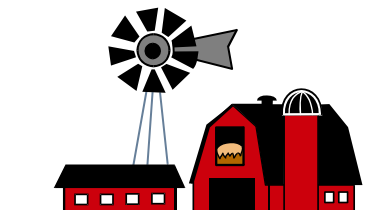


Financial Analysis with Balance Sheet

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The Balance Sheet



- Necessary financial document
- Organizing Your B/S
- Evaluating the Health of Your B/S



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Financial Statements – A Quiz

Statement:

Balance Sheet

Cashflow Statement

Income Statement

Statement of Change
in Equity

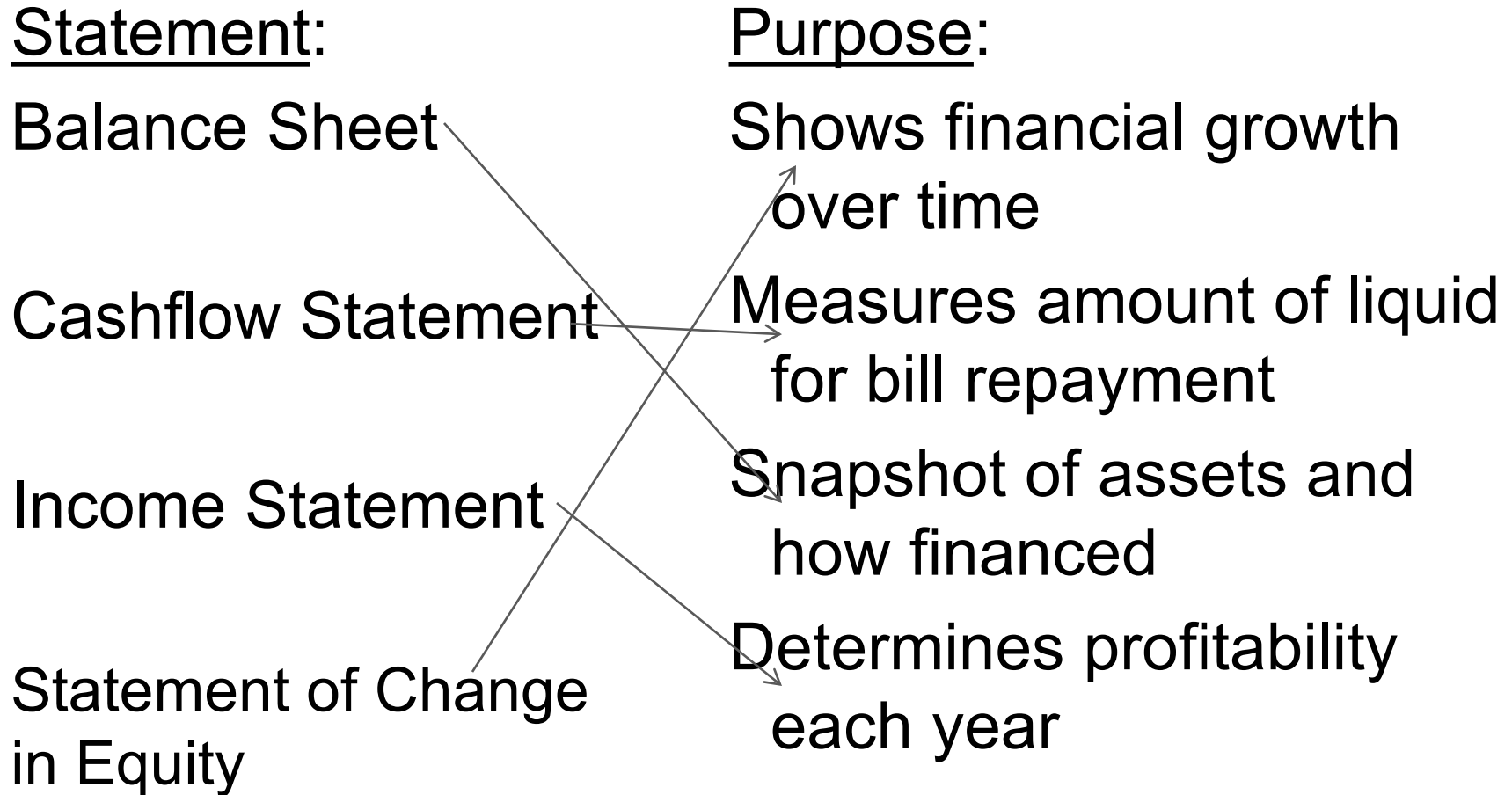
Purpose:

Shows financial growth
over time

Measures amount of liquid
for bill repayment

Snapshot of assets and
how financed

Determines profitability
each year



It all boils down to...

