The New Zealand Valuer

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VOLUME 25 NUMBER 5

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CONTENTS:

This Issue

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Comment on New Zealand Real Estate Market Report

by R. M. McGough, President New Zealand Institute of Valuers.

In this issue the Editor includes the annual repor t of the Publicity and Public Relations Committee which was released to the media a little prior to Christmas.

Members often question the efforts of the Institute in promoting the services of Registered Valuers as a group and the following report is but one example. No doubt you will record publicity emanating from the report itself.

The Publicity and Public Relations Committee are to be congratulated on their efforts which of course cannot be completed without the co-operation of Branches. It is appropriate that all those who contributed should see the full release which, as it is developed, should present a permanent historical record of market conditions in any year. The benefits of a record of market conditions will be obvious to members.

It is hoped that this annual report will continue to be a feature of our activities and its publication act as a spur to continued input on a Nationwide basis.

New Zealand Real Estate Market Report, 1982

Almost every sector of the real estate market in New Zealand showed a downturn in activity and a levelling off in growth trends by mid 1982, with the most notable exceptions being dairy farms, and the commercial property market particularly in major centres where it continued to be stimulated by good rental increases achieved during the preceding eighteen months to two years.

Regional reports from (thirteen of the fourteen) geographical areas monitored by the N.Z.I.V. have highlighted reductions in the supply of mortgage funds as having had the most immediate effect on the urban real estate market and particularly the residential sector although restrictions on the resale of income earning property announced in the Minister of Finance's budget appeared to introduce an element of uncertainty towards the end of the year, while in the rural sector, other factors also contributing to the downturn in activity included a lack of confidence from investors in primary producing rural holdings following the dramatic reductions in export quotas, the stabilisation of standard minimum prices against increasing farm operating costs, and immediately following the budget, restrictions on syndicated investment particularly in horticultural areas.

By early December a slight easing in the monetary supply had become evident, particularly in the major centres, and the Institute cautiously forecasts a return to more normal real estate market conditions by mid to late 1983, in sharp contrast to the periods of extreme buoyancy in 1981, followed by virtual recession in 1982.

Residential House and Section Market

Statistical returns in Auckland showed a fall-off by some 31% in residential activity in Auckland during the first six months of 1982, although values were still continuing to rise at least during the first six months in all of the four major centres, and a heavy demand was reported in the $60,000 to $70,000 range in Dunedin where three sales were notified by December in the up to $170,000 range.

In Auckland resales of the same property within a twelve month (or lesser period) frequently showed spectacular increases in 1981, but the rate of increase now seems much slower, while in Wellington a firming in the market ranges in excess of $120,000 became evident by mid year, and some higher priced, centrally located properties are thought to have eased back in price by up to 10%.

In Whangarei the average dwelling price has risen to approximately $60,000, and during the ifrst half of 1982, $100,000 house sales were reported for the first time. Vacant section sales increased in North Auckland through to June of this year, with 143 such transactions being recorded.

Reports from the Bay of Plenty region (encompassing Rotorua, Taupo and Whakatane) indicate that sales volumes have dropped to approximately 50% below 1981 levels, although values had not shown a significant decline, and house construction and renovation was proceeding steadily.

Conversely, the Tauranga/Mt. Maunganui district reported only a 17% decline in sales volumes and this could reflect a continuing demand from retirement age purchasers. In value terms, good growth results were still being recorded by mid year with one property example which sold in February 1981 for $54,500, reselling in June 1982 for $74,000, a 36% increase.

In Hamilton a drop of about 30% in residential sales volumes is being experienced with a similar effect on section sales. Properties have generally been slower to sell and there has been little movement in value since late 1981. The Gisborne region reported relatively small declines in sales volumes for houses and a 10% increase in section sales to October, while Hawke's Bay has shown a fall, estimated to be as much as 50%, in house turnover for the full twelve months, although demand has continued for good vacant sites. Some value growth has been evident in the range up to $50,000, but prices were found to have firmed at the top end of the market by September. Values have shown only limited growth in the $60,000 to $80,000 range in New Plymouth, although there have been steadier increases for properties priced below and above these levels. As in many other sectors demand has held up in Taranaki for prime house building sites, with sales now ranging to $25,000, while the average section price lies more within the $12,000 to $18,000 range.

The Manawatu region has seen a complete turn-around during the past eighteen months, with an insatiable demand for all classes of housing stock reported from mid to end 1981, however by March 1982 the market appeared to have become very tight, with the shortage of mortgage funds having a major effect on turnover and value structures. Wellington showed a continuation in value growth trends through to April/May, however after that period many notified results began to show declines, particularly in the peripheral areas where demand has historically fluctuated. Higher price property in central locations has eased back by up to 10% in some instances, however prime quality homes are still being offered for sale in the order of $200,000 or more in such choice localities as Khandallah.

From Nelson the Institute's regional report has followed most other sectors, although in one particular transaction the vendor who first asked $115,000, finally raised the purchaser to $130,000. Good sections under $20,000 are now rare in the city, and some sites in a prestigious sub-division are reported to have sold this year at prices ranging between $37,000 and $42,000. The buoyant 1981 market conditions continued into the first quarter of 1982 in Blenheim, but since then activity and growth has declined significantly. The market to mid year showed typical increases for properties which sold at approximately $30,000 in 1980, having risen to almost $60,000, while the $100,000 range was being exceeded with some frequency. Relative stability in sales volumes and prices were noted in Picton.

Up to mid 1982, Timaru, unusually, showed an increase in residential sales volumes by some 23% over the second half of 1981, wi?h house prices to September having shown an average increase of 20%, and as much as 35% for the more desirable homes. Vacant section sales for the first six months to mid 1982 in Dunedin, Oamaru and Alexandra increased, but there were signs of a decline in the number of house sales. Value levels for sections were generally similar to 1979, although a vacant single house site of 1087 sm (slightly over a quarter acre) sold during the year for $52,000 at Maori Hill, Dunedin. The shortage of finance has been described as the major restraint on the market with lending institutions frequently unable to honour home ownership account commitments, and this has particularly affected prospective first home buyers.

Residential Rentals

Residential rental demand fluctuates on a seasonal basis in Southland, and by mid year reduced employment opportunities, flat sharing, and economic circumstances which reduced individual incomes had resulted in an oversupply in rental units and houses, with one bedroom flats ranging between $50 to $60 per week, houses between $75 and $100 per week, while at the other end of the country in Gisborne, rental accommodation was reported in short supply, although rental structures were generally much lower at up to $35 per week for one bedroom flats, and $75 per week for three bedroom houses. The shortage in this city has meant that families were forced to live in caravans or basic motor camp type accommodation.

Main centre residential rentals have included three bedroom unfurnished accommodation in the Bay of Plenty and Dunedin ranging to $100 per week, up to $120 per week in Hamilton, and $150 or more per week in Wellington. Slightly lower levels were reported from Auckland, although good growth in basic accommodation rents were reported in that city prior to the introduction of the rent freeze in late June.

Good residential rental growth prospects are forecast for the Manawatu and particularly

Palmerston North as a result of conversions from rental flats to home units, demolition of old homes for ownership flat redevelopment, and increasing rental demand following matrimonial breakdowns. This may result in a limited return to rental flat construction in the medium term.

Commercial Property Market

Wellington is seeing intensive central city redevelopment activity with many older buildings giving way to high density retail and office blocks in which prime office accommodation is now ranging to in excess of $120 per square metre per annum including outgoings, with similar returns being achieved for prime office accommodation in Auckland. A number of shopping arcade developments have been completed in Wellington and have met with varying success and while main street (Lambton Quay through to Willis Street) rents have been set in a range up to $530 p.s.m. p.a., all is not well with some of the retail tenants, with at least three arcade tenants reported to be closing.

In Auckland, after a big rental push in 1981, retail rentals in 1982 showed more modest increases but nevertheless appeared to keep pace with inflation. Some levelling off in retail rental movement is expected in the city as a consequence of an anticipated downturn in retail sales.

The urban commercial property market in the Bay of Plenty has become quiet in all areas after an initial burst at the start of the year, with modern office rentals ranging to about $78 p.s.m. p.a., and retail rentals up to $170 p.s.m., although cheaper space is available at around $50 p.s.m. p.a.

In Otago commercial property sales activity has been limited during 1982, with most sales being recorded at about or slightly in excess of the 1981 Government Valuation figures. Following refurbishment, two old and previously inefifcient commercial buildings in Dunedin have now been described as showing "a handsome return on cost", while during the year five small redevelopment contracts were in various stages of completion.

Whangarei commercial property investors expect returns in the range of 10% to *12%* per annum on capital value while those investing in industrial property anticipate returns of 11% to *12%* per annum. Rentals for office accommodation in that city now range up to almost $80 p.s.m. p.a. and a short term shortage of office space is predicted.

Commercial market interest in Nelson City continued at a buoyant level with sales sustained by a healthy state of rent reviews up to the rent freeze. One large Trafalgar Street shop has been reported to have sold on an 8% return on capital value with its out of town investor syndicate apparently relying on long term capital appreciation. Retail rentals in Nelson range from $60 p.s.m. p.a. on the city fringes to $200 p.s.m. p.a. for prime space, although average positions achieve somewhat below this level at about $160 p.s.m. p.a.

No retail shop development has been reported in New Plymouth for two years, with main shopping thoroughfare rentals ranging from $85 p.s.m. p.a. to $120 p.s.m. p.a., a little in excess of such rentals reported from Napier and Hastings, where similar quality space appears to range to $105 p.s.m. p.a. Office space rentals in Taranaki and Hawke's Bay range to $60 p.s.m. p.a. or more, and up to $75 p.s.m. p.a., respectively, with a growing but not yet fully accepted tendency in Napier and Hastings towards net leasing (where all annual outgoings are passed on to the tenant).

The commercial property field in South Canterbury appears quiet although Stafford Street South in Timaru is regaining retail popularity and an arcade in Ashburton is reported to have achieved unusually high rental levels for the region (about 10% higher than prevailing rental rates in Timaru.)

In Invercargill, the Tiwai Point Aluminium Smelter extensions, and demand for wool storage space have contributed to significant increases in industrial and storage space rentals during the past twelve months, with a broad market range now lying between $20 and $30 p.s.m. p.a., for manufacturing space, favoured location warehouses at up to $35 p.s.m. p.a., and showroom space to $45 p.s.m. p.a.

In Blenheim earthquake code requirements have had an effect on commercial property ownership with in particular a larger number of retail properties than normal having changed hands, the vendors often being families and other long term owners selling out to builder/developer purchasers who have sought returns ranging up to 12% on redevelopment outlays. An unsatisfied demand in the $100,000 to $150,000 commercial property range has been noted in Blenheim although the Picton market remains hard, with several major retailers having vacated and commercial value levels for some reported sales below the 1978 Government Valuation.

Rural Property Market

Not unexpectedly a quieter rural property market has been evident during 1982, with conventional farm holdings such as grazing and fattening units as well as harder hill country type properties having shown a slackening in demand, reflecting lower returns from export markets, in spite of minimum price guarantees. This is considered to emphasise increasing operating costs (particularly arising through debt servicing). The 1982 budget measures have not helped market confidence in the short term, however reductions in income tax cuts effective from 1st October, 1982 may eventually channel more mortgage money into the rural sector from investment in saving institutions, and in the longer term rural property turnover rates should return more normal levels.

Horticultural property values seem to have peaked by late 1981. however many sales tend to be reported during the suceeding six months, and to some extent this distorts the actual market situation at a given point in time.

North Auckland has shown a significant reduction in the number of sales of larger economic units, particularly sheep and cattle holdings during 1982, however dairying and horticultural

units seemed relatively buoyant up to the budget, following which supply has exceeded demand. Forestry activity in the district remains viable especially in the hilly areas.

Coming south and east to the Gisborne district, very few rural sales were notified in the first six months of 1982. with most rural property types including grazing, fattening and horticultural land proving slow to difficult to sell, and predictions that 1981 values would not be sustained.

In the super progressive Bay of Plenty horticultural sectors, sales have also been slow, with no mature orchard transactions notified for some time, and little interest shown in a large bare block at *Pyes* Pa, and a well sheltered 8 hectare block in Katikati, both being passed in at recent auctions. Some orchardists are reported to have sold off a portion of their landholding to consolidate their financial position, and since the budget and mid-year financial restraints values were expected to reduce. Share milking purchasers were often not able to meet the equity gap which outstripped normal savings during the preceding boom period, but to date values do not seem to have declined to a manageable level.

The Waikato rural property market showed fairly static trends in dairy sales through to mid-year, and slight increases in fattening and grazing propery sales to mid-year, but since then, a drop in sales volumes and values with vendors now frequently offering mortgages under attractive terms and conditions to stimulate resale prospects. A number of sales did not proceed on the traditional June 1st settlement date for want of mortgage finance or sale of another property, and by late 1982 some sheep and dairy farmers without any significant increase in product prices for some time were thought to be in a serious cost price squeeze which was affecting their debt servicing ability. Dairy payouts are not now exexpected to show some of the past increases which maintain viability and stimulate growth.

In Hawke's Bay market activity has been quiet, prices are static on 1981 levels for most classes including orchards, while similar limited activity has been reported in Taranaki. In this district however dairy farms continue to enjoy sound profitability and on the horticultural scene four hectare bare blocks have been realising prices in the range of $20,000 to $25,000 per hectare, reflecting some optimism in this field.

The order of rural property demand in the Manawatu runs from first ranking dairy units through cropping to fattening and hill country holdings, while horticultural land has been distinctly and separately categorised by the market, having maintained high sales volumes and high prices at least until the budgetary measures are implemented.

The Nelson district showed increasing dairy farm sales volumes (by approximately 44.5%) for the first six months of 1982, and a similar increase by comparison with the final six months of 1981 for horticultural holdings, however this could be distorted by the delay in reporting transactions. The deferment of the pulp mill and reduction in timber exports had a dampening effect on forestry land activity, while boysenberry growers have experienced a poor season which has had an immediate effect on demand. Kiwi fruit orchards were however still in demand through to mid-year.

In adjoining Marlborough, small residential/rural holdings have steadied while viticultural blocks of 8 to 20 hectares which were buoyant in 1981 have fallen in demand. A good range of rural units has been offered during the year including fattening and store fattening farms although there have been few buyers. Dairy properties in the Marlborough area have however maintained demand with some planted blocks having sold to larger forestry companies.

In South Canterbury the rural sector is not as volatile as parts of the North Island market, however demand was declining by April 1982, and the profitability factors reducing through high interest rates and poor seasonal returns which have the effect of limiting individual farmers ability to clear core overdraft arrangements.

Rural market activity increased dramatically in Otago through to December 1981, but had eased back by mid 1982, with only horticultural properties showing any significant volume increase - 23 sales as against 9 notified sales during the last six months of 1981. Fattening farm values showed significant increases to June 1982, but with reduced volumes (by approximately half) this return must be regarded sceptically. Forestry has been quiet although there are signs of a movement towards joint ventures while small rural/residential holdings have shown good value growth trends including an 8 hectare block reported to have sold in March 1980 for $15,000, again in December 1981 at $19,000, then subdivided, with half (4 hectares) resold in July 1982 at $20,000.

Reports from Southland for the first six months of 1982 again highlighted the shortage in long term finance as reducing farm sales volumes, with mortgage applicants now required to produce detailed farm budgets to satisfy mortgagees' strict loan criteria. Auction sales fell off, although the year's rural highlight was reported as being the sale of Beaumont Station approximately 60% of which is pastoral lease, subdivided into 5 units and realised a total of 2.9 million dollars, which was considered to be realistic buying and had attracted widespread interest (although the final purchasers were all thought to be Southland domiciled).

New Zealand Institute of Valuers
Professional Examinations - 1982

The New Zealand Institute of Valuers advise the following results in the Professional Examinations held in November. These results are subject to confirmation on receipt of official result cards.

The Code Numbers refer to the following subjects:

2. Town & Country Planning; 3 Valuation Law; U6 Construction II; U7 Economics II; U8 Valuation H - Part A; U9 Valuation II - Part B; R7 Farm Management; R8 Rural Land Economy; R9 Valuation II (Rural).

Auckland: Akuhata W. 3, U6, U7, U8: Beeson G. J. U8: Bennett R. S. U8: Lambert M. G. U7, U9: Rhodes J. B. U7: Saunders P. H. R9:

Hamilton: Brown I. M., U8, U9; Brown R., U9.

Rotorua: Beacham, S. J., (Miss) 2, R9; Owen D. J., U8; Power, M. P., R7, R8; Stewart, K. R., R9.

New Plymouth: Baker, I. D., U6; Malthus, R. M., U9.

Napier: Peterson, W. H., U9.

Pahnerston North: Quinn, W. E., U9.

Wellington: Barton, R. H., U9; Garland, K. J., (Miss), R9; Hearfield, B. J., U8; Henderson, A. H., U9; McCarroll, S. L., U9; Mauchline, J., U9; Rose, G. E., U8, U9; Stewart, R. C., U6; Stigter, F., U8; Wallace, E., U8.

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Shop Rental Analysis

"F.10" A FURTHER TOOL FOR SHOP RENTAL ANALYSIS

by Munro L. Graham, Dip. U.V., A.N.Z.LV.

Munro Graham has been a contributor to the Valuer on this subject in past years. He was awarded the Institute's prize for his article "Shop Rental Valuation and Analysis" published in the N.Z. Valuer, Volume 24 Numbers 1, 2 and 4.

Mr Graham practises as a public valuer in Auckland.

It is gratifying to note that in Auckland a number of valuers have appreciated the basic simplicity with which shop rentals can be analysed, adopting 10 metres as the standard shop depth and either using the London 10 Metre Depth Table and a metre frontage per annum basis, or adopting a zonal system and rates per unit area.

My personal preference has been to adopt the widespread practice of chartered surveyors in Britain and make assessments on a zonal basis, bearing in mind the flexibility which the system offers in assessing value to back space.

This method of approach, however, requires the valuer to think in terms of rates of value per unit of floor area, rather than in units of shop frontage, and rentals must be analysed by converting shop areas to equivalent areas in Zone A terms and many valuers have found difficulty in adopting this approach.

There are occasions when it can be more useful to adopt a depth table approach but in areas where the London Depth Table can be shown to be invalid, valuers have, in the past, had no alternative tool to adopt for making comparisons. I have, therefore, developed the F.10 table displayed in the attached appendix and alongside which can be seen for comparison, the London Table and one of the zonal systems which gives added value to back space at much the same rate, as indicated by the F.10 table.

To date, my analysis suggests that the F.10 table (or a zonal equivalent) realistically represents the gradation with which rental value drops away with added shop depth in most of the prime central and suburban shopping centres in Auckland (beyond 5m).

The development of this table follows an interesting inter-connecting series of ideas dating from 300 BC to the present day, somewhat reminiscent of the connections studied by James Bourke in his excellent BBC series "Connections" shown last year. For example, who would have thought that there was anything in common between the Greek geometer, Euclid, studying the design of ancient Greek temples and Fibonacci, an Italian mathematician of 1200 AD, contemplating the multiplication of rabbits, and Le Corbusier, a mid 20th century French architect and your scribe, a valuer in private practice in Auckland?

It appears to have been Euclid who first studied in detail the, so called, golden section, that is, the division of a straight line into two parts in such a way that the ratio of the small part to the larger is the same as the ratio of the larger to the whole. The golden section was applied to Greek architecture on a large scale in that facades often contained or represented rectangles, the sides of which were in the same ratio as the golden mean and it has since been widely accepted that such a shape is particularly satisfying visually.

Fibonacci published his book, "Liber Abaci", in 1202 (probably now out of print), a book on the abacus which, amongst other things, gave the case for the adoption of the Arabic system of notation for numbers, as against the Roman. He also discussed the theoretical breeding pattern of rabbits whose periods of maturation

and gestation are both one month. He pondered that, if each pregnancy yields one new pair and if you start with a single new born pair on the first of the month, how many pairs will there be on the first day of subsequent months. The answer was a series of numbers which has since been named after Fibonacci, namely, 1, 1, 2, 3, 5, 8, 13 etc., where each number represents the sumof the preceding two numbers.

The connection between Euclid and Fibonacci is that the Fibonacci series of numbers follows a logarithmic curve based on the number known as the golden ratio. In fact, the so called golden ratio, usually designated by mathematicians by the Greek letter tau, is the solution to an algebraic equation, namely $Xz = X + 1$. In decimal notation and for all practical purposes, tau equals 1.618034. It is interesting that the value of tau can be derived approximately by considering any Fibonacci number and dividing it by its predecessor. For example, eight over five or thirteen over eight. The resulting decimal answer approximates the value of tau with increasing accuracy with each alternate number either higher or lower than the true value. The value of tau is irrational in the same way that the value of some other mathematical expressions, such as pi and the square root of two, cannot be expressed exactly but carry on to an infinite number of decimal places.

The French architect, Le Corbusier, published his book, "Le Modulor" shortly after the Second World War and the first edition in English by Faber and Faber was published in 1951. The book suggests a method for dividing building facades into modules of different size based on mathematical variations of the golden mean. He attempted mathematically to create a series of proportions visually acceptable which related the size of a human being with architecture on the grand scale. It was also this inscrutable French architect who first made the observation that, if a typical valuer is measured, his navel would divide his height in the golden ratio (the reader is invited to try this experiment to see how true to standard he really is).

In an article in New Scientist Magazine of 17 December 1981, Robert Dixon, a freelance artist with a degree in mathematics, considered the problem of spiral growth in a variety of plants. He studied the arrangement of repetitive parts of plants, including florets, seeds, petals, branches and so on. One elementary and widespread pattern of such parts in plant life is the formation of a particular type of spiral named after the mediaeval Italian mathematician, Fibonacci. Plant growth on Fibonacci spirals includes the arrangement of sunflower seeds, the pine cone, the petal sequence in a rose, the sequence of leaves on a thistle, the fruit partitions of a pineapple and the succession of twigs branching from the stem of a pear tree. The form of the daisy head is a lfat disc with a central point, while other examples take the forms of spirals on cones or cylinders.

It was in reading this article in New Scientist Magazine that your scribe noticed that the value of tau was virtually identical to the ratio of Zone A to Zone B rental values in shops in busy main road locations and shopping centres in the Auckland area; that is, Zone B rental value appeared to be between 60% and 65% of Zone A value.

Was it possible that, in addition to valuers being constructed on lines incorporating this enigmatic ratio and our best examples of architecture also incorporating the same ratio, that shop rental values should decrease following the law of diminishing returns (Parkinson) along a Fibonacci type curve?

I decided to construct such a curve in the form of a depth table on a 10 metre depth basis, where the value of tau on a reducing scale relates to the ratio between rental values at 10 metre intervals.

The graph was difficult to construct as I had virtually forgotten all of the algebra I learnt at high school. A brief study of a thankfully retained sixth form text book produced the formula and hence the table which is set out herein. The formula requires the use of a calculator which can raise numbers to fractional powers, otherwise intermediate numbers must be inferred by extrapolation.

A comparison of the three systems in tabular form as shown, is particularly interesting in that it can be seen that, within Zone A, there is a considerable variation under the three systems of the way in which values are apportioned. The F.10 table gives half total Zone A value to the first 4.5 metres (approximately), while the London Table gives half Zone A value at about two and a half metres. The Auckland 10 metre table was developed as a compromise system following observation and gives half value to Zone A at slightly under four metres. Further research is continuing but F.10 and AK.10 tables give consistent values within a fairly wide range of depth beyond ifve metres if, for Zones B and C, values are set respectively at 60% and 40% of Zone A rate in the latter table. Beyond 30 metres and, in fact, in most instances beyond 20 metres, most valuers would adopt overall rates per unit area.

It is interesting to know that the F.10 table is constructed in such a way that there is an overall limit to the total rental value of any shop, regardless of its depth. A shop of infinite depth cannot be of greater rental value than 2.618 times the Zone A value. On the face of it, this would appear absurd but it is less absurd when considering very long narrow shops where back space could, in fact, conceivably be worthless beyond a certain point. Nevertheless, no single depth table can be constructed which would satisfy the range of rentals typically found in various shopping centres throughout New Zealand. For those valuers who prefer to adopt a depth table, AK.10 gradations up to 10 metres and the

F.10 chart beyond 10 metres, perhaps to a limit of 30 metres, would probably be in line with the majority of market evidence in the busier centres. Elsewhere, the London Depth Table is probably still relevant, especially within the depth range five metres to 25 metres and applied to minor retail locations.

Finally, I would like to point out that, after considering cases produced before the Land Tribunal in Britain and published in the "Estates Gazette" over the last 12 months, involving shop rental calculations, depth tables have not been used in any cases, but it seems to be widespread practice to adopt a zonal system and a system of halving back. For example, in a secondary centre, Zone A could be deduced as being seven metres deep with half Zone A value applied to the second seven metres and a quarter Zone A value applied to the third seven metres. In a busy centre, Zone A may be 12 metres deep and half value will be applied to the next 12 metres with a quarter value applied thereafter. London Depth Table produces halving back after six to seven metres, while the F.10 table gives an initial halving back after 10 to 11 metres and this lends weight to the contention that the F.10 table and, in fact, the adoption of 60% Zone A value to Zone B under the zonal system has greater relevancy in busier centres than has the London system.

