

# THE IMPACTS OF THE CANTERBURY EARTHQUAKES ON THE COMMERCIAL OFFICE MARKET IN CHRISTCHURCH, NEW ZEALAND

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## ABSTRACT

*The 22 February 2011 Canterbury earthquake had a devastating impact on Christchurch property with significant damage caused to land and buildings. The broad aims of the research were to examine the nature and extent of the CBD office relocation, determine occupier's perceptions of the future: their location and space needs post the February earthquake and the likelihood of relocating back to the CBD after the rebuild. An online survey was developed with the web link and a covering letter emailed to 643 companies. A follow-up survey was sent out in January 2012 following the December 2011 earthquake event to determine if respondents' location choices had changed. From the initial survey, 55% of respondents were relocated CBD occupiers and 45% were existing suburban office occupiers. Of the businesses that relocated out of the CBD the biggest group (38%) want to return to the CBD into low-rise buildings of 3 floors or less (80%) that meet earthquake codes with good amenities and public transport. The speed of rebuild is important to respondents. The follow up survey indicated that demand for the CBD has fallen since the initial survey. In terms of building grade preferences, the response from occupiers is that although higher quality Premium or A-Grade buildings are preferred, when taking into account likely rental levels, occupiers prefer lower quality new or existing buildings. The concern with new builds is that rentals are likely to be too high for tenants to afford which was illustrated by the gap analysis of respondent expectations of rents and the indicative market rentals that will need to be achieved to make the rebuild feasible.*

**Keywords:** Canterbury earthquake, office relocation, building preferences

## INTRODUCTION

The first major earthquake to occur in Canterbury was the magnitude 7.1 earthquake of 4 September 2010 at 4.35am local time. The earthquake's epicenter was 40 kilometres west of Christchurch, near the town of Darfield, but still caused significant damage to Christchurch buildings and infrastructure but no direct fatalities. Six months later, the magnitude 6.3 earthquake struck at 12:51 pm on Tuesday, 22 February 2011 severely damaging New Zealand's second-largest city, Christchurch, killing 185 people (Wikipedia 2011, New Zealand Police 2012). The earthquake was centred 2 kilometres west of the town of Lyttelton, and 10 kilometres south-east of the centre of Christchurch (The New Zealand Herald 2011). As at 30 October 2012 there have been 12,520 earthquakes and aftershocks since the September 2010 event. As at April 2012, around 770 buildings have been demolished and another 180 identified to be demolished in central Christchurch (CERA 2012). Other large earthquakes were the 6.41 magnitude earthquake on the 13 June 2011 and the magnitude 6 quake on the 23 December 2011 (Crowe 2012 - see the map in Appendix I showing the location of these events). These have contributed to further building damage.

The damage was exacerbated by buildings and infrastructure already weakened by the 4 September 2010 earthquake and its aftershocks. Significant liquefaction affected the eastern suburbs, producing around 400,000 tonnes of silt. Of the 3,000 buildings inspected within the Four Avenues of the central city (the CBD) by 3 March 2011, 45% had been given red or yellow stickers to restrict

access because of the safety problems. Over a third of the CBD buildings have been, or are yet to be, demolished (Wikipedia 2012). The damage occurred to many older buildings, particularly those with unreinforced masonry and those built before more stringent earthquake codes were introduced. Newer high rise buildings performed quite well.

Over half of the deaths occurred in the six-storey Canterbury Television (CTV) Building, which collapsed and caught fire in the quake (New Zealand Police 2012). The total cost to insurers of rebuilding has been estimated at NZ\$20–30 billion, making it by far New Zealand's costliest natural disaster, and the third-costliest earthquake (nominally) event in history, after the 2011 Japan and 1994 California earthquakes (Buhayar et al 2011).

Following the 7.1 magnitude earthquake on 4 September 2010, the Canterbury Earthquake Recovery Commission was created under the Canterbury Earthquake Response and Recovery Act 2010. The Commission has since been disestablished (CERA, n.d. (a)). The 2010 Act was controversial and said to be “potentially at odds with maintenance of the principles of the rule of law” (New Zealand Law Society 2010), so the Act was repealed on 19 April 2011, when it was replaced with the Canterbury Earthquake Recovery Act 2011. Under the 2011 Act, the Canterbury Earthquake Recovery Authority (CERA) was established on 29 March 2011, to lead the recovery effort (CERA, n.d. (b)). CERA gave the Christchurch City Council the responsibility of developing a Recovery Plan for the Christchurch CBD: the draft Central City Plan. The plan is to be consistent with the Recovery Strategy, which is being developed by CERA.

The process of rebuilding has begun with the construction of the first new multi-storey building in the CBD red zone underway on the site of the old Harcourts Grenadier building in Madras Street (Harcourts Grenadier 2012). In December 2011, construction of the first new hotel commenced with Latimer Hotel. However, the hotels' CEO reported not being able to find a local insurer to underwrite the project, forcing the company to go to Lloyd's in London. The five storey hotel would be built on piles 13.5 metres deep, exceeding the standard for new buildings (Heather 2011).

According to a legal update from law firm Buddle Findlay (2012), as at February 2012 nearly 900 earthquake related building consents have been issued since September 2010. The Christchurch City Council expects an additional 10,000 earthquake related building and resource consent applications a year for at least the next three years. Further, CERA lists 747 CBD buildings that have been or will be demolished. CERA expects that about half of the buildings in the central city will eventually be demolished. Nearly a quarter of the buildings CERA lists to be fully or partially demolished are heritage buildings. Some of Christchurch's iconic landmarks have already been demolished, with the Christchurch Cathedral currently the centre of community debate over whether it should be demolished.

