European Commission

Survey on Merchants' Costs of Processing Cash and Card Payments

Preliminary Results

19 February 2014

Competition

Background

Visa and MasterCard MIF cases

- MIFs are a restriction of competition

'Merchant Indifference Test' MIF benchmark:

- 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 least indifferent as to whether the customer pays by card or in cash
- MIF income can then be used to stimulate uptake of cards on the issuing side

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

Methodology: two-part approach

1st part: survey of large merchants to collect detailed and precise data on <u>costs</u> and estimate cost functions

- Target: 500 merchants (turnover>€50/20 million) in 10 countries (AT, BE, DE, ES, FR, IT, NL, PL, SE, UK)

2nd part: survey of representative sample of merchants to collect data on value and volume of payments and try to extrapolate cost function to smaller merchants

- Target: 2000 merchants in same 10 countries, stratified according to the 8 Eurostat size categories

- Both surveys contracted to Deloitte Consulting at the end of 2012
- Both delivered lower number of responses than the target
- Commission's analysis ongoing, only cost survey discussed today

Conclusions already possible?

- No; preliminary nature and limited applicability of information presented today
- Further analysis required before the final report
- Application: assessment in competition cases
- For now, preliminary results do not form a reason to question the 0.20% and 0.30% caps applied by the schemes

Data collection – cost survey

In-depth survey to collect data on:

- Number and value of F2F transactions with cash, domestic debit cards, int'l four-party debit cards, int'l four-party credit cards (data on at-distance transactions and other payment means also collected)
- Cost level
- 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)