1/1/2017

ASSETS	LIABILITY
-	-
-	-
-	-

NET WORTH \$B

P & L

INCOME
-
-
-

EXPENSES
-
-
-

NET \$

CASH FLOW STATEMENT

SOURCES
-
-
-

USES
-
-
-

1/1/2018

ASSETS	LIABILITY
-	-
-	-
-	-

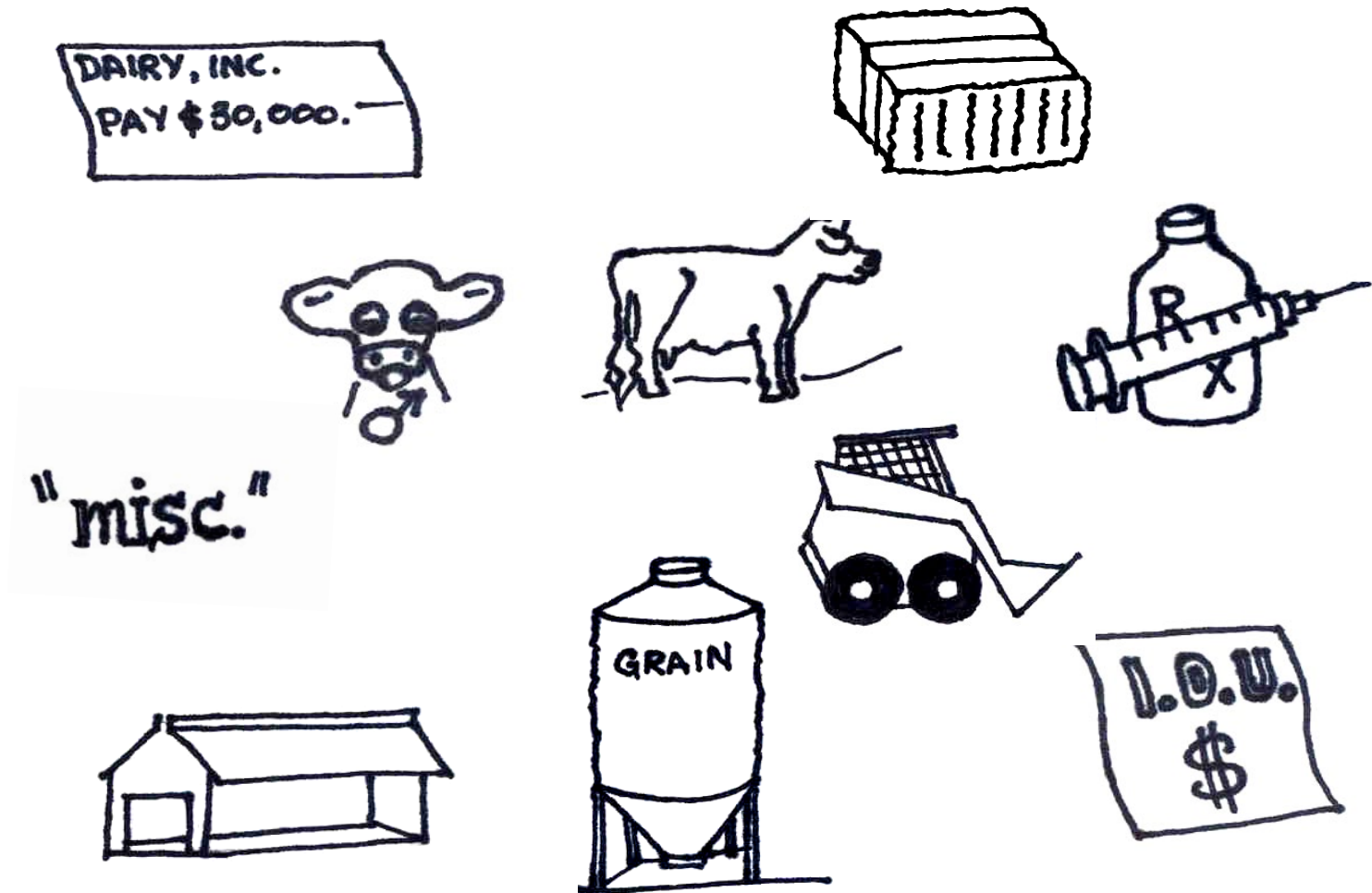
NET WORTH \$ REALLY BIG

How do you know if a farm is financially “healthy”?

- Current on their account
- Milking lots of cows
- Rolling herd average
- How new the truck is
- John Deere tractors
- Big bunker silos



A "Farmer's Eye View"...



...of a year in the life of a farm

An "Economist's Eye View"...



...of a year in the life of a farm



A Quiz: Where do they go in the B/S?

Current Assets

Current Liabilities

Intermediate Assets

Intermediate Liabilities

Long Term (fixed) Assets

Long Term Liabilities

**LET'S DO THIS TOGETHER
ON THE BOARD**

A Quiz: Where do they go in the B/S?

CA Hay Calves Medicine/Supplies Grain Inventory Dairy Check	CL Bills – I.O.U.'s
IA Skid Steer Breeding Cows	IL Skid steer loan? Cow loan?
LTA Building	LTL Building loan?

I. Balance Sheet Basics

- A SNAPSHOT of the farm's financial position at a moment in time.
- Tells *little* about profitability or how it got to this position.
- AKA: financial or net worth statement



Functions of a Balance Sheet

- Measure of farm business growth.
- Measure of financial solvency, liquidity.
- Measure of risk bearing capacity
- Shows how assets are financed - debt vs equity
- Comparisons from year to year demonstrating business growth & showing the results of management decisions (ratios).



Method for completing?

- Paper
 - Farm Acct Book
- Excel-based with formulas
 - Easy to store, update, analyze
