WORKERS' COMPENSATION AND ECONOMIC DOWNTURN

PREDICTIONS AND REFLECTIONS[1]

ROBERT GUTHRIE, ROBERT AURBACH† AND ANDREW FRONSKO‡*

ABSTRACT

This article reviews the literature in relation to the effects of economic downturn on workers' compensation schemes drawing on international studies to comment on the particular circumstances in Australia. It reflects on whether economic indicators can be used to predict workers' compensation claims behaviour and notes the difficulties in using particular indicators as a guide to possible workers' compensation outcomes. It concludes that whilst the research dealing with the relationship between economic downturn and claims behaviour has doubtful predictive value in relation to workers' compensation matters, it is possible that some of the learning from this area of study can be applied to occupational health and safety issues so as to prevent increased rate of injury and claims as the economy recovers.

I INTRODUCTION

This article will explore a range of issues related to the effect of economic downturns and recessions on workers' compensation systems. The consequences of the global financial crisis of 2007-09 have heightened interest in financial markets and insurance and have lead to considerable focus upon the effects of the downturn on compensation systems and the insurance schemes that underwrite them. In this context it seems appropriate to take a fresh look at the available literature to assess whether any predictions can be made in relation to the effects of economic downturn on workers' compensation schemes. This paper will be divided into five parts. In the first instance it will note how recession has been defined and will set out the characteristics of recession and economic downturn. Then the paper will provide a brief chronology of the 2007-09 economic downturn. It will consider employer attitudes to recession in the context of workers' compensation and, in the manner of a case study, the effects of past recessions on the Australian economy. The analysis in this article is confined to those aspects which are likely to have a direct effect upon employment and consequently upon workers' compensation. The third part of the article will review the available research on the effects of recession and economic downturn on workers' compensation and will then consider the impact of the economic downturn and recession upon the insurance industry. Part four will speculate upon some of the possible responses which flow from economic downturn, including how it may affect the demographics of the workforce and whether the mapping of economic downturn provides any predictive models in relation to workers' compensation. Finally, the article will draw together these related themes in an attempt to synthesise the existing

1 This paper is published with the kind permission of Curtin University of Technology. It has previously been published in Pauline Sadler (ed), *Contemporary issues in law and policy* (Curtin Business School, 2010) 93-122.

* Robert Guthrie, Adjunct Professor of Workers Compensation and Workplace Laws, Curtin University of Technology.

† Robert Aurbach, President, Uncommon Approach Inc, New Mexico, USA, May 2005 to Present, Consulting Services.

‡ Andrew Fronsko, PhD, formerly General Manager Motor Accidents Compensation, Northern Territory Insurance Office.

research in this area and reflect upon the interrelationship of workers' compensation and occupational health and safety.

II DEFINING ECONOMIC DOWNTURN AND RECESSION

The standard definition for a 'recession' is a decline in the gross domestic product (GDP) of the locality for two or more consecutive quarters.[2] This definition does not take into account consideration of changes in the unemployment rate, nor any issues relating to consumer and business confidence. The reference in this definition to quarterly data makes it difficult to pinpoint when a recession begins or ends. In effect the determination of a recession based on this commonly applied definition can only be done after the fact. As a consequence this may prevent prediction of certain outcomes of a recession in advance – the outcomes may have already been realised by the time that the recession has been officially declared.

In the context of workers' compensation it is useful to observe that the key focus for employers and insurers (and indeed workers) is first upon the continued profitability and viability or sustainability of business, and in so far as it affects workers, the issue of employment. The use of the standard definition for recession to, in effect, pre-emptively raise a red flag for employers in relation to their capacity for continued production levels is problematic because the effects of downturn have probably already become operationally important by the time a recession is officially declared.

Needless to say, there are considerable arguments among economists as to the definition and measurement of a recession; however, for the purposes of this paper it is more important to consider whether the onset of an economic downturn generally, rather than recession in particular, can be used to predict any outcome for workplace injury and compensation matters. The National Bureau of Economic Research defines a recession at the time when business activity has reached a peak and starts to fall, until the time when business activity bottoms out.[3] By this definition the average recession, according to the National Bureau of Economic Research, lasts about one year. This approach may in fact be more useful when considering issues in relation to occupational health and safety and workers' compensation. It is usually possible to observe a peak in business activity and to note an economic downturn without the need to calculate whether in fact there have been two consecutive quarters of negative growth.

A *Characteristics of Economic Downturn*

Whilst it is possible to argue about the technical definition or the timing of the onset of a recession, it seems clear that there is little argument in relation to the characteristics of recession and economic downturn. The characteristics of economic downturn and recession universally appear to be the following:

1. Contracting employment and rising unemployment as businesses retrench workers in an attempt to control their costs.
2. Inventory reductions and significant price discounting, which in turn can lead to lower inflation rates. Lower inflation rates usually arise because there is a coupling between job losses and reduced consumer spending leading to reduced demand and a tendency to suppress prices.

2 See definition of recession at Investorwords.com, *Recession* <http://www.investorwords.com/4086/recession.html>.

3 The National Bureau of Economic Research, *The NBERs Recession Dating Procedure* <http://www.nber.org/cycles/recessions.html>. When the business activity starts to rise again it is called an expansionary period.

3. With reduced consumer spending, and inventory reductions there is often a commensurate lowering of demand for products. In response to the reduced demand, production is often scaled back.
4. As a consequence of the declining levels of production there are often higher levels of unutilized production capacity during a period of economic downturn and recession.
5. Reductions in production and jobs usually leads to a fall in business confidence and reduced profitability as underutilized production capacity becomes evident.
6. There is often a decrease in fixed capital investment spending because there is insufficient demand to justify the purchase of new capital items.
7. Usually there is a fall in demand in imports due to the general downturn in consumer spending and spending on capital items.
8. Consistent with all of the above, it is usually symptomatic of economic downturn that there is increased government borrowing usually arising from an increase in government spending and an increase in government projects creating an economic stimulus designed to support employment.[4]

These characteristics will form the backdrop against which we explore the effects of economic downturn upon workers' compensation schemes.

III A Brief Chronology of the 2007-09 Global Financial Crisis

To put the current downturn in context it is useful to trace the events leading to the so-called 2007-09 global financial crisis (GFC) back to the period 2005-06 during which time the housing market in the United States experienced a significant growth in sub-prime loans to home buyers.[5] It is not intended to detail the precise nature of sub-prime loans suffice to say that many borrowers obtained loans which put their income and outgoings in precarious balance. When interest rates increased in 2007 in the United States there was a significant increase in loan defaults and subsequently the largest decline in house prices for 25 years.[6] As mortgage defaults increased the US banks announced their first sub-prime losses.[7] In January 2008 the US Federal Reserve Bank announced that it would cut interest rates to counter the effects of these sub-prime difficulties.[8] Throughout the early part of 2008 global financial institutions continued to announce losses from sub-prime investments.[9] In February 2008 the Northern Rock Bank in United Kingdom was nationalised consequent upon its collapse.[10] In March 2008 financial services firm JP Morgan Chase acquired the Bear Stearns hedge fund after that fund failed.[11] Later that month Opes Prime went into receivership.[12] With these collapses the major pillars of the UK and US banking and financial system began

4 See generally, National Australia Bank, *Global & Australian Forecasts* (26 November 2010) <http://www.nabgroup.com/vgnmedia/downld/ForecastsNov2010.pdf> .

5 Ronald Utt, *The Sub-Prime Mortgage Collapse; A primer on the Causes and Possible Solutions* (22 April 2008) The Heritage Foundation <http://www.heritage.org/research/economy/bg2127.cfm>.

6 Ibid.

7 Institute of Chartered Accountants, *The Collapse of the US sub prime mortgage market Understanding the impacts under IFRS* (May 2008) 8 <http://www.charteredaccountants.com.au/files/documents/Credit_Crunch_Report.pdf>.

8 Board of Governors of Federal Reserve System (Press Release, 22 January 2008) <http://www.federalreserve.gov/newsevents/press/monetary/20080122b.htm>.

9 Institute of Chartered Accountants, above n 7, 8.

10 National Audit Office, *H M Treasury; The Nationalisation of Northern Rock Bank* (20 March 2008) <http://www.nao.org.uk/publications/0809/northern_rock.aspx#>.

