



The Economic Effects of Australia's Regulation of Interchange Fee Setting after Two Years

Howard Chang, David S. Evans, Daniel Garcia-Swartz
September 15, 2005

Antitrust Activity in Card-Based Payment Systems: Causes and Consequences Conference
Federal Reserve Bank of New York



Today's Discussion

- Overview
- Background
- Economics
- Effects of RBA Reform on Relative Prices
- Effects on Card Use
- Distributional Effects
- Conclusion



Overview

LeCG



Purpose of RBA Intervention on Interchange Fees

Market Failure: Too much credit card use as a result of cardholder subsidy through interchange fees.

Objective: Reduce card use by lowering subsidy and providing for surcharging.

Intervention: Reduced interchange fee by half for associations and permitted surcharging; did not regulate prices of semi-open proprietary systems.



Effect of RBA Intervention

Marginal prices at point of sale didn't change much

- Fixed fees have increased to recover about a third of lost IF revenues
- Volume-related fees and benefits changed only a little
- Limited use of surcharging by merchants

No significant effects thus far on overall card use

- No change in incentives to use cards at point of sale
- Banks switched from low-fee association to high-fee proprietary
- Little evidence that intervention has affected growth of card use
- Perhaps longer-run effect from reduced holding of cards and changing variable prices



Assessment of RBA Intervention

RBA intervention didn't achieve stated objectives

- No change in relevant prices at point of sale to consumer
- Little if any change in card use

Resulted in significant profit transfer:

- To concentrated retail sector
- From concentrated banking sector and credit card users
- Retail sector will probably pass more savings on to consumers in long run but full pass through unlikely



Background

LECG



Australia Credit Card Industry

- Association and proprietary systems
- Banks can issue through any system (associations open, proprietary systems invitation only)
- Banking sector highly concentrated



Shares of Major Credit and Charge Card Brands, Percent of Cards on Issue (1999/2000)

Brand	Percentage
Visa	51.4%
MasterCard	22.7%
Bankcard	19.2%
American Express charge card	2.8%
American Express credit card	2.2%
Diners Club	1.7%

Source: RBA & ACCC, 2000.

