2.   METHODOLOGY

As there was no Australian precedent (or sufficiently closely comparable overseas precedent),[1] it was necessary to construct an entirely novel instrument for the purposes of the survey. That said, certain design features of the instrument (particularly the use of vignettes: see section 2.4.1 below) were influenced by the experience with surveys that have been used in other areas of white collar crime.[2]

An expert social research agency, The Social Research Centre (principally through its Director of Research, Graham Challice), was engaged to assist in the design and to administer the survey.

Key features of the survey design and methodology are described below. The survey instrument is **Appendix A** to this report. Appendix B provides flow charts of the overall structure and pathways of the survey, as well as the number of respondents who 'moved through' the various pathways.

2.1   SURVEY INSTRUMENT – STRUCTURE, FORMAT AND PURPOSES

The survey instrument was divided into seven main sections:

A.   Demographic background
B.   Attitudes towards business
C.   Attitudes towards competition
D.   Attitudes towards cartel conduct
E.   Crime seriousness
F.   Compliance and deterrence
G.   Prior knowledge and comments

The purpose of each of these sections is identified and a brief description of the questions in each of them is given below.

2.1.1   DEMOGRAPHIC BACKGROUND

This section included 16 questions that are standard in population surveys, including questions on gender, age group, education level and work profile. The design of these questions drew heavily on the form of questions used in the Australian census administered

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[1] See section 1.3.3 above.

[2] See Y. Feldman and O. Perez, 'How Law Changes the Environmental Mind: An Experimental Study of the Effect of Legal Norms on Moral Perceptions and Civic Enforcement' (2009) 36(4) *Journal of Law and Society* 501. The design of the questions that measure perceptions of likelihood of enforcement and likelihood of engaging in cartel conduct were particularly based on work done by Professor Sally Simpson: see S Simpson, *Corporate Crime, Law, and Social Control*, 2002, Cambridge University Press.

by the Australian Bureau of Statistics.[3] In addition, there were questions on the use of different sources to obtain news information and on political orientation.

One of the purposes of the questions in Section A was to elicit demographic information that would enable us to test the representativeness of the survey (see further section 2.5.4 below). Another purpose was to enable us to assess the extent to which views and attitudes expressed in the survey responses, particularly on the questions whether cartel conduct should be a criminal offence and whether individuals should be jailed for it, were related to demographic variables.

A range of work-related questions (relating, for example, to work place size, work role and type of work activity) were included also to identify respondents who were most likely to be involved in activity that could potentially breach the cartel prohibitions under the TPA and hence were also more likely than other respondents to have been aware of the relevant laws and possibly to have been the target of ACCC outreach, enforcement and compliance efforts. These respondents were later directed to additional questions in the second half of the survey (Section F, discussed in section 2.1.6 below).

2.1.2   INTEREST IN AND ATTITUDES TOWARDS BUSINESS

Section B of the survey instrument had two questions.

B1 was a question seeking to ascertain the respondent's level of interest in business issues generally. Respondents were given a scale of 1 to 7, with 1 representing "Not at all interested in business issues" and 7 representing "Very interested in business issues" with prompts at each end of the spectrum to assist respondents in determining their level of interest.

The purpose of this question was to attempt to ascertain the extent to which respondents' answers to subsequent questions regarding the legal status of and consequences for cartel conduct were likely to be influenced by respondent familiarity with business issues (see further the discussion of prior awareness, the subject of Section G of the survey, in section 2.1.7 below).

B2 was a question seeking to elicit attitudinal orientations by respondents in relation to their level of trust or confidence in business. Respondents were given a scale of 1 to 7, with 1 representing the view "I think business can mostly be trusted" and 7 representing the view "I am reluctant to trust business" with prompts at each end of the spectrum to assist respondents in determining their view.

The purpose of this question was to attempt to measure the extent to which views on the core issues under exploration (particularly on whether cartel conduct should be a criminal

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[3] See http://www.abs.gov.au/websitedbs/D3310114.nsf/Home/Census.

offence and an offence for which individuals should go to jail) are related to attitudes towards the trustworthiness of business.

It was considered important to test this relationship having regard to the fact that criminalisation advocates in Australia (principally the ACCC and the government) built the case for reform based in large part on exploitation of public cynicism about the trustworthiness of big business.[4] This strategy was supported by social attitudes research that shows a large proportion of Australians to be concerned that 'big business should have less power',[5] together with evidence that of all the important social institutions that have suffered from declining levels of confidence,[6] it is Australia's major companies that have suffered the largest and most sustained fall in public trust over the last 20 years.[7]

2.1.3   ATTITUDES TOWARDS COMPETITION

Section C of the survey instrument had one question (C1) that, like B2 (attitudes towards business) sought to elicit attitudinal orientations by respondents in relation to their view on competition as either healthy or harmful. Again respondents were given a scale of 1 to 7, with 1 representing the view "Competition is healthy" and 7 representing the view "Competition is harmful" with prompts at each end of the spectrum to assist respondents in determining their view.

The purpose of this question was to attempt to measure the extent to which views on the core issues under exploration (particularly on whether cartel conduct should be a criminal offence and an offence for which individuals should go to jail) are related to attitudes towards competition.

It was considered important to test this relationship given that the case for the criminal reform in Australia was premised on acceptance of competition as being in the public

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[4] See C Beaton-Wells and F Haines, 'The Australian Conversion: How the Case for Criminalisation was Made' (2011) *New Journal of European Criminal Law* (forthcoming).

[5] C Bean, 'Is There a Crisis of Trust in Australia?' in S Wilson et al (eds), *Australian Social Attitudes: The First Report* (UNSW Press, 2005), ch 8, 122, 132–3. This is to be contrasted with views in the 1970s and 1980s when people believed that the trade unions had too much power. See I McAllister, *Political Behaviour: Citizens, Parties and Elites in Australia* (Longman Cheshire, 1992).

[6] E Papadakis, 'Constituents of Confidence and Mistrust in Australian Institutions' (1999) 34 *Australian Journal of Political Science* 75; D Burchell and A Leigh (eds), *The Prince's New Clothes: Why Do Australians Dislike their Politicians?* (UNSW Press, 2002). A similar 'crisis of confidence' has been observed in the US, and has generated a substantial literature on the associated concept of social capital: see S Lipset and W Schneider, *The Confidence Gap: Business, Labor and Government in the Public Mind* (The Free Press, 1983); R Putnam, *Bowling Alone: The Collapse and Revival of American Community* (Simon & Schuster, 2000).

[7] E Papadakis, 'Constituents of Confidence and Mistrust in Australian Institutions' (1999) 34 *Australian Journal of Political Science* 75, 76; C Bean, 'Is There a Crisis of Trust in Australia?' in S Wilson et al (eds), *Australian Social Attitudes: The First Report* (UNSW Press, 2005), ch 8, 122, 131–3.

interest and criminalisation was thus presented in large part as necessary to protect the economic benefits of competition.[8]

2.1.4 ATTITUDES TOWARDS CARTEL CONDUCT

This section had three subsections, each relating to a different type of cartel conduct: price fixing (D1), market allocation (D2) and output restriction (D3). Together with bid rigging, these are the types of cartel conduct that have been classified as the most serious forms of collusion warranting the toughest of sanctions by the OECD.[9] That classification was reflected in the definition of conduct attracting criminal and civil liability under the 2009 amendments to Australia's TPA.[10]

The decision was made to exclude questions specific to bid rigging from the survey for two reasons. First, from an economic perspective, bid rigging is generally a species of price fixing and/or market allocation. Second, from a practical perspective, it was necessary to find ways to keep the survey to a manageable length (see further section 2.5.5 below on response times).

Each of D1, D2 and D3 adopted the same structure and questions, except that the questions in each related to a different type of conduct. There were 9 questions in each subsection. However, not all respondents answered all 9 questions. The number of questions that they answered was determined by their answers to preceding questions.

Each of the subsections started with a basic factual scenario (or vignette) that described conduct that would be classified at law as price fixing, market allocation or output restriction (as the case may be) (see further the discussion of the vignettes in section 2.4.1 below). They were then asked to respond to a series of questions that were based on the type of conduct described in the scenarios. For price fixing the conduct was referred to thereafter as "an agreement between competitors on prices", for market allocation, it was referred to as "an agreement between competitors to allocate customers" and for output restriction, it was referred to as "an agreement between competitors to reduce production levels".

2.1.4.1 CARTEL CONDUCT AS AGAINST THE LAW

The first question (D1, D2, D3) asked respondents: "Do you think that an agreement between competitors [on prices/to allocate customers/to reduce production levels] should be against the law?" Respondents had the choice of answering:

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[8] See C Beaton-Wells and F Haines, 'The Australian Conversion: How the Case for Criminalisation was Made' (2011) 4 *New Journal of European Criminal Law* (forthcoming).

[9] See n 3 above.

[10] See s 444ZZRD of the TPA.

1. Yes, I think it should be against the law

2. No, I don't think it should be against the law

3. I'm not sure whether it should be against the law

Respondents also had the option of providing comments.

The purpose of this question was to measure the extent of agreement by respondents with the legal status of cartel conduct as a civil contravention, the status that has pertained in Australia since 1974. The label 'civil' was avoided as this is a technical term.[11]

Those respondents who answered "Yes" were directed to the next question. Those who answered "No" or "I'm not sure" were directed to the next subsection (ie, to questions about another type of cartel conduct).

2.1.4.2 CARTEL CONDUCT AS A CRIMINAL OFFENCE

The second question (D1A, D2A, D3A) asked respondents "Do you think that an agreement between competitors [on prices/to allocate customers/to reduce production levels] should be a criminal offence?" Respondents had the choice of answering:

1. Yes, I think it should be a criminal offence

2. No, I think it should be against the law but not a criminal offence

3. I'm not sure about whether it should be a criminal offence

4. I'm not sure about the difference between something being a criminal offence and something being against the law

Respondents also had the option of providing comments.

