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# CH Capital Partners LLC

**Know who you are working with**

*Striving to educate and consult Small Business and Middle Markets to help create jobs for our fellow Americans*

**Financial Modeling for SBA Loans**

***What Small and Middle Market Businesses need to know, and what financial statement analysis means***

By

**Sok H. Cordell Sr. Managing Director**



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# FINANCIAL MODELING FOR SBA

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Section

# FINANCIAL MODEL

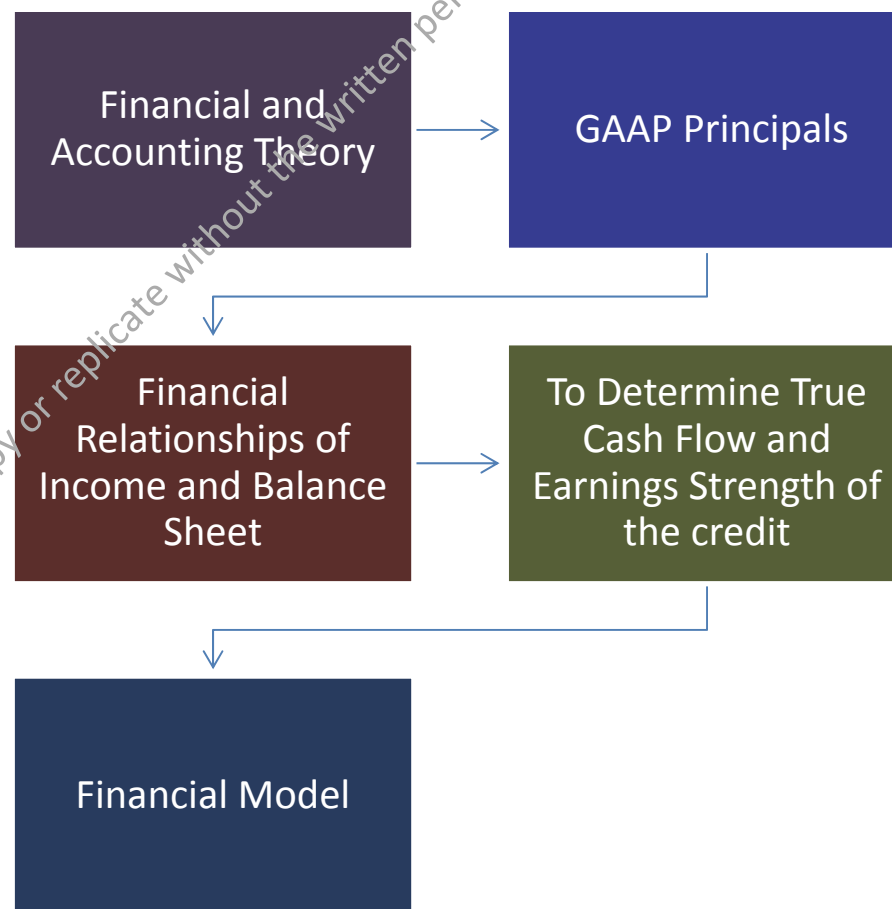
## Why is Financial Model needed?

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- Financial Model is a way the Credit Analyst can communicate with the Lending or Financial Institution to move the loan package through the system to receive credit approval on a loan
- Financial Model has to take account the Income Statement, Balance Sheet, Cash-Flow, and all the vertical and horizontal test to determine risk associated with the loan.
- Is there a standard in the SBA? Yes to a degree. Since SBA changed the guidelines from lending \$2MM to \$5MM, different types of loans are entering the market.
- The average loan size for SBA loans are usually around \$1.26MM, which usually have one or two affiliate entities, but when the new rules for higher loan amount, the credit analyst are now reviewing complex tax returns with up to 10 affiliate entities, which may or may not have inter-related company financials, which is more complicated than the loan package received prior to the SBA loan limit changes
- CH Capital Partners LLC believe we may have a solution for common good to help small business and middle market clients create jobs so our fellow Americans.
- If the market does not change and start adapting to new technologies and new way of reviewing financial statements, packaging, and processing SBA loans, we will cause the small business and middle market clients not to be able to create jobs.
- We as part of the solution need to have a better way to analyze the financial packages and come to a better solutions to communicate these complex files to one another. Email has become the primary method of communicating financial packages. Since many bankers receive 100 to 300 emails per day, the delay is inevitable because the market cannot process that many emails, proper financial modeling and packaging is the solution

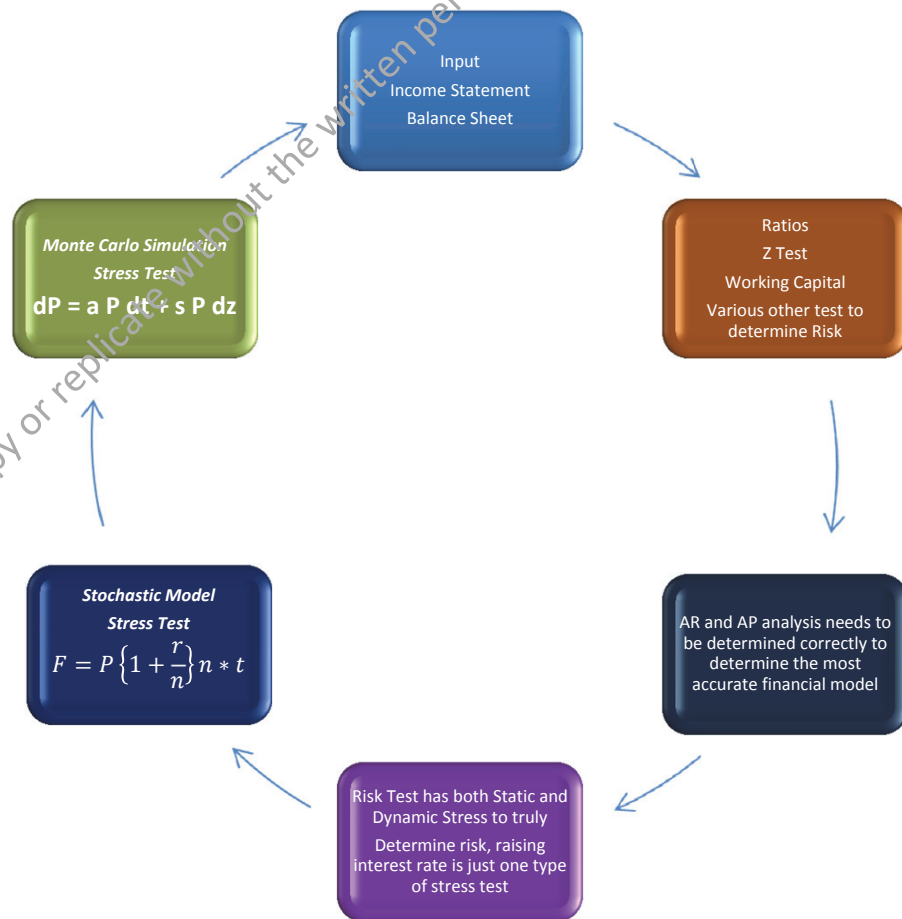
## What is Financial Model?

- A Financial Model is to help credit Underwriters or Analyst illustrate the relationship of interpreting the borrowers financial tax return or financial statements to determine if the SBA loan is viable to take the risk to lend with the government guarantee
- Use Proper Methods to determine liquidation value, discount cash flow, vertical, horizontal, ratios, collateral analysis to figure the risk that a financial institution is willing to take on risk



## Financial Modeling for SBA – What is needed?

- Model Example
  - A model specific relationship should be input and outputs
  - Income Statement, Balance Sheet, AR and AP analysis has to be modeled correctly for the right output.
  - Furthermore Excel skills are needed to fully comprehend the financial model that is needed to build both subject financial model and global financial model.
  - Financial Model is a skill, but it take solutions to create the right one
  - Stress tests with static numbers are not realistic in nature: example if the interest rate in payment will rise by 2%, today prime is at 3.25% and if the stress test is based on raising the payment with increase in rate of 2%, that is near 60% increase to rate, highly improbable outcome, so therefore there has to be a better or more reasonable method of stress testing a subject loan.
  - Monte Carlo Simulation and Stochastic Stress test will determine the future value of the company, or will help figure out the strength and weakness of the credit for the future of the subject loan



## Financial Model for SBA Loans

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- Characteristics of a good financial model
  - Realistic
  - Error-Free
  - Flexible
  - Easy to use
  - Easy to understand
  - Can be audited
  - Know what the outcome of the model
  - Basic understanding of GAAP
  - Basic Knowledge of Excel
  - Complete understanding of Book Value, Book Earnings, M1 and M2 reconciliation
  - Advanced knowledge of Assets and Liability for the true nature of cash-flow



## Realistic Financial Model

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- Realistic
  - Assumptions, relationship, inputs, and model must be realistic so the outputs are usable for the credit analyst in the market place
  - Examples:
    - If a borrower has a negative equity in the balance sheet, it can mean many different things. One could mean that the business owner is taking distributions from the business without actually making profit; but also it could mean that the borrower could have bought the property for below fair market value or there maybe a relationship of depreciation or accelerated depreciation that may have occurred.
    - Depending on the credit experience of the credit analyst, he or she may have never seen a client with 10 affiliate entities with inter-company related financials, auditing a client with 11 different tax returns of affiliates, and also having the inter-related financials, are far more complex than your typical SBA loans, so building a financial model for a complex situation is quite difficult and time consuming for the credit analyst of a community banks
    - Furthermore, how well does the SBA's underwriting review the global financial picture, we are not talking about eligibility, we are talking about the true global cash flow, not the simple cash flow, true cash flow that takes all the assets and liabilities of the affiliated to combine the true cash flow globally and also individually.
    - So when the new wave of borrowers are coming into the market requesting to refinance or buy a business, are we servicing them in the proper financial models or are we trying to force these wealthier individuals on the financials models that were built for \$2MM limit SBA loans.

## Flexible Financial Model

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- Flexible
  - Is the current financial model simple for the credit analyst to review, it would have been simple, but if you have 10 affiliates, is it practical to have a excel financial model with income statement, balance sheet, universal cash flow, operational cash flow in all different tabs.
  - Average financial model for SBA loans have about 6 tabs, if a client has 10 affiliates, would it be practical for a credit analyst to review 60 tab financial model? Probably not. Most credit analyst do not receive enough compensation to do that type of work.
  - We are what we see, if SBA has not seen a financial model with 10 or 15 affiliates, then how can we expect the credit analyst to understand a LBO (Leverage Buy-Out) Financial Model, if the credit analyst is used to seeing one or two affiliates at the most, you cannot build a financial model with 60 tabs, it will never work.
  - The financial model should explain the credit, affiliate summaries, financial auditing capabilities for the credit analyst to understand the deal and interpret the credit according to the institution that he or she may work for, so it would be that much faster that the credit analyst go through the thorough credit model to determine if it is in the lending policy of the financial institution.
  - Financial Model should answer all the following questions, eligibility, type of loan, structure of the loan, credit and character of the borrower, collateral analysis, liquidation policies incase of default, stress testing both static and dynamic using Monte Carlo simulation, maybe both random and historical sampling.
  - Often there is a disconnect between what the CCO is looking for in credit vs. what the credit analyst is capable of interpreting the credit, so if SBA is looking for stronger borrowers, the credit analyst needs to re-train their credit and accounting skills to get the higher quality of assets that are available in the market place. There are many high quality loans in the market place, but the Credit Analyst may need to re-educate on the new tax rules and understand the more sophisticated tax deferral strategies that Wealthier clients who are needing capital from SBA loans.
  - ***We are responsible for helping small business and middle market retain credit so they can create jobs for our fellow Americans.***

# FINANCIAL MODELING FOR SBA

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Section

# FINANCIAL STATEMENT

# Income Statement

Type of Statement	Tax Return		Tax Return		Tax Return		Internally Prepared		Projection		NAICS
# of Months:	12		12		12		12		12		Statistics
Date of Statement:	12/31/2008		12/31/2009		12/31/2010		12/31/2011		12/31/2012		
(In Thousands)	\$	%	\$	%	\$	%	\$	%	\$	%	
<b>INCOME STATEMENT:</b>											
Net Sales	8,304.0		7,454.0		7,725.0		7,528.0		8,304.0		100.0%
Cost of Sales	1,483.0	17.9%	1,630.0	21.9%	1,124.0	14.6%	1,104.0	14.7%	1,104.0	13.3%	100.0%
Gross Profit	6,821.0	82.1%	5,824.0	78.1%	6,601.0	85.4%	6,424.0	85.3%	7,200.0	86.7%	0.0%
Officer Compensation	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	
Wages	2,780.0	33.5%	2,998.0	40.2%	1,981.0	25.6%	2,009.0	26.7%	1,981.0	23.9%	
Rent	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	
Depreciation	623.0	7.5%	532.0	7.1%	532.0	6.9%	532.0	7.1%	532.0	6.4%	
Interest	538.0	6.5%	531.0	7.1%	524.0	6.8%	524.0	7.0%	524.0	6.3%	
Other Operating Expenses	2,096.0	25.2%	1,936.0	26.0%	3,043.0	39.4%	2,680.0	35.6%	2,500.0	30.1%	
Total Expenses	6,037.0	72.7%	5,997.0	80.5%	6,080.0	78.7%	5,745.0	76.3%	5,537.0	66.7%	0.0%
Other Income	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	
Management Fee 5%	349.0	4.2%	352.0	4.7%	306.0	4.0%	306.0	4.1%	306.0	3.7%	0.0%
Income (Loss) Before Taxes	435.0	5.2%	-525.0	-7.0%	215.0	2.8%	373.0	5.0%	1,357.0	16.3%	0.0%
Income Tax	516.0	6.2%	225.0	3.0%	224.0	2.9%	225.0	3.0%	225.0	2.7%	
<b>Net Income (Loss)</b>	<b>-81.0</b>	<b>-1.0%</b>	<b>-750.0</b>	<b>-10.1%</b>	<b>-9.0</b>	<b>-0.1%</b>	<b>148.0</b>	<b>2.0%</b>	<b>1,132.0</b>	<b>13.6%</b>	<b>0.0%</b>
Dividends Paid											

- Income Statement

- Operations

- Should be Itemized to help determine if the company is profitable or not
    - The figure in the table does not categorize the expenses, so when adding it together, credit analyst may not full comprehend the nature of the business
    - Depreciation, interest rate expense, wages, and officers compensation may be applicable for one entity borrowers, but the income statement fails if you have to review multiple affiliates, because it is in the details of the break down, where credit analyst really need to do the work.

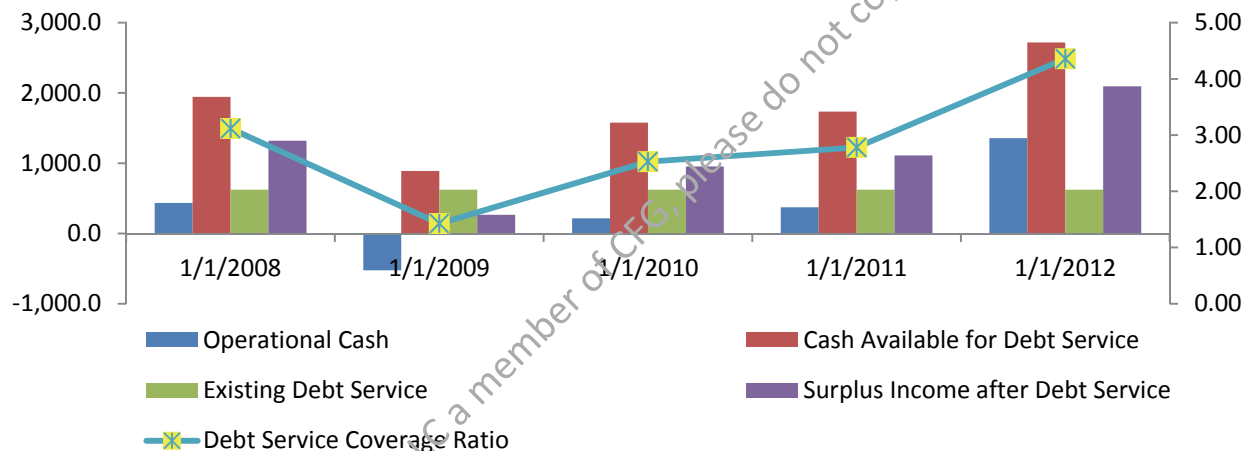
# Operational Cash Flow

<b>Operational Cash</b>	435.0	-525.0	215.0	373.0	1,357.0
Depreciation/Amort.	623.0	532.0	532.0	532.0	532.0
+ Interest Expense	538.0	531.0	524.0	524.0	524.0
+ Rental Expense	0.0	0.0	0.0	0.0	0.0
+ Other: Owner's Draw	0.0	0.0	0.0	0.0	0.0
Management Fee 5%	349.0	352.0	306.0	306.0	306.0
<b>= Available Cash</b>	<b>1,945.0</b>	<b>890.0</b>	<b>1,577.0</b>	<b>1,735.0</b>	<b>2,719.0</b>
- Existing Debt Service	624.0	624.0	624.0	624.0	624.0
- Interest on Line	0.0	0.0	0.0	0.0	0.0
- Principal on Line	0.0	0.0	0.0	0.0	0.0
- New Debt Service	0.0	0.0	0.0	0.0	0.0
- Other:	0.0	0.0	0.0	0.0	0.0
<b>= Surplus</b>	<b>1,321.0</b>	<b>266.0</b>	<b>953.0</b>	<b>1,111.0</b>	<b>2,095.0</b>
Coverage Ratio	3.12	1.43	2.53	2.73	4.36