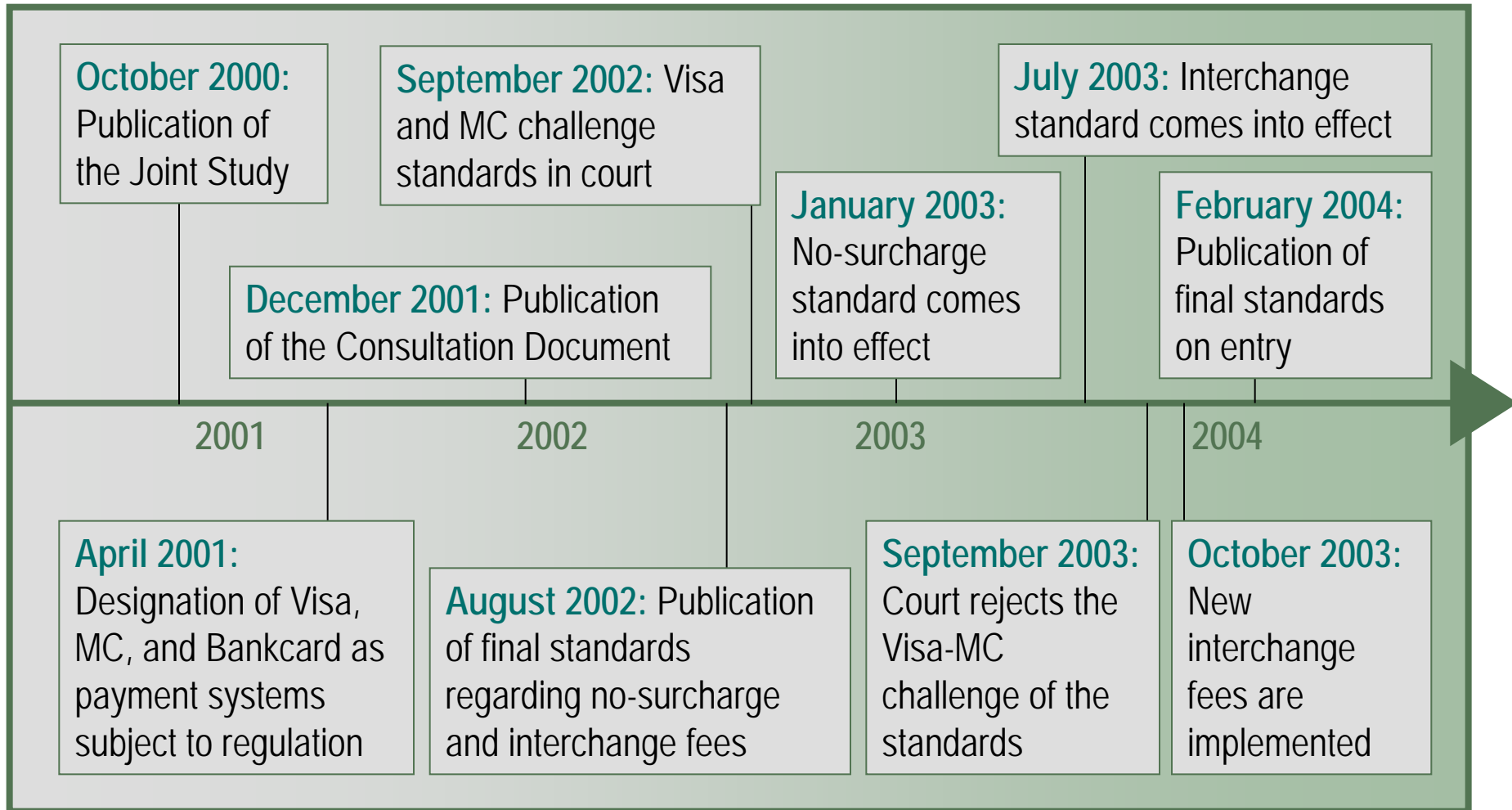


Objective of RBA Reforms

Objective # 1: to force cardholders to face the true (social) cost of using credit cards at the point of sale

Objective # 2: to facilitate the replacement of credit cards with allegedly cheaper payment instruments (PIN debit cards) at the point of sale

Timeline of RBA Reforms





Economics

Card Industry Pricing Structure

	Fixed	Variable
Cardholder	+	0 / -
Merchant	0	+

Credit Card Issuer Sources of Revenues

Interchange fees	Variable
Membership and service fees	Fixed
Finance charges	Variable

Issuer Revenues per AU\$100 Transaction	Average (AU\$)	Share (%)
Interest margin	1.36	50.6%
Interchange fees	0.95	35.3%
Annual fees	0.33	12.3%
Other	0.05	1.9%
Revenue per transaction	2.69	100.0%

Source: RBA & ACCC, 2000.



Banking Concentration in Issuing, Acquiring, and Deposits

	Issuing	Acquiring	Deposits
Top four major banks	87%	91%	78%
Next four banks	10%	9%	15%

Source: RBA, Share of credit card issuing and acquiring, per cent of number of transactions, 2000. Share of deposits was calculated using data obtained from the APRA, Banking Statistics, 2000.



Retailer Concentration

	Share (%)
Top 2 Department Stores	83%
Top 2 Supermarkets	75%
Top 2 Mobile Phone Operators	78%
Top 2 Landline Phone Operators	75%
Top 2 Airlines	83%