- Modern Accounting Software
 - Once learned, more precise & linked





II. Organizing the Balance Sheet

- Let's look at the Excel B/S with schedules...

Balance Sheet

Agriculture related B/S

Name: _____

Name: _____

Address: _____

Phone: _____

Date of Statement: December 31, 2012

Current Farm Assets		Mkt. Value	Current Farm Liabilities		\$ Owed
Cash & Equivalents	Sch. 1	-	Accounts Payable	Sch. 19	-
Marketable Bonds & Securities	Sch. 2	-	Operating Loans	Sch. 20	-
Accounts & Notes Receivable	Sch. 3	-	Other		
Market Livestock	Sch. 4	-			
Crop Inventory & Receivables	Sch. 5	-			
Growing Crops	Sch. 6	-			
Prepaid Expenses	Sch. 7	-			
Other Current Assets	Sch. 8	-			
Current Farm Assets Total	A	-	Current Farm Liabilities Total	D	-
		B			
Intermediate Farm Assets			Intermediate Farm Liabilities		
Machinery & Equipment	Sch. 17	-	Term Debt	Sch. 21	-
Farm Vehicles	Sch. 18	-	Other		
Breeding Stock	Sch. 9	-			
Notes Receivable over 12 mo.	Sch. 10	-			
Not Readily Cash Bonds & Securities	Sch. 11	-			
Other Interm. Farm Assets	Sch. 12	-			
Intermediate Farm Assets Total	B	-	Intermediate Farm Liabilities	E	-
Long Term Farm Assets			Long Term Farm Liabilities		
Real Estate & Land	Sch. 13	-	Term Debt	Sch. 22	-
Buildings & Improvements	Sch. 14	-	Other		
Other Long Term Assets	Sch. 15	-			
Long Term Farm Assets	C	-	Long Term Farm Liabilities	F	-
Total Farm Assets (A+B+C)		G	-	Total Farm Liabilities (D + E + F)	
				I	-
			Total Farm Equity (G - I)		-
Non-Farm Assets		Sch. 16	H	-	
Non-Farm Liabilities		Sch. 23	J	-	
			TOTAL LIABILITIES (I + J)		L
					-
			TOTAL EQUITY (K - L)		M
					-
TOTAL ASSETS		K	-	TOTAL LIABILITIES & EQUITY (L + M)	

