Is EU competition policy going to tip the Hungarian payment card market?

Analysis of an asymmetric regulation of the interchange fee and the resulting policy challenge

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Abstract

The structure of the Hungarian payment card market became distorted by the commitment Visa has made in 2010, subsequent to a European Commission investigation into its interchange fee setting practices. As a result, restricted by a cap on its domestic debit fee, Visa is seemingly unable to compete with MasterCard in the issuing business. In response to the continuous loss of market share following the EC proceeding, Visa has recently proposed to leave the Hungarian market, thereby prospecting near perfect monopoly structure in the industry. The threat and the underlying tendency impose an important policy challenge on the national competition authority to decide whether the threat is credible and whether it is requisite to prevent the exit or any further concentration by adaptive regulation. In order to substantiate the regulatory intervention, the cost-benefit analysis of these scenarios need to be compared to the prospect of monopolistic structure either arising from Visa's exit or the sequel of MasterCard's expansion. In my thesis I explore and evaluate the available scenarios and argue that as opposed to the proposals of the Hungarian authorities, in particular the cap on domestic debit interchange fees, no such regulatory intervention is justified. The main reason is that no robust economic analysis has been provided to support the proposed level of reduction and neither the exit threat, nor the prospect of detrimental monopolization – in form of any abuse of dominance – is likely. In contrast, I show that the market distortion gave rise to important innovative developments and related reductions in interchange fees – two major goals that the authorities target, but the proposed regulation would hinder.

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Introduction

In the last two decades, several investigations were conducted by different competition authorities in the payment card industry, both at the European Union and national level in Europe as well as in the US and Australia. The ground for close scrutiny and intervention is provided by the consensus about the benefits in social and economic welfare that the proliferation of more efficient substitutes for cash bring forward. In order to facilitate the spread of these payment instruments, the proceedings primarily aimed at establishing competitive price-setting in the industry. In doing so, they focused on the multilateral interchange fee (MIF), which is set by the major card companies MasterCard and Visa or their member banks. This fee flows from the acquirer bank of a merchant that accepts a card payment to the issuer bank of the card the given transaction is paid with, constituting a major cost and revenue factor respectively, which is decisive in the competition of card networks for the acceptance and issuance of their trademarks.

The last completed competition policy investigation by the European Commission was conducted against Visa Europe and was finally closed with the adoption of the company's commitments in late 2010, of which a part binds Visa to cap its domestic debit interchange fees in Hungary at 0.2% of the value of transactions paid with the company's payment cards (the same holds also for Greece, Iceland, Ireland, Italy, Malta, Sweden, Luxembourg, and the Netherlands) (European Commission [2010]). While the previous investigations covered only cross-border interchange fees, the outcome of this latter proceeding is unique in the sense that it also regulates pricing between domestic acquirers and issuers of payment cards. As a result, the duopolistic national payment card industry in Hungary is presently subject to an EU-level regulation that apparently favors the market leader MasterCard by placing a substantial asymmetric constraint on Visa in the price competition for card issuance. In the recent years, partly as a consequence of this distortion in the competition between card companies, Visa lost more than the third of its market share to MasterCard in the debit segment.

At the end of 2012, Visa announced – in a letter addressed to the national economic ministry (NGM) – that, so far unprecedented in the industry, it considers leaving the Hungarian market because of its continuous and substantial loss of market share (BBJ [2012]). The plummeting attractiveness of its cards is attributed by the company to the cap on its interchange fees. These represent the main drivers of competition for card issuing contracts with banks and MasterCard is currently free to uphold a threefold level. In response to the resulting distortion in competition, months earlier the national competition authority (GVH) has launched an investigation against MasterCard on suspicion of exclusionary practices (GVH [2012]). The scrutiny might seem preliminarily justified by the gain in competitive advantage due to Visa's commitment and the resulting, potentially dominant, market position in the pre-exit, and particularly in the prospective post-exit industry structure. However, in course of the investigation into MasterCard's conduct, the competition authority has to take into consideration the role and impact of the EU-level regulation and must not take the exit threat neither at face value, nor as a direct proof of any exclusionary conduct.

The outcome of the EC proceeding is probably driving the Hungarian market towards tipping into a monopolistic structure. In order to prevent the presumed detrimental effects of the emerging industry structure, the national authorities must act in concert as there are multiple policy scenarios in case an intervention is deemed justified. One of the scenarios is to fill the gap of the previous asymmetric regulation, thereby correcting for the excess market power that MasterCard has acquired as a by-product of it, while the other is to investigate and potentially penalize the company for intentionally impeding effective competition. However, if the observed concentration in the industry is solely the consequence of the asymmetric regulation emerging from Visa's commitment, the *ex post* competition policy proceeding is probably not the adequate measure to correct for the market distortion. In such a case moreover, neither the regulatory intervention is necessarily justified, as it has to take into proper account the gravity of the distortion compared to the anticipated net benefits that the change in the regulatory framework would bring forward. This comparison must rely on a well-identified market failure and include the assessment of its effects on market performance and their persistence. As well as the theories of harm emerging at any point of the payment system, all policy proposals must consider the specific characteristics and the development of the Hungarian market that may influence the effects of any regulatory attempts.

The decision about the above alternative responses therefore necessitates first of all a cautious and thorough assessment of the industry trend in the EU regulation and its impact on the competition at the national level. Although the recently emerged academic research regarding the role of interchange fee and the scope of its regulation provides a useful point of departure to this analysis, in itself it provides insufficient grounds for policy-design. Moreover, the case of such an asymmetric price regulation, including the exit threat from a major global player and the underlying concentration in a duopolistic market structure in this particular multi-level regulatory context, is unique. Based on the theoretical results and industry experience available in the academic literature however I capture the cornerstones of a framework in which the present policy problem can be analyzed.

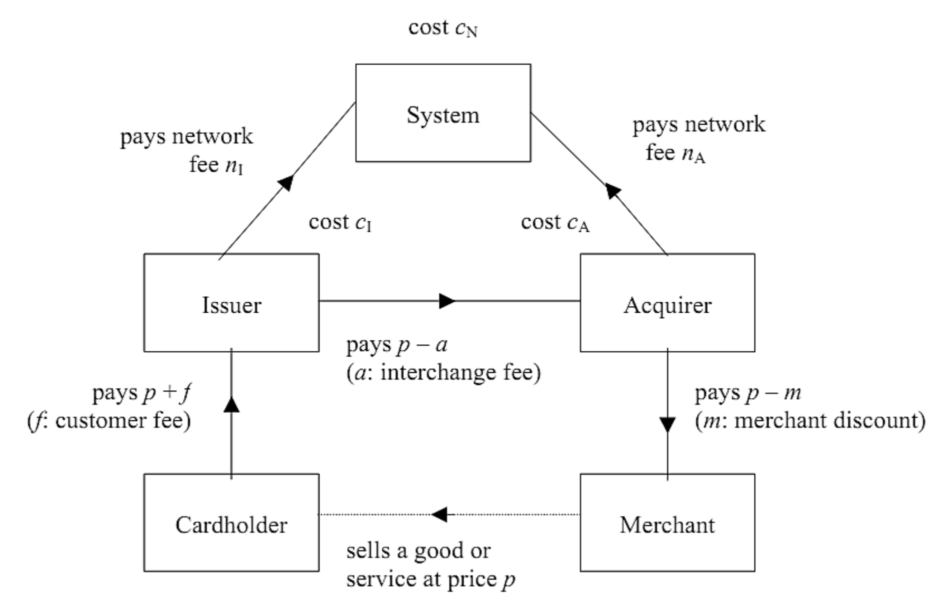
My initial hypothesis to explore and test is that the commitment of Visa, induced and adopted by the EC investigation and decision respectively, gave rise in itself to the above outlined market distortion. Therefore even without any anti-competitive pressure from the part of MasterCard, the conditions of the commitment are likely to render the competition ineffective as an unintended consequence. However, due to the temporary nature of the commitment that ends in 2014, the absent theory of harm from the part of MasterCard and the ongoing European level proceeding against the company, I argue that this distortion does not necessitate a permanent adjustment in the Hungarian regulatory framework. Moreover, considering the present characteristics of the market and particularly the intensive technological development in progress, I show that the field-leveling regulation is likely to hamper this tendency and result in adverse effects from the perspective of consumer welfare.

My thesis is structured as follows: Chapter I presents an overview of the payment card market and the prevailing industry structure, organized around the nature of competition, including the academic research background regarding the regulation of interchange fees, thereby providing the necessary industry context to the analysis; Chapter II provides the analysis of the development of the Hungarian payment card market, focusing on the market structure at different levels of the industry, in particular the competition between Visa and MasterCard; Chapter III, based on the theoretical context, assesses in detail the trend of regulatory and competition policy proceedings and decisions that are relevant to the present Hungarian case, with particular focus on the commitment of Visa; Chapter IV elaborates on this commitment decision and provides the analysis of the consequences of the EC regulation to the Hungarian market; Chapter V introduces the Hungarian authorities' policy response under consideration and evaluate its anticipated and likely effects on the future development of the market, while proposing counter-arguments against the regulatory intervention on the grounds of the preceding analysis and the market outlook.

I. The payment card industry

The payment card industry constitutes a multi-sided market[1]: the card companies operate a four-party electronic payment card system, which serves as a platform for the transactions conducted between cardholders who possess, and merchants who accept their cards[2]. These end consumer parties however are only in indirect relationship with the network operating card companies, through their financial accounts: the adjacent and closely interlinked industry of account-holding financial institutions serve as intermediaries between cardholders, merchants and card companies. This intermediary function is traditionally performed by banks that issue or acquire the payment cards of a given trademark, charging separate prices to the groups of clients for these services, the merchant discount and the cardholder fee respectively (Figure 1). While the latter typically represents a yearly fixed cost that is commonly

Figure 1: Flows of payment in a four-party payment card system



(Source: Rochet and Tirole [2003b] p74.)

[1] For seminal contributions on the economic subject of multi-sided markets see Rochet – Tirole [2003a] and Armstrong [2006].

[2] Although there are three-party card schemes also (e.g. American Express), in which the card company issues and acquires transactions, these are primarily credit card schemes, which are outside of the scope of this analysis as neither relevant to the Hungarian market, nor affected by the EU regulation in question.

incorporated in the price of maintaining a demand deposit account with the payment card service attached to it, the former is proportionate to the acquired transaction volume, thereby representing a variable cost to card acceptance.

Banks carry out the recruitment of both cardholding consumers and card accepting merchants, while in turn they pay a price for using the card networks based on either the number or transaction volume of cards issued and transactions acquired. In addition to licensing their trademarks, card companies provide their members with a secure clearing service, which is essential in accounting between different acquirer and issuer banks of a given network. These networks are operated in parallel as banks – being allowed to become members of multiple payment card associations at the same time – are usually licensees of more trademarks, offering various payment card constructions to their consumers. These solutions differ not only in their host network, but also in their functionality. The two main types distinguished within general purpose payment cards are debit and credit cards, which segments, although being similar from the viewpoint of payment card companies in many general aspects, have a number of particular characteristics. The scope of this analysis is limited to the debit segment due both to its vast majority and importance in the Hungarian market, and to the similar limitation in the coverage of the EU-level regulation in question.

a. Multi-sided competition in the card payment industry

The competition in the above outlined industry build-up has unique characteristics arising from the multi-sided nature of the market. Due to the existence of substantial network and usage externalities emerging both from card issuance and acceptance, balancing the demand between the two sides of the market is central to the performance of payment card networks (Schmalensee [2001], Rochet [2003]). Firstly, the group of merchants and consumers benefit indirectly from the other group's consumption of the respective services of payment card companies, therefore the demand of the two groups are strongly interdependent: the more consumers hold payment cards, the more a merchant benefits from accepting cards and inversely, the more merchants accept cards, the more a consumer benefits from holding cards. Secondly, the eventual choice of payment instrument is also affecting both the merchant's and the consumer's utility through the costs and benefits either party may realize from conducting the given transaction. As a consequence, charging an independent price to these groups in a multi-sided market context might fail to internalize the above distinguished network and usage externalities, therefore leading to an inefficient level of output in the card payment system (Rochet and Tirole [2003b]).

