



SFB/Transregio 266

ACCOUNTING FOR
TRANSPARENCY

Matthias Breuer and David Windisch (Mis-)Matching and Earnings Properties: Implications of Dynamic Investments

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Using a dynamic investment model as in Breuer and Windisch (JAR, 2019) and including a stylized asset recognition rule the authors show that

- recognizing investments yields less persistent earnings and lower PE-multiples,
- and that Compustat/CRSP data show a similar pattern when partitioned based on established firm-level measures of unconditional conservatism.

They conclude that earnings persistence and PE-ratios might be doubtful measures of earnings quality:

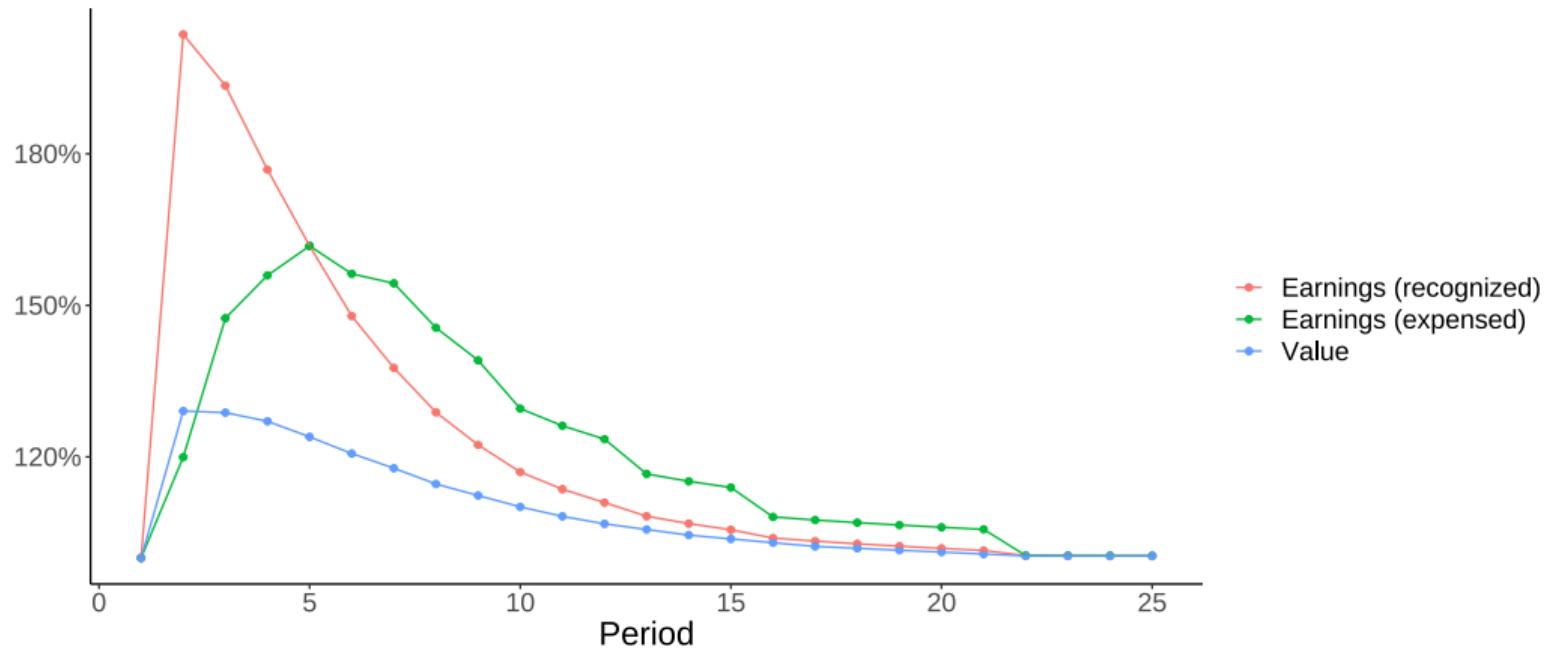
Thus, our findings reveal potentially unexpected consequences of capitalizing versus expensing R&D- and SG&A-type expenditures for popular earnings properties, and suggest that caution is warranted when using earnings persistence and price-earnings multiples as indicators of earnings quality.