It was decided not to define "criminal offence". This was essentially because we did not consider it possible to formulate a definition that was sufficiently brief and in lay language without invoking the applicability of jail as a potential sanction as a means of distinguishing criminal from civil liability. We did not want to introduce explicitly the concept of sanctions, and jail in particular, at this point of the survey as we sought to retain the capacity to capture respondents' views on whether conduct should be labelled as a criminal offence separate from their views on whether conduct should be sanctioned as a criminal offence. This approach reflects the widely recognised distinction drawn in criminal theory and policy between the expressive or communicative function and the instrumental or

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[11] That said, the very low proportion of respondents (no more than 4%) who selected 'I think it should be against the law but not a criminal offence' (in answer to questions D1A, D2A or D3A - see section 2.1.4.2) and also the item 'The individuals should go to jail' (in answer to questions D2B, D2D and D3D – see section 2.1.4.4B) indicated very few respondents conflated the notion of conduct being 'against the law' with the notion of it being a 'criminal offence.' This was consistent with the low proportions of respondents who selected 'I'm not sure about the difference between something being a criminal offence and something being against the law' (in answer to questions D1A, D2A or D3A – see section 2.1.4.2).

consequentialist functions of the criminal law.[12] We were conscious nevertheless that some respondents may not be sure about the distinction between conduct being "against the law" and conduct being a "criminal offence". Hence, we gave respondents the option of indicating as much.

Those respondents who answered "Yes, I think it should be a criminal offence" were directed to the next question about why cartel conduct should be a criminal offence. Those who selected one of the other 3 options were directed to subsequent questions regarding how the law should deal with companies and individuals involved in cartel conduct.

2.1.4.3 REASONS WHY CARTEL CONDUCT SHOULD BE A CRIMINAL OFFENCE

The third question (D1B, D2B, D3B) asked respondents: "Why do you think that an agreement between competitors [on prices/to allocate customers/to reduce production levels] should be a criminal offence?" The question gave 8 possible reasons and asked respondents to indicate their level of agreement or disagreement with each one on a 5 point scale ranging from "Strongly disagree" to "Strongly agree".

The reasons were:

1. Because consumers may have to pay more

2. Because the conduct involves deceiving consumers

3. Because the conduct may harm or be unfair to other competitors

4. Because the conduct is dishonest

5. Because making the conduct a criminal offence will mean that the companies or people involved can be punished for it

6. Because the conduct will harm competition or the free market

7. Because making it a criminal offence will deter companies or people from engaging in this sort of conduct in the future

8. Because the conduct should be seen as the same as theft

The reasons were chosen to reflect the three main themes drawn upon in the case made for criminalisation by the ACCC,[13] namely:

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[12] For a useful summary of such theories (the literature on which is voluminous), see D Wood, 'Punishment: Consequentialism' (2010) 5(6) *Philosophy Compass* 455; D Wood, 'Punishment: Nonconsequentialism' (2010) 5(6) *Philosophy Compass* 470.

[13] See the discussion in C Beaton-Wells, 'Criminalising Cartels: Australia's Slow Conversion' (2008) 31 *World Competition: Law & Economics Review* 205, 212-213.

- the effects/harmfulness of cartel conduct (as reflected in reasons 1, 3, 6)

- the moral character of cartel conduct (as reflected in reasons 2, 3, 4, 8)

- the instrumental features of the criminal law as a mechanism for deterrence and punishment (as reflected in reasons 5, 7).

Respondents also had the option of providing comments.

Responses to the soft launch (see section 2.3 below) reflected a high level of agreement (or strong agreement) with all of the possible reasons offered. In an attempt to elicit information about the ordering or weighting of reasons by respondents, the Comments box was amended to add the following text: "Comments (optional – please note that we are particularly interested to understand which reason or reasons are most important to you)". A large proportion of respondents took up the invitation to provide us with comments responsive to our note (see further re respondent comments in section 2.4.2 below). Respondent comments are set out in Appendix C to this report.

2.1.4.4 HOW THE LAW SHOULD DEAL WITH THE COMPANIES AND INDIVIDUALS INVOLVED IN CARTEL CONDUCT

All respondents who had responded "yes" to the question whether cartel conduct should be against the law (D1, D2, D3) were required to answer also questions about how the law should deal with the companies and individuals involved in such conduct, irrespective of whether or how they had answered the question about whether cartel conduct should be a criminal offence (D1A, D2A, D3A). This was because, as noted above, we sought to distinguish between views on how conduct is labelled as a matter of law and views on what consequences might flow from conduct being unlawful (whether as a civil contravention or as a criminal offence).

A. *How the law should deal with the companies involved in cartel conduct*

The fourth question (D1C, D2C, D3C) asked respondents: "How do you think the law should deal with **COMPANIES** that make an agreement between competitors [on prices/to allocate customers/to reduce production levels]?" Respondents were asked to select all that should apply out of a list of 7 options. The options were:

1. The companies should pay a fine

2. The companies should be publicly named (e.g. on the TV news) as having been involved in the conduct

3. The companies should pay compensation to anyone who suffered loss or damage as a result of the conduct

4. The companies should have to take measures to make sure the conduct does not happen again (e.g. by providing a training program for its employees)

5. There should be no penalties for the companies

6. Don't know

7. Other (please specify):

The penalties/remedies in options 1-4 reflect, broadly, the penalties/remedies applicable to corporations under the TPA. It was considered important also to give respondents the option to select "no penalties" so as not to assume that respondents would be of the view that penalties should apply to companies involved in cartel conduct (as opposed to a view, for example, that only individuals should be penalised or that no-one should be penalised). Respondents also had the option of providing comments.

Those respondents who selected option 1 ("The companies should pay a fine") were directed to a follow up question (D1Ca, D2Ca, D3Ca) which asked: "If the companies each had to pay a fine for making an agreement between competitors [on prices/to allocate customers/to reduce production levels], how should this fine be calculated?" In answer to this question respondents were able to select one of the following 7 options:

1. Ten per cent of the company's annual turnover

2. An amount that is three times the profits that the company made from the conduct

3. An amount that is equal to profits that the company made from the conduct

4. Up to $10 million

5. Up to $1 million

6. Don't know

7. Other (please specify):

Options 1, 2, and 4 represent the three possible maxima applicable to corporate fines under the TPA since January 2007 (prior to this, the maximum was AU$10 million). In any given case it will be the greatest of the 3 options that applies as the maximum. However, the maximum of 10% of company turnover only applies if the treble gain measure is not ascertainable. The latter measure was introduced based on the widely accepted economic theory of 'optimal' deterrence. According to this theory deterrence through fines will only be achieved if, in basic terms, from the perspective of the person contemplating the violation, the expected fine exceeds the expected gain from the violation.[14] The expected

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[14] See, e.g., K G Elzinga and W Breit, *The Antitrust Penalties : A Study in Lawand Economics*, Yale University Press, New Haven, 1976, ch. 7; G Becker, 'Crime and Punishment: An Economic Approach' (1968) 76 *Journal of Political Economy*, 169; W Landes, 'Optimal Sanctions for Antitrust Violations' (1983) 50 *The University of Chicago Law Review* 652; R Posner, 'An

fine equals the nominal amount of the fine discounted by the probability that a fine of an effective amount will be imposed. In theory, firms discount the expected costs of penalties by some factor that represents their view on the likelihood of detection and punishment. As detection and punishment rates are imperfect, optimal deterrence requires penalties to exceed the expected benefit from the illegal activity to compensate for imperfect detection and punishment.[15] Given the difficulties in calculating the gain, the turnover measure is used as a proxy for cancelling out the gain. In other jurisdictions such as the US, a volume of commerce affected by the conduct is used as the proxy instead.[16]

Option 2 ("an amount equal to the profits that the company made from the conduct") was included to give respondents the option of determining whether the penalty should act solely as a measure for confiscating the illicit profits (a disgorgement approach) without any further element of deterrence or punishment.

Option 5 ("up to $1 million") was included to give respondents an option of expressing a view that fines should be calculated based on a maximum well below that prescribed by the legislature since 1993.[17] It would also enable us to test the extent to which the actual level of corporate fines imposed in practice are consistent with public opinion. The fines imposed in Australia have been well below the statutory maxima. For the 10 year period between 2000 and 2009, for example, the median corporate penalty was AU$826,534 per contravention, ie, less than AU$1 million during a period for most of which the statutory maximum was AU$10 million.[18]

Respondents also had the option of providing comments. A large number of respondents took up this opportunity to explain the difficulties that they had in answering this question

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Economic Theory of Criminal Law' (1985) 85 *Columbia Law Review* 1193, pp. 1201–8. These earlier contributions have led to interest in optimal deterrence theory in EU competition law. See, e.g., W Wils, 'Optimal Antitrust Fines: Theory and Practice' (2006) 29(2) *World Competition: Law & Economics Review* 183, 190; I Simonsson, *Legitimacy in EU Cartel Control*, Hart Publishing, Oxford, 2010, ch. 7.

[15] See, e.g., New Zealand Ministry of Commerce, *Penalties, Remedies and Court Processes under the Commerce Act 1986*, A Discussion Document, January 1998, pp. 8–9; L Bebchuk and L Kaplow, 'Optimal Sanctions and Differences in Individuals' Likelihood of Avoiding Detection' (1993) 13(2) *International Review of Law and Economics*, 217. The optimal deterrence theory has been criticised heavily. See, e.g., J Coffee, 'Corporate Crime and Punishment: A Non-Chicago View of the Economics of Criminal Sanction' (1980) 17 *American Criminal Law Review* 419;MBlock and R Lind, 'Crime and Punishment Reconsidered' (1975) 4 *Journal of Legal Studies* 241; R Cooter, 'Prices and Sanctions' (1984) 84 *Columbia Law Review* 1523. More recently, see M Stucke, 'Am I a Price Fixer? A Behavioural Economics Analysis of Cartels' in C Beaton-Wells and A Ezrachi (eds), *Criminalising Cartels: Critical Studies of an International Regulatory Movement*, Hart Publishing, Oxford, 2011, ch. 12. For criticisms by an Australian judge, see *Australian Competition and Consumer Commission v ABB Transmission and Distribution Ltd [No. 2]* (2002) 190 ALR 169, 175–6 [21]–[25] (Emmett J).

[16] United States Sentencing Commission, *Federal Sentencing Guidelines Manual* § 2R1.1(d)(1), comment 3 (2009). More generally, beyond the US, see International Competition Network, Cartels Working Group, Subgroup 1 – General framework, *Setting of Fines for Cartels in ICN Jurisdictions*, Report to the 7th Annual Conference, Kyoto, April 2008, p. 15, p. 19.

[17] Prior to 1993, the maximum corporate penalty was AU$250,000.

[18] See C Beaton-Wells and B Fisse, *Australian Cartel Regulation: Law, Policy and Practice in an International Context*, Cambridge University Press, 2011, p431.

(see further section 2.4.2 below). Respondent comments are set out in Appendix C to this report.

