



EXECUTIVE INSIGHTS

Open Loop Payments – Good for Everyone?

The activation of open loop payments in our transit systems is continuing at pace. Open loop unlocks material benefits for an adult full fare-paying transit customer. But it also poses challenges and a range of considerations for transit agencies:

- How do they strike a balance between customer benefits facilitated by open loop payments and the use of lower-cost fare channels?
- How do trends in debit and credit use affect the Cost of Fare Collection (COFC)?
- What is their capacity to pass through debit and credit card costs to the customer?
- Should concessions be supported by open loop payments?
- What are the risks of fraud associated with open loop payments?

A catalyst for investment in fare collection

The capacity to support contactless open loop payments has been a major catalyst for transit agencies around the world to invest in their fare collection systems in recent years. Some selected examples:

"[open loop payments is] to be rolled out in phases across [metro train] stations and [CBD and highway] buses [in the Philippines], with the intention to scale contactless payments acceptance across ferries and other modes of transportation in the future, and eventually across the country"

- Mastercard content exchange, February 2024

“The Victorian government [awarded] Conduent a \$1.7B contract ... to replace the card-based ticketing system with an account-based ticketing system, giving Victorians the future ability to pay for public transport using debit and credit cards, as well as connected smart devices”

- Innovation Aus, June 2023

The introduction of open loop also extends to Hong Kong, which launched the second and, arguably, most successful, closed loop smartcard system in 1997. Some 98% of Hong Kong residents have an Octopus card for both transit travel and low value retail purchases. However, in December 2023, open loop payments were introduced into the Hong Kong MTR heavy rail network via an exclusive arrangement with Visa. It comprised two gates per station with the target market being international tourists. Further expansion is planned.

Transit customer benefits

There is little doubt that open loop unlocks major benefits from a customer perspective, specifically a full fare-paying adult customer. There is no longer a need to carry a dedicated transit card or have funds tied up in a card e-purse. Customers can also use a digital wallet, eliminating the need to present a physical card. The benefits are even greater for the non-resident who is spared the cost and time of acquiring yet another transit card and loading funds to the card.

Data from three major international cities highlights the attractiveness and success of open loop. The open loop percentage of total adult full-fare trips ranges from the mid-50s in Sydney to the mid-70s for metro (subway) services in London and New York. Moreover, the majority of these transactions are being supported by a digital wallet rather than the presentation of a physical card (see Table 1).

Table 1
Percentage of open loop payments for transport, March 2024

City	Open loop share of total trips (includes all or most concessions and other discount fares)	Open loop share of all full fare trips (adult full fares)	NFC wallets share of open loop
London	Metro: 57% Bus: 55%	Metro: 77% Bus: 73% (refers to pay-as-you-go trips)	57% (Metro)
New York	Metro: 51% Bus: 33%	Metro: 77% Bus: 65%	69.7%
Sydney	37% (all modes)	53% (all modes)	70%

Note: NFC=near field communication
Source: Mobility payments

Notwithstanding the obvious customer amenity benefits, there are some key considerations/challenges that transit authorities need to be mindful of.

Cost of fare collection

Transport for London (TfL) has long been seen as the beacon for open loop payments and unlocking the associated (adult) customer amenity benefits. While the fees and charges levied by the banks and schemes to support open loop payments are typically protected by non-disclosure agreements, it has been well reported that TfL cut an attractive deal to support open loop payments, motivated at the time by the banks’ and schemes’ desire to turbocharge contactless payments by Londoners. That was in 2012 for the bus system and two years later for the Tube.

It is now clear that many transit agencies, particularly in the United States, are paying a lot more. Balaban (2024) suggests that US transit agencies pay some of the highest transaction fees to accept debit in the world (almost 23 cents on a \$2 fare, or c.11.5%), and this does not include acquiring fees, network assessment fees, or gateway or payment service provider fees.

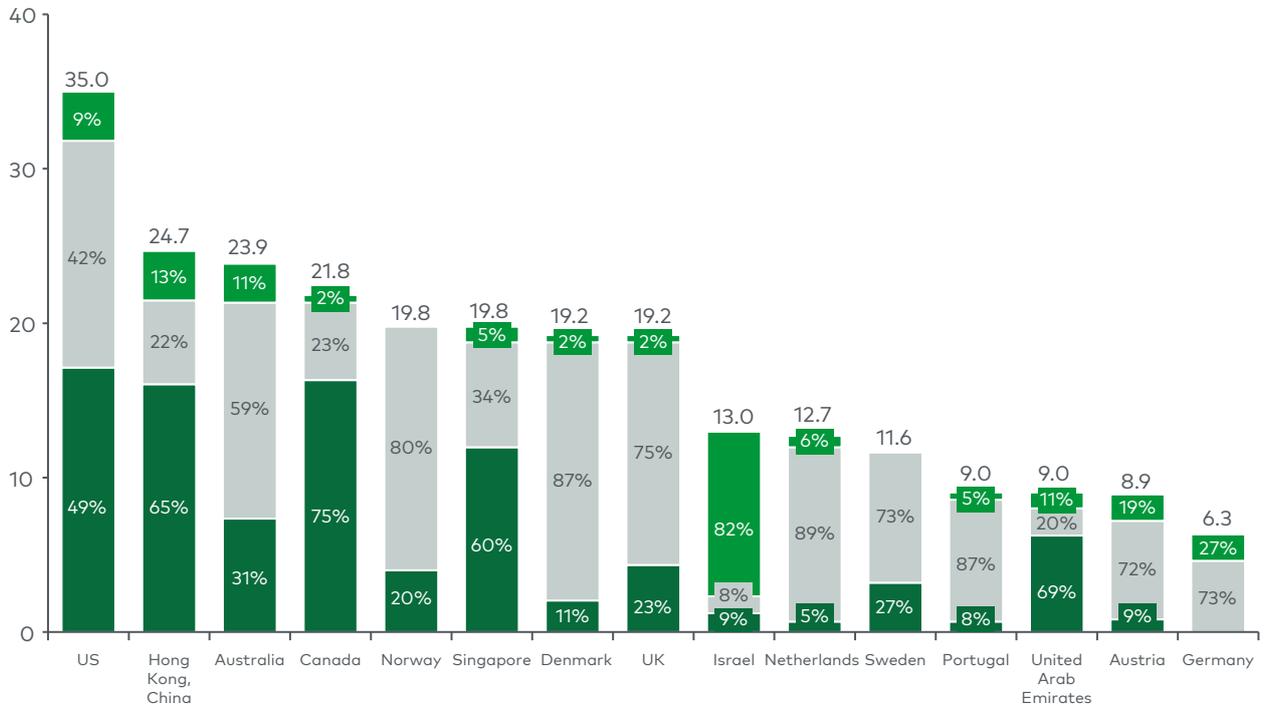
There is also often a significant differential in charges between credit and debit; hence customer trends in the use of credit and debit are extremely important when it comes to negotiations with the banks and schemes to support debit and credit, respectively.