Liabilities

- Liabilities = financial obligations owed

Current – currently due and payable in <1 year

+

Intermediate – loans 2-10 years

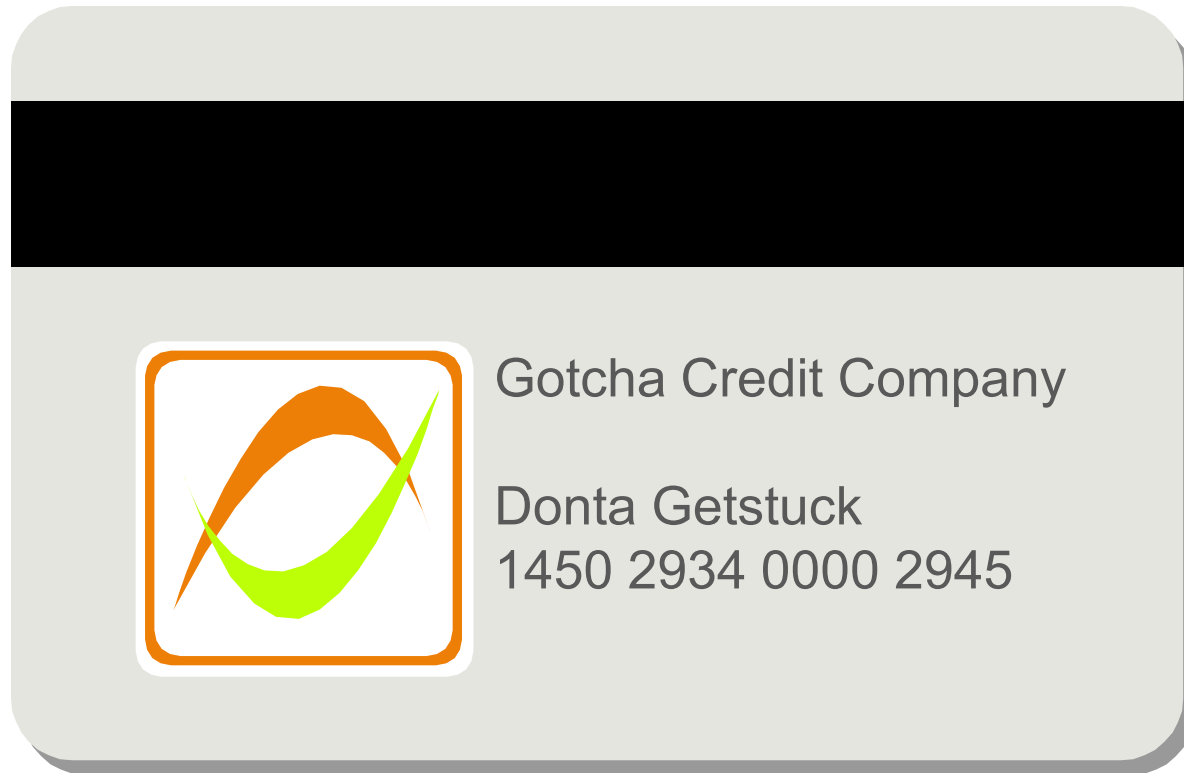
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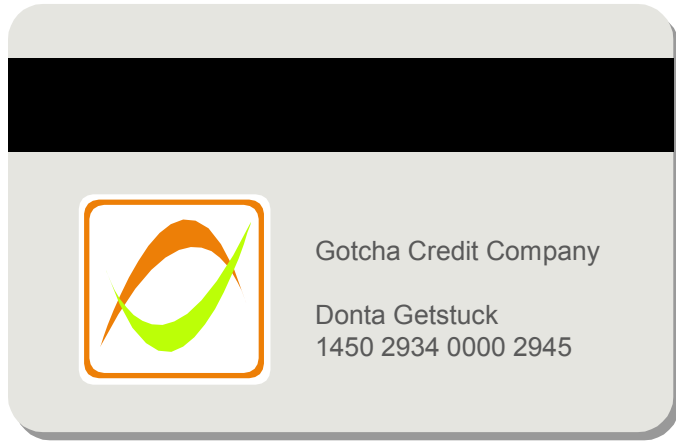
Long-term – loans >10 years