Amongst the many issues faced by building owners and investors are that the banks and other lenders updated their requirements for new lending on properties in the Canterbury region subsequent to the earthquakes and are requiring a number of reports from professionals such as structural engineers, geotechnical engineers and valuers, before any new lending will be approved. Further, immediately after the September and February earthquakes there was a twenty one day stand-down period for earthquake cover in Canterbury and without adequate insurance cover banks would not advance mortgage money, causing a slowdown in both the residential and commercial markets.

For commercial buildings situated in the Red Zone, uncertainties over the legal rights and responsibility of tenants were highlighted. Some of the buildings were undamaged but not able to be

occupied due to the cordon or tenants of buildings not in the cordon but surrounded by damaged buildings had their businesses impacted by depopulation.

Under the Auckland District Law Society Lease (ADLS Lease) which is the common lease used for commercial premises in New Zealand, if the building occupied is destroyed or so damaged as to make the premises untenable, the lease terminates from the date of the damage. The landlord may also terminate the lease if in their opinion the building requires demolition or reconstruction, but the landlord must give 20 working days' notice to terminate. If the building is tenantable, the landlord is required to spend any insurance money it receives to repair any damage, provided the necessary building permits or consents can be obtained. If a tenant is not able to occupy their premises due to damage caused by an earthquake, any rent or outgoings under the lease abate in a fair and just proportion to the destruction or damage until the premises are repaired and reinstated and available for occupation. An area for disagreement between a landlord and tenant may arise over the time the building becomes fit for occupation, particularly with the ongoing aftershocks and need for structural reassessments, and the lease abatement amount (Anderson Lloyd Lawyers 2010).

## LITERATURE REVIEW

### North American Studies

There are few papers available on the impacts of earthquakes on property values, those that were identified were based in the US and cover impacts from natural disasters other than just earthquakes. For example, Epley (2010) discusses the case for a post-disaster highest and best use definition when, as often happens, after a natural disaster a normal market no longer exists and few comparable transactions are available for analysis. In the absence of comparable sales, Epley (2010) recommends both a new highest and best use definition and a new valuation approach: contingent valuation, use of surveys to solicit opinions of current value of informed parties.

Levy (1984 and 1986), Sanders (1996) and Cole et al (2011) discuss an approach to value land impacted by landslides (with Levy (1986) defining "landslides" broadly to include all forms of damage which result from soil problems – ie: "land failure"), geotechnical, flood zone changes or related effects. They suggest a cost to repair approach starting with a hypothetical valuation of the affected property in an undamaged condition, deducting the cost to correct the damage and making an allowance for residual stigma, if any, by using case histories, if available, of repaired properties that suffered damage by soil movement and subsequently sold. Sanders (1996) notes that stigma does reduce with time and will be greatest immediately after the damage or loss occurs, and that adverse influences tend to be maximised in weak markets and minimised during strong markets. The author further notes that media exposure can impact on the degree of loss, with highly publicised events suffering greater or more lingering residual loss.

Brunette (1995) attempts to measure the impact on commercial real estate returns as measured by the Russell-NCREIF Property Index using case studies of three disasters: the San Francisco Bay Area earthquake October 1989; hurricane Andrew in South Florida August 1992, and the Los Angeles Area earthquake January 1994. Brunette (1995) graphs the total returns over time but notes that a difficulty in performing analysis of events on prices over time is that many other events are occurring at the same time such as disaster relief and insurance money providing economic stimulus for an area, or the possibility that households and businesses may leave an impacted area in large numbers. These factor may have a bigger influence on prices than the event under study. The author has not controlled for these other events, so it is difficult to draw any conclusions from his analysis.

Pugh, Appraisal Institute 2006 Vice President (in Nicolay 2010), stated that some of the biggest post-hurricane (*Katrina*) issues are "rapidly changing markets, no trends, scattered data, and early

feeding frenzies” (p17). As noted above by Epley (2010) and reiterated by Nicolay (2010), the market value assumptions of willing buyer and seller, with neither party acting under duress may not be able to be met post-hurricane. Nicolay (2010) outlines the Appraisal Institute’s proposed Guide Note 10, Developing an Opinion of Market Value in the Aftermath of a Disaster (Appraisal Institute, 2011). As stated in the Guidance Note:

*A disaster might have a drastic impact on both supply and demand, causing them to suddenly be out of balance. There may be a dramatic drop in supply due to destruction and damage. At the same time, there may be a spike in demand because those who suffered loss or damage to owned or leased real estate will need to find replacement space. (p4).*

Such circumstances: reduced supply and increased demand following a disaster, raise questions as to whether higher prices paid for property represent market value and whether the parties are typically motivated. There is a great deal of uncertainty in the market post-disaster such as environmental concerns, likelihood of another event, the degree to which structures can be replaced, etc. These uncertainties are difficult to measure. This uncertainty equates to higher risk that might be reflected in higher capitalisation and discount rates. The National Association of Home Builders (in Nicolay 2010) outlines another issue: shortages of skilled labour and necessary construction materials, driving up the costs of home building and repair in the affected areas, that need to be factored into valuations. These issues are just as relevant for commercial property as they are for residential.