As a final footnote, I would like to bring to the reader's attention the inherent difficulty in proving that one or another depth table is most valid in any particular locality at any one time.

Firstly, there is the problem of lack of market evidence from new lettings as most localities are fully established and available evidence is generally limited to rent review agreements or arbitration decisions.

Secondly, even where initial lettings have occurred, there is a problem of how to deal with key money payments, and there is also the matter of whether it is valid to take recent evidence to face value, as initial tenants can well get into financial difficulty during the first 12 to 24 months. A better overall picture of what has occurred can be given by looking back several years following the event being studied.

Thirdly, there is always a wide range of evidence and, in some instances, the range between highest and lowest rental is so great that the difference far exceeds and difference in the variation of depth table alone. For example, in some localities, it is possible that landlords have been advised by valuers who have automatically adopted the London Table, both in analysing rentals and in setting new rentals and rentals as set have been adopted by tenants. This used to occur often in suburban Auckland where the use of the London Table was widespread amongst valuers. On the other hand, there is plenty of evidence from suburban centres that developers have asked the same rental rate per unit area, regardless of floor area, over a fairly wide range of shop sizes, indicating that a straight line graph would be appropriate. Here it is necessary to consider which shops lease first, the order of subsequent lettings, levels of key money payments, if any, the type of tenants attracted to individual shops and the viability of tenancies after, say, an initial five year period when the shopping area becomes more established.

It occurs to me that the best evidence available in considering the merits or objections to any particular valuation approach is to analyse profits for a wide range of shops and shop sizes within a locality. Unfortunately, there is no direct way of doing this but a reasonable indirect approach might be to consider percentage turnover rentals as these are most likely to be related fairly closely to individual shop profitability. I hope to undertake some analysis of this type in the Auckland area shortly and from some selected centres overseas. If fellow practitioners have made any studies along these lines, either in Auckland or elsewhere, I shall be most interested to know.

D	F10	L10	AGIO (60/40/30/20)
00	0.00	0.00	0.00
01	12.30	31.62	20.00
02	24.02	44.72	31.50
03	35.16	54.77	42.00
04 ZONE	45.84	63.25	51.50
05 "A"	55.99	70.71	60.00
06	65.66	77.46	68.50
07	74.87	83.67	76.50
08	83.65	89.44	84.50
09	92.02	94.87	92.50
10	100.00	100.00	100.00
11	107.60	104.88	106.00
12	114.85	109.54	112.00
13	121.75	114.02	118.00
14	128.33	118.32	124.00
15	134.60	122.47	130.00
16	140.58	126.49	136.00
17	146.27	130.38	142.00
18	151.70	134.16	148.00
19	156.87	137.84	154.00
20	161.80	141.42	160.00
21	166.50	144.91	164.00
22	170.98	148.32	168.00
23	175.25	151.66	172.00
24	179.31	154.92	176.00
25	183.19	158.11	180.00
26	186.88	161.25	184.00
27	190.40	164.32	188.00
28	193.76	167.33	192.00
29	196.95	170.29	196.00
30	200.00	173.21	200.00
40	223.61	200.00	230.00
50	238.20	223.61	250.00

L10 factor = $10^{\checkmark 10D}$

Flo derived from basic formula

$$\frac{1 - (X \quad 1)n}{1 \_ X}$$

Where X is Fibonacci No. 1.618034 . . . from equation X2 = X:+ 1

Actual factor from formula

$$100 \times \frac{1 - (.618034)^{D}}{.381966}$$

Where D = depth in metres.

Rural Portfolio Management

Paper presented at Eleventh Pan Pacific Conference of Valuers, October 1981, Melbourne by

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Albert Fear is at present the Deputy General Manager of the Rural Banking and Finance Corpora. tion of New Zealand. He joined the State Advances Corporation of New Zealand in 1955 where he completed the Institute Professional Examination. He served in Hamilton, Gisborne and Te Kuiti offices as District Appraiser in the State Advances prior to his appointment to its Head Office Wellington in 1968. Since then he has held various positions in the Head Office of the Rural Bank including that of Assistant General Manager and Chief Appraiser.

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A Economic Issues and Techniques

While rural portfolio management within the New Zealand agricultural investment field may have been of little historical importance it is now taking on a new and significant role. The overall investment scene is undergoing a structural change and in doing so, has highlighted several investment issues and options previously considered of secondary importance. Many of the recent changes stem from inflation, sectoral variations in rising property prices, a relaxation of monetary controls and as a consequence of the competition for finance. These have now been further complicated by the introduction in 1982 of temporary prices and incomes freeze, tighter monetary conditions, a new personal tax structure, and controls to limit tax benefits of tax shelters. From the information available it would appear that the investment issues currently being highlighted in New Zealand are common in varying degrees to most countries represented at this conference.

In addition to personal skills and knowledge of the techniques employed in the analysis, evaluation and appraisal of the various investment options, the competent manager of a rural portfolio requires a good understanding of the factors and forces which generate and sustain the demand for rural investment.

In New Zealand some of the factors which are significant in influencing investment in agriculture are as follows:

(i) the level of national economic dependence upon agriculture,

(ii) the level of government involvement and the taxation systems,

(iii) The financial and monetary systems,
(iv) farms as business entities,
(v) economic returns from agriculture,
(vi) investment options in the rural sector.

These factors substantially affect both the large investing institution and the individual investor/farmer.

I suggest that they also have a wide application for investment decisions in most other Pacific countries.

(i) Level of national dependence on agriculture

Historically agriculture has been the initial source of wealth and has provided the economic base from which most of the countries of today have developed. New Zealand was settled primarily as an agricultural and food producing colony particularly for Britain - in common with Canada, Australia, the USA and some other Pacific countries. In most western economies the relative role of the agricultural sector in the growth of the economy has declined, the rate being determined by the exploitation of other natural resources and the uptake of new technologies particularly in the manufacturing field.

New Zealand however has maintained a high level of dependence on agriculture, and has developed a modern economy from this traditional source of wealth, because of its international comparative advantage in agricultural production.

National dependence on a particular sector can be measured by a number of indicators. While contribution to Gross Domestic Product identifes the net income stream, it does not include any multiplier effect from servicing and processing.

The percentage of the total labour force employed in sectors (eg in New Zealand, farming plus allied processing and servicing accounts for about 20 percent of the workforce) is another indicator but this excludes the value and nature of the output.

The dependence of a country on any one sector can perhaps best be measured by its international trading income which determines its role in the wider world market.

In table 1 it will be noted that although agricultural production as a proportion of total New Zealand exports has declined steadily over the last decade, it still accounts for about 65 percent of New Zealand's total export income and this does not include the exports of forestry based products. If forestry, which is a significant rural investment option is included the proportion of exports from the rural sector would increase to 72 percent of export income.

Although New Zealand is pursuing a vigorous policy of encouraging alternative exports to lessen the dependence on agricultural products it is apparent that these "alternative" exports are mostly agriculturally based - either as a by-product of agriculture, or in agricultural servicing.

Manufactured exports excluding forestry have grown from nearly 15 percent to nearly 19 percent of total exports since 1977. Forestry exports have grown marginally to 9 percent in the same period. Significant contributions to the balance of payments are expected from major resource based projects in energy and other industrial areas.

TABLE 1

DEPENDENCE ON AGRICULTURE

Agriculture exports as apercentage of total exports

	NZ-%	AUSTRALIA-%	USA-%
1972	85	50	18
1973	85	55	22
1974	79	52	25
1975	75	46	21
1976	75	45	20
1977	71	42	20
1978	71	42	21
1979	70	41	20
1980	69	39	19
1981	65	N/A	N/A

Source: N.Z. Yearbooks.
Australian Yearbooks.
U.S.A. Agricultural Statistics.

Some of the initial proposals have been adversely affected by the current world economic recession which has delayed full implementation. However, the potential for development of these industries in a more favourable economic climate still exists. It is reasonable to assume our level of dependence on agriculture is not likely to greatly diminish at least in the foreseeable future.

The impact of the agricultural sector within an economy goes much further than just the level of resources used in the on-farm situation - substantial investment and employment opportunities are created in the farm servicing and processing industries further increasing the level of economic dependence on agriculture.

The level of dependence on agriculture (or for that matter any particular sector) for the great bulk of the export income of a trading nation brings with it a need to maintain a ifnancial system and climate which ensures that the long term viability of that major exporting sector is assured.

As far as the rural portfolio manager in New Zealand is concerned the high level of dependence on agriculture, and its long term export significance demands that he critically examine the opportunities and options that are or will become available in the sector.

(ii) Level of government involvement

Looking at the government support for the farming sector as shown in table 2, over the period 1972/73 to 1977/78, 5.52 percent of New Zealand government expenditure supported agriculture compared with 2.0 percent for Australia, 3.01 percent for Canada and 1.74 percent for the USA. While these figures can only provide crude comparisons, they do nevertheless indicate that government expenditure patterns are strongly influenced by the level of dependence on agriculture.

TABLE 2

GOVERNMENT ASSISTANCE TO AGRICULTURE, FORESTRY AND FISHING - Current Expenditure as a % of the total

	Australia	Canada	Japan	N.Z.	U.S.A.
Average of Available Data	2.00	3.01	6.91	5.52	1.74

Source: N.Z. Yearbook.
Australian Yearbook.
U.S.A. Agricultural Statistics.
Statistics Canada.

In addition to this direct government expenditure on the New Zealand farming sector there are various income taxation incentives designed specifically to promote agricultural production.

Support for agriculture takes many forms - both direct and indirect - depending on the economic policy of the country concerned. Some of the various forms of support are:

- direct price support in adverse trading periods;
- indirect price support through the exchange rate system;
- direct income assistance in climatically adverse seasons;
- indirect income assistance through tax deductions and rebates specific to the sector;
- direct loan assistance through government agencies;
- indirect loan assistance through guidelines and incentives to other lenders;

In common with most other countries New Zealand has used all of the above forms of support at some time in its history:

- Direct price support in adverse price periods is operated through a guaranteed minimum price concept.
- In June 1979 a trade weighted flexible exchange rate system which gave ongoing priority to the exporter and maintained his world price relative to the New Zealand price was introduced. As evidence of the working of this New Zealand's currency has devalued steadily against the harder currencies (6.0 percent over 1981) without the need for large occasional disruptive adjustments. However the system of flexible exchange rates was discontinued as part of the package of measures announced on 22 June 1982.
- Relief in the form of concessional loans or grants have been used to offset adverse climatic conditions.
- Direct loan assistance is given to the agricultural sector via the Rural Bank. The extent of this is shown in table 3 which gives the various sources and levels of finance based on mortgages registered.

About 32 percent of these mortgages are from government sources - this is mainly the Rural Bank which approved loans of approximately $467 million to the sector in the year to 31 March 1982.

TABLE 3

SOURCES OF FINANCE (RURAL) - BASED ON MORTGAGES REGISTERED PERCENT OF TOTAL

Year Ended 31st March	Government (central & local)	Banks - Trading & Trustee	Insurance Companies + Pension Funds	Private Individual	Producer Enterprise	All Other
1976	25.9	2.1	6.8	35.9	12.0	17.3
1977	25.3	2.4	6.2	37.9	13.7	14.5
1978	29.9	2.1	7.0	38.7	13.1	9.3
1979	34.7	5.4	5.8	32.3	13.7	8.1
1980	34.9	4.4	8.1	30.2	15.2	7.2
1981	33.1	4.2	9.1	27.2	17.1	9.3
1982	32.3	5.3	9.4	25.1	16.1	11.8

This table underestimates the extent to which bank and other financial institutions support the agricultural sector, as the majority of their lending is undertaken on an overdraft or term loan basis - not requiring mortgage security.

- Indirect loan assistance is given to agriculture through statutory requirements that certain financial institutions and pension funds invest a proportion of their investable funds in farming (and also in housing and public sector) securities.
  The investments thus arising are included in the figures in table 3 above. Trading banks are also subject to "qualitative lending guidelines" which give agriculture very high priority in terms of available ifnance.

Of importance as far as rural investment is concerned is the underpinning of agriculture by the government, particularly in times of a downturn. New Zealand has a history of government intervention during such periods in order to cushion the impact on the wider economy.

This helps avoid widespread retrenchment and substantially reduces the risk of loss by investors. Agriculture has thus become a relatively safe and secure investment capable of maintaining viability even during significant downturns in the economy, such as New Zealand is currently experiencing.

From an investment point of view the level of support for agriculture has a direct bearing on the level of risk, and an understanding and ability to measure the level of this support is a vital consideration for the investor.

(iii) Financial and Monetary Systems

There is a wide range in the level of sophistication of money markets in Pacific countries. The structure and attitude of the institutions involved varies markedly. For example the USA has a very complex financial system based on a large number of competing institutions to whom market share is a critical factor.

if Whereas New Zealand has a relatively simple nancial system that is emerging from a long

ifperiod of control. Although the temporarynancial controls imposed in 1982 have slowed the rate of structural change in the financial system, the present structure differs significantly from that which existed prior to 1976. It is a market where financial assets such as mortgages and debenture notes are not normally traded or transferred.

The New Zealand monetary system is regulated by the Reserve Bank of New Zealand a quasi-independent government body which is the central banker, the Government's banker for international transactions, the controlling agency responsible for implementing government monetary policy and a principal adviser to government on monetary policy.

The New Zealand monetary market as shown in table 4 is dominated by trading banks which at 31 March 1982 held 40.4 percent of total deposits of the private sector. There are four trading banks, one of which is wholly owned by the New Zealand Government but operates independently of government direction.

There are a number of savings banks: some associated with trading banks, some regional trustee banks and also the government's Post Office Savings Bank which is now emerging as a significant lender to the urban residential sector. Between them, savings banks at 31 March 1981 held 18.4 percent of total deposits of the private sector.

TABLE 4

NZ FINANCIAL INSTITUTIONS - private sector term deposits

As at 31st March

	1970 $m	1975 $m	1980 $m	1981 $m
Banks: Trading	203	876	3061	4105
: Savings	556	672	1917	2698
Government Central and Local	281	190	487	897
Finance Companies	77	213	1102	1763
Stock and Station Agents	*48	53	90	122
Other Financial Institutions	43	*52*	*175*	176
Money Market and Commercial Bills	10	146	230	401

* June 1970.

Source: Reserve Bank Bulletin.

New Zealand has a large number of non-banking financial institutions which raise the majority of their funds through debenture stock. Finance companies are often owned or backed by a trading bank and to some degree operate as the bank's term lenders to the commercial sector. Building societies play a relatively small role and while they were numerous a series of mergers are now taking place. Life insurance companies investing premiums are a significant mortgage investor in property - commercial, housing and farms.

New Zealand also has companies which cater exclusively for the farming sector. These companies which combine trading in livestock and merchandise with financial services for farmers are known as stock and station agents and collectively had only a 1.2 percent share of the private sector term deposits at 31 March 1982 but provided a significant share of seasonal ifnance, advancing about $400 million at peak as well as providing a merchandise facility for the farming sector. Their funds are raised from farmers' credit balances held, trading bank overdraft, fixed term deposits and debenture issues.

TABLE 5

GROWTH IN LENDING TO AGRICULTURE WITHIN NEW ZEALAND

As at 31st March ($ million)

	1970	1975	1980	1982	% growth pa 1970-1982
Banks (Trading and Private Savings Banks)					
(i) Farming	78	172	404	828	22
(ii) Other Agriculture	191	391	795	858	13) 17
Rural Banking and Finance Corporation					
(i) Farming	254	446	1043	1510	16)
(ii) Fishing and Rural Industrial	2	16	111	182	46) 17
Insurance Companies1					
( ) Farming	124	146	210	303	8
Stock and Station Agents					
(i) Farming	121	130	232	295	8
Finance Companies					
(1) Farming/Fishing	5	7	82	156	33

Source: Reserve Bank of New Zealand.

Table 5 highlights the annual growth in lending to agriculture over the period 1970 to 1982 which for banks was 17 per cent pa and the RBFC 16 percent pa. The high annual growth rate in finance companies lending to farming of 33 percent pa reflects the changing attitude of the portfolio manager to rural investment.

The roles played by the various institutions overlap somewhat. In general the Rural Bank operates as lender of longer term finance for land settlement and development propositions. Other institutions tend to provide the bulk of shorter-term finance, some of which may be for farm settlement and development. The stock and station agents, trading banks and to a much lesser extent the co-operative dairy companies provide the bulk of seasonal finance required by the industry.

In 1976 the government announced the general lifting of financial controls with a view towards increasing competition within the financial sector. The initial changes related to interest rates, reserve asset ratios, (taxation discrepancies) and government borrowing rates. Following these relaxations, the government moved from control of monetary policy by direct interventionist regulations towards control by guidelines, granting the institutions reasonable freedom in setting their own control systems provided overall objectives were met. This system is still in a period of adjustment.

From a position in 1975 where the public were holding about 61 percent of their financial deposits `on demand' the situation had reversed by 1980 when over 55 percent was held as `term deposits'. Within the sectors there have been substantial shifts of funds towards the trading banks and those other institutions which have adopted a competitive stance for available funds. Competition is usually reflected in the interest rate policy and the flexibility of the term of the deposit.

From the controlled position prior to March 1976, when interest rates for term deposits were kept strictly to less than 10 percent they have now moved upwards to a range around 16.0 percent, Government stock rates similarly have

moved from 5.0-6.5 percent to 11.25-13.5 percent. The interest rates for other than special Government stock issues tended however, to lag behind the current inflation rate prior to June 1982.

The changes occuring in the organisation and operations of the market have been significantly affected by controls introduced in 1982. These controls which became part of a wider incomes and prices restraint package, placed limits on interest rates for both deposits and lending, in an effort to reduce inflation and inhibit the upward movement of interest rates. It is anticipated that if these policies are successful the controls will be phased out from mid 1983.

With this background it will be seen that the rise in interest rates has brought with it a wider awareness of the cost of finance and the need to use it productively. This is now causing investors to consider in greater depth the profitability of their investment decisions.

Investors are seeking an adequate return but keeping their options open should more rewarding returns arise.

Accordingly the investment terms sought are in general short i.e. two years or less with preference for an early withdrawal option. The competition for funds is such that bonuses and additional extras such as life insurance cover are sometimes offered as further incentives.

The general thrust in investment has now consolidated in short term, high interest rate options where flexibility and ease of disinvestment are critical factors.

(iv) The operation of farms as business enterprises

Farming in most countries of the Pacific basin is characterised by a large number of small holdings, with the number of units currently falling and the size of each unit growing. While output per farm is increasing significantly, this is as much a result of land aggregation as increased productivity. New Zealand is experiencing a change in its farming pattern away from a lifestyle to a business orientated enterprise, which is placing more emphasis on the managerial abilities of the operator, particularly the new entrant with high debt levels and marginal profitability.

Many Pacific countries have active policies of settling young farmers so that new infusions of ideas and energy are continually being introduced and in New Zealand (from a national viewpoint) the settlement of young farmers onto an economic unit is still a profitable proposition. From a group of dairy farmers settled in 1975 by the Rural Bank, the milkfat production achieved from these properties had increased by 31 percent (on average) in the iffth season since settlement.

The financial structures of farms in many Pacific countries are basically similar - small ifnancial enterprises with high fixed asset values that have rapidly appreciated in value. The level of off-farm assets is low but often farming based. From tables 6 and 7 it can be seen th-t for NZ dairy farmers, land and improvements average 77 percent of total assets with livestock at 12 percent. For sheep and beef farmers, the relative position is 72 percent and 18 percent.

Thus the average liability/asset ratio for both livestock farm types is relatively low at 16.5 percent in the sheep and beef sector and 26 percent in the dairy sector. For an economic factory supply dairy farm unit in NZ the total ingoing cost is now approximately $350,000 and for an economic sheep and beef farm unit $600,000 although there are now indications that the recent trends in farm values are levelling out and in some cases, particularly less attractive sheep farms, are falling.

TABLE 6

FARM CAPITAL STRUCTURE
NZ DAIRY FARM - PER FARM DATA

		1974/75	1979/80
Land and Improvements	%	82.0	77.4
Livestock	%	8.6	11.7
Plant and Machinery	%	4.6	5.7
Other Farm	%	2.0	2.4
Non Farm	%	2.8	2.8
Total Assets	%	100.0	100.0
Land and Improvements	$	121,017	191,143
Livestock	$	13,214	29,003
Plant and Machinery	S	7,060	14,023
Other Farm	$	3,031	5,908
Non Farm	$	4,289	6,222
Total Assets	$	154,611	247,024
Liabilities		29,605	63,719
Equity		125,006	183.305
Liabilities/Assets	%	19.2	25.79

Source: Economic Survey of Factory Supply Dairy Farms in N.Z. - Capital Structure. N.Z. Dairy Board, Farm Production Division.

TABLE 7

FARM CAPITAL STRUCTURE
NZ SHEEP AND BEEF FARM - PER FARM DATA

		1974/75	1979/80	1980/81 (est.)
Land and Improve'ts	%	74.5	72.2	77.9
Livestock	%	12.8	17.6	13.4
Plant and Mach'y	%	2.8	3.1	2.8
Other Farm	%	5.1	4.1	3.5
Non Farm	%	4.8	3.0	2.4
Total Assets	%	100.0	100.0	100.0
Land and Improve'ts	$	184,524	433,520	+587,300
Livestock	$	31,653	105,890	100,800
Plant and Mach'y	$	7,001	18,700	21,000
Other Farm	$	12,679	24,540	26,600
Non Farm	$	11,893	18,130	18,000
Total Assets	$	247,750	600,780	753,700
Liabilities	$	54,886	99,270	112,500
Equity	$	192,864	501,510	641,200
Liabilities/Assets	%	22.2	16.5	14.9

Source: N.Z. Meat and Wool Boards Economic Service. Sheep and Beef Farm Surveys.

Until recently, rises in land value in New Zealand, have led to high equities (now on average 80 percent) which have been converted to security for borrowing - a trend that seems to have applied to many other countries.

Within New Zealand farm units are typically owner-occupied, although some sharefarming and leasing is practised, particularly in the dairying sector. Typically the amount of non family labour used is restricted to one permanent hand, with specialist contractors and seasonal workers

such as fruit-pickers, shearers, etc, hired or engaged on contract as necessary.

New Zealand has a tradition of supporting owner operated farm units and many believe strongly in the objective that a farm worker through his toil and competence should have the opportunity of farm ownership. This objective is increasingly difficult because the total capital involved requires a very substantial contribution to be made if viability is to be ensured.

The movements in land values over the last ifve years, compared to the inflation rate (as measured by the Consumers Price Index) reflected the pressure on farm purchase. The infusion of non farming capital has had direct benefits to the nation in that land development has resulted in increases in export production.

TABLE 9 TREND IN LAND VALUES AND INFLATION RATE (CPI)

% increase in price index

Dec Year	Dairy	Fattening Farms	Grazing Farms	Horticulture	All Farmland	CPI
		(Freehold Farm Units Sold)				
1976	7.3	10.5	7.7	22.9	10.1	15.6
1977	7.7	17.8	14.9	14.0	12.4	15.3
1978	7.0	7.8	12.6	11.6	9.5	10.1
1979	11.7	13.8	25.8	23.8	15.1	16.5
1980	16.8	32.9	25.0	22.8	23.2	16.1
1981	43.0	35.1	40.0	42.6		

Source: Valuation Department.
Department of Statistics.

Table 9 shows that the value of freehold farm units sold have been keeping ahead of the rate of inflation. This table also highlights the extent to which horticulture has "taken off" in New Zealand over the last few years, due partly to the infusion of non farming capital.

The 1982 Budget introduced taxation provisions to limit land ownership as a tax shelter. Vendors who have owned land for a period of less than 10 years, are now liable with some exceptions to pay income tax on any interest payments claimed against income to the extent of the profit made on sale. The effect of this move should be to reduce the attractiveness of tax free capital gains and thus take pressure off demand and land prices. The current recession and monetary squeeze will also result in a dampening down in land prices.

The nature of agriculture provides a wide range of options for the prospective investor. The amount of loan sought by borrowers ranges from low sums for development to very large amounts for purchase. The loan terms sought vary according to the purpose of loan funds, e.g. development, purchase, seasonal finance.

Like any other project the risks of investment in agriculture increase with the involvement of the inexperienced and imprudent operator.

The assessment of the personal factor is particularly important and to some degree subjective. Without close contact and knowledge of the farmer's competence and background, the uncertainty surrounding an investment decision is such that a conservative view or no investment are the prudent options. On the other hand a careful assessment of the person, his management experience, background, particularly financial understanding and control as related to the type of enterprise can warrant higher than normal risks being taken, i.e. the Rural Bank lends up to 85 percent of the total ingoing involving individual advances in excess of $400,000 under one of its settlement schemes. It provides seasonal finance and a financial and farm management advice service to the borrower until he is established. Consequently the risks are minimised and a very high success rate results-about 99 percent of those settled.

Because of the large numbers of farm units involved in New Zealand agriculture, failure of one unit can be absorbed by the market with little or no effect on others. Furthermore, because units are in demand, their sale to another operator is usually readily effected and risk of loss on investment minimised.

A farming operation that is relatively unique to New Zealand and offers substantial opportunity for an investor as an absentee owner is the sharemilking system.

In a standard `50/50' sharemilking agreement, the sharemilker owns the milking herd, and undertakes the farm management, labour and costs related to the herd. The land owner is required to provide the land, buildings and milking plant and generally pays for the fertiliser. Each takes 50 percent of the milkfat cheque.

