

Cash Flows

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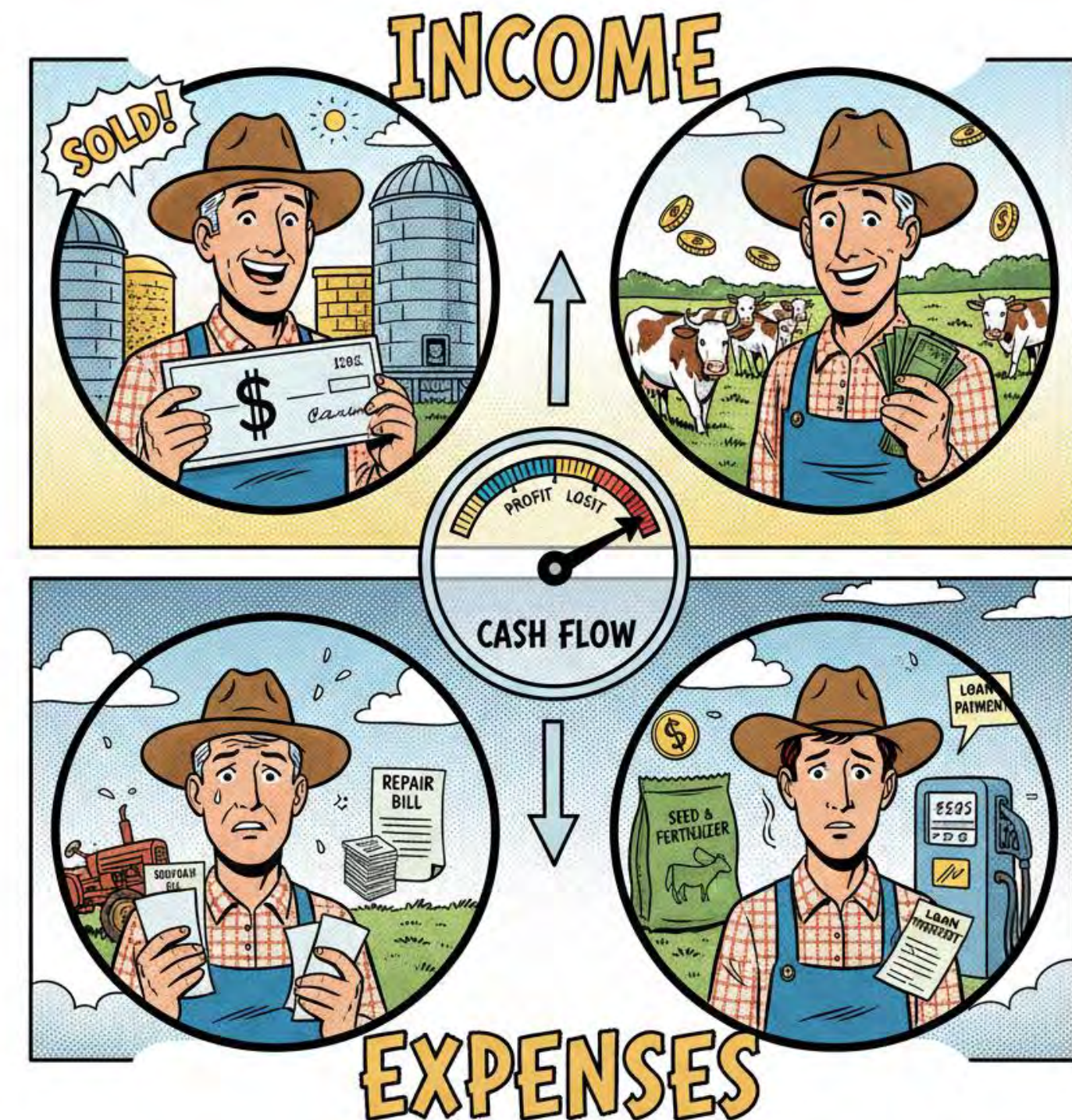
Objectives

- Intro to farm financial analysis
- What is Cashflow?
- Why is it important?
- How is it constructed?
- How can Cashflows be used to make decisions?



Cashflow

- The net amount of cash and cash equivalents being transferred in and out of a company. Cash received represents inflows, while money spent represents outflows.