Despite the issuer and the acquirer of a given payment card may be the same banking retailer, they often differ, thereby necessitating some form of coordination between the growing number of issuers and acquirers, which maintains the above outlined balance between the two sides of the market. By virtue of this particular characteristic of the multi-sided market, a special pricing instrument has emerged: the interchange fee is set by the card companies, or – instead of countless bilateral negotiations – by a multilateral agreement of the credit institutions and is paid by the card-accepting merchant's acquirer bank to the cardholder's issuer bank (Evans and Schmalensee [2005]). Rochet and Tirole [2003b] assert that the interchange fee is the only mechanism that can balance the two sides of the payment card market by linking the issuer and the acquirer, thereby the merchant and cardholder side together. As depicted in Figure 1 above, every time a transaction is conducted using a payment card, after the price p gets deducted from the cardholder's account (in addition to f, the usually fixed yearly fee of cardholding), this amount decreased by the interchange fee, $(p\text{-}a)$ gets transferred to the acquirer bank, which eventually pays an amount decreased by the merchant discount, $(p\text{-}m)$ to the merchant. In practice, a is commonly incorporated in m, so that benefits from the acquiring activity are available, which in turn means that the interchange fee is entirely passed through – thus serving as an effective price floor – to the merchants (Evans and Mateus [2011]). At the same time, on the other side of the market there is generally no surcharge imposed on debit card customers, even if no explicit rules prohibit such a practice, presumably due to excessive transaction and reputational costs (Schmalensee [2003]). In fact, as common in two-sided price structures, not only card payments but also cardholding may become costless, or even subsidized through various bonus or rebate programs, so that *f* might become a negative price (Rochet and Tirole [2003b]).

Within the payment system thereby, the merchant-side have to bear a portion of the cardholder-side costs through the interchange fee. However, due to the complexity of the network and the coinciding market failures at different parts of it, the optimal level and the welfare effects of the interchange fee are far from clear. Considering every attempt made to assess the performance of the payment system on the whole, and in particular the role and regulation of interchange fees set under various structure and conduct conditions, economic theory debated extensively this form of pricing.

b. Unfolding theory of the interchange fee

The academic debate on the role of interchange has been revolving around the optimal level of the fee and in particular, the questions whether the level emerging from market competition under different assumptions is optimal in its welfare effects. The shift of burden from cardholders to merchants that the interchange fee represents was initially argued to be inherent in the asymmetric cost structure of operating a payment card system, the socially optimal interchange fee being non-zero under perfect issuer and acquirer competition (Baxter [1983]). Thereby in the first academic analysis of the subject, legal expertise justified such side-payments, allowing for multilateral agreements between member banks of a card payment association. In this hypothesized first-best framework where no competitive imperfections exist, the interchange fee would not affect the consumer price level, only the price structure of the industry, in such a way that system output is maximized due to the frictionless internalization of usage externalities. By virtue of the payment card transactions that are socially efficient, but in the absence of interchange fee would not emerge, therefore such a coordination vehicle was deemed legitimate. Prior to the detailed analysis of the optimal level of the fee however, this legitimacy was questioned by offering an alternative pricing solution, namely surcharges on different payment methods.

Surcharges on card payments

According to Carlton and Frankel [1995], perfect competitive conditions would also imply surcharges on card payments being costless, in which case the interchange fee is indeed neutral as all usage externalities can be internalized through differentiated pricing of payment instruments. In practice however, such pricing is in general not implemented due to the existence of transaction costs. As they point out, the merchant discount – and as its largest cost component, the interchange fee – is in part passed through in the form of rising retail purchase prices to consumers, irrespective of their payment method. That is, in the absence of surcharging card payments, not only the usage of payment card instruments, but retail consumer prices of both card and cash purchases are also influenced by the interchange fee. Despite this increase may be offset by the reduction in cardholder fees, if there is imperfect competition on the issuer side, banks that exercise market power do not wholly compete away the interchange fee, but retain a part of it as profits. Thus in case of high concentration on the issuer side, as card usage and acceptance grow, average consumers pay for the increasing rents extracted from the interchange fee. As a consequence, cardholders do not internalize fully the costs of their card usage and they are inclined to deviate from the socially optimal individual choice. This way the interchange fee would lead to a distortion in the choice of payment methods that could be corrected for by replacing it with surcharges on card payments (Frankel [1998]).

Interestingly however, Frankel argues against a market distortion by imposing a single restriction of a zero interchange. Evans and Schmalensee [1995] as well as Chang and Evans [2000] suggest that such a restriction would likewise distort the choice of payment method by ignoring the network effects and scale economies governing the balance of a two-sided market. As a follow-up, other contributions to the academic literature aimed at generalizing the Baxter-model by relaxing the overly restrictive assumptions in a systematic manner, so that robust results on the welfare effect of the interchange fee could be obtained in an economic framework. Considering the possibility of costless surcharges, Rochet and Tirole [2003b] as well as Wright [2003] find that although the interchange fee is neutral in such a case, card usage would be suboptimal if either issuers or merchants are imperfectly competitive, therefore the welfare effects of surcharging in itself may be detrimental from an efficiency point of view. In particular, if there exists market power on the issuer-side, they show that surcharging decreases social welfare.

In my view, these model results suggest, that the usage externalities emphasized above constitute only a part of what to be internalized throughout the payment system in order to optimize consumer, merchant, acquirer and issuer surplus altogether. The substantial point emerging from this early line of academic research is that having departed from the first-best assumptions of perfect competition at all levels of the industry, second-best interactions of market distortions, including the interchange fee, are extremely difficult to assess in a generalized manner. Leaving the rather inconclusive and in practice unsupported possibility of surcharging aside, the focus of the subsequent research centered around these interactions and their effects on welfare.

Optimal level of interchange

Taking account of merchant heterogeneity and market imperfections on the issuer side, Schmalensee [2001] proposed an important theoretical development: modeling interdependent demand of cardholders and merchants functions – that is, taken account of indirect network effects inherent in a multi-sided market – he finds that the socially and privately optimal interchange fees may coincide under certain circumstances. These circumstances however are found to be rather complex, incorporating the competitive landscape as well as the demand and cost functions faced by players at both sides of the intermediary banking sector. The precise conditions for the optimal determination of interchange fee thereby remained unclear, depending on the particular characteristics and conditions of the relevant market.

Nevertheless, the central point of the analysis is that the components of social and private benefits from the payment card system are highly similar in their determination, therefore the profit-maximizing interchange fee may also optimize system performance. Schmalensee [2003] also emphasizes that due to the multi-sided nature of the market, the regulatory approach that is based on solely the relative costs of the issuer and acquirer side should be abandoned as misleading. Instead, the above determinants of optimal interchange fee should also be incorporated into the assessment. Therefore any theory of harm related to the interchange has to take account of both the indirect network externalities and the competitive structure at each level as well as the relative demand elasticities and cost functions on each side of the market. In lack of a strong case on these grounds, no regulatory intervention is justified as the market itself may have the ability to balance the two sides and alongside with industry profits, eventually enhance economic welfare (Evans and Schmalensee [2005]).

The debate remained controversial and no unified framework has emerged from it. Rochet and Tirole [2002] finds that if issuers have market power, the privately determined interchange fee – assuming homogeneous merchants and perfectly competitive acquirers – may induce the socially optimal level of card usage, but may also lead to overprovision. This latter may occur due to the phenomenon that in the absence of surcharging, merchants accept card payments of negative transaction benefits in order to avoid competitive disadvantage (on this business-stealing effect see also Wright [2003]). As a follow-up, by relaxing the assumption of identical merchants, Wright [2003] shows however that the rate of interchange fee may be either above, below or exactly at the optimal level. In contrast, Rochet [2003] asserts that under platform competition, interchange fees tend to be lower than the socially optimal level; however Rochet and Tirole [2006] finds that under single-homing (when consumers typically own only one type of a card) the fees are unambiguously higher than this level. In line with Rochet and Tirole [2003b] they point out the tendency of the competition between card companies driving up interchange fees.

Summarizing the above outlined theoretical results regarding the market conduct in the payment card industry, no apparent consensus emerges on any method for determining the optimal level of interchange fee. The somewhat contradictory results of the different models reflect the heterogeneity of basic assumptions regarding the conditions of industry competition. In lack of empirical justification, these assumptions are not able to provide robust ground for regulatory intervention. The different models and their comparative statics however lay down the cornerstones for the competitive assessment of particular markets: having transcended the cost-shifting approach based on usage externalities, demand and cost functions as well as the competitive structure of both sides entered the framework in which the determination of interchange fees and their level relative to a socially optimal equilibrium can be evaluated. Far from being complete, this framework points out the central aspects of market conduct that should govern the analysis of competition policy and regulatory proceedings.

II. The Hungarian payment card market

Having introduced the abstract scheme of the payment card industry and the theoretical cornerstones of the underlying economic framework, in the following I provide the analysis of its present structure in order to specify the background for the assessment of the regulatory proceedings in question (Chapter III). The presentation of my market research include the global context of the payment card industry and the detailed assessment of the Hungarian market development, both at the level of banks and card companies. I conclude the chapter with the overview of the recent years' market conduct in Hungary that led to the subject matter of the analysis.

a. Global and European context

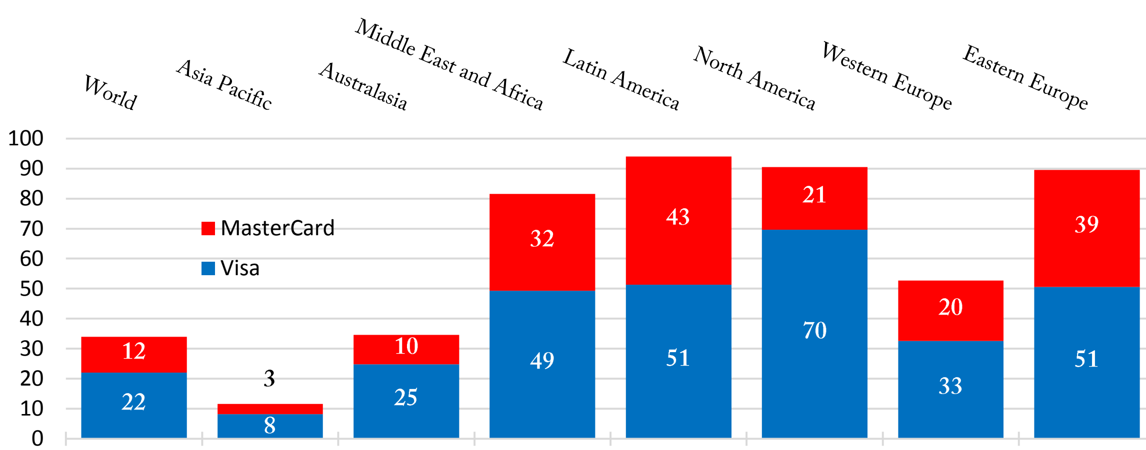
The industry is hallmarked by the competition of the two major payment card companies that operate global networks of general purpose payment cards, Visa and MasterCard. In 2011, more than 5 and a half billion debit cards were in circulation worldwide, above two thirds of which in Asia, around 14% in Europe, and only 8% in North America[3]. Regarding the number of debit card payment transactions, the latter two regions account for a little over the half of the global market activity, which reflects a more developed market with higher level of card usage for retail payments. This combined share can be decomposed however to rather different regional figures: the third of all worldwide card payments is conducted in North America, another 20% in Western Europe and only 3% in Eastern Europe.

