



Association of Certified Fraud Examiners



**Australian Government**

**Australian Institute of Criminology**

# Fraud Down Under

## *Risks and Responses to Financial Crime in Australia and New Zealand*

Dr Russell G. Smith  
Principal Criminologist  
[Russell.Smith@aic.gov.au](mailto:Russell.Smith@aic.gov.au)



## Outline

### The Current Fraud Risk Environment

- Drivers of change in the 21<sup>st</sup> century
- The effects of the global financial crisis
- Computer security risk environment
- Scam risk environment

### The Extent of the Problem

- International and Australian fraud trends
- Plastic card fraud trends
- Business fraud trends in Australia and New Zealand

### Responding to Fraud in Australia and New Zealand

- Assessing levels of risk and applying principles of crime prevention
- Policy and payment card solutions
- Education and research



# Drivers of change in the 21<sup>st</sup> century

## Technological Development

- Integration of technology into personal and professional life
- Increasing use of broadband and wireless technologies
- New methods of identification and verification
- New payment systems—SVCs, e-cash, contactless payment terminals
- Developments in cloud computing

## Changing Government Services

- Increasing use of ICT in providing government services (e.g., passports, tax)
- Development of new government programs (e.g., emissions trading, home insulation, school building, welfare, transport)

## Globalisation

- Increasing risks from the new economies of China and India
- Impact of the global financial crisis



## The Effects of the Global Financial Crisis

Fraud driver	Increased risk	Reduced risk
Availability of opportunities and suitable targets	<ul style="list-style-type: none"><li>• Availability of government payments/professionals willing to create secrecy vehicles and/or falsify documentation</li></ul>	<ul style="list-style-type: none"><li>• Potential fraudsters who lose jobs</li><li>• Reduced income/assets in business</li><li>• Reduced capacity to lend</li></ul>
The presence of suitably motivated individuals	<ul style="list-style-type: none"><li>• Perceived need to maintain failing businesses</li><li>• Perceived need to maintain lifestyle</li></ul>	<ul style="list-style-type: none"><li>• Acceptability of business failure and/or reduced lifestyle in times of recession</li></ul>
The absence of capable guardians	<ul style="list-style-type: none"><li>• Pre-existing frauds detected following reduced inflow of sustaining funds (e.g., Ponzis)</li><li>• Perceptions that law enforcement and regulators are over-stretched</li></ul>	<ul style="list-style-type: none"><li>• Increased learning from other countries' experiences</li><li>• Increased internal controls on lending and transactions</li><li>• Increased awareness of risk, surveillance, and early intervention by regulators</li></ul>



# Computer Security Risk Environment

## AusCERT home users computer security survey 2008

- 1,001 home computer users with access to the Internet
- Randomly selected sample representative of the Australian population
- Aged 18 years or older with an Internet connection