These sharemilking agreements play a significant part in the New Zealand dairy industry by providing a stable and efficient work force and a stepping stone from which the sharemilker can progress to become a farm owner/operator. As an investment opportunity a sharemilking proposition is worthy of consideration with the investor receiving a reasonable income plus the capital gains accruing to the property, with limited effort and management input. The signiifcance of share agreements within the sheep and beef industry however is minimal.

(v) Returns to Agriculture

It is a characteristic of agriculture that the annual income return on funds invested is low, averaging between 0 percent and 5 percent per annum. This return rate seems common to most countries as shown in table 10 where the return rates are estimated for Australia and New Zealand.

TABLE 10 RATES OF RETURN

%	1976/77	1979/80	1980/81 (est)
Sheep and Beef farms:			
Australia	0.7	5.8	4.2
New Zealand	5.9	3.5	2.0
Dairy farms:			
Australia	-3.2	2.6	4.0
New Zealand	4.7	4.6	4.5
All farms:			
Australia	1.1	4.8	3.2
New Zealand (est.)	5.5	4.6	3.5

Source: Australian Bureau of Agricultural Economics.
Rural Banking and Finance Corporation of New Zealand.

It is unlikely that any other economic sector could afford to have such low rates of return, given their shareholding or liability structure. The problem is considerably compounded in that farmers are both price and cost takers and thus

suffer a steady cost squeeze. Output growth is thus used to maintain real net incomes not increase them.

However, agriculture has until recently, another element of return, not so significant in other investment sectors, and that is capital gain.

In Australia and New Zealand this capital gain factor (once realised) has lifted the rate of return on funds invested by at least 10 percent per annum as shown in Table 11.

TABLE 11 - RATES OF RETURN - INCLUDING CAPITAL GAIN

	1976/77	1979/80	1980/81 (Est.)
Sheep and Beef farms:			
Australia	9.3	18.3	13.1
New Zealand	22.2	20.4	22.4
Dairy farms:			
Australia	1.2	15.6	11.1
New Zealand	11.5	13.8	16.7
All farms:			
Australia	9.8	17.6	11.8
New Zealand (est)	18.2	17.6	19.9

Source: Australian Bureau of Agricultural Economics. Rural Banking and Finance Corporation of New Zealand.

It is only in agriculture that land as a factor input plays an essential part and the capital gain element that has been obtained from a land based investment in general exceeds the rate of return from the income generated. While it can only be fully realised upon disposal of the asset, it should be taken into account when discussing the return to farming and has certainly been a major factor in investment consideration.

This two tiered return complicates the evaluation of the rate of return on funds invested. The majority of formulae revolve about an income and expenditure stream. To do so in agriculture is to substantially understate the worth of the investment.

The low income return places constraints on the attractiveness of agriculture as an investment option and may detract from the desirability of investing in ownership unless the intention is to move to a more profitable type of production system, or invest for tax avoidance or that capital gain can be achieved.

It will be clearly seen from the tables above that agriculture is unable to maintain a high level of borrowing which has both high interest rates and a short term for principal repayment. Accordingly it is often unable to take advantage of the financial facilities that are presently readily available.

(vi) Investment Options in the Rural Sector

In countries which have a number of strong economic sectors, the options open to an investor are many and varied. When faced with a wide range of opportunities, the options must be compared in some form or other on the parameters of:

the rate of return.
the risk of the investment.

In theory the investor after taking into account the risk factor, should place his funds where expected returns (nett of tax and changes) are maximised, (i.e. maximum return - minimum risk).

TABLE 12 - NEW ZEALAND ALTERNATIVE INVESTMENTS
Current Returns on Investments

%	Divided Yield on Shares	Mortgage Interest Rates	Govt. Savings Stock	Trading Bank Term Deposits	Finance Secured Deposits
1976	6.5	9.97	5.50	8.65	12.00
1977	7.1	11.20	8.31	11.00	12.50
1978	7.7	11.55	9.00	11.00	12.50
1979	7.2	1 1.81	12.00	11.25	14.00
1980	6.1	12.45	11.50	11.50	16.00
1981	7.0	14.30	12.50	14.00	16.00

Source: New Zealand Reserve Bank Bulletins.

For its part the attractiveness of the agricultural sector for investment varies according to the nature of funds involved and purposes for which they are invested.

(a) Investing funds in farm ownership and thus being actively involved in the operational aspects in general has a low and volatile income return but has been affected by a large capital gain element. In New Zealand the recent partial elimination of tax shelters particularly for those that sell within a 10 year period will make farm purchase and development less attractive for investors who have in the past used this form of investment to offset taxable income from other sources. This was reinforced when the farm was used to offset high marginal tax rates on income earned in other sectors through a period of farm financial loss. Such losses often originate from the development of the farm unit and thus capitalise expenditure into non taxable capital gain achieved on disposal of the unit. Among the 1982 Budget taxation changes was the introduction of a $10,000 limit on offsetting of "tax losses" on farm incomes against the taxpayer's income for other sources.

For an investor (who earns income in the highest marginal tax bracket of 66 percent) seeking to invest in on-farm development there are three components of return that can accrue to the capital invested. Firstly by investing in farm development tax deductible items (now limited to $10,000 p.a.) there is the "opportunity cost" of not investing (and thus being required to pay tax). Secondly there is the income stream generated from the on-farm development and thirdly there is the added value to the developed property. The effective rate of return on funds invested in on-farm development, varies depending on the investor's marginal tax bracket, the length of the development programme and the point at which the property is finally sold, to allow realisation of the capital gains (ownership must now be for at least 10 years).

The strict measurement of the total benefits obtainable is a complex economic exercise but it is very clear that in New Zealand

the purchase and development of farm land by investors with substantial off-farm taxable income has in the past given a nett return that more than kept pace with inflation and has effectively converted taxable income into capital, giving a return that has in the past exceeded most other forms of investment.

(b) Alternatively participation through lending can be considered. Usually this involves taking a lower return but has greater security and less management problems. Through the use of subsequent mortgages on which the risk level may have increased, higher interest rates and shorter terms can be sought.

While a 60 percent debt level is generally regarded as a reasonably prudent security margin many properties are incapable of servicing the interest on a level of debt greater than 40 or 50 percent of the value of the asset.

A borrower in the manufacturing, or commercial sector is largely able to recover high interest charges through increased product prices. With farmers, however the cost of borrowing must be at the expense of net income. As a result, investment capital is inclined to be channelled away from agriculture, thus reducing its future growth prospects. Economic theory would have it that the farmer would adjust his cost/price ratio to enable him to compete for the finance, however, as cost taker and price taker he has little opportunity to so adjust.

What we are seeing in New Zealand is a very confused rural investment scene. The farmer who has low servicing costs or the new entrant with financial resources outside the sector, can and will accept finance on a short term and at high rate of interest. The existing indebted farmer who seeks to develop his unit is unable to meet the additional servicing cost of the short term finance available and is therefore forced to accept a more conservative approach related to his own liquidity.

The Rural Bank with its large annual input of development finance on longer terms plays a very significant part in providing the genuine farm developer with the necessary ifnance.

B SUMMARY

In summary the common trends that emerge from this background are that rural investment:

- has a low income rate of return on funds invested;
- has a high capital gain element which in the past offset this;
- has a substantial economic underpinning of activity and income levels through government support;
- provides a choice of investment opportunity either directly by ownership of land or indirectly via lending.

(i) Portfolio Management in Rural Investment

The changes that are taking place in the financial markets and investment patterns are having implications for both investors and borrowers in the New Zealand rural sector. These changes are already affecting investment and ownership in agriculture.

The advent of double-figure inflation (and until recently the apparent intractability of it) combined with the relaxation of interest rate controls have led to an increasing awareness of the costs of finance. The lender today is seeking a positive real return on his investment and has thus oriented his objectives more towards greater profit than previously. However for the financial institution re-investing borrowed capital in New Zealand the financial policy changes have led to a reassessment of investment portfolio. In particular, the competition introduced into the market has forced companies to look to profit maximisation for survival.

Profit maximisation has two aspects – the maximisation of gross returns and the minimisation of costs. To achieve higher returns implies either adjustment of the investment portfolio toward higher returning operations or improving the current return from the existing operations. In that the market price of funds (i.e. interest rates) are determined by the market on account of the multiplicity of investors and borrowers, financial institutions seeking to maximise profit must now pay greater attention to efficiency at all levels in the administration of such funds.

There has been a noticeable change in the conditions under which finance is now obtainable in New Zealand. The uncertainty of our modern economic times has indicated to all investors (individuals and institutions) the need to incorporate flexibility into any fixed term lending. Recent experience with inflation has taught the investor the advantage of investing in short term, high yielding, transferable or realisable assets which have security for both interest and principal. In general, the terms for on-lending are tending to be short with the majority of investors looking for principal recovery within a three-year period. Long term investors such as life offices and pension funds are the exception to this generalisation but even they are developing means for overcoming this disadvantage of long-term fixed lending. The frequency of reviews of the rate of interest charged has increased significantly over the past few years from fixed rates for (say) five or 10 year terms to three yearly reviews, to annual reviews and now `on demand' reviews.

The changed circumstances have also brought to those who use their own assets the awareness of the true cost of their use. The farming sector particularly with its low level of income return is looking critically at such factors as off farm costs, on farm productivity levels and product prices. It will be with some interest that their attemps to meet this challenge will be watched. It is noticeable that the level of farmer comment on product prices has already risen substantially and that there is some movement away from

traditional products to higher yielding products by existing farmers. Examples are deer farming, kiwi fruit production and other horticulture. Accompanying this has been a feeling that the "way of life" objective while still important must be down rated in priority and that economic assessment must be made the critical factor in decision making.

A number of the larger based companies are diversifying into energy, forestry and commercial activities. Some have realised on farm land investments to take advantage of the capital gain achieved in order to improve their liquidity or to invest in projects with higher current return.

It is the competitive element and the realisation of the true cost of finance that has brought rural portfolio management to the fore in investment issues.

The analytical approach to rural portfolio management should be considered either as:

(a) performance monitoring, or
(b) project evaluation.

(ii) Performance Monitoring

Performance monitoring is being used extensively for both the multiple and single investment project.

The most widely used monitoring measure in New Zealand is based on the margin between interest rate receivable on investments and interest rate payable on borrowing and administration costs i.e. `after tax' profit margin. In the majority of cases, a profit margin on an accounting framework would be sought. The more critical question in farm ownership to be answered is "can the borrowing be serviced" not "is the return on capital adequate".

Where the investor has a number of investments annual budgets would be drawn up at the start of the fiscal year. A major enterprise would expect to operate on a weekly review of cash flow budget. Where an investor is utilising his own assets in terms of an employment position (or size) these reviews would be less frequent. For those investment groups with multi-sector investments, some comparison of returns between sectors would be necessary.

In monitoring multiple investments, any capital gain element tends to be excluded from the analysis. In that borrowing must be repaid. cash flow takes precedence over the true capital position. The regular revaluation of assets is an expensive undertaking but is becoming increasingly important particularly where equity levels are being used to justify further borrowing, or even the continuation of an investment.

Project monitoring tends to be based on budget comparison in relation to the original budget on which the investment decision was undertaken and would cover any amendments in changing costs and product price movements. Major reviews by the decision maker would be limited but at least necessary within a three-yearly period.

(iii) Project Evaluation

Appraisal of a project on which an investment decision will be based has been the area of greatest enquiry in recent times. Techniques to carry these out vary as related to type of enterprise and the skills of the appraiser. It would appear from a perusal of foreign journals that New Zealand in the rural sector lags behind the world in the general application of some more advanced techniques but there may be valid reasons for this.

Much project evaluation work hinges on the margin concept, either before or after tax. For those using pre tax and pre borrowing bases, a percentage margin would be sought. Based on borrowed finances and current tax rates, this should equate to a return of at least 7 percent on funds involved. For those concerned with offshore borrowing, the level of return would need to be substantially higher to offset the exchange rate movement on foreign capital.

Many companies treat rapid recovery of capital as an important factor. With borrowing concentrated on shorter terms, investors endeavour to avoid the problem of "borrowing short, lending long". New Zealand like other countries has had its share of failures of financial institu. tions who have been caught in this trap. Many investors particularly the non traditional long term lenders now look for a right of recovery of principal within three years of operation with a maximum of five years. The impact of this on the farmer is serious. Development for productive improvements or new pasture establishment is normally long term and cannot be speeded up to any great degree. Thus unless the existing cash flow from an enterprise is capable of a rapid principal repayment many investors seek to avoid the placement of funds in agriculture not because of risk but to avoid the problems of being locked in to a particular investment.

Farmers are generally unable to determine the price received for their output. In New Zealand lenders to the industry are mainly experienced operators. Consequently, their decisions are based on a high degree of background experience and understanding. With investing institutions which have a narrow field of investment, the use of discounted cash flow and economic rates of return tend to be the domain of the investment analyst who often lacks a deep affinity with the particular field of investment. In the case of investing institutions which invest in a number of fields and have a board of directors independent of operational activities, discounted cash flows and rates of return are used as a means of ranking the options on a common basis. Again these techniques are oriented towards cash flow and generally exclude capital appreciation.

Common use is made of bench marks, gross margins and sensitivity analysis, based on maximum likelihood, optimistic and pessimistic options. It is in this latter area that the underpinning of agricultural prices is so critical. This

at least gives the investor the minimum revenue prices for budgeting purposes and the farmer some confidence to develop.

(iv) Portfolio Improvement

Irrespective of the current returns being achieved in an investment portfolio, the manager must continually seek to improve the returns and thus improve profit levels. Portfolio improvement allows for two primary options:

(a) improvement of existing returns; or

(b) disposal and reinvestment of funds elsewhere.

Improvement of Existing Return

The improvement of the return from an existing investment is limited by the nature of the investment and the flexibility open to the investor. On fixed investments, such as loans, the investor would normally write into the conditions the right to review the interest rate payable by the borrower and thus move the rate receivable in line with the market position. In New Zealand there are a number of older mortgages and contractual loans with low fixed interest rates which the investor in the normal course of events is unable to adjust. However circumstances may allow some respite e.g. through the borrower seeking a new advance, or some formal legal consent to the mortgage document from the investor. The opportunity may arise for such an advance or consent to be conditional on refinancing the existing advance or the interest rate, terms and conditions to be reviewed to current rates and terms.

For those involved operationally, a critical analysis of the enterprise would be required looking at management, nature of the product, and the scale of enterprise and perhaps marketing factors. It may be that a combination of all these is necessary, thus making the decision to continue the investment even more complex.

One thing certain is that up-to-date valuations of all assets for realisation purposes will be required. Thus the valuer will not only be required to value the real property but also to carry out a comprehensive appraisal of all the factors relating to the viability of the enterprise.

Disposal and Reinvestment

If improvement is not possible, the ultimate decision open is one of disposal and reinvestment of the funds. Again the ease with which this can be accomplished may vary according to the type of investment.

Given an asset such as property, shares and stocks, sale of the asset provides no unusual problem. However, sale of mortgages or loan paper is uncommon in New Zealand and no real secondary mortgage market or transfer market exists, thus limiting the opportunities of disposal. However some techniques have been developed to convert low return investments to those with more appropriate returns at least in the longer term.

As mentioned earlier some companies owning farm property have disposed of it because of the low current return, realisable substantial capital gain and the high cost of borrowing. These properties have been sold either as they exist, or developed for new higher yielding projects such as horticulture which are ultimately sold after an initial high return stage. (It is interesting to note that in some of these latter propositions involving high yields in the short term with an unproven long term viability the financial institution selling them does not normally offer finance to assist with the purchase.) The decision to put this capital to a high yielding use is not only good business but is essential in some cases to ease the liquidity of the institution.

(v) Significance of Change to the Valuers

This paper has discussed and highlighted the essential nature of agriculture as an investment of capital appreciation but low current income.

Inflation together with its effects in increasing interest rates and shortening of lending terms has further exacerbated this situation.

For the investor cash flow is assuming a predominant role in the investment decision.

In acting for lenders in particular but also for potential equity investors, valuers have tended to confine themselves solely to the assessment of value and security margin.

While this is the special area of expertise of the valuer it can no longer be assumed that a loan which falls within the traditional two-thirds - or other margin of itself represents a safe or prudent investment. While the capital sum invested may be secure the payment of interest may not be a reasonable probability.

If the valuer is not prepared to equip himself and accept the responsibility of this wider role in portfolio management the vacuum will be filled by others.

It is not a valid excuse for valuers to disclaim responsibility on the grounds that their principals do not include such assessments in their instructions. I believe the professional has a role in educating those with a lesser knowledge of agriculture investment that value on its own is no longer a valid criterium for prudent portfolio investment or management.

Conclusion

The changing nature of investment conditions will have a substantial impact on portfolio management in New Zealand. With the restructuring of the savings market to one where all funds must be obtained on a competitive aggressive market, second best is no longer adequate to ensure survival.

I feel that the future portfolio manager with the assistance of his valuer will be required to examine critically all investment sectors and options, spend an increasing amount of time on issues wider than solely asset value, use more advanced analytical techniques and have prudence learned from experience if he is to properly discharge his professional responsibility in the rural sector.

Effect of Inflation on Capitalisation Rates

Paperpresented at the New Zealand Instituteof Valuers' Seminar - Wellington, 5th October, 1982

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Mr Bill Cairns has had a long history with the A.M.P. Society commencing in the Queensland branch, Australia in 1951 as a Pastoral Inspector with a Diploma in Agriculture. His background included 12 months in New Zealand as a farm worker during 1950 and by 1962 he was elevated as a Fellow of the Australia Institute of Valuers. He has recently been involved in the "Abby Purchase" being the biggest single real estate transaction in Australia at a cost of approximately $300,000,000.

My brief for this paper included the suggestions that I should look at the subject from an owner's point of view and that I should "relate the topic mainly to Australian conditions". I am pleased to comply with both suggestions, indeed, given a choice I would have made the same restrictions because for the last 20 years my principal interest in real estate has been as the employee of the largest private property owner in Australia and New Zealand and my work has been closely associated with the Australian real estate market.

The rates at which net property incomes are discounted, or capitalised, to establish market values of a property are derived from the yields produced by property investments. To discuss capitalisation rates then, one needs to understand the attitude of investors, i.e. the owners, to property investments. In turn, because the large financial institutions such as the life offices together with the pension and superannuation funds have been the major private investors in real estate in Australia in the last 10 years, it is important to understand the characteristics of an institutional investor as distinct from those of an individual investor.

The institutional investor tends to be investing to cover long term liabilities and usually it is investing a growing rather than a static fund of money. Thus institutions tend to invest for the longer term. But that is not to say they should not become involved in short term investments or take advantage of trading opportunities and in fact most of them do so.

Institutions also tend to spread their investments and this is done in a number of ways; by spread of class of investment, (with assets, in for example, Government Securities, fixed interest and equities); by spread of geographical area and by limiting the proportion of a fund invested in any single investment or in any single type of investment.

The performance of the financial institutions is under closer scrutiny in Australia now, by existing and prospective investors (policyholders in the case of life offices), than ever before. Increased public financial awareness and the regular publication of results in the superannuation field have led to increased competition and, I believe, a sharper awareness in those institutions of the need for better performance.

Traditionally the life offices because of the long term commitments to their policyholders, have been in a special position to provide funds for long term capital investment. However in more recent times changes in Government action and economic and social conditions have combined to shift savings away from long term financiers towards the short end of the market.

In addition recent competitive developments are tending to restrict the rate at which these traditional long term investors can commit funds to ventures which are not quickly income producing. This so called "short term cult" has gained wide spread acceptance among superannuation fund trustees, many of whom are ready to switch the control of their funds from one investment manager to another in the search for superior performance. In order to protect their superannuation business, some fund managers have responded to this attitude by placing increased emphasis on investments which provide immediate high returns and which are readily marketable so that they will be in a position to pay out the funds of any superannuation plans which are switched to another manager. To match attractive short term results with prospects of long term growth is indeed a challenge.

The first responsibility of a fund manager is towards the beneficial owners of the fund. However recognising that the best long term interests of all concerned lie in a socially and economically healthy nation most large institutional investors accept that they have responsibilities to see that environmental restraints are complied with and to see that the geographic spread of investments has some regard for the locations from which funds are generated.

Institutional investors do not create development opportunities but what they can do is identify opportunities which already exist and capitalise on them by building an appropriate development.

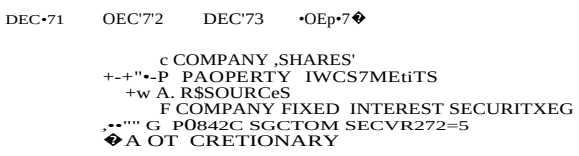
't'his then is the broad background against which the decisions of the major private investors in Australia, are taken. I suspect that much the same applies to their counterparts in New Zealand.

At any one time fund managers will be assessing the advantage of one avenue of investment against the others. Right now, fixed interest investments are more attractive than they have been for some time and the low prices of some major energy stocks offer excellent prospects for significant appreciation in capital value in the medium term. Each fund manager will have his own idea of the best balance for a portfolio although there will be times in which market considerations cause a portfolio to be over-weighted in a particular type of investment. The important thing to understand is that investment opportunities will continue to be tested against one another from time to time. Not only will the fund manager strive to meet the desired balance in the portfolio, he will also be concerned to match the inflow and outflow of cash to his fund.

An important function of portfolio management is to continually cull to meet current fund requirements. This frequently involves selling assets, for example properties which no longer suit the portfolio for reasons of size, "one off", location, weighting in the portfolio and so on. In my experience there has been a ready demand for this type of property from small funds and private investors, in Australia. It is important to realise that institutional investors are sellers as well as buyers of real estate.

Since 1970 there has been a significant redevelopment of the Central Business District of each State capital. This has involved the redevelopment of about 6 million square metres of office space.

During most of that time, well located, carefully selected real estate has provided regular increases in both income and capital value. Indeed property investments have performed well against other types of investment available from time to time during that period as the following graph taken from the June 1982 report of the A.M.P.'s No. 2 Fund shows:-



Not only will one type of investment be regularly tested for performance against other available, as mentioned earlier, but so will the performances of different categories available in one type of investment be compared one with the other. Office investments will be tested against say retail, industrial, hotels and so on. Most fund managers will seek some spread between these various classes.

The point I am making is that property yields, and therefore capitalisation rates, will be established by reference to the market which will in turn be influenced by yields available not only from property investments but from alternative investment opportunities. I know that the New Zealand property market is smaller than its Australian counterpart but I do believe that the same general philosophy applies.

The Australian property market has many segments and although there may be some nexus between the yields available from the same type of real estate investment in the various capitals, there is none as far as I can determine between the yields available in smaller towns and from different categories of property. The following table demonstrates the differences in yields from good quality properties in the various categories:

Offices	
Prime C.B.D.	*6%-7%*
Other C.B.D.	6.50%- 7.50%
Retail	
Supermarkets	9.75%-10.75%
Regional Shopping Centres	8.00%- 9.50%
Industrial	
Established Areas	8.00%- 9.50%

Lest there be any confusion I should emphasise that the yields on prestige C.B.D. offices would be lower than those in this table. Scarcity, better long term growth prospects and top class tenants are the major reasons.

For convenience the specific comments in this paper relate to the Sydney property market and particularly to the market for prime C.B.D. offices, which is the most active in Australia. It is also probably the market in Australia which is most comparable with the major international markets. I must leave to your judgement, the degree to which my comments apply to the major New Zealand commercial markets in Wellington and Auckland.

Reliable data are available on the Consumer Price Index, Commonwealth Government Bond Rates, Commercial Mortgage Rates and the Ordinary Share Index. However, surprising as it may now seem, reliable data on property capitalisation rates have been retained only since 1974. The rates quoted before then have been established by reference to individual valuations and transactions in my own files.

During the 1950's and 1960's the Sydney annual inflation rate was in the range of 2.7% to 3.8% and the Commonwealth Government bond rate ranged from 4.5% to 6z% with commercial mortgage rates ranging from 5% to 8%. At that time yields on prime property investments were above both these rates.

The annual rate of inflation increased from 6% in 1970 to a peak of 15.8% in 1974 and was 10.8% in 1981, and this was accompanied by an upward movement in interest rates, particularly in the last 22 years. However for several years in the 1970's the rate of inflation was higher than interest rates. Traditionally Australian property yields have been less volatile than the ordinary share index and have been steadier than interest rates.

During the 1970's property yields fell below fixed interest rates - the so called "reverse yield gap". Not only did interest rates rise but capitalisation rates for prime property remained steady. The situation occurred because investors were prepared to accept low initial yields in the expectation that net returns and capital values would increase in the longer term and the likelihood that building costs would continue to escalate rapidly. (This is not to imply that capitalisation rates did not move e.g. the cyclical movement of over and under supply of space influences investment expectations and therefore capitalisation rates, at any given time). In turn this led to the expectation that the overall net return i.e. income and capital growth, from a property investment would equal or exceed the returns available from other avenues of investment. (In the longer term it is reasonable to assume that growth in rentals and in operating and other property costs will vary much from the rate of inflation over the same term). It is the internal rate of return expected over a medium to long term rather than the immediate yield which is becoming most important to the long term investor. Clearly the expectation of growth in both net income and capital value is the reason that prime property is sold at capitalisation rates of between 6.0% and 7.0% when fixed interest rates are about 18.5% and the bond rate about 16.5%. Let me sound a note of caution. In making such a comparison between the internal rates of return available from different kinds of investments, it is the assumptions and not the mathematics which require the closest scrutiny. The successful property investor needs to have a proven intuitive judgement, to assess prospective investments - it's not all done by sums.

