CLA

THE COMMERCIAL LAW ASSOCIATION OF AUSTRALIA LIMITED

55

years of legal wisdom

Contents

President's message

The CLA this year celebrates its 55th anniversary. We're hoping you will join in our celebrations. There's going to be a great many of them — we'll update you with all the details throughout the year.

Those celebrations begin with the first of our 55th Anniversary Lunch seminar series in March. Our guest speakers will be Michael Izzo SC who will explore dealing with insolvent trading trusts and anti-phoenixing legislation and Sonia Tame who will look at legislative changes to the penalty regime for corporate and financial sector misconduct. The Hon Justice Jacqueline Gleeson will chair the seminar.

As a thank you to our loyal members, we are offering financial CLA members the opportunity to attend the Anniversary Lunch series at the special price of $55.

Turning to this issue of CLQ, as we begin another year, I'd like to thank the authors who have and those who are still sending us their papers to be published, as well as the editors, sub-editors, referees and layout artists. Without your consistent quality contribution the CLA would not be a publication providing practical information to the commercial community and the legal profession relating to commercial law and practice.

In the very first issue of *The Bulletin* (CLQ's predecessor) in 1968, the opening article was titled 'Frustration of contract: Suez Canal closure'. In the decades since, the CLQ continues to examine analyse contemporary legal, commercial and social issues .

The first issue of our anniversary year opens with an article by Gabrielle Golding and Mark Giancaspro exploring 'To moral obloquy or not to moral obloquy?'. To quote them, 'From when it was first judicially suggested that such [unconscionable] conduct must involve a high degree of "moral obloquy", substantial confusion has followed. In deciding whether or not conduct is statutorily unconscionable, courts have haphazardly applied, approved, ignored and condemned the expression.' They end by concluding that it's all in how you phrase it. No doubt Shakespeare would have agreed.

In 'Giving security after insolvency and PPSR extensions of time', Jason Harris points out the frustration attending recent court decisions that have, in his opinion, 'produced a sub-optimal outcome for corporate debtors seeking to restructure their affairs because insolvency practitioners are forced to seek court orders to approve all new security interests, even where creditors support the new financing'.

For a complete change of pace, we welcome back Gene Phillips and for the first time, his co-author Joseph Pimbley. Their article considers the mathematical component of the Myer ruling — not so much how or why the Court decided to proceed with market-based causation, but the ingredients of that determination. They do not focus on whether the ruling was right or balanced, but rather investigate the Court's reliance on certain mathematical studies presented to it, and whether that reliance was well justified.

I'm sure you'll enjoy the first issue of our anniversary year with its 'practical information ... relating to commercial law and practice'.

Finally I urge you to come along to our seminars this year. As always, they too will share 'practical information relating to commercial law and practice' and will provide you with an opportunity to participate. Not only that, come and share some cake with us to celebrate our 55th year.
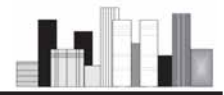
I look forward to seeing you there.

Norman Donato

Joseph Pimbley, PhD
Gene Phillips[1]

The *Myer* ruling and its limitations

1. Introduction

The ruling in *Myer*[2] has received significant attention and rightly so: as the first judgment in an Australian shareholder class action it provides crucial insights as to how the law may be applied in Australia, and in particular the Court's acceptance of 'marked-based causation' as a basis for a damages claim.

Our article considers the mathematical component of the ruling — not so much how or why the Court decided to proceed with market-based causation, but the ingredients of that determination. Ultimately, those same ingredients will be tested time and again in subsequent actions.

We do not focus on whether the ruling was right or balanced, but rather simply investigate the Court's reliance on certain mathematical studies presented to it, and whether that reliance was well justified.

We concern ourselves primarily with a section of the *Myer* ruling, the so-called Event Study Framework, which spans the 25 pages from paragraph 640 to 774.

The uncomfortable truth is that the *Myer* case forces the Court to consider expert evidence that seeks to explain movements in a complex and dynamic marketplace — the market for Myer's shares — which market unfortunately does not lend itself to any easy explanation. Any purely theoretical analysis that seeks to convincingly explain a market movement will thus be difficult to defend.