Figure 1
Global card payment values

Card payment values for top 15 markets (2023)

Thousands of USD spend per capita

■ Credit Card
■ Debit Card
■ Other Card



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While Hong Kong, Canada and Singapore are relatively high users of credit, Australia, the UK and the Nordic countries (Norway and Sweden) have a stronger preference for the use of debit. Subject to the respective costs of supporting debit and credit, mix differences and mix shifts can have a significant impact on the COFC.

With an eye to balancing customer convenience with the COFC, it seems clear that transit agencies should be carefully considering the promotion of open loop payments vis-a-vis the use of a transit card and, as we have argued previously (in Transit Channel Strategy and the Cost of Fare Collection) whether some, if not all, of the incremental costs of using open loop should be passed through to the customer.

Such a decision would seem relatively straightforward for the tourist market. They enjoy the key convenience benefit of “tap and go” as soon as they arrive in a new city. The distinction for a domestic versus foreign card would be straightforwardly identified by the fare collection system. There is no comparable way of differentiating between a domestic card presented by a resident versus an (interstate) non-resident, although a card registration process with proof of residency could be used to determine whether an open loop payment surcharge should be applied or not.

The case for passing through some or all of the credit/debit card costs is probably most contentious for the resident market. Clearly, countries do not want to disincentivise the use of transit, and an adult with a credit or debit card effectively has a 'ticket to ride'. However, the counter-factual is also strong. Within transport agencies, the cost of using a credit card is already often passed on to the customer (e.g. when renewing a car registration or a driving licence). Using the toll road analogy, where the availability of a free alternative is typically a prerequisite to introducing a toll road, customers can choose to use a transit card, which does not attract a fee for individual trips/transactions.

But almost without exception, transit agencies currently charge a fee for a transit card. Sydney is a notable exception with no card fee (see Table 2).

Table 2
Global smart card costs

City	Transit card name	Transit card cost (local currency)	Transit card cost (USD)	Lowest rail transit fare (adults, USD)	No. of trips required to justify using a transit card
Sydney	Opal Card	Free	Free	\$1.98	0
London	Oyster Card	7 GBP	\$9.21	\$3.55	26
Paris	Navigo Easy Pass	2 EUR	\$2.21	\$2.38	10
New York	OMNY Card	1 USD	\$1.00	\$2.90	4
Singapore	EZ Link	5 SGD	\$3.84	\$1.20	32

Source: L.E.K. research

From a policy perspective, transit authorities could make a call to pass through some or all of the costs of using a contactless debit/credit card.

Solely from a pricing perspective, the relevant metric here is how many trips a customer would need to make to justify the investment in a transit card over the ongoing use of a contactless card with (for example) a 10% transaction fee pass-through on each transaction – which would be at the high end of any pass-through.

Based on the lowest rail transit fare, the 'payback volume' associated with using a purchased transit card at current rates ranges between zero (Sydney) and 32 trips (Singapore). The key point here is that any resident (even a modest transit user) who wants to avoid any pass-through of charges for using open loop will readily meet the threshold point to justify purchasing a transit card in a relatively short period of time.

Concession fares

There has also been significant discussion around the merits of supporting concession fare payments on open loop contactless cards. There would not appear to be an overwhelmingly compelling case to do so assuming that a closed loop card remains part of the product suite. First, it is not possible to support a free (i.e. zero) fare on an open loop card. For the payment of non-zero fares, concession fare entitlement management and fraud prevention are the key considerations.

Fare evasion

Finally, there continue to be concerns regarding the level of fraud in the use of digital wallets, referred to as 'retokenisation' or 'card tumbling'. In effect, a customer takes advantage of a situation where the full authorisation of the transaction occurs overnight. The customer simply deletes the card from the digital wallet before the transaction is processed and then reloads the card, at which time it is allocated a new tokenised number and hence is not identified as a blacklisted' token. Efforts are being made by some transit agencies to prevent the same card being loaded back into the digital wallet for a defined period, but it remains an issue of material concern to transit agencies.

Conclusion

There is compelling evidence that adult transit customers have embraced contactless open payments given the clear amenity benefits delivered by the product. However, any consideration of channel strategy must carefully balance a number of issues, including the COFC, the application of open payments to the concession market and addressing fare evasion concerns associated with the use of digital wallets for open payment.

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