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February 22, 2011

**By Email**

Ms. Jennifer J. Johnson  
Secretary  
Board of Governors of the Federal Reserve System  
20th Street and Constitution Avenue, N.W.  
Washington, DC 20551

Re: Docket No. R-1404 (Debit Card Interchange Fees and Routing)  
RIN No. 7100 AD63

Dear Ms. Johnson,

On behalf of the Retail Industry Leaders Association (RILA), we respectfully submit the following comments in response to the Notice of Proposed Rulemaking published by the Federal Reserve Board (“Board”) in the *Federal Register* on December 28, 2010 – *Debit Card Interchange Fees and Routing*, 75 Fed. Reg. 81,722 (proposed December 16, 2010) (“NPRM”).

By way of background, RILA is the trade association of the world’s largest and most innovative retail companies. RILA promotes consumer choice and economic freedom through public policy and industry operational excellence. Its members include more than 200 retailers, product manufacturers, and service suppliers, which together account for more than \$1.5 trillion in annual sales, millions of American jobs and operate more than 100,000 stores, manufacturing facilities and distribution centers domestically and abroad.

Section 920 of the Electronic Fund Transfer Act (“EFTA”), added by Section 1075 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (“Dodd-Frank Act”), requires that the Board prescribe regulations to ensure that debit card swipe fees are “reasonable and proportional to the cost incurred by the issuer with respect to the transaction” for the purpose of “authorization, clearance, or settlement of a particular electronic debit transaction . . . .”

We appreciate this opportunity to offer comments in response to the Board’s NPRM. RILA is an executive committee member of the Merchants Payments Coalition (“MPC”), which has submitted substantial material to the Board with respect to the NPRM including a submission at the pre-rulemaking stage,<sup>1</sup> a submission on January 20, 2011, concerning the Board’s request for

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<sup>1</sup> MPC, Pre-NPRM submission to Director Louise L. Roseman (Nov. 2, 2010), available at: [http://www.federalreserve.gov/newsevents/files/merchants\\_payment\\_coalition\\_meeting\\_20101102.pdf](http://www.federalreserve.gov/newsevents/files/merchants_payment_coalition_meeting_20101102.pdf).

comments on the fraud-prevention adjustment permitted under Section 920(a)(5),<sup>2</sup> and a detailed submission on February 22, 2011, providing views and recommendations regarding the range of issues set out in the NPRM.<sup>3</sup> RILA endorses each of the MPC submissions in their entirety, in particular the most recent comprehensive comment letter. RILA members have provided substantial expertise and input into the MPC's submissions, and we hope the Board will view the MPC comments as being widely supported by both RILA members and the broad merchant community.

While we endorse and commend to the Board the MPC's views and recommendations, RILA also offers the following comments to stress the underlying need for Section 920 and the NPRM to address, at least in part, the fact that the market in which interchange fees are set for debit and credit cards is fundamentally broken and to stress that the structure of Section 920 can accomplish the objective of restoring some needed competition with respect to debit interchange fees if implemented consistently through the NPRM.

### **Interchange Fees are Set in a Broken Market**

To place the importance of Section 920 and the NPRM in context, it is essential to keep in mind how we came to this point, with interchange fees in the United States today among the highest in the world. In a functioning market, efficiencies are gained as volume increases and technology advancements are made. Competition among parties further ensures that these improvements are translated into lower costs and/or enhanced services. Yet, as discussed in detail in the MPC pre-rulemaking submission and the attached report on debit interchange fees prepared for RILA by James C. Miller III, Ph.D. ("Miller Report"),<sup>4</sup> in the case of interchange fees, the United States has seen just the opposite. As volume and technology have lowered the costs of operating the system, the card networks have dramatically increased interchange rates on merchants year after year. At the same time, merchants are forced to accept debit cards widely due to the overwhelming market dominance of Visa and MasterCard, which collectively controlled 84 percent of the market in 2009.<sup>5</sup>

Networks will claim that vigorous competition exists in the interchange marketplace, yet this competition is only in order to take market share away from network competitors by offering card issuers more generous interchange rates, to the detriment of the businesses, universities, charities, and even local, state and federal governments, all of which accept debit and credit card cards for payment. While governments and utilities generally have the ability to surcharge debit and credit card users to recoup some of these losses,<sup>6</sup> merchants must pass along these costs to

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<sup>2</sup> MPC, Fraud-adjustment submission to Director Louise L. Roseman (Jan. 20, 2011), available at: [http://www.federalreserve.gov/SECRS/2011/February/20110203/R-1404/R-1404\\_012011\\_61804\\_561400767649\\_1.pdf](http://www.federalreserve.gov/SECRS/2011/February/20110203/R-1404/R-1404_012011_61804_561400767649_1.pdf).

<sup>3</sup> MPC, NPRM submission to the Board (Feb. 22, 2011), not yet available on the Board's website.

<sup>4</sup> James C. Miller III, "Addressing the Debit-Card Industry's Market Failure," (Feb. 2011) – copy attached.

<sup>5</sup> Miller report at ¶ 4.

<sup>6</sup> For example, the Internal Revenue Service charges a "convenience fee" up to several percentage points depending on whether a credit or debit card is used for such tax payments. See Internal Revenue Service, "Pay Taxes by Credit or Debit Card," available at: <http://www.irs.gov/efile/article/0,,id=101316,00.html>.

consumers in the form of higher prices, or they must absorb them, which generally results in reduced services to consumers.

This drive by the networks to increase interchange rates to the benefit of card issuers means that the only competition that exists among the networks is competition to raise interchange fees, unlike the fierce competition that exists in the retail industry to lower prices and offer better services to consumers day in and day out. The fact remains that banks compete every day on a host of products and services, including interest rates, terms of demand deposit accounts, etc., but this is not the case with interchange rates. Instead, every issuing bank agrees to the exact same pricing schedule for exactly the same product, thereby precluding any downward pressure on interchange prices.

### **Steering Toward Less Secure, More Expensive Transactions**

For years card issuers have steered customers to less secure, more expensive payment alternatives. With respect to debit cards, most issuers only offer rewards points for signature debit transactions, while some offer double points for signature debit transactions but no rewards for transactions made using a Personal Identification Number (“PIN”) debit transaction. Such efforts to steer consumers away from PIN debit transactions is particularly perverse since PIN debit is far more secure than signature debit. In fact, one RILA member reports that the incidence of fraud on signature debit transactions in its stores is 1 in 9,000 transactions, while the incidence of fraud on PIN debit transactions in its stores is 1 in 11,000,000 transactions. Even card issuers acknowledge the inherent beneficial security aspects of using a PIN, as they require customers using their own automatic teller machines (“ATM”) to key in a PIN number rather than using a signature to authenticate a transaction.

