

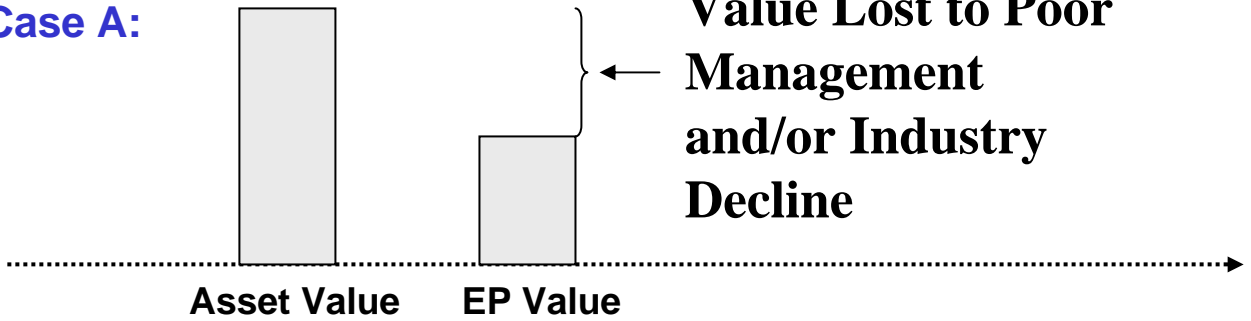
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## Value Investing Principles

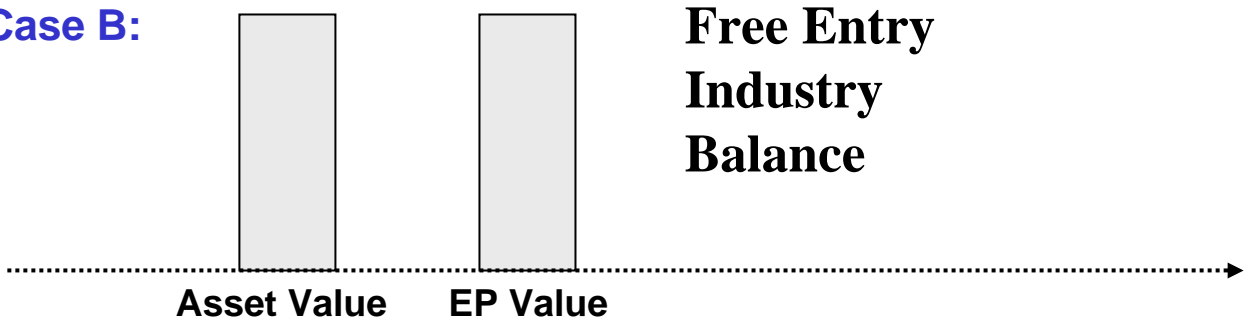
- Identify enterprises whose value as a business is reliably calculable by you (circle of competence)
- Among those enterprises, invest in those whose market price (equity plus debt) is below your calculated value by an appropriate margin of safety (1/3 to 1/2)

# Earning Power and Entry - Exit

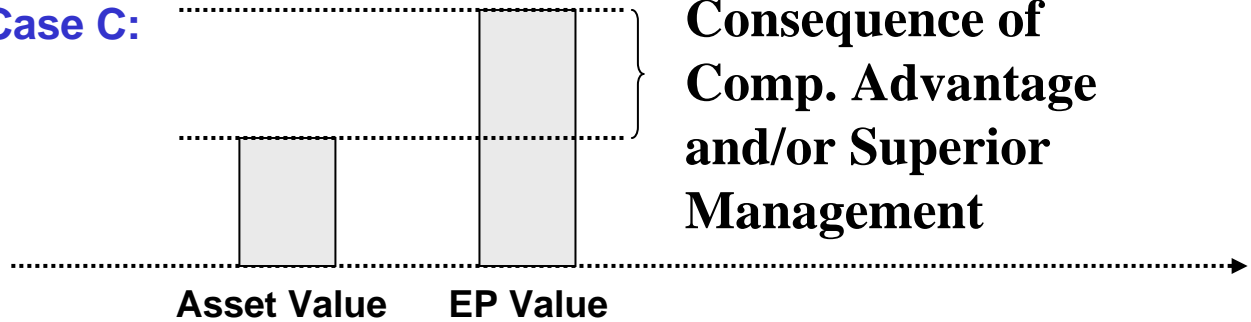
Case A:



Case B:



Case C:



“Sustainability” depends on Continuing Barriers-to-Entry

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# Varieties of Competitive Advantage

**Producer (Cost) Supply** – Proprietary Technology or Resources

**Consumer (Revenue) Demand** – Customer Captivity

**Economies-of-Scale (plus Customer Captivity)**



Key to Sustainability

Sustainable Competitive Advantage implies market dominance.