(My) Intuition

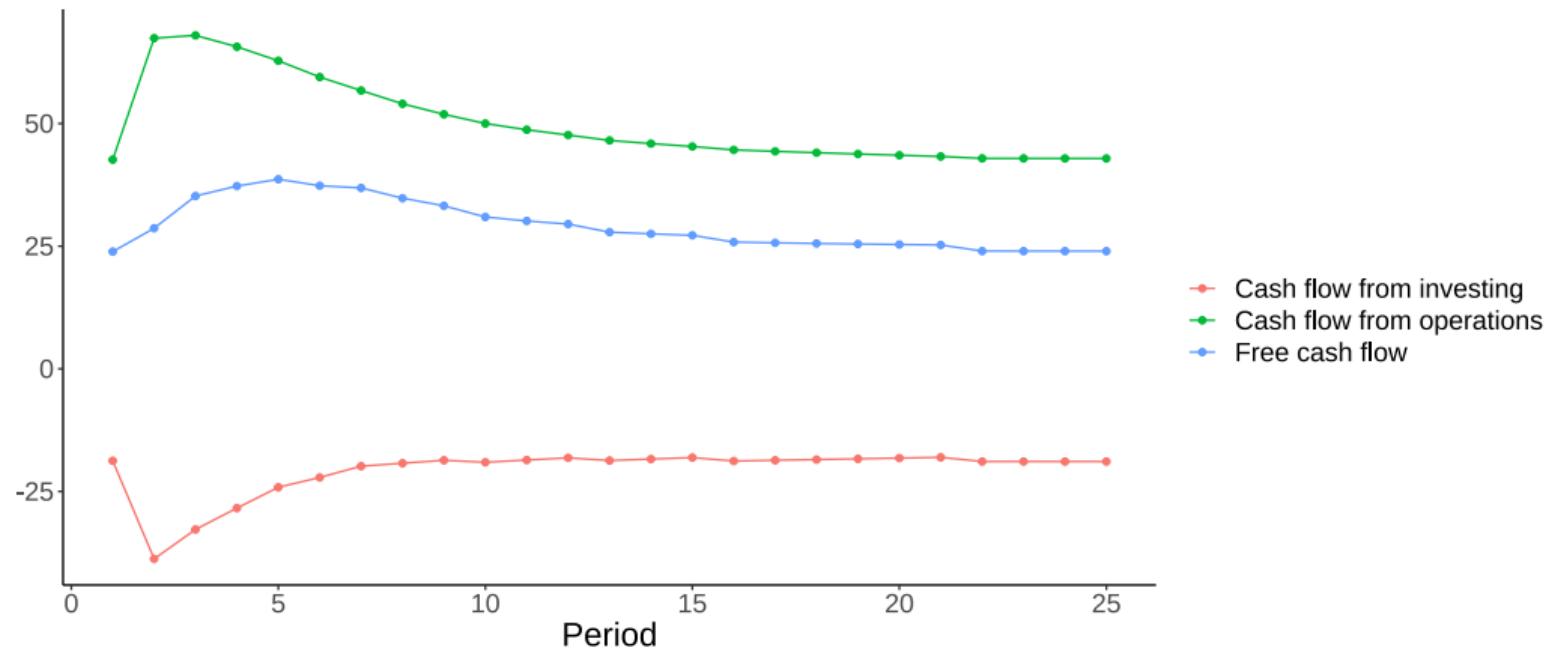
- 1 The only truly exogenous driver of the dynamic model is $e_t \sim \mathcal{N}(0, \sigma)$ of the mean reverting AR(1) profitability process.
- 2 This profitability shock drives operating and free cash flow via π_t .
- 3 As it propagates into the future ($\rho > 0$), it also triggers investment (I_t), causing related costs ψ_t .
- 4 The investment and the shocked future level of profitability z affect expected future free cash flows, thereby also affecting value V_t .

Recognized earnings reflect the effects of π_t and ψ_t , making earnings relatively stochastic. Expensed earnings 'mute' these effects by deducting I_t which, as it also is driven by e_t , makes earnings less stochastic (more persistent)