Types of Cashflow

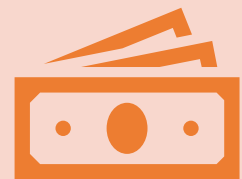
- **Operating cash flow:** This refers to the net cash generated from a company's normal business operations. In actively growing and expanding companies, positive cash flow is required to maintain business growth.
- **Investing cash flow:** This refers to the net cash generated from a company's investment-related activities, such as investments in securities, the purchase of physical assets like equipment or property, or the sale of assets. In healthy companies that are actively investing in their businesses, this number will often be in the negative.
- **Financing cash flow:** This refers specifically to how cash moves between a company and its investors, owners, or creditors. It's the net cash generated to finance the company and may include debt, equity, and dividend payments.



Importance of Cashflows



Cashflow vs Profit



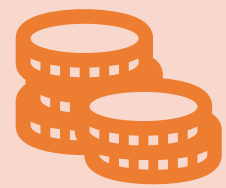
Cash flow refers to the net balance of cash moving into and out of a business at a specific point in time



Profit is the balance that remains when all of a business's operating expenses are subtracted from its revenues. It's what's left when the books are balanced, and expenses are subtracted from proceeds.



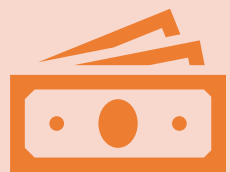
What's not included?



Depreciation



Inventory changes



Changes in accounts receivable/payable



What's included?

+Cash inflow from operations

+Capital assets sales

+Non-farm sources of income which should be included if used to pay farm bills

-Cash outflow from operations

-Capital asset purchases

-Non-farm outflows of cash including family living

-Debt service

+New Borrowing

=Net Cash flow



What are some ways knowing our cashflow could be helpful?

- Forces the planning function of management
- Provides a means of communicating the amount and timing of financial needs to yourself, owners, managers, investors, lenders, etc.
- During times of low profitability cashflow can be a survival strategy



Cashflow setup

Monthly

Quarterly

Twice year

Annual



Quarterly Example

Sample 1. Cash flow budget (by quarter of the year)

Cash inflow	<u>1st Quarter</u>	<u>2nd Quarter</u>	<u>3rd Quarter</u>	<u>4th Quarter</u>
Beginning cash balance	\$5,000			
Sale of crop products		\$50,000		
Sale of livestock products	25,000			
Government payments				\$10,000
Total inflow	\$30,000	\$50,000		\$10,000
Cash expenditures				
Seed	\$10,000			
Fertilizer		\$20,000		
Feed	10,000			
Processing			\$10,000	
Marketing				\$5,000
Capital purchases		10,000		
Interest			5,000	
Debt payments			10,000	
Total expenditures	\$20,000	\$30,000	\$25,000	\$5,000
Quarterly net cash flow	\$10,000	\$20,000	-\$25,000	\$5,000
Cumulative net cash flow	\$10,000	\$30,000	\$5,000	\$10,000



Examples

Statement of Cash Flows			2023
	Cash In	Cash Out	
Operating - Cash Provided by Operating Activities			
Gross cash farm income	\$ 50,000.00		
Cash farm expenses		\$ 40,000.00	
Investing - Cash Provided by Investing Activities			
Sales of capital assets	\$ 500.00		
Purchase of machinery, equipment, and farm buildings		\$ 10,000.00	
Financing - Cash Provided by Financing Activities			
Money borrowed	\$ 100,000.00		
Principal Payments		\$ 12,000.00	
Non-Farm Activities			
Non-farm cash invested in the farm business	\$ 100,000.00		
Cash withdrawn for family living, taxes, savings, etc.		\$ 75,000.00	
Cash-on-Hand (from beginning and ending balance sheets)			
Beginning of year cash	\$ 5,000.00		
End of year cash		\$ 10,000.00	
Total Cash-In and Cash-Out	\$255,500	\$147,000	
MICHIGAN STATE UNIVERSITY Extension			Farm Name

Note: The totals for the cash in and cash out should be approximately equal. If they are not, the discrepancy indicates unaccounted dollars exist in farm records.

If cash in and cash out are equal, this indicates farm records are reconciled and accurate for assessing historical performance (i.e., a financial analysis) and forward budget projecting (i.e., cash flow projections).

