

# Agricultural Finance Lecture 4

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## Managerial vs Financial accounting

- ▶ Cost or managerial accounting aims to support decision-making
- ▶ Financial accounting aims to support reporting and accountability to investors and the public

# Users of accounting information

- ▶ creditors and investors
- ▶ managers of the firm
- ▶ Taxation authorities (Federal government (IRS))
- ▶ Regulatory authorities, e.g. Securities and exchange commission (SEC)

# Key question

What information is transmitted in accounting statements and for whom is this information intended?

# 6 principles

- ▶ Historical cost principle (use actual price paid)
- ▶ Revenue realization principle (earnings completed or exchange made)
- ▶ Matching principle (match expenditures with revenues)
- ▶ Consistency principle (same methods should be used at different time points)
- ▶ Full disclosure (effects of procedural or valuation choices should be reported)
- ▶ Objectivity or verifiability principle

- ▶ Farm accounts dominated by real estate
- ▶ Market based valuation rather than historical valuation
- ▶ cash based accounting

## Purpose of farm accounting

1) to generate tax information, 2) to provide financial data for owners and creditors

# Risk and uncertainty in farming and historical vs market based valuation

- ▶ Historical valuation (purchase price then depreciate) less accurate in a highly uncertain environment
- ▶ Managerial function less important budgeting is more important in farm management

# Balance sheets

Assets			Ownership		
Item	Total	Detail	Item	Total	Detail
Current assets	242,610		Current	123,937	
Non-current	1,697,099		Non-current	261,843	
- Land and buildings		1,172,865	- Real estate		226,149
-Farm equipment		483,041	-non-real estate		35,694
-Other		41,193	Total liabilities	385,780	
Total assets	1,939,709		Owner's equity	1,553, 929	
			total equity and debt	1,939,709	

Hypothetical: Firm purchases 40 acres land at \$2, 390 per acre, total amount amount \$95, 600



# Impact of transaction on balance sheet - Step 1

Item	Debit	Credit
Cash	76,480	
- Real estate debt		76,480
Land and building	95,600	
-Cash		95,600

# New balance sheet

Assets			Ownership		
Item	Total	Detail	Item	Total	Detail
Current assets	223,490		Current	123,937	
Non-current	1,792,699		Non-current	338,323	
- Land and buildings		1,268,465	- Real estate		302,629
-Farm equipment		483,041	-non-real estate		35,694
-Other		41,193	Total liabilities	462,260	
Total assets	2,016,189		Owner's equity	1,553, 929	
			total equity and debt	2,016,189	

- ▶ Difference between sole ownership and corporations
- ▶ Corporations: Choice between dividend payment and retained earnings
- ▶ Sole ownership withdrawals: Debit equity and credit cash transaction
- ▶ Note: an alternative here is that the owner becomes an employee of the firm (Textbook doesn't discuss this option)
- ▶ Whichever way you handle this is a managerial decision and depends largely on tax law in the respective jurisdiction.

# Measuring income - Income statements

# Cash vs Accrual Accounting

## Cost versus expense

accrual accounting based on costs and costs may be incurred in a different period to the actual receipt of revenue leading to a discrepancy in gross-margins between accrual and cost accounting

# Cash flow statements - Direct method

Item	Value
Cash receipts	226,800
Cash expenditures	<u>60, 448</u>
- Net operating sources	168,031
Debt payments	
- Principal payments	78,776
Interest payments	52,058
Owner withdrawals	<u>35,000</u>
Net cash flow	517

# Cash flow statements - indirect method

Item	Value
Net income	8,907
Source	
- Depreciation	105,319
- Change in inventory	67
Uses	
- Principal payments	78,776
- Distribution	35,000
Net cash flow	517

- ▶ Direct method preferred internationally
- ▶ Indirect method more common in USA and has some reporting advantages there (additional cash flow reporting requirement)
- ▶ direct emthod more transparent than the indirect method (perhaps?)



# Owner equity changes

## Purpose of this statement

Statement of change in owner's equity presents information on how the owner's claims changed that are not immediately visible in the income statement and balance sheet (information can be seen in cash flow statement)

# Example

Item	Value
Sources	
- Net income	8,907
Uses	
- Principal payments	78,776
- Owner distributions	<u>35,000</u>
Net change in owner's equity	(104,869)

Principal payments and owner distributions do not appear in the income statement.

FFSC (Farm financial accounting standards council)

1. Promote uniformity in financial reporting
2. Present standardized definitions and methods
3. Identify alternatives for development of a national agricultural database

- ▶ Universal financial reports
- ▶ Universal financial criteria and measures
- ▶ Universal information management

# Standards overload and minimum standards

- ▶ balance sheet
- ▶ income statement
- ▶ statement of cash flows
- ▶ statement of change in owner's equity

# Valuation: How would you value a cow?

- ▶ Historical cost
- ▶ Current market value
- ▶ Net (of costs) realizable value
- ▶ Discounted future cash flows

# Criteria for choosing valuation method

- ▶ Relevance (feedback value and predictive value for users and timely)
- ▶ Reliability (faithful to true value, verifiable and neutral)

# Pro forma -accounts (what if things were different?)

Item	without purchase	with purchase
Sales	226,800	241,920
Cost of goods sold		
- Planting cost	41,888	41,888
- Harvest expense	18,560	18,560
Gross margin	166,352	181,472
Depreciation	84,256	84,256
Interest	47,106	85,106
Net income	34,990	12,110



- ▶ Accounting is primary form of communication of firm to external observers
- ▶ Different users require different types of information
- ▶ 6 principles of financial accounting: historical cost, revenue realization, matching, consistency, full disclosure, objectivity (verifiability)
- ▶ Important statements: balance sheet, income, cash flows, change in owner's equity
- ▶ Pro forma statements for dealing with hypothetical decisions