Out of the 5.5 billion debit cards, less than 2 billion carry the trademark of either Visa or MasterCard. This moderate global figure comprises however over half of the market in Western Europe

[3] If not noted otherwise, the source of the referenced and all further industry data is the Euromonitor International Consumer Finance database, accessed in 2013 (http://www.portal.euromonitor.com).

and around 80-90% of cards issued in the regions of the Middle East and Africa, North America, Latin America and Eastern Europe, Visa being the market leader in all the regions (Figure 2). On the national markets of these particular regions the industry shows a predominantly duopolistic structure in the debit segment, characterized in general by an outstanding level of concentration of the two major companies. Although the payment card industry is highly globalized, this duopolistic concentration is overturned in various national markets (Denmark, France, Germany, Italy, the Netherlands) by domestic network operators of commonly strong leader positions, which explains the sharp regional differences in market structures. While these national cases represent more than two thirds of the global market, in which Visa and MasterCard is largely not present, the remaining geographic markets are typically dominated by the two companies.

Figure 2: Market shares of Visa and MasterCard by world regions



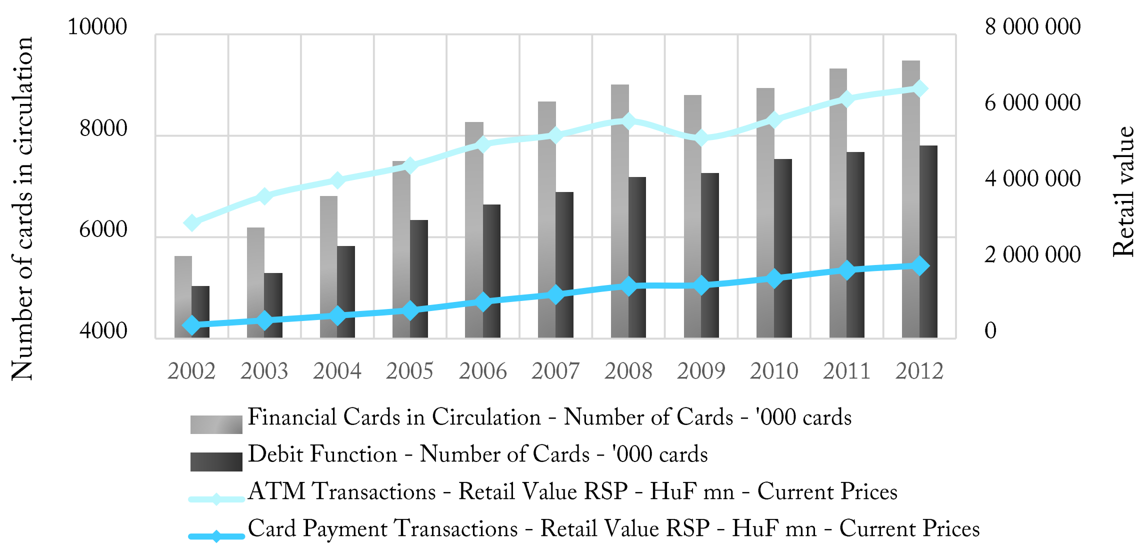
(Data source: Euromonitor)

Particularly interesting is the gap between Western and Eastern Europe: while the above-mentioned Western national markets have domestic leadership – even majority in market shares – regarding retail value and card issuance also, in the East around 90% of every single national market, including Hungary, is characterized by the competition of Visa and MasterCard. Meanwhile the region remains rather underdeveloped, taking account of the fact that 5% of the cards issued worldwide matches only 3% of the transactions conducted in contrast to Western Europe, where 9% compares to 20%, and North America, where 8% to 33%. These differences reflect a depressed level of card usage in the region, of which the Hungarian market has been an illustrative example.

b. Market development in Hungary

The Hungarian payment card market, though remained relatively backward in its maturity, has shown a steady development in the last decade: the number of debit cards in circulation averaged a yearly growth of 5% since 2002, rising from 5 to almost 8 billion in number by 2012 (Figure 3). Among all cards, this growth has been somewhat larger, reflecting a more dynamic spread of credit cards. This rise however was hindered substantially in the years following the global financial crisis, while the debit segment managed to sustain its growth even then. The share of debit cards from all cards in circulation had its trough around 80% before the crisis and remained above this level even upon the recovery of the credit segment, thereby constituting the vast majority of payment cards presently in use. This share is slightly lower than the Eastern European average (85%), but significantly higher than those of Western Europe (68%) and North America (47%), in which regions the credit card business is more mature.

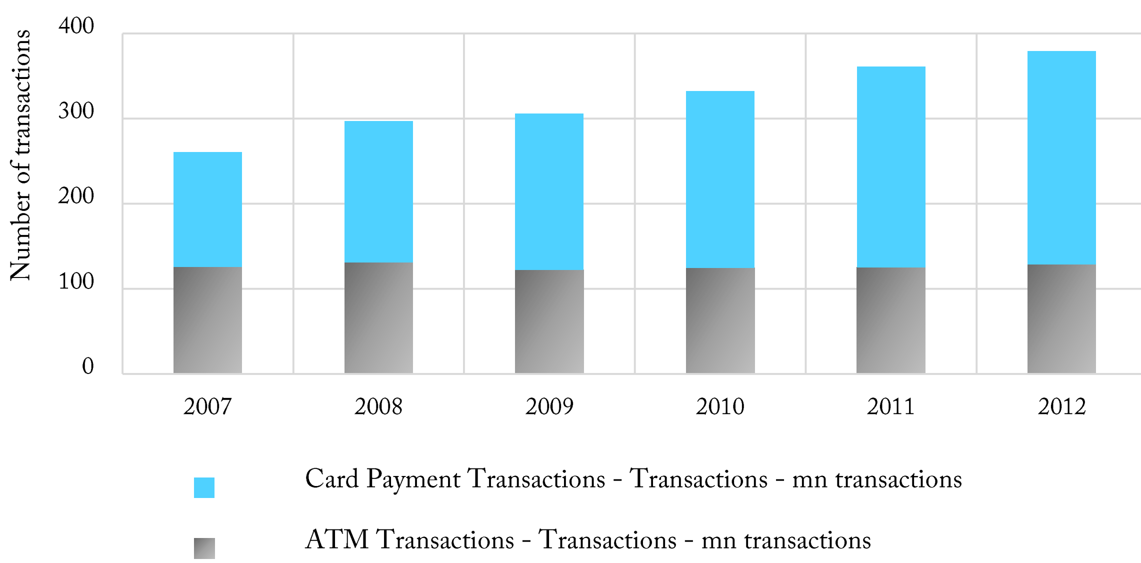
Figure 3: Development of the Hungarian payment card market



(Source of data: Euromonitor)

The data on the ratio of cash withdrawals to card payments shows a similarly huge regional gap: in Eastern Europe on average 40% of card transactions is conducted through ATMs instead of point of sale card payments, while this figure is only 17% and 12% in Western Europe and North America respectively. Although Hungary outperformed the region average in this matter, as only 33% of card transactions were cash withdrawals in 2012, these translated into almost 80% - by and large equal to the region average – of the combined retail value of card usage, reflecting a substantially higher average transaction value of ATM transactions (HUF 50 thousands compared to 7 thousands in 2012). Despite the average transaction value of ATM withdrawals shows a slight growth and that of card payments is steadily decreasing, not only the ratio of transactions but also the share of retail volume is shifting towards point of sale usage of payment cards. This shift is attributable to the more than twice as large growth rate of card payment transactions in value throughout the last decade: in contrast to the doubled ATM transaction value, card payments grew more than fivefold, from HUF 350 billion to almost 2 trillion by 2012. While that of ATM withdrawals remained roughly constant, the number of card payment transactions has almost doubled in the last five years (Figure 4). As a result, the per capita

Figure 4: Number of card transactions in Hungary

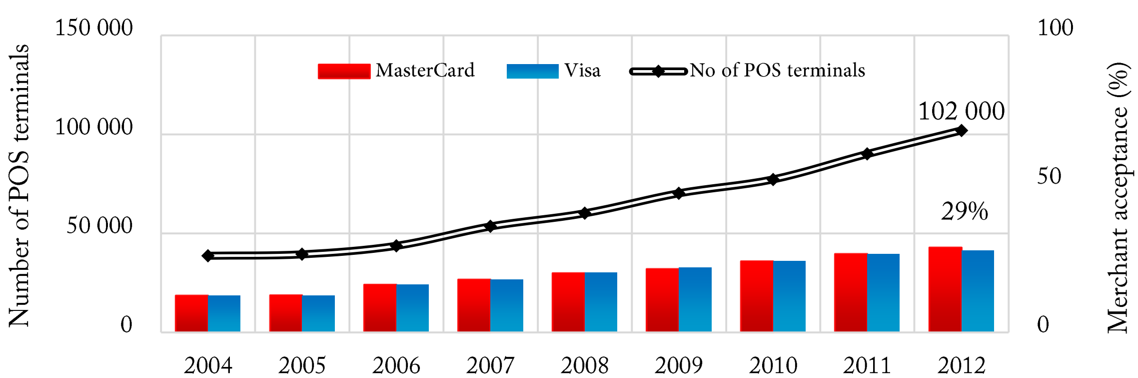


(Data source: Euromonitor)

number of transactions slightly exceed the regional average, but still amounts for only the quarter of the Western European average (25 compared to 100 approximately).

The dynamic proliferation of card payments presupposes the corresponding development of the payment system infrastructure. This development in Hungary has also shown the above outlined shift towards card payments: the number of POS terminals has doubled from around 50 thousands in 2007 to more than a 100 thousands in 2012, averaging a 15% annual growth over the last five years as opposed to the number of ATMs, which grew only 15% in total over the same five-year period, from 4.3 to 4.9 thousands. Despite this dynamic development in acceptance, the number of POS terminals per million inhabitants (8.5 thousands) was still less than half of the EU average (17.5 thousands) in 2011. The share of merchants accepting payment cards, though tripled in the last decade, was still below 30% in 2012. This share of acceptance is not only depressed in comparison to the infrastructure of more developed countries, but also compared to Ukraine (60%), the Czech Republic (57%), Poland (49%), and Romania (46%). Moreover, according to the survey of the national bank, the growth rate of POS terminals is slowing because the larger outlets that represent the majority of retail turnover already accept payment cards, therefore the further expansion depends increasingly on smaller merchants that proved to be more reluctant to acceptance (MNB [2012]).