### Connection type

- 84% broadband, 9% wireless, 6% dial-up, 1% other

### User rights

- 75% administrator rights, 9% limited user, 17% didn't know

### Security applications used

- 94% anti-virus, 86% firewall, 80% anti-spyware, 72% anti-spam

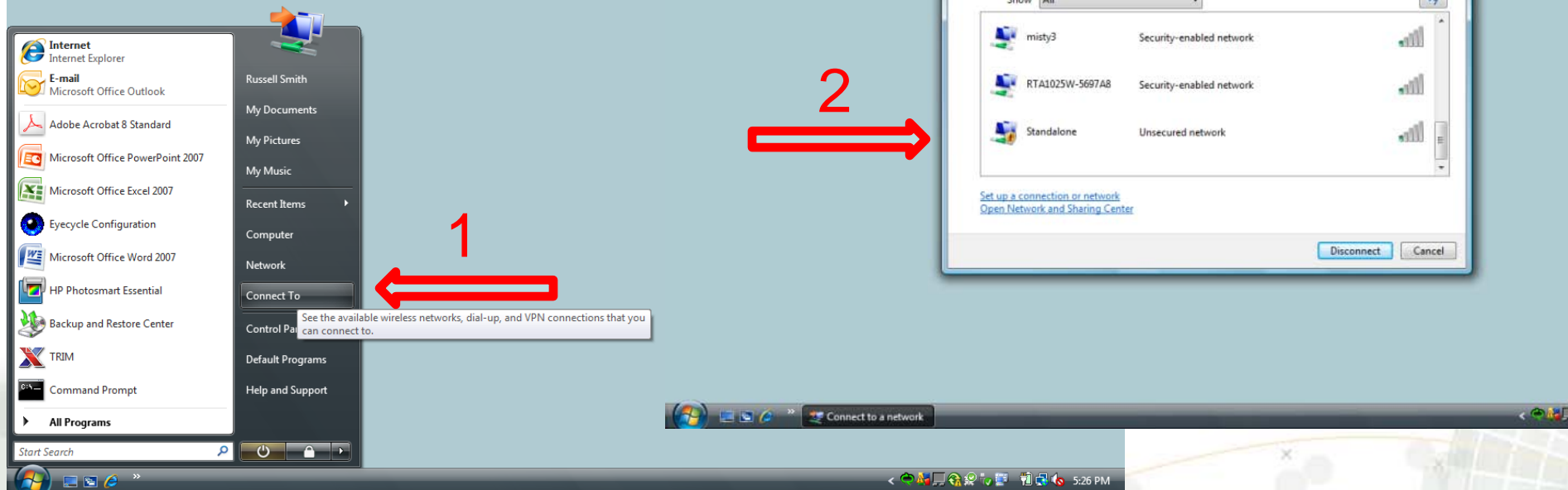
### Wireless risks

- 16% used insecure networks, 5% used a neighbour's connection



# Wireless Security Risks

AusCERT home internet users survey 2008—16% used insecure networks;  
5% used a neighbour's connection







# Scam Risk Environment in Australia

## Australian Bureau of Statistics personal fraud survey

- 14,320 individuals, 15 years or older, participated in interviews

### Time frame

- In field July to December 2007
- Asked about experiences during period 1 July 2006 to 30 June 2007

### Scope

- *Exposure to scams*—receiving, viewing or reading material
- *Extent of victimisation*—supplying information or money
- *Financial loss suffered*—money supplied without recovery

### Definitions

- **Scam:** *a fraudulent invitation, request, notification, or offer designed to obtain someone's personal information or money or otherwise obtain a financial benefit by deceptive means*

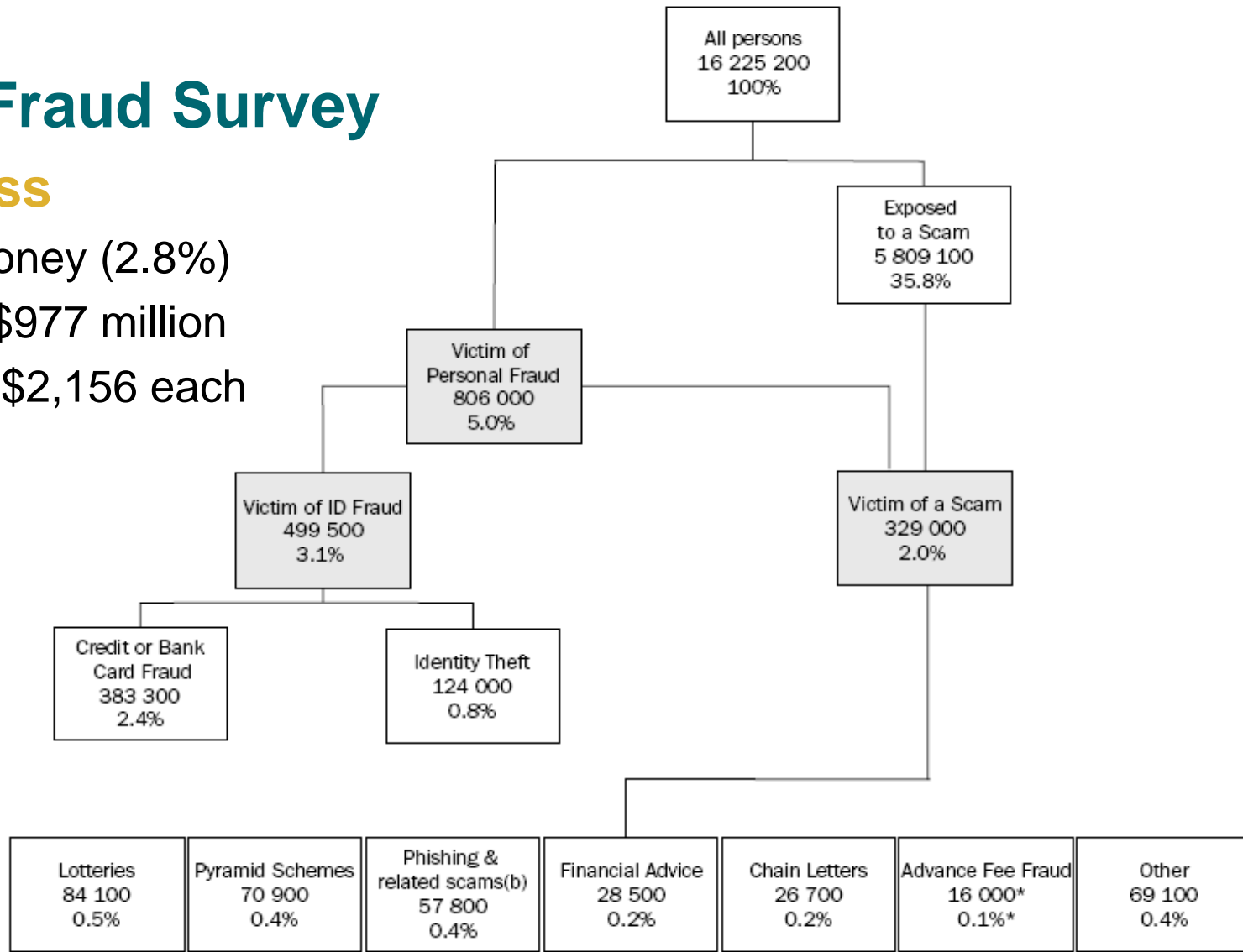


# Personal Fraud Survey

## Financial loss

453,100 lost money (2.8%)