## Operational Cash Flow

- DSCR
- Add Back items to reflect true cash flow
- The new Debt Service
- Any other interest
- For bank loan, you need to add back management fee, and book factor 1.5 or 2 on the credit report. For CMBS credit, you need to use the 5% for management.
- Operational cash flow also determines which items are for tax deferral or tax minimization strategies for the subject business or property.
- In the case for SBA, operational cash flow is important to determine the true nature of cash flow

Operational Cash Flow for Debt Service

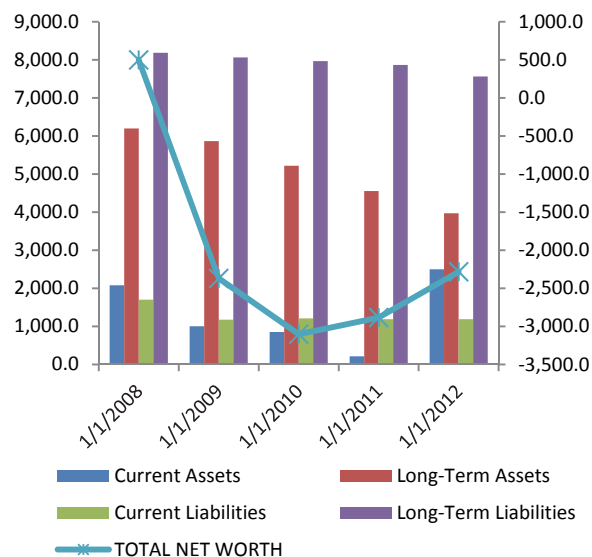


# Balance Sheet

Type of Statement	Tax Return		Tax Return		Tax Return		Internally Prepared		Projection		NAICS
# of Months:	12		12		12		12		12		Statistics
Date of Statement:	12/31/2008		12/31/2009		12/31/2010		12/31/2011		12/31/2012		
(In Thousands)	\$	%	\$	%	\$	%	\$	%	\$	%	
<b>ASSETS</b>											
Cash & Securities	1,400.0	16.9%	83.0	1.2%	212.0	3.5%	212.0	4.4%	2,500.0	38.6%	0.0%
Receivables	341.0	4.1%	498.0	7.2%	516.0	8.5%	0.0	0.0%	0.0	0.0%	0.0%
Inventory	114.0	1.4%	107.0	1.6%	123.0	2.0%	0.0	0.0%	0.0	0.0%	0.0%
Other	224.0	2.7%	316.0	4.6%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0%
<b>Current Assets</b>	<b>2,079.0</b>	<b>25.1%</b>	<b>1,004.0</b>	<b>14.6%</b>	<b>851.0</b>	<b>14.0%</b>	<b>212.0</b>	<b>4.4%</b>	<b>2,500.0</b>	<b>38.6%</b>	<b>0.0%</b>
Land	500.0	6.0%	500.0	7.3%	500.0	8.2%	500.0	10.5%	500.0	7.7%	
Buildings	7,900.0	95.4%	8,056.0	117.3%	7,686.0	126.6%	7,342.0	154.0%	7,124.0	110.1%	
Less Depreciation	2,202.0	26.6%	2,690.0	39.2%	2,967.0	48.9%	3,287.0	69.0%	3,654.0	56.5%	0.0%
Net Fixed Assets	6,198.0	74.9%	5,866.0	85.4%	5,219.0	86.0%	4,555.0	95.6%	3,970.0	61.4%	0.0%
<b>Long-Term Assets</b>	<b>6,198.0</b>	<b>74.9%</b>	<b>5,866.0</b>	<b>85.4%</b>	<b>5,219.0</b>	<b>86.0%</b>	<b>4,555.0</b>	<b>95.6%</b>	<b>3,970.0</b>	<b>61.4%</b>	<b>0.0%</b>
<b>TOTAL ASSETS</b>	<b>8,277.0</b>	<b>100.0%</b>	<b>6,870.0</b>	<b>100.0%</b>	<b>6,070.0</b>	<b>100.0%</b>	<b>4,767.0</b>	<b>100.0%</b>	<b>6,470.0</b>	<b>100.0%</b>	<b>0.0%</b>
<b>LIABILITIES</b>											
Notes Payable	625.0	6.0%	625.0	9.1%	625.0	10.3%	615.0	10.0%	615.0	9.5%	0.0%
Accounts Payable	270.0	2.6%	327.0	4.8%	359.0	5.9%	350.0	5.7%	350.0	5.4%	0.0%
Taxes	516.0	5.0%	224.0	3.3%	224.0	3.7%	224.0	3.6%	224.0	3.5%	0.0%
Other	288.0	2.8%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0%
<b>Current Liabilities</b>	<b>1,699.0</b>	<b>16.4%</b>	<b>1,176.0</b>	<b>17.1%</b>	<b>1,208.0</b>	<b>19.9%</b>	<b>1,189.0</b>	<b>19.3%</b>	<b>1,189.0</b>	<b>18.4%</b>	<b>0.0%</b>
Long-term Debt	8,185.0	78.8%	8,065.0	117.4%	7,965.0	131.2%	7,865.0	127.5%	7,565.0	116.9%	0.0%
<b>Long-Term Liabilities</b>	<b>8,185.0</b>	<b>78.8%</b>	<b>8,065.0</b>	<b>117.4%</b>	<b>7,965.0</b>	<b>131.2%</b>	<b>7,865.0</b>	<b>127.5%</b>	<b>7,565.0</b>	<b>116.9%</b>	<b>0.0%</b>
<b>TOTAL LIABILITIES</b>	<b>9,884.0</b>	<b>95.2%</b>	<b>9,241.0</b>	<b>134.5%</b>	<b>9,173.0</b>	<b>151.1%</b>	<b>9,054.0</b>	<b>146.7%</b>	<b>8,754.0</b>	<b>135.3%</b>	<b>0.0%</b>
<b>NET WORTH</b>											
Partners Capital	109.0	1.0%	-1,284.0	-18.7%	-650.0	-10.7%	-350.0	-5.7%	250.0	3.9%	0.0%
Capital Surplus	299.0	2.9%	-1,354.0	-19.7%	-1,723.0	-28.4%	-2,534.0	-41.1%	-2,534.0	-39.2%	0.0%
Retained Earnings	90.0	0.9%	267.0	3.9%	-730.0	-12.0%	0.0	0.0%	0.0	0.0%	0.0%
(Treasury Stock)	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0	0.0%	0.0%
<b>TOTAL NET WORTH</b>	<b>498.0</b>	<b>4.8%</b>	<b>-2,371.0</b>	<b>34.5%</b>	<b>-3,103.0</b>	<b>-51.1%</b>	<b>-2,884.0</b>	<b>-46.7%</b>	<b>-2,284.0</b>	<b>-35.3%</b>	<b>0.0%</b>
<b>TOTAL LIAB &amp; NET WORTH</b>	<b>10,382.0</b>	<b>100.0%</b>	<b>6,870.0</b>	<b>100.0%</b>	<b>6,070.0</b>	<b>100.0%</b>	<b>6,170.0</b>	<b>100.0%</b>	<b>6,470.0</b>	<b>100.0%</b>	<b>0.0%</b>

- **Balance Sheet**
  - Book Value
  - Cost Basis
  - Fair Market

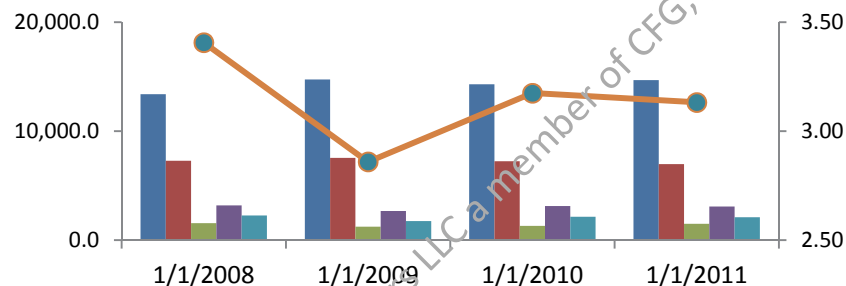
Balance Sheet



# Global Income Statement

Type of Statement	Tax Return	Tax Return	Tax Return	Tax Return
# of Months:	12	12	12	12
Date of Statement:	12/31/2008	12/31/2009	12/31/2010	12/31/2011
(In Thousands)	\$	\$	\$	\$
<b>INCOME STATEMENT:</b>				
Net Sales	13,395.0	14,742.0	14,299.0	14,683.0
Cost of Sales	4,495.0	5,790.0	5,549.0	5,976.0
Gross Profit	8,900.0	8,952.0	8,750.0	8,707.0
Officer Compensation	122.0	320.0	789.0	647.0
Wages	3,933.0	3,892.0	3,290.0	3,327.0
Rent	963.0	903.0	873.0	749.0
Depreciation	534.0	483.0	409.0	387.0
Interest	353.0	355.0	278.0	244.0
Other Operating Expenses	1,384.0	1,595.0	1,594.0	1,616.0
<b>Total Expenses</b>	<b>7,289.0</b>	<b>7,548.0</b>	<b>7,233.0</b>	<b>6,970.0</b>
Other Income	0.0	38.0	18.0	0.0
Other Expenses	58.0	215.0	235.0	235.0
<b>Income (Loss) Before Taxes</b>	<b>1,553.0</b>	<b>1,227.0</b>	<b>1,300.0</b>	<b>1,502.0</b>
Income Tax	0.0	0.0	0.0	0.0
<b>Net Income (Loss)</b>	<b>1,553.0</b>	<b>1,227.0</b>	<b>1,300.0</b>	<b>1,502.0</b>
Dividends Paid	0.0	0.0	0.0	0.0

Global Income Statement



■ Net Income  
■ Total Expense  
■ Net Income After Tax  
■ Operating Cash Available for Debt Service  
■ Income After Global Debt Service

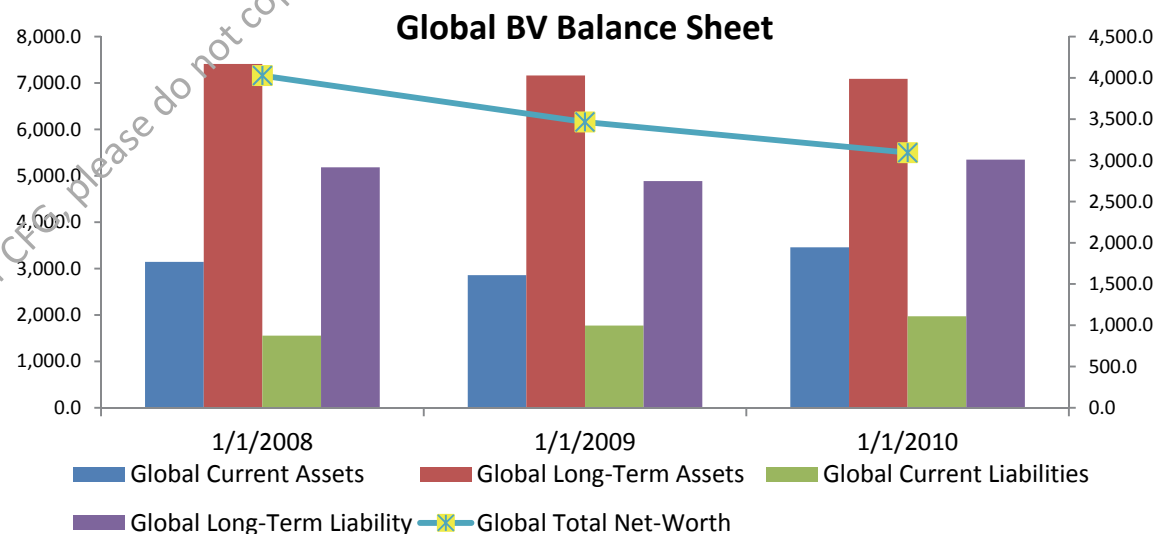
- Net Income
- Cost of Goods or Cost of Sales
- Gross Profit
- Officers Compensation
- Wages
- Rent
- Interest Expense
- Income before tax
- Income after tax
- Dividend Paid
  - M1 and M2 Reconciliation on Book Earnings
- Other Expense
- Other Income

# Global Balance Sheet

Type of Statement	Tax Return	Tax Return	Tax Return
# of Months:	12	12	12
Date of Statement:	12/31/2008	12/31/2009	12/31/2010
(In Thousands)	\$	\$	\$
<b>ASSETS</b>			
Cash & Securities	2,117.0	1,429.4	2,516.5
Receivables	610.0	984.0	558.0
Inventory	419.0	443.0	305.0
Notes Receivable	0.0	0.0	0.0
Prepays	0.0	0.0	0.0
Other	0.0	0.0	79.0
<b>Current Assets</b>	<b>3,146.0</b>	<b>2,856.4</b>	<b>3,458.5</b>
Land	1,375.0	1,375.0	1,375.0
Buildings	6,402.0	6,507.0	6,737.0
Machinery & Equipment	0.0	0.0	0.0
Furniture & Fixtures	350.0	418.0	455.0
Autos & Trucks	11.0	11.0	11.0
Other Fixed Assets	438.0	475.0	495.0
Less Depreciation	1,836.0	2,326.0	2,681.0
<b>Net Fixed Assets</b>	<b>6,740.0</b>	<b>6,460.0</b>	<b>6,392.0</b>
Intangible Assets (net)	575.0	604.0	628.0
Other	95.0	99.0	69.0
<b>Long-Term Assets</b>	<b>7,410.0</b>	<b>7,163.0</b>	<b>7,089.0</b>
<b>TOTAL ASSETS</b>	<b>10,556.0</b>	<b>10,019.4</b>	<b>10,547.5</b>
<b>LIABILITIES</b>			
Notes Payable	838.0	857.0	834.0
Accounts Payable	257.0	446.0	555.0
Taxes	345.0	403.0	280.0
Private Lender (curr)	30.0	0.0	0.0
SBA (curr)	0.0	0.0	0.0
Accruals	0.0	0.0	0.0
Other	84.0	65.0	303.0
<b>Current Liabilities</b>	<b>1,554.0</b>	<b>1,771.0</b>	<b>1,972.0</b>
Long-term Debt	4,566.0	4,303.0	4,733.0
Private Lender (LT)	0.0	0.0	0.0
SBA (LT)	0.0	0.0	0.0
Subordinate Officer	0.0	0.0	0.0
Loans from Stockholders	576.0	582.0	616.0
Other	40.0	0.0	0.0
<b>Long-Term Liabilities</b>	<b>5,182.0</b>	<b>4,885.0</b>	<b>5,349.0</b>
<b>TOTAL LIABILITIES</b>	<b>6,736.0</b>	<b>6,656.0</b>	<b>7,321.0</b>
<b>NET WORTH</b>			
Common Stock	2,607.0	2,077.0	2,015.0
Capital Surplus	-129.0	-236.6	-86.5
Retained Earnings	1,023.0	763.0	585.0
(Treasury Stock)	526.0	861.0	580.0
<b>TOTAL NET WORTH</b>	<b>4,027.0</b>	<b>3,464.4</b>	<b>3,093.5</b>
<b>TOTAL LIAB &amp; NET WORTH</b>	<b>10,763.0</b>	<b>10,120.4</b>	<b>10,414.5</b>

## Global Balance Sheet

- Global Consolidated Financials should be analyzed the same way as the subject property
- Need to review the Net Worth
- Need to review global current liabilities and long term liabilities
- Loans from inter-related companies

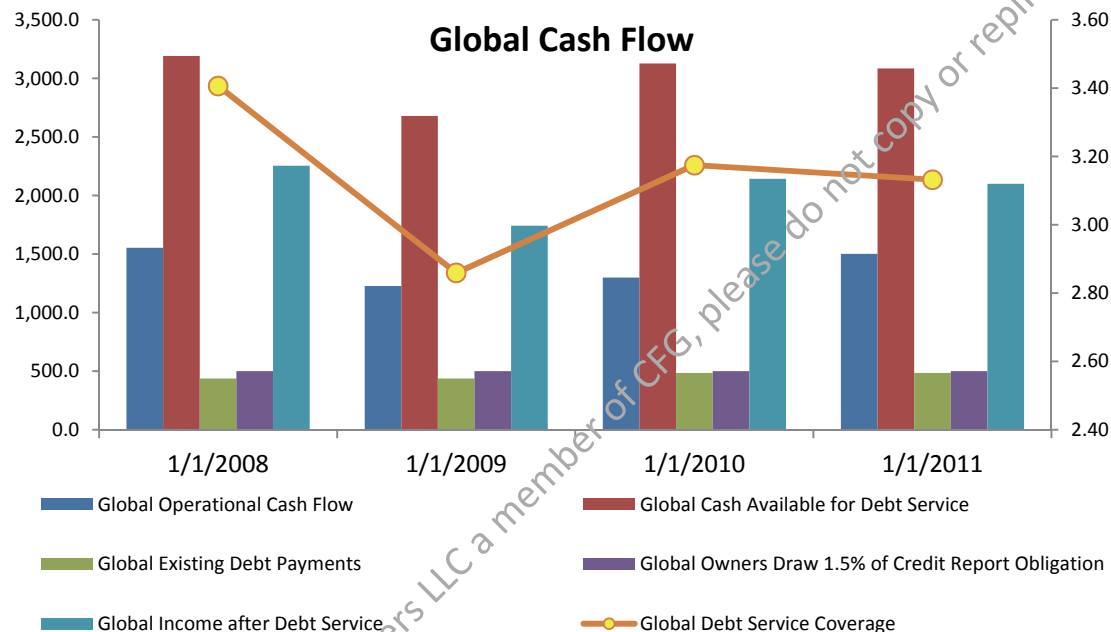




# Global Operational Cash Flow

Type of Statement	Tax Return	Tax Return	Tax Return	Internally Prepared
# of Months:	12	12	12	12
Date of Statement:	12/31/2008	12/31/2009	12/31/2010	12/31/2011
Operational Cash	1,553.0	1,227.0	1,300.0	1,502.0
Depreciation/Amort.	534.0	483.0	409.0	387.0
+ Interest Expense	353.0	355.0	278.0	244.0
+ Rental Expense	144.0	355.0	144.0	0.0
+ Other: Owner's Draw	102.0	157.0	129.0	129.0
+ Other:	506.0	102.0	867.0	823.0
= Available Cash	3,192.0	2,679.0	3,127.0	3,085.0
- Existing Debt Service	437.0	437.0	485.0	485.0
- Other: Owners Draw 1.5 Facto	500.0	500.0	500.0	500.0
= Surplus	2,255.0	1,742.0	2,142.0	2,100.0
Coverage Ratio	3.41	2.86	3.17	3.13

