

Introduction

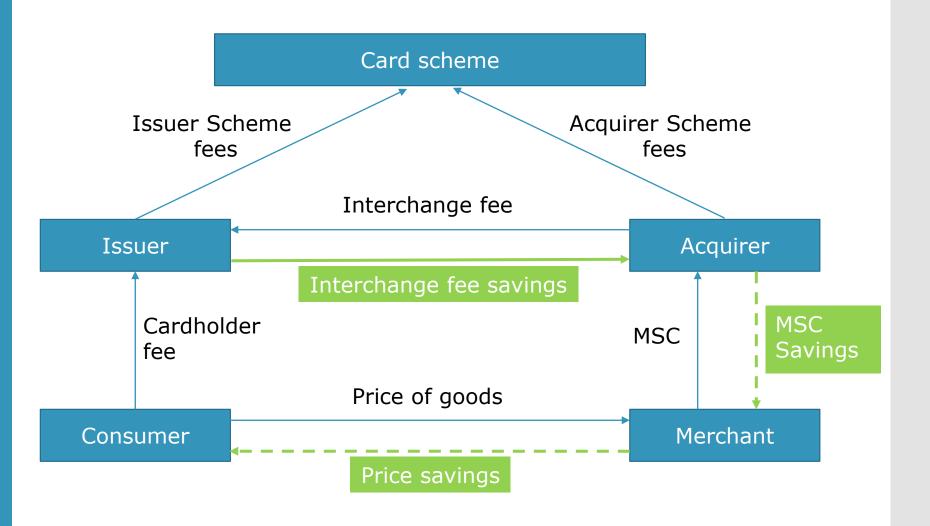
- This report ambitions to provide an *ex-post* assessment of the EC's efforts to reduce IFs through competition enforcement.
- We study the economic impact of the EC Visa Europe 2010 commitment decision with the support of a methodology known as Difference-in-Difference analysis.
- Our ultimate goal is to get a first empirical sense of the decision's consequences on consumer welfare, and in turn to draw lessons for law and policy from this exercise.

Agenda

- 1. Basics of four-party card schemes and what the EC was looking to achieve
- 2. Summary of EC decisions
- 3. Economic analysis of Visa Europe 2010 commitment decision
- 4. Some legal comments



Functioning of four-party card schemes



Literature Review

- Card payment markets can be classified as two-sided markets – socially efficient pricing may result in fees below marginal costs
- Structure of prices just as important as overall price level
- Interchange fee as balancing mechanism
- Pass-through & demand elasticities play a crucial role
- Must-take cards element for merchants
- Dysfunctional competition between card schemes



The "saga"

	Visa 2002 (exemption)	Mastercard 2007 (infringement)	Visa 2010 – debit (commitments)	Visa 2014 - credit + cross-border acquiring (commitments)	Mastercard 2019 (infringement)	Visa + Mastercard 2019 (commitments)
Which IF?	EEA cross- border*	EEA cross- border*	EEA cross-border debit and domestic debit in 9 EEA countries	EEA cross-border credit, domestic credit in 10 EEA countries, and inbound interregional	-	Inbound inter- regional
Nature of restriction	Effect (not object)	Effect (perhaps also object?)	Object and effect	Object and effect	-	Object ("horizontal price-fixing") and effect
Exempted level/methodology	€28 cents for debit (approx. 0.5%)/0.7% for credit. Based on card issuer costs	0.3% credit /0.2% debit. Based on tourist test/ MIT	0.2% debit**. Based on MIT	0.3% credit***. Based on MIT	-	Card present: 0.2/0.3% / card- not-present: 1.15%/1.50%. Based on MIT
Cross-border acquirers (CBA)	-	_	Visa should continue to make CBA pay the same as local acquirers	Restriction by object: CBA should pay the same as before or lower 0.2/0.3%	Restriction by object: CBA should pay IF of "home" country. Mastercard agreed to violation. EUR 570 million fine	_

