



COOPERATIVE EXTENSION
College of Agriculture, Forestry and Life Sciences

SHOULD I BUY IT?

CAPITAL INVESTMENT ANALYSIS

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Asset

[ˈɑːset]

A resource with economic value that an individual, corporation, or country owns or controls with the **expectation** that it will provide a future benefit.

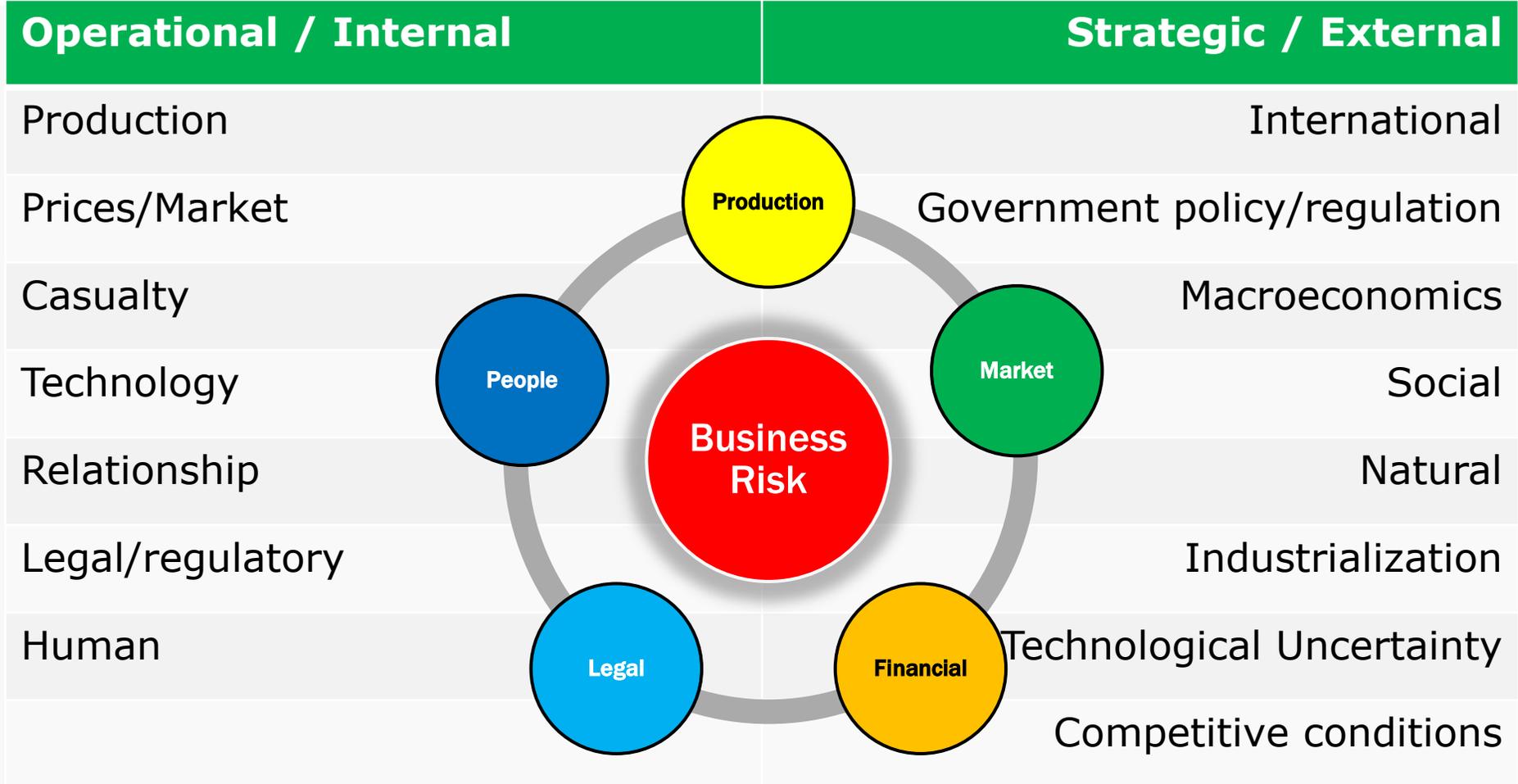
RISK

*The possibility that something **unpleasant** will happen in the future.*

REWARD

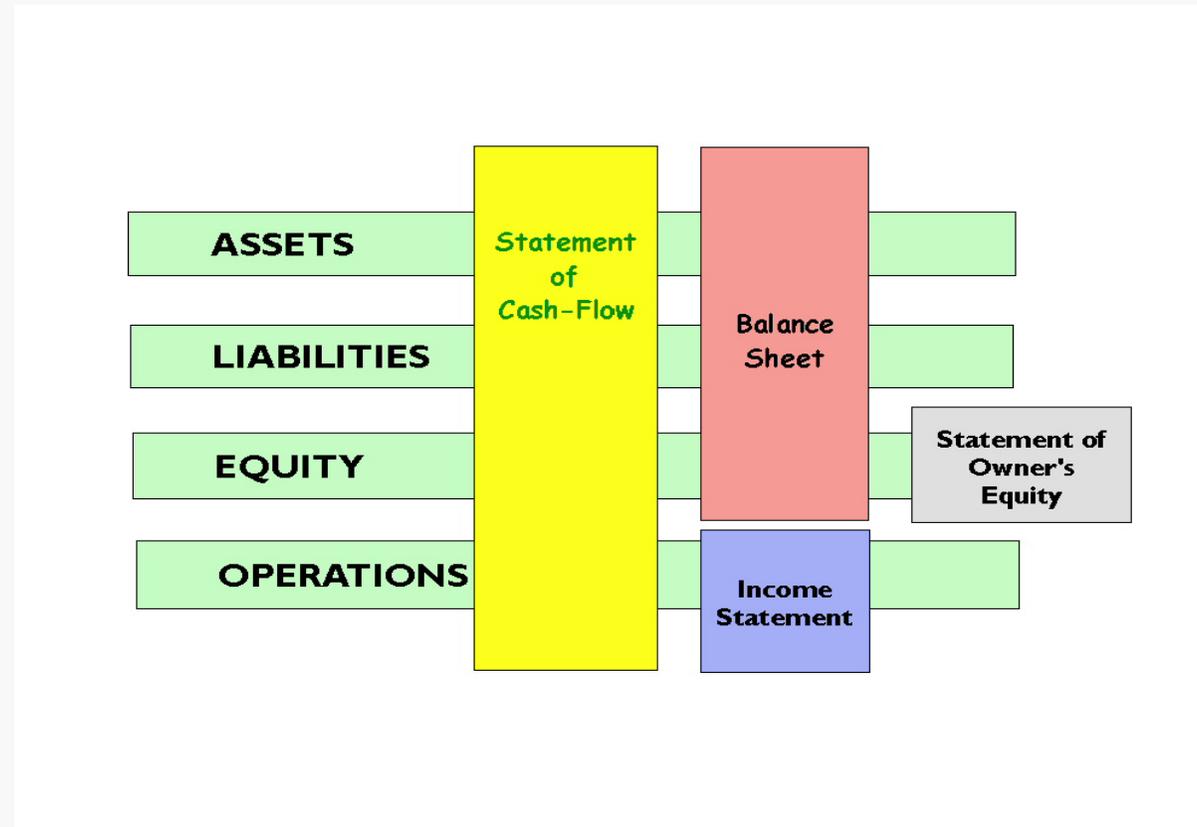
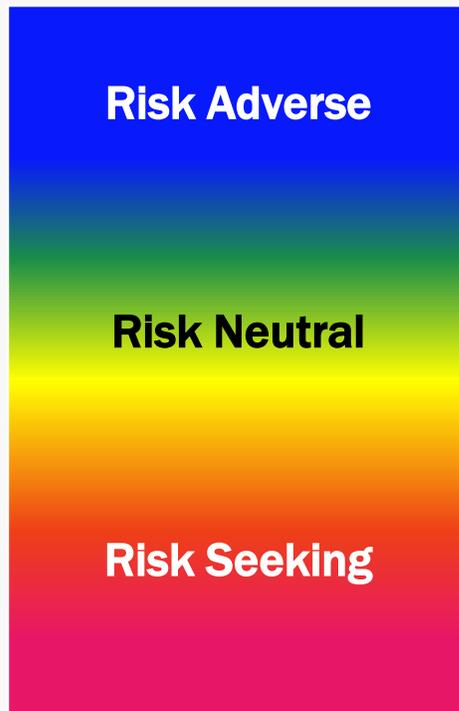
pleasant