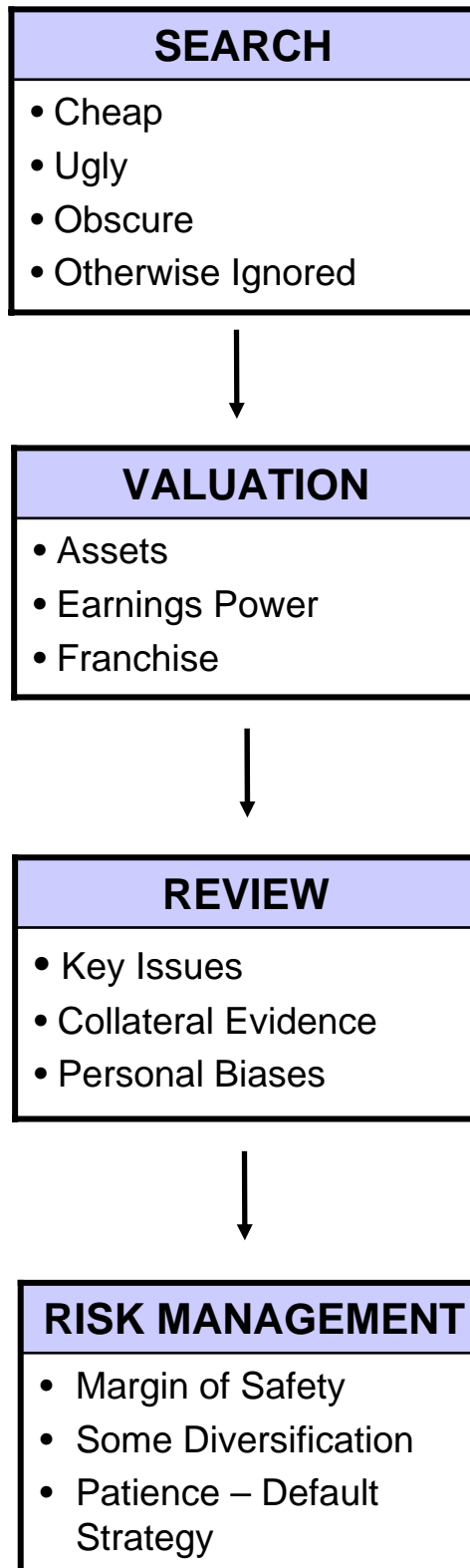


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# Competitive Advantage Strategy Implications

