CASH OUTFLOW ITEMS** Breeding fees, livestock marketing, and other livestock expense 500 4,600 700 500 18 Chemicals—herbicides, insecticides, etc 4,000 500 19 Conservation expense 500 20 2,400 Custom hire, trucking, freight, lease 21 130,000 5,000 20,000 Feed purchased 22 Fertilizer, lime 7,000 23 10,000 Gasoline, fuel, oil 24 General farm insurance 2,200 25 <sup>1</sup>Interest 13,100 5,600 2,500 26 Labor hired 18,200 1,500 1,500 1,500 27 Cash farm rent 7,800 5,200 28 Repairs, maintenance, other machinery expense 9,400 29 Seeds, plants purchased, other crop expense 3,100 3,100 30 Storage, warehousing 31 Supplies purchased, general 32 Real and personal taxes 2,500 33 Utilities 4,800 400 400 300 34 3,900 400 Veterinary fees, medicine 35 600 200 100 Auto expenses 900 100 300 36 Other farm expenses—Farm organization fees, publications, etc 37 TOTAL FARM CASH OPERATING EXPENSES (Add lines 17 - 36) 225,000 7,700 34,300 8,300 38 Livestock purchases 125,400 39 <sup>1</sup>Machinery, equipment (cash payments, principal) 6,200 40 <sup>1</sup>Buildings (cash payments, principal) 2,900 41 <sup>1</sup>Land purchases (cash payments, principal) 5,200 42 TOTAL FARM CASH OUTFLOW (Add lines 37 - 41) 364,700 7,700 34,300 8,300 43 Family living expenses 2,500 2,500 2,500 30,000 44 State income tax 1,100 1,100 45 Federal income tax and social security 5,000 5,000 46 Non-farm business expenses 300 47 Other non-farm and family cash outflow 400 100 TOTAL CASH OUTFLOW (Lines 42 - 47) 401,500 10,200 43,000 10,800 (Except Operating Loan Payments) 48 <sup>2</sup>NET CASH FLOW (+ or -) (Line 16 minus line 48) (Except Loan Receipts and Operating Loan Payments) 4,500 -3,100 6,850 115,800 <sup>3</sup>PROJECTED OPERATING LOAN BALANCE 19,550 103,100 (Operating Loan Carried Over From Last Period \$100,000) XXXX 96,250 (Surplus)

<sup>&</sup>lt;sup>1, 2, 3</sup> See last page.

#### **OPERATING LOAN DETERMINATION**

Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Actual Cash Flow	
	'	ESTIMATED 1	OTAL CASH IN	IFLOW						
45,000										1
.5,000	900	47,000	700		45,000	800		49,000		2
		,			10,000		26,000	10,000		3
		2,700					,			4
		,								5
										6
					1,550					7
					·					8
										9
										10
				400				1,600		11
45,000	900	49,700	700	400	46,550	800	26,000	50,600		12
800	800									13
								200		14
										15
45,800	1,700	49,700	700	400	46,550	800	26,000	50,800		16
	EST	IMATED TOTA	L CASH OUTFI	.OW						
		200		200		1,000	1,100	400		17
2,700				800						18
					500					19
			2,400							20
25,000	10,000	5,000		15,000	5,000		7,500	37,500		21
3,100				2,000				1,900		22
5,000				3,000				2,000		23
	2,200									24
4,000				1,000						25
1,500	1,500	1,500	1,700	1,500	1,500	1,500	1,500	1,500		26
	3,900						3,900			27
200	400	800	600		1,200	600	400			28
										29
										30
		1 200						1 200		31
500		1,300	100	200	200	200	400	1,200		32
500	500	600	400	200	300	300	400	500		33
		400	100		100	1,500	1,600	100		34
			100		100			100		35 36
42,000	18,500	9,800	100 5,300	22.700	200	4,900	16 400	200		37
42,000	18,300	9,800	5,300	23,700	8,800		16,400	45,300		
4,200				2,000		125,400				38
2,900				۷,000						40
4,300				5,200						41
49,100	18,500	9,800	5,300	30,900	8,800	130,300	16,400	45,300		42
2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500		43
2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300	2,300		44
										45
100				100			100			46
100		100		100	100		100			47
		100			100		100			+ 4/
1,700	21,000	12,400	7,800	33,500	11,400	132,800	19,100	47,800		48
 -5,900	-19,300	37,300	-7,100	-33,100	35,150	-132,000	6,900	3,000		49
 13,650		31,650	24,550		26,600					T
(Surplus)	-5,650	(Surplus)	(Surplus)	8,550	(Surplus)	105,400	98,500	95,500		50

## 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 form.

In the example, line 16 shows the total cash inflow (not including loan receipts) and line 48 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 49 for the annual estimate and for each monthly period.

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 \$7,100 (line 16) is less than the total cash outflow of \$10,200 (line 48) so the net cash flow for January is -\$3,100 (line 49). In March, the total cash inflow of \$126,600 (line 16) is greater than the total cash outflow of \$10,800 (line 48), leaving a net cash flow of \$115,800 (line 49).

The projected operating loan balance for each month is calculated on line 50. The operating loan carried over from the last period should be written in the appropriate space after the caption on line 50. In the example, the operating loan carried over from the previous December is \$100,000. For each monthly period, the projected operating loan balance is determined by combining the previous balance with line 49 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. For example, the January net cash flow of -\$3,100 is combined with the \$100,000 operating loan carried over from the previous December to arrive at a January projected operating loan balance of \$103,100.

A positive net cash flow for a month reduces the previous month's projected operating loan balance. For example, the March net cash flow of \$115,800 (line 49) is subtracted from the February projected operating loan balance of \$96,250 (line 50), leaving a March projected surplus of \$19,950 (line 50). 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 50) for each month can be used as a guide in projecting the approximate amount of loan funds needed and the 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 gives the farm operator 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 helps in 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.

A cash flow projection is also a great tool for considering "what if" scenarios and conducting sensitivity analysis. At a minimum, producers should consider best case scenarios in addition to the expected or most likely situation. It is one of the most important financial tools in managing risk.

#### **Table End Notes**

<sup>1</sup> Principal payments on all loans not a part of this operating budget go on lines 39-41 All interest goes on line 25.

- <sup>2</sup> Add negative "Net Cash Flow" figures of each period to "Projected Operating Loan Balance" of previous period to arrive at "Projected Operating Loan Balance" for each period. Similarly, subtract positive "Net Cash Flow" figures from "Projected Operating Loan Balance" of previous period.
- <sup>3</sup> The purpose of line 50 is to provide information for estimating the amount of operating borrowings needed in each period. The cash inflow and outflow items above do not include receipt or payment of operating loans. NOTE: To calculate the net cash flow for the farm business alone, subtract line 42 from line 12.

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