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The impact of property title type on residential property returns

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Abstract

Residential property in New Zealand comprises both freestanding residential properties and medium to high density residential properties. Medium to high density residential property comprises the typical units, townhouses and semi-detached houses common in most residential property markets. However, in many of the larger cities of New Zealand the free standing residential property market has evolved into two separate markets being freehold residential property and cross lease residential property.

Cross leases have developed as a form of infill housing to reduce the urban sprawl in major canters, while reducing the time and cost for residential property developers. A cross lease is created when an existing freestanding residential property subdivides a portion of the existing land for the erection of another house on the original title, basically dividing one larger residential section into two smaller residential blocks.

This paper will analyse house prices in Christchurch over the period 1992 to 2006 to determine if the various housing markets have shown similar capital returns or if there is a specific preference for a particular residential property title.

Introduction

Increasing populations have resulted in the need for many countries to review the housing density policies to address the land pressures associated with increasing city populations. Although high density residential living is common throughout Europe, this concept is relatively new in countries such as United States, Australia and New Zealand. Typically the residential development in these countries in the 20th century has been based on the single residential dwellings on an 800-1000m2 block of land.

Shortages of sub dividable land in the 1980s has seen a gradual reduction in the average lot or section size in new subdivisions but this did not always reduce the residential accommodation requirements of the major cities and often resulted in urban sprawl (Bogart, 1998).

A solution to reduce both urban sprawl and ease the residential accommodation problems in the major New Zealand cities of Auckland, Wellington and Christchurch (also cities such as Sydney and Melbourne) was to allow infill housing and medium density unit development (Wellington City Council, 2004).

"Infill housing", is where a section that is a minimum size (initially 1000m2 but now as low as 800m2 in some New Zealand Local Government Areas) is cut in half. Usually the house on the front has direct access to the street and the house at the back has a right-of-way down the side of the legal boundary (Rotorua District Council, 2007)

This concept of infill housing was also seen to be a way to increase home affordability as the smaller land area would result in a lower overall price (Ministry of Economic Development, 2006)

Parallel to the development of infill housing has been the development of medium density housing stock, generally in the form of three level unit blocks on consolidated housing sites or brown field sites, and higher rise residential developments in the CBS and fringe CBD areas of these major cities (Morrison and McMurray, 1999).

These changes in residential land use and property type have also seen the need to introduce new land titles over that period to meet the changing nature of residential property ownership.

Infill housing and medium density housing since the mid 1960s has seen the situation in New Zealand, where residential property can be owned as:

- Freehold title
- Cross Lease title
- Unit title

New Zealand Property Title

Each of the three distinctive property ownership types in New Zealand have different rights, advantages and disadvantages compared to each other and are also seen as different sub markets in the residential property sector of new Zealand.

The land title system in New Zealand is a Torrens Title based system and is very similar to the land title system in Australia. Perhaps the major difference is the prevalence of the cross lease title, which evolved in relation to the initial infill housing subdivisions of the older and larger inner city properties into two separate residential properties.

New Zealand land is identified by a Certificate of Title (CT), which is a record of who owns or has an interest in land in New Zealand. There are four main categories in relation to land:

- Freehold (types are: fee simple, life estate or stratum estate.
- Leasehold (you can also have a stratum estate in leasehold).
- Unit title or cross lease (the ownership flat situation).
- Company lease or licence (note that a licence is not a title, but a right to enter land). (Department of Building and Housing, 2007)

Unit Title

The Unit Titles Act is now 30 years old in New Zealand and the Act is under review with proposed changes in 2008. Unit Titles have been used for a large number of multi unit or high density developments which allows a three dimensional plan of property with common areas being identified. These are referred to as Principal and Ancillary Units or Accessory Units. The combined ownership requires the property to have a Body Corporate and a set of Body Corporate Rules. Standard rules described by the Act cover the insurance of the building and some administration issues. Within the Act a Body Corporate Secretary needs to be appointed. This person has limited powers and some statutory requirements and is not responsible for addressing many other issues unless the owners delegate added responsibilities and change the Body Corporate Rules accordingly.

Many of the apartment complexes are in Unit Titles and with resort styled properties having on-site management for day to day maintenance, and renting of vacant units. These management contracts can also have an impact on property ownership, not only in the cost structure but the ability to rent or lease the property may or may not substantially enhance ownership.

There would appear a similar objective in all forms of ownership to provide a positive experience from property ownership. The issues facing the modern higher density are different to single ownership and sole responsibility.

Cross Lease

Cross leases evolved back in 1958 in the major New Zealand cities of Auckland, Wellington and Christchurch and this title system was basically a short-cut title system to allow the quick subdivision of existing residential properties in order to erect another dwelling on the original section and was originally devised to avoid the subdivisional restrictions of the Municipal Corporations Act 1954 (MacDonald, 2007). As well as reducing the time to gain approval, this method of issuing title also reduced subdivision costs by excluding reserve contributions and issues associated with minimum section sizes.

This quick subdivision method saw a considerable number of inner city properties being subdivided, with the old house remaining on the front block and a new dwelling erected at the rear of the block or in some cases the older house being removed and two new dwellings erected (Wellington City Council, 2004).