### **New Zealand Studies**

According to a study by The Field Connection (2011), about a third of all employees in Christchurch City were located in the Central City (within the Four Avenues) when the September 2010 earthquake struck. They conducted a telephone survey of Central City businesses that were located within the CBD prior to the February 22 earthquake. They attempted 355 phone calls. One hundred interviews with business owners or senior managers were held in August and September, 2011 indicating a 28.17% response rate. Results indicated that nearly half (49%) of the businesses surveyed had relocated, 18% were working from home, 16% were unable to recommence the business and 15% recommenced business in the same premises. Respondents were split over whether they will return to the CBD: 40% said they will return and 38% said they were unlikely to. Insurance was the major concern reported by businesses. The majority (93%) of businesses had business insurance, 92% of respondents had made at least one claim and 89% of respondents were concerned about the lack of, or delays in, payments/settlements, and difficulties in seeking re-insurance for relocated businesses or in gaining insurance for new buildings.

Other concerns voiced by respondents included: lack of communication between the authorities (i.e. CERA / CCC), building owners and tenants relative to access to buildings, retrieval of items and the future fate of the building itself; uncertainty as to the legal ramifications of current leases and whether or not the building would be fit for re-tenancy; loss of income due to forced closure of their business due to its’ location within the Red Zone, or reduced patronage (de-population); the limited number of functional/‘safe’ premises from which to select and uncertainty over timelines which the rebuild and recovery would take to enable business owners to make informed decisions about the future of their business.

A Canterbury Employers survey conducted by The Labour Department (2011) surveyed more than 1700 employers located in Central Christchurch, Waimakariri, Selwyn and Banks Peninsula about the impacts of the earthquake. Around 40% of businesses had seen a drop in revenue as a result of the earthquakes. There was a net loss of staff and revenues in most sectors including retail, health,

education, manufacturing and professional services, but a few industries such as construction saw a net gain. The study excluded businesses no longer operating. Nearly 38% of workplaces expected to increase staff in the coming year with predicted unprecedented demand on labour, particularly relating to the construction rebuild.

## **RESEARCH OVERVIEW**

### **Introduction**

A study was undertaken to investigate the impacts of the Canterbury earthquakes on the commercial office market in Christchurch. As it is currently not possible to assess the impact of the earthquakes on the commercial property market within the CBD due to an absence of sales data, a survey approach was adopted, as suggested by Sanders (1996), Epley (2006) and Seefeldt (2006), to determine the attitudes and perceptions of the owners and occupiers of commercial office space.

### **Research Aims**

The broad aims of our research are to:

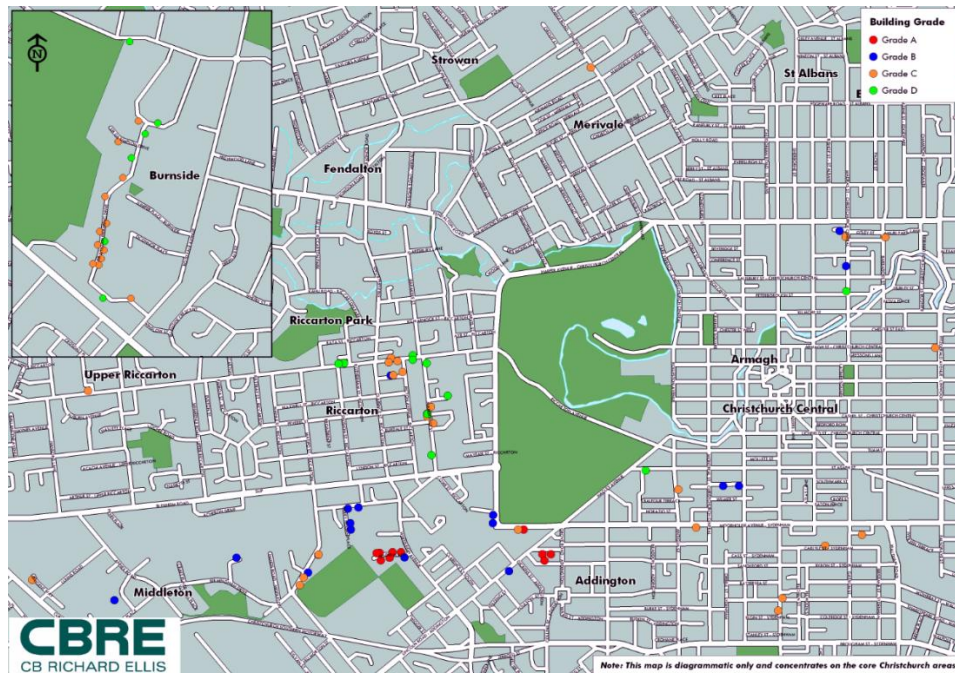
- (i) examine the nature and extent of the CBD office relocation;
- (ii) identify the nature of the occupiers; and
- (iii) determine occupier's perceptions of the future: their location and space needs post the February earthquake and the likelihood of relocating back to the CBD after the rebuild.

### **Survey Samples**

The sample of respondents was obtained from two sources. Firstly, 275 suburban office occupier contact details were obtained from a physical survey of office occupiers as of August 2011. Secondly, 368 contacts were obtained from a business database held by CBRE of CBD businesses from mid-2010. As this contained both office-based businesses and retailers, those contacts that came under the following office related industry classifications were selected:

- Information Media and Telecommunications
- Financial and Insurance Services
- Rental, Hiring and Real Estate Services
- Professional, Scientific and Technical Services
- Administrative and Support Services
- Public Administration and Safety
- Education and Training
- Health Care and Social Assistance

Office occupiers were surveyed from a number of locations which are illustrated on the map in Figure 1, below. The map is not comprehensive as some individual buildings are located just outside of the shown area. These buildings form part of CBRE's suburban office stock list and are typically stand-alone office buildings over 500 sqm in size.



