

CLASS ACTIONS – SOME CAUSATION QUESTIONS

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In class actions, causation and damages questions are usually treated as issues of secondary significance. Yet they are of primary strategic importance, particularly in shareholder, managed investment scheme and cartel class actions.

Causation and damages considerations impact on most levels of a class action, including:

- (a) the selection and characteristics of the representative party;
- (b) whether the individual causation and damages questions substantially outweigh the common issues, such as to provide a potential foundation for a section 33N¹ order;
- (c) whether sub-groups should be formed under section 33Q, reflecting different group member divisions as a function of different causation dimensions;
- (d) how causation is addressed at different levels of magnification applying to:
 - (i) common issues – for example, whether a company’s conduct involving non-disclosure of material information to the market produced share price inflation over a particular period; or
 - (ii) individual issues – for example, how you link any general causation finding with any individual causation question or damage;
- (e) whether and how proportionate liability defences are pleaded for apportionable claims, including whether those defences are general for all group members’ claims or only some;
- (f) whether and to what extent third party claims for contribution or indemnity need to be made in relation to any non-apportionable claims;
- (g) whether “contributory negligence” style defences need to be pleaded², and whether those defences are general for all group members’ claims or only some;

¹ References to any of sections 33A-33ZK are references to Part 4A of the *Supreme Court Act 1986* and the equivalent Part IVA of the *Federal Court of Australia Act 1976*.

² For example, section 1041I(1B) of the *Corporations Act 2001* (“Corporations Act”) and section 12GF(1B) of the *Australian Securities and Investments Commission Act 2001* (“ASIC Act”).

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- (h) determining which common and individual causation issues should be dealt with at the first stage trial;
- (i) whether a sufficient number and diversity of group members' individual claims should be dealt with at the first stage trial, so that there are sufficient adjudicated test cases to facilitate the resolution of all claims after the first stage judgment.

Overlaying these questions are forensic questions in terms of proving, or satisfying any evidentiary onus to negate, causation at a general or individual level. Until recently, causation evidence usually had only a qualitative focus. Now, “new”³ quantitative techniques involving statistical regression analysis have become fashionable to demonstrate, for example:

- (a) share price inflation linked to a company's non-disclosure of material information to the market; or
- (b) counterfactual or “but for” prices for goods, which prices may have existed in an Australian market but for any alleged cartel.

In this paper, I discuss some of the practical considerations relating to these issues that generally arise before any first stage trial and then some specific causation and damages questions that arise in shareholder and cartel class actions. Now most of these causation questions are not confined to the realm of some abstract exegesis. Rather, they are part of an important practical framework that should inform how you address the most contestable components in many class actions.

³ Linear regression analysis or multiple regression analysis involves no esoteric or innovative statistical tool. You can source such methods back to the German mathematician Carl Friedrich Gauss, and their origin some time between 1795 and 1809. But what is recent, particularly in Australia, is the application of these quantitative techniques to certain types of class actions. Such applications have been used in the US for some time; but there has been very limited such use in England, on the Continent, or in Canada in relation to private actions for damages, although there has been some use in cartel penalty cases – See Friederiszick, H. and Röller, L: *Quantification of Harm in Damages Actions for Antitrust Infringements: Insights from German Cartel Cases* (2010) 6(3) *Journal of Competition Law & Economics* 595.

A. PRACTICAL QUESTIONS

It is useful to discuss the causation related issues that arise for consideration before the first stage trial in the sequence that they need to be considered.

First, take the position of the representative plaintiff. This person is usually chosen because he has the strongest causation and damages case.⁴ Moreover, the plaintiff's lawyers will usually try to confine the first stage trial, on individual issues, to just the representative plaintiff's individual case (rather than other group members). From their perspective, it simplifies matters. Further, if they have a favourable adjudication on that one case, it practically strengthens their hand in any subsequent negotiations of other group members' individual claims.

But if you are acting for the defendant, you will want to consider several questions. What are the theoretical permutations for general and individual causation questions that arise from the plaintiff's pleading? To what extent does the plaintiff's individual claim cover off all these permutations? Usually, the more expansive the class description, the less likely the plaintiff's individual claim covers off all these permutations. Therefore, one of the preliminary steps that must be followed up is to get full particulars of that individual claim for the required assessment.

Second, you also need to carefully analyse the group description and its breadth relative to the causes of action pleaded. For example, in a shareholder class action, you might find that where the claims made are for both non-compliance with listing rule 3.1 (and section 674 of the Corporations Act) and misleading or deceptive conduct concerning reports and announcements published, then on causation questions, the group may divide into those:

- (a) who bought and sold securities in different time frames;
- (b) who read and relied upon such reports, and those who did not;
- (c) whose sole causation case rests upon an indirect market-based causation theory.

Another example is in class actions relating to managed investment schemes. Causation questions might divide up depending upon which schemes were invested in and at what times. Yet further examples may arise in relation to common law negligence claims, depending upon the nature of the

⁴ For present purposes, I do not need to discuss the selection of the "man of straw" in the context of security for costs strategies, or the "insulation", from the commercial consequences of any adverse costs order, of more solvent claimants. Selection may also be affected by the limited pool of those willing to act as the representative party. It may also be affected by whether there is any external litigation funder, and whether the funder has agreed to indemnify the representative party for any adverse costs order.

duty and damage alleged⁵, the nature of the breach, the physical location of individual group members, and direct and indirect causation questions including ripple effects.⁶

Third, if you are acting for a defendant you should also consider whether, if an apportionable claim has been alleged, you need to plead any proportionate liability defence, including joining the concurrent wrongdoer (if so required, say, under section 24AI of Part IVAA of the *Wrongs Act* 1958 (Vic.)) as either a co-defendant or a defendant to counterclaim seeking declaratory relief at least. An associated question is whether the proportionate liability defence is just limited to the representative plaintiff's individual claim, or whether it covers other or all group members. Further, do you need to claim contribution or indemnity against another wrongdoer in relation to any non-apportionable claims?⁷ Now for some cases, it may be self evident, without any further information other than the plaintiff's pleading, as to what proportionate liability defences and related claims need to be pleaded. But for other cases, you may need further information. So, you may need not only full particulars of the plaintiff's individual claim, but also discovery relating to his individual circumstances. For example, in managed investment scheme class actions, discovery as to the receipt of any advice from a financial planner may be desirable. Such advice may not only be relevant to the individual's causation case, but may disclose the need to plead a proportionate liability defence, and perhaps join another party. You might also need non-party discovery to determine either the identity of an entity the potential subject of a proportionate liability defence or to obtain facts sufficient to justify any pleading on the subject.

Fourth, again if you are acting for a defendant, should you give consideration to seeking a section 33N⁸ order? Now even if there are many different causation questions (whether sub-group or individual), there may still be no utility in a section 33N order until after the trial of some or all of the common issues. There may need, at some stage, to be fragmentation, but it should not take place prematurely. A defendant is just as advantaged (if not more so) as the plaintiff in using the

⁵ Embracing, also, indeterminacy questions for pure economic loss cases, and its imperfect inverse of "sufficient closeness and directness" for personal injury and property damage cases.

⁶ I have not referred to the scholastic distinction between "normative causation" and factual causation. That distinction has little to commend it in the negligence field, given that issues of duty and remoteness adequately cover the former concept. And for any statutory causation test, it is the text, context, subject and purpose that prescribe the content and boundaries for the normative component; the label adds nothing.

⁷ If you have decided to use the "defendant to counterclaim" device for the apportionable claims, you could incorporate the contribution and indemnity claims for the non-apportionable claims in the counterclaim as well, rather than also serving a separate third party notice. Such a procedure has been used in some of the Victorian bushfires class actions.