Other banks are far more aggressive in their marketing of less secure, more expensive signature debit transactions to their customers versus the use of PIN debit transactions. For example, Pulaski Bank, a community bank headquartered in St. Louis, Missouri, at one point in 2009 ran a marketing campaign promoting its DreamMiles® Rewards card, hanging a banner outside of one of its branches that read “Use your pen NOT YOUR PIN” (emphasis original), as reflected in the picture below.<sup>7</sup>



<sup>7</sup> Photograph of Pulaski Bank branch signage, Bentonville, Arkansas (Apr. 27, 2009).

Similarly, CP Federal Credit Union of Jackson, Mississippi, encourages its customers to “Use your PEN not your PIN!” (emphasis original).<sup>8</sup> The credit union, which reported assets of just over \$300 million in 2010, qualifying it for the small issuer exemption, tells customers to “Choose CREDIT over debit!” (emphasis original) and claims that selecting the credit option when prompted is “safer, easier and NOW! even more beneficial” (emphasis original) because the cardholder is only offered rewards points when making a signature debit purchase.

Other banks employ “surcharges” that are far more direct in their messaging to consumers: sign for your debit card transactions or else you will be charged extra for the more secure PIN transaction. Chevy Chase Bank, which was acquired in 2008 by Capital One Bank of McLean, Virginia, surcharges consumers an additional \$0.50 for transactions made on a debit card when a PIN is entered, yet the transaction is free if the consumer signs for the purchase.<sup>9</sup> Capital One Bank continues to impose these surcharges for accountholders who were previously Chevy Chase Bank customers.

Finally, the networks themselves steer customers towards less secure technology through promotions. For example, in recent years Visa has run promotions on everything from the Olympics, to the Super Bowl and the World Cup, in which consumers may qualify to win tickets for life to one of the various sporting events by using their debit cards for purchases. Upon closer examination of the fine print, however, only signature debit transactions qualify for the promotions, while PIN debit transactions do not.

We bring these examples to the Board’s attention only to show how card networks and card issuers employ a multitude of tools to steer customers toward less secure, more expensive signature debit payments, all in an effort to drive the collection of higher interchange fees. These fees are paid on every purchase with a debit card by the merchant – and ultimately by consumers overall through higher prices, whether the purchase is made by cash, check or plastic. When combined with the fact that Visa and MasterCard have already rolled out, or are in the process of introducing, more secure chip-and-PIN technology in the European Union, Australia, Canada and even Mexico, American merchants are paying among the highest interchange rates in the world while using inferior 1960’s magnetic stripe technology that increases the fraud costs and chargebacks that merchants, again, must pay.

### **New Section 920 Provides Limited, but Essential, Interchange Reforms**

Against the backdrop of a broken market for setting interchange fees and its perverse incentives to maintain a more fraud-prone market, the reforms adopted by Congress in the Dodd-Frank Act are critically needed and narrowly tailored to help restore a semblance of competition with respect to debit card interchange fees. As the Miller Report concludes:

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<sup>8</sup> CP Federal Credit Union, ATM and Debit Cards general information (accessed on Feb. 22, 2011), available at: [http://www.cpfederal.com/ASP/Products/product\\_4\\_6.asp](http://www.cpfederal.com/ASP/Products/product_4_6.asp).

<sup>9</sup> See Chevy Chase Bank Schedule of Fees for Personal Accounts (2009).

In the case of interchange fees – and debit interchange fees in particular – the case for regulatory intervention is strong. This is truly a case of market failure: networks with monopoly power over merchants are setting prices for merchants' access to their networks on behalf of their (frequently overlapping) card-issuing members, utilizing agreements in which every bank participating in those card networks agrees to charge merchants exactly the same interchange fees, regardless of who issued the card. Thus, regulatory intervention is warranted to provide the catalyst to return this market to the competitive norm and thus increase the market's overall efficiency.

The pricing solution chosen by section 920(a) and the Board's proposed interchange fee standard approximates the pricing outcome that would obtain in a fully competitive market – that is, prices based on costs, not demand.<sup>10</sup>

We appreciate the extensive work that the Board and its staff have already done to develop the regulations required by Congress in new Section 920 of the EFTA. While we again commend to the Board the MPC's detailed views and recommendations regarding the alternatives and other issues set out in the NPRM, we stress the following key points from the MPC submission:

- With respect to the regulation of interchange fees, Alternative 1 is preferable, but the safe harbor and cap should be much closer to the average per-transaction costs of authorization, clearance, and settlement (“ACS”), which issuers themselves report to be no greater than 4 cents and First Annapolis Consulting reports to be 0.33 cents for PIN debit transactions (and 1.36 cents for signature transactions).
- With respect to the prohibitions on network exclusivity, Alternative B should be fully implemented by April 2012. As a transitional measure, Alternative A should be adopted within three months after the Board issues final rules and network fees charged to merchants should be capped at current levels until Alternative B is fully implemented.
- With respect to merchant routing, the proposal set forth in the NPRM that prohibits networks or issuers from directly or indirectly inhibiting merchants from routing their transactions should be adopted.
- With respect to preventing circumvention and evasion, the MPC has proposed an amended version of the net compensation proposal, which would include a general anti-circumvention provision and close remaining loopholes.
- With respect to the adjustment for fraud prevention costs, the MPC has proposed standards drawn from and marrying the best aspects of both approaches discussed in the NPRM to balance the interests of issuers and merchants and motivate the implementation of potentially paradigm-shifting fraud prevention technologies without prescribing a particular technology.

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<sup>10</sup> Miller Report at ¶¶ 22-23.

### **The Small Issuer Exemption Will Work**

An additional issue that bears particular mention is the exemption in the statute that allows banks and credit unions with assets under \$10 billion to continue to collect the same debit card interchange fees that they receive today, notwithstanding the new interchange reforms. Section 920(a)(6) of the EFTA states that “this subsection shall not apply to any issuer that, together with affiliates, has assets of less than \$10,000,000,000, and the Board shall exempt such issuers from regulations prescribed under paragraph (3)(A).” We believe that Congress was abundantly clear in this language that the limitations on interchange fees do not apply to small issuers.

Claims by credit unions and banks that such a small issuer exemption would not work fail to take into consideration the perverse incentives of the debit and credit card issuance market, in which banks and credit unions make decisions about whether to issue their cards under the Visa or MasterCard network based on which company offers them the highest level of interchange fees. Once Section 920 is implemented, exempted issuers will continue to make issuing decisions based on which network offers the highest interchange. Neither Visa nor MasterCard has any more incentive to lower debit card interchange rates for exempted financial institutions as a result of Section 920 than either had in the preceding years. For example, if post-implementation Visa were hypothetically to lower its rates for exempted institutions, these institutions would logically migrate to MasterCard because it would still offer higher rates to attract additional business (and the same would hold true if MasterCard, for example, were to lower its rate). Nothing in the Board’s NPRM would fundamentally change this incentive structure for the exempted banks and credit unions. In fact, this structure is likely the reason for Visa’s announcement earlier this year that it would institute a two-tier rate system for covered and exempted institutions once the final rules are implemented.<sup>11</sup> And, with history as a guide, we anticipate that MasterCard will announce a similar arrangement in the near future.