The Table in Appendix 1 and the Graphs in Appendix 2 refer to movements in the Consumer Price Index, 10 year bond rate, commercial mortgage rate, ordinary share price index and capitalisation rates for prime C.B.D. property, during the 1970's.

Prime property is a scarce commodity and in Sydney there are limited opportunities for purchase because most of it is owned by long term investors. In addition there are very few prime sites available for development - Sydney's topography which makes the harbour one of the most beautiful in the world places severe limitations on the spread of the C.B.D. This together with a fairly strong demand for space is, in my opinion, likely to result in a continued rental growth albeit at a significantly lower rate than the 30%-40% p.a. achieved during the past 2/3 years. This strong upward movement in rentals since mid 1979 coupled with a firming of

capitalisation rates has caused Sydney C.B.D. property values to escalate rapidly.

The graph in Appendix 3 refers to prime office rentals and comes from Jones Lang Wotton, Research.

In the mid 1970's there was a glut of office space in Sydney. This followed changes in economic expectations in the early 1970's which caused a slackening in demand at a time when many new developments were under way. Even so there was only a slight easing in capitalisation rates for prime property. On the other hand the values of poorer quality buildings and those in secondary locations were heavily discounted i.e. yields softened significantly.

Capitalisation rates for prime property have tended to firm or remain steady in recent times of high inflation. Certainly good property investments have performed better than fixed interest investments and comparable share investments during the last 10 years. The reasons that capitalisation rates for prime Sydney C.B.D. property have remained steady is primarily a combination of:

(a) the expectation of investors that in the medium to long term property will provide a good hedge against inflation.

(b) a buoyant economy and a growing business population which have caused a strong demand for available space resulting in few vacancies and rising rents.

(c) the limited availability of development sites in the C.B.D.

(d) continued escalation of development costs including not only costs of material, labour and finance but added costs caused by industrial disputes.

I am a strong advocate of prime real estate as a sound hedge against inflation providing as it does good prospects in the longer term of growth in both income and capital value. The present downturn in the Australian economy will, if it continues, test the strength of the property market and in some cities notably Perth, there is likely to be an over-supply of office space with a consequent pressure on rentals. There will also be pressure on property yields if the rate of inflation is reduced, while interest rates remain high - property investors will seek higher initial yields in the face of reduced growth expectations and the availability of high fixed interest investments. (The "real rate of interest" i.e. the gap between the rates of interest and inflation, has moved in cycles and sometimes e.g. in the mid 1970's, has been negative. At present it is 5%-6% compared with *2%-3%* historically). However I remain confident that prime real estate will maintain or improve its value, in the shorter term, although capitalisation rates may ease slightly.

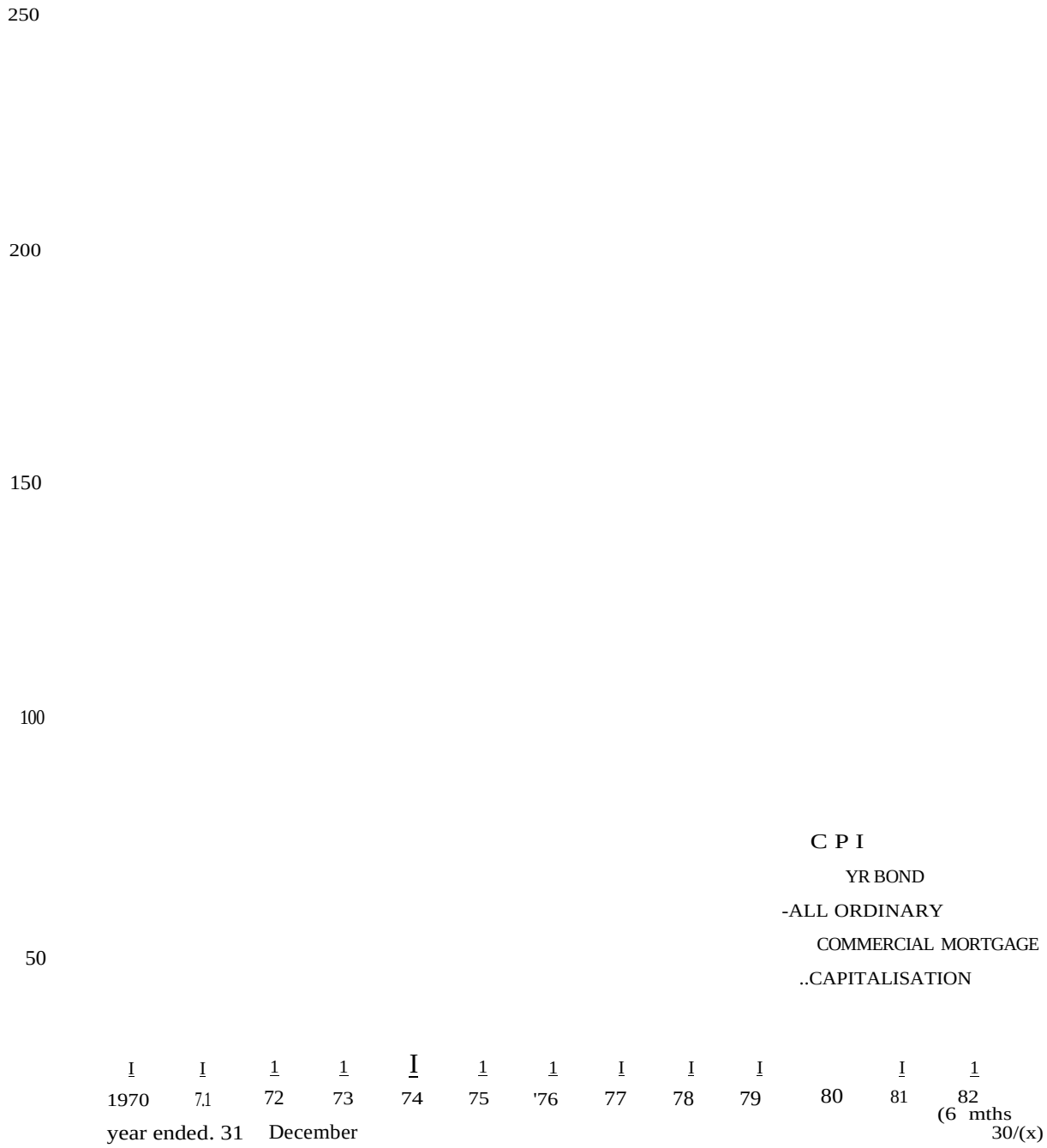
The question prompted by the title of this paper is "What is the Effect of Inflation on Capitalisation Rates". There is no ready answer because of the factors other than inflation, which from time to time influence property values and therefore capitalisation rates.

Appendix 1

Year Ended 31 December	Consumer Price Index (Sydney) Annual Increase %	Commonwealth Bond Rate 10 Yr %	Commercial Mortgage Rate 5 Year %	All Ordinary Share Index Sydney	Property Capitalisation Rate Prime Sydney C.B.D. %
1970	6.0	6.9	9.75	348.9	6-7
1971	8.4	6.8	9.75	340.9	6-7
1972	4.8	5.8	9.75	408.6	6-7
1973	13.2	6.7	11.0	297.6	6-7
1974	15.8	9.5	14.0	201.7	7-8
1975	13.8	9.5	14.0	299.4	6-7
1976	13.2	10.0	14.0	291.4	*61-71*[22]
1977	8.5	10.4	13.5	322.3	6-7
1978	8.2	9.1	13.0	366.1	6-7
1979	10.3	10.0	13.5	500.0	6-7
1980	9.8	11.8	14.75	713.5	54-7
1981	10.8	13.1	17.75	595.5	$5_2$1-6;
1982 (6 months to30.6)	10.4	16.4	18.25	473.1	6-7

APPENDIX 2

INDEXED RATES-- 31-12-70=100



PRIME OFFICE RENTAL LEVELS
including outgoing
1975 - 1982 .

COMMENT ON PAPER "EFFECT OF INFLATION ON CAPITALISATION RATES"

By R. L. Jefferies, Dip. Urb. Val., B.C.A., F.N.Z.I.V., M.P.M.I.

Rod Jefferies is a Fellow of the N.Z. Institute of Valuers, is a practising valuer in Auckland, a past editor of the N.Z. Valuer and an author of the basic valuation text "Urban Valuation in New Zealand (Volume 1)."

I congratulate Mr Cairns on his paper addressing the question of why capitalisation rates have remained steady in times of rapidly rising inflation and high interest rates compared to a decade ago, from the Sydney-side point of view.

Mr Cairns has highlighted a number of factors, particularly the nature and philosophy of the institutional investor, and that property investment must be seen as part of a larger area of investment opportunities generally, where a real estate portfolio must be seen to be performing well against wider investment performance criteria than mere initial net returns.

I feel it is appropriate for me to relate his paper more to New Zealand conditions so that we may try and see if the rationale motivating the Australian institutional investor is as valid to us here.

I do not confine my comments to prime CBD properties and large investments, primarily because in number these are relatively small in the New Zealand context, where a great proportion of property investment is in the smaller industrial, warehouse, suburban office and non-CBD arena.

Most "property investors" as distinct from "developers" or "speculators" are long-term investors and have progressively been forced into this situation under New Zealand taxation conditions which have progressively tightened the net on those using real estate as a medium for tax avoidance and tax free capital gains. A more than 10 year investment ownership period needs to be contemplated and the emphasis on initial yield and negotiability is being exchanged for security and long-term capital growth.

In New Zealand we are also beginning to see some funds selling off investments and being bought by other smaller funds or private investors and sometimes the lessees themselves. There is a "second-hand" market in investment property especially those held over 10 years, since the rash of property investment in the early 1970's took place. Mr Cairns has drawn our attention to the fact that institutional investors can also be sellers.

The New Zealand market is smaller but quite comparable to its Australian counterpart and subject to the same basic investment philosophies and I could not quarrel with Mr Cairns' basic initial investment yields or capitalisation rates as set out at page 5 in his paper.

To relate his tables however, to the New Zealand scene, I attach appendices of the New Zealand Consumer Price Index, Long-term Government Stock market yields, mortgage interest rates, share price index and capitalisation rates paralleling those attached to Mr Cairns' paper. I also attach a graph showing the prime CBD office rentals for the main centres in New Zealand plotted against those for Australia.

The most significant differences between Australia and New Zealand are:

1. A much higher rate of inflation.
2. A less spectacular rise in office rentals in the last 2 years.
3. A comparative lack of firm sales evidence of prime CBD investment property from which to analyse capitalisation rates.

Nevertheless, the capitalisation rates applied to prime CBD property are much the same and in general have not shown any significant increase in sympathy with the high rates of inflation and interest rate increases over the last 7 years.. This is generally true not only of prime CBD properties but also the wider field of property investment.

Mr Cairns has given us four basic reasons why capitalisation rates have remained steady on page 9 of his paper and each of these could apply equally to the New Zealand scene but in my view do not give a fully satisfactory answer in the New Zealand context.

Though I accept the note of caution regarding mathematics and the assumptions behind any projections into the future, an exercise I recently carried out on a modem Auckland CBD office building indicated that over a 21 year investment period it would be likely to show a 15% per annum net internal rate of return on initial invested capital taking into account both rent increases and estimated capital gain. This would not be regarded as a very high return in view of the likely continued inflation and opportunity cost of capital. I doubt whether, in New Zealand, CBD property investments have or will "perform" better than well located suburban industrial and commercial property where initial returns are higher.

A further aspect applicable to the New Zealand scene is the shift towards net leasing where the impact of rising operating costs, largely fuelled by inflation, are being shed to the tenants giving a more stable net return to the investor and where the prospect of future rent increases will indeed increase the net return and not merely reimburse owners for increased operating expenditure. However, this is more applicable to CBD retail/office properties though many suburban industrial and commercial properties are now being leased on the basis of tenants paying all operating expenses.

Where then does the real answer lie to the apparent inconsistency between relatively fixed property capitalisation rates or yields over a period of rising inflation and interest rates?

Though I accept there is no ready reason, I believe the answer in the New Zealand context, lies more in the nexus between the limited supply of good investment property and the continuing high demand for real estate as a stable investment medium as a hedge against inflation. What other type of investment is available for large lumps of capital where management is fairly low, where security is high, where the risk of falling monetary values is low and where ready negotiability is not a short-term requirement? Good investment property continues to be snapped up quickly by investors at low initial returns in the New Zealand market because the supply has definitely diminished with the scaling down of property development. This is coupled with the "cost-push" effect of inflation forcing up building costs for new investment property within the climate of an inertia in rental levels to adjust quickly to these inflation effects. Thus there has been a reasonably constant demand for good investment property, particularly among institutional investors whose sources of new capital have largely been tied to superannuation and pension funds which have increased with the inflationary effect on wages and salaries. This has maintained the demand for an investment outlet which has not been satisfied by an equivalent increase in supply of good investment property at a level of return competitive with fixed interest rate returns. We have seen an increasing larger amount of investment capital chasing fewer good investment properties. Some of the heat has been taken out of the situation by the acknowledged swing, as Mr Cairns has pointed out, to the "short end" of the investment market, but this has not been sufficient to quell the demand pressure which has kept capitalisation rates and property investment returns at a relatively static level. The justification for investment in property at these low level of returns is the anticipation and/or prospect of future rental growth and resulting capital gains fuelled by the widespread acceptance that inflation is here to stay.

Acknowledgements

I wish to acknowledge the assistance given to me in obtaining data about other centres in New Zealand from Mr J. N. B. Wall of Wellington, Mr I. R. Telfer of Christchurch, and Mr G. E. Burns of Dunedin.

'.Since preparing these comments information regarding Dunedin has been received, where opinion based returns have increased, but not based on sales of real significance.

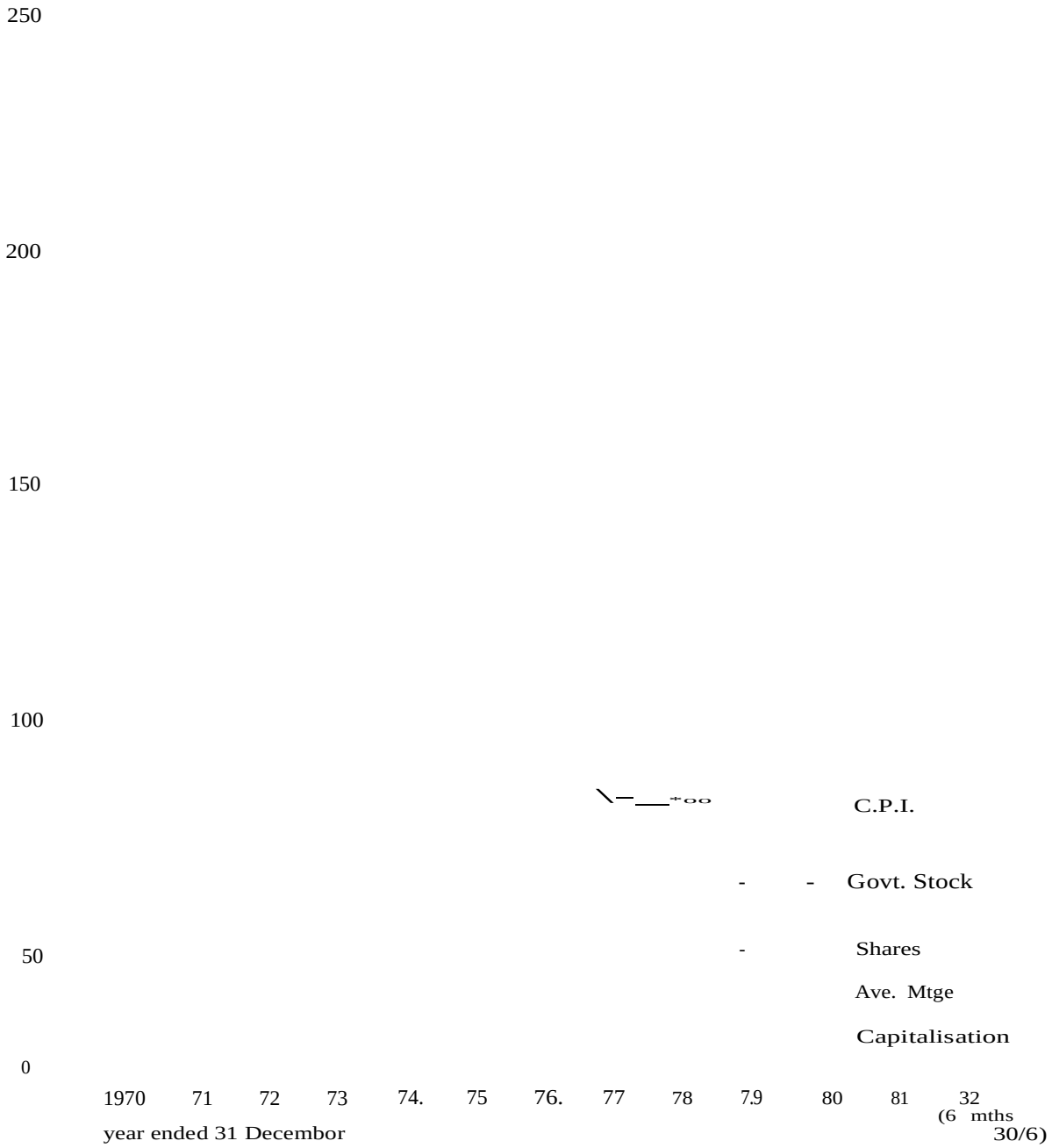
RE: "EFFECT OF INFLATION ON CAPITALISATION RATES" N.Z. COMPARISONS

Year	Consumer Price Index (N.Z.) (All Groups) Dec 1977 = 1 Index (Av. Annual)	% Change (Annual)	Long-term Govt Stock Yield to 1977-over 10 yrs since 1977-over 5 yrs % pa. (Av. Calendar Year)	Ave Mortgage Rate (Excl. Govt. subsidised) Av. Year ended -March % p.a.	RBNZ Share Price Index San 1968 = 1000 Index (Av. Calendar	% Change	Property Capitalisation Rate. Prime C.B.D. (Main Centres) % p.a. Akd	Wgtn	Chch	Dudn
1970	435	6.4	5.51	7.15	1598		6-7	7	7	5-6
1971	481	10.6	5.52	7.32	1406	-12.0	6-7	7	7	5-6
1972	514	6.9	5.53	7.9	1478	+ 5.1	6-7	7	7	6-7
1973	556	8.2	5.8	8.10	1760	+19.1	6-7	7	7	71-8
1974	618	11.2	6.08	8.23	1474	-16.3	61-71	61-71	7	8-81
1975	708	14.6	6.33	8.82	1361	- 7.7	6-7	61-71	7	8-81
1976	828	16.9	8.34	9.68	1480	+ 8.7	6-7	61-7-2	7	8-82
1977	947	14.4	9.45	10.62	1307	-11.7	6-7	6-7	7	8-832-
1978	1060	11.9	9.98	11.08	1329	+ 1.7	6-7	6-7	7	81-9
1979	1206	13.8	11.98	11.66	1452	+ 9.3	6-7	6-7	7	81-9
1980	1412	17.2	13.28	12.53	1879	+29.4	6-7	6-7	72	81-9
1981	1629	15.4	12.83	14.30	2674	+42.3	5z-6+	51-61	72	9-91
1982	1867	17.0	12.89	*15.79*	2739	+ 2.4	6-7	52-61	8	9-91
	(ended 6/82) 3 mths		(Av. 6 mths to 6/82)		(Av. 6 mths to 6/82)					

APPENDIX 2

INDEXED RATES-- 31.12.70=100

(New Zealand?



APFENAIX 3

PRIME OFFICE RENTAL LEVELS

including outgoing
1975-1982.

75	76	77	78	79	80	81	82 June 30

* For Auckland, Christchurch and Dunedin rentals are plus rates.

Rent for Naming Rights : A Formula for Two-storey Buildings

by W. K. S. Christiansen F.R.I.C.S., Dip T.P. M.P.M.I. M.N.Z.P.1. A.R.E.I.N.Z.

Ken Christiansen, a chartered surveyor, has been involved in the property valuation, agency, investment, development, planning, consultancy and management areas for some 36 years in New Zealand and overseas. He was in private practice before joining Fletcher Trust in 1965. He started lecturing at Auckland University part time in 1978 and joined the fulltime staff in 1981.

This paper is a follow up to Ken Christiansen's article "Naming Rights and Naming Rents" published December 1982. It examines some examples of naming rents and suggests a solution applicable specifically to two-storey commercial buildings.

Introduction

This is an unpremeditated extension to "Naming Rights and Naming Rents - A First Survey" which appeared in the December 1982 New Zealand Valuer. When I set out to research naming rents charged for office buildings, it was with multi-storey office buildings in mind. Consequently it was with tall buildings, in Wellington and Auckland, that "A First Survey" was principally concerned.

The data received in the course of that survey included several two-storey buildings scattered about the country. This information was analysed for inclusion in the tables which formed part of the previous paper. But the very small number of these examples and their haphazard dispersion led me to exclude two-storey buildings when it came to framing some conclusions and suggestions for possible naming rent formulae.

Interestingly, I received several requests for guidance in respect of two-storey buildings when it became known that I had been engaged in researching naming rents. These included buildings in Invercargill, Henderson and Whangarei. A naming rent was subsequently agreed in respect of the Invercargill building which adds just that little extra amount of definite information to what was already to hand.

What follows therefore now addresses itself specifically to naming rents for two-storey office buildings. They have characteristics and produce analysis results which are distinct from taller office buildings. It would appear that two-storey buildings merit separate treatment: indeed, the revelation of an apparently active market in naming rights for two-storey office buildings has come as something of a surprise.

The same general remarks and provisos apply to this paper as were noted in "A First Survey". The two papers should really be read together. This paper complements current research into naming rights and naming rents.

Two-storey Buildings Distinguished

If New Zealand has anything approaching a typical office building it might well be the two-storey block which proliferates on the perimeters of the CBDs and in the suburbs of our larger cities and in the centres of our provincial towns and smaller townships.

It comprises either two-storeys of offices, or a first floor of offices with a mixture of uses on the ground floor. These ground floor uses will be of a commercial nature and might sometimes have a shop-like appearance but will seldom consist of general retailing. These buildings are not usually in the best retail locations.

The examples quoted in this paper all have one thing in common: the ground floor (lowest office lfoor) rental rate is either the same as that for the ifrst floor (top office floor), or it is greater, but it is never less than the rental rate for the first floor. This is one of the principal features which distinguish the two-storey office building from the multi-storey office block.

The general practice in modern office towers is for office rents to increase with distance from the ground (we are not concerned here with shop rents). The top office floor will therefore attract the top office rent. With two-storey office buildings, if there is a differential the reverse applies and it is the ground floor office and commercial space which attracts a better rental rate than the first - or top floor.

Readers of "A First Survey" will recall that top floors of tall buildings and top floor rentals were discarded as being inappropriate for use in arriving at naming rents. The reasons for this decision were elaborated. The recommendation was, and still is, that typical floors and typical floor rentals be used. For reasons traversed in the previous paragraph (and also because of the difficulty of identifying a typical floor in a two-storey building, somewhere between the top and bottom floors!) it is recommended that the ground lfoor and ground floor rentals be used to arrive at an appropriate naming rent.

Two-storey Buildings Analysed

Apart from the Invercargill building the basic data may be found in the tables in the previous paper. For reasons which are explained later two buildings* included here are in excess of two storeys-

	Building Identification	1982 Naming Rent $ p.a.	Naming Rent as a % of Ground Floor Gross Rent
Wellington	No. 14	2,450	5.85
	No. 15	1,870	7.12
Christchurch	No. 26	275	.72
Palmerston North	No. 27	2,000	14.29
	No. 28*	1,800	26.32
Hamilton	No. 29*	13,000	7.58
Invercargill	No. 30	2,000	7.27

To. arrive at a conclusion it is proposed to adopt the same general approach as was used in respect of the Wellington and Auckland tall buildings; namely, to examine a progression of weighted percentages for selections of buildings.

1. The two Wellington buildings (Nos. 14 and 15) and the Invercargill building exhibit similar results:
   Total of three naming rents $ 6,320
   Total of three ground floor rents $95,645 = 6.61%
2. Building Nos. 26 and 27 show extremes of low and high (.72% and 14.29%) and are now added in:
   Total of five naming rents $ 8,595
   Total of five ground floor rents $147,848 = 5.81%

In view of the paucity and isolation of the examples available two others will be added in which, though not two-storey buildings, are believed will provide assistance. One (No. 28) is a three-storey building which exhibits the same characteristics as two-storey buildings: the upper lfoor rentals are less than the ground floor rental. The other (No. 29) is a nine-storey building but: the ground floor tenant has the naming rights, the ground floor rental rate is higher than for the upper floors and the ground floor is used mainly for non-retailing:

3. Total of seven naming rents $ 23,395
   Total of 7 ground floor rents $326,288 = 7.17%

Finally, on a hunch, it may prove appropriate to remove building No. 26. After all, a naming rent of $275 p.a. in respect of a building with a total gross rental of $76,464 might be mistaken for a gesture rather than being a genuine naming rent:

4. Total of six naming rents $ 23,120
   Total of six ground floor rents $288,085 = 8.03%

Conclusion

We have the benefit of data from only five two-storey buildings, spread from Palmerston North to Invercargill. These five naming rents have been negotiated at various times during a period from 1973 to 1982. Two additional buildings have been included because they are believed to be worthy of consideration in the present context. Nevertheless, and despite the quantity and quality of precedents available, it is suggested that a sufficient indication has emerged to form the basis for reasonable future naming rents for two-storey buildings throughout New Zealand.