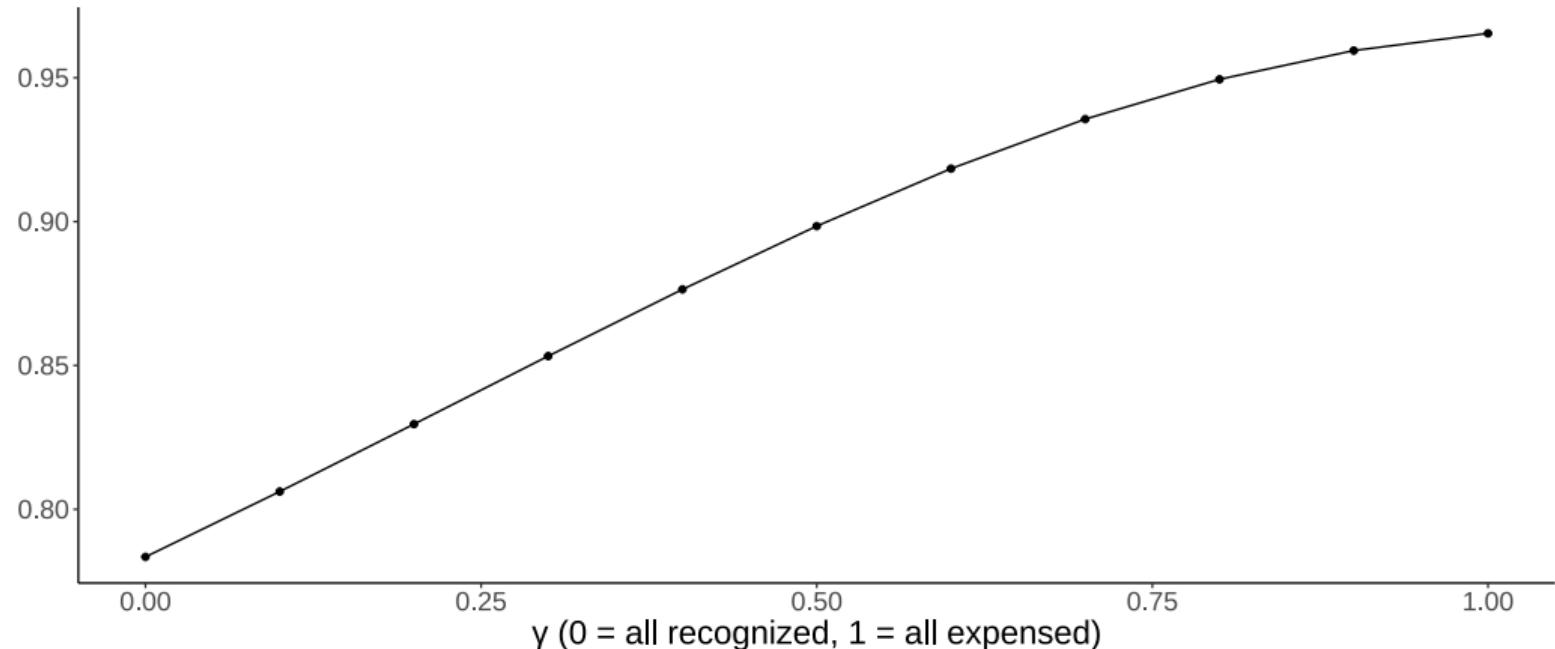
Compare to Figures 1 and 2 of BW



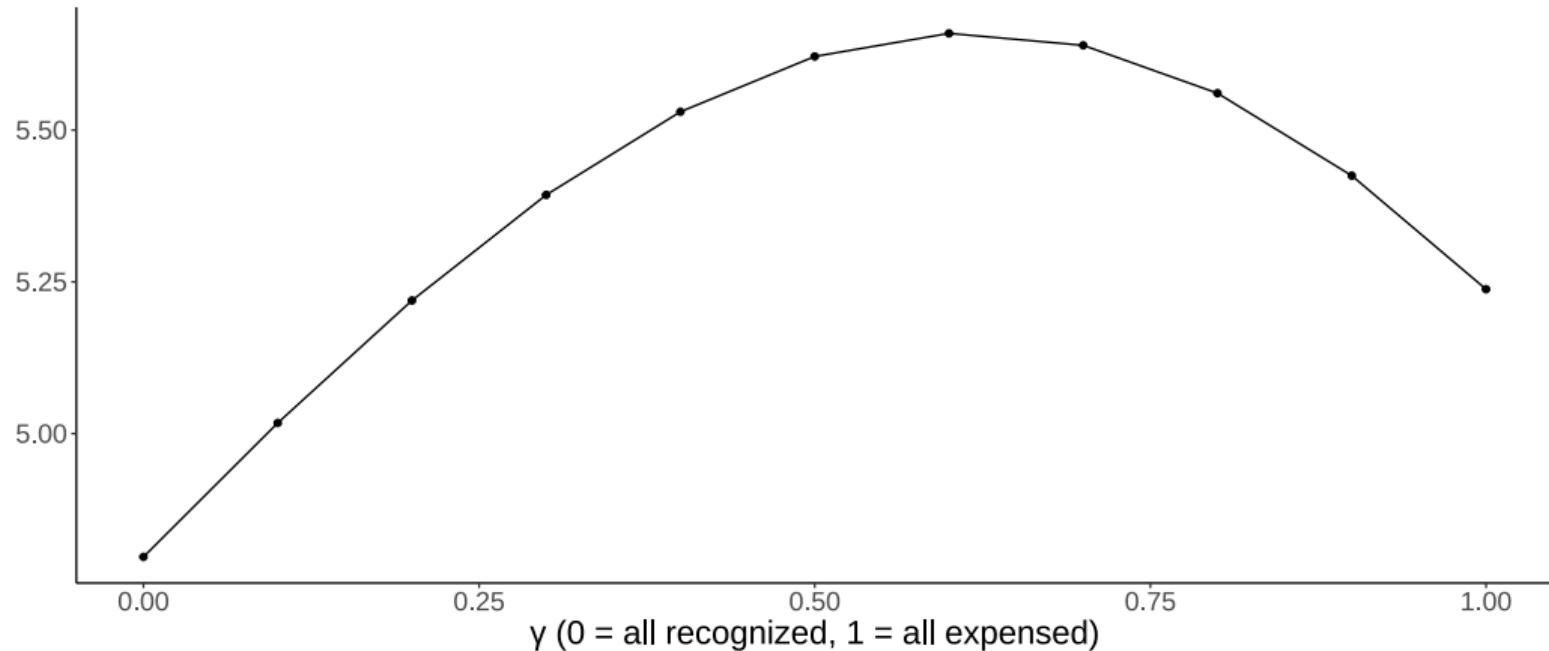
Same shock, cash flow effects (free cash flow = earnings expensed)