We believe that the concerns of exempted banks and credit unions with assets under \$10 billion are due either to misinformation, or worse, to scare tactics employed by the card networks to keep exempted institutions lobbying in opposition to the NRPM. These tactics were exposed in a recent *American Banker* article in which Eric Grover, a payments consultant, was quoted as saying that higher interchange for small banks and credit unions “makes total sense” and that the only reason that networks did not put to rest unjustified concerns about why a two-tiered system would work was that it “was simply intended to scare credit unions and small banks to keep them lobbying” against the overall interchange reforms.<sup>12</sup>

In addition to inaccurate claims that the networks will discriminate against small banks and credit unions, some have asserted that merchants would also refuse to accept a Visa or MasterCard issued by a small bank or credit unions. That claim completely overlooks the so-called Honor-all-Cards rule imposed by the networks, which prevents merchants from

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<sup>11</sup> First Data has also announced a similar two-tier pricing structure for its Star PIN-debit network. See Kate Fitzgerald, “Two-Tier Debit Interchange Rate Plan OK With First Data,” *ISO & Agent Weekly* (Feb. 10, 2011), available at: <http://www.paymentssource.com/news/first-data-debit-interchange-3005055-1.html>.

<sup>12</sup> Sean Sposito, “Visa Plans Two-Tiered Interchange Rates After Fed Rules,” *American Banker* (Jan. 10, 2011).

discriminating by issuer, large or small.<sup>13</sup> In other words, if a merchant accepts Visa cards, it must accept cards issued by a single branch community bank with assets under \$10 billion and also any debit cards issued by Bank of America, regardless of the issuer of the debit card.

### **Benefits to Consumers**

RILA would like to address head-on the claims by opponents that interchange fee reforms will only lead to increasing costs for consumers. If these claims held any validity, then when interchange fees tripled over the past decade, bank fees would have fallen by a corresponding amount. Instead, bank fees, too, have exploded during the same time period. The retail industry is fiercely competitive, with annual profit margins ranging between 1 percent and 3 percent. With such a competitive marketplace, retailers have no choice but to pass along cost savings to consumers. Retailers, after all, are in the business of selling goods, and in the fiercely competitive retail market, as the price of retail goods falls, consumers are drawn to the lowest prices and best service available. Accordingly, retailers will return savings to consumers by lowering prices, reinvesting in new and current employees, opening new stores, and offering additional services to consumers.

Over the past few months, banks have also used scare tactics on consumers and opinion leaders, blaming the interchange reforms in Section 920 of the EFTA for the death of free checking. Such predictions are ungrounded. For example, TCF Bank of Wayzata, Minnesota, announced shortly after enactment of the statute that as a covered financial institution, it would have to eliminate the “free checking” services it offers its customers, and replace it with various service fees to recoup revenue. However, only one month after proclaiming the death of free checking, TCF Bank announced that it was reinstating free checking because consumers demanded it.<sup>14</sup> Other banks are more upfront about the illusion of free checking, with Bank of America spokeswoman Anne Pace saying that “Customers never had free checking accounts.”<sup>15</sup> According to Pace, “They always paid for it in other ways, sometimes with penalty fees.” And, for the small issuing banks, any impact on free checking is particularly specious since, as noted above, the statute expressly excludes small issuers for the limitations on interchange fees imposed by Section 920.

### **Any Delay of Final Rules and Implementation is Unnecessary**

RILA commends the Board and its staff for the thorough and comprehensive work that has been done in the development of the NPRM, including the surveys of card issuers, networks and merchant acquirers, on which RILA provided separate comments. Based on the extensive work

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<sup>13</sup> The Honor-all-Cards rule is one of many network rules to which merchants are subject. If a merchant agrees to accept Visa or MasterCard, it must abide by these rules or face the substantial fines upwards of \$5,000 a day. See Section 5.8.1 of MasterCard’s operating rules at p. 114 at <http://www.mastercard.com/us/merchant/index.html>; and Visa’s operating rules at pp. 406-407 at [http://usa.visa.com/merchants/operations/op\\_regulations.html](http://usa.visa.com/merchants/operations/op_regulations.html).

<sup>14</sup> See Chris Serres, “TCF is Putting an End to Totally Free Checking,” *Minneapolis Star Tribune* (Jan. 21, 2011), available at: <http://www.startribune.com/business/82255367.html>.

<sup>15</sup> Pallivi Gogoi, “Say Goodbye to Traditional Free Checking,” *Associated Press* (Oct. 19, 2010), available at: <http://finance.yahoo.com/news/Say-goodbye-to-traditional-apf-1888087707.html>.

done to date, we see no reason why the Board cannot issue final regulations by April 21, 2011, in accordance with the statutorily mandated timeline to take effect on July 21, 2011.

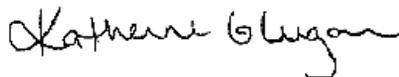
In fact, we do not believe there is any rational reason for delaying the issuance of the final rules or for slowing down the implementation of the statute. Opponents of the reforms have made clear their desire to use delay of the final rules as a way to thwart and unravel interchange reforms embodied in Section 920. RILA urges the Board to reject appeals for any delay in the issuance of the final rules. Doing so would not be in the public interest and would only allow the card networks and their issuing banks to perpetuate the broken market with respect to interchange fees while continuing to collect exorbitant interchange fees on debit card transactions that bear no relationship to the costs of processing the transaction.

### **Concluding Remarks**

RILA appreciates the opportunity to comment on the implementation of Section 920 and the Board's NPRM. We recognize the challenges that the Board faces in implementing these new requirements. However, RILA urges the Board to consider the issues and recommendations outlined in this letter, along with the detailed submissions by the MPC, to ensure that the final rules effectuate as quickly as possible the important interchange reforms embodied in Section 920 to the benefit of consumers and merchants, small and large, across the nation.

We would be pleased to discuss RILA's views and recommendations with you further at your convenience.

Respectfully submitted,

A handwritten signature in black ink that reads "Katherine Lugar". The signature is written in a cursive, flowing style.

