Memorandum

August 28, 2013

To: The Honorable John Gleeson

From: Alan O. Sykes

Re: In Re Payment Card Interchange Fee and Merchant Discount Antitrust Litigation:

Economic Issues Pertaining to Proposed Final Settlement

This memorandum discusses economic issues pertaining to the proposed settlement in the above litigation. I am not in a position to offer a comprehensive evaluation of all of the economic issues in the case since its inception, and instead focus on those that strike me as most pertinent to settlement. Further, although I have taught Antitrust Law on a number of occasions at the University of Chicago and New York University law schools, I shall focus on economic rather than legal matters, with the proviso that the line between economic and legal analysis in the antitrust area is at times a fuzzy one.

In preparing this memorandum, I have reviewed the substantive legal memoranda regarding the merits of the proposed settlement that have been submitted to me, along with all of the expert reports that I have received relating to liability, damages, and settlement, in greater or lesser detail in accordance with their apparent relevance to the issues discussed herein. I have not had an opportunity (or time) to review the parties' earlier legal submissions pertaining to liability and damages, or deposition transcripts. I have had no communications with attorneys for any of the parties or objectors aside from communications transmitting to me documents that I have reviewed, or with any experts in the case.

I. Overview of Analysis

The simplest economic theories of litigation suggest that a plaintiff will rationally accept a settlement offer only if the value of the settlement exceeds the

expected returns to litigation.¹ In a typical case involving a single plaintiff, the plaintiff may be presumed capable of performing this calculus, and courts do not police the decision to settle. In class actions, however, a question arises as to whether class plaintiffs and counsel represent the interests of the class as a whole adequately, and the court serves as an independent check on the reasonableness of settlement under Rule 23 of the Federal Rules of Civil Procedure. The wisdom of settlement from the plaintiffs' perspective in a class action nevertheless turns in considerable measure on the same factors as in a case involving an individual plaintiff – the relationship between the expected returns to continuing litigation and the value of the settlement.²

Section II of this memorandum will focus on issues that bear on the expected returns to continuing litigation in this matter, while Section III will focus on certain issues relating to the value of the settlement. The expected returns to litigation depend on the probability of success in establishing liability, the value of the monetary or injunctive relief that will result in the event of liability, and the future costs of litigation. The value of the settlement includes the value of any monetary relief provided by the settlement, the value to the plaintiff of any injunctive relief, and the costs to the plaintiff of any foregone opportunities for future litigation associated with a negotiated release.

I am not in a position to assign numerical values to any of these factors, and must restrict my analysis to a qualitative review of issues that bear on them in a significant way. Even this qualitative review is far less than comprehensive – some of the issues require more information than I have at my disposal, some I am unable to address because of time constraints, and some involve strictly legal

¹ See, e.g., Richard A. Posner, Economic Analysis of Law (5th ed. 1998) §21.5; Steven Shavell, Foundations of Economic Analysis of Law, §17.2 (2004).

² I recognize that additional factors may require consideration as a legal matter, as set out in, for example, Detroit v. Grinnell Corp., 495 F.2d 448 (2d Cir. 1974).

considerations that I shall not attempt to address in my capacity as an economic adviser to the court.

With these caveats in mind, I conclude that the expected returns to continued litigation are highly uncertain, and that plaintiffs' face a substantial probability of securing little or no relief at the conclusion of trial. In this regard, it is my opinion that the plaintiffs face considerable difficulty in establishing the that the core practices at issue in the case and left in place by the proposed settlement – such as default interchange and honor all cards rules - cause anticompetitive harm that outweighs their pro-competitive benefits (if the Court concludes that this "rule of reason" test affords the proper legal standard). In addition, even if the core practices at issue were deemed anticompetitive on balance, the plaintiffs face considerable difficulty in proving their damages, as it is exceedingly challenging to identify the proper counterfactual for purposes of a damages computation. For related reasons, it is difficult to know how much injunctive relief might result from continued litigation or how much any injunctive relief in the case would ultimately benefit the plaintiffs. The plaintiffs face other significant litigation risks as well as has been emphasized in submissions to the Court by counsel and experts. Section II of the memorandum elaborates these and related points.

Regarding the value of the settlement to the plaintiffs, it is difficult to place a value on the injunctive components. The parties (including the objectors) focus heavily on the potential value of surcharging. In my opinion, the objectors raise substantial concerns about the likelihood and extent of surcharging in practice, and about its ability to exert downward pressure on interchange fees. The argument to the contrary put forward by the proponents of settlement persuades me that surcharging will likely afford some benefits to merchants, but their quantitative significance is unclear and the possibility exists that surcharging in accordance with the settlement will have only a small impact. Other changes in network rules that would be accomplished by the settlement would likely have some value to the plaintiffs as well, but I see no basis for quantifying that value. The damages

component of the settlement is substantial in absolute terms, although modest per capita when divided by the vast numbers of merchants in the plaintiff class.

Nevertheless, I have no basis for concluding that the overall value of the settlement in terms of monetary and injunctive relief is unreasonable in light of the substantial risks associated with establishing liability and obtaining substantial damages or injunctive relief through continued litigation. Given the uncertainties on these matters, it may be important to consider who has the burden of proof regarding the reasonableness of settlement.

The objectors raise further concerns regarding the scope of the release. The proper construction of the release (in relation to its text, in light of judicial principles of construction developed in other cases, and in light of public policy and constitutional constraints) is a legal rather than economic question. Nevertheless, from an economic policy standpoint, it is appropriate to ensure that the release is written in such a manner, or that it will be construed in such a manner, as to avoid insulating the defendants from antitrust liability for new or different anticompetitive practices that could not reasonably have been anticipated or challenged in the current litigation. Likewise, because the release extinguishes claims with respect to existing or "substantially similar" conduct and network rules, a reasonable concern arises that it might be interpreted to insulate the application of such rules or conduct to new payments technologies in ways that harm competition significantly but cannot be fully appreciated or anticipated presently. Section III of the memorandum develops these and related points pertaining to the proposed relief and release.

II. The Expected Returns to Continuing Litigation

Although the various parties plainly disagree about the likelihood of success on the merits, the materials that I have received point to a range of outstanding issues that affect the plaintiffs' ultimate likelihood of establishing liability and the extent of any attendant relief. These issues include the legal characterization of the practices at issue in this litigation, the existence of market power on the part of the defendants, the question whether the practices at issue are on balance anticompetitive under the rule of reason, the question whether plaintiffs can prove their damages with reference to an acceptable benchmark or counterfactual, the question whether the Court would be willing to enjoin default interchange, honor all cards or other rules left in place by the proposed settlement, the question whether plaintiffs are barred from recovering damages by the indirect purchaser principle, questions of class certification, and the effects of the release associated with the settlement of the "Visa check" litigation.

Collectively, these issues raise considerable uncertainty about the ultimate outcome of the case if it is litigated to conclusion, both with respect to liability and to the scope of any possible relief. Defendants have raised credible issues on most if not all of these matters, and while some of defendants' arguments are surely stronger than others, the cumulative effect of these issues in my opinion is to create substantial doubt as to whether plaintiffs can ultimately prevail.

In reaching this conclusion, I *assume* that the initial allegations of internetwork conspiracy between Visa and Mastercard – an agreement between them to set interchange fees – are no longer seriously at issue. An agreement between Visa and Mastercard on interchange fees would be a *per se* violation of Section I of the Sherman Act, and if proven would no doubt entitle plaintiffs to a finding of liability and potentially quite substantial damages.

With this assumption in mind, I begin with some preliminary remarks. First, I do not view my role as adjudicative and I will not offer any opinion as to which side is ultimately "right" with respect to the issues discussed below. Rather, I will simply emphasize various economic considerations that collectively, in my view, contribute to substantial uncertainty about the plaintiffs' prospects for success in litigation.

Second, it is important to recognize the potentially cumulative effects of uncertainty about a sequence of potentially dispositive issues. In particular, even a modest level of doubt about the plaintiffs' ability to prevail on several specific issues can compound itself into a large probability of plaintiffs' failure overall if the plaintiff needs to prevail on all of the issues to win the case and obtain significant Purely as a hypothetical illustration (and not to suggest that these probabilities are associated with any particular issues in this case), suppose that a plaintiff must prevail on five separate legal issues to establish liability and obtain significant damages. If we assume that the plaintiff's probability of success on each issue is 90%, and that these probabilities are independent of each other, then the plaintiff's overall probability of success is (.9)⁵ or approximately 59%. If the probability of success on each issue is only 80%, then the overall probability of success falls to (.8)⁵ or approximately 33%. And if the probability of success on each issue is just 50%, the overall probability of success falls to $(.5)^5$ or only a little above 3%. My point is *not* that any particular set of probabilities applies to the issues in this case; rather, the point is simply that a plaintiff's overall probability of success in a case can be modest or even quite small if the plaintiff needs to prevail on several independent issues to win, even if the probability of success on each individual issue is substantial.

Finally, in evaluating the reasonableness of a settlement, it is important to view the prospects of success in litigation from the point of view of the parties. It is my understanding that summary judgment motions are pending before this Court on a number of critical issues. The Court may or may not have a strong view at this time on the merits of some or all of these issues. From the parties' perspective, however, such issues may be subject to considerable uncertainty even if the Court may have a private view as to how they would likely be decided.

A. Legal Characterization of the Practices at Issue

The plaintiffs in this litigation challenge a number of practices involving the Visa and Mastercard networks and their members. The core practices include the setting of default interchange fees, and various network rules that discourage merchants from encouraging or requiring consumers to use less expensive payment mechanisms.

The antitrust implications of such practices, of course, can turn on their legal characterization. Certain "horizontal" practices are deemed illegal *per se*, other horizontal practices as well as "vertical" practices are subject to a "rule of reason," and certain unilateral practices of individual entities are generally deemed beyond antitrust scrutiny (especially if the entity in question is not a "monopoly" or engaged in an "attempt to monopolize" that would subject it to Section 2 of the Sherman Act). As an initial legal step in analyzing the antitrust implications of the practices at issue in this litigation, it is appropriate to ascertain their proper characterization within this framework.

