Environmental pollution has many facets, and the resultant health risks include diseases in almost all organ systems. Many infections are acquired by inhalation and ingestion of pathogens. Airborne diseases are spread when droplets of pathogens are expelled into the air due to coughing, sneezing or talking. Water-borne diseases are infectious diseases spread primarily through contaminated water.

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Occupational Exposure to Asbestos: Mortality and Liability Issues Arising in Hong Kong’s Shipping Industry

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Abstract

This article evaluates a range of legal responses to issues of causation and compensation arising out of occupational malignant mesothelioma claims. A survey of the common law in the United Kingdom leads to an assessment of the law and policy settings which Hong Kong should adopt in relation to these issues. It is argued that Hong Kong is underprepared for the steep rise of asbestos-related litigation on the way to its shores and that the absence in Hong Kong of local common law on mesothelioma liability means that it will draw on English approaches which are, themselves, unsatisfactory and unsuitable to local conditions. In particular, is argued that (1) the high sympathy culture toward patients in Hong Kong’s healthcare system and (2) the high level of personal and corporate bankruptcy mean that stringent English compensation approaches to mesothelioma in cases of pre-cursor conditions and multiple employer apportionment of liability (respectively) are not a good fit for Hong Kong.

Introduction

This article addresses asbestos-related mesothelioma in Hong Kong from both general occupational and more particularly the maritime exposure perspectives. A conference on asbestos in Asia was hosted by Hong Kong in 2009 and the Hong Kong Confederation of Trade Unions, the Association for the Rights of Industrial Accident Victims and the relative of a marine mechanic who was an asbestosis suffer all combined to express concern at the increasing mesothelioma mortality in the Region [1]. There is a great similarity between the course of the disease in Hong Kong mesothelioma patents and the epidemiology described in the international medical literature: mean age of 63 years upon diagnosis, mean latency of 46 years, median survival of 9.5 months, patients are predominantly male and there is a high prevalence among workers in ships and dockyards [2]. Thus, the legal questions raised in Hong Kong's shipping industry by mesothelioma about causation, latency and measure of damages will be very similar to those in the England. But it is questionable whether Hong Kong should follow the English in finding pleural plaques to be a non-compensable condition (Rothwell) and that in multi-employer cases damages should be carried by solvent employers to the extent only of the liability of each remain-

Figure 1: Projections for the Predicted Numbers of Mesothelioma Cases for Males in the Hong Kong General Population for 2002–2027. Assuming a Normally Distributed Latency period of 42 ± 10.5 years (mean ± SD)¹.

¹bid.

To this point in time, malignant mesothelioma has been quite rare in Hong Kong. A study based on medical records from 12 of the 20 hospitals in Hong Kong discovered that there were 67 cases of the disease over the period from 1988 to 2000 [3]. Considering that this survey covered more than three quarters of the patient hospitalizations in the territory, 67 cases over a 12 year span, while tragic on an individual level, is a high number relative to the total population. In another study by the Hong Kong Cancer Registry, it was found that during the period 1976–2006, a total of 199 new cases of mesothelioma were diagnosed (137 males and 62 females) in the general population of the Region [4]. (Figure 1)

The disproportionate number of males contracting the disease is due in large part to the occupational nature of exposure to crocidolite, amosite and chrysotile asbestos – exposure to which is strongly associated with mesothelioma and lung cancer [6]. Moreover, there are six indicators of cancer causation which are all met by asbestos: causal likelihood, statistically significant positive association, qualities of association, animal experimentation, structural cell changes and biological mechanisms [7]. Another statistical method of assessing causation is the magnitude of the Relative Risk (RR) and this predicts the likelihood of developing a particular kind of cancer on the basis of whether one is or is not exposed to a particular carcinogen. The RR of asbestos expo-

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sure leading to mesothelioma is between 50 and 80; the RR of cigarette smoking leading to lung cancer is 10 and agent orange exposure leading to soft tissue sarcoma has an RR of between 0.53 to 8.64 [8]. It has been observed by Christie that, 'where the Relative Risk is equal to or greater than 10, it could be concluded, with reasonable certainty, that a causal relationship exists' [9].

Three quarters of the recorded cases in the Hong Kong 1988 to 2000 study related to occupational exposure to asbestos [10] and on this basis Hong Kong will see a rash of male workers’ claims in the near future because of the use of asbestos in the construction and shipping industries in the late seventies, with further peaks in the early eighties and late nineties [11]. The study, by taking into account the 25 to 50 year latency period of mesothelioma, concluded that, "Hong Kong may encounter an epidemic of mesothelioma in the 2010s if effective occupational asbestos control measures are not in place" [12]. Considering that latency periods are long for mesothelioma, the implementation of control measures would appear to be a case of shutting the gate after the horse has bolted, but it is not entirely too late for Hong Kong. A recent media report has featured expert opinion that from 2010 onwards Hong Kong can expect a significant increase in mesothelioma claims, not only from dockworkers and construction workers of previous decades, but also from workers who are employed in more recent times by ignorant or cost-cutting contractors to renovate buildings [13].