Katherine Lugar  
Executive Vice President, Public Affairs

Attachment

# **Addressing the Debit-Card Industry's Market Failure**

**James C. Miller III**

**Prepared for the Retail Industry Leaders Association**

**February 2011**

## REPORT OF JAMES C. MILLER III

### A. Background and Expertise

1. I have been asked by the Retail Industry Leaders Association to offer my opinion regarding the Federal Reserve Board's ("Board's") proposed rules implementing the "Durbin Amendment" to the Dodd-Frank Wall Street Reform and Consumer Protection Act -- adding section 920 to the Electronic Fund Transfer Act ("EFTA Act") -- from the perspective of their appropriateness as a regulatory intervention in the market for electronic payments. In particular, I have focused on the appropriate policy response to collusive or otherwise parallel conduct by the major firms in an industry where there is asymmetry between the competitiveness of buyers and sellers.

2. As set out more fully in my *curriculum vitae* (Exhibit 1), this assessment is based on my extensive academic and governmental experience in the field of government regulation (and deregulation). After a career in university teaching and research, I served in the Reagan Administration as the first Administrator of the Office of Information and Regulatory Affairs at the Office of Management and Budget (1981), as Chairman of the Federal Trade Commission (1981-1985), and as Director of OMB and Member of the President's Cabinet (1985-1988).

Presently, I serve on the boards of several mutual funds and corporations, such as Clean Energy Fuels Corp., as well as the Board of Governors of the U.S.

Postal Service. I hold a Ph. D. in economics from the University of Virginia and am the author or co-author of over 100 articles in professional journals and nine books, including *Economic Regulation of Domestic Air Transport: Theory and*

*Policy* (Brookings Institution, 1974), *Reforming Regulation* (American Enterprise Institute, 1980), *The Economist as Reformer: Revamping the FTC, 1981-1985* (American Enterprise Institute, 1989), and *Monopoly Politics* (Hoover Institution, 1999).

## **B. The Debit Card Industry**

### **The existence of market power**

3. The major card networks have monopoly power over merchants. In today's marketplace, merchants have no rational choice but to accept debit cards when presented by their customers, since the use of debit cards is so large and growing. Of the over \$7 trillion in consumer expenditures for goods and services in 2009, approximately \$1.6 trillion was transacted with debit and prepaid cards (for comparison, \$1.8 trillion was transacted with credit cards and \$1.6 trillion with cash.)<sup>16</sup> Because of their dominance of the card market, Visa and MasterCard control the costs merchants pay to accept debit cards as a means of payment.

4. There are several reasons for this conclusion. First is the history of development of the two major networks. Both Visa and MasterCard were organized by large banks and controlled by them. As they grew, it became increasingly worthwhile for major banks to issue both networks' cards to their customers. And since the banks controlled both systems -- their representatives sat on the boards of both -- it was only natural that the two card networks would establish schedules of services and prices that are nearly identical. By 2009, Visa accounted for 61 percent of all debit-card transactions, MasterCard for 23

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<sup>16</sup> *Nilson Report*, Issue 962 (December, 2010), pp. 1 and 10-11.

percent, and a handful of regional networks for the rest.<sup>17</sup> Merchants have little choice but to accept cards from at least one of these two giant networks, and for survival reasons they usually sign with both. Accordingly, the market for debit card transactions -- vigorously competing merchants on the one side and monopolistic card networks on the other -- is quite asymmetric.

5. It is my understanding that over time the two card networks have charged consistent and increasingly higher interchange fees to merchants, all of whom are captive and have no countervailing pressure available to apply. In short, while banks have faced competition in many lines of their businesses, they have had no difficulty in monopolizing the market for card acceptance.

6. Moreover, I understand that debit cards were initially provided by regional networks using PIN authentication and the processing infrastructure of ATM-networks. These networks charged either zero (at-par) interchange fees or paid interchange fees to merchants to compensate them for their investment in PIN pads. After 1990, Visa and MasterCard began to promote their "signature" debit cards, processed over their credit-card networks. Signature debit interchange fees were set at the much-higher rates paid for credit-card interchange. I also understand that, around 1990, Visa purchased Interlink, which was among the leading PIN debit networks in the United States, and began to increase its interchange fees. As Visa continued to drive up Interlink interchange rates, the competing PIN debit networks raised their rates to maintain levels of issuance under the pricing umbrella created by Visa. The result has been a convergence

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<sup>17</sup> *Nilson Report*, Issue 961 (December, 2010). p. 10.

of PIN and signature debit rates. Thus, the level of interchange fees charged for Visa's and MasterCard's PIN products, and those of the regional PIN networks, followed an upwards path, despite little evidence of increasing costs in making such transactions.

7. Monopoly power is also evidenced by the prices established by the card networks. The pricing schedules of Visa and MasterCard show a pattern of what economists call "third degree price discrimination" -- which can take place only if there is monopoly power.<sup>18</sup> While the cost of a transaction hardly varies by type of merchant or size of a sale, the interchange fee does. Grocery stores, for example, typically pay a low base fee, whereas restaurants and airlines pay much higher interchange fees.<sup>19</sup> And the fee increases with the amount of the sale. It is easy to see that the card networks are establishing relatively low fees for merchants with relatively high (price-) elasticities of demand for payment cards, and higher fees for those with less elastic demands. The same is true with respect to size of sale: the larger the sale, the less elastic the demand. Again, in a truly competitive market, sellers are not able to divide the market and charge different prices to different consumers unrelated to differences in costs.

8. That this form of discriminatory (monopolistic) pricing is the norm was spelled out recently in Congressional testimony by Visa's General Counsel: "Products and services in this economy should be *fairly priced based on the value provided*, not some limited concept of cost, and certainly not on some

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<sup>18</sup> See, for example, D. Salvatore, Microeconomics: Theory and Applications (2003), p. 334.

<sup>19</sup> See, for example, Visa USA Interchange Reimbursement Fees (October 16, 2010), p. 2; and (Visa) Interlink Interchange Reimbursement Fees (October 16, 2010), p. 2.

artificially selected portion of those costs.”<sup>20</sup> Again, in a competitive market, prices are related to costs, not to the benefits derived.

9. While debit-card networks establish very high, monopolistic fees for merchants, the issuing banks compete strongly for new card holders – which, of course, leads to more debit-card purchases and more interchange fee revenue. This competition for new card holders (or retention of current card holders) takes a peculiar form, however. The various issuing banks (in alliance with, and incentivized by, the card networks' schedule of charges) offer cards with extensive benefits. "Points" are the ubiquitous benefit -- a sort of currency that can be traded for travel, goods, and even redemptions in cash. I also understand that special favoritism in the form exclusive offers on goods is also common.

10. The very existence of this extensive non-price competition is itself an indication that the debit-card market is not fully competitive. If the banks and the card networks were not charging the merchants monopolistic rates, and instead were charging them truly competitive rates, the extent of such non-price competition for cardholders would be much less. That is, such supra-competitive margins, built into the current interchange fee schedules, lead to marketing efforts that tend to “compete away” those very margins.

