The scale and urgency of the challenges

The World Economic Forum (WEF) has for the last eleven years produced what is probably the most authoritative, forward-looking assessment of global risks. The WEF defines “global risk” as an “uncertain event or condition that, if it occurred, can cause significant negative impact for several countries or industries within the next 10 years.” Twenty-nine risks are identified and grouped into five customary categories: economic, environmental, geopolitical, societal and technological. More recently, assessment of the interconnection amongst risks has been sought. The 2016 Global Risks Report released in January concludes:

After its presence in the top five most impactful risks for the past three years, the failure of climate change mitigation and adaptation has risen to the top and is perceived in 2016 as the most impactful risk for the years to come.

Further:

The risk [rated] most likely was large-scale involuntary migration, with last year’s top scorer – interstate conflict with regional consequences – giving way to the environmental risks of extreme weather events and the failure of climate change mitigation and followed by major natural catastrophes.
And on the topic of interconnection and cascading effects:

Three emerged strongly: the potential for **climate change to exacerbate water crises**, with impacts including conflicts and more forced migration.

I will work from the premise that we here today wish to be part of developing solutions to these challenges rather than seeking reactionary responses which minimize the risk of solutions pursued by others affecting our interests and upsetting the status quo. I do not propose to preach any dangerous doctrine such as dismantling the privilege of separate corporate legal personality or creating unlimited shareholder liability for breach of environmental laws or corporate torts. I confine my remarks to what is nevertheless a fraught and contentious area of both the law and accounting; that of disclosure. To do this I will describe what has been to date largely separate avenues of academic endeavour on the part of law and accounting scholars - that of securities market behaviour and the contrasting arguments for mandatory and voluntary disclosure. The literature in both streams is rich and varied, and I can do only very limited justice to the depth and evident intellect in this short space of time.

I will argue that addressing development of the law of directors’ duties and liability exposure on climate change risk invites a greater coherence, though, not necessarily a convergence, of these two broad streams of academic inquiry. To do this, I will:

- Discuss external corporate disclosure of NGERS reporting to government
- Cover some similar research on the Carbon Disclosure Project
- Address both accounting and law research insights on voluntary disclosure
- And consider past and possible future trends in financial accounting research

**Public disclosure of energy and emission – Australian experience**

So that this presentation does not proceed entirely in the realm of theoretical speculation, I will touch briefly on some relevant research conducted by Professors Stewart Jones and Geoff Frost at the University of Sydney under an ARC Linkage Grant sponsored by CPA Australia.

In 2007 the Australian Government introduced the National Greenhouse and Energy Reporting Scheme (NGERS), providing the first mandated reporting guidelines for Australian companies. This research focuses on the external reporting practices on greenhouse gas emissions and energy usage of 51 Australian companies mandated to report under NGERS. The introduction of NGERS provided a standard benchmark to evaluate voluntary external reporting practices against the level of information mandated to be reported to government. A theoretical maximum of 19 items of external disclosure is available through the NGERS requirements.

Across the aggregated sample of companies in their publicly available reports increases were observed in the mean level of emissions and energy reporting with the introduction of NGERS. However, when the Federal Government announced the withdrawal of legislation designed to introduce a carbon trading scheme, a decrease in
the mean level of disclosure was observed. Voluntary reporting appears to be sensitive to the external environmental, particularly related to government policy.

When considering the materiality of activities, it can be expected that not all companies would report against all items. However, within industry categories significant variation was observed. For example, in 2013 for the financial services sector disclosures ranged from four observations up to 16 for NAB. The results suggest that materiality of performance is not a determinant of the choice to publicly report carbon-related information. Even within the context of the introduction of a carbon tax many companies chose to voluntarily disclose very limited levels of energy and emissions information.

High and low reporting companies were observed across all sectors. The results would suggest that industry alone did not determine the extent of carbon reporting.