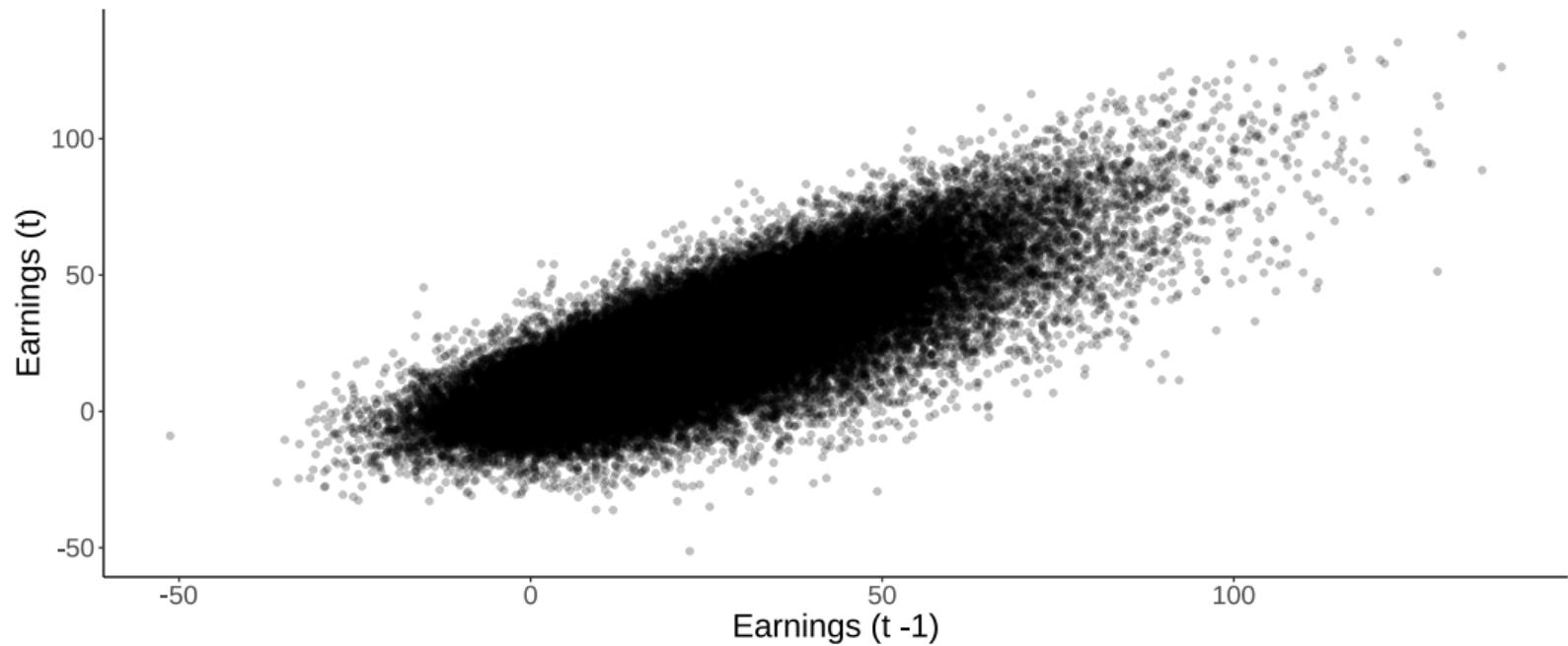
Regression coefficients persistence (compare to Table 1, Panel A of BW)



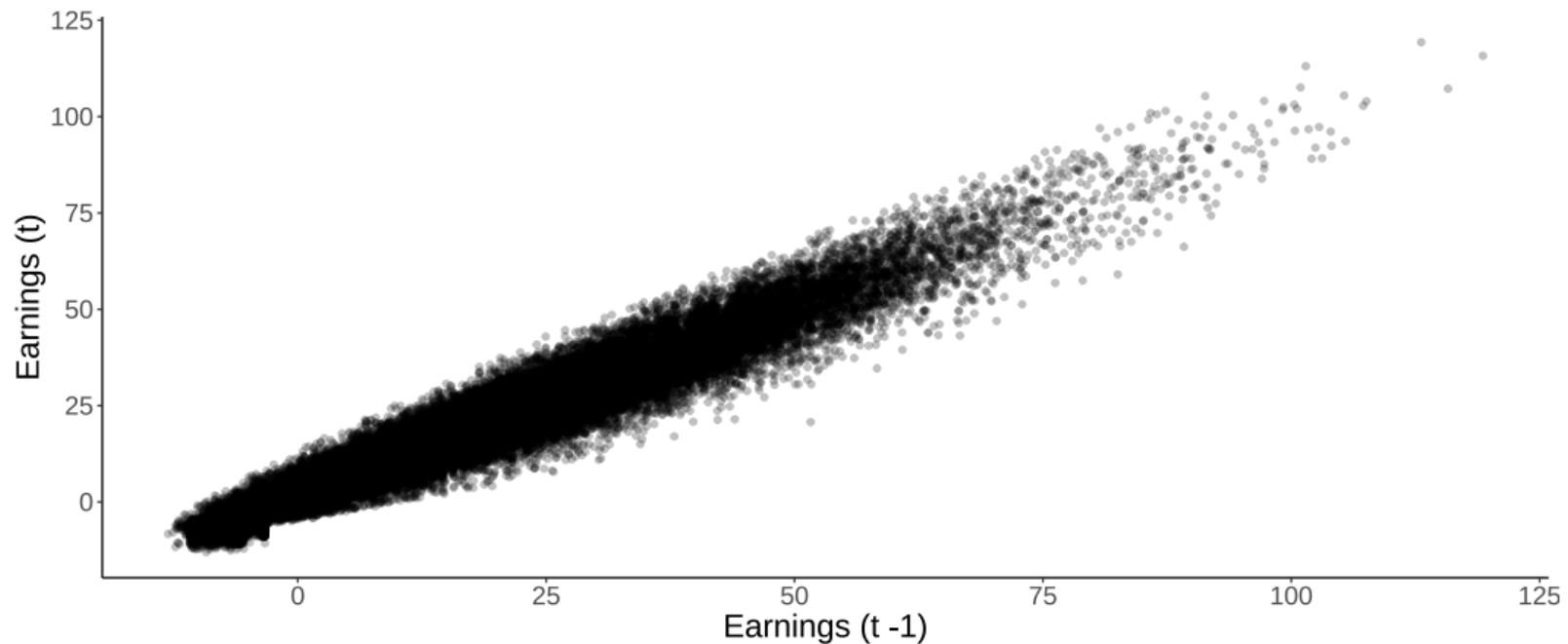
Regression coefficients PE multiples (compare to Table 1, Panel B of BW)