Hong Kong is part of a larger and international trend in mesothelioma mortality which will only get worse as the decade from 2010 progresses [14]. In terms of the ratio of mortality to incidence, mesothelioma is only slightly less likely to finally end the life of its sufferer than diseases with extremely high mortality rates such as cancer of the esophagus, liver or pancreas [15]. Moreover, malignant mesothelioma, once a rare disease late in the UK in the 20th century is now to cause an estimated 1950 to 2450 deaths per year between 2011 and 2015 [16].

In global terms, malignant mesothelioma practically unheard of in the early 1950s but since the 1970s its occurrence has increased markedly [17]. The greatest risk factor for malignant mesothelioma is regarded as occupational exposure to asbestos: responsible for 70–83% of the risk of contraction for males and 38% for females [18]. Other implicated causes of mesothelioma are radiotherapy and exposure to erionite fibres (volcanic ash), as well as chronic inflammation of the lung [19]. The average latent period between first exposure to asbestos fibres and the development of mesothelioma is approximately 40 years but it may be as long as 60 years depending on how much exposure occurred throughout a lifetime [20]. Different countries used asbestos for different reasons and this makes country-to-country comparisons difficult, however, the lengthy latency is universal and this means that incidence and mortality rates of malignant mesothelioma will continue in the decades ahead [21]. Although mesothelioma in the shipping industry is a global concern, the main focus here will be on Hong Kong and although malignant mesothelioma of an occupational origin is rare in Singapore (16 diagnoses of the disease between 1996 and 2001) [22], the sheer quantity of Singapore registered ships and seafarers based in Singapore on pre 1970s ships suggests that it, like Hong Kong, will not be immune from the expected spike in cases.

In Hong Kong from 2010 onwards, there will be those who present with malignant mesothelioma, but doubtless also those who ‘merely’ have pleural plaques [23]. In the medical literature, there is an association between asbestos exposure and pleural plaques – a localized fibrosis on the diaphragm and inner rib cage [24]. About a third to one half of those occupationally exposed to asbestos will have calcified pleural plaques thirty years after first exposure; after twenty years, 5 to 15% will have uncalcified pleural plaques [25]. There is, however, a less credible connection between pleural plaques and mesothelioma. Thus, a key legal issue to be discussed later in this article is whether or not pleural plaques constitute a compensable disease and whether their presence should be regarded as a reliable indicator of the likelihood of the development of mesothelioma.

Dimensions of Hong Kong’s Shipping Industry

It is trite to observe that shipping is big business in Hong Kong. In 2009 the Port of Hong Kong had 21,000,000 Twenty Foot Container Equivalent Units (TEUs) and ranks only a little behind Singapore (1) and Shanghai (2) in terms of container throughput [26]. In terms of gross tonnage of shipping owned, Hong Kong ranks seventh in the world [27]. Although the average age of ships in the Hong Kong is twelve its fleet is not so young as to generally postdate the 2002 global ban on the use of asbestos in vessels. Hong Kong saw the widespread use of asbestos in thousands of vessels between the Second World War and the mid-1970s when they plied East Asian and global waters. Added to the ‘pipeline effect’ of cases from the earlier era, disturbing reports have emerged that Turkish and Chinese shipyards continue to use the mineral as insulation in vessel newbuildings and refits and flout the 2002 global ban [28]. Furthermore, there is evidence from a technical manager of a Dutch engineering company (which removes asbestos) who believes that the purchase of spare hand engine components (gaskets and the like) is the main way that contamination can happen even in recently constructed ships that were built or serviced outside of Turkey or China; a survey conducted recently by his company of 300 ships in a range of ages found asbestos in around 95% of the ships [29]. This modern contamination will doubtless lengthen the latency pipeline even further, in Hong Kong as elsewhere.