TYPES OF RISK



RISK TOLERANCE =

Risk Attitude * Risk Bearing Ability



MANAGING RISK

Our Challenge:

Evaluate

1. Probability of Loss Occurring
2. Magnitude of exposure, once it occurs
3. Impact on family and business

TECHNIQUES

Avoidance

Control

Financing

Prevention

*Irrigation
Pest/disease*

Reduction

*Genetics
Early treatment*

Diversification

Retention

*Deep Pockets
Working Capital*

Transfer

*Insurance
Hedging
Forward
Contracting*

Assets: Hopes & Risk



Speculative

Hi-Risk, HOPE
of High
Return



Trading

HOPE of
Immediate
Return



Investing

HOPE of
return over a
period

How much are you willing to RISK?

- \$1,000
- A month's salary
- A year's salary

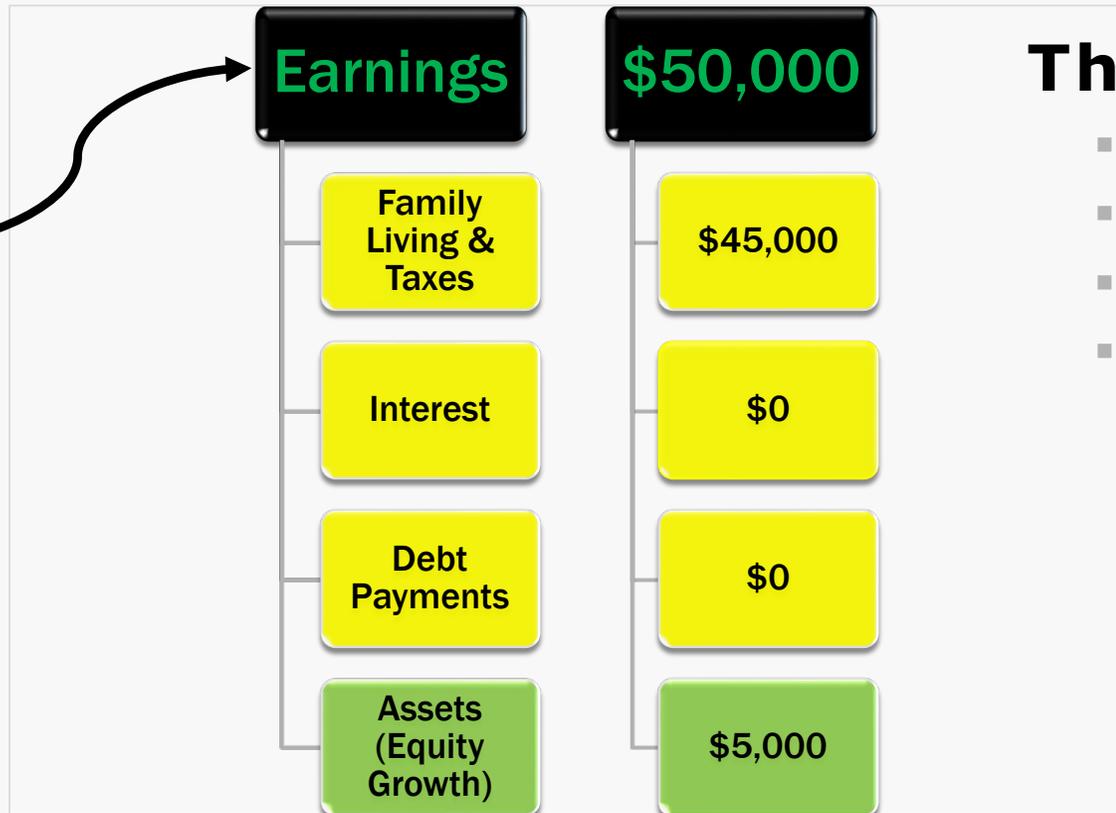
Define the worst-case scenario?

- Financially
- Emotionally

Asset Classes

	Liquidity	Volatility	Characteristics
Cash	High	Low	Emergency Funds, Flexibility Opportunistic
Investment	High or Low	Low to High	Gains Tax deferred, Retirement
Productive	Low	Downward	Business Revenue Generators
Real Estate	Low	Unlikely to go to \$0	Wealth Generation, acquisition costs, holding costs, cash flow

EARNINGS & INVESTING...