The existence of NGERS has created a situation where the sample companies collect and report a consistent set of data (subject to operations and materiality) on emissions and energy usage. Theoretically, this sample of companies is capable of a high degree of comparability of voluntary reporting. The results of this study indicate this is not the case.

The potential for such gap in disclosure is also alluded to in the environmental law literature. Susan Shearing\(^1\) in discussing both NGERS and the now repealed Energy Efficiency Opportunities Act 2006 noted that “there is no statutory obligation for this information to be provided to shareholders. Indeed, with the exception of prescribed requirements for disclosure under climate-specific legislation, there is no mandatory requirement for the disclosure of the environmental impacts of a company’s activities to shareholders and investors under Australian laws.”

**Some international evidence on carbon disclosure**

The emergence of the Carbon Disclosure Project (CDP) has provided context for examining firm specific characteristics in self-selected disclosures of carbon emissions.

- Research focusing on S&P500 firms reveals firm size and proportion of foreign sales as factors affecting whether firms disclose information about climate change sought by institutional investors (Stanny and Ely (2008)\(^2\)).
- Industry peer influences are evident as the proportion of firms making carbon disclosures increases.
- The likelihood of carbon emissions disclosures is strongest amongst environmentally proactive firms.
- Conversely, those firms with environmentally damaging operations are less likely to make voluntary carbon emissions disclosures (Matsumura, Prakash and Vera-Munoz (2011)\(^3\)).

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\(^1\) “Raising the boardroom temperature? Climate change and shareholder activism in Australia” (2012) 29 EPLJ 479.

\(^2\) “Corporate environmental disclosures about the effects of climate change” Corp. Soc. Responsible Environmental Management, 15: 338-348.
Theoretical perspective on voluntary disclosures

The accounting literature contains a good level of theorizing on the determinants of voluntary disclosure. These insights may have relevance to understanding the current state and future direction of climate change risk disclosures. The research is premised on economic-based models. These explore the links between financial reporting and economic consequences under the assumed circumstances of information asymmetry.

Based on agency theory advanced by Jensen & Meckling, this research focuses on the problem associated with managers’ greater access to information, the need for monitoring to align interests and the role of voluntary disclosure in reducing agency cost. Regulation is seen also as a means of mitigating agency problems through compelling disclosure of otherwise private information. Nevertheless there remain incentives around partial disclosure, timing of disclosure and selective targeting of disclosure.

A further economic related assessment of voluntary disclosure practices comes under the banner of capital needs theory. The proposition here is that voluntary disclosure helps achieve a company’s need to raise external debt and equity and that this can be achieved at a lower cost.

A growing body of research points to cost of capital gains associated with sustainability practices and voluntary disclosure. A noteworthy example is Barth, Konchitchki and Landsman’s 2013 examination of earnings transparency measures as a feature of sound governance practice.

Two further contrasting theories which have emerged to explain voluntary disclosures are legitimacy theory and stakeholder theory. Adopting a stronger socio-political economy perspective, legitimacy theory, put simply, suggests that voluntary disclosures are part of a process of legitimization having social contract overtones. Stakeholder theory interprets voluntary disclosure and wider corporate behaviour in accountability terms (van der Laan (2009)).

An important contribution to the empirical disclosure literature is a 2001 review conducted by Healy and Palepu and a corresponding critiquing provide by John Core. The key conclusion drawn by Core is that “firms’ disclosure policies are endogenously, that is internally, determined by the same forces that shape firms’ governance structures and management incentives.” Applied to our concerns, an understanding which integrates governance...

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7 “The Role of Theory in Explaining Motivation for Corporate Social Disclosures: Voluntary Disclosures vs ‘Solicited’ disclosures” Australasian Accounting, Business and Finance Journal 3(4), (2009)
8 “A review of the empirical disclosure literature” Journal of Accounting Economics
9 “A review of the empirical disclosure literature: Discussion” The Wharton School, University of Pennsylvania (Retrieved 3 August 2016)
structures, management incentive and capital market behaviour is vital to determining appropriate policy and shaping emergent practice.

