Payments, Participants and Network Supply

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Differences in way we pay

• Since 1949, new instruments available
  – Credit cards, debit cards and stored-value cards
  – Internet banking and Paypal

• How do payment networks develop?
Urban myth busting

- NZ not first to have debit card POS network
Evidence of differences
Presentation structure

• The basics
• Demand
• Supply
  – Networks in my sample countries
• Conclusions
The basics

Payment Network

- Scheme Owner (Visa)
- Merchant’s Bank (ANZ)
- Customer’s Bank (ASB)
- Merchant (the local dairy)
- Consumer (Mike)

Goods or Service
Payment Instrument
Instrument demand

• Consumers offer, merchants accept
  – Reduces costs, makes transaction easier

• Decision complex, differs for each side
  – Differentiated products
## Attributes: EFTPOS debit v cash

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Merchant</th>
<th>Consumer</th>
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<tbody>
<tr>
<td>Speed</td>
<td>↓</td>
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<tr>
<td>Security</td>
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<tr>
<td>Convenience</td>
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<td>Transaction fees</td>
<td>–</td>
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<td>Fixed cost</td>
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</tbody>
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Consumers and network effects

• People shop together, form habits together
• A dynamic learning process
• If already hold instrument, easy to try using
  – Cards for ATMs, public transport are helpful
But merchants matter, too!

Debit Card Usage and Merchant Fees

Debit Card Transactions Per Capita 2009

Germany Australia UK Canada US NZ Norway

- Fixed fees
- Proportional fees
- None significant
Instrument supply

• Payment network offering an instrument will:
  – Receive fees from users, incur costs
  – Want instrument to be useful
• Offers instrument when fees > costs
• Network effects mean participation important
Competition for participants

- Competition means networks make instrument attractive
  - Provide useful instruments cheaply
New Zealand

• Pre-87, significant restrictions
  – Groups dislike each other
• Post-87, anyone can be Registered Bank
  – EFTPOS: Handy-point and Cashline
  – Inter-bank transfers: Databank, PCL and ISL
• Few other restrictions
Norway and Germany

• Significant controls on banks
  – Norwegian Gov’t encourages pricing structure
  – Ass’ns of German banks choose structure

• Restrictions on issuers of stored-value
Australia and the UK

• Governments interfere with network rights
• Also make instruments less useful
  – Network operations more difficult
  – Lesson relevant to NZ
• Restrictions on issuers of stored-value
Canada and the US

- Restrictions make competition difficult
  - Specify members of Canadian networks
  - Previous limits on size of US banks
- US anti-trust law worsens outcomes
- Cheques and the Federal Reserve
  - Lesson relevant to NZ
Conclusions

• Restrictions often harm users
  – Bad for innovation
• NZ a stand-out because has few restrictions
• Relevant to networks for cellphone payments
  – NZ should simplify telco regulation