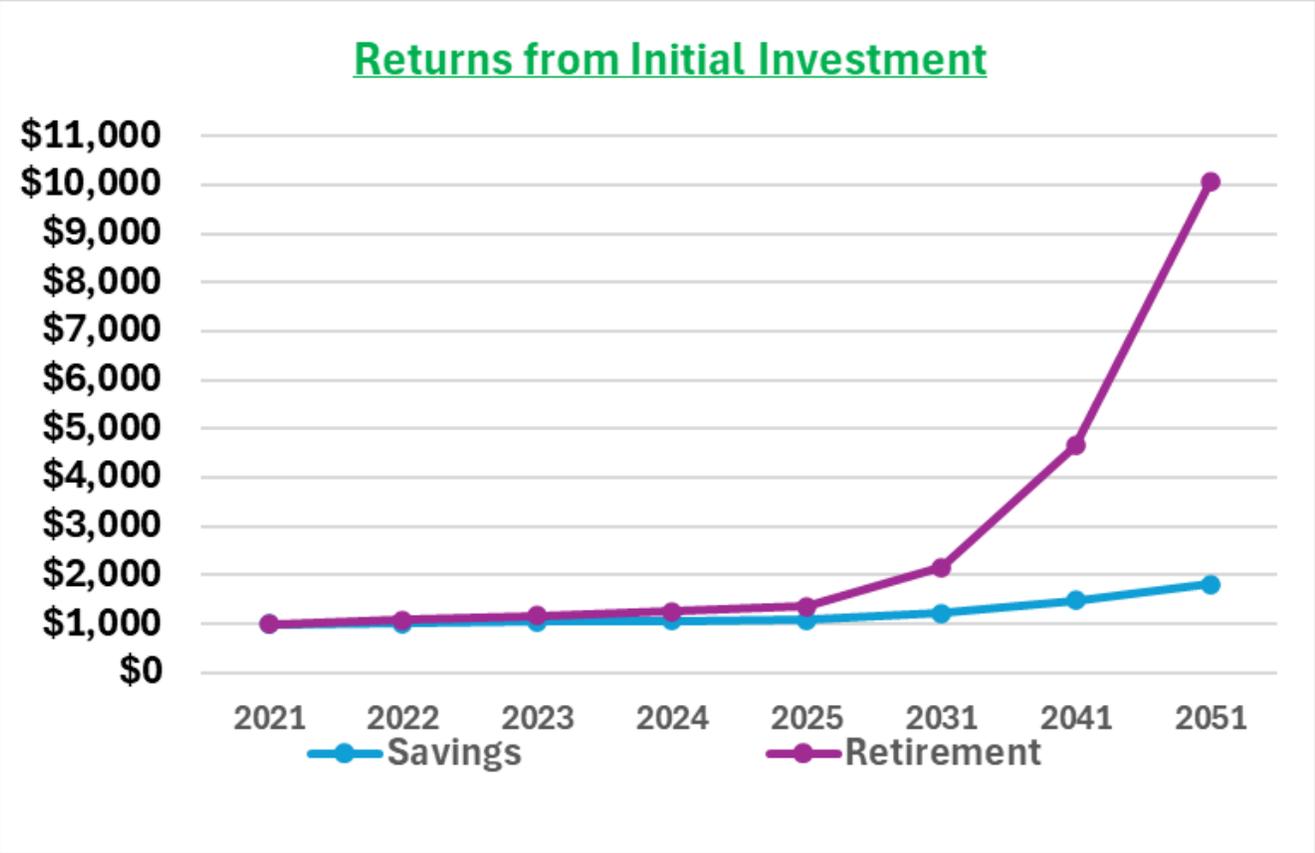


The \$5,000 Question!

- Cash?
- Investments?
- Retirement?
- Shot gun?

