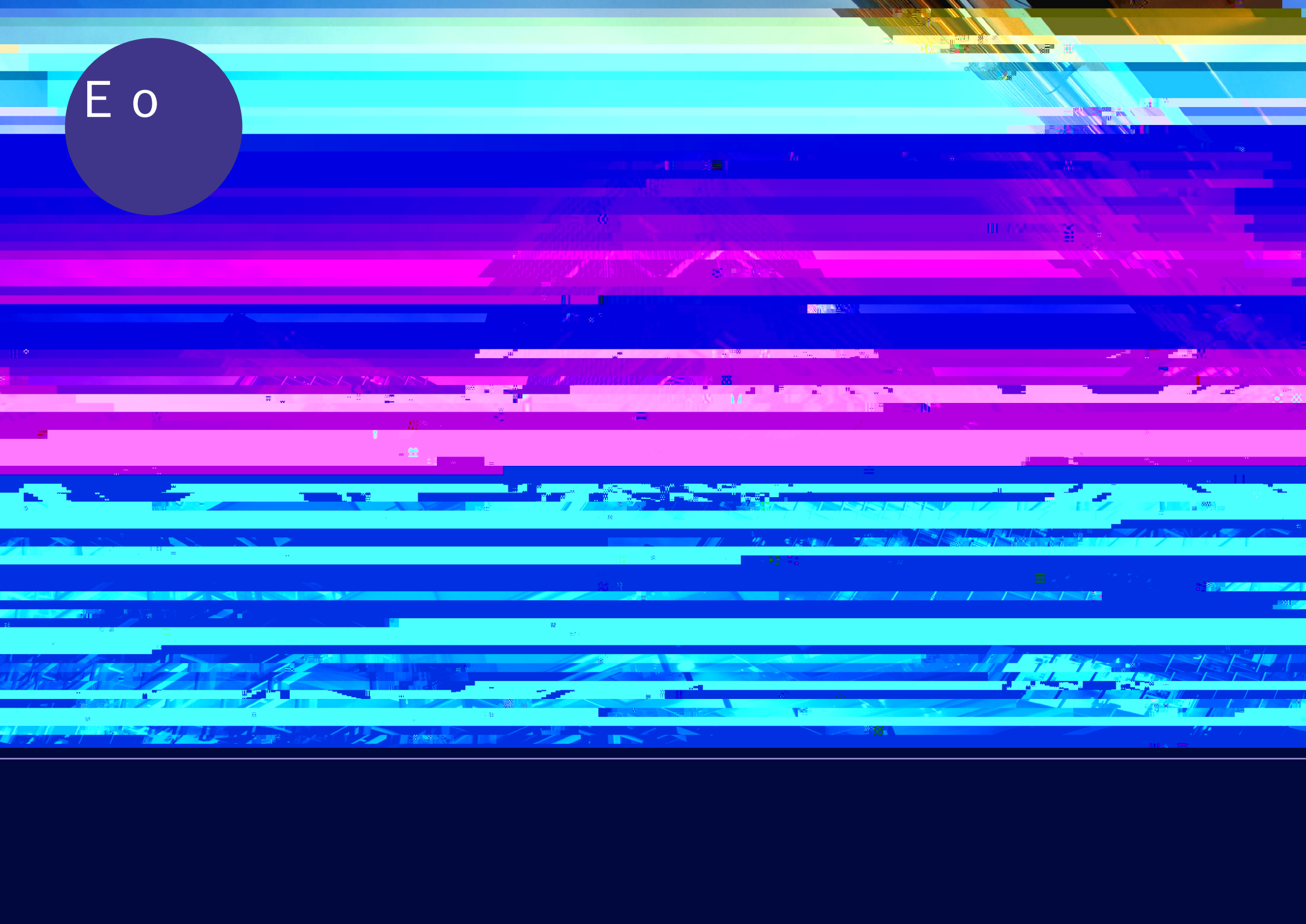
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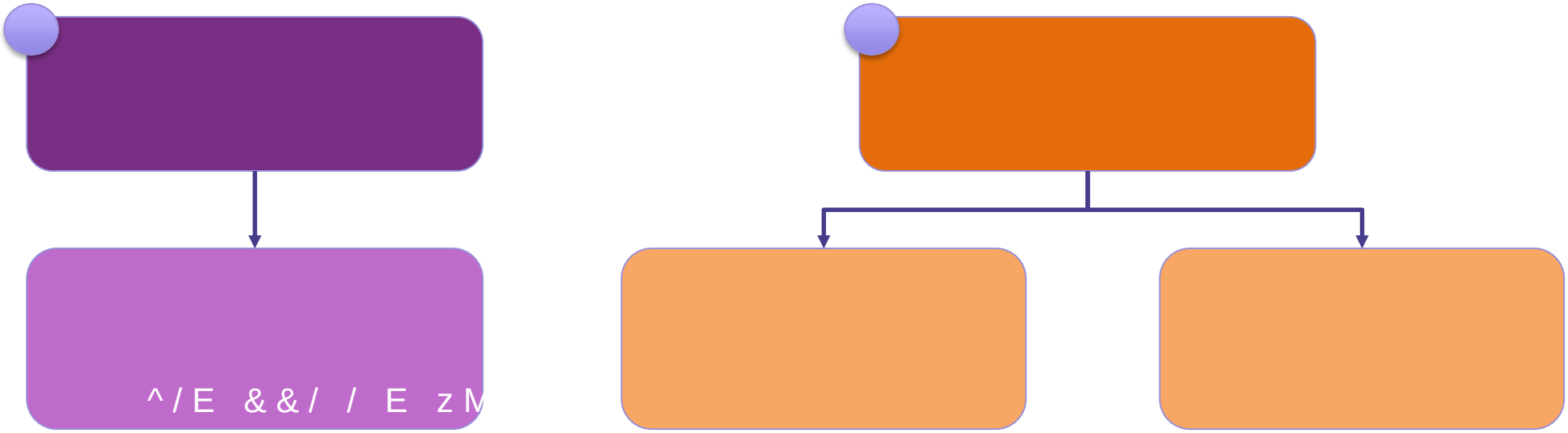
- What did we do and what are our results?
- What econometric issues emerged?
- What are the implications for retail benchmarking at PR19?

