# Global Cash Flow Analysis



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Global Cash Flow
=
Repayment

Where Is the Cash?

## "Perfect" Global Cash Flow

- Considers all existing and potential sources of income
- Analyzes all asset holdings and balance sheet cash flow



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## "Perfect" Global Cash Flow

- Personal income
- Business income, assets & inventories
- Real estate holdings
- Direct liabilities and debt service
- Contingent liabilities



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# Why?

- "Because the examiner told me to..."
- Find the weak thread(s)
- How do they impact the stronger threads?



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## When?

- Debt repayment for...
  - "Mom & Pop" → "Self-employed"
  - Multiple entities not directly related
  - Multiple guarantors

## How?

- FINPACK Global Cash Flow uses tax return data
  - Balance sheets optional
- One primary entity
- Multiple other entities
- Multiple personal
- Proposed new income / debt payments



## How?

- Show each business / entity / personal cash flow and debt coverage
- One "global" merged cash flow and debt service
  - No double-counting income

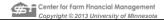




Tax year	2010	2011	2012
Statement type	Tax Return	Tax Return	Tax Return
7. Wages, salaries, tips, etc.	34,500	25,838	32,358
8a. Taxable interest	68	69	62
8b. Tax-exempt interest	-	-	-
9a. Ordinary dividends	-	_	-
10. Taxable refunds of state and local income taxes	-	-	-
11. Alimony received	-	-	-
12. Business income or loss	11,413	14,880	11,265
13. Capital gain or loss	-	-	-
14. Other gains or losses	-	-	-
15a. IRA distributions	-	-	-
15b. IRA distributions, taxable amount	-	-	-
16a. Pensions and annuities	-	-	-
16b. Pensions and annuities, taxable amount	-	-	-
17. Rental real estate, royalties, partnerships, etc.	6,487	7,682	6,393
18. Farm income or loss	67,422	43,983	152,034
19. Unemployment compensation	-	-	-
20a. Social security benefits	-	-	-
20b. Social security benefits, taxable amount	-	-	-
21. Other income	-	-	-
22. Total income	119,890	92,452	202,112
36. Total adjustments	-	-	-
37. Adjusted gross income	119,890	92,452	202,112
60. Total tax	11,351	21,668	20,043
Child support, other divorce income	-	-	-
Cash Flow for Debt Service			
Total income	119,890	92,452	202,112
+ Other non-taxable income	-	-	-
- Non-recurring income	-	-	-
+ Non-recurring expense	-	-	-
= Recurring total income	119,890	92,452	202,112
- Federal income tax	11,351	21,668	20,043
- State, other taxes	11,087	7,934	17,418
- Living expenses	65,000	65,000	65,000
= Cash available for debt service	32,452	-2,150	99,651
Personal Debt Payments			
Mortgage payments	12,092	12,092	12,092
Vehicle payments	6,240	4,800	4,800
Credit card payments	5,000	5,000	5,000
Other debt payments	-	-	-
Total annual debt payments	23,332	21,892	21,892
Debt to total income	19	24	11
Debt to recurring income	19	24	11
Personal debt margin	9,120	-24,042	77,759

# Example #1

- Other information...
  - Married couple, sole proprietor
  - All debt listed on the farm balance sheet
- Approach to global cash flow?





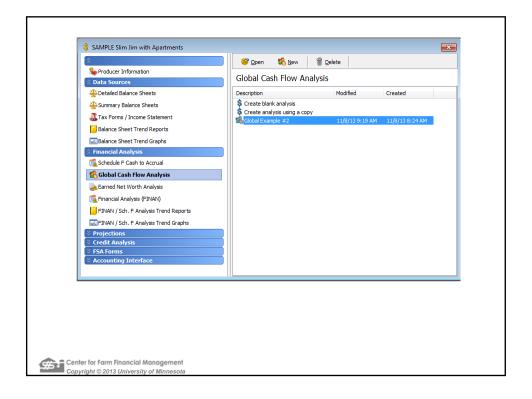
Slim Jim Sample 2013 Annual Plan

		Executive	e Summary		
Projected Cash Flow Summary			Term Debt Coverage		
Total operating inflow		2,623,940	Net farm income from operations		158,403
Total operating outflow	(-)	2,269,755	Depreciation	(+)	134,680
Capital purchases	(-)	25,000	Personalincome	(+)	50,475
Capital sales	(+)	10,000	Family living expense	(-)	76,500
New credit	(+)	1,309,606	Personal loan payments	(-)	6,000
Loan payments	(-)	1,506,264	Income and social security tax	(-)	18,500
Net cash flow	(=)	142,526	Interest paid on term debt	(+)	51,736
			Capital debt repayment capacity	(=)	294,294
Beginning cash balance	(+)	43,578	Term debt payments		120,798
Operating loan borrowings	(+)	25,000	Term debt coverage		2.44
Operating loan principal payments	(-)	201,564			
Ending cash balance	(=)	9,540	Farm Financial Standards Measures		
Beginning operating loan balance		201,564	Liquidity	Beginning	Ending
Ending operating loan balance		25,000	Current ratio	1.7	2.2
			Working capital	628,096	786,593
Projected Change in Working Ca	pital		Working capital to gross revenue	24.4 %	30.6 %
Change in cash		-34,038	Solvency (market)		
Change in current inventories	(+)	5,552	Debt to asset ratio	42.3 %	36.7 %
Change in operating loan balance	(-)	-176,564	Equity to asset ratio	57.7 %	63.3 %
Change in other current loans	(-)	-10,418	Debt to equity ratio	0.7	0.6
Estimated change in working capital	(=)	158,496	THE RESERVE OF THE PERSON OF T		
r creming the consequence \$5.00 mile. □ is graphly of the medical □ is sent \$1.00 mile.	*		Profitability (market)		

# Example #2

- Same couple from Example #1
- Partnership with in-laws on apartment building
  - \$1.2 million loan balance
- NOW what?