I would be influenced in particular by the only two naming rents which were set in 1982: the Hamilton and Invercargill examples. Both are outside the main centres of Wellington and Auckland. Both are recent rents, the Invercargill one being late 1982. They are very close:

Hamilton	7.58%
Invercargill	7.27%

To recapitulate from "A First Survey" it is suggested that naming rents for multi-storey buildings might be:

- in Wellington, for the taller buildings around *12%* and for the lower buildings around 101%;
- in Auckland, around 8%; based in all these situations on the gross rent for a typical floor in the building.
  To these we now add:
- for two-storey office buildings, anywhere in New Zealand, from 7% to 8% of the ground floor gross rent.

The Valuation of Annual Rentals for Office Partitions, Fittings and Floor Coverings

by Trevor J. Croot A.N.Z.I.V.

Trevor Croot is a public valuer practicing in Duned in with the partnership firm of Croot and Davey. He has been a past contributor to the New Zealand Valuer.

The valuation of annual rentals for office premises is sometimes complicated by the presence of partitions and/or floor coverings which are included in the lease but for which specified conditions of review, or indeed even the original basis on which payment was being made, are not set out in the lease agreement. It is apparent that there is a wide variation in the bases on which annual rentals for partitions, fittings and floor or window coverings are set ranging from payment by the tenant of annual interest only at a fixed rate, without provision for variation, on the original cost over the full term of the lease, to repayment of the full cost plus interest at current rates within the first period of the lease. This lack of uniformity makes the analysis of some rentals very difficult if not impossible and it is quite clear that in some cases landlords are not receiving adequate income to cover their actual costs - relative to partitions, fittings and floor coverings - while in other cases the items are being paid for many times over by the tenant.

In an attempt to arrive at an equitable rental which would provide a fair return to the landlord for each year of the effective life of the fittings and which would also represent a fair annual market rental to the tenant for the use of the ifttings during the term of his tenancy I advocate the use of the rental calculation method as outlined below. The advent and gradual acceptance of the principles of Current Cost Accounting in New Zealand have I believe brought into focus the need for a more uniform approach to the valuation of office partitions, fittings and floor coverings particularly in owner occupied premises where the accurate assessment of annual rentals may be required for a basis for capitalization of estimated net annual income capacity as a primary guide to market value.

The method of assessing values and annual rentals for partitions, fittings and floor coverings I have adopted requires a knowledge of current replacement costs for these items and this information is usually fairly readily available for most applications. From accurate comparable costs the replacement value of the fittings included in the premises can be calculated and then depreciated according to their age, condition and utility. The "double declining balance" method of depreciation produces, I believe, the most realistic result as it deducts depreciation most heavily in the early years of the life of the asset. This method of depreciation is fully described by its title "double declining balance" in that the rate of depreciation is calculated by dividing the estimated effective life of the asset into 100% and doubling that answer to arrive at the annual rate % of depreciation which sum is then deducted from the previously depreciated value of the asset (declining balance) on an annual basis. Having thus arrived at the Present Value of the asset its Annual Rental Value can be determined on the basis outlined below which provides for repayment of part of the capital cost or value, plus interest over the years of each rental review period of the lease. For example if partitions in an office suite have an estimated effective life of 20 years and the rental review periods under the terms of the lease are at intervals of 3 years then 3/20 = 15% of the Present Value of the partitions divided by 3 (three years) should be paid annually in part payment of the capital sum, *plus* an annual interest payment at the current bank borrowing rate on the Present Value of the partitions.

A working example is set out below for greater clarification:

Example

An office suite which contains a net lettable area 300m2 is fully partitioned with good quality demountable partitions and is located on the third lfoor of an eight years old building. The suite is leased for a period of twelve years with reviews of rental every four years. The annual rental for the third period of four years is now due for review and the lease states that partitions are to be included in the annual rental assessment. An analysis of current costs reveals that comparable partitioning is costing $70.70 per square metre of net lettable area to erect. The effective life of the partitions is estimated to be 20 years and the current bank borrowing rate is established to be 18% per annum.

A. Annual Capital Repayment

Replacement Cost of Partitions
300m2 @ $70.70 per m2 = $21,210

Less Depreciation over period of eight years at the rate of
20 years life
100% x 2 = 10% per annum

Year 1	2,121
Declining Balance	19,089
Year 2	1,908
	17,181
Year 3	1,718
	15,463
Year 4	*1,546*
	13,917
Year 5	1,391
	12,526
Year 6	1,252
	11,274
Year 7	1,127
	10,147
Year 8	1,014
Present Value	$9,133

X

Capital Repayment
4 years rental review period) 20%

20 years effective life $1,826

Annual Capital Repayment
$1826
4 years = $456

B. Annual Interest Payment

Present Value $9,133 @ 18% per annum = 1,644

Total Annual Rental for Partitions $2,100

The annual rental for the partitions as assessed above is equivalent to $7.00 per square metre of net lettable area. It will be seen from the operation of the method that the annual rental is automatically adjusted for the length of the rental review period - a longer period will therefore result in a proportionately higher rental, which reflects the usual market trend.

For comparative purposes I have set out below an assessment of the annual rental as it would relate to the same example if the partitions were brand new and the premises were being let for the ifrst period of four years.

A. Annual Capital Repayment

Replacement Cost of Partitions
300m2 @ $70.70 per m^2 = $21,210

Depreciation	Nil
Present Value	$21,210

X

Capital Repayment
4 years rental review period 20%

20 years effective life $4,242

Annual Capital Repayment
$4242
= $1,060
4 years

B. Annual Interest Payment

Present Value $21,210 @ 18% per annum = 3,817

Total Annual Rental for Partitions $4,877

In these circumstances the annual rental is assessed at the rate of $16.25 per square metre of net lettable area and the total rental is equivalent to an annual interest rate of 23% on the estimated replacement or installation cost of the partitions. This is probably less than the rate of interest a tenant would be required to pay if he had to have the partitions installed at his cost and financed through a finance company. And then in addition the tenant would also have to repay the total capital sum to the lender within a relatively short period. From this analysis it may appear that all the advantages are with the tenant but such is not the case. Using the method of assessment I am advocating the landlord will receive a market annual rate of interest plus continuing proportionate capital repayment over the whole term of the effective life of the partitions. In addition and perhaps of greater significance is the fact that the annual rental being received for the partitions when capitalized as part of the total annual income from the property will probably represent a higher proportion of the total value of the property than their estimated present value.

"Modern Valuation Methods CF and *1W*

Paper by A. G. Stewart, B.Com., Dip.U.V., A.N.Z.I.V., A.C.I., Arb.

Mr Arthur Stewart is a public Practising Valuer and Partner of Darroch Simpson & Co in their Wellington Office.

Fellow Valuers, Ladies and Gentlemen,

Gibran in "The Prophet" wrote:

> "Then said a teacher, Speak to us of Teaching.
>
> And he said:
>
> No man can reveal to you aught but that which already lies half asleep in the dawning of your knowledge."

If I can stir a little of that knowledge - which no doubt all of you have but which to date you may not have used to full potential - I will consider the afternoon has been a success.

It is not so long since I was asked to comment on a paper given by Rod Jeffries entitled "Income Approach to Value", wherein he proposed the use of Discounted Cash Flow techniques as a method of valuation. At that time, the main thrust of my comment was that I considered the market had not reached the degree of sophistication necessary to endorse such a method as a valuation technique and that to adopt it as such without reference to traditional practice would be unsound. While I know that certain sectors of the property market have, through experience and research, moved toward the consideration of factors inherent in discounted cash flow methods of valuation, I preface this paper by stating that such techniques referred to later are not, in most cases, to be considered as substitutes for the traditional methods - but rather as ancilliary aids to be used in conjunction with them.

They are possibly of more interest to those of us here today who value

1. unique properties
2. investment properties or
3. have clients who sometimes require more than just a figure at the bottom of the page.

I believe discounted cash flow techniques are particularly useful to the valuer who is required to give investment advice, a role that is becoming more common each day.

It might be interesting at this point to digress slightly and consider a comment passed by a senior investment officer recently about valuers.

> "I remember well the first time I received a certified valuation from a valuer, in respect of a substantial property. The certificate simply stated that the property was valued at so many dollars. The amount certified seemed to me to be too high, so I enquired as to the basis of the figure and was told by the valuer that he had given his professional assessment and was not prepared to discuss it "

The investment officer continued.

> "There may still be some clients who would accept such attitudes but I hope the days have gone when valuers would expect to get away with them"

It has been my experience that when dealing with informed property people you simply cannot get away with it. Indeed, one of our clients now expects as an Appendix to an already detailed report, details of all sales relied upon, the analysis thereof, their application to the subject property and a conclusion as to why we consider the property is worth "X" dollars.

You might pause and consider how you would respond initially to such an instruction.

I have introduced these comments to illustrate that, as valuers, we are obliged to move with the times and must learn to expect and to respond to greater scrutiny by our clients as they themselves become more sophisticated in their approach to real estate.

Having now perhaps accepted that as valuers we will be required to answer the question "Why" more often, we should also look critically at the methods currently used to arrive at our valuations and ask whether they alone can provide satisfactory answers to the questions.

I would like to briefly relate how our firm Darroch Simpson and Co. became involved in the more detailed analysis techniques that I intend to describe later.

Some three years ago one of our major clients for whom we act as consultant in the purchase of investment properties quite coolly asked if we would advise them as to the overall redemption yield of their portfolio, and how it compared with other forms of investments such as gilt edged stock. We equally as coolly responded by saying "Certainly", and then proceeded to determine what they were talking about. The particular fund involved had strong links in the UK and accordingly we sought advice on these strange matters from Richard Ellis, Melbourne, with whom we had an association and who were in turn linked to the UK. From discussion with them we discovered that they, themselves, had only become involved in such techniques a short while before. Having solved their immediate problems they suggested that the most expeditious way in which to pass on this information was for me to fly to Melbourne next time they were involved in such an exercise and work with them on the project. I subsequently received such a call and within 24 hours I was working alongside their people in Melbourne determining the likely redemption yield on a 24 storey office building in the central city. From this crash course I was able to gain some sense from the techniques and subsequently prepared a report for our Wellington based client that surprised even us.

It will be seen, therefore, that our introduction to portfolio analysis techniques was not exactly one of choice, but rather of necessity, in order to remain one step in front of our clients' needs and indeed in step with a property market which is demanding more than the traditional gut feeling.

Portfolio Analysis

The extent to which a property and its performance can be analysed is almost endless, encompassing:

Use - That is categorizing properties into industrial, retail, commercial, residential, etc., in order to determine what groups of properties have shown the best growth and attempt to ascertain "why".

By Locality - This involves the analysis of properties held in each location, (for example, Auckland, Wellington, Christchurch or in provincial cities,) to establish whether certain locations have shown better growth.

By Bands of Value - This is to compare the performance of a property in relation to the funds invested. For example, does a conventional medium size industrial property outperform a major industrial complex perhaps purchased on a lease back agreement?

These are but the main categories into which property can be put to allow the following techniques to be used.

One of the methods adopted for making the necessary comparisons between the various categories mentioned above, and - more importantly - one that enables comparisons to be made with other forms of investment, is the Redemption Yield.

Historic Redemption Yield

A Redemption Yield is a simple cash flow exercise that has regard to the concept of time and money. Because of the factual nature bf past performance, importance is placed upon this aspect of fund analysis. Assessments in this area are based upon historical rates of rental and capital growth since purchase, both in respect of individual properties, sectors of properties and the portfolio as a whole. The yield is expressed as an internal rate of return (IRR) which may be defined as the present value rate at compound interest of a series of discounted annual cash flows added to the discounted gains or losses from a presumed resale at the end of a projection period. A self-amortizing mortgage loan provides an example of how this works. When a lender makes a loan, he is, in effect, making an investment. As the borrower repays the loan, the lender is receiving a return on and return of his investment; this is usually labelled the debt service or constant factor. The interest rate becomes the IRR. An equity investor makes a down payment, receives a cash flow, (positive or negative), over the investment period; he finally obtains the benefits of resale, and from that an internal rate of return can be calculated. A simple example will illustrate:

IRR		PROOF			
Time	Cash Flow	Time	Cash Flow	PV of $1 Qa 10%	Present Value
0	-100,000				
1	10,000	1	$10,000	.909091	$9,090.91
2	10,000	2	10,000	.826446	8,264.46
3	10,000	3	10,000	.751315	7,513.15
4	10,000	4	10,000	.683013	6,830.13
5	110,000	5	110,000	.620921	68,301.35
					$110,000.00

(Calculation on an HP-37E; IRR = 10%)

Note that the IRR study starts at time zero compared to year one for the discounted cash lfow study. The investment is made at time zero, but it is assumed the first cash flow does not occur until the end of the first year. This assumption is made for ease of calculation only. The investment is shown to be negative because, when all the positive cash flows are discounted at the proper internal rate of return, the sum of present value will produce a zero answer, thereby proving that the present value of cash flows and the investment are perfectly balanced.

Determining the IRR frequently involved trial and error. Usually, the trial discount rate produces a present value other than zero. By using different trial rates and bracketing zero the proper rate will be achieved. Fortunately, financial calculators will do this automatically. The calculation of redemption yields is done primarily to provide a basis for comparison between various types of investment

A second example illustrates a simplified cash lfow in respect of a property investment. Here the basic chart details, down the left hand side, the item causing the cash flow and whether it is an inflow or an outflow. The columns across the page detail the period in which that flow occurred. It will be noted that, whilst the inter-

mediate column generally details simply rental and outgoings, the first column details the purchase price and associated purchase cost, and the final column includes, in addition to income, the anticipated sale price and associated costs incurred, as evidenced by a valuation completed at that date. A deduction of the outflows from the inflows provides the net cash flow. This is the actual income earned by the property having regard to rent reviews, increased expenditure and capital growth. At this point, the net cash flows would be entered into a programmable calculator or a computer that would automatically produce the internal rate of return, or Redemption Yield. The balance of this example however illustrates the long hand trial and error method of calculating the Redemption Yield, in the absence of scientific aids.

Our offices now carry out this form of analysis for a number of clients for whom we act. Of course the usefulness of such analysis is dependent upon the accuracy of the information input, and therefore comprehensive records and a carefully considered valuation, completed at the date of analysis, are essential ingredients. Further refinements of this type of analysis will be more easily undertaken with the introduction of computer terminals wherein rentals and other inputs and outgoings can be entered as they are received -- rather than annually as is presently the case using calculators or long hand methods.

It is only after such analysis that rational decisions regarding the property can be made. When completed on an ongoing basis, it serves to highlight properties where performance is failing or instances where performance has not met purchase expectations. The fund managers can then immediately try to ascertain "why" and take the appropriate remedial action. This may well be to sell the property or perhaps renovate it in order to improve its earning capacity. It might also be decided to move out of certain classes of property in order to acquire properties in another class where prospects are brighter. In the Wellington market, for instance, this move may be from retail properties to accommodation properties.

In addition, it also enables the fund manager to compare the performance of funds invested in property against funds invested in perhaps Government securities, or equity shares.

Future Redemption Yields

So much for the past, what now about the valuer as an investment adviser? The following is another quote that I considered an interesting commentary on valuations.

> "Valuers tend to look backwards at what has already happened whereas the public most of the time wants guidance for the present and the future."

Consider the dilemma of the investment officer who is told by his principals that he can only buy property at prices set by registered valuers. He would soon find that he was unable to purchase anything on a rising market but that excessive prices could be paid on a falling market.

The technique of future redemption yields is sometimes criticised by valuers as being a dangerous crystal ball exercise based on supposition. Its calculation is similar to that of the Historic Redemption Yield - although in this case the calculation looks forward not backwards and as such it is necessary to make certain predictions regarding income appreciation, investment yield trends and escalations in outgoings.

When a property is purchased as an investment, it is purchased for its present and future income, and for capital growth. Occasionally other factors, such as prestige, enter into the decision; however for the rational investors, such factors should not override decisions based on sound appraisal. Forecasting the future is always more contentious and the production of the Future Redemption Yield is no exception. After a certain point, you will not be certain of actual cash flows and the simulation of rental growth gives rise to speculation and criticism. The question that must be asked however is: "What is one buying property for, if it is not in anticipation of future growth?"

It would therefore seem prudent to at least make some calculated estimates, based on available information regarding trends, than to make no estimates at all. It is important to be aware of the tolerances within which one is working.

Predictions as to the future rental growth and capital value will inevitably be subjective. I nevertheless feel the exercise useful in quantifying the relative growth expected from an investment and also assessing the impact of varying rent review patterns and rental growth expectations. In the course of time, it will be possible to compare actual performance with original expectations and in the long term this will, in itself, provide a measure of those predictions.

Property investment is an exchange of capital today for benefit tomorrow. These future benefits may be in the form of income or capital growth or a combination of both. Accordingly, the valuer must have some regard for the future. When an investor purchases future rights, he has accepted a risk. In respect of a property investment these risks may be:

(i) that rents expected in the future may not be realised, that is, the rental growth will be less than anticipated;

(ii) that increases in rent will not occur at the time expected, for example, the property may become vacant and take some time to relet;

(iii) that the principal sum involved may not be readily realisable;

(iv) that money market yields may move against the property - an increase in these yields may result in a fall in the level of value;

(v) that other property investments might outperform the subject property;

(vi) that the long term property investment may he out performed by short term investments.

It has often been the approach of valuers to reflect this greater risk in their valuations by adopting a higher investment return. Such an adjustment is inevitably arbitrary and by adding

to the discount rate, one is implying that the risk itself grows over time. For example, a property producing an income of $100 per annum might be valued in perpetuity at 10% giving a total present value of $1,000. Assuming a similar property is to be valued but certain risks suggest an increase in the rate to 20% - the present worth is $500. Initially this might seem perfectly acceptable but any present value calculation of an income stream can be considered to be the sum of the present values of each year's income.

This means that the present value of $1 after one year at 10% and 20% respectively, is $90.91 and $83.33 respectively, a reduction of 8.34%. But after 40 years, the $100 becomes $2.21 and 7 cents respectively, a reduction of 96.83%. By the use of an inital capitalisation rate in the comparison between the investments, it is being inferred that the risk attached to each $100 is increasing at an increasing rate - whereas it is more likely to be a constant rate.

Consider someone who is assessing the merits of two individual investment properties. Both are similar properties, let at market rentals on long term leases. Property A has two yearly rent reviews and property B has five yearly rent reviews. Property A can be purchased at 8.5%, a rate not yet established in the market, and property B at a market yield of 9.25%. Which one should he buy?

The question that must be asked is whether the growth potential of each property is similar and capable of producing over a given period of time, a Redemption Yield of say 15%, being the criterion internal rate of return required by the investor. This can be done by the use of the Future Redemption Yield.

It would of course involve making estimates of the future rental growth, but, as previously mentioned, this is precisely why the investor is contemplating purchasing in the first place. He might look at the historical data that suggests industrial rentals having increased at approximately 8% per annum. This can be imputed into a Redemption Yield calculation over say a five to seven year period. If the answer obtained is satisfactory, the cash flow might then be tested for sensitivity; by imputing different income growth rates, for example, what effect on the internal rate of return does a 5% growth rate have? It is normal - in calculating the Future Redemption Yield to assume that the property will be sold at the end of the period at a terminal value arrived at by capitalising the future rental at the purchase yield (unless of course there is reason to think otherwise).

The use of a projection period is particularly applicable to multiple tenancies where the lease-termination dates vary significantly, as in office buildings, shopping centres, and light industrial complexes. Escalation terms in office buildings frequently vary considerably, not only because of refinements in these provisions over time but also because of market demands at a given moment. For example, in a saturated market, the tenant will demand and frequently obtain a ceiling as to the extent of his contribution towards operating expenses. Where there is high demand the owner will require and receive full tax and operating escalation reimbursement and sometimes even more. Where there are many tenants, lease variances almost mandate the use of computer analysis.

The difficulty of forecasting trends on percentage rents in shopping centres is formidable. Nevertheless, they must be estimated because there is no other effective way of valuing the property. It is frequently impossible to assemble sufficient comparable sales data to justify the use of a capitalisation rate alone because of differences in location, market competition, and income levels of the inhabitants in the trading area. IRR methodology must be relied on, supported by knowledge of other interest rates and general money market rates.

A very basic question is the length of the projection period selected. At the end of the projection period, the following year's cash flow is assumed to be stabilised, and capitalisation rate is then applied to derive a market value on the presumed resale. That lump sum or capital value is then discounted to the present day.

How long should the projection period be? A suitable period for valuation purposes is not necessarily suitable for internal study purposes. For valuation purposes, there is a consensus that generally no more than ten years should be used. An obvious exception would be prime property with 11 years remaining on an old, low, flat-rent lease of the entire building.

For development properties, the usual ten-year projection period may be extended by the time required for development. New properties tend to be slow in achieving investment maturity; they frequently take ten years after completion to achieve their occupancy and rental level potentials.

I recently valued a new supermarket complex and accordingly collected as much sales and rental information as possible. Because of the varying turnover provisions in the various lease documents, it was not clearly apparent what capitalisation rate should be adopted – the evidence however suggested that it should be between 9 and 9.5%. I then collected additional information regarding sales turnover figures in respect of similar but established supermarkets in order to ascertain what the growth in these ifgures had been; then by projecting the likely turnover figures, and their subsequent effect on the rental income of the subject property, I was able to satisfy myself that the rental growth potential was sufficient to justify a return of 9.25%. The calculation indicated that in order to justify a yield of 9%, the growth in turnover, and thus rent, would have to be greater than the evidence suggested. Although the task took longer, I felt happier that I at least had a basis for adopting 9.25% rather than just plucking the average,

Other Uses of Discounted Cash Flow Techniques

Of recent time I have had the opportunity of using DCF techniques in determining the comparable rate which should be applied to land value to determine a ground rent on a perpetual

lease reviewed at 14 year intervals. As a basis I accepted that the rate for similar leases reviewed at 21. year intervals was 7.25%. Data over a long period of time was available indicating past growth patterns in land values in both locations - and, given the status quo for matters affecting land values into the future, an estimate of growth patterns was made. In this respect it is interesting to note that a variation in values into the future becomes less and less important as the effect of a discount on a discount progresses. It is the predictions within the first 10 years which are of paramount importance. Having set up the model it was possible, by the use of DCF to equate the net present values over a period of 42 years, i.e. 2 x 21 years v. 3 x 14 years at a rate of 6.79% for 14 years against 7.25% for 21 years. For various reasons the matter was finally settled by compromise at 7%, the three valuers acting for the other party having adopted 7%, 7.125% and 7.25% respectively.

Again, I felt that the approach I had used gave a logical approach to the determination of an appropriate rate rather than adopting the attitude "we know that the rental rate for a 14 year term should be less than for a 21 year term and (with one exception) we adopt 7% or 6.8% or 7.125%".

Another more unusual valuation where I adopted these techniques as a determinant of value was in the case of a sub-lease of a major shopping mall. The lease was for a period of 40 years with approximately 30 years still to run and with the sub-lessee paying to the head lessees a percentage of the sub sub-lessees' rentals collected. The sub-lessee was responsible for the payment of all outgoings and, as well as taking a percentage rental, the head lessees were entitled to a proportion of the net profit. The lease was thus of a terminating nature with no right of compensation, and anyone purchasing the sub-lease would not be purchasing realty but a cash flow over the next 30 years.

At the time the valuation was carried out, other complications (such as Saturday-shopping) had just been introduced, and the general economy was subject to high inflation. After making predictions as to the growth of income and outgoings over recent years, and by providing a sinking fund to replace the capital, a series of analyses were carried out to arrive at a figure - being the value of the lease at an internal rate of return considered acceptable to the market, and based on rates of return required by the money market rather than the real estate market. With a lack of directly comparable evidence, I cannot think of any other method of approach which would arrive at a logical conclusion.

Of course this type of analysis is subjective. However, it is, in my opinion, imperative to give some consideration to the future, and this is implicit when a valuer capitalises a stream of income. I feel it also provides a basis for answering the question, "Why?" and may also stimulate valuers to be mindful of other factors that may not have become apparent in applying the normal habitual valuation method of multiplying a net income by an initial return.

It is probably fair to say that most valuers, as I did, will initially have an adverse reaction to what I have just said and would adopt the argument that we, as valuers, interpret the market. Perhaps I could pose the problem that you have just received instructions to value the Bank of New Zealand, Head Office Building in Wellington. It would not take long for you to establish that the search for comparable evidence to provide the appropriate investment yield would be a futile exercise. How then do you value such a property? It is my belief that in the absence of direct comparable evidence, the property must be valued at a price at which ownership is justified. Unfortunately, the more conventional methods of valuation do not as a rule provide sufficient information upon which to make this decision, and therefore other approaches must be adopted.

