COMPETITION POLICY INTERNATIONAL

CPI Antitrust Chronicle

Oct 2014 (1)

How the Proposed Payments Legislation Will Restrain Competition Among Payment Card Schemes and Harm Consumers in the European Union

David S. Evans (Global Economics Group, University of Chicago)

How the Proposed Payments Legislation Will Restrain Competition Among Payment Card Schemes and Harm Consumers in the European Union

David S. Evans[1]

I. INTRODUCTION

The European Parliament, in early April 2014, endorsed and further extended draft legislation,[2] originally proposed by the European Commission, which will impose sweeping regulation on payment card businesses.[3] The backers of the legislation claim that it will nurture competition, innovation, and consumer choice in the European Union.[4] In fact, if adopted in the current form, it will reduce competition among payment systems in the EU, impede the entry of new schemes, weaken innovation, and decrease consumer choice. European consumers will end up paying billions of euros more in fees. The legislation will squelch virtually all challengers to MasterCard and Visa.

One doesn't have to speculate about these effects. There are already dead and wounded victims in plain sight. The European Commission's recent policies have eliminated the most serious emerging pan-European challenger to the global card networks. A group of 24 banks drawn from across major countries in Europe tried to start a competing pan-European card system a few years ago. After being rebuffed by an intransigent Commission, set on shifting the cost of payments from merchants to consumers, the Monnet Project folded in April 2012. Several other attempts are all but shuttered. European consumers have already lost competition, choice, and innovation as a result.

---

[1] Chairman, Global Economics Group; Executive Director, Jevons Institute for Competition Law and Economics and Visiting Professor, Faculty of Laws, University College London; and Lecturer, University of Chicago Law School. I would like to thank Steven Joyce and Alexis Pirchio for excellent research help and American Express for financial support. The views in this paper are my own and do not necessarily reflect the view of any of the people or institutions mentioned above.

[2] European Parliament, "Amendments adopted by the European Parliament on 3 April 2014 on the proposal for a directive of the European Parliament and of the Council on payment services in the internal market and amending Directives 2002/65/EC, 2013/36/EU and 2009/110/EC and repealing Directive 2007/64/EC (COM(2013)0547 – C7-0230/2013 – 2013/0264(COD))". April 3, 2014. Available at: http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2014-0280+0+DOC+XML+V0//EN

[3] The Commission's initial proposals are currently being considered by the European Council, before Trialogue discussions commence at the end of 2014, or beginning of 2015, with a view to finalizing the legislation for adoption by the European Council and European Parliament.

[4] European Commission, "Proposal for a Regulation of the European Parliament and of the Council on Interchange Fees for Card-Based Payment Transactions". COM(2013) 550 final. July 24, 2013. Available at: http://www.ipex.eu/IPEXL-WEB/dossier/document/COM20130550.do; European Commission, "Proposal for a Directive of the European Parliament and of the Council on Payment Services in the Internal Market and Amending Directive 2002/65/EC, 2013/36/EU and 2009/110/EC and repealing Directive 2007/64/EC". COM(2013) 547 final". July 24, 2013. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0547:FIN:EN:PDF

The cornerstone of the draft legislation involves caps on the "multilateral interchange fees" ("MIF") that banks that service merchants pay to banks that service consumers when consumers use their cards to pay at merchants. These caps apply to banks that are members of the four-party bank-card networks.[5] The fee caps will reduce the revenue that cardholders' banks receive from merchants' banks by as much as 84 percent for debit and 73 percent for credit in some European countries. That is an experiment that several countries around the world have already performed with widely reported disastrous results for cardholders. When the merchant-side pays less the consumer-side pays more. Consumer fees go up, or services go down, and by far more than consumers may ever see back in lower prices from merchants.

It is even worse than that. By making every four-party bank network, in every country in Europe, have exactly the same MIF for every transaction regardless of the amount or type of merchant or any other factor, the legislation limits the ability of these four-party networks to compete through price and product differentiation. Perversely, given the claimed purpose of the legislation, this approach will soften competition between MasterCard and Visa. That will exacerbate the harm to European consumers through less choice, higher prices, and less innovation.

The defects of the legislation are most apparent in the treatment of the smaller card systems that operate primarily as standalone companies and do not involve large networks of banks. These companies, which are called "three-party systems," account for less than 5 percent of debit, credit and charge card volume in the EU. Their presence is known to be modest—less than 10 percent in virtually all EU Member States. Yet the legislation sweeps them into regulations that were originally motivated by competition concerns about the large four-party bank networks.

According to the legislation, if one of these standalone card companies decides to collaborate with even one bank to issue or acquire cards, the company may have to make its card brand available for all banks, in every country in the EU, to issue and acquire as well.[6] That requirement may lead these three-party systems to withdraw from a number of the smaller European markets where they have entered and extended their reach and coverage through perfectly legitimate individually and confidentially negotiated vertical agreements with a bank or payment institution partner. It may therefore perversely reverse the competitive entry that has taken place over the last two decades—entry that was enabled by a competition law-based intervention brought by the European Commission against Visa in the mid-1990s. It also deters

[5] The "three" in three-party systems refers to the cardholder, the card company, and the merchant. The "four" in four-party systems refers to the cardholder; the cardholder's bank; the merchant's bank, and the merchant. Of course, that list doesn't include the network operator, which would make five, but since this is the normal nomenclature I will use it. The network operator for the four-party system and the card company for the three-party system serve very different roles. The card company for the three-party system has direct relationships with cardholders and merchants. The network operator for the four-party system does not have direct relationships with cardholders and merchants.

[6] Article 29(1) of the proposed revised Payment Service Directive purports to extend the open access obligation for four-systems to three-party systems, requiring them to establish criteria for participation in the system by unrelated institutions which are objective, non-discriminatory and proportionate and do not inhibit access more than is necessary to safeguard against specified risks. The Commission's proposal on this issue has been endorsed by the European Parliament.

three-party systems, such as Cetelem in France, from considering a business model that involves partnerships and thereby arbitrarily limits the ability of these domestic three-party systems from expanding beyond their borders.

The legislation proposed by the European Parliament[7] also prohibits merchants from imposing added fees ("surcharges") on consumers who use cards from the four-party bank networks that account the preponderance of card use. It then, in a peculiar twist, specifically permits merchants to impose added fees on consumers who use cards issued by the smaller companies that compete with these large bank networks. This makes no sense at all. The ostensible rationale for the legislation is to provide tools to merchants in circumstances where they have to accept the cards issued by the "must have" four-party bank networks. That reasoning doesn't extend to smaller systems whose cards are not "must have" but, in fact, are "don't have" at many merchants.

The legislation proposed by the European Commission and European Parliament provides for extending price regulation to the smaller three-party systems. The price caps would appear to apply whenever these standalone card companies enter into an individually negotiated vertical agreement with an arm's length partner. In that case the proposals suggest that the three-party systems should be treated "as if they are a four party scheme."[8] It is unclear what these provisions mean in practice since these systems do not have a MIF that could be subject to a cap.