I have not reviewed the pre-settlement pleadings in the case relating to liability and damages (although I did review the pertinent expert reports that were forwarded to me). Accordingly, and because I view my role as that of an economic rather than legal consultant, I will not offer an opinion as to the proper legal characterization of the practices at issue. I do note, however, that the parties seem to agree that the characterization of the practices at issue is important to the plaintiffs' prospects of success, as both sides devote considerable attention to the matter in the documents that I have reviewed. Significant uncertainty appears to attend the characterization issue, particularly as it relates to the initial public offerings by both defendants and to the question whether their conversion from a joint venture to a stand-alone entity cleanses their business practices of any horizontal or "conspiratorial" element. Such sources of legal uncertainty are appropriate to consider in evaluating the plaintiff's prospects of success in litigation.

I note further that even if conduct can be characterized as "horizontal," it may receive rule of reason scrutiny under modern antitrust law if it is connected in an important way to the success of a joint venture or similar cooperative arrangement that delivers a valuable good or service that its members cannot easily produce on their own. Defendants raise credible arguments, in my view, that practices such as default interchange fees and honor all cards rules have played and may continue to play an important role in the success of the Visa and Mastercard networks. Thus, even if the Court agreed with the plaintiffs' efforts to characterize the practices at issue as horizontal or the product of "hub and spoke" arrangement, the court might well determine that it is appropriate to apply rule of reason analysis anyway.

I also note that in prior litigation against Visa and Mastercard, the restrictions at issue there, although deemed to have horizontal dimensions, have been evaluated under the rule of reason. United States v. Visa U.S.A., Inc., 344 F. 3d 229 (2d Cir. 2003)(prohibition on the issuance of Discover and American Express cards by member banks). The recent Department of Justice action against Visa, Mastercard and American Express concerning certain "anti-steering" merchant restraints implicitly proceeded on the premise that the restraints would be subject to rule of reason analysis. See United States et. al. v. American Express et. al., Amended Complaint for Equitable Relief, Civil Action no. CV-10-4496, filed December 21, 2010 (discussing defendants' market power, alleging that defendants' practices unreasonably restrain trade and are not reasonably necessary to accomplish defendants' alleged pro-competitive goals). Network determined interchange rates were scrutinized under the rule of reason in National Bancard Corp. v. Visa U.S.A., Inc., 779 F.2d 592 (11th Cir. 1986).

Accordingly, I believe there to be a substantial and perhaps high probability that the Court would determine that the rule of reason applies to the challenged practices. The next subsection will thus discuss core practices at issue in this litigation on the assumption that they are subject to rule of reason analysis.

B. Default Interchange and Network Rules under the Rule of Reason

Antitrust analysis pursuant to the rule of reason follows a standard template. The first question is whether the defendant(s) possesses market power, which is generally understood as the power to raise price above a competitive level (typically marginal cost). Market power can be proven by direct evidence or by inference, the latter generally based on a large enough "market share" in a relevant antitrust "market." If market power is absent, the defendant(s) are presumed to lack the ability to harm competition through the challenged practices. If market power exists, the inquiry proceeds to consider whether the challenged practices harm competition. If they do, the defendant may offer a pro-competitive justification for them, which the plaintiff may then rebut or, if not rebutted successfully, may nevertheless be overcome by a showing that the harm to competition outweighs the pro-competitive benefits. Eg., United States v. Visa, supra; United States v. Microsoft Corp., 253 F.3d 34 (D.C. Cir. 2001).

1. Market Power

Numerous expert reports in this proceeding address the question whether Mastercard and Visa possess market power. After reviewing the various expert reports, I believe that some degree of uncertainty exists as to whether the plaintiffs can prevail on the proposition that defendants' possess market power, although the likelihood of success on this issue for plaintiffs seems fairly high.

In reaching this assessment, I am particularly mindful of the fact that Visa and Mastercard have been found to possess market power in prior litigation in the Second Circuit, in an opinion that was affirmed on appeal. United States v. Visa, supra. In that case, the Court accepted the proposition that network services for

general purpose cards constitute a relevant market (in relation to merchants and issuers as buyers), and determined that both direct evidence and market share data (Visa 47% and Mastercard 26%) supported a finding of market power for both networks, especially in light of market concentration. 344 F.3d 240. New entry into the general purpose card market also appears difficult and uncommon. See, e.g., Frankel Rep. ¶¶123-31.

Nevertheless, experts in this case devote a great deal attention to the market power question. A substantial portion of the debate focuses on the proper definition of the "relevant market" for antitrust purposes. Drs. Bamberger, Frankel, and Vellturo argue for the plaintiffs that the relevant market is no broader than general purpose credit and charge cards. E.g., Bamberger Rep. ¶¶40-49; Frankel Rep. ¶11; Vellturo Rep. ¶¶176-77. Dr. Frankel, Prof. Stiglitz, and Dr. Vellturo go so far as to argue that Visa and Mastercard branded cards each constitute a relevant market from the perspective of merchants because of various network restrictions on merchants. Frankel Rep. Section 4; Stiglitz Rep. ¶¶62-66; Vellturo Rep. ¶¶125-55. Plaintiffs' experts emphasize such factors as the imperfect substitutability between credit and charge cards, debit cards, cash and checks as payment mechanisms from the perspective of users, the fact that merchant acceptance of Mastercard and Visa cards does not decline significantly in response to increases in interchange fees by either network, the ostensible lock-in effects of the network rules that compel an allor-nothing choice to accept or decline all cards from a particular network, the related collective action problem that merchants face in opting out of an important card network, and the empirical claim that increases in interchange fees increase the profits of issuing banks. Mr. McFarlane and Dr. Frankel further argue that Visa and Mastercard earn supra-competitive profits. E.g., McFarlane Rep. ¶¶63-71; Frankel Rep. ¶¶119-21.

Defendants' experts, including Profs. Elzinga, James, Klein and Murphy, dispute the market definition claims and market power inferences put forward by plaintiffs. See Elzinga Rep. Section 5; James rep. pp. 40-52; Klein Rep. ¶¶136-203;

Murphy Rep. ¶¶373-76. Among many other points, they argue that card networks compete among each other and with other payment mechanisms for merchant acceptance, that "output" has increased rather than decreased, contrary to what one would expect from anti-competitive price increases, and that the plaintiffs' experts improperly account for the "two-sided" nature of the card market. Regarding the last point, they argue that that increases in interchange fees finance various benefits to cardholders, and that the total price of card usage (to both merchants and consumers) should be the focus of attention, not simply interchange fees or the merchant discount. They argue that this total price has declined. Dr. Woodward also disputes the claim that the Visa and Mastercard networks earn supracompetitive profits. See generally Woodward Report.

I am not in a position to evaluate all of these issues in detail. I do concur with defendants' experts that the two-sided nature of the general purpose payment card industry injects subtleties into the analysis that do not arise in a typical antitrust case, and that may call into question some of the reasoning in United States v. Visa, supra, regarding market power. The market definition exercise in antitrust ordinarily asks whether a hypothetical monopolist in a candidate for a "relevant market" could impose a small but significant and non-transitory increase in price (SSNIP). See, e.g., U.S. Department of Justice and Federal Trade Commission 2010 Horizontal Merger Guidelines §4.1 (product market definition). If so, the candidate market becomes a relevant market for antitrust analysis. When this framework is applied in the typical case, the prospect of a SSNIP represents an escalation of price above marginal cost, and is thus an indicator of the ability of a hypothetical monopolist to earn supra-competitive returns. In a two-sided market, however, the possibility arises that a price increase on one side of the market will be wholly or substantially offset by a price decrease on the other side of the market. With reference to the general purpose card market, if, hypothetically, any increase in interchange fees by the "hypothetical monopolist" were offset by a commensurate decrease in cardholder fees or an increase in cardholder benefits, supra-competitive returns would not follow.³ Accordingly, one must be careful applying the hypothetical SSNIP test in a two-sided market. In particular, one cannot draw an inference of market power simply from past increases in interchange rates relative to processing costs on the merchant side of the market, or the fact that such increases led few if any merchants to drop out of the Visa and Mastercard networks. See United States v. Visa, supra, 344 F.3d at 240 ("despite recent increases in both networks' interchange fees, no merchant had discontinued acceptance of their cards"). In theory, merchants might accept increases in interchange not because of the lack of actual or potential competition from other payment mechanisms, but because interchange increases are accompanied by increased benefits to cardholders that make them more likely to use credit cards, so that higher merchant discounts are offset by increased sales.

That said, plaintiffs' experts marshal evidence that the total price to merchants and cardholders together increases as interchange rises, that higher interchange increases the profits of issuing banks, and that higher interchange passes through only partially to cardholders. They further contend that interchange revenue is dissipated through rent-seeking expenditures that do not benefit cardholders (and thus confer no indirect benefits on merchants). Defendants contest these claims, but plaintiffs have a substantial set of arguments which, if accepted, answer the proposition that they have neglected the two-sided nature of the industry. Plaintiffs also develop rebuttal evidence with respect to the defendants' other economic arguments, such as the claim that output has increased.⁴

³ Dr. Frankel seems to acknowledge the point in one of his academic publications:

[&]quot;[T]he interchange fee might be used to cartelize an industry, as might occur if the interchange fee is set high and banks do not compete through rebates to consumers..." Dennis W. Carlton & Alan S. Frankel, The Antitrust Economics of Credit Card Networks: Reply to Evans and Schmalansee Comment, 63 Antitrust L.J. 903, 913 (1995).

⁴ In addition to the issues noted in the text, the expert reports contain discussion of the significance of "price discrimination" by the defendants in the setting of different interchange rates for different merchants or categories of merchants. E.g., Frankel Rep. ¶¶94-98; Elzinga Rep. pp. 95-97. At one time, it was widely thought that price

Taking all of the evidence together, and considering the outcome in United States v. Visa, my assessment is that plaintiffs have provided a reasonable basis for concluding that a hypothetical monopolist of general purpose credit and charge card services could impose a SSNIP, based on a properly conceptualized two-sided or total price. Such a finding would support a definition of the market limited to such services, in which Visa's share is apparently over 40% and Mastercard's share is somewhat under 30%, and could in turn support a finding that both entities possess market power. Defendants raise issues that call into question certain aspects of the reasoning in United States v. Visa, however, and create at least modest uncertainty about the market power issue.

2. The Net Economic Effects of Default Interchange, Honor All Cards and Related Practices

If the core practices at issue in this litigation are subject to rule of reason analysis, as I have assumed for purposes of this discussion, and if the plaintiffs succeed in establishing that defendants possess market power, the plaintiffs must also prevail on the proposition that those practices are on balance anticompetitive. This task presents a formidable hurdle for the plaintiffs in my opinion.