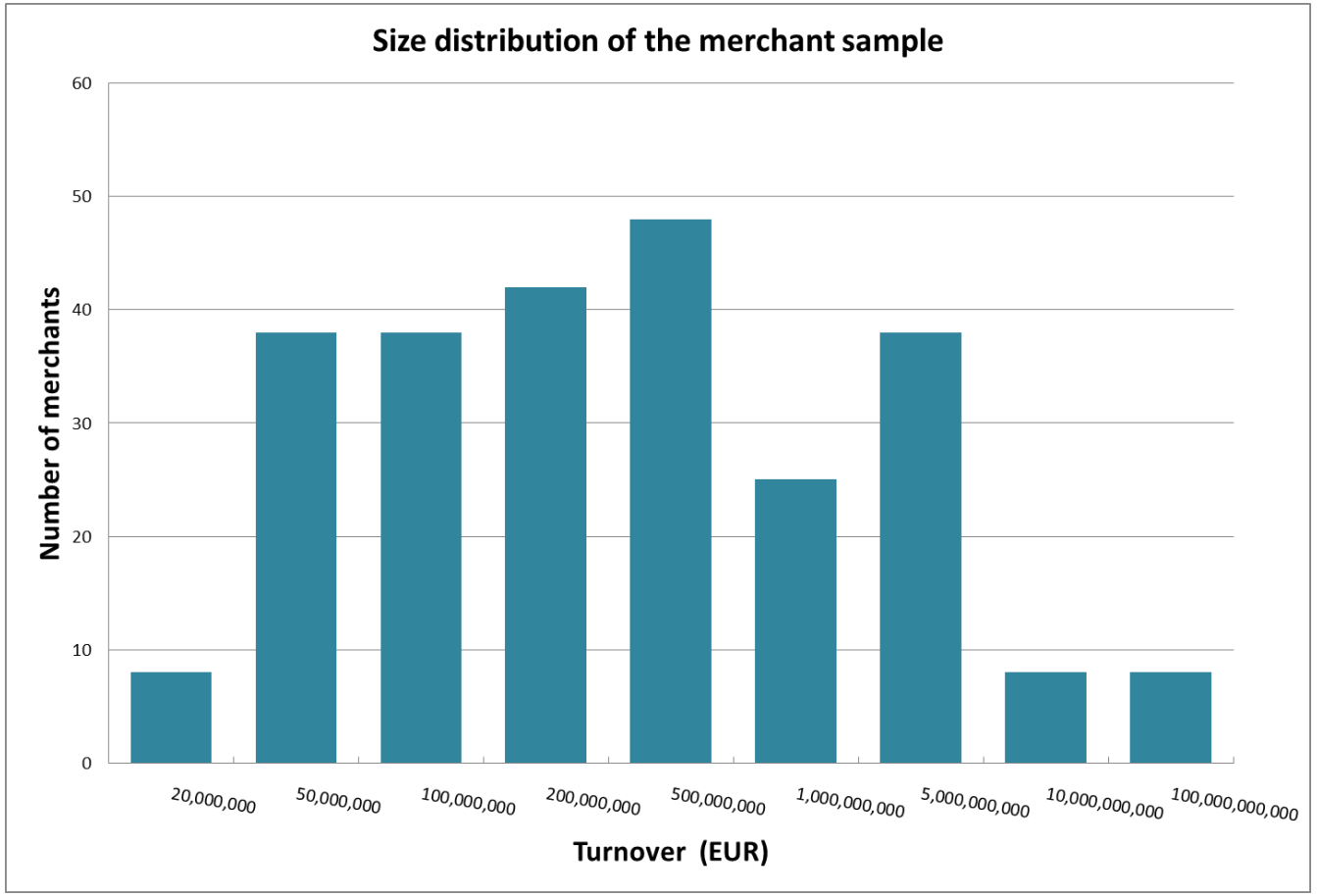
Coverage

Coverage of the sample			
Country	**Number of observations**	**Coverage in terms of value of card transactions (ECB data)**	**Coverage in terms of retail trade (Eurostat data)**
Austria	15	**5.6%**	**7.1%**
Belgium	27	**6.6%**	**5.8%**
France	33	**14.2%**	**17.1%**
Germany	24	**8.6%**	**8.0%**
Italy	18	**9.7%**	**6.6%**
Netherlands	16	**4.4%**	**4.9%**
