

The New Economy

Mental Models for Market Outperformance

Presented by:

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Agenda

- I. Follow the Cash
- II. Information Rules
- III. How to Play Today

Part I

Follow the Cash

Follow the Cash

The ideal model...

- ◆ Understand Economics
 - ◆ Return on invested capital
 - ◆ Return on incremental invested capital
 - ◆ Earnings/value creation relationship
 - ◆ Competitive advantage period
- ◆ Expectations Quantification
 - ◆ Project “fair” value
 - ◆ Understand *market* expectations

Follow the Cash

ROIC and P/E multiples

		Return on Invested Capital			
		8%	10%	15%	20%
Earnings Growth	5%	8.5x	10.0x	12.0x	12.9x
	10%	5.7	10.0	15.8	18.6
	15%	0.1	10.0	23.4	29.9
	20%	NM	10.0	38.2	52.2

Assume all equity financed; 10% WACC; 20-year forecast period

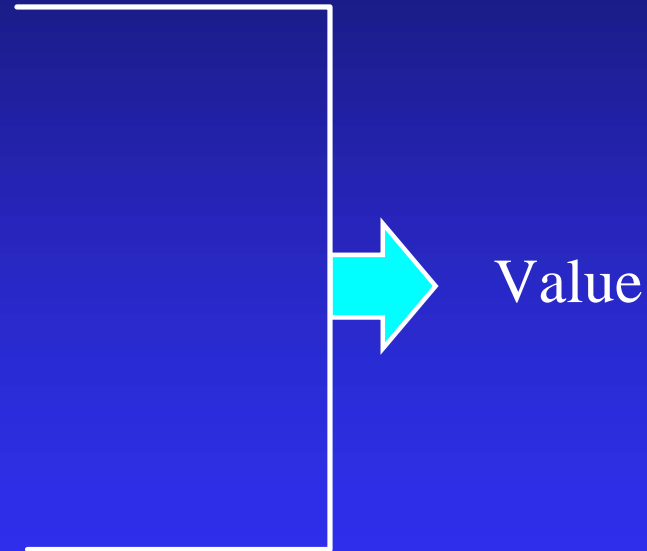
Follow the Cash

First principles

(1) Cash flow

(2) Risk

(3) Forecast horizon (CAP)