Cross Lease title comprises two separate interests. First is an estate as to the undivided but share in the fee simple of the head title—that is tenants in common in equal shares, except each owner gets a separate Certificate of Title and secondly there is a title also issued for an estate in leasehold in the cross lease on the building. In the case of cross leases both interests are dubiously registered on the one title and as such the lease on the building was not regarded as a subdivision (Law Commission, 1999).

Owners lease differing parts of the property to each other. These tend to be a 999 year term. The cross-lease has developed from what was commonly known as undivided half-share to a newer style cross-lease with restrictive use areas to provide some definition of the quantum of land associated with each lease. The addition of garages, carports and extensions to homes has produced a large number of cross-lease documents and lease plans which now do not reflect the improvements on site.

These limited subdivision benefits of cross lease title were removed to a large extent in the early 1990,s with the introduction of the Resource Management Act 1991, which saw these cross lease subdivisions brought into line with freehold subdivision rules and regulations (MacDonald, 2007).

There are still some advantages in carrying out cross-lease development:

- There is no need for the creation and service of mutual rights of way by easement between cross-lease owners;
- They can sometimes provide the opportunity for a greater density development and hence lower land cost for each unit developed;
- Some local authorities offer advantages in the assessment of the financial contributions for cross-leases;
- The survey definition required on a flats plan is not as great as for a subdivision and survey costs may be less. (MacDonald, 2007)

However according to Croft (2007) the advantages of cross leases tend to favour the developer but the disadvantages of cross lease title have a significantly greater impact on the property owner. Croft (2007) and MacDonald (2007) state that these disadvantages are:

- There can be delays in the issue of composite certificates of title as surveys cannot be completed until building construction is well advanced;
- There can be delays in obtaining local authority approval and issuing of the required certificates under the Resource Management Act, particularly when an older existing building is on the site;
- A flats plan can only be changed if all the owners and their mortgagees consent to such variation. Often this can be a time consuming and expensive exercise;
- The fences which separate the land areas are not usually surveyed and are situated in positions agreed to by the flat holders who hold the tenants in common interests in the land. These may or may not be shown on the flat plan. Disputes over fences between two flat holders and other neighbours and a flat holder come within the Fencing Act 1978 and in some cases the other flat holders will need to be consulted.
- Difficulty can arise on a cross lease title when additional buildings are constructed, or existing buildings are extended or altered. The reason is that a cross lease is technically a lease of the building on the property. It is not a lease of the whole land area.
- If a building is extended, or an additional building is constructed on the property (for instance a garage, conservatory or patio/deck), without a re- survey of the flat plan, that extension or addition will not be included on the flat plan. That addition or extension will not be included in the lease. Technically the addition or alteration is on land owned as tenants in common with the other flat holders. Flat plans cannot be simply modified to incorporate an alteration to the foot print of a building and afresh survey of the flat plan is required.
- Failure to keep the flats plan in line with "as built" dimensions can lead to sale difficulties;
- Problems can arise in completing staged development cross-leases when third parties are required but fail to co-operate as part owners of the freehold estate i.e. as co-lessors.

Research Objectives and Methodology

Based on the history of cross leases in New Zealand and the resulting problems associated with this type of land ownership, it is often considered to be an inferior property type compared to freehold title but still offers the benefits of separate land and improvements that are not generally available with unit title. The main objective of this research is to analyse the residential property sales in specific locations within Christchurch, New Zealand to determine the impact that the various residential property types have on house prices and capital return performance. This analysis has also been broken down into residential property sectors to determine if this impact is general in nature or isolated to particular property sizes based on the number of bedrooms.

Sales data was collected for 12 inner city suburbs of Christchurch. These suburbs were selected as they were the areas developed on a cross lease basis during the 1960s through to the late 1990s and as such have significant numbers of crossed leased residential properties, as well as newer unit title properties that have been developed since the introduction of the Resource Management Act 1991. The chosen suburbs were all middle income suburbs and the variation in property size, construction, quality and appointments were less variable than the upper socio-economic areas of Christchurch.

All sales for these suburbs were collected for the period January 1992 to December 2006 and sorted based on land title stated in the sales data base or in cases where the title was not stated, this title differentiation was based on the land area of the property sale.

Table 1: Sales transaction Summary: Property Title and Size: 1992-2006

	1 and 2 Bedrooms	3 Bedrooms	4+ bedrooms	Total
Unit Title	1257	1336	389	**2982**
Cross Lease	1307	2395	570	**4272**
Freehold	1639	5936	1843	**9418**
Total	**4203**	**9667**	**2802**	**16672**

Table 1 shows that the total residential property transactions for the study area over the period 1992 to 2006 was 16,672 sales with the following percentages

- Unit title 17.9%
- Cross lease title 25.6%
- Freehold title 56.7%
- Less than 3 bedrooms 25.2%
- 3 bedrooms 58.0%
- Greater than 3 bedrooms 16.8%

Research Limitations

The data was collected from the Real Estate Institute of New Zealand sales database, which provides details in relation to:

- Sale date;
- Sale price;
- Property address;
- Unit and street number;
- Land area;
- House size;
- Number of bedrooms.

Although this data could be used to identify most cross leases not all properties could be identified directly from the information provided in the database. To capture the greatest number of cross lease titled properties the minimum subdivision land areas for the subject suburbs were obtained from Christchurch City Council and all sales with a total land area within the Council requirements was classified as a cross lease sale. This assumption could have resulted in a small number of freehold properties being included as cross lease title. This is not considered to be a major limitation as only a very small number of freehold properties would have a total land area less than $450m^2$.

