

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

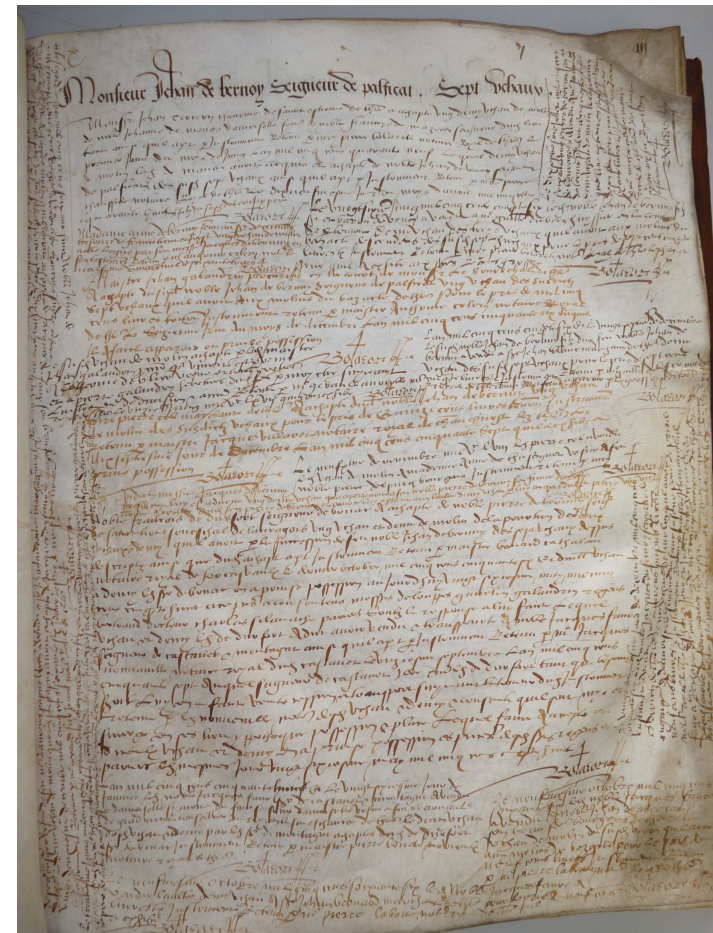
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What we do

- 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

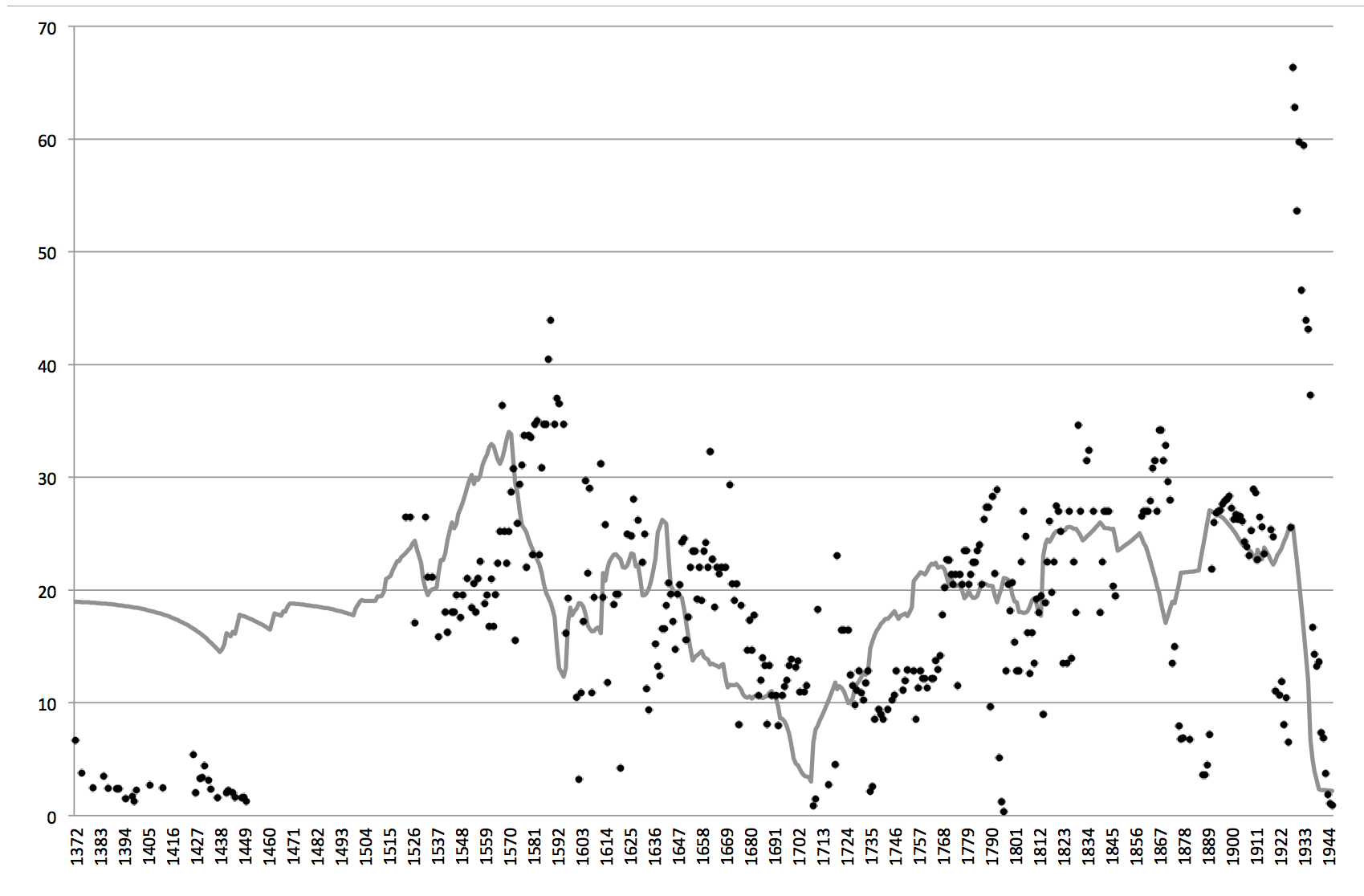
In a nutshell...