B. *How the law should deal with the individuals responsible for cartel conduct*

The fifth question (D1D, D2D, D3D) asked respondents: "How do you think the law should deal with **INDIVIDUALS** responsible for making an agreement between competitors [on prices/to allocate customers/to reduce production levels]?" Respondents were asked to select all that should apply out of a list of 9 options. The options were:

1. The individuals responsible should go to jail

2. The individuals responsible should pay a fine

3. The individuals responsible should be banned from being a director or manager of any company for a number of years

4. The individuals responsible should be publicly named (e.g. on the TV news) as having been involved in the conduct

5. The individuals responsible should pay compensation to anyone who suffered loss or damage as a result of the conduct

6. The individuals responsible should have to take measures to make sure the conduct does not happen again (e.g. by taking part in a training program)

7. There should be no penalties for the individuals responsible

8. Other

9. Don't know

The penalties/remedies in options 1-6 reflect, broadly, the penalties/remedies applicable to individuals under the TPA (option 1 (jail) have been available for conduct since July 2009 and option 3 (disqualification orders) have been available for conduct since January 2007).

As with companies, it was considered important to give respondents to select "no penalties" so as not to assume that respondents would be of the view that penalties should apply to individuals involved in cartel conduct (as opposed to a view, for example, that only companies should be penalised - a situation that pertains in many jurisdictions (in the EU, for example) - or that no-one should be penalised).

Respondents also had the option of providing comments. Respondent comments are set out in Appendix C to this report.

Those respondents who selected option 2 ("The individuals responsible should pay a fine") were directed to a follow up question (D1Da, D2Da, D3Da) which asked: "If the individuals responsible each had to pay a fine for making an agreement between competitors [on

prices/to allocate customers/to reduce production levels], how do you think this fine should be calculated?" In answer to this question respondents were able to select one of the following 5 options:

1. Up to $10,000

2. Up to $50,000

3. Up to $100,000

4. Up to $250,000

5. Up to $500,000

These options were chosen so as to provide respondents with a wide range of potential maximum fines for individuals, from as low as anything below AU$10,000 to as high as up to AU$500,000. A maximum of AU$500,000 has applied to civil contraventions of the TPA by individuals since 1993 (it was AU$50,000 prior to 1993). The maximum criminal fine for individuals has been set at AU$220,000.

As with corporate fines, we wanted to ensure that the range covered by the options reflected the level of fines imposed in practice. Like corporate fines, the level of individual fines has been below the statutory maximum. For the period 2000-2009, the median individual penalty has been AU$31,986 – a period in which the statutory maximum was AU$500,000.[19]

Respondents also had the option of providing comments. Respondent comments are set out in Appendix C to this report.

Those respondents who selected option 1 ("The individuals responsible should go to jail") were also directed to a follow up question (D1Db, D2Db, D3Db) which asked: "If a jail sentence was to be imposed on the individuals for making an agreement between competitors [on prices/to allocate customers/to reduce production levels], what should the maximum jail term be?" In answer to this question respondents were able to select one of the following 4 options:

1. Up to 1 year

2. Up to 5 years

3. Up to 7 years

4. Up to 10 years

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[19] See C Beaton-Wells and B Fisse, *Australian Cartel Regulation: Law, Policy and Practice in an International Context,* Cambridge University Press, 2011, p464. This is in fact a substantial decrease from the average fine for the period of 1993-1999 which was AU$76,752. This decline in individual fines is difficult to explain.

Again the options were designed to provide respondents with a wide range of potential maximum jail sentences for individuals, from as low as anything below 1 year to as high as up to 10 years. The maximum introduced by the 2009 amendments is 10 years and is on par with the highest maxima in the world (see section 1.2 above). As noted in section 1.2, five years is consistent with corporate law offences that could be considered comparable. In fact five years was the maximum that was proposed for cartel offences in the draft legislation formulated during the term of the former conservative government but was increased to 10 years by the subsequent Labor government after consultation – specifically on the question of whether the ACCC should have telecommunications interceptions powers (which require a maximum of 7 years). The ACCC proposed a seven year maximum in its submission in favour of criminalisation to the Dawson Committee, drawing attention to offences it considered comparable under the *Criminal Code* such as theft, obtaining property by deception and conspiracy to defraud a Commonwealth entity, all of which attract a maximum of 10 years.[20]

Respondents also had the option of providing comments.

2.1.4.5 FACTORS BEARING ON THE SERIOUSNESS OF CARTEL CONDUCT

The sixth question to which all respondents who considered cartel conduct should be against the law were directed (D1E, D2E, D3E) asked respondents to consider various additional facts to those with which they had been provided in the vignettes with a view to assessing how particular aspects of the context or circumstances surrounding cartel conduct might affect views as to its seriousness. The form of the question was as follows:

All things considered, please tell us how you would view an **agreement between competitors on prices/to allocate customers/to reduce production levels** if…..:

	Less serious	Just as serious	More serious
Prices did not go up as a result of the conduct			
The conduct included bullying another company into joining the agreement			
The reason for the conduct was that it would prevent factories from closing and would save jobs			

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[20] Australian Competition and Consumer Commission, *Submission to the Trade Practices Review,* June 2002, p 54.

The companies involved in the conduct were small businesses

Elaborate steps were taken to make sure the authorities did not find out about the conduct

The profits from the conduct were used to make products that are environmentally friendly

The factors chosen for this question were intended to reflect a range of possible factors that could be regarded as aggravating (eg "The conduct included bullying another company into joining the agreement" ; "Elaborate steps were taken to make sure the authorities did not find out about the conduct") or mitigating (eg "The reason for the conduct was that it would prevent factories from closing and would save jobs"; "The companies involved in the conduct were small businesses"; "The profits from the conduct were used to make products that are environmentally friendly") or if not mitigating then possibly neutral or irrelevant (eg "Prices did not go up as a result of the conduct").

It was decided that it would make the survey instrument too complicated and unduly long to attempt to determine whether any such factors caused changes to respondent views on how the conduct should be characterised as a matter of law (ie whether or not it should be against the law or whether or not it should be criminal law) and how it should be dealt with (for example, whether or not it was conduct for which individuals should be sentenced to jail). Adopting a simple measure of "seriousness" for the purpose of the question enabled us to capture changes in views that, as a matter of policy, could then be tested against how the law characterises conduct for the purposes of liability, how prosecutorial discretion is or is proposed to be exercised and/or how defendants are sanctioned.

2.1.4.6 ACCEPTABILITY OF IMMUNITY POLICY

The seventh question to which all respondents who considered cartel conduct should be against the law were directed (D1F, D2F, D3F) gave respondents the following further facts:

> Imagine one company decides to report the agreement [on prices/to allocate customers/to reduce production levels] to the authorities in return for immunity from prosecution for the company. The other company is prosecuted. If the agreement had not been reported, the authorities would not have found out about it.

Respondents were then asked: "To what extent do you agree that it is acceptable to give the first company immunity?" and were given a 5 point scale on which to indicate the extent of their agreement or disagreement.

This question was included in the survey because a policy of offering the first eligible cartel member immunity from penalties or proceedings has become the front-line tool in cartel detection for competition authorities around the world. More than 50 jurisdictions now

have some form of immunity policy in support of their anti-cartel enforcement activities.[21] The ACCC has had its current form of immunity policy in place since 2005[22] and the ACCC Chairman describes it as 'absolutely vital' in the Commission's efforts to crack cartels[23] and as its primary source of disclosure of cartel activity.[24] Based on the game theoretic model known as the 'prisoner's dilemma'[25], the use of an immunity policy in anti-cartel law enforcement is justified on the basis that it is the most effective and least costly mechanism for detecting activity that is generally systematic, deliberate and covert.[26] It is also seen as a means of deterring the formation of cartels.[27] These benefits are regarded as outweighing any adverse effects in terms of lower penalties overall as well as any adverse political or moral implications.[28]

Given its significance as an enforcement tool, we were interested to determine the extent to which the public supports the use of an immunity policy in the cartel context. The extent of such support is important as a matter of public policy in assessing the legitimacy of an immunity program. However, from a practical perspective, it is also relevant in evaluating how juries are likely to respond to prosecution witnesses who have been given immunity under such a program.[29]

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[21] See S Hammond, 'The Evolution of Criminal Antitrust Enforcement over the Last Two Decades', Paper presented at the 24th annual National Institute on White Collar Crime conference, presented by the American Bar Association Criminal Justice Section and Center for Continuing Legal Education, February 25 2010, p. 1. See further on the adoption of immunity policies or revisions to such policies over the last decade in International Competition Network, *Trends and Developments in Cartel Enforcement*, Paper presented at the 9th Annual ICN Conference, Istanbul, Turkey, 29 April 2010, p. 7.

[22] Albeit the policy was amended in 2009 to reflect the introduction of the dual civil/criminal regime: see ACCC, Immunity Policy for Cartel Conduct, 2009.

[23] See E Sexton, 'To Catch a Cartel', *Sydney Morning Herald*¸ 21 March 2008, p. 35.

[24] G Samuel, 'Cartel Reform and Compliance with the *Trade Practices Act*', Paper presented at the Australian Corporate Lawyers Association National Conference, 13 November 2009, pp. 1, 6.

[25] See generally C Leslie, 'Antitrust Amnesty, Game Theory and Cartel Stability', *Journal of Corporation Law*, vol. 31, 2006, p. 453; C Leslie, 'Trust, Distrust and Antitrust', *Texas Law Review*, vol. 82, 2004, p. 515; G Spagnolo, 'Leniency and Whistleblowers in Antitrust', CEPR Discussion Paper No. 5794, Centre for Economic Policy Research, August 2006. In relation to the ACCC *Immunity Policy* specifically, see C Truong, 'The ACCC's Immunity Policy: A New Application of the "Prisoner's Dilemma"', *Trade Practices Law Journal*, vol. 15, 2007, p. 219.

[26] TO Barnett, 'Seven Steps to Better Cartel Enforcement', in C-D Ehlermann and I Atanasiu (eds), *European Competition Law Annual 2006: Enforcement of Prohibition of Cartels*, Hart Publishing, Oxford, 2007, p. 141, pp. 146–8.

[27] G Spratling, 'Detection and Deterrence: Rewarding Informants for Reporting Violations', *George Washington Law Review*, vol. 69, 2001, p. 798; G Spagnolo, 'Divide et Impera: Optimal Leniency Programmes', CEPR Discussion Paper No 4840, Centre for Economic Policy Research, December 2004.

[28] W Wils, 'Leniency in Antitrust Enforcement: Theory and Practice', *World Competition: Law and Economics Review*, vol. 31, 2007, p. 35.