Figure 5: Merchant acceptance in Hungary

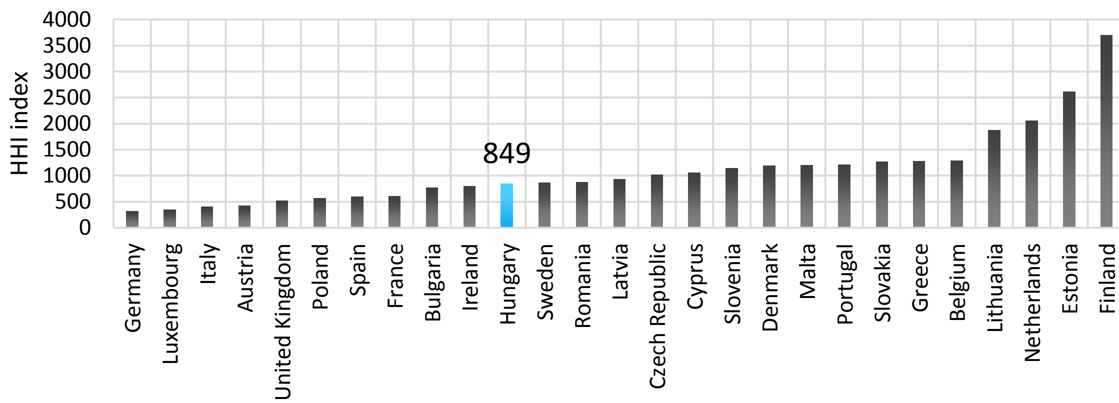


(Source of data: Euromonitor)

Issuing and acquiring business

The Hungarian banking industry on the whole seems rather competitive at first sight: according to the structural indicator statistics of the European Central Bank, the HHI index measuring the concentration of the industry is below the average of the European Union (Figure 8). This indicator however is based on total assets and overall activity, therefore might be misleading in the assessment of payment card market positions, which can be measured better by the number or turnover of debit accounts and the cards issued.

Figure 6: Concentration of the banking industry by countries in the EU

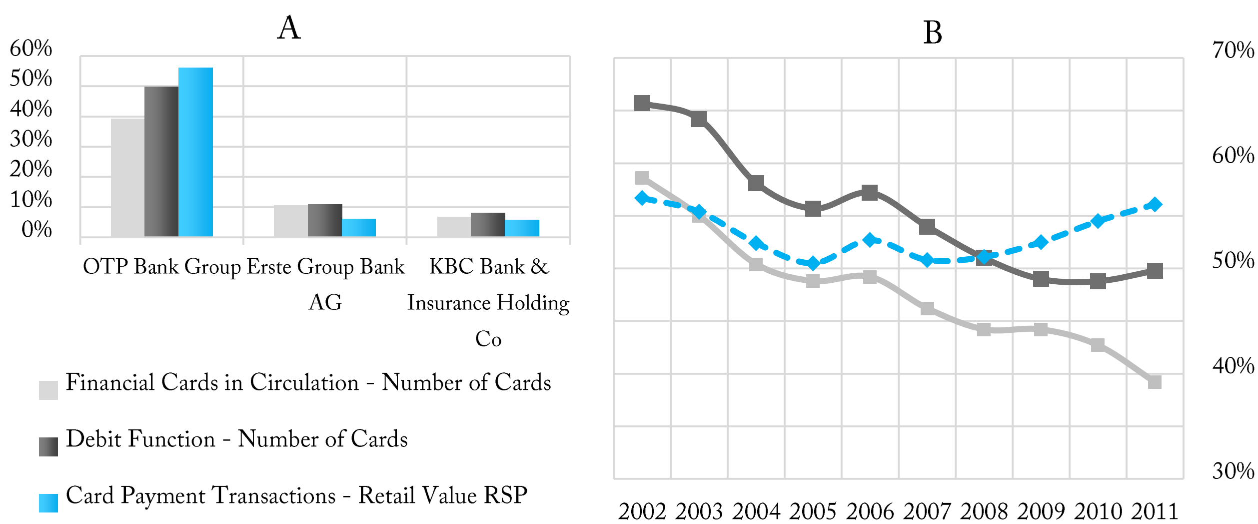


(Data source: European Central Bank [2012])

Indeed, by estimating a structural model of the retail banking industry, Horváth and Molnár [2007] found that the degree of competition in Hungary is low and the price-costs margins are high in general. Although with a moderate level of margins, this holds even for the demand deposit segment, probably due to switching costs perceived as high and the entry barriers inherent in the industry (e. g. the costs of establishing a branch and ATM network). Since then however, not only the global financial crisis has swept through the sector, but in addition a sustained sectorial crisis tax and a transaction levy was introduced in the recent years, both heavily dampening industry profitability and intensifying competition, but leaving the concentration by and large unchanged (Deloitte [2012]).

Taking a closer look at the payment card issuing business, and in particular the provision of payment cards attached to demand deposits within the retail banking sector, the distribution of market shares turns out to be in line with the above conclusions. The three largest issuers on the market account for around 56% of all cards in circulation, almost 70% of debit cards and approximately the same size of share from all card payment retail transaction turnover in 2011 (Figure 9). The undisputable leader by all three measures is the OTP Bank Group, having issued half of the debit cards in circulation and conducting 56% of card payment transactions in Hungary.

Figure 7: Market shares of the largest issuers (A) and the evolution of OTP's position (B)



(Data source: Euromonitor)

As for the evolution of this dominant position regarding the payment card issuing business, the last decade showed a steadily decreasing tendency in OTP's market share of all payment cards in circulation, from above 55% to below 40%. In the debit segment the company has both been stronger and also managed to retain its position around 50% of the market, while the growing share of retail value reflects a dynamic increase in average card turnover. Based on these three measures, the issuing market shows a high concentration according to both the number and value of the debit payment card segment.

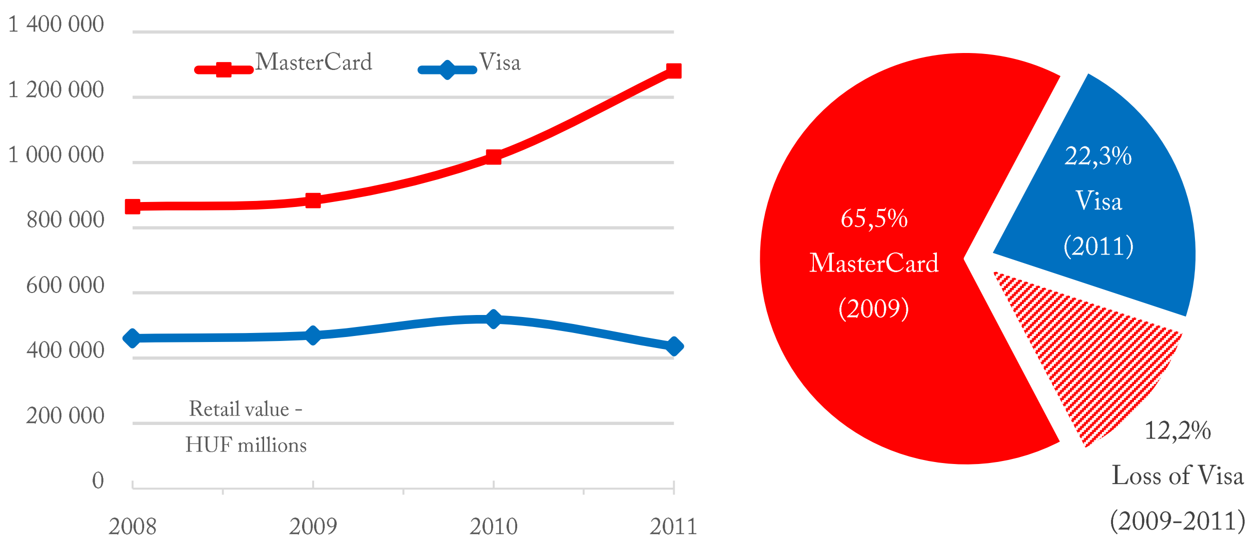
In lack of available and similarly detailed data on the acquiring side of the payment card system, only some stylized facts can be pointed out. Most of all, no separate acquiring industry has yet emerged to compete the banks already engaged in card issuing. Among these, two of the above highlighted largest banks, OTP and K&H (subsidiary of the KBC Bank and Insurance Holding) possess the majority of the market: in 2008, 90% of the POS terminals were placed at merchants that were the clients of either bank (GVH [2008]). Therefore OTP in particular conducted a significant part of its business as 'on-us' transactions: acquiring cards issued by itself, the bank incurs arguably lower transaction and other costs. In the five years since then, the issuer side only got more concentrated regarding the retail transaction value, while in 2011 still OTP possessed 66% of the acquiring market, implying an outstanding level of concentration (Euromonitor [2012a]). As a result, the bank has a major and durable competitive advantage in terms of merchant discount conditions, due to which the concentration of the acquiring industry is not likely to substantially ease in the near future.

c. Market structure and competition between card companies

Besides being highly debit-oriented with a depressed level of merchant acceptance, high level of concentration at both issuer- and acquirer-side and a vast, but decreasing majority share of ATM withdrawals from card transactions, the Hungarian market is characterized by the competition of Visa and MasterCard. The two companies possessed the entire debit segment and almost 95% of the whole payment card market in 2011. I infer from the above outlined similarities of the Eastern European and other regional industry structures, no outside threat of entry and significant expansion is likely. The barriers arising from both demand-side network effects and the scale economies inherent in operating a payment network render the emergence of outside competition improbable in the short run. Due to the negligible share of the fringe, which in turn is limited to the credit card segment, in the following I focus only on the two major players.

Throughout the decade a fairly stable structure emerged, with the leadership of MasterCard, holding 65% of the cards in circulation against the 30-35% share of Visa, in contrast to the regional average 50%-40% in favor of the latter company. As for the retail value of purchases conducted using the cards of two companies the picture was only slightly different, but showed that on average Visa cards represented a somewhat higher purchase turnover. However, in the recent years the balance has been tipping both in credit and debit card issuance, and also in retail turnover towards MasterCard. As a consequence, Visa lost a third of its market share of the debit segment in the two years subsequent to 2009 (Figure 10).

Figure 8: Evolution of retail value of purchases and market share of debit cards



(Data source: Euromonitor)

The changing course of competition

Taking the growth of the market into account, the restructuring can be decomposed into the categories of the newly issued cards, and those that have been reissued under a different trademark. Although being somewhat imprecise, these calculations can further approximate the gravity and nature of the market loss. Based on my analysis of the available data, it turns out that the recent growth of the market in itself, averaging only 3% in debit card issuance, cannot account for the whole expansion of MasterCard: half of its market gain already in the first year, and around 80% in 2011 were attributable to the decline in Visa's position, that is to the company's revoked cards reissued as MasterCard.

By 2010 Visa had lost more than a quarter million cards, 10% of its debit portfolio in the previous year, and this tendency has considerably accelerated to 2011, bringing upon the loss of another 0.5 million, that is almost the quarter of the remaining debit cards in circulation. As a consequence, the profitability of the two companies started to diverge rapidly: the retail purchase value of the Visa network dropped HUF 80 billion, by almost 30% compared to 2010, while MasterCard gained HUF 260 billion in the same period, doubling its nominal growth from the previous year. Despite market share data is not available for 2012, even with a moderate forecast – assuming either constant rate or volume of market loss in spite of the observed accelerating tendency – MasterCard's market share would approach 85% and Visa would have to endure further losses.