The practices challenged by plaintiffs at the outset of this litigation included default interchange, merchant rules that prevented merchants from encouraging cardholders to use less expensive payment mechanisms through discounts, surcharges and other means, non-discrimination rules, and rules that prevented merchants from declining to honor cards within the network (honor all cards).

discrimination was evidence of market power. More recent economic learning undermines this view, suggesting that price discrimination is in fact quite common in markets that are highly competitive and in which firms do not earn supracompetitive returns. Prof. Elzinga cites a leading non-technical exposition – Michael E. Levine, Price Discrimination without Market Power, 19 Yale J. Reg. 19 (2002). I concur that price discrimination is not necessarily an indicator of market power.

During the pendency of litigation, Visa and Mastercard settled litigation brought by the Department of Justice with an agreement to permit discounting and related measures to encourage the use of less expensive payment mechanisms. The proposed settlement in this case would, subject to certain constraints, eliminate the defendants' no-surcharge rules. Accordingly, the core practices that would remain in place after the proposed settlement include default interchange, the honor all cards rules (superimposed on what has been termed the "honor all paper" obligation, see, e.g., Murphy Rep. ¶217 et. seq.), and non-discrimination rules.

These rules are interrelated both in their history and their rationale, which I summarize here in abbreviated form.⁵ When Bank of America, for example, began to franchise other banks to issue cards or to provide services to merchants who accept cards (i.e., when it evolved toward a four-party network), it was essential to create an environment in which acquiring banks were willing to provide payment services to merchants, and issuing banks were willing to issue cards and pay the acquiring banks for transactions involving their affiliated merchants. Further, BankAmericard had the ongoing objective of expanding its network of consumers and merchants, and it was important to induce broad acceptance of the card by merchants, including acceptance of the cards issued by franchised issuers. Honor all cards agreements with merchants evolved and did much to assure consumers that their cards would be accepted wherever the BankAmericard logo (later Visa logo) was displayed. This rule was important to the willingness of consumers to carry the card and the willingness of merchants to accept it – the so-called "chicken and egg" issue. Of course, merchants would not agree to honor all cards unless they were assured of payment by their acquiring banks, which in turn needed assurance of payment by issuing banks. Issuers thus agreed to accept all transactions presented by acquiring banks ("honor all paper"). But this arrangement created some difficulties - how would the issuing banks be compensated? They bore costs of

⁵ For additional detail, see, e.g., David S. Evans, Interchange Fees: The Regulation of What Merchants Pay for Cards (Competition Policy International 2011); Frankel Rep. Appendix A; Murphy Rep. ¶¶60-73.

issuing cards, investigating the creditworthiness of cardholders, dealing with fraud and delinquency, and so on, which had to be covered. A simple honor all paper obligation on the part of issuing banks would give them no leverage to extract compensation from acquirers, and would they then have to cover all costs with cardholder fees. Such an arrangement was perceived to be inadequate by members of the emerging BankAmericard system. An initial effort to require acquiring banks to compensate issuers provided that acquirers should pass the full merchant discount along to the issuing bank, with the expectation of reciprocity when the roles were reversed. This apparently proved unworkable due to dishonesty regarding the size of the merchant discount, and various other forms of opportunism. To solve this problem, default interchange was introduced, which sets an interchange rate that will prevail absent a bilateral negotiation to establish an alternative rate. The history of the Mastercard (formerly Interbank) system is broadly similar although different in some details.

In short, honor all cards rules and default interchange played an important role in making four-party systems attractive to all participants and in expanding their reach. Honor all cards rules assured consumers that they could easily and reliably determine where their cards will be accepted. The related honor all paper rules assured merchants and their acquiring banks that they would be paid, and default interchange provided revenue to issuing banks (in the absence of an alternative negotiated arrangement) that helped to cover not only their costs of processing transactions but the various benefits and incentives that their cards offered to consumers. It is conceivable that four-party systems might have evolved differently, but a powerful argument can be made that these rules did much to facilitate the growth and success of the Visa and Mastercard networks over time.

Various non-discrimination rules can also be understood as protecting the value of the network and its utility to card users. By prohibiting merchants from treating Visa and Mastercard holders less favorably than users of competing payment mechanisms, they help ensure that cardholders are not targeted by price

discrimination against them, and work to keep the competition between Mastercard and Visa and other payment networks on a "level playing field."

Finally, the Mastercard and Visa networks provide substantial benefits to consumers and merchants. Consumers need not worry about acquiring cash in advance, and about the risk of loss or theft. Checks pose risks of fraud to merchants that they avoid by accepting cards within a network. Debit cards have advantages in these respects, but credit cards have further advantages -- consumers can obtain goods and services on credit, enjoy float if they pay off their debts promptly, enjoy certain protections against problematic purchases, and benefit from various rewards and incentives. This list of benefits to consumers who use credit cards is not exhaustive. And because consumers find the cards attractive, merchants who accept cards can expect to make more sales to consumers who carry them.⁶

Given the role that default interchange, honor all cards and non-discrimination rules played in the development and success of the Visa and Mastercard networks, and given the benefits to consumers and merchants of those networks, a strong argument can be made that such practices serve – or at least served — a pro-competitive function. Plaintiffs' experts, as I read them, largely accept this proposition. Instead, they argue that practices such as default interchange and honor all cards have outlived their usefulness as the Visa and Mastercard networks have "matured" over time. E.g., Frankel Rep. at ¶216; Vellturo Rep. at ¶39; Stiglitz Rep. at ¶9-10. As I understand this claim, the suggestion is either that the penetration of the Visa and Mastercard networks among merchants and consumers is now so great that the systems no longer require the measures at issue to promote merchant and cardholder acceptance, or (as Prof. Stiglitz suggests)

⁶ I recognize that some debate exists among the experts in the case as to the "social" versus "private" value of these additional sales by merchants who accept cards. To some degree, merchants who accept cards may simply increase their sales at the expense of merchants who do not.

that the challenge of expansion lies primarily on the merchant side rather than the consumer side of the market, and would be facilitated by lower interchange rates.

Defendants' experts contest the characterization of the market as "mature," observing that growth in merchant acceptance and consumer use of cards has remained fairly rapid, Elzinga Rep. pp. 83-87, that competition from newly emerging technologies requires continued efforts by both networks to retain their market position (including by implication the practices at issue in this case), id., that much room exists for networks to induce consumers to use their credit cards more often even if most consumers already carry the cards (presumably through interchange fees that finance greater incentives for card use), Klein Rep. at ¶42, and that the "maturation" of the market does not remove the need for interchange fees to balance the costs of payment systems between merchants and consumers. Murphy Rep. ¶345.

I am not in a position to adjudicate the battle over the existence and implications of industry "maturity." I simply observe that the practices at issue lie *historically* at the core of the defendants' highly successful business model. They were put in place many years ago, at a time when defendants can argue with considerable force that they lacked market power even if they might be found to possess it today. In the face of such evidence, a court may be reluctant to declare that these practices have become antitrust violations by virtue of industry maturation, especially given the uncertainties that would attend their abolition (which I discuss at greater length below).

A variety of other considerations raise further doubts about the ability of plaintiffs to establish that default interchange and accompanying network rules⁸ are

⁷ See Murphy Rep. ¶365.

⁸ With specific reference to the honor all cards rule, I note that some tension exists between the position taken by certain objectors regarding the purportedly minimal value of surcharging on the one hand, and the ostensible anticompetitive effects of

on balance anticompetitive. First, an important body of theoretical work on twosided markets suggests that it may be socially desirable for prices to be higher on the side of the market that is less price sensitive.⁹ If merchants are less price sensitive than consumers, this body of theory implies that economic welfare can be enhanced if merchants bear a substantial proportion of the total costs incurred by credit card issuers (through a mechanism such as interchange). A corollary is that socially desirable interchange fees need not be tied to the costs of processing merchant transactions. 10 To be sure, this fact does not establish that Mastercard and Visa set the socially optimal interchange fees, and indeed the literature suggests that privately determined interchange can and typically will deviate from the social optimum (potentially in either direction).¹¹ If the theoretical literature offers one robust conclusion, however, it is that the determinants of socially optimal interchange rates are complex and dependent on a variety of subtle factors. Theoretical and empirical work on such matters is ongoing and at "an early stage.12" There is little basis for believing that socially optimal (or competitively determined) interchange fees are zero, for example, or some other amount that may have been chosen by any particular set of national regulators.

the honor all cards rule on the other. In particular, Prof. Hausman argues that the settlement fails to address anticompetitive practices such as the honor all cards rule, while concurrently arguing that surcharging is likely to be of little value. See Hausman Rep. ¶10. Dr. Frankel argues that the reasons advanced by Prof. Hausman as to why surcharging may not often occur might equally suggest that merchants would not take advantage of the opportunity to refuse to accept certain cards within a brand were the honor all cards rule to be eliminated. See Frankel Reply Declaration Relating to Proposed Settlement, pp. 5-11. Dr. Frankel proceeds to argue that if the honor all cards rule is indeed anticompetitive as Prof. Hausman argues, one must also believe that the elimination of the no-surcharging rules will prove important in the marketplace. The opposite logical possibility is also worth noting – perhaps the elimination of both rules would have little market impact if merchants are fearful of adopting contrary policies.

⁹ For a relatively early, non-technical discussion, see Jean Charles Rochet and Jean Tirole, An Economic Analysis of the Determinants of Interchange Fees in Payment Systems, 2 Rev. Network Econ. 69 (2003). See also Snyder Rep. ¶¶60-65.

¹⁰ See Rochet & Tirole, supra.

¹¹ See id. §3.2 and sources cited therein; David Evans, supra, chapter 1.

¹² David Evans, supra, at 20.

Second, the merchant fees charged by three-party networks (such as American Express and Discover) offer some reference point for assessing the total fees charged by Visa and Mastercard. To the best of my knowledge, no general purpose (non-debit) card network of any consequence has ever operated without significant interchange fees (or substantial merchant fees in a three-party network). Discover has somewhat lower fees than Visa and Mastercard historically, while American Express has somewhat higher fees. To be sure, plaintiffs argue that these fees are distorted by the anti-competitive pricing "umbrella" established by Visa and Mastercard, Frankel Rebuttal Rep. ¶¶170-81, but the fact that American Express, Discover, and other smaller three-party general purpose card networks (e.g., Diner's Club) have had substantial merchant fees for years raises additional doubts about the ability of plaintiffs to show that the fees in the Mastercard and Visa networks are anticompetitive.