= TOTAL LIABILITIES



The new current liability:





Credit card use on farms:

-Easily available

- Can mask farm profitability problem
- Can mask family living expense problem
- Keep farm and personal cards separate
- Make payments on time, watch balance
- Do not substitute for a line of credit

Advanced Issues – Asset Values

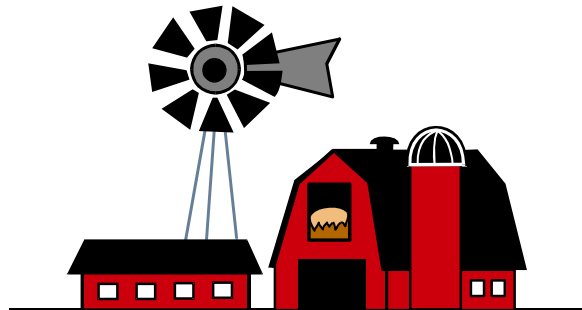
- Cost Value

versus

- Market Value

Farm Balance Sheets May Have 2 Columns for Assets

<u>Asset</u>	<u>Cost</u>	<u>Market</u>
Current	100,000	100,000
Intermediate	30,000	50,000
Long term	20,000	300,000
TOTAL ASSETS	150,000	450,000

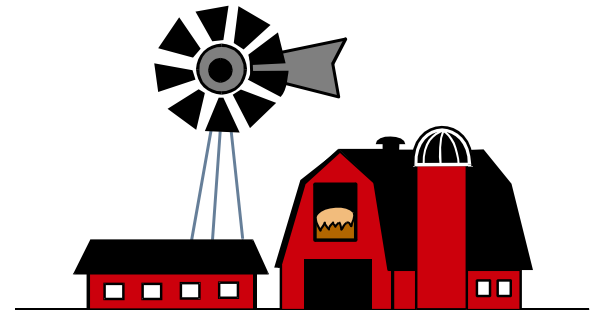


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Market Value vs. Cost Value

- Only Intermediate and Long Term ASSETS impacted
- Both show changes in owner's equity
- But the driver of that change produces a different tax result
 - Profit (cost)– earned
 - Appreciation (market) – unearned



Market Value: Lender's Choice

- Today's market values less selling costs
- Reflects "luck" of investing
- What about:
 - Income taxes due upon sale?
(Deferred taxes)

Cost Value: Accountant's Choice

- Remaining value of the investment, the net book value
 - (cost less accumulated depreciation)
- Grown Feed/Crops valued at farm production cost or market less marketing cost
- Better reflection of business success
 - Based upon decisions rather than inflation or deflation of investments

Hybrid: Farmer's Preference

- Intermediate Assets at (pr) Cost Value
 - Equipment & Machinery
 - Breeding Stock
- Long Term Assets at (pr) Cost Value
 - Land

No Such Accounting Document

feels "realistic"

Cost Value: Accountant's Choice

- Remaining value of the investment, the net book value
 - (cost less accumulated depreciation)
- Grown Feed/Crops valued at farm production cost or market less marketing cost
- Better reflection of business success
 - Based upon decisions rather than inflation or deflation of investments

Advanced Issues - Leases

- LEASES – Where do they go on the B/S??
 - 1. Capital Leases – “lease to own”
Must book value the asset; show lease as debt (interest, current portion due this year, long term principal balance)
 - 2. Operating Lease* – considered “off balance sheet” expense; pay rental bill when due and don’t claim the asset value.

*Issue: doesn't show cashflow needs anywhere.

Keys to Balance Sheets - article

- Complete same date each year – 12/31
- Inventory (count) assets, include weights.
- Use Market Prices for crops and livestock.
- Growing crops valued at production cost.
- Accounts receivable includes government payments or insurance indemnities to be received for past crops.



Keys to Balance Sheets



- Value breeding livestock at conservative value, avoid large year to year changes.
- Do not include leased machinery unless shown on a tax depreciation schedule (capital lease).
- Land (market) values should remain consistent from year to year.