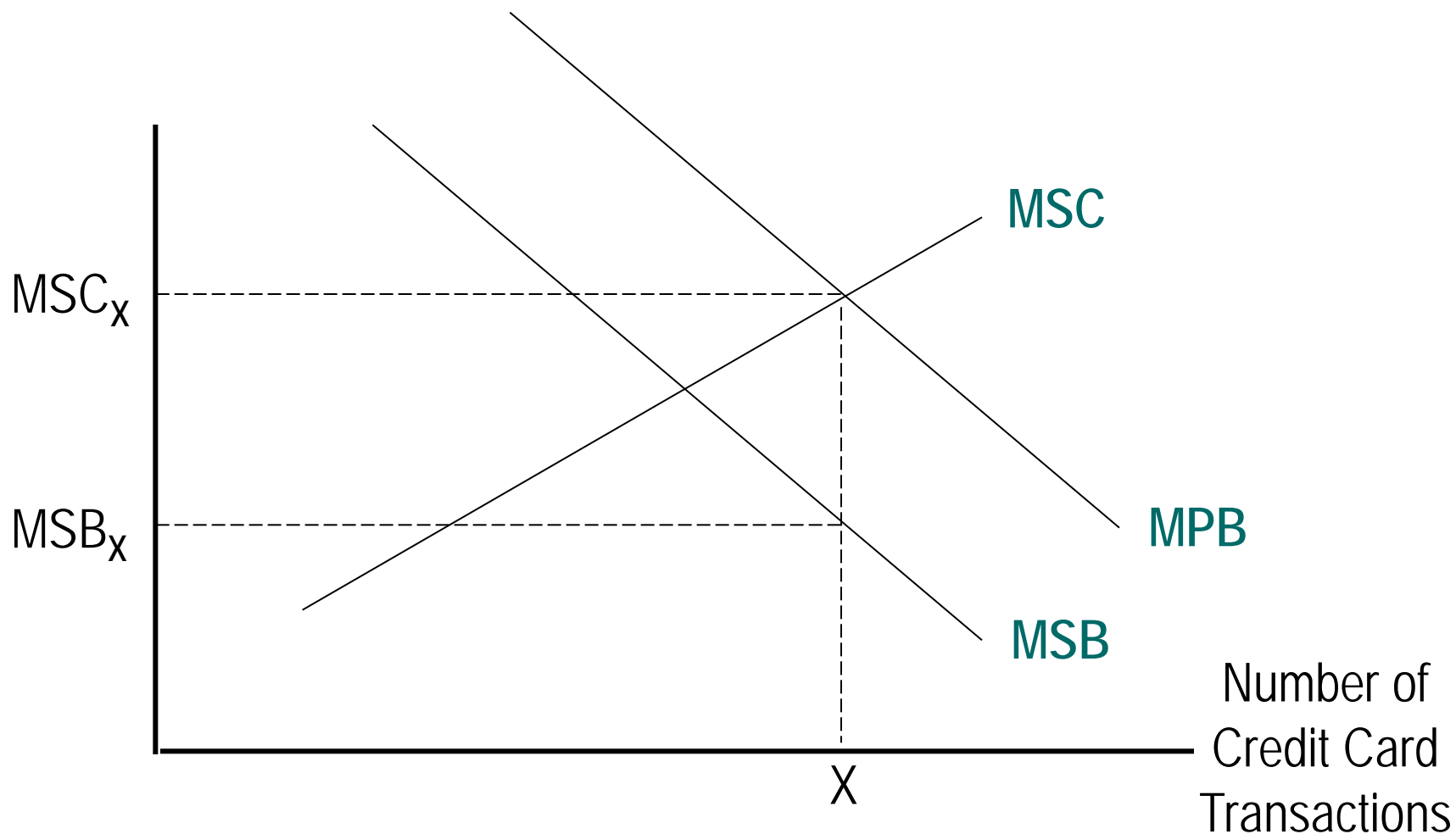
Source: Euromonitor International



RBA's Theory: An Economic Restatement

1. Perceived cardholder price "too" low in part because of interchange fee "subsidies"
2. Excess use of credit cards in sense that marginal social costs exceed marginal social benefits
3. Lowering IF reduces cross-subsidy
4. Permitting surcharging allows merchants to charge consumers costs imposed on the merchant

