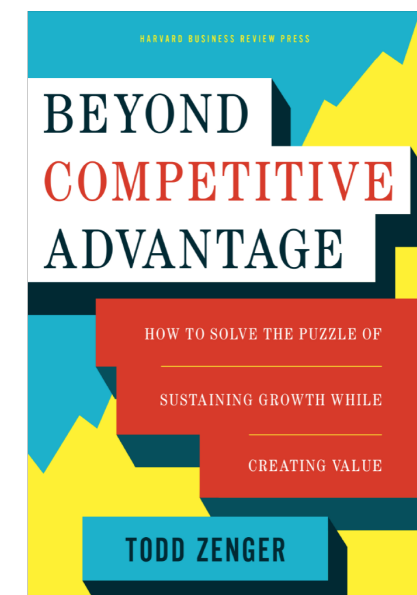


Investing with a Theory

(Chapter 2 Supplement)



HOW DO YOU DETERMINE THE ALLOCATION OF INVESTMENT?

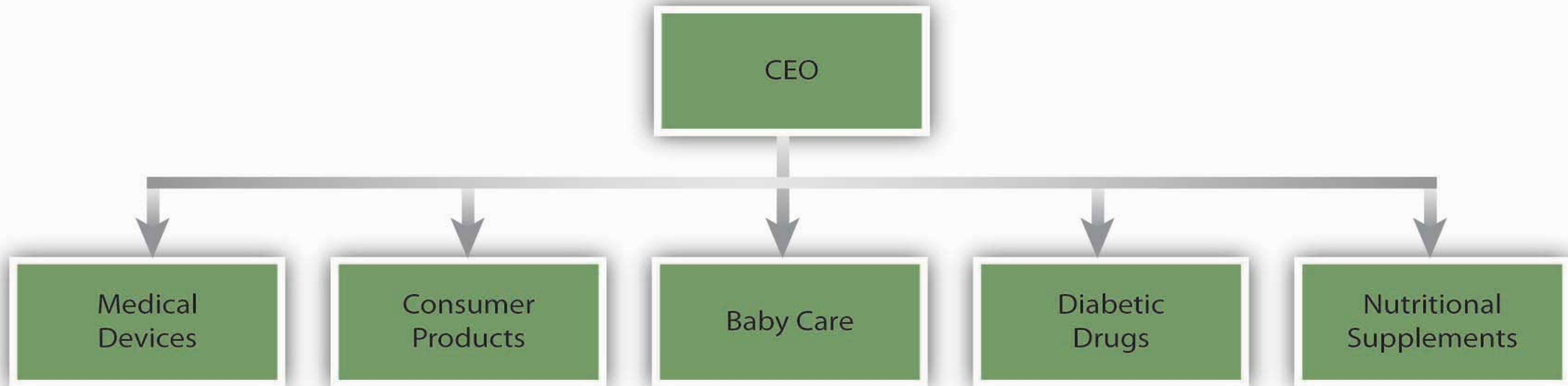
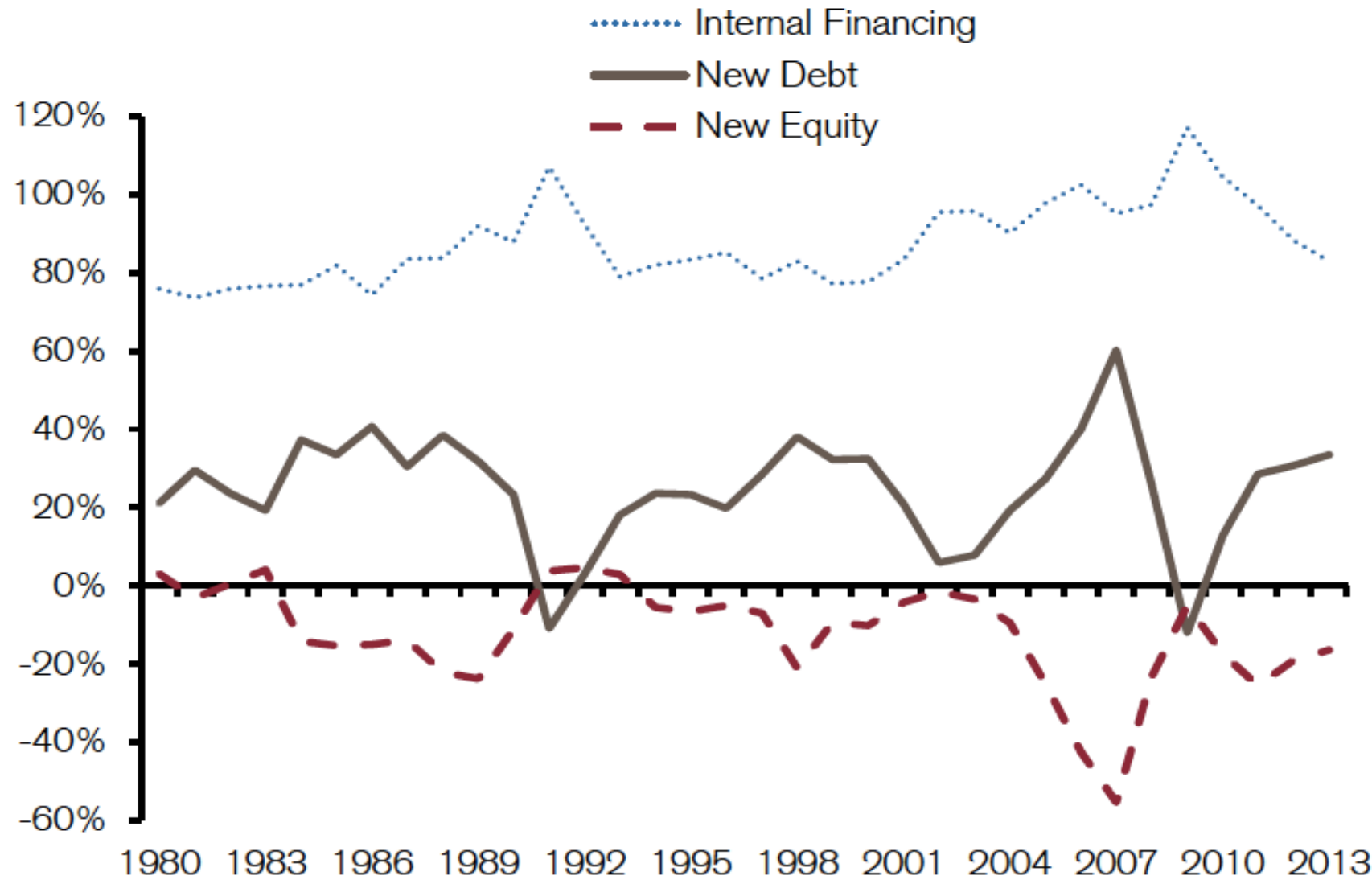
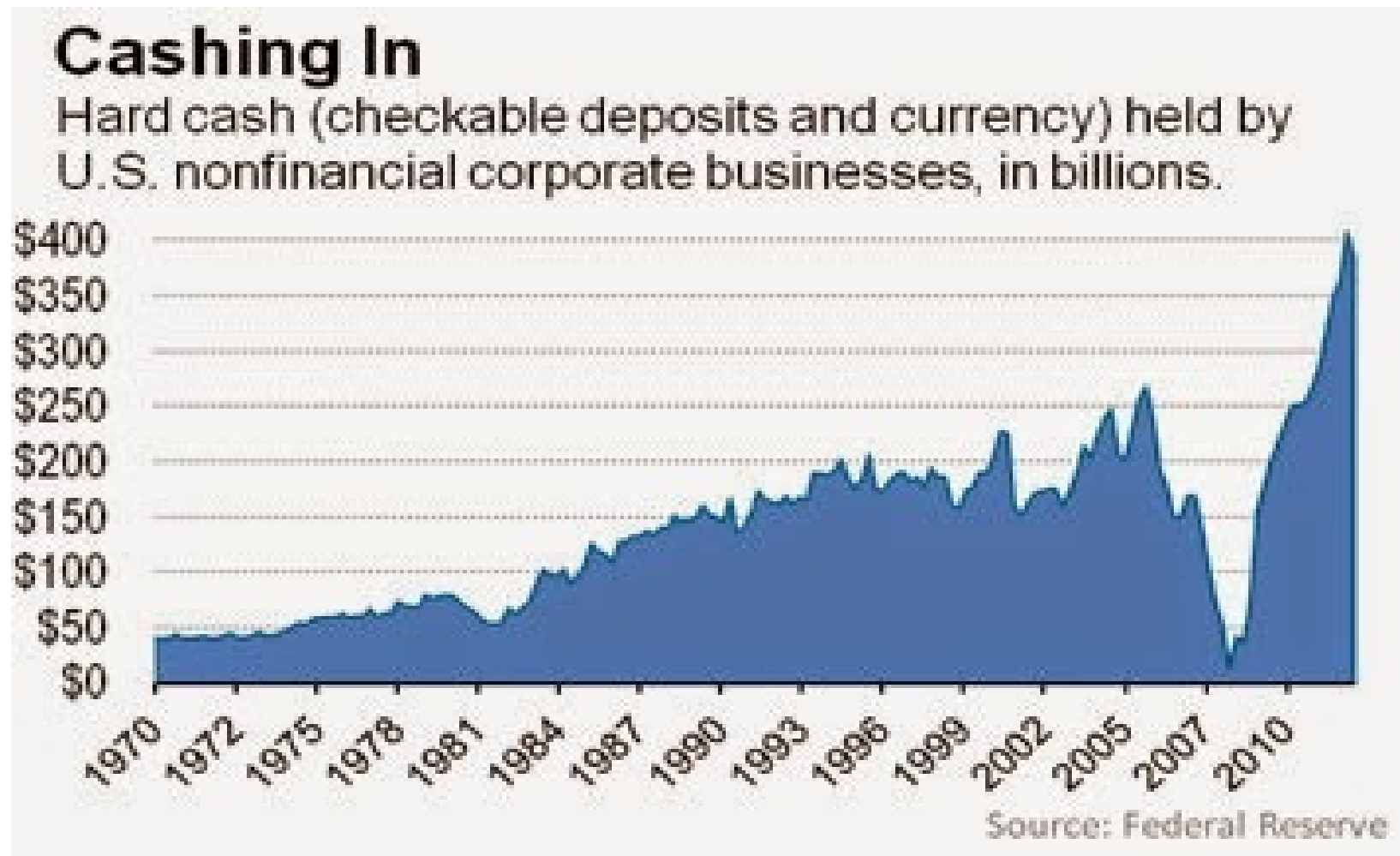