^{*} Small percentage of overall transactions ** EC claimed this was a reduction of 30% for cross-border IF and 60% for domestic IF, on average *** EC claimed a reduction of about 40 to 60%



Methodology

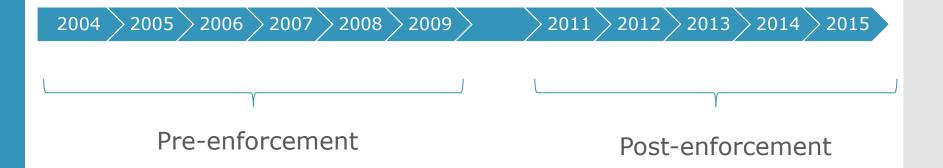
- The choice of this decision is based on the fact that it covers both the IF applicable to cross-border transactions within the European Economic Area (EEA), i.e., card issuer located in one EEA Member State and merchant located in another EEA Member State, as well as the IF applicable to domestic transactions in nine EEA Member States (debit).
- The nine countries where the decision impacted both cross-border and domestic debit transactions are classified as the *treated group*; all remaining countries as the *control group*.
- The data set consists of 10,072 valid data points, covering 27 EU member states over a time span of 20 years.

Assumptions

- Disregarding the cost structure of card payments, we assume that electronic payments are regarded to be socially efficient and welfare optimising
- Consumer welfare not limited to price reductions towards customers.
- Deliberate departure from a monetary (redistribution effects) and one-sided analysis to an analysis of overall network success.
- Drawing on the premise that electronic payments constitute socially efficient and welfare-enhancing services, several additional metrics can be used as proxies to measure the consumer welfare impacts of competition enforcement by the EC.

Hypothesis

• The EC's competition enforcement has had a positive, statistically significant causal effect on the usage of consumer card payments, card issuance, merchant acceptance and cash displacement.



Outcome variables

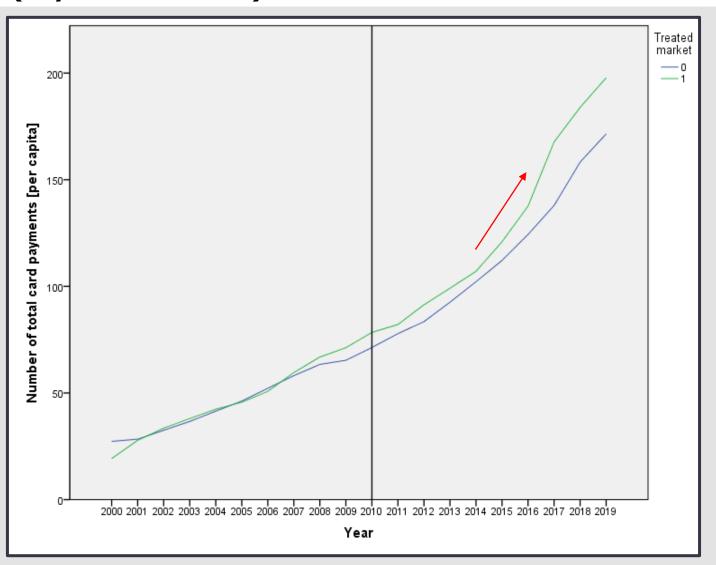
Outcome	Label	Period
variable		
Size (by	Number of total card payments per	2000-2019
number)	capita	
Size (by	Value of total card payments per capita	2000-2019
value)	[€]	
Acceptance	Number of terminals installed per 1	2000-2019
	million inhabitants	
Issuance	Number of cards issued per capita	2000-2019
Displacement	Number of ATM cash withdrawals per	2000-2019
	capita	