The proposed regulations on smaller players are inconsistent with sound competition policy, which imposes special obligations only on firms that are dominant in a market, and demands open access only in the extreme case of essential facilities such as telecom monopolies. Indeed, one sees how absurd the proposed legislation is from the effect of the combination of the proposed regulations on the smaller card companies. Several of the regulations make it harder for

[7] See Article 55, paragraphs 3-4 European Commission, "Proposal for a Directive of the European Parliament and of the Council on Payment Services in the Internal Market and Amending Directive 2002/65/EC, 2013/36/EU and 2009/110/EC and repealing Directive 2007/64/EC". COM(2013) 547 final". July 24, 2013. Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2013:0547:FIN:EN:PDF. See also Amendments 111 and 112, European Parliament, "Amendments adopted by the European Parliament on 3 April 2014 on the proposal for a directive of the European Parliament and of the Council on payment services in the internal market and amending Directives 2002/65/EC, 2013/36/EU and 2009/110/EC and repealing Directive 2007/64/EC (COM(2013)0547 – C7-0230/2013 – 2013/0264(COD))". April 3, 2014. Available at: http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2014-0280+0+DOC+XML+V0//EN.

[8] See Article 1, paragraph 3 (c), Article 2 (15) and Articles 3-5, European Commission, "Proposal for a Regulation of the European Parliament and of the Council on Interchange Fees for Card-Based Payment Transactions". COM(2013) 550 final. July 24, 2013. Available at: http://www.ipex.eu/IPEXL-WEB/dossier/document/COM20130550.do. See also Amendment 21, Amendment 28, and Amendments 29-34, European Parliament, "Amendments adopted by the European Parliament on 3 April 2014 on the proposal for a regulation of the European Parliament and of the Council on interchange fees for card-based payment transactions (COM(2013)0550 - C7-0241/2013 - 2013/0265(COD))". April 3, 2014. Available at: http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2014-0279+0+DOC+XML+V0//EN.

these companies to compete against the likes of MasterCard and Visa, and risk undermining the competitive entry that the European Commission has previously sought to enable.[9]

The proposed payments legislation left behind by the outgoing European Commission and European Parliament is anti-consumer and anti-competition. The European Council should not approve it in its current form.

II. THE COMPETITIVE LANDSCAPE FOR PAYMENT CARDS IN THE EUROPEAN UNION

Networks of banks issue most debit, credit, and charge cards in the European Union. They are part of "four-party" systems in which one bank handles card payments for merchants, another bank handles card payments for cardholders, and the network company that operates the system has no direct relationship with either the merchants or the cardholders, but takes care of authorizing and clearing transactions between these banks, who are paid a common fee, the MIF, set by the network. In some countries such as the United Kingdom, most banks belong to networks operated by one of the global card networks—MasterCard and Visa.[10] In other countries, many banks belong to independent domestic networks—such as ServiRed in Spain and Cartes Bancaires in France. The domestic networks are often affiliated with MasterCard and Visa so their cardholders can use their cards in other countries using the global networks. Four-party systems almost always have a MIF that is adhered to by default and which the bank that issues the card receives from the bank that services the merchant.

Three-party systems also issue debit, credit, and charge cards in the EU. They typically sign up merchants directly and take care of reimbursing them for payments made on cards they issue; they also sign up and service consumers directly. Because they are single integrated enterprises they do not have interchange fees. In some countries the multinational three-party systems, American Express and Diners Club, work with a local partner that issues cards and in some cases may also work with merchants. Nonetheless, even in such circumstances, they continue not to have multilateral or bilateral interchange fees. As with any freely and bilaterally negotiated agreement, the two parties agree on how to allocate the revenues from their joint activities.

To understand the competitive landscape for payment card systems I have examined industry data for EU Member States that account for approximately 92 percent of EU GDP and 91 percent of EU population. The multi-national four-party networks account for more than 80 percent of debit, credit and charge card spend in most these countries and their average share, weighted by GDP, is almost 60 percent.[11] By contrast the multi-national three-party systems, in

[9] See discussion below and footnote 29.

[10] Visa International is a publicly traded global card system. Visa Europe is an association of European banks which are affiliated with Visa International and have entered into a deal in which they have the option of selling Visa Europe in return for equity in Visa International.

[11] The European Commission has claimed that credit, charge and debit cards are a separate relevant antitrust market and that they do not compete with cash, checks, or other means of payments. EC. Mastercard. COMP/34.579. December 19, 2007. Available at: http://ec.europa.eu/competition/antitrust/cases/dec_docs/34579/34579_1889_2.pdf. That definition is not consistent with the fact that payment card systems compete aggressively with these other forms of payments, such as cash, and that consumers and merchants can and do substitute readily between different forms of payment. Nevertheless, for

total, account for less than 10 percent of card spend in virtually every country and their average share, weighted by GDP, is about 3 percent. Visa and MasterCard dominate the payment card landscape in the EU.

As mentioned earlier, the multi-national three-party systems sometimes partner with banks or payment institutions in particular countries. Table 1 shows the extent of these partnership relationships for American Express for all EU countries. American Express operates directly in 11 EU Member States. It has partners in 17 Member States. It is apparent that American Express typically operates on its own in the larger economies but chooses to partner with banks in the smaller economies. The average GDP per capita of countries in which it operates on its own is € 37,359 while the average GDP per capita in countries for which it has a partner is, at € 15,889, more than 57 percent lower.

The main increase in competition occurred after 1996 when American Express began entering into bank partnerships to issue cards for use in various countries. That happened following a competition law-based intervention by the European Commission that challenged the introduction of a Visa rule that prohibited its member banks from issuing cards for a competitor other than MasterCard. These partnership relationships were mainly entered into over the course of the first decade of the century and reflect entry into these countries over that time period.

III. THE FAILED QUEST FOR A NEW PAN-EUROPEAN CARD SYSTEM

The European Commission has encouraged the creation of a pan-European system that could obtain a global presence. The Commission saw China's UnionPay as an example. The Chinese government established UnionPay as the card network for banks in China in March 2002.[12] China UnionPay cards accounted for over 9 billion card transactions in 2012.[13] Although the UnionPay cards are primarily issued to Chinese nationals, the cards are accepted in 141 countries and regions outside of China.[14]

---

the purpose of this paper I use the Commission's view as a reference point, as this underlies the proposed legislation, that credit, charge and debit cards are together the relevant "market".

[12] China UnionPay, "Overview". http://en.unionpay.com/comInstr/aboutUs/file_4912292.html.

[13] The Nilson Report, #1043.

[14] China UnionPay, "Overview". http://en.unionpay.com/comInstr/aboutUs/file_4912292.html.

Table 1: American Express Entities and Partners in Europe

Country	Entities
Austria	American Express
Belgium	Alpha Card (American Express / BNP Paribas Fortis JV)
Bulgaria	Eurobank EFG Bulgaria
Croatia	PBZ Card
Cyprus	Bank of Cyprus
Czech Republic	Global Payments Europe
Denmark	Teller
Estonia	Swedbank
Finland	American Express
France	American Express, Credipar, Credit Mutuel
Germany	American Express
Greece	Alpha Bank
Hungary	OTP Bank
Ireland	Elavon Merchant Services
Italy	American Express
Latvia	Citadele Banka
Lithuania	Citadele Bankas
Luxembourg	Alpha Card (American Express / BNP Paribas Fortis JV)
Malta	Bank of Valletta
Netherlands	American Express
Poland	Bank Millennium, First Data
Portugal	Millennium bcp, Banco Espirito Santo
Romania	Bancpost / EFG Retail Services
Slovakia	VUB Bank
Slovenia	Banka Koper
Spain	American Express, Bansamex (American Express / Santander JV), La Caixa, Iberia Card, Banco Popular Espanol
Sweden	American Express, Entercard
United Kingdom	**American Express, BarclayCard, Lloyds Banking Group, TSB Bank plc, MBNA (Bank of America Europe Card Services)**

Another way to look at the situation in Europe is to consider several other large countries. The United States, China, Japan, and Russia all have large payment systems with roots in those countries.[15] These U.S., China, and Japan systems have secured worldwide distributions for their domestic card systems.

