

Comments on
“The Effect of Transaction Pricing on
the Adoption of Electronic Payments:
A Cross-country Comparison”
by Wilko Bolt, David Humphrey and
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Two Goals

Primary goal

- Estimate the effects of explicit pricing on adoption of alternative payment methods.



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- Estimate the effects of explicit pricing on adoption of alternative payment methods.

Secondary goal

- Gauge potential resource cost savings.



Methodology

- Compare *relative* take-up rates of payment instruments across two European countries.
- Use countries which differ in their approach to transaction-based pricing, but are otherwise expected to be similar.
 - Norway: has explicit pricing
 - Holland: doesn't have explicit pricing



Results

- Some evidence for a role for pricing in speeding the shift to electronic payments.



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- Some evidence for a role for pricing in speeding the shift to electronic payments.
- Indicative calculations of the potential importance of this finding for policymakers in present value terms.



Econometric Issues

Challenges include:

- Lack of data;
- Non-stationarity issues; and
- Possible omitted non-price attributes.



Lack of Data

Paper studies four payment mechanisms.

- Only 15 years of annual data on each.
- Authors' response is to estimate their four main equations as a system.
 - Leaves them with 60 data points to estimate 22 parameters.



Lack of Data

One system of four equations, or two systems of two equations?

- If the latter, this strengthens the authors' giro estimates (30 data points for 8 coefficients); but
- Weakens their debit card/ATM estimates (30 data points for 14 coefficients).



Lack of data

Also raises the questions:

- Why were the particular specifications of Equations 1 and 2 selected?
- How should one interpret the role of each explanator in these equations?



Non-stationarity

Dependent variables *inherently* prone to localised volatility and non-stationarity.

- Issue highlighted by extremely high R^2 values for the paper's main debit card and ATM withdrawal equations.



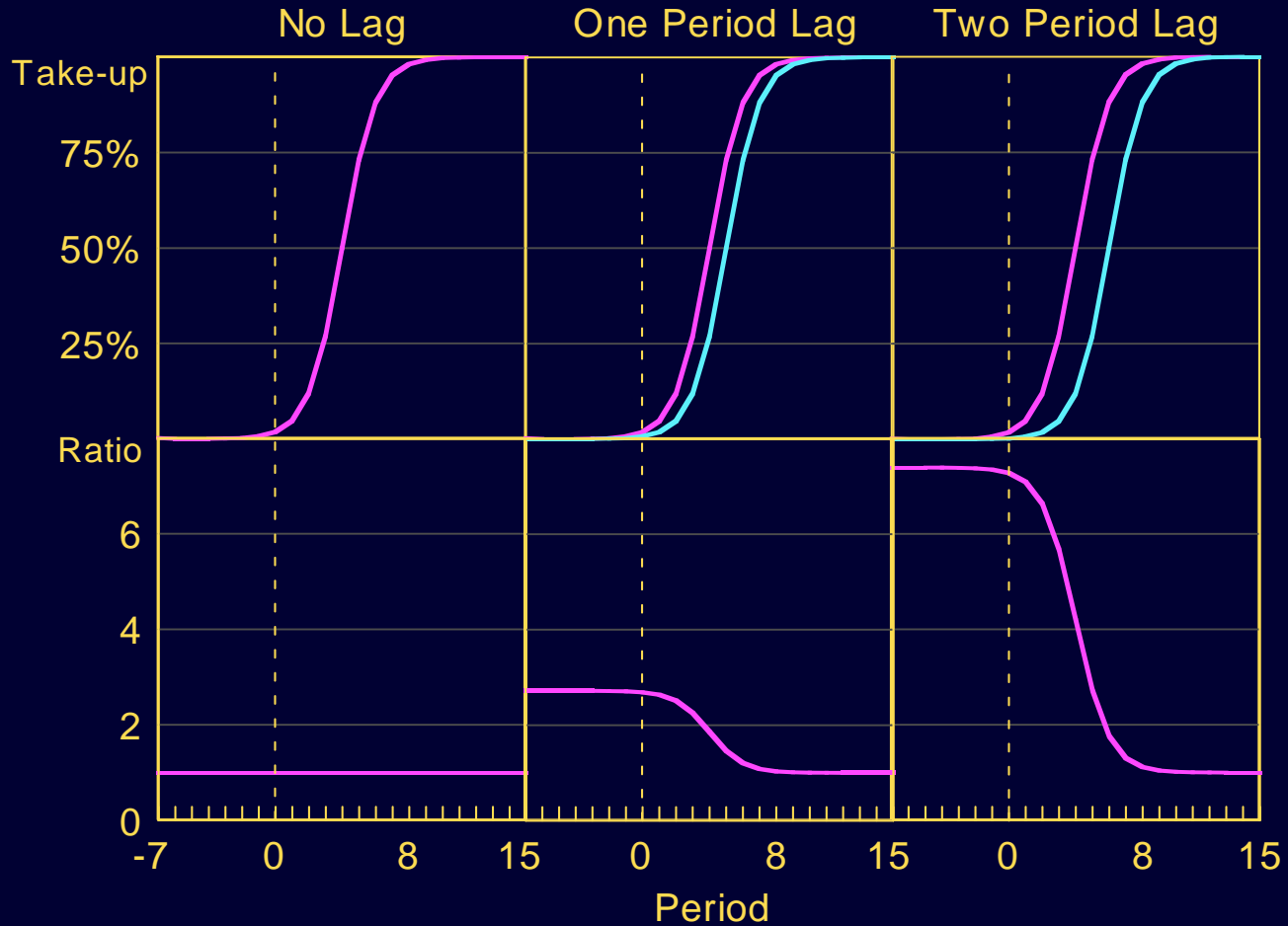
Non-stationarity

Each dependent variable defined as (log of) the *ratio* of the per capita use of a given instrument in Norway and The Netherlands.

- Take-up of such instruments in a country often follows a logistic or 'S-curve'.



Effect of a Lag on the Ratio of Two Logistic Curves



Possible Omitted Non-price Attributes

How sound is the assumption of similar non-price attributes across Norway and Holland?

- Authors' own evidence offers support – but also points to some interesting differences.



Possible Omitted Non-price Attributes

How sound is the assumption of similar non-price attributes across Norway and Holland?

- Authors' own evidence offers support – but also points to some interesting differences.
 - Contrast between Holland's full catch-up to Norway in per capita ATM availability and its stalled catch-up in per capita EFTPOS terminal availability.



Summary

- Paper grapples with an important empirical issue for policymakers.
- Some reservations about the robustness of the paper's results – but this largely reflects irreducible problems posed by lack of data.

