



Global Asset Management

Global Linkages

An Asset Management Perspective

Stefano Cavaglia

Vadim Moroz

Some Questions

- ◆ Why do we care about stock prices (short run vs. long run) ?
- ◆ What are the factors that determine stock prices?
- ◆ What do these factors tell us about "integration" ?
 - How should we think about integration?
- ◆ How are these factors related to fundamentals?
- ◆ What is on some plan sponsor's research horizon?

Why do we care about stock prices?

- ◆ Strategic investment allocations are critical determinants of investment performance.
- ◆ Asset managers may advise clients that a globally diversified portfolio is optimal; home biased allocations are riskier.
- ◆ Asset managers may advise clients that investment allocations need to be viewed in the broad context of diversifying across expected labor income and expected return on financial capital.
- ◆ The "active" vs. "passive" dimension of investment management is becoming blurred.

What are the factors that determine stock prices?

- ◆ What best explains the cross sectional dispersion of security prices?
 - Country factors
 - Global Industry factors

- ◆ For “developed” equity markets, industry factors “explain” more of the cross sectional dispersion than country factors.

- ◆ Are there some caveats?
 - Is it a large cap effect? No
 - Is it a “tech” effect? No
 - Does this hold for Emerging Markets ? No

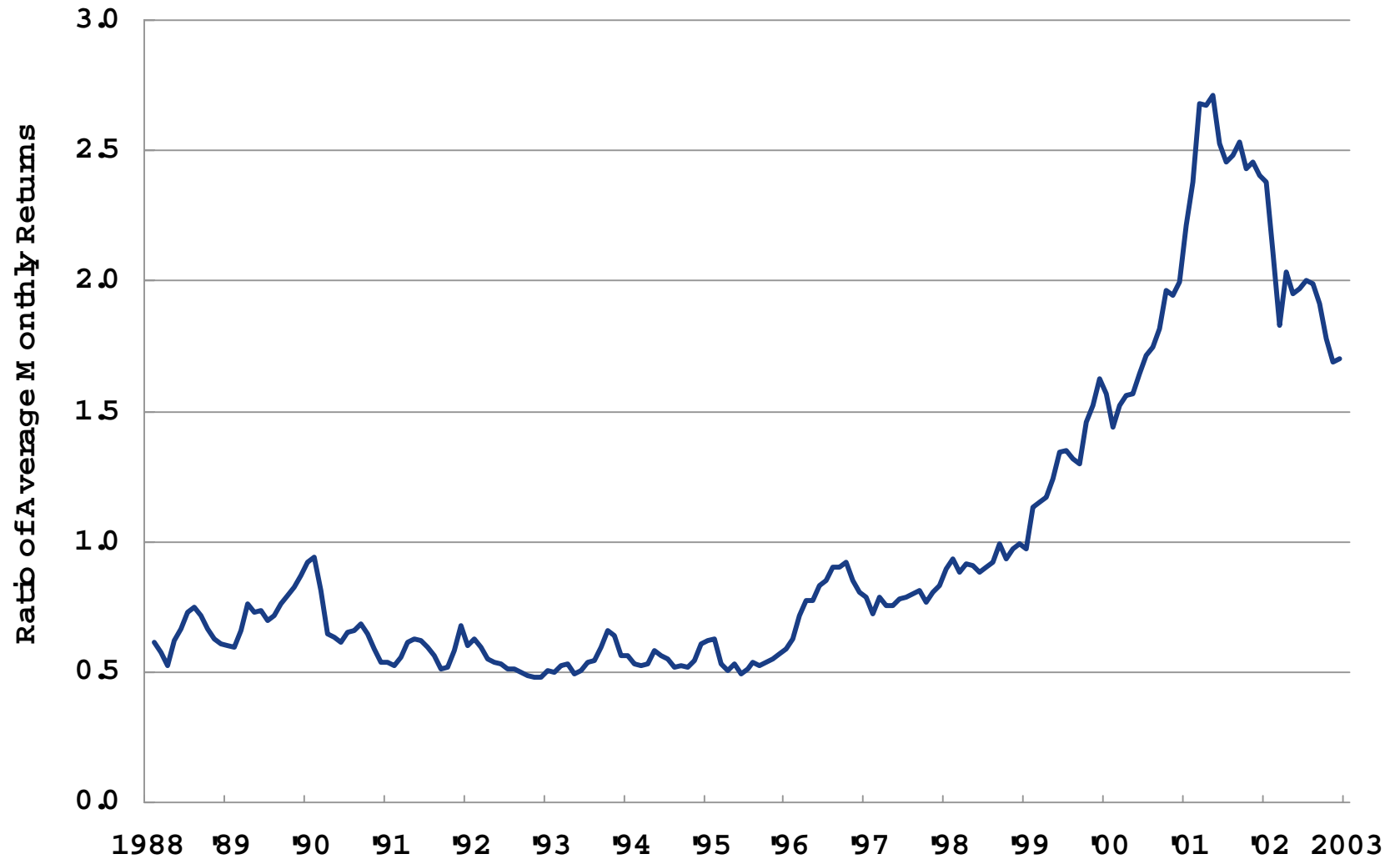


UBS

Global Asset Management

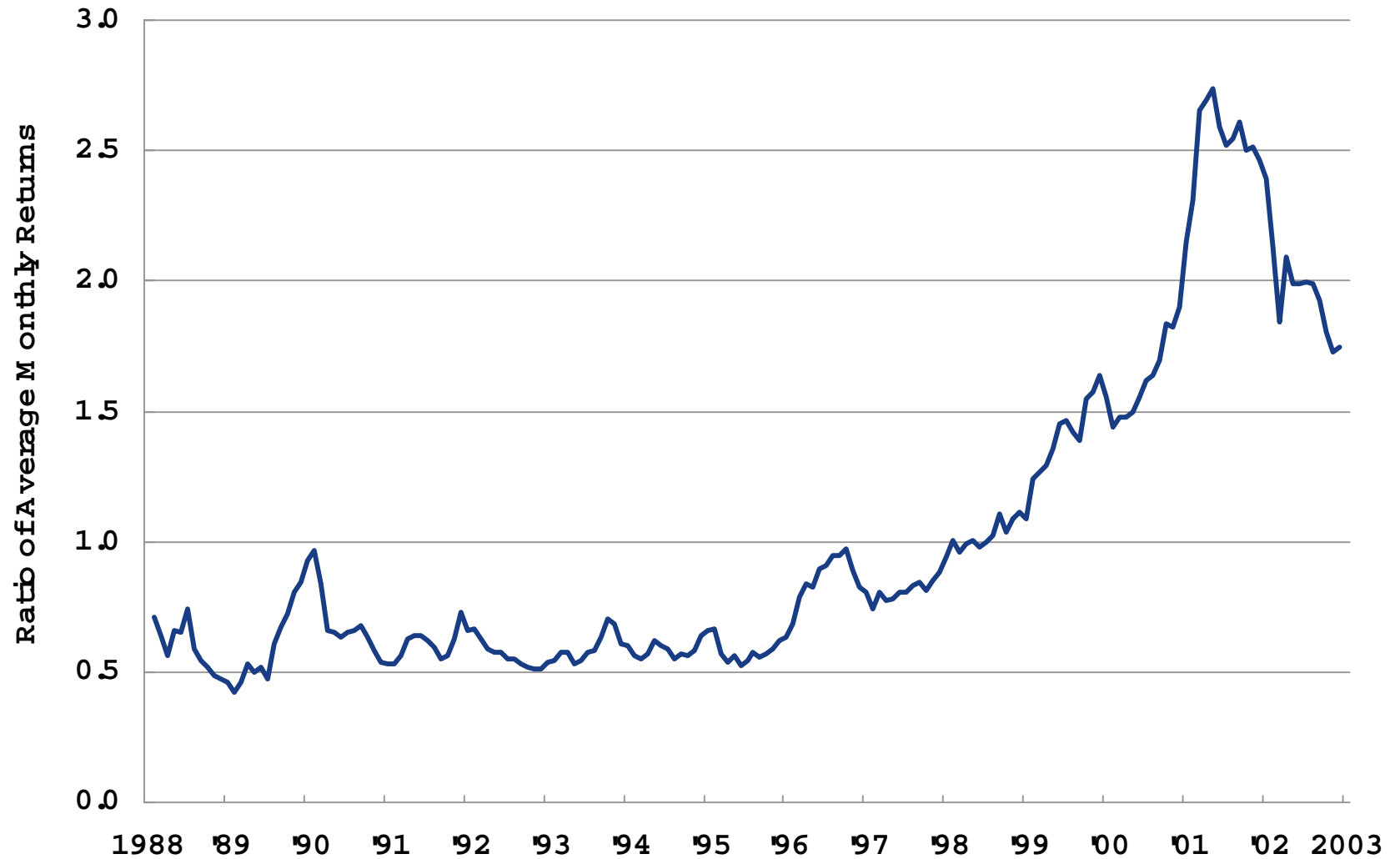
Performance of Industry Tilts Relative to Country Tilts