Several bank groups considered starting pan-European systems in the late 2000s. These included the European Alliance of Payment Schemes (EAPS), the Monnet Project, and payFair. The experience of the Monnet Project is instructive. The idea for starting a new pan-EU card system came about around 2008. A number of banks met in Madrid in 2010 to discuss the initiative and made plans for moving it forward. By 2011 the Monnet Project had developed detailed technical and business plans for starting a pan-European system. By then it included 24 banks drawn from seven countries including the EU-5 as well as Belgium and Portugal.[16] One of their key plans was to develop a mobile payments system for Europe.

The proponents of the new system, however, did not believe they could develop a viable business model that did not include economically meaningful interchange fees for the participating banks.[17] They took their concerns to the European Commission. The Commission, however, apparently would not entertain any system, including a new entrant, having interchange fees in excess of the low levels that the Commission was pursuing. Absent a clear revenue stream for issuing banks, the Monnet Project believed it could not move forward. It disbanded in April 2012 "owing", as the European Central Bank put it, "to the perceived absence of a viable business model."[18]

Meanwhile EAPS and payFair have not obtained much traction in Europe. EAPS is a coalition of the domestic independent card systems in Europe. According to the European Central Bank the number of participating systems has declined from six to three.[19] EAPS' webpage lists Consorzio BANCOMAT, EUFISERV, and the German Banking Industry Committee. However, their webpage provides no information on commercial activity after 2012. The latest news section on the site has only one item from April 2012. PayFair was started in 2007 by industry professionals and has attempted to develop a pan-European payment system. It highlights on its web site that it did its one-millionth transaction in 2013. Unfortunately, one

---

[15] Visa and Mastercard in the United States, UnionPay in China, JCB in Japan, and several domestic systems in Russia. BIS (2011) "Payment, Clearing and Settlement Systems in Russia". CPSS – Red Book – 2011. Available at: http://www.bis.org/publ/cpss97_ru.pdf; BIS (2003) "Payment Systems in the United States". CPSS – Red Book – 2003. Available at: http://www.bis.org/cpss/paysys/UnitedStatesComp.pdf; BIS (2012) "Payment, Clearing and Settlement Systems in China"- CPSS – Red Book – 2012. Available at: http://www.bis.org/publ/cpss105_cn.pdf; Bank of Japan (2003) "Payment System in Japan". CPSS – Red Book – 2003. Available at: https://www.boj.or.jp/en/paym/outline/pay_boj/pss0305a.pdf.

[16] "EU Banks Ready to Break Visa/MasterCard Duopoly", *FinExtra.* June 15, 2011 http://www.finextra.com/news/fullstory.aspx?NewsItemID=22662.

[17] "EU Banks Ready to Break Visa/MasterCard Duopoly", *FinExtra.* June 15, 2011 http://www.finextra.com/news/fullstory.aspx?NewsItemID=22662.

[18] "Thumbs Down for Monnet", *PaySys SEPA Newsletter,* May 2012. http://www.paysys.de/download/SepaMay12.pdf.

[19] European Central Bank, "Card Payments in Europe – A Renewed Focus on SEPA for Cards," at p. 32. Available at http://www.ecb.europa.eu/pub/pdf/other/cardpaymineu_renfoconsepaforcards201404en.pdf.

million transactions, in total, over six years, is not an impressive number.[20] There were, for example, more than 1.2 billion transactions in Belgium in just one year, 2013.

Faced with the obstacles set in place by the European Commission there is, at this point, no significant effort underway, to my knowledge, to create a pan-European system.[21] Despite the prospect of legislation that claims to "nurture" competition in Europe it does not appear that anyone is waiting in the wings anxious to make another attempt to start a pan-European system. These facts strongly suggest that the legislation is not the solution but rather the problem along with the regulatory barriers to entry erected by the European Commission.

IV. OVERVIEW OF THE PAYMENTS LEGISLATION ENDORSED BY THE EUROPEAN PARLIAMENT

The legislation endorsed by the European Parliament in April 2014 shifts most of the cost of running domestic payment systems in Europe from merchants to consumers and favors MasterCard and Visa at the expense of domestic systems and smaller multinational competitors.

A. The Proposed Interchange Fee Regulations

The interchange fee is paid by the merchant's bank to the cardholder's bank in the four-party model. Typically the merchant's bank passes on most of the cost of the interchange fee payments to the merchant and the cardholder's bank passes on most of the benefit of the interchange fee revenue to the consumer in the form of lower fees and product enhancements. As a result the MIF balances how much one group of customers (merchants that accept cards) pays relative to another group of customers (cardholders). Increasing the interchange fee usually lowers what consumers pay for using cards and increases what merchants pay for using cards. In some cases, the two individual banks, one an acquirer for merchants and the other an issuer to cardholders, negotiate a bilateral interchange fee. Such bilateral negotiations are seldom practical for four-party bank networks with many participants that have to deal with each other. As a result, four-party bank networks typically set a default interchange fee that applies whenever there is no alternative bilaterally agreed fee. Notably, European competition authorities have never questioned interchange fees that are negotiated bilaterally between banks. Three-party systems, as noted earlier, do not have interchange fees.

Four-party systems use the interchange fee to compete with each other and with the companies that operate the so-called three-party system. A higher interchange fee helps attract banks to the system. And since banks pass savings on to cardholders the higher interchange fee also attracts cardholders, which in turn is critical to ensuring merchants are interested in accepting the network's cards. Card systems also have to consider the impact on merchant