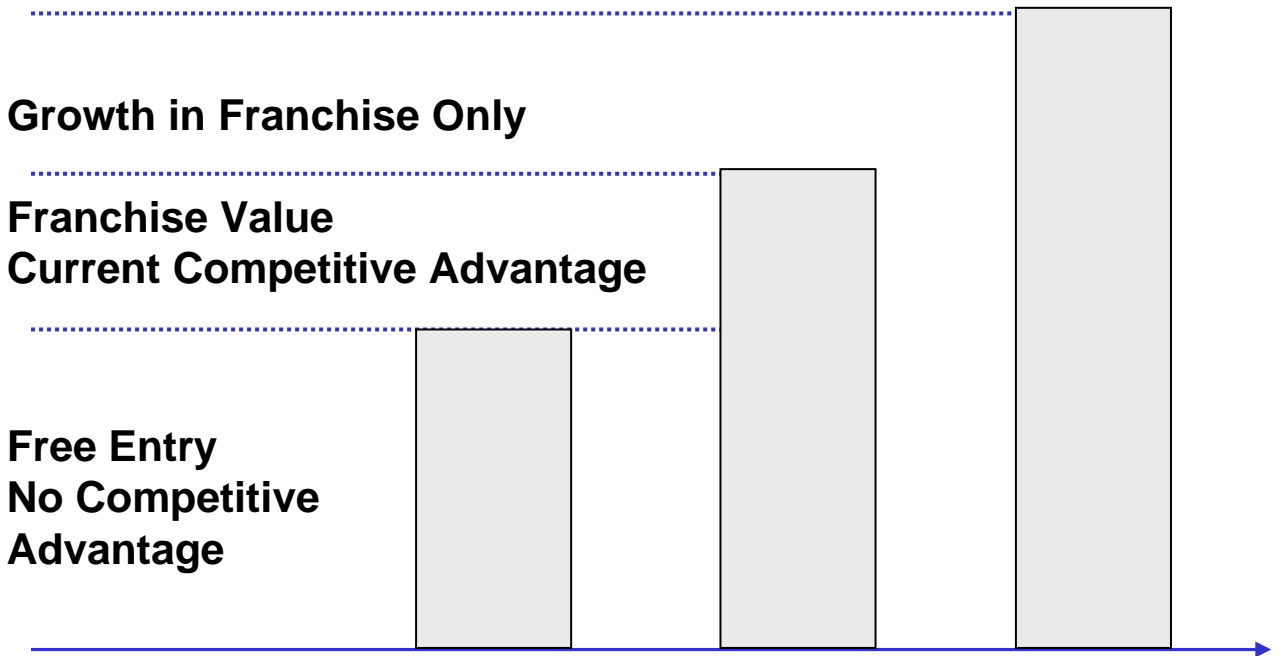
- Analysis on a market-by-market basis
- Large global markets are difficult to dominate
- Local markets (Physical, product geography) are ones susceptible to domination
  - Microsoft (Apple, IBM)
  - Wal-Mart (K-Mart, Circuit City)
  - Intel (Texas Instruments, et al)
  - Verizon (ATT, Sprint)
  - Pharmaceuticals

# Value Investing Process



# Basic Elements of Value

## Strategic Dimension



Reliability Dimension	Asset Value	Earnings Power Value	Total Value
	<ul style="list-style-type: none"> <li>• Tangible</li> <li>• Balance Sheet Based</li> <li>• No Extrapolation</li> </ul>	<ul style="list-style-type: none"> <li>• Current Earnings</li> <li>• Extrapolation</li> <li>• No Forecast</li> </ul>	<ul style="list-style-type: none"> <li>• Includes Growth</li> <li>• Extrapolation</li> <li>• Forecast</li> </ul>

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## Total Value Including Growth

- Least reliable - Forecast change not just stability (Earnings Power)
- Highly sensitive to assumptions
- Data indicates that investors systematically overpay for growth
- Strict value investors want growth for “Free” (Market Value < Earnings Power Value)



# Value of Growth - Basic Forces At Work

- **Growing Stream of Cash Flows is more Valuable than a Constant Stream (relative to current Cash Flow)**

I.E.  $CF_0 * \left( \frac{1}{R - G} \right)$  vs.  $CF_0 * \frac{1}{R}$

The diagram shows two arrows pointing from the terms 'WACC' and 'Growth Rate' to the denominator 'R - G' in the first formula. 'WACC' points to 'R' and 'Growth Rate' points to 'G'.

- **Growth Requires Investment which reduces current (distributable) Cash Flow**

$$CF_0 = \underbrace{\text{"Earnings"}}_{\text{No Growth } CF_0} \cdot \text{Investment Needed to Support Growth}$$

(N.B. Do Not Discount Growing "Earnings" Streams)

## Valuing Growth

### Basic Algebra

$$\text{"Earnings"} = \text{Return on Capital (ROC)} * \text{Capital}_{\text{Beg Yr}}$$

$$\text{Necessary Investment to Support Growth at } G\% \text{ PA} = G * \text{Capital}_{\text{Beg Yr}}$$

$$\begin{aligned} \text{Cash Flow of Growing Firm} &= \text{"Earnings"} - \text{Necessary Investment} \\ (CF_0) &= \text{ROC} * \text{Capital}_{\text{Beg Yr}} - G * \text{Capital}_{\text{Beg Yr}} \\ &= (\text{ROC} - G) * \text{Capital}_{\text{Beg Yr}} \end{aligned}$$

$$\text{Value of Growing Firm} = CF_0 * \frac{1}{R - G} = \frac{(\text{ROC} - G) * \text{Capital}_{\text{Beg Yr}}}{R - G}$$