These drivers are *expectational* in the stock market

Follow the Cash

Cash flow defined

- Volume
- Pricing

- Expenses
- *Leases*

- Tax Provision
- *Deferred Taxes*
- *Tax Shield*

Sales

Operating Margin

Cash Taxes

- A/R
- Inventories
- A/P

- Net PP&E
- *Operating Leases*

Δ Working Capital

Capital Expenditures

Acquisitions/
Divestitures

Cash Earnings

minus

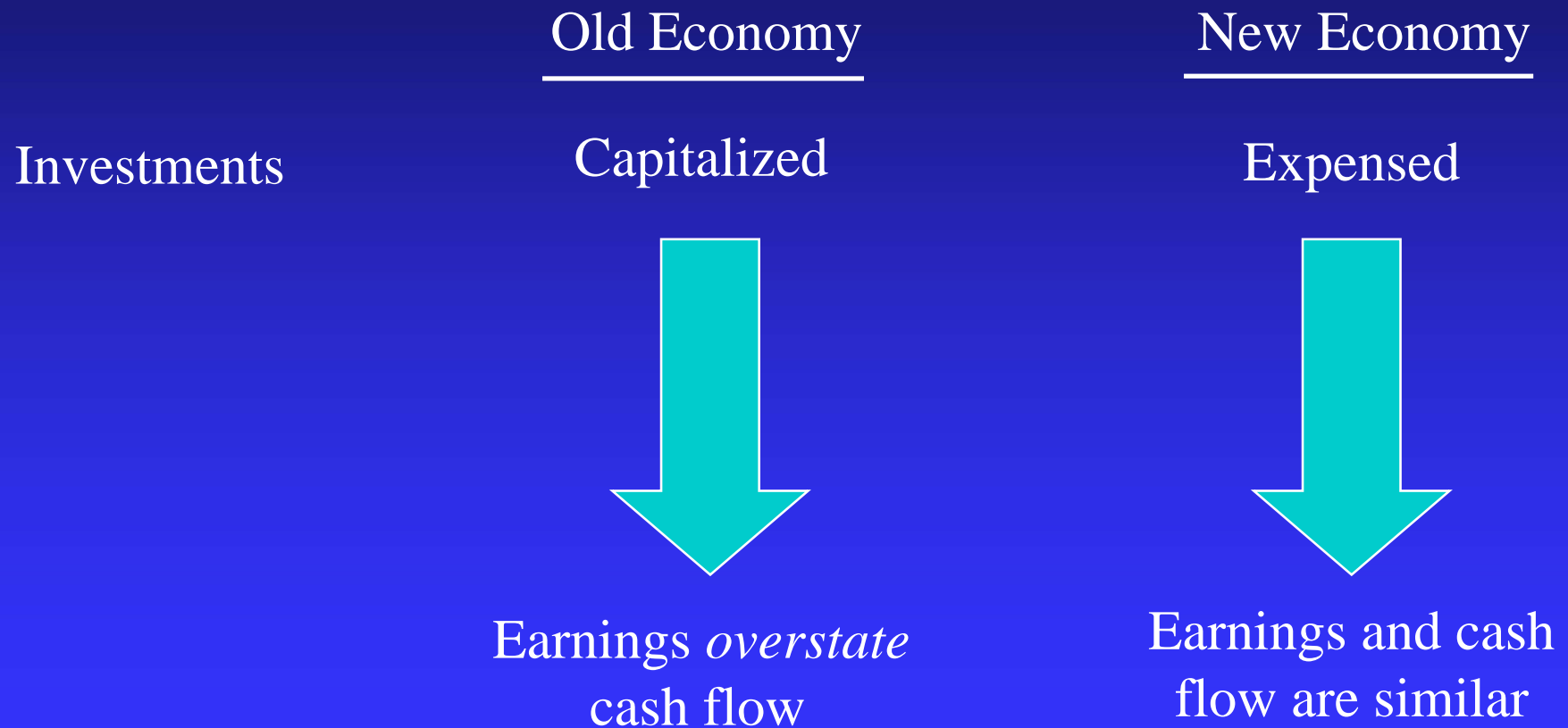
Investment

Free Cash Flow

Cash available for distribution to *all* claimholders

Follow the Cash

How investments are treated



Follow the Cash

The evidence

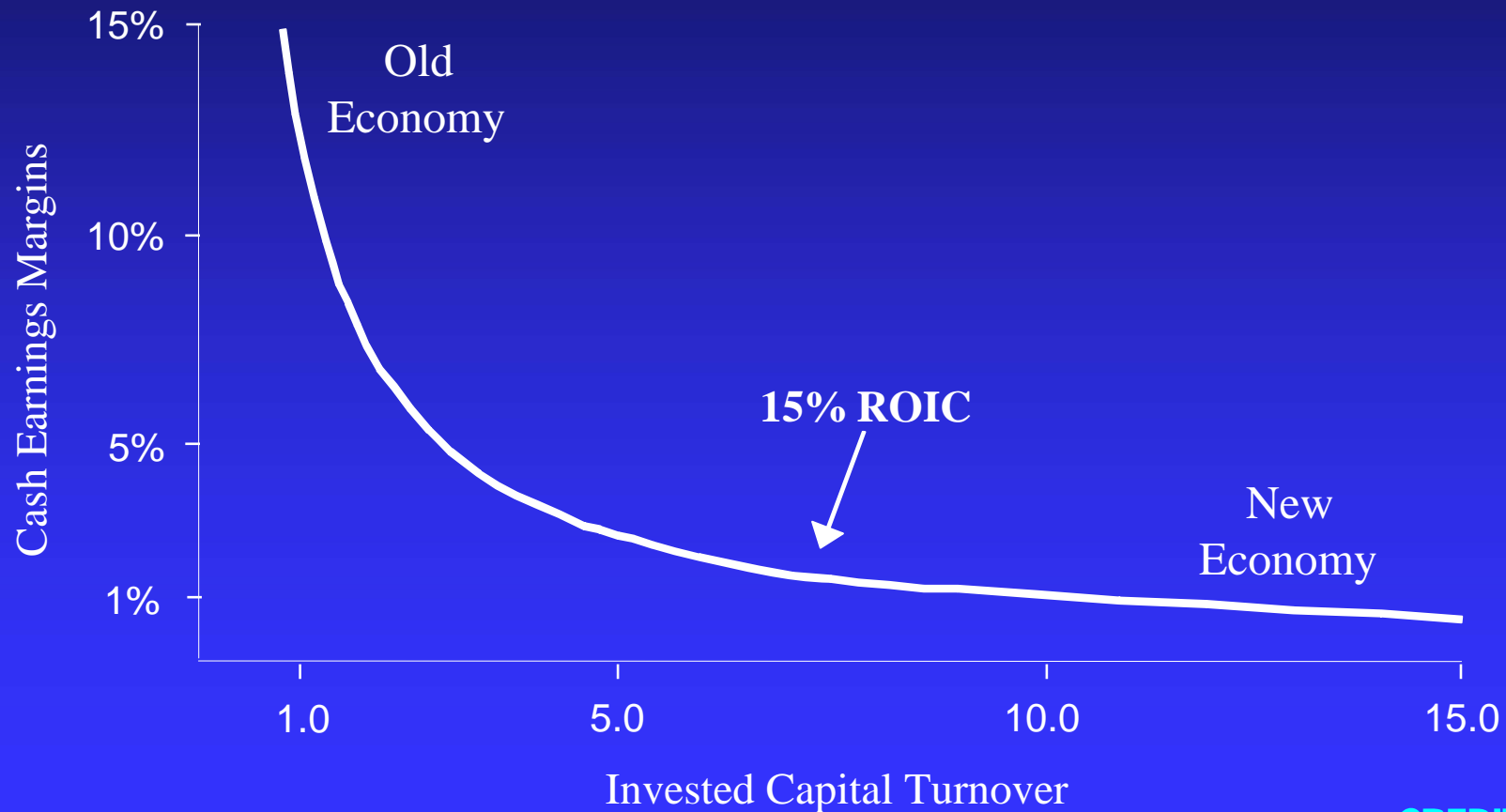
	Microsoft	Yahoo!	Coca-cola	Wal-Mart
Net income	\$100	\$100	\$100	\$100
<i>minus</i>				
Balance sheet Δ	-61	-75	26	13
<i>equals</i>				
Cash flow	161	175	74	87

Cash flow/net income	1.6x	1.8x	0.7x	0.9x
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Note: most recent reported fiscal year; all figures scaled.

Follow the Cash

The margin and capital turnover tradeoff






Follow the Cash

Atom, bits and cash

ROIC	
1988	9.9%
1998	9.4%



- ◆ Working capital as a percent of sales 
- ◆ Fixed capital as a percent of sales 
- ◆ Goodwill as a percent of sales 

\$245 billion
in capital freed
last 10 years

M&A
formalizes
intangible
assets

Follow the Cash

Microsoft – fiscal 1999

Income Statement

Sales
Expenses
Operating Income
Taxes
Net Income

Balance Sheet

Current Assets
PPE
Other
Total Assets
Current Liabilities
Equity
Liabilities & Equity

**\$500,000
average
employee
option profit
(F99)**

Cash earnings = $\frac{\$10 \text{ billion}}{\$1 \text{ billion}}$ = **975% ROIC**