- Total losses: \$977 million
- Mean losses: \$2,156 each







# Personal Fraud Survey

## Mode of delivery of fraud for most recent incident (%)

Type	Mode of delivery					
	Phone	In Person	Post	Email Online	Other	Unknown
Pyramid	19.4*	59.2	10.8*	10.7*		
Lotteries	20.2*		39.2	40.6		
Phishing	27.1		20.2*	52.7		
Financial		67.6		32.4*		
Chain letters			51.7	48.3*		
Other scams	28.1	6.5*	13.0*	45.9	6.5*	
Card fraud	3.3*	29.2	2.5*	19.8	8.9	36.3
ID theft	7.7*	27.3	4.8**	21.2	12.2*	26.8



# Personal Fraud Survey

## Behaviour changed as a result of victimisation?

- Chain letters (15%), pyramid schemes (32%), financial advice (36%), phishing, etc. (38%), lotteries (51%), advance fee (52%), other (67%)
- Identity theft (47%), card fraud (47%)

Type	More aware / careful	Reduced well being	Change ISP, email, etc.	Stopped dealing	Other (%)
Pyramid	16.5*	8.7**		9.5**	
Lotteries	20.3*	7.7**		21.3*	5.0**
Phishing	19.5*		19.7*		
Other scams	43.0			21.0*	6.1*
Card fraud	28.1	4.7*	11.8	3.5*	3.4*
ID theft	24.5	8.8*	3.9**	6.7*	6.6*



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# The Extent of the Problem





## International Fraud Estimates

**US—ACFE *Report to the Nation*** (1,843 fraud cases 2008-09)

- Mean loss of 5% of revenue, median cost US\$160,000

**US—Javelin Strategy & Research Survey 2008** (5,075 consumers)

- 8 million victims of ID theft (4% of population) losing US\$45 billion

**Canada—Public Safety & Emergency Preparedness 2002**

- Can\$2.5 billion lost to identity theft in 2002

**UK—Cyber Source Online Fraud Survey 2009** (150 merchants)

- 13% of merchants lost 5% of online revenue to fraud

**UK—Association of Chief Police Officers Survey 2005**

- £1.3 billion identity fraud losses involving 80,000 victims

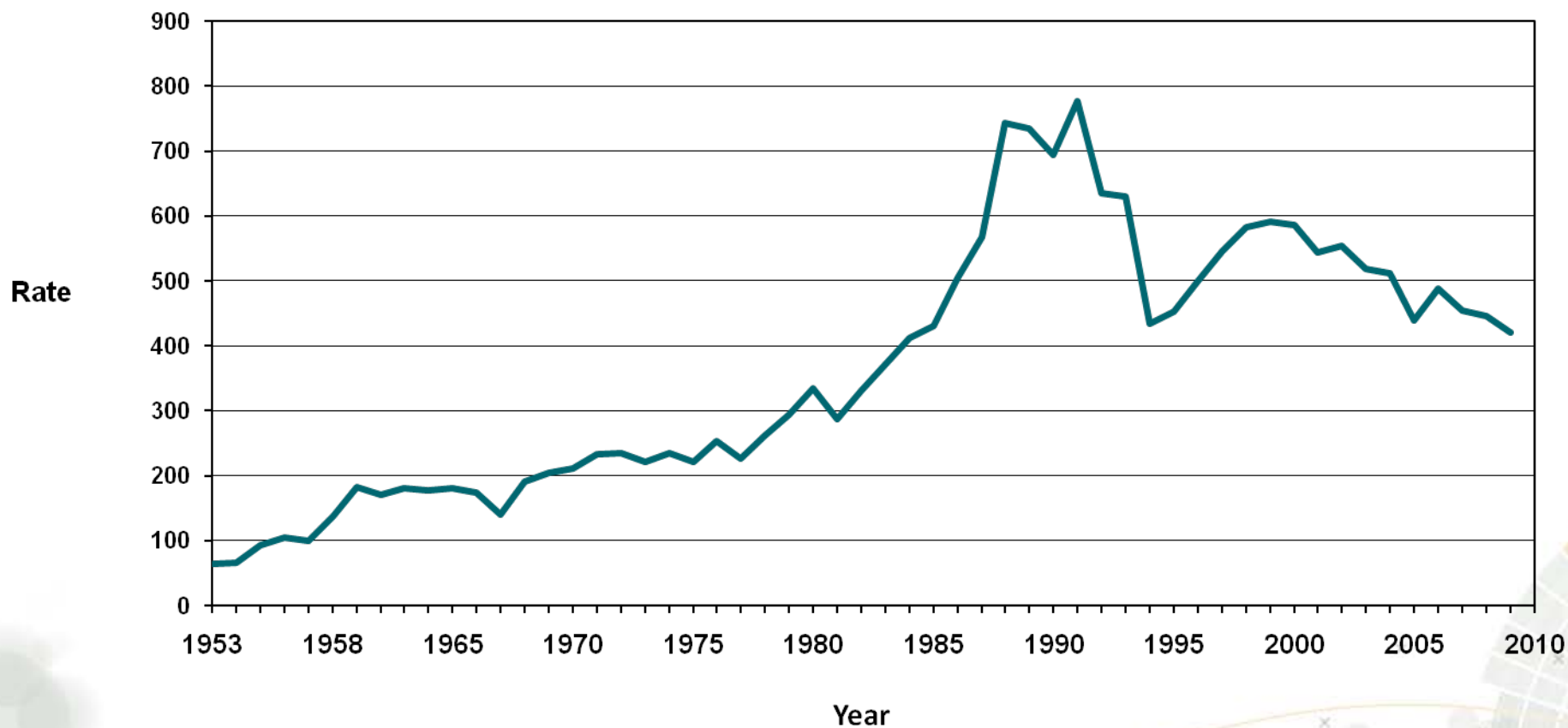
**Cf—Australian estimates** Organised crime \$10-15 billion (ACC 2010)

