



Survey on Merchants' Costs of Processing Cash and Card Payments

Final results

III International Congress on Non-Cash Payments
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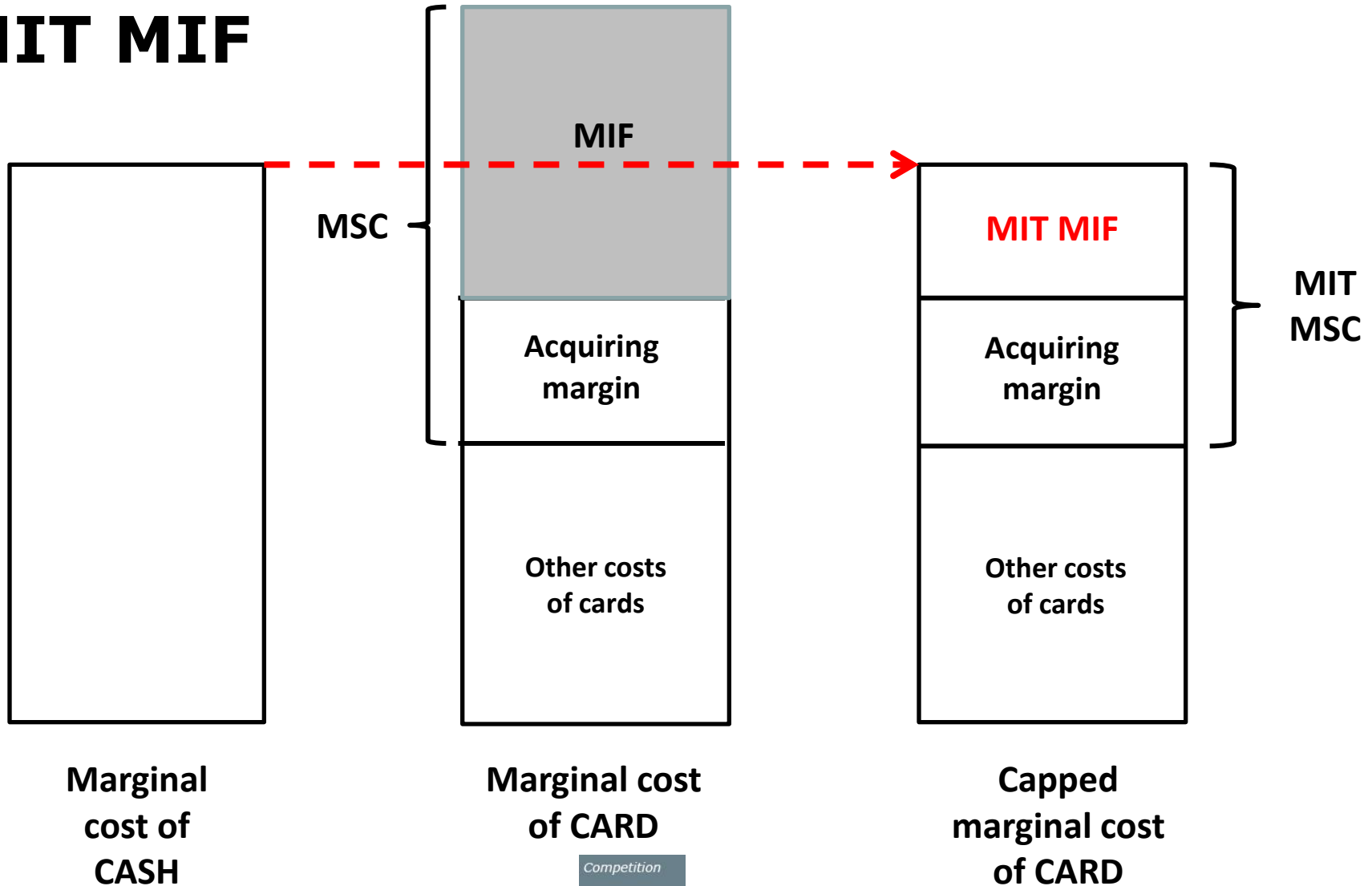
Background