- **Global Operational Cash Flow**
  - Major part of underwriting the combined risk exposer of the borrower
  - View relationships between one or many companies and how it may affect the ability of the borrowers to pay mortgage
  - Answers if the global is a positive or a negative to the subject loan



## Horizontal Balance Sheet Analysis

Balance Sheets Summary				
	2008	2009	2010	2011
<b>ASSETS</b>				
Total Current Assets	65	65	68	65
%	1.94%	2.03%	2.19%	2.13%
Net Fixed Assets	3,280	3,140	3,035	2,989
%	98.06%	97.97%	97.81%	97.87%
Net Intangible Assets	0	0	0	0
%	0.00%	0.00%	0.00%	0.00%
Total Other Noncurrent Assets	0	0	0	0
%	0.00%	0.00%	0.00%	0.00%
<b>Total Assets</b>	<b>3,345</b>	<b>3,205</b>	<b>3,103</b>	<b>3,054</b>
%	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
<b>LIABILITIES &amp; STOCKHOLDERS' EQUITY</b>				
Total Current Liabilities	201	201	201	201
%	6.01%	6.27%	6.48%	6.58%
Total Long-Term Debt	2,625	2,567	2,489	2,401
%	78.48%	80.09%	80.29%	78.62%
<b>Total Liabilities</b>	<b>2,826</b>	<b>2,768</b>	<b>2,690</b>	<b>2,602</b>
%	<b>84.48%</b>	<b>86.37%</b>	<b>86.77%</b>	<b>85.20%</b>
<b>Stockholders' Equity:</b>				
Additional paid-in capital (preferred)	0	0	0	0
%	0.00%	0.00%	0.00%	0.00%
Common stock	144	74	-107	-199
%	4.30%	2.31%	-3.45%	-6.52%
Additional paid-in capital (common)	370	262	292	447
%	11.06%	8.17%	9.42%	14.64%
Retained earnings	5	101	225	204
%	0.15%	3.15%	7.26%	6.68%
(Treasury stock - common)	0	0	0	0
%	0.00%	0.00%	0.00%	0.00%
<b>Total Stockholders' Equity</b>	<b>519</b>	<b>437</b>	<b>410</b>	<b>452</b>
%	<b>15.52%</b>	<b>13.63%</b>	<b>13.23%</b>	<b>14.80%</b>
<b>Total Liabilities &amp; Stockholders' Equity</b>	<b>3,345</b>	<b>3,205</b>	<b>3,100</b>	<b>3,054</b>
%	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

### • Horizontal Test

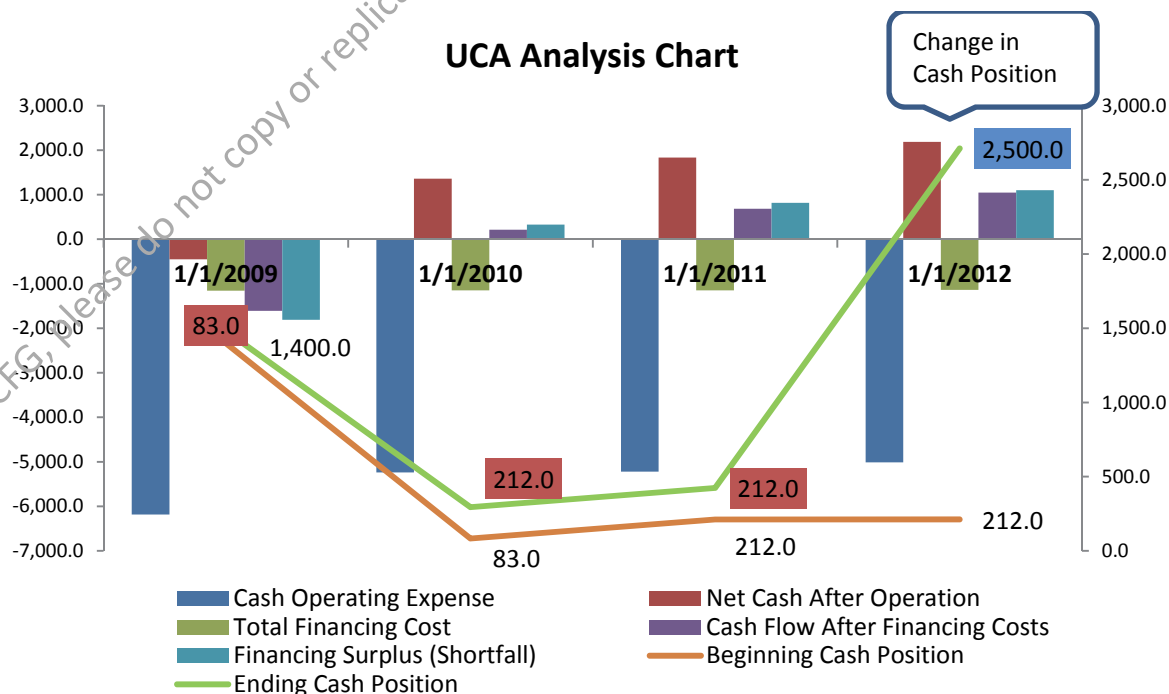
- Determining the financial historical numbers from one period to the next
- Determine the trend of the financial statement, either it is trending up or down between two period of time
- Assets are increasing or decreasing
- Current Liabilities are increasing or decreasing
- Is the company making profit or draining owners equity
- Retained Earnings up or down
- Total Equity or Stockholders Equity up or down
- Total Long Term Assets, Current Assets, Current Liabilities, Long Term Liabilities increasing or decreasing
- Net Fixed Assets, Net Intangible Assets, and paid in capital increasing or decreasing

# Universal Credit Analysis

Type of Statement	Tax Return	Tax Return	ernally Prepa	Projection
# of Months:	12	12	12	12
Date of Statement:	12/31/2009	12/31/2010	12/31/2011	12/31/2012
<b>Operating Flows</b>				
Net Sales	7,454.0	7,725.0	7,528.0	8,304.0
Change in Receivables	-157.0	-18.0	516.0	0.0
<b>Cash from Sales</b>	<b>7,297.0</b>	<b>7,707.0</b>	<b>8,044.0</b>	<b>8,304.0</b>
Cost of Goods	-1,630.0	-1,124.0	-1,104.0	-1,104.0
Change in Inventory	7.0	-16.0	123.0	0.0
Change in Accounts Payable	57.0	32.0	-9.0	0.0
<b>Cash Production Costs</b>	<b>-1,566.0</b>	<b>-1,108.0</b>	<b>-990.0</b>	<b>-1,104.0</b>
<b>Gross Cash Income</b>	<b>5,731.0</b>	<b>6,599.0</b>	<b>7,054.0</b>	<b>7,200.0</b>
G & A Expense	-4,934.0	-5,024.0	-4,689.0	-4,481.0
Change in Accruals	0.0	0.0	0.0	0.0
Other Income or Expense	-352.0	-306.0	-306.0	-306.0
Change in Other Current Assets	-92.0	316.0	0.0	0.0
Change in Other Current Liabilities	-288.0	0.0	0.0	0.0
Change in Other Noncurrent Assets	0.0	0.0	0.0	0.0
Change in Other Noncurrent Liabilities	0.0	0.0	0.0	0.0
Change in Deferred Tax	-292.0	0.0	0.0	0.0
Income Taxes Paid	-225.0	-224.0	-225.0	-225.0
<b>Cash Operating Expenses</b>	<b>-6,183.0</b>	<b>-5,238.0</b>	<b>-5,220.0</b>	<b>-5,012.0</b>
<b>Net Cash after Operations</b>	<b>-452.0</b>	<b>1,361.0</b>	<b>1,834.0</b>	<b>2,188.0</b>
Interest Expense	-531.0	-524.0	-524.0	-524.0
Dividends Paid	0.0	0.0	0.0	0.0
Current Portion Long Term Debt	-625.0	-625.0	-625.0	-615.0
<b>Total Financing Costs</b>	<b>-1,156.0</b>	<b>-1,149.0</b>	<b>-1,149.0</b>	<b>-1,139.0</b>
<b>Cash Flow After Financing Costs</b>	<b>-1,608.0</b>	<b>212.0</b>	<b>685.0</b>	<b>1,049.0</b>
Capital Expenditures	-200.0	115.0	132.0	53.0
<b>Financing Surplus (Shortfall)</b>	<b>-1,808.0</b>	<b>327.0</b>	<b>817.0</b>	<b>1,102.0</b>
Change in Short Term Debt	0.0	0.0	-10.0	0.0
Change in Long Term Debt	-120.0	-100.0	-100.0	-300.0
Change in Officer or Stockholder Debt	0.0	0.0	0.0	0.0
Change in Equity	-3,046.0	265.0	-511.0	600.0
<b>Total External Financing</b>	<b>-3,166.0</b>	<b>165.0</b>	<b>-621.0</b>	<b>300.0</b>
<b>Net Cash Flow After Financing</b>	<b>-4,974.0</b>	<b>492.0</b>	<b>196.0</b>	<b>1,402.0</b>
<b>Beginning Cash Position</b>	<b>1,400.0</b>	<b>83.0</b>	<b>212.0</b>	<b>212.0</b>
<b>Ending Cash Position</b>	<b>83.0</b>	<b>212.0</b>	<b>212.0</b>	<b>2,500.0</b>
<b>Actual Change In Cash</b>	<b>-1,317.0</b>	<b>129.0</b>	<b>0.0</b>	<b>2,288.0</b>
<b>Cash Out of Balance By</b>	<b>-3,657.0</b>	<b>363.0</b>	<b>196.0</b>	<b>-886.0</b>

## UCA (Universal Credit Analysis) Cash Flow

- Starts with Cash Flow from Sales
- Less Cash Paid to Cost of Sales or Cost of Goods
- Less Cash Paid for Operating Expense
- Accounts for Cash Inflow and Outflow
- Net Cash from Operations



## Key Earnings Measure

Key Earnings Measures and Cash Flow Summary				
	2008	2009	2010	2011
<b>Historic Net Income</b>	<b>-107</b>	<b>66</b>	<b>91</b>	<b>144</b>
Plus: Income taxes	20	44	43	46
<b>Earnings Before Taxes (EBT)</b>	<b>-87</b>	<b>110</b>	<b>134</b>	<b>190</b>
Plus: Interest Expense	0	0	0	0
<b>Earnings Before Interest &amp; Taxes (EBIT)</b>	<b>-87</b>	<b>110</b>	<b>134</b>	<b>190</b>
Plus: Depreciation & Amortization	0	0	0	0
<b>Earnings Before Interest, Depr. &amp; Amort. (EBITDA)</b>	<b>-87</b>	<b>110</b>	<b>134</b>	<b>190</b>
<b>Historic Net cash flow</b>		<b>-30</b>	<b>-36</b>	<b>168</b>
Historic income from operations		147	169	221
Less: Tax based on selected tax rate		0	0	0
Plus: Depr. & amort. from oper. (net of tax)		0	0	0
Less: Fixed asset purchases		-140	-105	-46
Less: Changes in net working capital		0	3	-3
<b>Free Cash Flow available to Total Invested Capital (FCF-TIC)</b>		<b>287</b>	<b>271</b>	<b>270</b>
Historic Net Income		66	91	144
Plus: Depreciation & amortization		0	0	0
Less: Fixed asset purchases		-140	-105	-46
Less: Changes in net working capital		0	3	-3
Plus: Changes in short-term notes payable		0	0	0
Plus: Changes in current long-term notes payable		0	0	0
Plus: Changes in long-term notes payable		-58	-78	-88
Less: Preferred Dividends		0	0	0
<b>Free Cash Flow available to Equity (FCF-E)</b>		<b>148</b>	<b>115</b>	<b>105</b>

### • Key Earnings

- Enterprise Value/EBITDA
- Enterprise Value
- Enterprise Value/Revenue
- Levered Free Cash Flow
- Operating Cash Flow
- Operating Margins
- Free Cash Flow to Equity

## RMA Analysis Common Size Statement

RMA - Business vs. Industry					
Common-Size Statements, Current Year					4 Yr Average
	Business	Industry	Difference	Variance	Variance
	2011	2011			
<b>Income Data:</b>					
Net sales	100.00%	100.00%	0.00%	0.00%	0.00%
Gross profit	100.00%	100.00%	0.00%	0.00%	0.00%
Operating expenses	78.90%	85.60%	-6.70%	-7.80%	-0.30%
Operating profit	21.10%	14.40%	6.70%	46.50%	1.60%
All other expenses (net)	19.50%	10.40%	9.10%	87.50%	128.70%
Profit Before Tax	1.60%	4.00%	-2.40%	-60.00%	-22989.90%
<b>Assets:</b>					
Cash & equivalents	2.10%	7.80%	-5.70%	-73.10%	-73.70%
Trade receivables (net)	0.00%	1.80%	-1.80%	-100.00%	-98.70%
Inventory	0.00%	0.50%	-0.50%	-100.00%	-100.00%
All other current	0.00%	1.50%	-1.50%	-100.00%	-100.00%
Total Current Assets	2.10%	11.60%	-9.50%	-81.90%	1686.90%
Fixed assets (net)	97.90%	78.00%	19.90%	25.50%	25.50%
Intangibles (net)	0.00%	3.60%	-3.60%	-100.00%	-100.00%
All other noncurrent	0.00%	6.80%	-6.80%	-100.00%	-100.00%
Total Noncurrent Assets	97.90%	88.40%	9.50%	10.70%	10977.70%
Total Assets	100.00%	100.00%			
<b>Liabilities &amp; Net Worth:</b>					
Notes payable short-term	6.60%	2.10%	4.50%	214.30%	201.70%
Current maturity of long-term Debt	0.00%	4.50%	-4.50%	-100.00%	-100.00%
Trade payables	0.00%	1.90%	-1.90%	-100.00%	-100.00%
Income taxes payable	0.00%	0.00%	0.00%	0.00%	0.00%
All other current liabilities	0.00%	8.80%	-8.80%	-100.00%	-100.00%
Total Current Liabilities	6.60%	17.30%	-10.70%	-61.80%	3562.70%
Long-term debt	78.60%	71.10%	7.50%	10.50%	11.60%
Deferred taxes	0.00%	0.00%	0.00%	0.00%	0.00%
All other noncurrent liabilities	0.00%	5.70%	-5.70%	-100.00%	-100.00%
Net worth	14.80%	5.90%	8.90%	150.80%	142.30%
Total Liabilities & Net Worth	100.00%	100.00%			

- Common Size Statement or Vertical Financial Analysis
  - RMA (Risk Management Association) Statement Studies
  - Compare Industry verses the subject loan
  - Difference
  - Variance
  - 4 year average variance

## RMA Ratio Comparison

<b>RMA - Business vs. Industry Ratios,</b>					
<b>Current Year</b>	<b>Business</b>	<b>Industry</b>	<b>Difference</b>	<b>Variance</b>	<b>4 Yr Average</b>
	<b>2011</b>	<b>2011</b>			<b>Variance</b>
<b>Liquidity Ratios:</b>					
Current ratio	0.3	0.6	-0.3	-46.20%	-45.50%
Quick ratio	0.3	0.5	-0.2	-35.40%	-34.60%
Accounts receivable turnover	0	0	0	0.00%	0.00%
Inventory turnover	0	0	0	0.00%	0.00%
Accounts payable turnover	0	0	0	0.00%	0.00%
Working capital turnover	-7.7	-24.8	17.1	-69.00%	-73.20%
<b>Coverage Ratios:</b>					
Times interest earned	0	0	0	0.00%	0.00%
Current portion of long-term debt coverage ratio	0	0	0	0.00%	0.00%
<b>Leverage/Capitalization Ratios:</b>					
Fixed assets to Tangible net worth	6.6	14.3	-7.7	-53.80%	-51.90%
Total debt to Tangible net worth	5.8	17	-11.2	-66.10%	-64.60%
<b>Operating Ratios:</b>					
Percent return on Tangible net worth	0.4	13.00%	0.3	223.10%	59.90%
Percent return on Total assets	0.1	2.00%	0	210.00%	42.10%
Net sales to Net fixed assets	0.4	0.6	-0.3	-41.70%	-51.50%
Net sales to Total assets	0.3	0.5	-0.2	-31.40%	-43.00%
Percent Depr., Amort. to Net sales	0	9.00%	-0.1	-100.00%	-100.00%
Percent Officer salaries to Net sales	0	4.30%	0	-53.50%	-54.40%