Hong Kong has over 5,000 seafarers registered in the region and there are nearly 60,000 seafarers employed on Hong Kong registered ships [30]. The owners of the maritime industry of Hong Kong will be seriously affected by the projected surge in claims related to maritime asbestos. Vessel construction and maintenance during the first two thirds of the twentieth century involved extensive use of asbestos containing products, particularly as heat insulation in wall lining in engine rooms [31]. Other properties of asbestos that made it indispensable to international shippers are that it is lightweight, increasing ship speed and fireproof [32]. Mariners, construction workers, maintenance technicians and others are likely to bring claims against their employers seeking to recover damages suffered as a result of lung conditions including asbestosis and mesothelioma [33]. Maritime claimants typically allege that they inhaled asbestos particles which became airborne during operations and maintenance, resulting in lung conditions in their later lives. There were 350,000 premature deaths from asbestos related cancers arising from exposure between 1940 and 1980 and of this number 74,000 occurred to employees in the shipbuilding industry. It was said in evidence that “ironically, most of these individuals jobs did not directly involve the use of asbestos, they were simply working nearby when application of insulation or removal work was underway” [34].

Moreover, a study by Harries of Royal Navy ship workers found that pleural mesothelioma patients were not drawn predominantly among “asbestos workers” but from boilermakers, shipwrights, labourers, welders and fitters [35]. These tendencies in exposure mean that leaders of the shipping industry in Hong Kong need to recognize that liability issues arising from asbestos are far wider than those relating to installers and removers of maritime insulation.

Until the early 1990s reliable information on pleural fibrosis consistent with prior exposure to asbestos among merchant marine sea-
men was difficult to find even though asbestos was commonly used in ship construction until the late 1970s [36]. However, a medical study published in 1990 revealed that, of a total of 3324 chest radiographs (1985-7) of long term United States seamen, one third (34.8%) had parenchymal or pleural abnormalities, or both and pleural changes were prevalent [37]. It also found that abnormalities increased with longer duration from onset of shipboard exposure (as defined by first year at sea) [38]. The occurrence of asbestotic changes was more frequent among seamen who had served in the engine department (391/420; 42.5%) compared with seamen in other departments, including deck (301/820; 36.6%), steward (278/981; 28.4%), or with service in multiple departments (167/541; 30.9%). [39]

Current Legal Settings in Hong Kong and the Common Law of England

In Hong Kong statutory compensation is payable under the Pneumoconia and Mesothelioma (Compensation) Ordinance (PMCO) if the claimant is actually suffering from either disease and is diagnosed, or has died from the disease, after the commencement date which was set in an amending Ordinance at or after 18 April 2008 [40]. Thus, under the typology supplied by Society of Lloyds the statutory system follows the manifestation theory as the vehicle for compensation and does not need to deal with the question of latency. The PMCO places no limit, however, on common law damages [41] and although the low level of common law claims has undoubtedly been influenced by the generosity of the statutory system, this cannot last forever. Moreover, the PMCO provides a large measure of employer indemnity by providing that “where any person has paid damages for death or disability resulting from pneumoconia or mesothelioma (or both) pursuant to a judgment of any court in Hong Kong, he shall be entitled to recover from the Fund the amount of such damages and interest thereon together with the amount of any costs ordered by the court to be paid by that person [42].”

As with most health-related occupation claims in Hong Kong, the PMCO establishes a manifestly generous position. However, notwithstanding the indemnity in determining local asbestos claims Hong Kong courts will likely consider the common law of England which, it is clear, is not well disposed to applicants with latent disease claims associated with mesothelioma [43]. To date there is no documented Hong Kong law case which deals either explicitly or incidentally with causation issues arising out mesothelioma. The UK Court Service published in 1990 revealed that, of a total of 3324 chest radiographs experienced. 

In the first category, mesothelioma occasioned a ruling on general principles and the outcome has created little controversy and an overview of approaches to lost income in the UK is instructive to Hong Kong. In Fairchild v Glenhaven Funeral Services Ltd [46] the plaintiff had worked for many years for multiple employers as a subcontractor for the Leeds City Council. As one single asbestos fibre, when inhaled, can ultimately cause mesothelioma it is nearly impossible to know when the causative exposure occurred and using the balance of probabilities as a standard it is unlikely that a plaintiff in the place of Fairchild would recover. The House of Lords ruled that the test to be applied to this situation turned on whether the defendant had materially increased the risk of harm toward the plaintiff. The employers held to be joint and severally liable for the exposures Fairchild experienced.

The principle in Fairchild was to make standard of proof more amenable to mesothelioma claims and less compensatory approach to claimants displayed in Barker v Corus needs to be seen in the light of Fairchild. Barker concerned the liability of solvent employers for the share of the loss occasioned by negligent exposure of asbestos dust by insolvent employers and found that solvent employers should only shoulder their proportion of losses arising from their exposures and that the proportion of the loss of insolvent tortfeasors was irrecoverable. This poses particular problems in Hong Kong because of its unique bankruptcy culture and we will return to this argument later in the article. The immediate task is to considers what Hong Kong can learn for the English approach to lost earnings, then why the Rothwell approach to plein plaques should not (and in all likelihood will not apply) in Hong Kong. Lastly, reasons why Barker ought not be followed in Hong Kong are given. In category (3) Barker held that, in a case of multiple employers those that were solvent could only be held liable for their own contribution to risk of exposure and that it was inappropriate for any such employer to accept a share of the liability of employers no longer in business. It is argued that Rothwell, given Hong Kong’s special approach to medical and occupational death compensation, should not be accepted uncritically, and that because of the high level of use of bankruptcy as a tool of business in Hong Kong neither should Barker. There is much, however, to recommend the UK’s approach to lost earnings.