Personal B/S vs. Operating LLC B/S

1. Must compartmentalize
2. Separate checking acct
3. Includes:
 - Retirement accts
 - Personal autos
 - Residence
 - Farmland*
 - Farmland mortgages*

*Unless separate LLC

1. Must compartmentalize
2. Separate checking acct
3. Includes:
 - Growing crop/livestock inventory
 - Stored grain
 - Breeding livestock
 - Farm autos
 - Mach & Equip**
 - AgLOC and equip loans

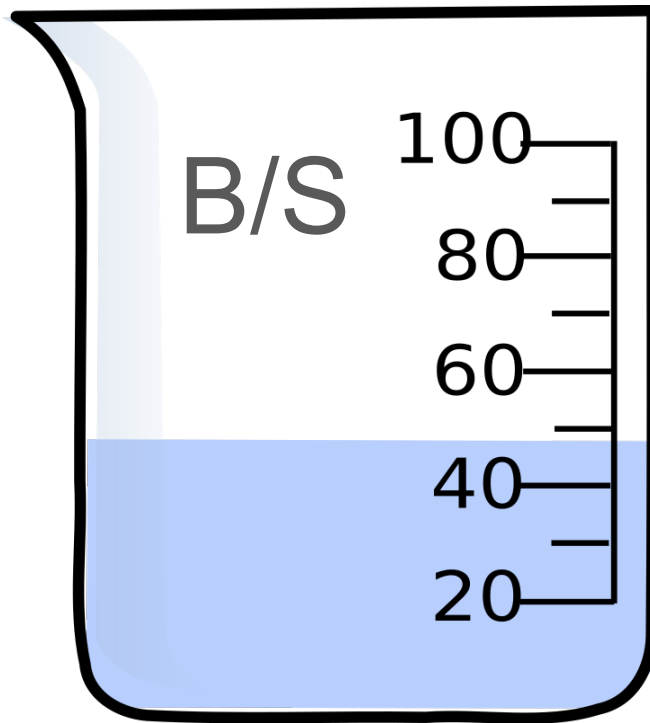
**Unless separate LLC



III. Balance Sheet “Health”

- Several Methods:
 1. Funnel-Reservoir – Basic
 2. Vertical Analysis – intermediate
 3. Ratio Analysis
 4. What does your ‘team’ think?

An Object Lesson:



1. The Reservoir (B/S) and Funnel (I/S)

B/S is like a RESERVOIR with 2 compartments: one side holds your assets and the other your liabilities + equity
Both sides of the reservoir float up together

I/S is like a FUNNEL/FILTER because it filters off expenses and net profit funnels into B/S Reservoir
If no Net Profit, the Balance Sheet does not fill up.
Non-farm income can be “funneled” into Balance Sheet too

See Drawing

2 questions....

How full is your RESERVOIR (B/S)?

How big (much) is your FUNNEL (income stream) contributing to it? Or how good is your FUNNEL?



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2. Vertical Analysis

Comparing the same account categories over multiple periods.

Very helpful in showing growth of farm business

Interesting to business owners, lenders, CPA

Is your financial “health” improving?



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OHIO STATE UNIVERSITY EXTENSION