Results

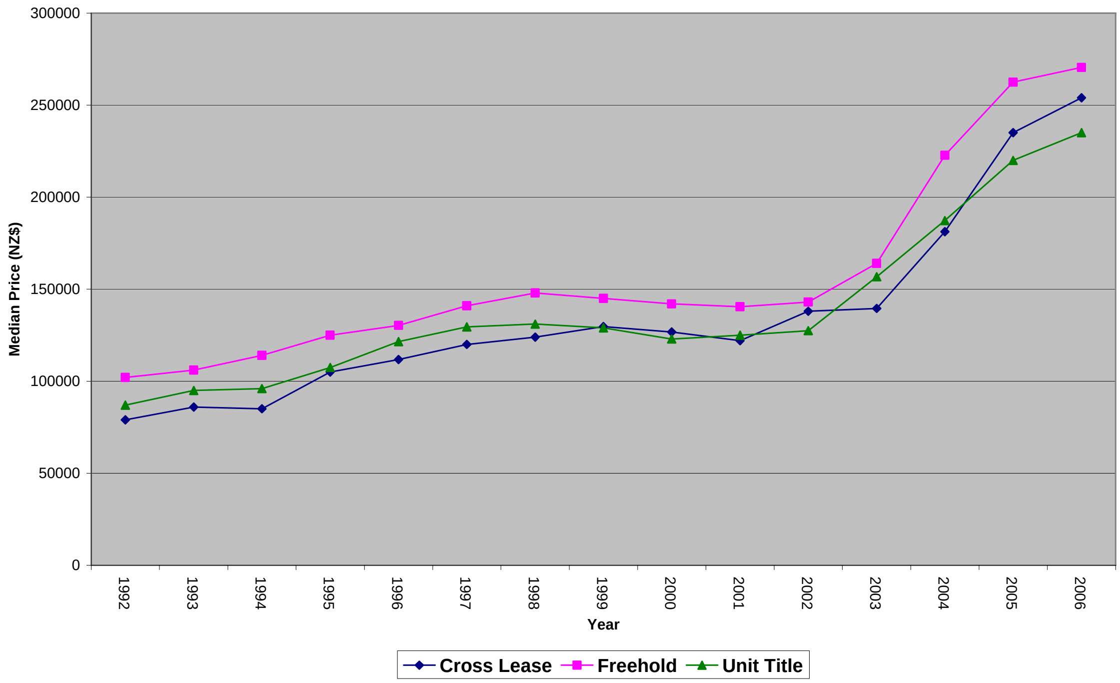
The analysis of the sales data and subsequent discussion of the results has been based on the following:

- Median freehold residential property price across all 12 suburbs;
- Median cross lease residential property price across all 12 suburbs;
- Median unit title residential property price across all 12 suburbs;
- Median price for freehold, cross lease and unit title residential property with less than3 bedrooms;
- Median price for freehold, cross lease and unit title residential property with 3 bedrooms;
- Median price for freehold, cross lease and unit title residential property with more than3 bedrooms;
- Average annual capital return and volatility for the property title sectors and property size sectors in the study area, as well as the average annual capital return performance represented as capital return indices 1992-2006, and
- Correlation analysis across the residential property sub sectors in the study area

Median price: 1992-2006

Figure 1 shows that over the period of the study the median price for residential freehold property has been consistently higher than the median price for both cross lease and unit title residential property, increasing from $102,000 in 1992 to $270,500 in 2006. However, it is interesting to note that throughout the study period the median price for cross lease and unit title residential property have followed a very similar trend but despite having a lower median price over the period 1992 to 1999, cross lease residential property has generally had a higher median price compared to unit title property since 2000. Over the period of the study the median price for cross lease residential property increased form $79,000 to $254,000, with unit title residential property increasing from $87,000 to $235,000.

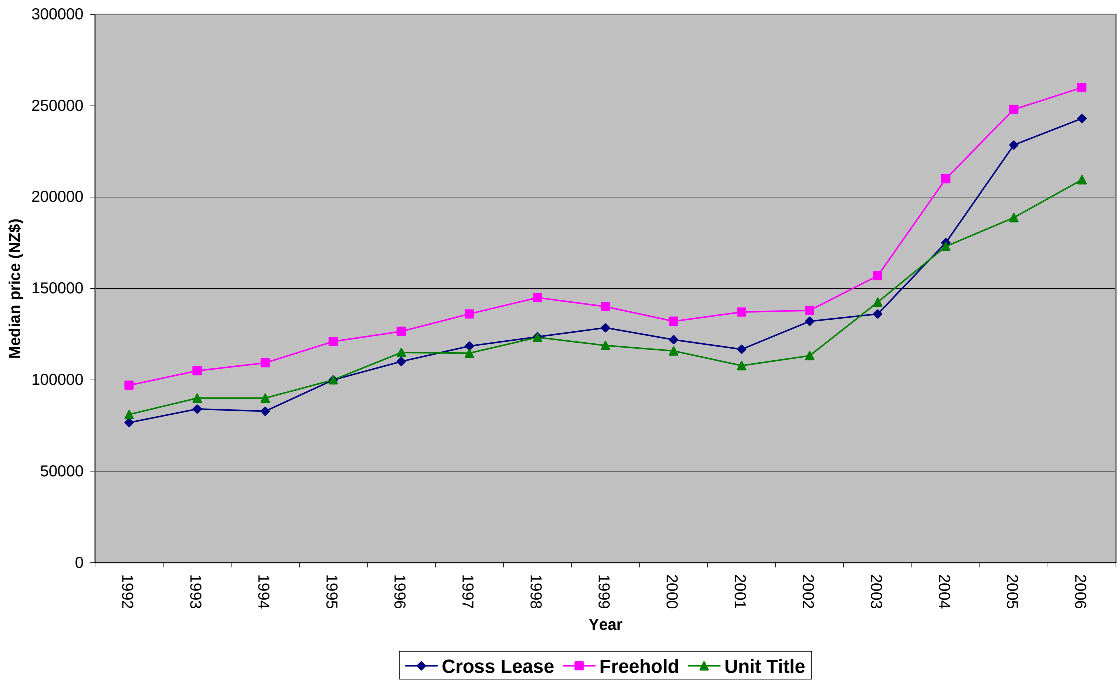
Figure 1: Comparison Median Property Title Price: 1992-2006