### **The setting of monopolistic interchange fees**

11. The cards networks' rules and procedures make clear that each card system is the contractual “hub” through which their interchange fees are set --

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<sup>20</sup> Prepared Statement of Joshua R. Floum before the Subcommittee on Financial Institutions and Consumer Credit of the House Committee on Financial Services (February 17, 2011), p. 6; emphasis added.

nominally in the best interests of all participants in the payment system, but actually on behalf of their card issuers.

12. Indeed, Visa's General Counsel has advised the Board that interchange fees should *not* reflect the costs of any particular card issuer, because the networks set fees for all of their issuers. "We believe that this approach [implementing the rate model at the network level] is the most practical and efficient for a number of reasons, including *the fact that the payment card networks currently set the interchange rates for debit transactions over those networks. . . .* [and that]. . . *issuers do not in practice set interchange fees; rather, these fees are set by networks* and issuers accept transactions from different networks."<sup>21</sup>

13. In turn, once interchange fees are set, under the Visa and MasterCard rules – which are binding contracts between each network and its issuers and acquirers—the networks' members use those rates in their payment card transactions.<sup>22</sup>

14. Finally, the networks' "honor all cards" rules bind merchants to this result. Once a merchant decides to accept Visa or MasterCard debit cards, for example, it must accept all debit cards of that type bearing the network's logo. There is no need for each bank to negotiate with individual merchants to accept its debit

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<sup>21</sup> See letter from Joshua R. Floum to Louise Roseman, Director, Division of Reserve Bank Operations and Payment Systems, Federal Reserve Board (November 8, 2010), pp. 13 and 17; emphasis added.

<sup>22</sup> See, for example, Visa International Operating Regulations (Public Version, April 1, 2010), pp. 57 and 961-62; Visa, Inc. SEC Form 10-K (November 19, 2010), p. 13; and MasterCard Rules, Section 9.4 (October 29, 2010). The rules technically permit issuers and acquiring banks to enter into bilateral interchange arrangements, but as noted in paragraph 12, such bilateral arrangements have not occurred in practice.

cards. Thus, networks' current rules enable each debit-card-issuing bank to take advantage of the network's monopoly power to obtain excessive interchange fees.

15. Deposit accounts are not offered in isolation, but as a means of generating funds that enable banks to make loans -- which, in turn, provide interest revenue. For example, in the case of checks, the customer's bank absorbs *all* the cost of the transaction (except for fees that may be charged by the merchant's bank for depositing a check). Banks have traditionally done so precisely because demand deposits enable the bank to make loans, on which the bank earns interest, and because the relationship opens opportunities for the bank to provide other (remunerative) services to the customer.

### **C. EFTA Act, Section 920**

16. I have reviewed Section 920 of the EFTA Act, the Board's proposed rulemaking implementing that section,<sup>23</sup> and major submissions to the Board pursuant to that proceeding. Section 920(a) requires the Board to establish standards governing debit-card interchange fees. The statute defines those fees as "any fee established, charged, or received by a payment card network for the purpose of compensating an issuer for its involvement in an electronic debit transaction."

17. The scope of price intervention required by the statute is narrow: it does not address prices charged by an acquiring bank for its role in processing the merchant's debit-card transactions, nor does it restrict the fees that a card

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<sup>23</sup> Federal Reserve Board, *Notice of Proposed Rulemaking*, 75 *Federal Register* (December, 28, 2010), pp. 88722 *et seq.*

network may charge acquiring and issuing banks for its role in processing such transactions (except to prevent evasion of the interchange fee standards). As I will discuss below, this limitation on the Board's regulatory power is appropriate, as such additional constraints are not needed to accomplish the objective of making the card market more competitive. By its terms, the statute does not address independent action by a debit-card issuer to charge transactions fees directly to merchants (possibly through the merchant's acquiring bank) when one of the issuer's cardholders purchases goods or services from the merchant, leaving such transactions to the ordinary forces of competition. This competition could take many forms and would be based on rivalry among individual card issuers (without reliance on networks or honor-all-cards rules) to gain acceptance of that card as a payment mechanism at individual merchants. There would be no need for regulation to limit fees that might be charged as a result of interaction between individual merchants and individual issuers, as long as those fees are transparent and are subject to the discipline of market competition. Thus, in such a competitive environment, there would be no need for regulators to specify what costs such fees might or might not recover.

18. In contrast, section 920(a) addresses fees collected by debit-card issuers when those fees are charged by or through a network, thus enabling an issuer to utilize the network's market power. In this regard, while subsection 920(b)(2) gives merchants the right to provide discounts and other incentives for differing forms of payment -- cash, checks, debit cards, or credit cards -- it is my understanding that the "honor-all-cards" requirements of Visa and MasterCard,

for example, will continue to require non-discriminatory acceptance of cards from every issuer of the relevant type of card offered by the card network.

19. Section 920(a) simply ensures that when debit-card issuers rely on card networks' market position to obtain compensation from merchants as a result of card acceptance, the level of those fees are not set at a supracompetitive level but are “reasonable and proportional” to the card issuers' incremental costs for authorization, clearance, and settlement of those transactions.

20. Importantly, Section 920(b)(1) sets in motion potential longer-term structural reform by (a) ensuring that card issuers offer multiple networks for the routing of debit-card transactions for each type of card authorization method, and (b) giving each merchant the ability to direct and/or prioritize the choice of network to be used in a debit-card transaction. To the extent that these provisions are implemented in an effective and timely manner, networks may, arguably for the first time, compete on price for merchants' business.

#### **D. An Appropriate Response to Market Failure**

21. Throughout my career I have been a consistent skeptic about the ability of government intervention to improve the functioning of the marketplace. But sometimes a free market does not – or for any number of reasons cannot – correct a divergence from the competitive norm. The persistence of such divergences over time, uncorrected by unencumbered economic forces, is among the few scenarios in which I believe there is reason for government to examine and possibly correct the underlying cause.

22. In the case of interchange fees -- and debit interchange fees in particular - - the case for regulatory intervention is strong. This is truly a case of market failure: networks with monopoly power over merchants are setting prices for merchants' access to their networks on behalf of their (frequently overlapping) card-issuing members, utilizing agreements in which every bank participating in those card networks agrees to charge merchants exactly the same interchange fees, regardless of who issued the card. Thus, regulatory intervention is warranted to provide the catalyst to return this market to the competitive norm and thus increase the market's overall efficiency.