**Location of Survey Respondents**  
**Source: Authors**  
**Figure 1**

### **Data collection method**

A survey of around 25 questions was developed. As this was an online questionnaire, only those contacts with an email address were selected for the survey and duplicate contacts were removed if they appeared in both sources. Details about the study and a link to a Qualtrics online survey were distributed to 643 respondents by email. The email was sent on 23rd August 2011 and recipients were given four weeks to respond to the survey. Reminders were sent out to recipients after two weeks and again two days prior to the survey closing date.

139 responses were received which equates to a response rate of 22%. Over half (55%) of respondents were those identified from the business database, while 45% of respondents were from the physical survey of tenants. Approximately 55% of these were previously CBD occupiers and 45% were existing suburban occupiers. We believe this provides a balanced view from office occupiers across the Christchurch office market.

Subsequently, in January 2012, a follow up survey was undertaken to help understand some of the more recent issues facing office occupiers in Christchurch after the earthquake events of December 2011 and January 2012. Using the same methodology as the initial survey, the survey was sent out to 641 contacts (slightly less than the initial survey as some contacts had asked to be removed from the database for various reasons). Over a period of 10 days, 140 responses were received, indicating a response rate of 21.8%, with 66 of these respondents being the same ones that answered the first survey (i.e. 47% of the respondents answered both the first and second surveys).

### **RESEARCH RESULTS - AUGUST 2011 SURVEY OF OFFICE OCCUPIERS**

The following sections outline the survey responses. Charts typically display results as a percentage of respondents on the Y-axis with the number above each bar representing the number of responses.

## Respondent profile

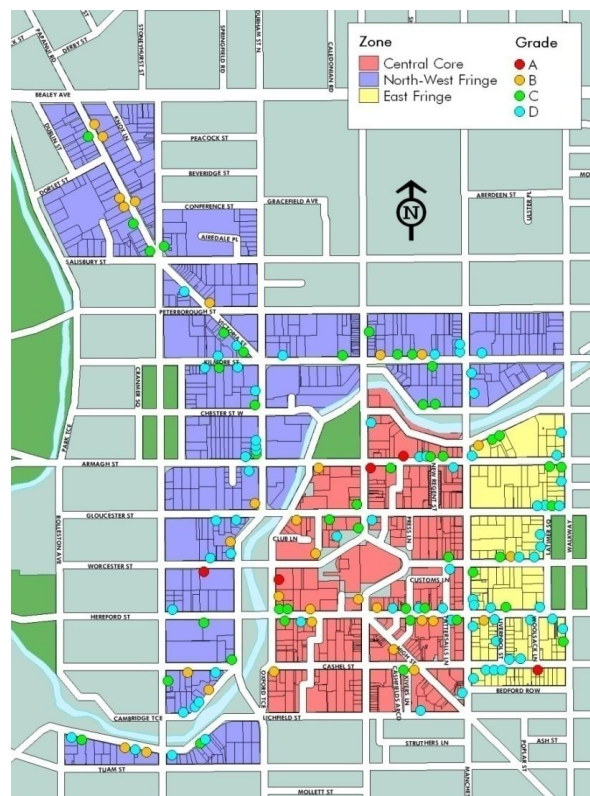
Nearly two-thirds (64%) of the respondents were male, 43% were aged 50-59 years with a third in the 30-39 age group. Nearly a third of respondents (32%) owned their own business, 27% were managers, 22% were director's and 18% employees. The standard industrial classification (ANZSIC) that best described respondents' business was "Professional, scientific and technical services", representing nearly 50% of all respondents. This includes Lawyers, Accountants, IT Professionals and Architects. The next largest group was those in the Finance and Insurance sector, who contributed to around 17% of all responses (for more information about ANZSIC classifications please visit [www.stats.govt.nz](http://www.stats.govt.nz)).

## Have you relocated your business premises within the last 12 months?

Out of the 139 respondents (located in both CBD and suburban offices), 73 (53%) have relocated within the last 12 months. However, removing those who have relocated for other reasons, there were 56 (42%) who have moved as a result of the earthquake. Of the 61 respondents in suburban offices, 9 (14.75%) relocated due to the earthquake. Of the 78 respondents in the CBD 47 (60%) relocated due to the earthquake.

## Questions answered by those who relocated as a result of the earthquake

The following questions were answered by the 56 respondents that relocated due to the earthquake. The majority (82%) were former CBD occupiers, while 18% came from suburban office buildings which were affected by the earthquake. The map in Figure 2, below, illustrates the area which CBRE considers to be the Christchurch CBD as of mid-2010 and displays office buildings by quality grading.



Christchurch CBD and Office Grades

Source: Authors

Figure 2

The largest proportion (45%) of respondents previously occupied smaller space of between 0-250 sqm and around 28% previously occupied space between 251 and 500 sqm. The respondent with the largest floor space occupied nearly 8,000 sqm in the CBD prior to the earthquake. In total, respondents covered 37,000 sqm of office space which was occupied prior to the earthquake, with an average tenant size of 660 sqm. Respondents generally had a short amount of time remaining on their previous lease, with the largest proportion (36%) having one year or less remaining, 27% had 25 months to 4 years remaining, followed by 18% having 13 months to 2 years remaining on their previous lease. Over half (57%) of respondents who relocated due to the earthquake were able to terminate the previous lease due to the building being “untenantable” and 25% were not sure if they were able to or not. Those who are still responsible for their previous lease or still have their lawyers dealing with it varied in the lease term remaining on the existing lease.

