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**BY E-MAIL**

Jennifer J. Johnson, Secretary  
Board of Governors of the Federal Reserve System  
20th Street and Constitution Avenue, NW  
Washington, D.C. 20551  
[regs.comments@federalreserve.gov](mailto:regs.comments@federalreserve.gov)

RE: Docket No. R-1404 and RIN No. 7100 AD 63

Dear Ms. Johnson:

The Board of Governors of the Federal Reserve System (the “Board”) has requested comments on its proposed Regulation II Section 235.4 and Appendix A to Part 235, Section 235.4 (“Interim Final Rule”), which governs adjustments to interchange fees for fraud prevention. Dynamics Inc. respectfully submits comments on the Interim Final Rule.

Introduction To Dynamics

Dynamics Inc., based in Pittsburgh, PA, designs and manufactures next-generation interactive payment cards that utilize card-programmable magnetic stripes (“Electronic Stripes®”) to dynamically communicate information to the tens of millions of existing US magnetic stripe point-of-sale (POS) readers – the largest payments acceptance infrastructure in the world.

This breakthrough technology allows issuers and merchants to utilize the current magnetic stripe “swipe” infrastructure to leapfrog the functional capabilities of infrastructures in other parts of the world. More specifically, the technology directly gives consumers unprecedented levels of security while also offering the flexibility and convenience of next-generation payment options at the point-of-sale.

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Put another way, Dynamics' payment card technology is an innovative and more secure platform that does not require any change to the world's largest payment infrastructure. As a result, Dynamics technologies will save the financial industry hundreds of billions of dollars – while surpassing foreign payments capabilities by at least a decade.

Dynamics is one of the fastest growing payments companies in the history of payments, having raised over \$40.7 million in the past few years with investments led by Adams Capital Management and Bain Capital Ventures.

Over that same period, Dynamics has demonstrated the prowess of its groundbreaking technology, winning more industry and technology awards than any other company in the payments industry. Particularly, Dynamics has won the coveted Best In Show at the 2011 International Consumer Electronics Show, Best of Show at FinovateFall 2010, Best of Show at FinovateFall 2011, the \$1MM People's Choice Award at Demo 2010, DEMOgod at Demo 2010, the 2009 International Rice Business Plan Competition, the 2009 International McGinnis Venture Competition, and the 2008 University of San Francisco International Business Plan Competition. In the last few weeks, Dynamics was awarded the Innovator of the Year by the Pittsburgh Technology Council. And, just today, Dynamics was named a finalist for the industry-coveted 2011 Cartes Sesames Award for best hardware innovation that will be decided later in the year.

Though an early stage growth company, Dynamics has already sold the largest paid credit card pilots (on a per-card basis) in the history of banking to some of the largest card issuers in the world. And next month, Dynamics plans to announce that it has executed high-volume releases with multiple U.S. banks for its next-generation magnetic stripe and card security technologies.

#### Introduction to Dynamics Fraud Reduction Technologies

Dynamics powered cards are a breakthrough technology that have a number of built in fraud prevention mechanisms that were designed from the outset to not only combat fraud, but eradicate it. There are several technologies that Dynamics currently employs to prevent fraud, which when combined, provide the **world's most secure payment card**.

- 1) Dynamic codes in the Electronic Stripe® – Dynamics employs dynamic security codes (e.g., dynamic "CVV1s") by re-writing the security codes on the card-programmable magnetic stripe after each transaction. The card's embedded processor can change, at any time, the information on the magnetic stripe. As a result, Dynamics eradicates all fraud associated with magnetic stripe skimming. The codes in the stripes are changed every time the card is used. A skimmed magnetic stripe cannot be used for a future use. Furthermore, PCI DSS compliance for magnetic stripe information is no longer needed – if data is stolen from a server, it is irrelevant because dynamic codes contained within the data are no longer the appropriate dynamic codes for future transactions.

- 2) Dynamic codes displayed on the visual, electronic display – Dynamics employs Dynamic security codes on the surface of the card (e.g., dynamic “CVV2s” or “CIDs”). This dynamic security code is changed via a display every time the card is used. Thus, printed number card skimming is eradicated. Similarly, PCI DSS compliance for printed security code data is irrelevant. If payment data is stolen from a server, it is irrelevant because the dynamic codes contained within the data are no longer the appropriate dynamic codes for future transactions.



**A Dynamics Card Displaying A Dynamic Security Code**

- 3) Unlocking-code entry – Dynamics employs an unlocking code entry feature via buttons on the front of the card to display a cardholder’s Account Number (PAN) on an electronic display and write the PAN, and associated data, onto the magnetic stripe. This unlocking-code entry feature reduces lost and stolen physical card fraud in addition to other types of fraud (e.g., in-mail fraud). If the wrong unlocking code is entered a pre-determined number of times, the card will “lock-up” and the card will be rendered useless.



**Dynamics Card Displaying A Credit Card Number**

Numerous additional fraud reduction features are included in a Dynamics card.

