INTRODUCTION

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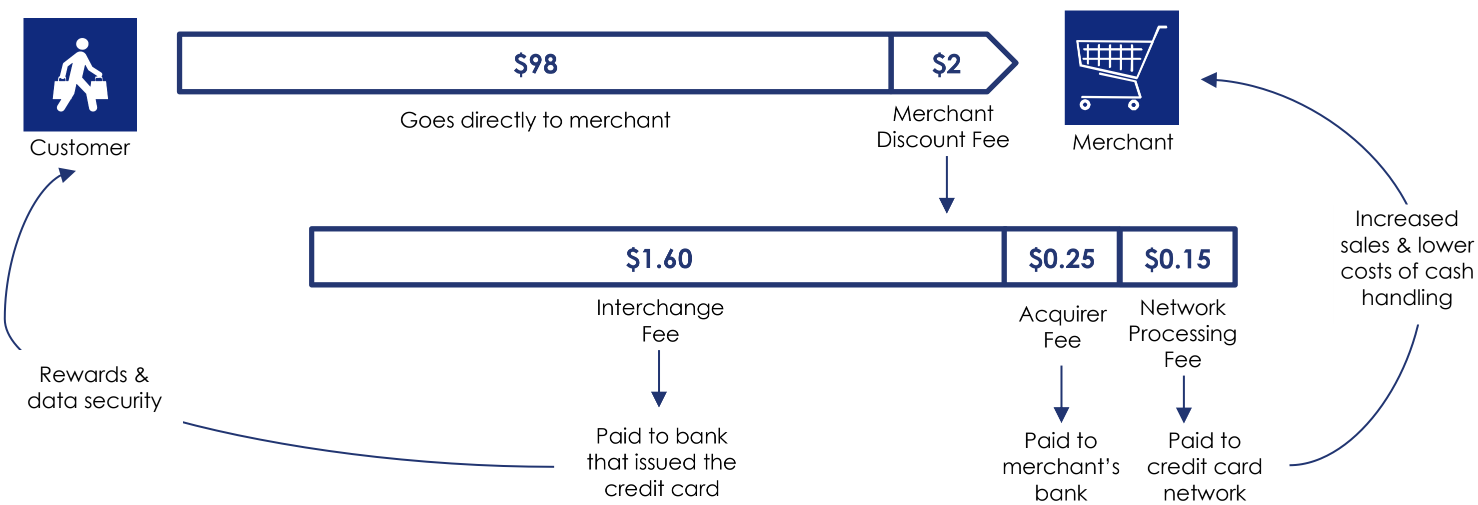
Interchange is a vital part of the electronic payments system. While the United States has long been a global leader in electronic payments, the U.S. system is complex. As such, it is not surprising that conversations about interchange sometimes misstate the facts or misconstrue market trends. One such example is the claim that interchange fees have risen steadily over time. This document aims to explain what interchange is, how it works alongside other fees, and overall what portion of total sales revenue it entails.

WHAT IS INTERCHANGE?



As shown in the figure above, merchants keep about 98% of the revenue from a sale paid for by credit card, while the remaining 2%, called the *merchant discount fee* (or merchant discount rate), represents the price the merchant pays to accept card payments.[1] The merchant discount fee consists of three parts: an *interchange fee*, a *network fee*, and an *acquirer fee*. Each fee is set by, and paid to, a different entity; however, the acquirer initially collects all the fees before transmitting them to the appropriate party.

Consider the following scenario: a customer uses a credit card to purchase a good or service for $100. When the card is used, the purchase information is sent electronically to the merchant's bank. The merchant pays the merchant discount fee for this service, including (1) the acquirer fee to the merchant's own bank, (2) the network processing fee to the credit card network (e.g., Visa or Mastercard), and (3) the interchange fee to the bank that issued the credit card. Credit card networks determine the default interchange fee,[2] but they have no control over the other parts of the merchant discount fee.[3] In the case of this $100 purchase, the merchant would pay $2.00. Of that, $0.25 would go to their own bank, $0.15 to the credit card network, and $1.60 to the bank that issued the credit card. In the end, the merchant keeps $98 in revenue from the $100 sale.