23. The pricing solution chosen by section 920(a) and the Board's proposed interchange fee standard approximates the pricing outcome that would obtain in a fully competitive market – that is, prices based on costs, not demand. Further, the relevant costs identified in the statute and incorporated by the Board in its notice are those costs that I understand are directly incurred in processing each transaction: the costs of authorization, clearance, and settlement.<sup>24</sup>

24. Most significantly, section 920(a) requires regulation only of debit-card interchange fees established by payment card networks. Issuers are free to charge fees for card acceptance negotiated directly with merchants as long as the imposition of these fees is not characterized by market failure, including network honor-all-cards rules. Thus, the proposed regulations appear to be

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<sup>24</sup> See Federal Reserve Board *Notice, ibid.*, pp. 88722 and 88735. I realize that the Board is undertaking a separate rulemaking regarding an adjustment for issuer-specific fraud prevention costs using the statutory considerations for such an adjustment, but that is beyond the scope of my report.

consistent with both the limited mandate of section 920 and the policy prescriptions embodied in that provision.

25. It is also notable that the regulatory scope of Section 920 is narrow. It does not regulate any fees that a debit issuer imposes individually and directly (rather than through a network) on merchants or other parties. There should be no market failure associated with such issuer-specific fees as long as they are subject to the discipline of market competition. It is appropriate, therefore, that Section 920 was drafted to leave such fees unregulated under those conditions.

26. Finally, the rules proposed by the Board to implement subsection 920(b)(1) to provide multiple network options on a card and to mandate merchant selection of network routings, promise a longer-term marketplace solution. If implemented to require at least two network choices for each PIN and signature method of authorization, there should be a meaningful increase in competition among issuers. By choosing the lower-cost option, merchants could force issuers and card networks to reduce their interchange and network fees -- perhaps making the regulation of fees no longer necessary, once competition were firmly in place.

## EXHIBIT 1

# James C. Miller III

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## Curriculum Vitae

January 2011

### **Education and Professional Activities**

Degrees: Ph.D. (Economics), University of Virginia, 1969

B.B.A. (Economics), University of Georgia, 1964

Current Positions: Senior Advisor, Husch Blackwell Sanders, LLC, since June, 2006

Senior Fellow (by courtesy), Hoover Institution (Stanford University), since December 1988

Distinguished Fellow, Center for Study of Public Choice, George Mason University, since October 1988

Member, Board of Governors, U.S. Postal Service, since April 2003 (elected chairman 2005, 2006, and 2007))

Member, Board of Directors, Washington Mutual Investors Fund, since October 1992 (Member of Advisory Board, November 1989 – October 1992)

Member, Board Directors, The Tax Exempt Fund of Maryland, since April 2000

Member, Board of Directors, The Tax Exempt Fund of Virginia, since April 2000

Member, Board of Directors, The J.P. Morgan Value Opportunities Fund, since December 2001

Member, Board of Directors, Clean Energy Fuels, Corp., since May 2006

Member, Board of Directors, Americans for Prosperity, since February 2004

Previous  
Positions:  
2010

Member, Board of Directors-Emeritus (previously Co-Chairman or Counselor), The Tax Foundation, since October 1989

Chairman of the Executive Committee, International Tax and Investment Center, since September 2009

Member, Board of Directors -Emeritus (previously Member of Board), Progress & Freedom Foundation, April 1994 – March

Chairman of an Independent Commission to address the fiscal challenges of Cayman Island Government; established by Cayman Islands Government; October 2009 – February 2010

Chairman (or Chairman Emeritus), The CapAnalysis Group (of Howrey, L.L.P.), April 2002 – January 2006

Chairman (or Chairman Emeritus), The CapAnalysis Group (of Howrey, L.L.P.), April 2002 – January 2006

Member, Board of Directors, Independence Air (formerly Atlantic Coast Airlines d.b.a. "United Express" and "Delta Connection"), March 1995 – January 2006

Member, Board of Visitors, George Mason University, June 1998 – June 2002

Distinguished Fellow, Mercatus Center, George Mason University, August 1997 – April 2003

Director, LECG – Economics-Finance, November 2002 – April 2003

Senior Advisor, Hagler Bailly, January 2000 – November 2002.

Member, Board of Directors and/or Counselor), Citizens for a Sound Economy, January 1989 – April 2003

Member, Board of Directors, The Tax Foundation, October 1989 – April 2003

Member, Board of Visitors, U.S. Air Force Academy, November 1988 – November 1990.

Director, U.S. Office of Management and Budget, Member of President's Cabinet, and Member of National Security Council, October 1985 – October 1988

Vice Chairman, Administrative Conference of the United States, December 1987 – October 1988 (Member of Council, November 1981 – December 1987)

Chairman, U.S. Federal Trade Commission, September 1981 – October 1985

Administrator, Office of Information and Regulatory Affairs, U.S. Office of Management and Budget; and Executive Director, Presidential Task Force on Regulatory Relief, January 1981 – September 1981

Resident Scholar, Center for the Study of Government Regulation, The American Enterprise Institute for Public Policy Research, January 1977 – January 1988; Co-Director of the Center, March 1977 – January 1981; Member, Board of Editors, Regulation, July 1977 – January 1981; and Member, Board of Editorial Advisors, The AEI Economist, September 1977 – January 1981

Consultant, National Science Foundation, July 1977 – January 1981

Lecturer (in Economics), George Washington University, September 1971 – May 1972, September 1975 – May 1976, and September 1978 – December 1980

Assistant Director (for Government Operations and Research), U.S. Council on Wage and Price Stability, October 1975 – January 1977

Adjunct Scholar, The American Enterprise Institute for Public Policy Research, May 1975 – January 1977

Senior Staff Economist, U.S. Council of Economic Advisers, July 1974 – October 1975

Associate Professor of Economics, Texas A&M University, August 1972 – May 1974

Consultant, U.S. Department of Transportation, March 1972 – July 1974

Consultant, National Bureau of Standards, January 1974 – June 1974

Research Associate, The American Enterprise Institute for Public Policy Research, May 1972 – July 1972

Associate Staff, The Brookings Institution, August 1972 – May 1974

Senior Staff Economist, U.S. Department of Transportation, December 1969 – February 1972

Assistant Professor of Economics, Georgia State University, September 1968 – December 1969

Affiliations: American Economic Association

Public Choice Society

Southern Economic Association (Vice President, 1990 – 1991; Member of Executive Committee, 1980 – 1982)

### **Selected Publications and Presentations**

Books: Monopoly Politics (Stanford: Hoover Institution Press, 1999)

Fix the U.S. Budget!: Urgings of an "Abominable No-Man" (Stanford: Hoover Institution Press, 1994)

The Economist as Reformer: Revamping the FTC, 1981-1985 (Washington: American Enterprise Institute, 1989)