Control variables prevalent differences between European card payment markets

Control variable	Label	Period
Productivity	Compensation of employees [€/ hour]	2004-2015
Poverty	People at risk of poverty or social exclusion [%]	2004-2015
Internet	Share of households with broadband access [%]	2004-2015
ATM	Number of ATMs installed per 1 million	2000-2019
	inhabitants	
Inflation	Harmonised index of consumer prices [%]	2000-2019
Interchange	Weighted average interchange fee [%]	2007-2015
GDP	Gross Domestic Product per capita [€]	2000-2019
eCommerce	Online purchases made by individuals in the last	2004-2015
	3 months [%]	
Tourism	Nights spent at tourist accommodations [per capita]	2000-2019

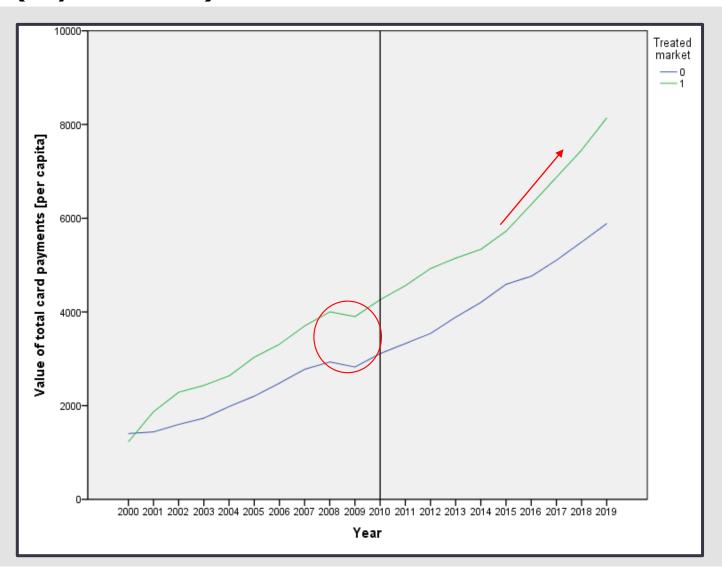
Results – Network size (by number)

- Significant increase (by an average of 16 payments or 22%) in number of card payments per capita.
- Number of card payments mainly driven by Value of card payments and vice-versa.



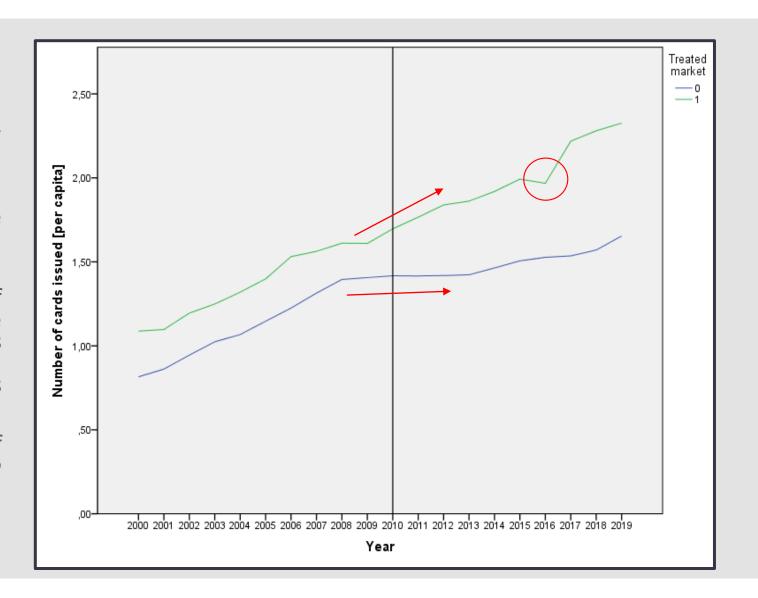
Results – Network size (by value)

- Average cardholder spending has decreased of approximately 550 Euro annually subsequent to the market intervention. In comparison to the mean of 3,469 Euro, this is equivalent to a reduction of 16%.
- Macroeconomic occurrences during this time need to be considered (global financial crisis).
- Growth momentum driven by other explanatory variables, rather than policy intervention.



