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COLLATERAL

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Collateral

- **Collateral:**
  - Something pledged as security for repayment of a loan, to be forfeited in the event of a default.
- **When underwriting any secured loan, a lender needs to understand:**
  - The underlying collateral
  - Its market value
  - Its liquidation value

Collateral Control

- **Gather Information**
- **Verify and Inspect**
- **Set the Value**
- **Document the File**

Types of Values

- Balance Sheet Value
- Current Market Value
- Trade-in Value
- Auction Value
- Liquidation Value (Discount Policies)
- Book Value
- Appraised Value

Set the Value

- Sources:
  - Auctions
  - Dealers
  - Newspapers
  - Industry Guides (Machinery Pete)
  - Appraisal
  - SWAG

EARNINGS ANALYSIS

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Earnings Analysis

- **In a perfect world**
  - Financial Soundness
    - Balance sheets with cost and market values
  - Financial Performance
    - Accrual income statement

Earnings Analysis

- **In the real world**
  - Financial Soundness
    - Balance Sheets at mixed market/cost values
  - Financial Performance
    - Schedule F tax statement

How can we measure financial performance in the real world?

Earned Net Worth or Earned Equity Analysis

- **Net worth change is often your best indicator of financial performance.**
- **Two components on market value statements:**
  - Asset valuation change
  - Earned net worth change

Earned Net Worth or Earned Equity Analysis

- **If we can identify Earned Net Worth Change:**
  - Can calculate accurate debt coverage measure.
  - Just need two balance sheets.

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Financial Statements

- Balance Sheet
- Income Statement
- Statement of Owner's Equity
- Statement of Cash Flows

Earned Net Worth Change – Commercial Businesses

Statement of Owner's Equity
Beginning net worth
+ Net income after taxes (income statement)
- Owner withdrawals
= Ending net worth

Change in retained earnings
= Earned net worth change

Earned Net Worth Change – Farm & Ranch Businesses

Statement of Owner's Equity
Beginning net worth
+ Net farm income
+ Non-farm income
- Family living
- Income taxes
= Ending net worth

Change in retained earnings
= Earned net worth change

Earned Net Worth Change – Farm & Ranch Businesses

Statement of Owner's Equity
Beginning net worth
+ Net farm income
+ Non-farm income
- Family living
- Income taxes
+/- Valuation change
= Ending net worth

Change in retained earnings

= Earned net worth change

Earned Net Worth Change – Using Market Value Statements

	Statement of Owners Equity
	Beginning net worth
+	Earned net worth change
+/-	**Valuation change**
=	Ending net worth

Earned Net Worth Change –
Using Market Value Statements

Farm Business
Ending net worth
- Beginning net worth
= Net worth change
- Valuation changes
= Earned net worth change

Net farm income
+ Non-farm income
- Owner withdrawals (family living)
- Income taxes

Valuation Changes

- **Identifying valuation change is the tricky part:**
  - Land
  - Machinery & equipment
  - Breeding livestock

Valuation Changes

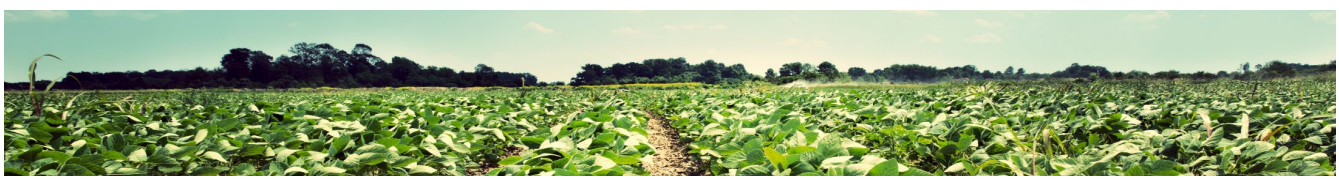
- Land

  Ending land value
- Beginning land value
= Change in Market Value

Valuation Changes

- Land

  Ending land value
+ Land sales
- Land purchases
- Beginning land value
= Change in Market Value



Valuation Changes

- **Machinery and Building Valuation**
  - Depreciable Assets
  - How can we distinguish between depreciation and valuation change?
  - Recommendation:
    - Estimate economic depreciation
    - Any change greater than economic depreciation is a valuation change





Shortcut to Economic Depreciation

Beginning value
+ Capital purchases
- Capital sales
- xx % depreciation
= Ending value

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Ex: Machinery Valuation Change

Beginning value	$230,017
Capital purchases	+ 68,579
Capital sales	- 7,365
Ending market value	= $284,340

Ex: Machinery Valuation Change

Beginning value	$230,017
Capital purchases	+ 68,579
Capital sales	- 7,365
Total to depreciate	= 291,231
Ending market value	= $284,340
Depreciation reflected	($6,891)

Ex: Machinery Valuation Change

Beginning value	$230,017
Capital purchases	+ 68,579
Capital sales	- 7,365
Total to depreciate	= 291,231
Depreciation (10%)	(29,123)
Depreciated ending value	=$262,108

Ex: Machinery Valuation Change

Beginning value	$230,017
Capital purchases	+ 68,579
Capital sales	- 7,365
Total to depreciate	= 291,231
Depreciation (10%)	(29,123)
Depreciated ending value	=$262,108
Reported ending value	$284,340
Change in market valuation	+$22,232

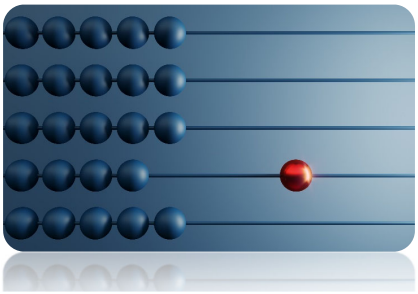
Backed out of Net Worth Change to arrive at Earned Net Worth Change

Valuation Changes

- **Identifying valuation change is the tricky part:**
  - Land
    - Back out any land value change
  - Machinery & equipment
    - Depreciate and back out any difference between depreciation and total change
  - Breeding livestock
    - Back out any change related to value per head

Earned Net Worth Change – Using Market Value Statements

- **OK, we've calculated Earned Net Worth Change, now what?**
  - Benchmark – percent of beginning net worth
  - Calculate debt coverage



Quiz Time!