Figures 2, 3 and 4 represent the trend in median prices for the three types of property title based on the number of bedrooms in each of the sales transactions.

From these figures it can be seen that regardless of the number of bedrooms in the residential property market of Christchurch, freehold title has again shown the highest median price. However, these figures also show that as the number of bedrooms increases the difference in median price between freehold and cross lease title property also increases. With 2 bedroom properties the difference in the 2006 median price between the freehold and cross lease title was 7.0% but this difference increases to 9.9% for freehold residential properties with more than three bedrooms compared to similar sized cross lease properties.

Figure 2: Median Price: Less Than 3 Bedrooms: 1992-2006



These figures also show that the median price for cross lease and unit title residential properties in 2006 was greater than the difference between cross lease and freehold property for all sized properties (2 bedroom 16% difference; 3 bedroom 6.4% difference and 4+ bedrooms 31.55 difference), with this difference in price being more significant in the past three years compared to the period 1992-2003, when the median price between cross lease and unit title property was very similar.

This is particularly the case for residential property with 3 bedrooms and residential property with less than 3 bedrooms, where the difference in annual median prices for the period 1992 to 2006, ranged from 0% to 17.4% for residential property with less than 3 bedrooms and 0.32% to 12.61% for cross lease and unit title property with 3 bedrooms

Figure 3: Median Price: 3 Bedrooms: 1992-2006

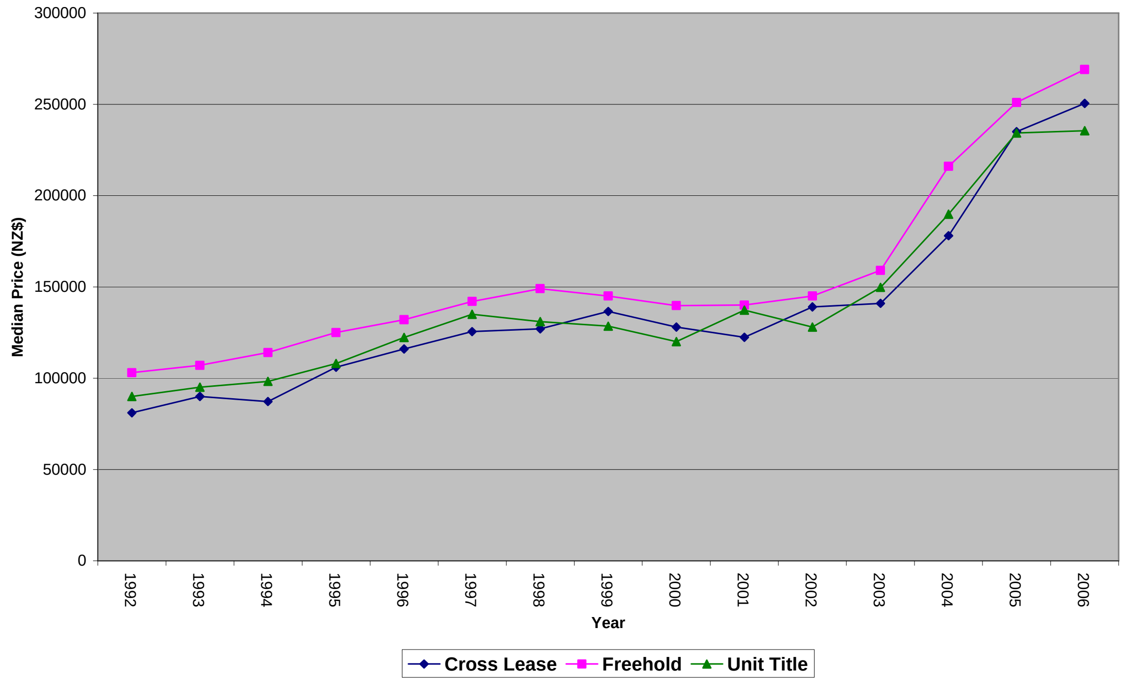
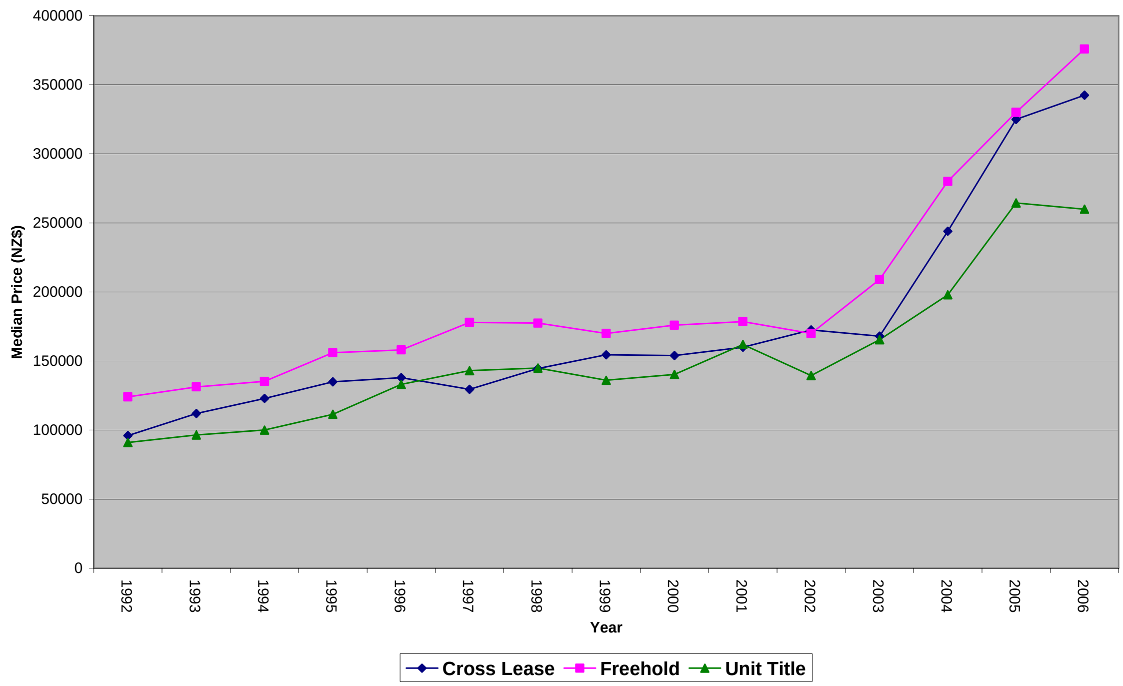