**Litigation risk**

There is of course interplay between the motivation for and constraint to voluntary disclosure. This, no more apparent than in relation to possible approaches in the disclosure and management of litigation risk and cost.

Insights can be gained from Core’s analysis – which might be conveniently labelled *good news, bad news and early news*. The evidence is mixed and open to interpretation. Some studies reviewed suggest that firms are penalized for disclosing bad news early. A further study segmenting a sample of firms on the basis of whether or not they incurred litigation cost showed the litigation sample tended to preannounce bad news. This might suggest that preannouncing is ineffective. However, a deeper analysis of this study by Francis, Philbrick and Schipper (1996)\(^ {10}\), along with related studies (Skinner, 1997)\(^ {11}\), reveal firm size to be a significant determinant of litigation risk. This added perspective leads Core to conclude that “firms’ optimally use disclosure to minimize litigation risk – larger firms expect to be sued more frequently, and their choice to pre-disclose more frequently lowers the conditional costs of these suits.”

Nevertheless within this context, litigation costs are a distinct area of complexity and contradiction which, whilst not tipping voluntary disclosure of climate change risk firmly one way or the other, might be source of unwillingness and inertia. Disclosing more timely and detailed information, particularly ‘bad news’, can be supported in terms of duty of care and diligence and acting in the best interests of the corporation through reducing litigation threat. Yet managers may perceive potential risk associated, in particular, with forward looking information and potential for claims of reliance-based harm or detriment. I will delve into this vexed problem in more detail as it relates to climate change risk. I will preface however with a general remark that the emergent practice of climate change risk disclosure, provides an opportunity to develop and adapt suitable disclosure frameworks which avoid the pitfalls of complexity and confusion which have beset disclosures in relation to financial services and financial products.\(^ {12}\)

**Insights from legal research**

The impact of discretionary versus mandatory disclosure has also been a topic of discourse amongst law academics. The authors of the 15th edition of Ford’s Principles of Corporate Law\(^ {13}\) provide a comprehensive list of contrasting academic opinion upon which Austin and Ramsay urge rejection of the self-induced disclosure thesis.\(^ {14}\)

\(^{10}\) “Shareholder Litigation and Corporate Disclosure” *Journal of Accounting Research*. Vol. 32 no. 2 pp 137-164.


\(^{12}\) Briefly, the complexity here stems in part from misleading and deceptive conduct statutory rules sources in both the Corporations Act 2001 (s 1041H) and the ASIC Act 2001 (s 12DA). For comment see for example Michael Vriskis “Misleading and deceptive – a new dawn?” Herbert Smith Freehills Financial Services Newsletter October 2012, p 106.

\(^{13}\) LexisNexis Butterworths Australia, 2013.

\(^{14}\) Ibid at p 750.
They favour instead a more certain approaches to market efficiency and fairness, in acknowledgement of the self-interest motivation of managers to suppress information.

Perhaps most significant amongst the law literature is John Coffee’s 1984 critiquing of the ‘law and economic’ self-induced disclosure thesis\(^\text{15}\). Using economic rationale and justification, Coffee argues that mandatory disclosure is a source of improved quantity, quality, disbursement and accuracy of information, incurred as a social cost far outweighing any free-rider consequences.

From a policy and practice development perspective, a challenge is how emerging issues and novel examples of market failure or mispricing are systematically brought within the ambit of an already complex disclosure regime.

Corporate disclosure:

- has mandatory and voluntary elements,
- has heavily rules-based elements and elements sourced in guidance, and
- is a combination of the quantified, both monetized and unitized, qualitative, narrative, historical and forward-looking and applies a variety of measurement techniques.