Exhibit 2: U.S. Sources of Capital, 1980-2013



Source: Board of Governors of the Federal Reserve System, Division of Research and Statistics, Flow of Funds Accounts Table F.102.

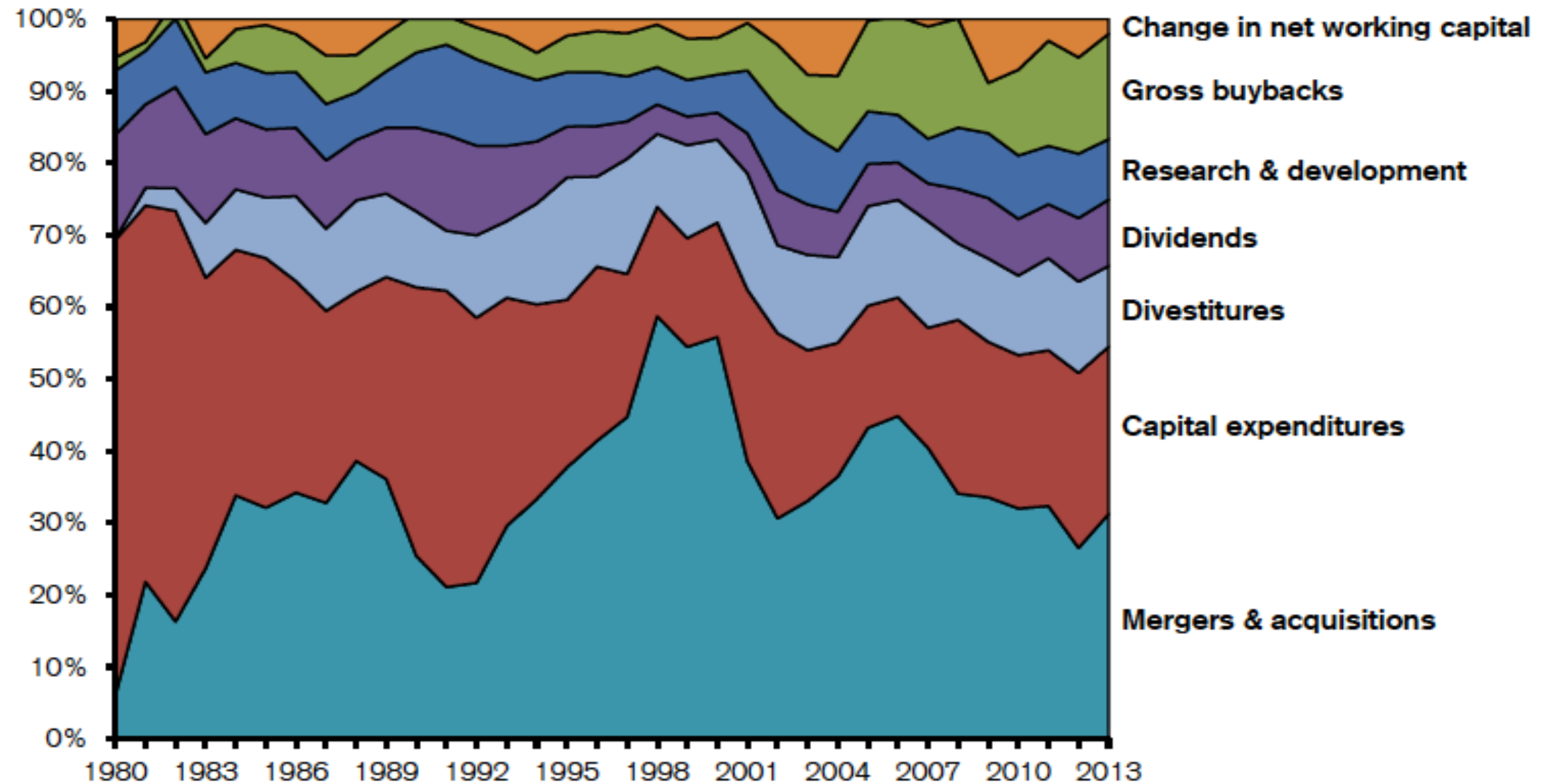
CORPORATIONS WITH HOARDS OF CASH TO INVEST



2015: \$1.73 Trillion held by US Corporations (10% by Apple)

DECLINE IN CAPITAL EXPENDITURES

Exhibit 5: U.S. Capital Deployment, 1980-2013



Source: Credit Suisse HOLT, Thomson Reuters DataStream.

Note: Data for R&D, capital expenditures, buybacks, and dividends exclude financial companies and regulated utilities; data for mergers & acquisitions and divestitures include all industries.

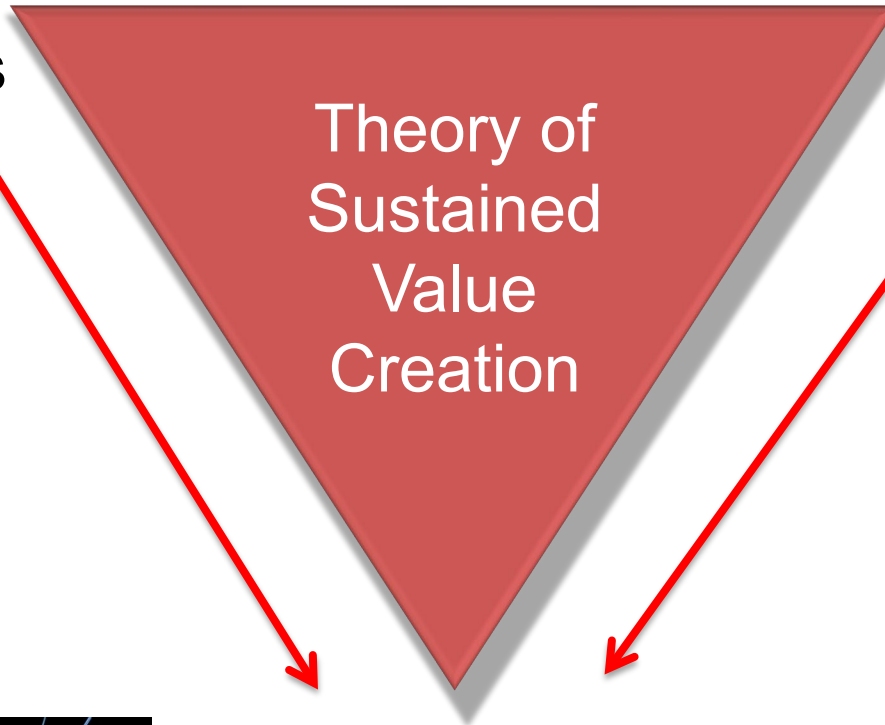
INVESTING WITH A THEORY



Foresight regarding evolution of industry, demand, technology, and customer tastes