11 'JP Morgan Completes Bear Stearns Acquisition' (Press Release, 31 May 2008) <http://www.bearstearns.com/includes/pdfs/PressRelease_BSC_31May08.pdf >.

12 Leonie Wood, 'Opes Unravels', *The Age* (Melbourne), 5 April 2008 <http://www.theage.com.au/business/opes-unravels-20080404-23s6.html>.

to crumble. In March and April 2008 the US Federal Reserve Bank announced further interest rates cuts in an attempt to stem the tide of losses.[13] During May to August 2008 the credit crunch emerged and in June and July 2008 the United States Securities Exchange Commission announced rating agency reforms and short selling restrictions all in attempt to prop up the financial system.[14] At the same time in United Kingdom the real estate market declined as prices fell. At about this time the financial crisis moved from the finance markets to the real economy.[15] Job losses started to emerge in the United States, the United Kingdom and most other advanced economies. In Australia trade in ABC Learning shares was suspended and signaled that Australia was now a part of the global financial crisis.[16] From September to October 2008 the crisis deepened with the takeovers of two major US financial institutions, mortgage lenders Freddie Mac and Fannie Mae.[17] At the same time the Bank of America purchased Merrill Lynch and Lehman Brothers moved into bankruptcy.[18] In Australia the Australian Securities and Investment Commission banned 'naked short selling'[19] and similar steps were taken in the US and UK.[20] Meanwhile in Ireland the government guaranteed bank deposits to prevent a run on the banking system in that country.[21] In consequence of the poor performance of the banking and finance sector 6-10 October 2008 emerged as the worst week on the United States stock market in 75 years.[22] In October 2008 the Reserve Bank of Australia reduced interest rates by one per cent[23] and similar adjustments occurred in US and UK.[24] Late in 2008 the International Monetary Fund (IMF) warned of a systemic meltdown in

13 A sample of media releases appears as Board of Governors of Federal Reserve System (Press Release, 20 March 2008) <http://www.federalreserve.gov/newsevents/press/monetary/20080320a.htm> and Board of Governors of Federal Reserve System (Press Release, 30 April 2008) <http://www.federalreserve.gov/newsevents/press/monetary/20080430b.htm>.

14 Armin J Kammel, 'The Dilemma of Blind Spots in Capital Markets – How to Make Efficient Use of Regulatory Loopholes' (2009) 10(5) *German Law Journal* 605, 611; Mary L Shapiro, Chairman US Securities Exchange Commission, *Testimony Concerning SEC Oversight; Current State and Agenda* (14 July 2009) < http://www.sec.gov/news/testimony/2009/ts071409mls.htm>.

15 Daniel Hamilton and Joseph Quinlan, *Annual Survey of Jobs, Trade and Investment between United States and Europe* (2009) Center for Transatlantic Relations 4-10 <http://www.colorado.edu/CEUCE/20090116-Hamilton%20Book.pdf>.

16 'ABC Learning extend share trade suspension', *ABC News* (online), 28 February 2008 <http://www.abc.net.au/news/stories/2008/02/28/2175788.htm>.

17 Carol D Leonnig, 'How the HUD Policy fed the Crisis', *Washington Post*, 10 June 2008 <http://www.washingtonpost.com/wp-dyn/content/article/2008/06/09/AR2008060902626.html>; Peter Eavis, 'Fannie Mae Could Face More Losses', *Fortune 500*, 4 December 2007 <http://money.cnn.com/2007/12/03/magazines/fortune/fannie_eavis.fortune/index.htm.

18 Editorial, 'Lehman Brothers Holdings Inc', *The New York Times* (New York), 26 October 2009 <http://topics.nytimes.com/top/news/business/companies/lehman_brothers_holdings_inc/index.html>.

19 See Australian Securities & Investment Commission, *Short Selling* <http://www.fido.asic.gov.au/fido/fido.nsf/byheadline/Short+selling+-+what+is+it+anyway%3F?openDocument>, for a discussion of the process of short selling and naked and covered short selling.

20 Australian Securities & Investment Commission, 'ASIC extends bans on covered short selling of financial securities' (Press Release, 21 January 2009) <http://www.asic.gov.au/asic/asic.nsf/byheadline/09-05+ASIC+extends+ban+on+covered+short+selling+of+financial+securities?openDocument>.

21 Government of Ireland, Department of Finance, 'Government increases deposit guarantee limit to E100,000 per depositor' (Press Release, 20 September 2008) <http://www.finance.gov.ie/viewdoc.asp?DocID=5466>.

22 California, Department of Finance, *Chronology of Significant Events* <http://www.dof.ca.gov/HTML/FS_DATA/LatestEconData/Chronology/chronology.htm>.

23 Reserve Bank of Australia (Media Release, 7 October 2008) <http://www.rba.gov.au/MediaReleases/2008/mr_08_20.html>.

24 Thomas Huertas, 'The Supervision of Financial Services; What Next?'(Speech delivered at 12th Annual BBA Banking Supervision Conference, London, 28 October 2008) <http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2008/1028_th.shtml>.

financial institutions.[25] In Iceland the banking system collapsed and in Switzerland and Netherlands large financial institutions received government support.[26] The Australian government announced a massive stimulus package in October 2008.[27] In November 2008 in the United States the automobile industry lobbied the government for support under threat of enormous job losses.[28] In Australia in November 2008 the Reserve Bank lowered rates by .75 per cent[29] and at the same time the G 20 nations followed Australia's lead with a pledge to restore growth. Importantly the IMF forecast a global recession at this time.[30] In December 2008 the Reserve Bank of Australia lowered interest rates a further one per cent as unemployment began to grow in Australia.[31] An additional stimulus package was announced in Australia in February 2009,[32] whilst in this month the Reserve Bank of Australia announced another one per cent interest rate reduction.[33] Global forecasts predicted growing unemployment and falling rates of growth as the Australian unemployment rates reached five per cent with a prediction that it would rise to seven per cent in the following year. By May 2009 the Australian economy avoided a technical recession with a second quarter growth rate of .4 per cent prompting the Reserve Bank of Australia to hold interest rates steady.[34] In October 2009 market indices showed improvements in the markets in the UK, the US, Japan and Australia.[35]

Two features emerge from these series of events so far as the context of this article is concerned. First the GFC was precipitated by sub-prime losses which in turn placed enormous strain on financial and banking institutions and in time caused significant declines in growth and most importantly investment income. The decline in investment income is an important aspect of the discussion below as this affected the profitability of insurers and in particular workers' compensation insurers. Second, the GFC caused, in some economies, an uneven growth in unemployment across industries, for example in the US in the automobile industry and in Australia in the mining industry. As will be discussed this could result in uneven developments in the growth or decline of workers' compensation claims.

25 Lesley Wroughton and François Murphy, 'IMF warns of financial meltdown', *elEconomista.es*, 11 October 2008 <http://www.eleconomista.es/empresas-finanzas/noticias/798789/10/08/IMF-warns-of-financial-meltdown.html>.

26 Huertas, above n 24; A Michael Andrews, *Regulatory Reform in Response to the Global Financial Turmoil; Finding the Middle Road between Over-reaction and Complacency* (2009) Certified General Accountants Association of Canada <http://www.cga-canada.org/en-ca/ResearchReports/ca_rep_2009-08_regulator_reform_gloabl_fin_turmoil.pdf>.

27 Prime Minister Kevin Rudd and Treasurer Wayne Swan, 'Macro Economic Conditions' (Joint Media Release,14 October 2008).

28 Herman Rosenfeld, 'The North American Auto Industry in Crisis', *Monthly Review*, (New York, USA) June 2009 <http://www.monthlyreview.org/090608rosenfeld.php>.

29 Reserve Bank of Australia (Media Release, 7 October 2008, 4 November 2008) <http://www.rba.gov.au/MediaReleases/2008/mr_08_25.html>.

30 International Monetary Fund, *World Economic Outlook October 2008: Financial Stress Downturns and Recoveries* (October 2008) <http://imf.org/external/pubs/ft/weo/2008/02/pdf/text.pdf>.