Why Rothwell is inappropriate to Hong Kong

In category (2) is the case of Rothwell v Chemical and Insulating Co Ltd [47] which established that plein plaques did not, by themselves, reduce expectancy or lung function and that it was inappropriate to properly consider them as constituting a compensable disease at common law. Thus, negligent exposure to asbestos was not actionable on the basis of plein plaques, despite the fact of their association with mesothelioma and the shortness of life expectancy once the cancer is diagnosed. The issue of propensity and plein plaques has been covered in depth elsewhere [48]. Needless to say it is the subject of a major legal controversy in England and Scotland [49] and it is likely to fall for decision in Hong Kong before very long. In particular, the House of Lords decision in Rothwell ruled that plein plaques did not affect life expectancy or lung function and so could not be properly regarded as a compensable disease at common law. Thus, negligent exposure to asbestos was not actionable on the basis of plein plaques. This effectively means that a mesothelioma patient needs to wait through their period of latency until malignant mesothelioma presents itself, and this often means that their last 9.5 months of life (on average) [50] after diagnosis is spent fighting in court for damages for their surviving family. In Scotland, the Rothwell ruling was met with disbelief and has been reversed by legislation in the Scottish parliament to make, in effect, mesothelioma an exception to the requirement of causation by establishing that latency, as indicated by the existence of plein plaques, is sufficient.
for the purposes of common law claims against former employers, and others too [51].

As it stands, Hong Kong has an advanced approach to damages for future illness which can be invoked in cases of mesothelioma. The District Court Ordinance (Cap 336) provides that in an action for a claim for personal injuries in circumstances where it is admitted there is a chance that in the future the claimant will develop a serious disease or deterioration in physical or mental condition as a result of the act or omission which gave rise to the cause of action, rules can be made by the Rules Committee to enable an award of further damages at a future date if the disease does develop [52]. Although this is not as adventurous as the Scottish position (which effectively allows pleural plaques to be considered a disease for compensation purposes) the Hong Kong position, that a future damages award will be triggered by subsequent diagnosis of mesothelioma, is clearly a step in the right direction.

It is fair to say that the common law of England has not been a great source of comfort for mesothelioma sufferers. Hong Kong has no common law decisions on mesothelioma liability and will draw extensively from the English approach. The extent to which it is desirable for Hong Kong to do this is questionable. The emphasis in Hong Kong employment law on death and illness compensation and rehabilitation ensures it is more generous than many other jurisdictions in its treatment of people who are ill. Hong Kong is renowned internationally for a health system which is dominated by public health provisions, high performance standards and low out of pocket expenses for patients [53]. Hong Kong can afford to take a more generous approach to pleural plaques because of local commitment to health funding which is shown by a number of indicators. Over 5% of Hong Kong’s GDP is used to support the provision of public and private healthcare [54]. Although this is low in world terms (a third of the percentage of GDP spent in the US and about half of that spent by the UK) [55] it is because patients’ needs come before other considerations and there is a strong public expectation of cost-effective treatment delivery. Yuen notes that the measures taken under the Hong Kong model to keep costs down include putting public inpatient care under a spending cap, retaining public hospital staff on fixed salary, maintaining low administrative expenses, and having a competitive private outpatient market financed privately and mostly through out-of-pocket payments [56].

Although the current level of Hong Kong healthcare is projected to be unsustainable from public funds by 2016, Hong Kong can fund a comprehensive response to an impending mesothelioma epidemic by marginal increases to the rate of cost recovery from patients and increasing personal and corporate tax rates (15% to 16.5% currently). [57] As immigration from mainland children with one Hong Kong parent increases, Hong Kong, unlike other countries with ageing populations, will not face a shrinking income tax base in the medium term future [58]. Thus, on the basis of small reforms and existing trends Hong Kong can afford a compensatory approach to people with pleural plaques, similar to that taken in Scotland.