- All fraud \$8.5 billion (AIC 2005), Identity fraud \$1.1 billion (SIRCA 2002)



# Official Australian Fraud Statistics

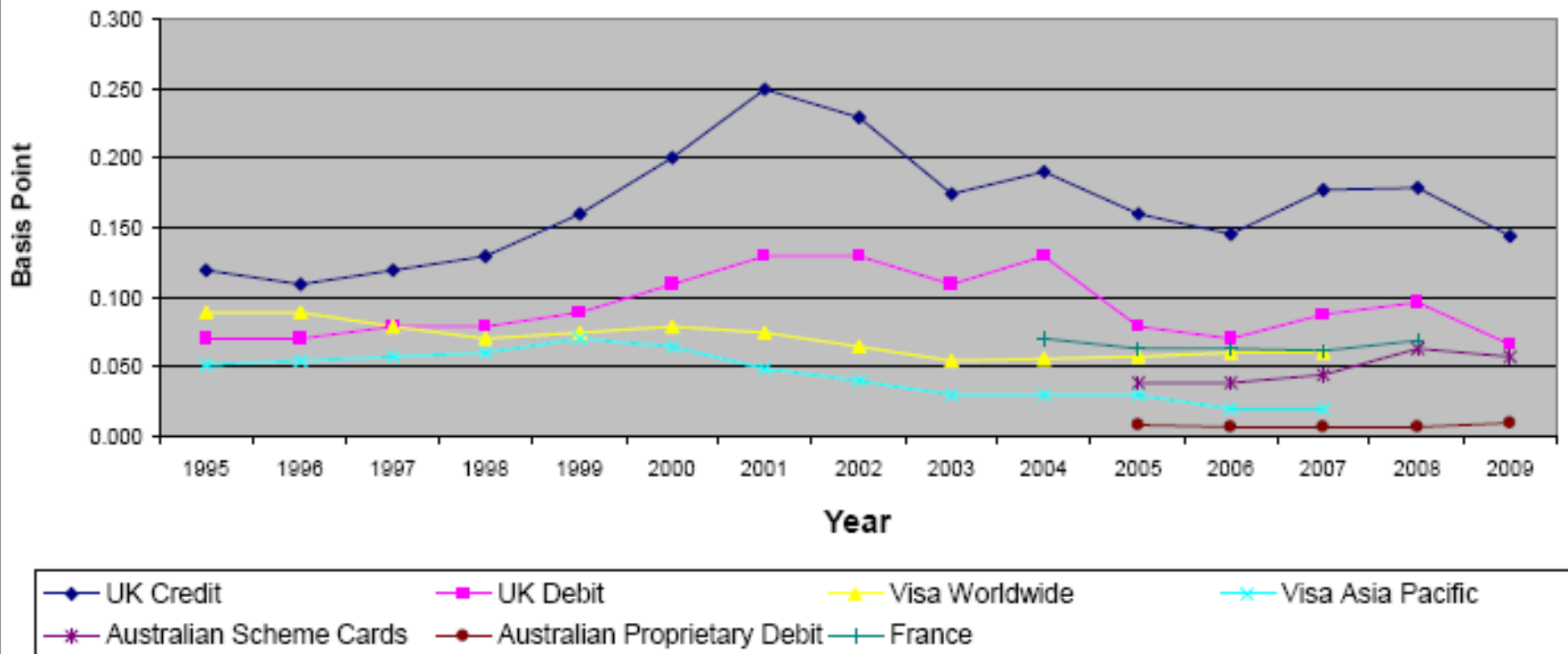
Rate per 100,000 pop., recorded by Australian police (1953/54–2008/09)