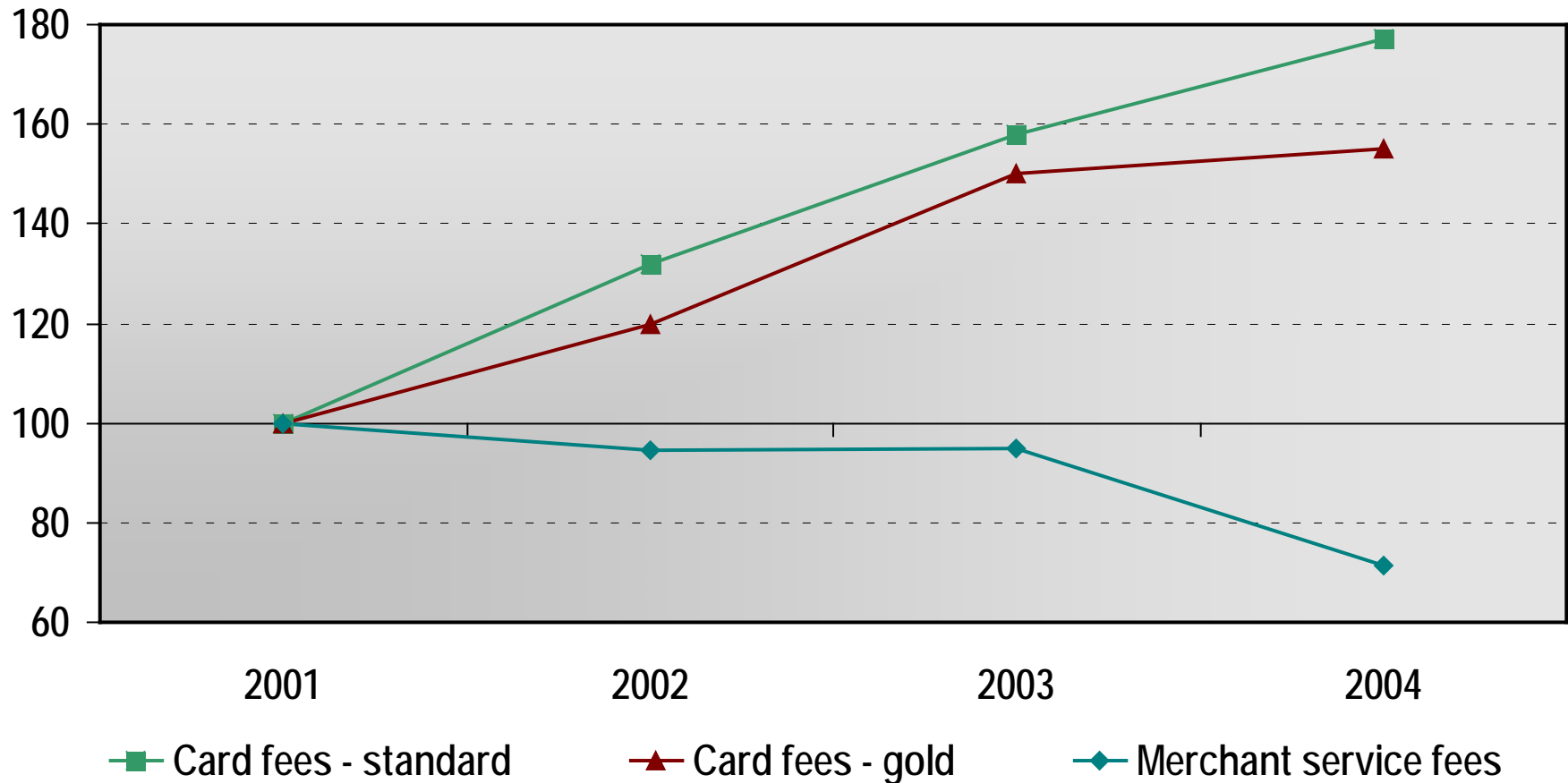
Market Failure: $MSC \text{ of Cards} > MSB \text{ of Cards}$