**\$81 billion
ESO liability**

**~ \$500 billion
market cap**

Part II

Information Rules

Information Rules

Mental models for the new millennium

- ◆ Network economics
- ◆ Trumping trade-offs
- ◆ Triumph of bits

Information Rules

Network economics

Physical capital world

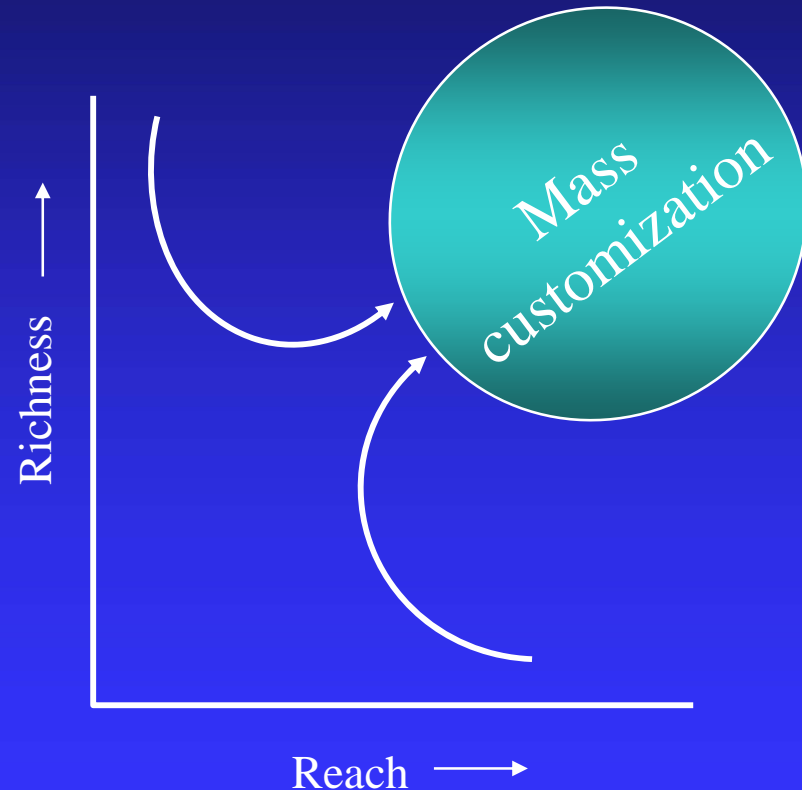
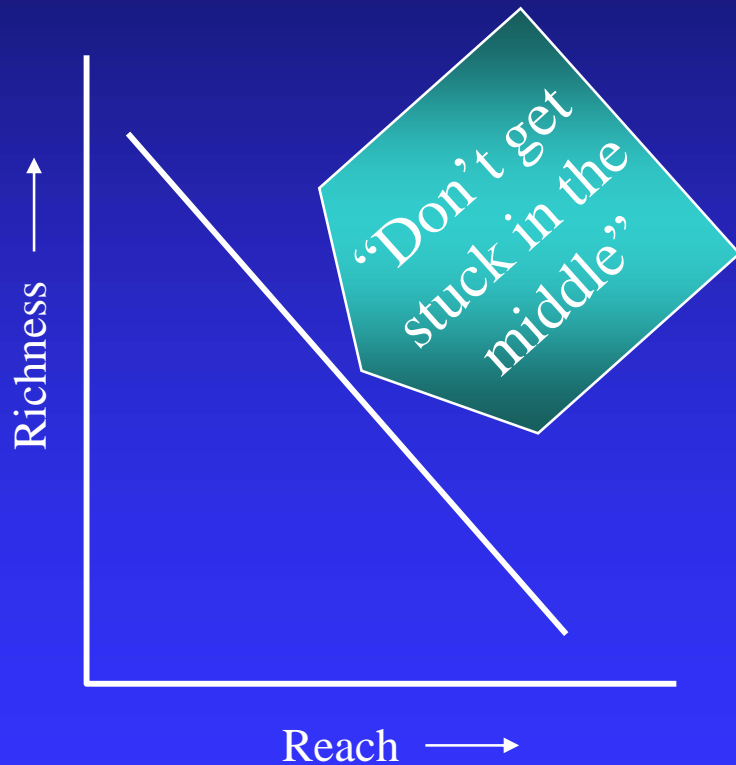
- ◆ economies of scale
- ◆ *supply-side* driven (manufacturing, processing capability)
- ◆ positive feedback dissipates as dominance is approached

Knowledge capital world

- ◆ network effects
- ◆ *demand-side* driven (eBay)
- ◆ positive feedback strengthens with dominance