Joe Farmer Balance Sheet Analysis						
	31-Dec	31-Dec	31-Dec	31-Dec	31-Dec	31-Dec
	2010	2009	2008	2007	2006	2005
Current Assets						
Cash	\$2,970	\$4,093	\$2,080	\$8,889	\$1,400	\$1,210
Crop Inventories	\$11,721	\$0	\$694	\$8,929	\$0	\$0
Accounts Receivable	\$0	\$5,084	\$843	\$0	\$0	\$203
Prepaid Expenses	\$2,084	\$1,850	\$0	\$0	\$0	\$0
Total Current Assets	\$16,775	\$11,027	\$3,617	\$17,818	\$1,400	\$1,503
Non Current Assets						
Machinery and Equipment	\$6,250	\$6,450	\$4,450	\$6,600	\$6,300	\$6,300
Business Vehicles	\$2,700	\$3,500	\$4,500	\$5,000	\$6,000	\$8,000
Real Estate & Land	\$536,000	\$61,000	\$61,000	\$61,000	\$61,000	\$61,000
Buildings & Improvements	\$107,000	\$107,000	\$107,000	\$107,000	\$107,000	\$107,000
Total Non Current Assets	\$651,950	\$177,950	\$176,950	\$182,600	\$180,300	\$182,300
TOTAL ASSETS	\$668,725	\$188,977	\$182,667	\$197,468	\$181,700	\$183,803
Current Liabilities						
Accounts Payable	\$2,049	\$7,249	\$20,155	\$7,434	\$2,000	\$4,500
Operating Loans	\$38,000	\$0	\$0	\$0	\$1,200	\$0
Total Current Liabilities	\$40,049	\$7,249	\$20,155	\$7,434	\$3,200	\$4,500
Non Current Liabilities						
Real Estate Mortgage	\$555,125	\$101,490	\$104,823	\$108,111	\$110,613	\$116,850
Total Non Current Liabilities	\$555,125	\$101,490	\$104,823	\$108,111	\$110,613	\$116,850
TOTAL LIABILITIES	\$595,174	\$108,739	\$124,978	\$115,545	\$113,813	\$121,350
TOTAL EQUITY	\$73,551	\$80,238	\$57,689	\$81,923	\$67,887	\$62,453
TOTAL LIABILITIES & EQUITY	\$668,725	\$188,977	\$182,667	\$197,468	\$181,700	\$183,803
RATIO ANALYSIS						
Current Ratio	0.42	1.5	0.2	2.4	0.4	0.3
Quick Ratio	0.1	1.5	0.1	1.2	0.4	0.3
Net Working Capital	(\$23,274)	\$3,778	(\$16,538)	\$10,384	(\$1,800)	(\$2,997)
Modified Current Ratio	0.3	1.0	0.2	2.4	0.4	0.3
Debt Ratio	0.9	0.6	0.7	0.6	0.6	0.7
Long Term Ratio (LTR)	1.2	1.8	1.7	1.7	1.6	1.6
Long Term Debt-Equity Ratio	7.5	1.3	1.8	1.3	1.6	1.9

3. Calculating “Super Six” Ratios

1. Current Ratio

Can I pay current bills?

2. Working Capital

5. Equity to Asset

What % of assets I own?