- Peer Comparison Review

## Financial Growth Evaluation

	2008	2009	2010	2011
<b>Sustainable Growth Components</b>				
Net Sales Revenue	606	1,015	932	1,046
Net Income	-107	66	91	144
Total Assets	3,345	3,205	3,103	3,054
Total Equity	519	437	410	452
Preferred Dividends	0	0	0	0
Common Dividends	0	0	0	0
<b>Sustainable Growth Ratios</b>				
Profit Margin (Net Income / Total Revenue) a	-17.66%	6.50%	9.76%	13.77%
Earnings Retention ( 1-[Total Dividends] / NI) b	100.00%	100.00%	100.00%	100.00%
Asset Turnover (Total Revenue / Total Assets) c	18.12%	31.67%	30.04%	34.25%
Financial Leverage (Total Assets / Total Equity) d	644.51%	733.41%	756.83%	675.66%
<b>Maximum Sustainable Growth in Revenue (a*b*c*d)</b>	<b>-20.62%</b>	<b>15.10%</b>	<b>22.20%</b>	<b>31.86%</b>
Historic Growth in Total Revenue		67.49%	-8.18%	12.23%
Difference from Maximum		-52.39%	30.37%	19.63%
Historic Growth in Total Revenue (Rolling Average)		67.49%	29.66%	23.85%

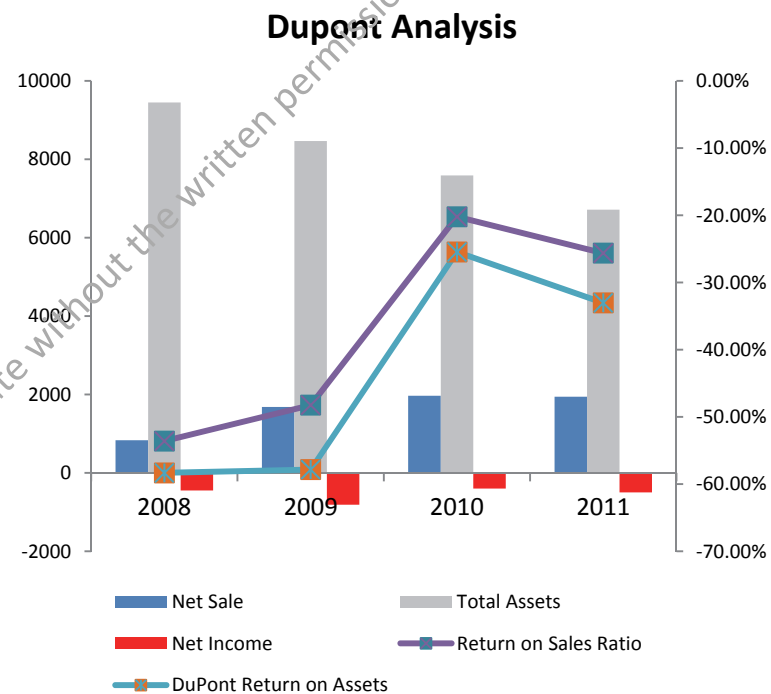
- **Sustainable Growth Component**

- Net Income
- Asset Turn Over
- Historical Growth

- Total Assets
- Financial Leverage
- Historical Growth in Total Revenue

# DuPont Analysis

Dupont Analysis	2008	2009	2010	2011
Net Sales Revenue	834	1,683	1,968	1,943
Divided by: Total Assets	9,449	8,467	7,588	6,717
Asset Turnover Ratio a	0.09	0.2	0.26	0.29
Net Income	-447	-812	-398	-498
Divided by: Net Sales	834	1,683	1,968	1,943
Return on Sales Ratio b	-53.60%	-48.25%	-20.22%	-25.63%
DuPont Return on Assets (a x b)	-4.73%	-9.59%	-5.25%	-7.41%
Total Assets	9,449	8,467	7,588	6,717
Divided by: Total Equity	0	0	0	0
Financial Leverage Ratio c	0	0	0	0
DuPont Return on Equity (a x b x c)	0.00%	0.00%	0.00%	0.00%
DuPont Return on Equity (Rolling Average)	0.00%	0.00%	0.00%	0.00%



- **DuPont Analysis**

- DuPont Asset Turn over
- Financial Leverage
- DuPont Return on Equity
- Asset Turn Over Ratio



## Return on Assets

	2008	2009	2010	2011
<b>Return on Assets:</b>				
Net Income After Tax to Total Assets	-3.20%	2.06%	2.93%	4.72%
Net Operating Income to Total Assets	0.87%	4.59%	5.45%	7.24%
EBITDA to Total Assets	2.60%	3.43%	4.32%	6.22%
EBIT to Total Assets	-2.60%	3.43%	4.32%	6.22%
FCF-E to Total Assets		4.62%	3.71%	3.44%
FCF-TIC to Total Assets		8.95%	8.73%	8.84%
<b>Return on Equity:</b>				
Net Income After Tax to Total Equity		15.10%	22.20%	31.86%
Net Operating Income to Total Equity		33.64%	41.22%	48.89%
EBITDA to Total Equity		25.17%	32.68%	42.04%
EBIT to Total Equity		25.17%	32.68%	42.04%
EBT to Total Equity		25.17%	32.68%	42.04%
FCF-E to Total Equity		33.87%	28.05%	23.23%
FCF-TIC to Total Equity		65.68%	66.10%	59.73%
<b>Return on Total Invested Capital (TIC):</b>				
EBIT to Total Invested Capital (TIC)		3.43%	4.32%	6.22%
EBITDA to Total Invested Capital (TIC)		3.43%	4.32%	6.22%
FCF-TIC to Total Invested Capital (TIC)		8.95%	8.74%	8.84%

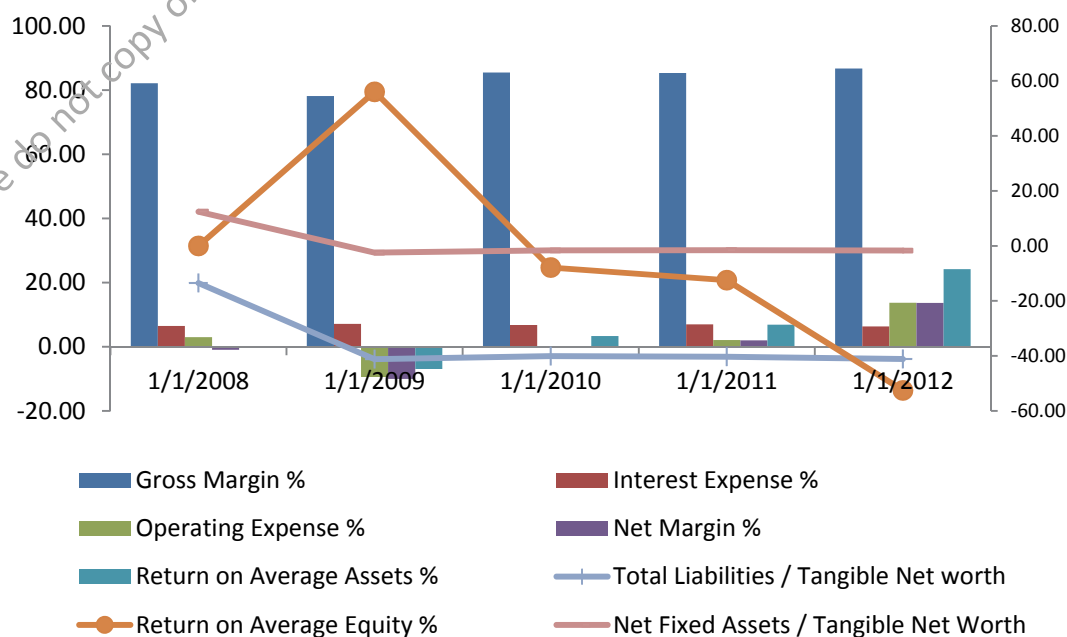
- Return on Assets
- Return on Equity
- Return on Total Invested Capital

# Ratio Analysis Year to Year

Type of Statement	Tax Return	Tax Return	Tax Return	ernally Prepa	Projection
# of Months:	12	12	12	12	12
Date of Statement:	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
<b>LIQUIDITY RATIOS:</b>					
Working Capital	380.0	-172.0	-357.0	-977.0	1,311.0
Quick	1.02	0.49	0.60	0.18	2.10
Current	1.22	0.85	0.70	0.18	2.10
Sales/Net Working Capital	21.85	-43.34	-21.64	-7.71	6.33
<b>LEVERAGE RATIOS:</b>					
Total Liabilities / Tangible Net worth	19.85	-3.90	-2.96	-3.14	-3.83
Net Fixed Assets / Tangible Net Worth	12.45	-2.47	-1.68	-1.58	-1.74
<b>ACTIVITY RATIOS:</b>					
Receivables in Days	15	24	24	#DIV/0!	#DIV/0!
Inventory in Days	28	24	40	#DIV/0!	#DIV/0!
Payables in Days	66	73	117	116	116
Total Assets / Net Sales	1.00	0.92	0.79	0.63	0.78
<b>PROFITABILITY RATIOS:</b>					
Gross Margin %	82.14	78.13	85.45	85.33	86.71
SG & A %	65.20	73.32	71.82	69.25	60.27
Cushion (Gross Margin - SG & A) %	16.94	4.82	13.63	16.09	26.43
Depreciation %	7.50	7.14	6.89	7.07	6.41
Operating Profit Margin %	9.44	-2.32	6.74	9.02	20.03
Interest Expense %	6.48	7.12	6.78	6.96	6.31
Operating Expense %	2.96	-9.44	-0.04	2.06	13.72
Net Margin %	-0.98	-10.06	-0.12	1.97	13.63
Return on Average Assets %		-6.93	3.32	6.88	24.15
Return on Average Equity %		56.06	-7.86	-12.46	-52.52
<b>GROWTH RATIOS:</b>					
Net Sales Growth		-10.24	3.64	-2.55	10.31
Net Income Growth		825.93	-98.80	-1744.44	664.86
Total Assets Growth		-17.00	-11.64	-21.47	35.72
Total Liabilities Growth		-6.51	-0.74	-1.30	-3.31
Net Worth Growth		-576.10	30.87	-7.06	-20.80
<b>COVERAGE RATIOS:</b>					
Interest Coverage (EBIT/Interest)	2.46	-0.67	1.99	2.30	4.17
Profit + Dep / Cur Long-term Mat.	1.69	0.01	1.20	1.47	3.07
Effects After New Financing	2.29	1.07	2.17	2.42	4.00
<b>CASH POSITION:</b>					
Net Income + Depreciation	-0.1	-1.4	0.0	0.3	2.1

- Ratio Analysis
- Profitability Analysis
- Growth Ratio
- Coverage Ratio
- Cash Position

## Profitability Analysis

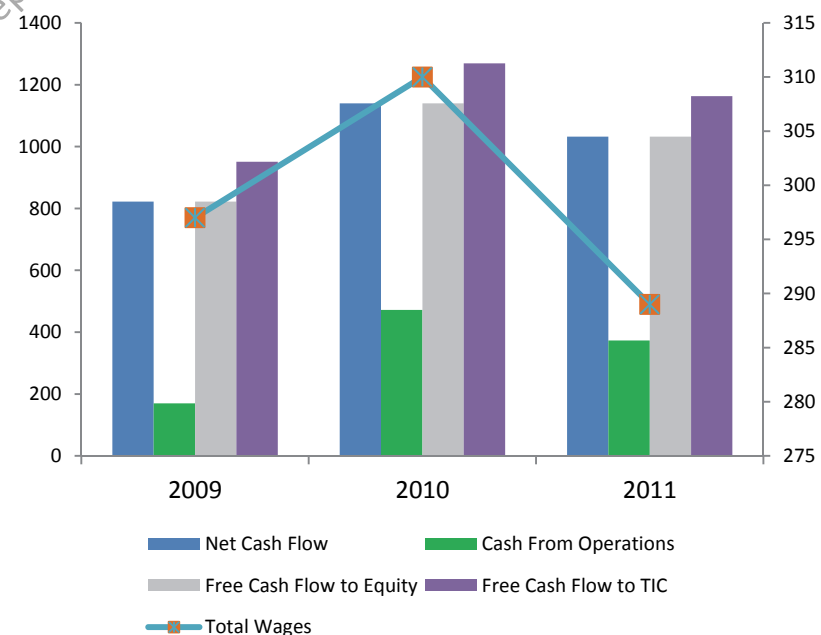


# Total Consolidated Financial Data

Source Data for Revenue & Ratio Calculations:	2008	2009	2010	2011
Net Sales revenue	834	1,683	1,968	1,943
Cost of Sales	0	0	0	0
Gross Margin	834	1,683	1,968	1,943
Officer Salary	60	60	60	60
Non-Officer Wages	106	237	250	229
Total Wages	166	297	310	289
Research & Development	0	0	0	0
Total General & Administrative Expense	1,249	2,366	2,237	2,310
Total Operating Exp. (COGS+Selling+G&A)	1,249	2,366	2,237	2,310
Net Operating Income	-415	-683	-269	-367
EBITDA	163	299	601	504
EBIT	-415	-683	-269	-367
EBT	-415	-683	-269	-367
Net Income After Tax	-447	-812	-398	-498
Net Cash Flow		822	1,140	1,032
Cash from Operations		170	472	373
Free Cash Flow available to Equity (FCF-E)		822	1,140	1,032
Free Cash Flow available to TIC (FCF-TIC)		951	1,269	1,163
Cash & Equivalents	450	450	450	450
Accounts Receivable	30	30	30	30
Inventory	5	5	5	5
Working Capital	900	900	900	900
Net Fixed Assets	5,974	4,992	4,113	3,242
Net Intangible Assets	0	0	0	0
Total Assets	9,449	8,467	7,588	6,717
Total Interest-Bearing Debt	8,017	8,017	8,017	8,017
Total Equity	0	0	0	0
Total Invested Capital (TIC)	8,046	8,046	8,046	8,046

- Free Cash Flow to Equity
- Free Cash Flow to Total Invested Capital
- EBITDA
- EBIT
- EBT
- Net Income After Tax
- Net Cash Flow
- Total Interest Bearing Debt

## Cash Flow Consolidated



# FINANCIAL MODELING FOR SBA

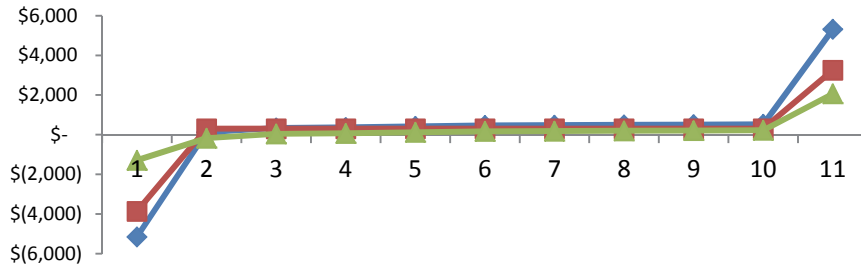
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Section

# VALUATION

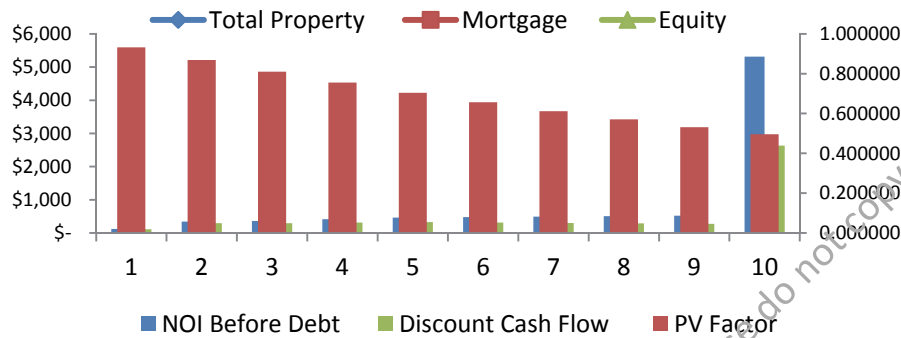
# Present Value

LTV Financial Model

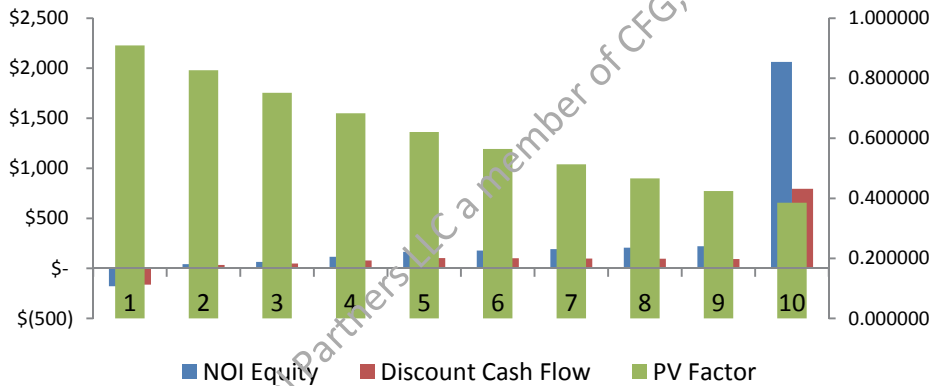


- Financial Model
  - LTV Change for 10 years
  - Equity in Present Value
  - Total Property Present Value