Poland	24	**22.0%**	**16.9%**
Spain	18	**9.0%**	**5.8%**
Sweden	50	**9.5%**	**14.6%**
UK	28	**19.7%**	**37.0%**
Grand Total	**253**	**13.8%**	**14.7%**
Total EU		**12.2%**	**13.1%**

249 billion EUR card value

414 billion EUR retail turnover

Sample composition



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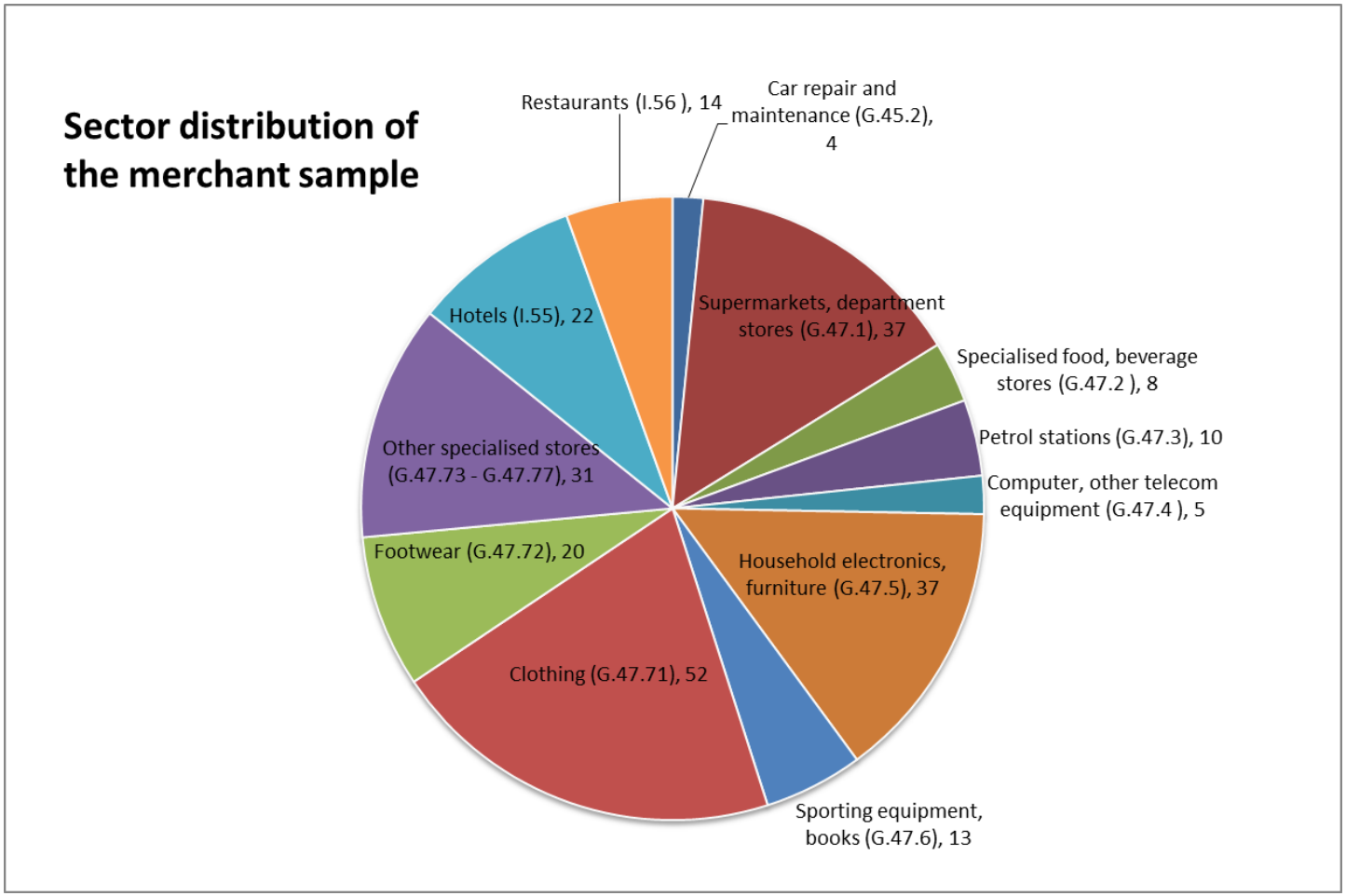
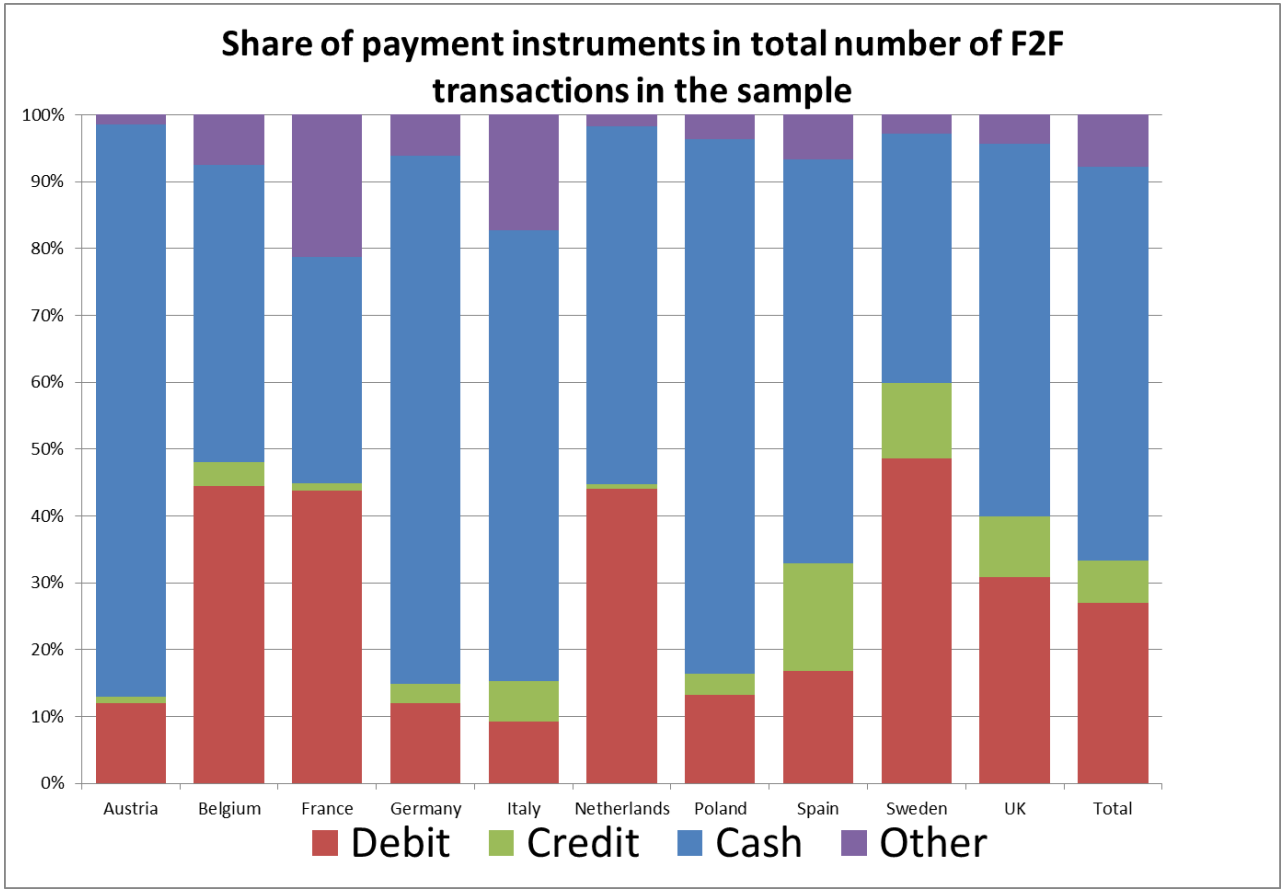