Finally, a showing that default interchange and related network rules for the Visa and Mastercard systems are anticompetitive requires, in my estimation, a convincing description of a counterfactual world in which the purportedly anticompetitive practices of each network are eliminated, and in which the resulting market equilibrium is demonstrably superior from an economic standpoint. What would that counterfactual world look like?

In a garden variety antitrust case involving, say, simple price fixing, the counterfactual world is one in which the conspiracy to elevate prices disappears and prices decline toward their competitive level, with an attendant increase in economic welfare in accordance with standard price theoretic models in microeconomics.

If Mastercard and Visa did not set default interchange (and perhaps did not have certain network rules such as honor all cards), it is much more challenging to

ascertain what would exist (or would have existed¹³) as an alternative. The expert reports mention various possible scenarios. E.g., Frankel Rep. Section 9; Frankel Rebuttal Rep. Section 7; Snyder Rep. ¶¶26-30, 89-92; Topel Rep. ¶¶33-56. It is not difficult to imagine others. If issuers were bound by an honor all paper requirement with no default interchange, they might find themselves at the mercy of acquiring banks who offered them no compensation for their services, and no revenue to put toward funding the cost of cardholder benefits and incentives. Would issuers drop out of the business, or be content to shift all costs to cardholders? How would that affect the value of the networks to their participants and the competition among issuers? Would honor all cards and paper rules be abandoned? Would issuers then negotiate bilateral interchange agreements with major acquirers? Would the transaction costs of those negotiations prove prohibitive as some defense experts argue? Could small issuers and acquirers effectively engage in such bilateral negotiations? Would some mechanism evolve to economize on the costs of bilateral negotiations (whereby small acquirers and issuers work through large banks with their own bilateral agreements to avoid the need for bilateral negotiations involving small players)? Would new steering practices by merchants be so effective that interchange rates were competed down to the level of the rates on debit cards (as suggested by Prof. Stiglitz and Dr. Vellturo)? Might Visa and Mastercard instead simply restructure their operations to avoid any lingering basis for antitrust liability (after all, their IPOs were motivated at least in substantial part by that purpose according to plaintiffs), eliminating any vestige of collaboration among issuer banks, and then proceed largely as in the past setting interchange fees as single entities? Might they somehow move away from the four-party model toward a three-party model without materially reducing merchant fees? Would large issuers such as Chase and Citibank break off on their own, creating new proprietary cards? And to

¹³ For the purposes of computing past damages, the question is what would have happened absent the anticompetitive practices in the past, not what will happen without them in the future. In thinking about liability under the rule of reason, however, one can appropriately ask what the market would look like absent the challenged practices and, accordingly, I couch the text as a forward-looking discussion.

cut to the bottom line, what would be the costs of negotiating and implementing whatever changes might emerge? How would equilibrium interchange and/or merchant fees compare to current levels?¹⁴ How much would cardholders be affected, perhaps adversely, through changes in fees and incentives?

I would not suggest that any particular scenario is the most likely or plausible. To the contrary, all of these scenarios seem speculative to me, although I have no doubt that experts on the payments industry may have a better idea of which might be more likely (if any of the above scenarios are likely). Moreover, the construction of a proper counterfactual scenario requires one to identify precisely which practices represent antitrust violations and which do not, an exercise that gives rise to many possible permutations given the number of practices put in issue by the plaintiffs. The point here is simply that a great deal of uncertainty attends the question of what the proper counterfactual world would look like, stripped of whatever practices are alleged (or found) to be anticompetitive. And, if the counterfactual scenario is highly uncertain, it becomes exceedingly difficult to conclude that the market equilibrium stripped of the alleged anticompetitive practices would be superior from an economic standpoint – the essence of the inquiry under the rule of reason.

Perhaps mindful of this problem, plaintiffs' experts at times finesse it. In parts of his analysis, for example, Dr. Frankel argues that Mastercard and Visa could survive in a world with zero interchange rates. He also points to the Australian experience, in which the Reserve Bank of Australia has regulated interchange rates without (he argues) reducing the size of the Mastercard and Visa networks there to any significant extent. Dr. Bamberger suggests that his damages counterfactuals look to a but-for world in which Visa and Mastercard "would have operated successfully." Bamberger Reply Dec. ¶¶36-37.

¹⁴ See, e.g., the discussion of the Japanese experience with higher merchant fees in a more fragmented payment card system in Topel Rep. ¶43.

With all respect, however, the question for rule of reason purposes (as well as for damages calculation) is not whether the networks could survive (or could have survived in the past) with zero interchange by shifting all costs to cardholders, or whether they could operate "successfully" at some positive but reduced interchange rate established by Australian or other national regulators. Rather, the question is what *market equilibrium* would emerge if the alleged anticompetitive practices were eliminated, and how that equilibrium would compare from an economic standpoint to the *status quo*. It is possible that an alternative market equilibrium might be economically superior, but without the capacity to identify it with any confidence, one can question whether the plaintiffs can succeed in establishing that the challenged practices, such as default interchange and honor all cards rules, are on balance anticompetitive (or, as discussed further below, whether the plaintiffs can establish their damages convincingly).

In this regard, it is noteworthy that Federal enforcement agencies have devoted considerable attention to practices in the general purpose credit and charge card industry. They challenged (successfully) rules that restricted Mastercard and Visa issuers from also issuing American Express and Discover cards, United States v. Visa, supra, and they achieved a successful settlement in United States et. al. v. American Express et. al. with the Visa and Mastercard defendants regarding certain network rules that discouraged discounting and certain other practices promoting the use of less expensive payment methods. To my knowledge, however, the enforcement agencies have refrained thus far from bringing challenges to default interchange, honor all cards, and certain other network rules put in issue by plaintiffs. A plausible inference from the absence of enforcement actions regarding these practices is that Federal enforcers regard the economic issues with respect to these practices as complex, and the potential net benefits of any challenge to them as uncertain given the present state of economic knowledge.

For all of these reasons, it is my opinion that plaintiffs face a substantial probability of failure in efforts to establish that the core practices that would remain

in place after the proposed settlement violate the antitrust laws, assuming that the rule of reason applies to them.

C. Other Sources of Litigation Uncertainty

1. Damages

Drs. Bamberger and Frankel each submitted materials containing or suggesting quantitative damages analyses on behalf of class plaintiffs, based on certain assumptions about the "but-for" world that would have arisen in the absence of the challenged practices. Dr. Vellturo's reports also apparently contain quantitative damages analysis, although it was redacted in the versions that I received. Both Drs. Bamberger and Frankel consider some alternative possibilities, including the measurement of damages on the assumption that interchange would be zero absent the alleged anticompetitive practices, or the assumption that interchange fees would remain but at lower levels, perhaps approximating those set by regulation in certain countries. In a brief section of his report, Prof. Stiglitz suggests another possible counterfactual benchmark – a world in which merchants use steering mechanisms to such a degree and with such efficacy as to drive credit card interchange rates down to the level of interchange on debit cards. Dr. Bamberger's Reply Report also considered an approach to measuring damages due to the alleged inter-network price-fixing conspiracy, which I have assumed is no longer seriously at issue.

I believe that the approaches to damages quantification suggested by Drs. Bamberger, Frankel and Stiglitz are subject to substantial challenges. First, for the reasons suggested in the last section, it is not at all clear what the proper counterfactual should be. It seems speculative to suppose that the counterfactual market equilibrium in the absence of the challenged practices would involve zero interchange given all of the other ways that the market might evolve or have evolved, and the fact that to my knowledge no general purpose credit or charge card

network of any consequence has ever evolved with zero interchange (or comparable merchant fees in a three-party network). The notion that the counterfactual market equilibrium would involve interchange at a rate set by some set of foreign regulators seems equally speculative. Given the important differences to consumers between credit cards and debit cards, the substantially greater <u>total</u> costs to issuers of credit cards relative to debit cards, and all of the questions raised in this litigation about the likelihood and efficacy of merchant steering mechanisms, it also seems speculative to suppose that credit card interchange would be competed down to the level of debit card interchange.

Second, a question arises as to how damages should be conceptualized in a two-sided market. Assume, as plaintiffs argue, that the elimination of challenged practices would result in lower interchange rates by some amount, and that the challenged practices are indeed deemed anticompetitive. Assume further, however, as plaintiffs experts concede at least up to a point, that lower interchange fees would result in higher fees and charges to cardholders, reduced awards, and a diminution in other incentives to use cards. Is it sensible to treat the entire reduction in interchange as "damages" due to an anticompetitive overcharge, or must one offset that amount by the detriment to cardholders from lower interchange? In the first instance, this is a legal question on which I offer no opinion. From a purely economic standpoint, however, an argument can be made for focusing on the twosided or total price as the better way to conceptualize any overcharge, as it captures the extent to which all affected parties in the aggregate have been harmed by any anticompetitive practices. See Topel Rep. ¶¶83-89; Murphy Report ¶¶351-55. This issue in turn brings into play the debate involving Prof. Murphy and his critics on the plaintiffs side - Prof. Murphy argues that, at the margin, all increases in

¹⁵ I am mindful, however, of the point noted by Prof. Stiglitz – inefficiency in the market might arise not only because the "total price" is elevated above the competitive level, but also because the merchant price is "too high" and the cardholder price "too low" from the standpoint of social optimality. Stiglitz Reply Rep. at 10. It is not at all clear to me, however, how this wrinkle might be factored into a quantitative analysis of antitrust damages.

interchange are passed through to cardholders, while Dr. Frankel replies that Profs. Murphy's data reflect the influence of other factors and may be unrepresentative. (e.g., Murphy Rep. ¶149; Frankel Rebuttal Rep. ¶¶216 et. seq.) To the degree that increases in interchange fees result in increased cardholder benefits, reductions in interchange may have the opposite effect, so that any benefits to merchants from reduced interchange fees might be offset in whole or in part by a loss to cardholders.

2. Injunctive Relief

In addition to damages, litigation might result in injunctive relief that goes beyond the relief provided in the proposed settlement. The Court might enjoin Visa and Mastercard from setting default interchange fees, for example, enjoin the enforcement of the honor all cards rule, or enjoin the enforcement of non-discrimination rules.

