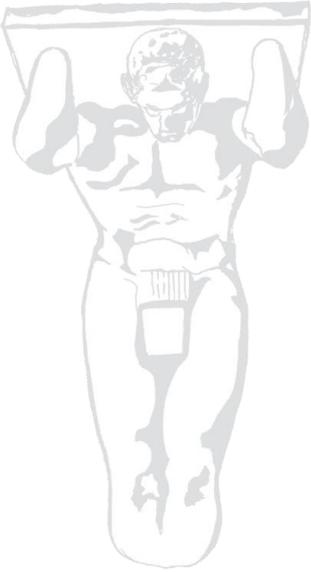
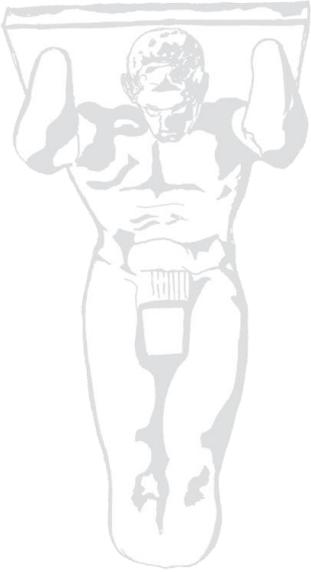


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**Discussion of the Papers in
Session IV**

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- The three papers fall – if one feels the need to categorize - into two groups
- The first two perform econometric analysis of (components of) investment (firm sample, residential) using regression analysis (linear and logistic)
- The third paper differs by focusing on human capital development or investment in human capital (intangible) and by using stochastic frontier analysis
- Thus, I try to cluster my comments along this distinction (and try to use my comparative – not absolute – advantage, what else could I do?)

- Investment is seen in both papers as being dependent upon policy uncertainty – however, this appears to be the more or less single "forward-looking" variable considered
- This is surprising, since Paper I explicitly refers to "Irreversibilities" and "Real Options"; and these things may lead to **serial correlation** in investment behaviour (correct dynamic specification will be important); in addition to forward looking components
- The usage of balance sheet information reflects potential financial frictions and is for sure assessing an important channel...but where is the forward looking component?

- At latest with the work popularized by Nick Bloom it has become very popular to summarize uncertainty in an index; here comprising, e.g., text-mining results from newspaper searches
- But, for the example of investment, is this policy uncertainty talk really the (to be singled out) dimension of uncertainty (risk)?
- Uncertainty prevails w.r.t. to markets and their structure, technology, interest rates, economic shocks,...
- And, after all, why is uncertainty affecting the first conditional moment (only) in a linear regression? (Papers focus a lot on asymmetry of the interaction dummies format)

The Dogmatic Econometrician Coming Out

Not Every Equation is the Same

- I am – very often when I read empirical papers – surprised about the usage of many specifications in what is called "robustness" analysis
- The usual finding is that changing this or that does not change that much in terms of numbers...
- ...but if the more general ones are "correct", do we not think that the more basic ones are misspecified (with all ensuing problems)?
- Would the large data sets not lend themselves to start with a theory-based specification (no d.o.f. problems) and then stick to that; extending where necessary to fix some "data problems"?

- Construction of uncertainty measure: annual linear discounting; contains expected political situation (timing issues); principal components (weighted?)
- Dummy 2008 onwards and uncertainty since then...
- Tax changes: News shocks and anticipation
- Sample selection (voluntary); survivor bias (especially in balanced full period subsample)
- How does the counterfactual analysis really work (also given that coeff. of determination are around 5%)

- Timing overlap in logistic recession prediction regression: Recession itself requires two quarters "delay"
- What about the number of correct classifications of recessions? The number of true-false, false-trues and other confusing combinations of these words to assess "predictive power"?
- Does the changing distribution over time of up- and downswings say something? Changing volatilities? Good luck, good policies?
- Quantities rather than prices and substantial asymmetry: Is that not a strong argument against "first order approximations"?

- Three broad output measures – these may partly be affected by long-term trends (e.g., towards tertiary education observed in some countries) or other "macro-factors" not seen as input (public expenditure) or environmental factor (parental education), e.g., unemployment rates across EU countries
- Agnostic view on country-specific (via fixed effects) and sample-wide specification
- DEA and SFA are compared, but one difference may be important: DEA allows to assess efficiency w.r.t. to multiple outputs
- How much of the efficiency pattern is driven by "trends over time"?