Distribution of payment instruments



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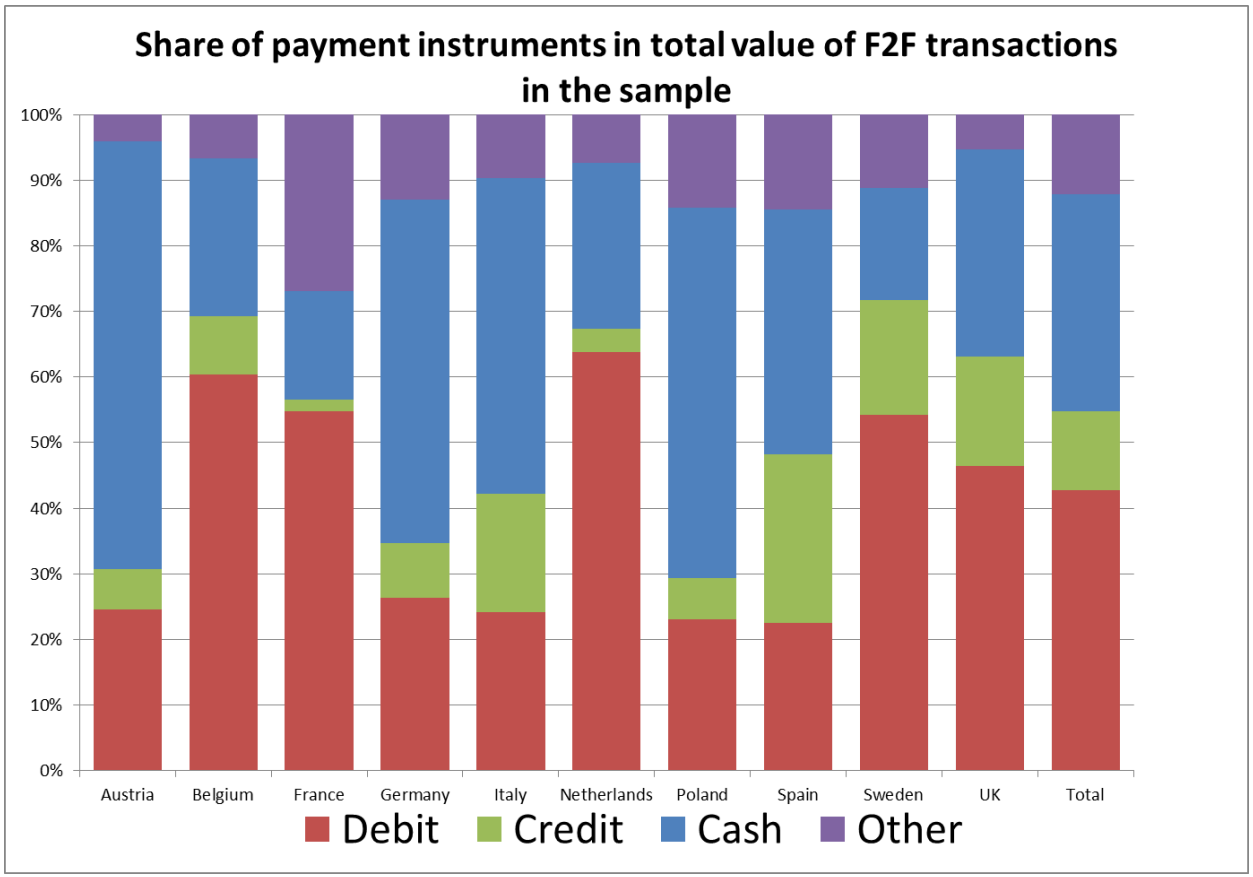


ATVs:

CASH	**15 EUR**
DEBIT	**42 EUR**
CREDIT	**51 EUR**
OTHER	**41 EUR**

MIF calculation methodology

Linear cost functions:

$$TC_j = F_j + a_j * N_j + b_j * V_j$$

where F_j - fixed costs of payment instrument j, a_j – cost incurred each time a transaction with j takes place, N_j – number of transactions with j, b_j – cost incurred per unit of turnover with j, V_j – value of transactions with j

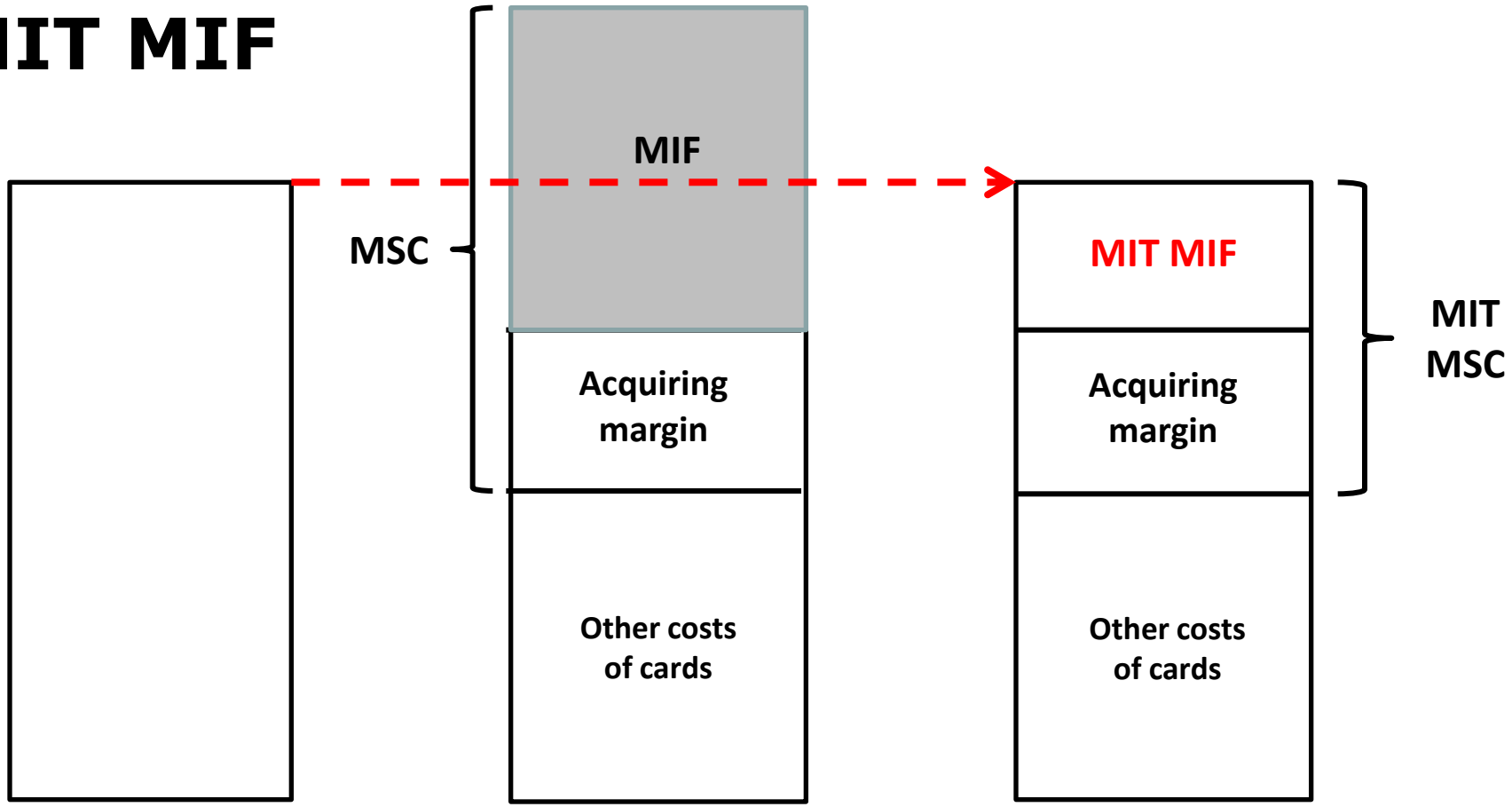
MIT MIF – based on marginal cost of cash and cards (net of current MIF)