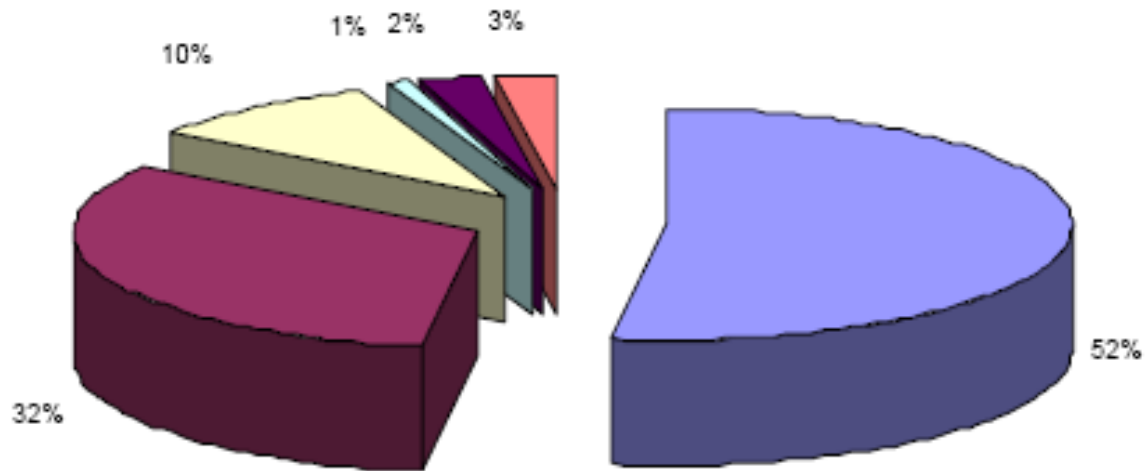
# Plastic Card Fraud Trends

## Plastic card fraud losses in basis points for selected countries





# Australian Plastic Card Fraud by Type 2009



■ CNP ■ Counterfeit ■ Lost/Stolen ■ Fraudulent Application ■ Never Received ■ Other





# Australian Payments Clearing Association

## Card-not-present fraudulent transactions 2006-09

Category	2006-07		2007-08		2008-09		change 2006/09	
	No	A\$	No	A\$	No	A\$	No	A\$
Aust cards	150,646	39,959,984	220,053	63,491,661	332,396	82,162,968	121%	106%
o/s cards	47,795	16,552,405	79,929	25,131,480	110,065	28,337,731	130%	71%
Total	198,441	56,512,389	287,896	88,623,141	442,461	110,500,699	123%	96%

*Aust cards*—Credit card and charge card fraud perpetrated in Australia or overseas on Australian-issued cards

*o/s cards*—Fraud perpetrated in Australia on cards issued overseas

NB—2006-07 to 2008-09 total number of credit/charge card transactions increased 17%

2006-07 to 2008-09 total number of fraudulent credit/charge card transactions increased 88%



# Australian Payments Clearing Association

## Counterfeit / skimming transactions 2006-09

Category	2006-07		2007-08		2008-09		change 2006/09	
	No	A\$	No	A\$	No	A\$	No	A\$
Aust cards	43,844	26,833,727	68,206	42,836,215	72,452	45,163,953	65%	68%
o/s cards	82,110	39,972,184	163,719	67,283,231	169,698	65,602,302	107%	64%
Total	125,954	66,805,911	231,925	110,119,446	242,150	110,766,255	92%	66%

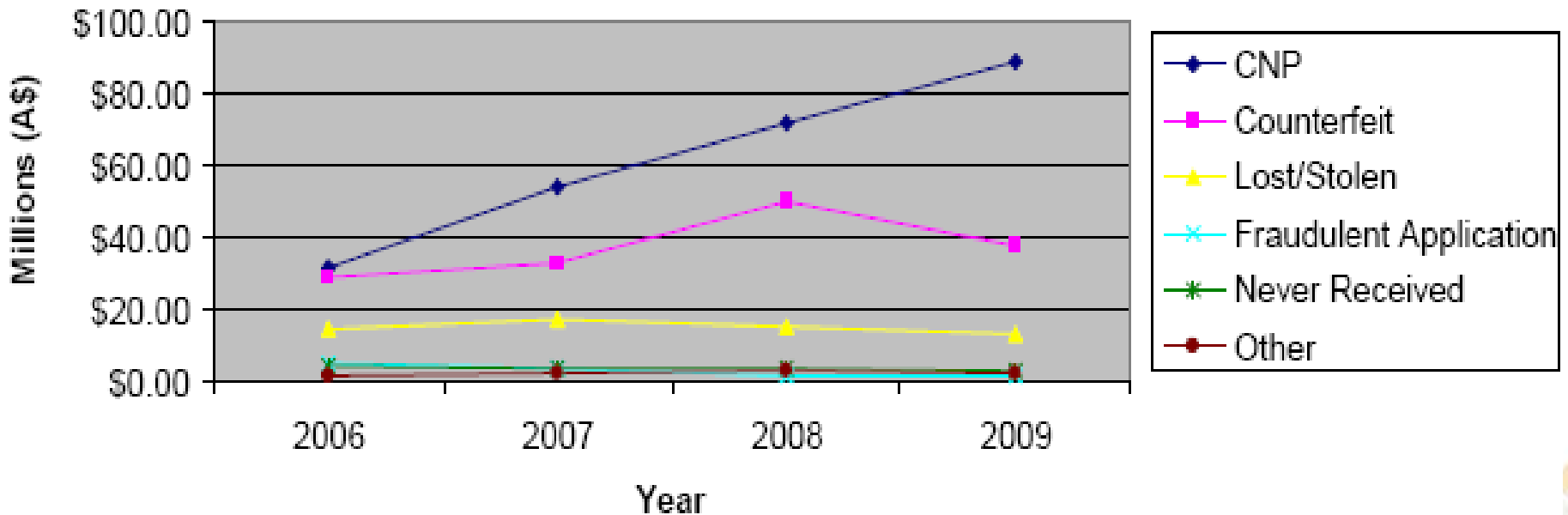
*Aust cards* - Credit card and charge card fraud perpetrated in Australia or overseas on Australian-issued cards

