

**Competing Payment Systems: key
insights from the academic literature**

**Payments System Review Conference
Reserve Bank of Australia and Centre for
Business and Public Policy, MBS
Sydney, 29 November 2007**

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I. INTRODUCTION

In relation with the fantastic development of card payments all over the world, Interchange Fees (IFs) are everywhere under scrutiny :

- ✓ Retailers associations lobby for IFs prohibition (Euro-Commerce) or engage in private law suits (Wal-Mart and other class actions,...)
- ✓ Public Authorities push toward reduction in IFs (OFT, European Commission, also in Colombia, Israel, Mexico, Portugal,...) or even regulate them (RBA)
- ✓ Australia is at the forefront: regulation + careful review process

This presentation summarizes conflicting doctrines and compares them with empirical findings (facts) and economic analysis (theory).

OUTLINE OF PRESENTATION

II. DOCTRINES: CONFLICTING VIEWS BY SYSTEMS, MERCHANTS, AND PUBLIC AUTHORITIES.

III. FACTS: EMPIRICAL EVIDENCE ON THE IMPACT OF IFs MOVEMENTS.

IV. ECONOMIC ANALYSIS.

V. POLICY RECOMMENDATIONS.

II. DOCTRINES: CARD SYSTEMS, MERCHANTS AND PUBLIC AUTHORITIES

1. The card systems viewpoint:

Open card systems are joint ventures: each card payment necessitates the collaboration of two banks (issuer and acquirer).

These banks will cooperate only if they get a fair share of the economic value created by the system.

« Interchange is an essential mechanism for balancing the costs and the revenues of the issuing and acquiring sides of the payment network» (Guide to Visa Australia, Fact Sheet 10)

II. DOCTRINES 2: MERCHANTS

- ✓ “IFs are just a way to put the burden on us. We are obliged to accept the cards that consumers want to use. This is exploited by networks who tax us and (partially) subsidize cardholders”
- ✓ “The only sensible thing to do is to mandate a zero IF(at par regulation)” “Each side should pay its own costs”

II. DOCTRINES 3: COMPETITION AUTHORITIES

- ✓ “Card issuers incur some costs (authorizing and processing transactions, consumers defaults,...) that benefit retailers. IF is a fee for service that compensates for these costs”.
- ✓ “Banks can increase their profits by artificially inflating these costs and redistributing the proceeds between them. Therefore IFs should be regulated: cap based on the admissible costs of issuers”.

II. DOCTRINES 4: RBA

- ✓ “Debit card payments are socially more efficient than credit card payments but consumers (used to) get the wrong price signals: they (used to) pay fees for debit cards and receive rewards for credit card payments (which are more costly than debit card payments). This is because IFs are not the result of a competitive process”.
- ✓ “Regulation of IFs was intended to eliminate this distortion: if card schemes are forced to set IFs that are based on issuers costs, then issuers will not have an interest in promoting the less efficient payment instrument (credit)”.

Each of these doctrines contains some element of truth but none of them captures the whole story.

III. FACTS(1)

IFs have an (asymmetric) impact on (net) user fees:

RBA reform: reduction of average (credit) IFs from 0.95% (2003) to 0.55% (2006).

Merchant fees (in open schemes) fell from 1.4% to 1%.

Cardholder rewards only fell from 0.81% to 0.63%.

Consistent with studies in other countries.

Implies that **issuers are not perfectly competitive**

They charge margins over marginal costs in order to recoup large fixed costs (RBA cost study: average annual cost of a credit card account: \$109)

III. FACTS (2)

Costs savings of retailers have not been passed through to consumers:

no observable reduction in retail prices

Similarly retailers are reluctant to surcharge:

only 15% of very large merchants, less than 6% of small merchants

Surcharges are often higher than IFs (average surcharge on open schemes cards=1%, compared with average IF= 0.50%)

Confirms what has been found in other countries and suggests that retailers are not perfectly competitive either.

III. FACTS (3)

Consumers react to increases in their card fees:

Recent empirical studies based on US individual data

Zinman (2007): “pecuniary cost minimization accounts for more than 38% of cross-sectional debit use over the period 1995-2004 (50% in 2004).

confirmed by Ching and Hayashi (2007).

“Two sidedness” of payment industry cannot be neglected (price structure matters).