Our approach here will be to tackle several of the subsections in the Court's ruling, starting with the all-important part (B) before returning to a discussion of part (A) and then returning to an alphabetically ordered approach.

2. Part (B): Market Efficiency [Para 680–722]

The central theme of this section is to establish whether Myer's shares traded in an efficient market. Efficiency is important here, as it seeks to describe whether the marketplace could quickly absorb new information about Myer as it entered the public domain — and such a finding has knock-on implications for the construction of a class, and in particular the necessity to prove individual reliance, which has crucial considerationsbeyond the scope of this immediate article.

The market for Myer shares may well have been efficient, but we examine how the Court was able to make that determination.

To determine efficiency, the Court relies on a test borrowed from US precedence. *Cammer v Bloom*[3] examined five factors — henceforth the so-called Cammer factors — to 'support the presumption of efficiency in the market for a particular security.' [682]

The problem in the instant case, however, is that these five factors did not conclusively support the presumption of efficiency. The Court cites to the applicant's expert who noted:

'*... the first four Cammer factors did not of themselves provide conclusive answers to the question of whether or not prices react quickly to reflect new information and, consequently, whether or not trading in the security at issue was efficient, or otherwise.* In contrast, the fifth factor, price reactions to unexpected news, uses statistical analysis to examine directly whether Myer's share price movements respond to company-specific information in a timely manner. For these reasons, he placed particular emphasis on the fifth Cammer factor.' [688, with emphasis added]

No countervailing evidence is cited to in the ruling. The work-around, as justified by the Court at [688], was to pay particular attention to the fifth factor. (This fifth factor — which we'll call Material Reaction to News — is the cause-and-effect relationship between news and stock price. As a measure of efficiency according to this factor, stock price reactions on days on which information about a company was released need typically to be larger than price reactions on days without company related disclosures. [687]) But from our viewpoint, the (seemingly uncontested) fact that 'the first four Cammer factors did not of themselves provide conclusive answers' as to efficiency cannot be simply glossed over. It is a warning sign, or a red flag. A pre-determined test had been set, but the results seem to have been inconclusive.

'*Based on the above analysis* there is little doubt in my mind that *it is a robust assumption* to make, applying the Cammer factors, that the semi-strong version of the efficient capital market

hypothesis applied to the trading in MYR ED securities at all relevant times.' [722, with emphasis added]

Thus, despite the realisation that the test was not met, the Court reached a confident conclusion. The Court, of course, is welcome to use its judgment when weighing the evidence. But it is arguable whether the decision is indeed well-founded on the analysis: the pre-set test conditions were by no means convincingly satisfied. As such, the decision cannot here be said to be based *on the analysis* provided to the Court, as is suggested at [722], but should be said to be based on the Court's judgment. The analysis is unpersuasive and is not availing of a 'robust assumption' of *efficiency*.

Separate to the issue of the Cammer test conditions not being persuasively satisfied, the Court's decision — based on the fifth Cammer factor — is in fact a risky extrapolation. The Court has ruled in the affirmative on *efficiency*, which means the Court is satisfied that 'the price of an actively traded security reflects all publicly available information.' [667] The Court has reached this conclusion based on just one factor, which suggests that on 'news days' there are statistically significant stock price movements in Myer's stock relative to the broad market.

Thus, the Court has deduced, from an analysis that looks at the behavior of Myer's stock on 'news days,' that Myer's stock always quickly reflects all publicly available information.

3. Part (A): The 'Overview' [Para 661–697]
Paragraphs 662-664
In these paragraphs, the Court assumes that movements in stock prices can be explained and that one can measure where stocks would have traded in the absence of certain information of interest. This is important. It is an assumption, possibly even a mirage, that markets can always be explained. One counterargument is simply that markets are not inherently explainable, or at least that they need not always be explainable. To approach a proof of 'explainability' or to quantify the extent of 'explainability,' one would need to perform numerous controlled experiments in which one factor is varied, all others are held constant, and each outcome is compared to the prediction for this factor made prior to the experiment. Unlike isolated experiments run in a laboratory, markets and economies do not permit the running of such controlled experiments.