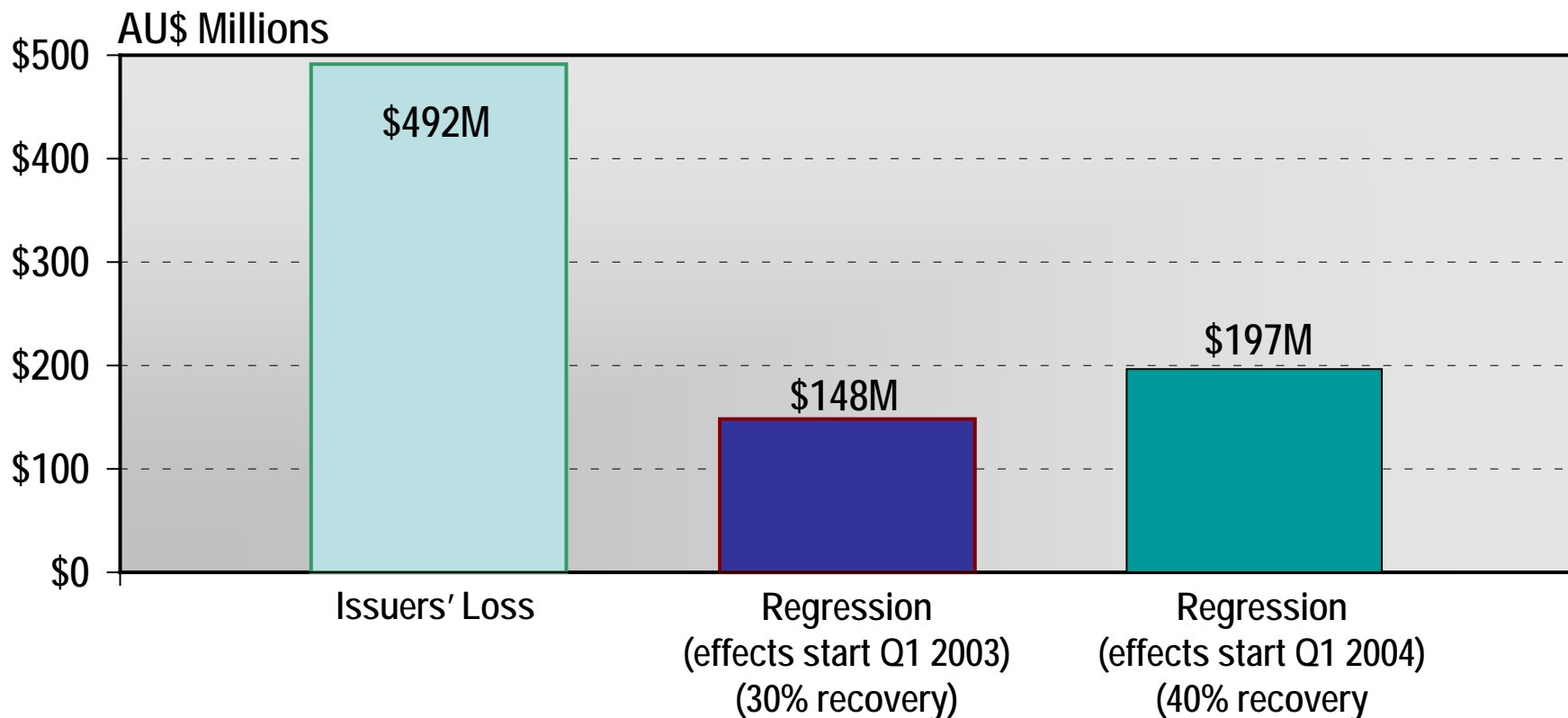
Effects of RBA Reform on Relative Prices

Cardholder Annual Fees Have Risen by AU\$24 for Standard and AU\$30 for Gold Cards Between 2002 and 2004



Note: Fees in 2001 were normalized to 100. Longer-run effect higher: Banks increasing fees on new solicitations on some card renewals; full effect as portfolios turn over.
Source: RBA, 2005.

Issuers Have Recovered Between 30 and 40 Percent of the Loss from Cardholders



Source: RBA, 2005.



Cardholder Variable Fees Have Not Changed Much

- Changes seem to have taken the form of caps on the number of reward points consumers can accumulate—for cardholders below the threshold, marginal incentives to use cards have not changed.
- Banks have partnered with American Express to offer reward cards without the caps.



Surcharging Is Still the Exception in Australia

- Survey found that only **2.3 percent** of all merchants surcharged

(East & Partners, Nov 2004)