Accurate, reconciled records are essential in creating an enterprise analysis, which identifies a farm's cost of production(s).

Statement of Cash Flows			2023
Beginning cash balance	\$	5,000.00	
Gross cash farm income	\$	50,000.00	
Cash farm expenses	- \$	40,000.00	
Cash provided by operating activities	= \$	10,000.00	
Sale of capital assets	\$	500.00	
Purchase of machinery, equipment and farm buildings	- \$	10,000.00	
Cash provided by investing activities	= \$	(9,500.00)	
Money borrowed	\$	100,000.00	
Principal payments	- \$	12,000.00	
Personal income	+ \$	100,000.00	
Owner withdrawals and income taxes paid	- \$	75,000.00	
Cash provided by financing activities	= \$	113,000.00	
Net change in cash	\$	113,500.00	
Ending cash balance	\$	10,000.00	
Discrepancy	\$	108,500.00	
MICHIGAN STATE UNIVERSITY Extension			Farm Name

Monthly

[illegible]

Monthly

See [Information File, Understanding Cash Flow Analysis](#) to help in understanding cash flow budgeting.

Enter your input values in shaded cells.

Name: _____

Sand

Total Time Period:

12

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Ag Budget Calculator (ABC)

Monthly Cash Flow Feature



Production Year Cash Flow Summary:

Category	ac)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Entered
Beginning Cash	\$0	\$25,000	\$23,626	\$20,141	\$10,381	\$-52,270	\$-160,466	\$-177,028	\$-276,090	\$-257,075	\$-394,466	\$-414,096	\$84,660	\$25,000.00
<u>Revenue</u>	--	\$2,111	--	--	--	--	\$2,111	\$22,500	\$22,500	\$22,500	\$22,500	\$502,241	\$502,241	\$1,098,705.00
<u>Labor</u>	--	--	--	\$518	\$2,728	\$2,238	\$1,284	\$1,777	--	\$2,992	\$1,645	--	--	\$13,179.90
<u>Fuel</u>	--	--	--	\$497	\$23,103	\$2,250	\$1,216	\$1,683	--	\$3,415	\$2,000	--	--	\$34,162.82
<u>Materials</u>	--	--	--	\$5,260	\$33,335	\$100,224	\$12,689	\$114,618	--	--	--	--	--	\$266,125.78
<u>Overhead</u>	--	\$3,485	\$3,485	\$3,485	\$3,485	\$3,485	\$3,485	\$3,485	\$3,485	\$153,485	\$38,485	\$3,485	\$3,485	\$226,820.00
Total Expenses	--	\$3,485	\$3,485	\$9,761	\$62,651	\$108,196	\$18,673	\$121,562	\$3,485	\$159,891	\$42,130	\$3,485	\$3,485	\$540,288.50
Ending Cash Balance	--	\$23,626	\$20,141	\$10,381	\$-52,270	\$-160,466	\$-177,028	\$-276,090	\$-257,075	\$-394,466	\$-414,096	\$84,660	\$583,417	\$583,416.53



Measures from the Cash-Flow Statement

The *cash-flow statement* provides information on a business's **repayment capacity**. **Repayment capacity** shows the borrower's (i.e. your) ability to repay debts on time. It includes non-farm income and as such is **not** a measure of business performance alone.

Recommended Repayment Capacity

- Debt Coverage Ratio
Indicates whether your business generated enough income to cover current interest expense and all intermediate and long-term debt payments.
- Replacement Coverage Ratio
A ratio of less than 1.0 indicates that you did not generate enough income to cover debt payments and unfunded capital purchases.
- Term Debt & Finance Lease Coverage Ratio*
Indicates whether your business generated enough income to cover all intermediate and long-term debt payments. A ratio of less than 1.0 indicates the business had to liquidate inventories, run up open accounts, borrow additional funds, or sell assets to make scheduled payments.