For example, when a Dynamics card is OFF or destroyed, no customer data is present on the surface of the card. All sensitive data is stored on a secure chip that is embedded inside the card. In this manner, the chips of a Dynamics card are completely encapsulated by plastic such that, when a Dynamics card is OFF, the customer data is physically embedded in the card in a secure chip. For a fraudster to even touch a chip, the card must be physically cut – thus notifying users that the integrity of the card is compromised. Furthermore, the chips destroy their programming ports after programming so that the only way for a fraudster to even try to interact with a chip is to physically break a card.

As example, the chips have the ability to send, among other things, the status of the integrity of their security provisions through the card-programmable magnetic stripe message. Accordingly, an issuing bank can monitor and classify the integrity of the card while it is being used by a consumer.

Section 235.4(b)(1) requires that in order to be eligible to receive a fraud-prevention adjustment, an issuer must develop and implement policies and procedures designed to (1) identify and prevent fraudulent electronic debit transactions; (2) monitor the incidence of, reimbursements received for, and losses incurred from fraudulent electronic debit transactions; (3) respond appropriately to suspicious electronic debit transactions so as to limit the fraud losses that may occur and prevent the occurrences of future fraudulent electronic debit transactions; and (4) secure debit card and cardholder data.

Deployment of Dynamics technologies will allow an issuer to comply with each of these requirements.

Particularly, with respect to (1), Dynamics cards can “lock-up” after a certain number of failed attempts by a user to unlock the card. Accordingly, the card itself can identify and prevent fraudulent electronic debit transactions. Similarly, Dynamic codes displayed on the card, and dynamic codes in the Electronic Stripe® further enhance the fraud prevention qualities of Dynamics cards in both card-present and card-not-present scenarios. Accordingly, Dynamics’ on-card technologies not only eradicate in-store fraud, but also eradicate online fraud.

With respect to (2), issuing banks can utilize information received from a Dynamics card to properly determine the type of fraud that has occurred in order to better monitor the incidence of, reimbursements received for, and losses incurred from fraudulent electronic debit transactions.

With respect to (3), Dynamics cards can “lock-up” if the card detects attempted fraud – thus responding appropriately to suspicious electronic debit transactions so as to limit the fraud losses that may occur and prevent the occurrences of future fraudulent electronic debit transactions.

With respect to (4), Dynamics cards can provide a single instance of data on a card, on a secure chip embedded in the card, so that data does not also have to be permanently stored on the surface of the card (via printing) or on the magnetic stripe of the card. In doing so, Dynamics products can, among other things, secure debit card and cardholder data.

#### Overall Perspective Regarding Current Law

Consistent with the positions taken by many in the financial services industry, Dynamics believes that the statutory provisions related to debit card swipe fees will not have the desired outcome. The recently enacted law will merely stifle innovation in the United States and create a “moral hazard” where the processes of merchants will only grow stagnant as merchants are no longer incentivized to innovate.

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Dynamics continues to firmly believe that current law will hurt consumers by reducing the number of debit product offerings, eliminating innovation and discouraging an effective free-market system, ultimately raising costs on other banking products. In fact, recent press reports show consumers outraged by the effects of the new law as banks and networks have to shift strategies to cope with the new law. Particularly, we have already seen ramifications where banks and networks have taken actions to remedy the impact to their profitability by reducing or eliminating rewards, by bundling products with fees, by introducing new fees, and by stopping their innovation programs.

Dynamics has been harmed, and will continue to be harmed, by EFTA §920 and Regulation II, Final Rule and Interim Final Rule, as the legislation and Rules have forced banks to halt their research and development of new debit technologies as the card issuers can no longer afford to invest any money to improve debit.

#### Comments on Interim Final Rule

Despite Dynamics misgivings about the statute generally, Dynamics recognizes the importance of providing the Board information critical to the Board's development of the Final Rule. Accordingly, in response to the Board's request for comments on the Interim Final Rule, Dynamics respectfully offers the following:

The Board correctly chose the non-prescriptive approach to fraud-prevention technologies and authentication methods in the Interim Final Rule, and should retain that approach in its Final Rule.

The new Dynamics fraud prevention technologies described above perfectly illustrate why the Board's technology-neutral approach in the Interim Final Rule was the correct choice.

Research conducted by two leading market research firms in payments clearly show that the fraud prevention features of Dynamics technology is superior to other fraud prevention technologies at reducing fraud. Dynamics technology eradicates multiple times more fraud than any other technology – including the exposed chip card technology (“contact EMV”) currently deployed in Europe and the “contactless EMV” RFID technology currently deployed in Asia Pacific. These technologies merely shift fraud to other parts of the industry and do not reduce fraud.

Dynamics has funded research and analysis by Javelin Strategy and Research and Edgar Dunn & Company. Both studies show that deployment of Dynamics' technology would virtually eliminate credit card fraud, saving merchants and issuers from an incremental fraud reduction in the billions of dollars for any country of the world that deploys it – regardless of the legacy technologies currently utilized that country. The virtual eradication of fraud would be a significant win for the industry.