The competition between payment card companies takes place with the intermediation of the above outlined, highly concentrated banking industry. The major determinant of both company's success therefore is the dominant issuer and acquirer OTP that held near 4 million debit cards, half the market and twice the size of Visa's market share in 2011. The central driver of this competition for issuance is the rate of interchange fee that a given card company can offer, thereby determining the profitability of conducting the banking service behind card payments. It is clear from the data that the growing number of issuer banks that decided in the recent years to substitute MasterCard for Visa are the main drivers of the realignment. Thereby the further evolution of the market structure depends mainly on the continuation of such conduct and only to a lesser extent on the overall growth that remained moderate in the recent years. Previous therefore to the presentation of the causes underlying this tendency (Chapter III), in the following I briefly characterize the intermediary industries of issuing and acquiring in Hungary as they play a key role in the competition between the card companies.

As decision-making members of card associations, until 2008 the banks themselves set the level of interchange fees with the assistance of Visa and MasterCard in a coordinated manner. This practice of multilateral agreements however resulted in a competition policy investigation and the adoption of a decision that imposed significant amount of fines on both the card companies and also the issuing banks (see GVH [2008]). The central theory of harm was that the issuer banks – in cooperation with the card companies – have upheld an excessive level of interchange fees, thereby eliminating competition between card companies and in turn restricting acquirer competition. Due to the scrutiny both companies reduced their rates by about a third, from 1.2% to 0.8% on average regarding consumer debit cards, and since then they are obliged to set the interchange fee in a unilateral manner (Keszy-Harmath et al. [2012]).

In the course of this change in setting the interchange fees, Visa applied its regional rate to the Hungarian market. Two years later it turned out to be the very reason for the market being included in European Commission disputes against the company. The EC initiated a proceeding against Visa on the similar suspicion of setting excessive interchange fees that hinder competition in the acquiring business, inflate merchants' costs of acceptance and thereby lead to an increase in final consumer prices

(European Commission [2010]). I assert that the careful analysis of this decision is crucial to fully understand the nature and the gravity market distortion it has caused, without which no policy design can achieve predictable second-best optimality from a regulatory point of view. In the following, I present the recent trend of regulatory interventions that has led to the decision in question and also evaluate the underlying motives and methods.

III. From competition policy to price regulation

From the beginning of the last decade, the European Commission (EC) has paid vigorous attention to the effective functioning of competition in the payment card industry, scrutinizing the conduct of both Visa and MasterCard. In line with the EU-level perspective of the Commission, these proceedings focused mainly on the multilateral regional interchange fees that applied to cross-border (intra-regional) transactions within the European Economic Area (EEA). Over time however, the line of regulatory proceedings has gone through significant changes and also its scope was expanded. Being embedded in this shift, the recent EC intervention in the Hungarian market cannot be understood without the evaluation of the proceedings prior to Visa's commitment.

a. Previous investigations of the European Commission

The first proceeding against Visa

First, the EC granted exemptions to the cross-border interchanges of Visa in 2002 for five years in exchange for major changes in the company's pricing behavior: based on a fundamentally cost-based approach, Visa was required to gradually reduce its rates for both credit and debit consumer cards. Although the previously prevailing fees are unknown due to business secrets, in five years gradually a 0.7% rate for credit cards and an immediate flat rate of €0.28 for debit cards were introduced, leading to an alleged 50% decrease in interchange revenues for an average intra-regional debit card transaction. As for the gravity of the intervention, these rates were applied only to the 10% share of intra-regional transactions from all interchange revenue as domestic markets were not included in the scope of the proceeding (European Commission [2002]).

Nonetheless, the Commission provided a consistent assessment of the interchange fee, which reflects the stance of theory at that time. It was stated that the multilaterally agreed interchange fee of Visa imposed an appreciable restriction on competition between both issuing and acquiring banks by constraining their pricing policies and in turn, fixing a floor to merchant discounts. It was acknowledged however that the interests of Visa as a network operator were inherently aligning with those of the Commission to enhance output, therefore the interchange fee itself was not considered to be a restriction by object due to its contribution to economic and technological progress.

Only the actual lack of both transparency and any objective justification regarding the – allegedly higher than optimal – rate of the fee was judged to be detrimental. These were eventually corrected for in the decision by requiring higher transparency standards and the regular provision of cost calculations that could serve as a price cap for interchange. As the exemption expired at the end of 2007 however, the EC initiated further proceedings against Visa on similar grounds as in the first case (European Commission [2008]). For that matter, this upheld scrutiny was only part of the rising tendency towards the regulation of the payment card industry at that time.

Parallel investigation against MasterCard

Meanwhile Visa's exemption period, a sector inquiry into retail banking was carried out and as a result, a proceeding against MasterCard was brought to an end in 2007. As there were no fundamental differences in the two companies' conduct and analogously the two cases were based on highly similar grounds, their comparison highlights the change in the regulatory assessment of interchange fees: instead of an exemption, MasterCard was required by the Commission to withdraw its cross-border interchange, with conditional fines imposed in case of non-compliance. In its decision, the Commission argued that a particular level of the interchange fee cannot be justified by economic theory alone and

MasterCard has failed to provide the necessary evidence neither on the contribution of its rate of interchange to economic and technological progress, nor on its indispensability or a fair share of benefits allowed for consumers (European Commission [2007a]).

However, the prohibition was temporarily repealed upon the company's appeal against the decision and its further pursuit to provide solid grounds for setting the cross-border interchanges at 0.2-0.3% (European Commission [2007b]). The appeal was rejected in 2012, yet MasterCard is appealing the judgment of the General Court as well (European Commission [2013]), meanwhile further applying an interim 0.2% intra-regional rate in case of its debit cards. The calculation of this particular rate of interchange was based on the recently developed method of the merchant indifference test (also as tourist test, see Rochet and Tirole [2008]), which shortly after was also applied to evaluate the commitment of Visa.

b. The emerging course of regulation

Although these investigations and decisions concerned cross-border interchange fees that lay outside the scope of this analysis, they reflect the mainstream standpoint of the European Commission on interchange fees in general. The principal points emerging from it, which in turn essentially conflict the theoretical literature, is that either a cost-based or a zero interchange is believed to cause less distortion than those set by card companies. The exemption of Visa and the resulting reductions in the company's rates of interchange was based on a purely cost-based approach, which was proven by the economic literature to be inadequate and misleading (Evans and Schmalensee [2005]). As a consequence, price regulation based on such calculations is potentially detrimental due to its insufficient consideration of network externalities. Without prohibiting interchange fees in general however, the Commission thereby placed the burden of proof upon card companies to justify the practice of multilateral price-fixing agreements, which otherwise was considered restrictive.

Only the evaluation of these economic justifications has changed over time, bringing higher standards for exemptions into the regulatory practice. However, in contrast to the Commission's expressed demand for robust results based on realistic assumptions that could provide grounds for exemption, in the MasterCard decision no such calculation supports the superiority of a zero interchange compared to the prevailing rates. Despite being established and upheld from a legal point of view, in my understanding the decision therefore lacked the proper economic substantiation of its outcome, ignoring the predominant recommendations of the theoretical and the meanwhile emerging results of the empirical research that had warned against potentially deteriorating restrictions on the interchange.

Due to the balancing nature of the interchange fee emphasized by the economic literature, such a restriction does not differ conceptually from any fixed price regarding its potential welfare effects. Accordingly, by the withdrawal of certain type of interchange fees, the Commission only initiated the substitution of a market distortion for another, based primarily on precedent markets that operate without interchange. However, these precedents were not evaluated in detail, providing no evidence on their superiority from a welfare point of view, let alone the validity of the same fee level applied to characteristically different markets. On the same grounds, Evans [2012] pointed out the shortcomings of the upheld MasterCard decision regarding the protection of consumer interests: focusing on merchant-side theories of harm, he argues, the Commission failed to provide any serious analysis on the balance of merchant- and cardholder-side pass-through effects, thereby falling short of the necessary consideration of overall consumer welfare. This absent line of thinking would include in particular the consideration of the balance, or the lack thereof, between two comparative statics that is expected to result from a reduction in the interchange fee: the increase in cardholder fees due to issuer pass-through and the merchant-side pass-through from acquirers to merchants and eventually to retail prices. Due to the merchants' sticky prices and the market power on the issuer side, the reduction of interchange fees has been shown in various cases to be detrimental to the final customers: the costs arising from the increased cardholder fees are prone to outweigh the gains from lowered retail prices (Evans and Mateus [2011]).

This ambiguous position is resolved by the Commission alleging that the outcome of the proceedings does not constitute price regulation, but only the abolition of a price in the course of enforcing competition rules. In its effect however, this line of enforcement sets a binding cap on the interchange fee that imposes an artificial price structure on a multi-sided payment card system. Moreover, it also has introduced temporal asymmetries into the competition of card networks throughout the parallel investigations: during Visa's exemption period MasterCard was free to set its cross-border rates, while the MasterCard decision, despite being still appealed, imposed a lower level cap on the company than Visa's expiring rate. Being limited to cross-border transactions, these constraints did not turn out to be decisive in the competition between card companies. Aggravated by an extended scope that already included domestic rates of interchange fees however, the subsequent proceeding of the EC against Visa represented a further step in the above outlined direction, only with more apparent effects on industry competition.

c. Visa's commitment

In the same year as the MasterCard case was closed, the exemption of Visa has expired. A year later, in 2008 the Commission initiated formal proceedings against the company. Meanwhile, MasterCard repealed its cross-border interchange fees and implemented a new methodology for calculating a substantially reduced rate of 0.2% for its cross-border debit interchange fees in 2009. By the time this provisional rates were to apply, the Commission has submitted the statement of objections to Visa. The objections, and also the commitments submitted in response, concerned all rates of the interchange fee that were set directly by Visa in the EEA, including those that applied for domestic transactions in various member states (European Commission [2009]). The EC initiated proceedings based on the same theory of harm that Visa's interchange fees had been restricting competition between acquirers, imposing a price floor under merchant acceptance and raising final consumer prices. At the same time the scope of the proceeding was broadened, so that it included Visa's domestic debit rates in nine national markets. This part of the proceeding was asymmetrically deviating in two major aspects from the previous cases.

The first aspect is the magnitude of the investigated conduct as it concerned domestic transactions that represent the overwhelming majority of the payment card market. The second is the scope of the proceeding as, in contrast to cross-border transactions in the EEA, the relevant markets for these transactions had heterogeneous characteristics despite the uniform level of interchange fees set by Visa. These imply a higher probability of this uniform intervention being erroneous, further aggravated by the increased gravity of imposing distortions on the domestic competition: the proceeding in effect pursued to constrain Visa, leaving MasterCard unrestricted in setting its domestic rates on the national markets involved. According to the Commission's explanation, the single reason for this broadening was that, in lack of a separate national level agreement, the cross-border rate applied to these markets as a fallback. In case of Hungary this was the corollary of the GVH decision that resulted in fines and a prohibition on coordinated agreements.

In 2010, upon the revision of its initial offer, Visa proposed a commitment that contained further reductions in the cross-border and domestic debit interchange fees that were covered by the statement of objections. Even though the level of these reductions highly resembled those of MasterCard's in their magnitude, leaving the rate of interchange capped at 0.2% for debit cards, in addition to cross-border transactions it also applied to those of certain domestic markets. In spite of the differences both in their initiation and the types of transactions the rates were to cover, the proportionality of both companies' fee reductions were assessed by the Commission on the same methodological grounds.