---

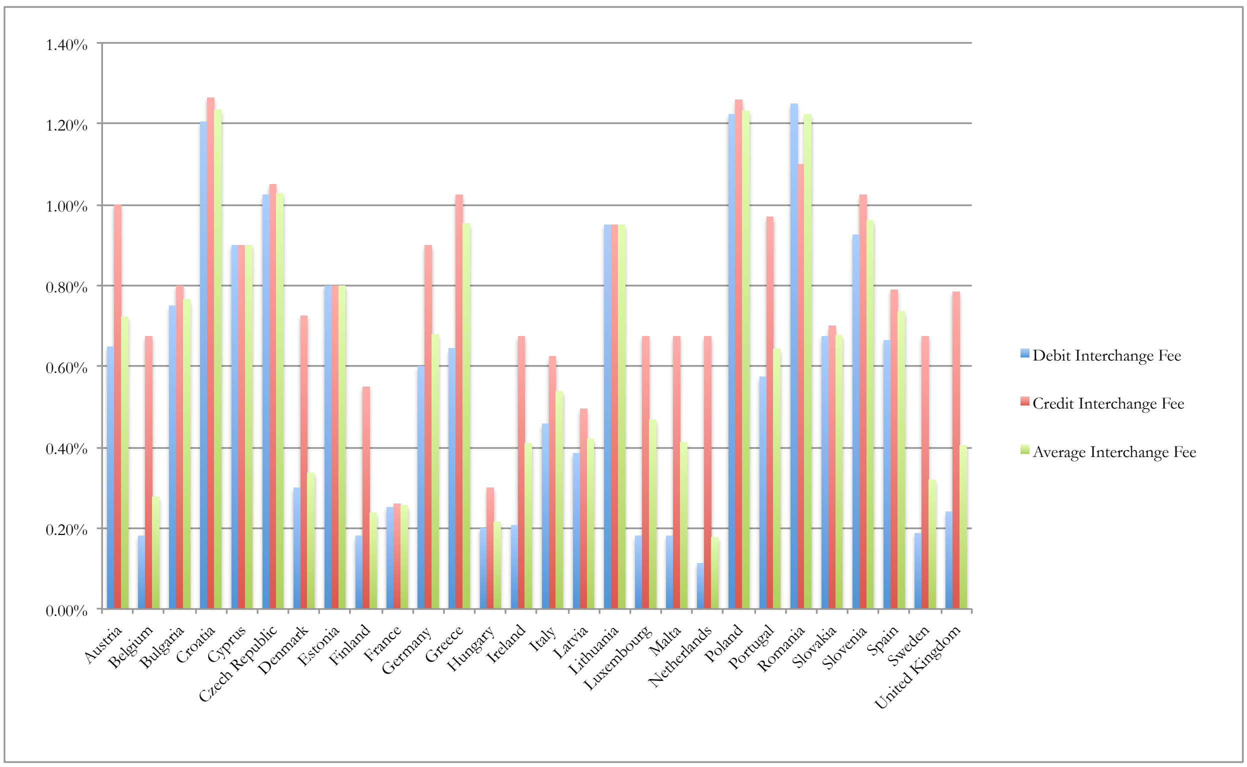
[20] The European Central Bank also mentions EUFISERV as one of the entities trying to establish a pan-European system. I note that their webpage has a 2012 date on it. Suffice it to say that it does not have much presence in Europe. http://www.eufiserv.com/home.aspx. Note that EUFISERV is also a member of PayFair.

[21] One possibility concerns the banks that belong to Visa Europe. Visa Europe is not owned by Visa. However, under the terms of an agreement Visa Europe has an option to sell itself to Visa International. There have been some discussions that Visa Europe would exercise that option after which the banks that belong to Visa Europe would establish their own pan-European debit card system. "Visa Likely to Purchase Europe Payments System", *Banking Services Payments"*, March 20, 2013. http://payments.banking-business-review.com/news/visa-likely-to-purchase-europe-payments-system-200313.

acceptance. Acquiring banks may pass on some, or all, of the interchange fee to merchants, so a higher interchange fee results in a higher merchant fee. The companies that operate three-party systems also charge merchant fees, but do not have interchange fees. Four and three-party systems strike different balances between the prices to merchants and consumers. That is consistent with normal competition where businesses differentiate themselves based on price and many other features.

Four-party bank card systems also reach different judgments on the interchange fee, along with other prices, across EU Member States. That's not surprising. As much as Europeans might aspire for more similarity across countries, the countries differ enormously from one another in so many ways—from income levels, to the role of large merchants, to cultural preferences concerning credit. In fact, given the obvious differences it would be astonishing if the rate structures for cards were the same across Europe. Figure 1 shows the median interchange fees for credit and debit—taken at the EMV rate when available—for most of the EU countries.[22]

Figure 1: Interchange Fees in EU Countries



Source: See Appendix.

There is even more variability than shown in the figure. Four-party bank card schemes typically set different interchange fees for different kinds of payment cards. There are other

[22] See the appendix for details. To show interchange fees on a comparable basis we used the interchange fees for non-premium consumer cards used in face-to-face transactions.

differences as well. Rates for chip-and-pin cards used at the brick-and-mortar locations where the consumer is present when they are paying with the card are, for example, lower than the rates for online transactions. Rates can also vary by industry so in some cases rates for petrol are lower than for retail. These variations in the interchange fees are another source of competitive differentiation among the systems.

The Commission's proposals, broadly endorsed by the European Parliament, impose caps on the MIF adopted by four-party networks of 0.20 percent of the transaction amount for debit cards and 0.30 percent of the transaction amount for credit cards. For a € 50 payment the issuing bank would receive 10 eurocents for debit and 15 eurocents for credit. The same interchange fee caps would apply in every country, to every industry, for every merchant, online and offline, and for every size and type of transaction. The Commission has not, to my knowledge, provided any serious economic support for the level of these proposed caps, which are apparently wholly arbitrary. The interchange fee is the only method available for four-party systems to balance their relative prices to merchants and consumers since different banks serve these two sets of customers. Therefore the interchange fee caps prevent the card systems from differentiating themselves based on their relative prices to merchants and cardholders. Under the cap, none of the systems would be able to use interchange fees to attract banks from other systems.

The interchange fee caps would lead to a dramatic reduction in the fees collected by issuing banks in most EU countries. Table 2 shows the impact of the legislation by country. It shows the percent reduction in interchange fee revenue received by issuing banks. The figures are based on the average interchange fee for debit and credit cards for each country weighted by the volume of transactions for debit and cards.[23] The median reduction in fees is 66 percent. The reductions range from a low of 0 percent in Hungary to a high of 82 percent in Romania. They exceed 65 percent in 15 of the 28 Member States. In a few pages I'll show what these reductions mean for European consumers.

B. The Proposed Regulation of Three-Party Systems

The European Parliament's proposals prohibit merchants from imposing surcharges when consumers present a card from a four-party card system. At the same time it specifically allows merchants to impose surcharges when consumers present a card from a company that operates a three-party system. The law today, as set out in the Payment Services Directive, allows merchants to surcharge but gives Member States the option of banning merchant surcharging. As of February

2013, 14 EU countries had done that.[24] The new proposals do not allow EU Member States to opt out. Therefore under the European Parliament's proposals, merchants would be able to surcharge three-party systems throughout the European Union.

---

[23] See Appendix.

[24] They are Austria, Bulgaria, Cyprus, Czech Republic, France, Greece, Hungary, Italy, Latvia, Lithuania, Luxembourg, Portugal, Romania, and Sweden. See: London Economics, iff, and PaySys (2013), "Study on the Impact of Directive 2007/64/EC on Payment Services in the Internal Market and on the Application of Regulation (EC) No 924/2009 on Cross-Border Payments in the Community" (Table 17, page 70). Available at http://ec.europa.eu/internal_market/payments/docs/framework/130724_study-impact-psd_en.pdf.

Table 2: Reduction in Interchange Fees by Country

Country	Reduction in Debit Card Interchange	Reduction in Credit Card Interchange	Reduction in Overall Interchange
Austria	69%	70%	69%
Belgium	0%	56%	11%
Bulgaria	**73%**	**63%**	**70%**
Croatia	83%	76%	80%
Cyprus	78%	67%	73%
Czech Republic	80%	71%	79%
Denmark	33%	59%	36%
Estonia	75%	63%	73%
Finland	0%	45%	7%
France	21%	0%	10%
Germany	67%	67%	67%
Greece	69%	71%	70%
Hungary	0%	0%	0%
Ireland	4%	56%	26%
Italy	56%	52%	55%
Latvia	48%	39%	45%
Lithuania	79%	68%	77%
Luxembourg	0%	56%	32%
Malta	0%	56%	26%
Netherlands	0%	56%	6%
Poland	84%	76%	82%
Portugal	65%	69%	66%
Romania	84%	73%	82%
Slovakia	70%	57%	69%
Slovenia	78%	71%	76%
Spain	70%	62%	67%
Sweden	0%	56%	15%
United Kingdom	17%	62%	31%
Median	66%	62%	66%

Source: Based on our calculations; see appendix for details on the calculation of rates.