Information Rules

Trumping tradeoffs



Information Rules

Triumph of bits

Atoms

- ◆ Rival good
- ◆ Easy to protect
- ◆ Spread costs
- ◆ Limited scalability

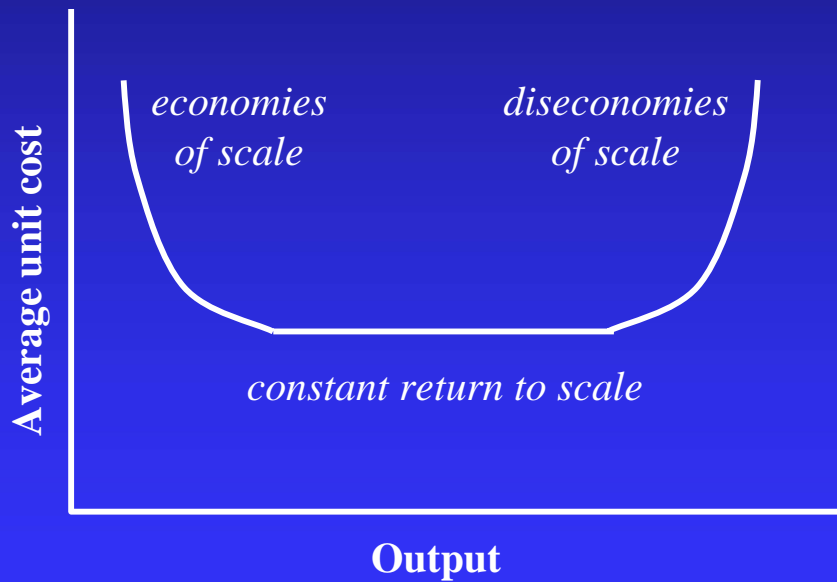
Bits

- ◆ Non-rival good
- ◆ Hard to protect
- ◆ Upfront costs
- ◆ High scalability

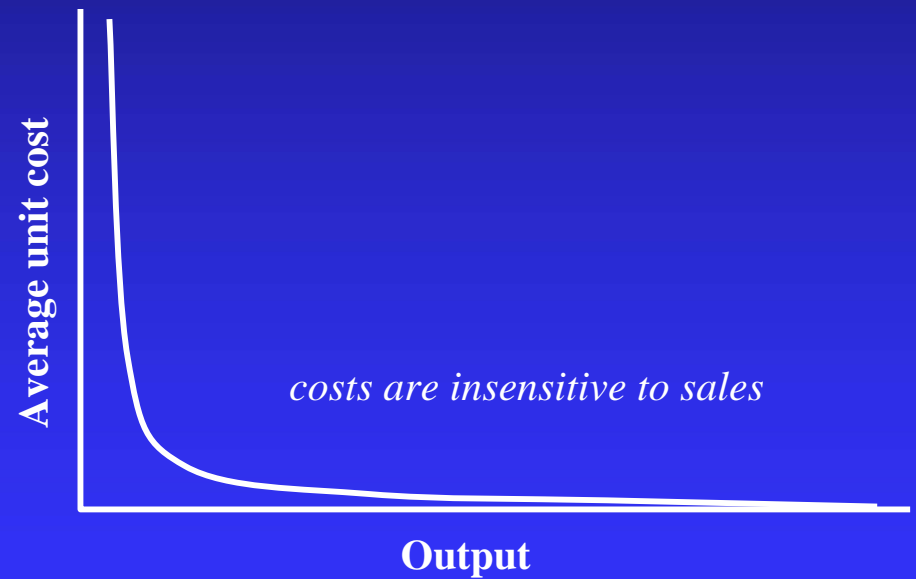
Information Rules

Relationship between output and costs

Capital-based



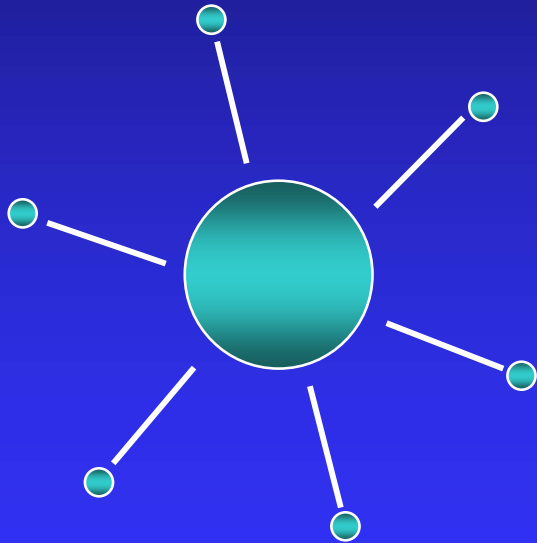