These assessments concluded that the proposed 0.2% level complies with the test, which is plausible due to the sharp cut from the previous outcome of the regulatory proceeding against Visa. At the same time, the Commission's duty included also to assess whether it is overly restrictive, however, neither the calculations nor the detailed results were made publicly accessible to support this conjecture. Owing to the above discussed multi-sided nature of the market, in my view this assessment would have been crucial to the optimization of payment system performance. Due to the heterogeneity of the domestic markets affected by the commitment, falling short of such economic evidence raises important questions regarding the consistency of the uniformly applied decision, in particular its validity to the Hungarian market. In the following chapter, I give an assessment of the commitment and its unintended consequences in detail.

IV. Commitment to an asymmetric regulation

The commitment decision against Visa represented a major shift in the European Commission regulatory practice both in its focus and the methodology that was applied to assess the level of the interchange fee cap. This change is interesting in particular as the Hungarian domestic payment card market was also included in the geographic coverage of decision. Despite the increased gravity, this inclusion was only incompletely substantiated, showing serious flaws in its economic foundations. In the following, I assess these deficiencies and identify the unintended consequences the asymmetric regulation has caused.

a. Methodological flaws of the decision

The methodology applied to evaluate the given rate of interchange, though theoretically appealing, was only recently established at the time the proceeding was carried out. The merchant indifference test (or tourist test), developed by Rochet and Tirole [2008], determines the threshold level of the interchange fee that leaves the merchant indifferent between accepting cash or card payments by comparing the transactional costs and benefits of these method of payments. However, it requires a different set of data for the analysis then the previously used cost-based approach. Having departed from issuer-side costs and prices, the regulatory focus shifted to the merchant-side economic effects, that is the costs and benefits realized from transactions that were conducted using a given payment instrument. These in turn had to be measured in a precise and detailed manner, which has led the Commission to carry out a large-scale survey of retailers in ten member states (European Commission [2013]). The results are expected only in late 2013, nevertheless the decision about the Visa commitment was made binding in 2010 for 4 years.

The data, yet on which the underlying assessment relied, has been gathered from four central bank studies conducted in the Netherlands, Sweden and Belgium and published between 2004 and 2007 (European Commission [2013]). Even if the market conditions have not changed since then, according to the data I analyzed, these benchmark markets were at reasonably different levels of development than some of the domestic markets included in the decision[4], in particular the sole representative of the relatively underdeveloped Eastern European region, Hungary. At the time the data to these studies was collected, the share of card payments from total card transactions and from all consumer payment transaction in Hungary were on average 15% and 8% respectively, in contrast to the 60% and 40% in the benchmark countries. Even at the time of the decision, the development of the Hungarian market has still not reached the development level of these countries (22% and 15% compared to 70% and 50% respectively). These different characteristics arguably affect the direct and indirect cost and benefits realized from card acceptance, in particular those emerging from scale economies and network externalities. Due to this heterogeneity, applying the same price structure to all domestic payment card markets in my view is inadequate, yet the Commission decision approved of the uniform 0.2% rate as necessary and appropriate.

Due to these probable sources of deficiencies in the economic assessment behind the decision, the adoption of a theoretically well-established framework was only a partial and precarious advancement. Rather the regulatory tendency of the Commission showed a clear initiative to reduce interchange fees based on a theory of harm that was supported by empirical evidence only to a limited extent. In the MasterCard decision, the Commission emphasized that the zero interchange fee

[4] Beside Hungary and the providers of the benchmark data Sweden and the Netherlands, the commitment included Western European countries: Greece, Iceland, Ireland, Italy, Luxembourg and Malta.

constitutes no price regulation, but the elimination of a price that was set in an anti-competitive way; however later it approved of a non-zero cap both in case of MasterCard and Visa. This explicit deviation from the original regulatory standpoint makes the necessity of an economic justification even more pronounced. The above outlined caveat of the Commission's practice is that if the interchange is presumably impeding effective competition, any particular cap – either zero or non-zero – has to be shown superior from a welfare point of view by testing it against alternative scenarios based on actual market characteristics. Concluding that the given proposal of a 0.2% rate complies with the merchant indifference test, the Commission merely ensured that merchants are better off with the regulation, but did not consider its overall effects on payment system performance and consumer welfare.

The additional problem is that in theory the test only identifies a threshold level and implies that deviations to either side might lead to suboptimal performance of the payment system: a particular level of interchange that complies with the test is therefore neither higher, nor lower than this threshold. In lack of detailed calculations however, the relation of the determined 0.2% rate to the underlying threshold is also absent from the decision. Tirole (2011) argues that even this threshold is only a conservative approximation of the socially optimal fee level as it neither reflects industry profits and the resulting effects of interchange – or the lack thereof – on innovation, nor the social costs of cash that include also tax evasion and the related black economy. Based on this deliberation, he warns policy-makers in particular against downward deviations from the test threshold level by pointing out that a higher rate might constitute a second-best policy solution to promote card usage.

Furthermore, constituting an effective price regulation on domestic markets, these tests should have included the prudent competitive assessment of any intervention, let alone the effects of a price-cap imposed asymmetrically on a duopolistic market. Such effects of the Visa decision, the proper evaluation of which it fell short of, turned out to be pivotal on the Hungarian payment card market: the subsequent decline in Visa's market position is pointing towards a monopolistic structure, with MasterCard remaining the dominant operator. In my view, by adopting the commitment, the Commission rendered ineffective the national level competition between the card companies as an unintended consequence. In response to this distortion in the competition however, the adapting operation of issuers is rendering the outcome of the intervention ineffective as the interchange fee, to which Visa has committed itself, applies to a plummeting share of transactions. Although the EC regulation has not managed to alter the prevailing level of interchange fees, the thereby tipping balance of the Hungarian payment card market poses a serious policy challenge to the national authorities.

b. Unintended consequences tipping the market

Above I overviewed and evaluated the European trend of interchange fee regulation that underlies the commitment decision in the EC proceeding against Visa. I pointed out the relevant flaws and deficiencies of the preceding decisions and concluded that these remained present in the adoption of the commitment. While the previous regulatory outcomes introduced provisional asymmetries of only minor importance (cross-border transaction interchange) into the industry competition, the commitment decision already covered complete domestic markets, therefore aggravating the outlined deficiencies and imposing an asymmetric constraint of major gravity on Visa. In the following, I assess the unintended consequences of this constraint in the Hungarian market, then present the response the national authorities proposed to correct for the thereby created market distortion and evaluate the potential impact of such an intervention.

As the presentation of the Hungarian market structure outlined previously, since 2010 the market position of Visa has been exponentially deteriorating. The market loss accounted for around 800 thousand payment cards, most of which were revoked from the debit segment, where MasterCard is the only incumbent competitor and Visa had already been the smaller operator possessing only third of the market. Subsequent to its commitment, the company lost a third of its market share in card issuance and the retail purchase turnover of its network dropped by almost 30%. As this loss well exceeded the magnitude of market growth, based on my calculations in Chapter II, it is apparent that not only the composition of newly issued cards shifted significantly, but the majority of the realignment came from the reissuance of Visa debit cards as MasterCard.

Table 1: Interchange fees of MasterCard and Visa by types of transaction in Hungary

	MasterCard (Maestro)		Visa	
	Formula	*Avg. rate**	*Formula*	*Avg. rate**
Low value	0.40% + HUF 12	0.56%	n/a	n/a
Chip	0.40-0.50% + HUF 12	0.66%	0.15-0.19% + HUF 4	0.19%
PayPass	0.30-0.50% + HUF 0-12	0.48%	n/a	n/a
Base	0.80% + HUF 12	0.96%	0.19% + HUF 4	0.19%
E-commerce	0.40% + HUF 12	0.56%	0.15% + HUF 4	0.18%

*Average rates were calculated using the average transaction value (HUF 7650 in 2012) irrespective of type
(Data source: MasterCard [2013] and Visa [2013], Euromonitor)

This pattern of issuer-side conduct is probably in close association with the asymmetric competitive constraint imposed on Visa by the adoption of its commitments. Although the decision became binding only in 2011, as the licensees of Visa, the Hungarian member banks had probably anticipated the decision since the consultations about the initial proposal took place throughout 2010. The market leader OTP for instance stopped issuing several types of Visa cards in late 2009 and by 2010 started to provide MasterCard as a replacement for the remaining Visa cards (OTP [2013]). Even though no detailed historical information is available on the bank's card portfolio by trademarks, assuming the average domestic market share of Visa, more than a million cards of the company depend on the rate at which OTP is realigning its portfolio, let alone its followers as smaller issuing banks compete fiercely for debit clients.

In my assessment, the main driver of the restructuring of banks' card portfolio is the price gap between the interchange fees offered by card companies to issuers. Currently both companies set a combined fee of a smaller fixed part and an on average larger *ad valorem* part. The price competition of the recent years is well illustrated by the fact that due to the cap on its fee, Visa's average *ad valorem* component is of the same magnitude as MasterCard's fixed component, while on average the total value of MasterCard's interchange fee is 3-4 times higher than that of Visa (Table 1)[5]. In comparison to countries either from the region or those involved in Visa's commitment however, MasterCard's rates in Hungary are among the lowest (Table 2). Nevertheless, the huge artificial gap between the companies' interchange fees – created by the asymmetric regulatory constraint on Visa's pricing – provide a plausible explanation for the overwhelming shift in card issuance toward MasterCard.

Table 2: Domestic debit interchange fees of MasterCard by country

Hungary	0.40%-0.80%
Greece	0.40%-1.05%
Sweden	0.80%-1.20%
Czech Republic	0.50%-1.15%
Romania	0.20%-1.50%
Slovakia	0.45%-1.00%
Poland	0.80%-1.60%

(Data source: MasterCard [2013])

[5] Throughout the comparison, I present MasterCard's interchange fees for Maestro cards, as this is the trademark dedicated to the debit segment. Despite there are also other types of MasterCard debit cards in circulation, the overwhelming majority in Hungary is already under the Maestro trademark.

The exit threat of Visa

In response to this robust shift and the binding constraint on its interchange fee, Visa publicly announced in late 2012 that it considers leaving the Hungarian market. Without further steps in this direction, the announcement constitute an exit threat towards the parties concerned, that is primarily the national competition and regulatory authorities. The precise meaning of the exit in such in industry is far from clear, but reasonably it comprises of giving up the issuance of cards under the trademark of Visa. Abandoning the acquiring activity constitutes a seemingly irrational move as it would exclude not only the remaining cards in Hungary, but also the cards issued abroad from payment possibilities, thereby imposing significant reputational costs on the company. On the other hand, the exit from the issuing business would mean that the member banks of Visa cease to be the licensees of its trademark, thereby replace all the remaining Visa cards in circulation and stop further issuance in Hungary.

Even though no detailed historical data is available on the changes in issuers' card portfolio in Hungary, this line of exit is virtually identical to the realignment carried out by the intermediary banks in the recent years: established by the EC regulation, the artificial gap between the competing card companies' interchange fee had the same impact of excluding Visa from the market. In lack of the necessary information on Visa's costs structure related to the operation of its payment network in Hungary, no numerical assessment can be presented here to analyze whether the company is to fail breaking even in the debit segment below any particular market share. However, some points regarding the credibility of the threat can be outlined.