I know for a fact that certain investors are adopting these methods to assist them in their decision making processes and, since they are being used in the market place, we as valuers are obliged to consider their merits.

In conclusion, perhaps a quotation from Robert Chartman in "Sex Manners for Advanced Lovers" which I misquote with apologies, may summarise this paper.

> "What we are trying to aim at is to put forward suggestions of techniques which may not have occurred to some who have already transformed themselves into highly proifcient seasoned valuers, in the hope that they will be encouraged to try them out to discover for themselves whether or not they are of any help to them and their partners or their clients."

EXAMPLE 2

CASH FLOW	0	6/71	6/72	6/73	6/74	6/75	6/76
Income							
Rental		34,788	34,788	34,788	65,000	65,000	91,000
Recoverables							
Valuation 6/9/76*							875,000
Income		34,788	34,788	34,788	65,000	65,000	966,000
Expenditure							
A. Purchase Price	340,000						
B. Purchase Costs	11,567						
Outgoing		20,000	20,000	20,000	15,000	15,000	21,000
Selling Costs							19,297
Outflow	351,567	20,000	20,000	20,000	15,000	15,000	40,297
Net Cash Flow	(351,567)	14,788	14,788	14,788	50,000	50,000	925,703
Discount Factor 20%.....							
Present Value at 20%.....	(351,567)	12,323	10,269	8,557	24,112	20,093	310,016
Discount Factor 25%.....							
Present Value at 25%	(351,567)	11,830	9,464	7,571	20,480	16,384	242,667

Discount rate of 20% gives positive present value of $33,806.
Discount rate of 25% gives negative present value of $43,169.
At what rate does the present value = zero.

$$20 + \frac{(5 \times 33{,}806)}{33{,}806 + 43{,}169} = 20 + 2.196$$

Net Redemption yield = 22.2%

COMMENT ON DCF ANALYSIS

By W. H. Cairns, Manager, Property Investments, A.M.P. Society, Sydney, N.S.W.

Arthur Stewart's paper provides a good introduction to DCF and IRR techniques and the uses he has found for them. He has given specific examples to support his text and obviously uses the techniques in his own practice. No doubt Arthur's investor clients have encouraged him to do so.

My comments are directed more to the broader issues and philosophy of DCF analysis.

Not all observers are enthusiastic about DCF analysis or its antithesis, internal rates of return. Let me quote from an American Paper entitled "The Retreat From Real Estate"

> "Julien Studley, of the Real Estate Consulting firm that bears his name says that the institutionalisation of the real estate market had led to efforts to formalise investment decisions - in ways familiar to securities analysists - that don't really work in the property market."

As a case in point, he cites managements insistence on using tools such as internal rate of return as a basis for their investments. "It looks scientific and professional," says Studley, "but is neither." Internal rates of return analysis requires projections not only of inflation and interest rates but also of re-sale values and rent structures. It has made some institutions willing to use forecasts of what will happen 10-15 years down the road to justify their current real estate commitments. What is important, says Studley, is what you are making on the building today, cash on cash. Internal rate of return, he scoffs, is like smoking grass, and today institutions can make more money up front in real estate than they have been able to do at any time in the recent past."

There is nothing new about the technique which has been used by security and resource analysists for reaching business decisions for many years. In property investments its main uses are for analysis of portfolio performance (which often leads to decisions to cull) and to examine alternative investment opportunities whether they be different types of investment, e.g. real estate versus ordinary shares or whether they be different categories within the one class of investment, e.g. an office building compared with a shopping centre. As Arthur pointed out, more recently, and I think this stems mainly from the mid-70's following the Greenhill Annual Property Report in the U.K., DCF analysis has been used by valuers in assisting them to reach meaningful conclusions as to the value of a particular piece of real estate.

As I mentioned in my own paper an equity investor assesses prospects for changes (hopefully growth but not always) in both income and capital value. His main use of DCF analysis is to test the validity of his assumptions and to assess the sensitivity of those assumptions to varying degrees of change. For example, most prudent investors would need to know the effect on internal rate of return of a change in assumptions regarding the rate of rental growth. DCF analysis necessarily directs attention to those factors which have a significant impact on a property's likely investment performance; assumptions must be made regarding prospective gross rental income, outgoings, vacancies, and so on, all of which affect net income, i.e. the cash flow. In addition an assumption must be made as to the redemption value of the asset. The investor's final decision (and therefore his assumptions) is crystalled by a simple rate of return (the capitalisation rate) which can be deduced from market investigation by an experienced valuer. What the valuer is unlikely to know or to deduce is the assumptions made by the investor's team in their analysis of the particular property. In other words, the capitalisation rate embraces the expectations of the investor.

It is most important that a valuer having analysed market evidence (including development decisions) can impute his own estimates of future net cash flows to test the validity of a capitalisation rate for a particular property. Properly used a DCF analysis should focus attention on the prospects of the future market value of the property, hopefully an improving one but maybe a falling or levelling of value. The basic technique revolves around looking forward (at prospects) in the medium term, rather than referring solely to history for evidence.

I am sure it is obvious to all of you that the mathematical technique on DCF can be readily mastered. However, it is the ability to make sound logical assumptions which is much more difficult and which is critical to successful use of DCF.

The term over which a DCF analysis is made is very much the choice of the analyst (or valuer). For real estate purposes a 10 year term is widely used - some will argue that long term investments should be analysed over a longer period; on the other hand, I find making reasonable assumptions for 10 years difficult and uncertain. Beyond 10 years one must be dealing with even less certainty as to assumptions. In addition, the rapid fall in discounted value beyond 10 years may have little impact on the final analysis.

DCF analysis has valuable uses to the practicing valuer but it is unlikely that the technique is much used, nor justified, in the valuation of small properties. It is not the panacea to valuation problems and investment decisions but it is an extremely useful tool.

I wish to congratulate Arthur Stewart on the presentation and content of this paper.

OVERSEAS EVENTS

The following is a brief list of known conferences or events that may be of interest to New Zealand valuers planning overseas travel. Some further details on specific events may be obtainable from the General Secretary's office or by reference to overseas appraisal in other journals.

F.I.G. Congress - being held at Sofia, Bulgaria - 19-28 June 1983.

12th Pan Pacific Congress - Kuala Lumpur, Malaysia - between 21-26 August 1983.

FIABCI Congress - Jakarta, Indonesia - 29 May - 4 June 1983.

Appraisal Institute of Canada - National Conference - 2-4 June 1983 at Edmonton.

Second South East Asian Survey Congress - being held at Hong Kong 5-9 December 1983.

International Institute of Valuers - World Congress - Copenhagen, Denmark - 11-15 May 1983.

CASLE Seminar in Harare - September 1983.

SREA Conference - Hawaii - June 1983.

On Interpreting. the Internal Rate of Return on a Real Estate Investment

By Donald J. Valachi.

Donald J. Valachi received his doctorate in real estate and urban planning from the University of Southern California where he how serves as Adjunct Professor of Real Estate. He is a consultant with H. Bruce Hanes, Inc., Woodland Hills, California and a Certified Public Accountant.

The internal rate of return (IRR) appears to be gaining wider acceptance as a measure of return on real estate investments, particularly among institutional investors.' Notwithstanding the problems connected with its application,2 the IRR overcomes many of the shortcomings of the more conventional measures of real estate return.3 In this article we will first illustrate the computational methodology employed in calculating the IRR on a proposed real estate investment. Then we shall examine what we mean by an investments IRR defined simply as the interest rate that will equate the present value of the expected cash inflows from an investment with the initial cash outlay, thus making the "net present value" (i.e., the present value of the cash inflows minus the initial cash outlay) equal to zero.

A Simplified Investment Proposal

In order to illustrate the calculation of the IRR defined above, we will assume that an individual investor (a cash basis taxpayer filing a joint return) is considering the purchase of a used apartment building that is furnished. The total purchase price is $500,000, requiring a down payment of $100,000. In addition, the following assumptions will be made:

1. The purchase is to be financed with a first mortgage loan of $400,000 at 91 percent interest for 30 years, amortized monthly. The investor will be required to pay 3 loan points (or $12,000) to obtain the loan;
2. Legal fees, escrow fees, title fees, and other miscellaneous costs directly related to the-acquisition of the property amount to $6,000. These costs are not tax deductible when paid. They must be capitalized and included in the basis of the property. The portion of the acquisition costs allocated to the real and personal property can be deducted over the depreciation period used. The portion allocated to land will, of course, not be depreciable;
3. The total purchase price of the property of $506,000 (including capitalized acquisition costs of $6,000) is allocated as follows: $101,200 to land, $101,200 to personal property, and $303,600 to the building structure. The allocation was based on an "arm's length" agreement between the buyer and the seller.
4. The building structure, with a depreciable basis of $303,600, has an estimated useful life of 25 years, and will be depreciated using the 125 percent declining-balance method. Personal property, with a depreciable basis of $101,200, has an estimated useful life of 6 years and will be depreciated using the 150 percent declining-balance method;
5. Estimated scheduled gross income for the ifrst year is $85,000, and it is anticipated that it will increase 5 percent per year. Vacancy and collection losses are estimated to be 5 percent of scheduled gross income. Operating expenses are projected at 40 percent of the effective gross income;
6. The investor will sell the property after 5 years. It is assumed that the property will appreciate at 5 percent per year (compounded);
7. The investor's marginal effective tax rate for ordinary income will be 50 percent over the 5 year period of ownership. Capital gains, upon disposition, will be taxed at 20 percent (i.e., 40 percent of the investor's marginal rate of 50 percent). For simplicity, the minimum tax on preference items has been ignored.
8. Selling costs are estimated at 7 percent of the projected sale price. The prepayment penalty on the first trust deed loan, 5 years hence, is expected to be 3 percent of the amount by which the sum of the prepayment exceeds 20 percent of the original principal amount of the loan;

1 Robert J. Wiley, "Real Estate Investment Analysis: An Empirical Study", The Appraisal Journal, October, 1976, pp. 586-592.

2 See Stephen D. Messner and M. Chapman Findlay, III., "Real Estate Investment Analysis: IRR Versus FMRR", The Real Estate Appraiser, July-August, 1975, pp. 5-20.

3 For a discussion of the conventional methods of measuring real estate return, see Stephen E. Roulac, Truth in Real Estate Reporting", Real Estate Review, Spring, 1973, pp. 90-95.

9. It is expected that the purchase transaction will, close on January 1 of the current year, and that the sale transaction will close on December 31, 5 years hence;
10. By convention, the periodic cash flows are assumed to be received at the end of the year.

Preparation of Appropriate Schedules

The calculation of the IRR requires that we consider costs and benefits over the full "investment cycle", i.e., acquisition, operations, and termination. Given the assumptions of our hypothetical investment proposal, we can prepare the appropriate schedules for each phase of the cycle.

Acquisition

The initial cash outlay is calculated in Table 1. It includes the down payment of $100,000, payments amounting to $6,000 for legal fees, escrow fees, etc., and the $12,000 payment for loan points. None of these payments are "soft-dollar" costs, i.e., none are immediately tax deductible.

Operations

Before annual cash flows from operations can be projected, it is necessary to prepare a loan points amortization schedule, a loan amortization schedule for the first mortgage loan, and depreciation schedules for both personal and real property.

The amortization schedule for loan points is presented in Table 2.

The loan amortization schedule for the first mortgage loan is presented in Table 3. Although payments are made monthly on the loan, by convention they are shown as annual payments.

The depreciation schedules for the personal property and the building are presented in Table 4 and Table 5, respectively.

TABLE 1

Initial Cash Outlay

	Cash Payments
Down Payment	$100,000
Legal Fees, Escrow Fees, etc.	6,000
Loan Points	12,000
Initial Outlay	$118,000

TABLE 2

Loan Points Amortization Schedule

Year	Amortization a Deduction	Unamortized Loan Points
0	$400	$12,000
1	400	11,600
2	400	11,200
3	400	10,800
4	400	10,400
5	400	10,000

a The Internal Revenue Code requires that loan points be deducted ratably over the term of the loan (Internal Revenue Code, Section 461(g)). Hence, $400 ($12,000/30 years) will be deducted annually. Upon sale of the property and the payment of the unpaid principal balance of the loan at the end of the fifth year, the entire unamortized portion of loan points ($10,000) will be deducted.

TABLE 3

Loan Amortization Schedule

Year	Annual Payment	Interest Expense	Principal Payment	Unpaid Principal Balance
0				$400,000
1	$40,361	$37,894	$2,467	397,533
2	40,361	37,650	2,711	394,822
3	40,361	37,380	2,981	391,841
4	40,361	37,085	3,276	388,565
5	40,361	36,759	3,602	384,963

TABLE 4

Depreciation Schedule for Personal Property

Year	Depreciation Expense	Undepreciated Balance
0		$101,200
1	$28,300a	72,900
2	18,225	54,675
3	13,668	41,007
4	13,669b	27,338
5	13,669	13,669

a In addition to regular depreciation, the investor can elect an additional deduction for depreciation ("bonus" depreciation) in the first year of 20 percent of the cost of tangible personal property which has a useful life of at least 6 years. On a joint return the 20 percent is applied to property costing up to $20,000 (Internal Revenue Code, Section 179). The depreciation deduction for the first year was calculated as follows:

1. "Bonus" Depreciation (20% x $20,000)		$4,000
2. Regular Depreciation:		
-Depreciable Basis	$101,200	
-Less: "Bonus" Depreciation	(4,000)	
-Balance Subject to Regular Depreciation	97,200	
150% X Straight-Line Rate of 16.7%	X.25	24,300
Depreciation Expense for Year 1		$28,300

b Switched to the straight-line method of depreciation at the beginning of year 4, since straight-line depreciation (assuming zero salvage value) on the $41,007 undepreciated balance exceeds 150% declining balance in year 4 and thereafter (internal Revenue Code, Section 167(e)(2)).

TABLE 5

Depreciation Schedule for Building Structure

Year	Depreciation Expense	Undepreciated Balance
0		$303,600
1	$15,180	288,420
2	14,421	273,999
3	13,700	260,299
4	13,015	247,284
5	12,364	234,920

The projected annual cash flows generated by the property during the 5-year holding period are calculated in Table 6. While the calculations are, for the most part self-explanatory, a brief explanation is in order regarding the tax effect. When taxable income is positive, the tax effect is negative, i.e., there is a tax due. When the property shows negative taxable income, i.e., a tax loss, the loss provides the investor with tax benefits from "tax shelter;" thus, the tax effect is positive. Tax shelter benefits occur when the property produces tax losses which may be utilized to offset the investor's taxable income from other sources. Note that the property shows a tax loss for each year of the 5-year holding period. The tax savings produced by the losses are approximated by applying the investor's marginal effective tax rate of 50 percent to the amount of the losses. As a result of the tax shelter, the investor pays fewer dollars for income taxes than otherwise and increases his overall cash flows from all income sources by the amount of the tax savings. This assumes, of course, that the investor has taxable income from other sources in order to utilize the tax losses generated by the property.

Termination

The assumption was made that the investment will be terminated at the end of the fifth year. Given a 5 percent annual appreciation rate, the property will be sold for approximately $638,000. The cash proceeds from the sale are calculated in Table 7.

Internal Rate of Return Calculation

We now turn our attention to calculating the expected rate of return on the investment. Recall, we defined the IRR as the interest rate that equates the present value of the expected cash inflows to the initial cash outlay. In the present case, we are seeking an interest rate that would make the present value of the annual cash flows, plus the cash proceeds from the sales, equal to the initial cash outlay of $118,000.

TABLE 6

Schedule of Projected Annual Cash Flows

	Year 1	2	3	4	5
Scheduled Gross Income	$85,000	$89,250	$93,713	$98,398	$103,318
Less: Vacancy and Collection Losses	(4,250)	(4,463)	(4,686)	(4,920)	(5,166)
Effective Gross Income	80,750	84,787	89,027	93,478	98,152
Less: Operating Expenses	(32,300)	(33,915)	(35,611)	(37,391)	(39,261)
Net Operating Income	48,450	50,872	53,416	56,087	58,891
Less: Amortization of Loan Points	(400)	(400)	(400)	(400)	(400)
Interest Expense	(37,894)	(37,650)	(37,380)	(37,085)	(36,759)
Depreciation Expense					
- Personal Property	(28,300)	(18,225)	(13,668)	(13,669)	(13,669)
- Real Property	(15,180)	(14,421)	(13,700)	(13,015)	(12,364)
Taxable Income (Loss)	(33,324)	(19,824)	(11,732)	(8,082)	(4,301)
Net Operating Income (from above)	48,450	50,872	53,416	56,087	58,891
Less: Total Loan Payment	(40,361)	(40,361)	(40,361)	(40,361)	(40,361)
Cash Flow Before Tax	8,089	10,511	13,055	15,726	18,530
Tax Effect [- 50% X Taxable Income (Loss)]	16,662	9,912	5,866	4,041	2,150
Cash Flow After Tax	$24,751	$20,423	$18,921	$19,767	$20,680

TABLE 7

Cash Proceeds from Sale

	Total	Building	Personal Property	land
A. Calculation of Tax Due				
Gross Sales Price	$638.000a	$495,703	$14,697	$127,600
Less: Selling Expenses (7%)	(44,660)	(34,700)	(1,028)	(8,932)
Net Sales Price	593,340	461,003	13,669	118,668
Less: Adjusted Basis				
- Original Basis	506,000	303,600	101,200	101,200
- Less: Depreciation, Yrs. 1-5	(156,211)	(68,680)	(87,531)	-0-
- Adjusted Basis	349,789	234,920	13,669	101,200
Gain on Sale	243,551	226,083	-0-	17,468
Depreciation Recapture	(7,960)b	(7,960)	-0-	-0-
Capital Gain	$235,591	$218,123	-0-	$17,468
Tax on Recapture (50% X $7,960)	$3,980			
Tax on Capital Gain of $235,591 - 20% X $235,591	47,118			
Total Tax Due	$51,098			
B. Cash Proceeds from Sale				
Gross Sales Price	$638,000			
Less: Selling Expenses	(44.660)			
Total Tax Due	(51,098)			
Unpaid Mortgage Principal	(384,963)			
Prepayment Penalty on Mortgage Loan $9,149°				
Less: Tax Savings (4,575)d	(4,574)			
Add: Tax Savings from Deduction of Unamortized Loan Points	5,000e			
Cash Proceeds from Sale	$157,705			

a The selling price of the property was allocated between building, personal property, and land based on an arm's length agreement between the seller and the buyer (Internal Revenue Code Regulations, Section 1.1245-1(a)(5)).

b The Internal Revenue Code requires that additional depreciation - i.e., depreciation allowed that exceeds what would have been allowable under the straight-line method - on the building attributable to periods starting after 12-31-75 be fully recaptured to the extent of any gain.

(Internal Revenue Code, Section 1250)

Depreciation Allowed for Years 1-5 $68,680

Less: Depreciation That Would Have Been Allowable Under the Straight-Line Method (Assuming a Zero Salvage Value) (60,720)

Additional Depreciation $7,960

Thus, $7,960 of the gain on the sale of the building is recaptured, i.e., recognized as ordinary income; the remaining portion of the gain ($235,591) is subject to Internal Revenue Code, Section 1231 treatment. In short, it will be treated as a long-term capital gain.

c The prepayment penalty was calculated as follows (see assumption 8)):

Amount Prepaid	$384,963
Less: 20% X Original Principal of $400,000	(80,000)
Principal	304,963
Prepayment in Excess of 20% of Original Prepayment Penalty	.03
Total	$9,149

payment penalty, this is a tax deductible expense in the year the loan is paid off. Since the investor's marginal effective tax rate is 50 percent, he has tax savings of $4,575 50% x $9,149). Hence the after-tax cost of the prepayment penalty is only $4,574.

e The unamortized portion of loan points ($10,000) is a tax deductible expense in the year the loan is paid off.

Applying the investor's marginal effective tax rate of 50 percent to the amount of the deduction results in tax savings of $5,000 (50% X $10,000).

The required interest rate, i.e., the IRR, is found by trial and error. Using an arbitrarily selected rate, the present value of the expected cash inflows from the investment is calculated. The present value so obtained is then compared with the initial cash outlay. If the present value exceeds the cash outlay (i.e., if the net present value is greater than zero) the procedure is repeated using a higher interest rate. Conversely, if the present value is less than the initial cash outlay, the procedure is repeated using a lower interest rate. This process is continued until the present value of the cash inflows from the investment is equal to the initial cash outlay, i.e., until the net present value is equal to zero. The interest rate that brings about that equality is the IRR.

In practice, the IRR would generally be determined by computer. When calculating the IRR manually (with the aid of a hand-held or desk calculator) the analyst can, based upon his experience with similar property types, select an interest rate that appears to be a "good" approximation. He can then attempt to straddle the required rate by making large changes in the interest rate with each iteration. Once straddled, the IRR can then be approximated by linear interpolation. This process was followed in the calculation of the IRR shown in Table 8.

The first two columns in Table 8 show the year and the corresponding cash flow for that year. The third column shows the discount factors for the 20 percent interest rate (selected arbitrarily) for years 1 through 5, obtained from a present value table. The factors were multiplied by the cash flows for the corresponding years, resulting in the present value of that year's cash lfow (column 4). The resulting present values were summed to determine the present value of the investment. The initial cash outlay was then subtracted from the present value of the investment to arrive at the net present value. Since the net present value was positive, we tried a higher rate (23 percent) and repeated the procedure.

TABLE 8

Calculation of the Internal Rate of Return

A. Trial and Error Computations

(1)	(2)	(3)	(4)	(5)	(6)
Year	Cash Flows	Present Value Interest Factor (20%)	Present Value of Cash Flows (2) x (3)	Present Value Interest Factor (23%)	Present Value of Cash Flows (2) x (5)
1	$24,751	.833	$20,618	.813	$20,123
2	20,423	.694	14,174	.661	13,500
3	18,921	.579	10,955	.537	10,161
4	19,767	.482	9,528	.437	8,638
5	20,680	.402	8,313	.355	7,341
6	157,705*	.402	63,397	.355	55,985
Present Value of Investment			126,985		115,748
Less: Initial Cash Outlay			118,000		(118,000)
Net Present Value			$8,985		($2,252)

*Cash Proceeds from Sale

B. Approximating the IRR by Linear Interpolation

1. Present Value of Investment at *20%* $126,985
   Less: Initial Cash Outlay (118,000)
   Difference $8,985

2. Present Value of Investment at 20% $126,985
   Less: Present Value of Investment at *23%* (115,748)
   Difference $11,237

3. IRR - Smaller Absolute Difference D,

Interest Rate	+	Interest Rates
.20	+ .03	($8,985/$11,237)
.20	+ .024	
.224	(or 22.4 percent)	

TABLE 9

IRR as a Return on the Outstanding Investment

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Year	Amount Invested at the Beginning of the Year	interest at 22.3746% a Earned on Amount Invested at the Beginning of the Year	Amount Available at the End of the Year (2)+ (3)	Cash Flow Received at the End of the Year	Return of Investment (5)-(3)	Amount Invested at the End of the Year (4)-(5)
1	$118,000	$26,402	$144,402	$24,751	($1,651)c	$119,651
2	119,651	26,772	146,423	20,423	(6,349)	126,000
3	126,000	28,192	154,192	18,921	(9,271)	135,271
4	135,271	30,266	165,537	19,767	(10,499)c	145,770
5	145,770	32,615	178,385	178,385b	145,770	-O-

a The approximate IRR on the investment was 22.4 percent. In' order to obtain greater accuracy the more precise IRR of 22.3746 percent is used.

b Includes the periodic cash flow of $20,680, plus the cash proceeds from sale of $157,705. c

Deferred return on amount invested at the beginning of the year.

At an interest rate of 23 percent the net present value was negative, hence we had straddled the required IRR, i.e., we knew that it fell between 20 and 23 percent.

To calculate the interpolated IRR, we observe that an interest rate of 20 percent results in a present value of investment of $126,985, whereas, a 23 percent interest rate yields a present value of $115,748. The present value amount that we are seeking, $118,000, is a fraction of the way between 20 and 23 percent. The appropriate fraction, viz., $8,895/$11,237, is multiplied by the absolute difference in the interest rates (3 percent); the result is then added to the lower rate (20 percent) to obtain the interpolated IRR of approximately 22.4 percent4. Let us now examine what we mean when we say the investments' expected IRR is 22.4 percent.

IRR as a Return on the Outstanding Investment

The IRR of 22.4 percent means that the investment project is expected to generate cash lfows that will provide a 22.4 percent return on the amount invested at the beginning of each year of the holding period, plus return the initial cash invested of $118,000 over the period; this is shown in Table 9. Note, that in order to obtain greater accuracy in the computations the more precise IRR of 22.3746 percent was employed.