Just as the net economic impact of the challenged practices is difficult to identify for purposes of rule of reason analysis, however, and the proper counterfactual is difficult to identify for purposes of damages analysis, so too are the consequences for the general purpose card industry of any move to enjoin these long-time core business practices. The potential for serious unintended consequences is considerable. ¹⁶ These factors, in my view, may make the Court hesitant to enjoin the core practices left standing by the proposed settlement.

I also expect that the Court will be mindful of the fact that private antitrust litigation is not the only mechanism for addressing possibly anticompetitive practices in the general purpose credit and charge card market. As noted, Federal antitrust enforcers can and have instituted actions to challenge certain network

¹⁶ An independent commentary concluding that a court would not be likely to enjoin these practices is Steven Semeraro, Taming Credit Card Fees by Requiring the Biggest Banks to Compete for Merchant Acceptance: An Interbank Competitive Model, Thomas Jefferson School of Law Research Paper No. 2223518 (Feb. 2013).

practices, resulting in favorable adjudication and settlement. Although Federal enforcers have to my knowledge refrained from challenging practices such as default interchange and honor all cards rules, it is my understanding that the settlement in no way disables Federal enforcers from challenging those practices in the future.

Likewise, parties who believe themselves harmed by anticompetitive practices in the payments industry can and have secured legislative relief from Congress. The recent regulation of interchange rates for debit card transactions by the Federal Reserve, pursuant to the Dodd-Frank Act, is illustrative.

Federal enforcement actions have obvious advantages over private antitrust litigation in cases involving difficult economic issues, particularly if relief would involve changing the business models of successful U.S. companies. The Federal enforcement agencies have a large economics staff, typically headed by distinguished industrial organization economists. The availability of substantial economic input from a large staff, employed by an entity with no direct monetary interest in the outcome of litigation, can reduce the risk of errors. The Congress also has access to a range of expertise, and investigative powers, that a Court does not possess.

For all of these reasons, I believe that if the present litigation were to continue, there is considerable doubt whether the plaintiffs could secure significant injunctive relief going beyond the provisions of the proposed settlement, even if they were to establish liability.

3. The Indirect Purchaser Issue

Defendants argue that plaintiffs cannot recover damages in this action¹⁷ because merchants are indirect purchasers of the services provided by the defendants and their member issuers (following cases such as Illinois Brick Co. v. Illinois, 431 U.S. 720 (1977)). Interchange fees are paid by acquiring banks to issuing banks, the argument runs, and are at most passed along to merchants as indirect purchasers. Plaintiffs argue that the indirect purchaser doctrine does not apply because interchange fees are effectively paid by merchants rather than acquirers, and because many acquirers are also members of the Mastercard and Visa networks as issuers, falling within an exception to the indirect purchaser doctrine.

The question whether the indirect purchaser doctrine applies to the facts in this case is fundamentally a legal question on which I offer no opinion. It is my understanding, however, that other cases have invoked the indirect purchaser doctrine to bar damages claims by merchants or other bank customers in arguably analogous situations.¹⁸ Plaintiffs argue that these cases are distinguishable and/or incorrectly decided.

To the degree that economic analysis has any relevance the applicability of the indirect purchaser doctrine, one might bring it to bear in relation to the policy rationale behind *Illinois Brick* and related cases. My understanding of the indirect purchaser doctrine is that it stems initially from a concern about the possibility of multiple recoveries. If each purchaser at each point in a chain of transactions (e.g., wholesaler, retailer, consumer) could sue to recover the full monopoly overcharge (trebled under the antitrust laws), total damages would become excessive. To avoid this outcome, some manner of apportionment might be used -- one might attempt to

¹⁷ It is my understanding that the indirect purchaser doctrine would not bar the plaintiffs from securing injunctive relief.

 $^{^{18}}$ Paycom Billing Svcs., Inc. v. Mastercard Int'l, Inc., 467 F.3d 283 (2d Cir. 2006); Kendall v. Visa USA, 518 F.3d 1042 (9th Cir. 2008); In Re ATM Fee Antitrust Litigation, 686 F.3d 741 (9th Cir. 2012).

compute the amount of harm borne by the wholesaler and separate it from the overcharges passed on to the retailer, do the same at the retail level, and so on. But this apportionment problem would be complex in many cases and subject to error. See *Illinois Brick*, 431 U.S. at 737. To avoid such issues, the indirect purchaser doctrine provides that the direct purchaser can recover the full overcharge with no deduction for amounts passed downstream, while indirect purchasers are barred from recovery.

If the rationale for the indirect purchaser doctrine is the avoidance of a costly and error prone apportionment problem, it has less force when apportionment is straightforward because contractual arrangements allow a court easily to ascertain what portion of a monopoly overcharge is passed along the chain of distribution (as in the possible "cost-plus" exception to *Illinois Brick*, see 431 U.S. at 736). It also has less force when direct purchasers may be disinclined to sue, perhaps because they have an economic interest in maintaining the anticompetitive overcharge. Plaintiffs in this litigation can perhaps appeal to these policy considerations, arguing that acquirer fees are easily separated from interchange fees that are paid to issuers and passed along to merchants (regardless of who "pays" interchange as a formal matter), and that some acquirers are also issuers and thus directly or indirectly benefit from any anticompetitive practices. Whether these considerations would be sufficient to overcome the past tendency of courts to apply the indirect purchaser doctrine strictly, however, is unclear.¹⁹

In sum, I conclude that plaintiffs face significant uncertainty associated with the indirect purchaser doctrine given potentially adverse precedents. Policy considerations may offer a reasonable basis for distinguishing the present case from a typical indirect purchaser situation, but it is difficult to predict how the issue would ultimately be resolved.

¹⁹ See, e.g, Kansas v. Utilicorp United, Inc., 497 U.S. 199 (1990)(rejecting exception to indirect purchaser doctrine where overcharges allegedly passed on in full to utility customers).

4. Class Certification

The prospects for recovery of damages also depend on the question of class certification. Time constraints have prevented me from evaluating in any depth the economic issues raised in this connection, as has the fact that my legal knowledge on matters of class certification and civil procedure is scant, leaving me less confidence in my ability to ascertain which economic issues are especially important.

I am mindful of the fact that this Court certified a merchant class in prior litigation involving alleged anticompetitive practices by defendants, In Re Visa Check/Master Money Antitrust Litigation, 198 F.R.D. 68 (E.D. NY 2000)("Visa Check"), a decision that was affirmed on appeal. I am also mindful of the fact that the issues relating to liability and damages are somewhat different in the present case, and that Supreme Court decisions in the past few years have tightened the requirements for class certification importantly. Wal-Mart Stores, Inc. v. Dukes, 131 S. Ct. 2541 (2011)(requiring plaintiffs to prove that the requirements of Rule 23 are met before class can be certified); Comcast Corp. v. Behrend, 133 S. Ct. 1426 (2013)(before certifying a class, court must conduct a rigorous analysis to determine whether class-wide damages case comports with antitrust liability case). These developments suggest that at least a modest degree of uncertainty remains as to whether the plaintiffs can obtain and maintain class certification.

5. Visa Check Release

Defendants argue that the settlement release in the above-noted Visa Check litigation bars some or all of plaintiffs' claims in the present litigation, because such claims relate to business practices in place at the time of the Visa Check settlement. Plaintiffs argue that the present claims relate to subsequent conduct to which the release is inapplicable. The proper construction of the Visa Check release is a legal

question on which I offer no opinion, but this issue does appear to present an additional source of uncertainty for the plaintiffs.

D. Litigation Costs

Continued litigation inevitably imposes additional costs on all parties in the form of litigation costs. Nothing in the materials submitted to me, however, affords a basis for assessing this factor quantitatively. From a qualitative perspective, future litigation costs are less to the degree that discovery is complete and briefing on the key substantive issues has already occurred. Depending on the outcome of pending summary judgment motions, future litigation costs at the trial court level might prove small, but they might also be substantial if complex issues remain for trial. Appellate litigation is also perhaps quite likely in a case of this magnitude. The possibility arises, therefore, that substantial costs remain to be incurred at trial or on appeal.

E. Summary

On the assumption that the originally alleged inter-network conspiracy to fix prices is no longer seriously at issue, it is my opinion that the plaintiffs face a substantial and perhaps rather large probability of eventual failure in litigation both as to liability and as to the prospects of significant monetary and injunctive relief. A substantial and perhaps high probability exists that the issues will be analyzed under the rule of reason, and a review of the economic issues in the case suggests that the plaintiffs will have difficulty establishing that the intra-network practices are on balance anticompetitive. The plaintiffs also face considerable difficulty in establishing a persuasive counterfactual for the computation of damages, assuming that they can overcome obstacles to liability, as well as significant potential risk under the indirect purchaser doctrine. Related considerations along with prudential factors raise further doubts about the likelihood of any injunctive relief going significantly beyond the terms of the proposed settlement. Still other issues appear

to raise further legal uncertainty, and the cumulative probability of failure on *some* issue(s) of critical importance to the plaintiffs appears to be quite substantial. The litigation costs of further litigation may be substantial.

III. The Value to Plaintiffs of the Settlement

This section contains an assessment of the value to plaintiffs of the rules changes and damages components of the settlement, as well as brief discussion relating to the scope of the proposed release. I again emphasize economic issues and do not address at all a number of legal concerns raised by the objectors, such as whether the settlement and release comport with requirements of due process, whether the certification of damages and injunctive relief classes is proper under Rule 23, whether notice to class members of the proposed settlement has been adequate, whether the interaction between the proposed settlement and the Affordable Care Act pose special difficulties for certain health care entities, and various other matters.

A. Rules Changes

The proposed settlement embodies a number of commitments by the defendants, including modification of the no-surcharge rules, a commitment to abide by terms of recent legislation and a recent settlement of litigation with the Department of Justice even if the legislation is repealed or the settlement terms modified, an agreement to modify "all outlets" rules to permit merchants to maintain different card acceptance policies at outlets with different "banners," and a commitment to negotiate in good faith with group buying associations. Although each of these commitments no doubt has *some* potential value to plaintiffs, it is difficult to estimate how much and I find no convincing basis in the expert reports for any reliable quantitative estimates. Most of the debate among the economic experts relates to the value of surcharging.