The Federal Trade Commission: The Political Economy of Regulation (co-editor and contributor, with Robert J. Mackay and Bruce Yandle; Stanford: Hoover Institution Press, 1987)

Reforming Regulation (co-editor and contributor, with Timothy B. Clark and Marvin H. Kusters; Washington: American Enterprise Institute, 1980)

Benefit-Cost Analyses of Social Regulation: Case Studies from the Council on Wage and Price Stability (co-editor with Bruce Yandle; Washington: American Enterprise Institute, 1979)

Perspectives on Federal Transportation Policy (editor and contributor; Washington: American Enterprise Institute, 1975)

Economic Regulation of Domestic Air Transport: Theory and Policy (with George W. Douglas; Washington: Brookings Institution, 1974)

Why the Draft?: The Case for a Volunteer Army (editor and contributor; Baltimore: Penguin Books, 1968)

Monographs: The Economics of the Military Draft (with Ryan C. Amacher et al.; Morristown: General Learning Press, 1973)

Transportation Legislation (published anonymously; Washington: American Enterprise Institute, 1972)

Articles: "Public Choice Theory and Antitrust Policy: Comment," Public Choice (March 2010).

"Economics and the All-Volunteer Military Force" (and with Beth J. Asch and John T. Warner), in John Siegfried, ed., Better Living Through Economics (Cambridge: Harvard University Press, 2010)

"An Event Analysis Study of the Economic Implications of the FCC's UNE Decision: Backdrop for Current Network Sharing Proposals" (with Jeffrey A. Eisenach and Paul S. Lowengrub), 17 Commonlaw Conspectus 33 (2008)

"Monopoly Politics and Its Unsurprising Effects," in Roger Koppl, ed., Money and Markets : Essays in Honor of Leland B. Yeager (London : Routledge, 2006)

"The Tyranny of Budget Forecasts" (with J.D. Foster), Journal of Economic Perspectives (Summer 2000)

"Incumbents' Advantage," George Mason University, Working Papers in Economics (December, 1997)

"Suggestions for a Leaner, Meaner Budget," Jobs & Capital (Spring 1995)

"Budget Process and Spending Growth" (with Mark Crain), William and Mary Law Review (Spring 1990)

"Independent Agencies -- Independent from Whom?," Administrative Law Review (Fall 1989)

"A Reflection on the Independence of Independent Agencies,"  
Duke Law Journal (1988)

"It's Time to Free the Mails," Cato Journal (Spring/Summer 1988)

"Spending and Deficits" (with an introduction by Robert D. Tollison), G. Warren Nutter Lecture in Political Economy, The American Enterprise Institute for Public Policy Research, 1987; reprinted in Thomas Jefferson Center Foundation, Ideas, Their Origins, and Their Consequences (Washington: American Enterprise Institute, 1988)

"Predation: The Changing View in Economics and the Law" (with Paul Pautler), Journal of Law and Economics (May 1985)

"Comments on Baumol and Ordoover," Journal of Law and Economics (May 1985)

"Industrial Policy: Reindustrialization through Competition or Coordinated Action?" (with Thomas F. Walton, William E. Kovacic, and Jeremy A. Rabkin), Yale Journal on Regulation (1984)

"The Case Against Industrial Policy," Cato Journal (Fall 1984)

"Report from Official Washington," Antitrust Law Journal (1984)

"Reindustrialization Policy: Atari Mercantilism?," in Richard B. McKenzie (ed.), Plant Closings: Public or Private Choice? (revised edition; Washington: CATO Institute, 1984)

"Resale Price Maintenance: An Analytical Framework,"  
Regulation (January/February 1984)

"Is Organized Labor Rational in Supporting OSHA?," Southern Economic Journal (January 1984)

"A Note on Centralized Regulatory Review" (with William F. Shughart II and Robert D. Tollison), Public Choice (January 1984)

"Comparative Data on Life-Threatening Risks," Toxic Substances Journal (Summer 1983)

"Report from Official Washington," Antitrust Law Journal (1983)

"Occupational Exposure to Acrylonitrile: A Benefit/Cost Analysis," Toxic Substances Journal (Winter, 1982/1983)

"Report from Official Washington," Antitrust Law Journal (1982)

"Regulatory Relief under President Reagan," Jurimetric Journal (Summer 1982)

"The (Nader-) Green-Waitzman Report," Toxic Substances Journal (Winter 1980/1981)

"Has the 1970 Act Been Fair to Mailers?" (with Roger Sherman), in Roger Sherman (ed.), Perspectives on Postal Service Issues (Washington: American Enterprise Institute, 1980)

"Collective Ratemaking Reconsidered: A Rebuttal," Transportation Law Journal (1980)

"Regulation and the Prospect of Reform," in Charles F. Phillips, Jr. (ed.), Regulation, Competition and Deregulation -- an Economic Grab Bag (Lexington: Washington and Lee University, 1979)

"Airline Market Shares vs. Capacity Shares and the Possibility of Short-Run Loss Equilibria," Research in Law and Economics (1979)

"An Economic Analysis of Airline Fare Deregulation: The Civil Aeronautics Board's Proposal," Transportation Law Journal (1978)

"Regulators and Experts: A Modest Proposal," Regulation (November/December 1977)

"Regulatory Reform: Some Problems and Approaches," American Enterprise Institute Reprint No. 72 (August 1977)

"Lessons of the Economic Impact Statement Program," Regulation (July/August 1977)

"The New 'Social Regulation'" (with William Lilley III), Public Interest (Spring 1977); reprinted extensively

"Effects of the Administration's Proposed Aviation Act of 1975 on Air Carrier Finances," Transportation Journal (Spring 1976); reprinted in Paul W. MacAvoy and John W. Snow (eds.), Regulation of Passenger Fares and Competition Among the Airlines (Washington: American Enterprise Institute, 1977)

"Environmental Protection: The Need to Consider Costs and Benefits" (with Robert L. Greene), Highway Users Quarterly (1976)

"A Perspective on Airline Regulatory Reform," Journal of Air Law and Commerce (Autumn 1975)

"Rates of Publication Per Faculty Member in Forty-five 'Rated' Economics Departments" (with Robert D. Tollison), Economic Inquiry (March 1975)

"Government Regulation" (principal author), Chapter 5 in Economic Report of the President, 1975

"Quality Competition, Industry Equilibrium, and Efficiency in the Price-Constrained Airline Market" (with George W. Douglas), American Economic Review (September 1974)

"The CAB's Domestic Passenger Fare Investigation" (with George W. Douglas), Bell Journal of Economics and Management Science (Spring, 1974); reprinted by the Brookings Institution (Technical Series Reprint T-008)

"The Optimal Pricing of Freight in Combination Aircraft," Journal of Transport Economics and Policy (September 1973)