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[1] Barron's. (2019). "How Mastercard and Visa Are Beating the Tech Giants at Their Own Game."

[2] The default fee is used if the merchants or their trade groups have not negotiated another rate.

[3] Some banks do have acquiring operations which are separate businesses independent of the issuing side of the bank and have to compete with other processors that have no affiliation with banks.

As described above, the components of the merchant discount fee are initially collected by the acquirer and then transmitted to the appropriate party. For example, banks that issue debit and credit cards receive from acquirers an interchange fee (which is set by the networks) each time a consumer pays with a card. The interchange fee is calculated as a percent of the revenue from the sale and, combined with other income streams, helps pay for the many benefits merchants receive from accepting electronic payments.[4]

Just to recapitulate, interchange fees are just one piece of the merchant discount fee, and the card-issuing bank does not have control over any of the fees—not interchange, not the processing, and not the acquiring fees.[5] The card-issuing bank does control consumer-facing fees such as the interest rate, annual fee, etc., which also play an important role in paying for the costs of operating the electronic payments system. The issuing bank combines all these sources of income to help fund the operation of the system.

INTERCHANGE FEE RATES ARE STABLE

As illustrated in the graphic and discussion above, the average merchant discount fee (of which interchange is just one component) is around 2% of total sales revenue. The merchant discount fee is similar among all major network brands, despite some different business models, but there are multiple estimates for this fee which tend to vary slightly from year to year. Two of the most commonly cited estimates are published by Verisk Financial Research (formerly Lafferty Research) and the Nilson Report. As shown in Table 1, the Nilson Report estimates that the merchant discount fee decreased 1bp in 2019 to 2.25% for Visa and Mastercard (though it is 9bp above 2012 levels), fell 3bp to 2.27% for American Express and is down 14bp since 2012), and increased 3bp to 2.18% for Discover. Meanwhile, Verisk Financial finds that the weighted average merchant discount fee across all credit cards was 2.16% in 2019, unchanged since 2017 and down 8bp compared to 2012.

In Table 2, the interchange component of the merchant discount fee is isolated. Again, the trend is quite stable: The average credit interchange rate held steady at 1.70% from 2012–2017 before falling slightly to 1.60% in 2018 and 2019. The debit interchange rate, kept artificially low due to the Durbin amendment, has fallen 5bp to 0.71% from 2012–2018. Interchange is only one part of the total merchant discount fee, but it is an important contributor to defraying the costs financial institutions incur to fund the development and maintenance of the electronic payments system.

Table 1: U.S. Merchant Discount Fee for Credit Cards
As a percentage of purchase volume. Note, complete data is not available for 2015.

Data from Nilson Report	2012	2013	2014	2015	2016	2017	2018	2019
Visa and Mastercard Credit	2.16%	2.17%	2.15%	—	2.12%	2.17%	2.26%	2.25%
American Express	2.41%	2.37%	2.48%	—	2.36%	2.33%	2.30%	2.27%
Discover	1.90%	1.89%	1.89%	—	2.04%	2.09%	2.15%	2.18%
Data from Verisk	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**

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Credit (Weighted Average)	2.24%	2.24%	2.24%	2.20%	2.17%	2.16%	2.16%	2.16%

Source: The Nilson Report; Verisk. Note: Nilson Data for 2015 is unavailable.