Pricing formula

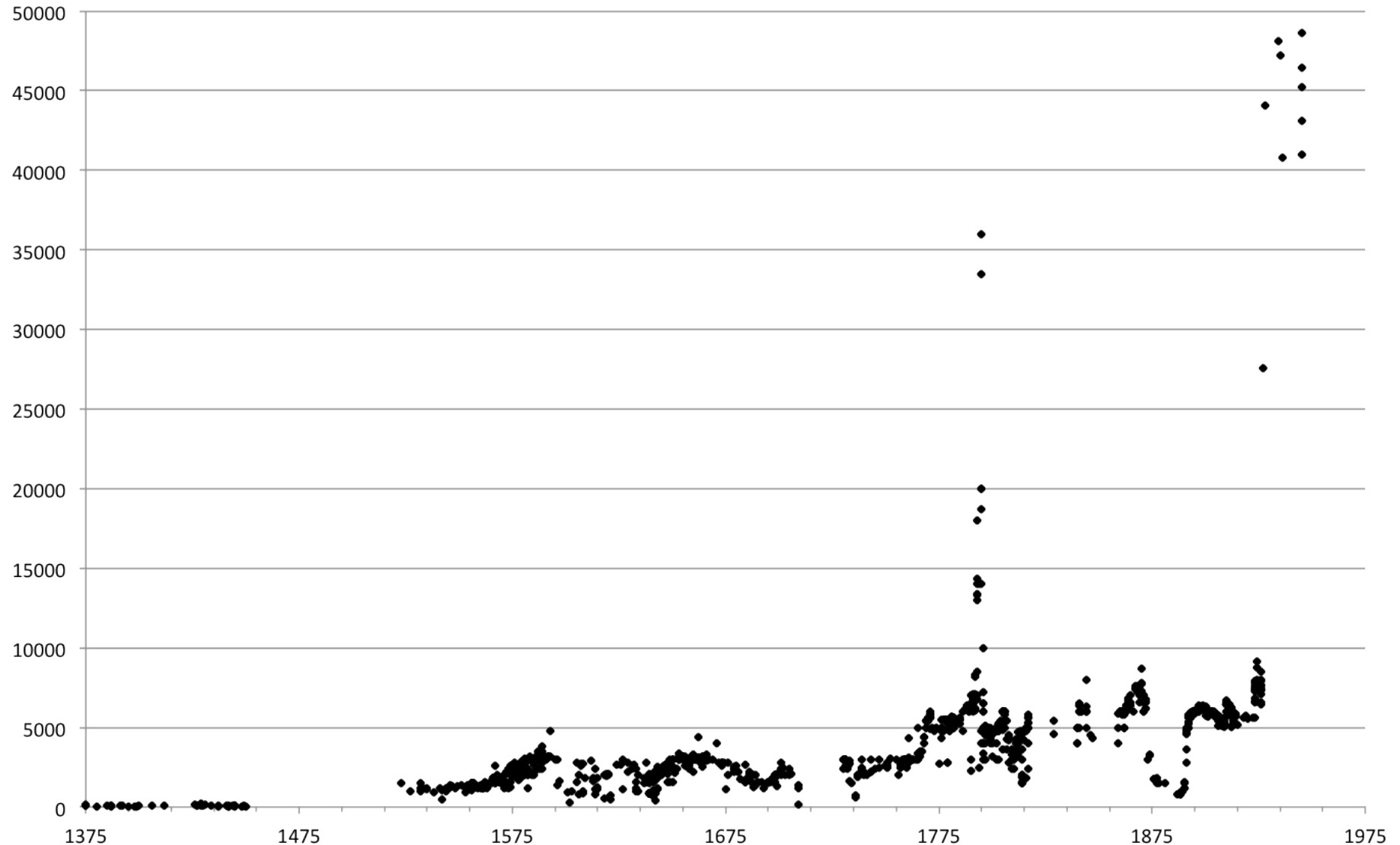
$$P_t = \frac{1+r}{1+r-\beta} \frac{\alpha}{r} - \frac{1+r+\gamma}{1+r-\beta} \frac{\mathbb{E}(\pi_t)}{r} + \frac{\beta}{1+r-\beta} D_t + \frac{\gamma}{1+r-\beta} \varepsilon_t^D - \frac{1+r+\gamma}{(1+r-\beta)(1+r-\delta)} \hat{\pi}_t$$

