

The U.S. Homebuilding Industry and The Competitive Position of Large Builders

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This presentation was prepared with the assistance of Catherine Turco, Harvard Business School. It draws on ideas from Professor Porter's books and articles, in particular, *Competitive Strategy* (The Free Press, 1980); *Competitive Advantage* (The Free Press, 1985); "What is Strategy?" (*Harvard Business Review*, Nov/Dec 1996); "Strategy and the Internet" (*Harvard Business Review*, March 2001); and a forthcoming book. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means—electronic, mechanical, photocopying, recording, or otherwise—without the permission of Michael E. Porter. Additional information may be found at the website of the Institute for Strategy and Competitiveness, www.isc.hbs.edu.

Overview

- Industry structure is a **key driver of homebuilder profitability**
 - This tends to be lost amidst attention on fluctuations in interest rates and housing starts
- Overall industry structure is becoming **more attractive**
- Large multi-regional builders enjoy **significant and growing competitive advantages** over smaller builders
- Market assessments of homebuilding stocks appear to be **out of line** with other industries that have similar structural characteristics

Agenda

- The Fundamentals of Industry Profitability and Competitive Advantage
- The Structure of the Homebuilding Industry
- The Competitive Advantages of the Large Homebuilders
- Market Assessments of Homebuilding versus Other Industries
- The Role of Investors in Strategy

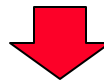
The Economic Foundations of Competition

Setting the Right Goals

- The goal of a company is to create **economic value**, or the ability to command **prices greater than the full costs** of producing its goods/services
- The only reliable test of economic value is **sustained profitability**, measured by **superiority in long-term return on investment**

- Other goals and metrics (e.g. revenue growth; eps growth; market share; return on sales; pro-forma earnings; cash flow) carry **grave risks** for strategy
- Prevalent accounting adjustments to reported profitability **obscure true economic performance** and can lead to bad competitive choices
 - The risks of write-offs, merger accounting, ignoring amortization

- Growth is good **only if superiority of ROIC is maintained**



- Shareholder value is the **result** of real economic value and should not be the goal itself
 - Setting strategy to attempt to influence stock price directly is fraught with danger

The Economic Foundations of Competition

Determinants of Profitability

- The fundamental unit of strategic analysis is the **industry**
- Company economic performance results from **two** distinct causes:



- *Overall Rules of Competition*

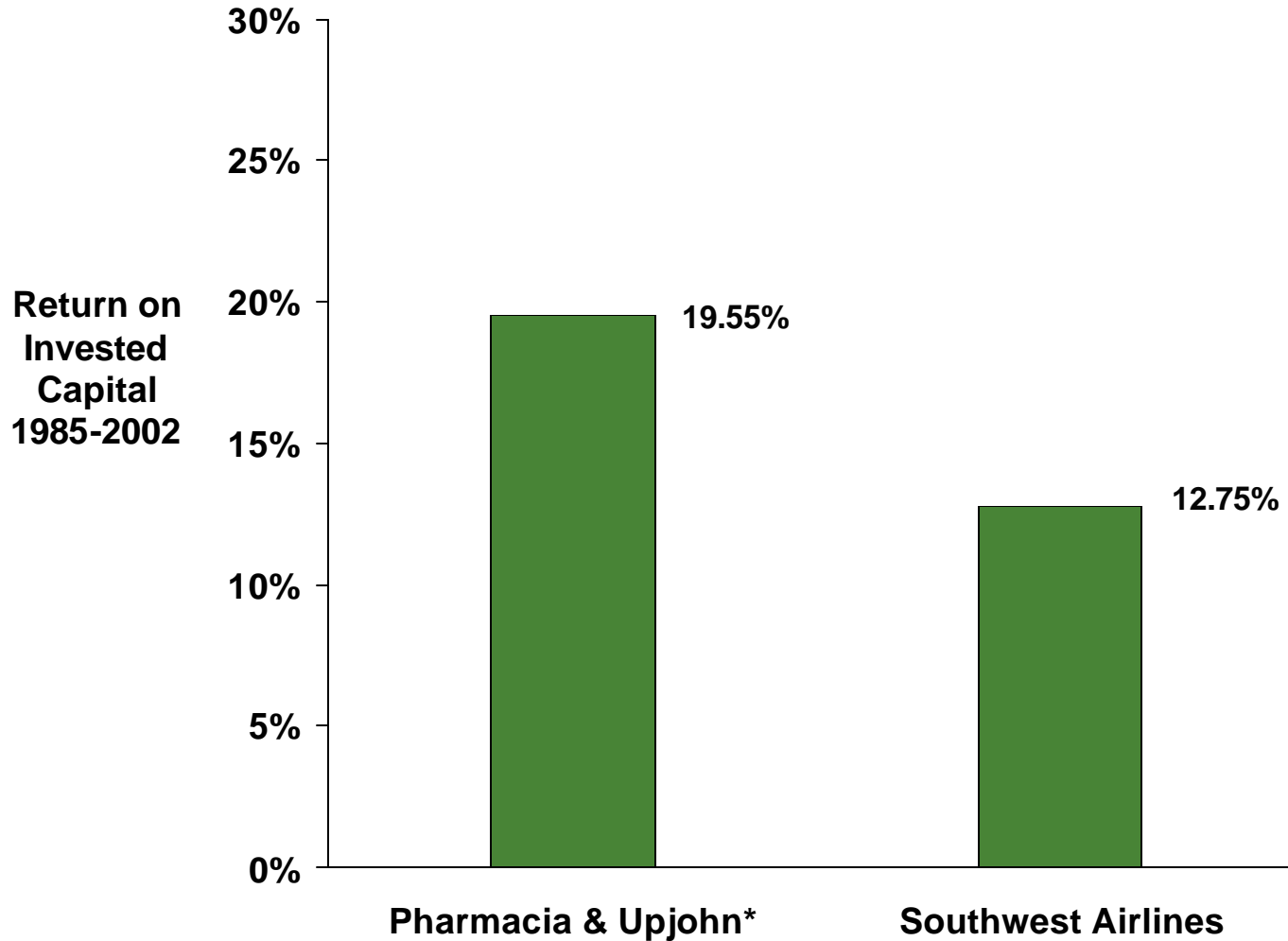


- *Sources of Competitive Advantage*

- Strategy must encompass **both**

The Economic Foundations of Competition

Basic Economics of Strategy



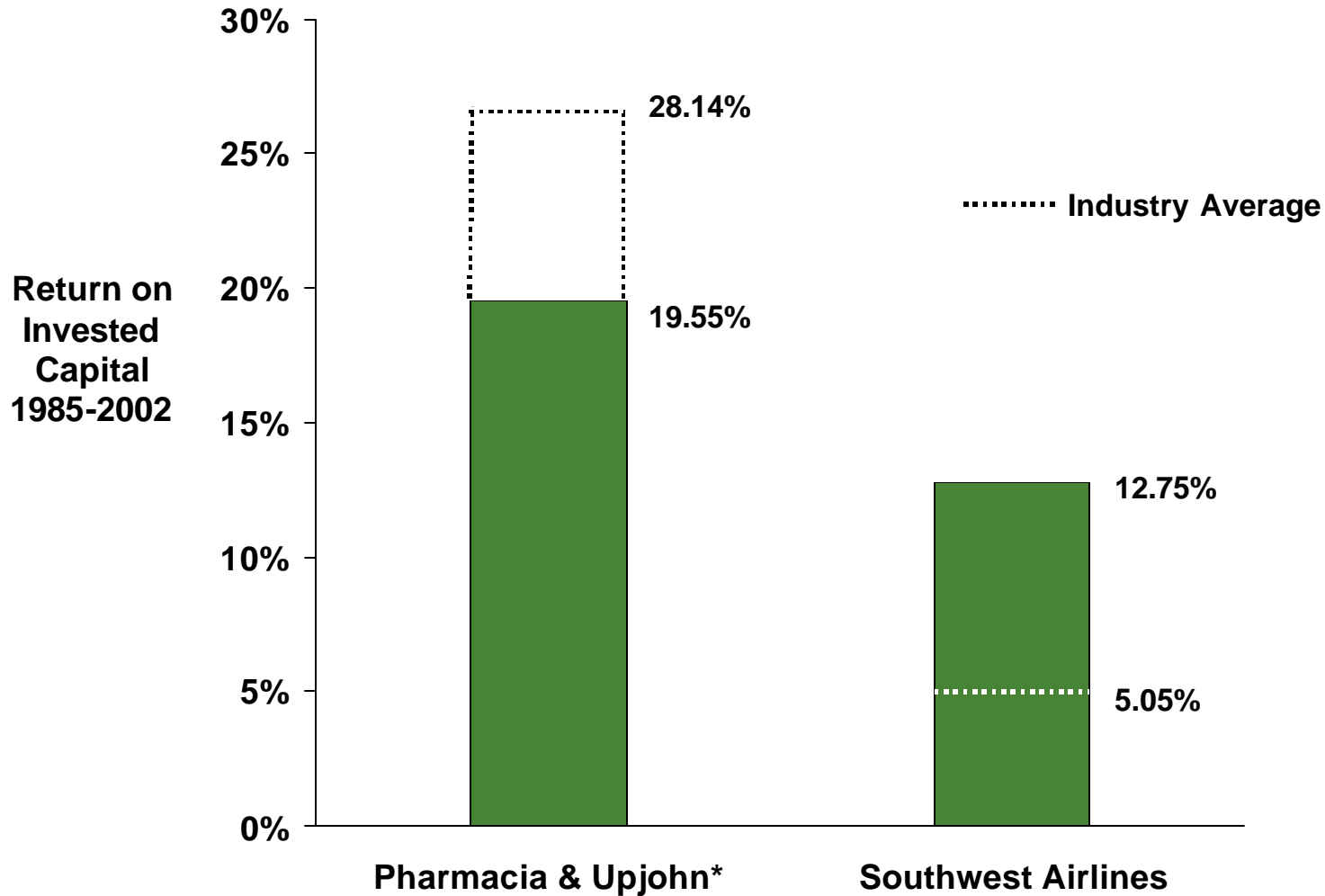
Note: ROIC calculated as EBIT divided by Average Invested Capital (Total Assets less Excess Cash less Current Operating Liabilities)

* Prior to 1995, reflects Pharmacia only. Company was acquired in 2000 by Monsanto, which then changed its name to Pharmacia