Referring to Table 9, note that a $24,751 cash flow is received at the end of year one. However, in order for the return to be 22.3746 percent on the amount invested at the beginning of the year of $118,000, the cash flow for the ifrst year must be $26,402. Accordingly, $1,651 of the return on the amount invested at the beginning of the year is deferred, thereby leaving an outstanding investment of $119,651 at the. end of year one (or the beginning of year two). In order for the return to be 22.3746 on the amount invested at the beginning of the year of $119,651, the second year's cash flow must be $26,772. However, the property is expected to produce a cash flow of only $20,423 the second year. Thus, $6,349 of the return on the amount invested at the beginning of the year is deferred, making the amount invested at the beginning of year three $126,000. The third year's return, calculated on $126,000, amounts to $28,192. Since the expected cash flow produced by the property in year three is only $18,921, $9,271 of the return is deferred. By the end of the third year the amount invested has increased to $135,271. Of the $30,266 return for the fourth year, $10,499 is deferred. The amount invested at the end of year four is $145,770. In year five, the return of $32,615 plus the amount invested at the beginning of the year of $145,770 is equal to the cash flow of $178,385 received from operations and from the sale of the property. In sum, Table 9 shows that the investor is expected to earn 22.3746 percent on the amount invested at the beginning of each year, plus recover his original cash investment of $118,000.

Another way to view the IRR is to consider it equivalent to the interest rate earned on a deposit in a fund.' Referring back to Table 9, note that our initial "deposit" in the "fund" of $118,000 at the beginning of year one will, assuming it earns 22.3746 percent, grow to $144,402 at the end of one year. If we "withdraw" $24,751 (the cash flow received at the end of year one) from the fund at that point, the balance in the fund at the end of year one will be $119,651. The $119,651 earns 22.3746 percent for the year, and grows to $146,423 at the end of year two. The withdrawal at the end

4 The 22.5 percent is an approximate rate because our interpolation assumed linear relationships whereas the relationships are, in fact, curvelinear and because the present value interest factors were rounded to 3 decimal places.

5 Lawrence D. Schall and Charles W. Haley. *Introduction To Financial Management* (New York: McGraw-Hill Book Company, 1977), p. 214.

of year two of $20,423 leaves a balance in the fund of $126,000 at that point, and so on. In short, if we were to deposit $118,000 today into a fund that will earn 22.3746 percent per year, we could withdraw $24,751 from the fund one year from today, $20,423 two years from today, $18,921 three years from today, $19,767 four years from today, and $178,385 five years from today, with the last withdrawal completely depleting the fund.

IRR as a Return on the Initial Investment

The IRR may also be interpreted as the rate of return on the initial investment. This interpretation requires a reinvestment assumption regarding the cash flows received during the holding period of the investment, viz., that they be reinvested at the calculated IRR. Thus, if the 20.4 percent IRR in our example is to be interpreted as the rate of return on the $118,000 initial investment, it is necessary to implicitly assume that the cash flows received at the end of each year of the holding period of the investment are reinvested at 20.4 percent, compounded, over the remaining term of the holding period. It should be noted, however, that this implied assumption does not arise from the manner in which the IRR is calculated.

Recall, we defined the IRR as the interest rate that equates the present value of the expected cash inflows with the initial cash investment. In order to earn an annual rate of return of 22.3746 percent (the more precise IRR) on the $118,000 initial cash investment over the five year holding period, the value of the investment at the end of the terminaton period must be equal to $323,846 (the sum to which $118,000 will grow if compounded annually at 22.3746 percent - $118,000 x (1.223746)5). Conversely, of course, the interest rate (i.e., the IRR) that will equate the present value of $323,846 with the initial investment of $118,000 is 22.3746 percent

($323,846 x (1.223746)$^{-5}$).

TABLE 10

Calculation of Terminal Value

Year	Cash Flows		Terminal Value
1	$24,751	X (1.223746)4 =	$55,508
2	$20,423	X(1.223746)3 =	$37,428
3	$18,291	X(1.223746)2 =	$28,335
4	$19,767	X(1.223746)1 =	$24,190
5	$178,385	X(1.223746)° =	$178,385
			$323,846

Table 10 shows that the "terminal value" (i.e., the value of the investment at the end of the termination period) of $323,846 is obtained if the cash flows received at the end of each of the ifrst four years are reinvested at 22.3746 percent over the remaining term of the holding period. Since the $178,385 cash flow (i.e., the periodic cash flow of $20,680, plus the cash proceeds from sale of $157,705) is received at the end of year ifve, reinvestment is unnecessary.

A Few Words of Caution

The conceptual simplicity of the IRR makes it relatively easy to explain. However, since the future productivity of income producing real estate cannot be projected with a high degree of accuracy, a single IRR calculation cannot be utilized with a high degree of confidence. Therefore, the IRR should be calculated under varying sets of assumptions regarding scheduled gross income, operating expenses, rate of property appreciation, etc. The availability of computers, of course, simplifies the tedium of the calculations required to undertake this "sensitivity analysis". Moreover, the IRR should not be relied on as the exclusive criterion of investment desirability, since it does not take into account risk and various non-financial considerations.' Finally, as previously noted, there are several problems connected with the application of the IRR when comparing alternative investment opportunities, the nature of which are beyond the scope of this article 7

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6 Stephen D. Messner, Irving Schreiber, and Victor L. Lyon, *Marketing Investment Real Estate* (Chicago: Realtors National Marketing Institute, 1975), p. 46. For a discussion of risk analysis see Stephen A. Pyhrr, "A Computer Simulation Model To Measure The Risk in Real Estate Investment", *American Real Estate and Urban Economics Association Journal*, June, 1973, pp. 48-78.

7 See Messner and Findlay, op. cit.

Legal Decisions

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IN THE NORTH AUCKLAND LAND VALUATION TRIBUNAL

IN THE MATTER of the Valuation of Land Act 1951.

AND

IN THE MATTER of an objection against a valuation appearing in the district valuation roll for the district of Whangaroa County (Valuation Nos. 140/9 and 140/9/1)

BETWEEN THE PROPRIETORS OF MATAURI X
Objector

AND THE VALUER-GENERAL
Respondent

TRIBUNAL: Messrs H. R. H. Paul, Chairman
N. S. Broughton, Member
D. J. Archbold, Member

Counsel: Mr S. W. Perkinson for Objector.
Mr W. Flaus for Respondent

Date of Hearings: 12th February, 1982
4th May, 1982

Date of Decision: 4th May, 1982.

DECISION OF NORTH AUCKLAND LAND VALUATION TRIBUNAL

This has been the continued hearing of an objection to two valuations, following the setting aside of an order of 12th December, 1979 in which we ruled there to be no case for the Valuer General to answer. At the end of its judgment the High Court said:

> "We conclude that unsatisfactory and perhaps inadequate as the presentation of the Objectors case may have been, there was substantial material put forward which could not be brushed aside (a colloquialism with which we respectfully disagree) and that the order made by the Tribunal was erroneous."

We were enjoined to continue the hearing "as from the point where Mr Perkinson closed his case." This we have now done and at the conclusion of the evidence we have had, added to the benefit of seeing and hearing the witnesses, and assessing their credibility as they gave their evidence, the further benefit of Counsel's submissions and written synopsis of points in the evidence claimed in aid of their respective cases.

Mr Perkinson submitted that the areas in which the Valuer-General's approach or system could be criticised had been identified in the High Court judgment at pages 10 to 12, and fell into three categories:

The first, to be found at page 11, where four pages of the evidence of Mr Hurt in the transcript are referred to, being an area in which Mr Hurt takes issue with the land sales apportionments adopted in the Valuer-General's reports.

As to that general area we acknowledge that there is inevitably difference of view between valuers.

Secondly, are isolated as an example two sales compared, one having and one without, coastal influence, referred to as Sales 8 and 10.

These transactions represent properties of which one is ten times the size of the other, having prices as widely apart as $61,000 and $377,000.

We are quite unable to find assistance in resolving the question before us, either from examining the differences, or searching for the similarities, between such unlikely bedfellows.

The third identified area, in Mr Perkinson's submission, is to be found at page 12 of the judgment. It has to do with what has been called the "notional subdivision" and in respect of the evidence of Mr Kiernander in regard thereto, of whom the Court said this:

> "He was the manager of the Urban Real Estate section of Wrightson NMA Ltd. The Tribunal accepted his qualifications and by reference back it is seen that his is a very big agency. He had a staff of 70 salesmen and a very large annual turnover."

Reference to Mr Kiernander's expertise are to be found in Mr Perkinson's introductory remarks at page 8 and in the evidence itself at page 42 of the transcript. We are bound to say that we took Mr Perkinson to intend that 70 salesmen were employed by the company throughout New Zealand, not that all were under the supervision of Mr Kiernander, whom we understood to have a localised, Northern area of responsibility.

These points were made to Counsel during the course of closing submissions when we expressed a desire to know exactly how many salesmen did fall under Mr Kiernander's supervision.

To date we have had no further information and hold the same understanding as we had in December 1979. The burden of Mr Kiernander's evidence was to the effect that there had, at the relevant time, been a marked downturn in the market for coastal sections and blocks.

Mr Hurt also dealt with this matter and at page 10 of the transcript he is recorded as citing that in 1974 there were 36 sales of vacant residential lots in the Whangaroa County, in 1975, there were 11, in 1976, 10 and in 1977, 8.

By contrast Mr Burgess produced a Table of Vacant Section Sales for all Counties in the Northland Valuation District which, inter alia, claims significantly more sales in each year thus:

	Hurt	Burgess
1974	36	42
1975	11	34
1976	10	34
1977	8	21

The source of Mr Burgess' information isgiven as The Real Estate Market in New ZealandResearch Papers 78/1 and 79/1, to which we fancy Mr Hurt also has access.

The source of Mr Hurt's information is not specified except in a very general way as having emanated from the Institute of Valuers, and he acknowledges that it may not be a complete record of sales transacted, even by members of the Institute.

Mr Burgess' Table, in our view, when both numbers of section sales and average prices are weighed in the balance, far from confirming Mr Hurt's and Mr Kiernander's evidence of a depressed market, indicate the contrary, and we prefer Mr Burgess' clear

statistics to the ill-researched and qualified figures quoted by Mr Hurt and to the generalised and selective evidence of Mr Kiernander and his handful of letters.

There is other evidence, including that from Mr Bunt, that throughout the relevant period, a steady demand existed for correctly priced coastal properties. These three heads of objection were stressed to us by Mr Perkinson in his closing submissions.

In our decision of the 12th December 1979, we described the evidence of the objector relating to the notional subdivision as being in a state of considerable disarray, and nothing has emerged in the continuation of the hearing which would alter that opinion. An example is to be found in the exchange between the Tribunal and Counsel for the Objector at page 41 of the transcript where Mr Perkinson goes so far as to denigrate his own witness with the words:

> , but I think it is fair to say that the objector having called Mr Reyburn, relies on his evidence if need be to the exclusion of the evidence that Mr Hurt used in compiling his notional subdivision."

As has been well established, the most reliable method of valuing this type of property is by the use of comparable sales. Also, as has been well established, the hypothetical subdivision method can be utilised as a check to the value of land which is suitable for subdivision.

Dealing firstly with the comparable sales approach. The valuation of these assessments has been complex because of a number of reasons. These include:

(a) Classes of Country

Mr Hurt, the objector's valuer describes the property as follows:

> "The property broadly comprises a basin formation that opens to the sea. The land extends back from the beach on flats rising to easy downland and finally moderately steep hill country at 215m above sea level."

Mr Hurt also described the contour of the land in terms of its zoning.

Mr Bunt, valuer for the Valuer-General, describes the land as follows:

> "The area nearest the beach has mostly flat/easy contour and in poor pasture rising to a very attractive headland in grass and pohutukawas at the Northern end. This is an area of great scenic beauty and with superb views of both the beach and the nearby Cavelli Islands. The area away from the coast is easy at the North end and in grass but rises to a steep gully and hill in bush scrub and a little rough grazing.
>
> Property (B) Valuation Reference 140/9/1
>
> Takes in an area very close to the beach and has a length of rocky coastline to the North. There is a substantial amount of easy country behind the beach which rises to steep hill country, flattening out again adjacent to the Wainui Bay Road. The easy area is in grass, while the balance is mostly fern, scrub, rough grazing and some bush."

(b) Zoning

The land has a number of zonings and designations (with underlying zonings). The witnesses ascribed various areas to the zonings and designations and these were as follows:

"Zone	Witnesses Mr Bunt	Mr Hurt	Mr Jones
Coastal	10.1 ha	12.55 ha	11.8 ha
Tourist Facility	3.8 ha	4.14 ha	5.2 ha
Deferred Coastal	42.5 ha	39.53 ha	43.5 ha
Sub total	56.4 ha	56.22 ha	60.5 ha
Proposed Public Open Space			
UZ Coastal	12.6 ha	12.545 ha	Not
UZ Rural	10.0 ha	10.117 ha	specified
Rural A	172.9 ha	172.9832 ha	Not Specified
Grand Total	251.9 ha	251.8652 ha	

(c) Coastal Influence

The land adjoins the coast and the coastal influence is very considerable in the assessment of its value.

The valuers for the objector and the valuers for the Valuer General, all listed a number of sales which they analysed and relied upon in the assessment of their valuations.

The sales used by the valuers fall into two broad categories:

(a) Sales of small areas of beach front land. These sales included some purchased by the Crown for Reserve purposes.
(b) Lower farm sales, with some coastal land - not suitable for subdivision.

Also, two further portions were plain from the evidence:

(a) The nature of the Northland coastal land market, with few sales taking place. All valuers relied on sales back to 1973 for the 1977 valuations.
(b) The lack of comparability of the sales with the land valued.

All the valuers broke down the land sale price by assigning various values per hectare to various classes of country and zonings.

Mr Hurt's sales are listed in categories, with six sales being listed pertaining to the Rural A zone and one sale pertaining to the Deferred Coastal zone. Seven residential sections sales are also listed, which relate to his hypothetical subdivision.

Sale (a) is stated to be "near the coast", but Mr Bunt stated that it was not a coastal sale. Also, Mr Bunt indicated that the Value of Improvements/Unimproved Value figures given by Mr Hurt were those of the Government Valuation, but reversed.

Sale (b) is stated to have $84,000 of value of improvements. Mr Bunt indicated that they comprised a poor house and a poor woolshed and that he assessed the Value of Improvements at $30,000.

Sale (c) sale date given as 7/1976. Mr Bunt stated that this date was the possession date, not the agreement date.

Sale (d) of Mr Hurt's schedule was considered by Mr Bunt not to be a bona fide sale.

Sale 2 (a) of Mr Hurt's schedule is compared by him to the Deferred Coastal zoned land. Mr Bunt's opinion in description of this land varied considerably from that of Mr Hurt's.

Other discrepancies also existed between Mr Hurt's description of the sale and the descriptions given by Mr Bunt.

The discrepancies between the valuers as to the descriptions of sales are numerous.

The sales analysis of Mr Hurt does not include any sales relating to front coastal land. The sales analysis given by him for the rear land contains many inconsistencies already referred to.

In respect of the front coastal land. Mr Hurt relied solely on the hypothetic subdivision method of valuation. There were considerable differences as to the number of sections that could be realised, section sale prices, roading costs, other development costs, realisation period and other matters, in respect of the hypothetical subdivision aproach to the value of the front land between Mr Hurt and Mr Bunt.

Also, in respect of the evidence of Mr Reyburn, he appears to have misinterpreted the area available for subdivision as given by Mr Jones, a Planner.

Mr Reybum did not make a specific study of the properties for the purpose of the hearing.

Despite this. Counsel for the objector indicated that the objector relied on Mr Reyburn's evidence if need be, to the exclusion of the evidence of that of its valuer, Mr Hurt. This was despite Mr Reyburn admitting that he had made no specific study of the properties and that he made no claim to being an authority.

In respect of the land zoned Tourist Facilities zone, Mr Hurt relied solely on the capitalisation of the camping ground income as a means of arriving at the value of the land. The amount of the camping ground income was not verified and we do not consider it appropriate with this type of property for a very seasonal camping ground income to be used for the purpose of assessing the value of the land without some form of check. No sales were advanced by Mr Hurt as to such a check.

During the hearing, Mr Hurt was asked to comment

properties which were used by the Valuer-General in arriving at its value of the properties. Mr Hurt indicated that he had only a general knowledge of each of these sales and that he had not made a detailed inspection of the properties for the purpose of analysing sales.

We found it interesting that Mr Hurt accepted without exception the land class break-up of the Valuer-on and provide his analysis of a number of sales of

General.

However, he analysed the respective land sale prices to arrive at somewhat differing land sale prices per hectare for the different classes of country. We found that break-up of Mr Hurt's to be less than convincing.

The evidence for the Valuer-General, given by Mr Bunt and Mr Burgess was subject to close scrutiny by Mr Perkinson and was not seriously challenged. We found the evidence of both of these valuers to be complete. thorough and satisfactory in all respects.

Accordingly, we accept their sales analysis and their valuation conclusions. Also, we accept the evidence of Mr Bunt that the coastal land market of Northland never has had what is normally considered to be a "healthy" number of sales. Indeed, for some periods during quiet market conditions very few transactions have taken place. Thus, in terms of the assessment of the value of coastal land, a considerable degree of skill and local knowledge is required to make satisfactory analyses from the limited and divergent sales information which is available.

As to Mr Reyburn's evidence in general - he had not seen the property in 12 months and when he had seen it, it was not for the specific purpose of preparing to give evidence in this matter. Seemingly his visit was a coincidental one but he told us that his line of work leads him subconsciously to view with a professional eye such a piece of country. That approach in a matter of the magnitude under consideration, we consider somewhat informal, to say the least of it. Again his costing figures came in a stream in his viva voce evidence, rather than in form of a prepared, written computation, and further to that his calculations proceed on the basis not of his own research, but on evidence which he anticipated Mr Jones would give, evidence which, it has been demonstrated, Mr Reyburn misunderstood and which on reflection, Mr Jones was to modify anyway.

Mr Jones' figure was to rise to over $1,000,000, his evidence was impossible to reconcile with Mr Hurt's which included the Brown and Thomson outline for 55 lots as against 75, and given that this ground of notional subdivision, and not sales evidence or any other basis, was the sole footing on which the assessment in respect of coastal zoned land was attacked, we find it impossible to hold the objector to have discharged the burden of proof resting upon it.

The objection is dismissed.

H. R. H. PAUL,
Chairman

D. J. ARCHBOLD,
Member

N. S. BROUGHTON,
Member

IN THE HAWKE'S BAY LAND VALUATION TRIBUNAL HELD AT NAPIER

211/81

IN THE MATTER OF THE VALUATION OF LAND ACT 1951
AND

IN THE MATTER OF AN OBJECTION TO VALUATION UNDER THE VALUATION OF LAND ACT 1951

BETWEEN LINDISFARNE COLLEGE COUNCIL
Objector

AND THE VALUATION DEPARTMENT
Respondent

DATE OF HEARING: 4 September 1981

DATE OF DECISION: 12 October 1981

Mr R. GALLEN Q.C. for the Objector
Mr C. J. McGUIRE for the Respondent

RESERVED DECISION OF THE TRIBUNAL

This objection arises out of the five-yearly revaluation of Hastings city by the Valuation Department. In the course of that re-valuation the land value of the property of the College at Pakowhai Road was valued at $200,000.00. The effective date of the valuation was 1 October 1979. Consequent on the objection being lodged by the College the Department made an offer of $165,000.00 as a compromise figure for the land valuation. The offer was not accepted. The Tribunal is now asked to resolve the dispute.

The College property is situated in the residential suburb of Frimley, on the northern outskirts of Hastings city. It once formed part of the Frimley Estate. The main access to Frimley is off Pakowhai and Omahau Roads, which are the main access routes to Hastings. The Frimley suburb is recognised as one of the prime residential areas in Hastings. It is just over 2 kilometres by road from the main Hastings city centre and the total area of the College property is 7.8584 hectares (19 acres 1 rood 27 perches).

The land has the usual school buildings thereon including a gymnasium, two dwellings, pool and tennis courts. Other improvements include paths, driveway and fencing.

The zoning is designated for Other Community Uses (Private School) with the notation "Lindisfarne College, Private" and has an underlying zoning of Residential I. The latter zoning provides mainly for open character, single family, detached and semi-detached dwellings at lower densities than other residential zones. A dwelling and up to two units are allowed as a predominate use.

On the question of zoning the Hastings City Council records that its council has recognised that various "private" designations provided for within the Scheme have been invalidated by the provisions of the Town and Country Planning Act 1977. "In furtherance of this recognition the Council has resolved that various remedial modifications should be investigated. Modifications envisaged by the Council would be either, zoning of the land concerned in accordance with underlying zoning, or, establishing specific identification of the sites concerned to the effect that uses currently being carried out are specifically recognised and protected (in effect a special zoning)." The City Council further advises that the Council proposes to discuss the matter with the Board of Trustees of the College so as to have the Trustees indicate their preference as to the alternatives (but, presumably, with the Council having the final decision on the matter).

The value of the improvements of $800,000.00 is not in contention.

In assessing the land value of the College in terms of section 2 of the Valuation of Land Act 1951 the Department advises that it has regarded the land as vacant land proceeding on the basis that it may not be used for any purpose other than as used or designated. To this figure the Department has added a further figure representing the chance of permission being obtained for a change in designation or for some other use of the College in the future. As indicated, the Department appreciates that private designations,

as in this instance, are due to be replaced by either a spcific identification or alternatively a zoning in accordance with the present underlying zone. The Department considers a specific identification to be of no real difference to a private designation and believes that the same principles of valuation should apply as if the land were designated.

The Department produced figures to justify a land value of $175,000.00, but, in considering absolute parity with other similarly used or designated properties, has reduced the figure to $165,000.00.

Very well, the valuation has been assessed by the Department on the basis of the continued use of the land for the designated purpose, that is, a private school. The Department has arrived at the figure by comparison with sales of rural land on the fringe of Hastings city but with the addition of a 10% allowance by virtue of Lindisfarne College being situated within the city boundaries. The land value as designated is shown at $95,000.00.

In this assessment of the unencumbered market value (the value of the land based on its underlying zone of Residential 1) a figure based on sales evidence was assessed at $200,000.00. The Department then examined the potential or the difference between the value of the land as designated and its unencumbered market value. By deduction the resulting figure was $105,000.00. The Department then considered the question of the prospects or success of the uplifting of the designation. The Department concluded that there would be little difficulty in uplifting the designation for private school purposes. It allowed a 75% chance in that respect. That 75% of the $105,000.00 difference or potential amounts to $79,000.00. The value as designated of $95,000.00 is then added by the Department to the figure of $79,000.00 to arrive at the land value. This comes to $174,000.00 which has been rounded to the sum of $175,000.00. The summary of the valuation is succinctly set out on page 3 of Schedule 1 annexed to the written report or evidence of valuer Kenneth Parker.

The Department has then considered the aspect of uniformity in respect of other sites designated for private school purposes. Their figures in that respect are set out on page 3 of the said Schedule. The Department, as a result of review of those figures, considers that by comparison, an overall rate per hectare of $21,000.00 to the College would be fair and reasonable. Therefore on the basis of this figure of $21,000.00 per hectare the figure of $165,000.00 is arrived at for the 7.8584 hectares.

It is on the basis of the foregoing figures that the Department considers its valuation to be fair and reasonable.

Mr Gallen Q.C., for the objector College, in submitting that there has been a gross over-valuation of the land of the College, points to the disparity between the land valuations of the adjacent Hastings Girls' High School and Lindisfarne College. The 1974 valuations showed the same figure in respect of the land value of each of the two schools, but the 1979 ifgures show that the Hastings Girls' High School land ifgure has increased by little more than 8% while that of the College has increased by 86%. He is unable to see any reason or justification for the disparity. The valuations should still be identical. Both properties have the same kind of designation and are similarly affected. Admittedly the designations can be changed or removed but the prospects of so doing would be just as difficult in the case of the College as in the case of the Hastings Girls' High School. Moreover the Girls' High School site has greater residential potential. In any event there is little prospect of any change in designation by the College. In the 1982 year the College can no longer accept further pupils as the school roll is full. The grounds are fully committed for educational purposes and the College has no desire to sub-divide any of its land for residential use. The College is confident that its school will be a place of education for many years to come and it cannot see the day when the land will be used for residential purposes. Not only would there be objections from those associated with the school to any changed designation, but there would be objections from the residential property owners living in the properties adjacent the College.

Mr Gallen referred the Tribunal to various authorities including McKee v Valuer General 1971 NZLR 476, Valuer-General v Treadwell 1969 NZLR 320 and Valuer General and Another v Addington Raceway Limited 1969 NZLR 327,

Mr Gallen referred to the McKee case as being the highest authority for the proposition that town planning restrictions or zoning restrictions require to be taken into account when assessing the value of land. The headnote of that judgment (which is a Court of Appeal decision) states, inter alia, that the restrictions which the zoning of a town planning scheme imposed upon land . . . within a zone are to be taken into account in assessing the unimproved value of the land within the zone.

The Tribunal was also referred to the case of the Auckland Hospital Board and the Auckland Rugby League (the full title being an Arbitration between the Auckland Hospital Board and the Auckland Rugby League Incorporated, 1966 NZLR 413). That case states that in making a valuation of land under the provisions of a lease for the purpose of assessing the rental payable thereunder, town planning restrictions limiting the purposes for which the land in question may be used must be taken into account. The possibility of such restriction being removed must also be kept in view and allowed for.

