ECB Retail Payments – May 2009

Discussion of:
Return to Retail Banking and Payments
Hasan, Schmiedel and Song

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Main Comment

- Very Good Paper
- Very Important Topic
- Big Policy Implications
- Great Data
  - 3370 Commercial Banks
  - 27 EU Countries
  - 2000-2007
  - 14 987 Bank Year Observations

Main Issues

- Impact of Retail Payments on Bank Performance?

- Policy Implication: Does SEPA matter for Bank Performance?

Hypotheses:

Bank Performance **Up** if:

1. Countries with developed payments systems.

2. Better transaction technologies (ATM, POS)

3. Countries with high adoption of ATM, POS

4. Competition among retail payment instruments

5. Promotion and growth of electronic payments

Causality

Main Assumption in the Paper:

- Payments **CAUSE** Performance

- Could have Reverse Causation:
  *Performance **Causes** Payments*

Could have Reverse Causation: *Performance **Causes** Payments*

1. Payment Systems have large upfront fixed costs – need to be profitable/efficient *first* to make this investment

2. Individual Banks that are profitable can *then* invest in ATM/POS

3. Banking Systems (Countries) that are profitable can *then* invest in Payment Systems

Hard to disentangle direction of Causality

One Possible Suggestion: Difference in Difference

1. Look at different dates of regime change across countries (e.g. new payment systems etc)

2. Examine how bank performance changes (1) before and after regime change and (2) across countries with different dates

3. Does the regime change in payments impact bank performance?

Main Model

Performance (or Efficiency) =

Payment Transactions +

Payment Technology +

Bank Risk +

Competition among Payments +

Economic Environment

Other Bank Level Controls for Bank Performance

- Have included Bank Risk

- What about Bank Level Controls - Impacts on Bank Performance – Have > 3000 banks
  - Size (Scale economies),
  - Type of Assets,
  - Competitive environment (hard to measure, see Dave Humphrey's paper)

Bank Fixed Effects

- Have Country and Date Fixed Effects
- Could have bank level Fixed effects also – capture Bank Heterogeneity (> 3000 banks)

Policy Implications

- More on linking results to SEPA

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Discussion of:
Payment Scale Economies and Pricing
David Humphrey

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Main Comment

- Great Survey of Existing Knowledge

- Many New Innovations

- Tackling Hard Problems

- Very Important Policy Implications

Main Issues

1. Economies of Scale in Payments

2. Bank Competition – who benefits from (1)

3. Per Transaction Pricing of Transactions

Payment Scale Economies

- New Innovation: Test of Scale Economies
- Flow vs. Flow not Flow vs. Stock

- Usual Method: Total Costs (Flow) = Stock of Assets

- DH uses Operating Cost (flow) = flow of payments + Stock of ATMS, Branches

Possible Extension

- Good Argument - comparing Flow vs. Flow
- DH uses Operating Cost (**flow**) = **flow** of payments + **_Stock_** of ATMS, Branches

- Put *everything* in FLOW terms
- Operating Cost (flow) = flow of payments + *"Flow"* of ATMS, Branches
- Look at Rate of Change over years
- Impact on OC if banks *CHANGE* # of ATMs, Branches

Econometric Issues

- Eqns (1) and (2) – panel – 11 Countries and 18 years

- Show Std errors and R^2

- Use Clustering in Panels

- Compared to D-W adjustment using differencing parameter – cannot fully adjust for autocorrelatrion within panels

Competition

- Main Point – Very hard to measure competition

- Standard measures (HHI, Lerner, H stat) are not correlated to each other

New Approach

ln *revenue* = *f* (ln *cost,* ln *productivity*) + ln *e* + ln *u*

 Assumption: random error (ln *e*) ≈ 0 when averaged across separate cross-section estimations in panel data while

the average of ln *u* that remains will reflect the average effect of (unspecified) competition.

Residual based measures

- Residual based measure – everything else in the equation is captured.

- No Omitted Variables

- LHS is Revenue – many determinants – hard to measure everything

- 2000 to 2007 - Boom years, Asset Mix, Risk, etc etc.

Still Hard to Measure Competition

- **Most and Least Competitive Countries**
-
-
	CE_{NII}	CE_{SPREAD}	H-Statistic	Profit/ Revenue	CR-3
Most	U.K.	Sweden	Netherlands	Belgium	Spain
Competitive	Spain	France	U.K.	Netherlands	Italy
	France	Germany	Germany	Germany	U.K.
Least	Italy	Spain	Finland	Sweden	Belgium
Competitive	Belgium	Italy	Denmark	Finland	Netherlands
	Sweden	U.K.	Italy	Spain	Finland

- Using all 5 indicators, the most competitive countries are Germany and the U.K.
- The least competitive are Italy and Finland.

Impacts on ATMs

- DH finds – as ATM networks expand – rise in spread revenue.

- ATMs – "strategic non-price competition"

- Consistent with Massoud, Saunders & Scholnick, *Journal of Business, 2006*
  - ATM surcharges on "foreign" users - join bank with large ATM network
  - Massoud, Saunders, Scholnick (2006) – larger banks benefit more from ATM surcharges because members have access to larger ATM networks.

Scale Economies of ATM vs. Branch

Some Countries have ATM SCE > Branch SCE –
Other countries (UK, SW, FN, NW) have ATM SCE <
Branch SCE - Why?

Translog Payment and Service Delivery Scale Economies

	Payment Volume 2004	Average Payment SCE	Point of Sale SCE	Bill Payment SCE	ATM SCE	Branch SCE
Germany	14,748	.23	.06	.17	.22	.59
France	13,926	.30	.08	.22	.31	.36
U.K.	12,919	.35	.11	.24	.36	.27
Spain	4,335	.30	.10	.20	.23	.48
Netherlands	3,563	.17	.09	.09	.24	.65
Italy	3,094	.21	.05	.16	.17	.62
Belgium	1,594	.20	.10	.10	.26	.59
Sweden	1,488	.33	.18	.15	.39	.37
Finland	1,244	.35	.19	.16	.40	.34
Norway	1,117	.34	.19	.15	.40	.34
Denmark	1,081	.24	.12	.12	.28	.52
Average	5,374	.27	.11	.16	.30	.47

Comparison: Non-cash transaction volume in 2004 totals 59.1 billion for Europe
               versus 84.5 billion in the U.S. Europe uses more cash than U.S.

Why are ATM SCE different across countries – and vs. Branch SCE?

- Can this be explained by differences in ATM Network Externalities in different countries?

- Differences in foreign fees and surcharging

- Differences in Sizes of networks?

- Differences in Regulation?