Paragraphs 665-668
The Court refers to two 'long standing principles of financial economics' presumed to be valid for actively traded stocks. The first is the semi-strong form of the efficient capital market hypothesis ('EMH'). The second is that the price of such a security 'reflects the present discounted value of the future cash flows expected to be generated by the underlying asset or the "true value".'

First, while we are sympathetic to the EMH, one cannot call it a widely accepted principle. It is simply a hypothesis; it has never been proven as it is inherently not provable.[4] On the contrary, the EMH is subjected to frequent and extensive criticism. The Court acknowledges criticisms of the robustness of EMH at [1627] to [1630] but seems to downplay these criticisms as 'misconceived views' at [1630]. But we caution that these criticisms should not be so easily discarded as unconventional — if anything they may be the more mainstream and sturdy views. Esteemed equity investor Warren Buffett, for one, often disagrees with the notion of efficiency in markets, citing to the herd mentality in financial markets and noting that market prices are frequently nonsensical. In consideration of Buffett's stance, we are reminded of a well-documented trading strategy implemented by several reputable institutions, called momentum trading. Momentum trading is a technique in which traders buy and sell in the same direction as recent price trends — that is, they follow the momentum. Thus, if stocks were to move in some direction (say lower) when incorporating newly public information, momentum traders would get behind that movement and sell, all else equal serving to magnify the impact of the new information. (Momentum traders often if not always act quickly, in a machine-driven algorithmic fashion,[5] meaning that there may not be an easily discernible time lag between the initial stock market movement that prompts the participation of the momentum trades, and the subsequent movement that reflects their participation.) If these were the only features of the market, the stock price reaction would not reflect the new news but rather it would reflect the dual influences of the initial reaction to the news plus the impact due to the momentum traders amplifying the movement.[6] Some market players hold the view that market prices converge, over time, to some or other average or to a roughly appropriate range for products of that type. Such a theory, too, must necessarily run counter to the hypothesis of efficiency, as it requires the inference to be made that market prices can be unexplainable for periods at a time prior to correction or convergence. Considerations of herd mentalities, momentum trading, and convergence over time do not refute the EMH but run counter to any widespread acceptance of EMH.

Second, the idea of a stock having a true value is dubious. There is no evidence for such a true value in any stock on any day. Stocks trade constantly, among other things reflecting different market participants' varied impressions of its value. So why do we assume there is such a thing as a true value beyond merely the ever-changing instantaneous value?

Third, the notion of a share being valued as the 'present discounted value of the future cash flows expected' has only a superficial appeal. It is impossible to implement in practice. If one could project accurately the cash flows to investors in Myer equity for several future decades and one could determine a precise discount rate for these future decades that correctly incorporates the risk of Myer cash flows, then one could calculate (easily, at this point) a value for the Myer equity. But the first

two steps are illusions. Equity cash flow projections have huge and largely inestimable uncertainty — especially over a time span of years or decades necessary for discounted cash flow (DCF) analysis. For equity cash flows, there is also no accepted method to derive or construct a discount rate that incorporates all uncertainty; and even if there were the accuracy of these discount rates are not testable ex post.

Fourth, prominent researchers and commentators on the recent so-called Global Financial Crisis (GFC) argue that leading into 2007 and 2008, there was a widespread mispricing of risk in financial products like CDOs; meanwhile, academics studying price movements during the 2007-2008 period regularly cite to widespread disagreement on asset valuations[7] for periods of months during which willing sellers, often at arguably reasonable and already heavily-discounted prices, could not find willing buyers, who could afford to wait for even lower prices. Studies of this nature run counter to theories of market efficiency and theories of discounted cash flows: true market dynamics of demand and supply much more accurately depict the scenario.