Full Universe - Developed Markets



Performance of Industry Tilts Relative to Country Tilts

Large Cap Universe - Developed Markets



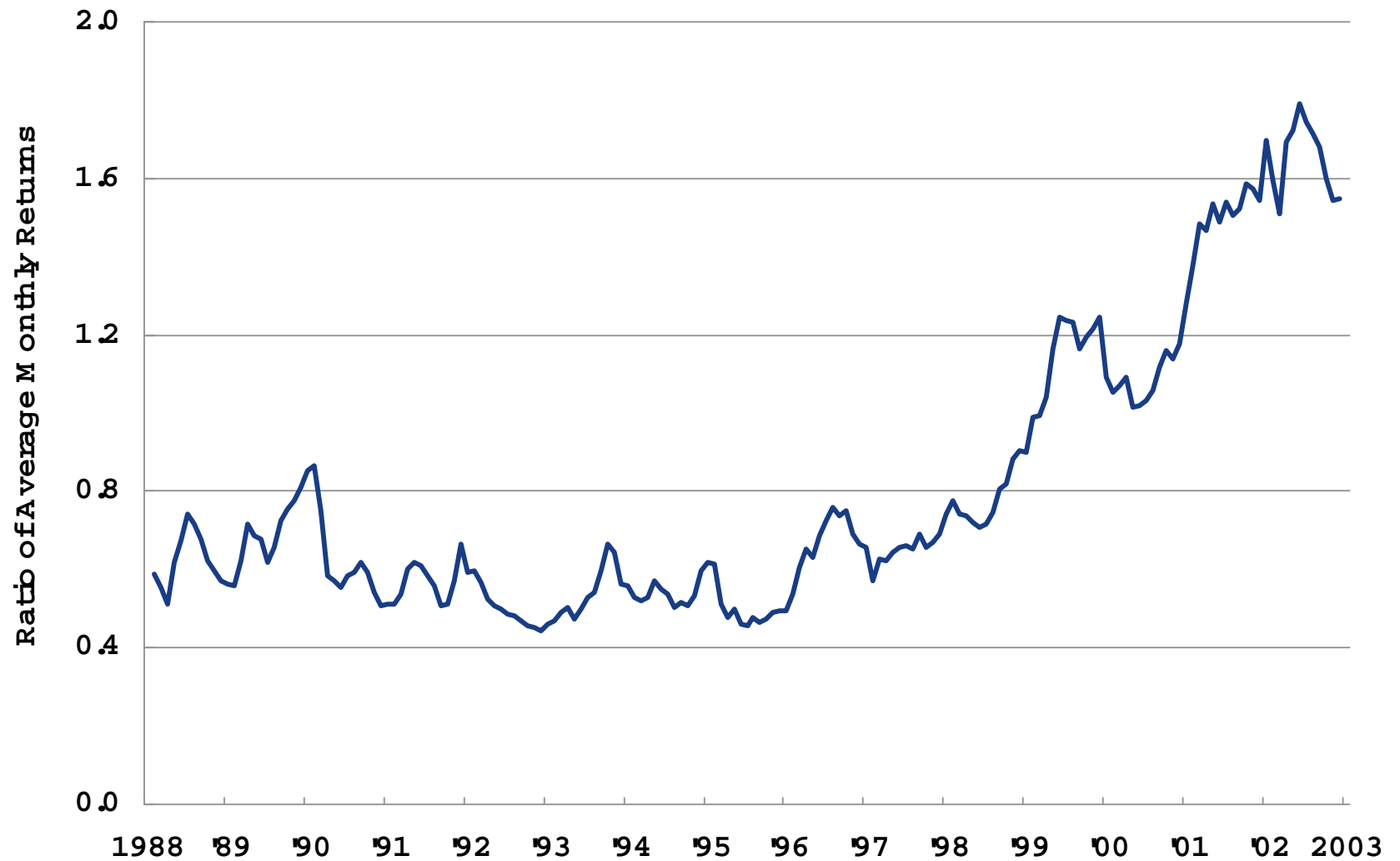
Performance of Industry Tilts Relative to Country Tilts

