

November 8, 2021

Matthew S. Borman  
Deputy Assistant Secretary  
Export Administration  
Bureau of Industry and Security  
U.S. Department of Commerce  
1401 Constitution Avenue, NW  
Washington, DC 20230

Re: Request for Comments on Risks in the Semiconductor Supply Chain  
BIS 2021-0036; RIN 0694-XC084

Dear Mr. Borman:

The American Bankers Association (“ABA”)<sup>1</sup> appreciates the opportunity to respond to the Request for Public Comments by the Bureau of Industry and Security (“BIS”) of the Department of Commerce (“Department”) regarding the adverse impact across a wide range of industries of ongoing shortages in the semiconductor product supply chain.<sup>2</sup>

As you may know, the payment card industry is affected by the semiconductor shortage because its standard card, the EMV or “chip” card, incorporates a semiconductor smart chip. Chip cards use smart chip technology to promote the security and efficiency of payments for the millions of American consumers and businesses who increasingly pay with cards, a trend that accelerated during the COVID-19 pandemic. The microprocessor on the chip card is integral to completing transactions: its circuitry leverages cryptography to generate a one-time code that verifies to the card’s issuer that the card is genuine and not a cloned (i.e., counterfeit) card. The hardware and software for card processing at merchants, processors, payments networks, fintechs, and card-issuing banks and credit unions are predicated upon this chip-generated, one-time code, which is part of a global technical standard. From parking meters to restaurants, millions of payment acceptance devices have chip-reading circuitry soldered into them.

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<sup>1</sup> ABA is the principal national trade association of the banking industry in the United States. ABA is the voice of the nation’s \$22.5 trillion banking industry, which is composed of small, regional, and large banks that together employ more than 2 million people, safeguard \$18 trillion in deposits and extend nearly \$11 trillion in loans. Our members, located in each of the fifty states and the District of Columbia, include banks, savings associations, and nondepository trust companies of all sizes. ABA works on behalf of nearly all of the more than twelve hundred FDIC-insured institutions that provide trust and fiduciary services to individual and institutional customers.

<sup>2</sup> 86 Fed. Reg. 53,031 (Sept. 24, 2021).

The introduction of chip cards in the U.S. market has led to a significant decline in counterfeit fraud. For example, according to Visa, merchants who are chip-enabled experienced a 76% reduction in counterfeit fraud from 2015–2018.<sup>3</sup>

Chip cards are used each day by millions of American consumers and businesses for essential purchases like groceries, gasoline, and health care. Unlike many other semiconductor-based products, chip cards have a limited useful life. The expiration date of a chip card is encoded on the smart chip and cannot be changed to extend the chip card's useful life. A transaction attempted using a chip card will not be authorized after the card's expiration date. There are more than 1.1 billion chip-enabled cards in circulation in the United States,<sup>4</sup> and approximately one-third of chip cards expire each year. In addition, a large number of chip cards need to be replaced each year as a result of a card being reported lost or compromised, and chips are also needed for the millions of new accounts cards opened each year.<sup>5</sup> Without a sufficient supply of chips, consumers and businesses may not receive a timely replacement of an expired, lost, or stolen payment card.

Chip cards promote efficient payments and play a central role in the American and global economy. In 2020, for example, chip cards accounted for nearly 73 percent of card-present transactions.<sup>6</sup> Worldwide, chip cards constitute roughly 1 percent of total chip demand, and the United States alone is expected to account for approximately 540 million chips in 2022.<sup>7</sup> Because of the shortage, however, chip manufacturers already are voicing concern about adequate chip supply for chip cards. This is a fluid situation and exact predictions are difficult to make. However, without an adequate chip supply, some payment card issuers could potentially face challenges in consistently delivering the timely replacement of chip cards or issuing new chip cards to meet consumer and business demand in the U.S.