The problem of multiple employers: Barker v Corus

Before an argument is made as to why the Barker approach is particularly inappropriate to Hong Kong it is useful to give the decision analysis from top to bottom. The argument raised in the next section is that Hong Kong’s level of bankruptcy is so much higher than that of England and Wales that to apply Barker will mean that there is only one remaining solvent employer in Hong Kong required to cover a mere third or quarter or fifth of the exposure risk of an employee with multiple employers over a working life. The claim in Barker was brought by the wife of the deceased who died from mesothelioma as a result of occupational exposure to asbestos [59]. The deceased was negligently exposed to asbestos during three periods. The exposure during the first two of these periods was from two employers (Employer 1) and (Employer 2). The exposure from Employer 1 and Employer 2 occurred in the late 1950s and throughout much of the 1960s respectively. In addition, the deceased was also exposed to asbestos while self-employed during a period encompassing the late 1960s to mid-1970s. He later contracted mesothelioma and died from that disease. Employer Number 1 was insolvent. The court held that Employer 2, from the standpoint of causation, was responsible for the disease on the Fairchild principle as it had materially contributed to the risk of injury. Although the deceased had negligently allowed himself to be exposed to asbestos during his period of self-employment, this did not in the view of Moses J take him outside the Fairchild principle. It was additionally held that Employer 2 was jointly and severally liable for all the damages because the claim concerned an indivisible injury where it was not possible to identify the extent to which the various tortfeasors had contributed to it, based on the authority of Rahman v Arearose Limited. [60] The trial judge further stated that even if this were not the case, the defendant would have been liable as a matter of justice and fairness because the defendant had increased the risk of the claimant getting the disease. However, the trial judge held the damages awarded against Employer 2 should be reduced because of the deceased’s contributory negligence.

The defendant appealed to the Court of Appeal [61]. Kay L. J., taking as his text the judgment of Lord Bingham in Fairchild who recognized that in cases where a defendant had not actually caused an indivisible injury, then this would lead to injustice if judgment was entered against the defendant purely because it had exposed the claimant to a material risk [62]. Conversely, if the defendant was in breach of their duty to the claimant, who suffered an injury which could not be proved under the usual rules of causation, then this would also lead to injustice. Kay L. J. observed that if the deceased was only partially to blame this should not absolve the defendant of all liability [63]. Any fault of the deceased in materially contributing to the risk of injury could be cured by reducing the damages for contributory negligence. Moreover, on balance, where an employer was in breach of the employer’s duty of care, by contributing to the risk, it was less of an injustice for the defendant employer 2 to be reduced because of the deceased’s contributory negligence.

Keene L. J. concurred with Kay L. J. and in particular stressed that to absolve the defendant from liability because it could not be proved that the claimant was not wholly responsible for the damage was inconsistent with social policy considerations and analogous to the early law of contributory negligence which completely precluded a claimant from recovery [66]. All that was required under the reasoning in Fairchild was that a defendant exposed a claimant to risk. Keene L. J. was also of the view at that it would be unfair to deviate from the usual principles of apportionment where there had been an indivisible injury as this would lead to an injustice if one defendant had become insolvent [67]. Accordingly, if there had been fault by the claimant, this could be addressed via the current law of contributory negligence. Wall L. J. agreed with both the judgments of Kay L. J. and Keene L. J.

The insurer appealed from the decision of the Court of Appeal to
the House of Lords [68]. Lord Hoffman considered that there were two main issues to be determined. Firstly, whether or not the exceptional category to the general tortuous requirement of causation should apply in circumstances outside the facts in Fairchild v Glenhaven Funeral Services Ltd (2003) 1 AC 32? The second issue was whether all the defendants should be jointly and severally liable or responsible for their share of the creation of the risk in this case? In relation to the first issue, in Fairchild, the House of Lords delivered a quite “radical” decision [69] on the law on causation, although it was at pains to stress that the ratio was limited to the special fact of the cases before the House [70]. In this case, the claimants, who subsequently developed mesothelioma, had been exposed to asbestos while working for a variety of different employers. It was held that it was not possible to identify at which place of employment the claimants ingested the asbestos fibres which caused their illnesses. Therefore, the claimants were not in a position, according to the general principles of tort law, to satisfy a court on the balance of probabilities that a particular employer had through its negligence, caused or contributed to the claimants’ condition. In order to ensure that the claimants were not left without a remedy in respect of the defendants’ wrongful actions the House of Lords calibrated the law of causation in these circumstances to substitute the evidence which existed here that the defendants had increased the claimants’ risk of contracting the disease as sufficient for this aspect of liability in place of the usual need for proof that a defendant had caused the relevant damage.