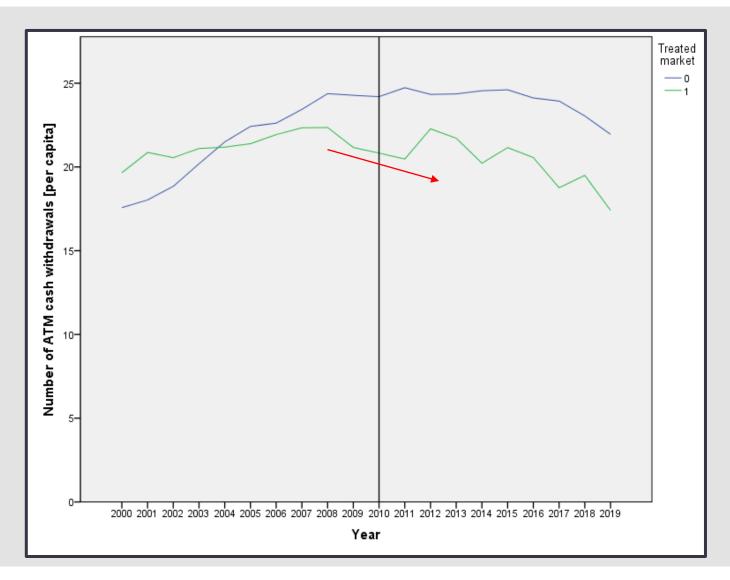
Results - Issuance

- Contrary to forecasts made, card issuance has continued to grow, and growth has actually been amplified by the EC antitrust intervention.
- Driven mainly by the emergence and growth of e-commerce and online purchases as well as continued card usage in relation to ATM withdrawals.
- On average an increased issuance of 0.225 cards can be recorded for the post-intervention period. This equates to an increase of 16% when compared to the average (mean) of 1.44 cards per capita.
- Issuance has been the major driver of increased card usage; Acceptance only insignificant variable within data set.



Results – Cash displacement

- A statistically significant, negative impact is observable with regard to the number of ATM cash withdrawals per capita, resulting in an average decrease of 4 withdrawals across the treated group.
- Considering an average (mean) cash withdrawal of 23, this results in a decrease of 17%.
- Cash usage positively related to the number of cards in circulation and the total number of payments, whereas an inversed relationship is observable with the productivity ratios within the market.