- Visa and MasterCard MIF cases
 - MIFs are a restriction of competition
- The Merchant Indifference Test (MIT) :
 - Developed in economic literature (by the recent Nobel Prize winner)
 - Merchants should not pay higher charges than the value of transactional benefits that card use generates for them
 - The MIF that meets the test is set at such a level that the merchant is at most indifferent as to whether the customer pays by card or cash
 - MIF income can then be used to stimulate uptake of cards on the issuing side
- Study = implementation of the MIT
 - Benchmark for MasterCard undertakings and Visa commitments



European
Commission

MIT MIF



Study history

Study on "Costs and benefits to merchants of accepting different payment methods" (COMP/2008/D1/020): December 2008 – September 2010

- Methodology + pilot internet survey in 3 countries
- Very low response rate, incomplete and unreliable responses
- Unsatisfactory methodological recommendations, need for further testing

Testing phase: January – June 2011

- In-depth interviews with 7 Dutch and British retailers
- Conclusion: workable questionnaire, but need for in-depth survey

Stakeholder consultation: October – December 2011

Revision of methodology: two-part approach

"The study" : two surveys

- Resource constraints + difficulty of retrieving precise cost data for small merchants

→ 2-step approach:

- 1st step: cost survey on large merchants (target: 500 merchants – 10 countries)
 - detailed and precise data collected
 - Estimation of cost functions for cash and cards (in particular analysis of the relationship between the size and the costs)
- 2nd phase: broad survey covering a representative sample of merchants of all sizes (target: 2000 merchants – 10 countries)
 - collection of data on value and number of payments
- Initial plan: to extrapolate from the cost functions obtained from large merchants' data results that would cover the whole merchant population
- Both surveys contracted to Deloitte Consulting at the end of 2012

Methodology (1)

In-depth survey to collect data on:

- Number and value of transactions with cash, domestic debit cards, int'l four-party debit cards, int'l four-party credit cards
- Cost level (for F2F transactions)
- Cost nature (fixed vs variable costs)

Relevant costs:

- Payment processing at the till – TIME MEASUREMENTS
- Back-office labour (annual hours per task, hourly wage)
- Outsourced back-office activities (typically cash-related)
- MSC per card type (total amount and structure)
- Payment processing equipment
- PCI-DSS
- Fraud and losses
- Surcharges and rebates (negative cost)
- Float (lost interest)

Methodology (2)

- Scope: F2F transactions
- Exclusion of fixed costs (important impact on results)
- Identification of the nature of costs (fixed, variable by number, variable by value) contingent on the time horizon chosen
 - Short, medium or long-term
 - The longer the time horizon, the lower the fixed costs, and the higher the MIT MSC (share of fixed costs for cash are higher)
 - Results will be presented for the different time horizons (in the context of competition cases, medium-term could be more appropriate)
- Identifying cost nature:
 - Short-term - Scenario 1: change triggered by one additional transaction
 - Medium-term - Scenario 2: a 10% decrease in number of cash transactions over 3-4 years, replaced by card transactions
 - Long-term – econometric analysis

Methodology (3)

- Evaluation of the transactional benefits: 2 options
 - CARD BASED APPROACH: Evaluate the benefits of current card transactions (i.e. how much benefit the current use of cards create)
 - RETAIL BASED APPROACH: Longer-term approach taking into account a potential endogeneity issue: the current MIF level may impact the use of cards (the average transaction value - ATV) - evaluation of the benefits of card transactions in case of perfect substitution - based on cash+card transactions together
 - The first option is probably more appropriate in a reasonable time horizon (slow changes in card ATV even after significant evolutions of MIFs)
- Average acquiring margin – estimated using survey data on MSCs and public MIF rates -> conservative (underestimated) value was used - 0.06%
- Linear cost functions (in most cases):
 - $TC_j = F_j + a_j * N_j + b_j * V_j$
 - $MIT\ MIF = (a_{cash} - a_{card}) / ATV_{card} + (b_{cash} - b_{card})$

(%)

(€)

(€)

(%)