There is now extensive data and research on the results of surcharging.[25] We know from the experience of countries in Europe, and elsewhere, that most merchants do not surcharge when given the opportunity to do so. Some, however, use the ability to surcharge to act opportunistically towards consumers and exploit them. Depending on the interpretation, the proposed legislation also allows merchants that have agreed to accept cards from a three-party system to selectively refuse to take some of the system's cards for payment.[26] For example, a merchant could potentially choose to accept an American Express corporate card but not take the classic green consumer card product. When any merchant does that it creates uncertainty for consumers on whether other merchants will do the same.

In the eyes of consumers the regulations make the cards of three-party systems less desirable. Consumers may see signs at merchants alerting customers that they will surcharge certain three-party system cards. And consumers that have these cards will occasionally face opportunistic surcharging. The proposed legislation therefore seeks to incite the merchant community to participate in what would become a massive advertising campaign against the three-party card companies. Consumers will learn in no uncertain terms that if they want to be confident that they can use their cards to pay and be safe from opportunistic merchant behavior they should stick to MasterCard and Visa. The proposed legislation will taint the smaller three-party systems, which have been the main source of new competition in many countries, with a badge of inferiority and will create a two-tier structure of card products in which the three-party cards are inherently open to and most likely to be subject to unfavorable treatment.

The legislation also appears to impose open-access regulation on these three-party systems. To understand the implications of this requirement a short digression into the modern business model of these three-party systems is helpful.

Some of the standalone card companies have decided to enter into selective partnerships with banks to help expand their businesses.[27] This strategy helps them secure scale economies and network effects by issuing more cards and acquiring transactions in countries where they

[25] See, for example, European Commission (2001), "Commission Decision of 9 August 2001 Relating to a Proceeding Under Article 81 of the EC Treaty and Article 53 of the EEA Agreement," Case No. COMP/29.373 (Visa International), 2001 O.J. (L 293) 24. Available at http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32001D0782&from=EN. European Commission (2006), "Interim Report I Payment Cards: Sector Inquiry Under Article 17 Regulation 1/2003 on Retail Banking." Available at http://ec.europa.eu/competition/sectors/financial_services/inquiries/interim_report_1.pdf. London Economics, iff, and PaySys (2013), "Study on the Impact of Directive 2007/64/EC on Payment Services in the Internal Market and on the Application of Regulation (EC) No 924/2009 on Cross-Border Payments in the Community." Available at http://ec.europa.eu/internal_market/payments/docs/framework/130724_study-impact-psd_en.pdf. Reserve Bank of Australia (2007), "Reform of Australia's Payments System: Issues for the 2007/08 Review." Available at http://www.rba.gov.au/payments-system/reforms/review-card-reforms/pdf/review-0708-issues.pdf. Reserve Bank of Australia (2011), "Review of Card Surcharging: A Consultation Document." Available at http://www.rba.gov.au/publications/consultations/201106-review-card-surcharging/pdf/201106-review-card-surcharging.pdf. Reserve Bank of Australia (2012), "A Variation to the Surcharging Standards: Final Reforms and Regulation Impact Statement." Available at http://www.rba.gov.au/payments-system/reforms/cards/201206-var-surcharging-stnds-fin-ref-ris/pdf/201206-var-surcharging-stnds-fin-ref-ris.pdf.

[26] See Article 10, proposed MIF Regulation.

[27] Visa used to prohibit its member banks from entering into these partnerships. Antitrust action taken by the European Commission forced it to allow these partnerships.

might otherwise have no presence, and thereby makes them stronger competitors to the large four-party systems in those countries and globally. Partnerships also enable three-party systems to enter countries without making significant investments and thereby reduce barriers to entry into the payments sector of these countries. American Express used this strategy starting in the late 1990s to enter 17 EU countries, mainly less wealthy ones as mentioned above, through partnerships with financial institutions. Diners Club also has bank partners in 8 countries that it has developed over the last several decades.

The European Commission and European Parliament proposals apparently require three-party systems to enter into partnerships on the basis of objective, proportionate and non-discriminatory criteria with ***any and all*** banks or payment institutions that want to issue or acquire cards for three-party systems if those systems make a deal with a single bank or payment institution in the EU. That requirement increases entry barriers for three-party systems into domestic payment markets because a decision to enter into a bank partnership triggers a requirement to provide access to banks throughout the EU as a result. As a practical matter the proposed legislation appears to subject the small three-party systems to "essential-facility" regulation that is commonly applied to domestic monopolies in energy, ports, and telecom. Such an approach imposes entirely disproportionate burdens and has no basis in competition or regulatory policy.

Finally, the proposed legislation appears to subject the three-party systems to price caps as well. Whenever the three-party system enters into a licensing deal to issue a card, it appears the system would be subject to the MIF price caps developed for and applied to four-party systems. It is unclear how the proposed legislation envisions this provision would apply in practice. The three-party systems do not establish an interchange fee that flows from an acquiring bank to an issuing bank. They do enter into a bilateral negotiation with a potential partner—which may have its own valuable brand and other assets in a particular country—over the allocation of revenues resulting from their joint activities. The viability of these confidential and bilateral negotiations appears under threat.

Beyond the issue of practicality is the question of what the possible justification for the price caps could be. The European Commission and other competition authorities that have challenged interchange fees for four-party systems have claimed that these fees violate the competition laws because they are set collectively and have also pointed to the dominant position of these four-party systems in a claimed market for debit, credit, and charge cards. To my knowledge, no competition authority, regulatory authority, or court has complained about commercial terms that are agreed bilaterally and it is hard to see under what basis these authorities could do so. Likewise, no competition authority, regulatory authority, or court, at least to my knowledge, has found that the merchant fees agreed between merchants and three-party systems are anticompetitive. Given the small European wide share that three-party systems have, in total, of debit, credit and charge card volume (the market identified by the European Commission) none of these systems is even remotely dominant.[28]

[28] The proposed legislation involving MIFs exposes three-party systems to other risks. In the text proposed by the European Parliament, the entire set of interchange fees regulations for four-party systems can be applied to three-party systems that exceed a threshold set by the European Commission. In practice, it is difficult to envision

The rationale for capping interchange fees does not apply to the financial terms that three-party systems negotiate with a licensee that issues cards. Interchange fees are direct payments from the merchant's acquirer to the cardholder's issuer and are typically passed on by the acquirer to the merchant. Competition and regulatory authorities have sought to reduce the impact of interchange fees on merchants and have done so by capping those fees. There is no pass through, however, between the fees that a three-party system negotiates individually with a licensee and the fees that the three-party system, or an acquiring partner, negotiates with merchants.

These proposed regulations of smaller three-party payment card systems are unprecedented outside the EU.[29] What is remarkable is the length to which the proposed legislation has gone to squelch competition by three-party card systems. The proposed legislation impairs the ability of these smaller systems to compete by permitting merchants to surcharge the smaller three-party systems but not the larger four-party ones and by making it costly for three-party systems to enter into select partnerships. But, then, just in case (against the odds) the three-party systems are successful, the proposed legislation empowers the European Commission to impose even more restraints if they surpass some undefined threshold.

