POST COMMODITY SUPER CYCLE

Dr. David M. Kohl

Professor Emeritus, Agricultural and Applied Economics Virginia Tech, Blacksburg, VA



(540) 961-2094 (Alicia Morris) | (540) 719-0752 (Angela Meadows) | sullylab@vt.edu

July 1, 2015

Macro Clinic Video Blog: http://agstar.com/edge/
Road Warrior of Agriculture: www.cornandsoybeandigest.com
Ag Globe Trotter: www.northwestfcs.com
Dave's GPS & Dashboard Indicators: www.farmermac.com

Macro Global Trade Risk

"The agricultural industry is the point dog."

	•	•	•		
				<u>Yes</u>	<u>No</u>
King dollar duration					
Economic slowdown of e	emerging	nations			
Political sanctions					
Supply & demand					
Political, military, qualit	y & stan	dards risk			
TOTAL					

Domestic Economy Risk

"Counter-cyclical: flyover states vs. population centers"

	<u>Yes</u>	<u>No</u>
Interest rate increases		
Land ownership - asset bubble		
Consumer spending economic recession		
Transportation & distribution		
Energy		
TOTAL		

3

The Burn Rate - Working Capital

 Revenue
 \$2,000,000
 Current Assets
 \$1,000,000

 Expenses
 -2,200,000
 Current Liabilities
 -500,000

 Loss
 -\$200,000
 Working Capital
 \$500,000

Working Capital \$500,000 = 2.5 Years
Projected Loss \$200,000

Green >3.0 Years
Yellow 1.0-3.0 Years
Red <1.0 Year

The Burn Rate – Debt Service Payments

 Revenue
 \$2,000,000
 Current Assets
 \$1,000,000

 Expenses
 -1,800,000
 Current Liabilities
 -500,000

 Profit
 \$200,000
 Working Capital
 \$500,000

Debt Service Payments = \$100,000

Working Capital \$500,000 = 5.0 Years

Debt Service Payments \$100,000

Green >5.0 Years
Yellow 2.5-5.0 Years
Red <2.5 Years

Ten Questions of "True Liquidity"

(1)

- concentration of assets- current
- hollow grain bin- verify & confirm
- forward pricing- marketing/risk, contract, quality
- attitude on risk
- accounts receivable
 - concentration
 - collectable
 - timing
- crops growing in field & livestock in pens
 - insurance/level
 - timing
 - quality

Ten Questions of "True Liquidity"

(2)

- prepaid expenses
 - cash conversion cycle
 - how secure?
 - line of credit
- accounts payable/line of credit
 - less than inventory
 - timing
 - <5% revenue vs. >25% revenue
- cash
 - amount debt service
 - amount compared to major expenses
- deferred tax consequences

.

True Working Capital Analysis Assets Liabilities

Scenario A (Base Hits- Sweat the Small Stuff)

<u>Months</u>	Current Asset	Amount	<u>Months</u>	Current Liability	Amount
0-4 mo.	Cash	\$100,000	0-4 mo.	A/P	\$100,000
	A/R	\$75,000		Operating Line	\$560,000
	Inventory	\$350,000		Payment	\$50,000
	Subtotal	\$525,000		Subtotal	\$710,000
5-8 mo.	A/R	\$75,000	5-8 mo.	Payment	\$50,000
	Inventory	\$350,000			
	Crops Growing	\$200,000			
	Subtotal	\$625,000		Subtotal	\$50,000
9-12 mo.	Prepaid Expenses	\$500,000	9-12 mo.	Payment	\$100,000
	Subtotal	\$500,000		Subtotal	\$100,000
T	otal Current Assets	\$1,650,000	Total	Current Liabilities	\$860,000

True Working Capital Analysis Calculations- Scenario A

1. Current Ratio=	Current Assets	\$1,650,000	=	1.92
	Current Liabilities	\$860,000		
2. Working Capital to Rev	enue WC=\$1,650,000-\$860,000	\$790,000	=	39.5%
(Revenue=\$2,000,000)		\$2,000,000		
3. Burn Rate on Working	Capital=	\$790,000	= 3	.95 Years
(assuming \$200,000 proje	cted losses)	\$200,000		
4. Burn Rate on Debt Serv	rice Payments=	\$790,000	= 3	.95 Years
(assuming \$200,000 annua	al debt payment)	\$200,000		
5. Debt to Asset Ratio=			=	60%
6. Return on Assets (ROA))- 3 Year Trend=		=	8%

9

True Working Capital Analysis Assets Liabilities

Scenario B (Home Run, Alpha Dog, Go-Go Balance Sheet Bully)

Months	Current Asset	<u>Amount</u>	Months	Current Liability	<u>Amount</u>
0-4 mo.	Cash	\$25,000	0-4 mo.	Payment-Tractor	\$100,000
	Crop Inventory	\$400,000		A/P	\$200,000
	Crops Growing	\$300,000			
	Subtotal	\$725,000		Subtotal	\$300,000
5-8 mo.	A/R	\$50,000	5-8 mo.	Payment-Land	\$200,000
	Prepaid Expenses	\$250,000		Operating Line	\$500,000
	Subtotal	\$300,000		Subtotal	\$700,000
9-12 mo.	Livestock Inv.	\$200,000	9-12 mo.	Payment-Combine	\$100,000
	Subtotal	\$200,000		Subtotal	\$100,000
To	otal Current Assets	\$1,225,000	Tot	tal Current Liabilities	\$1,100,000