Source: Compustat

The Economic Foundations of Competition

Basic Economics of Strategy

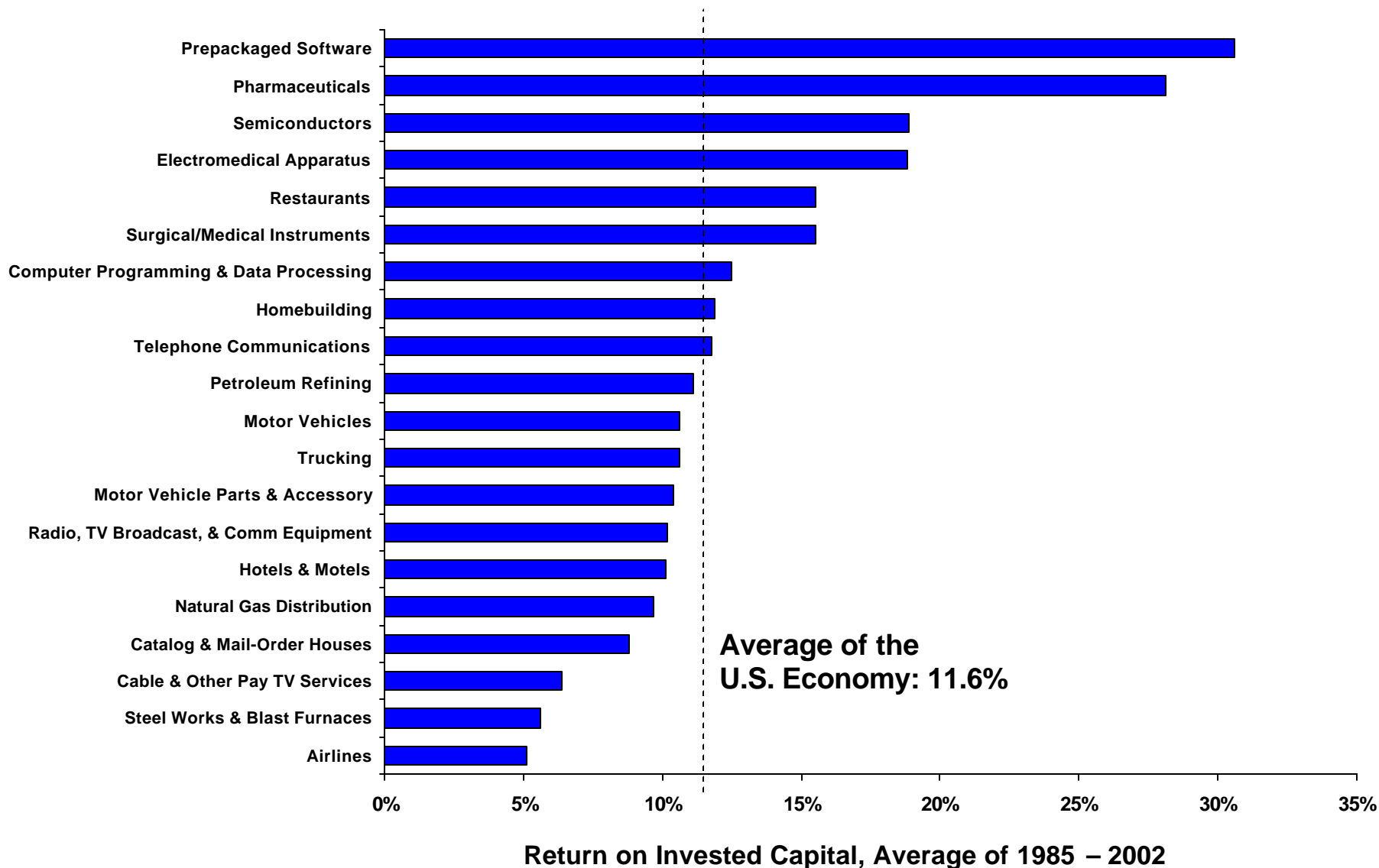


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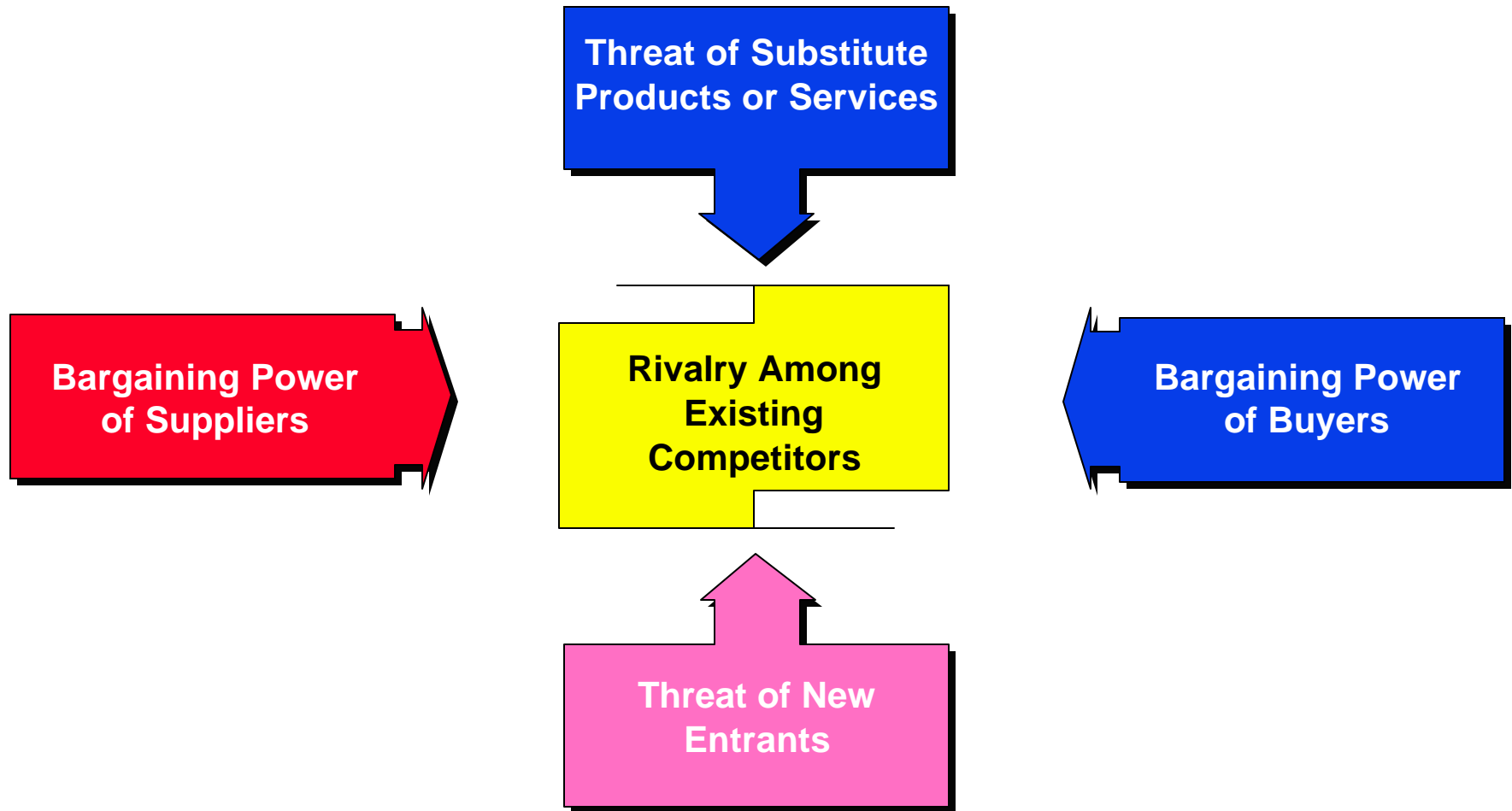
Profitability of Selected U.S. Industries



Note: ROIC calculated as EBIT divided by Average Invested Capital (Total Assets less Excess Cash less Current Operating Liabilities)

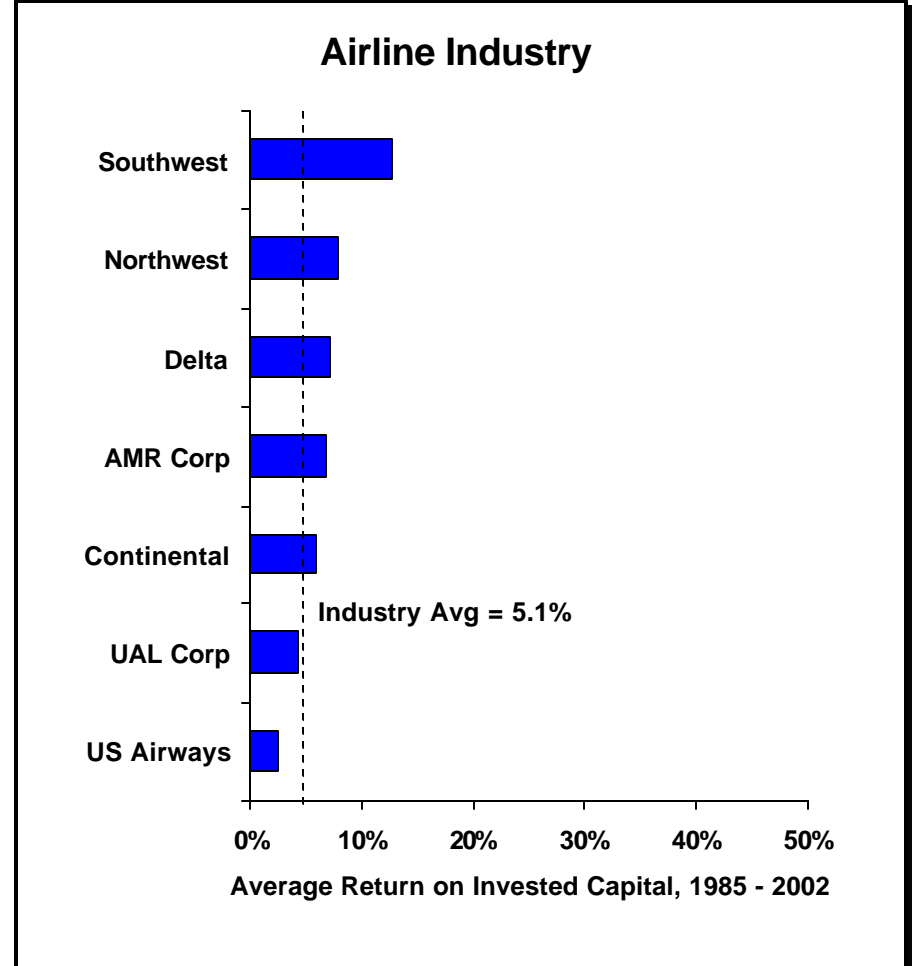
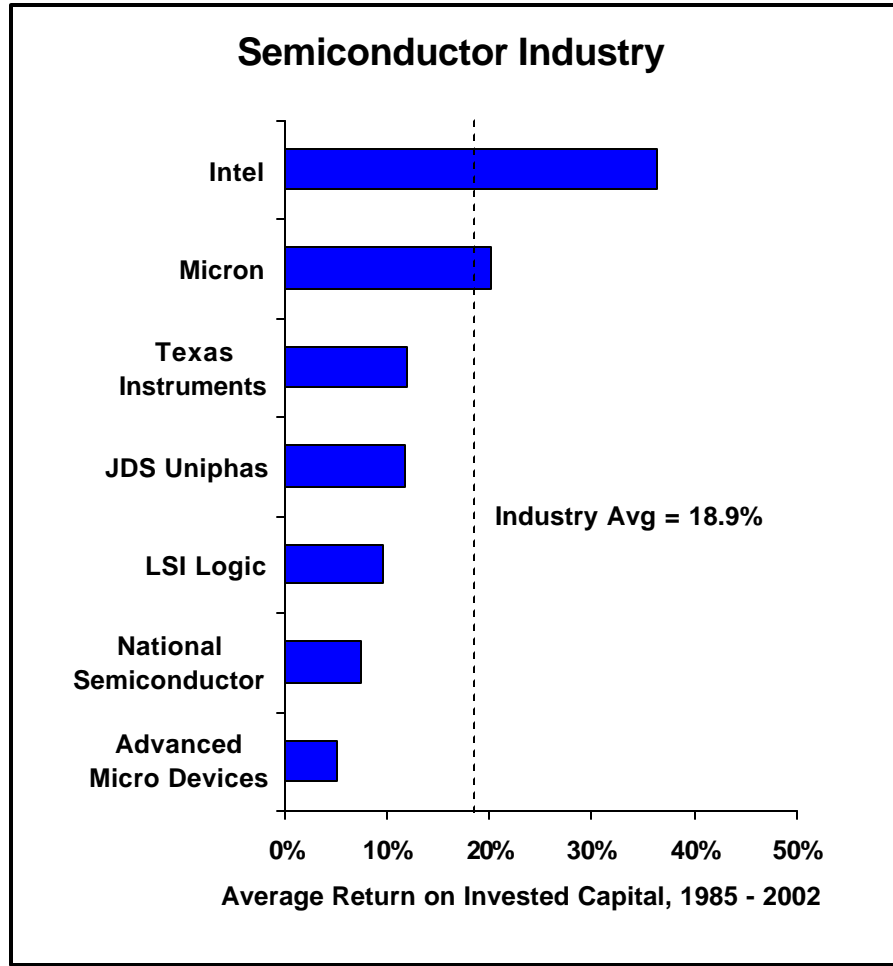
Source: Compustat and author's calculations

Determinants of Long-Term Industry Profitability



Differences in Profitability Within Industries

1985-2002



Note: ROIC calculated as EBIT divided by Average Invested Capital (Total Assets less Excess Cash less Current Operating Liabilities)