Over a quarter (27%) of tenants who have relocated due to the earthquake signed a lease term for their new space of one year or less. However, an equal number have relocated to residential premises where a commercial lease does not apply. Longer term leases have also been signed by a number of occupiers: 49 months to 6 years (16%); 25 months to 4 years (13%), and 13 months to two years (11%). Over half (59%) of respondents were on a standard ADLS lease at their previous tenancy. However, in their new premises, this number has fallen considerably to 32% with many now on ‘other’ types of leases (informal agreements) or 27% having moved to residential premises. Also some occupiers have become owner occupiers and hence did not require a lease. Shortly after the February earthquake the media had reported that landlords were taking advantage of increased tenancy demand by signing displaced tenants up to long leases, but these survey results indicate that this was not the case.

When their current lease expires, or when it is possible to move out of residential accommodation, over a third (38%) of the respondents want to move back into the CBD to a different building, 20% of respondents indicated they were going to stay where they had relocated to, 20% were undecided, and 14.5% wanted to move to a different suburban location. Only 9% wanted to move back to their previous location.

### **Questions answered by those who relocated into commercial premises as a result of the earthquake**

Nearly three-quarters (73%), or 41 out of the 56 occupiers who moved, have relocated into commercial space. The results shown here focus on those who have moved into commercial space as it is difficult to perform comparative analysis of relocations to residential spaces. As a result of the earthquake, over a third (34%) of these businesses that moved into commercial space have halved in size, 20% reduced in size by 75% and 12% of businesses reduced by 25% in size. On the other hand 17% of businesses have increased in size and 17% stayed the same size. Respondents would either stay in the same size space (40%) or expand (55%). Few indicated they would downsize further or close the business. No respondents indicated that they intend to close down the business.

Around half (51%) of respondents indicated that they are paying less rent in their new premises compared to the old one on a dollar psqm basis and 28% are paying more with the remainder paying the same as before they moved. Although rents in the suburban market have increased 30% since the earthquake, the responses to this question reflect that 45% of respondents had moved into inferior premises which tend to have lower rents. The majority (84%) of respondents felt that availability of amenities (banks, shops, cafes and restaurants) was worse compared to their previous location. Respondents felt that the availability of parking and the distance from home were slightly better in their new location.



## **Questions answered by all respondents covering their views on earthquake issues and recovery**

Half of the respondents indicated that business/turnover has remained stable since the earthquake. There are still a number of respondents who suffered losses during the quake, with 29% indicating some loss and 11% indicating significant loss in business. Business/turnover had increased for 14% of respondents. The number of staff laid off has been low with only fifteen companies out of 139 (11%) laying off staff. Ten (7%) of these companies have laid off less than five staff. More than half (55%) of respondents are solely Christchurch based businesses with no operations in any other locations outside of Christchurch. Of the 45% of respondents who did have locations outside of Christchurch, 47% transferred staff to other locations.

We defined the following classes of buildings by height:

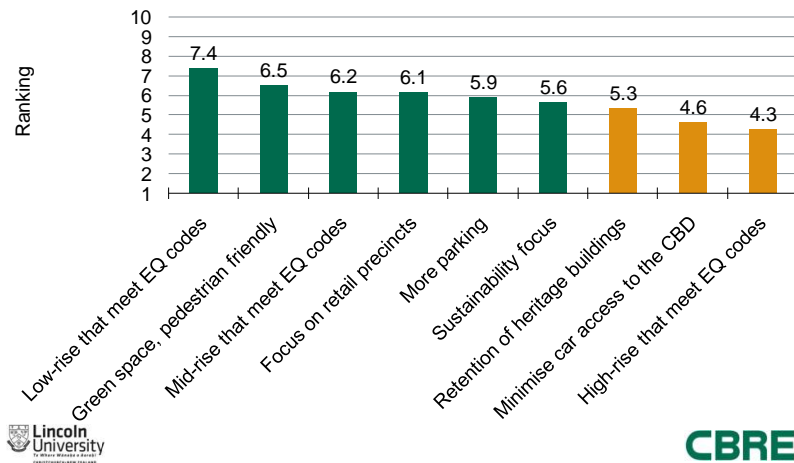
- low-rise - 3 floors or lower;
- mid-rise - 4 to 8 floors; and
- high-rise - over 8 floors.

Low rise was most preferred by 80% of respondents. There was the greatest aversion shown to relocating in high rise buildings (68% not preferring this height) which is not surprising, given the greater risks associated with evacuating a high rise in the event of an emergency and as experienced by Christchurch CBD office occupants during the quake. Responses for medium rise buildings were mixed but were generally not preferred.

In terms of the importance of certain building features listed, respondents were asked to rank these from 1, least important, to 10 most important. The rankings were averaged for each of the building features. An average score above 5.5 indicates it is somewhat important, however a score below 5.5 indicates it is not important. There was no clear preference for one particular feature; however location was seen as the most important feature, followed by plentiful parking and high quality on-floor services. Good quality lifts and Green Star Rating were not considered important.