However **these effects are difficult to detect on aggregate data:**

debit cards are often bundled with current account services,

transaction fees are often zero,

rewards are difficult to measure.

III. FACTS (4)

Evidence on cardholders multi-homing:

Rysman (2006): more than 50% U.S. consumers have several cards (multi-homing in membership) but they tend to use only one (single-homing in usage).

Snyder and Zinman (2007): “over the period 1992-2004... the rise in multi-homing in credit and debit usage has been dramatic...Available evidence implies that **multi-homing is a better description of consumer payment card choices than single-homing**”.

As I explain later, this implies that **inter-system competition in the setting of IFs gradually becomes effective.**

IV. ECONOMIC ANALYSIS(1)

✓ Payment by card is efficient when:

issuer cost of card + acquirer cost of card < consumer cost of cash + merchant cost of cash

✓ Payment by card is chosen by consumer when (for the moment banks margins are neglected):
issuer cost of card – IF < consumer cost of cash

✓ Consumer gets the correct price signal when:

IF = merchant cost of cash – acquirer cost of card
(Baxter IF)

ex RBA cost study: merchant cost of cash: 0.24 c

acquirer cost of EFTPOS: 0.11c

estimated IF for EFTPOS: 0.13c

IV. ECONOMIC ANALYSIS(2)

- ✓ When issuers margins are taken into account (Rochet-Tirole 2007):

Socially Optimal IF=Baxter IF+ fraction of issuer margin that compensates fixed costs (similar to rate of return regulation)

- ✓ Privately optimal IFs are not always too high: (Guthrie-Wright 2007):

Equilibrium IF=Baxter IF +fraction of cardholder surplus internalized by merchants

It all depends on the extent of cardholder multi-homing:

single homing : intersystem competition for IFs is ineffective
(competitive bottleneck)

multi-homing : intersystem competition may drive IFs down below socially efficient level

In any case these IFs are likely to be small!

IV. ECONOMIC ANALYSIS(3)

✓ But existing economic analysis completely neglects the substitutability between debit and credit cards!

case a) : consumer needs credit

A payment by credit card is socially efficient when:

cost of delayed sale (for buyer and seller) > cost of credit payment (for acquirer and issuer)

Buyer chooses credit transaction when:

cost of delayed sale for buyer > issuer cost of credit – credit IF

thus consumer gets the correct price signal when:

credit IF = cost of delayed sale for seller – acquirer cost of card payment

This is presumably much higher than optimal debit IF!

But there is a second case:

IV. ECONOMIC ANALYSIS(4)

case b) : consumer does not need credit

If transactions costs are lower for debit cards:

credit cards should not be used in this case

Cardholder chooses debit (instead of credit) when:

cardholder reward on credit < cardholder reward on debit

Assuming the latter is zero and neglecting issuer margins we obtain a condition for efficient use of payment methods:

credit IF $-$ issuer cost of credit < 0

This gives a cost based cap :

credit IF < issuer cost on credit

IV. ECONOMIC ANALYSIS(5)

Of course this cost based cap is **not justified by a “fee for service”** analysis (inadequate one-sided logic in a two-sided context) but by the perfect substitutability between debit and credit for “convenience users”.

Moreover this cap

credit IF < issuer cost on credit

is in general incompatible with the efficiency condition in case a):

credit IF = cost of delayed sale for seller – acquirer cost of card payment

V. POLICY RECOMMENDATIONS (1)

- 1 Card systems may be inclined to set high IFs because overall banks' profits seem to increase with IFs.
- 2 However intersystem competition for IFs will prevent this if there is enough multi-homing on the consumer side.
- 3 Regulation of IFs is a delicate exercise: the long term reactions of the industry and the substitutability between debit and credit (and new forms of electronic payments) are difficult to assess.

V. POLICY RECOMMENDATIONS (2)

- 4 The RBA concern for excessive usage of credit cards may be relevant for consumers who do not need credit but it neglects the possibility of delayed (or even foregone) sales for consumers who do need credit.
- 5 A cost based regulation of credit IFs may be a way to eliminate inefficient credit card transactions but it will also eliminate some of the efficient ones.
- 6 Our understanding of the substitutability between credit and debit cards needs to be improved (both at empirical and theoretical levels).