Source: Compustat and author's calculations

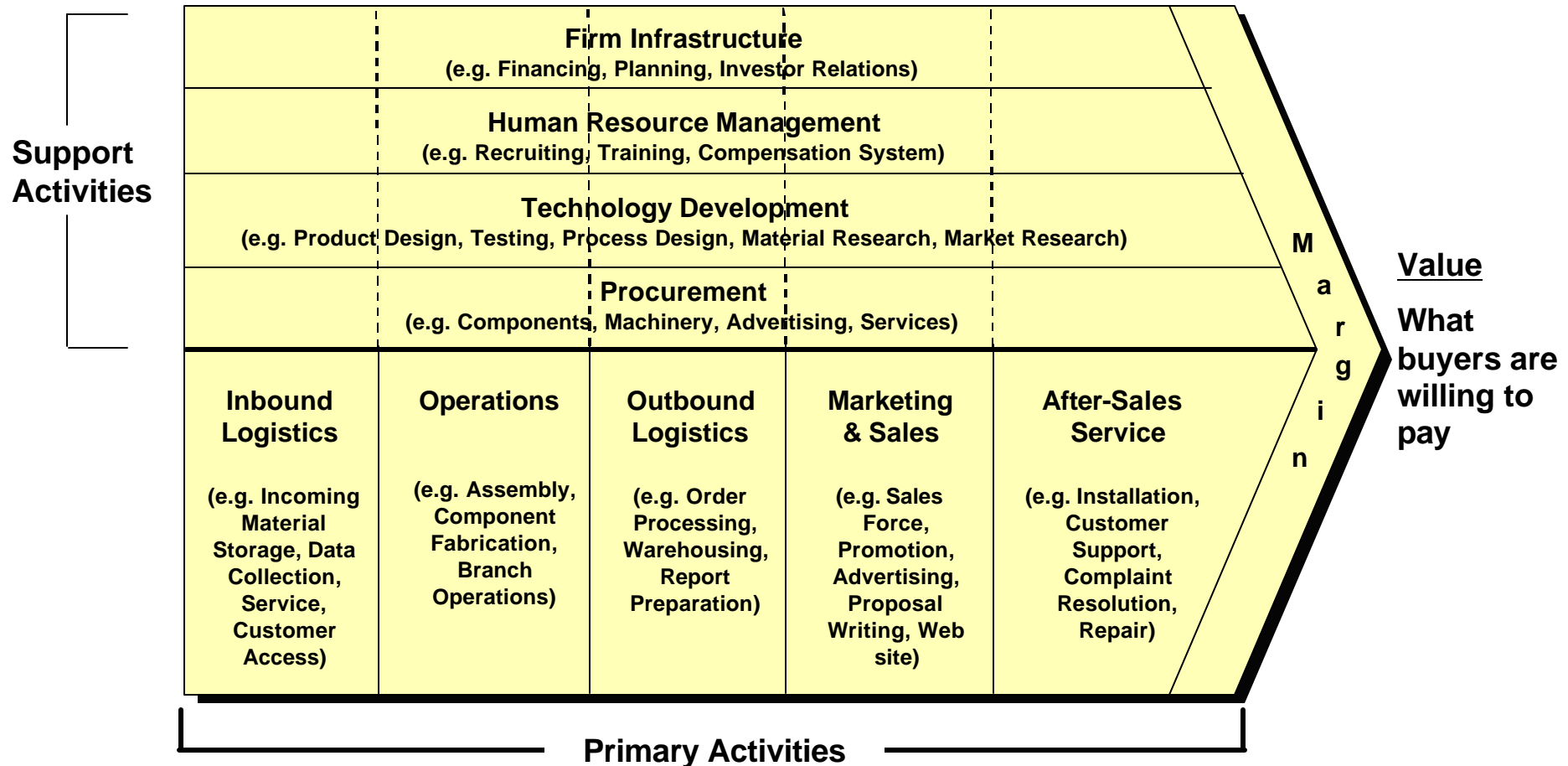
Determinants of Relative Performance

Types of Competitive Advantage



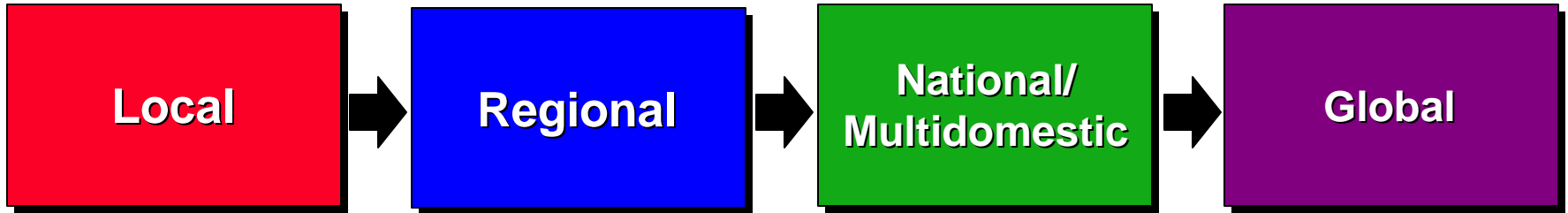
Sources of Competitive Advantage

Activities and the Value Chain

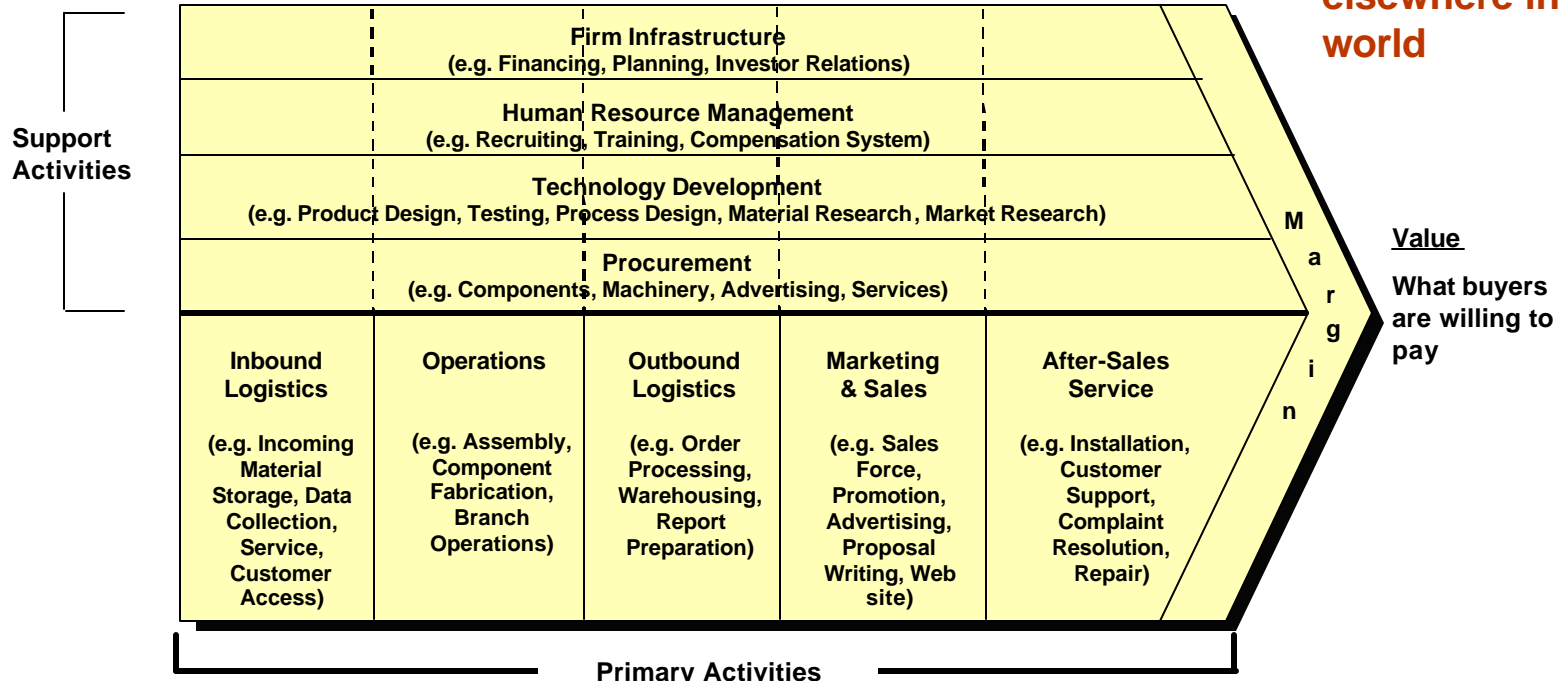


- Companies are collections of discrete **activities**, in which **competitive advantage resides**

Defining the Geographic Scope of Competition



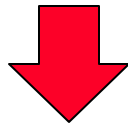
- Competition occurs primarily within **local markets**
- Competition occurs primarily within **regional markets**
- Competition occurs primarily on a **country-by-country basis** (or within groups of neighboring countries)
- A firm's competitive advantage in one country is significantly affected by its position and activities **elsewhere in the world**



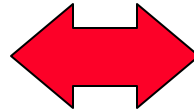
Determinants of Relative Performance



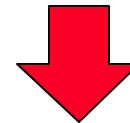
- Assimilating, attaining, and extending **best practice**



Run the same race faster



- Creating a **unique** and **sustainable** competitive position



Choose to run a different race

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- The Competitive Advantages of the Large Homebuilders

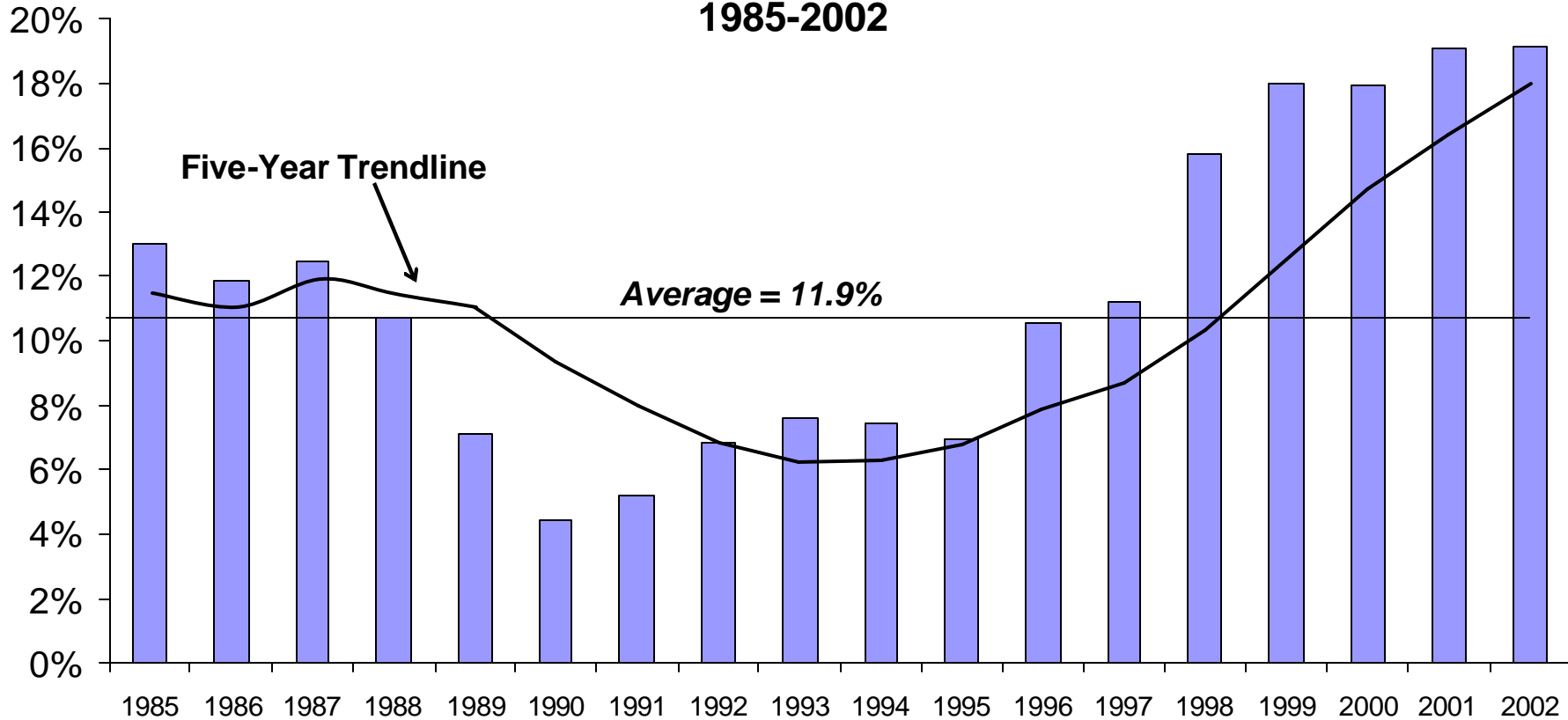
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- The Role of Investors in Strategy

Industry Profitability

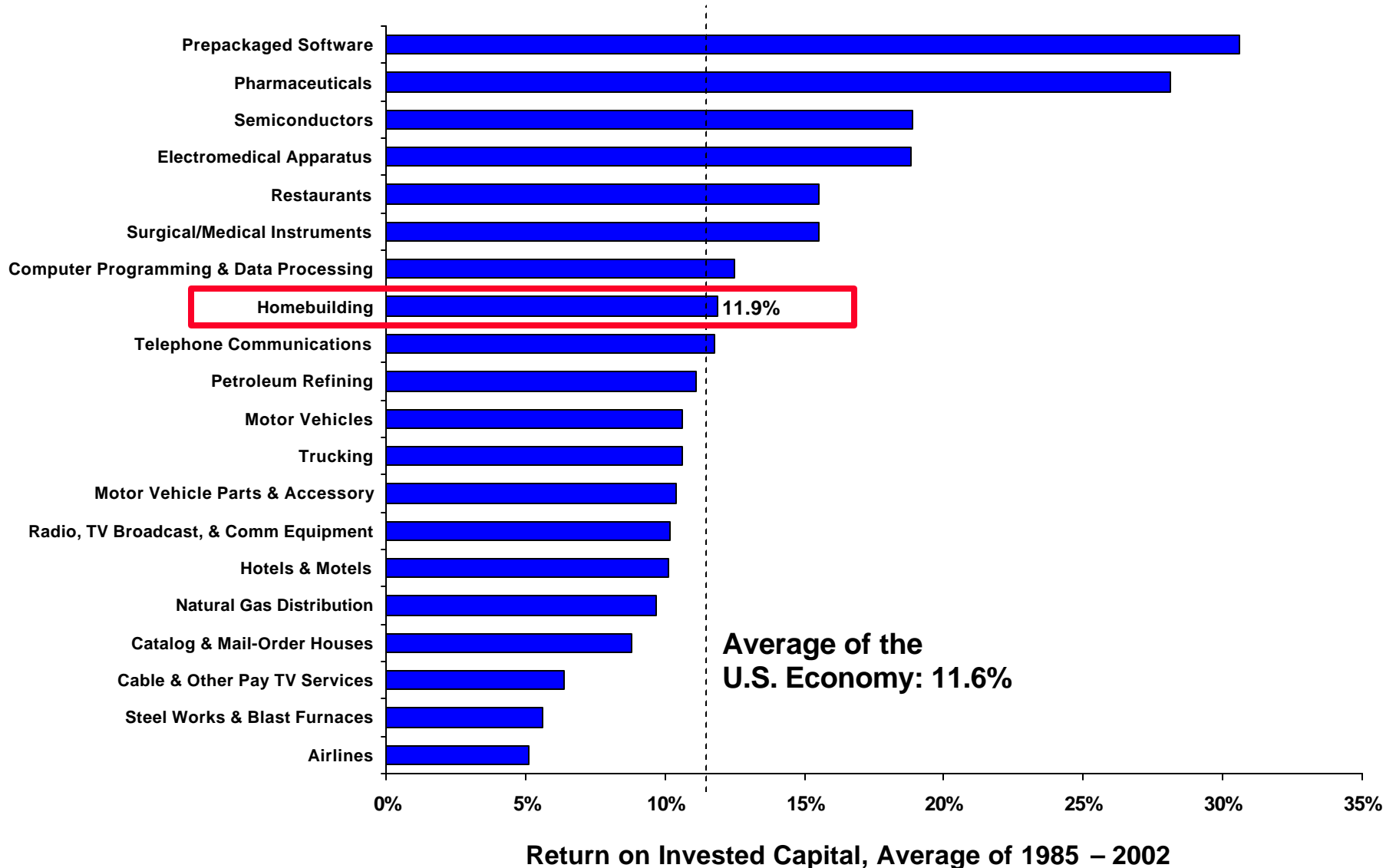
Large Public Homebuilders

Return on Invested Capital 1985-2002



Note: ROIC calculated as EBIT divided by Average Invested Capital (Total Assets less Excess Cash less Current Operating Liabilities)
 Source: Compustat and author's calculations. Large Builders include BZH, CTX, DHI, HOV, KBH, LEN, MDC, MHO, NVR, PHM, RYL, SPF, TOL, WCI.