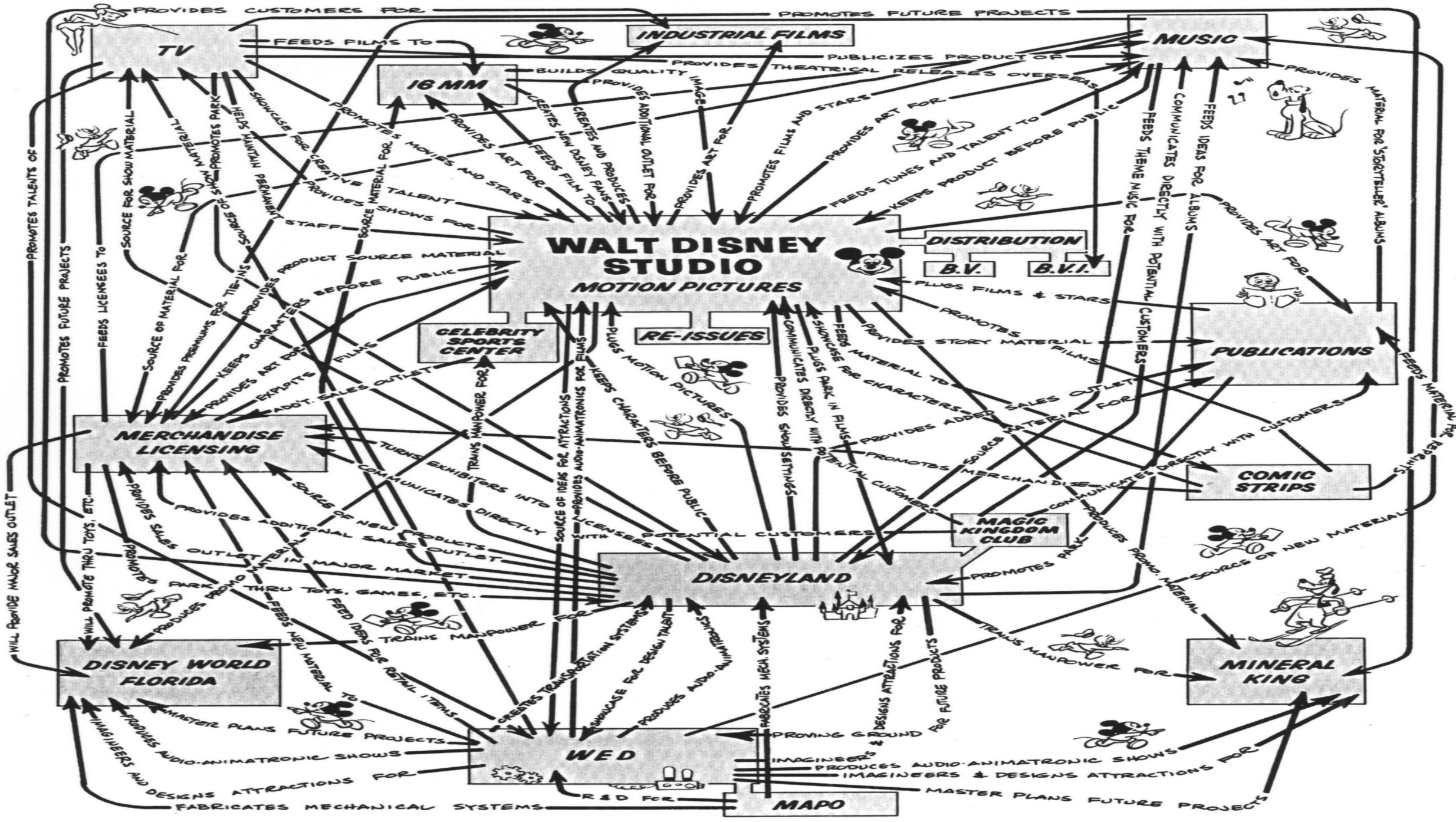


Cross-sight regarding synergies among available assets, resources, and activities



Insight regarding sustainably unique assets, resources, and activities within the firm

DISNEY'S THEORY ILLUMINATES INVESTMENTS



THE REALITY

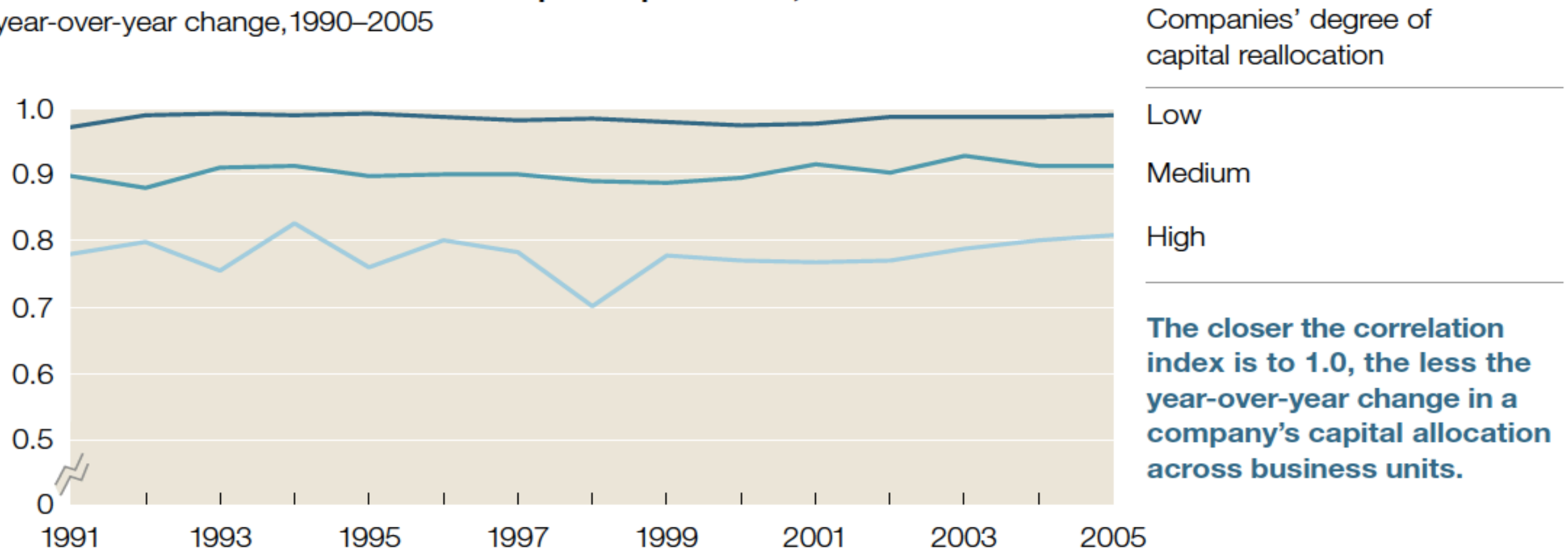
- ▶ What we have found in one research study after another is that how business *really* gets done has little connection to the strategy developed at corporate headquarters. Rather, strategy is crafted, step by step, as managers at all levels of a company—be it a small firm or a large multinational—commit resources to policies, programs, people, and facilities.

- Joe Bower and Clark Gilbert, HBR 2007

Exhibit 1

Capital allocations were essentially fixed for roughly one-third of the business units in our sample.

Correlation index of business units' capital expenditures, year-over-year change, 1990–2005



Source: Hall, Lovallo and Musters (2012), McKinsey Quarterly

Exhibit 2

Companies with higher levels of capital reallocation experienced higher average shareholder returns.

Companies' degree of capital reallocation
(n = 1,616 companies)

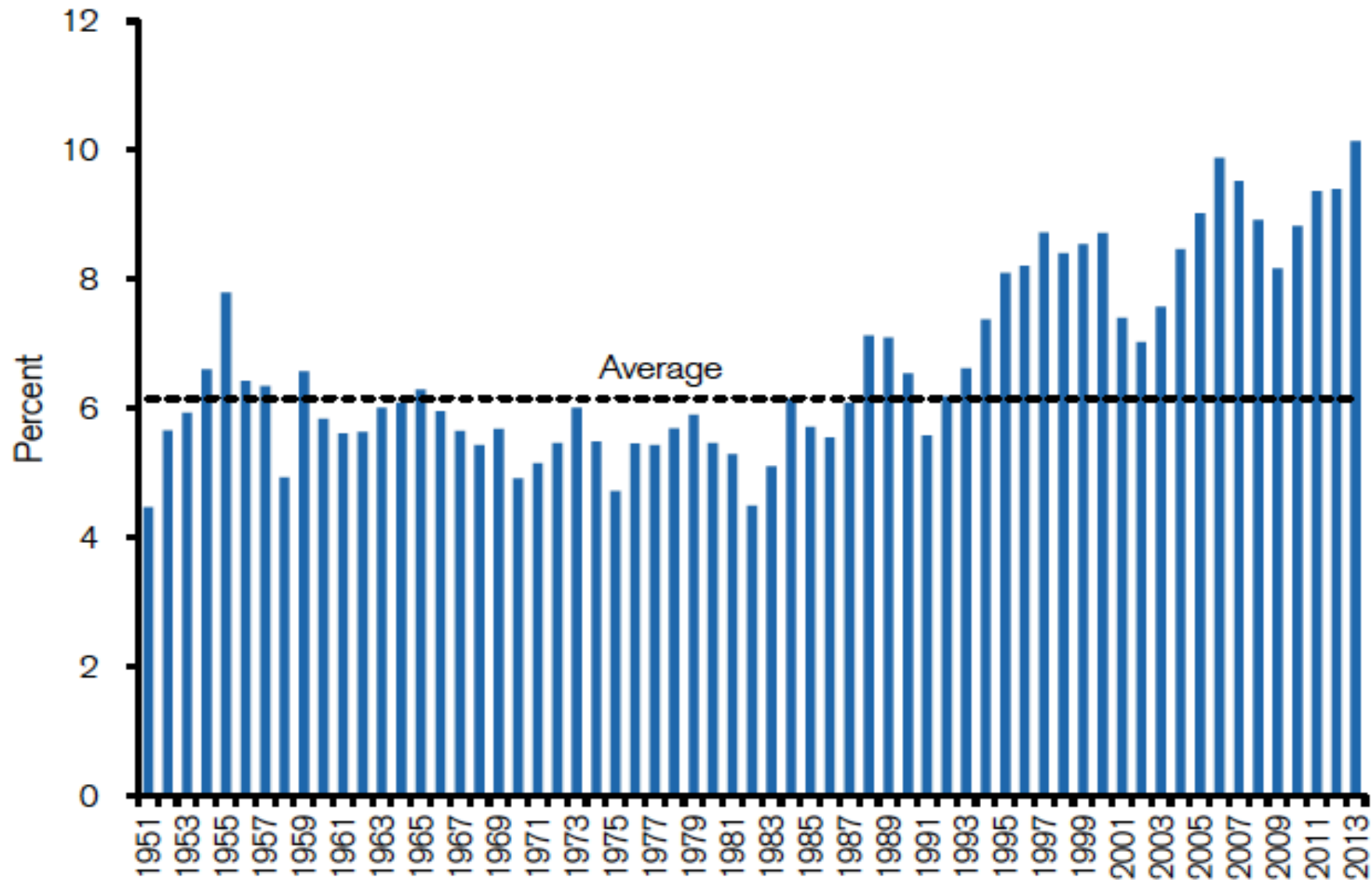
Total returns to shareholders,
compound annual growth rate,
1990–2005, %