First, there are precedents of national markets, in which either Visa or MasterCard is operating at a permanently lower level of market share than that of Visa's in Hungary presently. In Austria

MasterCard has been possessing more than 90% of the debit segment in the last five years, while throughout the same period in Portugal Visa has been holding the 80% share of debit cards. Although Portugal has twice the market size, Austria is only slightly larger than Hungary regarding the number of payment cards in circulation and still, Visa has endured for several years with a one-digit share.

Second, the commitment of Visa applies for four years from the beginning of 2011, thereby more than half of the commitment period has already elapsed and by 2015 it is going to expire. Although Visa's market loss is presumed to continue until then, without policy change the field for competition is going to be leveled thereafter. Moreover, the results of the European Commission's merchant survey are due in late 2013, providing on one hand potential grounds for the revision of Visa's commitments, and also advancement in the current proceedings against MasterCard.

Third, as the recent years have shown, competition in the Hungarian market is highly driven by the price differences in interchange fees. Therefore freed from the cap to which it has committed itself, Visa is likely to regain its ability to compete MasterCard at least for the newly issued debit cards. This possibility is amplified by the ongoing investigation of both the EC and GVH against MasterCard. Inferring from the past trend of regulatory interventions in the industry, these proceedings are likely to result in the further reduction of the company's interchange fees, thereby closing the gap between the companies' interchange fees.

Although the exit threat does not appear credible based on the above deliberation, the current expansion of MasterCard towards a monopolistic position is pointing to the same direction. According to my assessment, in its effect the EC regulation introduced a decisive distortion into the competition of Visa and MasterCard, such that the responding conduct of issuing banks in particular resulted virtually in the same outcome as otherwise an exit would. This tendency is represented by MasterCard's share reaching 85% of the debit market based on my conservative forecast, a concentration of the industry which deserves the careful oversight of the authorities that either aim at protecting effective competition or at optimizing payment system output.

Prior to the exit threat the in 2012, the Hungarian Competition Authority (GVH) initiated a proceeding against MasterCard on suspicion of excluding competition through the abuse of its dominance (GVH [2012]). Previously the National Bank of Hungary (MNB) called for reforms in the payment system in its 2012 report (MNB [2012]) but it was only following the threat, that the Ministry for National Economy (NGM) joined the discussion and unofficially proposed a set of regulatory policies that includes in particular the substantial reduction of the domestic interchange fee level. In the following, I outline the policy proposal and discuss the adequacy of such an intervention.

V. Regulatory response adapting to a distortion

Both competition policy and regulation are ought to act in favor of public interest by enhancing social and economic welfare: any design of regulatory intervention should rely on a clearly identified market failure, take account of the relevant market distortions throughout the payment system and compare the costs – including those expected from unintended consequences – of the intervention to the benefits it is likely to bring forward. Although the binding commitment of Visa indeed introduced a decisive, though temporary, market distortion to the competition of card companies, the responding regulatory policy design must primarily aim at optimizing the performance of the payment system given this condition. Only to the extent that fosters this performance should the regulator try to correct for the distortion itself: in the presence of multiple distortions, eliminating a single one irrespective of other factors might lead to further deteriorations in overall performance, and this holds also for the asymmetric regulatory constraint in question.

a. Regulatory proposal

The undisputed reason underlying the promotion of cards within the payment system is that cash is more expensive at the level of society, therefore the most important potential failure is the inefficiently low usage of card payments, which is particularly pronounced in the case of Hungary as the analysis of market development showed in Chapter II. Based on the results of the MNB's recent joint research with the GVH (Keszy-Harmath et al. [2012]), in its 2012 report on the domestic payment system, the National Bank concluded that the promotion of issuance through high interchange should be replaced with an approach to reduce the costs of card acceptance. The report asserts that the present conditions of the market justifies regulatory intervention.

As for the direction of this intervention, the report proposes three recommendations to the NGM in order to enhance the performance of Hungary's payment system (MNB [2012]). These were to:

- reduce the rate of interchange fees
- directly subsidize small retailers in acceptance by helping them to install POS terminals and
- make card payments mandatory above a given threshold in certain industries, and limit the use of cash in various areas of the economy (ibid. p21.).

This set of recommendations concentrates on the merchant side alone due to the previous research showing that the development of card acceptance is relatively weaker than that of issuance in Hungary (Keszy-Harmath et al. [2012]). In line with this result, all three recommendations aim at the improvement of system performance by providing incentives for merchants to join payment card networks. In particular, the first two measures target reductions in the fixed and variable costs associated with card acceptance, respectively through state subsidy on investment in card accepting infrastructure and a substantial cut from the interchange fee component of the merchant discount. Owing to relative significance of this latter, in the following I focus on the proposed reduction in the rate of interchange.

At the core of this initial, there is the assertion adopted from the EU proceedings, that the prevailing rate of interchange fee, being excessively high, is hindering the development of the acquiring and accepting network, both by limiting competition and by raising the costs of merchants. However, as the rate of card acceptance is not the ultimate indicator of payment system performance that needs to be optimized, there is a strong belief underlying this regulatory approach that the proliferation of card payments stands or falls by merchants' propensity to accept them.

In the course of the consultations that followed the exit threat of Visa, the NGM backed the recommendations and also specified a particular level of interchange fee reduction in an unofficial proposal[6]. According to the information on its contents, the rate of domestic interchange fees are to be

[6] The contents of the proposal and the following consultations were published in the media, see Portfolio [2013a]

maximized at the cross-border fee levels. Although this type of determination does not impose a direct cap on domestic fees, in case of both companies, indeed it would mean the adoption of the 0.2% rate for debit cards, which emerged in the last decade through parallel competition policy investigations against the card companies. In the following, I evaluate the proposed intervention in line with my assessment of the European Commission regulatory proceedings.

b. Evaluation of the proposed plans

In its most plausible effect, the reduction would level the interchange fees of card companies, by virtually imposing the same cap that binds Visa also on MasterCard. This line of intervention completely eliminates the asymmetric competitive constraint, by adjusting the permanent regulation to the temporary commitment that has led to the market distortion – as an unintended consequence – in the first place. In fact, as the cap imposed by the EC commitment decision on Visa cannot be overruled by the national authorities, this is the only feasible way to level the domestic competition. As for the effects of such an intervention on overall system performance and consumer welfare however, the adequacy of the proposal is unclear: despite an equalized playing field, the major cut in the level of interchange has an inevitable impact on the internal balance of the card payment system on the whole. I argue that these two regulatory goals have to be separately assessed in spite of the seemingly similar direction of the interventions required to achieve them:

- whether regulation should reduce the overall rates of interchange depends on the regulatory assessment of the characteristics and development of the payment system, and the concluded optimal level of the interchange.
- whether regulation should level the playing field depends on the competitive assessment of the market distortion caused by the commitment of Visa and the theories of harm emerging from the gap between the interchange fees of the two companies.

The lack of the above separation in the proposed intervention leaves it unclear whether these assessments align in their results, or there is a trade-off between leveling competition and enhancing payment system performance. Due to the wide gap between the two companies' rates of interchange that needs to be eliminated in order to restore the equal playing field for competition, the two goals are likely to conflict each other above a given threshold of fee reduction. As a consequence in my view, the intervention in its current form is likely to miscarry the proposed plan of enhancing social and economic welfare; it appears to serve primarily the leveling of the asymmetric competition. In the following, I give an assessment of the proposed policy design along these two lines, comparing the expected net benefits from the overall reductions to those emerging from the equal grounds for competition.

Is an overall reduction justified?

By adopting the outcome of the EU proceedings, the previously outlined shortcomings of these decisions apply to the proposed regulatory design also. In particular, there is an utter lack of proper substantiation regarding the rate of the regulatory price cap: apart from the initial study and the recommendations by the MNB, no economic analysis has yet been provided to justify the measure. Even these recommendations did not present any discussion about the exact level of the cap, as only the need for reducing the interchange fee was highlighted in the report of the MNB (MNB [2012]). Moreover, this explicit call for intervention has already constituted a huge leap from evidence-based policy-making as it was only weakly supported by the industry research that was used as core reference. The modest conclusion of the preceding MNB-GVH study, later interpreted as an urge, was that without further assessment and impact studies "we should not completely dismiss the idea that regulation could improve the operation of the market" (Keszy-Harmath et al. [2012] p75.). In lack of such economic assessment, let alone the absent impact studies, the cited conclusion provide clearly insufficient grounds for intervention, therefore the proposed 0.2% rate of interchange is prone to miss the optimal fee level that both fits the characteristics of the market and is expected to optimize the development of it.

Imposing a price cap on a multi-sided market is expected to tilt the balance of the price structure, affecting the price level at both sides of the industry. In particular, as the profitability of issuers is reduced substantially with the interchange revenue decreasing to almost the third of its current level (according to the average interchange of MasterCard debit cards), banks are expected to pass through a portion of this loss to their clients in the form of higher cardholder fees, while the merchant discount is expected to decrease to the extent that acquirers pass through the reduction in their costs. These partial pass-through effects are expected to hold with OTP in possession of significant market power at both sides of the banking level.

On the issuer side, there has been already fierce price competition, due to the setback in profitability upon to the crisis and the subsequent economic policy measures like the extra tax on the sector and in particular the transaction levy in place, which latter is exactly of the same size (0.2%) as the proposed level of interchange. Even before these extra burdens were placed on the banking sector, in 2009, the threshold level of interchange that ensured issuers to break even was calculated to be 0.13% (Keszy-Harmath et al. [2012] p59.). As a result, for the issuing activity to remain profitable, a substantial amount of the loss can be expected to translate into a price increase in cardholding. On the acquirer side, OTP has already been offering favorably low prices to merchants due to the bank's high ratio of on-us transactions, however, the reduction in interchange probably outweighs this advantage, and therefore a further reduction in the merchant fee is expected. In contrast to the assertion of the authorities, this reduction is only going to affect the absolute value, not the rate of OTP's competitive advantage in merchant discounts as the ratio of on-us transactions remains constant in the short run, leaving the competitive landscape unchanged. The crucial question is whether merchants are expected to pass through the resulting reduction in their costs, and if so, to what extent: inferring from the so far low level of card usage and the fierce price competition between large-scale retailers, there is probably no significant room for a substantial reduction in the otherwise typically sticky prices.

Departing from the comparative statics, some basic conjectures about the long-run dynamic effects can be formulated: the number of debit cardholders is likely to decrease due to the higher cardholder fees, while a number of small-scale merchants is expected to start accepting card payments. However, the surveys discussed in the MNB background study showed that less than 20% of merchants not accepting card payments are reluctant because of high costs (Keszy-Harmath et al. [2012]), therefore the latter dynamic effect is expected to remain limited. Overall, the positive balance of the welfare effects on the two sides of the market is far from straightforward, while the available empirical evidence on interchange fee caps suggests that the binding cap imposed on the interchange is likely to deteriorate consumer welfare by raising cardholder fees and retail leaving consumer prices unchanged (see Evans and Mateus [2011]).

The adverse effects of such a constraint are only more pronounced as, although being present in the adopted EU practice, a major element of flexibility is also absent from the proposed policy design: such a regulatory approach deprives card companies of the opportunity to justify any rate of interchange fee other than the one established by the intervention, rendering persistent a potentially erroneous constraint. In my view, the potentially detrimental effect of such intervention holds particularly in the long run, because the expiration of Visa's commitment is presumed to result in the similar field-leveling outcome, only without imposing unsubstantiated constraints on the price structure of the whole industry.