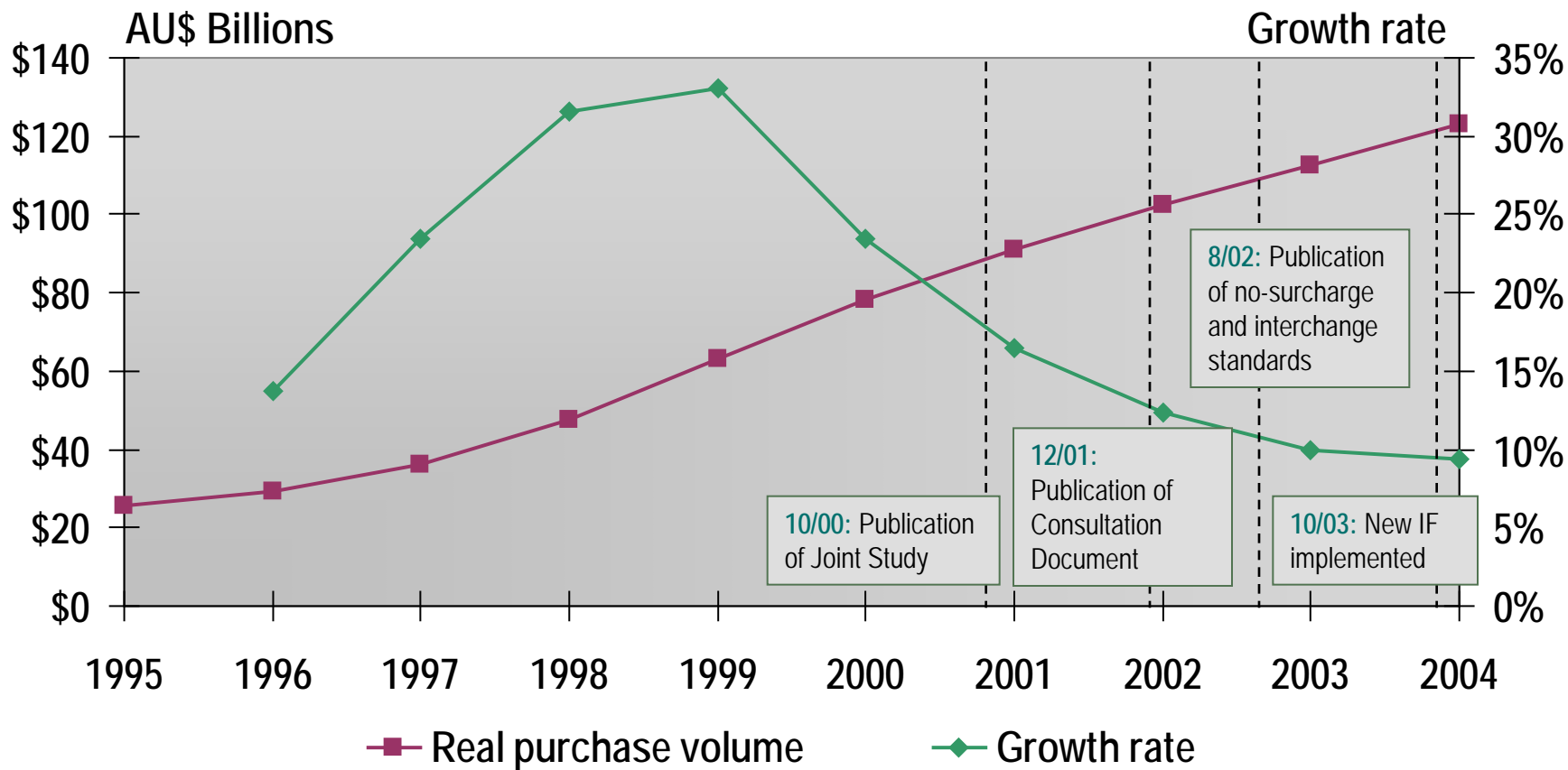
- A different survey found that **7 percent** of all merchants surcharged regularly

(Cannex, 2004)



Effects on Card Use

Real Purchase Volume on Credit Cards: 1995 - 2004



Source: RBA, 2005.