↑  
WACC

$$= \left( \frac{\text{ROC} - G}{R - G} \right) \text{Capital}_{\text{Beg Yr}}$$

$$\text{Critical Valuation Factor is } \frac{\text{ROC} - G}{R - G}$$

# Valuing Growth

Case 1:

- $\text{ROC} \equiv \text{Return on Capital} \equiv \text{Cost of Capital} \equiv R$
- Then  $\frac{\text{ROC} - G}{R - G} = \frac{R - G}{R - G} = 1$  (for all growth rates)

e.g. ( $\text{ROC} = R = 10\%$ )

ROC = R when there are no Barriers-to-Entry (i.e. no competitive advantages – level playing field) then Growth has no Value.

$$G = 0\% \quad \frac{\text{ROC} - G}{R - G} = \frac{10 - 0}{10 - 0} = 1$$

$$G = 2\% \quad \frac{\text{ROC} - G}{R - G} = \frac{10 - 2}{10 - 2} = 1$$

$$G = 8\% \quad \frac{\text{ROC} - G}{R - G} = \frac{10 - 8}{10 - 8} = 1$$

# Valuing Growth

## Case 2:

- Competitive disadvantage with growth
- ↔ ROC less than cost of capital
- then  $\frac{ROC - G}{R - G} < 1$
- and  $\frac{ROC - G}{R - G}$  gets smaller with higher growth rates.

e.g.

(ROC = 8%, R=10%)

$$G = 0\% \quad \frac{ROC - G}{R - G} = \frac{8 - 0}{10 - 0} = .8$$

$$G = 2\% \quad \frac{ROC - G}{R - G} = \frac{8 - 2}{10 - 2} = .75$$

$$G = 8\% \quad \frac{ROC - G}{R - G} = \frac{8 - 8}{10 - 8} = 0$$

Higher Growth at a  
Competitive  
Disadvantage Destroys  
Value

# Valuing Growth

## Case 3:

- ROC is greater than R – Firm enjoys a competitive advantage (*franchise*)
  - Shares are stable →  $G = \text{Industry Growth Rate}$
- then  $\text{ROC} - G$  is greater than  $R - G$
- and  $\frac{\text{ROC} - G}{R - G}$  is greater than 1 and increasing in  $G$ .

e.g. (ROC = 15%, R = 10%)

$$G = 0\% \quad \frac{\text{ROC} - G}{R - G} = \frac{15 - 0}{10 - 0} = 1.5$$

$$G = 2\% \quad \frac{\text{ROC} - G}{R - G} = \frac{15 - 2}{10 - 2} = 1.625$$

$$G = 8\% \quad \frac{\text{ROC} - G}{R - G} = \frac{15 - 8}{10 - 8} = 3.5$$

Only within Franchise  
Growth creates Value

# Value of Growth Quantitative Effects

**Investment:**                      • \$100 million

**Cost of Funds:**                • 10% (R) = \$10M

<b>Return on Investment (%)</b>	<b>5%</b>	<b>10%</b>	<b>20%</b>
<b>Return on Investment (\$)</b>	\$5M	\$10M	\$20M
<b>Cost of Investment</b>	\$10M	\$10M	\$10M
<b>Net Income Created</b>	(\$5M)	0	\$10M
<b>Net Value Created</b>	(\$50M)	0	\$100M
<b>Qualitative Impact:</b>	Value Destroyed	No Value	Value Created
<b>Situation:</b>	Competitive Disadvantage	Level Playing Field	Competitive Advantage

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## Valuing Growth Basics

- Growth at a competitive disadvantage destroys value (AT&T in info processing)
- Growth on a level playing field neither creates nor destroys value (Wal-Mart in NE)
- Only franchise growth (at industry rate) creates value

# Valuing Growth - How much Does it

## Valuing Growth How much does it add?

- Look at Value (with Growth) ÷ EP Value
- Depend on ROC/R - Franchise Strength  
and G/R - Growth Rate