31 Reserve Bank of Australia (Media Release, 2 December 2008) <http://www.rba.gov.au/MediaReleases/2008/mr_08_27.html>.

32 Prime Ministers Kevin Rudd, '$42 Billion Nation Building and Jobs Plan' (Media Release, 3 February 2009).

33 Reserve Bank of Australia (Media Release, 3 February 2009) <http://www.rba.gov.au/MediaReleases/2009/mr_09_01.html>.

34 Reserve Bank of Australia (Media Release, 5 May 2009) <http://www.rba.gov.au/MediaReleases/2009/mr_09_08.html>.

35 International Monetary Fund, *World Economic Financial Surveys: Regional Economic Outlook Europe Securing Recovery* (October 2009) <http://www.imf.org/external/pubs/ft/reo/2009/EUR/eng/ereo1009.pdf>.

A *Employer Attitudes to Economic Downturn in the Context of Workers' Compensation*

As a precursor to considering the research literature in relation to the effects of economic downturn on workers' compensation it is useful to reflect upon the results of a survey of United States companies conducted in mid-2008. In that survey 23 per cent of employers who responded said that a recession would cause an increase in workers' compensation claims. 62 per cent of those employers surveyed predicted that there would be no change in relation to workers' compensation claims and only 6 per cent of those surveyed said that the effect of recession would be a decrease in claims activity. Nine per cent of employers did not know what the outcome of recession would be on their workers' compensation premiums and claims.[36] These perceptions indicate a widespread expectation, at least within the US business community, that when there is a downturn in economic growth there is likely to be an increase in workers' compensation claims. This perception may be driven by the expectation that as workers come to fear job losses they may find it attractive to seek income support through the workers' compensation system. Some employers perceive that claims made by workers under these circumstances are more likely to be fraudulent,[37] and some employers expect that those workers who are currently performing light work due to past injury may, upon losing their employment, seek to reactivate an old workers' compensation claim.[38] These employer perspectives do not appear to be supported by the available research.[39] That research, in relation to workers' compensation and the effects of economic downturn, will be discussed in more detail below; however it is as well to note that the published research from a variety of sources provides mixed results and it is not surprising that employer perceptions on these matters are also mixed.

B *The Effect of Past Recessions upon Australia*

Whilst this article will consider a range of international literature, this part briefly considers the effects of recession in Australia, principally, because internationally it is the jurisdiction with the most long-standing workers' compensation schemes. In Australia there were two recessions in recent times which are worthy of note. Australia experienced a recession between 1982 and 1983 and again in the early 1990s.[40] The characteristics of the 1982 recession were a steep decline in gross domestic product commencing about 1980 and bottoming out in 1983. Thereafter there was a reasonably rapid rise in gross domestic product into positive growth throughout most of the 1980s with some decline around 1985. A second recession occurred with a rapid decline in gross domestic product around 1991-92 (once labeled by the then Australian Treasurer as 'the recession that we had to have'[41]). An important characteristic of the recession in the 1980s was that there was a significant rise in unemployment and this trend was also mirrored in the 1990s recession, when unemployment also moved up sharply. Analysis of labour market

36 *2008 WAUSAU Multiline Productivity Poll,* referred to in 'Wausau Survey: Employers stay level headed despite recession worries' (11 July 2008) *Insurance Journal* <http://www.insurancejournal.com/news/national/2008/07/11/91826.htm>.

37 See generally on the low prevalence of worker fraud the report of the House of Representatives Standing Committee on Employment and Workplace Relations, Parliament of Australia, Canberra, *Back on the Job: Report into aspects of Australian workers compensation schemes* (2003).

38 There is some support for this assertion, see Roberto Ceniceros, 'Comp concerns rise with unemployment rates' (2009) 43 *Business Insurance* 6 <http://www.businessinsurance.com/article/20090208/ISSUE01/100027108>.

39 See the discussion below.

40 Australia seems to be largely unaffected by the Asian crisis in the mid-1990s.

41 Ian McFarlane, 'The real reasons why it was the 1990s recession we had to have', *The Age* (Melbourne) 2 December 2006 <http://www.theage.com.au/news/business/the-real-reasons-why-it-was-the-1990s-recession-we-had-to-have/2006/12/01/1164777791623.html>.

economics in Australia shows that, after the recession of the 1990s, there has been a trend downwards for the last decade in relation to unemployment. The most noticeable feature of the economic downturn that commenced in Australia in 2007-08 is that there was only a relatively modest increase in unemployment and a decline in employment growth. This has occurred despite the fact that the downturn in economic activity has not resulted in a technical recession in Australia.[42]

The rise in unemployment and decline in employment rates experienced during a recession may be felt differently in different industries. For instance, the Australian Bureau of Statistics reports that, during the recession which occurred in the 1990s, the most significant rises in unemployment were felt in the areas of finance and insurance, retail construction and manufacturing. The question of where an economic downturn will be most strongly felt appears to be related to larger factors in the global economic environment. For example, there is evidence that during the 2007-09 economic downturn in Australia there has been a sharp rise in unemployment in the mining sector, particularly in Western Australia, that has resulted from declining demand for raw materials and precious metals.[43] This feature did not appear in previous economic downturns, and reflects changes in demand for those materials on the world market.

Research into the impacts of the recession on workers' compensation schemes is further hampered by the lag in the collection of data concerning injury rates and injury severity, as measured by expenditures for benefits. Of necessity, injury severity can only be measured as the claims mature. It is as important to understand whether workers are returning to work after injury in an economic downturn as it is to understand how often they make claims under those circumstances. This data must await, amongst other things, the healing process undergone by the worker. As a consequence almost all commentary in relation to the effect of economic downturn upon accident rates and workers' compensation is retrospective. This highlights the importance of being able to determine the onset of economic downturn and predict, in general terms, likely stakeholder behaviours. Only by doing so will the employer have a chance to implement practices designed to mitigate the impact of the downturn – waiting until the actual effects are documented places them fatally 'behind the power curve'.

There seems little doubt that an important feature of economic downturn and recession is the loss of business confidence. The data trends in relation to business confidence and business economic conditions appear to travel in the same direction.[44] As production declines so does confidence. The interesting phenomenon which has occurred in Australia during the 2007-09 period of the global financial crisis has been the relatively early upswing in employer and business confidence. Various currently available data suggests that Australian business confidence is starting to return to pre-economic downturn conditions.[45] We do not speculate upon the reasons why a business confidence appears to be returning but it is worthy of comment in relation to what effect this may have in relation to employment. Some economic commentators have predicted that, notwithstanding that Australia has been able to avoid technical recession, there is an expectation that unemployment will grow.[46] At the time of writing there is no evidence

42 National Australia Bank, *NAB'S Monthly Business Survey & Economic Outlook* (September 2009) <http://www.nab.com.au/wps/wcm/connect/818b39804feb2a24ac13af8460a45bb2/MBSSep09PR.pdf?MOD=AJPERES&CACHEID=818b39804feb2a24ac13af8460a45bb2>.

43 It is well known that in Western Australia in some instances whole communities were dislocated as a consequence of mine closures. Whether or not those mine closures have resulted in any variation in workers' compensation claims for that industry has yet to be determined. See, eg, Nick Bryant, 'Australia hit hard by mining slump', *BBC News*, 31 March 2009 <http://news.bbc.co.uk/2/hi/business/7973008.stm>.

44 National Australia Bank (September 2009), above n 42, 1, 5, 6.

45 Ibid 6.

46 Ibid 11.

of a sudden upsurge in unemployment.[47] In fact whilst it was originally thought that unemployment would grow to approximately 7.5 per cent[48] of the workforce in 2010, the current predictions suggest that this may well be reduced to about 6.7 per cent or less of the workforce.[49] If business confidence appears to be rebounding, and a corresponding reduction in adverse pressure on employment follows, this can be expected to have a significant impact on workers' compensation scheme performance. This is because there is a clear link between the capacity of injured workers to return to work and the availability of employment.[50]

Prediction of confidence levels has also remained elusive. It has already been mentioned that there has been a sharp decline in employment in the mining industry in Western Australia. The brunt of the unemployment impact in that industry lagged considerably behind the recognition of the beginning of the economic downturn. Confidence levels did not drop in Western Australia until late in 2008 and in September 2009 there was a suggestion that confidence levels in the mining industry may have started to return.[51] This may reflect the nature of the industry, the relative importance it has in the overall economic mix in Western Australia or a combination of factors.