Profitability of Selected U.S. Industries



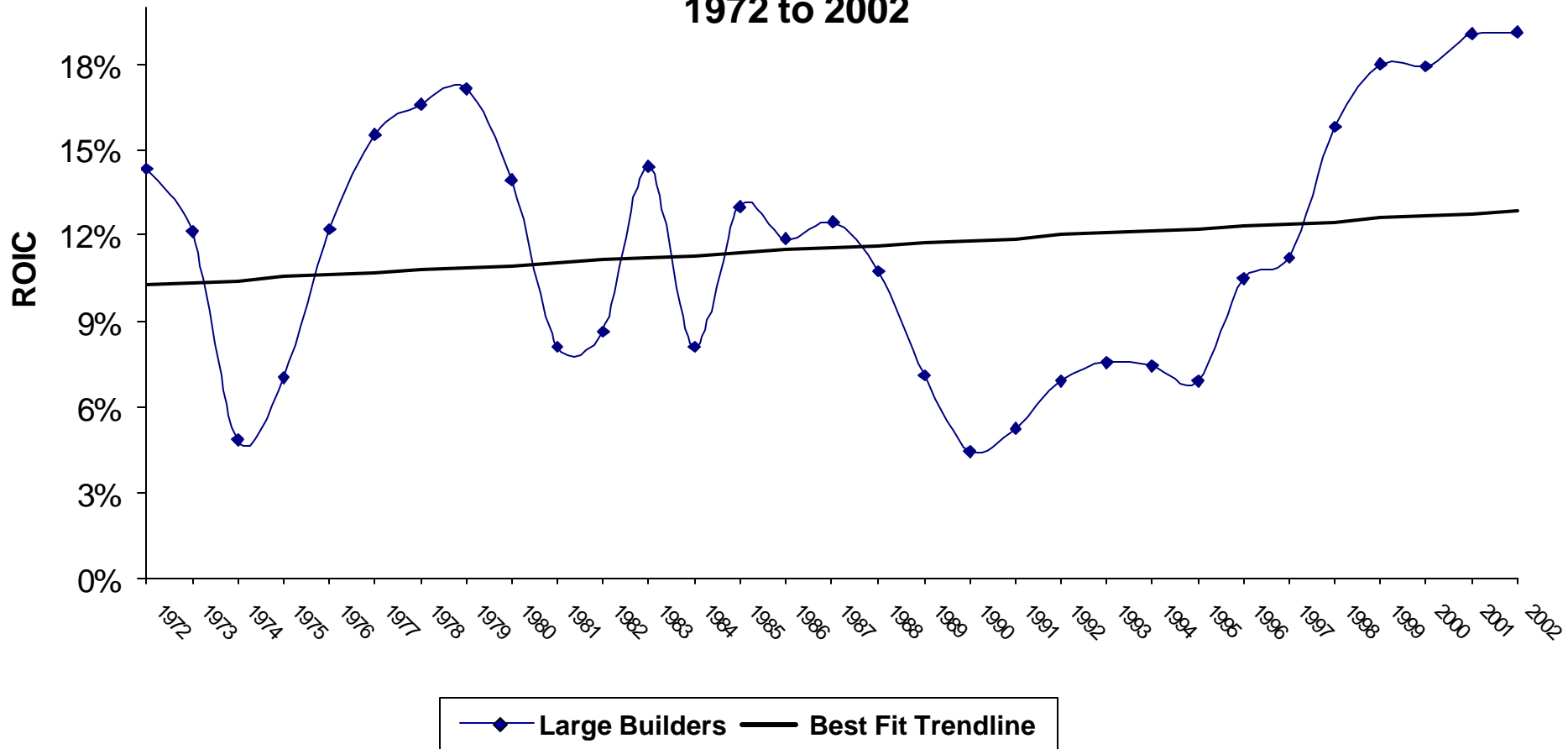
Note: ROIC calculated as EBIT divided by Average Invested Capital (Total Assets less Excess Cash less Current Operating Liabilities)

Source: Compustat and author's calculations

Trends in Industry Profitability

Large Public Homebuilders

Return on Invested Capital Trend 1972 to 2002



Note: Equation of the trendline: $y = 0.0009x - 1.5887$; $R^2 = 0.0304$

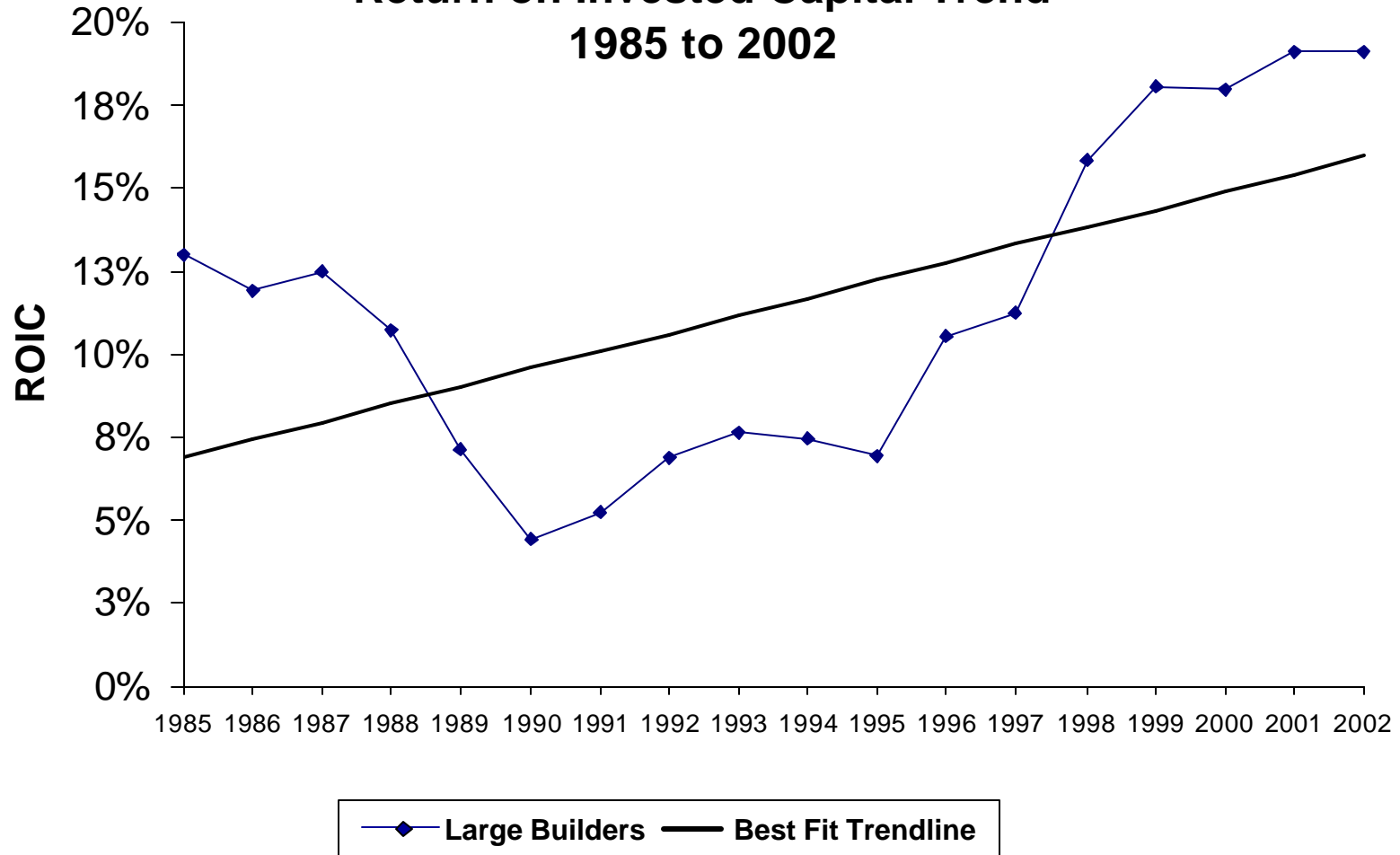
Note: ROIC calculated as EBIT divided by Average Invested Capital (Total Assets less Excess Cash less Current Operating Liabilities)

Source: Compustat and author's calculations. Large Builders include BZH, CTX, DHI, HOV, KBH, LEN, MDC, MHO, NVR, PHM, RYL, SPF, TOL, WCI.

Trends in Industry Profitability

Large Public Homebuilders

Return on Invested Capital Trend 1985 to 2002



Note: Equation of the trendline: $y = 0.0053x - 10.483$; $R^2 = 0.3369$

Note: ROIC calculated as EBIT divided by Average Invested Capital (Total Assets less Excess Cash less Current Operating Liabilities)

Source: Compustat and author's calculations. Large Builders include BZH, CTX, DHI, HOV, KBH, LEN, MDC, MHO, NVR, PHM, RYL, SPF, TOL, WCI.

Homebuilding Industry Structure

The Past

Threat of Substitute Products or Services

- (-) Buyers can purchase an existing home or rent
- (-) Buyers can improve their current home

Bargaining Power of Suppliers

Capital

- (-) Builders rely on funding from banks on a project-by-project basis; banks have historically withheld funding in downturns

Land

- (+/-) Land purchase and entitlement are local activities

Labor

- (+/-) Labor is supplied by local/regional subcontractors

Materials

- (+/-) Most materials are purchased from local or regional suppliers

Rivalry Among Existing Competitors

- (+) No foreign competition
- (-) Lack of inventory discipline in the market leads to excess supply and competition on price
- (-) Lack of capital market discipline leads to overbuilding and competition on price
- (-) There are thousands of builders in the US, all of which are small, local or regional players

Barriers to entry

- (-) Barriers to entry are low
 - Up-front capital costs and other barriers are not significant enough to stop entry
 - Labor subcontracting and materials procurement are local activities
- (-) The complexity of housing development is low

Bargaining Power of Buyers

- (+) Homes are differentiable as products, especially in certain segments
- (-) Many features are easily copied
- (-) Homes represent a major expense for buyers, making them concerned with price
- (-) Affordability is a main driver of demand and pricing and is a function of macro factors (e.g., interest rates and unemployment)

Homebuilding Industry Structure

Trends

Threat of Substitute Products or Services

- Long-term fundamental demand for new housing remains solid
 - Population growth is the primary driver of long-term demand
 - The real income and age of households are secondary drivers

Bargaining Power of Suppliers

Rivalry Among Existing Competitors

Bargaining Power of Buyers

- No foreign competition
- Consolidation of the industry
- Growing share held by large public homebuilders
- Large builders provide greater inventory discipline in the market
- Larger home builders are competing directly in a growing number of markets

- Land/location become important differentiating factors, not just features of the house itself

Barriers to entry

- Barriers to entry are rising
 - The complexity of development is increasing, especially for large projects
 - Economies of scale in capital access are growing
 - Economies of scale in materials procurement are growing

- Average returns should be stable or trend upward

Capital

- S&L crisis has led to improved capital market discipline

Land

- Land is increasingly scarce in desirable markets
- Entitlement is an increasingly complex and lengthy process in many markets