$$MC_j = AVC_j = a_j + b_j * ATV_j$$

$$MIT\ MIF = (a_{cash} - a_{card})/ATV_{card} + (b_{cash} - b_{card})$$

(%) (€) (€) (%)

MIT MIF


MIF
MSC
Acquiring margin
Other costs of cards
MIT MIF
Acquiring margin
Other costs of cards
MIT MSC
Marginal cost of CASH
Marginal cost of CARD
Capped marginal cost of CARD

MIF calculation methodology

- Identification of cost nature (fixed, variable by number, variable by value) – based on individual responses
- 2 scenarios for identifying cost nature considered:
  - Scenario 1: change triggered by one additional transaction
  - Scenario 2: a 10% decrease in number of cash transactions over 3-4 years, replaced by card transactions
- Cost functions computed at merchant level, aggregated based on merchants' relative number and value of card transactions
- Average acquiring margin – estimated using survey data on MSCs and public MIF rates
- MIT MIF computed reflects the cost savings (relative to cash) of an average card transaction in our sample

Aggregation of merchant costs

Calculation of average variable cost per transaction for payment instrument *j* in scenario *s* for the purpose of calculating MIT MIF

$$\overline{a_{js}} = \sum_{i=1}^{253} w_i * a_{ijs} \text{ , where } w_i = \frac{N_{i,card}}{\sum_{i=1}^{253} N_{i,card}}$$

Calculation of average variable cost per value for payment instrument *j* in scenario *s* for the purpose of calculating MIT MIF

$$\overline{b_{js}} = \sum_{i=1}^{253} k_i * b_{ijs} \text{ , where } k_i = \frac{V_{i,card}}{\sum_{i=1}^{253} V_{i,card}}$$

Marginal cost functions

<u>Debit cards</u> (scenario 2):