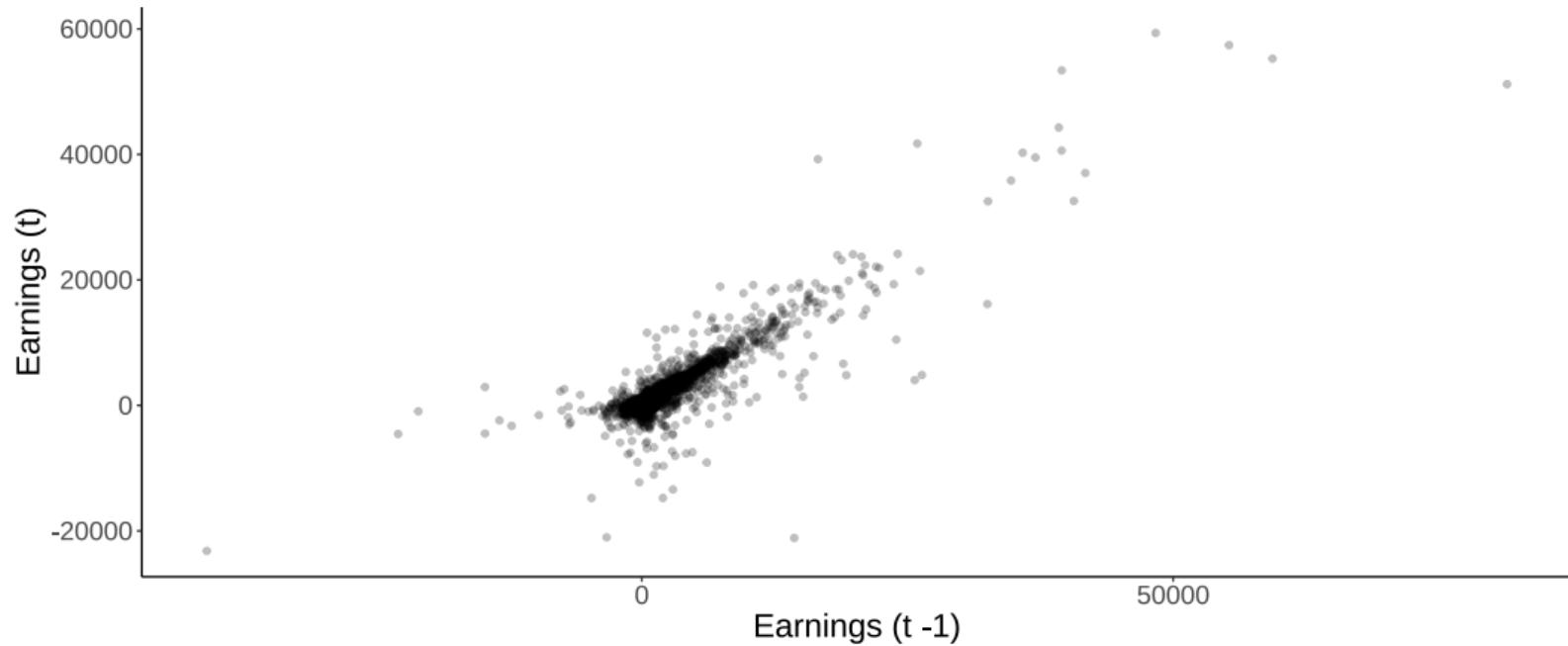
Model Data: Persistence ($\gamma = 0.0$, recognized)