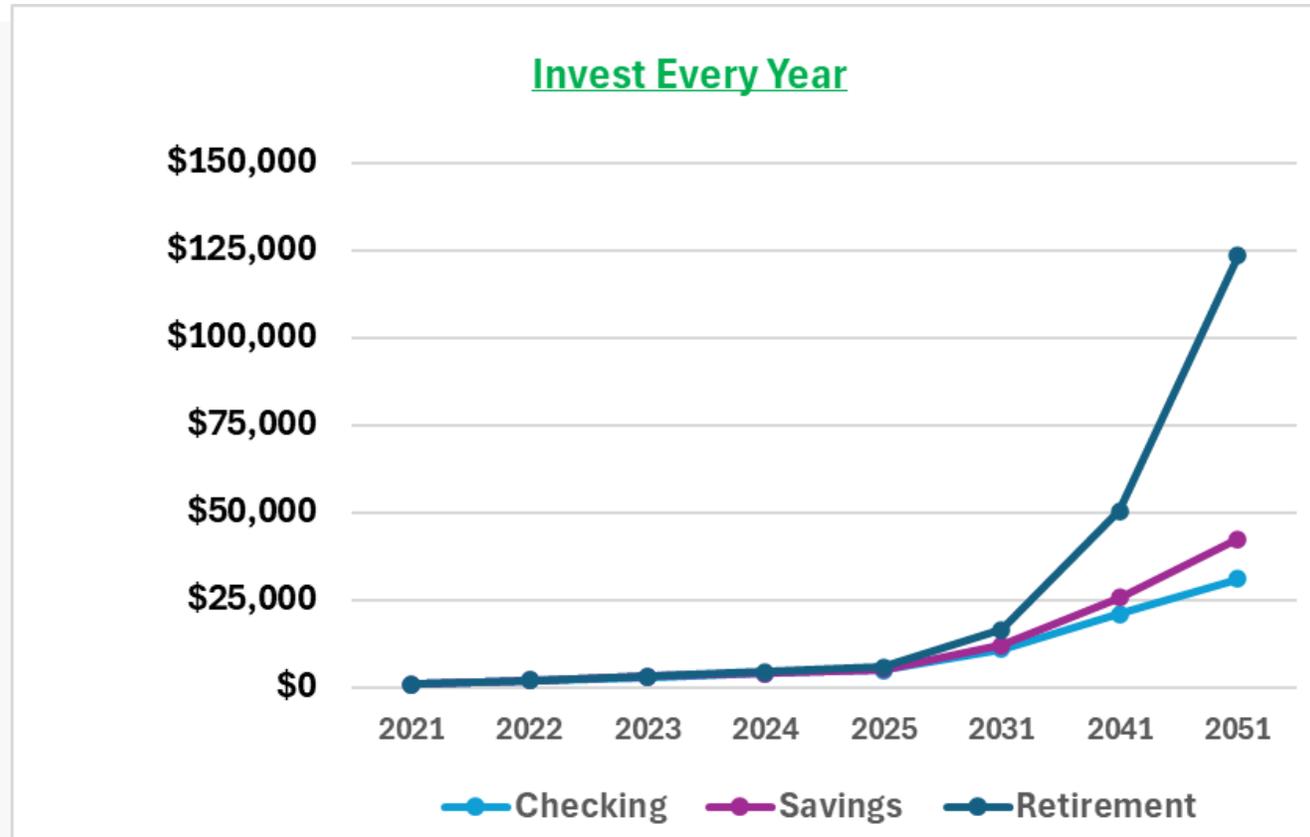
EARNINGS & INVESTING...5 YEARS LATER

Year Ending Value		
Asset	2021	2025
Banking	\$1,000	\$1,000
Investments	\$1,000	\$1,082
Real Estate	\$1,000	\$1,360
Private Co.	\$1,000	\$1,266
Startups	\$1,000	?



EARNINGS & INVESTING...EVERY YEAR

Year Ending Value		
Asset	2021	2025
Checking	\$1,000	\$5,000
Savings	\$1,000	\$5,204
Retirement	\$1,000	\$5,867
Life Ins. Co.	\$1,000	\$5,645





Asset

['a-,set]

A resource with economic value that an individual, corporation, or country owns or controls with the expectation that it will provide a future benefit.

An item of value that:

1. May be revenue producing or
2. appreciating in value,
3. until it can be converted into cash at some future point in time.