Instead, the unfolding line of regulation in Hungary favors to align with the European Commission's initiative, irrespective of its emergence and adequacy. Despite the fact that neither in the EC decision about Visa's commitment, nor in the present regulatory proceedings was the 0.2% rate of debit interchange justified to improve payment system performance and consumer welfare in Hungary, currently it is proposed to apply for the whole domestic payment card market. In addition to the lack of proper justification for the overall reduction in the rate of interchange, below I outline the potential effects of such a sharp leveling cut on the development of the market.

Is leveling the competition beneficial?

Although the proposed intervention aims explicitly at enhancing payment system performance, in lack of the above justification, it is capable only of leveling the grounds for competition between Visa and MasterCard. However, the recent years of industry competition under asymmetric price regulation and its effects on industry performance have not been properly evaluated yet, leaving unclear the gravity of the distortion that the intervention is expected to eliminate in its primary effect. The ongoing GVH investigation against MasterCard is supposed to fill this gap *ex post*, however, the regulatory proceeding appears to limit the scope of this competition policy procedure and leave out its potential results from the policy design as irrelevant.

Following the adoption of Visa's commitment, the recent years have shown another major tendency beside the marginalization of the company: the innovative technology of contactless payment cards have started to spread at an outstanding pace. The emergence of the near field communication (NFC) technology represents a substantial level of product differentiation within debit cards as it allows merchants and their customers to conduct card payments in a faster and more convenient way. The technology is especially suitable to substitute low-value cash payments with card use, therefore targets the same type of transactions as the present regulatory proceeding, that is retail purchases at smaller merchants. For the consumers it offers a more appealing competitor for cash than traditional payment cards, while the merchants and acquirers benefit from the reduced level of interchange fee that is usually the lowest among all transaction types.

Implementing the new technology necessitates two lines of development, analogous to the general functioning of the card payment market: besides issuing cards with improved product quality, those in circulations without NFC have to be replaced, and in parallel, the accepting network has to be upgraded by the replacement of POS terminals with those capable of handling NFC payments. From the previous year to 2012, 18% of the cards in circulation got equipped with the NFC technology (Euromonitor [2012b]). Almost the fifth of all cards were thereby upgraded in a year's time, reaching a level of penetration that is way above even that of Western European countries[7]. Meanwhile, according to the data on acceptance, more than 25% of the installed terminals in Hungary were capable of accepting NFC payments in 2012[8]. The leading innovator in Hungary is MasterCard with the promotion of its PayPass cards, while OTP, as the market leader in issuing and acquiring, is the most active bank in delivering both the debit cards and the compatible POS terminals equipped with NFC technology.

In my view, the main driver of this innovative trend has been the realignment of the market due to Visa's continuously deteriorating position. The reason behind is exactly the vast amount of the company's debit cards that has been reissued in the recent years, as this tendency provided first of all the opportunity for banks to replace traditional cards with those using the improved quality NFC technology. By seizing this opportunity, issuers have created the differentiated demand for contactless

[7] In Sweden and Italy it is 10%, in the UK 8,7%, in France 5,9%, in the Netherlands 4%, in Germany 3,6%, in Denmark, Spain and Portugal around 2% (Euromonitor).

[8] The data is provided by the MNB as cited in Portfolio [2013a].

card payments, in particular below a threshold value of transactions. Without the detailed data on the transaction turnover of these cards, only the tendency towards a smaller average transaction value and an increased card usage can be pointed out.

This tendency is also supported by the reduced level of interchange fee that applies to contactless transactions. MasterCard offers the lowest interchange in case of PayPass terminal transactions by eliminating the fixed component, and decreasing the *ad valorem* part to even 0.3%. Although Visa also provides contactless cards, probably because the company's negligible share from newly issued cards, there is no differentiated fee set for NFC transactions, therefore the average 0.2% rate is assumed. With the dynamic proliferation of NFC payments therefore a downward shift can be observed and further convergence is expected in MasterCard's average rate of interchange.

Although there is no detailed information on the extent of this shift being translated into transaction volume, it can be seen that the innovative development of the payment card industry points to the same direction as the proposed regulation. In particular, I emphasize the effects of innovation on the development of acceptance: both by decreasing the costs of merchants through the reduction in the interchange and also by enhancing consumers' propensity to use card payments through improving product quality, MasterCard has shown increasing ability to develop the network of the Hungarian payment card market. Yet, the regulatory intervention in progress is likely to hinder this development by decreasing industry profitability and removing incentives that otherwise would drive innovation in the payment card market to a further extent.

This hindering effect on innovation is even more pronounced if the prospects of future innovation activity and the corollary gains in efficiency are also taken into account. The effects of the NFC technology is not confined to the contactless card instruments, but also include mobile devices at both end of the retail transactions[9]. On the merchant side, with lower investment requirements and convenient mobile usage possibility, these devices are able to compete with traditional POS terminals at various types of industries that has potentially not been accepting this far. On the consumer side, either the outstanding share of contactless cards, or the newly introduced smartphones equipped with NFC technology can increase the propensity for the usage of digital payment methods, owing to the convenience benefit of end consumers. The card companies have already designed the applications required to mobile NFC payments and telecommunication companies are also showing an apparent interest in providing the hardware background to banks. The technology allows for even peer to peer, and remote transactions (e.g. QR-code), rendering new kinds of secure purchases and payments possible, while making traditional ones more efficient, thereby contributing to both economic and social progress.

In Hungary the three telecom operators, IT companies, OTP and Citibank and MasterCard has already assembled the Mobile Wallet Association, running pilot projects in the above direction. However, the outlined potential of market development depends on an even more complex industry structure, including in particular the telecom operators as a supplier of payment devices. As a result, a new kind of income transfer is expected to appear in the form of rental fee, paid by banks to telecom operators for the provision of SIM cards as secure payment instruments. Meanwhile banks and card companies are engaged in the development of the accepting network that both their NFC cards and also the mobile devices are going to use. The wake of the outlined restructuring of the industry also going to alter the nature of competition between payment instruments essentially, pointing towards an increasingly efficient digital substitution for cash payments without regulatory intervention.

[9] The industry outlook relies heavily on an interview with the secretary of the Mobile Wallet Association in Hungary (Portfolio [2013b])

Although the consequences of such changes in the industry structure are unforeseeable at the moment, a few implications for policy-making can be formulated. The payment card industry is at the beginning of a structural realignment, the base of which is provided by the increased incentives of the incumbents to develop both the network and the payment instruments in circulation. Interestingly, the accelerated pace of this tendency is associated with the provisional commitment of Visa and the resulting years of competition under asymmetric regulation. In my view, leveling this imbalance would indeed restore the even playing field for card companies, but the proposed overall reduction in the interchange fees would lead to an outstanding decline in issuer profitability, slowing down innovation activity in the industry. According to my assessment, this intervention is likely to hinder the development of the NFC accepting network, the proliferation of more advanced methods of payment and the associated realignment in industry structure, thereby pulling back economic and technological progress in the long run. In addition to ambiguous welfare effects due to the expected increase in cardholder that is not compensated through the reduction of retail prices, also the opportunity costs of hindered innovation are added to the drawbacks of the proposed policy plan.

Conclusion on the proposed policy plan

European competition policy has been holding the interchange fees of the major global payment card companies under close scrutiny for over a decade, sequentially investigating the price setting conduct of both Visa and MasterCard. The focus of these proceedings shifted gradually to explicit price regulation by placing binding caps first on the interchange fee of cross-border card payment transactions, then also on the domestic transactions of the national markets included in the commitment decision against Visa in 2010. However, this expansion in the scope of EU-level regulation was not accompanied by the emergence of a robust methodological framework to assess the economic effects of price regulation on consumer welfare.

The main deficiency of the European Commission's regulatory practice was twofold in my assessment: first, the particular level of caps on the interchange that emerged throughout the proceedings lacked the proper substantiation regarding the balance of the payment systems; and second, neither the uniform inclusion of domestic markets was justified on economic grounds, nor the competitive assessment of such intervention was assessed with due care *ex ante*. As an unintended consequence of the regulation, the combination of these flaws resulted in a market distortion that tipped the competition of the Hungarian market towards the expanding dominance of MasterCard and the parallel marginalization and exit threat of Visa. In response to this asymmetric regulation and the substantial realignment of the domestic market it has caused, the national authorities proposed a regulatory intervention that would level the competition between the card companies in its effect by imposing a general cap on domestic interchange fees. The further influence of the commitment decision emerged in the course of designing this regulatory policy, as the proposed level of the price cap is apparently aligning with the European Commission approach without further substantiation of its adequacy to enhance payment system performance.

By adopting the outcome of the European Commission's proceedings that specified the particular 0.2% level of interchange as optimal, the proposal of the Hungarian authorities also carry the flaws of these decisions. First, the data underlying the determination of the cap was gathered in national markets that are highly unlikely to be appropriate benchmarks for Hungary due to the huge gap in payment system development. Second, even if the results would be externally valid, the calculation of the particular level was not made transparent and lacks the proper economic substantiation. Due to the unique nature of the interchange as a balancing price and the associated methodology applied to determine the cap level, a careful two-sided test is required to ensure that the performance of the payment system is optimized. Lacking the robust economic grounds, according to my assessment, both deficiencies point to the reduction being excessive and inadequate for enhancing consumer surplus in the Hungarian market.

In my view, the proposed intervention by the Hungarian authorities is aimed primarily at leveling the competition between Visa and MasterCard, thereby preventing the monopolization of the market. Due to the multi-sided nature of the market and the related theoretical deliberations, which imply that the private interest of card companies is largely aligned with those of the society, such a field-leveling regulation is far from straightforward regarding its welfare effects. In particular, by adopting a potentially erroneous cap that does not take proper account of the present market characteristics, the balancing role of the interchange is likely to be hindered. Due to the trade-off between leveling the competition and optimizing payment system performance, the second-best regulatory response is not necessarily to correct for the unintended consequences of the EC regulation. I argued that the benefits of such an equalizing price regulation would introduce further distortions into the Hungarian market instead of eliminating the one emerging from the asymmetric price regulation.

The central point of my analysis is that the distorting competitive constraint – imposed on Visa by the commitment – introduced substantial incentives for MasterCard to develop the Hungarian market. The vast amount of cards reissued due to the gap between the two companies' rates of interchange made it possible to rapidly improve the quality of these payment instruments and the recent years of competition under asymmetric regulation resulted in the unprecedented proliferation of differentiated NFC payment instruments. The technological progress represented by contactless cards is pointing to the same direction as the proposed regulatory proceeding: by incentivizing both consumers (through convenience benefits) and merchants (through a lower rate of interchange) to substitute cash in case of low-value payments, this line of innovation is efficiently enhancing card usage, which is the ultimate goal underlying any regulatory intervention.

In my view, the main disadvantage of the proposed intervention is that it adapts the permanent regulatory framework to a temporary distortion. The detrimental effects of imposing a price cap – that in turn lacks the proper assessment of the adequacy of its level – is likely to decrease the profitability of the sector by transferring income to retail merchants instead of protecting the welfare of end consumers. As the exit threat of Visa is not credible and upon the expiration of its commitment the company is expected to freely compete MasterCard in a more developed market, the best response of the regulator in the present case is not to hinder the economic and technological progress by intervening without robust justification. This detrimental effects is only more pronounced by the market outlook that prospects a substantial realignment in the industry structure. As a conclusion, I propose for the authorities to both support and scrutinize the coordinated activity and the development of the restructured industry instead of attempting to correct for an artificial and temporary market distortion on insufficient economic grounds.

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