[29] For the concerns that this has raised in the UK, see J Joshua, 'Shooting the Messenger: Does the UK Criminal Cartel Offense Have a Future?' (2010), August, *Antitrust Source* 1.

We also considered that responses to the question would provide additional insight into respondents' views of the seriousness of cartel conduct. We appreciated, however, that interpreting the results could be problematic. High support for immunity policy could indicate a perception that such conduct is so serious as to warrant using a measure that enables detection and prosecution even if it also means forgoing bringing one of the offenders (the immunity recipient) to justice. Equally, low support could indicate a perception of such seriousness that it would be unacceptable to let one of the offenders off 'scot-free', ie without prosecution or penalties.

2.1.5 CRIME SERIOUSNESS

This section had three subsections, each relating to a different type of cartel conduct: price fixing (E1), market allocation (E2) and output restriction (E3). Respondents were directed to only one of these subsections and to one relating to conduct that they had indicated should be a criminal offence in section D (in answer to question D1A, D2A or D3A). Each subsection started by reminding the respondent of the vignette that they had read in section D. The vignette was repeated and respondents were then told:

> In this section we would like you to rate how SERIOUS you think a range of other crimes are, when compared with competitors agreeing [on prices/to allocate customers/to reduce production levels].

Respondents were then presented with a list of 10 criminal offences and asked to indicate by comparison how serious they thought each offence was relative to the relevant type of cartel conduct.

Thus, for example, question E1 presented as follows:

		A lot less serious	**A little less** serious	**Just as** serious	**A little more** serious	**A lot more** serious	
A	A person stealing another person's property is…						
B	An insurance company denying a valid claim to save money is…						
C	A company director using their position dishonestly to gain personal advantage is…						
D	A company misleading consumers about the safety of goods is…						
E	A company failing to ensure worker safety is…						than competitors agreeing on prices
F	A person killing another person is…						
G	A person driving while drunk is…						
H	A company evading government income taxes is…						
I	A person using inside information in deciding to buy or sell shares is…						
J	A person sexually abusing another person is..						

There is an extensive literature on and a large body of precedents for crime seriousness ranking or rating surveys.[30] However, we found this material of limited assistance given the novelty of the conduct with which we were concerned (there has been no crime seriousness survey that has included cartel conduct in it, as far as we aware) and given that we were seeking to have respondents compare the seriousness of that conduct relative to various other crimes, rather than to engage in a ranking/rating exercise as such. We were also significantly circumscribed in the number of comparator offences that could be included by the overall length of the survey.[31] Further we were conscious of the criticisms in the literature regarding the construct of "seriousness" that is commonly employed in this

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[30] For a useful review, see S Stylianou, 'Measuring crime seriousness perceptions: what have we learned and what else do we want to know' (2003) 31 *Journal of Criminal Justice* 37.

[31] In particular it was necessary in designing this section to bear in mind that respondents would have very little time to do this section relative to others, given that the respondents who see cartel as representing crime would have a lot of extra questions to respond to in Section D.

context - its subjectivity and opaqueness and its failure to distinguish between the bases for seriousness (between 'serious on moral grounds' and 'serious on harm grounds', for example).[32] However, length restrictions again prevented us from adopting a design that would overcome these issues. Further, we were of the view that we would be able to discern respondent views on moral vs harm dimensions through responses to other questions (for example, the questions in section D that sought reasons as to why respondents considered cartel conduct should be a criminal offence and the questions that tested whether factors that might be regarded as mitigating or aggravating affected respondent views on seriousness).

Given these limitations, we sought to ensure that our chosen comparators reflected categories of offences that we considered important to present for comparison with cartel conduct for specific reasons. Those categories were:

- *property offences* as this is the category into which the ACCC would have the public think cartel conduct best fits; Australian politicians and enforcement officials regularly draw an analogy between cartel conduct and 'theft'[33] – see comparator A ("A person stealing another person's property is…")

- *fraud offences* for the same reason as property offences; cartel conduct is sometimes described as a 'fraud on the market'[34] - see comparator B ("An insurance company denying a valid claim to save money is…")

- *breach of directors' duties offences* as these are offences with which cartel conduct was often compared in the debate about dishonesty as a potential element of the Australian cartel offences - see comparator C ("A company director using their position dishonestly to gain personal advantage is…")

- *consumer protection offences* as these are the other category of criminal offences under the TPA but have been rarely enforced - see comparator D ("A company misleading consumers about the safety of goods is…")

- *organisational/corporate offences* as cartel conduct is much a corporate offence as it is an individual offence in Australia[35] (as well as in other jurisdictions, including the US) – see comparator E ("A company failing to ensure worker safety is…")

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[32] See, eg, M Warr, 'What is the perceived seriousness of crimes?' (1989) 27(4) *Criminology* 795.

[33] See, eg, ACCC, 'Submission No 56 to Parliament of Australia, Treasury, Trade Practices Act Review', 2 June 2002, Part 2, 24; G Samuel, Cracking Cartels: Australian and International Developments' (Speech delivered at Cracking Cartels: International and Australian Developments — Law Enforcement Conference, Sydney, 24 November 2004) 1, 5; G Samuel, 'Opening Statement' (Visy News Conference, 2 November 2007) 3; Commonwealth, *Parliamentary Debates*, House of Representatives, 11 February 2009, 67 (Chris Bowen); Commonwealth, *Parliamentary Debates*, House of Representatives, 11 February 2009, 21 (Patrick Secker); 'Current Issues on the ACCC's Radar' (Paper presented at Competition Law Conference, Sydney, 29 May 2010) 1, 3.

[34] See, e.g., Commonwealth, *Parliamentary Debates*, House of Representatives, 11 February 2009, 894 (Patrick Secker).

- *offences against public order or a type of system* as it may be argued these are the best comparators for cartel conduct which should be seen conceptually as a crime against the market system and thus analogous with crimes against other systems eg the tax system or the financial system[36] – see comparator H ("A company evading government income taxes is…" and comparator I ("A person using inside information in deciding to buy or sell shares is…")

- *violent offences* to allow for testing in the cartel context of the finding that emerges consistently from other studies that offences involving physical harm to or violation of another person are considered more serious than crimes that do not (economic crimes, for example)[37] – see comparator F ("A person killing another person is…") and comparator J ("A person sexually abusing another person is..")

- *street offences* to allow for testing in the cartel context of the finding that emerges from other studies that so-called 'street offences' are considered less serious than so-called 'suite offences'[38] – see comparator G ("A person driving while drunk is…").

We adopted the practice that has been adopted in the majority of crime seriousness ranking studies of using short descriptions of the conduct rather than using their offence label. We also attempted to be consistent in the degree of description given for all the comparators. However, we recognised that the lack of detail given in the description of the context and circumstances of the conduct would limit the conclusions that could be drawn from the data.

Although conscious that effects of conduct are important to people's assessments of seriousness, we decided not to indicate the effects of the conduct in the descriptions (eg 'company pollutes river used for drinking water' vs 'company pollutes river used for drinking water and hundreds contract serious illness as a result'; 'competitors agree on prices' vs 'competitors agree on prices and make extra profits as a result'). This was for reasons of length but also because we considered it would be difficult if not impossible to be consistent in describing the degree of effects as between items (for example, if hundreds die from the polluted water, should millions of dollars be made in profits from the agreement on prices…?)

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[35] For justifications for having corporate and individual criminal liability, see C Beaton-Wells and B Fisse, *Australian Cartel Regulation: Law, Policy and Practice in an International Context,* 2011, Cambridge University Press, ch 2, section 2.4.2.

[36] See C Beaton-Wells and B Fisse, *Australian Cartel Regulation: Law, Policy and Practice in an International Context,* 2011, Cambridge University Press, ch 2, section 2.4.1.4.

[37] F T Cullen, B G Link and C W Polanzi, 'The seriousness of crime revisited' (1982) 20(1) *Criminology*, 83. For a review see S Stylianou, 'Measuring crime seriousness perceptions: what have we learned and what else do we want to know' (2003) 31 *Journal of Criminal Justice* 37, 42-45.

[38] See, e.g., N L Piquero, S Carmichael and A R Piquero, 'Assessing the perceived seriousness of white-collar and street crimes (2008) 54(2) *Crime and Delinquency* 291-312; D J Rebovich and J L Kane, 'An eye for an eye in the electronic age: gauging public attitude toward white collar crime and punishment' (2002) 1(2) *Journal of Economic Crime Management* 1.

Similar reasons underscored our decision not to include explicit reference to a mens rea / fault element for the conduct. The literature is divided on this issue. On the one hand the presence of a mental element can be important in assessments of seriousness but on the other hand it is argued that people tend to assume intention unless otherwise stated (eg 'company pollutes river used for drinking water' is assumed to mean that the pollution was intentional, as opposed to negligent or reckless).

The order in which the comparator crimes were listed in the question was mixed in the sense that we avoided clustering categories of offence together. However, we decided not to have random ordering between respondents as a measure to check for potential ordering effects. This approach would further complicate an already complex survey design. Further, having the order of crimes identical across all respondents is a control measure in itself.[39]

2.1.6 COMPLIANCE AND DETERRENCE

Only those who had been selected into the Business group were asked to complete section F of the survey since section F was concerned with measuring variables relevant to whether business people are likely to comply with the anti-cartel laws or not. (The selection of this group is explained further below in section 2.5.1.2. Data on the demographic profile of the Business group is provided in section 13.)

The design of Section F of the survey was based on the assumptions that if the law is going to influence business people's behaviour so that they do not engage in cartel behaviour, first the business people need to know about the law, then they need to think they are likely to be caught and face enforcement action and jail if they decide to break the law. Then we can examine whether their behaviour actually changes, and whether those changes are caused by their knowledge of the law and their perceptions of the likelihood of enforcement.

This model of how regulatory reform and criminalisation can change business compliance behaviour is based on a rich empirical literature on regulatory compliance by business.[40] Specifically, it assumes that compliance can be induced through the mechanism of deterrence. Deterrence is where the design of the law and its implementation through enforcement are intended to make business people calculate that it is in their rational self

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[39] See also the argument that the impact of ordering effects is negligible in Shipley, J.F. (1980). Crime seriousness ratings: the impact of survey questionnaire form and item context. *British Journal of Criminology*, 20(2), 123-135.