True Working Capital Analysis Calculations- Scenario B

1. Current Ratio=	<u>Current Assets</u> Current Liabilities	\$1,225,000 \$1,100,000	=	1.11
2. Working Capital to Revenue= (Revenue= \$2,000,000)	WC=\$1,225,000-\$1,100,000	\$125,000 \$2,000,000	=	6.25%
3. Burn Rate on Working Capital- (assuming \$200,000 projected los		\$125,000 \$200,000	= .63	3 Years
4. Burn Rate on Debt Service Pay	ments=	\$125,000	= .31	L Years
(assuming \$400,000 annual debt	\$400,000			
5. Debt to Asset Ratio=			=	25%
6. Return on Assets (ROA)- 3 Yea		=	2%	

11

Collateral Analysis – Year Z

	Year Z	Estimated Value		Loan Maximum		Collateral Position		Remaining Principal		Excess Reserve
1	Long-term	\$400,000	Х	75%	=	\$300,000		\$250,000	=	\$50,000
2	Intermediate	\$1,040,000	Х	60%	=	\$624,000	-	\$450,000	=	\$174,000
3	Current	\$305,000	Χ	80%	=	\$244,000	-	\$130,000	=	\$114,000
	Total	\$1,745,000				\$1,168,000		\$830,000	=	\$338,000

4	Total borrowing capacity (collateral position)	\$1,168,000
5	Total borrowed (remaining principal)	\$830,000
6	Total excess reserve	\$338,000
7	Excess reserve long-term area	\$50,000
8	Excess reserve intermediate area	\$174,000
9	Excess reserve current area	\$114,000
10	Percent long-term assets can decline in value (excess reserve / collateral position)	16.7%
11	Percent intermediate assets can decline in value (excess reserve / collateral position)	27.9%
12	Percent current assets can decline in value (excess reserve / collateral position)	46.7%

Collateral Analysis – Projected Year

	Projected	Estimated Value		Loan Maximum		Collateral Position		Remaining Principal		Excess Reserve
1	Long-term	\$1,400,000	χ	75%	=	\$1,050,000		\$1,210,000	=	(\$160,000)
2	Intermediate	\$1,050,000	Χ	60%	=	\$630,000		\$360,000	=	\$270,000
3	Current	\$267,000	χ	80%	=	\$213,600		\$165,000	=	\$48,600
	Total	\$2,717,000				\$1,893,600		\$1,735,000	=	\$158,600
4	Total borrowing of	apacity (collateral posit	ion)							\$1,893,600
5	Total borrowed (r				\$1,735,000					
6	Total excess rese	erve								\$158,600
7	Excess reserve le	ong-term area								(\$160,000)
8	Excess reserve i	ntermediate area								\$270,000
9	Excess reserve of	urrent area								\$48,600
0	Percent long-terr	n assets can decline in	value	e (excess reserve	/ collate	ral position)				(15.2%)
1	Percent intermediate assets can decline in value (excess reserve / collateral position)									42.9%
2	Percent current	assets can decline in va	lue (excess reserve / c	ollateral	position)				22.8%
										13

LSU Graduate School of Banking Views:

LSU Graduate School of Banking-Mergers

Has your bank or institution been involved in a merger during the last three years?

Yes or No	<u>Percent</u>
Yes	55%
No	45%

15

LSU Graduate School of Banking-Biggest Threats

What is the biggest threat to your country's economy?

Threat	<u>Percent</u>
Foreign Competition	2%
Terrorist	9%
Government Dysfunction	35%
Aging Population Issues	6%
Government and/or Individual Debt	48%

LSU Graduate School of Banking-Greatest Global Competition

What is the greatest global competition to North America?

<u>Area/Country</u>	<u>Percent</u>
Asian Region	40%
China	33%
South American Region	13%
European Region	8%
Middle Eastern Region	5%

17

LSU Graduate School of Banking-Federal Reserve and Interest Rates

When do you believe the Federal Reserve will raise interest rates? (from banker surveys)

<u>Date</u>	<u>Percent</u>
June 2015	0%
September 2015	12%
December 2015	22%
1 st Quarter 2016	34%
Later 2016	30%
Never	2%

LSU Graduate School of Banking-Stock Market Trends

The Dow Jones Index is currently 18,000. What do you expect it to be at the end of 2015?

<u>Level</u>	<u>Percent</u>
18,000	18%
19,000	36%
20,000+	16%
17,000	25%
16,000 or Lower	5%

19

LSU Graduate School of Banking-Number of Banks

There are approximately 6,000 banks in the U.S. today. How many do you expect there will be in 2025?

<u>Number</u>	<u>Percent</u>
6,000+	5%
5,000-5,999	11%
4,000-4,999	27%
3,000-3,999	21%
Less than 3,000	36%

Questions