*o/s cards* - Fraud perpetrated in Australia on cards issued overseas

NB – 2006-07 to 2008-09 total number of credit/charge card transactions increased 17%  
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# Australian Credit and Charge Card Fraud by Type

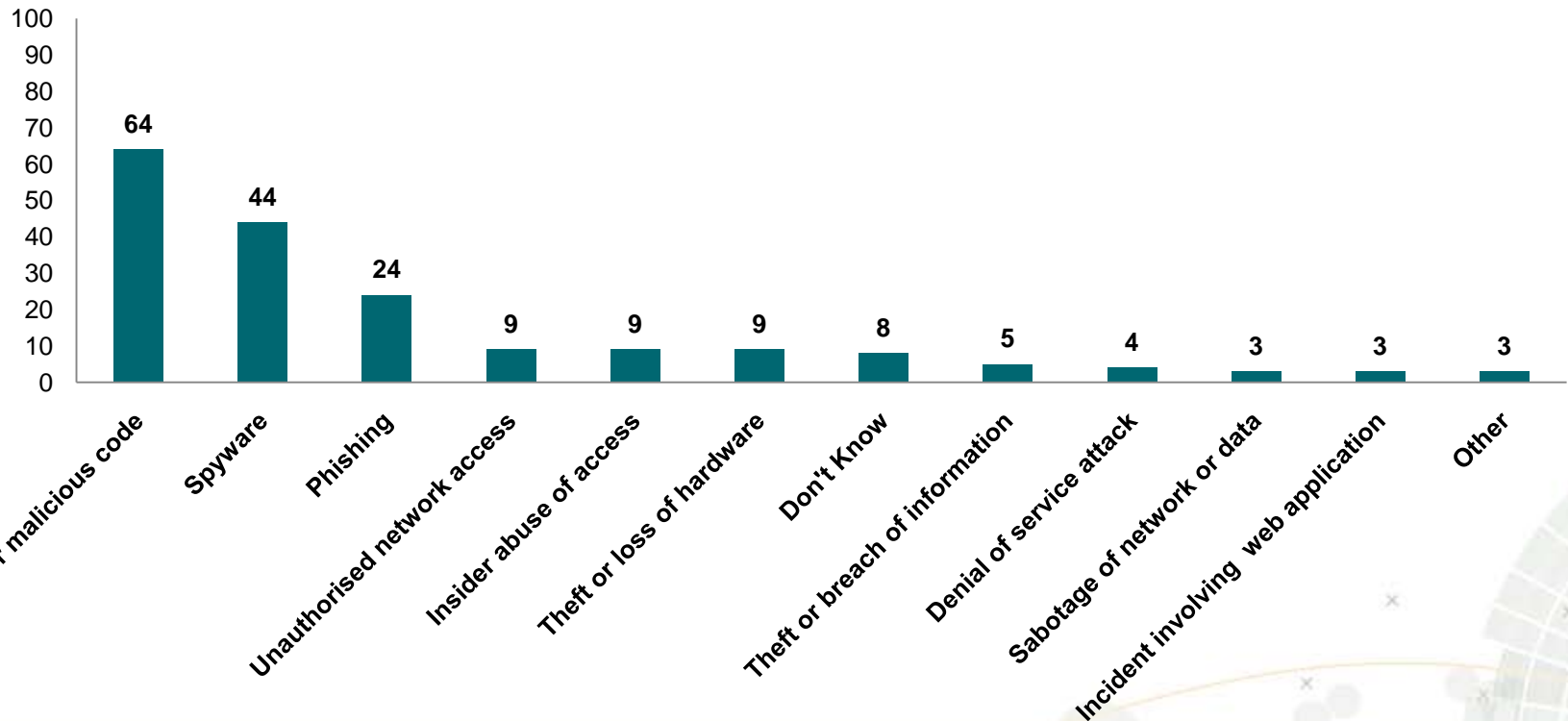




## ABACUS 2009 (AIC's business cybercrime survey)

- 4,000 businesses from all sectors in Australia in 2006-07
- 14% experienced incidents, total losses between \$595 and \$649 million