1. Surcharging

Class plaintiffs' expert Dr. Frankel has taken the lead in arguing that surcharging will provide substantial benefits to plaintiffs. I refer to his statement in support of the proposed settlement as the Frankel Settlement Declaration, to be distinguished from the previously mentioned Frankel Report (Frankel Rep.) and Frankel Rebuttal Report (Frankel Rebuttal Rep.) relating to liability and damages. His position on the value of surcharging stands in contrast to the analysis offered by certain defendants' experts, who argued that surcharging by merchants would be uncommon or of little consequence if it were permitted. See Klein Rep. ¶¶82-102; Topel Rep. ¶¶57-76. I have received two economic reports from objectors criticizing Dr. Frankel's analysis of these issues – one by Prof. Hausman and one by Prof. Weisbach – along with a reply from Dr. Frankel that I will refer to as the Frankel Settlement Reply Declaration, and a further reply declaration from Prof. Weisbach.

a. Summary of Expert Positions on the Value of Surcharging Pursuant to the Settlement

Dr. Frankel argues that surcharging benefits merchants in three ways – by recovering the costs of transactions with high-cost payment methods that are surcharged, by inducing some significant numbers of consumers to switch to less expensive payment methods, and by placing downward pressure on interchange fees. Frankel Settlement Dec. ¶32. He argues further that merchants will be willing to impose surcharges, pointing to factors such as the convenience fees already imposed by certain domestic entities that are exempt from no-surcharging rules, as well as the experience in other countries where surcharging has been permitted for some time. He suggests that merchant fees are presently high enough in the United States to make surcharging attractive, and that empirical evidence (much of it from abroad) supports the proposition that surcharges will induce consumers to switch to less costly payment methods in significant numbers. Id. ¶¶33-43. He contends

that the ability to surcharge (or even to make a credible threat to surcharge) can and has exerted downward pressure on interchange fees, pointing to the Australian experience. Id. ¶¶44-47. He also argues that surcharging is a more effective steering method than discounting, because consumers react differently to surcharging for reasons suggested by the behavioral economics literature. Id. ¶¶48-51. He acknowledges that state anti-surcharging statutes may limit the extent of surcharging, as may the aspect of the settlement that prohibits merchants from surcharging unless they also surcharge other more expensive payment products. Because of the latter provision, merchants will not be able to surcharge Visa and Mastercard transactions if they accept American Express cards due to the fact that American Express cards have higher merchant fees and American Express imposes a no surcharge rule. Dr. Frankel notes, however, that the American Express policy has been challenged in ongoing litigation with the Department of Justice. While acknowledging these issues relating to state anti-surcharging statutes and American Express rules. Dr. Frankel argues that they diminish but do not eliminate the benefits of surcharging to plaintiffs. Id. ¶¶ 58-64.

Finally, Dr. Frankel provides an "illustration" of the benefits from surcharging, based on a variety of assumptions about its extent, the downward pressure that it will produce on interchange, the growth over time in credit transactions, and other factors. Id. ¶¶65-73. His illustration assumes that interchange fees will fall by 4 basis points per year (and thus 40 basis points in 10 years), that credit charge volume will grow at 8.5% per year, that the percentage of merchants surcharging transactions will increase by 2% per year for ten years (to 20%), that each surcharged transaction recoups 1% of its total value through surcharge revenue or reduced cost due to an alternative payment mechanism, and that 1% of consumers per year switch from credit to debit cards at non-surcharging merchants. The total savings over ten years are then computed at over \$94 billion. If state anti-surcharging statutes and American Express rules "are assumed" to reduce key parameters by 75%, the illustrative benefits fall to \$26 billion. Id. ¶73.

Profs. Hausman and Weisbach take issue with many aspects of Dr. Frankel's analysis. Prof. Weisbach focuses on Dr. Frankel's quantitative illustration of the benefits from surcharging. He argues that Dr. Frankel's illustration does not meet the standards for a reliable forecast or estimation of merchant benefits. Dr. Frankel does not adjust for risk or the time value of money, and does not compute expected cash flows based on a probability distribution of possible outcomes. Prof. Weisbach questions the 8.5% growth assumption made by Dr. Frankel, arguing that it is based on an unrepresentative period, questions his assumptions about the revenue recouped through surcharging, suggests that various differences between the U.S. and Australian economies may render the Australian experience inapt for predicting interchange fee reductions and the percentage of transactions to be surcharged in the United States, and questions whether the Australian experience is relevant given the caps on surcharging in the proposed settlement, the state anti-surcharging statutes in the United States and the American Express no-surcharge rule. He criticizes Dr. Frankel for neglecting to estimate and deduct the costs to merchants of implementing surcharge systems.

Prof. Hausman reiterates aspects of the plaintiffs' economic case on liability, and argues that the settlement fails to address satisfactorily the anticompetitive consequences of practices such as default interchange and honor all cards rules. He questions the utility of surcharging, in significant part because of state antisurcharging statutes and American Express rules. He further questions the effect of surcharging in foreign settings such as Australia and the United Kingdom, arguing that surcharging is relatively uncommon and has not reduced interchange rates there significantly, attributing any observed reductions in interchange to other factors such as regulation in Australia. Regarding Dr. Frankel's illustration of benefits to merchants, Prof. Hausman argues (like Prof. Weisbach) that the assumptions in the illustration lack a firm economic basis. He makes a few additional points not mentioned by Prof. Weisbach, such as suggesting that Dr. Frankel significantly overestimates the extent of surcharging in Australia, and that

he does not properly consider the loss of sales to merchants who surcharge and lose customers.

Dr. Frankel's reply statement emphasizes that his "illustration" was not meant to be a serious forecast that meets the standards for econometric estimation and prediction, but merely a possible illustration of benefits to merchants based on assumptions that he considers plausible in light of the experience with surcharging abroad and his interpretation of the evidence regarding its effects. He quarrels with Profs. Hausman and Weisbach on many other particulars of their critique, and offers a detailed point-by-point rebuttal that I will not undertake to summarize here. Rather, I will bring out important points from Dr. Frankel's reply declaration in the discussion to follow.

b. Discussion

After reviewing the parties' submissions and the expert commentaries, I reach the following specific conclusions about surcharging:

(i). Dr. Frankel's elucidation of the *potential* benefits to merchants from surcharging, as a matter of economic theory, seems broadly correct. To the degree that surcharging takes hold, it might reduce interchange fees, and it would benefit merchants by allowing them to collect surcharge fees or by inducing some consumers to switch to less costly payment mechanisms. To be sure, if the merchant sector is competitive, any benefits to merchants along these lines may be competed away if merchants reduce prices (Dr. Frankel himself has argued, for example, that interchange fees affect marginal costs and cause merchant prices to rise, other things being equal. Frankel Rebuttal Rep. ¶¶148-51, 194. Presumably the logic applies in reverse.). Accordingly, any additional revenues from surcharging could be significantly larger than the additional profit from surcharging.

Regarding the question of offsets to the potential benefits, I concur with the experts for objectors that one must deduct the direct costs to merchants of implementing a surcharge mechanism, although the magnitude of these costs is unclear. The potential transaction costs of product-level surcharging, in particular, may be high or the technology may not be readily available. Hausman Rep. ¶100.

An interesting issue arises as to whether the loss of sales by merchants who surcharge should be the basis for an offset – Dr. Frankel argues against such an offset on the grounds that sales lost by one merchant are gained by another, so that as a first approximation the class of merchants as a whole is not injured when one merchant loses sales to another due to surcharging. Frankel Settlement Reply Dec. at 57. This argument strikes me as correct if one assumes that a sale lost by any merchant that surcharges is offset one-to-one by another sale by a member of the plaintiff class. But that assumption may not be entirely correct – sales may be lost to merchants who do not accept credit cards, for example, and the net impact of reduced credit card usage on the overall level of consumer spending and consumer prices is a matter of controversy among the experts.

(ii). The fact that there are potential benefits from surcharging does not establish that significant benefits will arise in practice. All experts seem to agree that merchants will often be hesitant to impose surcharges because of the fear of losing sales to merchants who do not. Prof. Hausman argues, for example, that average retail profit margins per transaction are much higher than potential surcharge revenue, so that a prospect of only modest numbers of lost sales will make surcharging appear unprofitable to merchants. Hausman Rep. ¶73. This problem is more acute for the "first-movers," i.e., the first to impose surcharges. If the market somehow evolves so that surcharging becomes common, the disincentive to additional surcharging diminishes. But it is difficult to predict how many merchants will wish to surcharge initially, or how quickly the practice of surcharging will grow (if indeed it will). The experience in other countries can be somewhat instructive on this front, but there can be differences across countries

that make comparisons misleading (more on this point below). Likewise, although it is true that some entities have in the past been exempted from no-surcharge rules in the United States and have taken advantage of such exemptions to charge "convenience fees" for credit card acceptance (such as colleges and universities, see Frankel Rep. ¶162), such entities may not face the same concerns as typical merchants. Colleges and universities, for example, probably need not seriously worry that a convenience fee will cause a student to drop out or pursue education elsewhere.

(iii). The experts by and large seem to agree that surcharging may be a more effective strategy for steering consumers than discounting, which is already allowed under the Visa/Mastercard settlement with the Department of Justice as I understand it. The claim that surcharging is more effective turns on findings in the behavioral economics literature to the effect that consumers react differently to practices that impose costs or losses on them than to practices that offer them incentives or benefits. See, e.g., Ariely Report. The difference in perception also seems to be confirmed to a degree by the fact that political opposition to surcharging has surfaced in many states, while (to my knowledge) political opposition to discounting has not arisen to the same degree. The fact that discounting is allowed even without the proposed settlement, however, raises some question in my mind as to the incremental value of surcharging given that the two practices can be, as Dr. Frankel put it, "algebraically equivalent." Frankel Settlement Dec. ¶48.

Moreover, assuming that surcharging is indeed a more potent device for inducing consumers to change behavior, it is something of a double-edged sword in this context. The greater the extent that consumers may be expected to react to it, the more merchants may be fearful of using it and losing sales, especially as "first-movers."

(iv). Dr. Frankel relies heavily on the Australian experience for his opinion that surcharging will create significant downward pressure on interchange rates. Frankel Settlement Dec. ¶¶34-47. He observes that the gap between Visa/Mastercard and American Express merchant fees in Australia has declined by 4 basis points per year over a recent three-year period during which surcharging was allowed. This observation apparently forms a basis for the assumption in his illustration that surcharging in the United States will reduce interchange rates by 4 basis points a year for ten years. Id. ¶71.