Total Property Present Value



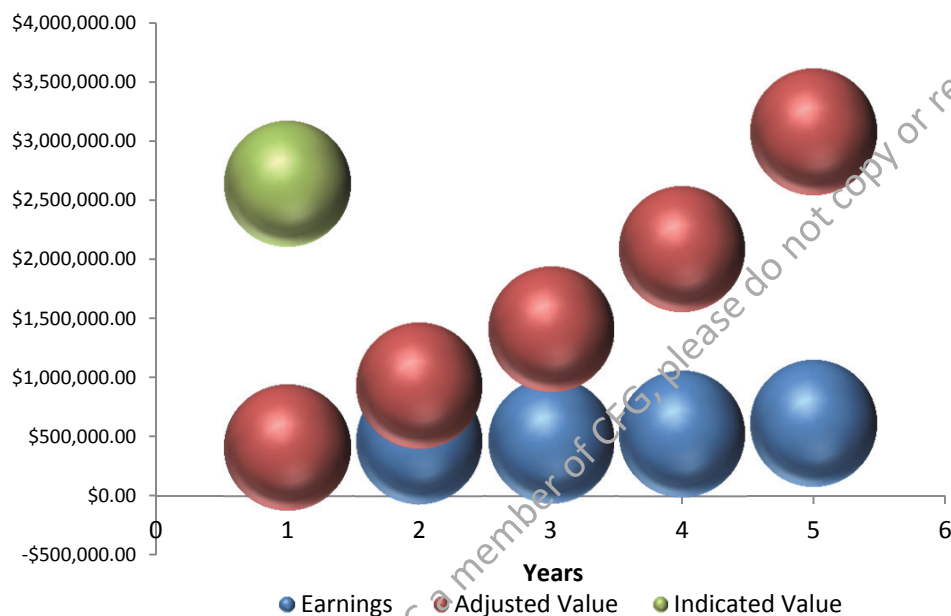
Equity of Present Value



## Capital Adjusted Earning Value

Year	Earnings	Weight	Adjusted Value	Adjusted Value/Total Weight	Indicated Value
1	\$412,000.00	1	\$412,000.00		
2	\$465,000.00	2	\$930,000.00		
3	\$470,000.00	3	\$1,410,000.00		
4	\$523,000.00	4	\$2,092,000.00		
5	\$616,000.00	5	\$3,080,000.00		
Total	\$2,486,000.00	15	\$7,924,000.00	\$528,266.67	\$2,641,333.33

Capitalized Adjusted Earnings Value



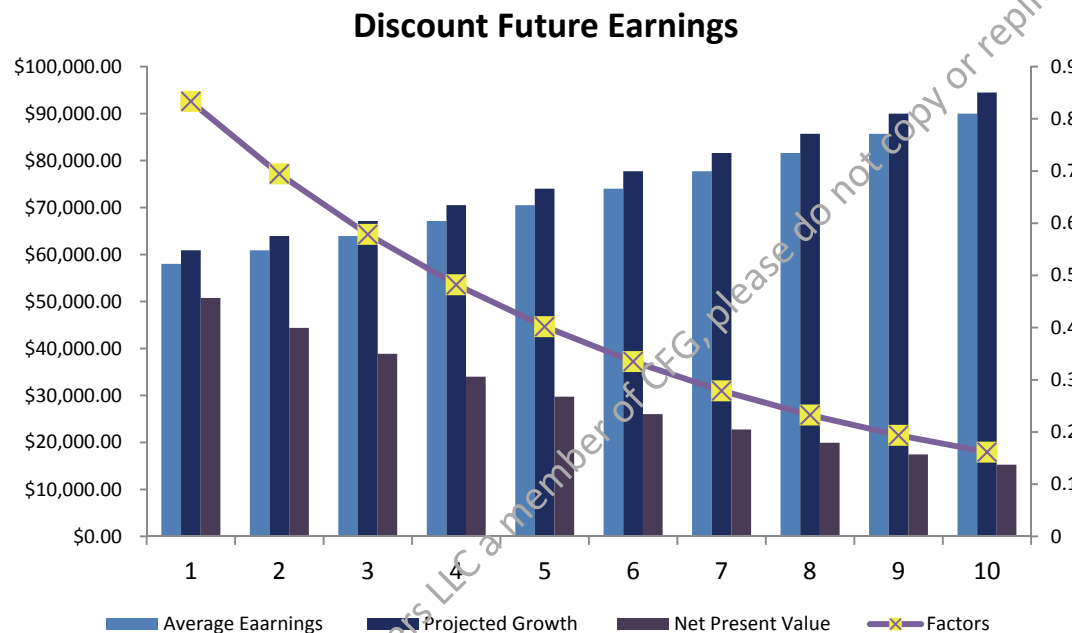
### • Characteristic of CAE Value

- Based on a major operational factor-earning power
- Five year's earnings should be considered
- Earnings should be adjusted for extraordinary and non-recurring items
- The adjusted earnings can be averaged or weighted
- Can use the prevailing rate of return for comparable companies or an appropriate discount rate
- Value of Business = Amount of Annual Earnings / Capitalization Rate

# Discount Future Earnings

Year	Average earnings	Growth rate	Projected Growth	Factor	Net Present Value
1	\$58,000.00	105.00%	\$60,900.00	0.8333	\$50,747.97
2	\$60,900.00	105.00%	\$63,945.00	0.6944	\$44,403.41
3	\$63,945.00	105.00%	\$67,142.25	0.5787	\$38,855.22
4	\$67,142.25	105.00%	\$70,499.36	0.4822	\$33,994.79
5	\$70,499.36	105.00%	\$74,024.33	0.4018	\$29,742.98
6	\$74,024.33	105.00%	\$77,725.55	0.3349	\$26,030.29
7	\$77,725.55	105.00%	\$81,611.82	0.279	\$22,769.70
8	\$81,611.82	105.00%	\$85,692.42	0.2325	\$19,923.49
9	\$85,692.42	105.00%	\$89,977.04	0.1938	\$17,437.55
10	\$89,977.04	105.00%	\$94,475.89	0.1616	\$15,267.30
			Indicated Value		\$299,172.69

- Present Value
  - Historical Patterns of Growth
  - The Discount Rate
  - Growth Rate
  - Factors
  - Projected Growth

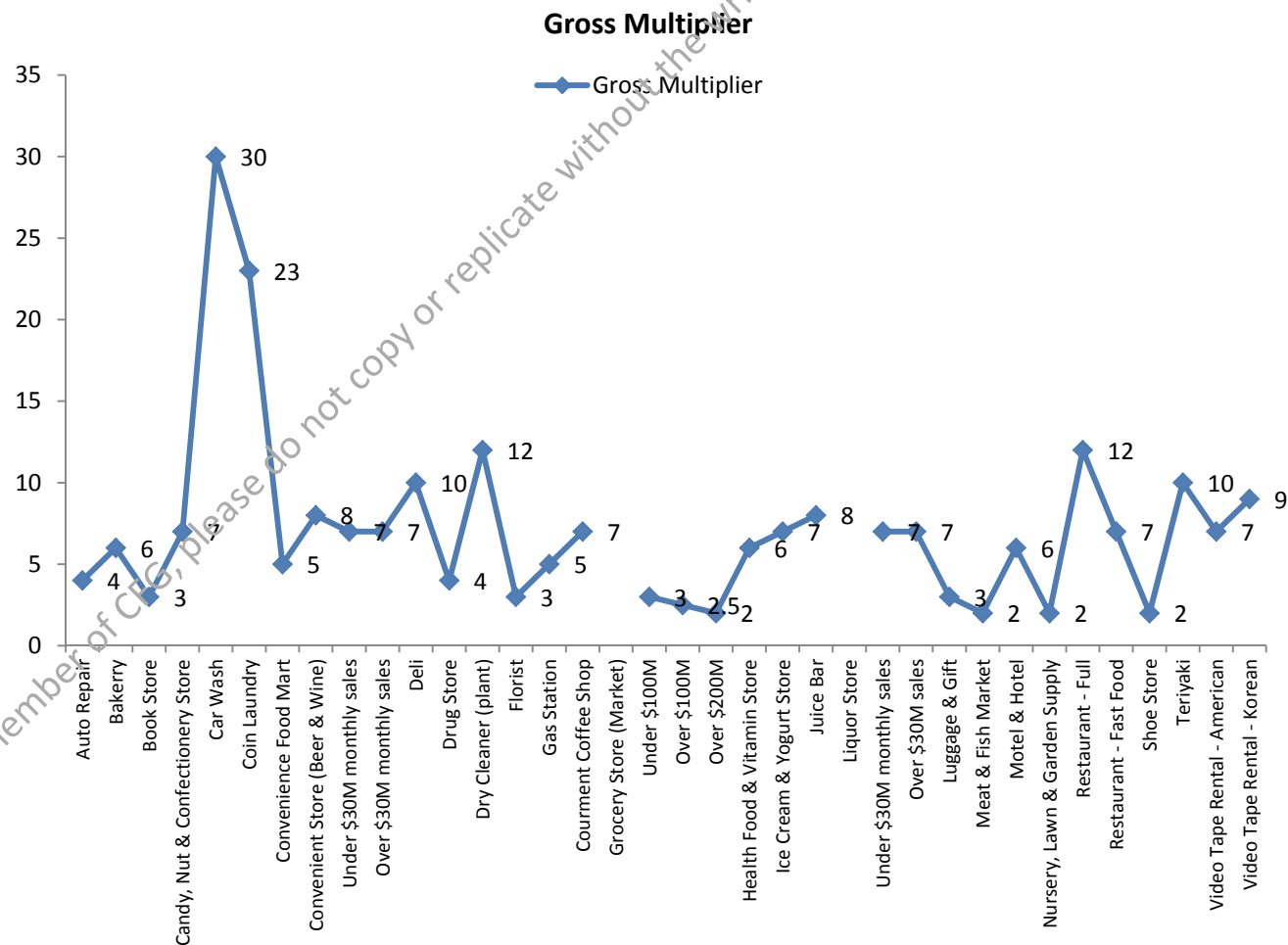


# Gross Multiplier Valuation

II. GROSS MULTIPLIER	
Monthly Gross Sales	\$30 (Latest T/R)
Gross Multiplier	7
Value of the Business	\$2,118

- Gross Multiplier Valuation Method

GROSS Multiplier	
Auto Repair	3 to 4
Bakery	5 to 6
Book Store	2 to 3 plus inventory
Candy, Nut & Confectionery Store	5 to 7
Car Wash	20 to 30
Coin Laundry	20 to 23
Convenience Food Mart	4 to 5
Convenient Store (Beer & Wine)	
Under \$30M monthly sales	4 to 7 plus inven.
Over \$30M monthly sales	4 to 7 plus inven.
Deli	6 to 10
Drug Store	4 times
Dry Cleaner (plant)	10 to 12
Florist	3 times
Gas Station	3 to 5
Courment Coffee Shop	5 to 7
Grocery Store (Market)	
Under \$100M	3 time inventory
Over \$100M	2 to 2.5 times plus inventory
Over \$200M	2 times plus inventory
Health Food & Vitamin Store	5 to 6
Ice Cream & Yogurt Store	7 times
Juice Bar	6 to 8
Liquor Store	
Under \$30M monthly sales	4 to 7 plus inven.
Over \$30M sales	4 to 7 plus inven.
Luggage & Gift	2 to 3
Meat & Fish Market	1 to 2
Motel & Hotel	3 to 6 times annual sales
Nursery, Lawn & Garden Supply	2 times plus inventory
Restaurant - Full	10 to 12
Restaurant - Fast Food	5 to 7
Shoe Store	2 times plus inventory
Teriyaki	8 to 10
Video Tape Rental - American	5 to 7
Video Tape Rental - Korean	8 to 9





# FINANCIAL MODELING FOR SBA

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Section

# STRESS TEST

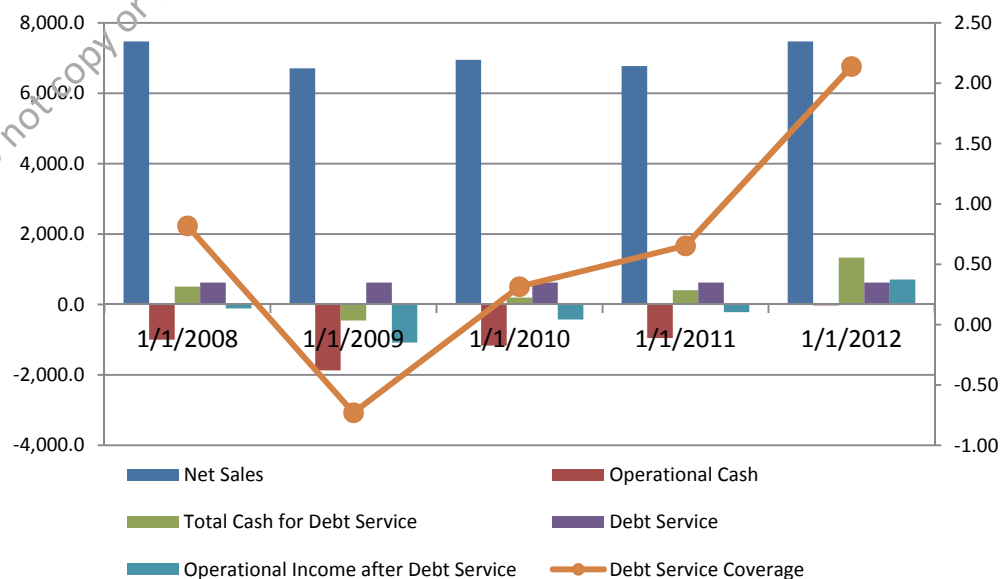
# Static Stress Test Income Statement

Type of Statement	Tax Return	Tax Return	Tax Return	ernally Prepa	Projection
# of Months:	12	12	12	12	12
Date of Statement:	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
(In Thousands)	\$	\$	\$	\$	\$
<b>INCOME STATEMENT:</b>					
Net Sales	8,304.0	7,454.0	7,725.0	7,528.0	8,304.0
Cost of Sales	1,483.0	1,630.0	1,124.0	1,104.0	1,104.0
Gross Profit	6,821.0	5,824.0	6,601.0	6,424.0	7,200.0
Officer Compensation	0.0	0.0	0.0	0.0	0.0
Wages	2,780.0	2,998.0	1,981.0	2,009.0	1,981.0
Rent	0.0	0.0	0.0	0.0	0.0
Depreciation	623.0	532.0	532.0	532.0	532.0
Interest	538.0	531.0	524.0	524.0	524.0
Other Operating Expenses	2,096.0	1,936.0	3,043.0	2,680.0	2,500.0
Total Expenses	6,037.0	5,997.0	6,080.0	5,745.0	5,537.0
Other Income	0.0	0.0	0.0	0.0	0.0
Management Fee 5%	349.0	352.0	306.0	306.0	306.0
Income (Loss) Before Taxes	435.0	-525.0	215.0	373.0	1,357.0
Income Tax	516.0	225.0	224.0	225.0	225.0
<b>Net Income (Loss)</b>	<b>-81.0</b>	<b>-750.0</b>	<b>-9.0</b>	<b>148.0</b>	<b>1,132.0</b>
<b>Dividends Paid</b>					
<b>Operational Cash</b>					
Depreciation/Amort.	623.0	532.0	532.0	532.0	532.0
+ Interest Expense	538.0	531.0	524.0	524.0	524.0
+ Rental Expense	0.0	0.0	0.0	0.0	0.0
+ Other: Owner's Draw	0.0	0.0	0.0	0.0	0.0
Management Fee 5%	349.0	352.0	306.0	306.0	306.0
<b>= Available Cash</b>	<b>1,945.0</b>	<b>800.0</b>	<b>1,577.0</b>	<b>1,735.0</b>	<b>2,719.0</b>
- Existing Debt Service	624.0	624.0	624.0	624.0	624.0
- Interest on Line	0.0	0.0	0.0	0.0	0.0
- Principal on Line	0.0	0.0	0.0	0.0	0.0
- New Debt Service	0.0	0.0	0.0	0.0	0.0
- Other:	0.0	0.0	0.0	0.0	0.0
<b>= Surplus</b>	<b>1,321.0</b>	<b>266.0</b>	<b>953.0</b>	<b>1,111.0</b>	<b>2,095.0</b>
Coverage Ratio	3.12	1.43	2.53	2.78	4.36

## Characteristics of Static Stress Test

- Increase Mortgage Rate
- Increase Operating Expense
- Decreasing Net Income
- Decreasing Net Profit