Source: Hall, Lovallo and Musters (2012), McKinsey Quarterly

INVESTMENT RETURNS AT VERY HIGH LEVELS

Exhibit 9: U.S. CFROI, 1951-2013



CFROI = GOCF / Capital Employed,

where:

- › GOCF = gross operating cash flow; it is cash flow before Interest and Taxes
- › Capital Employed = Operating Assets - Interest Free Capital

CAPITAL ALLOCATION AS A BEAUTY CONTEST



A SIMPLE ALLOCATION RULE

**Invest in all projects
where:**

$$\text{NPV} > 0$$

A CESSPOOL OF DISTORTIONS

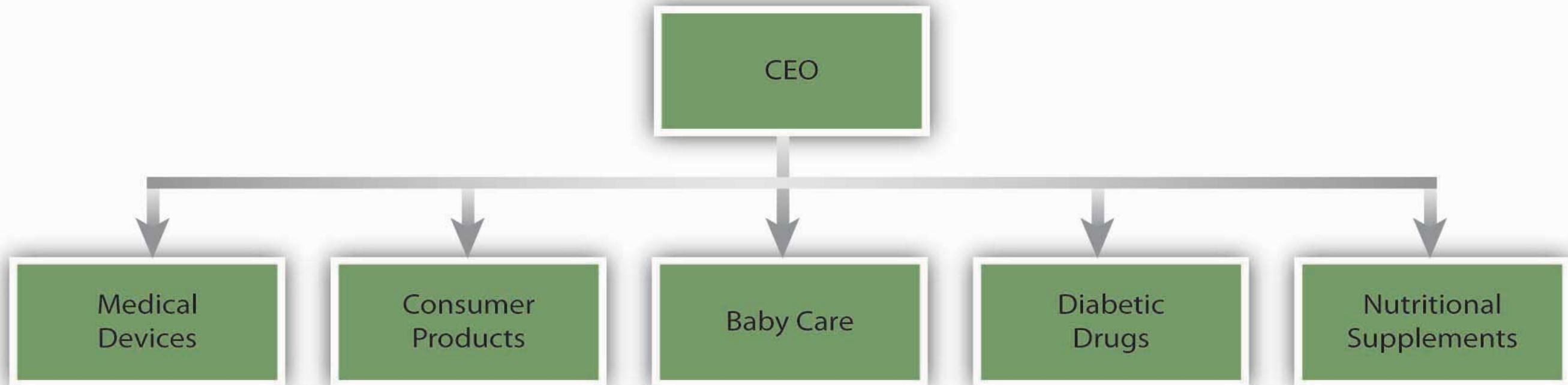
Proposer Distortions

- ▶ Overconfidence
- ▶ Self Interest
- ▶ Arms race in exaggeration

Evaluator Biases

- ▶ Fairness bias
- ▶ Status quo bias
- ▶ Peer group bias

POTENTIAL SOLUTIONS: DECENTRALIZE ALLOCATION

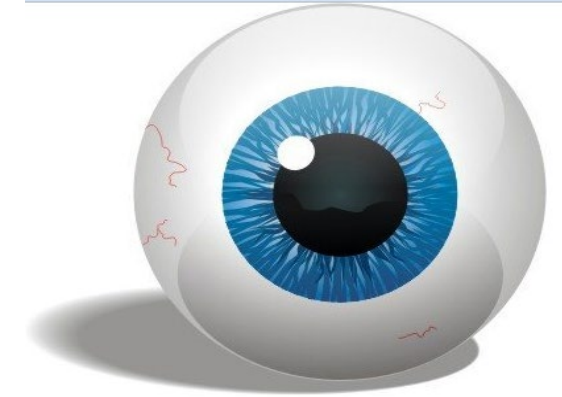


But, why be part of a larger firm then?

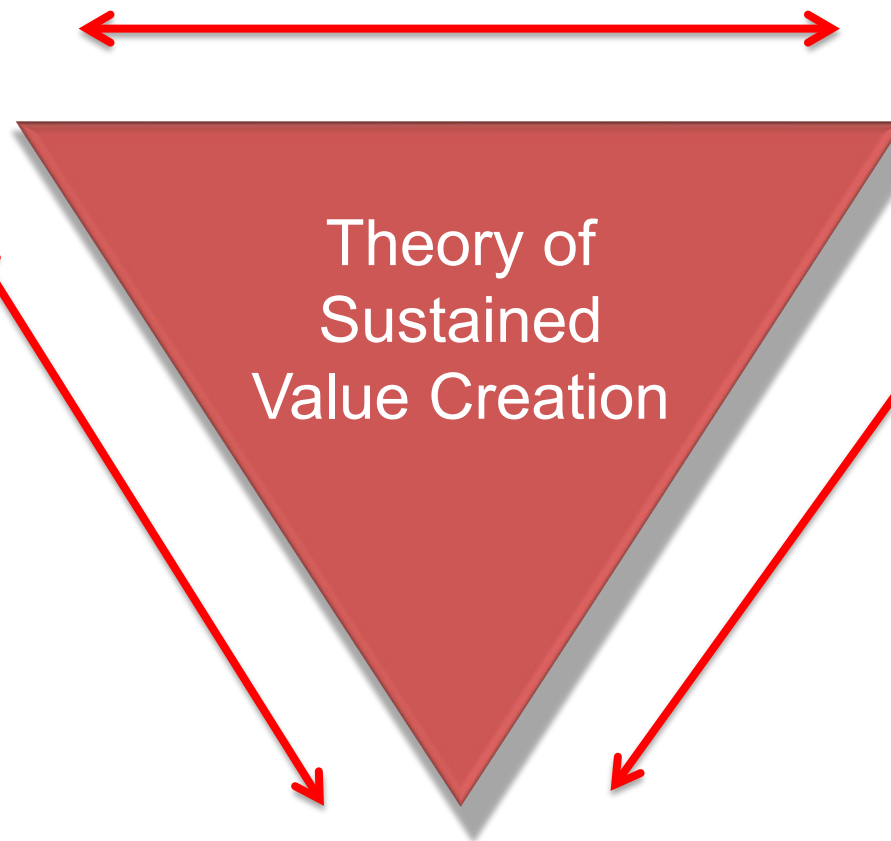
INVEST WITH A THEORY



Foresight regarding evolution of industry, demand, technology, and customer tastes

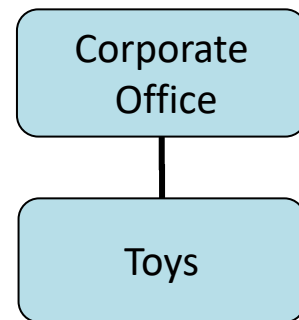


Cross-sight regarding synergies among available assets, resources, and activities

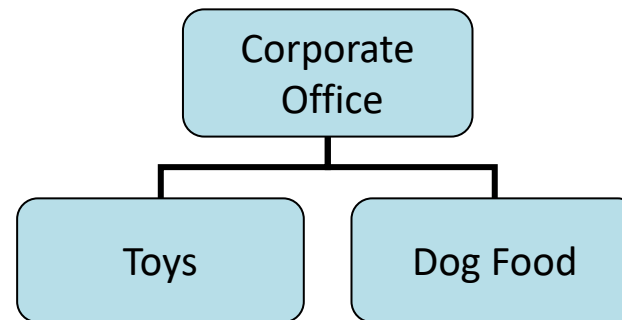


Insight regarding sustainably unique assets, resources, and activities within the firm