As far as the Australian historical record seems to indicate, the principle variables in the impact of economic downturns seem to be the magnitude of increases in unemployment, the focus on one or more economic sectors that are susceptible to current global economic pressures, and variations in business confidence that may reflect the relationship the industry has to the overall mix of employment in the affected economy. These, in turn, affect the workers' compensation scheme performance during these periods by impacting the availability of jobs available to a previously injured worker. As will be discussed below, job availability may have a significant impact on worker behaviour towards the workplace.

IV RESEARCH INTO THE IMPACT OF ECONOMIC DOWNTURN ON WORKERS' COMPENSATION

The effects of the economic cycle on workers' compensation systems have been the subject of a number of studies in a number of jurisdictions. The results may not always be transferable across systems although the findings are of interest and provide a reference point for predicting possible outcomes of economic downturn. For example, a study by Hartwig undertaken across 34 States of the United States and covering the period 1980 to 1995 showed that changes in the economic growth rate was associated with disproportionately elastic responses to claim frequency and real cost of claims per worker.[52] During the period of the study a 1 per cent increase in real GDP was associated with an equal and corresponding increase in claim frequency and 1.64 per cent increase in real claim costs per worker. Hartwig noted however that the effect of the 1990-91 recessions in United States was that during this downturn, the trend towards increased claims frequency and severity reversed. The end of the recession reversed the acceleration in the downward trajectory of frequency and claims costs.[53] Hartwig

47 Ibid 11.

48 National Australia Bank, *NAB'S Monthly Business Survey & Economic Outlook* (February 2009) 11 <http://www.nab.com.au/wps/wcm/connect/b2b945004dbf32fab313bf3d0aa93aa1/MBSFeb09.pdf?MOD=AJPERES&CACHEID=b2b945004dbf32fab313bf3d0aa93aa1>.

49 National Australia Bank (September 2009), above n 42, 11.

50 Niklas Krause, Lisa K Dasinger and Frank Neuhauser, 'Modified Work and Return to Work: A Review of the Literature' (1998) 8 *Journal of Occupational Rehabilitation* 113.

51 National Australia Bank (September 2009), above n 42, 5.

52 Robert P Hartwig, 'Riding the Economic Cycle: How Growth and Recession Affect Workers' Compensation' (1997) 29 *Compensation Benefits Review* 12, 13.

53 Ibid.

concluded that economic activity is an important determinant of workers' compensation claims frequency and severity.[54] He also observed that in a period of economic expansion premiums will be affected such that with the expansion of payroll premium volumes will increase, although the average cost of claims may rise in line with wage inflation which usually accompanies tight labour markets. In turn with employment growth in hazardous industries following an expansion premium volume should be further increased.[55] Data compiled by the New York based Insurance Information Institute which reviewed the effects of four recession periods in United States showed that workplace injury incidence rates declined.[56] Such research needs to be tempered with research which also shows that reforms in occupational health and safety laws have influenced the decline in workplace injury.[57] However it also has been observed as the recession in United States has deepened during the period 2008-09 that workers might respond by reactivating or filing claims for a range of injuries where they perceived that jobs were threatened. Ceniceros reported in this respect that

> [e]mployees off the job due to a legitimate injury now may be more motivated to extend the life of their workers comp benefits when their jobs may soon be eliminated or they already have been downsized, say brokers, third-party administrators and risk managers. Despite economic conditions, though, most employees will resolve their claims as soon as is medically possible if employers treat them fairly and with respect, said Dave Dolnick, risk manager for La Mesa, Calif., construction company The Brady Cos. But job losses also are pressing workers and some may be motivated to extend a claim, Mr. Dolnick and others agree. "'What we have observed, both somewhat with our own (limited) claims and also in chatting with...peers, is that claims that are otherwise legitimate become much more difficult to resolve in this kind of a market, when the injured worker doesn't have the option of a job to go back to,"' Mr. Dolnick said.[58]

These comments seem consistent with a study of the Massachusetts workers' compensation system by the Workers' Compensation Research Institute which found that there were two major effects of recession on costs and outcomes in workers' compensation. Firstly, changes in employment tend to be concentrated among those workers with less experience, both in specific industry experience and in the workforce generally. In recession companies tend to retain their most experienced workers and as conditions improve less experienced workers are re-hired. Secondly, workers may change their behaviours to maximize the duration of claims, or file claims for occupational disease or cumulative trauma.[59] During the period 2008-09 some United States employers were successful in negotiating reduced workers' compensation premiums on the basis of reduced workforces and reduced payroll. In turn this meant declining premium income for some US insurers.[60] Research in the United Kingdom undertaken by Davies and Elias in 2000 suggested that there may be gendered responses to downward economic cycles with males being affected by economic cycles to a larger extent than females.[61] In 2005 Davies and Jones noted the relationship between 'boom' periods and the rise in injury rates and concluded that

54 Ibid 15, 19.

55 Ibid 17.

56 Cited in Ceniceros, 'Comp concerns rise with unemployment rates', above n 38.

57 Hugh Conway and Jane Svenson, 'Occupational injury and illness rates, 1992-96: why they fell' (1998) 121(11) *Monthly Labor Review* 36.

58 Ceniceros, 'Comp concerns rise with unemployment rates', above n 38.

59 John A Gardner, Carol A Telles and Gretchen A Moss, *The 1991 Reforms in Massachuetts: An Assessment of Impact* (Workers Compensation Research Institute, 1996) 128-9.

60 Robert Ceniceros, 'Layoffs spark drive for comp price cuts' (2009) 43 *Business Insurance* 16,<http://www.businessinsurance.com/article/20090419/ISSUE01/100027505>.

61 Rhys Davies and Peter Elias, 'An Analysis of Temporal and National Variations in Reported Workplace Injury Rates' (Research Report, Warwick Institute for Employment Research University of Warwick, prepared for Health and Safety Executive, 2000) 3 <http://www.hse.gov.uk/statistics/pdf/ier.pdf>.

> [p]eriods of relatively high economic growth are associated with increases in workplace injury rates. Based upon the severity of recent business cycles, moving from a 'recession' to a 'boom' has been estimated to contribute to approximately an 11 to 12% increase in the rate of major injuries among employees.
>
> Such pro-cyclical relationships were most prevalent in areas of the private sector characterised by a relatively high share of male employment... Within the construction sector, moving from a 'recession' to a 'boom' has been estimated to contribute to approximately a 12-14% increase in workplace injury rates among male employees. Within the manufacturing sector, moving from a 'recession' to a 'boom' has been estimated to contribute to approximately a 4-7% increase in workplace injury rates among both male and females employees.[62]

In 1998 researchers in Australia observed that a rise in the unemployment rate might discourage compensation claims if workers were anxious about their jobs.[63] The same authors noted there may be some gendered effects of economic downturn and boom suggesting that in some occupations (such as sales work) women will have a greater propensity to claim or suffer injuries than men where there is an expansion in labour force participation.[64] A study undertaken for New South Wales WorkCover by Borooah and Mangan found that the higher the rate of unemployment the lower the likelihood of an injury being severe and that there is a greater likelihood of the injury being via a single event.[65] A study of the claim rates and the business cycle in Ontario, Canada relating to the period 1973 to 1993 involving claims for back pain and strains and pains in the upper extremities revealed that in Canada there was an *inverse* relationship between unemployment and claim rates for back injuries, that is to say, as unemployment increased claims for back injuries reduced.[66] Boone and van Ours in a study involving data from 16 Organisation for Economic Co-Operation and Development (OECD) countries confirmed that in economic downturn the rate of workplace accidents goes down. They concluded however that cyclical fluctuations in workplace accident rates were largely explained by reporting behaviour of workers and were not necessarily related to changed or increased workplace safety. Their reasoning was based on the notion that reporting an accident affects the reputation of a worker and may increase the probability of dismissal. In times of economic downturn, when the unemployment rate was high, workers in employment were keen to do everything possible to retain their jobs and therefore refrained from reporting injuries.[67]

A survey by the Institute for Work & Health (IWH) in March 2009 noted a range of possible factors explaining the trend of the declining number of claims for workers' compensation during economic downturn as follows:

62 Rhys Davies and Peter Jones, 'Trends and context to rates of workplace injury' (Research Report, Warwick Institute for Employment Research University of Warwick, prepared for Health and Safety Executive, 2005) 101 <http://www.hse.gov.uk/research/rrpdf/rr386.pdf>.