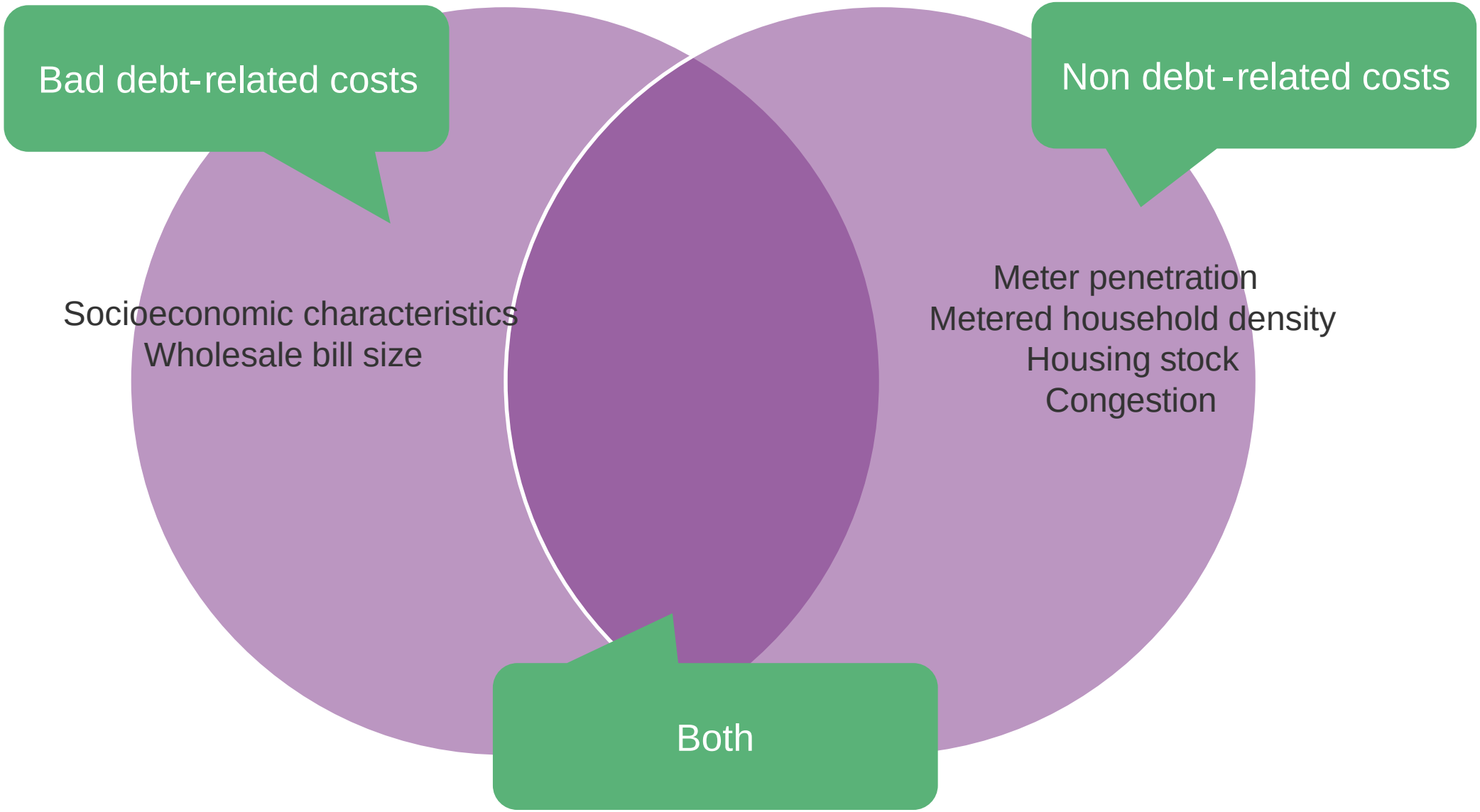


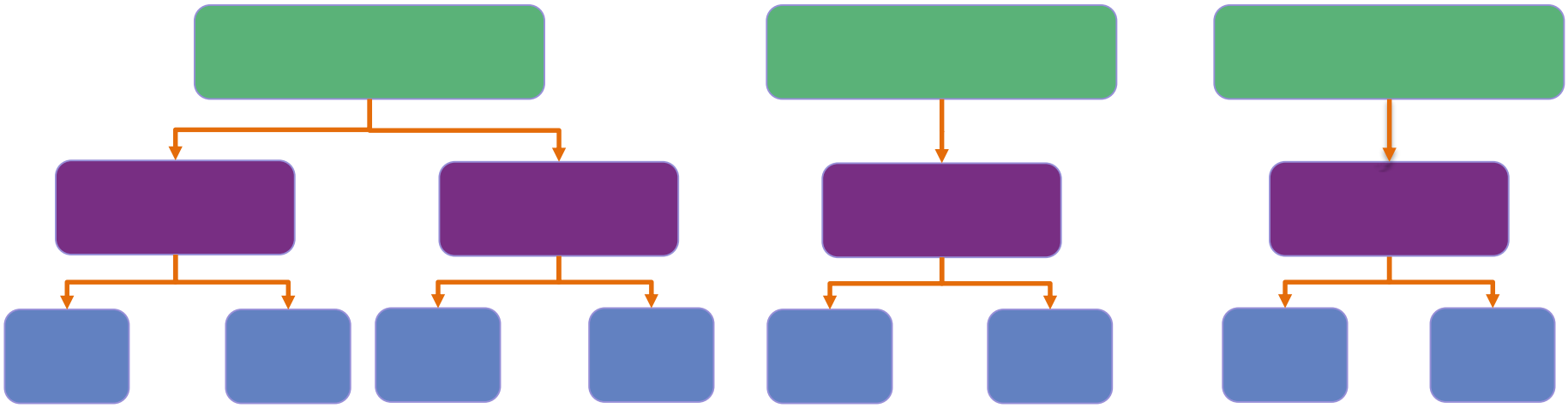
‡ Identify cost drivers
‡ Outside of management control?

‡ Limited observations

‡ Financeability duty
‡ Customer duty
‡ Materiality thresholds

- The above is critical, because it influences all aspects of efficiency benchmarking:
  - ‡ Estimation methods
  - ‡ Variable selection
  - ‡ Efficiency score calculation


Bad debt-related costs
Non debt-related costs
Socioeconomic characteristics
Wholesale bill size
Meter penetration
Metered household density
Housing stock
Congestion
Both



- It matters how you:
  - Select variables, including the role of statistical significance.
  - Control for scale and scope.
  - Decide where to set the benchmark (particularly important where no glide- S D W K D Q G Z K H U H R Q H P X V W W K L Q N ¶ G \ Q D P L F · Z H O I D U H
- Clear benefits from working with Drs Glass at the CPP:
  - Constructive challenge / stress-testing our work.
  - Technical guidance.

A general to specific approach

- How customer numbers are incorporated accounts for the scope of the customer base
- 10 of the 18 companies provide dual services
- Model set A: Number of dual and single service customers are separate cost drivers
- Model set B: Total number of customers and number of single service customers are separate cost drivers

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- (i) Pooled models estimated using Ordinary Least Squares (OLS) and (ii) Random effects models estimated using Generalised Least Squares (GLS)
  - ‡ Best practice frontier using COLS is deterministic
  - ‡ COLS approach assumes that there is no noise as all of the noise is deemed to be inefficiency
  - ‡ A random effects linear regression model calculates time-invariant inefficiency using the random effects and assumes that all the unobserved heterogeneity is inefficiency

- ,Q ERWK FDVHV ´QRLVHµ LV SUHVHQW DQG VR WK to set the benchmark is critical.

- Successful collaboration is by no means a given ² both parties must be flexible. From an academic perspective:

  - ‡ Adjust to a different working environment and demands
  - ‡ Academics do have transferable skills
  - ‡ Willingness to develop new skills
  - ‡ Never lose sight of the common goal of high quality output

- Successful labour market matching, long-term working relationships and the double dividend for the academic

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