The Present Value Relation Over Six Centuries: The Case of the Bazacle Company

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What we do

• Test the present value relationship
  – Compare stock prices and discounted dividends (Shiller)
  – Difficult with short time-series (Rietz/Barro) and technological change (Pastor-Veronesi)

• Data from Bazacle company of Toulouse
  – Created in 1372 and nationalized in EDF in 1946
  – Grain milling up to 1888 and then hydroelectricity

• Interesting case study for long-term investing
  – Long time-series, stable governance, lot of disasters
In a nutshell...

Pricing formula

\[ P_t = \frac{1+r}{1+r-\beta} \frac{\alpha}{r} - \frac{1+r+\gamma}{1+r-\beta} \frac{E(\pi_t)}{r} + \frac{\beta}{1+r-\beta} D_t + \frac{\gamma}{1+r-\beta} \varepsilon_t D - \frac{1+r+\gamma}{(1+r-\beta)(1+r-\delta)} \hat{\pi}_t \]
What we find: Present-value

- Real prices (black) and discounted dividends (grey) in kilos of silver
- Bazacle shares offer a 5% dividend yield over six centuries
What we find: Inflation protection

- Bazacle share prices in monetary units (Livres/Assignats/Francs)
- Bazacle shares have protected against inflation over six centuries
• Our asset pricing model estimated on Bazacle shares shows a decreasing risk premium
Implications for Responsible Investing

• A responsible company lasts long!
  – For centuries: No CO2 emitted, rotating board, good attention towards employees

• Shares offer a good return over the very long run and protect against inflation

• Decreasing risk premium implies that long-term projects should have a lower cost of capital

• Grain of salt: Results obtained from a case study (see other studies by Golez-Koudijs, Le Bris-Hautcoeur, Dimson-Marsh-Staunton, Goetzmann-Jorion, Goetzmann-Li-Rouwenhorst, Goetzmann-Renneboog-Spaenjers)
Thanks for your attention!

And now!

Then...