63 Vani K Borooah and John Mangan, 'Why has the Workplace Become Safer?' (1998) 31 *The Australian Financial Review* 224, 228.

64 Vani K Borooah and John Mangan and John Hodges, 'Determinants of Workplace Injuries; An econometric analysis based on injuries compensation data for Queensland' (1998) 28 (2) *Economic Analysis and Policy* 149, 160.

65 Vani K Borooah and John Mangan, 'Workplace Injuries in New South Wales; An Econometric Analysis' (Draft Results of a Study Undertaken for the New South Wales WorkCover Authority, 2004) (unpublished paper) referred to in WorkCover New South Wales, *Impact of the Economic Cycle on WorkCover's Operations* (May 2009) <http://www.workcover.nsw.gov.au/Documents/Publications/GeneralWorkCoverInformation/Research/impact_of_the_economic_cycle_on_workcovers_operations_5909.pdf>.

66 Ann-Sylvia Brooker, John W Frank and Valerie Tarasuk, 'Back Pain and Claim Rates and the Business Cycle' (1997) 45 (3) *Sociology Science Medicine* 429.

67 Jan Boone and Jan van Ours, 'Are recessions good for workplace safety?' (2006) 25 *Journal of Health Economics* 1069.

1. There are fewer inexperienced workers in the workforce as job hiring shrinks.
2. The least safe equipment is taken out of use as production declines.
3. The pace of work is slower.
4. Workers fearing job loss may defer filing claims.
5. Hazardous industries experience the largest decline in employment.[68]

The IWH noted that despite the drop in claim rates during recession which US research confirmed, it was possible that wage replacement costs of workers' compensation costs will rise if duration of claims increases.[69]

Despite the fall in claims frequency reported during an economic downturn, a number of issues of concern have emerged in the literature. First, some research has noted that despite falls in frequency of claims, costs per claim simultaneously rose; in particular medical costs *per claim* rose in recessions as minor injuries were less likely to be reported. For example, study of costs by the Workers' Compensation Research Institute in New Jersey, United States showed that total system costs increased by 8.8 per cent a year from 1989 to 1991 during a period of recession in that jurisdiction. A large part of this cost can be attributed to medical services which were increasingly utilized as claims durations increased.[70] Further, in line with other research that study showed there was concern that wage replacement (or indemnity) costs would rise as return to work was likely to be more difficult during recession, either because employees may find that they have no job to return to or employers are less flexible in offering modified work for partially disabled returning workers. [71] Most of the growth in duration rates were said to have come from the construction industry and some from the manufacturing industry. It was found that average duration of total disability increased from 8.8 to 23.0 weeks.[72]

Second, it has been suggested that there is evidence that the higher the unemployment rate the lower the likelihood of reported injury holds only up to a certain point. A literature review undertaken by WorkCover New South Wales found that when unemployment rose to a level of about 7-8 per cent the relationship appears to reverse, and as unemployment rates rise above 8 per cent, increasing unemployment tended to result in an increase in the number of injuries. This research also found that as the age of the workforce increased, the severity of injuries increased and frequency of injuries related to sustained or repetitive exposures increased. In addition, consistent with the research of Davies and Elias as feminisation of the workforce increased, the number of injuries increased along with injuries related to sustained or repetitive exposures. As the use of casual labor traineeships and apprenticeships increases so does the severity of injuries sustained increase.[73] While economic downturn may reduce workers' compensation claims it only did so if unemployment levels were below 8 per cent suggesting of the influence

68 Institute for Work & Health, 'Workers' compensation and the Business cycle' (Issue Briefing, March 2009) <http://www.pphsa.on.ca/pdfs/Briefing_business_cycles_2009.pdf>.

69 Ibid.

70 John A Gardner, Richard Victor, Carol A Telles and Gretchen A Moss, *Cost Drivers in New Jersey* (Workers Compensation Research Institute, 1994) xx, 55.

71 Ibid.

72 This is significant, in light of the research indicating that the probability of a worker ever returning to work diminishes in relation to the amount of time they stay away from the workplace. See generally, Organisation for Economic Cooperation and Development, Directorate of Employment, Labour and Social Affairs, *Sickness Disability and Work Keeping on Track in the Economic Downturn* (2009) <http://www.oecd.org/dataoecd/42/15/42699911.pdf>.

73 WorkCover New South Wales, above n 65.The latter conclusion being consistent with National Council on Compensation Insurance, 'An Analysis of Factors Affecting Changes in Manufacturing Incidence Rates' (Research Brief, August 2006) <http://www.ncci.com/documents/research-brief-sept06.pdf>.

of the moral hazard phenomenon whereby workers have a greater incentive to claim as unemployment looms.[74] Schmidt noted in this regard that

> [t]he established positive relation between the growth rates of the workplace injury and illness incidence rate and job destruction points to moral hazard, as laid-off workers have an incentive to use the workers' compensation system as a social safety net. Although the evidence was established for aggregate data only, the finding agrees with evidence of moral hazard in the workers' compensation system established by Krueger (1988, 1990) at the level of individual claims.[75]

Some US commentators have suggested that due to the limited income support provided by the US social security system when dismissal and redundancies increase the employer-employee bond or trust is broken, which leads to the predicament that 'desperate unemployed workers will scramble for any benefits they can find: while unemployment insurance provides support for just 26 weeks, workers comp can help pay the bills for years'.[76] Other US commentators suggest that as the 2008-09 economic downturn will lead to increased job losses it is likely that more workers' compensation claims and not less will result as employees lose their jobs.[77]

Third, it has also been suggested that recessions are 'characterized by increased use of the [workers compensation] system, longer duration claims and more frequent and larger lump sum settlements'[78] and create the pressure for a quick settlement. The implication is that insurance companies may be able to exploit a worker's need for a speedy settlement by offering less favourable terms. Workers would have greater incentive to make a quick settlement in times of recession as they were likely to be in greater need of money. Hence the reasons why the costs of the lump sums increase (if they do) constitute an area that needs further investigation and research.[79]

A *The Effect of Economic Downturn on Workers' Compensation Insurers*

Workers' compensation insurers like all other insurers derive profits not just from the surplus of premium income over claims costs, but also from income earned from investments.[80] A report by the United States Council of State Governments noted that during the 1990s investment in stocks and bonds by insurers was high which resulted in strong profits during the economic boom of that period. However during 2001-02 net investment income in the property/casualty insurance industry fell 7.1 per cent and an

74 This is also supported by research by Frank A Schmid, 'Workplace Injuries and Job Flows National Council on Compensation Insurance' (Working Paper, 28 March 2009) <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1377704>.

75 Ibid 17. On the issue of moral hazard and workers compensation see Richard Butler, David L Durbin and Nurhan Helvacian, 'Increasing claims for Soft Tissue injuries in Workers Compensation; Cost Shifting and Moral Hazard' (1996) 13 *Journal of Risk and Uncertainty* 73.

76 Jon Coppelman, 'Down the rabbit hole: the economic crisis and workers comp', *Workers' Comp Insider* (23 October 2008) <http://www.workerscompinsider.com/archives/000955.html>; Jon Coppelman, 'When the Bond is Broken: Workers Comp and Lay Offs', *Workers' Comp Insider* (13 April 2009) <http://www.workerscompinsider.com/archives/001035.html>; Julie Ferguson 'Workers Compensation and recession' *Workers' Comp Insider*, 14 May 2008 <http://www.workerscompinsider.com/archives/000871.htm>.

77 Ceniceros, 'Layoffs spark drive for comp price cuts', above n 60.

78 Ibid.

79 John A Gardner, Richard Victor, Carol A Telles and Gretchen A Moss, *Cost Drivers in Six States* (Workers Compensation Research Institute, 1992).