Small Cap Universe - Developed Markets



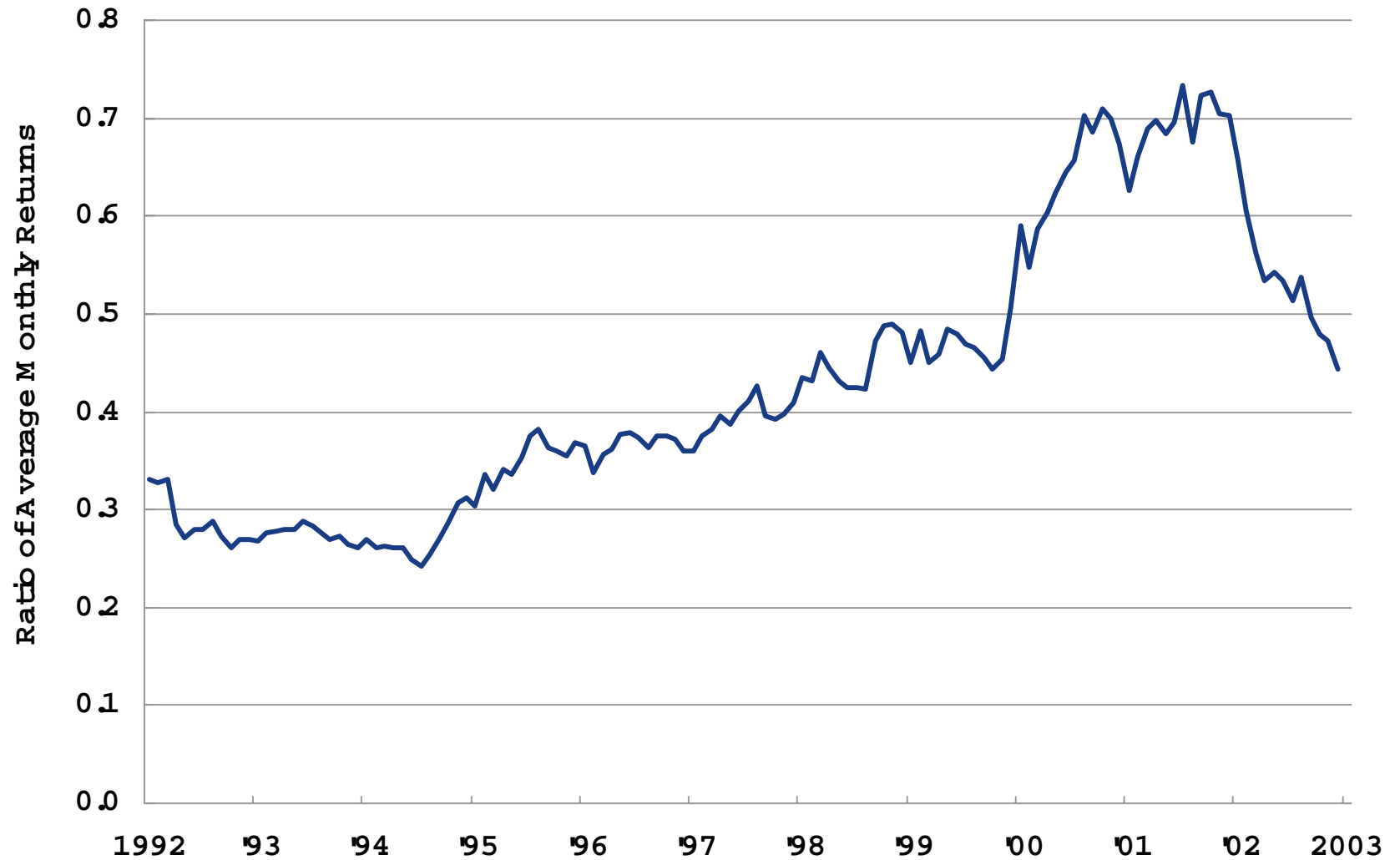
Performance of Industry Tilts Relative to Country Tilts

Developed Markets Ex- Media, Technology, and Telecoms



Performance of Industry Tilts Relative to Country Tilts

Full Universe - Emerging Markets



Economic Integration

- ◆ We often think of integration at the country level.
- ◆ What about “integration” at the global industry level?
- ◆ What – who is leading the integration process?
 - Are certain segments of the Emerging Markets world more integrated than others?