### Stress Test Income Statement



# Static Stress Test Balance Sheet

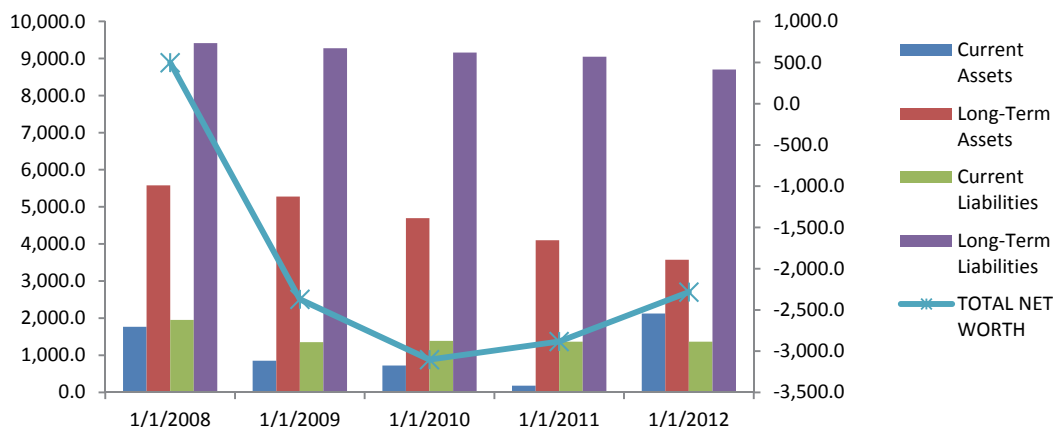
Type of Statement	Tax Return	Tax Return	Tax Return	Tax Return	Projection
# of Months:	12	12	12	12	12
Date of Statement:	12/31/2008	12/31/2009	12/31/2010	12/31/2011	12/31/2012
(In Thousands)	\$	\$	\$	\$	\$
<b>ASSETS</b>					
Cash & Securities	1,400.0	83.0	212.0	212.0	2500.0
Receivables	341.0	498.0	516.0	0.0	0.0
Inventory	114.0	107.0	123.0	0.0	0.0
Notes Receivable	0.0	0.0	0.0	0.0	0.0
Prepays	0.0	0.0	0.0	0.0	0.0
Other	224.0	316.0	0.0	0.0	0.0
<b>Current Assets</b>	<b>1,767.2</b>	<b>853.4</b>	<b>723.4</b>	<b>180.2</b>	<b>2,125.0</b>
Land	500.0	500.0	500.0	500.0	500.0
Buildings	7,900.0	8,056.0	7,686.0	7,342.0	7124.0
Machinery & Equipment	0.0	0.0	0.0	0.0	0.0
Furniture & Fixtures	0.0	0.0	0.0	0.0	0.0
Autos & Trucks	0.0	0.0	0.0	0.0	0.0
Other Fixed Assets	0.0	0.0	0.0	0.0	0.0
Less Depreciation	2,202.0	2,690.0	2,967.0	3,287.0	3654.0
Net Fixed Assets	5,578.2	5,279.4	4,697.1	4,099.5	3,573.0
Intangible Assets (net)	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0
<b>Long-Term Assets</b>	<b>5,578.2</b>	<b>5,279.4</b>	<b>4,697.1</b>	<b>4,099.5</b>	<b>3,573.0</b>
<b>TOTAL ASSETS</b>	<b>7,345.4</b>	<b>6,132.8</b>	<b>5,420.5</b>	<b>4,279.7</b>	<b>5,698.0</b>
<b>LIABILITIES</b>					
Notes Payable	625.0	625.0	625.0	615.0	615.0
Accounts Payable	270.0	327.0	359.0	350.0	350.0
Taxes	516.0	224.0	224.0	224.0	224.0
Private Lender (curr)	0.0	0.0	0.0	0.0	0.0
SBA (curr)	0.0	0.0	0.0	0.0	0.0
Accruals	0.0	0.0	0.0	0.0	0.0
Other	288.0	0.0	0.0	0.0	0.0
<b>Current Liabilities</b>	<b>1,953.9</b>	<b>1,352.4</b>	<b>1,389.2</b>	<b>1,367.4</b>	<b>1,367.4</b>
Long-term Debt	8,185.0	8,065.0	7,965.0	7,865.0	7565.0
Private Lender (LT)	0.0	0.0	0.0	0.0	0.0
SBA (LT)	0.0	0.0	0.0	0.0	0.0
Subordinate Officer	0.0	0.0	0.0	0.0	0.0
Loans from Stockholders	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0
<b>Long-Term Liabilities</b>	<b>9,412.8</b>	<b>9,274.8</b>	<b>9,159.8</b>	<b>9,044.8</b>	<b>8,699.8</b>
<b>TOTAL LIABILITIES</b>	<b>11,366.6</b>	<b>10,627.2</b>	<b>10,549.0</b>	<b>10,412.1</b>	<b>10,067.1</b>
<b>NET WORTH</b>					
Partners Capital	109.0	-1,284.0	-650.0	-350.0	250.0
Capital Surplus	299.0	-1,354.0	-1,723.0	-2,534.0	-2534.0
Retained Earnings	90.0	267.0	-730.0	0.0	0.0
(Treasury Stock)	0.0	0.0	0.0	0.0	0.0
<b>TOTAL NET WORTH</b>	<b>498.0</b>	<b>-2,371.0</b>	<b>-3,103.0</b>	<b>-2,884.0</b>	<b>-2,284.0</b>
<b>TOTAL LIAB &amp; NET WORTH</b>	<b>11,864.6</b>	<b>8,256.2</b>	<b>7,446.0</b>	<b>7,528.1</b>	<b>7,783.1</b>

## Static Stress Test Balance Sheet

### Example

- Reducing Current Assets
- Reducing Long-Term Assets
- Increasing Current Liabilities
- Increasing Long-Term Liabilities
- Changes in Capital
- Changes in Equity
- Changes in Paid In Capital

Stress Test Balance Sheet

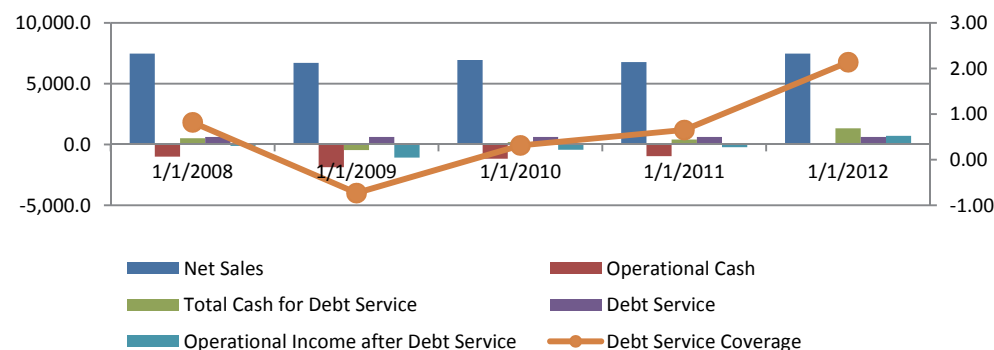


# Global Stress Test Income Statement

Menu				
	Stress Test on Revenue	95.00%		
Menu				
	Stress Test on Total Expens	115.00%		
Menu				
	Stress Test on Debt Service	120.00%		
Type of Statement	Tax Return	Tax Return	Tax Return	Internally Prepared
# of Months:	12	12	12	12
Date of Statement:	12/31/2008	12/31/2009	12/31/2010	12/31/2011
(In Thousands)	\$	\$	\$	\$
<b>INCOME STATEMENT:</b>				
Net Sales	12,725.3	14,004.9	13,584.1	13,948.9
Cost of Sales	4,495.0	5,790.0	5,549.0	5,976.0
Gross Profit	8,230.3	8,214.9	8,035.1	7,972.9
Officer Compensation	122.0	320.0	789.0	647.0
Wages	3,933.0	3,892.0	3,290.0	3,327.0
Rent	963.0	903.0	873.0	749.0
Depreciation	534.0	483.0	409.0	387.0
Interest	353.0	355.0	278.0	244.0
Other Operating Expenses	1,384.0	1,595.0	1,594.0	1,616.0
Total Expenses	8,382.4	8,680.2	8,318.0	8,016.5
Other Income	0.0	38.0	18.0	0.0
Other Expenses	58.0	215.0	235.0	235.0
Income (Loss) Before Taxes	-210.1	-642.3	-499.9	-277.7
Income Tax	0.0	0.0	0.0	0.0
Net Income (Loss)	-210.1	-642.3	-499.9	-277.7
<b>Dividends Paid</b>				
Operational Cash	-210.1	-642.3	-499.9	-277.7
Depreciation/Amort.	534.0	483.0	409.0	387.0
+ Interest Expense	353.0	355.0	278.0	244.0
+ Rental Expense	144.0	355.0	144.0	0.0
+ Other: Owner's Draw	102.0	157.0	129.0	129.0
+ Other:	506.0	102.0	867.0	823.0
= Available Cash	1,428.9	809.7	1,327.1	1,305.4
- Existing Debt Service	524.4	524.4	582.0	582.0
- Interest on Line	0.0	0.0	0.0	0.0
- Principal on Line	0.0	0.0	0.0	0.0
- New Debt Service	0.0	0.0	0.0	0.0
- Other: Owners Draw 1.5 Facto	0.0	0.0	0.0	0.0
= Surplus	904.5	285.3	745.1	723.3
Coverage Ratio	2.72	1.54	2.28	2.24

- Static Stress Test
  - Reduce Revenue by %
  - Increase Total Expense by %
  - Increase Mortgage Payment by %
  - Changes in DSCR
  - Changes in Surplus Income

Stress Test Income Statement



# Global Stress Test Balance Sheet







Type of Statement	Tax Return	Tax Return	Tax Return
# of Months:	12	12	12
Date of Statement:	12/31/2008	12/31/2009	12/31/2010
(In Thousands)	\$	\$	\$
<b>ASSETS</b>			
Cash & Securities	1,799.5	1,215.0	2,139.0
Receivables	610.0	984.0	558.0
Inventory	419.0	443.0	305.0
Notes Receivable	0.0	0.0	0.0
Prepays	0.0	0.0	0.0
Other	0.0	0.0	79.0
<b>Current Assets</b>	<b>2,828.5</b>	<b>2,642.0</b>	<b>3,081.0</b>
Land	1,375.0	1,375.0	1,375.0
Buildings	6,402.0	6,507.0	6,737.0
Machinery & Equipment	0.0	0.0	0.0
Furniture & Fixtures	350.0	418.0	455.0
Autos & Trucks	11.0	11.0	11.0
Other Fixed Assets	438.0	475.0	495.0
Less Depreciation	1,836.0	2,326.0	2,681.0
<b>Net Fixed Assets</b>	<b>6,831.8</b>	<b>6,576.3</b>	<b>6,526.1</b>
Intangible Assets (net)	575.0	604.0	628.0
Other	95.0	99.0	69.0
Long-Term Assets	6,751.6	6,551.4	6,500.7
<b>TOTAL ASSETS</b>	<b>9,580.1</b>	<b>9,193.4</b>	<b>9,581.8</b>
<b>LIABILITIES</b>			
Notes Payable	838.0	857.0	834.0
Accounts Payable	257.0	446.0	555.0
Taxes	345.0	403.0	280.0
Private Lender (curr)	30.0	0.0	0.0
SBA (curr)	0.0	0.0	0.0
Accruals	0.0	0.0	0.0
Other	84.0	65.0	303.0
<b>Current Liabilities</b>	<b>1,942.5</b>	<b>2,213.8</b>	<b>2,465.0</b>
Long-term Debt	4,566.0	4,303.0	4,733.0
Private Lender (LT)	0.0	0.0	0.0
SBA (LT)	0.0	0.0	0.0
Subordinate Officer	0.0	0.0	0.0
Loans from Stockholders	576.0	582.0	616.0
Other	40.0	0.0	0.0
<b>Long-Term Liabilities</b>	<b>6,477.5</b>	<b>6,106.3</b>	<b>6,686.3</b>
<b>TOTAL LIABILITIES</b>	<b>8,420.0</b>	<b>8,320.0</b>	<b>9,151.3</b>
<b>NET WORTH</b>			
Common Stock	2,607.0	2,077.0	2,015.0
Capital Surplus	-1,077.0	-1,053.0	-662.0
Retained Earnings	1,023.0	763.0	585.0
(Treasury Stock)	526.0	861.0	580.0
<b>TOTAL NET WORTH</b>	<b>3,079.0</b>	<b>2,648.0</b>	<b>2,518.0</b>
<b>TOTAL LIAB &amp; NET WORTH</b>	<b>11,499.0</b>	<b>10,968.0</b>	<b>11,669.3</b>

## Global Static Stress Test on Balance Sheet

### Examples

- Reducing Current Assets
- Reducing Long-Term Assets
- Increasing Current Liabilities
- Increasing Long-Term Liabilities
- Changes in Capital
- Changes in Equity
- Changes in Paid In Capital

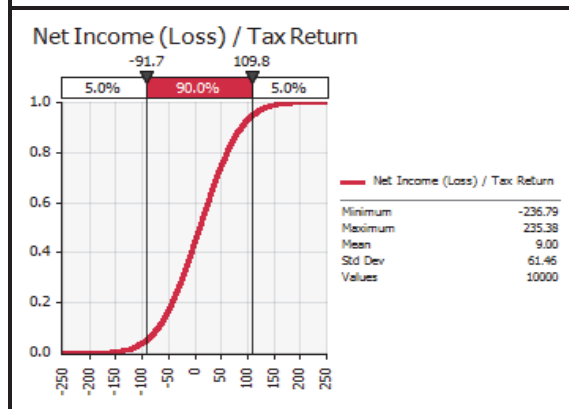
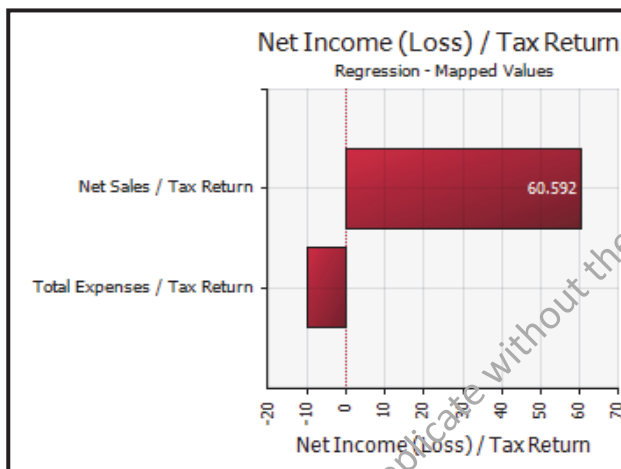
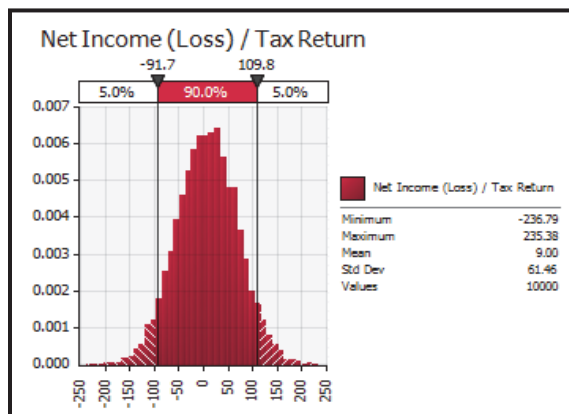
## Dynamic Stress Test on Net Income

Name	Cell	Graph	Function	Min	Mean	Max
<b>Category: Net Income (Loss)</b>						
Net Income (Loss) / Interim	M42		RiskNormal(G14,10)	$-\infty$	977.2	$+\infty$
<b>Category: Net Sales</b>						
Net Sales / Tax Return	E14		RiskNormal(606,60.6,RiskStatic(606))	$-\infty$	606	$+\infty$
Net Sales / Tax Return	G14		RiskNormal(1015,101.5,RiskStatic(1015))	$-\infty$	1,015	$+\infty$
Net Sales / Tax Return	I14		RiskNormal(932,93.2,RiskStatic(932))	$-\infty$	932	$+\infty$
Net Sales / Tax Return	K14		RiskNormal(1046,104.6,RiskStatic(1046))	$-\infty$	1,046	$+\infty$
Net Sales / Interim	M14		RiskNormal(289,28.9,RiskStatic(289))	$-\infty$	289.0	$+\infty$

- Normal Random Distribution for the Bell Curve to determine the range of income from non-historical range to find the 95% confidence level for predicting default rate possibilities
- Min and Max is to Infinity with Means at the Historical Net Sales

# Dynamic Stress Test on Net Income Simulation

- VaR (Value at Risk) Dynamic Stress Test Example for the financial model
- Finding 90% confidence level for net income probabilities with non historical distribution



Summary Statistics for Net Income (Loss) /		
Statistics	Percentile	
Minimum	-236.8	5% -91.7
Maximum	235.4	10% -70.2
Mean	9.0	15% -55.0
Std Dev	61.5	20% -42.9
Variance	3777.120076	25% -32.8
Skewness	-0.00692026	30% -23.3
Kurtosis	2.960802516	35% -15.1
Median	9.5	40% -6.8
Mode	14.7	45% 1.1
Left X	-91.7	50% 9.5
Left P	5%	55% 17.0
Right X	109.8	60% 25.2
Right P	95%	65% 32.9
Diff X	201.5	70% 41.3
Diff P	90%	75% 50.7
#Errors	0	80% 61.1
Filter Min	Off	85% 72.2
Filter Max	Off	90% 87.7
#Filtered	0	95% 109.8

Regression and Rank Information for Net In			
Rank	Name	Regr	Corr
1	Net Sales / Tax	0.986	0.985
2	Total Expenses	-0.163	-0.167
3	Net Sales / Tax	0.000	0.007353246
4	Net Sales / Tax	0.000	-0.00644023
5	Net Sales / Tax	0.000	0.006389201
6	Net Sales / Inte	0.000	0.00615364
7	Total Expenses	0.000	-0.00457497
8	Total Expenses	0.000	-0.00425346
9	Total Expenses	0.000	-0.00254219
10	Total Expenses	0.000	-0.00106381
11	Net Income (Lo	0.000	0.000266816