Practice:

Asset Turnover



Formula: **Revenue / Total Assets**

COW

Asset → "BRED COWS" @ \$2500/cow

Revenue → 9 Calves @ \$2100/hd

$$ATO = \frac{9 * 2,100}{10 * \$2,500} = \frac{\$18,900}{\$25,000} = \mathbf{79\%}$$

Real Estate

Asset → Land @ \$4,000/acre

Revenue → Corn 150 bpa @\$ 5.50/bpa

$$ATO = \frac{150 * \$5.50}{\$4,000} = \frac{\$825}{\$4,000} = \mathbf{21\%}$$

ate the BFF Capital Investment Strategy



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Investment Plan

	Vulnerable		Resilient		Agile	
Turnover	< 30 %		30 – 70 %		> 70 %	
	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>
Revenue	7,989,006	9,261,336	8,307,087	8,926,670	7,783,684	9,774,244
Assets	8,669,486	9,797,309	9,297,414	8,958,102	9,837,689	10,858,722
Capital Purchases		\$572,500	\$275,000	\$736,500	\$822,500	\$490,000
Turnover	92%	95%	89%	100%	79%	90%

Revenue Change **\$1,785,238**
(2020 to 2025)

Total Capital Purchases **\$2,896,500**

62%



	1 Asset Purchase Cost	\$100,000	
	2 Expected ATO	80%	
Purchase			
		<u>Incremental Change</u>	
100%	Revenue	\$80,000	
83%	Operating Expenses	<u>-\$66,400</u>	
17%	Earnings	\$13,600	
	Family Living	\$0	
	Interest + Debt	<u>\$0</u>	
	Asset Growth	\$13,600	
	- Asset Purchase	-\$100,000	
	+ \$ Borrowed	\$0	
	Working Capital	-\$86,400	



1	Asset Purchase Cost	\$100,000	\$100,000
2	Expected ATO	80%	20%
urchase			
	<u>Incremental Change</u>		
100%	Revenue	\$80,000	\$20,000
83%	Operating Expenses	<u>-\$66,400</u>	<u>-\$16,600</u>
17%	Earnings	\$13,600	\$3,400
	Family Living	\$0	\$0
	Interest + Debt	<u>\$0</u>	\$0
	Asset Growth	\$13,600	\$3,400
	- Asset Purchase	-\$100,000	-\$100,000
	+ \$ Borrowed	\$0	\$0
	Working Capital	-\$86,400	-\$96,600



- Equity/Asset Stable		
With Financing		
64%	Downpayment	\$64,000
36%	Financed	\$36,000
	Years	5
	Interest Rate	5.0%
	Payment (I+D)	\$8,315
	<u>Incremental Change</u>	
100%	Revenue	\$80,000
83%	Operating Expenses	<u>-\$66,400</u>
17%	Earnings	\$13,600
	Family Living	\$0
	Interest + Debt	<u>-\$8,315</u>
	Asset Growth	\$5,285
	- Asset Purchase	-\$100,000
	+ \$ Borrowed	\$36,000
	Working Capital	-\$58,715



Equity/Asset Stable			
with Financing			
54%	Downpayment	\$64,000	\$64,000
36%	Financed	\$36,000	\$36,000
	Years	5	20
	Interest Rate	5.0%	5.0%
	Payment (I+D)	\$8,315	\$2,889
<u>Incremental Change</u>			
00%	Revenue	\$80,000	\$20,000
33%	Operating Expenses	<u>-\$66,400</u>	<u>-\$16,600</u>
17%	Earnings	\$13,600	\$3,400
	Family Living	\$0	\$0
	Interest + Debt	<u>-\$8,315</u>	<u>-\$2,889</u>
	Asset Growth	\$5,285	\$511
	- Asset Purchase	-\$100,000	-\$100,000
	+ \$ Borrowed	\$36,000	\$36,000
	Working Capital	-\$58,715	-\$63,489



Equity/Asset Reduced			
h Financing			
5%	Downpayment	\$25,000	\$25,000
5%	Financed	\$75,000	\$75,000
	Years	5	20
	Interest Rate	5.0%	5.0%
	Payment (I+D)	\$17,323	\$6,018
<u>Incremental Change</u>			
0%	Revenue	\$80,000	\$20,000
3%	Operating Expenses	<u>-\$66,400</u>	<u>-\$16,600</u>
7%	Earnings	\$13,600	\$3,400
	Family Living	\$0	\$0
	Interest + Debt	<u>-\$17,323</u>	<u>-\$6,018</u>
	Asset Growth	-\$3,723	-\$2,618
	- Asset Purchase	-\$100,000	-\$100,000
	+ \$ Borrowed	\$75,000	\$75,000
	Working Capital	-\$28,723	-\$27,618

2ND THOUGHTS

Reduce the number of mistakes
by thinking about problems
more clearly!

Michael J. Mauboussin
Author of “Think Twice”