A more recent and highly insightful contribution to the legal debate on disclosure regulation is provided by Geoffrey Manne in a curiously titled paper “The Hydraulic Theory of Disclosure Regulation” (2007)\(^\text{16}\). Manne makes some very pertinent observations about the adverse outcomes of too much disclosure:

- He states - “It is well-known that stockholders are relatively uninformed and apathetic in their role as ‘owners’ of public companies”. This of course should come as no surprise as the outcome of limited liability and the opportunity afforded by markets for portfolio diversification. Nor does this preclude a litigious stance when shareholders suffer losses and feel aggrieved by managers' disclosure failures or shortcomings.
- Mannes also observes that removing the choice of disclosure degrades what might otherwise be a signalling benefit.
- He notes that information overload can have adverse consequences for internal corporate management and accountability creating both cost and confusion as to what is useful and useless information.
- He says also that accounting information bears only a tenuous relationship with economic reality. Financial accounting's aggregated and divergence of source may make it misleading though not necessarily wrong. I will of course have something to say in ‘defence of accounting’.

\(^{15}\) (1984) "Market failure and the economic case for a mandatory disclosure system" 70 Virginia Law Review 717.
And he concludes with a short across the bows of auditing noting that the highly prescriptive and technical nature of financial accounting standards erodes audit's capacity to evaluate described financial conditions.

Manne is nevertheless fairly agnostic in his conclusions remarking that “none of this means a mandatory disclosure regime is not the best form of securities regulation from a set of imperfect alternatives. But weighing the relative benefits of alternatives requires a more systematic and thoughtful consideration of the costs.”

What then are the insights for development of climate change risk disclosure?

- There are significant challenges in the design of a framework of disclosure, some of which can be met through early consultation and the development of clear policy intent,
- Perennial issues of materiality, audience and information utility will need to be addressed, and
- Allowance for appropriate levels of management discretion and judgment is needed – mandated disclosure need not necessarily imply clumsy ‘one-size-fit-all’ prescription.

Geoffrey Manne also touches upon one of the principal concerns of our Symposium; that of litigation risk. Emphasised in particular is the dilemma that “statements that were not intentionally or recklessly misleading ex ante, but merely incorrect ex post” may come under attack, spawning, at least in the USA, a whole new subclass of securities jurisprudence. Opportunistic behaviour by potential litigants, and I should perhaps also include regulators amongst this group, coupled with highly regulated disclosure, potentially undermines quality of disclosure, and even perversely, reduce the overall amount of disclosure.

**What financial accounting academic research tells us**

I will now give some reflections on possible challenges and insights from the current state of accounting research. It is not an overstatement that theorizing and research in accounting underwent a seismic shift in the 1960s. The most influential, if not dominant, research paradigm of financial accounting research has been capital market-based empiricism. Highly influential was the accounting income numbers work of Australians academics Ray Ball and Philip Brown (1968) and Watts and Zimmerman’s positive accounting theory (1986). The latter advanced the idea that firm’s accounting choices were affected by compensation and debt contracts and political processes. The impetus for these and the consequent stream of research were the major developments in financial theory including the capital asset pricing model, concepts of informationally efficient capital markets, agency theory and optimal incentive-signally. Market-based accounting research was further aided by the developments in computing and the establishment of large databases of stock prices and firms’ earnings. Again in the context of this Symposium’s challenges, I will make a probably contestable assertion that financial accounting research has

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focused too heavily on investor and market behaviour at the cost of considering relationships with corporate governance. Conversely, the balance in legal research likely gives insufficient weight to investor utility and market consequences.

Market-based accounting research has of course not been met with universal approval and its early promises tempered. Time does not permit presentation of analysis of the ebb and flow in market-based accounting research. I can however draw on a series of detail academic reviews of the researches’ contributions, challenges and future directions. Insights may point to how developments in accounting and law might achieve a coherent and measured approach to the novel challenges of climate change risk disclosure.