Knowledge-based



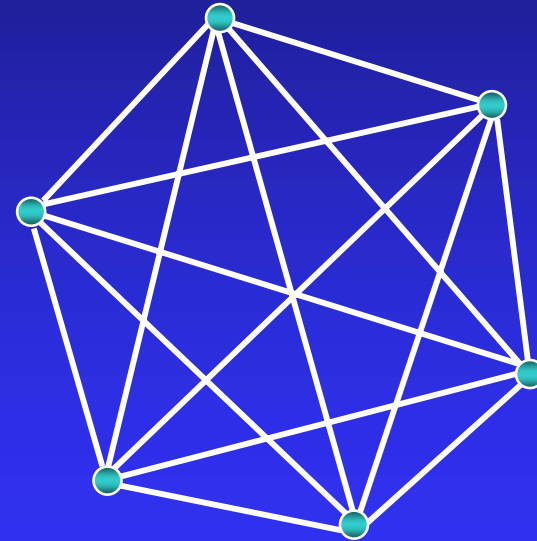
Information Rules

Network effects

Radial



Interactive



“Of networks there shall be few”
–Arthur’s Law

Information Rules

Increasing returns

Network effects

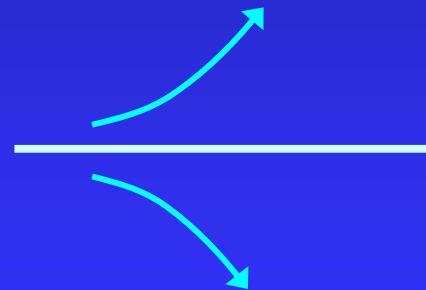
High upfront costs

First-to-scale

Lock-in (standard)

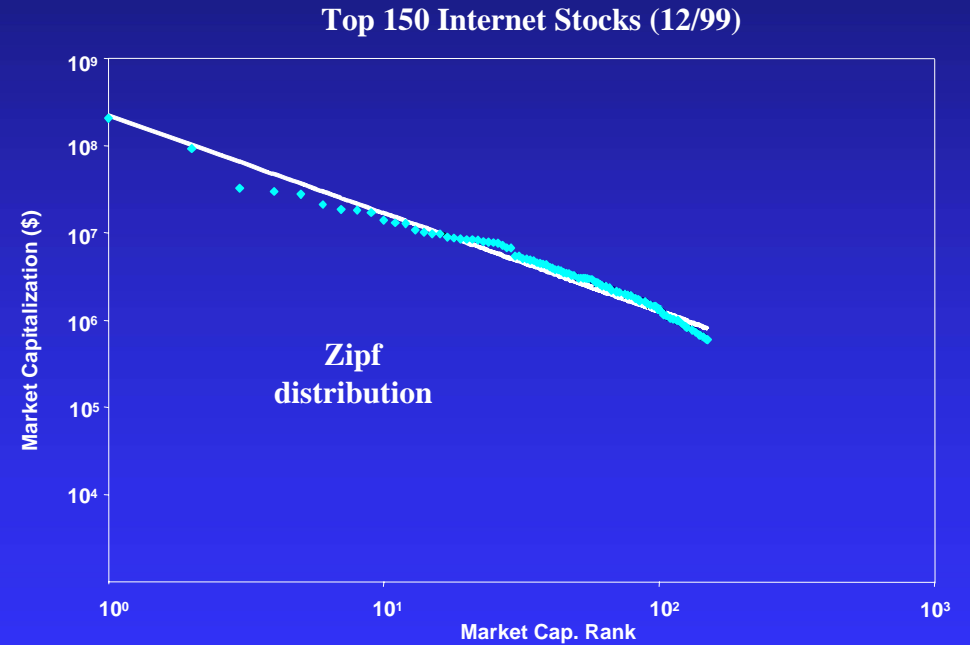
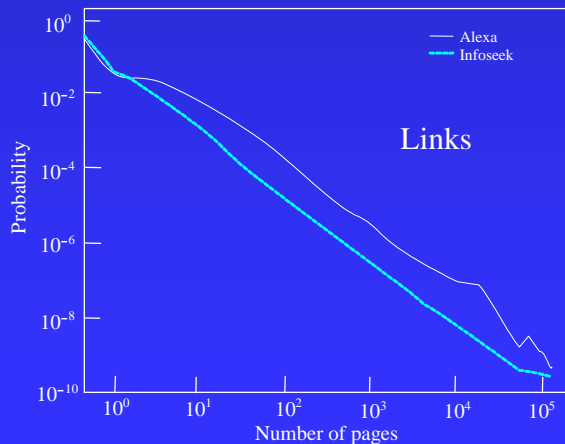
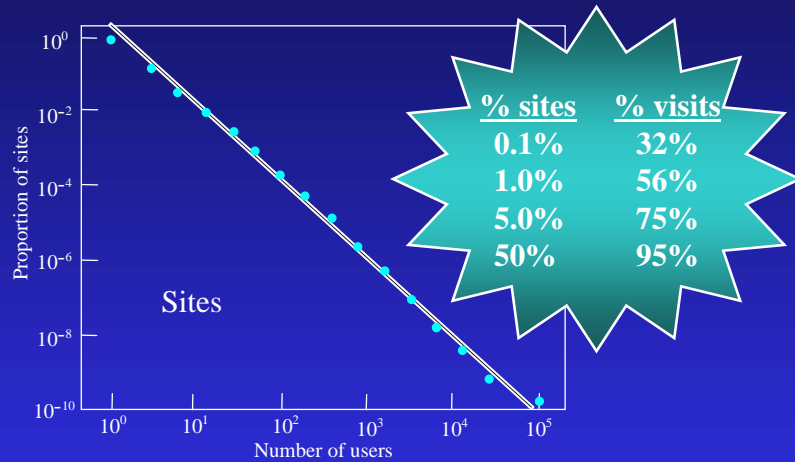