Cash: 0.09 EUR + 0.20% * *transaction value*

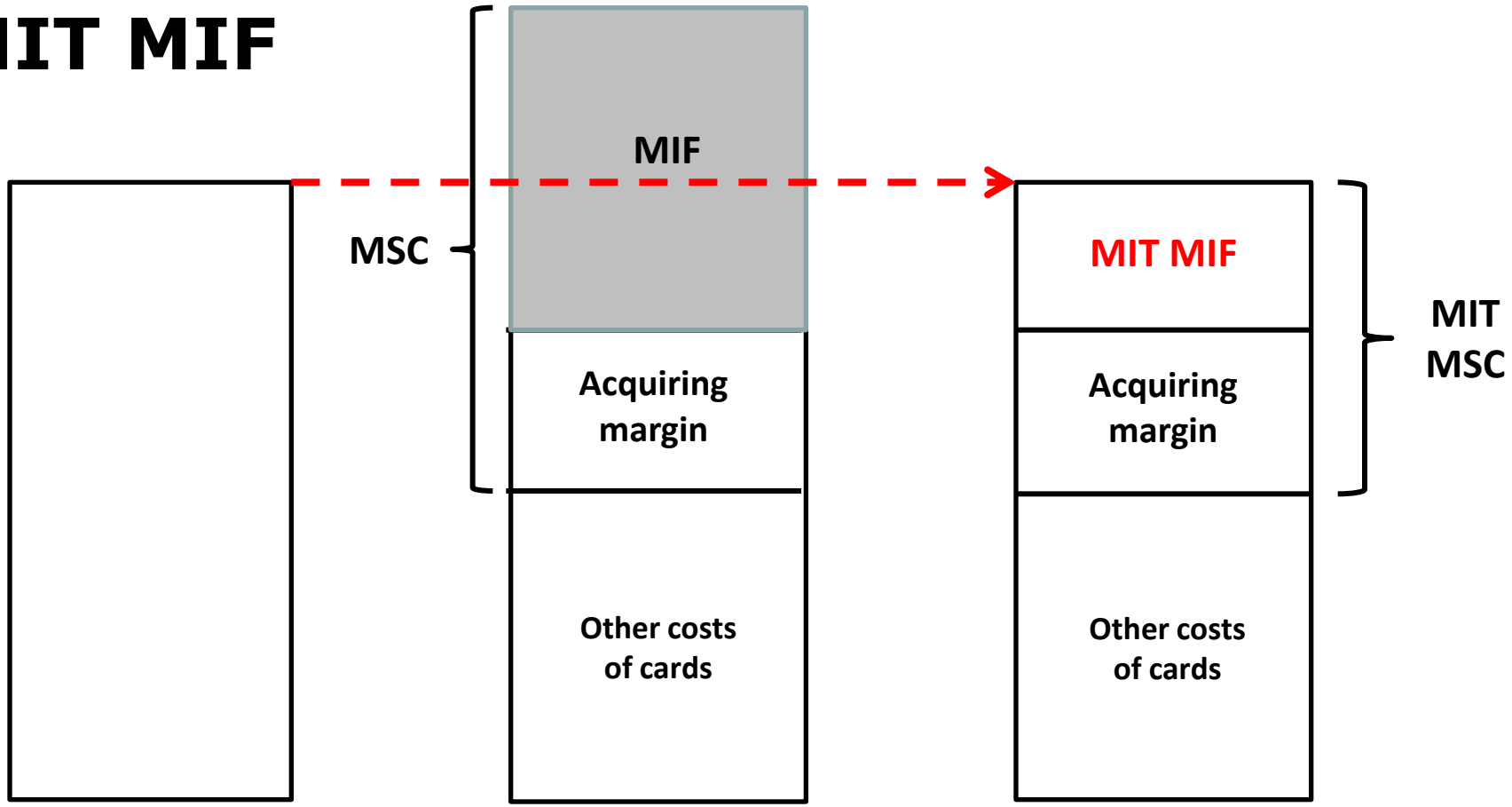
a_{cash} b_{cash}

Debit cards (without acquiring margin or MIF):

0.10 EUR + 0.01% * *transaction value*

a^*_{card} b^*_{card}

MIT MIF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Marginal cost functions

	Scenario 1		Scenario 2		Acquiring margin (%)	ATV Card (EUR)
Calculation for debit cards	a* (EUR)	b* (%)	a* (EUR)	b* (%)		
Cash	0.08	0.13%	0.09	0.20%	0.06%	42
Debit	0.09	0.01%	0.10	0.01%		
Calculation for credit cards						
Cash	0.08	0.17%	0.08	0.24%	0.06%	51
Credit	0.09	0.01%	0.10	0.01%		

