

Cash and crises financial literacy series

'Cash and Crises' is a series of financial literacy audiographics brought to you by CashEssentials, a private sector initiative with a social mission to support the relief and development community in understanding how cash is managed for society in times of crisis.

Episode IV Pre-paid card payment & settlements

Let's start with a short reality check and look at prepaid card payments and settlements

At the beginning of the Syria crisis, relief agencies in Jordan and the Lebanon paid between 2.5 and 5 percent of the total sum transmitted in transaction fees for their card-based cash and voucher assistance programmes. By 2017, collective negotiation had reduced this figure to 1.67%¹.

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In Jordan, costs have been reduced from 2.42% to 1.67% per transaction.
UNHCR-administered Common Cash Facility
2018”

But, while recognising that the cost of cards are typically higher than cash for small retail transactions², what does this 1.67% represent, and how much of it covers the actual costs incurred?

To answer these questions, we need to look at who is involved, what processes are required, and uncover long-held industry secrets³ of how much each step normally costs in the commercial world.

Payments and Settlements involve **three cost areas**. Some of these costs are direct, and others indirect; some are fixed, and others variable:

- The **demand side** – which covers transaction costs downstream from point of sale
- The **supply side** – which cover upstream costs of the card payments infrastructure, and
- **Economic cost** – the back-end costs of foreign exchange, data protection, regulatory compliance and operational management

When a customer – or 'recipient' in aid terms – uses a pre-paid card to obtain cash from an ATM or pay for goods at a store, four main parties are involved:

- The merchant (or ATM)
- The merchant's bank (the acquiring bank) or ATM owner
- The recipient, and
- The aid agency's bank (the issuing bank)

To make the system work the acquiring bank and the issuing bank have a licensing agreement with card scheme function of companies such as Visa, Mastercard and Union Pay. In addition, they have a processing agreement with the switch function of these companies. With additional actors included in the settlement process, as many as 15 fee payments – sometimes even more -- are made between all those involved in the transaction. These fees cover the actual costs of payment processing plus a margin for profit. They can include the following:

- Interchange fee
- Switch fee
- Merchant Service Charge
- Authorisation fee
- Card Network assessment fee
- Account Management fee
- Card loading fee
- Card activation fee
- PIN issuance fee
- Authentication fee (if external biometric)

¹ Jordan Common Cash Facility Report, 2018

² Draft study by the Universidad de Granada for the Security Ligue (unpublished), June 2019

³ Various studies attempting to ascertain the 'cost of cash', including those by International Currency Research and the US Federal Reserve, have found "a concerning lack of transparency" within the financial services sector. When researching this piece, Mastercard declined to provide data, arguing that such information was 'proprietary' and subject to 'client confidentiality'.

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A plethora of complex fees are involved in the card payments business, and a simple transaction can involve 15 or more different fee payments
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Diederik Bruggink
April 2019

These charges don't include the cost of programme support, foreign exchange, card production and distribution, data protection, regulatory compliance, insurance, or fraud prevention and dispute resolution. Nor do they take into account other externalities such as the time and money it takes to access cash in the first place.

When looking at costs, let's first look at The Demand Side in a bit more detail:

The **Merchant Services Charge**, sometimes called the Merchant Discount Fee. For each card transaction, the merchant pays a fee to its bank. This bank transfers the sales price into the merchant's account after deducting this charge, the bulk of which is made up of interchange, card scheme fees, clearing and settlement fees, and their own operational costs. In normal consumer transactions, this charge is passed on to the customer in the form of higher prices. The Merchant Services Charge is typically between \$1.65 and \$2.24 though it can be higher.

Interchange refers to the fee charged by the issuing bank to the acquiring bank to cover their part in the clearing and settlement process⁴. This fee is set by the card networks, not the banks, and, depending on the scale of the programme, is usually non-negotiable in humanitarian situations. Long an industry secret, these fees have begun to be regulated with the result that interchange fees have recently been slashed in some jurisdictions. This follows revelations in the US that “card schemes have been charging retailers excessive fees for a long time.”

The **Payment Switch** is a separate entity that facilitates communication between various banks to process payments, authorisations, clearing and settlement. It understands which providers it needs to process with, formats the message for that provider, sends it to them, gets a response, changes the response to a generic format, and sends the response back to the originator. Although this switch is a separate entity, in the majority of cases this function is performed by the card companies.

A typical **card scheme** usually retains a fee of about \$0.11 to cover costs of the card scheme licensing function. These include the costs of compliance, scheme integrity, marketing, and other operating expenses. If using a PIN for authentication, an additional fee of between \$0.03 and \$0.08 may be added depending on the segment and channel. In Jordan, Irisguard's fee for use of their iris scanning technology is 15% of the total transaction cost i.e about \$0.22.