Economic Integration: A Micro Perspective

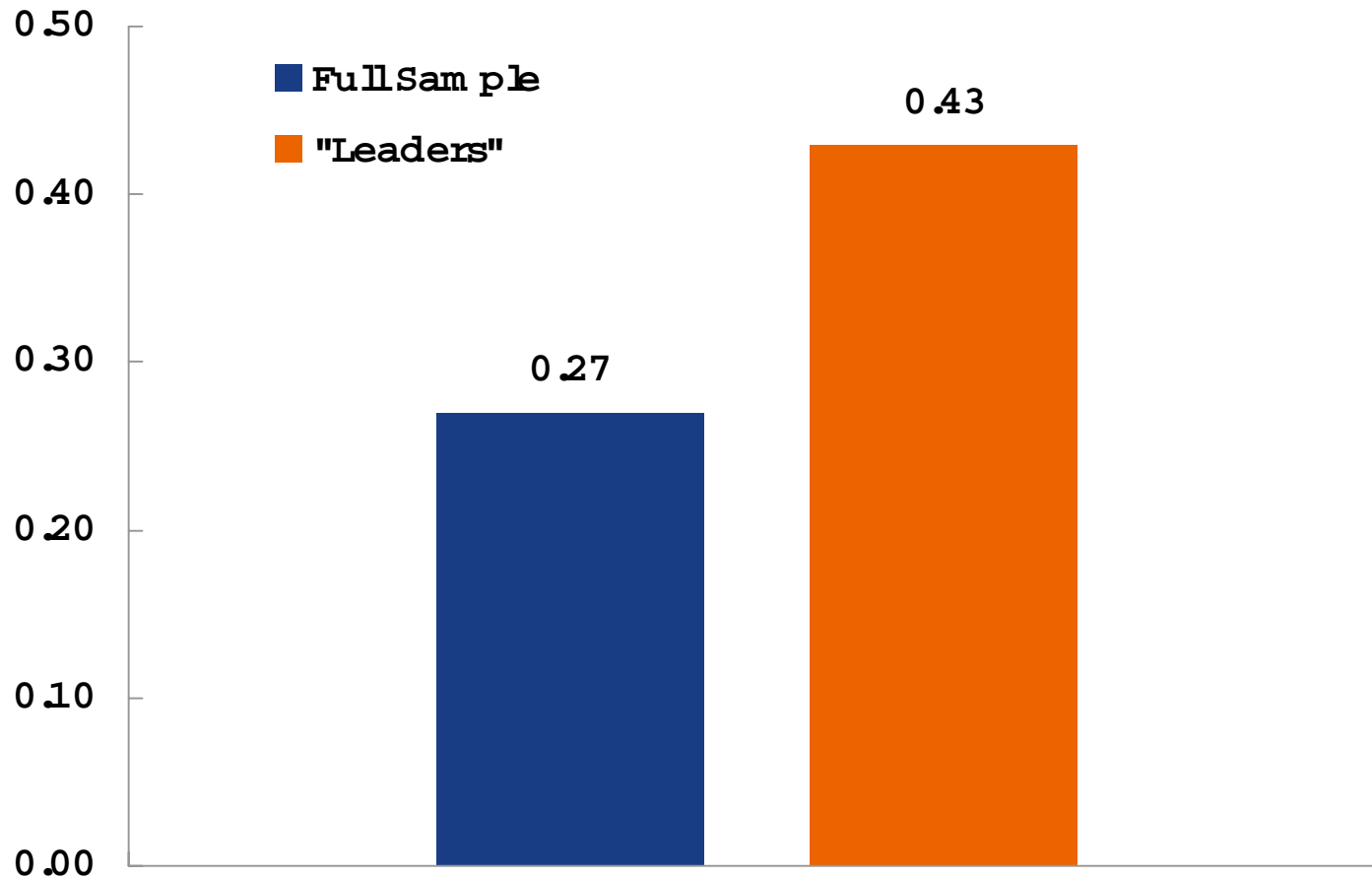
The Correlation Across Emerging and Developed Industry Factors Has Risen

	June '95 to Nov '02	Jan '88 to June '95
Energy	0.46	0.07
Materials	0.61	0.31
Capital Goods	0.39	-0.02
Commercial Services & Supplies	-0.07	-0.09
Transportation	0.59	0.26
Automobiles & Components	0.21	-0.08
Consumer Durables & Apparel	-0.30	-0.02
Hotels Restaurants & Leisure	0.17	0.05
Media	0.29	0.20
Retailing	0.09	0.18
Food & Drug Retailing	0.53	0.22
Food Beverage & Tobacco	0.57	0.02
Household & Personal Products	0.36	-0.02
Health Care Equipment & Services	0.31	0.04
Pharmaceuticals & Biotechnology	0.44	0.06
Banks	0.47	0.13
Diversified Financials	0.33	0.02
Insurance	0.51	-0.09
Real Estate	0.46	-0.12
Software & Services	0.56	0.16
Technology Hardware & Equipment	0.51	0.16
Telecommunication Services	0.41	0.15
Utilities	-0.16	0.01
Average (across industries)	0.34	0.07