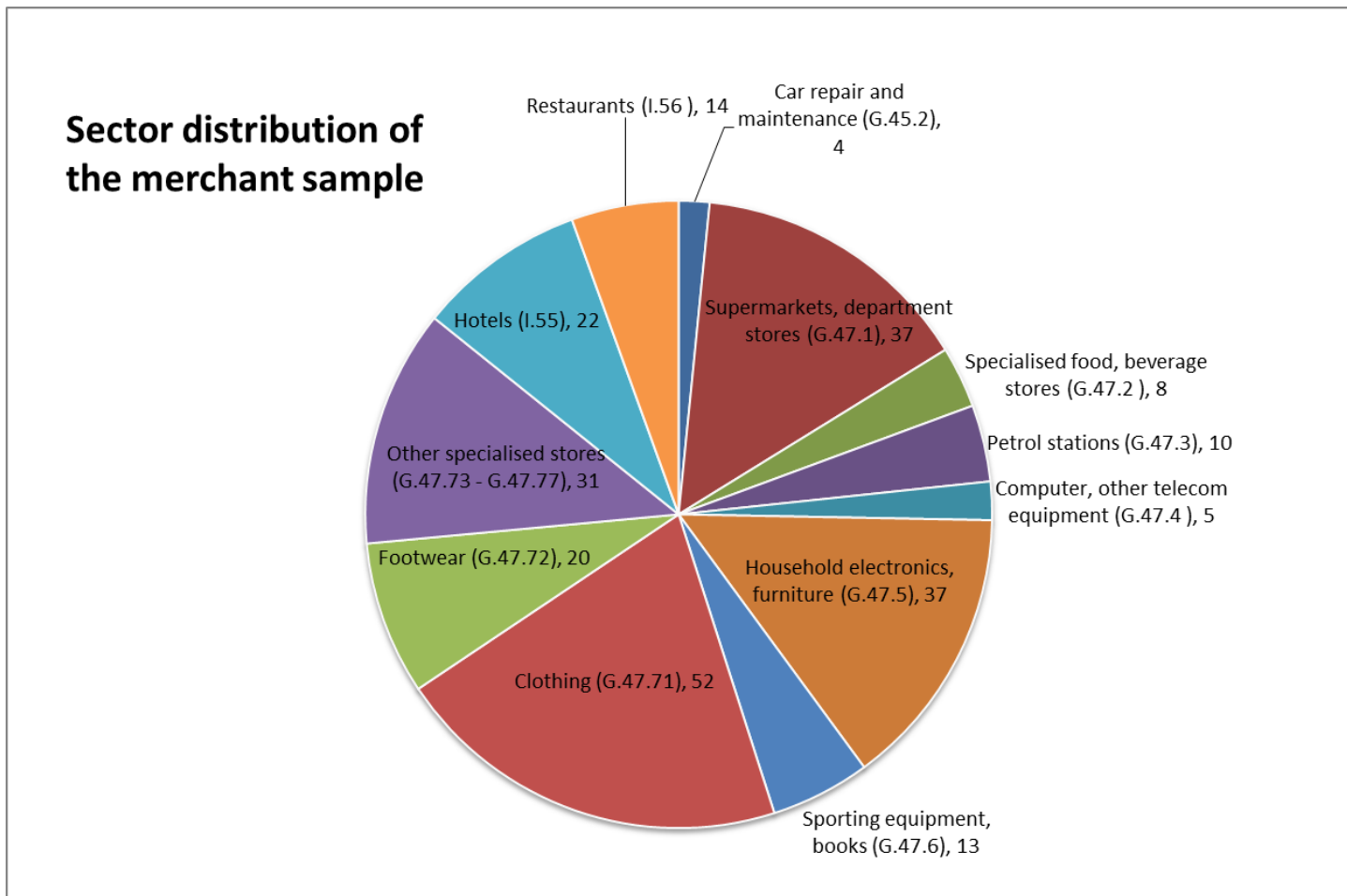
Cost survey coverage

| Country | Number of observations | Coverage in terms of value of card transactions (ECB data) | Coverage in terms of retail trade (Eurostat data) | LARGE merchants coverage - retail trade (Eurostat data, sizes 6-8) |
|--------------------|------------------------|--|---|--|
| Austria | 15 | 5.6% | 7.1% | 15.2% |
| Belgium | 28 | 13.1% | 13.0% | 32.3% |
| France | 33 | 14.2% | 16.4% | 35.6% |
| Germany | 24 | 8.6% | 8.0% | 15.6% |
| Italy | 18 | 9.7% | 6.6% | 22.1% |
| Netherlands | 16 | 4.4% | 4.9% | 10.7% |
| Poland | 24 | 22.0% | 16.9% | 39.5% |
| Spain | 18 | 9.0% | 5.8% | 14.8% |
| Sweden | 50 | 9.5% | 14.6% | 27.3% |
| UK | 28 | 19.7% | 37.0% | 60.9% |
| Total | 254 | 14.0% | 14.9% | 32.4% |
| Total EU28* | | 12.4% | 13.0% | 29.0% |