The availability of the new Dynamics fraud prevention technologies underscores the importance of the Board's avoiding, in the Final Rule, an approach that either explicitly or implicitly prescribes or favors a particular technology or a particular authentication method. The studies and survey data mentioned in the Supplementary Information to the Interim Final Rule, which draw a contrast between “PIN” and

“signature” based transactions, rely on data which, though recent, does not reflect the innovations now afforded by the Dynamics technology. The Dynamics technology now allows card issuers to implement enhanced fraud prevention for card transactions that would be classed as signature-based in such studies and survey data, yet with dramatically reduced fraud losses to the point of virtually eradicating fraud on signature-based products. The comparisons between PIN and signature based fraud losses, drawn from 2009-2010 data collected by the Board, do not reflect the effect on “signature” based transactions of the enhanced fraud-prevention capabilities afforded issuers who implement the new Dynamics technologies discussed above in this letter. To predispose the Final Rule to favor or disfavor any particular fraud prevention technology or particular authentication method, in reliance on study data which fails to take into account this new technology, would be a mistake. The Board correctly avoided prescribing any particular technology or authentication method in the Interim Final Rule, and should avoid doing so in the Final Rule.

While current PIN-based debit products do not decrease fraud, but merely shift fraud to other channels, Dynamics fraud prevention technologies actually eradicate the fraud losses for PIN-based debit products by eradicating fraud in all channels (including online and other card-not-present channels).

#### The Board Should Ensure An Independent Technology Certification System

The Interim Final Rule, at the Official Board Commentary par. 4(c), states that “Payment card networks...will develop their own processes for identifying issuers eligible for this adjustment”. This could be construed as inviting the payment card networks to decide whether their debit card issuers are eligible for the fraud-prevention adjustment. This is a moral hazard and puts the networks at conflict with themselves since the networks have invested in their own fraud technologies that generate significant revenue so long as they are deployed regardless if the technologies actually reduce fraud in any meaningful way. If the networks are allowed to control the fraud-prevention certification process, then the virtues of the non-prescriptive approach already identified by the Board in this rulemaking could be forfeited if the networks, via such a certification process, are allowed to favor or disfavor particular technologies. Networks would naturally favor their own technologies and disfavor the technologies of their competitors. Accordingly, the card issuers, not the networks, must receive control of their fraud-reduction technologies. The Board should clarify in the Final Rule that the only processes to be developed by the card networks are those needed to identify which issuers have self-certified their entitlement to the fraud prevention adjustment, so the card network can reflect the adjustment in the interchange calculations for those issuers’ settlements, and that the Rule does not invite or permit the card networks to sit in judgment as to whether or not the issuer who does self-certify is entitled to the adjustment. Preferably, in the Final Rule, an independent party should be created to manage the technology certifications.

If in its Final Rule the Board abandons the non-prescriptive approach, opting for a technology specific prescriptive approach, then the Dynamics fraud prevention technology, and the authentication methods issuers employ with that fraud-prevention technology, should clearly be prescribed as eligible to receive the fraud-prevention adjustment.

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While Dynamics believes the Board should remain technology-neutral and continue to avoid prescriptive approaches as to fraud-prevention technologies and authentication methods, should the Board change its approach, the Board should make clear in the Final Rule that the Dynamics technology, and the authentication methods used with it, are eligible for the fraud-prevention adjustment. The new Dynamics technology clearly meets the criteria discussed by the Board in the Interim Final Rule were a technology-specific approach to be taken. The Dynamics technology easily qualifies as “major innovations that would likely result in substantial reductions in fraud losses”, and without having to await merchants’ adoption of costly changes to point of sale equipment as would be required in the case of some alternative technologies. The Board, if it opts for a prescriptive approach, should identify the Dynamics technology as one of the “paradigm-shifting technologies that would reduce debit card fraud in a cost-effective manner.”

Dynamics has developed a home-grown, “Made in the USA” technology that is superior to anything else on the worldwide market and can save the US from billions of dollars in payments related fraud each year and hundreds of billions of dollars in infrastructure modifications over the next two decades.

Dynamics will soon be recognized as one of the most important and fastest growing technology companies in the nation. The company is well positioned to become a large exporter of our U.S. made and manufactured technology as we continue to solve the problems of the EU and AP infrastructures with our technology.

Competition and innovation are the bedrock and cornerstone of the U.S. economy and Dynamics believes any policy instituted by the Board should attempt to preserve and encourage innovation, competition and the ethic of free markets. The U.S. will lead the world in payments technology and retail commerce if market mechanisms are allowed to operate as they should, where intense competition allows superior products and services to surface to the top, benefiting consumers and the economy as a whole. Dynamics is poised to play a very significant role in the payments industry, as a domestic provider and an exporter of leading technologies and solution that creates value for consumers and differentiation and profit for our clients.

Sincerely,  
/Jeffrey D. Mullen/  
Jeffrey D. Mullen  
President & CEO  
Dynamics Inc.