To his credit, Dr. Frankel frames his quantitative analysis as an "illustration" rather than a serious forecast. The decline in American Express fees in Australia over a recent three-year period is a shaky basis for imagining that surcharging in the United States under the terms of the proposed settlement would lead to a 4 basis point or any other particular reduction in U.S. Mastercard and Visa interchange rates per year over time. It is possible, as Profs. Hausman and Weisbach argue, that reductions in American Express merchant fees in the Australian market are substantially attributable to the fact that Visa and Mastercard interchange fees in Australia became subject to regulation, leading to a lagged response from American Express over time, or to the fact that surcharging there was not capped. See Hausman Rep. ¶¶83-85; Weisbach Reply Dec. ¶5.20 It is also clear that Australia does not have the equivalent of state anti-surcharging statutes or the constraints imposed on merchants in the United States under the proposed settlement by American Express rules. The experience in Australia over a particular three-year period also seems a questionable basis for projecting a steady *ten*-year trend in the United States. See Weisbach Reply Dec. ¶6.

²⁰ It is also interesting that Diner's Club fees have apparently not tracked the decline in American Express fees in Australia despite surcharging. Dr. Frankel suggests that this is because Diner's Club is a "niche brand" and because of the small number of transactions with Diner's Club it "gains the benefits of some of American Express's fee reductions...without itself having to reduce its rates as much." Frankel Settlement Reply Dec. p. 54; see also pp. 36-37. This claim strikes me as plausible but conjectural.

It is also fair to note that the assumed 4 basis point per year reduction in interchange fees accounts for roughly two-thirds of the merchant benefits from surcharging in Dr. Frankel's illustration (\$62.8 billion versus \$31.5 billion from other sources). Frankel Settlement Dec. p. 42, Table 1. Of that total, much of the benefit arises in later years of the ten-year hypothetical window due to the assumed growth in transactions and the steady per-year increase in the decline of interchange fees.

- (v). In addition to the data on declining American Express merchant fees in Australia following the introduction of surcharging, Dr. Frankel offers some anecdotal evidence that surcharging has played an important role in producing downward pressure on American Express merchant fees in Australia. For example, he suggests that a large retailer (Woolworth's) was able to negotiate favorable fees with American Express by threatening to surcharge. Frankel Settlement Dec. pp. 26-27; Frankel Settlement Reply Dec. pp. 30-32. In the course of this discussion, he emphasizes that Woolworth's apparently threatened to surcharge but not drop American Express cards, a fact that he believes shows the incremental value of surcharging relative to an environment in which the merchant's only credible threat is to drop the card altogether. The Woolworth's experience and similar instances of negotiation may well have some predictive value, but one must be cautious in interpreting them. One cannot assume that the effects of a threat to surcharge in a negotiation over merchant fees with a large retailer will necessarily mirror the effects of actual surcharging by some modest percentage of smaller retailers. Further, large retailers have considerable leverage in negotiation with or without a threat to surcharge, and despite the anecdotal account of a particular negotiation it is difficult to know how the negotiation would have turned out without the threat to surcharge.
- (vi). Dr. Frankel points to the proposition that countries that allow surcharging tend to have lower interchange fees than in the United States and other

countries that do not allow surcharging, even if one excludes Australia where Visa/Mastercard interchange fees are regulated, citing data developed by Dr. Wecker. Frankel Settlement Reply Dec. pp. 40-42. These data are suggestive, but it is always possible that other differences across these countries explain the interchange differentials. I can only speculate on what those differences might be, and will not do so. I simply note that there is no indication in the Frankel declaration that Dr. Wecker considered the possibility of other differences or attempted to control for any.

(vii). Prof. Hausman states that 41% of U.S. commerce occurs within states that prohibit surcharging, and that 70% of U.S. commerce would be located in no-surcharging states if currently pending anti-surcharge legislation in other states passes. Hausman Rep. ¶¶57-58. Dr. Frankel acknowledges that state anti-surcharging statutes would reduce the benefits to merchants of surcharging, but insists that some benefits will arise for all merchants because of the surcharging that is allowed in many states. He argues that these benefits will flow to merchants in no-surcharging states because interchange fees are set at the national level. Prof. Hausman replies that if Mastercard and Visa reduce interchange fees at all, they may instead set differential interchange fees, lower for surcharging states, so that merchants in non-surcharging states derive no benefit from surcharging. Hausman Rep. ¶62. Dr. Frankel believes that outcome to be unlikely because geographic price discrimination has not occurred in the past. I have no basis for offering a judgment as to who is right.

Dr. Frankel also argues that some anti-surcharging statutes may be interpreted in a way that allows the equivalent of surcharging, such as in New York. Frankel Settlement Reply Dec. pp. 42-43. Class plaintiffs elaborate, suggesting that statutes in New York and California may be interpreted to allow surcharging as long as merchants provide proper disclosure, and noting further that state anti-surcharging statutes are subject to constitutional challenge. Class Plaintiff's Reply Memorandum in Support of Settlement pp. 25-28. It is unclear to me, however,

whether the possible interpretation of anti-surcharging statutes noted by class plaintiffs allows "surcharging" or simply a disclosed two-price policy that could be interpreted as "discounting," and that merchants could put in place even absent the proposed settlement. To the degree that this distinction has marketplace importance because of the behavioral economics findings that suggest a difference between "surcharging" and "discounting," some clarification would be valuable. In any case, it is seems uncertain how state anti-surcharging statutes will ultimately be interpreted, or whether any constitutional challenges to them will ultimately succeed.

Dr. Frankel also makes the point that the advent of greater surcharging under the proposed settlement may affect the political equilibrium that has led to the passage of no-surcharging statutes. His suggestion is that merchants in no-surcharging states may feel themselves disadvantaged, and secure the repeal of the anti-surcharging statutes. Frankel Settlement Dec. ¶60. He raises a logical possibility, but it is also possible that the advent of greater surcharging will invigorate anti-surcharging political forces, leading to the passage of more anti-surcharging statutes where they are now pending or may later be introduced. Likewise, the fear of new anti-surcharging statutes may discourage some merchants from experimenting with surcharging. I cannot assess the likelihood of these scenarios.

Plainly, considerable economic and political uncertainties are associated with anti-surcharging statutes. Experts on both sides advance logically coherent arguments as to their possible impact, but I see no basis for evaluating their likely quantitative impact beyond a crude inference based on statistics indicating the percentage of commerce affected by them.

(viii). Dr. Frankel acknowledges that the settlement would restrict surcharging by merchants who accept American Express as long as the current American Express rules remain in effect. Prof. Hausman notes that merchant

acceptance of American Express is "now about 90% (or higher) by credit card volume." Hausman Rep. ¶65. Dr. Frankel downplays the importance of this fact for three reasons: (i) If merchants can surcharge Visa and Mastercard transactions, they may drop American Express in order to do so; (b) a significant number of merchants do not take American Express in any event; and (c) American Express may change its rules in response to pending litigation against it by the Department of Justice.

The American Express policy is likely to have a substantial effect on the potential value of surcharging to plaintiffs as long as American Express retains its current rules, although I see no basis for any quantitative estimates of this impact. I offer only a few qualitative points in addition to the points already noted by the experts on both sides. First, in light of the widespread acceptance of American Express cards, even the merchants who do not take American Express cards may be reluctant to surcharge Visa and Mastercard transactions because they know that competitors who take American Express will not match any surcharges - the American Express issue exacerbates the "first-mover" disadvantage. Second, Dr. Frankel's suggestion that merchants may drop American Express to take advantage of the opportunity to surcharge is certainly a logical possibility, but runs up against the arguments put forward earlier in the case by the plaintiffs regarding the anticompetitive effects of various network rules. A number of experts for the plaintiffs. including Dr. Frankel, argued that these rules leave merchants no choice in the face of higher interchange rates but to drop a card brand altogether, an option that is simply too costly. Perhaps American Express is less essential than Visa and Mastercard in the view of the merchants who now accept it, and they would be more willing to drop it altogether, but I am not aware of any evidence to that effect other than perhaps the somewhat smaller market share of American Express. Finally, I have no basis for offering a judgment about the likelihood that the current Department of Justice litigation against American Express will ultimately result in an end to its no-surcharging policy.

Dr. Frankel suggests that he takes both the existence of state antisurcharging statutes and American Express rules into account when he adjusts key parameters downward by 75% for his second illustration. See Frankel Settlement Dec. ¶73 and Table 2. This adjustment is essentially arbitrary, however, and I see no basis for imagining that the collective effect of these factors will be to reduce key parameters by 75% or any other particular amount.

c. Summary and Implications

I conclude that the value of surcharging to plaintiffs is highly uncertain and may be small. Dr. Frankel's illustration succeeds in making the point that *if* surcharging takes hold in the United States and becomes a significant source of revenue to merchants, and *if* the result is significant downward pressure on interchange rates for Visa and Mastercard, then the dollar increment in revenue to merchants could run into billions of dollars over time. The illustration is of no value for the purpose of assessing whether these assumptions are correct, however, and support for them must be found elsewhere.

One cannot predict with confidence to what degree surcharging will actually occur, and it may prove uncommon as the objectors contend. Likewise, one cannot predict with confidence the extent to which surcharging will exert downward pressure on interchange rates. The experiences in other countries such as Australia are suggestive but any inferences are greatly complicated by the fact that circumstances in other countries are significantly different from those in the United States. The most glaring differences relate to the existence of state anti-surcharging statutes in the United States, the limitations on surcharging under the proposed settlement for any merchant that accepts American Express, and substantially different regulatory environments (especially in Australia, the country that has received by far the most attention as a basis for comparison).

The fact that the analysis of surcharging offered by the proponents of settlement is subject to substantial criticism, however, does not prove that surcharging would be of little or no value to merchants in the United States. We simply do not know.

2. Other Rules Changes

The proposed settlement locks in changes to the rules of Visa and Mastercard relating to discounting and certain other practices that encourage consumers to use lower cost payment mechanisms. These changes resulted from the Dodd-Frank Wall Street Reform and Consumer Protection Act and from the recent settlement between the Department of Justice and Visa/Mastercard in United States et. al. v. American Express et. al. The proposed settlement also permits "product" level surcharging, eliminates penalties for merchants that maintain different card acceptance policies at different "banner" stores, and requires Visa and Mastercard to negotiate in good faith with group buying associations.