Materials

- Materials procurement is becoming more regional and national, not just local

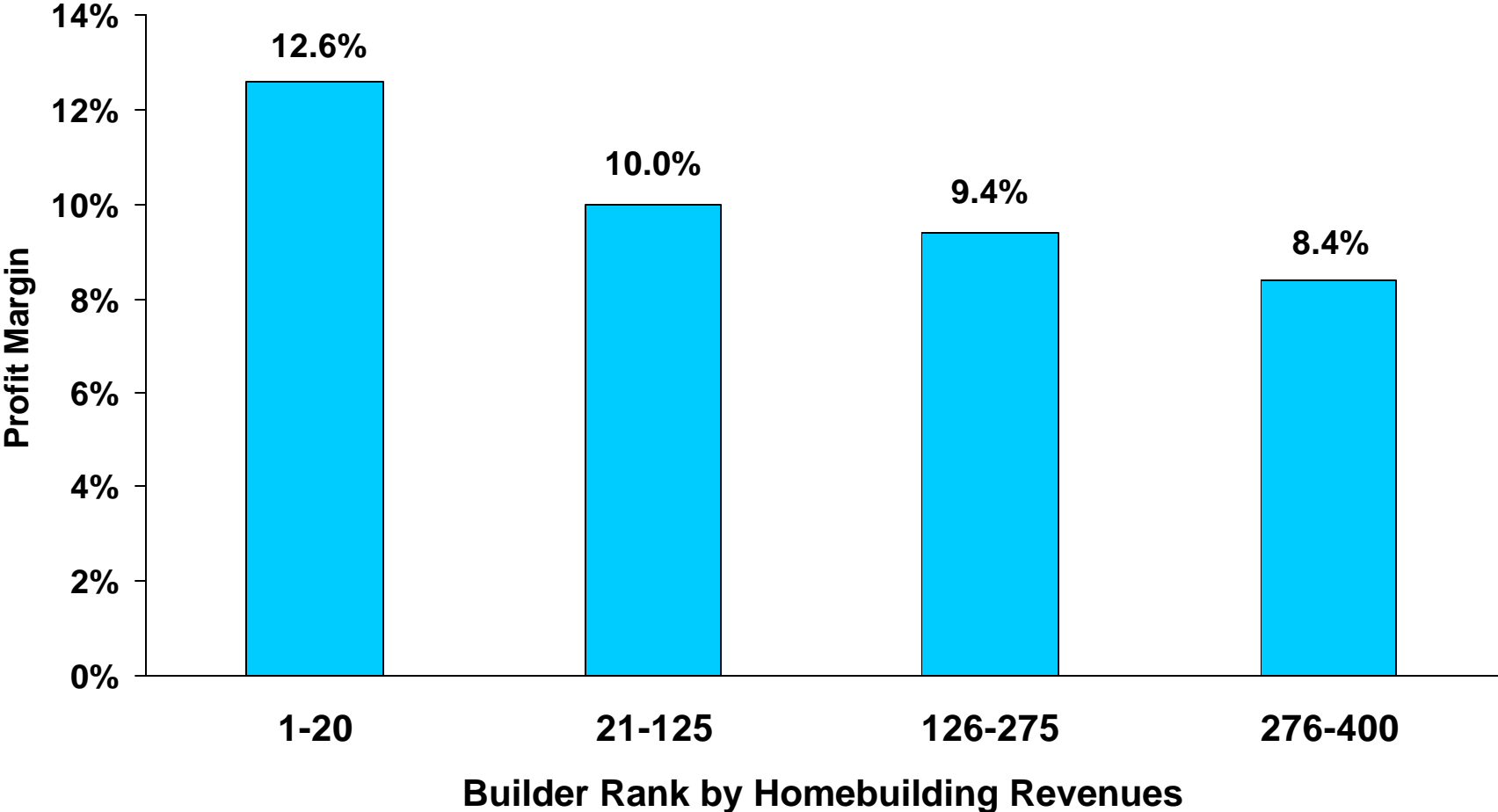
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Profitability versus Size

400 Largest Builders

2002 Profit Margin



Source: Professional Builder "Giant 400". Data refer to 2002 results.

Overall Relative Cost Position

Large versus Smaller Builders

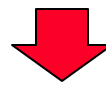
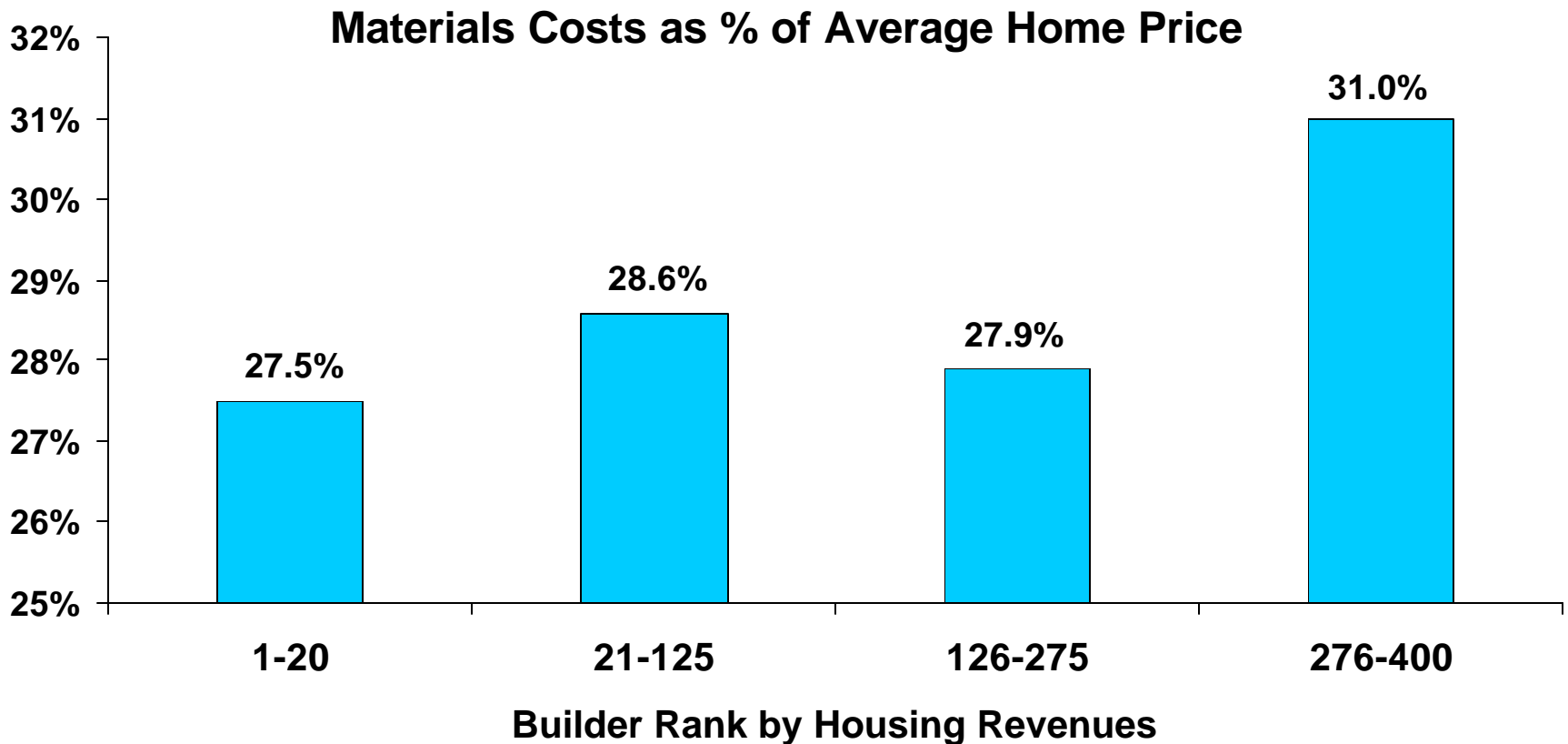
Builders 1-20		Builders 276-400		Difference	
Gross Margin	26.8%	Gross Margin	24.1%	Better	2.7%
SGA	12.5%	SGA	13.6%	Better	1.1%
EBIT Margin	14.3%	EBIT Margin	10.5%	Better	3.8%
Financing Cost	1.7%	Financing Cost	2.1%	Better	0.4%
Profit Margin	12.6%	Profit Margin	8.4%	Better	4.2%

Note: Builders ranked by total housing revenue, excluding other businesses. Data refer to 2002 results.

Source: Professional Builder "Giant 400".

Competitive Advantages of Large Builders

Procurement

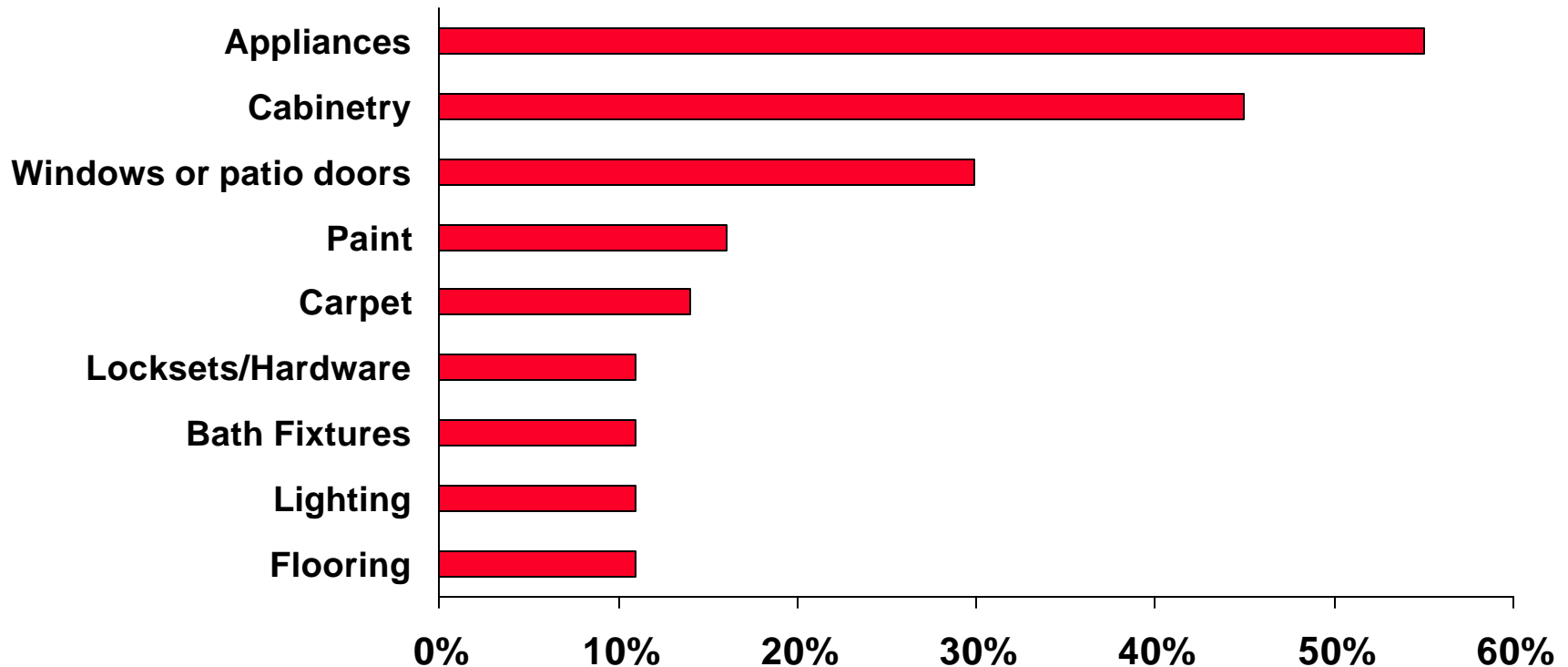


- Large homebuilders already enjoy a **materials cost advantage** relative to smaller builders

Competitive Advantages of Large Builders

Procurement Trends

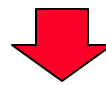
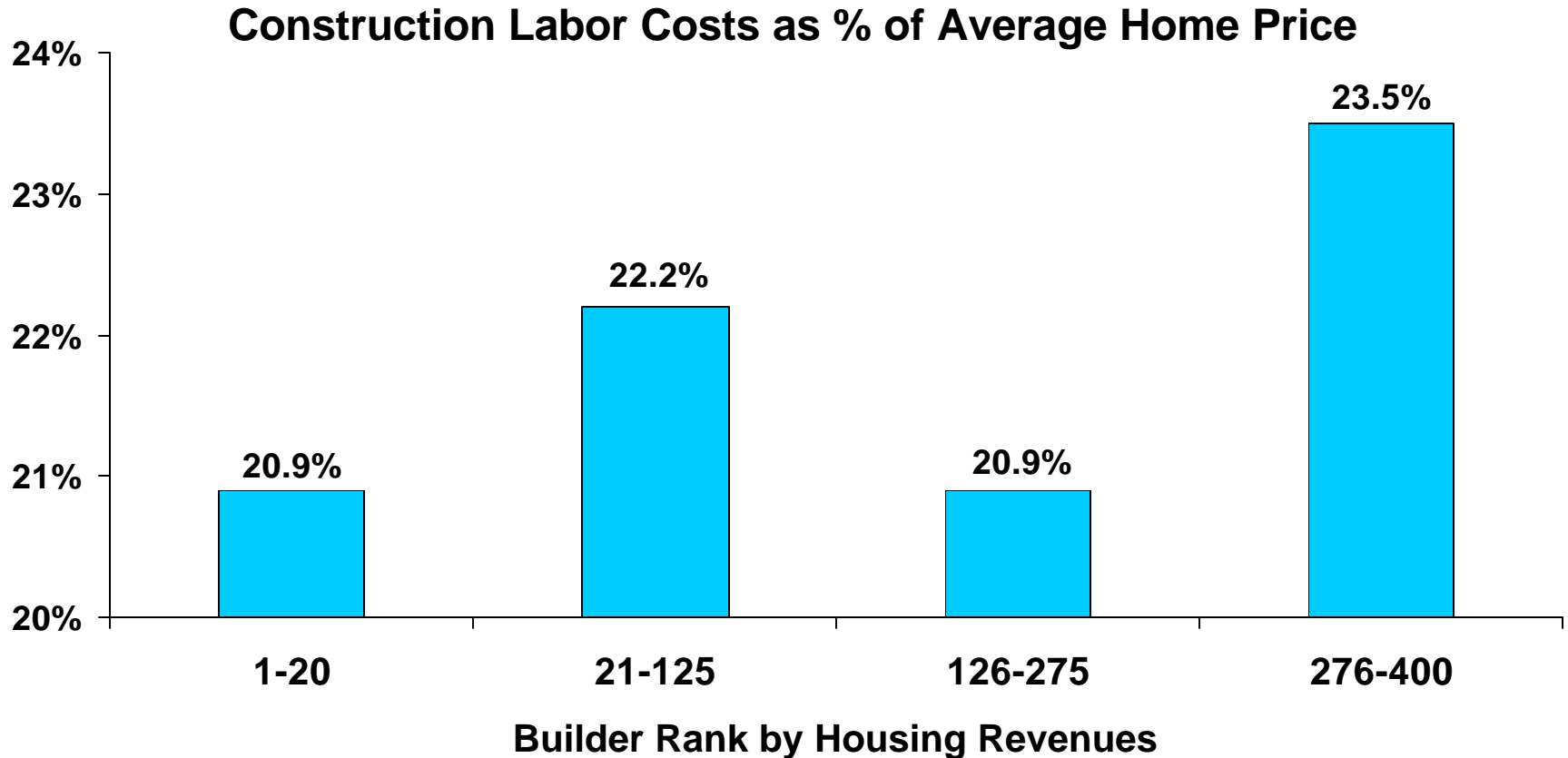
Percentage of Large Builders who Purchase Direct from the Manufacturer