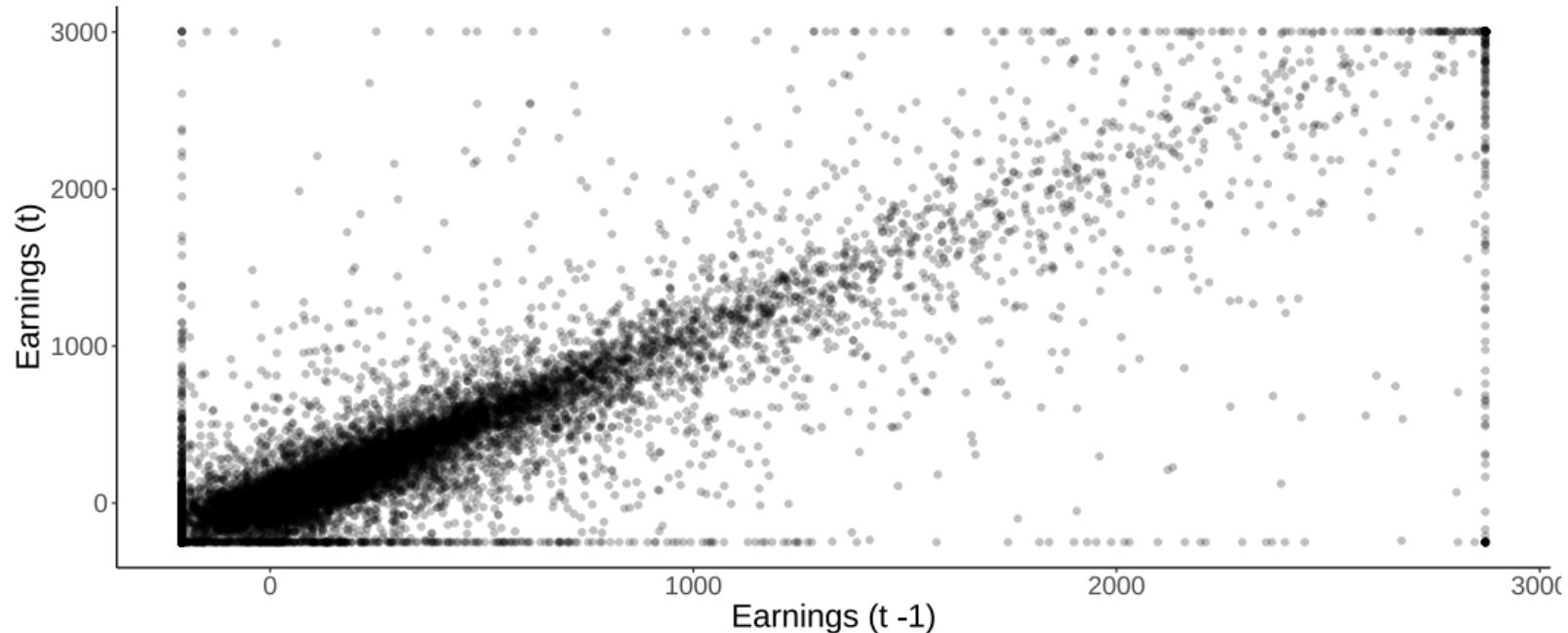
Model Data: Persistence ($\gamma = 1.0$, expensed)



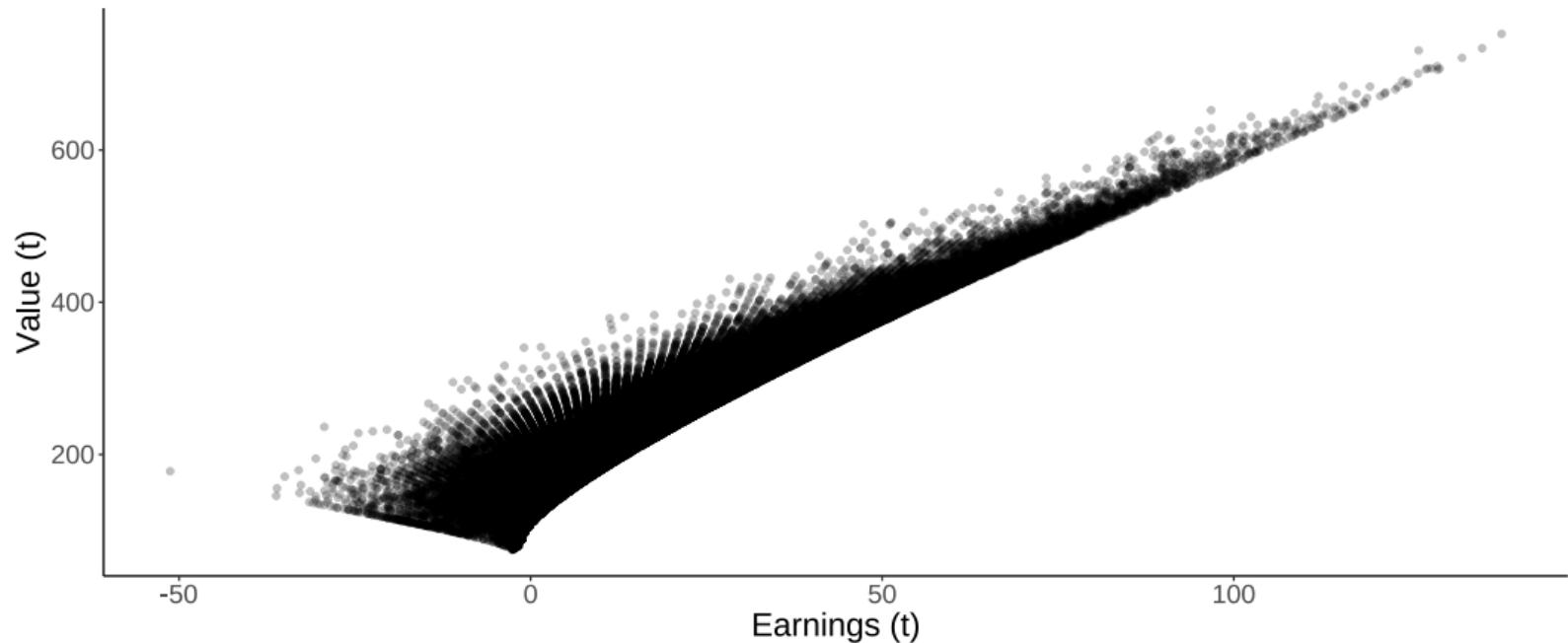
For Comparison: Compustat NA (sample similar to BW)