⁸ I am assuming that no section 33C issue arises. Most plaintiff lawyers are sufficiently competent to ensure that they satisfy such requirements. Moreover, the jurisprudence on section 33C is now well settled, apart from the section 33C(1)(a) *Philip Morris* point involving claims against multiple defendants. The days of unnecessary collateral litigation produced by the combination of inexperienced plaintiff lawyers and tactically driven defendants (who apparently perceived it to be in their interests to produce fragmentation) appear to be over. Perhaps the greater the difference in causation cases, the more closely you might look at the section 33C(1)(b) threshold requirement; but it would have to be an exceptional case, particularly if section 33C(1)(c) has been satisfied.

group procedure mechanism to avoid unnecessary or premature fragmentation of the disposition of multiple claims.

Fifth, and arising out of the above considerations, questions will then arise for the first stage trial as to:

- (a) how you formulate the common issues;
- (b) whether sub-groups need to be formulated;
- (c) how many (if at all) individual group members' cases on causation and damage, in addition to the plaintiff's individual case on causation and damage, should be dealt with at that stage.

Now in formulating the common issues, you can take the approach of:

- (a) merely adopting the articulation of these issues as set out in the plaintiff's originating process;
- (b) defining the issues by exclusion rather than by inclusion – for example “a trial on all issues save and except any individual causation or damages question relating to any group member's claim other than that of the representative party”;
- (c) separately identifying the common issues; or
- (d) adopting a hybrid of options (b) and (c).

Option (a) does not encourage you to think for yourself. Further, such articulation is done at an early time, without the precision and focus that an imminent trial produces. Moreover, it is merely done to satisfy the formal requirements of section 33H(2)(c). Option (b) by itself is even less desirable. It involves no detailed thought, although it was used in the *Aristocrat* litigation. It is uninformative for the parties and the trial judge. Moreover, it may not assist the formulation of any judgment for the purposes of sections 33Z, 33ZB and 33ZC. Option (c) does not have these deficiencies and is my preferred course⁹. Option (d) may also have advantages; you could stipulate the key common issues to provide guidance on the principal issues to be resolved at the first stage trial, but the formal order would also use option (b) as a necessary catch all.¹⁰

Now as to the causation common issues, you have to conceptually separate general causation from individual causation. So, for example, in a shareholder class action, general causation might involve asking whether non-disclosure of material information caused an inflation of the company's share price during a particular period. In the bushfire class actions, the general causation questions might require asking whether the alleged breach of duty caused a deficiency in the performance of a particular electricity asset. And then, is that deficiency causally linked to the point of ignition for the particular fire? And then, what is the path of that fire and its dimensions of time, intensity and geography (which may also feed back into duty questions)? For a cartel class

⁹ This option is supported by *Merck Sharp & Dohme (Australia) Pty Ltd –v- Peterson* [2009] FCAFC 26.

¹⁰ This option has been used in the *Centro* litigation. It implicitly ties the common issues to the pleadings.

action, the general question may be whether the cartel was given effect to, itself a separate contravention as well as a causation question flowing from the making of the proscribed arrangement. If so, what general effect did it have, and in what markets, in terms of price, non-price terms or quality? Now properly articulated, all of these issues may be common issues. Moreover, proportionate liability causation questions may link in with such general causation questions and need to be separately articulated. Now all these questions are separate from individual causation claims which require linking any general causation with the actions or omissions of individuals, which are idiosyncratic to their individual claims; such individual issues may also involve questions of actual or constructive knowledge and “contributory negligence” style defences.

Conceptualizing causation at both a general and individual level leads to the following possibilities:

- (a) First, you might need to have a sufficient number and diversity of individual group members’ claims (involving individual causation and damages) to be dealt with at the first stage trial. There are several potential advantages. Individual claims may raise particular legal problems that you want a ruling on, so that if there is an appeal after the first trial, the appeal can embrace these other issues as well.¹¹ Further, you may want a sufficient diversity of rulings on “test cases” (even if they have no idiosyncratic legal issues of interest) so that settlement can be facilitated after the first trial. If you just have a ruling on the representative party’s claim on the individual issues, you may not have any confidence in extrapolating that ruling to other individual claims¹². Now a plaintiff’s representative should anticipate this concern and seek to address it to the satisfaction of the defendant; but in my experience that does not usually occur.
- (b) Second, there may be generic features of particular types and classes of individual claims that can be grouped. If so, you may need to consider forming sub-groups so that a finding on an individual group member’s claim can bind the identified sub-group. If you just use option (a), you will not gain the benefit of that binding characteristic for a causation question that, although not common to the entire class, is nevertheless broader than just being applicable to an individual’s claim. Now plaintiff’s representatives are usually resistant to the formation of sub-groups. As they see it, it adds complexity. Moreover, they usually rely upon the consent requirement stipulated in section 33Q(2), which consent they then assert that they have not been able to procure. But this may be able to be “purchased” by the defendant agreeing not to seek any order for costs against the sub-group representative party beyond what that sub-

¹¹ This sometimes also needs to occur on liability questions, particularly in the context of negligence cases where there are different duty scenarios (the *Johnson Tiles* litigation arising from the Longford gas plant explosion is an example).

¹² Of course, each individual claim will turn on its own facts, but informal extrapolation to other individual cases may be a practical way to proceed.

group representative party was bound to pay in any event under section 33R(2) in relation to the adjudication of the individual aspects of that sub-group representative party's individual claim. Now forming a sub-group is a two-edged sword depending upon how the sub-group questions are answered. Accordingly, you may, in all the circumstances, decide that only option (a) should be used with a sufficient spread of test cases, and to leave it to the common-sense of the parties to extrapolate the finding on those test cases to other individual claims at a later stage.

Having dealt with some practical questions, I will now address several evolving causation issues for shareholder and cartel class actions.

B. SHAREHOLDER CLASS ACTIONS

Complex causation issues arise in shareholder class actions. Of contemporary interest are, first, the appropriate forensic test(s) for causation and, second, the application of statistical methods to prove materiality and ultimately loss.

Causation in shareholder class actions usually involves the following elements for the "inflationary" case:

- (a) A company is said to have contravened the continuous disclosure requirements of listing rule 3.1 and section 674 of the Corporations Act, by not disclosing material adverse information to the market.
- (b) As a result of such non-disclosure, the listed price for the company's shares is said to have been inflated i.e. above the price that it would have been if the material information had been disclosed.
- (c) Investors have then purchased shares at the inflated price and held them after the time when the price ceased to be so inflated, i.e. when the material information became known to the market. Accordingly, such investors have suffered loss and damage by reason of the contravention.

Other possibilities arise for the "deflationary" case. There could be share price deflation as a result of the non-disclosure of material positive information, i.e. the directors may have withheld favourable information. A cause of action may arise for a shareholder who sold his shares during the deflationary period when the share price was lower than what it would have been if such positive information had been disclosed to the market.

In addition to any breach of the continuous disclosure requirements, there may be an overlay of misleading or deceptive conduct allegations under section 1041H of the Corporations Act or section 12DA of the ASIC Act. These may focus on announcements, reports or accounts published by the company that contain misleading or deceptive content. Alternatively, there may be misleading or deceptive conduct by omission in the light of the disclosed “positive” content. Now such announcements, reports or accounts can be looked at in two causation connections. First, they may feed into what material was available to and in the market place, and which therefore was factored into the share price; so they may relate to the listing rule 3.1/section 674 case. Second, they may be the subject of separate focus as to whether their contents came to the attention of, or were read by, actual or potential investors in the company’s shares, and therefore had a more direct causal effect on such investors’ behaviour, so providing a foundation for the misleading or deceptive conduct case.