Next, respondents were asked to rank the importance of locational features in order from 1, least important, to 3 most important. Proximity to public transport networks was most important followed by proximity to amenities such as shopping and recreational facilities. Both of these factors were considered to be important. On the other hand, proximity to supporting and complementary businesses and services was not considered to be an important factor.

Respondents were also asked to rank the priorities for the CBD rebuild in order from 1, least important, to 10 most important. An average score above 5.5 indicates it is somewhat important, however a score below 5.5 indicates it is not important, as shown in Figure 3, below. A low-rise building that meets or exceeds the current earthquake codes (3 floors or lower) was clearly the most important factor for the rebuild with an average score of 7.4. The next most important factor was more green space and a pedestrian friendly CBD. Minimising car access to the CBD and high rise buildings that meet or exceed the current earthquake codes (over 8 floors) were not considered as important to the CBD rebuild.



### Priorities for the CBD Rebuild

Source: Authors

Figure 3

Respondents were asked to rank the following options to fund the CBD rebuild in order from 1, least important, to 5 most important:

1. development Bond issued by the government to raise funding for the rebuild;
2. property tax relief which will allow owners to be exempt from any taxes on the ownership, construction and leasing of a building;
3. low-interest loans from government;
4. private-public partnerships whereby capital investment is made by the government to assist private developers and may have an allotted equity share in the development; and
5. government subsidies for owners that rebuild to sustainable/Green Star standards.

There was generally a near equal preference across all funding types.

#### Other comments

Finally, survey respondents were asked to make any additional comments about issues affecting office occupiers in Christchurch after the earthquakes. The main points raised, either by individuals or a number of respondents, are summarised below.

- respondents want the market (developers, owners and tenants) to have significant input into deciding how and what to build in the new CBD;
- the speed of rebuild is important as some organisations indicate an unwillingness to wait around if things are not going to happen soon. Once timeframes can be put in place, businesses are able to make more concrete plans;
- most respondents look forward to being able to return to a CBD which they believe will be a vibrant and busy central city precinct. However, there needs to be real emphasis on drawing people back, including workers, residents and tourists. On the other hand, many are still

- concerned about the aftershocks and whether a rebuild is actually possible; and
- there is a concern that rentals in newly constructed buildings will be much higher because they will be based on returns from build costs. This will make it unfavourable to return to the CBD for businesses who could only afford to rent at the lower end of the office market.

### **Implications for the Christchurch office market**

The results indicate that Christchurch businesses have not been as adversely affected by the earthquake as has been suggested in the media. However, as businesses were forced to relocate, due to the unavailability of office space, most businesses have been forced to occupy smaller space. Businesses are therefore positive about expansion from their current premises (which appears to be more of a temporary solution as indicated by the short lease terms being signed). There is a clear preference to return to the CBD into low rise buildings serviced by good amenities and public transport.

These results suggest that future demand for CBD office space should not be an issue (though willingness to pay questions were not included in this survey) if buildings are safe and well serviced by amenities. However, the speed and certainty of the recovery will be a major determinant for the success of the future CBD as displaced tenants have only signed short term leases and once they expire they will need to make decisions about their future occupancy.

### **RESULTS - JANUARY 2012 SURVEY OF OFFICE OCCUPIERS**

In January 2012, a follow up survey was conducted to help understand some of the more recent issues facing office occupiers in Christchurch, particularly after the earthquake events of December 2011 and January 2012. Using the same methodology as the initial survey, the survey was sent out to 641 contacts (slightly less than the initial survey as some contacts had requested to be removed from the database). Over a period of 10 days, 140 responses were received, indicating a response rate of 21.8%, with 66 of these respondents being the same ones that answered the first survey (i.e. 47% of the respondents answered both the first and second surveys).

#### **Questions answered by all respondents**

Respondents indicated only minor effects from the recent aftershocks of December 2011 and January 2012. Nearly half (46%) said their premises sustained no damage, while 36% said their premises sustained some damage but could still be occupied. The remaining 18% indicated their premises could not be occupied due to damage of varying levels.

Finding out the relocation plans of all respondents regardless of whether or not they had relocated due to the earthquake was considered important as it gives an indication of demand potential for the CBD. Currently, 68% (95) of the occupiers surveyed wish to remain outside of the CBD. This figure includes both existing suburban occupiers and former CBD occupiers. Less than half (44%) of respondents indicated that they initially planned to relocate to the CBD, however, around a third of these respondents have indicated they have since changed their minds and currently 32% (45) of respondents plan to relocate to the CBD. Some of the reasons behind this are:

- rents are likely to be too high and not sustainable for most businesses;
- businesses will be well established in the suburban location by the time the CBD is able to be occupied so there is no reason to relocate back;
- infrastructure in the CBD is not up to standard;
- staff response to further earthquakes has been negative resulting in them not wanting to return to the CBD;

- happy with current location as there have been changes to company structure/client base which means a CBD location is no longer important;
- delays and uncertainty means it is better to commit to a suburban location for the long term;
- prospect of disruption for years to come and working in a construction zone means that the CBD is not attractive; and
- confirmed redevelopments in the CBD are not available to meet the businesses' timeframe.