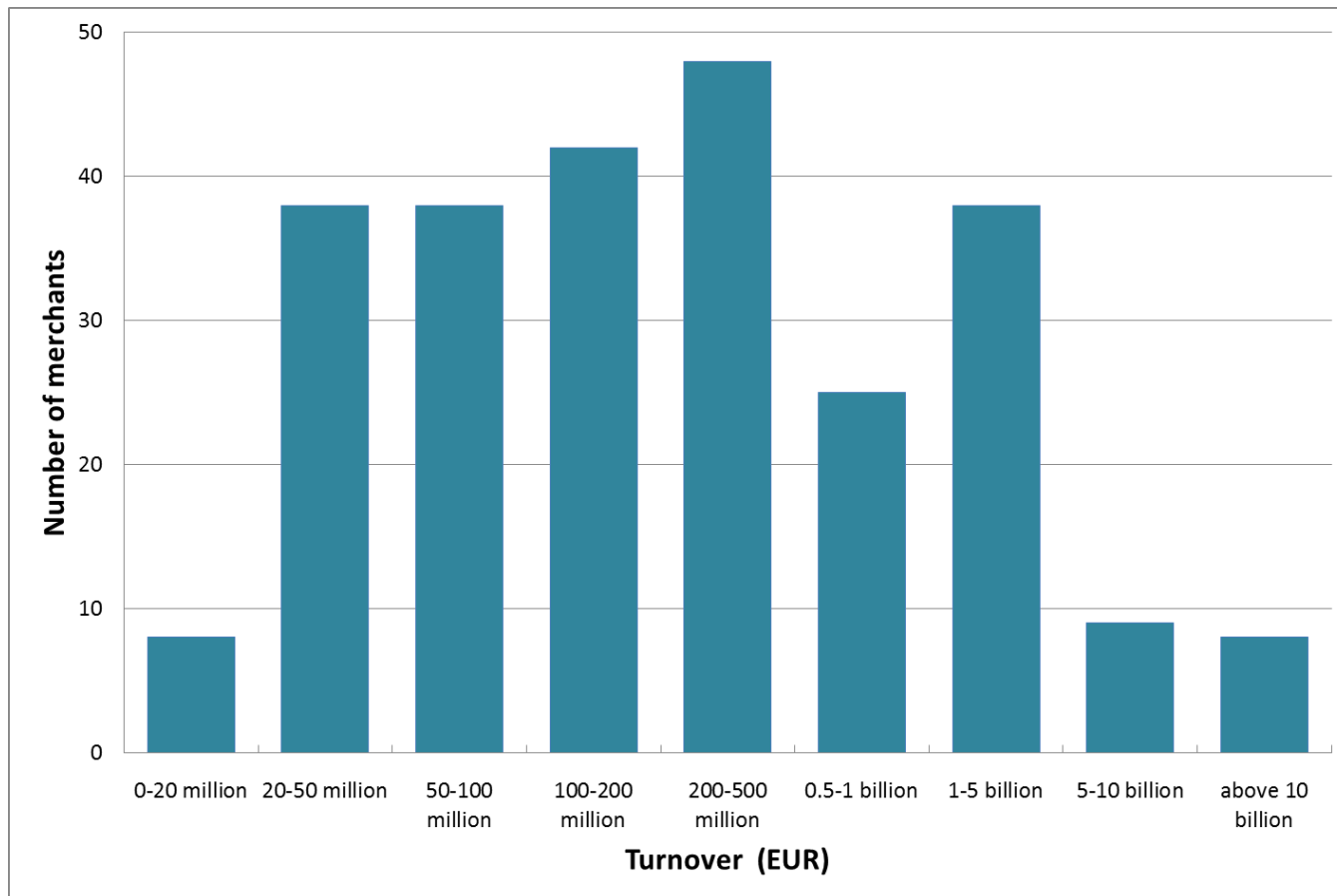
* ECB data is without Croatia

EUR 421 billion retail turnover, EUR 253 billion card transactions

Sample composition I



Sample composition II



Broad survey sample

| Country / size class | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Total |
|----------------------|------------|------------|------------|------------|-----------|-----------|------------|------------|-------------|
| Austria | 25 | 25 | 22 | 14 | 15 | 5 | 10 | 11 | 127 |
| Belgium | 25 | 25 | 25 | 18 | 7 | 13 | 20 | 10 | 143 |
| France | 25 | 25 | 25 | 25 | 7 | 13 | 18 | 16 | 154 |
| Germany | 25 | 25 | 25 | 25 | 15 | 9 | 11 | 24 | 159 |
| Italy | 25 | 23 | 25 | 25 | 25 | 12 | 9 | 25 | 169 |
| Netherlands | 25 | 25 | 21 | 5 | 6 | 11 | 10 | 16 | 119 |
| Poland | 22 | 4 | 3 | | | 2 | 3 | 7 | 41 |
| Spain | 25 | 20 | 11 | 10 | 7 | 8 | 7 | 16 | 104 |
| Sweden | 25 | 23 | 16 | 1 | 2 | 15 | 21 | 20 | 123 |
| UK | 25 | 25 | 18 | 7 | 10 | 10 | 21 | 26 | 142 |
| Total | 247 | 220 | 191 | 130 | 94 | 98 | 130 | 171 | 1281 |

General caveats

- **Limitations:**
 - Limited number of observations (target, actual responses)
 - Representativeness of the sample is uncertain
 - Possible self-selection bias
 - The merchants turned out to be rather heterogeneous
 - Impossible to obtain data on acquiring margin from all but a few merchants with MIF++ pricing: estimations made

Results (1)

Different sets of results

- Different techniques: arithmetic / econometric (i.e. with or without econometric estimation)
- Different time horizons for the identification of the cost nature (important as fixed costs are excluded)
- Different approaches: card-based (savings on current card transactions)/ retail-based (to account for the impact of the current MIFs on the current pattern of card use)
- Different coverage: sample only (preliminary results) / large merchants / (but not the whole merchant population because estimates not considered as reliable)

Results (2)