"A Time of Day Model for Aircraft Scheduling," Transportation Science (August 1972)

"Marginal Revenue and Pigouvian Second Degree Price Discrimination" (with Richard A. Bilas and Fred A. Massey), Metroeconomica (August 1971)

"The Implicit Tax on Reluctant Military Recruits" (with Robert D. Tollison), Social Science Quarterly (March 1971)

"A Note on Profits, Entry, and Scale of Plant in the Purely Competitive Model," Revista Internazionale de Scienze Economiche e Commerciali (February 1971)

"Pigou's Three Degrees of Price Discrimination" (with Richard A. Bilas), Revista Internazionale de Scienze Economiche e Commerciali (February 1971)

"A Program for Direct and Proxy Voting in the Legislative Process," Public Choice (Fall 1969); reprinted in Ryan C. Amacher, Robert D. Tollison, and Thomas D. Willett (eds.), The Economic Approach to Public Policy: Selected Readings (Ithaca: Cornell University Press, 1976)

"Short-run Solutions to Airport Congestion," Atlanta Economic Review (October 1969); reprinted in Cambell R. McConnell (ed.), Economic Issues: A Book of Readings (4th ed.; McGraw-Hill Book Company, 1972)

"A Paradox on Profits and Factor Prices: Comment," American Economic Review (September 1968)

"Marginal Criteria and Draft Deferment Policy" (with Robert D. Tollison and Thomas D. Willett), Quarterly Review of Economics and Business (Summer 1968)

"An Army of Volunteers," Forensic Quarterly (May 1968)

"An Aircraft Routing Model for the Airline Firm," American Economist (Spring 1968)

"A Critique of Joan Robinson's Economic Philosophy," Western Politica (Autumn 1967)

Presentations  
before  
Regulatory  
Agencies:

Co-authorship of and responsibility for approximately 60 Council on Wage and Price Stability filings and/or testimony before U.S. Government agencies, including the U.S. Departments of Agriculture, Commerce, Health, Education and Welfare, Housing and Urban Development, Interior, and Transportation; the Civil Aeronautics Board, the Coast Guard, the Consumer Product Safety Commission, the Environmental Protection Agency, the Federal Aviation Administration, the Federal Deposit Insurance Corporation, the Federal Energy Administration, the Federal Power Commission, the Federal Reserve Board, the Federal Trade Commission, the Food and Drug Administration, the International Trade Commission, the Interstate Commerce Commission, the National Highway Traffic Safety Commission, the Occupational Safety and Health Administration, the Postal Rate Commission, and the Securities and Exchange Commission (October 1975 January 1977)

Other testimony before the Department of Energy, the Civil Aeronautics Board, the Interstate Commerce Commission, the

Postal Rate Commission, the National Commission for the Review of Antitrust Laws and Procedures, and the California and Pennsylvania public utilities commissions (1970-1979)

Presentations  
before  
Committees  
of the  
U.S. House of  
Representatives:

U.S. House of Representatives Committee on Appropriations;  
U.S. House of Representatives Committee on the Budget;  
U.S. House of Representatives Committee on the Judiciary;  
U.S. House of Representatives Committee on Public Works and  
Transportation; U.S. House of Representatives Republican Study  
Committee; U.S. House of Representatives Rules Committee; U.S.  
House of Representatives Subcommittee on Administrative Law &  
Governmental Relations, Committee on the Judiciary; U.S. House  
of Representatives Subcommittee on Aviation, Committee on  
Public Works and Transportation; U.S. House of Representatives  
Subcommittee on Commerce, Consumer and Monetary Affairs,  
Committee on Government Operations; U.S. House of  
Representatives Subcommittee on Commerce, Justice, State, the  
Judiciary and Related Agencies, Committee on Appropriations;  
U.S. House of Representatives Subcommittee on Commerce,  
Transportation and Tourism, Committee on Energy & Commerce;  
U.S. House of Representatives Subcommittee on Consumer  
Protection and Finance, Committee on Oversight and  
Investigations; U.S. House of Representatives Subcommittee on  
Economic Stabilization, Committee on Banking, Finance and  
Urban Affairs; U.S. House of Representatives Subcommittee on  
Legislation and National Security, Committee on Government  
Operations; U.S. House of Representatives Subcommittee on  
Monopolies & Commercial Law, Committee on Judiciary; U.S.  
House of Representatives Subcommittee on Oversight and  
Investigations, Committee on Energy and Commerce; U.S. House  
of Representatives Subcommittee on Science, Research and  
Technology, Committee on Science and Technology; U.S. House  
of Representatives Subcommittee on Small Business Problems,  
Committee on Small Business; U.S. House of Representatives  
Subcommittee on Transportation and Commerce, Committee on  
Interstate and Foreign Commerce; and U.S. House of  
Representatives Subcommittee on Treasury, Postal Service and  
General Government Appropriations

Presentations  
before  
Committees  
of the

U.S. Senate Committee on Appropriations; U.S. Senate Committee  
on the Budget; U.S. Senate Committee on Commerce, Science,  
and Transportation; U.S. Senate Subcommittee on the  
Constitution, Committee on the Judiciary; U.S. Senate Committee

U.S. Senate: on Governmental Affairs; U.S. Senate Committee on the Judiciary; U.S. Senate Committee on Small Business; U.S. Senate Subcommittee on Administrative Practice and Procedure, Committee on the Judiciary; U.S. Senate Subcommittee on Antitrust and Monopoly, Committee on the Judiciary; U.S. Senate Subcommittee on Alcoholism and Drug Abuse, Committee on Labor and Human Resources; U.S. Senate Subcommittee on Aviation, Committee on Commerce, Science and Transportation; U.S. Senate Subcommittee on Commerce, Justice, State and Judiciary, Committee on Appropriations; U.S. Senate Subcommittee on Consumer, Committee on Commerce, Science and Transportation; U.S. Senate Subcommittee on Federal Expenditures, Research and Rules, Committee on Government Affairs; U.S. Senate Subcommittee on Intergovernmental Relations, Committee on Governmental Affairs; U.S. Senate Subcommittee on Productivity and Competition, Committee on Small Business; U.S. Senate Subcommittee on Regulatory Reform, Committee on the Judiciary; U.S. Senate Subcommittee on Treasury, Postal Service, and General Government Appropriations; and U.S. Senate Special Committee on Aging

Presentations before Joint Congressional Committees: U.S. Joint Economic Comm. Subcommittee on Economic Goals and Intergovernmental Policy, U.S. Joint Economic Committee; Subcommittee on Trade, Productivity and Economic Growth, U.S. Joint Economic Committee; Congressional Grace Caucus; and Motor Carrier Ratemaking Study Commission

Expert Reports: Various