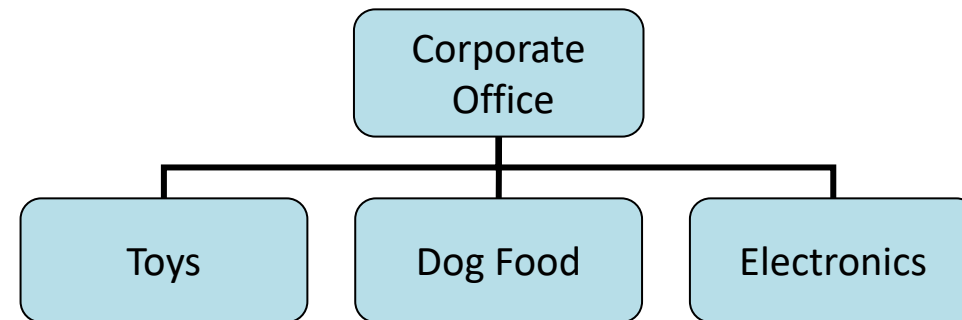
A COMMON THEORY: DIVERSIFICATION



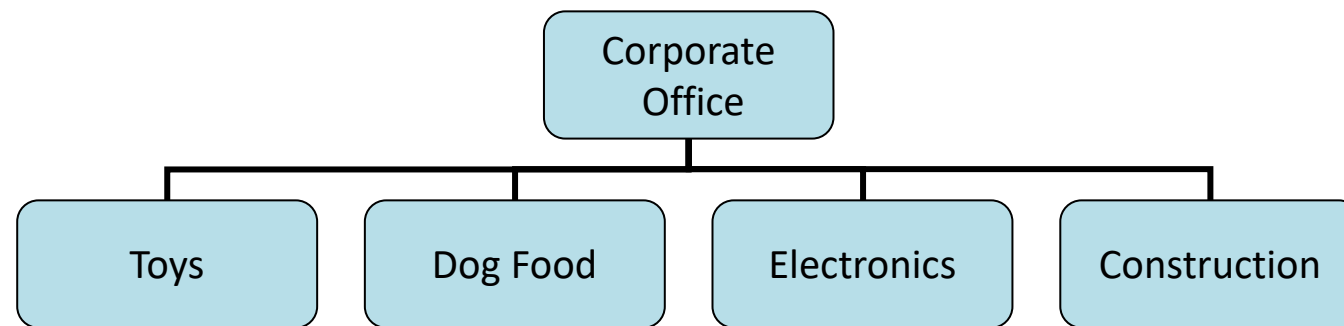
DIVERSIFICATION OF CORPORATIONS



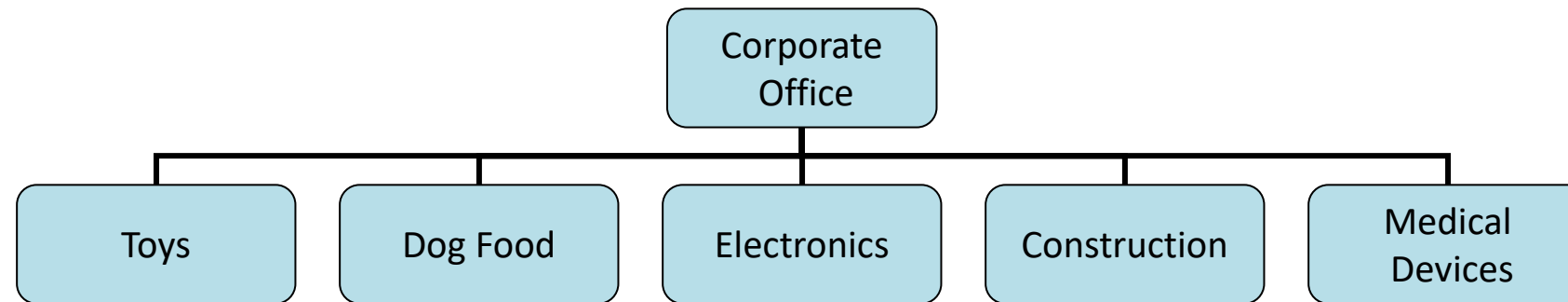
DIVERSIFICATION OF CORPORATIONS



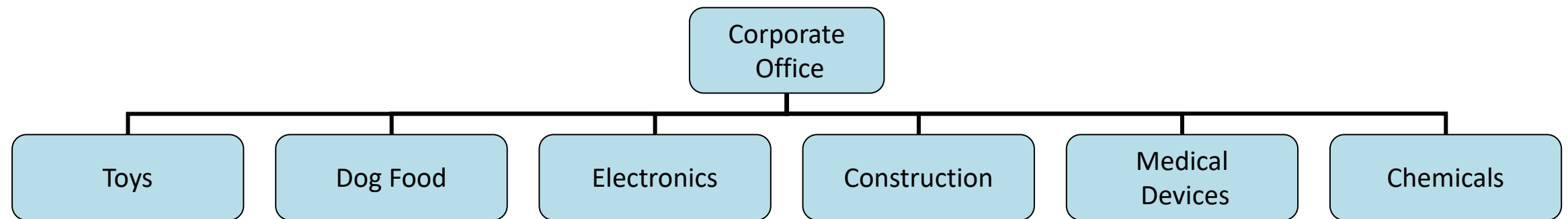
DIVERSIFICATION OF CORPORATIONS



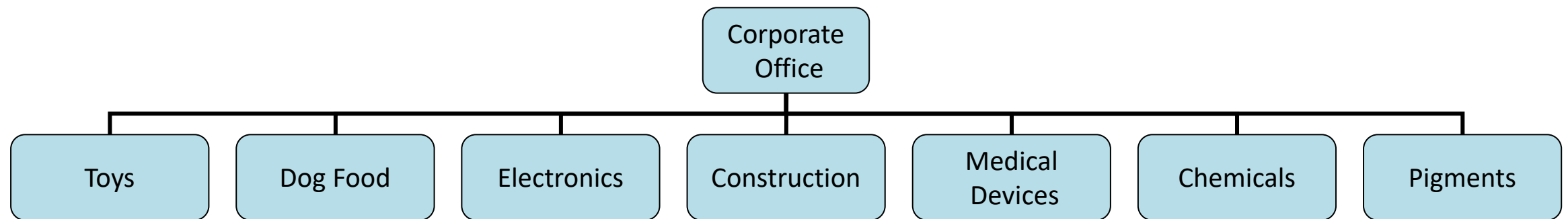
DIVERSIFICATION OF CORPORATIONS



DIVERSIFICATION OF CORPORATIONS



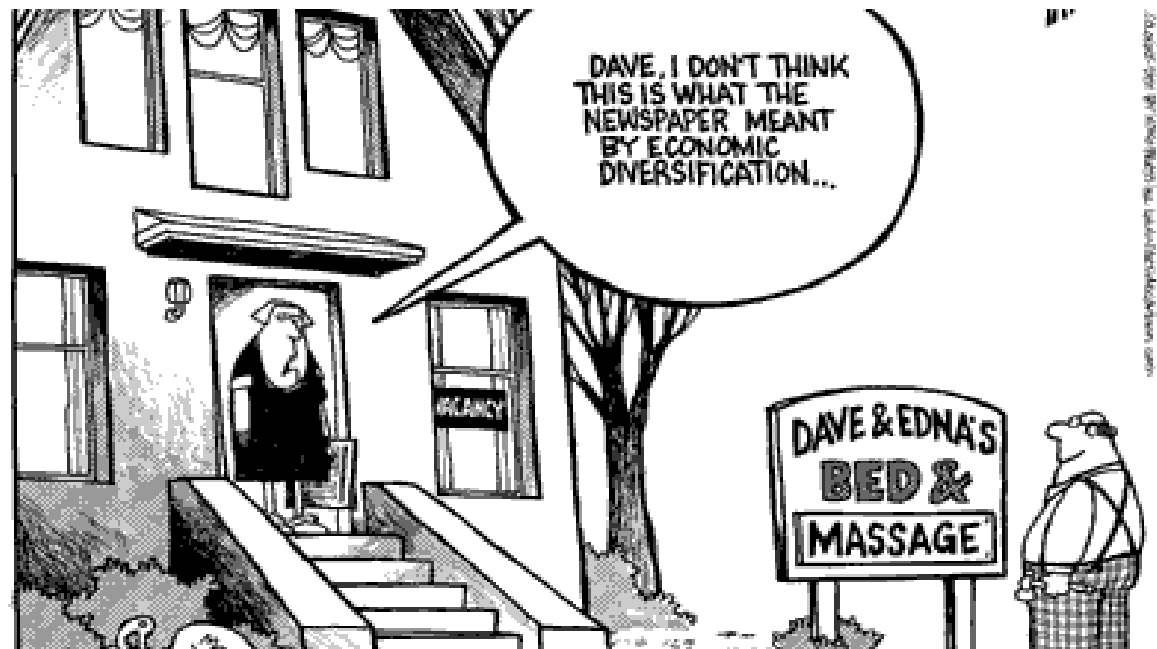
DIVERSIFICATION OF CORPORATIONS



DOES DIVERSIFICATION ADD VALUE?