80 Science Blog, *NASI: Recession Affects Workers Compensation Trends Benefits Grew Faster Than Wages for the First Time Since 1992* (15 July 2003) <http://www.scienceblog.com/community/older/archives/K2/pub2365.html> and Comcare, *Comcare Budget Statements – Overview and Resources 2009-10*, 252 <http://www.deewr.gov.au/Department/Publications/Documents/Comcare_SafetyRehabilitationCompensationCommission_SeafarersSafetyRehabilitationCompensationAuthority.pdf>.

estimated 4.9 per cent in 2002 as stock and bond profits fell.[81] This report highlights another paradox of economic downturn in relation to workers' compensation insurance. As claims decrease with contracting employment there may be pressure on insurers to raise premiums due to declining investment income. The reliance on investment income by the private insurance market necessarily creates some instability in the system where there is overreliance on this source of income.[82] When underwriting is undertaken with anticipated returns of investments factored in, and the anticipated returns do not materialize, insurers are generally forced to raise premiums, provided the statutory scheme permits this. Higher premiums can force economically marginal employers into further distress, creating adverse pressure on business confidence, staffing patterns and recovery from the downturn. As noted above, these factors also can impact indirectly on claims making behaviour. Ironically poor administrators of workers' compensation systems may seek refuge in the excuse of declining investment income to disguise otherwise inadequate performance, a factor which is discussed below.[83]

The Australian workers' compensation insurance landscape is characterised by a mixture of private and public systems with some hybrid of variations. For example in Western Australia, the Northern Territory and Tasmania workers' compensation schemes are privately underwritten. In other States and the Commonwealth the workers' compensation schemes are underwritten by public monopolies. Hybrid models exist where public monopolies contract out the administration of claims. Such a system exists in South Australia, New South Wales and Victoria. Overlaid with the mixture of private and public insurance in Australia is the variation in scheme liabilities. In the Northern Territory and South Australia workers rights to bring a common law actions against their employers for workplace injury arising from negligence has been abolished. In all other jurisdictions common law rights have been modified generally by limiting the ability of workers to make common law claims. In most instances this has been done by the imposition of threshold requirements based upon medical assessments which require workers to establish that they have suffered a permanent impairment of the whole of their body at a specified statutory threshold before they can commence a common law claim. The mixture of public and private underwriting of workers' compensation schemes in Australia creates different environments in which different responses to changes in economic circumstances may be expected. Theoretically, public monopoly insurers have a greater capacity to withstand fluctuations in market forces, and in practice, political forces create conditions where they are less likely than for-profit insurers to respond quickly to market variations.[84] Privately underwritten schemes may be more susceptible to such fluctuations, as regulatory forces require them to fund their liabilities at much higher levels, and profit motivation counsels a flexible response to the market.

This susceptibility to fluctuations is exacerbated by the nature of the claims themselves. Workers' compensation claims are regarded as 'long tail' claims. Once an injury occurs, the claim may persist for a number of years, with long term medical care entitlements a particular concern. The finalization of claims in some jurisdictions may be problematic. For example in South Australia where the payment of lump sum to finalise a claim is specifically discouraged, the payment of indemnity benefits routinely persists over a course of many years in the case of severe injuries. In other States where common law entitlements are still available, there is a greater capacity to reduce the potential for long

81 Taylor Melissa Bell and Irakli Khodeli, *Workers Comp Trends Alert Critical information for State decision makers* (2004) The Council of State Governments <http://www.csg.org/knowledgecenter/docs/TA0402WorkComp.pdf>.

82 Finity Consulting Pty Limited, *The Global Financial Crisis and Australian General Insurers - The Calm before the Storm?* (February 2009) <http://www.finity.com.au/file.php?f=GFC_ArticleFeb09.pdf >.

83 Michael Owen, 'Business tires of global crisis excuse', *The Australian* (Sydney), 14 May 2009.

84 Ibid.

tail claims. The effect of the long tails is to create a discontinuity between the funding of the claim through collection of premium and the payment of the claim, which may occur in an environment that is subjected to different economic pressures than those anticipated when the liability was incurred.

In privately underwritten schemes there is no governmental exposure to market fluctuations, but the privately underwritten liabilities are required to be fully funded. As a result, an important aspect of the privately underwritten scheme is that there must be a capacity for insurance premiums to fluctuate with market pressures. That is to say, where insurers are able to show that there is a declining profit ratio there needs to be a mechanism by which insurance premiums can be adjusted. The failure of a system to allow for a reasonable adjustment of premium rates to insulate private insurers against extensive losses may result in some insurers making a business decision to stop providing insurance in that market, as an alternative to becoming insolvent. There have in fact been a number of insurance insolvencies in Australia, but it is probably not the case that movements in the workers' compensation market could be regarded as the sole cause. The most notorious failure in the Australian insurance market in most recent years was the HIH insurance collapse, which may have been indirectly related to variations in claims behaviour in relation to workers' compensation matters in international markets, but was probably more related to aggressive underwriting practices, based upon expectations of returns on investment of premium income prior to the funds being needed to pay claims and the failure of those investment returns to materialize. Where management chose to discount premiums too deeply to gain a competitive edge in the market, the downturn of investment income, rather than changes in claims behaviour, created the crisis.[85]

Public monopoly insurers may be better able to withstand, at least in theory, market fluctuations and thereby hold premium rates at more stable levels. However there is also the potential for public monopoly insurers to be politically manipulated, whereby premium rates are artificially maintained at low levels giving rise to unfunded liabilities. In the past however, underfunded liabilities are usually traceable to poor administrative practices and loss in investments and equity markets.[86]

Another feature of the workers' compensation insurance market is that, by law, insurance is compulsory. This compulsory nature has a tendency to stabilize the market. When an economic downturn hits, the business decision to go without insurance is not legally open to employers, regardless of the other financial pressures they experience. Scheme administrators may see a small rise in avoidance of the compulsory insurance obligation, but it is not enough to affect the viability of either monopoly or privately funded insurers. Economic conditions do, however, affect the behaviour of privately funded insurers in the market place, as the temptation always exists to use premium pricing as a mechanism for gaining advantage with regard to market share. As long as insurance regulators are vigilant to monitor the liability funding levels of such insurers, the compulsory nature of the insurance creates sufficient stability to support such behaviour.

The trend in Australia over the last decade has been for declining rates of workers' compensation premiums. In part this is attributable to declining rates in injury and accident in the workplace.[87] The causes of these declining rates are not entirely understood, and appear to be due to a combination of factors. Certainly increased attention to occupational health and safety has had an impact. There is evidence that

85 Brendan Bailey, 'Report of the Royal Commission into HIH Insurance' (Research Note Index 32-2002-03, Parliament of Australia, Parliamentary Library, 13 May 2003) <http://www.aph.gov.au/library/Pubs/RN/2002-03/03rn32.htm>.

86 Owen, above n 83; and Safe Work Australia, *Comparison of Workers Compensation arrangement in Australia and New Zealand* (2009) 33 <http://www.safeworkaustralia.gov.au/NR/rdonlyres/2F9B1EA6-7E2A-407C-AA52-99D0F6B2D0C5/0/Comparison_of_Workers_Compensation_Arrangements_in_Aust_and_NZ_2008.pdf>.

87 Safe Work Australia, ibid 7.

the average age of the workforce has been increasing, due to increases in the average age of the population as a whole and also due to a tendency for older workers to stay in the workforce longer and younger workers to postpone entry into the workforce. This tendency seems to be exacerbated by the current economic downturn.[88] In addition, there is some evidence that due to the growth in and the practice of 'independent contracting' many workers are no longer covered by workers' compensation schemes.[89]

Notwithstanding an environment of declining premiums, it is possible to say that, as a general rule, private insurers in Australia have maintained strong profitability in the last five years preceding the economic downturn. By way of a case study, in Western Australia insurers have been able to maintain premiums at relatively low levels whilst maintaining strong profitability. This is seen to be the result of a range of statutory restrictions upon a worker's ability to commence and sustain claims. In addition, the premium rates are set by the Premium Rates Committee which on a quarterly basis recommends maximum premium rates by industry.[90] Private underwriters are bound by those maximum rates which recently were the subject of a recommendation that they be increased.[91] The recommendation that premium rates be increased was based upon evidence produced to the Premium Rates Committee [92] that there had been a significant downturn in insurer profitability probably traceable to losses to investment income through the downturn in equity markets.[93] Thus, the Western Australian system maintained economic viability through the current economic difficulties due to flexibility built into the system of rate setting and adjustments. Similar results appear to have followed in Tasmania and Queensland which are also privately underwritten schemes.[94]

Other jurisdictions have experienced differing results. In particular South Australia, which operates under a public monopoly arrangement, has seen the scheme in that State suffer significant financial stress, resulting in ongoing review.[95]

Although Australia has been relatively unaffected by the global financial crisis, insurers operating on a multinational basis are, of course, subject to global economic influences. Consequently many insurers in Australia suffered declining profits not because of the downturn in the Australian economy but because of international influences.[96] In other words, ironically whilst the rate of workplace injury and disease has declined in Western Australian and a number of other Australian jurisdictions and whilst the statutory provisions operating in Western Australia, Tasmania and Queensland are particularly robust, there have been recommendations for a premium rate increase.[97] Needless to say such an increase would not have been welcomed by employers. However there is anecdotal evidence that some larger employers were able to negotiate stable premium rates, avoiding any increase on the basis of threats to transfer their business to other

88 Paul Taylor et al, *America's Changing Workforce: Recession Turns a Graying Office Grayer* (2009) Pew Research Center <http://pewsocialtrends.org/assets/pdf/americas-changing-workforce.pdf>.