[40] See for example D Thornton, N Gunningham and R Kagan, 'General deterrence and corporate environmental behaviour' (2005) 27 *Law & Policy* 262; C Parker and V Nielsen (eds), *Explaining Compliance: Business Responses to Regulation*, 2011, Edward Elgar Publishing (forthcoming); S Simpson and C Koper, 'Deterring corporate crime' (1992) 30 *Criminology* 347; J Scholz, 'Enforcement Policy and Corporate Misconduct: The Changing Perspectives of Deterrence Theory' (1997) 60 *Law and Contemporary Problems* 253.

interest to comply because of fear of the likelihood of enforcement and consequent penalties.

The questions in Section F focus on measuring whether cartel criminalisation is likely to deter cartel conduct since this was the main justification used to introduce criminalisation of cartel conduct by the ACCC and by Australian and international policy-makers.[41] However there are also other mechanisms that may induce compliance with anti-cartel laws. Most importantly, if business people agree that the law should prohibit cartel conduct on the grounds that it is morally wrong or economically harmful, then this is an alternative (or additional) mechanism which might make them more likely to comply.[42] Since the Business group also answered Sections D and E of the survey, we do have responses relevant to testing whether this is in fact the case, and will be able to further explore this possibility in more sophisticated analyses.

Section F of the survey contained two sets of questions concerned with knowledge of anti-cartel law (F1) and perceptions of the likelihood of enforcement and likelihood of engaging in cartel conduct (F2 through F7). Each set of questions was based on a vignette. The vignettes, and the reasons for their use, are more thoroughly explained in section 2.4.1 below.

The first vignette (F1) was used to test the Business group's knowledge of the law. Respondents were given the vignette and then asked a series of questions designed to test their knowledge of the law and the penalties available for cartel conduct. The vignette used was a basic price fixing scenario which included details designed to make it clear that the scenario consisted of straight price fixing for which no excuses (legitimate or illegitimate) were available. The scenario made it clear that the conduct would have a harmful economic impact on a wide range of customers. If business people have even a fairly basic awareness of anti-cartel law, it should be absolutely clear that this is not only against the law, but also a criminal offence.

Before being able to respond to any questions about this scenario, respondents were told, "Please answer the next questions given what you think the law **ACTUALLY IS**, rather than what you think the law **SHOULD BE**." This was to clearly signal to the respondents that in this new section of the survey we were asking quite different questions than we had asked in the earlier vignettes.

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[41] See section 1.1 above and C Parker, 'Criminalisation and Compliance: The Gap Between Rhetoric and Reality' in C Beaton-Wells and A Ezrachi (eds), *Criminalising Cartels: Critical Studies of an International Regulatory Movement,* Hart Publishing, 2011.

[42] See C Parker & VL Nielsen, 'What Do Australian Businesses Think of the ACCC and Does it Matter?' (2007) 35 *Federal Law Review* 187; T Tyler, *Why People Obey the Law,* Princeton University Press, 2006; S. Winter and P. May, 'Motivation for Compliance with Environmental Regulations' (2001) 20 *Journal of Policy Analysis and Management* 675.

Following the vignette (involving a hypothetical person called Lee), the first question (F1a) that was asked was: "Do you think that Lee has broken the law by agreeing on prices with competitors?" Respondents had the choice of answering:

1. Yes
2. No
3. I'm not sure

Respondents also had the option of providing comments.

The purpose of this question was to measure whether business respondents knew that cartel conduct (here, price fixing) is a civil contravention. This has been the legal status of cartel conduct in Australia since 1974.

The second question (F1b) was directed to all those who answered yes to Question F1a. The second question asked was "Do you think that Lee has committed a criminal offence by agreeing on prices with competitors?"

Respondents had the choice of answering:

1. Yes
2. No
3. I'm not sure

Respondents also had the option of providing comments.

The purpose of this question was to assess whether Business group respondents were aware that cartel conduct had already been criminalized (as opposed to the previous questions in Section D of the survey that asked whether it should be a criminal offence).

The third question (F1c) was also directed to all those who had answered yes to Question F1a. Respondents were asked "As far as you know, what penalties are available under the law for someone like Lee who agrees on prices with competitors?" They were also reminded, "Please answer according to what you think the law **actually is**, rather than what you think the law **should be**." Respondents had the choice of the following responses and could mark as many as they thought applied:

1. Lee could be sent to jail
2. Lee could have to pay a fine
3. Lee could be banned from being a director or manager of any company for a number of years
4. Lee could be publicly named (e.g. on the TV news) as having been involved in the conduct
5. Lee could have to pay compensation to anyone who suffered loss or damage as a result of the conduct
6. Lee could be forced to take measures to ensure the conduct did not happen again (e.g. by taking part in a training program), or
7. No penalties would apply
8. I'm not sure

The purpose of this question was to assess whether Business group respondents were aware of the penalties available for cartel conduct and especially whether they were aware that jail is now available for individuals who engage in cartel conduct. If business people are not aware of the penalties, then those penalties will be less effective at deterring cartel conduct.

The second part of section F of the survey was a set of two vignettes designed to measure first, Business group respondents' perceptions of the likelihood of enforcement of the anti-cartel laws and jail if found guilty; and, second, their likely behaviour if given an opportunity to engage in cartel conduct.

The Business group respondents were each given two versions of the same basic market-sharing scenario (involving a hypothetical person called Ashley). First they were told that "This conduct is against the law but it is **not a criminal offence**" (civil sanctions). The second time they were told before the reading the scenario that "This scenario is the same as the last one, except that this time, the conduct is against the law **and is a criminal offence**…" They were also told again after the second scenario, "This conduct is against the law and **is** a criminal offence."

We explicitly told business respondents that the conduct in each case amounts to a civil or criminal offence because the purpose of the questions was to know whether the actual law – and, importantly, the change in the law from civil to criminal - makes a difference to perceptions of likelihood of enforcement and to compliance behaviour.

The vignette is once again a very clear case of cartel conduct, in this case market sharing. Market sharing rather than price fixing was used because it was important that respondents stay interested and engaged in the survey process and read the vignette and questions properly in order to pay attention to the fact that they were being asked to answer a different type of question to the previous questions. We particularly wanted to avoid a "consistency bias" in the responses.[43] This might have occurred if it was too obvious to respondents that this was the same sort of scenario as the previous scenarios. That is, if they had previously answered that price fixing should be – and indeed was - against the law and then saw another very similar price fixing scenario, they might feel that they should answer the survey "consistently" by overestimating their own sense of deterrence and compliance. By changing the type of cartel conduct in the vignette, we intended to disrupt this process and make it more difficult for respondents to second guess what a "consistent" answer would be.

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[43] See B Mathews and A Diamantopoulos, 'An Analysis of Response Bias in Executives' Self-Reports' (1995) 11 *Journal of Marketing Management,* 835

Another feature of the second set of vignettes and questions in Section F was that the respondents were randomly allocated into three groups. Each group was given two scenarios (first civil then criminal as described above). However the two scenarios for each group differed in that each group was given scenarios with a different "pressure" condition:

- The first group were given the two basic scenarios (civil and criminal) with no additional facts ("no pressure").

- The second group was given the two basic scenarios but with facts indicating that the protagonist was under economic pressure to engage in cartel conduct ("economic pressure").

- The third group was given the two basic scenarios but with facts indicating that the protagonist was under social pressure to engage in cartel conduct ("social pressure").

This quasi-experimental design allows us to test the impact of different types of pressure on the likelihood of engaging in cartel conduct, as well as the influence of the availability of either civil or criminal sanctions. (This is further explained in section 2.4.1 below. The text of the vignettes and the different pressure conditions is also given in section 2.4.1.) We asked these questions because previous empirical research on cartel conduct suggests that quite often cartelists feel that they were under economic or social pressure to engage in the conduct.[44] Including these factors in the vignette allows us to test the extent to which this affects likely cartel behaviour, and whether or not deterrence by means of criminalisation "outweighs" this pressure.

After reading each scenario, respondents were first asked a series of questions about their perceptions of the likelihood of being found out for engaging in cartel conduct; being subject to legal action; and being jailed.

The first question (F2a/F3a/F4a/F5a/F6a/F7a) asked "If Ashley goes ahead and agrees with the competitors not to win over each other's customers, how likely do you think it is that Ashley would be found out by the law enforcement authorities for doing this?" Respondents were given a scale of 1 to 10 (marked "very unlikely" to "very likely") on which to respond.

The second question (F2b/F3b/F4b/F5b/F6b/F7b) asked "If Ashley is found out by the authorities, how likely do you think it is that the authorities will actually take legal action against Ashley?" Again respondents were given a scale of 1 to 10 (marked "very unlikely" to "very likely") on which to respond. It was important to ask this question in addition to the likelihood of being caught because it could be that business people feel that although they

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[44] C Parker, 'Criminalisation and compliance: The gap between rhetoric and reality' in C Beaton-Wells and A Ezrachi, *Criminalising Cartels: Critical Studies of an International Regulatory Movement,* Hart Publishing, 2011, ch. 11.

might be caught for misconduct, the authorities will use their discretion in deciding not to take formal legal enforcement action against them. Business regulators often informally settle potential prosecutions for business misconduct on the basis that the business agrees to comply in the future rather than taking businesses to court. Moreover businesses often put pressure on regulators to make sure this happens.[45]

The third question (F5c/F6c/F7c) was only asked in relation to the criminal scenarios: "If Ashley is found guilty, how likely do you think it is that Ashley will be sentenced to jail for making an agreement with competitors not to try to win over each other's customers?" Respondents were given a scale of 1 to 10 (marked "very unlikely" to "very likely") on which to respond.

The final two questions in relation to each scenario asked respondents to rate Ashley's and their own likelihood of engaging in cartel conduct.

The text of the first of these questions in relation to the civil scenarios (F2c/F3c/F4c) was:

> In recent years the average fine that the courts have imposed on individuals involved in the same sort of conduct that Ashley is considering has been $40,000. The maximum fine available under the law against individuals for this sort of conduct is $500 000. The law also says that individuals who take part in this sort of conduct can be banned from managing a company in the future.
>
> All things considered, how likely do you think it is that Ashley will decide to make an agreement with competitors not to try to win over each other's customers?

The text of the same question in relation to the criminal scenarios (F5d/F6d/F7d) was:

> The law says that people who engage in the sort of conduct that Ashley is considering can be convicted and put in jail. The maximum jail term available under the law against individuals for this sort of conduct is 10 years. The law also says that individuals who take part in this sort of conduct can be banned from managing a company in the future.
>
> All things considered, how likely do you think it is that Ashley will decide to make an agreement with competitors not try to win over each other's customers?