Figure 4: Median Price: Greater than 3 Bedrooms: 1992-2006



Average annual capital return: 1992-2006.

Although the median price for freehold residential property has been consistently higher than the price for similar sized cross lease or unit title property in the same location, the average annual capital return has been generally lower for this property title type.

Table 2 shows that over the period 1992-2006, freehold property in the study area had the lowest average annual capital return of 7.61%, compared to 7.65% for unit title property and 9.20% for cross lease title property in the same location. Table 6 also shows that this additional return from cross lease property compared to freehold property was not necessarily at proportional higher levels of risk (11.13% to 10.01% or a risk/return ratio of 1.21 for cross lease property and 1.32 for freehold property).

Table 2: Average Annual Capital returns: Study Area-All Residential property: 1992-2006

	12 months	**Last 3 Years**	**Last 5 Years**	**Last 10 Years**	**1992-2006**
Freehold	3.05	18.91	14.64	8.12	7.61
Cross Lease	8.09	22.56	16.37	9.12	9.20
Unit Title	6.82	14.59	13.94	7.19	7.65

Tables 3 to 5 represent the average annual capital returns for the various property title types based on the number of bedrooms in each property type.

Again, these tables show that on an average annual capital return basis, cross lease title property has performed better than both freehold and unit title property, regardless of bedroom numbers, but this difference in average annual capital return has ranged from a low of 7.41% for 3 bedroom units to a high of 10.24% for 4+ bedroom cross lease property.

Table 3 Average Annual Capital returns: Study Area-Less than 3 Bedrooms: 1992-2006

	12 months	**Last 3 Years**	**Last 5 Years**	**Last 10 Years**	**1992-2006**
Freehold	4.84	18.90	14.24	7.99	7.68
Cross Lease	6.35	21.86	16.34	8.83	9.09
Unit Title	10.99	13.83	14.49	6.66	7.41

These tables also show that the last three years have seen the most significant increases in both median prices and average annual capital returns for each of the property title types and the bedroom sub-market sectors for residential property in this location within

Christchurch; however, this growth has been predominately in 2004 and 2005, with a slow down in the market during 2006.

Table 4 Average Annual Capital returns: Study Area-3 Bedrooms: 1992-2006

	12 months	Last 3 Years	Last 5 Years	Last 10 Years	1992-2006
Freehold	7.17	19.74	14.49	7.88	7.46
Cross Lease	6.60	21.62	15.98	8.61	8.94
Unit Title	0.53	16.90	12.19	7.43	7.60

Table 5 Average Annual Capital returns: Study Area-greater than 3 Bedrooms: 1992-2006

	12 months	Last 3 Years	Last 5 Years	Last 10 Years	1992-2006
Freehold	13.94	21.92	16.79	9.70	8.75
Cross Lease	5.38	27.94	17.80	10.94	10.24
Unit Title	-1.70	17.18	11.26	7.75	7.43

This has particularly been the case for freehold property and cross lease property, with unit title property showing a significantly lower average annual capital return for each of the property size sectors compared to both freehold and cross lease title. This difference was actually less for 3 bedroom units rather than less than or greater than 3 bedroom units, indicating a greater investment potential for smaller or larger residential units and market preference for 3 bedroom houses compared to 3 bedroom units..