7. Net Income

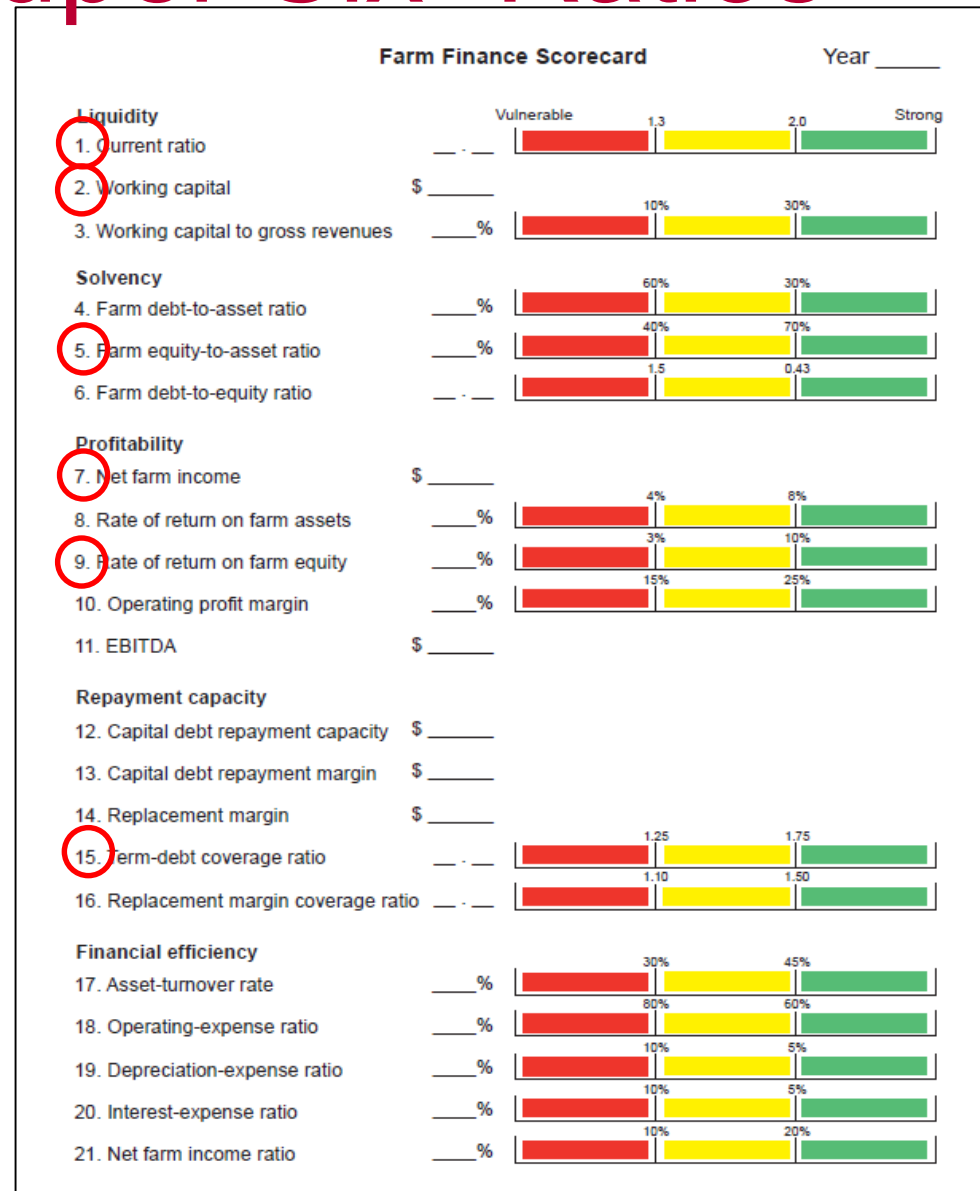
Profitable?

9. Return on Equity (ROE)

What rate am I earning on my equity put in farm?

15. Term-debt Coverage Ratio

Can I pay my loans?



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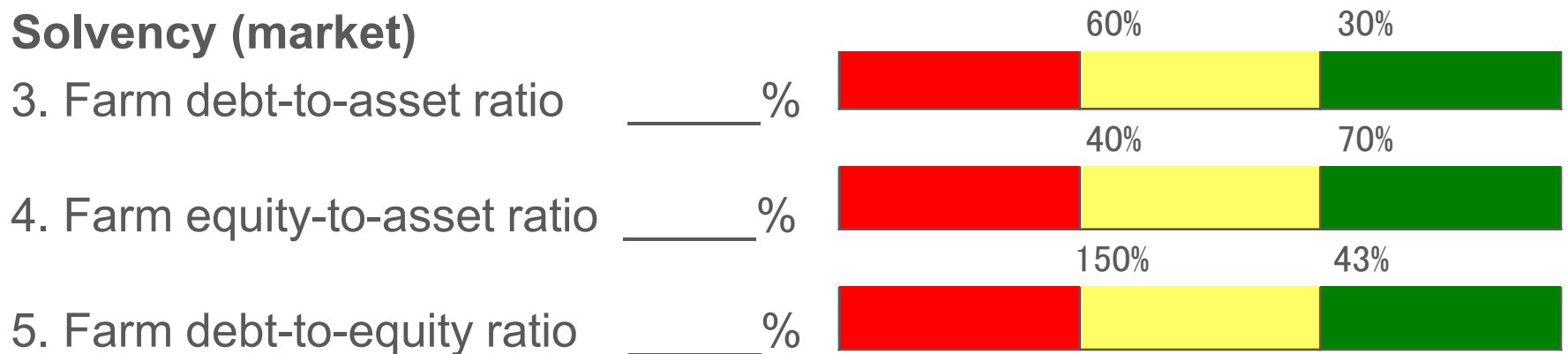
Farm Finance Scorecard

Year 20__

Liquidity



Solvency (market)



4. Farm Financial Health Team

- Accountant
- Attorney
- Banker
- Insurance Advisor
- Production Advisor
 - Emphasis on trust & professionalism



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