* without acquiring margin

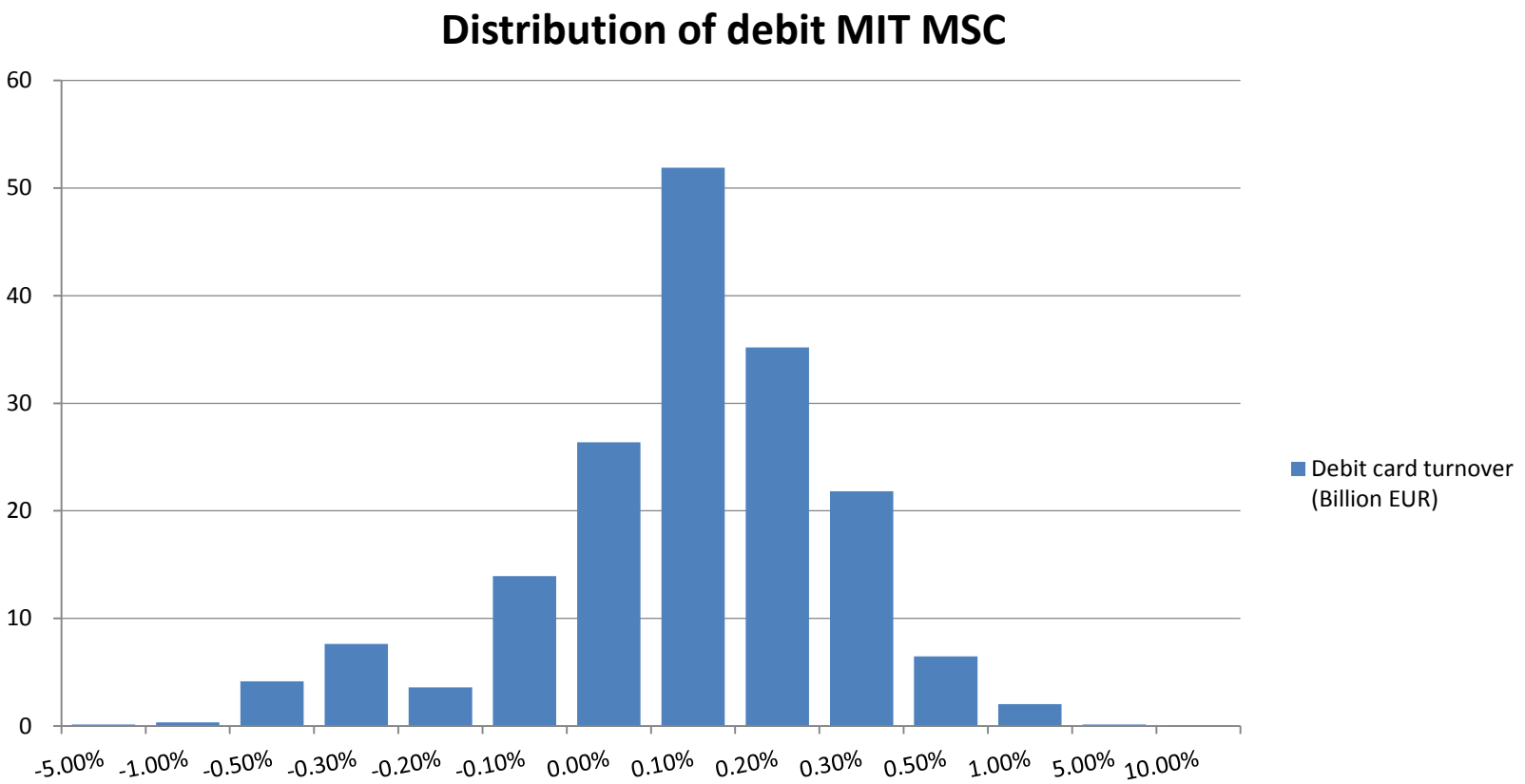
Results

- MC_{cash} – MC_{card} (without acquiring margin) = MIT MSC

- MIT MIF = MIT MSC – acquiring margin

MIT MSC			- Acquiring margin	= MIT MIF	
	DEBIT	**CREDIT**		**DEBIT**	**CREDIT**
Scenario1	**0.09%**	**0.13%**	**- 0.06%**	**0.02%**	**0.07%**
Scenario2	**0.17%**	**0.21%**		**0.11%**	**0.15%**