Table 2: U.S. Interchange Rate for Credit and Debit Cards
Weighted average as a percentage of purchase volume

	2012	2013	2014	2015	2016	2017	2018	2019
Credit	1.70%	1.70%	1.70%	1.70%	1.70%	1.70%	1.60%	1.60%
Debit	0.76%	0.74%	0.73%	—	0.72%	0.72%	0.71%	—

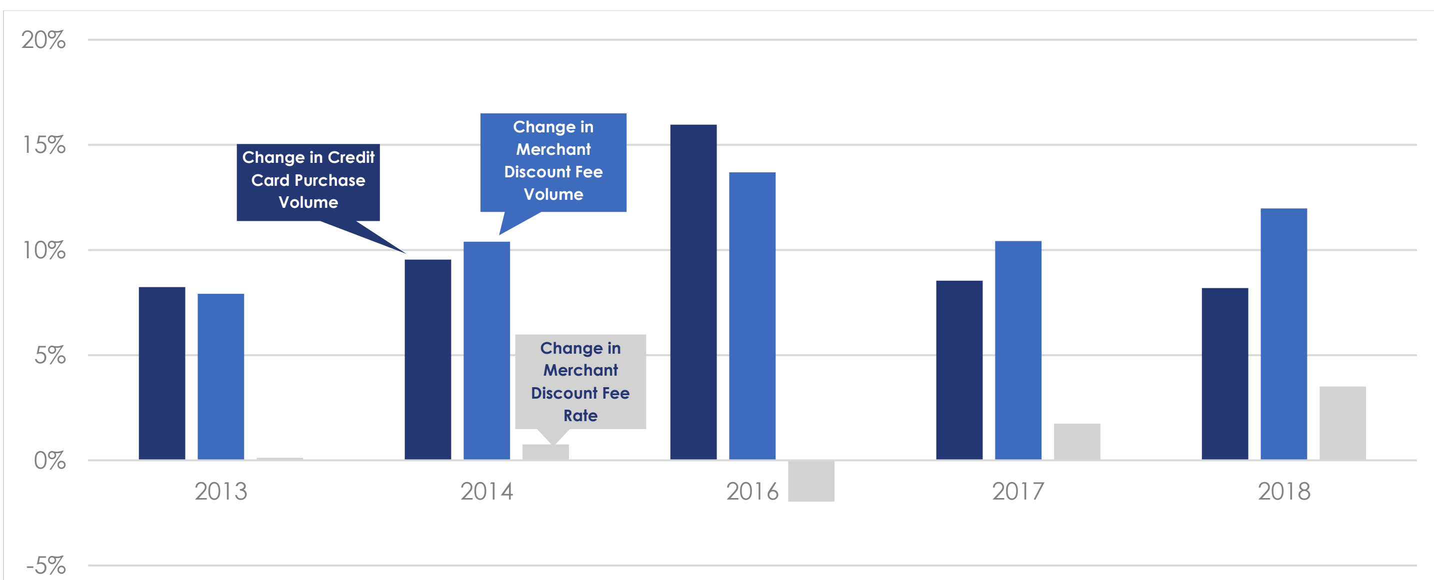
Source: Verisk (Credit) and The Nilson Report (Debit). Note: Nilson Data for 2015 is unavailable.

INTERCHANGE FEE VOLUME HAS RISEN DUE TO INCREASED CREDIT CARD USE

It is often asserted that interchange fees are on the rise, but these sources cite statistics that show an increase in total interchange *volume* rather than the interchange *rate*. While it is true that interchange volume has increased over the last several years, this is not due to rising interchange rates (which, as discussed earlier, have remained quite stable). Instead, interchange volume has risen because electronic payments—particularly credit cards—have become more popular with consumers: total credit card expenditure grew by 60% from 2012 to 2018 according to the Nilson Report.

To illustrate this, think of the food a restaurant may purchase. If one year a restaurant purchases six tomatoes at $.50 for a total of $3.00, and the next year purchases a dozen tomatoes at $.49 for a total of $5.88, yes, their total tomato cost has almost doubled, but the cost per tomato has decreased.

Figure 1: Change in Volume of Merchant Discount Fee, Total Purchase Volume, and Merchant Discount Rate
*Y/Y percent change**



Source: The Nilson Report.
*Note: Nilson data for 2015 is unavailable, so the change reported in 2016 is from 2014–2016.