In both cases the respondents were given four options in response:

1. Very unlikely
2. Unlikely
3. Likely
4. Very likely

Respondents also had the option of providing comments.

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[45] See C Parker, 'The `Compliance Trap: The Moral Message in Responsive Regulatory Enforcement' (2006) 40(3) *Law & Society Review* 591. The ACCC makes extensive use of a settlement strategy to resolve legal proceedings against cartel offenders: see C Beaton-Wells and B Fisse, *Australian Cartel Regulation: Law, Policy and Practice in an International Context,* 2011, Hart Publishing, ch 10, section 10.2.2, ch. 11, section 11.3.2.

Respondents were given only four options with no mid-point so that they had to make a choice between saying the conduct was likely or unlikely and could not "sit on the fence". This gives us more useful data for statistical analysis. It also avoids the possibility that respondents will refuse to give the "socially undesirable" answer that Ashley is likely to breach. (Where a mid-point on the scale is available, they might take the socially desirable option of choosing the mid-point rather than being honest about the likelihood of engaging in the conduct.) Similarly, by providing an option of both "likely" and "very likely", respondents could show that they thought that illegal conduct was likely without having to choose the most extreme (and most socially undesirable) option of "very likely".

We very clearly told respondents exactly what sanctions are available under both the civil and criminal offences of cartel conduct so that the survey questions would provide as accurate a test as possible of the likely effects of the actual law on compliance behaviour.

The second question about likelihood of breach in relation to each scenario asked "If you found yourself in the same circumstances as Ashley, how likely is it that you would make an agreement with your competitors not to try to win over each other's customers?"

Again the respondents were given the same four options in response:

1. Very unlikely
2. Unlikely
3. Likely
4. Very likely

Respondents also had the option of providing comments.

It is even more important that the respondents be given no mid-point on the scale where they are responding about their own likely illegal conduct for the same reasons as mentioned above.

We asked respondents first about Ashley's likelihood of breaching the anti-cartel laws and then their own in order to avoid the "social desirability bias" that tends to occur when people are asked to report on their own illegal conduct (or in this case, tendency or likelihood to engage in illegal conduct). There are two ways in which asking about Ashley first can reduce social desirability bias.

First, by asking about "Ashley" first, we give the respondents a chance to think of illegal conduct as something that an ordinary, rational business person might engage in. This means that when we ask about their own response second, they are less likely to feel quite so confronted about the social undesirability of reporting on their own likelihood to engage in cartel conduct. They should therefore be more honest in their responses.

Second, there is some evidence that when a survey asks respondents to report on a third party's likelihood to engage in illegal or other socially undesirable conduct that most

respondents will "project" their own likely behaviour onto that third party. Therefore we can use respondents' answers about Ashley as an additional data source about their own likely illegal conduct.[46] At the most simple level, this suggests that it is possible to interpret the data reported here on respondents' own likelihood to engage in cartel conduct in light of what respondents say about Ashley, in addition to what they say about themselves.

Finally, it is also important to point that previous studies have shown that social desirability bias is greatly reduced through the use of web-based surveys (as used here) compared with other forms of self-administered questionnaires; and that self-administered questionnaires in general reduce social desirability bias compared with interviewer-administered questionnaires.[47] It is expected therefore that our use of an online survey has already minimised social desirability bias to the extent possible in direct questioning about a respondent's own likely behaviour. The use of indirect questioning (that is, asking about 'Ashley') in addition to direct questioning further alleviates social desirability bias.

2.1.7 PRIOR KNOWLEDGE AND COMMENTS

This section had two questions (G1 and G2). G1 asked respondents to indicate if they had heard or read about any of the following people, organisations or topics:

1. The Australian Competition and Consumer Commission (ACCC)

2. Cartels or cartel conduct

3. Graeme Samuel

4. Allan Fels[48]

5. Price fixing

6. A case involving Visy and Amcor for price fixing

7. Criminal penalties for cartel conduct

8. A case involving Richard Pratt and the Australian Competition and Consumer Commission

9. Haven't heard or read about any of these.

The items in this list were selected on the basis that they were names or topics that had appeared regularly in the media over the last five years, either in association specifically

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[46] There are specific statistical techniques that can be used to do this, and these will be used as appropriate in later more, sophisticated analyses and publications in relation to this data: R Fisher, 'Social Desirability Bias and the Validity of Indirect Questioning' (1993) 20 *Journal of Consumer Research* 303.

[47] F. Kreuter, S. Presser and R. Tourangeau, 'Social Desirability Bias in CATI, IVR, and Web Surveys: The Effects of Mode and Question Sensitivity' (2008) 72 *Public Opinion Quarterly* 847.

[48] This item was inserted only after the soft launch (see further section 2.3 below).

with the debate over cartel criminalisation or more generally in association with competition law and enforcement related issues.

The purpose of the question was to attempt to have some basis on which to assess the extent of familiarity by respondents with the subject-matter under examination in the survey. It was considered necessary to be able to make this assessment given the view that there is a difference between public opinion that is 'top of mind' (in the sense that it is uninformed and instinctive) and public judgment that is based on some pre-existing awareness and understanding the subject-matter on which judgment is being made. The latter is said to be a superior measure for the purposes of influencing public policy.[49]

G2 asked respondents: "Finally, is there anything else you would like to tell us about the scenarios or issues in this survey?" Given the scope and complexity of the matters covered in the survey we considered it important to give respondents an opportunity to raise issues or add qualifications that had not been addressed or allowed for in the course of the survey. A large proportion of respondents took up this opportunity (see further section 2.4.2 and Appendix C below).

2.2   SURVEY MEDIUM

For the medium of survey delivery we chose electronic communication as the best approach. Internet-based or online surveys are fast, flexible, cost-effective and are established as providing valid responses. In particular, as compared with more traditional pen-and-paper, telephone or face-to-face surveys, this medium:

- enables the survey to reach a large and diverse group of people[50];

- allows for immediate responses[51];

- is cost-effective in terms of distribution[52] and in removing the need to manually enter participant responses[53];

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[49] See, e.g., D Green, 'Public opinion versus public judgment about crime: Correcting the "comedy of errors"' (2006) 46 *British Journal of Criminology* 131.

[50] S D Gosling, S Vazire, S Srivastava, and O P John, 'Should we trust web-based studies? A comparative analysis of six preconceptions about internet questionnaires' (2004) 59 American Psychologist 93; B Duffy, K Smith, G Terhanian, J Bremer, 'Comparing data from online and face-to-face surveys' (2005) 47 *International Journal of Market Research* 615.

[51] K B Wright, 'Researching internet-based populations: advantages and disadvantages of online survey research, online questionnaire authoring software packages, and web survey services' (2005) 10 *Journal of Computer-Mediated Communication*.

[52] R Kraut et al, 'Psychological research online: report of Board of Scientific Affairs' Advisory Group on the Conduct of Research on the Internet' (2004) 59 *American Psychologist* 105.

[53] WG Zikmund, *Business Research Methods*., 2003, Thomson-South Western.

- is flexible and enables the flow of the survey to be tailored readily to responses, thus avoiding the need for respondents to read questions that are not applicable to them[54];

- allows for the presentation of the survey to be made visually attractive and thus as interesting as possible for the respondent so as to retain attention and minimise fatigue;[55]

- may avoid problems caused by biases tied to face-to-face interviewing and data collection mistakes and biases[56]; and

- significantly reduces risk of human error in data entry.[57]

2.3. SURVEY DESIGN AND ADMINISTRATION STAGES

The development and administration of the survey underwent several stages.

Questions were drafted by the research team with a focus on how to elicit information that would address the research questions we were seeking to answer (see section 1.4 above).

Input was obtained from the Social Research Centre and from the statistical consultancy service of the University of Melbourne on issues relevant to the wording and comprehensibility of specific questions as well as on overall format, presentation, administrability, flow and length of the survey instrument. Input on the content and design of questions was also obtained from a range of academic experts with experience in surveys

The survey instrument was also cognitively tested by the Social Research Centre (from 13-16 April 2010). This involved the recruitment of ten respondents testing from lists held by a reputable qualitative research recruitment provider. Six of the respondents were members of the general public and four were persons meeting the agreed definition of an "informed" person, that is a person with a background in business with a view to testing the questions in Section F on Compliance and Deterrence, in particular. The interviews were conducted in person on the premises of The Social Research Centre. Respondents completed the questionnaire in paper form and were asked to give feedback on the comprehensibility of concepts and questions in the process of completion.

Feedback from the cognitive testing led to several changes to the wording, lay-out and structure of several questions and Sections to improve readability and comprehensibility. In

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[54] WG Zikmund, *Business Research Methods*, 2003, Thomson-South Western.

[55] MP Couper, MW Traugott, MJ Lamias, 'Web survey design and administration' (2001) 65 Public Opinion Quarterly 230

[56] B Duffy, K Smith, G Terhanian, J Bremer, 'Comparing data from online and face-to-face surveys' (2005) 47 International Journal of Market Research 615

[57] American Psychological Association Policy and Planning Board (2009) 'How technology changes everything (and nothing) in psychology: 2008 Annual Report of the APA Policy and Planning Board' (2009) 64 American Psychologist 454.

particular, it prompted the redrafting of the vignettes in Section D in order to ensure that they presented scenarios to which a majority of respondents were likely to relate in their capacity as consumers and in relation to which respondents were unlikely to attempt to explain or justify the conduct in question by reference to circumstances unconnected with the anti-competitive purpose or effect of collusion. It also led to removal of a vignette concerned with bid-rigging with a view to shortening Section D, in particular, and the overall survey in general.

The questionnaire was then programmed into an online format by the Social Research Centre. The online version was reviewed by the research team to ensure that it was an accurate representation of the questionnaire. Completion of the online instrument was also trialled by the researchers and a number of their colleagues to test its operation in practice (for example, to ensure that respondents were directed to the correct sequence of questions depending on their answers, that respondents could not skip questions without answering and that they could go back and review answers to previous questions).

Once the online instrument was finalised, a soft launch of the survey was undertaken (from 2-6 June 2010). The objective of the soft launch were to confirm the duration of survey completion, to verify the capacity to accurately target "informed" persons and to check questionnaire performance in the online environment. Review of the data from the soft launch led to:

- two minor changes to Section A (adding a 'Retired' answer option to the work status question and an 'Independent Candidates' answer option to the question about political affiliation);

- a change to the Comments text box accompanying questions D1B, D2B and D3B (concerning Reasons for treating cartel conduct as a criminal offence) so that the box read 'Comments (optional – but please note that we are particularly interested to understand which reason or reasons were most important to you)

- a change to the product used for the vignette relevant to the output restriction in section D3 (from milk to cheese) for reasons explained in section 2.4.1 below;

- addition of the name 'Allan Fels' as an item in the list of topics in Section G on Prior awareness.