Forensic Tests for Causation

In shareholder class actions, there are various causation possibilities including:

- (a) establishing reliance;
- (b) satisfying a form of indirect causation; or
- (c) invoking the US “fraud on the market” causation theory.

In terms of the legal causation test relevant to misleading or deceptive conduct, section 1041I requires establishing “loss or damage **by** conduct of another person”. It has a similar focus to section 82 of the *Competition and Consumer Act 2010* (“CCA”)¹³. The word “by”:

- (a) expresses the notion of causation without defining or elucidating it (*Wardley Australia Ltd –v- W.A.* (1992) 175 CLR 514 at 525);
- (b) may embrace practical or common sense concepts of causation of the type discussed in *March –v- E & MH Stramare Pty Ltd* (1991) 171 CLR 506, but must yield to the primacy of the ordinary meaning of the statute (*Wardley* at 525);
- (c) only requires that the contravention be **a** cause of the loss, in the sense of the contravention materially contributing to the loss, rather than **the** cause or the predominant cause (*Henville –v- Walker* (2001) 206 CLR 459 at [14], [61], [69] – [70], [106], [109] and [163] and *I & L Securities Pty Ltd –v- HTW Valuers (Brisbane) Pty Ltd* (2002) 210 CLR 109 at [62]).

For the section 674 contravention, the legal causation test requires the connecting feature of “resulted from” (see section 1317HA). But how are these legal tests to be applied forensically?

¹³ I will ignore the recent formal modifications that now enshrine part of the remedies in the Australian Consumer Law concerning the successor provision to the old section 52.

The first causation mechanism, establishing direct reliance, is the conventional means for establishing causation in misleading or deceptive conduct claims. That is, did the relevant shareholder read (or have communicated to him) and rely upon the content of the various published announcements, reports or accounts? And many cases have looked at such reliance questions, which are not common issues but rather specific to individual investors. Now reliance is a sufficient condition for establishing causation, but is it a necessary condition? This is an open question in shareholder class actions, particularly where the conduct involves non-disclosure to the market or misleading or deceptive conduct by omission. But at least the following can be said:

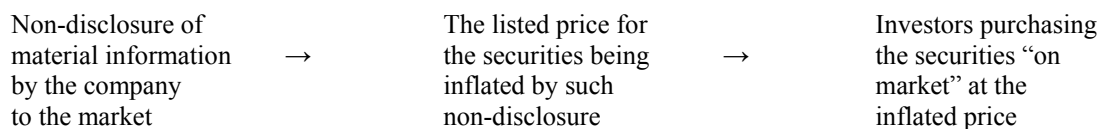
- (a) First, the statutory language of “by” does not in and of itself suggest that it is a necessary condition.
- (b) Second, although past cases in the misleading or deceptive conduct sphere focus on establishing reliance, that experience does not establish the induction that all such cases must establish it; one explanation for the de facto position may be that reliance was the **only** causation theory advanced in those cases due to the misplaced bias in favour of importing into the statutory test concepts from common law causes of action.
- (c) Third, the “passing off” scenario cases do not suggest that the person having the cause of action need establish any reliance for himself, albeit that the potentiality for third party reliance is not irrelevant. More generally, cases in other contexts have accepted that reliance is not a necessary condition for causation, including *Campbell –v- Backoffice Investments Pty Ltd* (2009) 238 CLR 304 at [31; footnote 59] and [143].¹⁴
- (d) Fourth, and contrary to (a) – (c), Grave et al have argued that policy considerations support the view that reliance remains the appropriate test in market-based shareholder class actions.¹⁵ They state that “(i)f the purpose of implementing the continuous disclosure regime was to assist people to evaluate their investment alternatives and encourage greater research by investors, dispensing with the need to prove reliance would not appear to be consistent with these objectives”. This has support from *Ingot Capital Investments Pty Ltd –v- Macquarie Equity Capital Markets* (2008) 252 ALR 659 at [21] – [22], viz, “[the predecessor section to s.1041H] should not be given a scope whereby an investor entering into a transaction could recover even if it knew the truth of the underlying misrepresentation, or was indifferent to its truth, and proceeds nonetheless”. But section 1041I(1B) of the Corporations Act and section 12GF (1B) of the ASIC Act (the “contributory negligence” style defences) may suggest a policy of not reading down the primary liability causation provisions to necessarily require reliance. But you can flip this argument.

¹⁴ See also *Janssen-Cilag Pty Ltd –v- Pfizer Pty Ltd* (1992) 37 FCR 526 at 529; *Smith –v- Noss* [2006] NSWCA 37 at [27].

¹⁵ See the first-class article by Damian Grave, Leah Watterson and Helen Mould: *Causation, Loss and Damage: Challenges for the New Shareholder Class Action* (2009) 27 C & SLJ 483 at 487-8. In this Section, I have also drawn upon insightful discussions with Michael Garner of the Victorian Bar and Ken Adams and Damian Grave of Freehills.

- (e) Fifth, a difficulty in the thesis that you need to show reliance arises directly in the misleading or deceptive conduct context where **silence** is the principal focus (see for example *Demagogue Pty Ltd –v- Ramensky* (1992) 39 FCR 31). How can a shareholder be said to rely upon unaware undisclosed information? But perhaps this issue can be finessed by saying that you can rely on conduct and circumstances in which the information not disclosed was material, so leading to reliance on the half-truth (*Grave et al*). But you can see the conceptual difficulties in asserting that reliance is a necessary condition. And this is even more acute when you get into the direct territory of listing rule 3.1 and section 674, which is beyond the half-truth scenario. The investor may have read nothing at all but merely assumed that in paying the market price, such a price reflected all information disclosed and **disclosable** to the market under listing rule 3.1. But another way to finesse the reliance question may be to express it nebulously in terms of an investor (or his agent) “relying” upon the integrity of the market and the market price reflecting all such information. But you are then moving into indirect territory and into areas to which the investor may not have turned his mind. But then a broad view of “reliance” may not necessarily require the formation of a positive belief¹⁶, although the US cases assume that it does, hence their innovative device of the “rebuttable presumption”¹⁷ (see below).

The second causation mechanism, the indirect causation theory, steps outside the classic reliance theory. *Grave et al* describe it as the “mere inflation theory”, but their label undersells it. It involves the following reduced causation chain (for the inflation scenario):



Now various points:

- (a) First, it is difficult to see how such a causation theory is necessarily excluded by the plain meaning of the statutory language for causation. The language for misleading and deceptive conduct causation is “by”. For a section 674 contravention and the section 1317HA remedy, the wording is “resulted from”, although nothing turns on this difference. Moreover, textual and contextual analysis of the broader statutory framework is not inconsistent with such a theory. And broadening the scope further, gleaning the legislature’s hypothesised singular purpose from this textual and contextual analysis or even beyond that horizon does not establish a purpose that is inconsistent with the or an

¹⁶ I am reluctant to travel down this creative path; the remotely analogous fiction of “general reliance” in the negligence field was not dealt with kindly by Gummow J in *Pyrenees Shire Council –v- Day* (1998) 192 CLR 330 at [163].

¹⁷ If they didn’t so assume, the device may have been unnecessary.

indirect causation theory being embedded within the statutory language. The statutory language, subject, scope and purpose so permit.¹⁸

- (b) Second, if reliance is not a necessary condition for causation, it implies the inclusion of some indirect causation theory within the statutory language.
- (c) Third, if it matters, the indirect causation theory is not inconsistent with a “but for” approach (albeit non-comprehensive) or a “common sense” approach (albeit nebulous).
- (d) Fourth, now it might be said that it is anomalous to entertain an indirect causation theory which permits recovery by investors who knew or ought to have known the true position of the company’s affairs. But actual knowledge may break the chain of causation. Moreover, for misleading or deceptive conduct claims, you do have section 1041I(1B) and section 12GF(1B) available, which consider actual and constructive knowledge.
- (e) Fifth, it might also be said that permitting such a theory means that, strictly, an investor may have a right to recover even if they did not hold **any** belief as to the integrity of the market price (rather than had knowledge or constructive knowledge of the true position). But practically, most investors, if asked, would say that they held such a belief (or at least that their broker or agent held such belief) at the time of acquisition. For those that didn’t have such a belief or would have purchased at the same price even if they knew the true position, again, such circumstances may break or negate any causation chain.