### Questions answered by those who intend to move back into the CBD

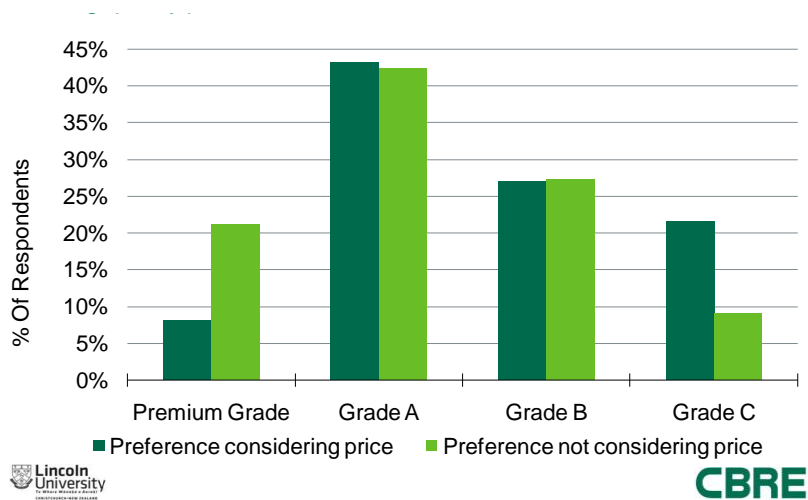
The previous question determined that 32% of respondents intend to move back into the CBD. The following questions were answered only by these respondents. Half of them indicated that they are able to return to the CBD immediately or within the next year. This indicates the short term or casual nature of many leases. One-fifth of respondents could move in the next 2 years, 10% in 3 years and 20% could not move for 4 years or more. If the CBD cannot be occupied at the time they are able to move, two-thirds (66%) of respondents indicated that they are prepared to keep waiting until the CBD is ready. Fewer, but still a significant proportion (28%), indicated that they would commit long term to space in the suburbs, indicating the detrimental impact on demand for CBD space of a slow rebuild.

The type of building that more than half (54.5%) of the respondents indicated they would consider locating to in the CBD is a new building which meets earthquake standards. Over a third (36.3%) of respondents said they would occupy an existing building as long as it sustained no or little damage and is deemed earthquake safe.

Respondents were asked which of the following building grade they would require taking into account price:

- **Premium Grade** – New building. Constructed to the highest quality, prestige lobby, high architectural merit, latest generation building services, onsite undercover parking. The total occupancy cost could be in the region of \$425-450 psqm (rent plus outgoings);
- **Grade A** – New building. Good quality construction including many but not all Premium features. The total occupancy cost could be in the region of \$350-375 psqm (rent plus outgoings);
- **Grade B** – Existing building of average quality with some but not all Grade A features and to a lower standard. The total occupancy cost could be in the region of \$225-275 psqm (rent plus outgoings); and
- **Grade C** – Existing building of lower quality air conditioned space. The total occupancy cost could be anything below \$225 psqm (rent plus outgoings).

A preference for Grade A (new build) was shown by 43% of respondents, 27% preferred Grade B (existing) buildings and 22% Grade C. Top quality premium grade buildings were least preferred (8%). If rental price was disregarded, respondents indicated a preference for higher quality space. Figure 4 indicates that over a third (36%) of respondents indicated a preference for higher quality space than their response that included price considerations. For Premium Grade space 21% (versus 8%) preferred this space if price was not an issue. Only 8% (versus 22% taking price into account) preferred Grade C when price was not an issue.

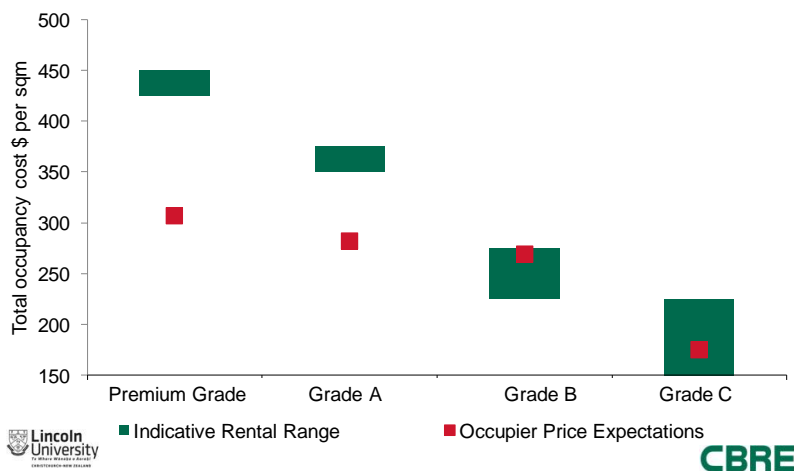


### Building Quality Preference

Source: Authors

Figure 4

Respondents were also asked how much they were prepared to pay for each quality grade and Figure 5 illustrates the difference between tenants' willingness to pay and the indicative rents that are likely to be required for such buildings from landlords. This is based on likely development costs/economic rents derived from conventional feasibility models which may or not apply to the Christchurch rebuild due to the complexities with insurance payouts. We have taken an average of the occupier price expectations.



### Tenants Occupancy Cost Expectations

Source: Authors

Figure 5

Figure 5 illustrates that for existing buildings (Grade B and C) tenants are willing to pay prevailing market rates. However, for new Premium Grade and Grade A buildings, there is a large gap between expectations which may negatively impact the quantum of demand for such space when the rebuild gets under way.

If the desired office space cannot be rented for the levels willing to be paid as stated in the previous question, nearly 42% of respondents indicated they would locate outside of the CBD where it is more affordable, while 30.5% of respondents would occupy lower quality CBD space which is affordable. No respondents indicated they would relocate to another city. Of note is that only 8% of

respondents would downsize space requirements, 14% would accept the higher rental, and 5% would buy their own building.