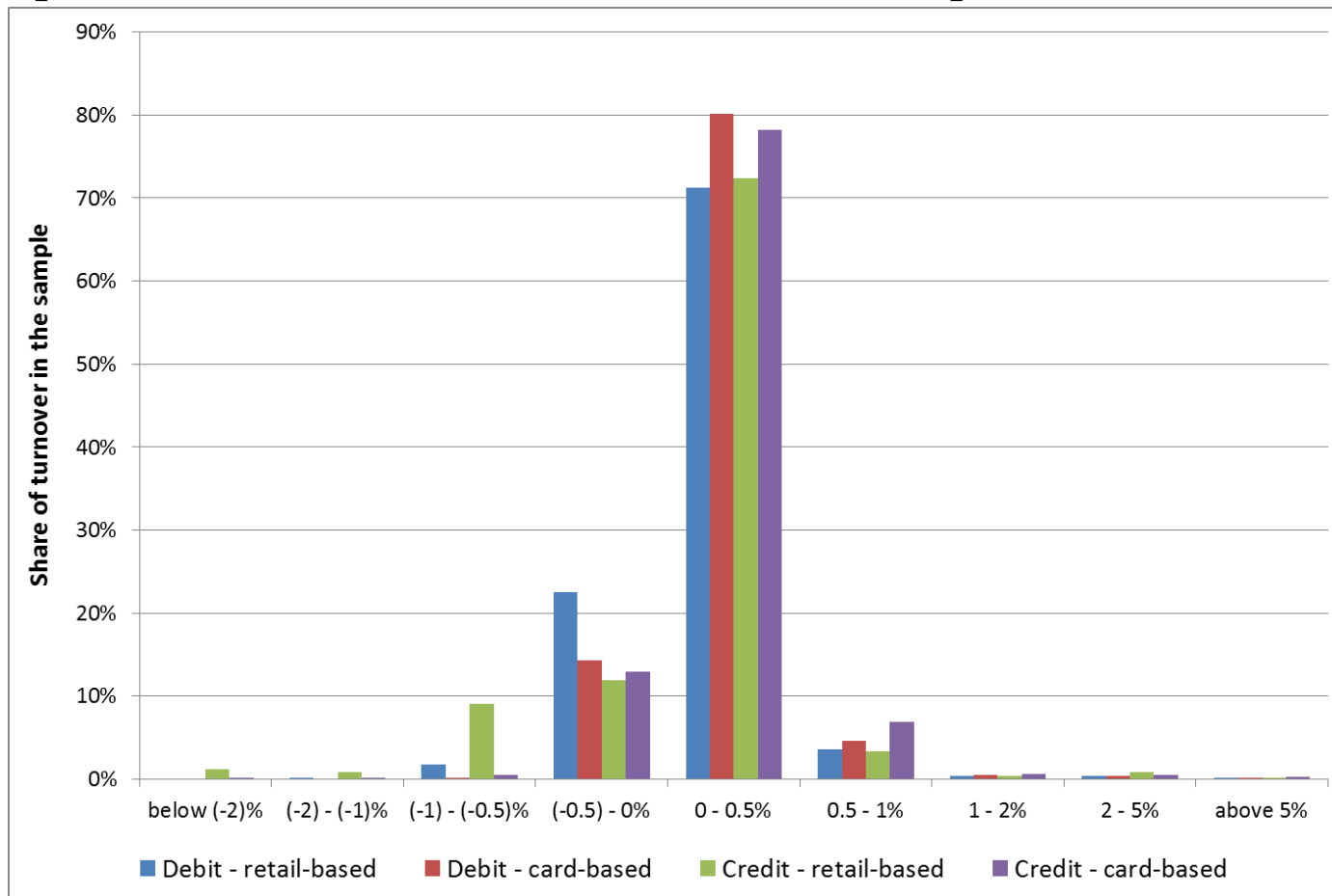
Preliminary
results

| Type of analysis | MIT MIF | | Coverage of retail turnover in the 10 countries | Time horizon |
|--------------------------------------|------------------|------------------|---|--------------|
| | Debit | Credit | | |
| Arithmetic - Scenario 1 | [-0.03% - 0.02%] | [-0.12% - 0.05%] | Merchants in the sample only - 15% | SHORT |
| Arithmetic - Scenario 2 | [0.06% - 0.11%] | [-0.03% - 0.13%] | Merchants in the sample only - 15% | MEDIUM |
| Arithmetic split sample - Scenario 1 | [-0.07% - 0.06%] | [-0.21% - 0.02%] | Large merchants - 56% | SHORT |
| Arithmetic split sample - Scenario 2 | [0.06% - 0.16%] | [-0.04% - 0.13%] | Large merchants - 56% | MEDIUM |
| Econometric - quadratic (size) | [0.19% - 0.46%] | [0.19% - 0.47%] | Large merchants - 56% | LONG |
| Econometric - split sample (size) | [0.19% - 0.28%] | [0.19% - 0.29%] | Large merchants - 56% | LONG |