In Barker, although the exposure by the claimant to asbestos occurred during a period of self-employment that it would not be fair in the view of Lord Hoffman to leave the claimant without any remedy [71]. However, it would be rough justice if a defendant, who is liable because of the mere possibility of causing harm, was required to contribute on a joint and several basis [72]. Therefore, the damages should be apportioned between the defendants based on the degree to which they contributed to the risk [73]. This decision seemed to be at odds with the decision of the House in Fairchild per Lord Hutton [74] and Lord Rodger of Earlsferry [75].

Lord Scott of Foscote agreed with the reasoning and decision of Lord Hoffman. However, noteworthy about his Lordships additional commentary was his reasoning that a deviation from the usual principles of joint and several liability in a case involving indivisible damage was appropriate in a case where specific causation had not been proved, as such a case is more appropriately compared to that of independent tortfeasors [76]. Lord Walker of Gestingthorpe, in a rather novel approach, dealt with the question of apportionment before that of liability, arguing it was vital in determining how far the doctrine in Fairchild should be developed. In this respect, His Lordship stated at that the House had not provided any guidance on this issue, [77] although this does not appear to accord with a literal reading of that part of Lord Hutton’s ruling. Lord Walker stressed that the heavy burden that would fall on remaining defendants in these kinds of cases where other culpable defendants are no longer solvent or cannot be found [78]. His Lordship further averred that continued exposure to asbestos only increases the risk statistically rather than cumulatively [79]. His Lordship opined that the injustice of not providing a remedy for this type of indivisible injury was lessened where the claimant might have been responsible for it, although on balance maintenance of the principle laid down in Fairchild was the fairest result here [80].

In a dissenting judgment on the issue of apportionment, Lord Rodger of Earlsferry, averred that the defendants were liable for causing mesothelioma, not for contributing to the risk of acquiring it [81]. His Lordship further asserted that the majority of the court opined was not purely attributable to one based on the creation of risk [82] although this is apparently at odds with the unambiguous rulings of Lord Bingham, Lord Nicholls of Birkenhead and Lord Hoffman [83]. Lord Rodger relies at on his interpretation of Lord Bingham’s judgment in Fairchild for this conclusion [84]. Quoting His Lordship,

And Lord Bingham is indeed saying that in these circumstances someone who exposes the victim to a risk to which he should not have been exposed is to be treated as making a material contribution to the victim’s contraction of the condition against which it was his duty to protect him. It was on this basis that Lord Bingham concluded that the appeals should be allowed because the claimants had proved that the defendants had caused the men’s death or injury. This is scarcely surprising since the claimant’s appeals were argued on exactly that basis [85].

Lord Roger’s view, as italicized, erroneously asserts that Lord Bingham had held that there was proof that a particular defendant in Fairchild had caused the disease disease. Lord Rodger’s judgment on the apportionment issue also warrants further attention:

Of course, it may seem hard if a defendant is held liable in solidum even though all that can be shown is that he made a material contribution to the risk that the victim would develop mesothelioma. But it is also hard and settled law that a defendant is held liable in solidum even though all that can be shown is that he made a material, say 5%, contribution to the claimant’s invisible injury. That is a form of rough justice which the law has not hitherto sought to smooth, preferring instead, as a matter of policy, to place the risk of insolvency of a wrongdoer or his insurer on the other wrongdoers and their insurers. Now the House is deciding that, in this particular enclave of the law, the risk of insolvency of a wrongdoer or his insurer is to bypass the other wrongdoers and their insurers and to be shouldered entirely by the innocent claimant. As a result, claimants will often end up with only a small proportion of their damages which would normally be payable for their loss. The desirability of the courts, rather than Parliament, throwing this lifeline to wrongdoers at the expense of claimants is not obvious to me [86].

His Lordship’s analysis of the consequences issue is clearly compelling. He asserts that an “enclave” will be formed as a result of the (new?) rules concerning causation in Barker for those suffering from mesothelioma from which other litigants will be excluded [87]. An added inconsistency identified by Lord Roger is that while those inside the enclave may receive favouritism in relation to liability on the basis of Barker, their situation in relation to apportionment is worse than claimants outside the enclave who can recover fully against any tortfeasor found liable for an indivisible injury [88].