Simulation Summary Information	
Workbook Name	Hotel
Number of Simulations	1
Number of Iterations	10000
Number of Inputs	11
Number of Outputs	5
Sampling Type	Latin Hypercube
Simulation Start Time	4/29/12 18:43:26
Simulation Duration	00:00:36
Random # Generator	Mersenne Twister
Random Seed	623328357

## Random Distribution on Dynamic Stress Test

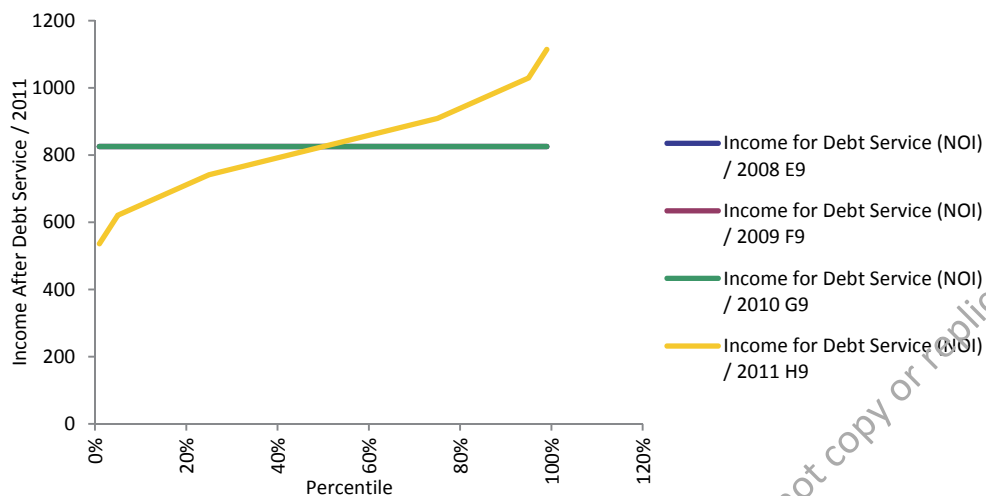
Name Description Cell	Net Income (Loss) Output IS RiskIE42	Net Income (Loss) Output IS RiskIG42	Net Income (Loss) Output IS RiskI42	Net Income (Loss) Output IS RiskIK42	Net Income (Loss) Output IS RiskIM42	Net Sales / Tax Re RiskNormal(606,60) IS RiskIE14	Net Sales / Tax Re RiskNormal(1015,1) IS RiskIG14	Net Sales / Tax Re RiskNormal(932,93) IS RiskI14	Net Sales / Tax Re RiskNormal(1046,6) IS RiskIK14	Net Sales / Interim RiskNormal(289,28) IS RiskIM14	Total Expenses / Total Expenses / Total Expenses / Total Expenses / Total Expenses / I Net Income (Loss) RiskNormal(0,10) IS RiskE36	Total Expenses / Total Expenses / Total Expenses / Total Expenses / Total Expenses / I Net Income (Loss) RiskNormal(0,10) IS RiskG36	Total Expenses / Total Expenses / Total Expenses / Total Expenses / Total Expenses / I Net Income (Loss) RiskNormal(0,10) IS RiskI36	Total Expenses / Total Expenses / Total Expenses / Total Expenses / Total Expenses / I Net Income (Loss) RiskNormal(0,10) IS RiskK36	Total Expenses / Total Expenses / Total Expenses / Total Expenses / Total Expenses / I Net Income (Loss) RiskNormal(216,21) IS RiskM36	Total Expenses / Total Expenses / Total Expenses / Total Expenses / Total Expenses / I Net Income (Loss) RiskNormal(G14,10) IS RiskIM42
Minimum	-236.8	-302.6	-231.0	-231.1	705.8	379.557	597	580.297	632	168.6	-43.3	-38.1	-37.8	-38.5	131.6	601.1
Maximum	235.4	486.3	473.4	568.7	1,474.1	837.9567	1,393	1279.927	1,435	399.5	40.0	38.3	38.2	39.1	300.9	1,399.3
Mean	9.0	103.0	126.0	175.0	1,072.0	606.0002	1,015	931.9985	1,046	289.0	0.0	0.0	0.0	0.0	216.0	1,015.0
Std Deviation	61.5	102.0	93.8	105.0	107.3	60.59236	102	93.19068	105	28.9	10.0	10.0	10.0	10.0	21.6	102.0
Variance	3777.12	10413.63	8793.131	11031.09	11519.25	3671.434	10302.87	8684.503	10942.09	835.2991	100.0386	99.98239	99.98991	100.0002	466.5843	10396.92
Skewness	-0.006920262	0.001444166	0.005323659	-0.005140138	0.02513833	0.00024413	-0.001981249	-0.000605602	-0.000977329	-0.001868625	-0.00133437	-0.000209147	-0.000182751	0.000442673	-0.000574686	0.003335343
Kurtosis	2.960803	2.998133	2.990278	2.98906	2.966446	2.991784	2.999088	2.992413	2.998844	3.000496	3.008265	2.993162	2.99462	2.996958	2.998406	3.003831
Errors	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mode	14.7	85.7	122.6	202.5	1,069.8	605.24	1,016	928.4946	1,050	289.4	0.1	-0.4	0.4	0.1	215.2	1,029.3
5% Perc	-91.7	-64.6	-28.0	2.4	896.6	506.3094	848	778.634	874	241.4	-16.5	-16.5	-16.5	-16.5	180.5	847.9
10% Perc	-70.2	-27.6	6.7	40.7	934.8	528.3261	885	812.5376	912	252.0	-12.8	-12.8	-12.8	-12.8	188.3	884.5
15% Perc	-55.0	-2.6	28.7	66.5	961.6	543.1758	910	835.3942	938	259.0	-10.4	-10.4	-10.4	-10.4	193.6	909.2
20% Perc	-42.9	17.2	46.5	87.1	981.4	554.989	930	853.5484	958	264.7	-8.4	-8.4	-8.4	-8.4	197.8	929.3
25% Perc	-32.8	34.8	63.0	104.0	999.0	565.1128	947	869.1371	975	269.5	-6.7	-6.7	-6.7	-6.7	201.4	945.7
30% Perc	-23.3	49.9	76.3	119.8	1,015.2	574.2043	962	883.1166	991	273.8	-5.2	-5.2	-5.2	-5.2	204.7	961.7
35% Perc	-15.1	63.7	89.4	134.0	1,030.3	582.6394	976	896.0869	1,006	277.9	-3.9	-3.9	-3.9	-3.9	207.7	975.5
40% Perc	-6.8	76.9	101.9	148.0	1,043.9	590.6418	989	908.3656	1,019	281.7	-2.5	-2.5	-2.5	-2.5	210.5	987.7
45% Perc	1.1	89.5	114.5	161.6	1,057.9	598.3846	1,002	920.2837	1,033	285.4	-1.3	-1.3	-1.3	-1.3	213.3	1,002.1
50% Perc	9.5	102.6	126.3	175.2	1,071.0	605.9914	1,015	931.9926	1,046	289.0	0.0	0.0	0.0	0.0	216.0	1,015.0
55% Perc	17.0	115.2	137.5	188.1	1,084.8	613.6063	1,028	943.705	1,059	292.6	1.3	1.3	1.3	1.3	218.7	1,028.6
60% Perc	25.2	128.3	149.8	201.4	1,099.0	621.3454	1,041	955.5937	1,072	296.3	2.5	2.5	2.5	2.5	221.5	1,040.5
65% Perc	32.9	143.1	162.2	215.7	1,113.1	629.3452	1,054	967.8937	1,086	300.1	3.9	3.9	3.9	3.9	224.3	1,053.9
70% Perc	41.3	156.8	175.5	230.7	1,128.4	637.7754	1,068	980.8478	1,101	304.1	5.2	5.2	5.2	5.2	227.3	1,069.0
75% Perc	50.7	172.2	189.6	246.2	1,145.3	646.8585	1,083	994.8506	1,117	308.5	6.7	6.7	6.7	6.7	230.6	1,084.2
80% Perc	61.1	189.1	204.7	263.7	1,162.7	656.9895	1,100	1010.408	1,134	313.3	8.4	8.4	8.4	8.4	234.2	1,100.4
85% Perc	72.2	208.9	222.3	284.1	1,182.6	668.8029	1,120	1028.587	1,154	318.9	10.4	10.4	10.4	10.4	238.4	1,120.9

- Random Data Generation for Net Income, Net Expense, and NOI (Net Operating Income), and how it affects the DSCR

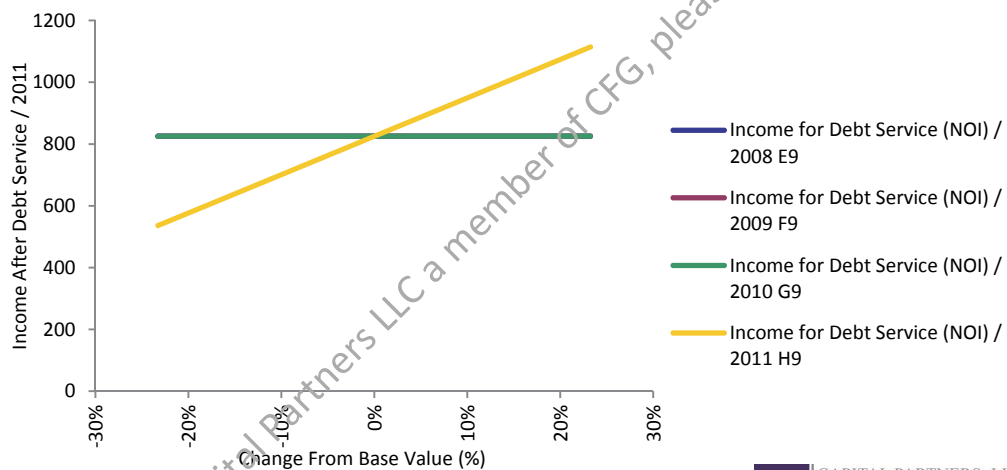


# Random Distribution of Income after Debt Service

Mean of Income After Debt Service / 2011 H15 vs Input Distribution  
Percentile

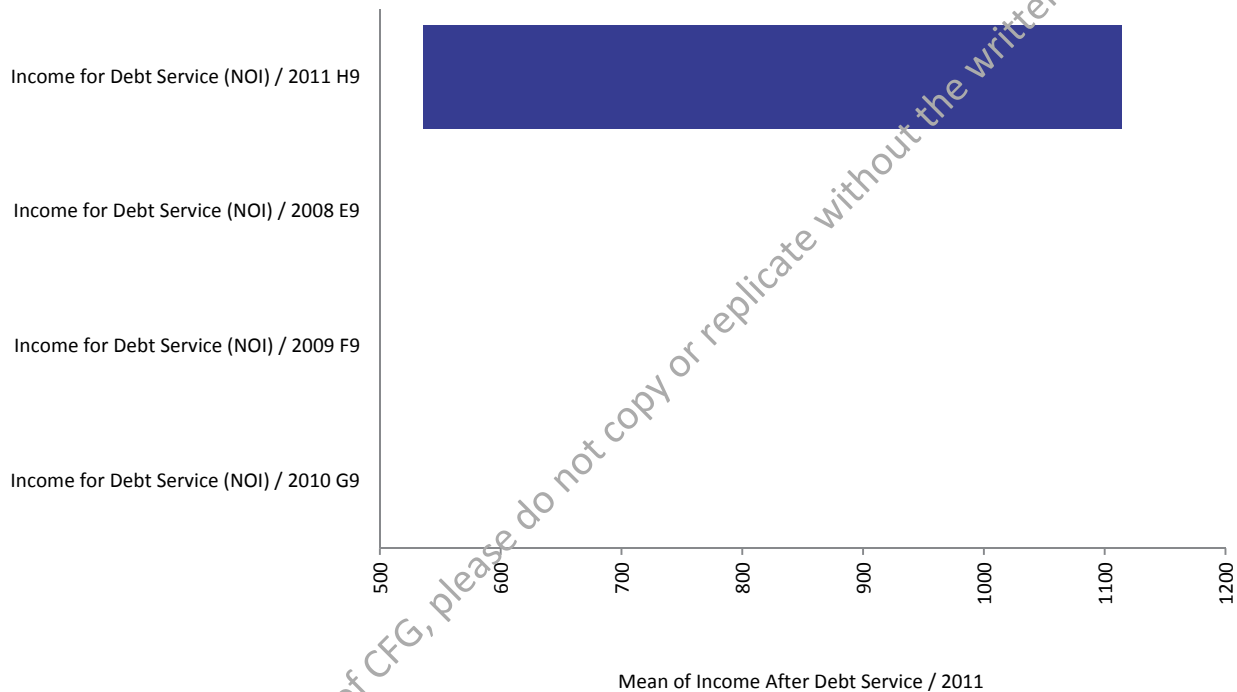


Mean of Income After Debt Service / 2011 H15 vs Percentage Change of Inputs



# Scenario and Sensitivity Distribution

Sensitivity Tornado

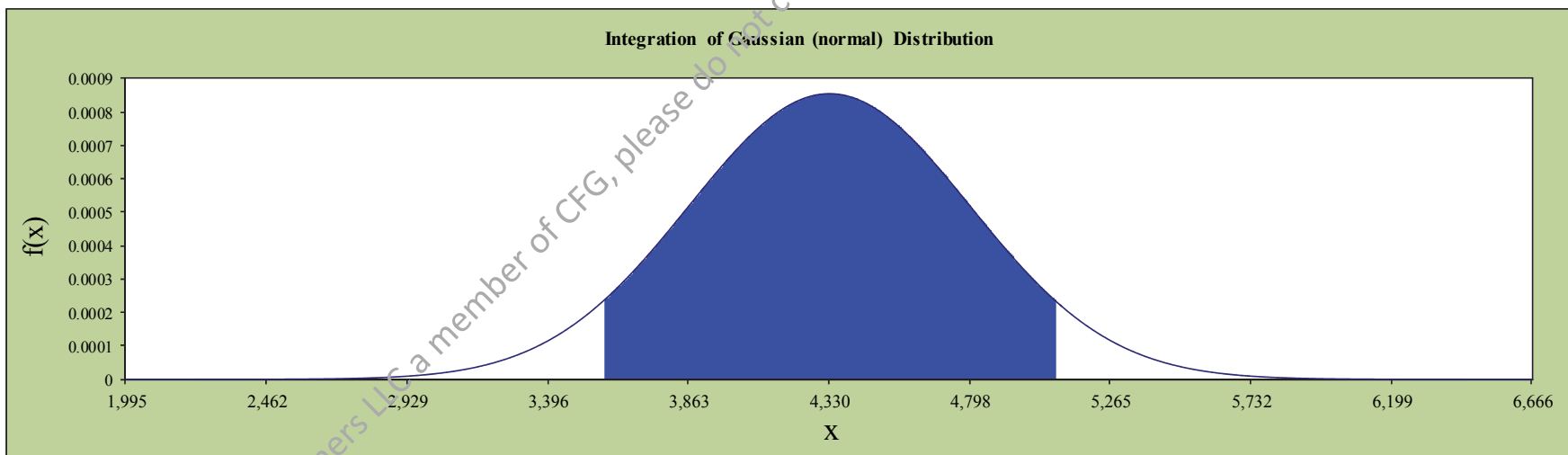


# Monte Carlo Simulation Bell Curve for Normal Distribution

Mean (Average)	4330.4
Standard Error	208.906
Median	4187
Mode	
Standard Deviation	467.127
Sample Variance	1.972662692
Kurtosis	-3.07190
Skewness	0.359986
Range	960
Minimum	3885
Maximum	4845
Sum	21652
Count	5
95% Confidence Level	409.4475004

Monte Carlo Simulation	
Median	Average numbers on Random Distribution
Sample Variance	How far the distribution is spread out
Minimum	Minimum of the Distribution
Maximum	Maximum of Distribution

4,330 mean	total area	1.0000	range down = mean - 1.6*std. dev	4,798	5,265
467 standard deviation	shaded area	89.2 %	range up = mean + 1.6 std. dev.	3,863	3,396
	Probability Factor		lower and upper limi	3,583	5,078



# FINANCIAL MODELING FOR SBA

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Section

# BANKS RISK AND RETURN ON CAPITAL

## Risk Adjusted Return on Capital

Return	US\$2,000,000
total available equity	US\$100,000,000
EaR of business	US\$1,000,000
EaR of the Bank	US\$4,000,000

Outputs (Example 1)	
RAROC	8.00%

Duration of the loan (yrs)	3.6
Loan Amount	US\$100,000,000
Maximum change in the yield spread rate on a bond issued by the firm	1.2%
One-year spread rate	12.0%
One-year fees rate	0.2%
	0.1%

Loan Risk (or Capital Risk)	-US\$3,857,142.86
One-year income on a loan	US\$300,000.0
The Loan's RAROC	7.78%

$$\text{The loan's RAROC} = \frac{\text{One-year income on a loan}}{\text{Loan risk(or capital at risk)}}$$

- Banks Capital Risk Example
  - Return on Loan
  - Duration of the loan
  - Duration of the Interest Risk
  - Maximum Charge of Yield Spread
  - Rate of the Issued Credit or Bond
  - Risk Free Rate
  - 1 Year of interest income on the packages of the loan
  - Capital Risk
  - RAROC