All these questions are yet to be worked out. But even an indirect causation theory, if good, may still give rise to individual specific causation questions relating to knowledge, constructive knowledge and “contributory negligence” style defences.

Finally, the third causation mechanism is the US “fraud on the market” doctrine. The doctrine embodies a rebuttable presumption that investors have relied on the integrity of the market price when deciding to purchase on market (*Basic Inc. –v- Levinson* 485 US 224 (1988)).¹⁹ The idea is that “the market is performing a substantial part of the valuation process [which would otherwise be] performed by the investor in a face-to-face transaction” (*Basic Inc.* at 244). Of course, the doctrine could only apply to “on market” purchases or “off market” transactions where the market price was the sole price input without any other negotiating influences.

But several points:

¹⁸ See *Travel Compensation Fund –v- Robert Tambree* (2005) 224 CLR 627 at [45] and [49] (per Gummow and Hayne JJ) and *Allianz Australia Insurance Ltd –v- GSF Australia Pty Ltd* (2005) 221 CLR 568 at [99] – [101] (per Gummow, Hayne and Heydon JJ).

¹⁹ On one view it is simply an idiosyncratic US rule of evidence. This is quite a different concept to inferred reliance – see *Gould –v- Vaggelas* (1985) 157 CLR 215.

- (a) First, in shareholder class actions with which I have been involved (Telstra, Centro and Oz Minerals shareholder claims), plaintiffs' lawyers have not relied on this theory, but rather the indirect causation theory.
- (b) Second, the US doctrine, if applied in Australia, would impermissibly rewrite the statutory causation tests. Moreover, why would an Australian court create a new common law evidential presumption, even if strictly "permitted" to do so (see section 9 of the Evidence Act 1995 (Cwlth) and its Victorian equivalent)?
- (c) Third, Grave et al have described the need for the US doctrine's creation as being an artefact of both the express requirement to show reliance under section 10(b) of the *Securities Exchange Act* 1934 (and rule 10B-5 thereunder) and the restrictions placed upon the commencement of class actions under rule 23(b)(3) of the US Federal Rules of Civil Procedure. A problem had to be solved. Plaintiffs were required to prove a "predominance of common issues" to get class certification. But reliance is an individual question and necessarily has to be proved in each individual case. Consequently, having to prove reliance on an individual basis results in a "predominance of individual issues". Hence, you could not get certification for your class action. Solution? Create the device of the rebuttable presumption. A "commonality of reliance" is then created. Problem solved. But there is no such problem under Part 4A. Class actions automatically proceed if section 33C is satisfied. The balancing between common and non-common issues is at most a section 33N question. Moreover, the statutory causation tests do not expressly require reliance. The US problem does not arise. The US doctrine is irrelevant.²⁰ Plaintiffs' lawyers in Australia have prudently not pushed the envelope of their causation theories so far.

Materiality and Loss - Statistical Methods

A factual issue that arises at a general level is the materiality of the information not disclosed. Assume that the relevant information is disclosed by the company and contemporaneously the share price falls. By those observable facts you might infer the fact of materiality and, accordingly, that the share price had been inflated. Equally, if there has been no share price change at the time of formal disclosure, you might conclude an absence of materiality and consequently no inflation. Alternatively, you might conclude that the market became aware of the information at an earlier time and had already factored it into the share price. So you might have to go back to an earlier time to look at materiality and to assess the inflationary component in the share price.

²⁰ Finkelstein J in *P. Dawson Nominees Pty Ltd -v- Multiplex Ltd* (2007) 242 ALR 111 at [11] gives the argument for the application of the US doctrine to the Australian context an air of respectability, but without any reference to these distinguishing US contextual features.

But this type of “analysis” is at best intuitive perception; it may not be sufficiently rigorous; post hoc, ergo propter hoc reasoning is inadequate. As explained in *Dura Pharmaceuticals Inc –v- Broudo* 544 US 336 (2005) at 342-3, there may be a “tangle of factors” affecting share price, including changed economic circumstances, investor expectations, and industry or firm specific facts which may account for price change rather than just the material information disclosed, but which ought to have been disclosed earlier. Moreover, when a company decides to announce material information which ought previously to have been disclosed, the announcement usually contains other information, particularly if a company is aware of the forensic benefits flowing from “mixed” announcements. For example, say a company announces at the one time two types of negative information: first, the negative information that should have previously been disclosed but wasn’t; second, further negative information that has been disclosed in a timely fashion. Say that as a result of such a “mixed” announcement there is a share price fall. Which part of the fall is referable to the first type of information the subject of the contravening conduct? Take another scenario where the “mixed” announcement contains new positive information (disclosed in a timely fashion) with the negative information which ought previously to have been disclosed. Say that as a result of the announcement there is no share price fall. How do you then work out materiality and the inflationary component in the share price solely referable to the tardy disclosure of the negative information?

The assessment of materiality requires using quantitative techniques involving event studies. These are studies that quantify the effects of information on share price.²¹ They inject rigour into assessing materiality. Event studies involve the following components²²:

- (a) Event studies rely on the “semi-strong” version of the efficient market hypothesis, which states that share prices in an actively traded security reflect all publicly available information and respond quickly to new information. Moreover, share price impacts of an event can be revealed if the following conditions are present:
 - (i) The event is a well-defined news item.
 - (ii) The time that the news reaches the market is known.
 - (iii) There is no reason to believe that the market anticipated the news.
 - (iv) It is possible to isolate the effect of the news from market, industry, and other firm-specific factors which also simultaneously affect the company’s share price.

²¹ These techniques have been used since 1969 in US securities fraud litigation. Many US courts have required such studies, e.g. *In re N. Telecom Securities litigation* 116 F Supp 2d 446 at 460, *In re Imperial Credit Industries Securities litigation* 252 F Supp 2d 1005 at 1015-6, *In re Executive Telecard Securities litigation* 979 F Supp 1021, *Miller –v- Asensio & Co* 364 F 3d 223 at 232 and *In re Oracle Securities litigation* 829 F Supp 1176 at 1181.

²² Tabak, D. and Dunbar, F: *Materiality and Magnitude: Event Studies in the Courtroom* (April 1999) (NERA), reproduced in *Litigation Services Handbook: The Role of the Financial Expert* (3rd Ed, 2001), edited by Weil, R., Wagner, M. and Frank, P. (J. Wiley and Sons) and Bruegger, E. and Dunbar, F: *Estimating Financial Fraud Damages with Response Coefficients* (July, 2009) (NERA).

- (b) The procedure for performing an event study involves the following simplified steps:
- (i) First, you identify the event, being the disclosure of the material information to the market.
 - (ii) Second, you identify the company's share price changes around the event.
 - (iii) Third, you run a regression of the company's share price on a market/industry index over a period ("estimation window"). You decide both the estimation window and also the index. The index is used to "control" for influences on the company's share price which are **unrelated** to the particular information whose effect on the company's share price you are looking at. You choose an estimation window which includes a period before the event you are studying and at least covers the period from when the relevant information first ought to have been disclosed. Moreover, you want a sufficiently long estimation window to provide a meaningful regression. You also use post event prices to "anchor" the index used. You use the regression to predict what the share price of the company should have been at the time of the event ("predicted price"). In other words you are assuming, if your regression is good, that the share price movement should have generally tracked the movement in the market/industry index as modified by timely disclosure of information, thereby giving you your predicted price. But if the actual price (assuming the non-disclosure of the material information) is different from the predicted price, then you may quantitatively conclude that the share price was inflated by reason of the non-disclosure and that the information was material²³.