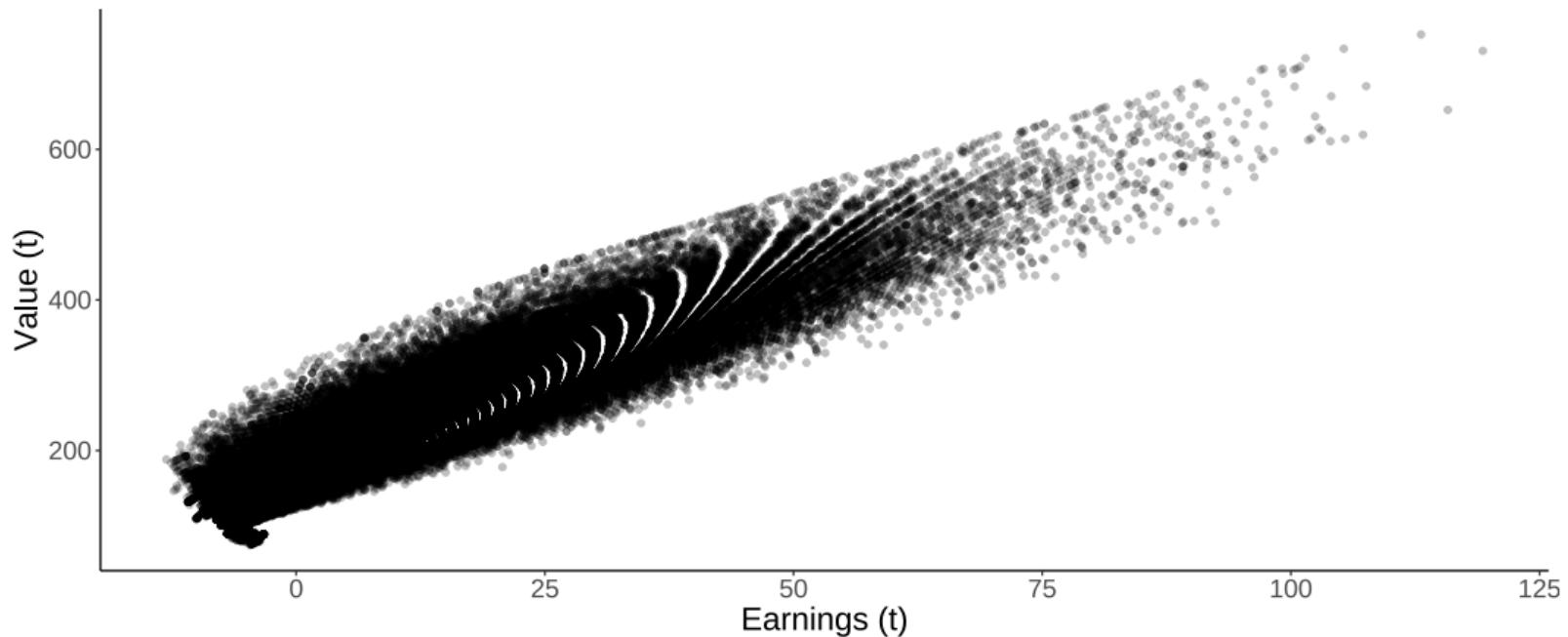
For Comparison: Compustat NA (sample similar to BW, winsorized)



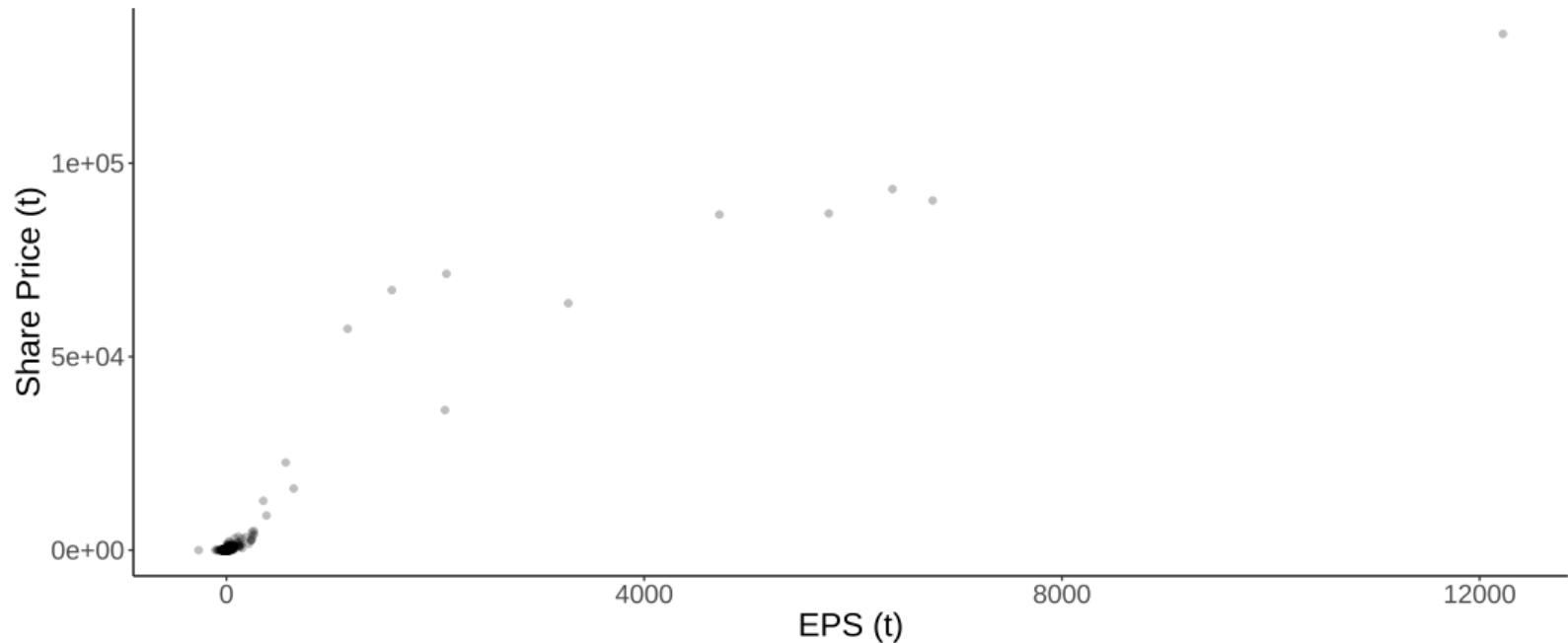
Model Data: PE-Multiple ($\gamma = 0.0$, recognized)



