IN PRACTICE WEBCAST: ESTIMATING COST OF EQUITY & CAPITAL FOR PRIVATELY OWNED BUSINESSES

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Cost of Equity & Capital: The Public Company Model

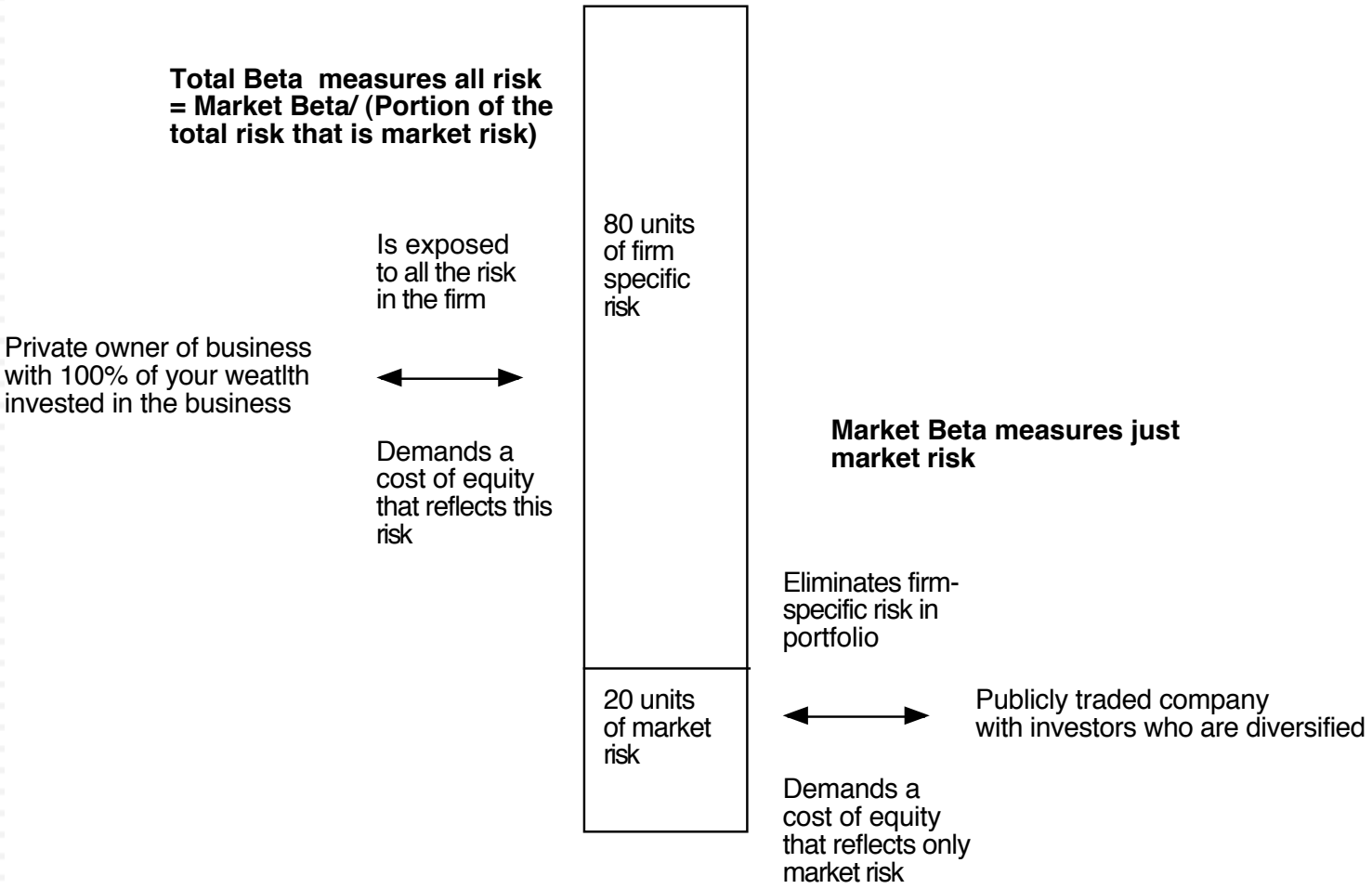
- Marginal Investors are diversified: The models for estimating cost of equity for publicly traded companies are built on the presumption that the marginal investors in the company are diversified. That allows us to focus on measure just the exposure to risk that cannot be diversified away (market risk) with a beta or betas.
- Market prices are observable: The cost of capital is a market-driven number and we use market values for equity and debt to get D/E ratios to lever betas and D/Capital ratios to get to cost of capital.