89 Independent contracting is the practice of some business entities to contract out portions of their business operations to self-employed individuals operating only under supervision to the extent of approval of their work product. The practice is sometimes abused, with employers taking on 'independent contractors' who function under specific supervision, in the manner of employees, for the purpose of avoiding costs associated with employment, such as workers' compensation premiums.

90 WorkCover WA, *Annual Report 2008/09*, 16 <http://www.workcover.wa.gov.au/NR/rdonlyres/EB2042BE-B52E-4051-A0FC-F0A0332B1A9A/0/Annual_Report_0809_Web.pdf> .

91 Ibid.

92 Work Cover WA, *Workers Compensation Premiums in Western Australia* (July 2009) <http://www.workcover.wa.gov.au/NR/rdonlyres/7BE30D79-C34A-4C86-AE32-057D9572DA0B/0/Workers_Comp_Premiums_WA_1009_pdf.pdf>.

93 Ibid 9.

94 Safe Work Australia, above n 86, 33, 75.

95 Ibid 33.

96 For example as noted by Comcare, above n 80, 252.

97 Willis Commentary, *Workplace Risk Workers Compensation Outlook* (May 2009) <http://www.willis.com.au/Australia/documents/Workers_Comp_Outlook_-_May_2009.pdf >.

insurers.[98] Such economic threats are not available to smaller employers. It is likely that small to medium employers probably did experience some rise in net premium rates whilst larger employers were able to negotiate to reduce this impact.

V THE IMPACT OF RECESSION ON THE MIX OF WORKERS IN THE WORKPLACE

As noted above, the mix of workers in the workplace appears to be affected by economic conditions, and in particular, the tendency for the average age of the workforce to shift towards increased age has been noted.[99] This phenomenon has significant implications for workers' compensation schemes. Older workers tend to have a lower frequency of traumatic injury, longer duration of injuries and increased propensity to suffer 'cumulative trauma' and 'repetitive motion' types of injuries.[100] Similarly, there is a well documented tendency for younger workers to suffer higher levels of traumatic injury, particularly in the earlier portions of their tenure at a job. Since we have seen that recession can have impact on the age mix of the workforce, those same economic forces have a derivative impact on workers' compensation behaviour. If recession ages the workforce in the sense that workers remain at work longer, then the claims trends of the workforce will shift towards the claims trends of an older working population – specifically reduced frequency of accidents and increased severity (as co-morbidity issues and societal values complicate return to work).

Similarly, in a recession workers that have their jobs seem to be inclined to avoid behaviours that might jeopardize their position and so-called 'discretionary' claims (claims of injury that result in conditions of growing seriousness over time, or of a chronic low-level interference with life or work) may be postponed. Workers in different circumstances may have the opposite reaction. Workers who have lost jobs as a result of economic downturn may be inclined to file discretionary claims at the time of layoff. Workers, who have claimed prior to the downturn, may have a tendency to hold onto the claim and utilize its benefits for as long as possible, to allow time for the job market to improve. Together, these two factors impacting workplace behaviour are a critical factor in explaining observed trends during recessionary times

A *Can We Predict the Outcome of Economic Downturn on Workers' Compensation Schemes?*

This article has attempted to isolate three major factors in explaining the impact of recessions on workers' compensation claims behaviour. The industries affected by the downturn, the degree and nature of the impact on business confidence and the impact on the worker mix in the workplace all have an interrelated impact on the ultimate claims behaviour during an economic downturn. Given the state of the art with regard to predicting each of these factors, the ability to utilize this analysis as a predictive tool is currently somewhat limited. Although it is useful as an explanatory framework, business confidence and the mix of workers in the workplace are subject to the influence of multiple independent intervening variables. More to the point, the variables seldom line up in a

98 Conversations between the first named author and Peter Burtenshaw, insurance broker West Coast Group, July 2009.

99 Taylor, above n 88.

100 This is reflected in the Western Australian data, for example see WorkCover, *WA Statistical Report 2003/04 to 2006/07* (2008) 42-45<http://www.workcover.wa.gov.au/NR/rdonlyres/64C9FD51-57CF-4112-9FC0-6B5F3B14B74E/0/Workers_Compensation_Statistical_Report_0304_0607.pdf> and also nationally, as noted in the Australian Safety and Compensation Council, *Compendium of Workers' Compensation Statistics 2006-07* (March 2009) 14, 15 <http://www.safeworkaustralia.gov.au/NR/rdonlyres/F0814819-6379-4443-8AF7-D6FB1D7022BC/0/Compendium200607.pdf>.

homogeneous fashion, such that the predictive indicators all point in the same direction. An example of such mixed indicators present in one environment may be useful.

During the 2008-09 downturn, Tasmania has reported trends in claims frequency that appear to run counter to those experienced elsewhere in Australia.[101] The claims frequency has increased substantially during the downturn, where other States are experiencing the opposite trend. Unfortunately, the predictors in the Tasmanian experience are not well aligned. Tasmania relies principally on agriculture, mining, forestry and tourism as its main industries.[102] When there is a general economic downturn worldwide, a negative impact on discretionary travel, especially to relatively remote areas such as Tasmania, can reasonably be predicted. Accordingly, the tourism industry in Tasmania is one that is particularly susceptible to the impact of the downturn. Given the sensitivity of operators in that industry to bookings volume, and the relatively long lead time usually experienced by those operators with regard to their bookings, the impact on their industry should have been apparent at an early stage in the downturn. Business confidence was likely adversely impacted at an early date. Operators within the tourism industry, who may operate with substantial seasonal variations in employment levels, might have been led to scale back their workforce in place and/or fail to hire anticipated seasonal employees. However, such a downturn has not been experienced in Tasmania. Tourism has been very strong during the 2008-09 downturn, perhaps due to a diversion of Australian overseas holiday travel to destinations closer to home. Accordingly, there was no adverse impact on the tourism sector of the economy during this period.

The logging and mining industries were subject to a different set of pressures that also contributed to the overall results observed. Demand for wood products, and in particular wood chips, slowed due to decreased demand.[103] As business confidence flagged, the workforce likely reacted by trending toward increased age, that is to say older workers remained in the workforce longer, resulting in a shift toward to increased claims by more a mature and experienced workforce, with greater claims severity and duration anticipated. Production reductions in Tasmanian zinc and lead production started in 2000 and continued to the start of the global economic downturn.[104]

Thus, the trend in logging supported the reported outcome under the predictive model, while the trend in tourism did not assist in understanding the increase in claims behaviour. The trend in mining was neutral, and may not have had an impact. This suggests that the analytical factors cited above are part of a larger mix of predictive factors for claims behaviour, and that forces that are not directly tied to the impact of recession still operate and may even remain dominant in a changing economic environment.

Similarly, the factors noted above that help explain claims behaviour during economic contractions are themselves fairly difficult to predict. In September 2009 it became clear that Australia had avoided a technical recession, having only experienced one calendar quarter of economic contraction.[105] Unemployment was reported as showing a modest decline and it would have seemed reasonable to expect business confidence to be on the

101 Australian Safety and Compensation Council, *Compendium of Workers' Compensation Statistics 2006-07: Summary of Findings* (March 2009) <http://www.safeworkaustralia.gov.au/NR/rdonlyres/C053F2E2-5653-4ABD-986A-F4C79D20F613/0/Summaryoffindings200607.pdf>.

102 *Economy – Tasmania –Frequently Asked Questions* <http://tourtasmania.com/tasfaq/economy/industry.html>.