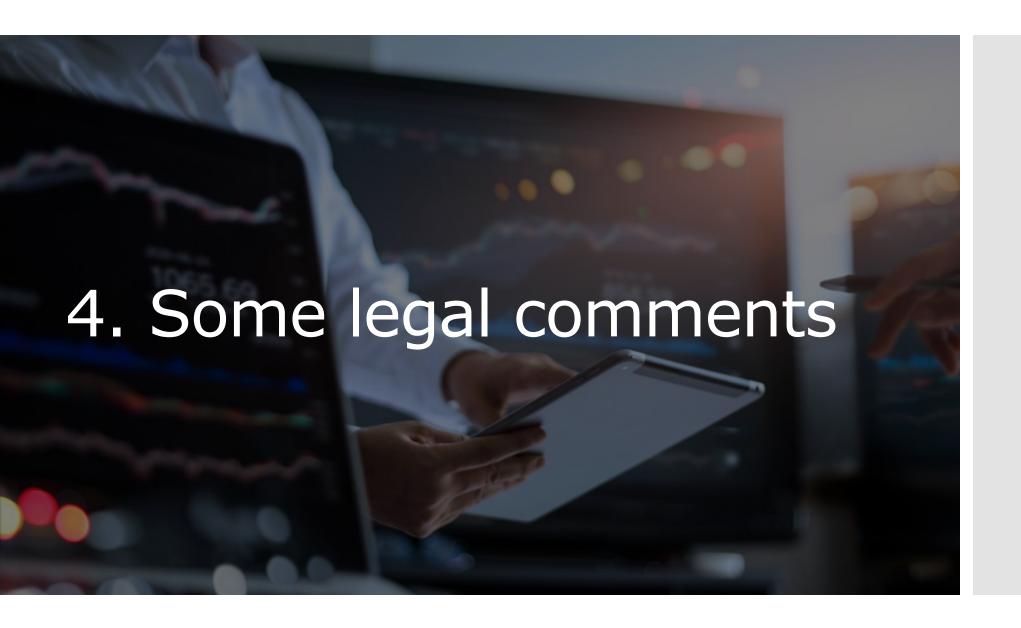
Results

Outcome variable	Significantly impacted	Common trend	R ²
Size (by number)	Yes, by 16 payments per capita (22%)	(Yes)	0.843
Size (by value)	Yes, by 550 Euro per capita (-16%)	No	0.911
Issuance	Yes, by 0.225 cards per capita (16%)	Yes	0.784
Acceptance	No	Yes	/
Displacement	Yes, by 4 withdrawals per capita (-17%)	Yes	0.514

- From the perspective of overall market output, our results are supportive of the policy expressed in enforcement initiatives like the Visa 2010 decision.
- Hypothesis can only be partially confirmed as no confirmatory evidence can be obtained for Acceptance and Size (by value).
- Anticipation that issuer losses would be compensated by increased card spending, mainly driven by a growing acceptance has not been the case in the Visa 2010 enforcement initiative.
- Risk of methodological imperfections deserve to be highlighted. These are a limited robustness in relation to statistical findings and risk of influence by confounding events as well as concerns related to the counterfactual.

Results (2)

• Whilst we cannot with certainty state that the competition enforcement related to the Visa 2010 decision was the single and most significant driver of the observable impacts in relation to the outcome variables, we can state that the antitrust actions taken did not have a negative impact on welfare (measured by efficiency metrics such as total market output) and most likely amplified the previously observable positive trend.



Some legal comments (1)

- No mechanism in EC decisions to ensure IF reduction was passed-on by acquirers to merchants (one exception: Visa Europe 2014 decision)
- No level-playing field between Visa and Mastercard due to asynchronous enforcement, in terms of IF levels and cross-border acquiring
- Legal uncertainty (allegedly) prevented the emergence of European competitor to Visa/Mastercard
- Evolution from effect to (hardcore) object.
 Questionable in light of July 2020 Budapest Bank judgment
- Evolution in EC **methodology** to set exemptible level of IF, and in exemptible **levels** (e.g. why did 2009 tourist test not result in higher IF for card-not-present?)

Some legal comments (2)

Cross-border acquiring – unexplained EC evolution:

- Until 2010: foreign acquirers paying the same as local acquirers was acceptable (even <u>required</u> in Visa 2010 commitments)
- Visa 2014: no longer acceptable; foreign acquirers should pay less than local acquirers (0.2%/0.3%)
- Mastercard 2019 fining makes the 2015 EU Interchange Fee Regulation (IFR) illegal:
 - Under the IFR, foreign acquirer <u>in principle</u> pays the same IF as local acquirer, i.e. 0.2%/0.3%. Under EC's logic, IFR is restrictive of competition and should be amended as soon as possible?
 - IFR allows countries to set lower levels than standard 0.3%/0.2% but under the IFR, foreign acquirers do not have access to those lower levels (foreign acquirers always pay the higher standard rates). Again, under EC's logic, IFR restricts competition and should be amended in earnest?
 - EC's counterfactual in 2019 was: "foreign acquirer should pay its home IF". But that is not the IFR regime in place since December 2015 (nor what Visa agreed to in 2014): shouldn't the EC take EU legislation into consideration when determining the counterfactual?

Thank you for your attention