# FINANCIAL MODELING FOR SBA

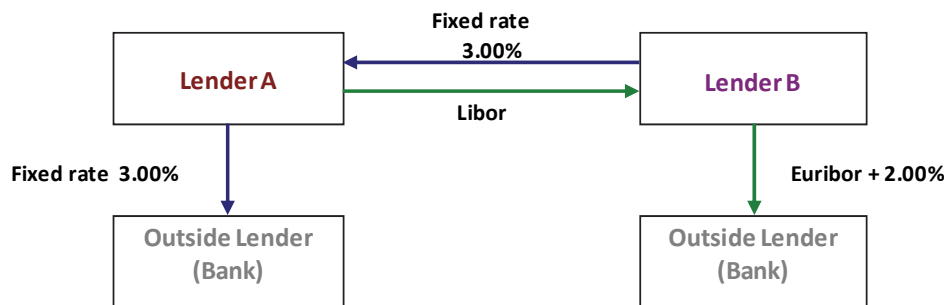
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Section

# INTEREST RATE SWAP

# Interest Rate Swap and Risk to Banks Loan Portfolio

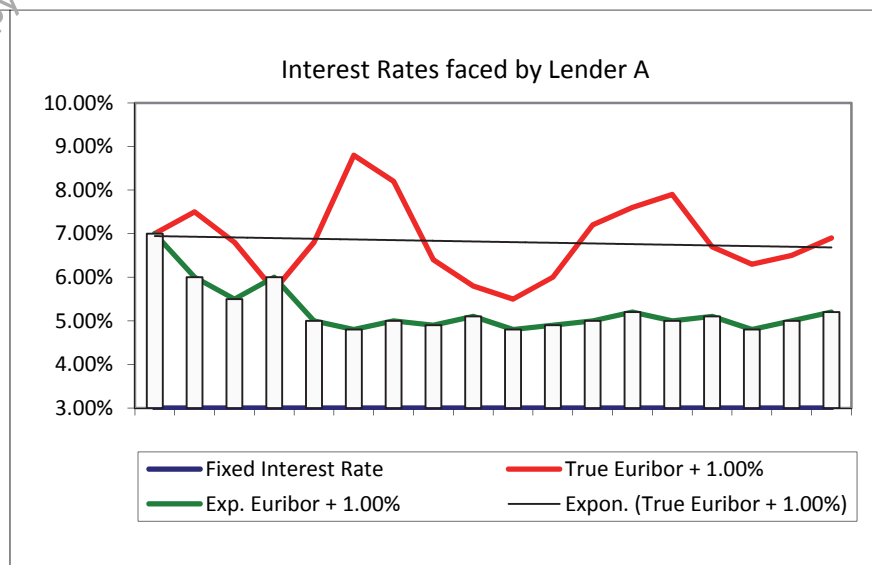
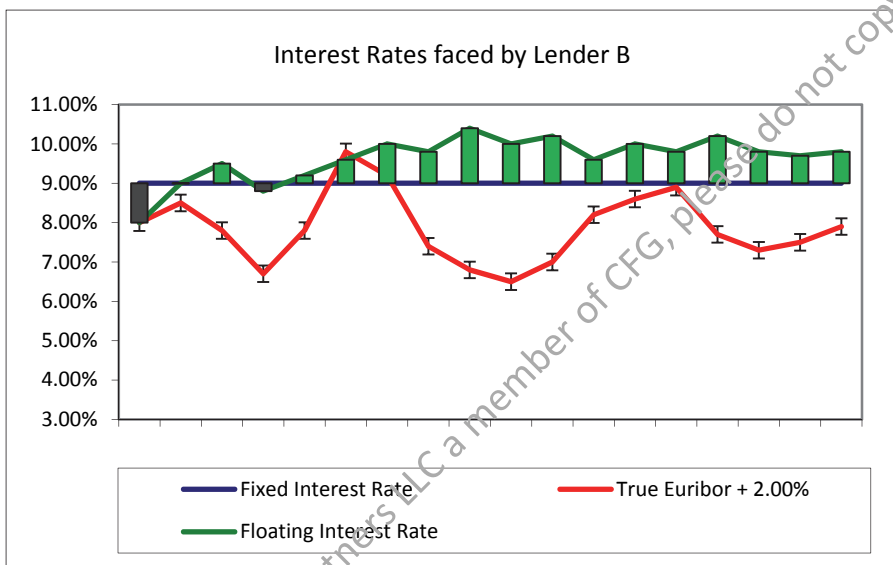
A and B can make a profit by the following interest rate SWAP agreement:



Comparing the net interest flows shows us that both companies can win in the arrangement

	Finance Market	SWAP
Floating interest for Lender A	Euribor + 1.00%	Libor
Fixed interest for Lender B	6.00%	5.00%

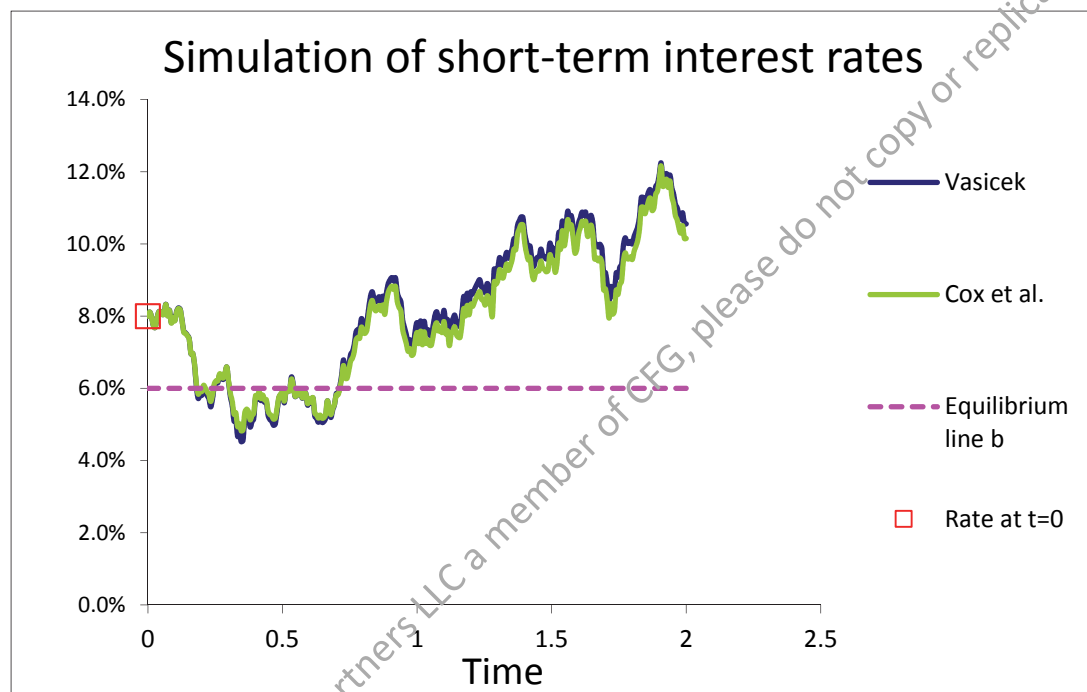
- Interest Swaps
- What banks use to hedge the portfolio of loans which have interest rate risk, collateral risk, sector and business cycle risk



# Simulation of Stochastic Interest Rate Swap and Curve

Numerical examples (press F9 to generate new random numbers)			
	Vasicek	CIR	
Rate $r_0$ at $t=0$	8.00%	8.00%	
Total simulation time (T)	2	2	year(s)
"Pullback" a	0.07	0.07	
Equilibrium b	6.00%	6.00%	
Volatility s	3.00%	10.61%	
$\Delta t$	0.0067		

$$\Delta r = \alpha(b - r)\Delta t + \sigma\varepsilon\sqrt{\Delta t}$$



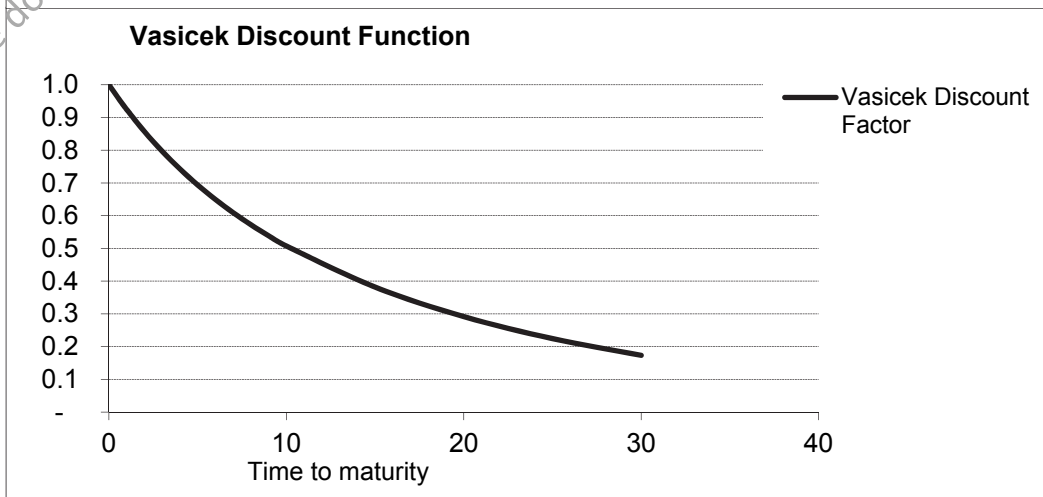
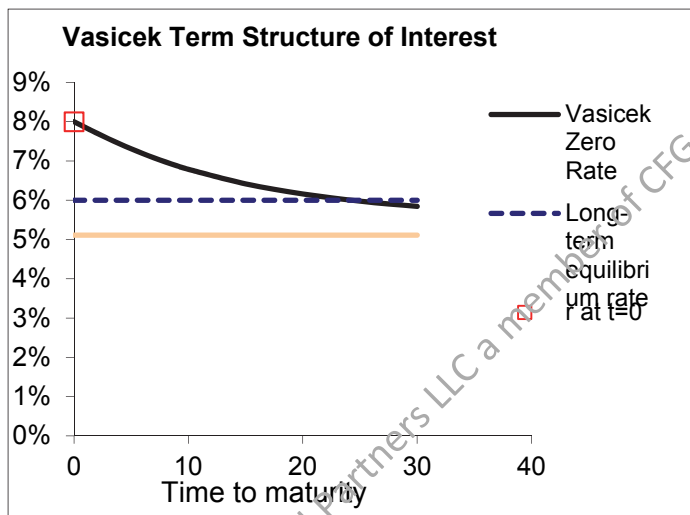
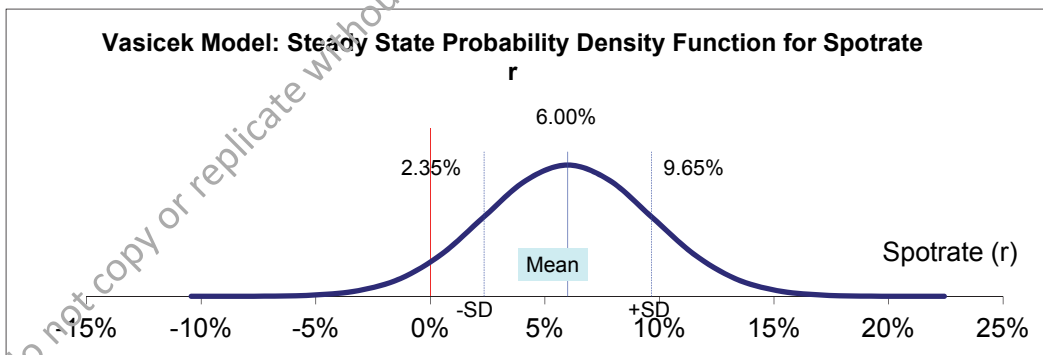
- Short Term Interest Swap Financial Model
  - Determine the equilibrium of the interest rate volatility
  - Interest Rate moves on a daily, monthly and yearly term
  - Create a distribution based on time and historical data to distribute the interest rate moves to determine the swap cost to hedge



# Vasicek Model for Interest Rate Swap Model

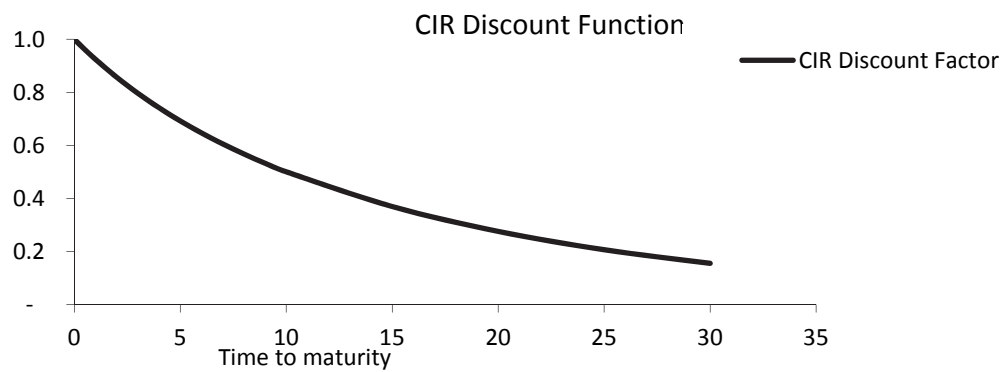
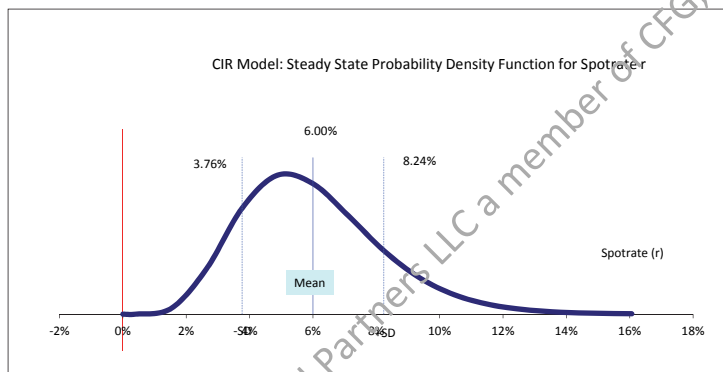
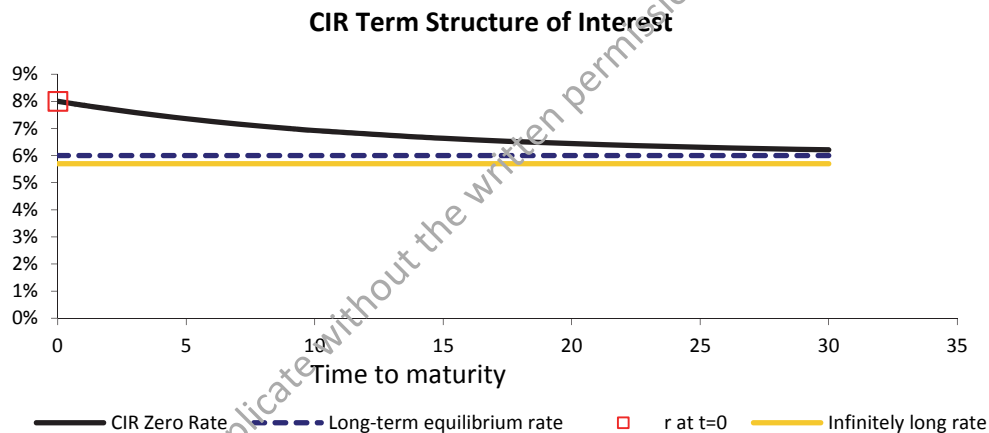
Term structure in Vasicek Model	
t	0
Rate $r_0$ at t=0	8.0%
Maturity time (T)	2.0
"Pullback" a	0.15
Equilibrium b	6.0%
Instantaneous StDev. of short rate ( $\sigma$ )	2.0%
Results:	
B in Vasicek Model (Hull)	1.73
A in Vasicek Model (Hull)	0.984227
Infinitely-long Rate ( $Y_{\infty}$ )	5.11%
Vasicek Discount Factor	0.857161
Solution with VBA Function	0.857161
Vasicek Zero Rate	7.706%
Vasicek volatility of zero rate $\sigma_Y(t,T)$	1.728%
Long-term distribution of r (Steady State Probability Density Function)	
r	5.00%
$P_{\infty}$	10.523
Mean of $P_{\infty}$	6.00%
StDev of $P_{\infty}$	3.65%

- Vasicek Financial Model
  - One Factor Model for short-term Interest Rate



# CIR Financial Model for Interest Swap

Term structure CIR Model	
t (nowyear)	0
Rate $r_0$ at t=0	8.0%
Maturity time (T)	2.0
"Pullback" a	0.15
Equilibrium b	6.0%
Instantaneous StDev. of short rate (s)	5.0%
Results:	
g in CIR Model (Hull)	0.16583
B in CIR Model (Hull)	1.7254
A in CIR Model (Hull)	0.9838
Infinitely-long Rate ( $Y_{\infty}$ )	5.70%
CIR Discount Factor	0.856974
Solution with VBA Function	40.745515
CIR Zero Rate	7.717%
CIR volatility of zero rate $s_{Y(t,T)}$	1.220%
Long-term distribution of r (Steady State Probability Density Function)	
r	6.00%
$k = 2ab/s^2$	7.20
$P_{\infty}$	17.636
Mean of $P_{\infty}$	6.00%
StDev of $P_{\infty}$	2.24%



# Disclosure

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