- Baruch Lev and James Ohlson in their 1982 review confirm the strong evidence of accounting data conveying useful and timely information to investors. Nevertheless, the voluminous amount of data comes at a nontrivial cost. Absent in research is development of a sufficiently precise meaning of the usefulness of information, particularly from the perspective of the social role and benefits of accounting data. The conceptualisation and operationalisation of usefulness can of course be elusive. Law scholars, particularly of the law-and economics persuasion in the USA, are familiar with this type of utilitarian analysis addressing law’s structure and purpose in instrumental and functionalist terms. Development of any mandated approach to climate change risk disclosure, if it is to be coherent, should ideally be cognisant of a range of factors. From an accounting development perspective, a focus on information utility that extends beyond the exclusive needs of investors. And from corporate governance and management incentive perspectives, a tempered view which targets valid investor and social needs rather than a blanket catch all, and which at the same time avoids both second guessing by management and the opportunity to game the system.

- S.P. Kothari in a 2001 review of capital market research focused on future methodological directions. Relevantly, he identifies fundamental analysis noting that revival in interest is “rooted in the mounting evidence that suggest that markets might be informationally inefficient and that prices might take years before they fully reflect available information.” I have noted earlier that sustainability information is selectively included or excluded for a variety of reasons. In this context, climate change risk information may be sought by a variety of sources or, indeed, policymakers may see it fit to pre-empt risk of market failure through intervention and regulation. We need to be on the front foot, save the risk of excessive prescription.

This leads me to Ball and Brown’s own 2013 retrospective on their seminal 1968 paper “An Empirical Evaluation of Accounting Income Numbers” and what upon reflection has endured as key insights. They conclude: “earnings has the advantage of being a parsimonious variable for changes to balance sheet variables, many of which pass through the income statement. In particular, earnings timeliness is correlated with timeliness in revised balance sheet numbers in general." If this hold true today, it adds weight to the idea that climate change transition risk applicable to infrastructure and carbon intensive companies and operations should be reflected in balance sheet carrying amounts through appropriate application of existing financial accounting standards, particularly those dealing with fair value measurement and asset impairment. This, with respect, seems a more certain approach than the possibility of FSB’s TCFD devising something novel and standalone in character. Additionally, such application complemented with suitable narrative analysis, satisfies the idea of a public good through widespread dissemination. We should nevertheless acknowledge limited capacity to fully monetize risk.

Prior to discussions with the conference organisers late last week I had proposed to make some brief comment on two cases I saw as potentially making for a more permissive and encouraging environment for climate change risk disclosure. These being Woodcroft Brown v Timbercorp Securities22 and Fortescue Metals v ASIC23. I saw also little need for reference to the Centro litigation ASIC v Healey24. Having had the opportunity to review, though briefly, the “market-based causation” cases Caason Investments Pty Ltd v Cao25 and Re HIH Insurance Ltd26, I am now less certain. I will leave it to others more qualify than me to discuss these developments. I will however make one observation. Goldsmith, Wong and Emmerig from King & Wood Mallesons27 neatly summarize ‘market-based causation’ as the idea “that, in an efficient market, the price of securities will reflect price-sensitive information which is the subject of disclosure obligations”. Market-based accounting researcher I imagine would nod their heads in vigorous agreement. Set though in the context of ASIC v Healey, directors, CFOs and their external auditors who are not critically mindful of how accounting rules and climate change risk might interact, may find themselves in serious bother. I am, of course, speculating.

Some final remarks
We can ill afford to wait for fully evolved solutions developed elsewhere and to be laggards in responding to global imperatives. Australia has a proud history of both accounting and legal innovation and thought leadership. We have

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26 [2016] NSWSC 482.
strong and robust institutions and highly transparent markets. There is, I believe, opportunity through Symposiums such as today’s to advance understand and identify outcomes suitable to Australia’s regulatory and market circumstances. Failure to respond in a deliberate and timely manner will impede necessary adjustment and erode national competitiveness.