- Large homebuilders are still in the **early stages** of capturing their full advantages in procurement

Competitive Advantages of Large Builders


Labor Cost



- Large homebuilders enjoy some **labor cost advantages** relative to most smaller builders

Competitive Advantages of Large Builders

Access to Capital

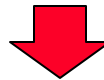
- Small builders can access only **bank credit**
 - Access to bank credit is limited or dries up in economic downturns
 - At certain points in the economic cycle, however, the cost of short term bank debt may be less than that of corporate bonds with longer maturities
 - Large builders can access **both** bank debt and corporate bonds
 - Use of both bank credit and corporate bonds together provides a less volatile source of capital than bank credit alone
 - Over the long-term, the cost of debt for large builders with public market access is likely to be lower than for smaller builders with access to bank credit only
- 
- Large builders enjoy **superior, more reliable** capital access than smaller builders

Competitive Advantages of Large Builders

Land Supply

Examples of Statewide Growth Management

Florida	Growth Management Act (1985) requires comprehensive, coordinated growth plans at state, regional and local levels. Urban Growth Boundaries optional. All metropolitan counties compliant by 1990.
Oregon	Growth Management Act (1973) requires comprehensive plans and Urban Growth Boundaries. All cities and jurisdictions had established growth boundaries by 1986.
Washington	Growth Management Act (1990) requires large, urban counties and cities to develop growth plans, align zoning requirements, and establish Urban Growth Boundaries. (29 of 39 counties participate)
Maryland	Smart Growth Act (1996) enables counties to establish Urban Growth Boundaries; most urban counties have done so.
California	No statewide mandate but Urban Growth Boundaries actively pursued locally (33 Urban Growth Boundary ballot measures from 1994-2000, nearly all of which passed)



- Regulation limiting the amount of developable land is increasingly prevalent in many major markets

Note: Urban Growth Boundary = a set of land-use regulations that prohibit urban development outside a certain boundary

Source: Staley and Gilroy, "Smart Growth and Housing Affordability: Evidence from Statewide Planning Laws", Reason Public Policy Institute, 2001

Anderson, "Use and Implementation of Urban Growth Boundaries", Center for Regional and Neighborhood Action, 1999

Pendall and Martin, "Holding the Line: Urban Containment in the United States", Brookings Institution Center on Urban and Metropolitan Policy, 2002

Competitive Advantages of Large Builders

Land Supply - Continued

Housing Capacity of Undeveloped Land

Southern California Coast 2.5 million units	S.F. Bay Area 1.7 million units
Orange	Marin & Napa
Ventura	San Mateo
Los Angeles	Yolo
	Contra Costa
	Santa Clara
San Diego	Alameda
	Solano

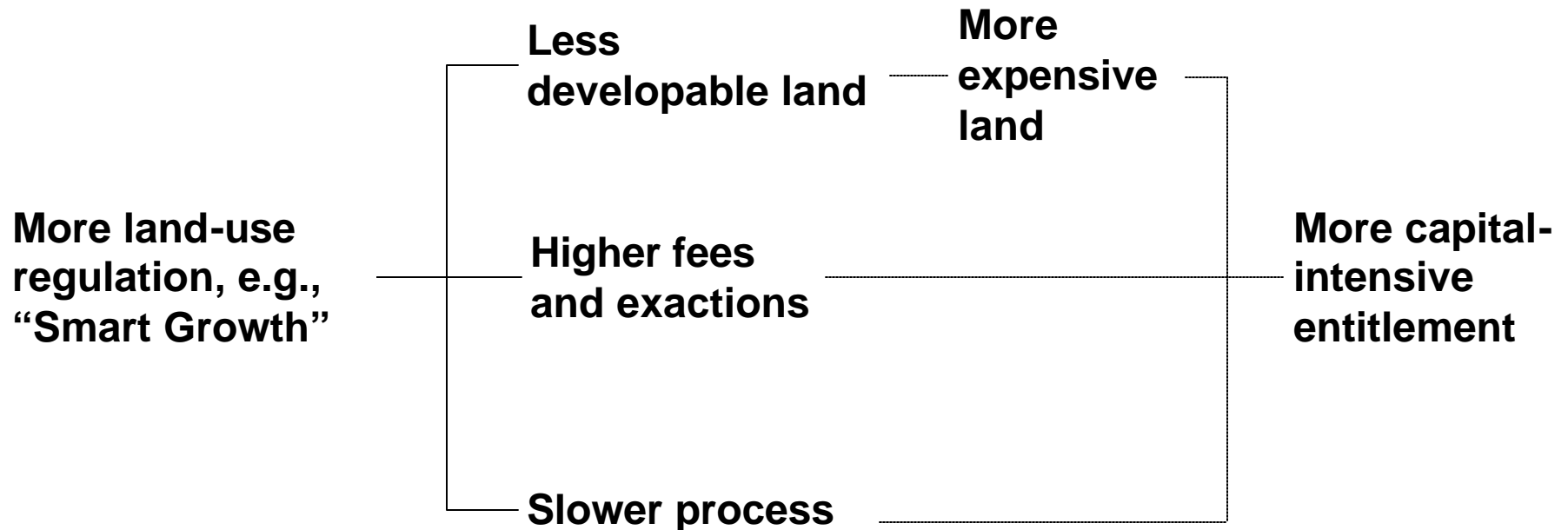


- Land shortages are heavily due to regulation, not just to a lack of available land

Source: California Department of Housing and Community Development, *Raising the Roof: California Housing Development Projections and Constraints, 1997–2020*, Exhibit 15. Capacity = (suitable land acreage) / (1996 housing density), by county. Suitable acreage excludes developed land, publicly owned land, underwater acreage, land with slope > 15%, wetlands, prime and unique farmlands, Q3 floodzones, and areas most suitable to large numbers of endangered species.

Competitive Advantages of Large Builders

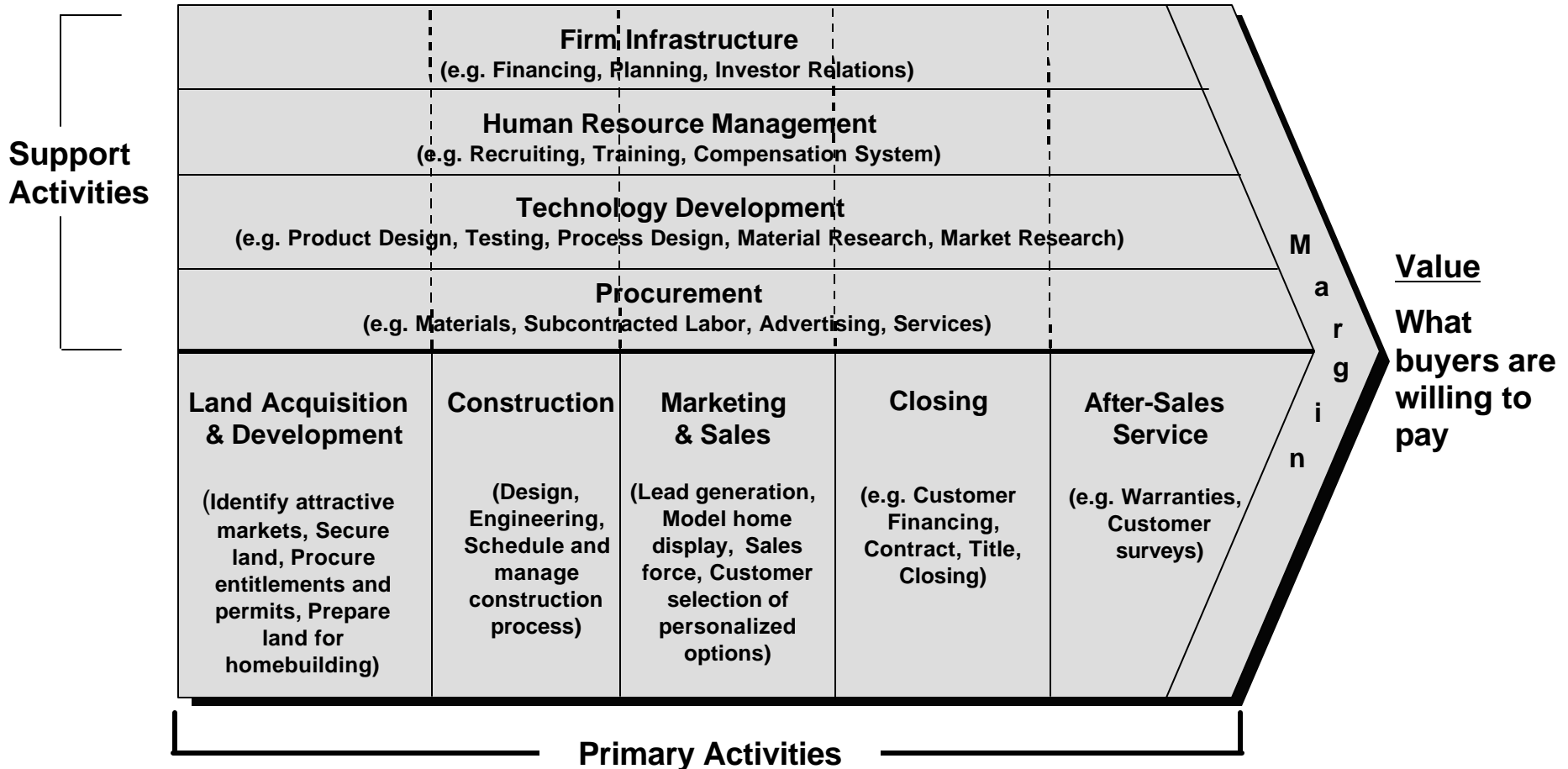
Effect of Land Use Regulation



- Regulation limits the amount of developable land and increases land costs.
- Large public builders with larger staffs, greater capital access, and more patient capital have an advantage in heavily regulated markets.

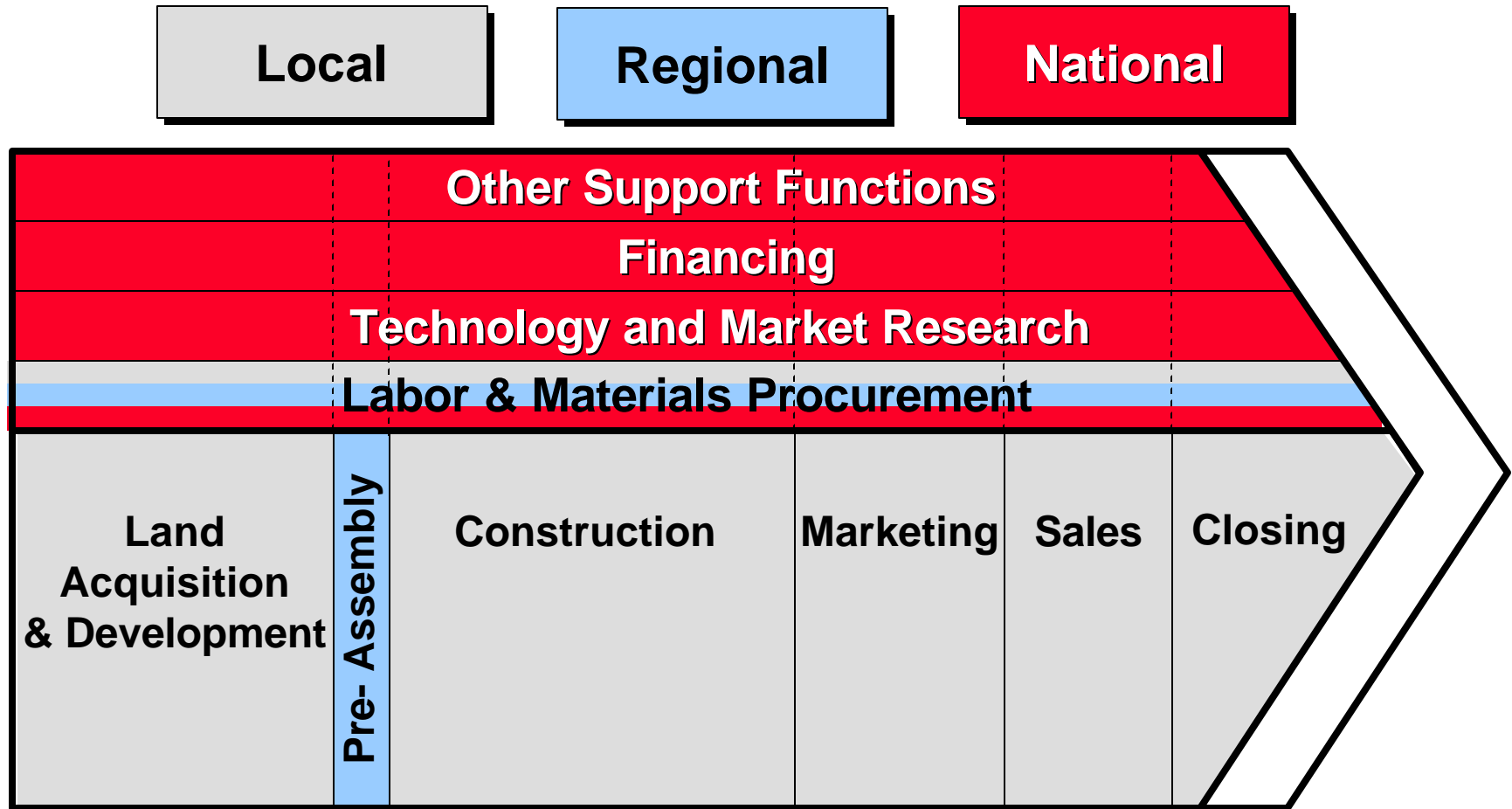
Competitive Advantages of Large Builders