So far I have addressed materiality. Let me deal with quantum. There are various methods²⁴ for determining the inflationary component, which is relevant to calculating damages, including:

- (a) the event study method;
- (b) the percentage price inflation method;
- (c) the dollar price inflation method.

For the event study method, you take the difference between the predicted price based on the market/industry index and your actual price as the inflationary component of the company's share price. Moreover, in terms of calculating inflation in the share price from the time when the

²³ I have considerably simplified the description. First, you get a market/industry index which will show percentage changes in that index over the estimation window. Second, the actual percentage changes in the company's share price are compared with these index changes. Regression analysis is used to establish a stable relationship between and to quantify the impact of a change in the index with a change in the company's share price. I have set out at the end of this paper a description of the related multiple regression analysis as used in cartel class actions.

²⁴ There is a discussion of these methods in Dunbar, F. and Sen, A.: *Counterfactual Keys to Causation and Damages in Shareholder Class-Action Lawsuits* (2009) Wisconsin Law Review 199 at 217.

information first ought to have been disclosed, the divergence of the company's actual share price from the trend ascertainable from the regression based on the market/industry index over that period will give you the inflationary component.

For the percentage price inflation method, you look at the percentage price drop of the company's share price at the time of the disclosure of the information. This is then assumed to be the percentage inflation per share for every day of the class period. But this method only works "well", if at all, in a single disclosure case with no inflation build-up over time. Moreover, it is inadequate because it does not separate out other confounding effects. For the dollar price inflation method, you look at the dollar price drop of the share price at the time of disclosure and take this price decline component as the assumed inflation per share for every day of the class period. Again, this only works, if at all, in the simplified scenario of a single disclosure with no inflation build-up over time. Moreover, it has the same inadequacy in ignoring other confounding effects.

Finally, in addition to these quantitative methods, there are other quantum issues including:

- (a) The legal method for quantifying damages and whether it should be:
 - (i) the difference between the price paid and the true value of the shares at the time of purchase (the classical approach in *Potts –v- Miller* (1940) 64 CLR 282 at 297-300 (per Dixon J));
 - (ii) the difference between the price paid and the "but for" market price for the shares that would have prevailed if disclosure had been made, which may be different from the true value²⁵; this difference between the actual and "but for" prices is the inflationary component discussed earlier; or
 - (iii) the difference between the price paid and whatever is left in hand after sale of the shares or, if the shares continue to be held through to trial, the difference between the price paid and the true value or market price at the time of trial²⁶.
- (b) Whether the loss of an opportunity to make an alternative investment can be claimed, particularly where an investor, but for the contravening conduct, would not have invested at all in the company's shares, as distinct from investing in them but at a lower price.

²⁵ True value may look at the underlying financials of a company to generate a discounted future cash flow valuation, a multiple of earnings valuation or a net tangible assets valuation for the company and, derivatively, share value. But the market price would normally be treated as a good proxy for such underlying valuation approaches.

²⁶ There is a problem with (iii). Any share price fall up to the time of sale or the current time (if they continue to be held) may not just relate to the contravening conduct, and hence awarding the said difference may over-compensate the investor. Some plaintiffs/applicants have sought to address this issue by pleading and factoring out market movements unrelated to the contravention. Whether they need to do so may be debatable. At one end of the spectrum, you may have a shareholder "locked in" to an illiquid market where there may be an argument for not so factoring this out. At the other end of the spectrum, you may have an investor who deliberately chose to hold and take a further "punt", so breaking the causal nexus between the contravention and any damage flowing from any further share price fall after that decision. It is difficult to generalize on any proposition in this area. Moreover, query the application of any "duty to mitigate" to the statutory causes of action.

- (c) Whether off-setting benefits should be taken into account. Say an investor has several share parcels, and one parcel was bought before the period of the company's contravening conduct, but was sold during the inflationary period with the investor receiving the "benefit" of the inflation on this parcel. Should this benefit be offset against the losses claimed by the investor on his other share parcels which were purchased at the time when the company ought to have made, but failed to make, the relevant disclosure, and were then held by that investor beyond the inflationary period?²⁷
- (d) More generally, considering how the number and timing of multiple transactions made by each individual investor impact on damages, and applying for each investor:
- (i) the "last in, first out" method; i.e. the last purchases being treated as the first sold;
 - (ii) the "first in, first out" method; i.e. the first purchases being treated as the first sold;
 - or
 - (iii) the "netting" method; i.e. netting off all sales against all purchases without regard to order.

None of these interesting questions have yet been resolved.

C. CARTEL CLASS ACTIONS

Finally, there are several developing areas in cartel class actions worth elaborating on, namely:

- (a) the use of statistical evidence to establish causation;
- (b) the relevance of "pass through" to damages assessments²⁸; and
- (c) utilising aggregate damages assessments.

Causation – Statistical Evidence

Statistical analysis cannot prove or disprove the existence of cartel conduct. Such analysis can only show a financial pattern (i.e. trend in prices or profit margins) that is consistent with the cartel conduct. But consistency does not prove causation. To rely on such evidence in proof of cartel conduct, it may be necessary to disprove other realistic causes of the trend.

Statistical analysis in cartel cases usually takes the form of multiple regression analysis. Multiple regression is a statistical method for analysing the relationship between a variable of particular interest ("dependent variable"), for example the price of goods, and other variables that explain movements in that dependent variable over time ("explanatory variables"), for example the costs of

²⁷ Where the investor bought shares during the inflationary period and sold them within that period (assuming the inflationary component to be the same) then there would appear to be no loss. But even this is debatable.

²⁸ In this section, I have drawn upon valuable discussions with Michael O'Bryan and Michael Rush of the Victorian Bar on the pass through question.

producing such goods. An additional explanatory variable (“dummy variable”) is added as the proxy for unexplained factors which may influence the dependent variable. Multiple regressions are then run to see whether, inter alia, the dummy variable has a positive co-efficient. If it does, the coefficient of the dummy variable measures the extent to which movements in the dependent variable (upwards or downwards) in a given period, say the cartel period, cannot be explained by the usual known influences that are measured by the other explanatory variables. The co-efficient of the dummy variable is then sought to be associated with the cartel’s effect, as the only factor that could explain the movement in the dependent variable apart from the other known explanatory influences. But the coefficient of the dummy variable may capture many unmeasurable or unidentified factors (not within the known explanatory variables) that affect price, not just the effect of the cartel. Such other factors may be changes in demand, changes in supply capacity, changes in product quality, new market entry, strategic price setting etc. The influence of these other factors may not be separable from the dummy variable; the positive co-efficient of the dummy variable may represent an indivisible factor, with the “cartel effect” an inseverable (or even non-existent) component thereof. Accordingly, the “dummy” variable, even with a positive co-efficient, may not be able to prove or disprove the existence of a cartel or measure its effects. I have set out a simplified summary of the method at the end of this paper.

At best, if a multiple regression is based on accurate data and the regression is correctly formulated, it can show a statistical pattern that is consistent with the alleged cartel conduct (if the dummy variable has a positive co-efficient). But to rely on such statistical evidence, it may be necessary to disprove the influence of all other realistic effects; moreover, a defendant may have an evidentiary onus to adduce some evidence of other realistic non-cartel effects to explain the positive co-efficient. It also follows that the estimates derived from a multiple regression set an upper limit on the potential effects of a cartel. But such estimates may substantially exceed the actual effects.