None of the economic experts devote much attention to these provisions beyond a few paragraphs in the Frankel declaration suggesting that they all have value to merchants, and a few statements in the Hausman report suggesting that product-level surcharging is unlikely and that group buying associations are unlikely to have much impact. None of the experts attempt any quantitative estimates regarding these provisions.

The provisions that lock in aspects of the Dodd-Frank Act and the DOJ settlement have value only to the degree that the underlying legislation and settlement agreement may be eliminated or modified in the future. I have no basis for assessing the likelihood of such developments. Moreover, it is not clear how valuable these rule changes are to merchants in the first place. All of them are of recent vintage (the Dodd-Frank Act in 2010 and the approval of the DOJ settlement in 2011), and it is surely too soon for any confident assessment of their marketplace

impact. I was struck, however, by the absence of any significant discussion as to how much these rule changes have affected merchant practices thus far.

The possibility of product level surcharging raises many of the issues discussed above, such as the question whether merchants will surcharge to any significant degree at all. It also raises a question about the capacity of merchants to distinguish more expensive products accurately at the point of sale or otherwise in online or other types of transactions. Dr. Frankel simply notes that the settlement creates the option of product level surcharging, and suggests that merchants may take advantage of it to steer consumers away from the use of cards with particularly high interchange fees. He does not offer any forecast or analysis of its likely extent, however, or discuss evidence concerning product level surcharging in other countries. Frankel Settlement Dec. pp. 32-33. Prof. Hausman emphasizes the difficulties that merchants may have in identifying high interchange cards and implementing differential surcharges, observing that a large number of different types of cards exist with different fees in the United States, and that product level surcharging has not arisen in the United Kingdom even though "surcharging has been permitted for 20 years." Hausman Rep. ¶100.

Regarding the opportunity to vary card acceptance policies across stores with different banners while retaining the benefits of Visa's volume discounts, Dr. Frankel simply notes that some merchants are in a position to take advantage of this provision by restricting card acceptance at discount outlets or banners. Frankel Settlement Dec. pp. 33-34. No effort is undertaken to quantify this effect.

Finally, regarding group buying associations, it is my understanding that such associations could have been established in the past. See Hausman Rep. ¶102. If transaction costs or antitrust concerns have previously impeded the formation of group buying associations, those problems remain. Co-counsel for class plaintiffs suggests, however, that it was the practice (although not a formal rule) for Visa and Mastercard to refuse to negotiate with merchant buying groups in the past (see

Wildfang Supp. Decl. ¶61). If so, this practice may have discouraged the formation of buying associations. A duty to negotiate with such groups in good faith may then alter the negotiating landscape importantly if it is effectively policed, but without more information as to the history of any negotiations between Visa/Mastercard and group buying associations, I cannot assess the importance of this duty.

That said, it is surely correct as a matter of economics that groups of merchants banding together with a common negotiating position may in theory gain more leverage and achieve a better negotiating outcome than individual members of the group on their own. For a group to do better in negotiations, however, the group members collectively must be able to threaten the counterparty in negotiations with a worse outcome than they could threaten individually if the counterparty refuses to offer a better deal than the group members could obtain individually. Prof. Hausman argues that buying groups would not have a credible threat in this regard. because "I do not think merchants can credibly threaten to stop accepting [Visa/Mastercard] credit cards." Hausman Rep. ¶101. Prof. Hausman perhaps overlooks one new source of leverage for group buying associations under the terms of the proposed settlement - the group could threaten to surcharge Visa and Mastercard transactions. Group threats to surcharge might overcome some of the "first-mover" disadvantage that individual merchants face if they surcharge and their competitors do not. To be sure, such threats are infeasible for buying groups in states that prohibit surcharging or for groups whose members are prevented from surcharging by current American Express rules. It is nonetheless plausible that coordinated activity among merchants, through group buying associations, might overcome some of the merchant resistance to surcharging (or threatening to surcharge) that prevails when merchants do not act as a group.

B. Damages

The monetary component of the proposed settlement, totaling over \$7 billion, has been widely touted as the largest settlement in antitrust history.

Objectors nevertheless emphasize that the amount per merchant is small when divided by the vast number of merchants who accepted Visa and Mastercard during the relevant time period, and that the total amount represents only a few months of interchange fee collections by the two networks. All of these statements appear to be correct, but none of them are conclusive regarding the reasonableness of the settlement.

From an economic point of view, the question is how the monetary settlement compares to the expected recovery in continued litigation. The fact that the settlement is large in absolute terms does not make it reasonable if the expected recovery is considerably larger. Likewise, the fact that the amount per merchant is modest and represents only a few months of interchange fees is of little significance if the expected recovery per merchant from continued litigation is even smaller.

For the reasons given in Section II of this memorandum, I believe that plaintiffs face a substantial probability of failure in continued litigation with respect to issues of both liability and damages. I cannot, however, quantify these probabilities with any precision, and I do not find any basis for a confident assessment of the likely dollar value of a damages recovery should the plaintiffs overcome all of the potential obstacles to such a recovery. Accordingly, I do not find any convincing basis for estimating quantitatively the expected recovery from continued litigation. Given what I believe to be a substantial probability that plaintiffs may recover nothing through continued litigation, however, and the substantial value of the settlement in absolute terms, I also find no convincing basis for concluding that the settlement amount is unreasonable in relation to the expected recovery in litigation. In assessing the reasonableness of the settlement amount in the face of such uncertainty, it may be appropriate to consider the question of who has the burden of proof in establishing that the settlement is reasonable or unreasonable, an issue on which I offer no opinion.

C. The Release

Virtually all of the objectors argue that aspects of the release (for the 23(b)(2) class, the 23(b)(3) class, or both) are overbroad. The objections include the suggestion that the release should not foreclose causes of action for future conduct that violates the antitrust laws, that it should not release claims for future damages, that it should not release claims for entities not yet in existence, that it should not release claims based on network rules that are not known or ripe at time of settlement, that the "substantially similar" language in the release sweeps too broadly, and various others. The proponents of settlement dispute these claims, arguing that the scope of the release is appropriate, although defendants offer some clarifying language on a few narrow issues.

The proper construction of the language in the release, and the impact of any constraints on its approval or future interpretation imposed by pertinent case law, involve legal questions. I have no comparative advantage in addressing such matters and will not attempt to address them. I offer only a few observations from the economic perspective.

Defendants have a legitimate interest in securing litigation peace through settlements, and indeed a prospect of re-litigating the same or similar issues in the future can destroy any willingness to settle. It is appropriate to allow settlements to extinguish claims that could have been brought in the existing litigation, and to exclude the possibility that trivial changes to a defendant's conduct or practices will open the door to re-litigating issues that are ostensibly settled.

Nevertheless, litigation "peace" need not include protection from liability for new and different violations of the law. Proponents of the proposed settlement argue that the release is proper in this regard. They suggest that its language excludes claims for anticompetitive conduct that is new or different from that at issue in this litigation, and that certain principles of construction (such as the identical factual predicate doctrine) will serve to rein in any overbroad claims based on the language of the release alone. These are legal arguments and I will not opine on their merits.

Certain objectors raise a related concern, however, that may require further reflection. Just as plaintiffs argue that the challenged practices of Visa and Mastercard have become anticompetitive over time as the industry has "matured," it is possible that certain existing or "substantially similar" rules or conduct may have future anticompetitive effects that are not apparent presently, particularly as to their effects on new and emerging payments technologies. Prof. Hausman offers an example concerning the possible application of an existing or "substantially similar" honor all cards rule to Visa and Mastercard applications on smartphones or other emerging mobile payment technologies. Hausman Rep. ¶¶103-09. objectors also offer the report of Mr. Mott, who argues that existing Visa and Mastercard rules, or slight modifications of them – including "card not present rules," rules concerning liability for fraud, a "BIN licensing Agreement," "must carry rules," and others, could significantly disadvantage a number of emerging competitors including providers of competing mobile and other "contactless" payment mechanisms. See generally, Mott Rep. ¶¶29-57.

Class plaintiffs dispute these claims, and broadly assert that "claims based on emerging technologies are not released." Class Plaintiff's Reply Memorandum in Support of Settlement, p. 60. They suggest that existing rules do not cover new technologies, and that and rules modifications that extend to them would represent "new conduct or a new rule not covered by the release." Id. p. 62. They also offer a supplemental report by Mr. McCormack, who broadly contests the analysis of Mr. Mott.

Defendants seem to offer a somewhat different view: "Objectors also hypothesize that even if the current Visa and Mastercard network rules as modified in the settlement are lawful today, at some point in the future those rules might

develop some potential anticompetitive effect, based on currently unforeseeable changes in market conditions, such as in developing payments technologies...But such risks are entirely speculative and part of the bargain inherent in any antitrust settlement..." Defendants' Reply Memorandum in Support of Final Approval of Definitive Class Settlement Agreement, pp.28-29. An accompanying footnote adds: "Visa and Mastercard network rules governing payment card acceptance...have for years encompassed a wide variety of card, mobile phone, other contactless, and other payment and access devices and technologies...Determination of whether the application of the network rules to payment technologies developed in the future would be removed from the scope of the release is premature, as it is hypothetical and speculative, and would depend on the character of the rules as applied to the nature of such new technologies, and should properly be addressed only when and if an actual issue arises." Id. note 8.

In short, class plaintiffs suggest that future claims regarding any anticompetitive impact of network policies on new and emerging payments technologies are generally preserved under the release. Defendants suggest that they must be evaluated on an individual basis in light of network rules that "for years have encompassed a wide variety" of payment technologies, including mobile and contactless technologies that may become considerably more important over time.

I am not in a position to assess the likelihood and importance of the scenario envisioned by Prof. Hausman, or to arbitrate the debate between Mr. Mott and Mr. McCormack. I do concur with the concern expressed by Prof. Hausman, however, that a release covering the future effects of all existing or "substantially similar" conduct or rules raises a danger of adverse, unintended consequences in a technologically dynamic industry, consequences that are inevitably somewhat speculative at this time. The parties and the Court might usefully consider whether modifications to the release or guidance regarding its construction might be

desirable in relation to the effects of the release on possible future antitrust claims involving new and emerging payments technologies.

Respectfully submitted,
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