Table 6 Average Annual Volatility: Residential Property Size and Type: 1992-2006

	Total Market	Up to 3 Bedrooms	3 Bedrooms	3 Bedrooms +
Freehold	10.01	9.74	9.65	11.15
Cross Lease	11.13	11.05	11.41	13.83
Unit Title	8.37	9.54	10.66	12.30

Table 6 shows the volatility for each of the property titles and bedroom size sectors of the residential property market in the study area of Christchurch. As expected the higher the return for the residential property sub sector the higher the risk. However, it is important to note that the property risk increased as the size of the property increased with the highest average annual volatility being for the property with more than three bedrooms

Capital return indices

The difference in average annual capital returns for the various residential property sectors are better reflected in Figures 5 to 8, which show the capital return indices for residential property based on title alone and then further broken down into property markets based on both title and bedroom numbers.

Figure 5 shows that cross lease property has outperformed both freehold and unit title property over the period 1992-2006 rising to an index value of 322 in 2006, compared to only 270 for unit title property and 265 for freehold title property in the same location. It is also interesting to note that the trend lines for both freehold and unit title property has been very similar over the study period.

Figure 5: Capital Return Index: Property Title: 1992-2006

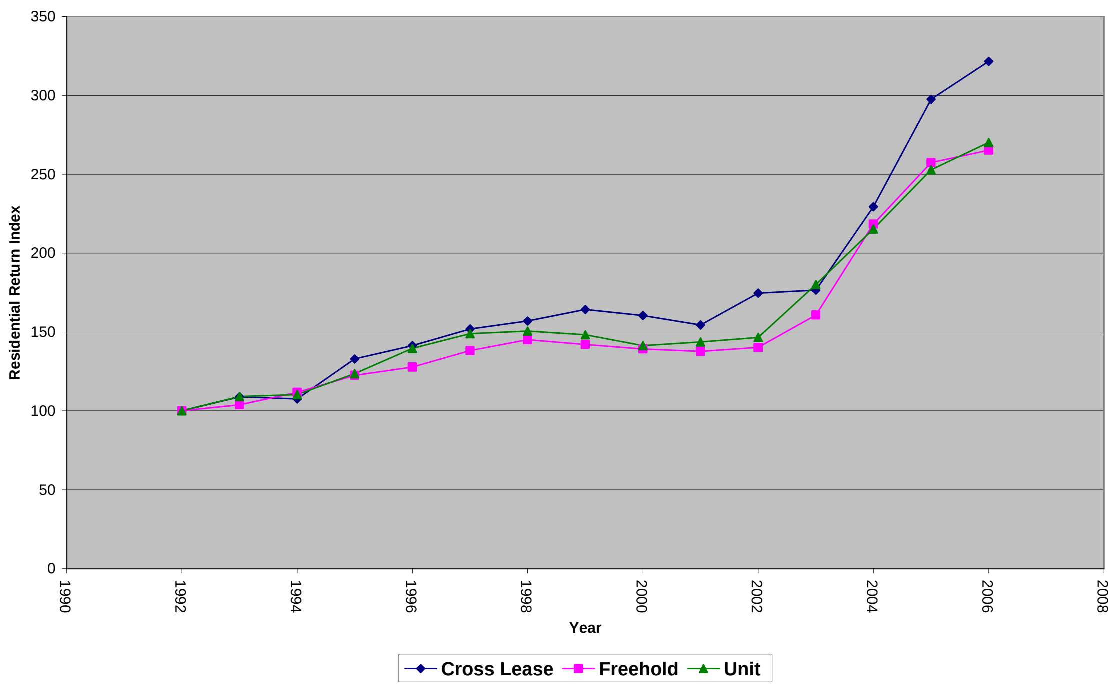


Figure 6: Capital Return Index: Less than 3 Bedrooms: 1992-2006

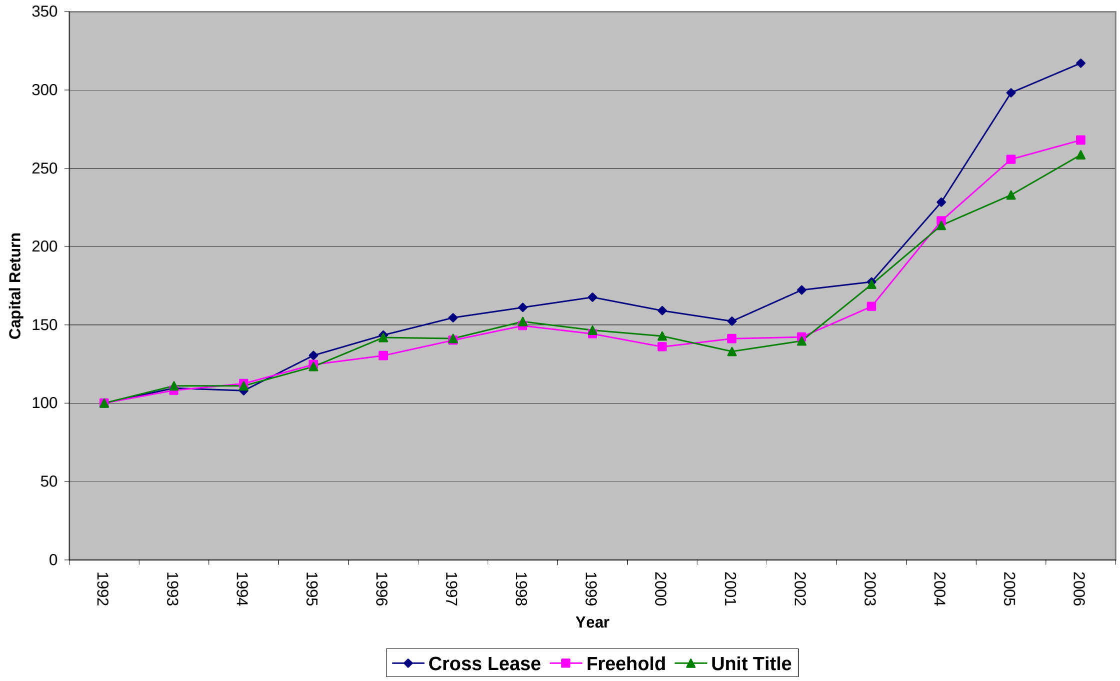


Figure 7: Capital Return Index: 3 Bedrooms: 1992-2006

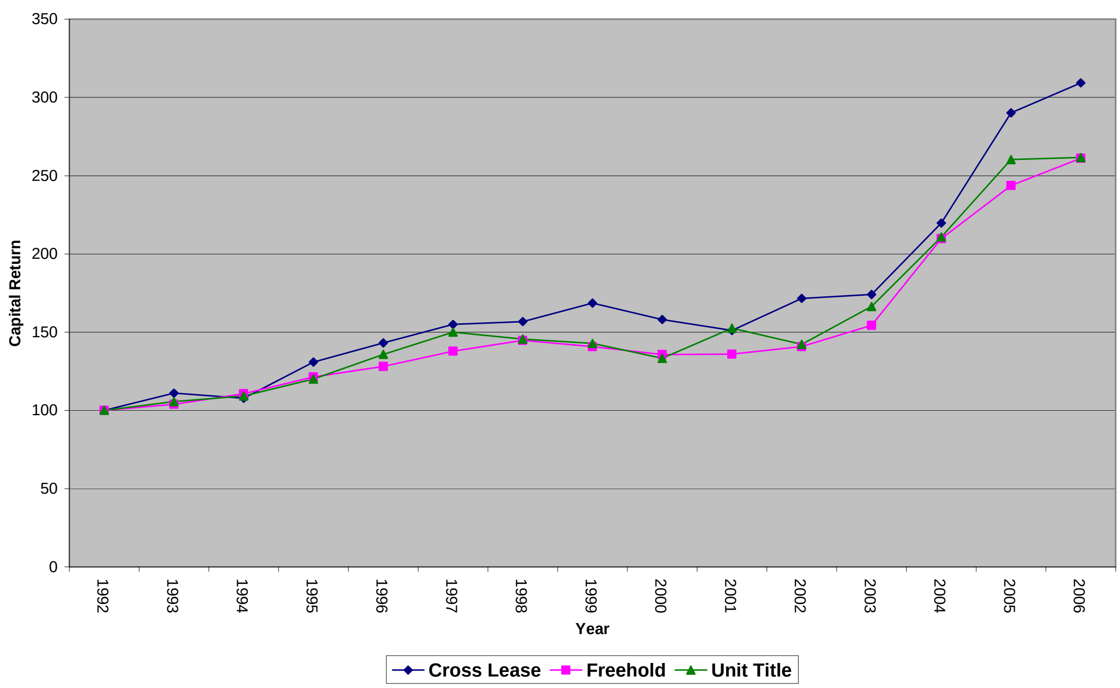
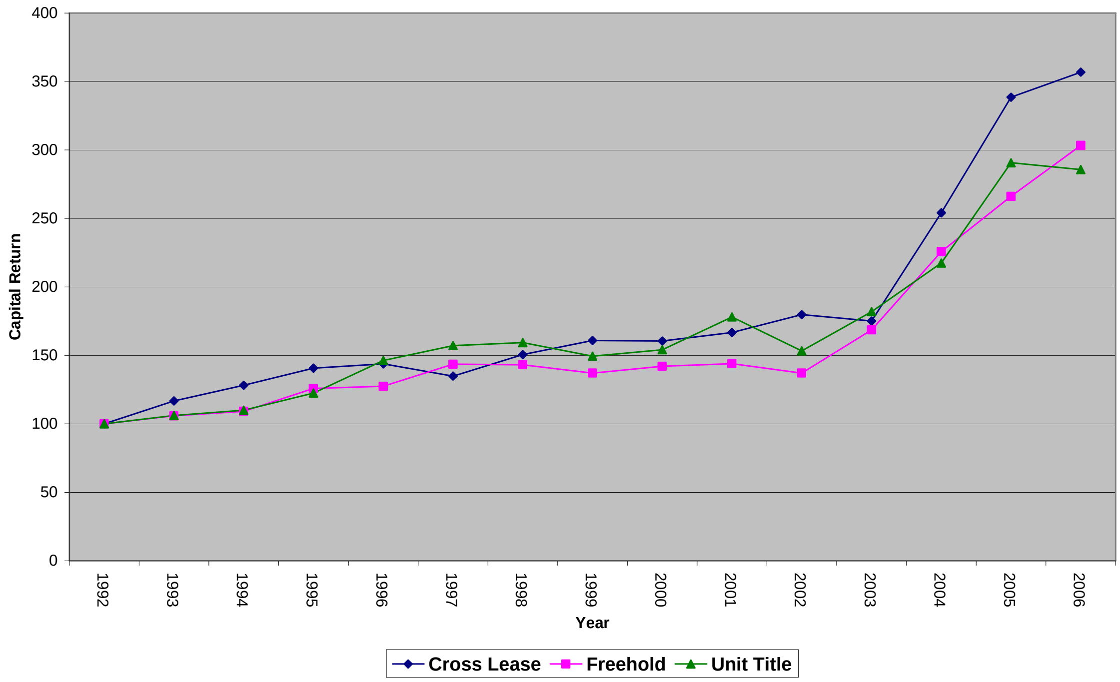