Economic Integration: A Micro Perspective

Some EMK Companies Appear More Integrated Than Others

Average correlation of returns with developed market industry factors

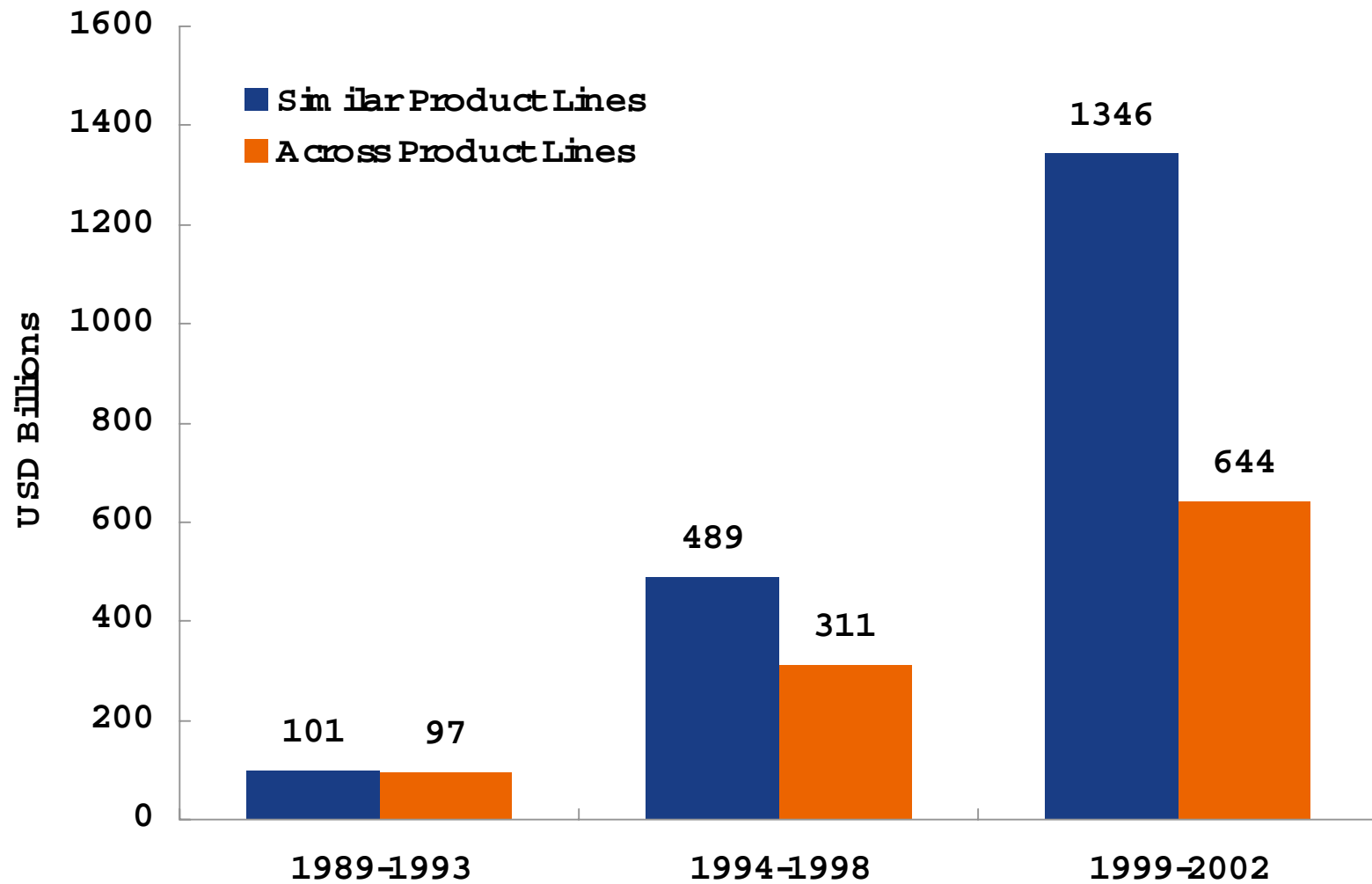


Relating Stock Prices to Economic Fundamentals

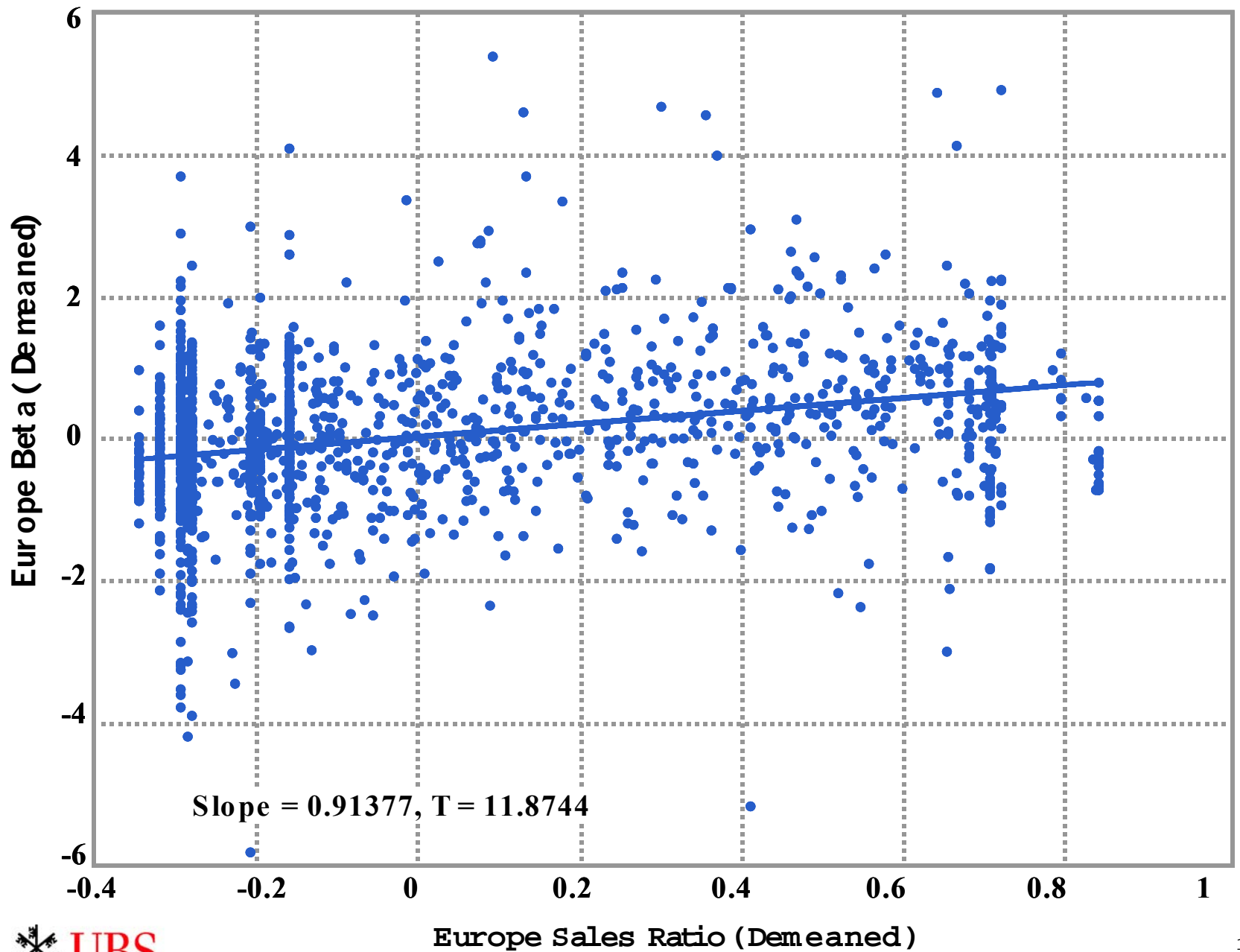
- ◆ Is the capital stock of corporations becoming more global?
- ◆ Are the foreign sales activities of firms related to their risk exposures?
- ◆ How should we think about risk factors in a global context?
- ◆ Are the fundamental drivers of stock price performance increasingly driven by global industry factors?

The Capital Stock of Industries Is Becoming More Global

Cross Border M&A



Europe Sector Exposure 1999



Style Factor Returns (Capitalization Weighted)