4. Parts (C) & (D): 'Conditions affecting reliability' and 'Three steps of an event study' [Para 723–751]

In this section, the Court develops the event study analysis which, to be reliable, itself hinges largely on the earlier finding of efficiency. (See [680] and [728])

For example, the Court explains that:

'The semi-strong form of the efficient capital market hypothesis holds *that at any particular time, the price of a company's shares incorporates all publicly available information* relevant to the valuation of that company.' [669, with emphasis added]

We know from earlier that the Court determined that the conditions for *efficiency* were met. But that form of efficiency requires the price 'at any particular time' to reflect all publicly available information. There is an immediacy to that test — it must hold true 'at any particular time' tested — requiring the market to instantly incorporate new information.

But that does not comport with the Court's own leniency later in its ruling, where the Court specifically allows for the fact that it may take more than a day for stocks to incorporate all public information.

'In some instances, *it may take more than one trading day for a share price to reflect the full implications of new information.* The number of days that it does take for a stock price to react to the news (the event window) can be determined by examining the statistical significance of the price reactions on each successive day. If the abnormal returns on consecutive, subsequent trading days are also individually and cumulatively statistically significant, the event window should generally be extended beyond the (trading) day of the disclosure, provided there is no intervening disclosure of separate news. If the event window is extended to

include additional days, the price reaction is calculated as the cumulative abnormal return over the consecutive days. The cumulative abnormal return is simply the sum of the daily abnormal returns.'[8] [751, with emphasis added]

Thus, for the purposes of accepting *efficiency,* the Court has been willing to accept certain imperfect statistical analyses that do not really prove this efficiency; and then when applying the events study framework that relies on *efficiency,* the Court has been willing to accommodate for the situations in which the market is simply not efficient, according to its definition of efficiency. But the Court has not made room for the possibility that such a finding of inefficiency might interfere with its original determination of *efficiency,* nor that these findings of inefficiency would necessarily undermine the reliability of the subsequently undertaken event study which hinges on *efficiency* (as the Court acknowledges at [680] and [728]).

This paragraph 751 creates issues of a second kind: it provides a loophole for a subjective determination to be made as to how long certain information might take to be reflected in a market. As famed researcher Ioannidis explains in his seminal paper 'Why Most Published Research Findings Are False':

'The greater the flexibility in designs, definitions, outcomes, and analytical modes in a scientific field, the less likely the research findings are to be true. Flexibility increases the potential for transforming what would be 'negative' results into "positive" results, ie, bias ...'[9]

As it applies to us here, a partisan expert may try first to make her test work for the one-day price movement, but she may subsequently, subjectively, alter course by adding more days if and where it allows for a more impactful result. [751] creates the potential for selection bias: with the expert enjoying some freedom to choose how to apply an analysis, she may choose to show results from only those analyses that produce the most impactful results, while avoiding disclosure of tests that reach less desirable outcomes.[10]

Well-designed statistical tests do not allow for such optionality or subjectivity. The *efficiency* requirement had limited the potential for just this sort of subjectivity.

5. Part (E): 'True value and share price inflation' [Para 752–753]

In this section, the Court explains that once the prior process has been run to capture the 'abnormal returns' associated with a particular disclosure event, one can then use that information and apply it to ascertain the 'true value' of the stock on other dates in the counterfactual being examined.

'By estimating the likely effect on a share price of information that a company has failed to disclose, it is possible to construct a time series of values that represent the likely share price effect of the disclosure on each day over a period of time (a daily inflation series).

'Had the information that was not disclosed to the market been revealed in a timely manner, the share price would have

changed at that time by the amount estimated by reference to the corrective disclosure. Assuming that the market for the relevant securities trades with semi-strong efficiency, they subsequently would have traded at their "true value". The difference between the observed price, absent the timely and accurate disclosure of material information, and the price at which the shares would have traded following a timely disclosure (the true value) can be described as the extent of share price inflation.' [752] and [753]

We have described, above, our reservations with the concept of a 'true value' for a stock. Those reservations aside, it is a blunt and likely inaccurate approach to assume that such true value would be a single number, applicable 'on each day over a period of time;' moreover, it is inconsistent with the prior approach outlined.

The statistical test delineated at paragraphs [734] to [751] effectively requires the analysis of whether a disclosure event affected the stock price, *at a given confidence level* (specifically 95% per [745]). Such an evaluation might be effectively rendered under certain conditions; but it is not availing of a discrete solution such as 'but for the disclosure event the "true value" would have been $Z.' The confidence levels are important. It is set out as a probabilistic analysis which requires probabilistic outcomes.