DOES DIVERSIFICATION ADD VALUE?



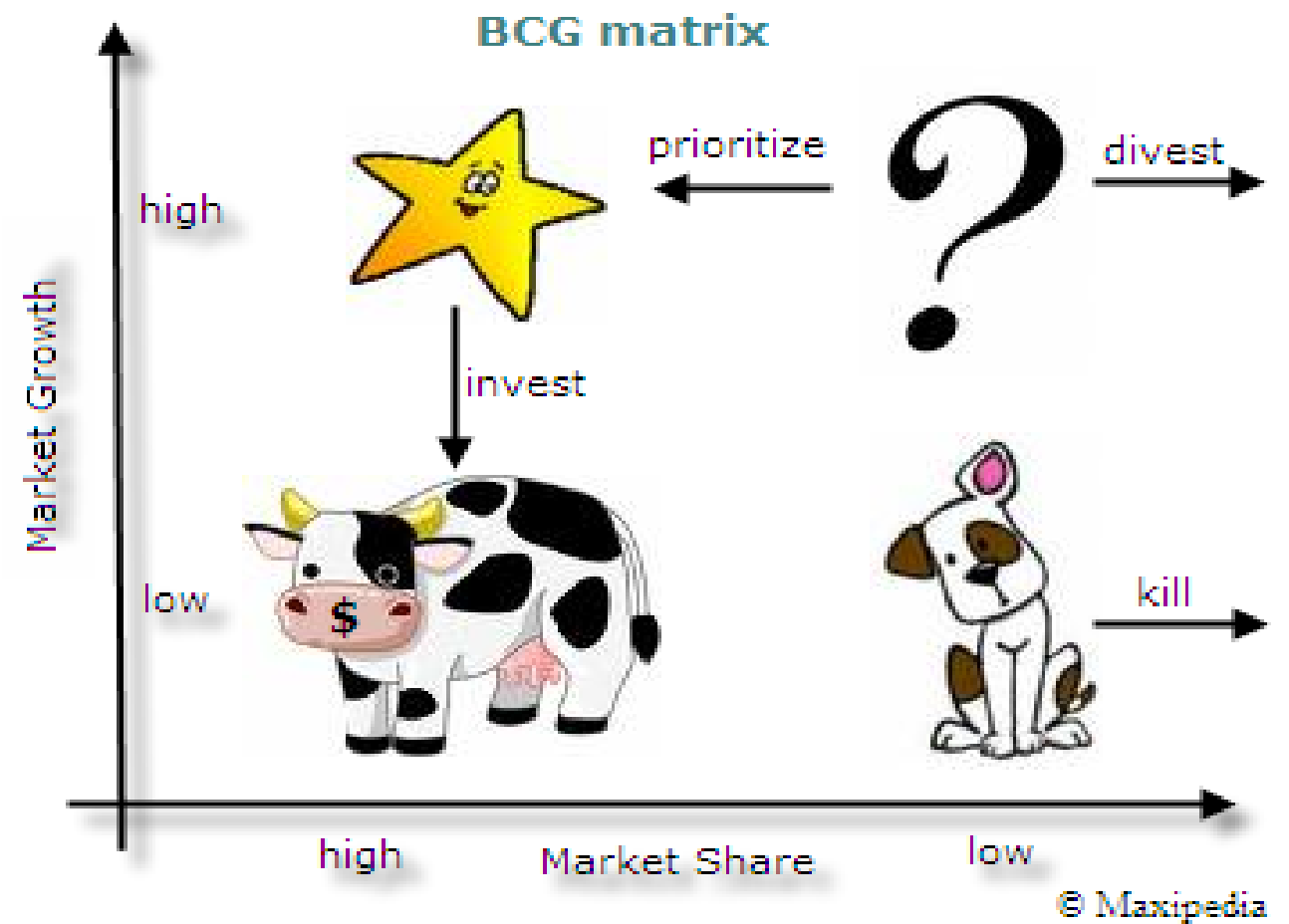
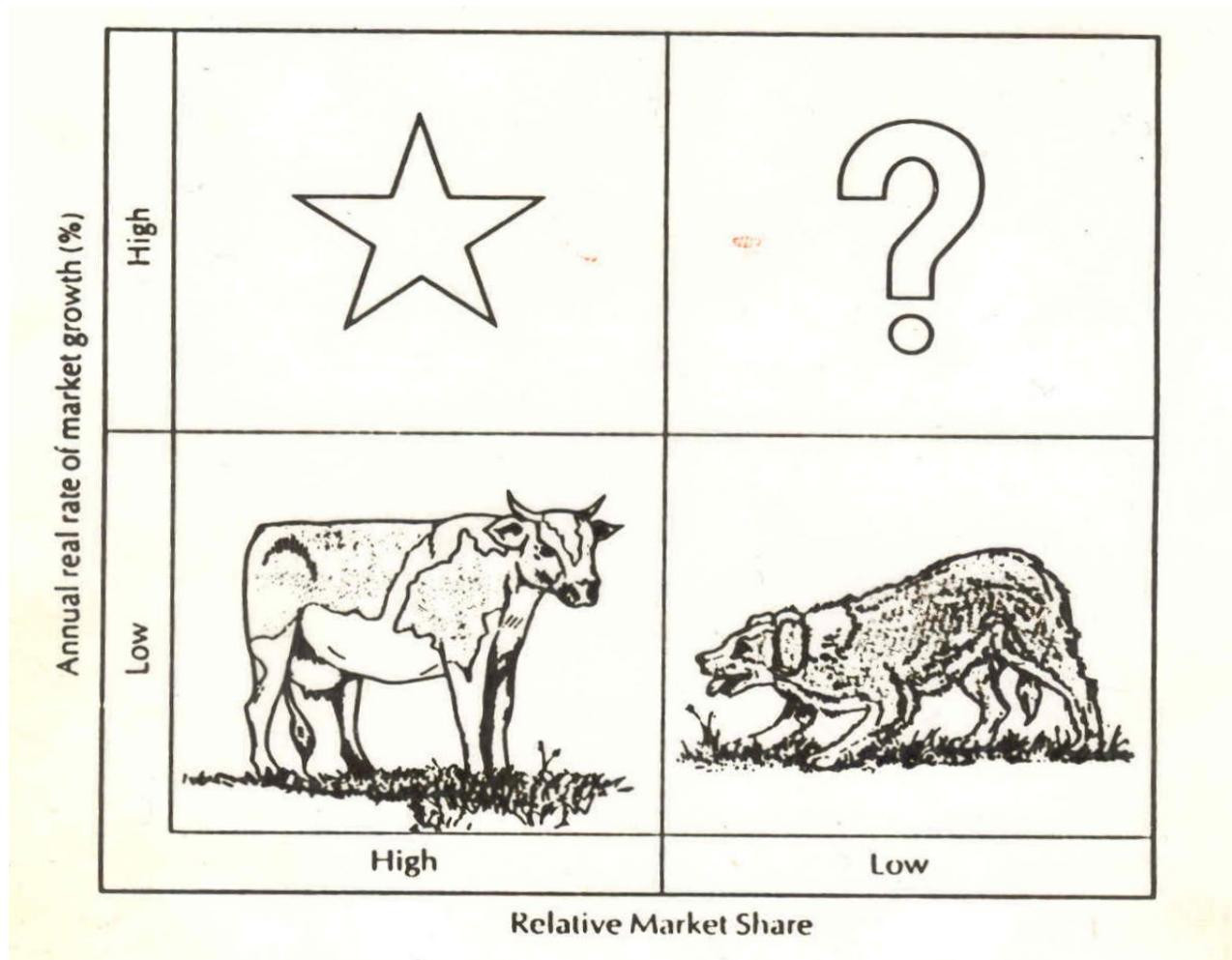
"The only way to survive in the current economy is to diversify."