Further, to establish a “robust” statistical relationship between price (the dependent variable) and factors that may influence price (the explanatory variables other than cartel effects), it may be necessary to have “uncontaminated” data outside the period of the alleged cartel for a reasonable period. The smaller the “uncontaminated” data set, the less probative the regression.

Another problem with multiple regression analysis is that it may ignore heterogeneity in the particular products, in the features of the supply relationship between a company and each customer, or in the relevant markets, whether by location, industry segment or time frame. Any regression model is necessarily limited in the supply features it accounts for. The explanatory variables may be limited to cost, location and product end-use, but at a high level of generality and not adequately address the individual factors that determine prices.

Whether and to what extent the Federal Court will be seduced by the apparent precision of these “new” statistical techniques is an open question.

Loss and Damage – Is Pass Through Relevant?

To determine whether a claimant’s capacity to pass through any overcharge to purchasers downstream is relevant to damages requires consideration of the scope of sections 82 and 87 of the CCA. Sections 82 and 87 of the CCA employ similar language and concepts. Each is conditioned on a finding that a person has suffered (or, in the case of section 87, likely to suffer) loss or damage caused by conduct of another person that was “done” (section 82) or “engaged in” (section 87) in contravention of the CCA. Under section 82, a cause of action arises only when actual loss or damage has been suffered. Under section 87 a cause of action will also arise when loss or damage is likely to be suffered.²⁹ Otherwise, the sections share the same principal elements. They have a compensatory purpose.³⁰ An order made under section 87 may only compensate the claimant for the loss or damage or reduce or prevent the loss or damage – in both cases the loss and damage suffered or that is likely to be suffered by the claimant sets the limit. The phrase “loss or damage” has its ordinary natural meaning and encompasses any form of economic loss due to prejudice or disadvantage occasioned by a respondent’s unlawful conduct.³¹

Under section 82 “*a comparison must be made between the position in which the party that allegedly has suffered loss or damage is and the position in which that party would have been but for the contravening conduct*”.³² By analogy, a similar analysis is undertaken for section 87 in terms of comparing the actual position with the counter-factual.

Now claimants have usually sought as damages an amount referable to the payment of any overcharge, being the difference between:

- (a) the amount paid by the claimants to the supplier during the cartel period; and
- (b) the amount that would have been paid but for the alleged cartel conduct.

But assuming that a claimant paid an overcharge, it does not follow that his financial position would necessarily have been adversely affected by the contravening conduct; if he was able to fully pass through the overcharge to his customers, he may not have suffered any financial loss. The relevant comparison is between the actual financial position and the financial position the person would have been in but for the contravening conduct. If the claimant is able to pass through the overcharge to persons downstream, such that he is in no worse a financial position than he would have been in but for the contravening conduct, he has suffered no loss or damage.

²⁹ *Wardley* (supra) at 527.

³⁰ *Marks v GIO Australia Holdings Ltd* (1998) 196 CLR 494 at [35]-[38].

³¹ *Sellars v Adelaide Petroleum NL* (1994) 179 CLR 332 at 348-355.

³² *Marks* (supra) at [42].

Now some claimants have attempted to avoid this unsurprising conclusion.

First, they have relied on the US approach in *Hanover Shoe Inc v United Shoe Machinery Corp* 392 US 481 (1968) and *Illinois Brick Co v Illinois* 431 US 720 (1977). But this reasoning cannot be applied to sections 82 and 87. The US approach is more focused upon imposing punitive relief (treble damages) for contraventions of section 1 of the *Sherman Antitrust Act* 1890 (15 U.S.C. 1). Further, the US approach necessitates the refusal of claims brought by indirect (or downstream) purchasers of products. It is a corollary of such refusal that no pass through consideration is entertained.³³ But under sections 82 and 87, claims by indirect purchasers cannot be disallowed. Claimants can be either direct or indirect purchasers. Therefore, if an indirect purchaser can claim loss, because the direct purchaser has passed the overcharge through, then if you did not subtract the pass through component from the direct purchaser's claim, you would have "double" recovery as against the supplier. Interestingly, where the group description in a cartel class action embraced both direct and indirect purchasers, the lawyers representing the class would have to face up to this "duplication" question and also potential conflict issues directly. But if the class was limited to the direct purchasers, although the legal analysis is not altered, there may be fewer practical problems.

Second, some claimants have relied on restitutionary type claims or remedies to avoid pass-through. A pass through defence cannot be relied upon to defeat or reduce such a claim. A money had and received claim has its focus on depriving the defendant of gains received (i.e. the overcharge received by the supplier), rather than compensating the plaintiff for the losses incurred (where pass through should be taken into account) – see *Commissioner of State Revenue (Victoria) –v- Royal Insurance Australia Ltd* (1994) 182 CLR 51 at 75, 78, 90-91 and *Roxborough –v- Rothmans of Pall Mall Australia Ltd* (2001) 208 CLR 516 at [68]-[69]³⁴. Claimants have sought to rely both on this "liberal action in the nature of a bill of equity"³⁵ and section 87 to avoid the pass through issue. But such restitutionary claims or remedies are not open to them.

Section 87 does not permit restitutionary type orders. Section 87 empowers the court to make such orders as it thinks appropriate if it considers that the orders will compensate a person in whole or in

³³ To take into account pass through is consistent with the position of looking at part or all of the true loss as residing in the end user, with recovery then permitted by the end user. Now if you allowed recovery by the end user, then without permitting pass through to be looked at, you would have the potential problem of double recovery (i.e. recovery by both the direct purchaser and the indirect purchaser of, in substance, the one loss). But if you don't allow recovery by the end user, the US position, then there is no question of double recovery. In such circumstances, no problem arises if pass through is not looked at in claims made by the direct purchaser (the US position).

³⁴ See also M. Rush: *The Defence of Passing On* (Hart Publishing, Oxford 2006) at 47, M. Eglezos: *Recovering Cartel Damages: The Passing-on Defence under the Trade Practices Act* (2010) 38 ABLR 174 at 186 and *Auskay International Manufacturing & Trade Pty Ltd –v- Qantas Airways Ltd* (2008) 251 ALR 166 at [39]-[43].

³⁵ Lord Mansfield in *Clarke –v- Shee* 98 ER 1041 at 1042 and his Australian successor, Gummow J in *Roxborough* (supra) at [83] and [90]-[93].

part for the loss or damage or will prevent or reduce the loss or damage. As *Marks* (supra) stated at [43]: “(T)he Court can make orders under s.87 only insofar as those orders will compensate (or will prevent or reduce) the loss or damage that is identified”. So, the ceiling on claimants’ recovery is their actual loss or damage. *Multigroup Distribution Services Pty Ltd v TNT Australia Pty Ltd* (2001) 109 FCR 528 at 546 concluded that the majority’s decision in *Marks* was that the CCA remedies were directed to compensation and not the prevention of unjust enrichment. Equally importantly, if actual loss is established, with a right to recover under section 82, there is little basis for reading section 87 as conferring a discretionary power to take away or modify the right conferred by section 82 (*I & L Securities Pty Ltd –v- HTW Valuers (Brisbane) Pty Ltd* (supra) at [60]-[61], [69], [115], [117]-[120])³⁶. In other words, the analysis falls back, in effect, to section 82 where the pass through issue cannot be avoided.