The Private Business Challenge

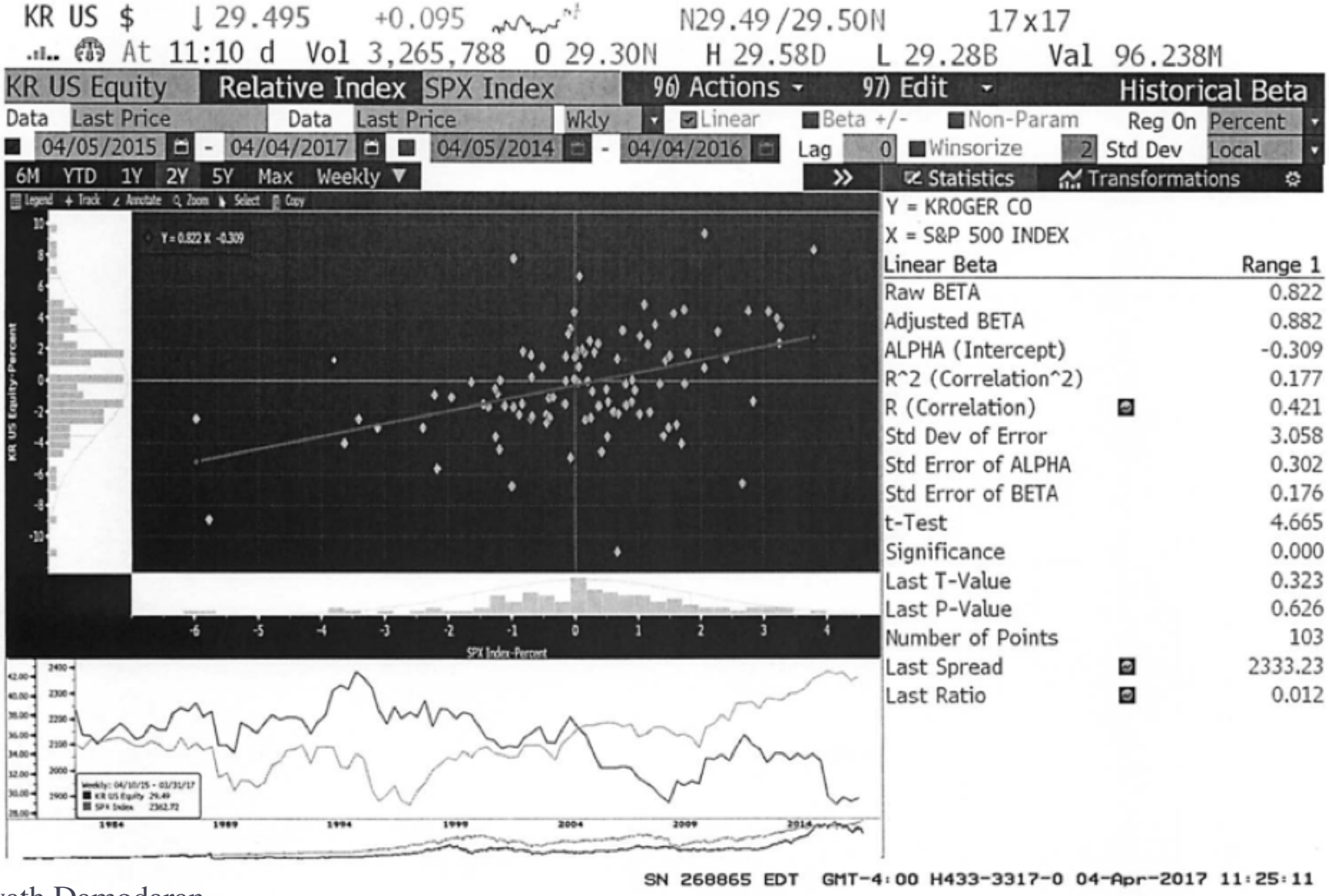
- Owners and potential buyers are undiversified or only partially diversified: In many privately owned businesses, the owner/potential buyer sees more than just market risk in the company. At the limit, with a completely undiversified owner/buyer, all risk matters.
  - Implication: Using a market beta or betas to estimate cost of equity will give you too low a cost of equity, since you are capturing only market risk in it.
  - Fix: If you can adjust the cost of equity to incorporate company specific risks, you will have a more realistic estimate of the cost of equity
- No Market Value: Private businesses are not traded. There is no observable market value for the equity.
  - Implication: You have only book values for debt and equity, often at unrealistic values (in relation to what you can get for the equity in the market today).
  - Fix: If you can estimate market values of equity and debt, you can use these estimates.