TABLE I

	ROC/R	1.0	1.5	2.0	2.5	3.0
G/R	0.25	1.0	1.11	1.17	1.20	1.22
	0.50	1.0	1.33	1.50	1.60	1.67
	0.75	1.0	2.00	2.50	2.80	3.00

Entries = Value (with Growth) ÷ EPV

It takes a lot to go from 16 PE to 48 PE



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## Procedure in Practice

(1) Verify existence of franchise

- i. History – Returns – Share Stability
- ii. Sustainable competitive advantages

(2) Calculate earnings return – i.e.  $1/PE$

(3) Identify cash distribution portion of earnings return

**(Dividend + Repurchase)**

(4) Identify organic (low investment) growth

**(GDP  $\pm$ )**

(5) Identify reinvestment return

**(Multiple of Pct retained Earnings )**

(6) Compare to market return (D/P & growth)

(7) Identify options positive/negative

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## Simple Examples Franchise Verification

<u>Company</u>	<u>Business</u>	<u>Adjusted ROE</u>
Wal-Mart	Discount Retail	22.5%
American Express	High-end Credit Cards & Services	45.50%
Gannett	Local Newspapers & Broadcasting	15.6%
Dell	Direct PC Supply to Large organizations	100.0% +

# Simple Examples Franchise Verification

## Sources of Competitive Advantage

### Sources of Competitive Advantage

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<u>Company</u>	<u>Customer Captivity?</u>	<u>Economies-of-Scale?</u>
Wal-Mart	Slight Customer Captivity	Local Economies-of-Scale
American Express	Customer Captivity	Some Economies-of-Scale
Gannett	Customer Captivity	Local Economies-of-Scale
Dell	Slight Customer Captivity	Economies-of-Scale

# Calculated Growth Stock Returns

		<u>CASH</u>		<u>RE</u>		<u>GROWTH</u>		<u>TOTAL</u>
<b>Wal-Mart</b>	=	1.5%	+	4.5%	+	3.5%	=	9.5% + Option

(P/E – 17, Growth – 11 ½%)

(x1 Capital Allocation)

<b>American Express</b>	=	4%	+	4%	+	7.5%	=	15.5% + Option
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(P/E – 17 ½, Growth – 13%)

(2% x 2)

<b>Gannett</b>	=	10%	-	1%	-	2.0%	=	7.0% + Option
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(P/E – 11, Growth –3%)

<b>Dell</b>	=	0%	+	5%	+	?	=	5.0% + Growth +Option
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(P/E – 20, Growth –15%)

(?)

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# Growth Stock Evaluation Adidas

Does the Franchise Exist?

Sources of Competitive Advantage

- Proprietary Technology – No
- Customer Captivity – Some
- Economies-of-Scale – Yes  
(Advertising, Distribution – Regional)

Key Question – What will Nike Do?

# Growth Stock Evaluation

## Adidas

### Does the Franchise Exist?

#### Industry Returns (2003-5)

<u>Company</u>	<u>Adidas</u>	<u>Nike</u>	<u>Puma</u>
<b>Size (\$B) Sales</b>	8.3	13.7	2.2
<b>ROE</b>	18.3	21.2	40.0
<b>ROIC</b>	33.0	37.3	137.6*
<b>ROS (OI)</b>	9.5	12.6	23.0*
<b>ROS (NI)</b>	4.7	7.8	16.6

\* Negative Trend

- Reebok -- Acquired by Adidas (\$40B)
- Converse – Acquired by Nike
- New Balance – Private (WW Sales - \$1.6B)

# Growth Stock Evaluation Adidas

## Does the Franchise Exist?

### Share Stability

Recent History – No Entry, Consolidation

Older History – 1989-92 Adidas wiped out by Nike  
1992-98 Recovery  
1998-2000 Stagnation

### Share Stability

	<u>Europe</u>		<u>North America</u>		<u>Asia</u>	
	<u>2003</u>	<u>2005</u>	<u>2003</u>	<u>2005</u>	<u>2003</u>	<u>2005</u>
<b>Adidas</b>	45	43	25	23	45	44
<b>Nike</b>	55	57	75	77	55	56
<b>Share Chg</b>		2		2		1