The decision of the House was to allow the appeals and to remit the cases back (presumably to the trial judge) for redetermination of damages. It is hard to regard any judgment in the entire litigation as entirely satisfactory as many are delivered with an admission, express or implied, that rough justice is being done. The final judgment, that of Baroness Hale of Richmond, tries to ascertain a more acceptable solution which yields justice for litigants in a way that does not bind the law of causation completely out of shape: “For as long as we have rules of causation, some negligent (or otherwise duty-breaking) defendants will escape liability. The law of tort is not (generally) there to punish people for their behavior. It is there to make them pay them pay for the damage they have done.” [89] While Her Ladyship decided that a ruling that the defendants would pay only according to their share would cure much of any resulting unfairness, such a decision is inconsistent with the (general) principle which she has described [90]. The position in Barker v Corus has now been reversed by the the Compensation Act
was taken to its logical conclusion.
likelihood the remaining solvent employer out of four employers would
the loss. This might be defensible in England but in Hong Kong in all
case that only one out of four former employers is out of business.
Y et having gone out of business after 10 or 15 years is high in Hong Kong.
be received in Hong Kong. The likelihood of a majority of employers
panies is a way of life there. This is the reality into which
Kong) newspaper will reveal that bankruptcy and winding ups of com-
range of defendants to attend court than was the case twenty years ago.
"pass the buck" in regards to asbestos claims just like those in the British
investment from their respective industries.
potentially liable to hefty class actions and decades of litigation draining
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warranted in Hong Kong as a conclusive answer to the problems of
is reflective of the risks causation poses to litigants. This approach is
avoid the outcome of lumping all of the financial burden onto surviving
hood of a successful common law claim arising given the position un-
law damages under the PMCO is due, it is suspected, to the unlikeli-
altered had another agent been a contributor to the risk [93].
comings of Barker are further illustrated by the statements by several
of their Lordships that their findings of culpability would have been
altered had another agent been a contributor to the risk [93].

The statutory indemnity for Hong Kong employers from common
law damages under the PMCO is due, it is suspected, to the unlikely-
hood of a successful common law claim arising given the position un-
der the prevailing UK case law. A simple method to assist claimants and
avoid the outcome of lumping all of the financial burden onto surviving
defendants, would be to take claims out of the remit of the courts and
to create a common fund to which potential defendants could contrib-
to and from which claimants could receive compensation which
is reflective of the risks causation poses to litigants. This approach is
warranted in Hong Kong as a conclusive answer to the problems of
causation for ship-owners, maritime employers and ship component
manufacturers, as well as a host of employers and principals in the
construction industry. It could achieve a just and defensible damages
outcome for claimants when claims begin to ripe without exposing the
potentially liable to hefty class actions and decades of litigation draining
investment from their respective industries.

It is likely that ship owners and employers in Hong Kong will look to
“pass the buck” in regards to asbestos claims just like those in the British
cases. However, the US trend in maritime-related claims is for a wider
range of defendants to attend court than was the case twenty years ago.
Shipyards and carrier lines were the primary accused in salty asbes-
tos claims but now service and product providers are being sued too.
The manufacturers of the maritime employer's air conditioning units,
hoisting equipment, and metal piping are now defending mesotheli-
oma claims and the manufacturers of respiratory masks and protective
gloves used to prevent exposure, currently are named as defendants
(based on alleged product failure) [94]. Sufferers of mesothelioma in
the UK and Hong Kong can make much better use of misleading con-
duct concepts and product manufacturer's liability than is currently
the case and this trend is now clearly evident in Australia as well as the US.

The reason why Hong Kong's bankruptcy rate is so high can be
explained by a number of factors, but is it clearly a matter of concern if
Barker is to be received into the common law of Hong Kong. Biddle, Ma
and Song have shown that unconditional and conditional conservatism in
the accountancy practices of a firm to be negatively associated with
bankruptcy risk [95]. There is less bankruptcy where there are auditor,
creditor and regulator incentives to act and where there are no mana-
ergial incentives to withhold bad news [96]. The manifest liberality of
Hong Kong's accountancy and disclosure settings promote risk taking
behaviours which result in a culture of winding ups and bankruptcy
which is totally different to that of many common law jurisdictions.

The compensatory principle in Hong Kong healthcare provision is
at odds with the non-recognition of pleural plaques as a compensable
disease in Rothwell and some caution need be shown toward the English
approach to pleural plaques when the Scottish model makes possible
their treatment and compensation as a disease.

To end on a brighter note, there has been some good news about
the way maritime asbestos is treated, at least at the end of a ship's work-
ing life. The Hong Kong International Convention for the Safe and Envi-
ronmentally Sound Recycling of Ships 2009 was adopted by representa-
tives of 63 nations at a conference in May 2009 [97]. The purpose of
the Convention is to: "effectively address, in a legally-binding instrument,
the environmental, occupational health and safety risks related to ship
recycling, taking into account the particular characteristics of maritime
transport and the need to secure the smooth withdrawal of ships that
have reached the end of their operating lives [98]. " The Convention
provides that for each ship to be recycled an individual inventory of
its hazardous materials is to be prepared including where relevant ma-
terials including asbestos, heavy metals, hydrocarbons and ozone-de-
pleting substances [99]. It further provides for a range of protocols for
the handling and disposal of these materials. Litigation in the shipping
context in the US has revealed that key issues in many asbestos cases are
the topics of product or employer identification i.e. defendants argue
that their particular asbestos-containing product was not to blame or
that their ship was not the site where the lung condition was contracted
[100].