Increasing returns



Information Rules

Topology of the Internet



Information Rules

What to look for

- ◆ Heavily discount—or give away—new products
- ◆ Link and leverage—highlights the value of real options
- ◆ Think adaptation, not optimization

Part III

How to Play Today

How to Play Today

Traditional businesses – barriers to success

◆ Culture and compensation

- ◆ hierarchical structure
- ◆ cash-based versus stock-based
- ◆ lack of diversity

◆ Channel conflict

- ◆ pricing
- ◆ varying logistics
- ◆ information type

◆ Red Queen effect

- ◆ prey/predator model
- ◆ benefits competed away
- ◆ lower margins

How to Play Today

Traditional businesses – the checklist

- ◆ Close to the customer
 - ◆ more reliable information
 - ◆ better capital management
 - ◆ tap network effects
- ◆ Deconstruct the business model
 - ◆ where is value created?
 - ◆ vertical models vulnerable
 - ◆ managers/investors don't know *where* and *why* value is created
- ◆ Capital discipline
 - ◆ reinvestment rate
 - ◆ game theory

How to Play Today

Knowledge businesses

- ◆ Network effects
 - ◆ stewards of the network
 - ◆ de facto standards
- ◆ Necessities
 - ◆ infrastructure
 - ◆ digital rights management
- ◆ Globalization
 - ◆ link and leverage
 - ◆ redefining local/national industries

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Recommended Sources

◆ Finance:

- ◆ *Creating Shareholder Value*, Alfred Rappaport (The Free Press, New York, 1986 & 1998)
- ◆ *Valuation: Measuring and Managing the Value of Companies*, Tom Copeland, Tim Koller, Jack Murin (John Wiley & Sons, Inc., New York, 1995)
- ◆ *The Quest for Value*, G. Bennett Stewart III (Harper Collins, New York, 1991)
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- ◆ *Innovator's Dilemma*, Clayton M. Christensen (Harvard Business School Press, Cambridge, 1997)
- ◆ *Blown to Bits*, Philip Evans, Thomas S. Wurster (Harvard Business School Press, Cambridge, 2000)
- ◆ *Unleashing the Killer App*, Larry Downes, Chunka Mui (Harvard Business School Press, Cambridge, 1998)