

Fama and French (1992) find that β does not explain the cross section of stock returns from 1963 to 1990, but B/M and size (M) do.

How can we interpret these results?

BETA DOESN'T WORK IN THE CROSS SECTION

1. *Ex post* versus *ex ante* testing

- *ex post* analysis of *ex ante* expected returns
- results are only sample averages
- you might not get what you expected
- CAPM might be correct

2. Potential difficulties with estimating β

- *ex post* measures of *ex ante* variable
- Different measures of β can give different results

LAGNIAPPE:

Conditional (time-varying) betas (depend on other variables)

Betas estimated from analysts' return forecasts

Annual betas versus monthly betas

- CAPM might be correct

3. CAPM might be wrong; beta does not capture risk that investors demand compensation for.

IS MARKET β DEAD?

1. Beta is still the predominant measure of risk

A 1999 survey of 392 CFOs found that 74% use the CAPM to determine their firm's cost of equity
(perhaps in conjunction with another method)

2. Portfolio management (covariance)

If you are predicting a market decline, you should not be holding high-beta stocks!

WHAT ROLES DO B/M AND SIZE PLAY IN STOCK RETURNS?

1. One or both might serve as a measure of risk that investors demand compensation for (in addition to beta or instead of beta).

LAGNIAPPE:

- B/M may capture distress risk
- Size may measure liquidity risk, estimation risk (less information), distress risk

WHAT ARE THE IMPLICATIONS FOR INVESTING IF B/M AND SIZE ARE RISK?

2. Investors were mispricing stocks; the CAPM is correct but not sufficiently used.

- Small firms may have been undervalued
- Large firms may have been overvalued

LAGNIAPPE:

- B/M may reflect investor overreaction (perhaps to past performance)

WHAT ARE THE IMPLICATIONS FOR INVESTING IF B/M AND SIZE ARE MISPRICINGS?

3. One or both of these effects might be false.

- a. data mining – examined many, many variables and these worked by chance
- b. transactions costs (commissions, bid-ask spread)
 - i. small stocks tend to have higher costs so their higher returns are harder to realize (and might not be realizable at all)
 - ii. LAGNIAPPE: size effect is concentrated in January and small stocks tend to trade at bid at end of December and at ask at end of January

	N	Asset	Mean Monthly Return	Std Dev of Monthly Returns	t-statistic
FEB-DEC	831	VW index	0.00886	0.05567	4.59
		EW index	0.00876	0.07403	3.41
		1-mo T-bill	0.00313	0.00260	34.72
JAN	75	VW index	0.01899	0.047480	3.46
		EW index	0.06146	0.072672	7.32
		1-mo T-bill	0.00310	0.002389	11.26

c. LAGNIAPPE: data biases (selection biases, delisting biases)

WHAT ARE THE IMPLICATIONS FOR INVESTING IF B/M AND SIZE ARE MISPRICINGS?

LAGNIAPPE: The opinions of Dr. Gutierrez

1. B/M and size *should* be related to expected returns (through the price component of each measure) (Berk, 1995)
2. Neither is a very useful risk measure though (catch-all bag, don't know what exactly it's capturing)
3. Other variables have moved to the forefront as greater anomalies (such as prior returns) as we've learned more about how B/M and size can measure risks that investors demand compensation for.
4. We need to think about risk and pricing in a richer context than the simple one-period CAPM. But, the CAPM is a very good starting point.

NOTE: We can only explain a little cross-sectional variation in stock returns using any method/variables. No model explains everything!

References:

Berk, Jonathan B., 1995, "A Critique of Size-Related Anomalies," *The Review of Financial Studies* 8, 275-286.