103 ABC Radio, Tim Jeanes, 'Tasmania suffers decline in Woodchip Demand', *The World Today*, 16 May 2006 <http://www.abc.net.au/worldtoday/content/2006/s1639717.htm> .

104 Iris Australia, *Tasmania – State of Success Zinc and Lead Demand* <http://www.iris.tas.gov.au/archive/demand3/zinc_and_lead>.

105 Reserve Bank of Australia (Media Release, 5 May 2009) <http://www.rba.gov.au/MediaReleases/2009/mr_09_08.html> and BBC News, *Australia able to avoid recession* (3 June 2009) <http://news.bbc.co.uk/2/hi/8080446.stm>.

rise.[106] Counter-intuitively, however, business confidence in September 2009 was reported as showing a significant decline. After five months of increasing business confidence, the National Australia Bank survey of businesses reported a decline in business confidence of 4 points from the August 2009 high of 18 points.[107] The August outcome had, in turn, been the highest rating since October 2003. This result occurred despite a strengthening economy, including increased exports to China and higher retail sales. The notion that business confidence would fall as economic indicators were rallying highlights the difficulty of using business confidence as a predictor of behaviour. As an essentially emotional response, it is difficult to predict, and so predictions of impact on workforce size and composition based upon anticipated moves in business confidence are doubly susceptible to unanticipated influences. Of additional interest is the observation of the chief economist for National Australia Bank that businesses are 'repositioning their workforce capabilities in the expectation of better times ahead'.[108]

If the impact of recessions is not sufficiently robust as a predictive mechanism for the changes brought on as a recession unfolds, it may still have some utility as a predictor of claims behaviour when a recovery from such a downturn commences.

Increased claims during a recovery period appear to be a commonly observed phenomenon. As noted above, Brooker found, in studying two recessions in Canada, that unemployment rates and claims rates varied inversely with one another.[109] The reasons for this increased claims behaviour follow from the predictive model. As business confidence rises with the improving economic outlook, hiring is likely. The average age of hires in the reconstituted workforce is likely to be lower, as experienced and highly paid workers are more likely to be replaced with younger and less experienced workers. Younger workers are more likely to be injured, and the first few months of employment is the time when workers have the greatest risk of injury.[110] This occurs because workers are at greater risk of misusing equipment during the period in which they are initially learning its operation, and because the worker has not become 'hardened' to the physical requirements of the specific job, and therefore may be more easily injured by the normal requirements of the job. Moreover, during the economic downturn, some machinery may have been idled, resulting in mishaps during startup. Alternatively, the economic turnaround may have been an opportunity for the replacement of existing machinery and equipment with new models, subjecting both experienced and inexperienced workers to the dangers of an adjustment period with the new equipment. More overtime may be worked, and workers involved in the stress of extra hours may be subject to additional exposure risks. Supervisors in a growth environment are likely to have less time to train employees properly with regard to new equipment or processes.

Psychosocial factors during a recovery are also conducive to increased claims activity. Workers, who have postponed discretionary claims, fearing that their job may be forfeited during tough economic times, often feel a release of that inhibition when the employer's long-term economic prospects improve. As the workforce expands with new workers, pressures to train, or compete with, new workers may impact the more experienced components of the workforce. New routines, new schedules and new output expectations create a reaction to change as well as changing physical demands. In this changing environment, with numerous unpredictable elements, natural individual change-aversive behaviour and the focus that often attends novel situations may combine to create an

106 Randstad, *Australian unemployment declines to 5.7 %* (9 October 2009) <http://www.randstad.com/the-world-of-work/australian-unemployment-declines-to-57.html?c=5385>.

107 Bloomberg.Com, *Australian September Business Confidence Index Slips* (13 October 2009) <http://www.bloomberg.com/apps/news?pid=20601081&sid=aznrnDMlIHnQ>.

108 Ibid.

109 Brooker et al, above n 66.

110 WorkCover, above n 100, 42-5, and also nationally as noted in Australian Safety and Compensation Council, above n 100, 14-15.

increased propensity to notice and act upon small instances of discomfort that might go unnoticed in more stable times.

If reaction during the recovery portion of an economic cycle is predictable, then it follows that steps may be taken to mitigate its effects, and that implementation of such steps is a sound strategy for business and government during the recovery portion of an economic cycle. After all, if claims activity increases during a recovery, then the timing and magnitude of the recovery may be impacted by the claims activity itself, as resources that could be effectively utilized during the recovery may be diverted to resolve disputes arising from, and pay for the liabilities arising from, increased claims activity.

The steps that mitigate increased claims activity during recovery from an economic downturn should include some or all of the following, depending on the economic experience of the employer during the downturn itself. First, care should be taken in rebuilding workforce capabilities. Workers who have been laid off may have to be brought back at a higher wage than workers who are new to the employer, but the increased liability for wages is significantly offset by the decreased incidence of injuries typical of inexperienced workers and by the relative lack of need for retraining resources to be committed to creating a workforce that is sufficiently well-trained to be safe. Care should be taken when placing equipment that has been out of service back into production, to ensure that it is in good condition and fully functional despite the period of non-use. The process of inspection and refurbishment of older equipment may save considerable losses, due both to breakdowns and to injuries inflicted on the workers that attempt to utilize it. When purchasing new equipment, and when bringing new workers into the workforce, the demands of safety education with respect to unfamiliar processes cannot be allowed to take a lower priority in favor of quick response to production demands without jeopardizing the economic gains attendant the increased production. This requires managers to take a larger and longer term view of their workforce management than consideration of just the production orders on hand would dictate. Finally, the psychosocial factors attendant the resumption of production are worthy of consideration. Increased demands for production should be acknowledged, and employee reactions to changes in the workplace environment should be considered, if an increase in claims activity upon the economic recovery is to be avoided. In short, employers would be well to see the reversal of an economic downturn as a time where their investment in the welfare of their workforce will position them for full utilization of the economic recovery, rather than an opportunity for a quick resumption of profitability without regard to the impact on the workforce.[111]

VI CONCLUSIONS

Economic trends clearly have observed impact on workers' compensation claims activity. During the inception and deepening of a downturn in economic cycles decreased claims activity overall, with increased claims duration in the claims made has been noted. This phenomenon appears to be the product of a number of factors. Economic conditions have disparate impacts upon differing industries, which are more or less predictable. Impacts on various industries affect the industry-specific and overall business confidence levels. Changes in business confidence levels impact employment levels as employers position their workforces to reduce costs during periods of anticipated low profitability. The impact of reductions in workforce is double-edged. On the one hand the layoff or termination of workers as a business contracts or closes has been seen to result in an

111 See generally in relation to these points Michael Connolly, *Workplace Safety and the Global Financial Crisis – The 'safety crunch'* (2009) National Safety Council of Australia <http://www.nsca.org.au/Home/Home_Pages/Workplace_Safety_and_the_Global_Financial_Crisis_%e2%80%93.aspx>; Tom Krause et al, BST Perspectives, *Leading Safety in the Downturn* (2009) <http://www.bstsolutions.com/perspectives/article.php?item=8>.

increase in claims specific to that business. On the other hand, there appears to be a well-documented phenomenon of workers who have retained their jobs during a downturn suppressing the filing of new claims. For those workers that have already filed claims or cannot avoid the filing of a new claim due to the nature of the injury, claim duration appears to be increased, as workers hold onto their benefits for as long as they can, especially in an environment where even a willing employer may not have the ability to return a worker to work at less than full duty. On balance, the trend of claims during the onset of the downturn is for decreased frequency (except where facility closings or layoffs cause local disruptions) and longer durations of claims.

The model is not particularly helpful in predicting employer and employee behaviours, due to the probable presence of multiple independent intervening variables affecting the impact of the economic cycle on a particular region, industry or business. Employer confidence appears to be particularly difficult to predict and the presence of undetermined local variables affecting overall systemic performance has also been noted.

The model is, however, useful in predicting behaviour when economic conditions change for the better. As unemployment attendant an economic cycle decreases, claims activity increases. The prudent employer will utilize this intelligence to avoid unnecessary claims by affirmatively managing the impacts of changes in infrastructure in the business and the personnel related aspects of their operations. In particular, consideration of safety concerns during the repositioning of the workforce is a strategy likely to position the employer to take the fullest advantage of the opportunities brought by better times.