V. IMPACT OF PROPOSED LEGISLATION ON COMPETITION IN THE EUROPEAN UNION

The proposed payments legislation has an Alice-in-Wonderland "up is down, left is right" flavor to it. In the name of "nurturing" competition the European Commission and European Parliament have come up with an approach that places an oppressive thumb on the smallest competitors, discourages the challengers, and weakens competition between the two giant systems left standing. Despite a vision of creating a European born-and-bred system the legislation pushes and shoves consumers to the dominant global brands. Then, in a final flourish, the legislation threatens the smaller systems with even more regulation if they are nonetheless able to continue providing a degree of increased competition. This is legislation that only Lewis Carroll could have written.

A. Restraining Three-Party System Competition

The proposed payments legislation restrains the ability of three-party systems to compete with the four-party card schemes, which are based on networks of banks, in at least three ways.

First, it imposes rules that make cards from the dominant four-party bank card systems "preferable"—in the sense of having fewer regulatory-imposed annoyances—for cardholders and merchants than cards from the smaller three-party systems. Consumers will learn that the three-party system cards are the ones that merchants can surcharge, possibly opportunistically, and reject altogether even though the merchant has a sign at their store claiming they accept the card.

---

what this means. See Amendment 21, European Parliament, "Amendments adopted by the European Parliament on 3 April 2014 on the proposal for a regulation of the European Parliament and of the Council on interchange fees for card-based payment transactions (COM(2013)0550 – C7-0241/2013 – 2013/0265(COD))". April 3, 2014. Available at: http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2014-0279+0+DOC+XML+V0//EN.

[29] Spain recently adopted the Commission's proposals on this issue word-for-word, pending the adoption of final legislation (at which point Spain indicated it would be prepared to reverse course).

Consumers may find this out directly, from the media, or from friends, family and colleagues. It is easy to imagine the media reports advising consumers to stick with the major brands—MasterCard and Visa—to avoid having merchants subject them to a surcharge.

Second, the legislation could result in the three-party systems simply withdrawing as competitors in countries where they operate with a bank or payment institution partner. A single partnership agreement, anywhere in the European Union, exposes a three-party system to the risk that banks, including members of MasterCard and Visa, will insist on being able to issue or acquire the three-party system's cards as well. Under the legislation a three-party system that has entered a partnership with a single bank or payment institution, anywhere in the EU, may be required to offer the same terms to every other bank or payment institution that approaches the system. No longer could a three-party system decide to partner selectively and to do so in countries of its own choosing. It must either operate with no partners, or it must mimic the business model of the four-party bank associations and open itself up to all. The European Commission and the European Parliament have offered no credible explanation why three-party payment card schemes, that have miniscule shares in the market the European Commission has defined, should be subject to these requirements, nor have they considered apparently the consequence on competition of hobbling the smaller card rivals.

The legislation will make it harder for three-party systems to negotiate mutually profitable agreements with potential partners. A three-party system that enters into a deal with a bank or payment institution in a country may have to extend that deal to other banks or payment institutions in the country. Its chosen partner would find this unattractive for a variety of reasons. The prospective partner would effectively have to share the business opportunity of a smaller system with other banks and payment institutions, while still having to invest into the establishment and growth of that system, for the benefit of all comers. For example, any funds that the chosen bank or payment institution partner spends on marketing and advertising the brand would benefit other banks that insist on issuing the three-party system card as well. The legislation therefore undermines the investments of a three-party system's partner and thus makes it harder for three-party systems to reach acceptable partnership deals.

The legislation also makes it less profitable for a three-party system to enter into any partnership deal and thereby eliminates all the competition that results from these relationships. A three-party system that negotiates a partnership arrangement in a single country loses its ability to manage its system throughout the EU. It could be forced to partner unwillingly with banks or payment institutions in that country as noted above. In addition, however, it could be forced to partner with banks and payment institutions in countries in which it would prefer to operate alone and with banks that it would prefer not to work with at all.

The legislation therefore poses a serious risk that three-party systems that rely on partnership deals to extend their reach across the EU will either end these partnership deals because of the risks and costs they pose or that their partners will end these deals if the system cannot assure them of an exclusive deal in that country. That is an odd coda to the competition policy decision the European Commission took in 1996 when it forced Visa to allow its member banks to enter into selective partnerships with three-party systems.

Third, the payments legislation will retard future entry of three-party systems throughout the EU in addition to unraveling past entry. Existing three-party systems will likely refrain from considering entering countries in the EU through partnership deals. Consider Cetelem, which operates a standalone card system in France. Suppose that, as the single EU market evolves, Cetelem would like to enter some countries by forming a partnership with a bank or payment institution. As soon as it enters into one partnership in one country, it opens itself up to demands that it provide similar deals to banks and payment institutions in that country and every other EU country. That prospect would likely deter Cetelem from ever considering partnerships and therefore limit its ability to compete on a pan-European basis.

More importantly, the legislation makes the EU a very unwelcome area for entry by any new three-party system. Suppose, for example, that a three-party global mobile payments system emerges and that system needs to consider where to enter around the world. The EU will be the only place in the world in which merchants are allowed to surcharge, and reject, the cards of three-party systems but not of MasterCard or Visa. Suppose, as is common in mobile payments, the three-party system wanted to partner with a bank to enter the EU or a Member State. It could not guarantee its partner an exclusive deal and, if it entered into a relationship in any country, it would potentially have to extend that deal to all banks and payment institutions in that country and the other EU countries as well and be price capped when doing so.

B. Softening Four-Party System Competition

The European Parliament's payment legislation weakens competition among the four-party systems.

To begin with it softens competition between MasterCard and Visa. They won't be able to use the interchange fee to compete for issuers, consumers, or merchants. No longer would one of these companies be able to lower their interchanges fees for a particular type of merchant to secure acceptance, to increase their interchange fees to persuade banks to switch card volume to them, or to increase their interchange fees to promote benefits that could attract more cardholders.

Four-party systems have used selective reductions in interchange fees to promote new technologies such as chip-and-pin cards and contactless cards. They would lose that ability under the payments legislation: with such a substantial reduction in these fees it is unlikely they could persuade banks to accept an even lower fee. If one of the systems came up with a technology for accepting payment at the point of sale—for example related to mobile payments—it would lose one of its main tools for persuading merchants to invest in the necessary changes. MasterCard and Visa will of course continue to compete but will do so with one hand tied behind their backs.

The payments legislation weakens competition among the global four-party systems and the independent domestic systems for these same reasons. None of these systems will be able to agree to higher interchange fees to compete for banks and consumers. And, with the drastic reductions, few if any could risk bank defections if they wanted to lower interchange fees further to promote innovative technologies or business practices by the merchants.

The threat to domestic competition though is actually much worse. An independent domestic system could not offer banks a somewhat higher interchange fee to induce them to switch from the domestic MasterCard or Visa network. That eliminates an important competitive tool. Once the payments legislation makes all systems exactly the same when it comes to interchange fees the advantage of switching to a system that lacks the scale economies, brand recognition, and marketing prowess of MasterCard and Visa is lessened. The proposed legislation places the survival of the domestic systems at risk and it is conceivable that they will wither over time or simply become appendages of the global four-party networks.

Lastly, the very low interchange fee caps proposed by the European Parliament largely gut the business models of new four-party entrants. As I've noted this isn't mere conjecture. We have the dead body to prove it. A substantial viable pan-European entrant gave up when the European Commission wouldn't relent on its insistence that four-party systems have not only low interchange fees but interchange fees that can't be any higher for any country, industry, product, transaction type, or anything else.