1. Not Diversified?

Private Owner versus Publicly Traded Company Perceptions of Risk in an Investment



Estimating Company Specific Risk



Estimating a total beta

- Start with a market beta (unlevered) for the business or businesses that your private company is in, just like you would for a public company.
- To get a measure of how much of the risk in the firm comes from the market and how much is firm-specific, use the correlation of the publicly traded companies in the business with the market.
- Estimate the total unlevered Beta

  = Market Beta/ Correlation with the market
- For a privately owned apparel company in 2018, for instance, the numbers would have looked as follows:
  - Average unlevered beta for apparel companies = 0.81
  - Average correlation of apparel companies with market = 0.25
  - Total unlevered beta for private apparel company = 0.81/0.25 = 3.2

2. No Market Value?

1. Target Debt Ratio: If you have an unusual business owner who has a target debt ratio in mind, use that debt ratio.
2. Industry Average Debt Ratio: Use the average debt ratio for publicly traded companies in the same business.
3. Use your own estimates of market equity and debt for the company, by
   - Applying a multiple to earnings or book value, based upon publicly traded companies
   - Doing a DCF valuation of the private business and using your estimated values of equity and debt; this will create circularity in your valuation, since you need the market values to get a cost of capital and a cost of capital to get the market values.

With an apparel company: Cost of equity

- Using the industry average beta approach,
  - Total Unlevered Beta = 3.24
  - D/E ratio for public apparel companies = 34.18%
  - Tax rate = 40% (using tax rate for individual owned business)
  - Levered Beta = 3.24 (1+(1-.4) (.3418)) = 3.90
  - Cost of equity (with a risk free rate of 2.5% and an ERP of 5%) = 2.5% + 3.90 (5%) = 21.9%
- For a public apparel company (using the unlevered market beta of 0.81, a tax rate of 24% and a D/E ratio of 34.81%):
  - Levered Beta = 0.81 (1+(1-.24) (.3418)) = 1.02
  - Cost of equity = 2.5% + 1.02 (5%) = 7.6%

From cost of equity to get to cost of capital

- Cost of debt: Rather than use the book interest rate, use the same principles that govern cost of debt for a publicly traded company. Use an interest rate that reflects what the private company can borrow at today, long term.
- Debt ratio: Be consistent with the choice that you made (target, industry average, your estimate) when you computed levered beta.
- For the private apparel company,
  - Synthetic rating based on coverage ratio = BBB
  - Debt to Capital ratio = 25.47% (Industry Average)
  - Cost of debt based on rating = 2.5% + 1.25% = 3.75%
  - Cost of Capital = 21.9% (.7453) + 3.75% (1-.40) (.2547)) = 16.90%