Actual \$					
	2010	2011	2012	Average	
Sch F - Slim Jim Farms					
Net farm profit or loss	67,422	43,983	152,034	87,813	
+ Other non-taxable income	-	-	-	-	
+ Depreciation	215,605	288,163	211,414	238,394	
+ Interest (total)	107,214	126,626	111,050	114,963	
- Interest on current debt	76,105	47,999	54,171	59,425	
- Non-recurring income	-	-	-	-	
+ Non-recurring expense	-	-	-	-	
= Cash available for debt service	314,136	410,773	420,327	381,745	
Debt payments	89,889	113,996	120,798	108,228	
Debt service coverage ratio	3.49	3.60	3.48	3.53	
Debt repayment margin	224,247	296,777	299,529	273,518	
8825 - Prairie Home Apartments					
Net rental real estate income	42,695	40,173	39,537	40,802	
+ Depreciation	48,000	48,000	48,000	48,000	
+ Interest	82,250	80,089	77,783	80,040	
- Interest on current debt	-	-	-	-	
- Non-recurring income	-	-	-	-	
+ Non-recurring expense	-	-	-	-	
= Cash available for debt service	172,945	168,262	165,320	168,842	
Debt payments	114,520	114,520	114,520	114,520	
Debt service coverage ratio	1.51	1.47	1.44	1.47	
Debt repayment margin	58,425	53,742	50,800	54,322	
1040 - Jim & Sarah					
Total income	141,238	112,539	221,881	158,553	
Other non-taxable income	=	-	-	-	
Non-recurring income	=	-	-	-	
+ Non-recurring expense	=	-	-	-	
= Recurring total income	141,238	112,539	221,881	158,553	
Federal income tax	11,351	21,668	20,043	17,687	
State, other taxes	11,087	7,934	17,418	12,146	
· Living expenses	65,000	65,000	65,000	65,000	
= Cash available for debt service	53,800	17,937	119,420	63,719	
Debt payments	23,332	21,892	21,892	22,372	
Debt service coverage ratio	2.31	0.82	5.45	2.86	
Debt repayment margin	30,468	-3,955	97,528	41,347	
1040 - Ole & Lena					
Total income	140,598	143,922	144,394	142,971	
+ Other non-taxable income	-	-	-	-	
Non-recurring income	-	-	-	-	
Non-recurring expense	-	-	-	-	
= Recurring total income	140,598	143,922	144,394	142,971	
Federal income tax	16,872	17,271	17,327	17,157	
- State, other taxes	11,037	11,298	11,335	11,223	
- Living expenses	75,000	75,000	75,000	75,000	
= Cash available for debt service	37,689	40,353	40,732	39,591	
Debt payments	26,913	26,913	26,913	26,913	
Debt service coverage ratio	1.40	1.50	1.51	1.47	

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Prepared by: Wynn Richardson
University of Minnesota

Actual \$				
	2010	2011	2012	Average
Debt repayment margin	10,776	13,440	13,819	12,678
Global Debt Coverage				
Business and personal cash available for debt service	578,570	637,324	745,798	653,897
- Business income included in personal income	110,117	84,156	191,571	128,615
= Net global cash available for debt service	468,453	553,168	554,227	525,283
Total debt payments	254,654	277,321	284,123	272,033
Total debt coverage ratio	1.84	1.99	1.95	1.93

# Navigating the Maze

- Personal vs. Business debt coverage
- Net vs. Gross
- Recurring vs. Non-recurring
- Earnings vs. Distributions



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## Personal vs. Business

- Personal or Consumer debt coverage measure is *Debt to Income* 
  - 40% is acceptable
  - 36% is preferable
  - Lower is better



## Personal vs. Business

 Business measure is Debt Coverage Ratio

 $\frac{Net\ profit + depreciation + interest\ (EBIDA)}{Debt\ Payments}$ 

- 1.25% is preferable
- Higher is better



## Home Mortgage Example

- Desired Debt to Income → 28 36%
- Equivalent Debt
   Coverage Ratio → 3.6 to 2.8

## **Business Example**

- Debt Coverage Ratio → 1.5
- Equivalent Debt to Income → 67%



## Personal vs. Business

- Merging personal and business,
   FINPACK uses Debt Coverage Ratio for global measure
- What is a "good" measure?



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## What is a "Good" Measure?

- 40% Debt to Income
  - 60% remaining for living expenses, taxes, toys, etc.
- 1.25 Debt Coverage Ratio
  - Business has covered expenses with some cushion for taxes



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## Net vs. Gross

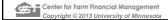
- What is a "good" measure?
  - Are you including personal living expenses?
- "Net" method → yes
- "Gross" method → no



## Net vs. Gross

• Net method similar to business range





## Net vs. Gross

• Gross method has higher ranges



# Recurring vs. Non-recurring

- Easy answer → Only include recurring items
  - What is recurring?
- Averaging over several years flattens out highs & lows
  - Non-recurring may be "normal"





# Recurring vs. Non-recurring

- Non-recurring items leads to more questions
  - What was done with the proceeds?
  - Answer is likely not on tax return



## Earnings vs. Distributions

- 1040 Schedule E shows pass-through entity income / losses
- K-1's also shows guaranteed payments and distributions
- Who wins?



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## Earnings vs. Distributions

- Control
  - Less than 30% or clear minority position
    - Use K-1 net distribution
    - Contingent liability (share of debt service)
  - More than 70% or clear control
    - Use entity earnings (Net profit + Depreciation + Interest)
    - Include entity debt service

# FINPACK is a great tool, but it is no substitute for thinking!!!

Clark Garland University of Tennessee