And apart from section 87, there is also no basis for a money had and received claim on the basis of mistake or a failure of consideration. Such claims are usually inapplicable to payments made under enforceable contracts; they only apply where a contract has been set aside.³⁷ Otherwise, acquirers of products could bring money had and received claims for part of the purchase price, whenever they later discovered that the product purchased had a lower market value than perceived at the time of acquisition and that they acted under the mistaken belief concerning its market value. A contract is not void, or capable of being rescinded, merely because the party seeking the remedy held a mistaken belief about some matter affecting the contract, but was not otherwise mistaken about its terms.³⁸

That general position is predictably reinforced in *Roxborough* (supra). Tobacco retailers made a money had and received claim for the component of the purchase price paid by each of them to Rothmans, representing Rothmans’ liability to pay wholesale licence fees to NSW. The payment of this component was on the basis that the NSW law that imposed the wholesale licence fees on Rothmans was valid. After the relevant payments had been made (under the relevant contracts with Rothmans to cover those fees), the NSW law was struck down as a duty of excise. The Full Federal Court rejected the retailers’ claim. The majority said that the rights between each retailer and Rothmans were governed by valid and enforceable contracts; consequently, there was no money had and received claim. Although the majority in the High Court overturned that decision, they did

³⁶ In *I & L Securities*, section 87 was sought to be used to reduce the damages otherwise awardable under section 82. In the present context, claimants have sought to use section 87 to increase the monetary award beyond that permitted by section 82 (if section 82 requires pass through to be taken into account).

³⁷ See generally Mason & Carter’s *Restitution Law in Australia* 2nd edition at [215] and [404]; Carter on Contract at [22-090]; *Barclays Bank v W J Simms Son & Cooke (Southern) Ltd* [1980] QB 677 at 695, referred to in *David Securities v Commonwealth Bank* (1992) 175 CLR 353 at 376 footnote 82; *Brenner v First Artists’ Management Pty Ltd* [1993] 2 VR 221 at 257; *Pan Ocean Shipping Co v Creditcorp* [1994] 1 All ER 470 at 475, approved in *Lumbers v W Cook Builders* (2008) 232 CLR 635 at [79]; *Newitt v Leitch* (1997) 6 Tas R 396 at 408 – 9.

³⁸ See generally *Carter on Contract* at [22-340] and [22-370]

so on a limited basis. The majority concluded that there had been a failure of consideration, which entitled each retailer to effectively restitution of the component of the purchase price paid by each of them to Rothmans representing the wholesale licence fees assumed to be payable by Rothmans to NSW. Each contract specifically provided for the payment of this component as a **discrete** amount, with the purpose for the payment of the discrete amount to enable Rothmans to discharge its obligations under the NSW law. When that law “fell”, the purpose for the payment of each discrete amount failed. Consequently, there was a failure of consideration for each payment as a discrete obligation.³⁹ But the facts were exceptional. Normally, the consideration payable for goods or services under a supply contract is not so divisible. And where it is not so divisible or separately allocable to discrete components, nothing in *Roxborough* supports any money had and received claim to recover part of the price. By its treatment of the exception, the High Court reinforced the general. In the cartel context, the over-charge component in the price paid, at best, would only be identifiable *ex post facto*; there is no *ex ante* discreteness enshrined in the contractual terms or at the time of payment. There can be no money had and received claim for the overcharge component.

Finally, I have talked of “pass through” as if it was a species of defence for damages claims. But it is not a formal defence. There is no legal or evidentiary onus on the respondent, although it may be prudent to flag the issue in any defence. Rather, the claimant must prove damage, of which the pass through component is one aspect that the claimant must address.

Aggregate Damages Awards

Recently, aggregate damages awards have been sought in cartel class actions, based upon the statistical regression output of a set of “but for” prices. The “but for” prices have then been compared with the actual prices paid by and over all relevant classes of customers being group members, with the differences between the “but for” and actual prices then applied to the volumes supplied. The resultant figure is then aggregated to produce an aggregate damages figure for all such customers.

Under what circumstances can aggregate damages be sought? The Court’s powers to assess and award damages in a representative proceeding are governed by section 33Z. Sub-section (1) provides that the Court may:

“ ...

- (e) make an award of damages for group members, sub-group members or individual group members, being damages consisting of specified amounts or amounts worked out in such manner as the Court specifies;

³⁹*Roxborough* (supra) at [16]-[19], [21], [56], [60], [101] – [109] and [199].

- (f) award damages in an aggregate amount without specifying amounts awarded in respect of individual group members;
 ...”.

A distinction is drawn between paragraphs (e) and (f). Paragraph (e) empowers the Court to award damages to individual group members; the power may be exercised in respect of all group members or some. Paragraph (e) contemplates that the amount of damages may be worked out in a manner specified by the Court. An example is a proceeding involving the sale of defective products, where the amount of damages is the purchase price of the defective product. The amount of damages payable to each group member may be dependent on the number of defective products purchased by them. Paragraph (f) empowers the Court to award damages in an aggregate amount without specifying amounts awarded in respect of individual group members. But the power under paragraph (f) is subject to the limitation in section 33Z(3): the Court is not to award an aggregate amount unless “a reasonably accurate assessment can be made of the total amount to which group members will be entitled under the judgment”.

The limitation in sub-section (3) confirms that the paragraph (f) power is to be exercised in accordance with accepted legal principles. Before an award of damages is made, the Court must be able to estimate, with a reasonable degree of accuracy, the amount of loss suffered by the claimant.

Now although *ACCC v Golden Sphere International Inc* (1998) 83 FCR 424 described sub-section (3) as “widely” extending the judicial discretion for assessment, that approach was not embraced by Ormiston JA in *Schutt Flying Academy (Australia) Pty Ltd v Mobil Oil Australia Ltd* (2000) 1 VR 545 at [35]-[37] (dealing with the then equivalent Supreme Court Rules); Phillips JA also expressed the more conventional interpretation that “[a] reasonably accurate assessment of damages is ordinarily no more and no less than can be made when unliquidated damages are sought.” [55]. In *Mobil Oil Australia Ltd v State of Victoria* (2002) 211 CLR 1 at [23], Gleeson CJ approved of Ormiston JA’s reasons, stating that “... there is nothing in s33Z that requires damages to be assessed otherwise than in accordance with recognised legal principles”.

Can the limitation on the court’s powers in sub-section (3) be avoided by making an order under paragraph (e)? No. The text and juxtaposition of paragraphs (e) and (f) indicate that an award of damages to all group members under paragraph (e) should only be made where the court is able to determine that each group member has suffered damage which is readily calculable.

Now there are problems with the aggregate damages approach, including:

- (a) First, to the extent that there are any flaws in the methodology for the multiple regression analysis or it lacks probative force as reflected in the statistical conclusions, then the

foundation for the aggregate damages estimate, i.e. the “but for” prices, is either flawed or flimsy respectively.

- (b) Second, demonstrating by such analysis that there is a positive co-efficient for the dummy variable, leading to an inference that the cartel had **some** effect, only establishes causation at a general level. It does not establish that the cartel had an effect in relation to a particular price charged to a particular customer under a particular contract during the cartel period.
- (c) Third, and more generally, although the Court is empowered to award aggregate damages by section 33Z, the Court cannot do so unless it is satisfied that each group member has suffered loss and damage “by” the contravention. An individual group member does not have a cause of action under sections 82 or 87 of the CCA unless he has suffered causally connected loss and damage. An aggregate damages assessment cannot be used that amounts to saying: “Here is the total damages for the group, based upon an averaging approach; but we accept that for individual group members, some may have suffered no loss (and hence be over-compensated) and others who have suffered loss may be under-compensated, because of our averaging methodology”. You only get to section 33Z if a cause of action is established under section 82 or 87 for each group member.

How the use of aggregate damages approaches will evolve and courts’ responses to them are open questions. It should be said, however, that little insight may be gained from the US approach because of the difference in its legislative framework, including the greater latitude given to assessing aggregate damages for some claims (see, for example, section 15d of 15 U.S.C. 1).