What we find: Present-value



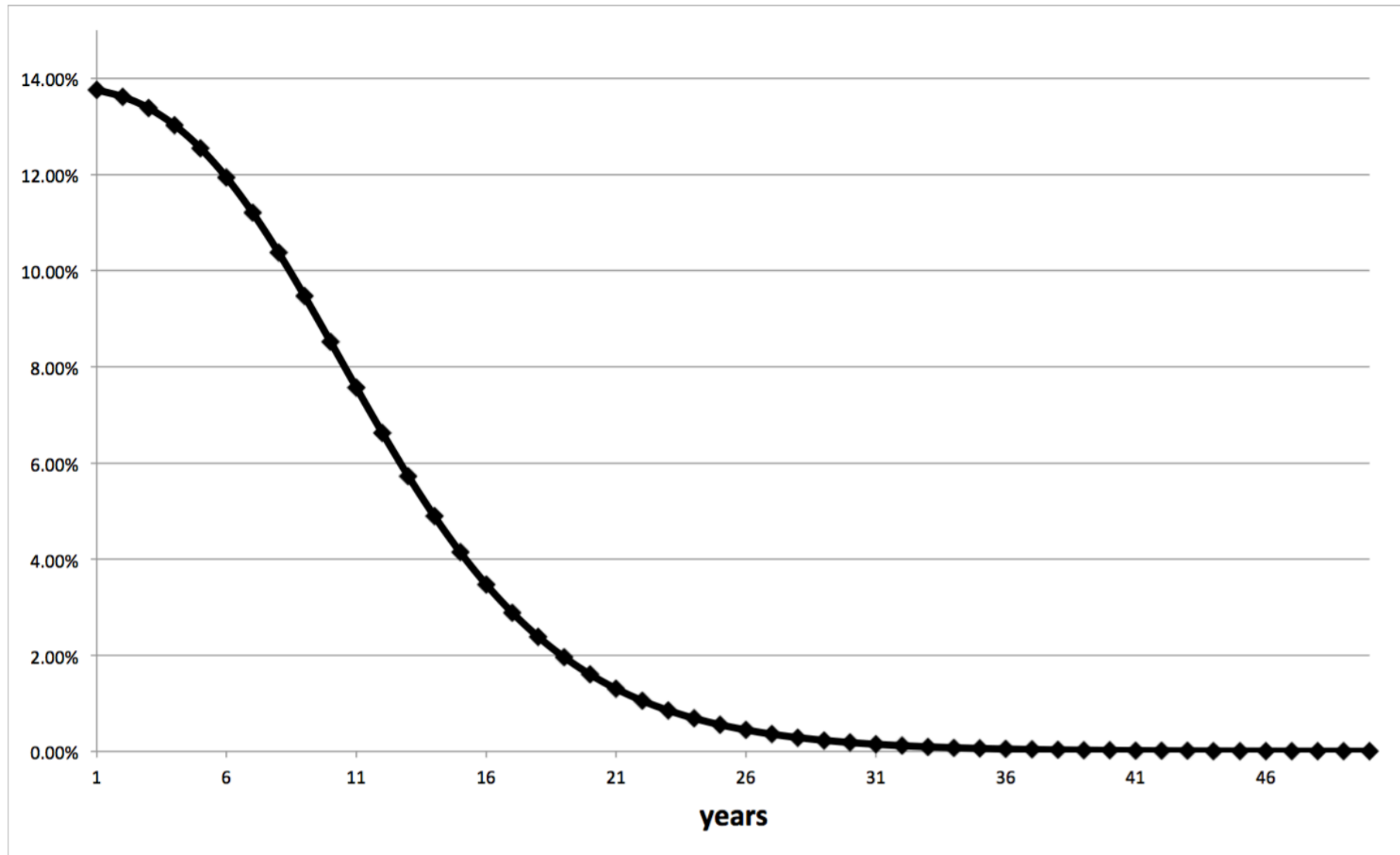
- Real prices (black) and discounted dividends (grey) in kilos of silver
- Bazacle shares offer a 5% dividend yield over six centuries

What we find: Inflation protection



- Bazacle share prices in monetary units (Livres/Assignats/Francs)
- Bazacle shares have protected against inflation over six centuries

What we find: Risk premium



- 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!



Then...

And now!