### Types of incidents reported (percentages, n = 781)

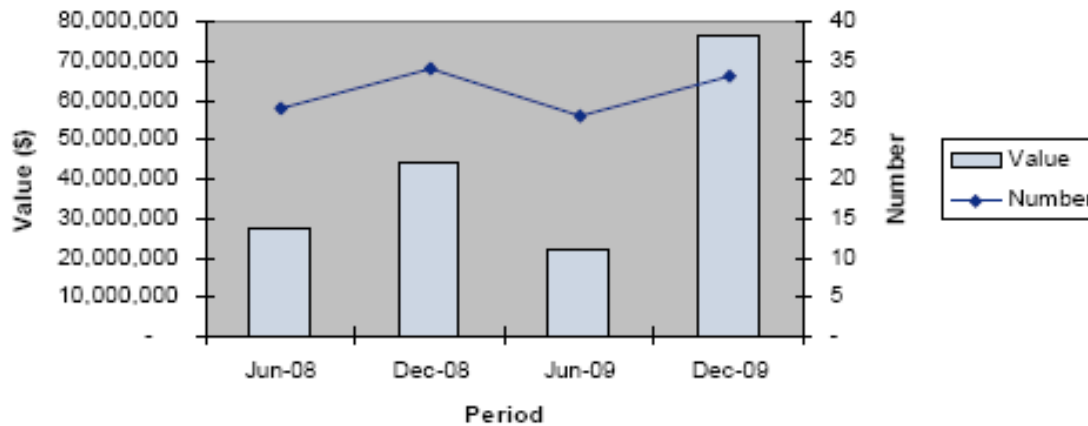




## Business Fraud Trends in NZ (2009)

### KPMG Fraud Barometer 2009 (New Zealand)

- 38% increase in fraud cases in NZ courts from 2008 to 2009



### KPMG Fraud Survey November 2010 (Australia and New Zealand)

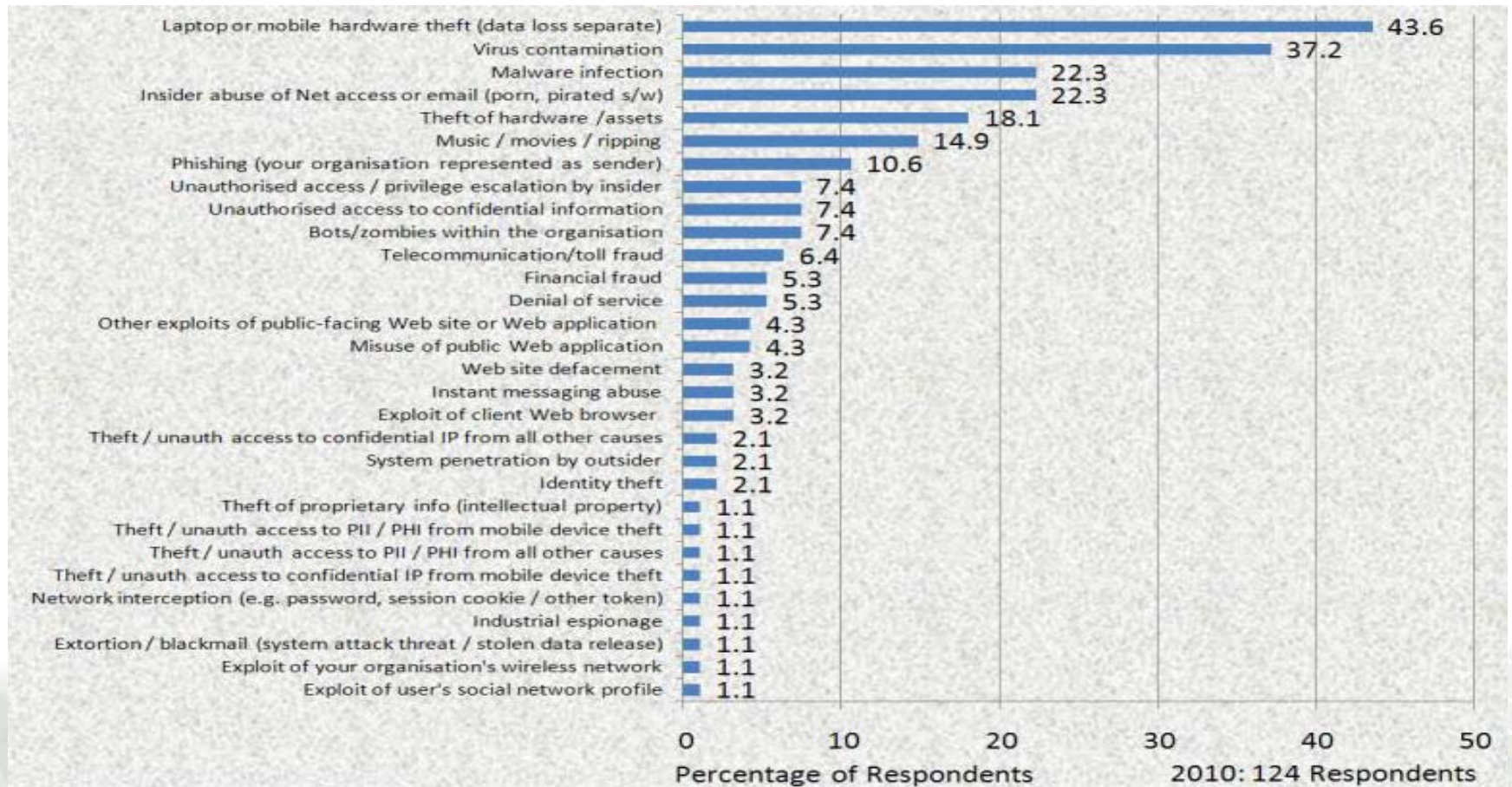
- Survey of 214 organisations in Australia and New Zealand in 2010
- 174,914 incidents of fraud reported between 1 February 2008 and 31 January 2010 worth A\$345.4 million (A\$301.1 million in 2008 survey)
- Respondents believed that only one third of losses are detected