- **What is the average annual change in earned net worth from 2019-2025 for farmers in FINBIN?**
  - A. 5%
  - B. 9%
  - C. 13%
  - D. 17%

Earned Net Worth Change – FINBIN, 2013-2019

- **Average Earned Net Worth Change $42,143**
- **Average Non-Farm Income $32,606**

Earned Net Worth Change – FINBIN, 2019-2023

- Average Earned Net Worth Change $181,566
- Average Non-Farm Income $41,302

Calculating Debt Coverage

Term Debt Coverage Ratio
Net farm income (accrual)
+ Non-farm income
- Owner withdrawal (family living)
- Income taxes
+ Depreciation
+ Interest on term debt
= Capital debt repayment capacity
÷ Scheduled term debt payments

= Earned net worth change

Term Debt Coverage Ratio
Earned Net Worth Change
+ Depreciation
+ Interest on term debt
= Capital debt repayment capacity
÷ Scheduled term debt payments

Case Farm:
Earned Net Worth Analysis Exercise

Change in Market Valuation/Depreciation Worksheet

			Machinery	Buildings	Land	Total
	Beginning balance sheet value		910,176			
	Purchases	+	349,869	22,500	0	
	Sales	-	44,481	0	0	
C.	Total value to depreciate	=	1,215,564			
	Depreciation rate	*	10%	5%	0%	
D.	Depreciation	=	121,556			
E.	Ending depreciated value (C - D)		1,094,008			
F.	Ending balance sheet value		1,143,884			
G.	Change in market valuation (F - E)		49,876			

Earned Net Worth Analysis

	Ending net worth (mkt)		
	Beginning net worth (mkt)	-	
	Change in net worth (mkt)	=	
	Change in market valuation (G)	-	
	Inheritance, gifts, capital contributions	-	0
	Gifts given	+	0
A.	**Change in earned net worth**	=	
	Change in earned net worth (A)		
	Family living / owner withdrawals	+	67,633
	income and social security taxes	+	1,227
	Personal income	-	24,606
	Personal asset depreciation	+	(7,350)
	Change in personal accounts payable	+	204
B.	**Net Farm Income**	=	

Repayment Capacity: Term Debt Coverage Ratio

Earned net worth change (A)			
Depreciation expense (D)	+		
Interest on term debt	+	51,594	
Capital debt repayment capacity	=		
Scheduled payments on term debt	÷	121,865	
Term debt coverage ratio	=		----- 1.25 ---------- 1.75 -----

Change in Market Valuation/Depreciation Worksheet						
			Machinery	Buildings	Land	Total
	Beginning balance sheet value		230,017	423,473	311,375	
	Purchases	+	68,579	0	0	
	Sales	-	7,365	0	0	
C.	Total value to depreciate	=	291,231	423,473	311,375	
	Depreciation rate	*	10%	5%	0%	
D.	Depreciation	=	29,123	21,174	0	50,297
E.	Ending depreciated value (C - D)		262,108	402,299	311,375	
F.	Ending balance sheet value		274,340	402,299	352,500	
G.	Change in market valuation (F - E)		12,232	(0)	41,125	53,357

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Repayment Capacity: Term Debt Coverage Ratio			
Earned net worth change (A)		(47,192)	
Depreciation expense (D)	+	50,297	
Interest on term debt	+	36,803	
Capital debt repayment capacity	=	39,908	
Scheduled payments on term debt	÷	82,026	
Term debt coverage ratio	=	0.49	----- 1.20 ---------- 1.50 -----

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Advanced Topics

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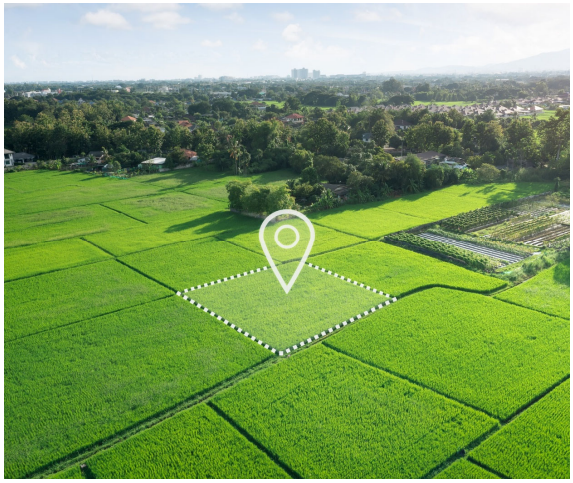
Burn Rate / Debt Service Payment

Current assets	$1,000,000
Current liabilities	$ 500,000
Net working capital	$ 500,000
Total revenue	$2,000,000
Net income	$ 200,000
Net working capital	$ 500,000 =
Annual debt service payments	$ 100,000
	5 year burn rate

Deferred Liabilities



- **What are they?**
  - If the business is liquidated
    - Taxes due on current inventories and capital gains
  - Calculation:
    - Balance sheet value – tax basis x tax rate.

- **Discussion:**
  - What is the deferred liability on farmland in this example?

Other Advanced Topics

- **Estimating family living expenses**
- **Leases**

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I'm sorry, sir, but this is
the only thing my ranch produced this year - lucky I'm next to the highway!

Break

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