If using an **ATM** operated by someone other than the issuing bank, a surcharge might be added depending on whether or not the same backend processing system is being used. These fees are typically about \$3.00 but can sometimes be much higher.

A **payment gateway** is a third-party e-commerce service such as Venmo that facilitates a transaction between a payment portal such as a website or mobile money application and the acquiring bank. Typically, such a service charges \$0.05 per transaction.

And on **the supply-side**:

Each personalised 'chip & pin' card costs about \$2 to make and can be delivered to the client at the rate of up to 10,000 per day⁶. In the Lebanon OneCard pilot in 2015, card issuance and replacement was charged at between \$3.25 and \$5.00 per card⁷.

Activation and PIN issuance fees levied by commercial providers typically cost \$3.95 per card with additional **loading** fees charged at around \$2.35 for each monthly upload .

In protracted crisis situations it is likely that financial service providers levy a monthly maintenance or **account management** fee per card issued on top of the fees already mentioned. These vary depending on the caseload but are usually around \$0.30 per card per month where more than 100,000 cards are issued.

In total, the US Federal Reserve estimates that the actual processing cost per debit-card transaction amounts to \$0.15 which includes the cost of authorisation, clearance and settlement . The comparable figure for Europe is \$0.70 but recent regulation is likely to see this sum reduce.

⁴ For a fuller description, see <http://blog.avangate.com/how-does-the-payment-processing-industry-work/>

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The actual processing cost per debit card transaction in the US is \$0.15
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US Federal Reserve
March 2011
(price adjusted for inflation)

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Then there are the less obvious economic costs to consider, all of which are a direct or indirect part of the payments cycle:

Foreign Exchange

Incoming funds from donor to agency incur foreign exchange fees which have to be converted – sometimes via US dollars – to the local currency. These costs can be considerable and are part of the hidden cost of treasury management within the cash cycle. In the Yemen in 2017, these ‘forex’ fees amounted to an excessive \$40 million¹⁰.

Infrastructure

Much of the cost-effectiveness of cash and voucher assistance programming depends on whether or not a robust payments infrastructure already exists. A typical handheld point-of-sale device costs approximately \$600 and depends on internet connectivity.

Regulatory Compliance

By law, financial service providers are obliged to conduct ‘know your customer’ (KYC) due diligence on each potential customer. Additional legal measures covering anti-terror, anti-money-laundering and data protection have also been introduced recently. In crisis situations, at least some of this process is carried out by the aid agency partner, thus saving the service provider the cost of doing so.

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The overall cost for commercial KYC processing ranges from \$15 to \$130 per background check and takes an average of 48 days
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Consult Hyperion
February 2019

Interest

Pre-paid cards are favoured by aid agencies as they have the advantage of not needing a bank account and the beneficiary cannot overspend. The disadvantages are that interest on the initial deposit and on card balances accrues to the issuing bank, not the donor or recipient.

Customer Acquisition

Cash and voucher assistance programmes deliver new customers to the issuing bank effectively for free, thus saving them one of their biggest business costs: the cost of customer acquisition and retention. This ranges from \$1,500 per customer for a large US or European bank to about \$250 for a smaller bank in a lower-income country¹².

Incentives & Rebates

Card schemes also provide rebates and incentives to some of their larger customers (the issuing and acquiring banks), depending on such things as business volumes and contract renewal rates.

⁵ Payments Journal, 1 March 2019

⁶ <https://financebuzz.com>, April 2016

⁷ UNHCR-WFP Evaluation of the OneCard pilot, November 2015

⁸ UNHCR-WFP Evaluation of the OneCard pilot, November 2015

⁹ The Center for Public Integrity, June 2011 (price adjusted). Financial Service Providers, however, argue that this does not include costs associated with legal compliance (money-laundering, anti-terror, data protection), biometric security, operational management, or customer services such as an information hotline, all of which are integral parts of the payments process.

¹⁰ Yemen Cash & Market Working Group, July 2017

¹¹ Consult Hyperion (<https://www.mitekssystem.com/blog/numbers-speak-themselves-true-cost-aml-and-kyc-compliance-banks-and-payments-firms>)

¹² Stratifi, March 2019

Summary

- Card payment fees are negotiable. Even Interchange is negotiable in certain humanitarian circumstances and where volumes are high.
- The actual direct cost of a single pre-paid card transaction in a commercial setting amounts to about \$0.43
- There appears to be scope for aid agencies to negotiate further reductions in demand- and supply-side costs.
- Humanitarian financial assistance programmes offer considerable opportunity cost savings for financial institutions, especially in the area of customer acquisition.

For feedback, please contact james@shepherd-barron.com