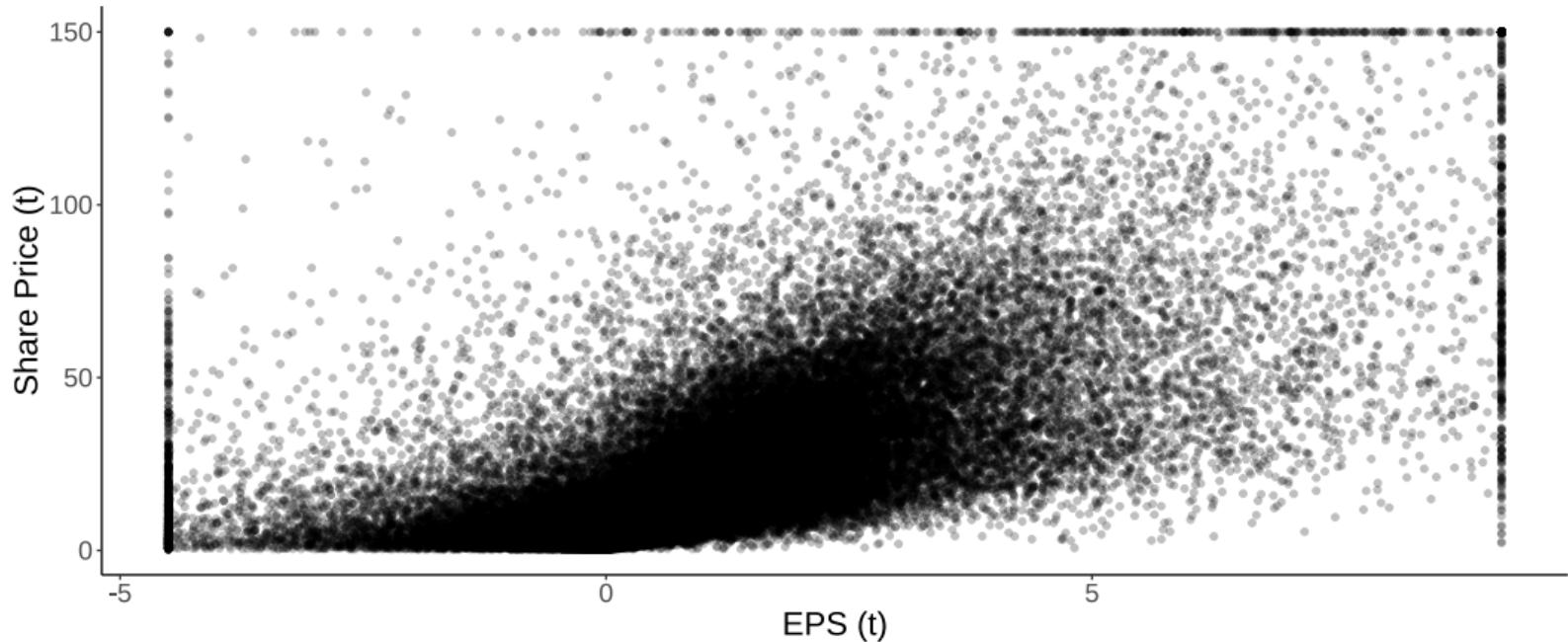
Model Data: PE-Multiple ($\gamma = 1.0$, expensed)



For Comparison: Compustat NA (sample similar to BW)



For Comparison: Compustat NA (sample similar to BW, winsorized)



Some mostly minor points

- Shouldn't equation (3) read as $z_t = (1 - \rho)\bar{z} + \rho z_{t-1} + \varepsilon_t$ (also at bottom of P. 11)?
- Equation (5) seems to lack a closing bracket
- Why does the price equation on P. 14 include the term $(1 - \delta)k_t + I_t$? What is the value of the assets in place besides generating future cash flow that is already included in the sum term (does also not seem to fit your data)?
- Some more detail on the technicalities of the model implementation (e.g., grid, firm initialization) and empirical analysis (e.g., outlier treatment) would be nice
- Who uses PE-multiples as an indicator of earnings quality? ;-)

All the best for this super nice project!



GitHub