Ultimately, the 'true value' ought to be a range of prices at given confidence levels. For example, rather than saying the 'true value' of the stock would have been $1.50 on day zero, scientists might say the stock's true value would likely be in the $1.40 to $1.60 range with a 60% probability, or in the range of $1.30 to $1.70 with a 75% probability.

6. Conclusion

The Court's ruling in *Myer* provides copious substance for further consideration. Our analysis here looks only to the event study analysis provided to the Court, and the Court's confidence in conclusions drawn from that analysis.

Our article questions several of the elements of this analysis, including the elements supporting the Court's conclusion of *efficiency,* the Court's determination to allow for a broader definition of efficiency during the event study itself, and various complications that arise from those determinations.

Importantly, the Court may in any event have arrived at the right result, whether or not the foundation might be said to be flawed. It is however worthwhile to reflect on some elements of this foundation: much of what the Court takes for granted, or presumes to be true, is unfortunately complex, debatable, hypothetical in nature, or untested.

We caution that it would be a mistake to build too fast, or with a steadfast determination, absent deeper analysis. We encourage the battle-testing of the determinations made and discussed herein to achieve greater conviction that we are building on a stable base.

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The opinions shared here are the authors' own and do not necessarily reflect those of the institutions with which they are affiliated.

2   *TPT Patrol Pty Ltd v Myer Holdings Limited* [2019] FCA 1747

3   *Cammer v Bloom* 711 F Supp 1264 (DNJ 1989)

4   The assertion that a stock price 'reflects all publicly available information' is not fully testable since it implies the obligation to assess every element of publicly available information and demonstrate that the influence of each such element is both included in the stock price and correct.

5   The Court acknowledges the participation of 'new millennium algorithmic machine trades' at [1652].

6   The more efficient a stock is, the more likely it is to excite the participation of quantitative hedge funds implementing algorithmic strategies like momentum trading. As a thorny repercussion, however, while the presence of momentum trading might be suggestive of a stock being relatively efficiently traded, it has countervailing implications on the effectiveness of the event study that proceeds based on this efficiency determination. The Court acknowledges at [728.c] that the ensuing event study will be more reliable in the event that: 'the effect of the relevant news is capable of being isolated from the effect of any simultaneously released and confounding news.' Of course, in the event that momentum traders are relatively unopposed, it can be very difficult to disentangle the portion of a stock's reaction due to the 'news' from the reaction due to the impact of momentum traders following the movement.

7   In Michael Lewis' book *The Big Short*, which concerns itself with following some of the market players during the GFC, Lewis quotes Scion Capital's Michael Burry as saying: 'Whatever the banks' net position was would determine the mark,' ... 'I don't think they were looking to the market for their marks. I think they were looking to their needs.' Banks often make the market, or create the market, for the securities at issue in *The Big Short*. But whether the banks were 'looking to the market' or 'looking to their needs,' as Burry explained, does not matter: our point is that they were not looking to the outcomes of any discounted future cash flow models.

8   An additional, though less consequential, error is the statement that 'cumulative abnormal return is simply the sum of the daily abnormal returns.' Daily returns are not simply additive in this man-

ner. A 10% gain followed by a 10% loss does not produce an unchanged stock price (0% two-day return). To demonstrate this mathematically, a number Z, multiplied by 1.1 (reflecting a 10% gain) and then by 0.9 (reflecting a 10% loss) would not remain equal to Z. Rather, $Z \times 1.1 \times 0.9 = 0.99Z$.

9   Ioannidis, J P A (2005), 'Why Most Published Research Findings Are False,' *PLoS Med* 2(8): e124

10   Suppose a company (or a country) were to secure many ratings, independently, when trying to raise capital — but suppose it were to simply discard all but the top rating received and advertise only this top rating to prospective investors. Such a showing does not mean that the top rating, independently commissioned, was wrong. But investors may rightly feel mislead: their analysis may have been different had they been presented with all of the ratings secured, not only the most favourable. We call this 'selection bias'.