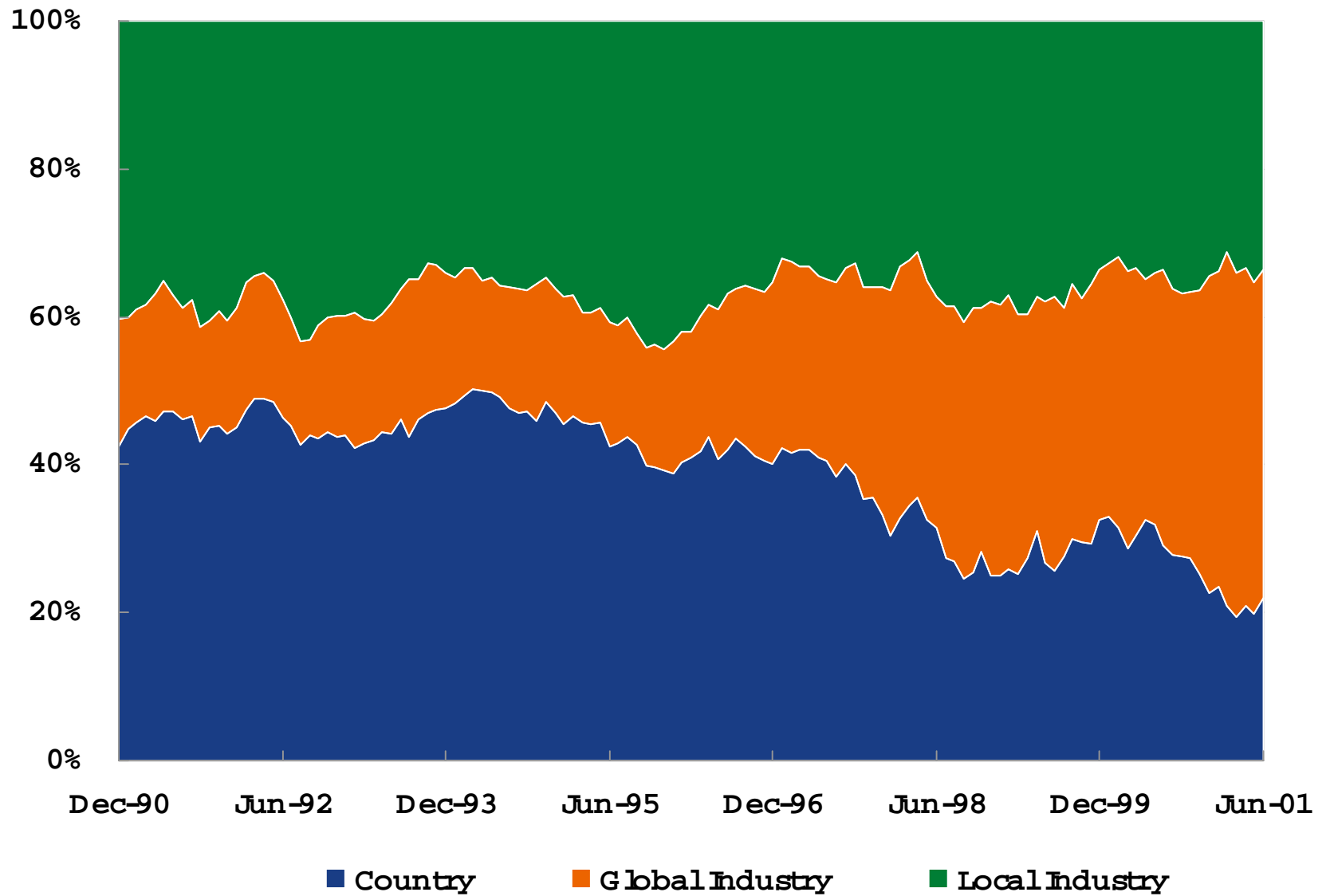
December 31, 1985 – June 30, 2001

	Global Relative	Industry Relative	Country Relative
<hr/>			
Value			
Annualized Monthly Return	1.84	4.29	2.73
Size			
Annualized Monthly Return	-5.23	-1.06	-0.29
<hr/>			

Note:

- Value: Long stocks with high dividend yield, short stocks with low dividend yield
- Size: Long large cap stocks, short low cap stocks

Decomposition Of Information Signals



Research Agenda

- ◆ Emerging markets are not a “separate” asset class.
 - We must consider that certain companies are “integrated”

- ◆ How do we build better benchmarks for performance?
 - A Traditional CAPM Approach ?
 - A Production CAPM Approach ?
 - An Investment Growth Approach ?

Jeff Diermeyer and Bruno Solnik.

"Global Pricing of Equity"

Financial Analyst Journal (July/August 2001)

Stefano Cavaglia, Christopher Brightman, and Michael Aked.

"The Increasing Importance of Industry Factors."

Financial Analysts Journal (September/October 2000)

Stefano Cavaglia, and Vadim Moroz

"CCCA : Cross-Industry, Cross-Country Allocation"

Financial Analyst Journal (November/December 2002)

Stefano Cavaglia, David Cho and Brian Singer.

"Risks of Sector Rotation Strategies."

Journal of Portfolio Management (Summer 2001)

Stefano Cavaglia, Vadim Moroz, and Eriks Smidchens.

"Value and Growth in a Global Context"

Risk (September 2002)