# Growth Stock Evaluation

## Adidas

### Relative Returns

	<u>CASH</u>		<u>RE</u>		<u>GROWTH*</u>		<u>TOTAL</u>
<b>Adidas</b>	= 1.0	+	4.0	+	4.0	=	10.0 + <u>Option</u>
	(PE 16 $\frac{2}{3}$ x)		(5.0%)		(9.5)		
<b>Nike</b>	= 1.5	+	5.5	+	5.0	=	11.5 + <u>Option</u>
	(PE 14 $\frac{1}{2}$ )		(5.5%)		(13.0)		
<b>Puma</b>	= 1.0	+	5.0	+	5.0	=	11.0 + <u>Option</u>
	(PE 16 $\frac{1}{2}$ x)		(5%)		(13.0)		

\* World GDP plus minimal margin improvement (currently 12-15% plus margin improvement)



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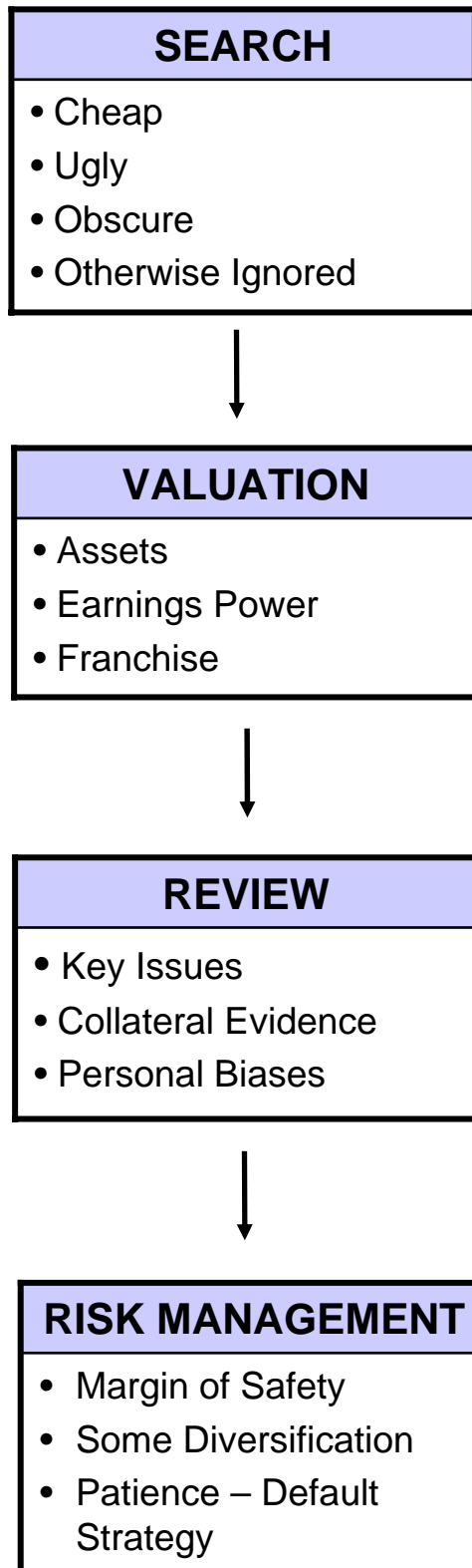
# Evaluating Growth Stocks

## Results

<u>Stock</u>	<u>Return</u>
Wal-Mart	10.1
Gannett	1.0
American Express	11.6
Dell	-20.0
Dow-Jones Index	19.7
Nike	24.5*
Adidas	2.7*