The 'hard launch' of the survey was then undertaken (from 28 June to 7 July 2010). The survey responses were converted to a datafile by the Social Research Centre which was provided to the research team for analysis. Data screening and analysis were conducted using PASW Statistics, version 18 (SPSS, Chicago, IL).

2.4   SURVEY DESIGN FEATURES

Three key design features of the survey – vignettes, open textboxes and attitudinal rating scales – are described below.

2.4.1   VIGNETTES

The use of vignettes (simple factual scenarios) as the basis for eliciting responses on key questions about the legal status, characterisation and consequences of cartel conduct was a crucial aspect of the survey design. It presented respondents with a real-life application of the relevant conduct (price fixing, market allocation, output restriction), while avoiding the use of technical, leading or pejorative language (eg, 'cartel', 'collusion').

The vignette adopted for questions relating to **price fixing** in D1 was as follows:

> There are two butchers in a town. In the past they have set their prices independently of each other. This has meant that if one butcher put up its prices, consumers could switch to the other butcher to find a lower price. The butchers have now reached an agreement with each other to set the prices they charge for the most popular cuts. As a result, they can charge higher prices because if consumers are unhappy with the price at one butcher, they are unable to switch to the other butcher for a better price.

In ensuing questions, the 'tag' that we used to refer to the type of conduct captured in this vignette was 'an agreement by competitors on prices'.

The vignette adopted for questions relating to **market allocation** in D2 was as follows:

> This time, there are two plumbing companies that compete against each other in providing plumbing services to a town. They are the only plumbing companies in the town. In the past, if one plumbing company put up its prices, customers could switch to the other plumbing company. The plumbing companies have now reached an agreement to allocate customers between them. One company will only service buildings north of the river; the other will only service buildings south of the river. As a result, they can charge higher prices because customers can't switch between the plumbing companies when they are unhappy about the price they are being charged.

In ensuing questions, the 'tag' that we used to refer to the type of conduct captured in this vignette was 'an agreement by competitors to allocate customers'.

The vignette adopted for questions relating to **output restriction** was as follows:

> This time, there are two companies that compete against each other as producers of cheese. They are the only companies that produce cheese in a particular region. In the past they have decided what volume they would produce depending on how much consumers in the region wanted to buy. However, the companies have now made an agreement with each other to reduce the amount of cheese they produce. As a result of the agreement, they are no longer producing enough cheese to satisfy everyone in the region and can therefore charge higher prices. This is because consumers want to buy more cheese than is available for sale and are therefore prepared to pay more to try and get as much as they want.

In ensuing questions, the 'tag' that we used to refer to the type of conduct captured in this vignette was 'an agreement by competitors to reduce production levels'.

In the soft launch stage, the output restriction vignette related to the production of milk rather than cheese. This appeared to have a distorting effect on responses. We noted that the vignette attracted a much higher proportion of responses in favour of treating this conduct as a criminal offence and jailing individuals for it than the other two vignettes. It also attracted a substantial volume of comments from the content of which it became evident that respondents regarded the conduct as particularly egregious given the nature of milk as a basic commodity and one on which vulnerable groups, such as infants, rely. To avoid such distortion, we changed the product to cheese for the purposes of the hard launch.

In relation to all three vignettes we prioritised the use of products and businesses to which members of the general public were most likely to relate in their capacity as consumers. This was important given the economic rationale for the criminal reform being the adverse effect of cartel conduct on consumer welfare. We were keen to ensure that respondents appreciated the effect of cartel conduct on prices and hence on them as consumers. At the same time, we avoided industries (such as banking, telecommunications, supermarkets and airlines) that are commonly associated with anti-competitive conduct in the media (irrespective of the accuracy of such claims as a matter of law) so as to avoid biasing responses. This approach meant that the vignettes inevitably revolved around conduct by small businesses with effects at the retail level of the markets in which they operated. We were aware that this ran the risk of attracting a more sympathetic response than might have been the case had the vignettes related to big businesses operating in industrial settings. In an effort to address this risk, each of the subsections in section D commenced with the following statement:

> In the next questions, we describe a number of imaginary business scenarios. These could apply to companies of **any** size in **any** industry. When you answer the questions, pleasure focus on **how the businesses have acted**, rather than the type of business or the industry. (bold in original)

Vignettes were also used in Section F to elicit responses from the Business group relevant to assessing the deterrence and compliance impact of anti-cartel laws. In this section we were able to use slightly more complex scenarios with larger companies and industrial settings because we expected the Business group to have a better understanding of the conduct and its effects.

In F1 a vignette featuring a price fixing scenario was used to assess **knowledge of anti-cartel law**. Respondents were given the vignette and then asked whether they thought the cartel conduct in the scenario was against the law, whether they thought it was a criminal offence, and what penalties were available:

> Lee, a sales manager at Brick Company, considers whether to get together with representatives from companies that compete with Brick Company to agree on product prices for the next year. Brick Company is currently experiencing growing sales and revenues in an industry that is economically

healthy. Lee's conduct would boost revenues further and therefore result in a very positive impression of Lee by top management.

Lee decides to meet with representatives from competitor brick companies to agree on the prices for the next year. As a result brick prices rise throughout the big city in which Brick Company and its competitors are based. This means that governments, companies and individuals all have to pay more for new buildings and houses and Brick Company makes millions of dollars in extra profits.

The above vignette was used in a similar way and with a similar rationale to the Section D vignettes. The difference was that instead of asking respondents what they believed the law should be, we asked what they believed the law actually was.

Vignettes were also used in F2 through F7 to assess respondents' perceptions **of the likelihood of enforcement against cartel conduct** and the **likelihood of engaging in cartel conduct**. Here there was an additional purpose for using hypothetical vignettes in addition to those discussed above. The purpose of F2 was for the respondents to imagine themselves into the hypothetical scenario and to measure their likely perceptions of enforcement and their intended conduct if they were in that situation in real life. Vignettes were used to achieve a quasi-experimental design. That is, the same basic scenario was used in all vignettes, but certain features of the scenario were varied. The features that were varied were whether civil or criminal sanctions were available for the conduct, and whether the protagonist in the vignette was under economic pressure, social pressure or no pressure to engage in the cartel conduct. These variations in the vignette allow us to robustly measure whether these different conditions have any influence on respondents' perceptions and intended conduct.[58] The basic scenario used as the basis for the questions in F2 is as follows:

Ashley, a manager at Express Freight Company, considers whether to get together with representatives from Express Freight Company's competitors in order to make an agreement not to try to win over each other's customers.

This would mean Ashley does not have to discount prices or increase the quality of service in order to keep existing customers**.** This would increase firm revenues, and result in a positive impression of Ashley by top management.

One of the following sets of facts was also added to the vignette, with respondents randomly allocated to three different groups each of which received one of the following sets of additional facts:

[Economic pressure] Express Freight Company is currently experiencing declining sales and revenues, and Ashley is struggling to meet sales targets. This agreement would stabilise revenues and secure Ashley's job.

[Social pressure] Ashley is friendly with several other managers in other parts of Express Freight Company who have engaged in similar conduct. They are encouraging Ashley to do so too.

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[58] See the references in note 2 above for examples of this technique being used in other research on similar issues.

[No pressure] [No facts added]

Respondents were given the scenario twice. The first time they were told that the conduct was against the law but not a criminal offence. The second time they were told that this time the conduct was against the law and a criminal offence.

The disadvantage of this approach is that all our measures of respondents' perceptions and conduct are based on purely hypothetical scenarios imagined in the context of filling out a survey. We cannot be sure that people would think and behave that way in real life. We would expect people to generally underestimate their own likelihood of breaching the law compared to real life due to social desirability bias.[59] We would generally expect them to overestimate the chances of being caught compared with how they would think in real life, due to the fact that their attention is being drawn to the illegal conduct and the penalties available in the hypothetical scenario.[60]

The advantage of this approach is that it is otherwise virtually impossible to collect enough real life data of sufficient quality about these matters. The use of hypothetical vignettes therefore allows us to conduct a statistically robust and researcher-controlled 'quasi-experiment' as to how different sanctions and other conditions would likely affect illegal conduct and to draw robust conclusions from that experiment.[61]

2.4.2 OPEN TEXTBOXES

We were conscious that the issues raised by the survey are complex. Hence we considered it desirable that respondents have the opportunity to supplement or qualify their categorical responses in the forced choice formats through the provision of comments. To this end, open textboxes were provided after each of the questions in Section D, marked 'Comments (optional)'. This device would also provide us with evidence to test the validity of the

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[59] See C Nancarrow and I Brace, 'Saying the "right thing": coping with social desirability bias in marketing research' (2000) 3 *Bristol Business School Teaching and Research Review*, online edition.

[60] In real life their attention would not necessarily be drawn to the law and penalties. But one clear finding from previous empirical research on business deterrence is that many business managers do not make cost–benefit calculations about compliance and act on them - until something like a regulatory enforcement action or publicly reported breach or accident brings the risks of noncompliance to their attention: eg H. Genn, 'Business Responses to the Regulation of Health and Safety in England' (1993) 15 *Law & Policy* 219, 223; J. Mendeloff and W. Gray, 'Inside the Black Box: How do OSHA Inspections Lead to Reductions in Workplace Industries?' (2005) *27 Law & Policy* 219, 220-1; J. Scholz and W. Gray, 'OSHA Enforcement and Workplace Injuries: A Behavioral Approach to Risk Assessment' (1990) 3 *Journal of Risk and Uncertainty* 283, 302.

[61] On the difficulties of conducting robust research on compliance conduct from which causal inferences can be drawn, see C Parker and V Nielsen, 'The challenge of empirical research on business compliance in regulatory capitalism' (2009) 5 *Annual Review of Law and Social Sciences* 45.

vignette-related questions by indicating, for example, the extent to which the respondents comprehended the scenarios in the way that was intended.

A large number of respondents took advantage of the open text box format to provide comments. For instance, 212 (16.4%) provided a comment on the issue of whether price fixing should be against the law. For Section F, there were open responses for all 14 questions where an opportunity was provided.

The comments provided in relation to each of the questions that provided the opportunity for comments are set out in **Appendix C**.

2.4.3 RATING SCALES

Questions to measure attitudes and likelihoods were presented as rating scales.