# Computer Crime and Security Survey NZ (2010)

## Computer security incidents (176 computer security practitioners)





# Perpetrators of Fraud

## Employment status

- 65% internal fraud (96% of value by managers) (KPMG 2010)

## Fraud profile

- A non-management employee of the victim organisation
- No known history of dishonesty
- Male, aged 38 years, acting alone, earning A\$113,000 per annum
- Employed by the organisation for a period of 5 years
- Has held his current position for 3 years at the time of detection
- Motivated by greed
- Misappropriation of cash to an average value of A\$229,000
- Detected by the organisation's internal controls 12 months after the commencement of the fraud
- Organisation recovers 9% of the proceeds of the fraud (KPMG 2010)





# Responding to Fraud in Australia and New Zealand

## Assessing levels of risk

- Total fraud losses approximately A\$6 billion in Australia
- 1 in 20 household users victimised by scams or identity fraud in 2008
- 1 in 7 businesses experienced computer security attacks 2006-07
- 0.02% of credit/charge card transactions fraudulent, 2008-09 (APCA)

## Increasing the effort required to offend

- Card security, CVC, computer security, improved user authentication, biometrics, customer education to avoid risky behaviours

## Increasing the risk of apprehension

- Real-time transaction monitoring, notification and blocking, data-sharing, data matching, identity evidence verification

## Reducing the rewards of offending

- Harmonisation of laws across jurisdictions, skimming and identity crime offences, enhanced sanctions, unexplained wealth laws, confiscation of the proceeds of crime, anti-organised crime measures



## Payment Card Solutions

### Card policies and fraud prevention advice

- Fraud protection guidelines for merchants
- Industry merchant education program
- Protect Your PIN Campaign
- Extension of fraud analysis tools to debit cards
- New fraud risk centre of excellence

### Card security, verification, and monitoring

- Chip/PIN credit card roll-out
- Anti-skimming devices on ATMs and readers
- Liquid encryption number (LEN) technology of BNZ
- Additional controls on POS terminals by high risk merchants
- Online transaction monitoring, notification, and blocking
- Biometric user authentication systems



## Policy Solutions

### Information

- Sharing information between agencies (*Document Verification System*)
- Minimising risks of data leakage from public and private sectors

### Legislation

- Criminalisation of identity fraud and possession of carding equipment
- Proscription of organised crime groups
- Anti-money laundering and unexplained wealth laws

### Law enforcement

- Enhanced liaison between government and law enforcement
- Increased resources for Task Forces leading to an increase in arrests

### Victim support

- Improving victim support—reporting, loss recovery, counselling
- Identity fraud court victimisation certificates



# AUSTRALASIAN **CONSUMER FRAUD** TASKFORCE

AN INITIATIVE OF THE STATE, TERRITORY AND  
AUSTRALIAN AND NEW ZEALAND GOVERNMENTS

## **Education and Research** **Consumer protection**

- Australasian Consumer Fraud Taskforce
- AGD identity fraud prevention kit
- Enhanced training of users to maintain computers adequately
- Computer driving license
- Enhanced training of users to avoid risky behaviours

## **Research and statistics**

- Standardisation of terminology for fraud and identity crime
- National victimisation surveys (replication of ABS 2008 survey)
- Coordinated data collection amongst:
  - law enforcement agencies
  - fair trading/consumer protection agencies
  - private sector organisations (e.g., payment fraud data)
  - government agencies' experience of fraud



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**Russell.Smith@aic.gov.au**

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