©T. McCracken mchumor.com

EVALUATING DIVERSIFICATION

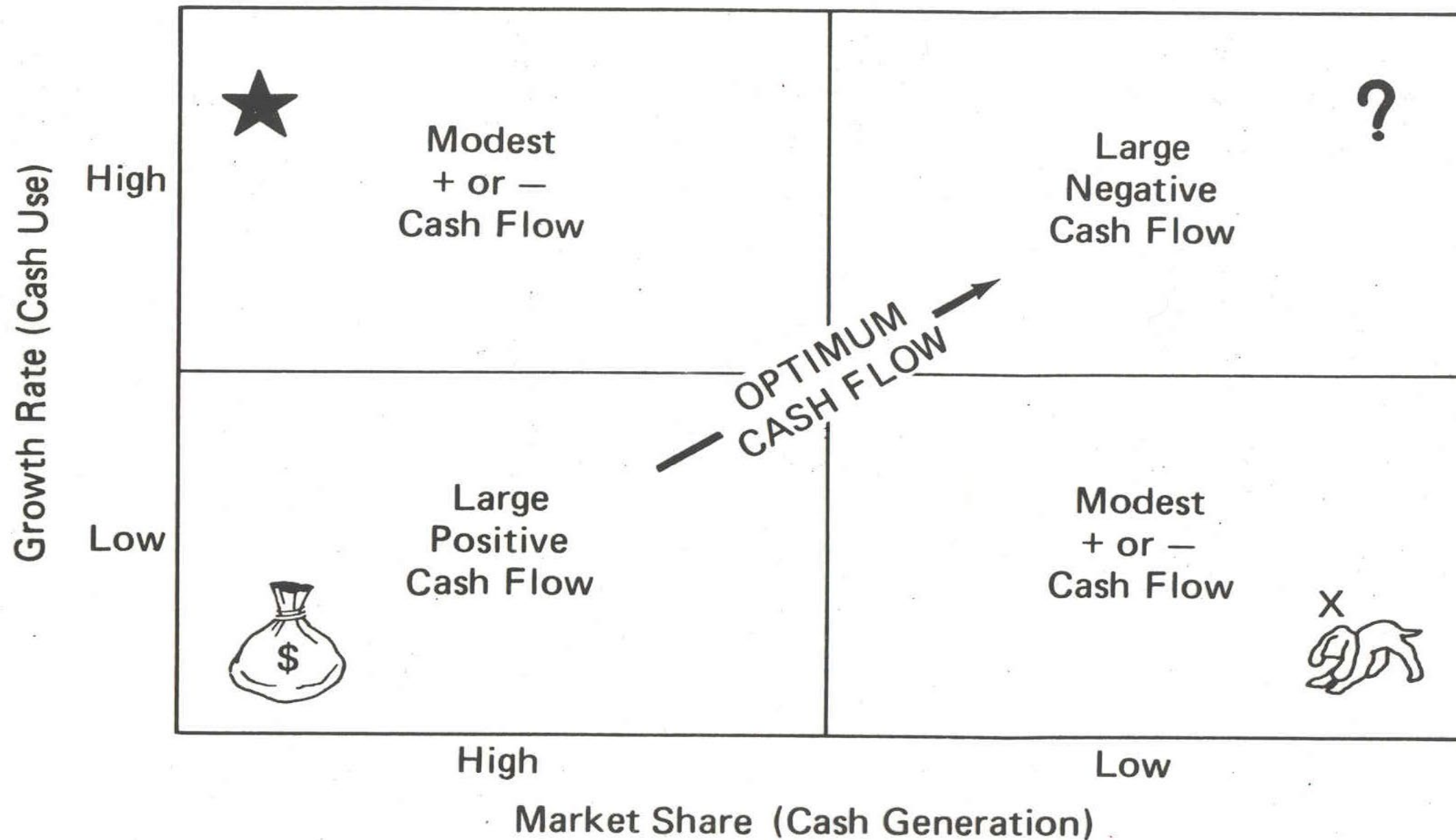
- ▶ Shareholders can diversify far more efficiently on their own than you can for them!
- ▶ Shareholders gain from firms that “diversify” or grow when guided by a valuable theory.

ANOTHER THEORY: PORTFOLIO PLANNING



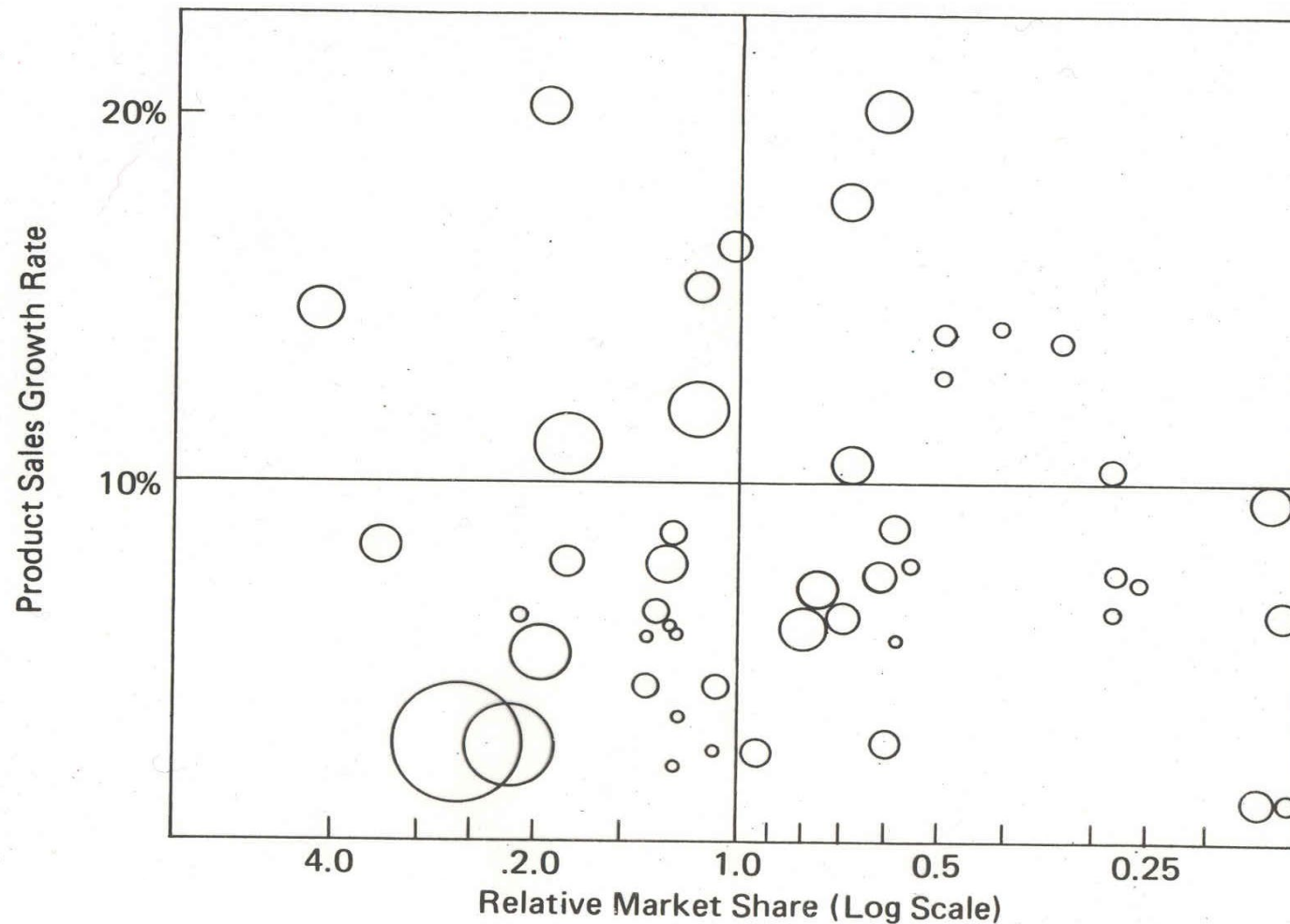
© Maxipedia

SOLUTION: PORTFOLIO PLANNING TOOLS



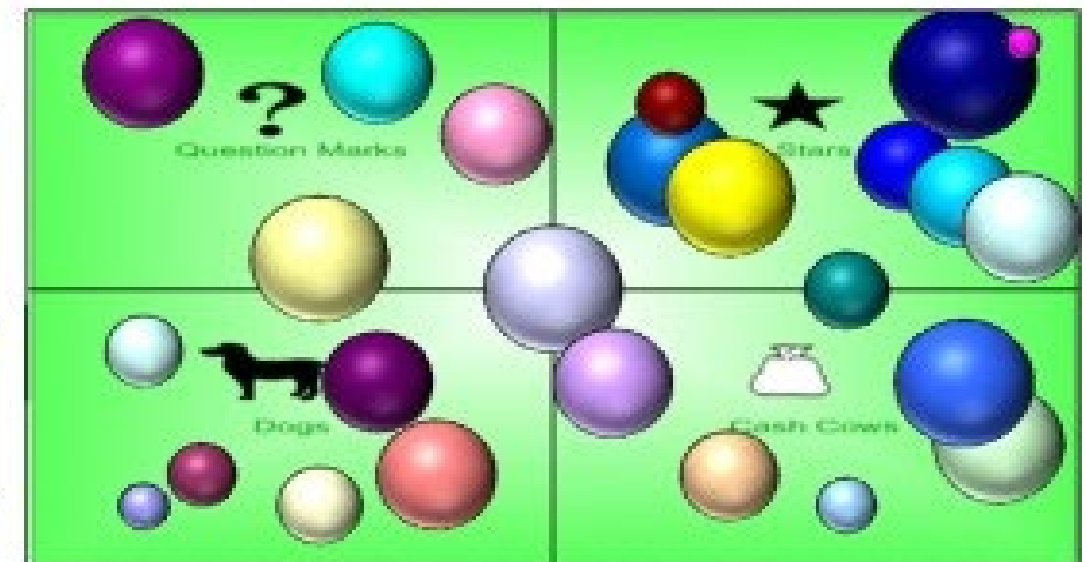
Source: Adapted from "The Product Portfolio," Copyright © 1970, The Boston Consulting Group, Inc.