Further information: Distribution of MIT MSC by merchant card turnover



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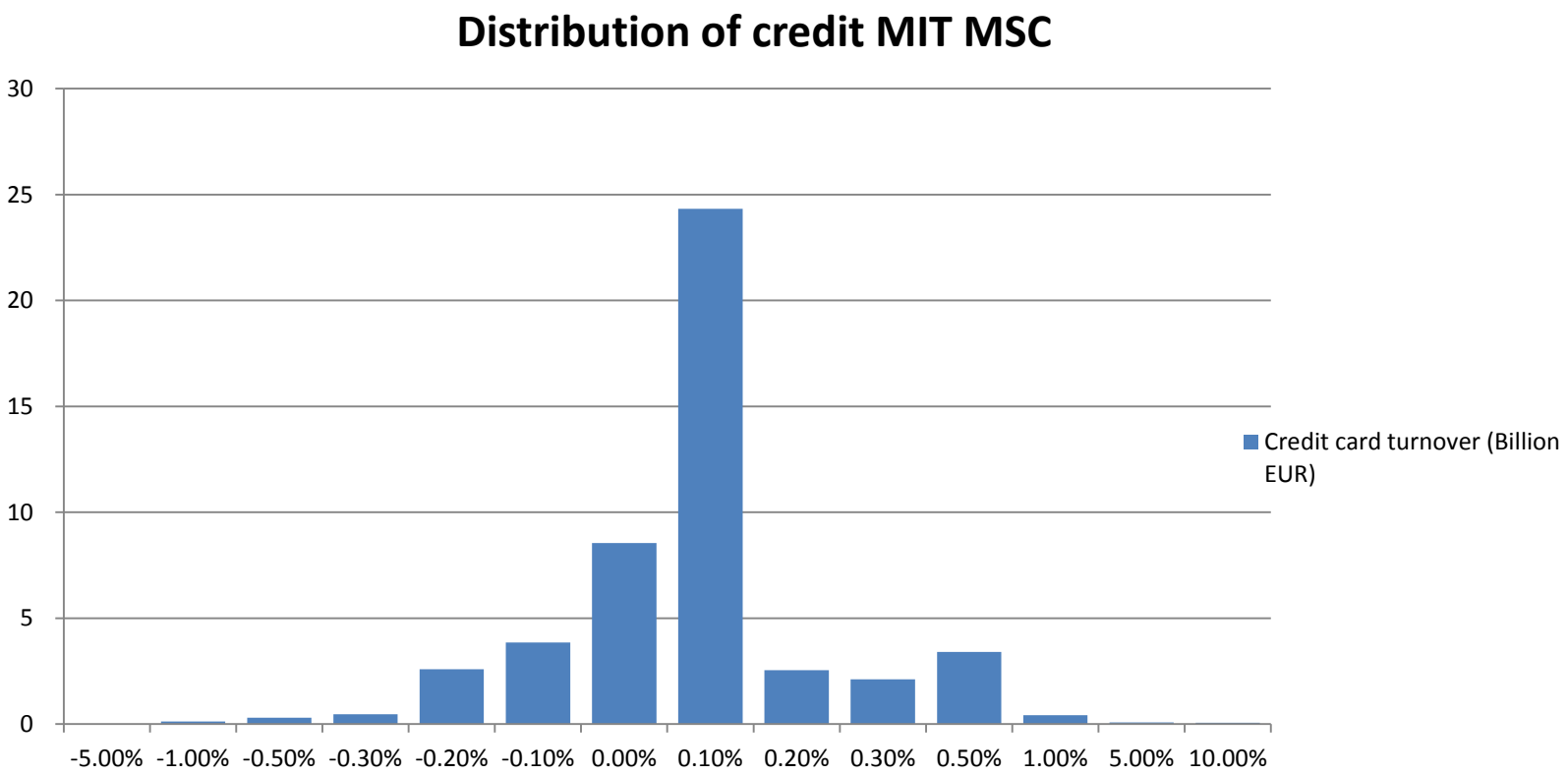
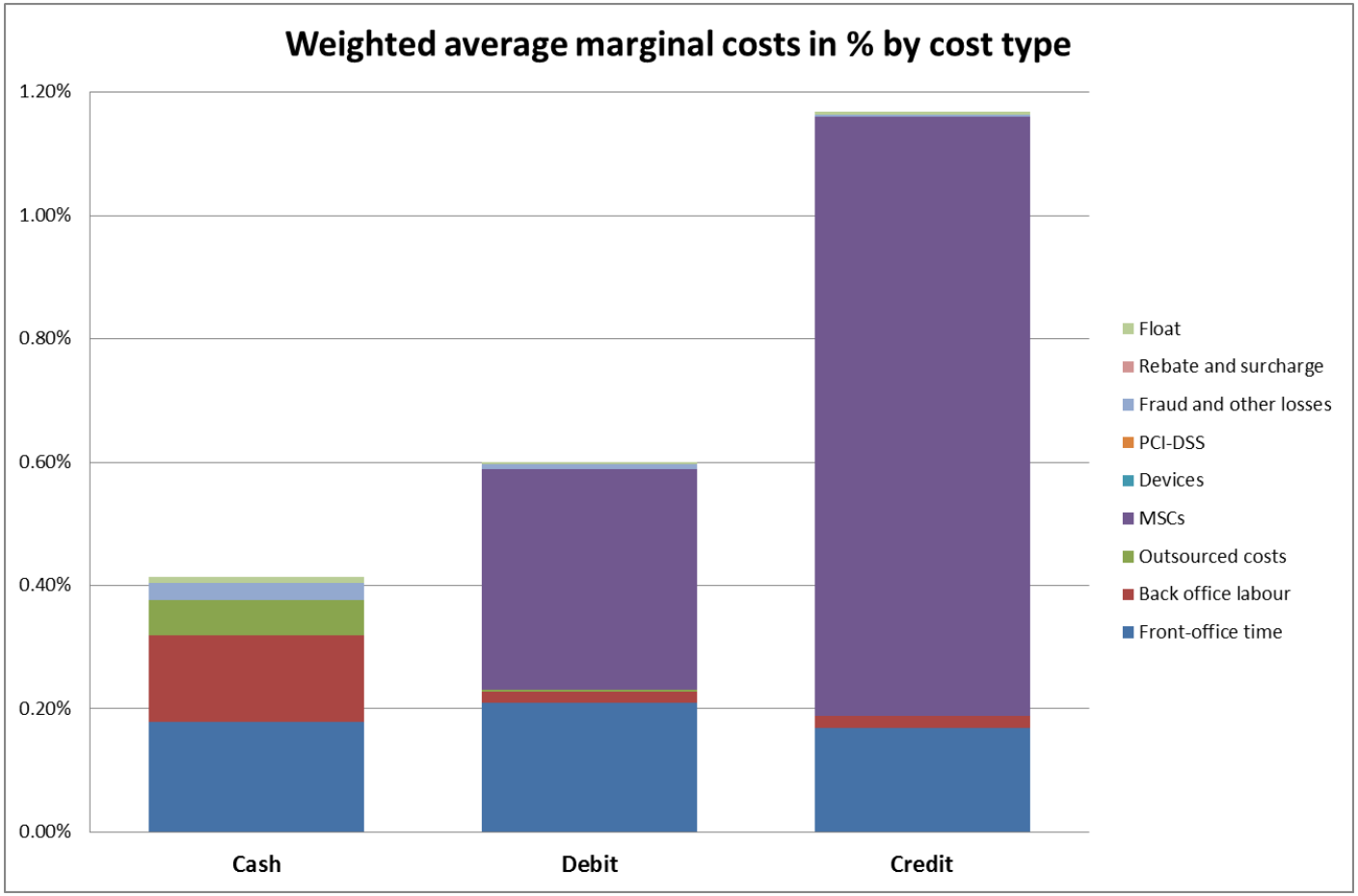


Further information: Cost structure (scenario 2)



Limitations

Results only for the sample:

- Limited number of large merchants
- 10 countries
- Only face-to-face transactions

Acquiring margin approximated

Further analysis

- Assessment of the possibility to use econometric methods to pin down the variable costs of different means of payments
- Assessment of possibility to extend results to non-surveyed merchant categories to increase representativeness (using statistical inference)
- Further analysis of relationship between MIF and merchant size and sector
- Further work on estimating acquiring margin

QUESTIONS?