D. CONCLUSION

I have raised more problems than I have solved, the reverse of what is usually desirable. That many of these issues are open-ended is a reflection of both the evolutionary nature of these types of cases and the level of experience of the practitioners involved. The vast majority of these cases have been resolved without the need for court adjudication. This has been due to the sophisticated legal and forensic analysis, informed by the US experience, which all parties have brought to bear. But this has had the disadvantage of not producing precedents to resolve some of these interesting questions. But advantageously, the absence of precedent has been conducive to nurturing innovation in approach and solution.

Multiple Regression Analysis – Simple Steps

- 1 First, you specify the major explanatory variables that are believed to influence the dependent variable. These are the important and systematic influences; the dependent variable is then separately “regressed” on each explanatory variable whilst keeping the others constant.
- 2 But for the minor influences on the dependent variable, each one perhaps very small, you place them in a separate random disturbance term. You also assume that their joint effect is not systematically related to the effects of the major explanatory variables being investigated. That is, you treat the combined effects of these minor influences as due to chance.
- 3 Now you may have a dependent variable Y and multiple explanatory variables, X_1, X_2, X_3 etc. which influence the dependent variable. Say you want to analyse the effect of a change in explanatory variable X_1 on dependent variable Y . What you do is to investigate that relationship by extracting the effects of the other explanatory variables X_2, X_3 etc., so that you can then see the relationship between a change in X_1 on the dependent variable Y . Let me build up how you do that.
- 4 Take the simple case where you just have one major explanatory variable X (cost) and you are looking at its effect as it changes on the dependent variable Y (price). You first plot a graph for all your actual data for cost with the corresponding figure for price (at different cost). You will have a spread of points on your Cartesian X/Y graph. You won't usually be able to join them up with a straight line. But you might imagine that you could draw a straight line running through your dispersed pattern of points, which points would then fall on either side of your imaginary line. More formally, by using “least squares regression” and, more often than not, logarithmic functions for either or both of the dependent or explanatory

variables, you can come up with a linear (straight line) relationship, which is a line of best fit⁴⁰, with the equation:

$$Y = a + bX + u$$

(where a is the intercept, b is the slope of your line and u is the random error term).

- 5 Now b is the co-efficient of your explanatory variable X. If it is a positive number, then as the explanatory variable X (cost) increases, the dependent variable Y (price) also increases. You have a positive linear relationship between the two variables. If the co-efficient is negative, then there is a negative correlation. If the co-efficient is zero, then there is no correlation. So much for the simple case⁴¹.
- 6 Now in the real world there will be multiple explanatory variables that influence the dependent variable. So your actual equation should look like this:

$$Y = a + b_1 X_1 + b_2 X_2 + \dots + b_n X_n + u$$

Now what is the picture created? Where there is one explanatory variable, you are fitting an imaginary line to the scatter points. For two explanatory variables, you are fitting a plane to your data set. For more than two explanatory variables, you are fitting a hyperplane to the data set.

- 7 Now, say you want to investigate the separate effect of explanatory variable X_2 on the dependent variable Y. You keep all the other variables “constant” so that this separate linear relationship between Y and X_2 can be seen. Now the assumption is made, which has to be supported, that each of the explanatory variables move independently from each other. If that assumption is not good for, say, two of the explanatory variables, then you add another “combined” explanatory variable, which is the product of the two, and see how the co-efficient of the “combined” explanatory variable moves.

⁴⁰ The line of best fit uses the technique of “least squares”. The values of a and b in the relevant equation are calculated so that the sum of the squared deviations of the points from the line is minimized; this is done through differentiation. Squaring is necessary for each deviation so that you get a series of positive numbers upon which differentiation can operate; if you used non-squared numbers, they would be both positive and negative and would cancel or net out in the sum, thereby giving you nothing mathematically useful to ascertain the minimum. Further, you want to “produce” a line which minimizes the magnitude of the deviations; the sign of each deviation (+ve or -ve) is irrelevant to that objective. Now, the straight line is the regression line. If your equation is $Y = a + bX + u$, you have a regression of Y on X. Your analysis assumes that the X values are correct and that the reason your Y values in reality do not fall on the line is due solely to random error.

⁴¹ I have made the assumption that the line or more correctly your co-efficients are statistically significant and have the requisite P and T values. Because linear regression is just a mathematical tool, you can produce such lines for any set of points. But it is only the statistically significant regressions that will be useful. In part, this is why logarithmic functions may be used for your variables as they enable you to deal with rates of change and are also more likely to produce statistically significant regressions.

- 8 Now return to our cartel scenario. You take your dependent variable Y (price) and work out **all** the major explanatory variables which might influence price ($X_1, X_2 \dots X_n$) but which are **not** cartel related. Then for the period of the alleged cartel you add a **dummy** variable to your equation (X_{n+1}). The claimants' hypothesis is that during the cartel period there is an unexplained influence on price (i.e. unexplained by the usual factors), which can only be attributed to the cartel. To represent this hypothesis mathematically, you insert a dummy variable for your cartel period, in addition to the other explanatory variables. You then run your regressions for all the known explanatory variables and also the dummy variable. If the regressions show that the dummy variable has a positive co-efficient, then this provides some statistical inference that something unexplained is affecting price during the cartel period, and not just the usual explanatory factors. It is telling you that there is an unexplained influence which is having a "positive" (increasing) effect on price, proportional in magnitude to the numerical value of the co-efficient. This positive co-efficient on the dummy variable is then attributed to the cartel's effect. But equally there may be other unexplained factors at work that are non-cartel, which you haven't identified in the other explanatory variables, but which may explain the positive co-efficient on the dummy variable. If, of course, the co-efficient of the dummy variable is zero, then just the usual non-cartel factors are at work in explaining the price movement during the cartel period. And, finally, if the co-efficient of the dummy variable is negative, then you have a serious problem with your regression analysis.
- 9 Now there are numerous caveats to this method including:
- (a) the choice of variables, in terms of qualitative type and measurement units;
 - (b) whether you have identified all explanatory variables that might influence the dependent variable⁴²;
 - (c) the adequacy of data sets;
 - (d) that the positive co-efficient on the dummy variable may be due to other non-cartel unexplained influences;
 - (e) that the magnitude of the positive co-efficient on the dummy variable is only the **maximum** effect attributable to the cartel.
- 10 Moreover, statistical methods do not directly establish causation. Rather, they establish only statistically significant **correlation** of movement between two or more variables. Whether correlation can provide a probative inference for causation is a separate question. To rule out

⁴² You must identify all major explanatory influences. If you do not, various problems may arise. First, the positive co-efficient of your dummy variable may represent not the cartel effect, but the other unidentified influences. Second, the co-efficients for all the explanatory and dummy variables may be higher than they otherwise would be if you had properly identified all influences and added the right set of variables in the first place.

the null hypothesis, i.e. that the correlation is due to chance, is only the starting point for any statistical causation enquiry.

- 11 One other general but self-evident point. Linear regression or multiple regression analysis can be used in one of two ways: first, as an explanatory tool; second, as a predictive tool. When used as an explanatory tool, it looks at historic data and tries to work out, say, what historic influences have impacted on and therefore explain, say, historic prices. That is the present context, albeit that you can generate from such analysis a “but for” set of hypothetical historic prices. But regression analysis can also be used as a predictive tool. So if you show a statistically significant linear relationship between 2 variables, X and Y, you can use that relationship to make new predictions of Y based upon new values of X.

- 12 Finally, the most useful discussion that I have read on the key issues is Franklin Fisher’s article: *Multiple Regression in Legal Proceedings* (1980) 80 Colum. L. Rev 702, although numerous articles on the subject have since been published, including a very simplified reference guide for US Federal judges published by the Federal Judicial Center (2000) in its Reference Manual on Scientific Evidence (second edition, with a third edition soon to be published).