C. The Anticompetitive Payments Legislation

The European Commission and the European Parliament have put forward legislation that is anti-competitive. It fixes the interchange fee that MasterCard and Visa use to compete with each other and independent domestic schemes. It places independent domestic schemes that would be less able to differentiate themselves at a disadvantage. After the Commission helped destroy a major pan-European entrant, the proposed legislation raises a barrier to further entry by any potential new payment systems. As a finishing touch it hobbles all of MasterCard and Visa's three-party system rivals.

Almost two decades ago, when Visa proposed rules to prohibit three-party systems from pursuing arm's length licensing agreements with banks that were members of Visa, the European Commission claimed competitive harm and acted swiftly to prevent it. It seems perverse now that the EU is at risk of delivering the same outcome for Visa and legitimizing the endeavor that it previously claimed was anticompetitive.[30]

VI. HOW THE EU PAYMENTS LEGISLATION WILL AFFECT CONSUMERS

The European consumer is ultimately the big loser from the proposed EU payments legislation.

Studies have found that consumers end up paying more in countries that have capped interchange fees.[31] This result is obvious. Competition forced banks to offer low fees (either on the cards themselves or the current account held by the consumers) when they were getting interchange fee revenues. When that revenue is reduced sharply banks have to increase fees (either on the cards themselves or on the current account held by the consumers).

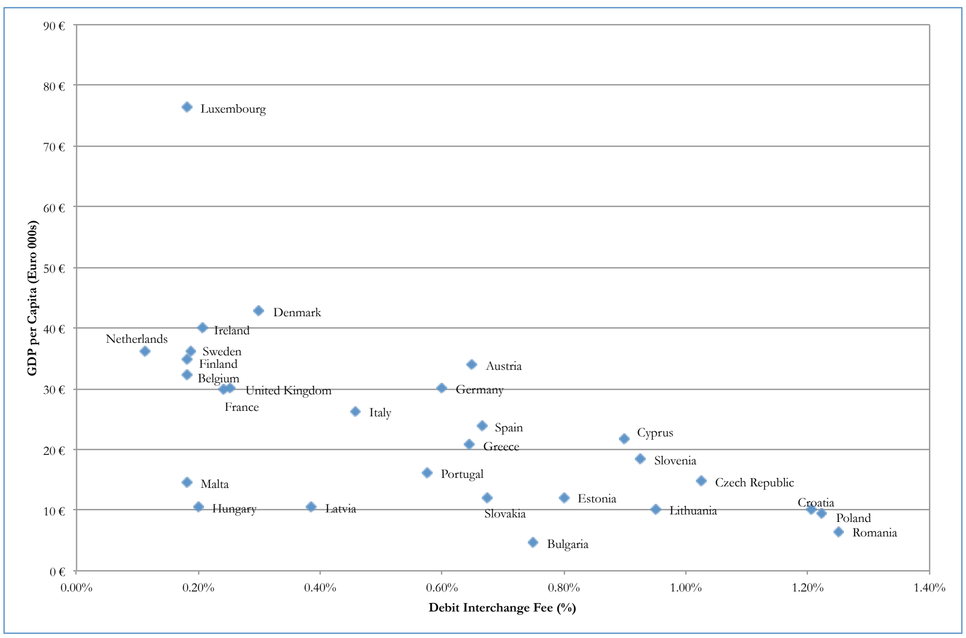
[30] As per the following press release the Commission's Directorate General for Competition reached the view that Visa's proposed rule prohibiting its member banks from partnering with American Express would have infringed the EC competition rules because it would have restricted competition between international cards systems as well as between banks which issue cards riding on those systems. Moreover, at the time, the Commission confirmed its determination to ensure that access to the payments card market by new competitors such as three-party schemes should not be impeded. http://europa.eu/rapid/press-release_IP-96-585_en.htm.

[31] Evans, David S. and Rosa Abrantes-Metz (2013) "The Economics and Regulation of the Portuguese Retail Payments System". Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2375151.

Defenders of interchange fee caps, in my experience, do not deny this relationship between interchange fees and consumer prices. Instead, they counter the well-documented fact that consumers pay banks more when interchange fees decline with the claim that merchants pass the entirety of their interchange fee cost savings back to consumers in the form of lower prices and that therefore consumers come out ahead when these lower merchant prices are considered.[32] They base this claim on pure speculation and provide no evidence that any merchant has passed any savings whatsoever on.

Their assertions are not supported by economic theory and are roundly rebutted by empirical evidence.[33] My study in the US, for example, found that merchants kept about half of the savings from debit card fee reduction for themselves and that consumers will end up losing more than $22 billion as a result of shifting the costs on to them.[34] Large retailers with revenues of hundreds of millions of dollars a year and market valuations north of $1 billion were the chief beneficiaries.

Figure 2: Average Debit Interchange Fees versus Per Capita GDP in EU Countries



Source: European Central Bank.

[32] Evans, David S., Howard Chang and Steven Joyce (2013) "The Impact of the U.S. Debit Card Interchange Fee Regulation on Consumer Welfare: An Event Study Analysis". Coase-Sandor Institute for Law and Economics Working Paper No. 658 (2D Series). Available at: http://www.law.uchicago.edu/files/file/658-dse-hj-sj-impact-fixed.pdf. Forthcoming, *Journal of Competition Law and Economics.*

[33] Evans, David S. and Abel M. Mateus (2011) "How Changes in Payment Card Interchange Fees Affect Consumers Fees and Merchant Prices: An Economic Analysis with Applications to the European Union". Available at SSRN: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1878735.

[34] There is no serious dispute that merchants do not pass on 100 percent of the cost savings nor could there be given economic theory and empirical evidence. Notably, a study in the US estimated that merchants kept about a third of the interchange fee cost savings as profits. Shapiro, Robert J. (2013) "The Costs and Benefits of Half a Loaf: The Economic Effects of Recent Regulation of Debit Card Interchange Fees". SONECON. Available at: https://nrf.com/sites/default/files/The_Costs_and_Benefits_of_Half_a_Loaf.pdf.

The extent of the redistribution from merchants to consumers varies enormously across countries. Consumers in high-interchange fee countries such as Romania will lose much more relatively speaking than consumers in low-interchange fee countries such as Denmark. Figure 2 shows the relationship between the average debit card interchange fee in each country and GDP per capita. The graph shows that the debit card interchange fee is higher in countries with lower per capita GDP. The countries that will have the largest reductions in interchange fees, and therefore the greatest harm to consumers, are the poorest countries; the countries that will have the lowest, and in some cases no, reductions in interchange fees and therefore the least harm to consumers are the richest countries. There are exceptions, of course, but that is the general rule. The interchange fee caps take from the consumer and give to the merchant, and they take the most from the poorest consumers. As I said, this is Alice-in-Wonderland public policy.

The EU payments legislation harms European consumers in other ways. Approximately € 88 billion was spent in 2012 by Europeans using cards from three-party systems in the Member States that account for more than 90 percent of GDP and population. Consumers will also face occasional opportunistic surcharging by merchants on such purchases. A consumer also risks having merchants that advertise that they accept a three-party system brand turn around and reject the particular card the consumer presents. In the longer run consumers are also likely to find that they have less choice than they have now as independent domestic card systems and three-party systems are forced to withdraw from the payment card market in countries across the EU. Consumers are also likely to have even less choice than they would get in the absence of the payments legislation. That's because the legislation will reduce entry into payments cards in the European Union.