A 5-point likert scale was the most common format used in the survey. For these scales, each ordinal category had a label. The most common was for level of agreement: 1-strongly disagree, 2-disagree, 3-neither disagree nor agree, 4-agree, 5-strongly agree. It was used, for example, for the questions relating to reasons why conduct should be a criminal offence (D1A, D2A, D3A) and questions relating to whether immunity policy is acceptable (D1F, D2F, D3F).

A 5-point categorical response scale was used when asking respondents to compare the relative seriousness of a cartel conduct to other examples of criminal offence. A self-report rating scale format is commonly employed in crime seriousness research.[62]

Rating scales were also used to measure perceived likelihoods of certain events occurring.

Section F on Compliance and Deterrence included questions on the perceived likelihood of those who engage in cartel conduct being caught, having legal action taken against them and being jailed. For these questions, a 10-point anchored scale was used, with 'very unlikely' and 'very likely' as the anchor labels. This allows more fine tuned measurement and statistical analysis.

Section F on Compliance and Deterrence also used rating scales to measure the likelihood of the protagonist in a vignette actually engaging in cartel conduct and the respondent him or herself doing so in the same situation. For these questions a 4-point categorical response scale was used with the options: very likely, likely, unlikely, very unlikely. There was no mid-point in the scale in order to 'force' respondents to choose whether engaging in the conduct was likely or unlikely. This is a common strategy in survey research asking respondents to self-report their own propensity to engage in illegal conduct. It avoids the situation where

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[62] See, e.g., M O'Connell and A Whelan 'Taking wrongs seriously: public perceptions of crime seriousness' (1996) 36(2) *British Journal of Criminology* 299 ; M Warr, 'What is the perceived seriousness of crimes?' (1989) 27(4) *Criminology* 795; PH Rossi, E Waite, CE Bose and RE Berk 'The seriousness of crimes: normative structure and individual differences' (1974) 39 *American Sociological Review* 224.

some respondents use the mid-point of the scale to avoid saying that they might breach the law (an aspect of the social desirability bias).

2.5   SURVEY RESPONDENTS

We had two objectives in relation to the profile of survey respondents:
- for the questions relating to the legal status, characterisation and consequences of cartel conduct (Sections B-E), we were seeking a random sample that was representative of the Australian public;
- for the questions relating to impact of sanctions and other variables on the decision to engage (or to refrain from engaging) in cartel conduct (Section F), we were seeking a non-random sample of people with a work profile that would allow us to test likely responses to sanctions and other variables by way of compliance or non-compliance with the law (ie the Business group).

2.5.1   SAMPLING STRATEGY

The strategies employed and considerations relevant to obtaining the two samples identified above are outlined in this section.

2.5.1.1 STRATEGY FOR OBTAINING RANDOM SAMPLE REPRESENTATIVE OF AUSTRALIAN PUBLIC

A stratified random sampling approach was employed. In terms of stratification, the parameters of the panel group (see section 2.5.2 below) were designed to be representative of the Australian public in terms of age, gender and location of residence by state or territory. The stratified random selection process involved sending an invitation to every ninth panel member of strata organised by age and gender within an area of residence. The process of invitation deployment by stratum took into account potential biases in responsiveness – for instance, knowledge of different invitation response rates by younger and older adults.[63]

For studies that involve public participation in surveys there is no sample data that is perfectly random and representative of the general population. On the whole the sample was well matched to the Australian population in terms of age, gender and location, and less so on education level. Data on the demographic profile of the random is in **Appendix D** to this report. Divergences in representativeness were corrected by applying weights to the data. The weighting methodology in this study is described in section 2.5.4.

2.5.1.2 STRATEGY FOR OBTAINING NON-RANDOM SAMPLE (THE BUSINESS GROUP)

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[63] More detail on the sampling methodology and sample characteristics are available from the authors upon request.

The selection of respondents for the Business group drew on responses to Part A of the survey as follows:

- Respondents who reported in Part A that they had a role as middle manager or above were automatically included in the Business group, and therefore went on to complete Section F of the survey after completing the preceding Sections of the survey.

- Respondents who reported in Part A that they were employees without managerial responsibility were included in the Business group (and therefore also completed Part F of the survey) where they also indicated having, as part of their work, any of a list of roles that would involve conduct (such as setting prices) potentially relevant to the prohibitions of the TPA (see question A10). However, employees without managerial responsibility who only indicated involvement in one of these roles - 'dealing with customers in any capacity' - were later excluded from the Business group at the analysis stage of the study on the grounds that it was thought this would cast the net too widely.

In the design of the study the strategy of stratified random sampling was seen as unlikely to provide a sufficient number of respondents to effectively evaluate survey design for Section F. In order to achieve a larger Business group for the first round of data collection therefore, a 'booster sample' was obtained. For this sub-sample, potential participants were identified by ResearchNow (see section 2.5.2) through information on panel member occupational background. This sampling approach was successful in that 86.2% of the booster sample completed Section F. At the same time 38.9% of respondents from the main stratified random sample completed Section F – around 9% more than what was anticipated. This suggested that a further booster sample would not be required in order to obtain enough respondents for section F. This turned out to be the case, with sufficient Section F respondents attained through the initial booster sample from the soft launch and those filtered through from the main sample in the soft and hard launches.

2.5.2   RECRUITMENT AND DATA COLLECTION PROCESS

For data collection, the Social Research Centre arranged for a commercial online survey panel provider, ResearchNow, to provide a panel for the purposes of the survey. The particular panel that was provided was the 'Valued Opinions' panel (see http://www.valuedopinions.com.au/). This panel is exclusively "research only", with panelists recruited by email and online marketing, with over 125 diverse online affiliate partners (to avoid bias associated with panel recruitment from limited sources).

The proposed survey study was rigorously reviewed and approved by the University of Melbourne Human Research Ethics Committee. Prospective participants were informed, through a plain language statement, that participation was voluntary, anonymity and confidentiality would be protected throughout the research and reporting process, and

participants could contact the researcher team and ethics committee if they had concerns (for the invitation to participate and plain language statement, see **Appendix E**).

2.5.3   RESPONSE RATES

There were 1,334 participants in the randomly-selected sample. Results in the current report are based on this sample.

Completion rates relative to invitation to the survey were as follows:

- For the soft launch random sampling there were 1595 invitations released, of which 19.2% were responded to.

- For the hard launch there were 12,318 invitations released, and of these 8.3% were responded to.

- Combined, for invitations sent at random, there were 13,913 and a 9.6% response rate. Approximately one in every ten people who received an invitation responded by completing the survey.[64]

2.5.4   REPRESENTATIVENESS AND WEIGHTING PROCESS

The final sample was biased in ways commonly found in population survey research.[65] In particular, individuals of a higher level of education were over-represented. In order to optimise generalisation of the current sample to the general population a weighting approach was adopted to correct for such imbalances in representation. Weighting is a common approach to increasing representativeness in online survey research.[66] In 'unweighted' survey data, cases assume a value of one (i.e. they are all represented equally in an analysis). For individual cases, under-representation is corrected by applying weight values above one, and over-representation by applying weight values between zero and one.

As there were a number of factors where there can be a divergence in representation from the general population, such as age and sex, rim weighting was adopted to correct for multiple factors. The current sample was rim weighted on the basis of age, sex, education level and locality of residence. Rim weights were provided by The Social Research Centre,

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[64] According to the Social Research Centre, for studies involving online surveys of this length, these response rates are comparably good.

[65] See, e.g., G Loosveldt and Sonck, 'An evaluation of the weighting procedures for an online access panel survey' (2008) 2(2) *Survey Research Methods* 93.

[66] See G Loosveldt and Sonck, 'An evaluation of the weighting procedures for an online access panel survey' (2008) 2(2) *Survey Research Methods* 93.

using Quantum to generate weights for each case. In setting the weighting matrix, parameters for the target population were based on the 2006 Census of Australia.

While weights were established for the stratified random sample, weights were not generated specifically for the Business group. General parameters of the population are required to define weights and to our knowledge such parameters are not available for business groups in Australia, and in particular, for the population defined for inclusion in Section F. For this reason we used the unweighted data for analysis of the Business group.

2.5.5 RESPONSE TIMES

There was a wide variation in survey response times. Outliers were observed primarily for longer response times due to respondents leaving the survey and coming back to it at later times while the online survey was active. Given extreme durations, the average response time would not provide an accurate reflection of a 'typical' duration. Instead, the median was used as a measure of the typical response time. For the randomly selected sample, after taking into account extreme outliers, the median response time was 921 seconds (15.4 minutes). 15 minutes was the duration aimed for at the start of the study.

The data was screened for 'suspect' respondents on the basis of rapidity of survey response times. Section-specific completion timings were available, permitting a detailed analysis for identifying suspect response sets that may reduce the validity of the data. Data organised by survey sections with completion times available for each section was a strength of the survey design and data collection, in terms of identifying cases where data quality may be poor. However, it presented complexities in screening and cleaning. Suspect cases could not be identified through an overall minimum cut-off, as it was possible for a respondent to do some sections properly, and others not. In addition, section timings could vary within sections (e.g. branching in sub-sections D1, D2 and D3) and respondents varied markedly in the number of pathways taken through the survey.

Given these complexities, a multi-stage process of screening and cleaning was established. First, minimum completion times for each section were estimated to flag a suspect case. Defining what is a suitable minimum time was difficult. The following considerations were taken into account when deciding on cut-off times – the distribution of completion times for the full data set; consideration of the specifics of each section (e.g. number and length of questions, major follow-up pathways within a section, and response formats); that respondents would 'speed up' in their completion of the survey after familiarisation of the content of repeat questions (especially for parts of Section D); and observations during the pilot study that rapid responses may not necessarily indicate that the survey was not attended to in a genuine fashion. Second, each respondent was assigned an overall score for the number of sections completed below the minimum cut-off. Third, criteria were established for deciding how many sections overall a respondent would do below the

minimum time, to identify as consistently fast and therefore most likely to have provided poor data, while at the same time not reducing the possibility of removing participants who were fast on some sections but provided valid responses overall. A criterion was set for each of three common general sequences – seven sections (for those who skipped sections E and F), eight sections (for those who completed either E or F), and nine sections (those who completed all sections of the survey). Where seven or eight sections were completed, respondents were removed if they did three or more sections below a minimum time. Where nine sections were completed, respondents were removed if they did four or more sections below the minimum time. Based on these steps, 42 respondents were deemed to be suspect (38 from the general population random sample, and four from the booster sample) and therefore removed from the data set.