SOLUTION: PORTFOLIO PLANNING TOOLS



Market growth rate

BCG Growth-Share Matrix

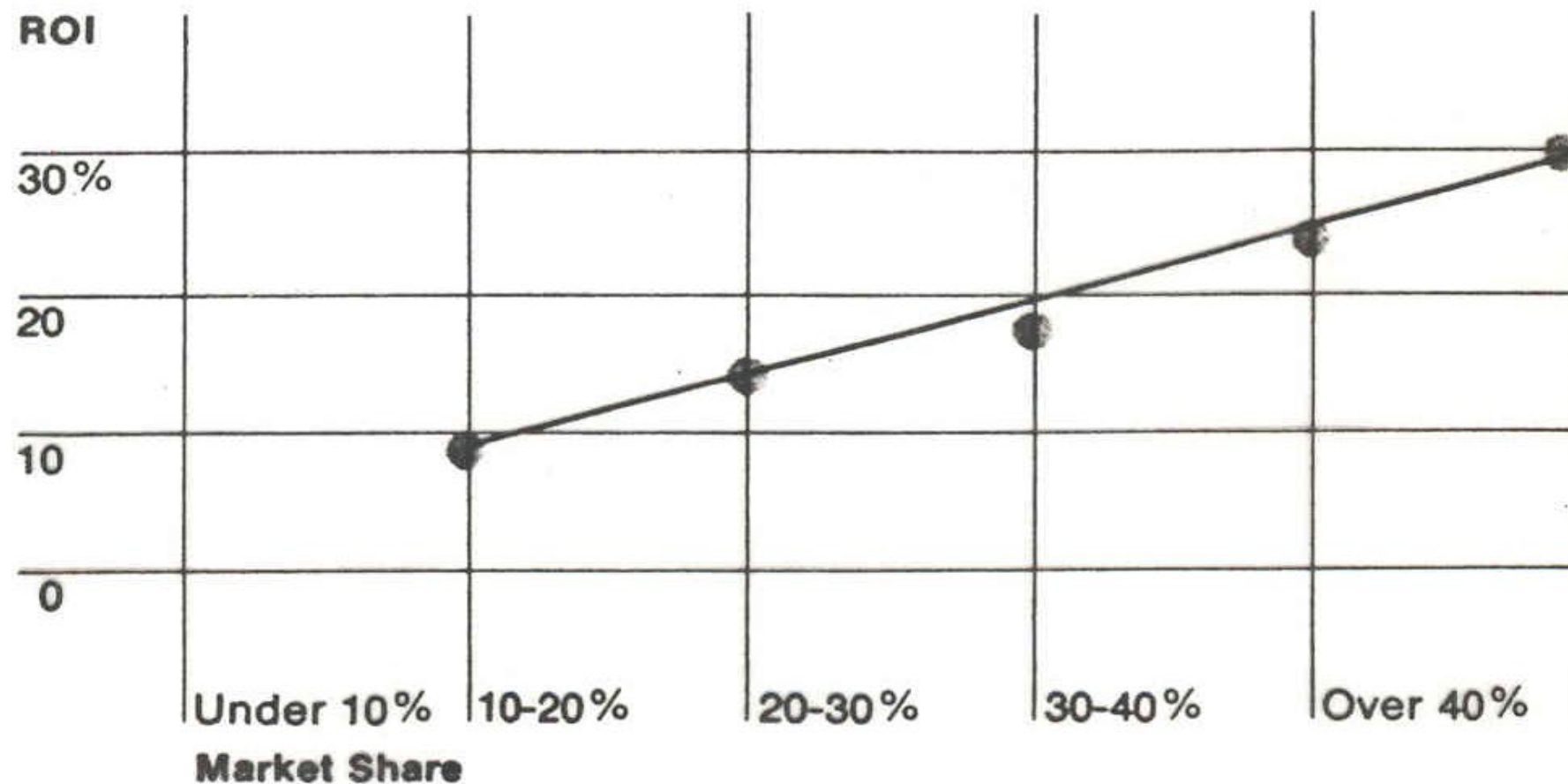


Relative market share

MARKET SHARE AND PROFITABILITY

Exhibit I

Relationship between market share and pretax ROI



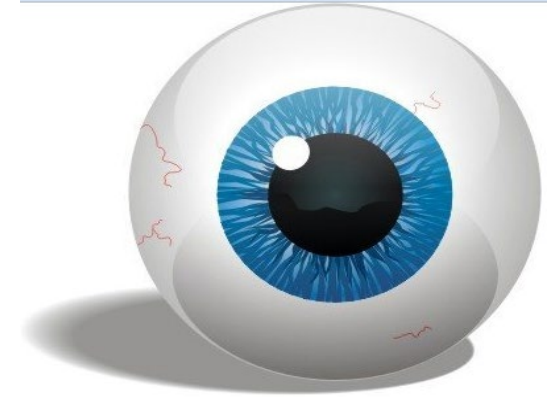
PROBLEMS WITH PORTFOLIO MODELS

- ▶ Assumes finite pool of resources
 - ▶ Does the firm face a cash constraint?
- ▶ Forces comparative evaluation rather than financial analysis
 - ▶ Should the funding of project x depend on project y?
- ▶ Assumes there is value in “balance”
 - ▶ Does a diversified portfolio add value to the firm?
- ▶ Ignores synergies across businesses
- ▶ Assumes causal relationship between market share and profitability

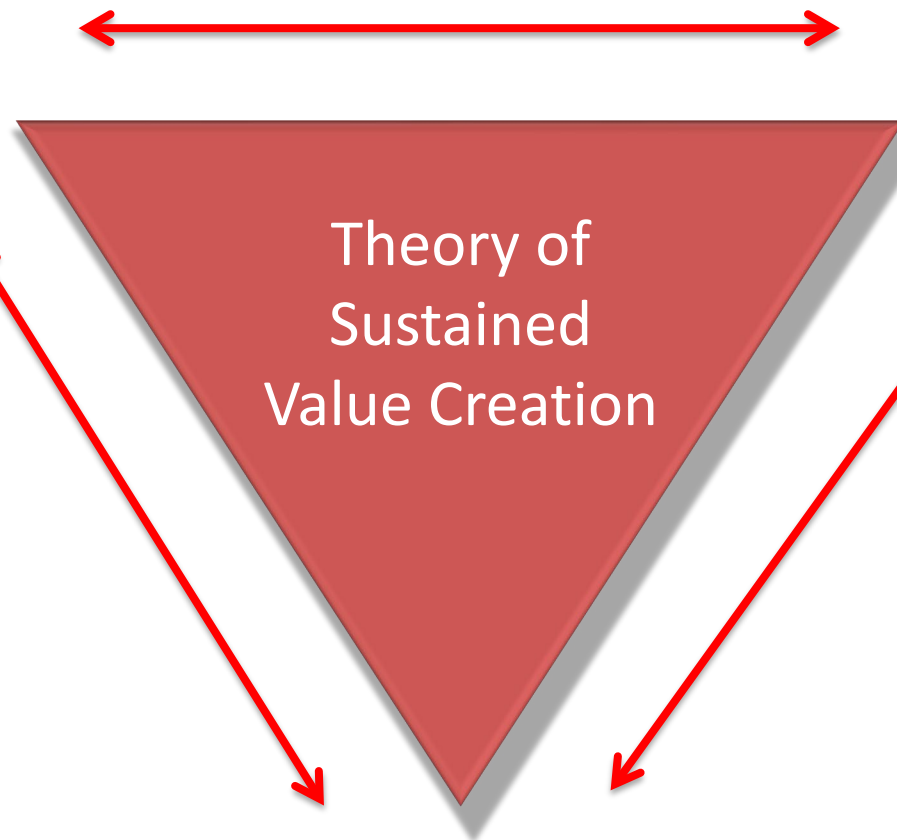
INVEST WITH A THEORY



Foresight regarding evolution of industry, demand, technology, and customer tastes



Cross-sight regarding synergies among available assets, resources, and activities



Insight regarding sustainably unique assets, resources, and activities within the firm

DICK MAHONEY AND MONSANTO

- ▶ Takes over in 1983 and completely rethinks the corporate theory
- ▶ Sells commodity chemical, paper, and polystyrene businesses
- ▶ 1985-1990 sells an additional 18 businesses
- ▶ Purchases mid-sized pharmaceutical firm: Searle
- ▶ Heavily invests in specialty chemicals, ag chemicals, pharmaceuticals, biotechnology, and most notably ag biotechnology
- ▶ Celebrex emerges from pharma investments
- ▶ Monsanto spins off chemical business. Pharmacia buys Monsanto for Celebrex then spins off Monsanto as Ag business only (1999-2000)
- ▶ The current Monsanto emerges from ag biotech investments. Sold to Bayer in 2016 for \$66 billion.

SUMMARY

- ▶ Investment decisions are usually distorted
- ▶ Remedies are lacking
- ▶ Need to develop a theory and an investment review process that ensure that proposals that emerge are theory consistent

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BEYOND
COMPETITIVE
ADVANTAGE

HOW TO SOLVE THE PUZZLE OF

SUSTAINING GROWTH WHILE

CREATING VALUE

TODD ZENGER