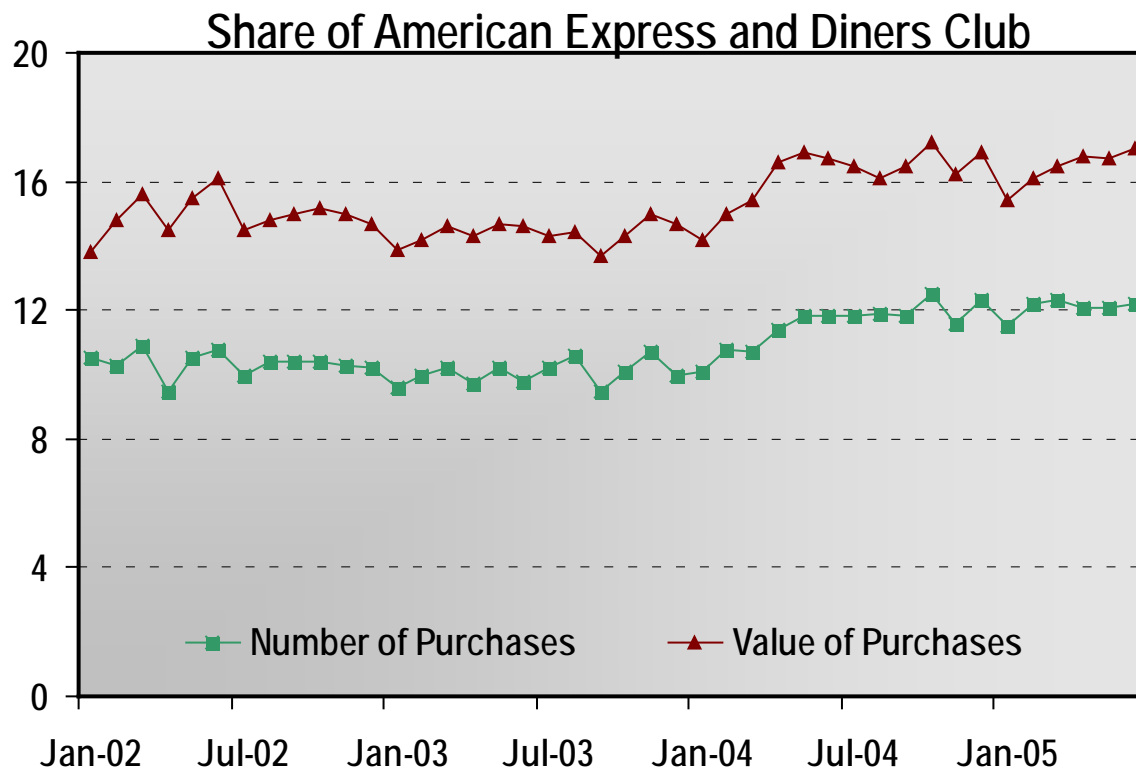


Regression Analysis Confirms No Significant Effect of RBA Reforms on Use

- We posed the question: Did credit card use grow more slowly than it would have in a world without the RBA reforms?
- We estimated regression models of the growth rates of the credit card use variables on a linear time spline
- We found that the coefficient on the trend for the reform period is positive in most estimated models (and significant in several of them)

AMEX Volume Has Increased Relative to Volume on Regulated Systems

- Between Oct 2003 and June 2005 the share of AMEX and Diners Club (in terms of the number of purchases) increased by roughly 21 percent.
- Between Oct 2003 and June 2005 the share of AMEX and Diners Club (in terms of the value of purchases) increased by roughly 19 percent.





Distributional Effects



Merchants' Costs Have Fallen by About 0.1 Percent

0.42 percent reduction in merchant discount rate

multiplied by

25 percent of transactions on cards

equals

0.105 percent reduction in overall costs

- That is 4 cents on a AU\$40 purchase



Reduced Prices to Consumers Likely to Be Minimal

- Pass through less than complete because retail sector highly concentrated.
- Price stickiness makes it unlikely merchant prices adjusted downwards (in short run).



Effect of RBA Reforms on Profits

- Merchants received an exogenous decrease in costs of \$580 million annually, most of which they have probably retained thus far.
- Banks lost about AU\$328 million net revenues annually after accounting for increased cardholder fees.



Conclusion



RBA Regulation Did Not Achieve Goal of Reducing Card Use

1. Both instruments tried (price caps and permitting surcharging) were ineffective
2. Lowering IF didn't affect marginal price to cardholder, therefore no change in incentives to use card at pos.
3. Merchants have not surcharged much
4. Effectiveness of intervention further reduced by not imposing IF caps on AMEX/Diners Club



RBA Regulation Did Result in Significant Redistribution of Income

To merchants from:

- Cardholders → (1/3)
- Banks → (2/3)



Longer-Run Effects

- Cardholders will face higher fees as banks issue more high-fee cards
- Banks will recover more of their lost profits
- Merchants will pass more of savings on to consumers



Further Research Needed

- Use of two-sided tariffs by two-sided industries
- Optimal regulatory intervention in two-sided industries with two-part tariffs