Respondents were asked if they are familiar with the Central City Plan and 78% of respondents indicated they were. Opinions about the Plan were generally critical. A summary of comments are as follows:

- very ambitious and uneconomical. The fact that the city is not starting with a “blank canvas” makes it even more unrealistic;
- concerns at prescriptive building regulations, especially strict and unrealistic parking codes for the CBD compared to the suburbs. Private developers also need to be able to develop what they want to;
- it is not so good for landowners who may incur substantial costs to comply with Council requirements yet have a building that no-one can afford to rent;
- there needs to be a lot of consultation, leniency and an essence of speed to ensure that the CBD is actioned successfully. If the process is too long then people will get impatient and will look elsewhere;
- land owners are waiting to see what businesses/buildings are re-instated before they judge what they are going to build there or if they sell the land and build somewhere else; and
- the rebuild will need Government intervention to happen as the market is fickle.

## **SUMMARY**

From survey one, 42% of respondents relocated due to the earthquakes, with around a quarter (27%) of them having signed up for a lease term of one year, or less. However, an equal number have relocated to residential premises where a commercial lease does not apply. Over a third (38%) of the relocated respondents would like to move back into the CBD to a different building in the future, indicating an initial level of potential demand for CBD office space. A lack of amenities (banks, shops, cafes and restaurants) was the largest drawback of their new suburban location.

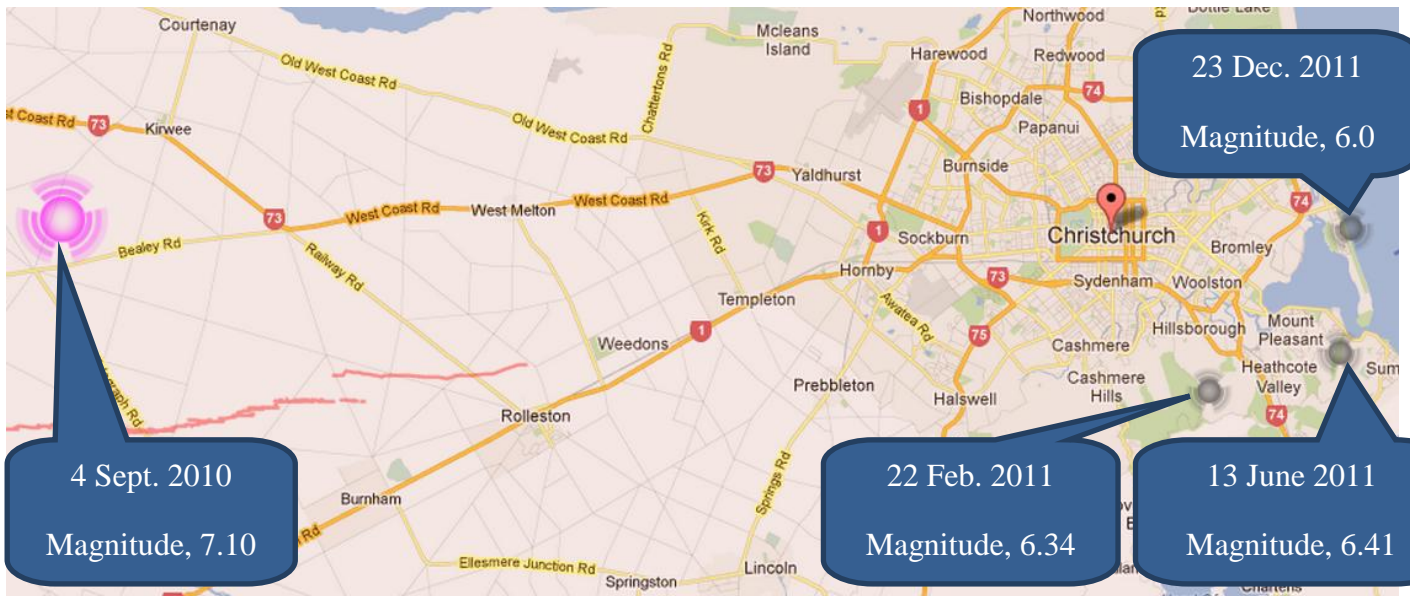
For those respondents that do intend to move back to the CBD, they have indicated a strong preference towards low-rise buildings that meet or exceed the current earthquake code (3 floors or lower). Location was seen as the most important building feature, followed by plentiful parking. Proximity to public transport networks came out as the most important location factor followed closely by the proximity to amenities.

The follow up survey highlighted some topical issues facing Christchurch office occupiers. Demand for the CBD has fallen since the initial survey with some occupiers expressing frustration over the delays and disruption of moving back into the CBD. There is a concern that demand for the CBD may weaken over time as initial short term leases will be expiring and although many have indicated they will keep waiting until the CBD is ready, some will commit to long term leases in the suburbs.

In terms of building preferences, the response from occupiers is that although higher quality buildings are nice to have, taking into account price, occupiers prefer lower quality existing buildings or lower quality new buildings. The concern with new builds is that rentals are likely to be too high for tenants to afford which has been illustrated by the gap analysis of respondent expectations of rents and the indicative market rentals that will need to be achieved to make the rebuild feasible. As preference for buildings which sustained little or no damage appears to be

nearly as strong as for new buildings, demand for the existing buildings is likely to be strong but will be compounded by the fact that many buildings across the CBD will, or have been, demolished leading to supply constraints.

### Appendix I – Quake Locations



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