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27. ITF Seafarers Website, Avail at: http://www.itfseafarers.org/resources.cfm (accessed 3 September 2010).
29. Ostler, ibid.
30. MARDEP, ibid. 7.
33. Block, supra n29.
34. Failure to Regulate, supra n32, 10.
37. Selikoff et al, ibid, 292.
38. Selikoff et al, ibid.
40. PMCO, s 13.
41. PMCO, ibid.
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46. [2002] 1 WLR 1052.
47. [2008] 1 AC 281.
49. Ibid.
50. Chang et al, supra n1, 76.
52. District Court Ordinance, s 72E.
54. Chan, ibid, 2.
57. Yuen, ibid.
58. Yuen, ibid.
60. [2001] QB 351.
62. Ibid, at 590.
63. Ibid, at 591.
64. Ibid, at 592.
65. Ibid.
66. Ibid, 593.
67. Ibid, 594.
69. As described by Lord Walker of Gestingthorpe at 113 in the House of Lords decision in Corus.
70. See especially Lord Bingham at [2] and [9].
71. Barker, ibid, at [40].
72. Ibid., 43.
73. Ibid, 48.
74. Ibid, at 117. “I observe no argument was addressed to the House that in the event of the claimants succeeding there should be an apportionment of damag-
es because the breaches of duty of a number of employers had contributed to
cause the disease and therefore the damages awarded against the defendant
should be a proportion of the full sum of damages which the claimant
would have recovered if he (or the claimant's husband) had been employed by only
one employer for the whole of his working life. Therefore, each claimant is liable
in full for a claimant's damages, although a defendant can seek contribution
against another employer liable for causing the disease.”

75. “No argument was advanced to the effect that, if they were held liable, the
defendant's liability should be reduced or apportioned in some way to reflect
an assessment of the chances that the particular defendants, rather than other
employers, were actually responsible for the exposure that lead to the claim-
ants' mesothelioma. Indeed it was said that no such assessment, even on a
rough basis, was possible. Counsel accepted accordingly that, if liable at all, the
defendants would be jointly and severally liable for the whole of the dam-
ages done to the claimants.”

76. Ibid, 61.

77. Ibid, 106: “In Fairchild it was not argued by any of the respondents that the li-
ability of a defendant employer should be limited to part only of the claimant's
damage, in proportion to the duration and intensity of the claimant's exposure to
asbestos during successive periods of employment. The House noted this and
deliberately abstained from expressing any view on the point which could have
been argued: see Lord Bingham, at p 68, para 34, Lord Hoffman, at p 78, para 74, Lord Hutton, at p 95, para 117, and Lord Rodger, at p 97, para 125.”

78. Ibid, 108.

79. Ibid, 112.

80. Ibid, 117.

81. In Fairchild the majority of the House employed the test of risk per Lord Bing-
ham at [34], Lord Nicholls of Birkenhead at [42], Lord Hoffman at [47], [61], [67], [73]. On the other hand, Lord Hutton appeared to employ a test operating on the
principle that the added risk of getting the disease caused by exposure to
asbestos amounted to an “inference of causation” at [111] or “a substantial con-
tribution to the disease” at [116] and Lord Rodger of Earlsferry at [168] wrote “…
by proving that the defendants individually materially increased the risk that the
men would develop mesothelioma due to inhaling asbestos fibres, the claim-
ants are taken in law to have proved that the defendants materially contributed
to their illness.” Lord Hoffman included a reminder in his judgment in Corus at
[33] that he had described that line of reasoning in McGhee v National Coal
Board 1973 SC (HL) 37, at [65] of his decision in Fairchild as resorting to “legal
fictions”.

82. Ibid, 83.

83. In Fairchild the majority of the House employed the test of risk per Lord Bing-
ham at [34], Lord Nicholls of Birkenhead at [42], Lord Hoffman at [47], [61], [67], [73]. On the other hand, Lord Hutton appeared to employ a test operating on
the principle that the added risk of getting the disease caused by exposure to
asbestos amounted to an “inference of causation” at [111] or “a substantial con-
tribution to the disease” at [116]

84. Ibid, 80.

85. Ibid.

86. Ibid, 90.

87. Ibid, at 85.

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93. Barker, per Lord Hoffman at [24] and Lord Scott of Foscote at [64]

94. Block, supra n31, 2.

95. Biddle G, Ma M and Song F (2011) Accounting conservatism and bankruptcy
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96. Ibid, 2.

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