Geography and the Value Chain



Competitive Advantage of Large Builders

Leveraging Geographic Scope



- While local scale remains important, many activities have become regional or national in scope **providing advantage to regional and national builders**
- The **superiority in profitability** of large builders is likely to **grow**

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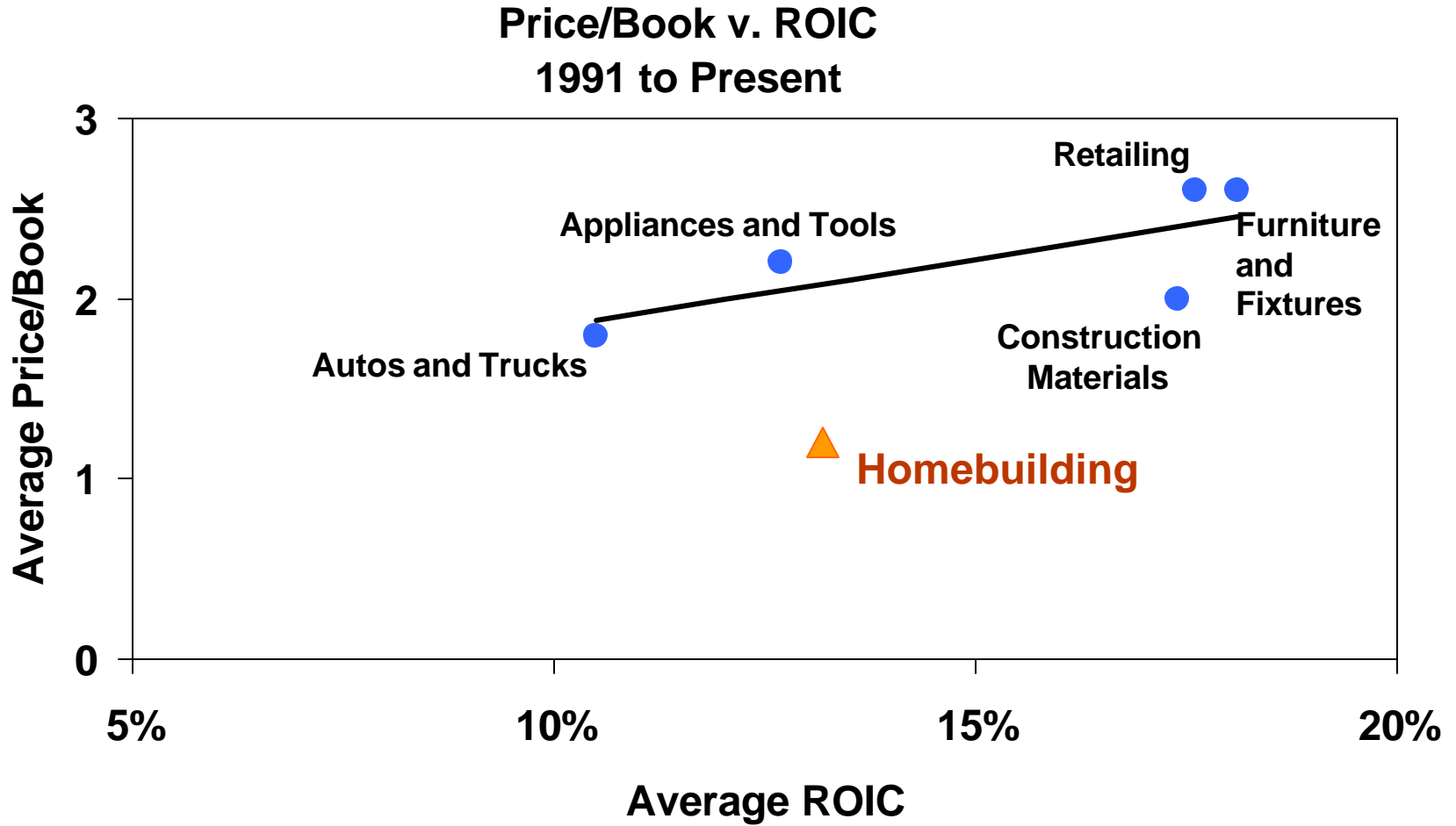
Comparing Homebuilding to Other Industries

Selected Analogies

	Similarities to Homebuilding
Appliances and Tools	Home construction is major demand driver
Auto and Truck Manufacturers	Expensive and infrequently purchased consumer durable; sensitive to interest rates
Construction Materials	Home construction is major demand driver; limited international competition
Furniture and Fixtures	Home construction is major demand driver
Retailing	Sensitive to the economy; limited role of technology; little or no international competition

Market Assessment versus Sustained Profitability

Selected Industries



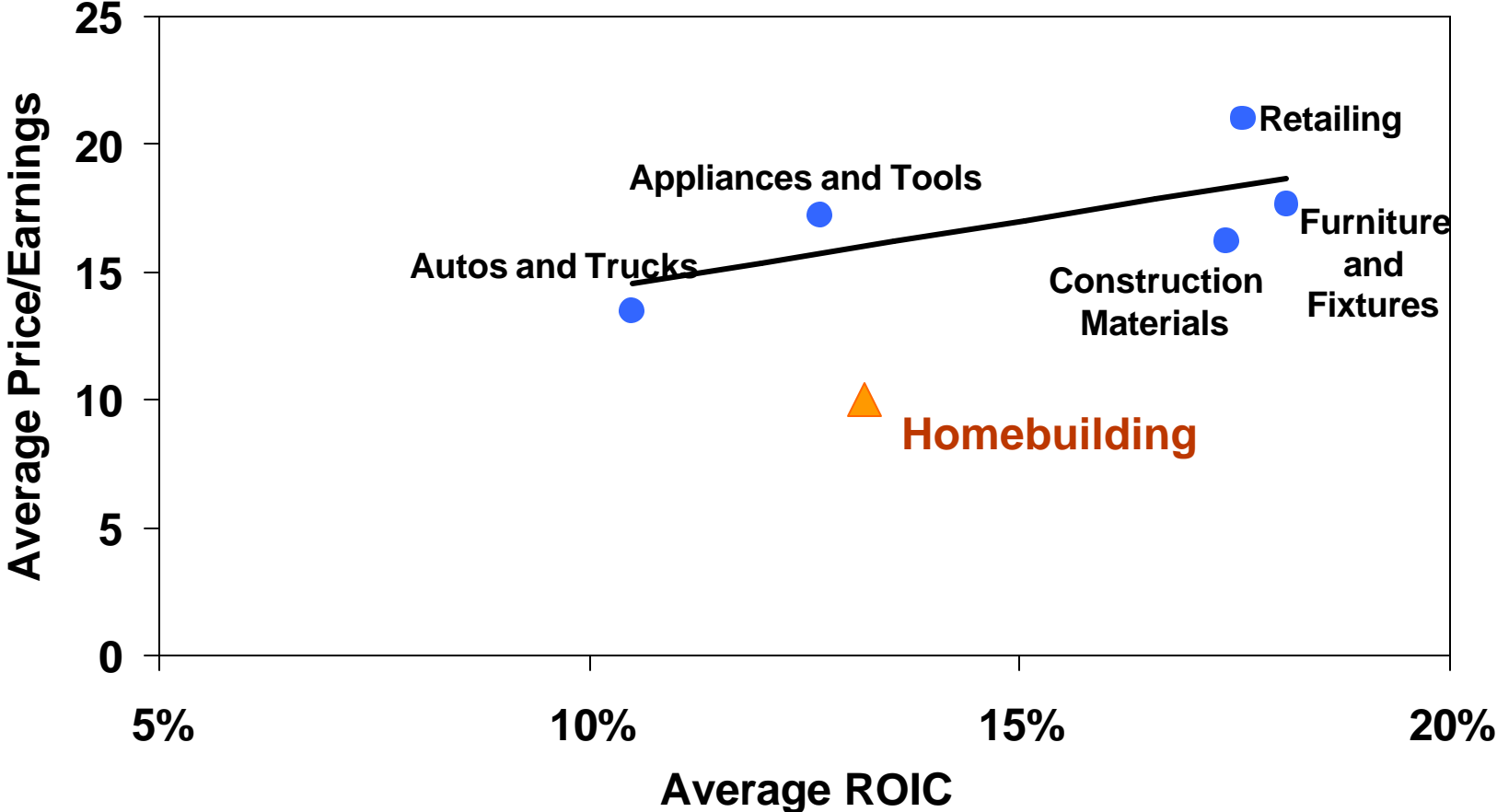
Note: ROIC calculated as EBIT / Average Capital. Median for S&P 1500 companies in industry.

Source: FactSet.

Market Assessment versus Sustained Profitability

Selected Industries

Price/Earnings v. ROIC
1991 to Present

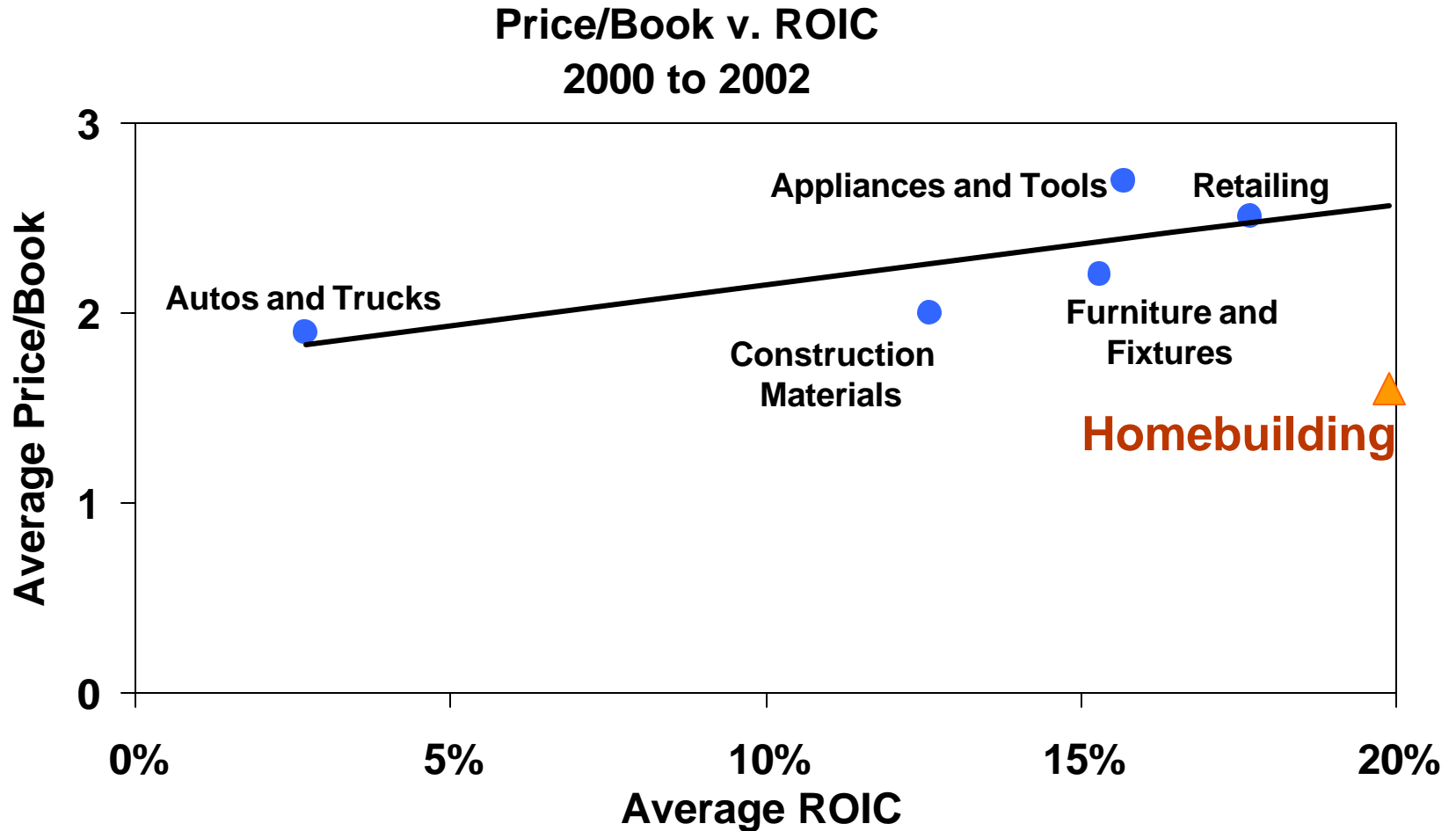


Note: ROIC calculated as EBIT / Average Capital. P/E calculated as Price / LTM Earnings. Median for S&P 1500 companies in industry.