Figure 8: Capital Return Index: Greater than 3 Bedrooms: 1992-2006



Breaking down the return data on a bedroom number basis has also seen the difference in average annual price between the various property title types. Figures 6 to 8 show that as the number of bedrooms increase the capital return performance of freehold property increases compared to unit title property and the trend between these two property classes becomes less similar. However, cross lease residential property still outperforms the other title classes in all size sub sectors.

Correlation Analysis

Tables 7 to 10 show the correlation analysis of average annual capital returns for the three property titles over the study period, as well as the correlation analysis matrixes for each of the property titles based on property bedroom numbers.

Table 7: Correlation Analysis: Property Title: 1992-2006

	Cross Lease	*Freehold*	*Unit Title*
Cross Lease	1.00		
Freehold	0.72*	1.00	
Unit Title	0.59*	0.77*	1.00

* Significant at 5% level

Table 7, as expected shows that there is a significant correlation between the various property title residential markets over the 15 year period. However, it is noted that the level of significance is not as great between cross lease and freehold property as the correlation between freehold and unit title property, with the least positive correlation between cross lease and unit title, when it was expected that these two markets would be more similar.

Table 8: Correlation Analysis: Less than 3 Bedrooms: 1992-2006

	Cross Lease	*Freehold*	*Unit Title*
Cross Lease	1.00		
Freehold	0.75*	1.00	
Unit Title	0.52*	0.69*	1.00

* Significant at 5% level

When the residential property markets are compared on a bedroom number basis, the differences between the property titles becomes greater, especially between cross lease and unit title property. Table 10 shows that there is no significant correlation between cross lease 4+ bedroom residential property and both freehold and unit title 4+ bedroom residential property, but still a significant correlation between freehold and unit title property.

Table 9: Correlation Analysis: 3 Bedrooms: 1992-2006

	Cross Lease	*Freehold*	*Unit Title*
Cross Lease	1.00		
Freehold	0.69*	1.00	
Unit Title	0.55*	0.75*	1.00

* Significant at 5% level

Table 10: Correlation Analysis: Greater than 3 Bedrooms: 1992-2006

	Cross Lease	*Freehold*	*Unit Title*
Cross Lease	1.00		
Freehold	0.51	1.00	
Unit Title	0.41	0.62*	1.00

* Significant at 5% level

Conclusions

The perceived disadvantages of cross lease title are reflected in a lower median price compared to similar sized residential property in the same location. However, the market appears to still prefer a cross lease property over a similar sized unit title property, despite the restrictive nature of the title in relation to carryout improvements to the property. This could be due to both an unawareness of the property owner to these restrictions or the fact that cross lease title property still allows the owner a designated area of land for their own use.

Despite the lower median price for cross lease residential property, this property type has shown the highest average annual capital return over the period 1992 to 2006, compared to both freehold and leasehold property in the same location. This increases return has applied across all property size sectors of the market and is not restricted to the smaller property types. It was also important to note that this increased average annual return was at a lower level of risk on a risk adjusted basis.

The performance of these property markets also varied across all property title types when analysed on the basis of property bedroom numbers, with the greatest variation in average annual returns and median residential property prices being recorded in house with more than four bedrooms.

This fact was also evidenced in the correlation analysis that showed that in this particular property market there was no significant positive correlation between 4+ bedroom cross lease residential properties and both freehold and unit title properties.

References

Bogart, W.T (1998). *The economics of cities and suburbs*. Prentice Hall, New Jersey.

Croft, C. (2007) Cross Leasing: Problems with additions. Lincoln Mainland Property Seminar, Lincoln University August 2007.

Law Commission. (1999) Shared ownership of land. Preliminary Paper 35 January 1999.

Law Commission. (1999) Shared ownership of land. Final Report Paper 59 E31AS November 1999

MacDonald, B. (2007). Feature Article: Cross Leases. Gillespie Young Watson Commercial, Property & Trust Lawyers www.gywlaw.co.nz November 2007

Ministry of Economic Development. (2006). Making housing affordable.

New Economic and Public Policy Research, 29 September 2006

Morrison P and McMurray S. (1999). The Inner City Apartment Versus the Suburb: Housing Sub-Markets in a New Zealand City” *Urban Studies* Vol 36, No.2

Rotorua District Council. (2007). Fresh Ideas. May 2007

Wellington City Council. (2004). Subdividing in Wellington City. Urban Study Group, February 2004.