VII. CONCLUSION

The European Commission's proposal and the common position reached by the European Parliament in April 2014 is ill-conceived and poorly thought through. This is no surprise, given how woefully inadequate—and in some areas, completely lacking—the impact assessment undertaken by the Commission is. The proposed legislation destines Europe to having a payment card industry operated largely by banks and run by two global brands. The prospect of low caps on interchange fees has already killed or chilled the prospects for the emergence of a new pan-European payment system. Those caps will temper competition between MasterCard and Visa and may drive independent domestic systems out of business altogether over time. The bizarre restraints on the three-party systems in European countries, all of them much smaller than their four-party rivals across Europe, will make these companies less vibrant competitors and may drive them out of many countries in Europe. For European consumers the proposed payments legislation would lead to a hefty price tag, diminished choice, and depressed innovation.

The European Council would be wise to discard this legislation as currently drafted. Any new legislation should completely abandon restraints on the three-party systems that are essentially fringe competitors in Europe. There is simply no sensible rationale for these restraints and none has been offered. New legislation should also drop the caps on interchange fees. These caps weaken competition between MasterCard, Visa, and independent domestic card systems. They also shift the costs of payment cards to consumers and will cost European consumers billions of euros in added fees.

APPENDIX
CALCULATION OF INTERCHANGE FEES BY COUNTRY

This appendix describes the calculation of interchange rates by country.

We started by obtaining Visa and MasterCard's current intra-country interchange fee schedules.[35] Visa and MasterCard typically have many different interchange rates that depend on the type of card used, how the transaction is processed, and the merchant's sector. Separately for credit and debit, for each country, for each system, and for each merchant sector, we limited attention to one interchange rate. In each case, we picked an interchange rate that applied to intra-country transactions that used non-premium consumer cards in a face-to-face transaction. For cases where there was a separate rate for EMV or Chip+PIN transactions, we used that rate. In countries without that distinction, we used the rate for electronically authorized transactions. There are interchange fee rates that are higher or lower but the rates we used were typically in the middle and reflect the most common type of transactions.

We then converted each interchange rate into a percentage of the transaction amount. In most cases the fees were already expressed in percentage terms, so this involved no additional calculations. In other cases, the interchange fees were expressed as a flat fee plus a percentage of the transaction amount. In these cases, we needed to make an assumption about the average transaction size. We used data from the European Central Bank for 2012 to calculate an EU-wide average transaction size for debit cards (€48.15) and credit cards (€67.82).[36] We used these average transaction sizes to calculate the average total interchange fee. For example, in Belgium, the interchange fee for Visa debit is 0.15% + €0.015. At an average transaction size of €48.15, this works out to (0.0015*48.15 + 0.015)/48.15 = 0.18%.

Next, for each country, system (Visa or MasterCard), and product (credit or debit), we calculated the median interchange rate across all merchant sectors. This gives us two debit interchange rates and two credit interchange rates for each country.

Next, we obtained estimates of interchange fees for the large domestic card systems. Table A summarizes the data.

[35] Visa Europe, "Our Fees." Available at http://www.visaeurope.com/en/about_us/our_business/fees_and_interchange.aspx; MasterCard International, "MasterCard Intra-Country Interchange Fees." Available at http://www.mastercard.com/us/company/en/whatwedo/interchange/Country.html.

[36] European Central Bank, Statistical Data Warehouse. Available at http://sdw.ecb.europa.eu/reports.do?node=1000001431.

Table A: Interchange Fees for Large Domestic Card Systems

Country	System	Type	Interchange Fee (Actual)	Interchange Fee (%)
Denmark	Dankort	Debit	0.20%[37]	0.20%
France	Cartes Bancaires	Credit	0.28% + fraud adjustment averaging no greater than 0.03%[38]	0.31%
Germany	ZKE	Debit	0.30%[39]	0.30%
Italy	PagoBancomat	Debit	0.1309% + €0.10[40]	0.34%
Portugal	MB	Debit	0.50%[41]	0.50%
Spain	Servired	Credit	0.76%[42]	0.76%
Spain	Euro 6000	Credit	0.79%[43]	0.79%
Spain	4b	Credit	0.75%[44]	0.75%
Spain	Servired	Debit	€0.33[45]	0.69%
Spain	Euro 6000	Debit	€0.32[46]	0.66%
Spain	4b	Debit	€0.30[47]	0.62%

[37] Denmark's Dankort pays issuers a flat fee per transaction, where the level of the flat fee depends on the issuer's annual number of transactions. In general, this fee is less than 0.20 percent, although it may be higher on small-value transactions. Ministry of Growth and Business Denmark, "Interchange Fee Regulation and Domestic Debit Card Schemes," June 2, 2014. Available at http://www.eu-oplysningen.dk/upload/application/pdf/ca7ff3c0/201305502.pdf?download=1. The exact average interchange fee appears to be non-public.

[38] Cartes Bancaires, "Current CB Multilateral Interchange Fees and Tariffs." Available at http://www.cartes-bancaires.com/IMG/pdf/CB_Interchange_Fees_and_Tariffs.pdf; PaySys, "French Anti-Trust Authority Decision on MIF," PaySys SEPA Newsletter, June-July 2011. Available at http://www.paysys.de/download/SepaJunJul11.pdf.

[39] Der Handel, "Bundeskartellamt kippt Girocard-Gebühr," April 8, 2014. Available at https://www.derhandel.de/news/finanzen/pages/Bundeskartellamt-kippt-Girocard-Gebuehr-10503.html.

[40] Conzorzio Bancomat, "Commissioni Interbancarie." Available at http://www.bancomat.it/it/consorzio/commissioni.html.

[41] David S. Evans and Rosa Abrantes-Metz (2013), "The Economics and Regulation or the Portugese Retail Payments System." Available at http://www.sibs.pt/export/sites/sibs_fps/pt/documentos/The-Economics-and-Regulation-of-the-Portuguese-Retail-Payments-System_2013.pdf.

[42] Servired, "Tasas de Intercambio: Intra-Sistema." Available at http://www.servired.es/tasas-de-intercambio/intra-sistema/.

[43] Euro 6000, "Tasas de intercambio: Intra-Sistema." Available at http://www.euro6000.com/informacion-corporativa/tasas/intrasistema.

[44] 4B, "Tasas de intercambio." Available at http://www.4b.es/productos-y-servicios/comercios/tasas-de-intercambio.

[45] Servired, "Tasas de Intercambio: Intra-Sistema." Available at http://www.servired.es/tasas-de-intercambio/intra-sistema/.

[46] Euro 6000, "Tasas de intercambio: Intra-Sistema." Available at http://www.euro6000.com/informacion-corporativa/tasas/intrasistema.

[47] 4B, "Tasas de intercambio." Available at http://www.4b.es/productos-y-servicios/comercios/tasas-de-intercambio.

Cases with a flat interchange fee were converted to percentages of the transaction using the same method used for Visa and MasterCard.

Next, we calculated the median debit and credit interchange rate for each country, taking the median across all systems. Then we calculated an overall average interchange rate as a weighted average of the debit and credit interchange rates, using each product type's share of all payment card spending in the country as the weights. Data on the value of debit and credit card payments were taken from 2012 data from the European Central Bank.[48]

[48] European Central Bank, Statistical Data Warehouse. Available at http://sdw.ecb.europa.eu/reports.do?node=1000001431.