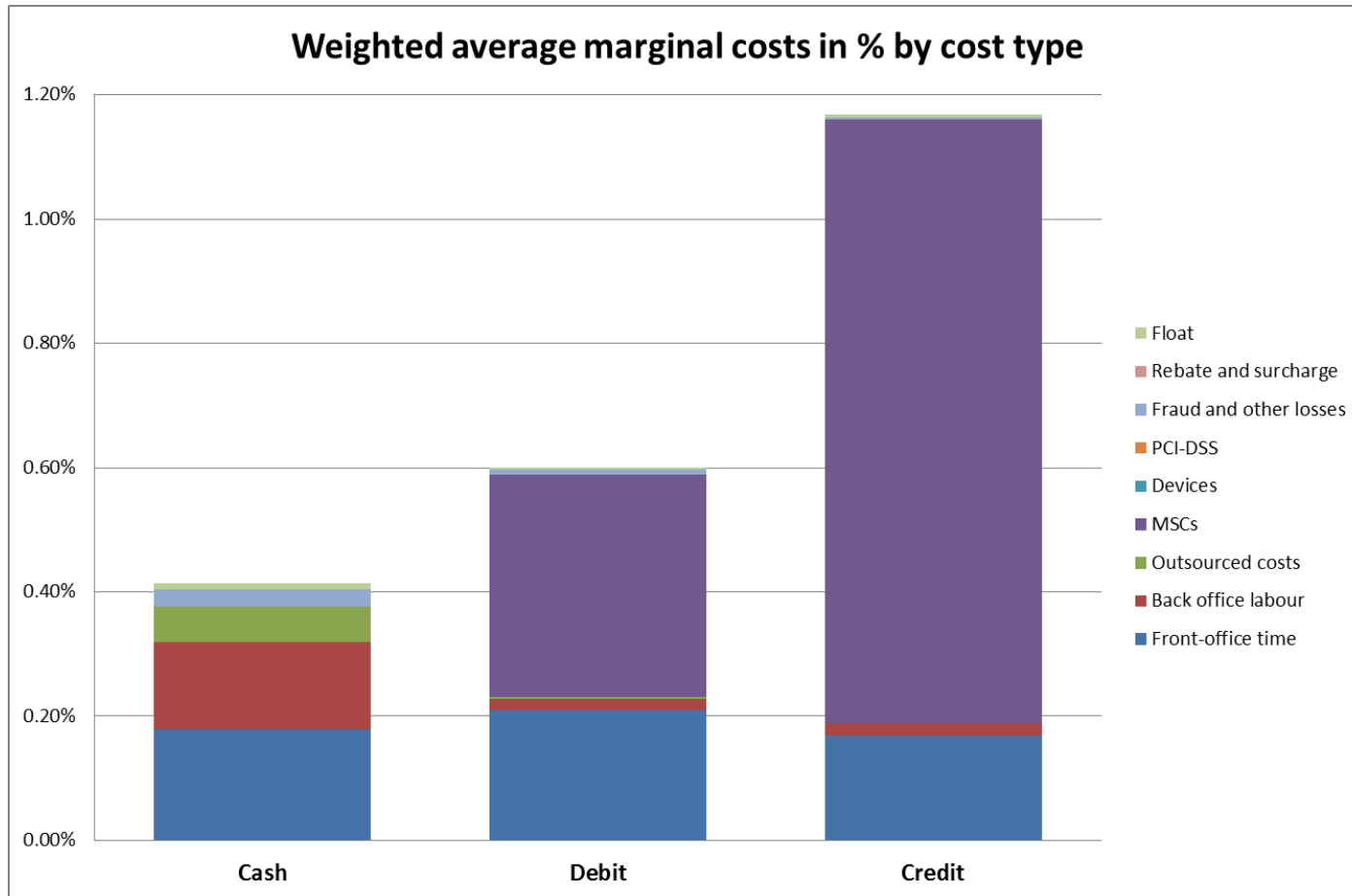
Results (3)

- The figures on the sample (preliminary results) have been slightly revised (better modelling of the front office cost + one additional merchant)
- Figures for large merchants:
 - somewhat higher than those for the sample only - the sample over-represents very large merchants (size 8 of the Eurostat classification)
 - The MIT MIF remains lower than or close to the 0.20 and 0.30% caps in the commitments and in the regulation...
 - ... except in one model – but which has long time horizon (underestimating fixed costs)
- Results for all merchants - limited reliability: strong assumptions needed on small merchants
 - Cost functions for "small" merchants deducted from the cost functions for large merchants
 - Difficult to model the scale effects (relationship between the marginal cost and the size)
 - No precise information on the acquiring margin for small merchants

Further information: Distribution of MIT MSC by merchant card turnover (medium-term)



Further information: Cost structure (medium-term for EUR 25 transaction)





Conclusions

- Study based on a reliable and complete dataset in 10 countries, unprecedented in this scale
- Great improvement of our knowledge on the costs of payments, a valuable element for future debates
- The report reflects several methodological choices, presents various ways of carrying out the MIT and expresses pros and cons of such approaches
- The results are in line with the 0.20%-0.30% caps of the commitments and the regulation
- General benchmarks, but will also be referred to by the Commission in the on-going Visa and MasterCard cases. However if the parties rely on the MIT in their defence based on 101(3), they will have to bring forward their own evidence and arguments also taking into account the potential specificities of their scheme

QUESTIONS?