**\* Price change since July 2006**

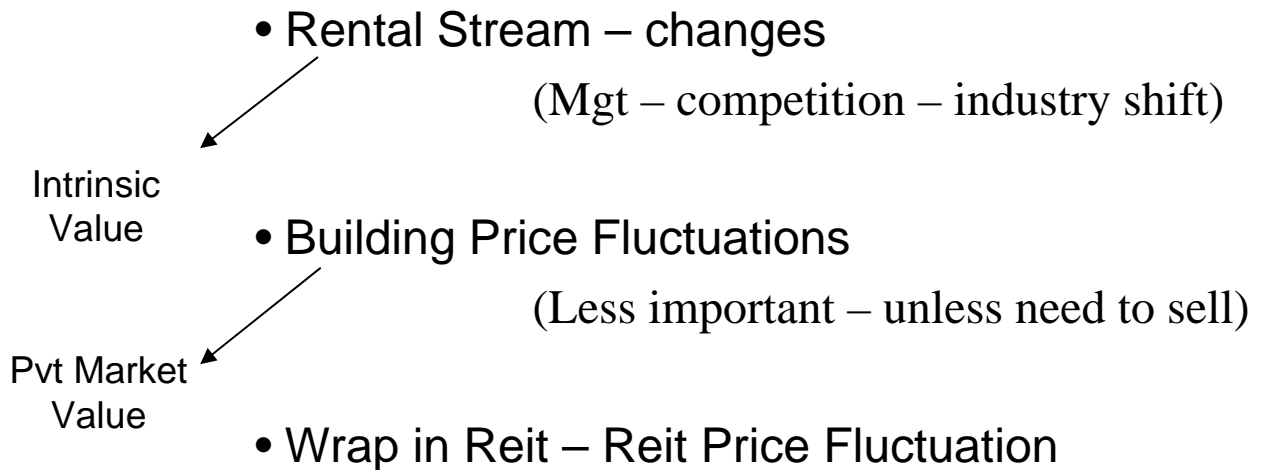
# Value Investing Process



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# Elements of Risk

## Building



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## Risk Management in the Value Process

**“Risk” is not the same thing as “Uncertainty”**

- Highly certain losses are surely an element of “Risk”
- Upside possibilities that are highly “Uncertain” do not necessarily constitute Risk.

**Sources of “Risk” are as Important as “Risks” themselves**

- Unanticipated **Negative** development
- Miscalculations of **Positive** values.  
(Underestimation of negative values)

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# Value Investing Risk “Miscalculation”

Diversification may be Underestimated  
Margin of Safety will be Miscalculated

## Protection Against Miscalculation

- External references
  - Insiders
  - Search strategy
  - Other value Investors
- Internal References
  - Careful tracking
  - Success/Failure
- Pre Consideration of Default Strategy

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## Relative VS. Absolute Risk The Default Strategy

- Absolute Risk – Capital Preservation  
Minimize Deviation (Return – Return on  $P_{NVO}$ )

$P_{NVO}$  is the Portfolio with “Best” Return with  
No Value Opportunities Available

= CASH?

- Relative Risk – Index Performance  
Minimize Deviation (Return – Return on  $P_{Index}$ )

# Risk Management in the Value Process

## “Risks” are Situational-

- In some cases Asset Value Miscalculations Don't matter
- In other cases, Earnings Power miscalculations don't matter

Negative surprises can be “Minimized”

### Situations:

	AV		EPV	
• Asset-Based Purchase	■	>	■	= P
• Franchise-Based Purchase	■	<	■	= P
• Joint-Based purchase	■	=	■	> P

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## Asset Based Purchases

### Unanticipated Negative Development

- (A) • Asset Impairments
  - Management Depredations
  - Industry Deterioration
  - Accounting Irregularity
- Check -  
Situation  
Specific**
- 
- (B) • Non-Performing Catalyst
- Situation  
Specific**
- 
- (C) • Economic Deterioration  
(Depression, Nuclear War)

**(A) & (B) Diversification and Margin of Safety**

**(C) Margin of Safety**



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## Franchise Purchases

### Negative Developments

- Management Impairments - SMALL
- Asset Impairment - NONE
- Accounting Irregularity – RARE
- Non-Catalyst – UNNECESSARY
- Industry/Economic Impairment – LIMITED
- Franchise Impairment - CRITICAL

**Sector Specific Event**

- **Diversification**
- **Growth as a Margin of Safety VS. Industry/Economy Impairment**

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## Joint Purchase Based

- Company Impairments
  - Industry Impairment
- } - DIVERSIFICATION
- Economy Impairment – MARGIN OF SAFETY

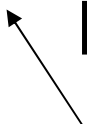
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## Security Analysis

What Do you Do When There are No Good Ideas?

How Much Do you Buy?

Know Nothing  $\Rightarrow$  Modern Portfolio  
Theory World

Define “DEFAULT – Risk Minimizing  
Portfolio  
 **Determining**

(1) Equity Manager – Index Fund

(2) Individual – “Optimal” Index + St.  
Portfolio

(3) Value Manager – Statistical Value Index  
Fund