Source: FactSet.

Market Assessment versus Sustained Profitability

Selected Industries



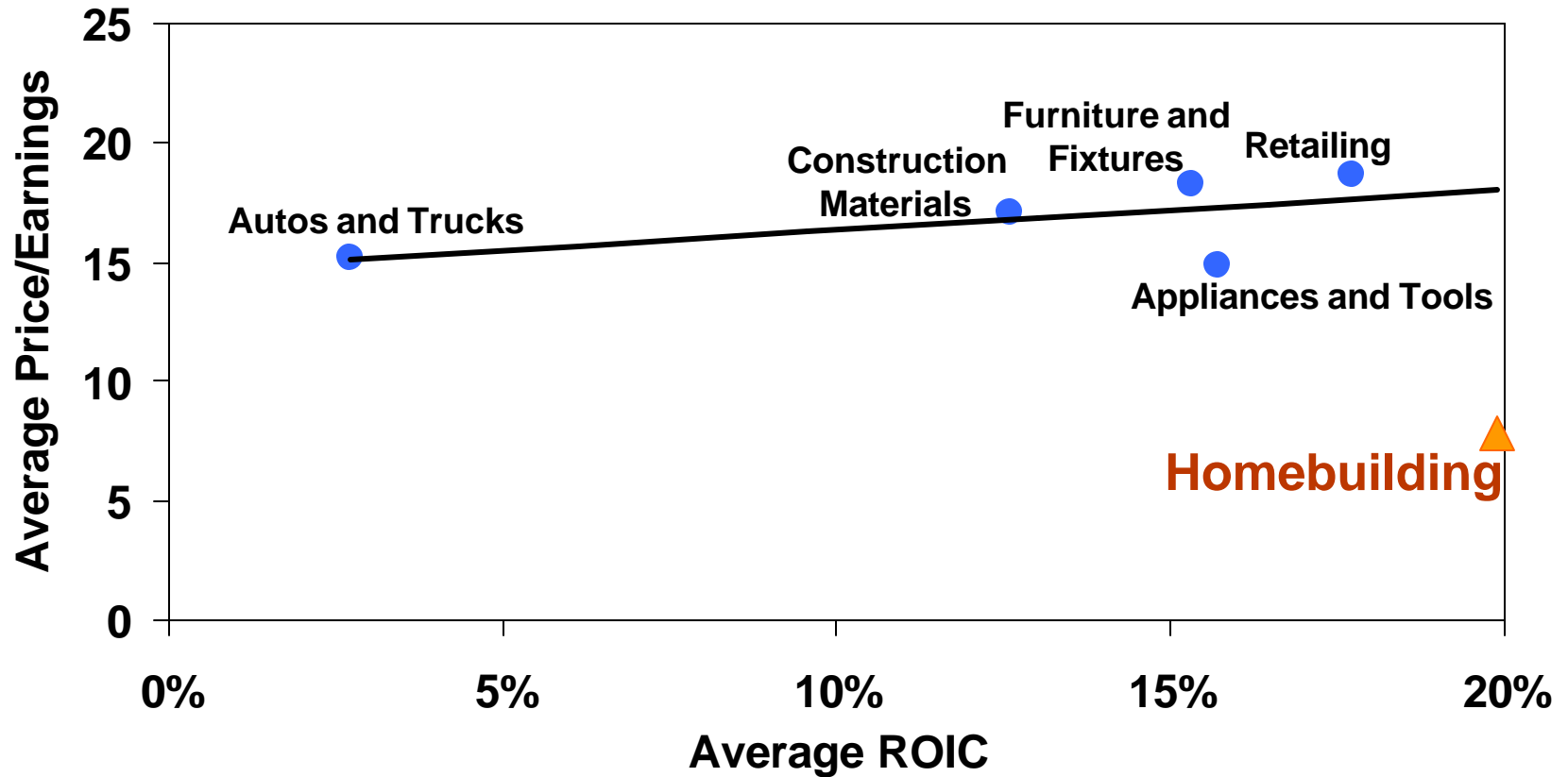
Note: ROIC calculated as EBIT / Average Capital. Median for S&P 1500 companies in industry.

Source: FactSet.

Market Assessment versus Sustained Profitability

Selected Industries

Price/Earnings v. ROIC
2000 to 2002



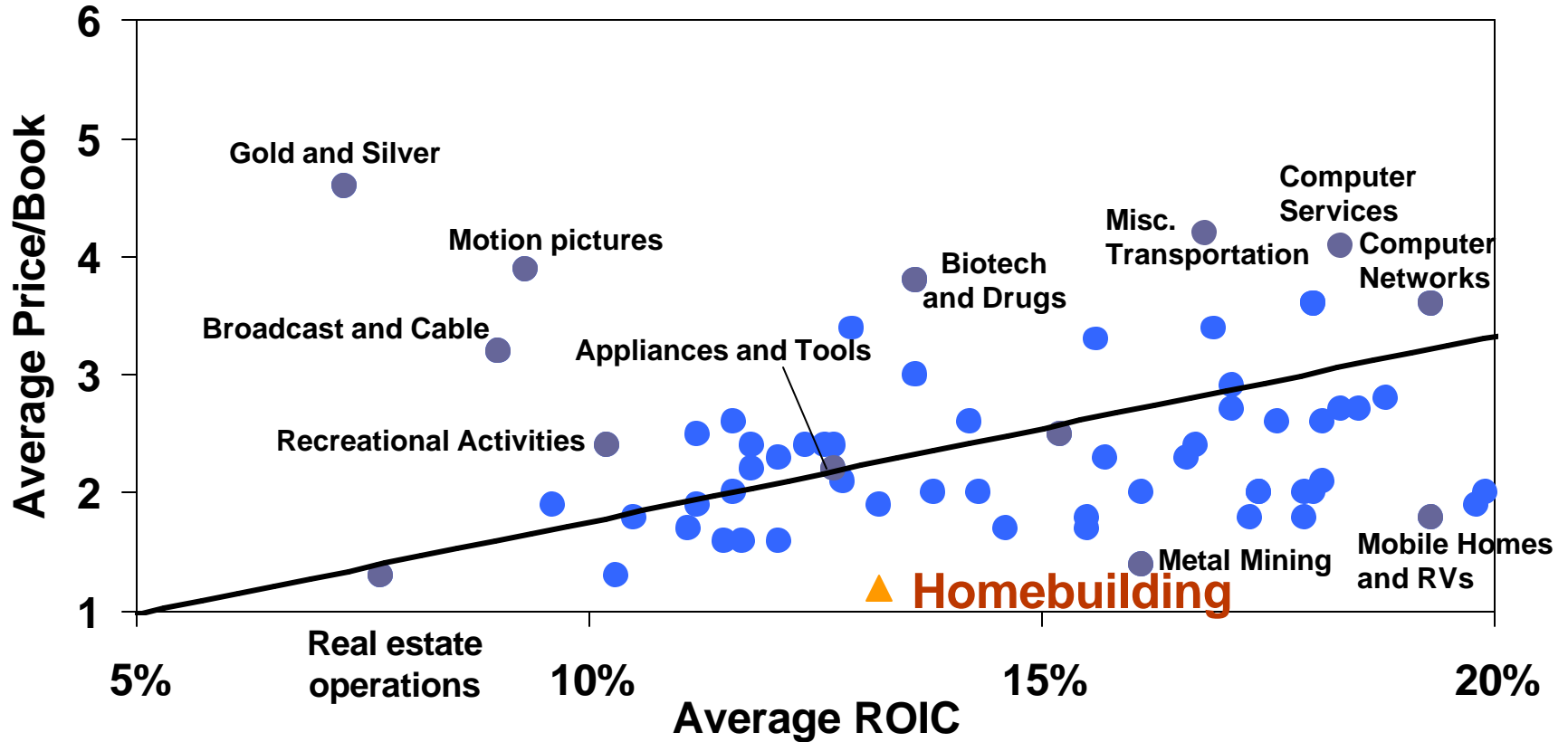
Note: ROIC calculated as EBIT / Average Capital. Median for S&P 1500 companies in industry.

Source: FactSet.

Market Assessment versus Sustained Profitability

Industries in the S&P 1500 Universe

Price/Book v. ROIC
1991 - Present



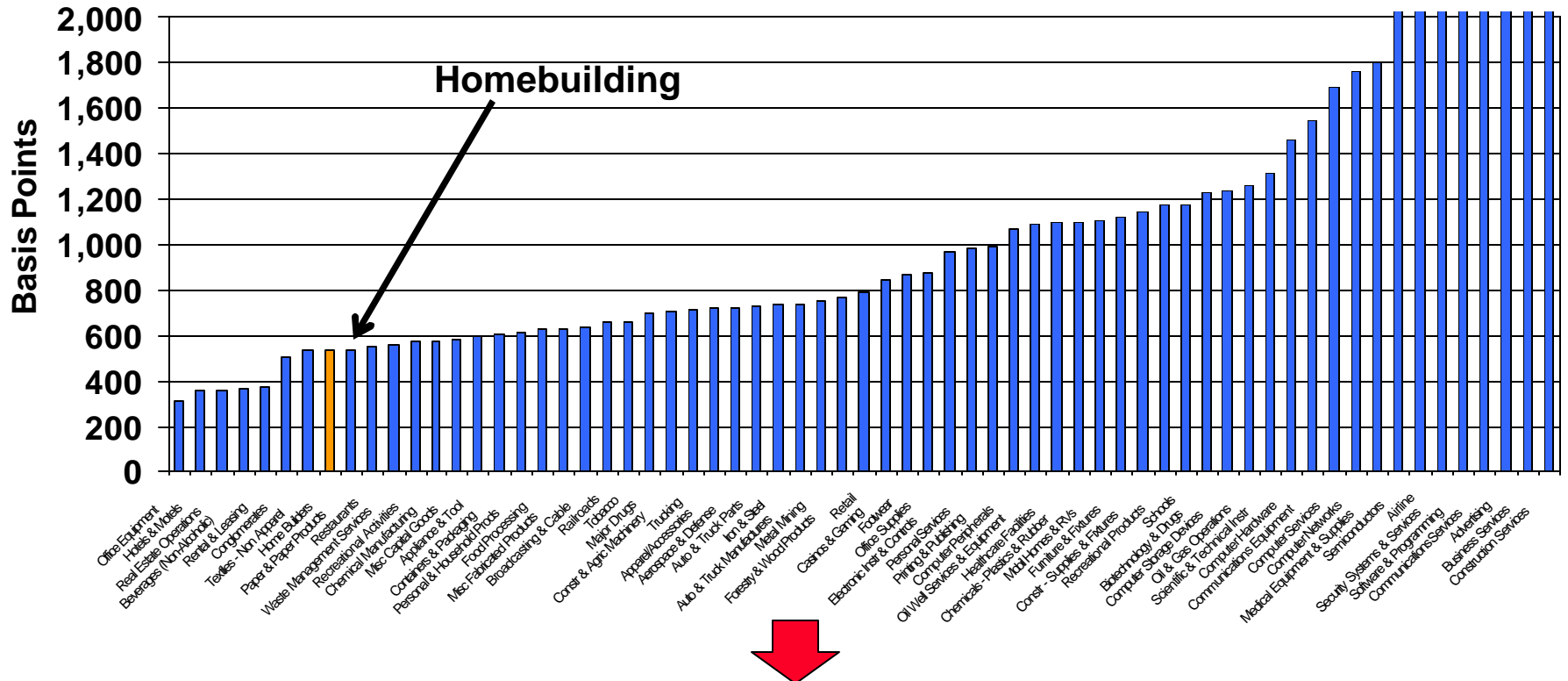
Note: Universe includes S&P 1500 companies, excluding utilities and financial services. Industries with ROIC>20%, ROIC<5%, or P/B>6 not shown.

Note: ROIC calculated as EBIT / Average Capital. Median for S&P 1500 companies in industry.

Source: FactSet.

Volatility of Returns

Standard Deviation of Year-Over-Year Change in ROIC



- Homebuilder ROIC is highly stable in comparison with other industries

Note: Universe includes S&P 1500 companies. ROIC defined as EBIT / Average Capital. Standard deviation of year-over-year change in ROIC (basis points) calculated for each company for each month from 1992 to date. Data then aggregated by industry by taking mean of the standard deviations calculated for each company in the industry. Excludes utilities, financial service companies, and industry groups with fewer than 5 companies.

Overview

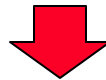
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Investor Barriers to Strategy

- Investors often reward growth at the expense of sustained profitability
- Investors fixate on highly visible but short-term demand influences such as interest rates and overall housing starts rather than structural determinants of long-term profitability
- Investors and analysts create strong pressures for companies to emulate the practices of “successful” peers, or “do deals” (M&A)
 - Reinforce imitation instead of distinctive competitive advantages



- Investors and analysts should pay more attention to the **structural attractiveness of a company's industry** and its **sustainable competitive advantages** versus cyclical fluctuations and short-term trends

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