Such a disruption could jeopardize the historically stable issuance of payment cards and U.S. commercial activity, thereby risking the robust consumer and business spending that has driven America's economic recovery. The COVID-19 pandemic has accelerated the transition from cash to card payments, as cardholders increasingly seek contactless or nearly contactless ways to pay. As more fully illustrated in Table 1 below, card-based payments are proving more essential to U.S. spending than ever.<sup>8</sup> According to the most recent Federal Reserve Payments Study, in

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<sup>3</sup> Visa, Chip technology helps reduce counterfeit fraud by 76 percent (May 28, 2019), <https://usa.visa.com/visa-everywhere/blog/bdp/2019/05/28/chip-technology-helps-1559068467332.html>.

<sup>4</sup> EMVCo, Worldwide EMV® Deployment Statistics, <https://www.emvco.com/about/deployment-statistics/>.

<sup>5</sup> Estimate provided by industry participant.

<sup>6</sup> EMVCo, Worldwide EMV® Deployment Statistics, *supra* note 4.

<sup>7</sup> Estimate provided by industry participant.

<sup>8</sup> Federal Reserve Bank of Atlanta, 2020 Survey of Consumer Payment Choice, Table 5 at T-7 (Jan. 2021), [https://www.atlantafed.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2020/tables\\_scpc2020.pdf](https://www.atlantafed.org/-/media/documents/banking/consumer-payments/survey-of-consumer-payment-choice/2020/tables_scpc2020.pdf).

2018 card payments accounted for 131.2 billion transactions and \$7.08 trillion in spending across the United States;<sup>9</sup> they are undoubtedly even more important today.

**Table 1. Share of Consumer Payments in a Typical Month**

<b>Year</b>	<b>Payment Cards</b>	<b>Paper Instruments</b>
2015	55.4%	34.1%
2016	55.7%	34.4%
2017	57.1%	33.6%
2018	60.0%	28.8%
2019	61.4%	26.4%
2020	62.6%	25.5%

Source: 2020 Survey of Consumer Payment Choice, Federal Reserve Bank of Atlanta, Table 5

ABA’s members are committed to taking those steps within their control to mitigate the scale and impacts of the chip shortage. However, as purchasers of an end-product of a complex production chain that mostly exists abroad, card issuers have limited ability to directly resolve the underlying issues involved. The same can be said about cardholders and merchants, for whom our members are deeply concerned regarding impacts. The central role of payments cards in the lives of consumers and their essential role in the success of other sectors means that the issues card companies may encounter in this space should be a concern for everyone.

Given the importance of semiconductors to the payment card industry and broader economy, ABA believes that a whole-of-government approach is crucial both to weather short-term shocks to the supply chain and to formulate and implement a successful strategy over the longer term. The Department is well placed to lead this effort, prioritizing semiconductor supply, including shipping and labor, as one of the most pressing economic needs facing our nation. We appreciate the Department’s engagement to date with stakeholders across industries as you seek to better assess chip needs and shortage impact.

### ***Equitable and Open Access to Chip Supplies is Paramount***

The sheer breadth of industries and consumers who rely on semiconductors suggests that the Department and the wider U.S. government should adopt an approach that treats all industries equitably, rather than rigidly prioritizing access by certain industries to domestic and foreign chip suppliers and manufacturers. All American industries must be able to freely source needed supplies, including from foreign manufacturers, without obstacles that compound the underlying supply chain problem. In the near term, we hope that Congress will provide the Department with sufficient authority and resources necessary to aid U.S. industry. In the longer term, Congress

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<sup>9</sup> 2019 Federal Reserve Payments Study at 3, <https://www.federalreserve.gov/newsevents/pressreleases/files/2019-payments-study-20191219.pdf>.

should find a permanent, flexible solution to secure America's domestic semiconductor production capability.

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We are grateful for your serious attention to this difficult issue and look forward to working with you as you explore a comprehensive, equitable, and long-term solution. ABA appreciates the opportunity to comment and we hope that you will consider us a resource on this important matter.

Sincerely,

American Bankers Association