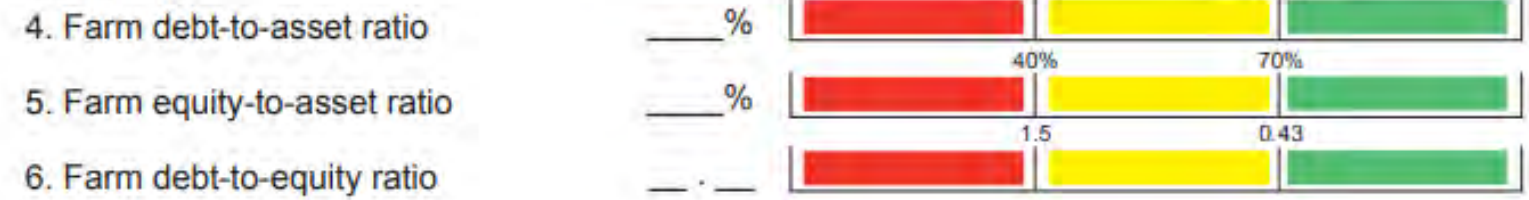
Farm Finance Scorecard

Year _____

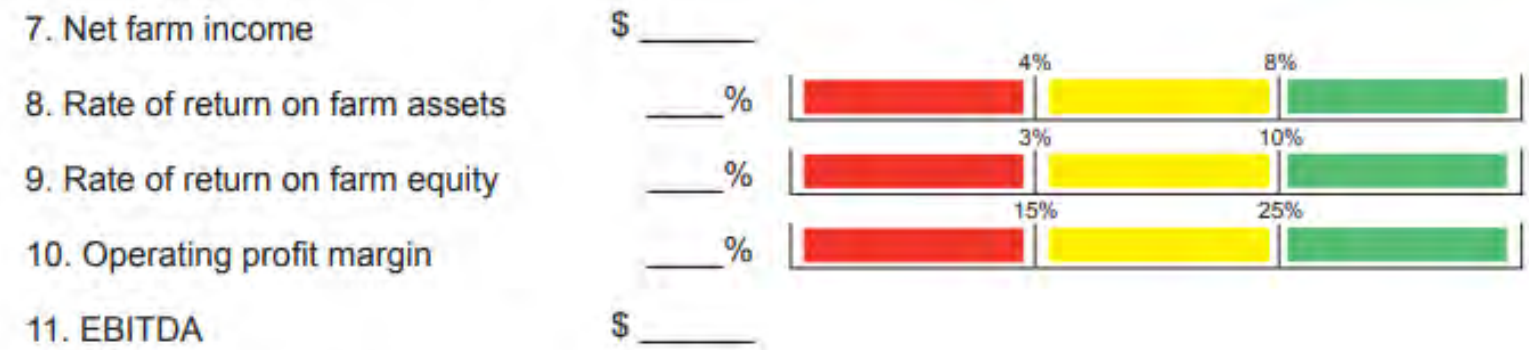
Liquidity



Solvency



Profitability



Repayment capacity



Financial efficiency



Repayment Capacity**

Debt Coverage Ratio

$$\frac{\text{Repayment \& Replacement Capacity}}{\text{Total Debt Repayment}}$$

Replacement Coverage Ratio

$$\frac{\text{Repayment \& Replacement Capacity}}{[\text{Total Debt Repayment} (+) \text{Unfunded Capital Expenditure}]}$$

Term Debt \& Finance Lease Coverage Ratio

$$\frac{\text{Term Debt Repayment \& Replacement Capacity}}{\text{Total Principle \& Interest on Term Debt and Finance Leases}}$$



Decisions decisions

- Monitor and control cash out flows and inflows
- Help to plan for budgeting and cash needs
- Can help identify where ways to more efficiently time payments



Questions?

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References

- <https://online.hbs.edu/blog/post/cash-flow-vs-profit>
- <https://www.investopedia.com/terms/c/cashflow.asp>
- <https://farms.extension.wisc.edu/articles/cash-flow-budgeting/#:~:text=The%20cash%20flow%20budget%20does,income%20statement%20does%20not%20include.>
- <https://www.tcbk.com/business/agriculture/cash-flow#:~:text=By%20using%20the%20cash%20flow,to%20cover%20cash%20deficit%20periods.%22>
- <https://cropwatch.unl.edu/2018/cash-flow-budgeting-farms-and-ranches>
- <https://extension.okstate.edu/programs/farm-management-and-finance/e-farm-management-training/farm-ranch-balance-sheet-and-cash-flow-statement/>
- <http://extension.msstate.edu/publications/farm-financial-analysis-series-cash-flow-statement#:~:text=The%20cash%20flow%20can%20be,be%20made%20during%20the%20year.>