Mr Gallen submits that the principles in the various cases show that the land must be valued having regard to the purpose for which it is zoned but potential requires to be taken into account in the sense that to the value of that land there must be added a figure based on the possibility of the land being turned to other than the zoned or designated purpose. The question, according to Mr Gallen, is how much extra should be allowed for such chance? In other words, said Mr Gallen, how real is the likely changing in designation in respect of the College land, how real is the potential and what figure is a fair ifgure for such potential.

The tenor of Mr Gallen's submissions is that the Valuation Department has obviously allowed too high a figure for such potential. He points out that a zoning or designation removal requires a hearing by the Council. Almost certainly there would he objectors to the change. It would be by no means a certainty that, even if the College itself decided to sell the land or sub-divide it for residential purposes, the change would be allowed. That point has to be taken into account in assessing the valuation.

Mr Gallen, in referring to the decision of the Wellington Land Valuation Committee in the Samuel Marsden Collegiate Trust Board case, the 1972 case (LVP 48/71), (a copy of which decision was later given the Tribunal by Mr McGuire for the Department), pointed out that with Lindisfarne College there was no demand for the site by other schools, either public or private. Further, there were the reasons already advanced why the College wished the property to continue to be zoned or designated for school use purposes (the heavy roll and the certainty that the place will be a place of education for many years to come).

Mr Gallen called Mr Terence Rawcliffe, a registered Public Valuer. He produced a report based on the uniformity of the College valuation in relation to other designated school sites within Hastings city, in particular in relation to the adjacent Girls' High School property. The report also covered various aspects of investigations by Mr Rawcliffe concerning the possibility of the College property being used for any purpose other than that for which it is currently designated.

His analysis of the 1979 Government Valuation was annexed to his report and his figures indicate that the valuation represents $10,700.00 per hectare or 72.5 added potential for the likelihood of change of use by relation to comparable public school lands.

Mr Rawcliffe's comparative land value assessments state that the most comparable property would be the adjoining Hastings Girls' High School which also abutted onto Frimley Park but to a slightly smaller area of the park. The Girls' High School property is of better shape and enjoys both full corner influence and a wide frontage to a popular residential street, Frimley Road. He maintains that the Girls' High School land would have greater value than that of Lindisfarne College.

As to the likely demand for designated school site within Hastings city he concludes from enquiries made

that there is a 2% per annum decline in public school rolls which is being projected to equate with a climb of 20% over the next ten year period. On recent roll levels (from March 1981 to August 1981) Hastings Girls' High School has shown a decline in the region of 11%. Further enquiries made indicate there is little prospect of the Roman Catholic Education Management Board seeking any land, or further land, in the Hastings area. He concludes there is little evidence of demand either from the public or private sector for the purchase of further school sites in the area.

On page number 4 of his report he deals with the possibility of potential and he concludes that after taking the various factors listed by him into consideration, there would be little practical likelihood of the College favouring the prospects of sub-division or disposal within the foreseeable future.

Next, on page 5 of his report, he deals with the question of the uplifting of designations. It is not proposed to repeat the various points made by him as they are set out succinctly and precisely on that page. However his conclusion is that there is factual evidence of a number of designations being uplifted in respect of both private and public designated land in the Hastings area. However, he says there would appear to be little demand from any other source for the purchase of existing school sites and there is little likelihood of the College contemplating partial or total disposal of the College property. The evidence shows there to be equal scope, he says, for the uplifting of private or public use designations and, accordingly, similar valuation principles to the two school properties should be applied. In view of those factors, he contends that the 1979 land value assessed for Lindisfarne College should be consistent with similarly designated school sites and, in particular, that of the adjoining Hastings Girls' High School.

Mr McGuire, for the Department, states that it begs the question that the College has no intention of changing its use. The question for the Tribunal is the likelihood of an approved change of designation, if sought. In the Samuel Marsden Collegiate case a 100% chance was allowed by the Land Valuation Committee for uplifting the designation for private school purposes. In this case a figure very considerably less than 100% has been adopted. As stated, he says that the fact that the school had no intention of changing its use is largely irrelevant. In the Auckland Hospital Board and Auckland Rugby League case the League Board would no more consider allowing Carlaw Park to be subdivided for residential use than Lindisfarne College would consider changing its designation or use. The question is the likelihood of approval of a change of designation if sought. The Tribunal was referred to the Dilworth Trust Board case (Dilworth Trust Board v Auckland City Council, Town Planning Appeal Reports, page 198).

Mr McGuire states there is nothing so special about Lindisfarne College as to restrict the rights of the Board of Trustees to deal with the land as private owners and that if the question of assessing the chance of a change in designation were considered, then the Board of Trustees would be no more fettered than any other property owner in obtaining a change of designation to residential land. Mr McGuire went an to sav that the community had more at stake in the Girls' High School property. It was Crown land. If the use were changed the community would be much more likely to object because of the question of general community use. The community, generally, would not have the same rights or powers for opposing any change of designation sought by the College Board of Trustees.

Mr McGuire places considerable stress on the words of Perry J. in the Auckland Rugby League case where the learned Judge, in remitting the matter back to the arbitrator, gave the following direction:

> "The law requires you to take into account in your valuation the chance, if any, of permission being obtained for some other use at some future time and to value such chance and to add such ifgure (if any) to the valuation otherwise reached on the assumption that there is no possibility of it being used for any other purpose than as designated."

Mr McGuire's contention is that the reference to the chance of some other designation beinn approved has to be viewed in the sense of what the chances would be if the Board of Trustees sought the designation rather than what chances are there of the Board of Trustees seeking a change in designation and of such designation being approved.

In his closing remarks Mr Gallen states that the point is wider than that made by Mr McGuire. All the aspects of the possible change in designation require to be taken into account. Accordingly if it were more correct that the Hastings Girls' High School designation would be unlikely to be changed because of the objection thereto of the Minister of Education, yet there was before the Tribunal the evidence that the likelihood of change to the designation was most remote. In effect, both schools are on all fours. Indeed, the likelihood is greater that there would be more objection to the College change of designation because of the likely objections of residents of the houses backing onto the school property, there being no such residents in the case of the Girls' High School. Mr Gallen states that all the Tribunal can do is to arrive at a base figure and add something for potential. The valuations of the two schools should be arrived at on the same basis. The Girls' High School land is, if anything, more attractive. Taking all factors, balancing and counterbalancing, into account, the valuations should be the same.

In considering all the foregoing submissions (both for the objector and for the Department) the Tribunal goes back to the Auckland Rugby League Incorporated case of Perry J. At page 423 of that case, when considering the question of the potentiality of the land and how such potentiality must be taken into account, Perry J. went on to say that the parties were in agreement that if the land were not a designated area it would be of greatly enhanced value as industrial land. The parties were in further agreement, he said, that such potentiality could only arise if the designation were removed. He then went on to say as follows:

> "It seems to me then that the next question must be: "What additional sum would a hypothetical purchaser, whether a sports body or any other person, be prepared to pay for the chance of having the restriction removed and being able to explore its potential as industrial?"

Perry J. referred to the approach of Kitto J. in the Royal Sydney Golf Club case, 1957 CLR 379:

> "I think the proper course is to enquire first what was the value of the land on the footing that there was no possibility of its ever being turned to other than recreational purposes and then how much extra should be allowed for such chance as there was of securing permission for some other use at some future time."

Very well, accepting that is the way the problem should be examined the Tribunal first records the following points:

1. No evidence was adduced to dispute the Department's value of $95,000.00 for the value of the land as designated for a private school.
2. Similarly, no evidence was adduced to dispute the $200,000.00 ifgure for the residential value of the land which requires to be regarded as vacant land.
3. As indicated, the land must be valued having regard to its zoning but, at the same time, the potential for change of zoning for a higher use must be assessed.
4. Accordingly, the only assessment in contention is the Department's figure of 75% in respect of the "chance" of uplifting the restrictive designation.
5. Boards of Trustees of private schools do change. So too do their policies change from time to time. While there is no present intention of changing the use as a school there is no future certainty in that respect.
6. In the Samuel Marsden Collegiate Trust Board case the Land Valuation Committee had evidence that there had been, and could still be, a demand at market price for land for schools, even private schools, which would not be affected by the designation. Further the Committee had evidence that there would be no difficulty in uplifting the designation, if such were required. In the case now before us, while the evidence shows that there is not at present a demand for land for either State or private schools in the Hastings area, the Tribunal accepts there would be comparatively little difficulty in uplifting the designation if such were requested (notwithstanding any opposition coming

from the nearby residents - as well as others likely to be affected by a change in designation).

7. The Valuation Department has obviously taken the foregoing point into consideration, at least, having reduced the chance of uplifting the designation from 100% to 75%. It has then further reduced the valuation by a further $10,000.00 on the basis of overall parity with other sites designated for private school purposes.
8. There is evidence of uplifted designations in both public and private spheres in the Hastings area.
9. The prospect of a change in designation, if sought, is, notwithstanding the points made by Mr Gallen, much greater in the case of the objector, a private school, than in the case of the Hastings Girls' High School. The land value of the latter, incidentally, has an inbuilt 20% figure in respect of potentiality.

The Tribunal is drawn to the conclusion that the Department has done all it needed to do to meet the original objection in this case. Its assessment of 75% for the "chance" of uplighting the designation is, in the light of the evidence and in the light of the principles in the Samuel Marsden case, most fair and reasonable.

It is appreciated that there is a considerable disparity between the land valuation figures of the Girls' High and of the College. However, the values require to be looked at from the point of view of the true 1979 values and not by way of comparison with the 1974 values or by way of an equal proportionate increase in those values.

The Tribunal is satisfied that the objector has not discharged the burden imposed on it by the Act to show that the Department's value is incorrect. The ifgure of $165,000.00 has not been shown to be other than fair and reasonable.

DATED at Napier this 12th day of October 1981.

A. J. SHEEHAN,
District Court Judge
Chairman
Land Valuation Tribunal.

A. R. WILSON,
Land Valuation Tribunal.

VALUERS REGISTRATION BOARD

Following is an edited version of a recent decision of the Valuers Registration Board concerning an inquiry into a complaint against a Public Valuer.

"Date: 29 and 30 July, 1981.

Heard Before: Mr M. R. Hanna (Inquiry Chairman),
Mr D. J. Armstrong, Mr L. M. Sole.

The complaint was laid by the N.Z. Institute of Valuers on 12 December, 1980, concerning a valuation and mortgage recommendation as at the 19th April, 1977. The complaint alleged in effect that the property had been grossly over-valued and that this, together with the mortgage recommendation, constituted substantial evidence of negligence or incompetence.

The complaint was referred to the Valuer-General for investigation and his report was put before the Board at a meeting on 31st March, 1981. It was determined that since it had not been shown that there were no reasonable grounds for the complaint an inquiry should be held. The public valuer concerned was advised of the inquiry and of the charges against him in a notice dated 13th May, 1981. The charges were drawn in terms of Section 31 (1) (c) of the Valuers Act and cited gross over valuation and excessive mortgage recommendation in respect of the property. Charges relating to another matter were included in the notice but were dealt with in a separate inquiry. The inquiry occupied two days.

Before turning to the conduct of the inquiry it may be convenient to describe briefly the parcel of land which was the subject of the complaint. It was agreed by all parties that the nominal area of the lot at the effective date of the valuation was 5187 m2 (1 acre 45 perches) though this area had in fact been reduced by a subsequent resurvey. The land was described as being situated in a well established and sought-after residential locality which was virtually fully built up and generally of average or better quality. The subject land comprised a large rear site with access via two ingress strips, one of 5.8 metres and the other of 3.80 metres net width. The contour of the land showed a steady fall from the road frontage through to about the mid point of the main lot and then eased to a gentler grade. There was also some gentle cross fall. Standing upon the land was a three bedroomed bungalow approximately 140 m2 in area together with deck and basement garage space. This building stood on concrete foundations and had brick external walls and a tiled roof. The land was zoned Residential "R3" under the City Council Operative District Scheme dated in 1970. A new District Scheme was introduced in July, 1977 subsequent to the valuer's report.

In opening the case for the Valuer-General, prosecuting Counsel referred to the original complaint directed to the Registrar of the Valuers Registration Board on December 12th, 1980, concerning the valuation. The purposes of this valuation were to assess the market value of the property and to make a recommendation for an advance against its security under the terms of the Trustee Act and these figures were set by the valuer at $228,000 and $114,000 respectively. Prosecuting counsel contended that the evidence would show that the inaccuracy of this valuation was so gross as to give the irresistible conclusion of the valuer's incompetence, and he referred to the decision of the English Courts in Singer and Friedlander Ltd. v. John D. Wood & Co.

Mr M. R. Mander, Valuer-General, then gave formal evidence concerning the processing of the complaint and submitted a copy of the original valuation. Cross-examined by the defendant's counsel he agreed that certain plans attached might have been submitted as part of the complaint and these plans were then removed from the original valuation by the consent of all parties. Mr Mander confirmed that he had inspected the property only from the road.

The prosecution then called the Valuation Department's District Valuer in charge of that part of the City in which the subject property lies. The District Valuer gave evidence that acting on instructions of the Valuer-General he made a valuation of the property on March 26th, 1981 but with effect from April 26th. 1977. He had not seen the public valuer's valuation at the time he completed his own report though he had since seen a letter of explanation dated March 27th, 1981. The District Valuer produced a copy of the relevant Certificate of Title and proceeded to read his own report noting a discrepancy in the area between the various documents resulting from a resurvev carried out since the effective date of valuation. The

District Valuer's valuation was stated as a Capital Value of $120,000 of which $89,000 was attributed to the value of the land on the basis of a hypothetical subdivision into 4 lots, and $31,000 to the improvements. He stated that there was no possibility of subdividing the land to obtain harbour views and claimed that a proposal by the defendant in his letter of explanation that the value of the land be reduced by $17,000 because of its smaller size after resurvey could not be sustained. He claimed that he would allow in the vicinity of $2,000 to $3,000 for this factor and that if the defendant's approach was applied to the District Valuer's valuation this would make the discrepancy between the two even worse.

The District Valuer stated that there was a right of subdivision of only 4 sections on account of the narrow main access strip and agreed that no allowance had been made by him for the costs of acquisition of extra width to allow greater subdivision. The District Valuer then submitted plans and photographs relevant to the property and a schedule of 9 vacant sales upon which he expanded in some detail. He then outlined the most relevant sales. He stated that the subject site would be suitable for 15 Townhouses if extra width were available to the access strip but claimed that an officer of the Town Planning Department had expressed the firm opinion to him that no dispensation would be available in respect of the underwidth access way.

The District Valuer was cross-examined by the defendant's counsel concerning an agreement for sale and purchase on the subject property which was negotiated in June, 1977 between the former and present owners, but stated positively that he had not been influenced by this. He agreed that details of a scheme plan of subdivision were most unlikely to have been available to a valuer in May, 1977 and confirmed his opinion that under the R3 Zoning applicable at the date of valuation only four lots could be subdivided from the site. He noted however a zoning change which occurred with effect from the publication of the Reviewed District Scheme in July, 1977. He accepted the possibility that a dispensation for 5 lots could have been seriously considered having regard to the proximity of the review and allowed that an additional $9,000 of Land Value would have been available in that case. He confirmed that he had inspected all the comparable sales and commented upon the significance of the particular school zoning.

Under continued cross-examination the following day the District Valuer stated that his valuation was based upon the highest and best use of the land for residential subdivision. He was questioned concerning the merits of his own approach and the defendant's and discussed the relevance of comparable sales quoted by each. He was also questioned in detail concerning various factors in his analysis of comparable sales and the application of different rates to the subject land depending on whether it was assessed for Town Houses, Apartment Houses or on a room basis. The defendant's counsel also questioned the District Valuer closely concerning his interpretation of certain of the Ordinances of the District Scheme relating to the subdivision of back land. He agreed that the basic reason for the limitation on the width of access to rear sites was to provide access for fire fighting vehicles but would not accept that it would be possible for zoning purposes to hypothetially aggregate the width of both the main and secondary strips to the road concerned.

When re-examined by the prosecution in respect of one sale of subdivisible land the District Valuer claimed that it would be necessary to discount the unit rate from that sale on account of the fact that the subject property might accommodate 2 Z times as many units.

Opening the case for the defence, counsel called a practising Solicitor also fully qualified as a town planner. In his written evidence the town planner agreed that the Ordinance affecting the density permitted at the subject property was not well drafted but concluded that by a proper interpretation there was a very strong degree of probability that the site could be utilised to a higher density. He discussed the Town Planning aspects of both valuers' reports concluding that the defendant correctly recognised a potential for comprehensive development while suggesting that the District Valuer did not fully recognise that potential.

Cross-examined by prosecuting counsel, the Town Planner agreed that while he believed that there would be a high degree of probability that any necessary dispensation could be obtained from the City Council it would be necessary to obtain the agreement of neighbours and that if consent was withheld by them it was a probability that the full procedures of appeal to the Planning Tribunal would need to be followed. He agreed with Counsel that an interpretation that the maximum density would be four units was possible but stated that in his professional opinion this was not likely. The Board was assisted by the clear and informative evidence presented by the Town Planner and has taken full cognisance of his views.

The defendant valuer was then called to give evidence on his own behalf and gave details of his personal and professional background. He related the circumstances in which the valuation was made and the general evidence of market conditions from which he worked: He stated that subdivision formed no basis for his valuation and that his approach was essentially upon the maximum density of development which would be permitted. In respect of his reading of the Ordinances the valuer stated that he visited the City Council and spoke to a Planning Officer discussing details of the site, with the result that his impression that both access strips could be considered was supported. He felt that there would be right of development for 12 Town Houses with chances of 15 being better than average.

The defendant then produced data analysing the subject property on the basis of Apartment House and Town House development and produced a similar analysis concerning the sale of a further property. He stated that as the allowable number of Town Houses increased it did not necessarily follow that the price per unit decreased, his reason_ being that the size of the subject site allowed each unit to have a larger than average individual site.

He submitted analyses concerning properties elsewhere but agreed that he did not have all the sales quoted by the District Valuer though he did have some and had disregarded others.

Under cross-examination by prosecuting counsel the valuer agreed that there was room for a difference of opinion as to the time factor utilised to adjust between the individual sales, and stated that one of the sale properties had a view but considered that the other characteristics of the subject property negated this. The adjustments he had made in his various analyses were his judgement as a Valuer. He agreed that the sale property with a view is also a front site and that it was being compared with a rear site but did not agree that as a result the former property would necessarily be more valuable. In respect of relative densities the valuer stated positively that a straight line increase of the unit value rate was justified by all the circumstances. of this case. He stated that the ratio of value for habitable rooms to area is constant.

Discussing valuations made for market and mortgage purposes the defendant stated that a valuer must adopt a consistent attitude and in respect of the value of improvements agreed that these would have more value if their use is to be maintained. He also conceded that on the basis of the evidence submitted to the inquiry his valuation estimate of a gross realisation of $300,000 was not accurate.

During this Hearing the matters of fact and opinion which were placed before the Board were subjected to searching and active examination by both Counsel who in their formal addresses summarised their respective submissions in a cogent and helpful manner.

In considering the evidence given before it over a period of almost two days the Board recognises that the phrasing of the relevant Ordinances concerning development density on the site was open to different interpretations, but is clear that in even the best circumstances permission to develop to the maximum level contended for by the defendant would not have been automatic. Any potential for such development carried with it some risl which ought to have been recognised in the valuation process.

On the evidence before it the Board concludes that the District Valuer's valuation, inevitably tempered by some element of hindsight, was probably pitched at a conservative level and that had he accepted the prospects for greater development a higher assessment could have resulted.

On the other hand it is apparent to the Board that at every point of decision in the valuation process the

defendant consistently adopted the most optimistic possible interpretation. We find it difficult to accept his submissions that the value per unit would not tend to decrease with the number of units which a given property could accommodate, while from the evidence submitted by both valuers as to comparable sales we conclude that, regardless of the matter of potential he did over-value the unit rate which should be applied to the subject property.

The Board has decided that on the evidence presented to it, it has been shown that the defendant's valuation of the subject property on April 26th, 1977 was in fact grossly excessive as was the mortgage recommendation which followed from it and therefore that the charges of incompentence under Section 31 (1) (c) of the Valuers Act, 1948 which have been laid against him are proven.

The Board reserved its decision as to a penalty in this matter to allow for the presentation of any such submissions as Counsel for the defendant might wish to offer.

Following a further hearing of submissions in mitigation the Board reiterated its view that at every point of decision in the valuation process the valuer consistently adopted the most optimistic possible interpretation. "We must say to him that we do not believe that in doing so he exercised a proper degree of professional judgement and prudence and that it was these factors which led to the excessive levels of valuation and mortgage recommendation which we find to have occurred. While we recognise the various painful consequences which have befallen the valuer as a result of this valuation, we wish him to be fully aware of our concern and to carefully remember it throughout his professional career."

The Board determined the following penalty:

1. The defendant shall be severely reprimanded, and that
2. A fine of $250 (two hundred and fifty dollars) shall be paid by him at the direction of the Registrar."

TOWN HOUSE AWARD JUNE 1982

Sir Trevory Henry Sole Arbitrator

IN THE MATTER of a submission to Arbitration made on the 28th of April, 1982 between the Minister of Railways and Town House (New Zealand) Limited) concerning the fixing of rent under Memorandum of Lease registered No. 76416 Auckland Registry.

Comment

This Award deals with the rental review of a Railway lease for the 7 year period from 4th February 1978 in terms of a 21 year lease dating from 1964. The land in question is part of a larger land holding of four titles – two of which are encumbered by the 114 room Town House Hotel in Auckland.

This is an Award which deals with some very basic valuation principles - still however obviously requiring re-statement.

Firstly the old concept of unimproved value means quite simply that not only must existing buildings or improvements be put entirely out of consideration so also must any planning consents which may have been obtained in the course of the actual development.

Secondly where any existing development covers land beyond the boundaries of the site to be valued or the rental to be determined, that fact also must be ignored and the potentialities of the particular site alone treated in isolation.

Thirdly in assessing the value of the chance of obtaining a conditional use consent all zoning requirements and restrictions must be taken into account - the fact that a conditional use consent had already been obtained is irrelevant.

This is an award made on a submission to me as a sole arbitrator to determine the following question, namely:

> "What is the amount of rental that shall be paid in accordance with the provisions of the Lease (hereinafter described) by the Lessee to the Lessor in respect of the demised property for the final period of seven years of the current term of the Lease that is, for the period from the 4th day of February, 1978 to the 3rd day of February, 1985".

Legal description of land:

Lot 1 on Deposited Plan No. 52540 being part of allotments 2, 3 and 4A of Section 12 of the City of Auckland and being the whole of the land comprised in Certificate of Title Volume 6A Folio 777 containing an area of 1 rood 30.2 perches registered in the name of Her Majesty the Queen and administered by the Minister of Railways for Railway purposes.

The Lease:

By memorandum of lease registered as No. 76416 (referred to as "the lease") the land was leased to a duly incorporated company called Rangitoto Court Limited for a period of 21 years from and inclusive of 4th February, 1964. The present registered proprietor is Town House (New Zealand) Limited a duly registered and incorporated company (hereinafter called "the lessee").

Relevant provisions of the lease:

(1) The rent for the first 14 years was $1600 per annum.
(2) The rent for the remaining 7 years, failing agreement, is to be fixed by arbitration but is not to be less than $1600 per annum.
(3) By clause 12 there is a perpetual right of renewal for successive periods of 21 years. The rent for the first period of 7 years in each renewed term is to be determined by valuation in accordance with certain provisions in the lease. For each succeeding period of 7 years the rent is to be fixed by agreement, or failing agreement, to be settled by arbitration as provided but at a rental not less than that fixed for the first period of 7 years.

(4) Thefollowing clauses govern the present arbitration, namely:-

(a) 11. Within six calender months previous to the expiry of the first period of fourteen years of the within term or so soon thereafter as may be a valuation shall be made of the fair annual rent of the land hereby demised so that the rent so valued shall be uniform throughout the period of seven Years next following such first period of fourteen years.

(b) 16. In making the valuations referred to in clauses 11, 13 and 15 hereof no account shall he taken of the value of any buildings or improvements then on the said land.

Locality:

The property is located on the seaward side of Anzac Avenue, a street which connects the end of Symonds Street with Customs Street near its intersection with Fort Street. It is located almost directly opposite the Supreme Court and is about 100 metres to the south of the Station Hotel. The surrounding area was one of the earlier developed localities in Auckland's history. The Supreme Court, on the opposite side of Anzac Avenue, is one of the earlier buildings still standing in Auckland, as is the original Government House, now incorporated as part of Auckland University. The area in general is benefited from significant amounts of open space, including Constitution Hill reserve which is just to the south of the subject property, the grounds of Government House and the land around the Supreme Court. Anzac Avenue is a particularly wide street, capable of taking two lanes of traffic in each direction in addition to curbside parking on both sides of the street. However, due to the early development of the locality in the days before the prominence of the motor car, there is little provision for the parking of private motor vehicles leading at times to quite significant congestion. Due to the proximity of Anzac Avenue to the waterfront area and docks, most of the balance of Anzac Avenue was developed after the turn of the century into multi-storeyed warehousing properties. With the advent of mechanised handling, these warehouse buildings have become obsolete in that use, and over the last thirty years have been progressively converted to office space of a somewhat indifferent type. However, there has been some comparatively modern renewal of buildings for generally office usage.

Zoning:

At the effective date of 4th February, 1978, zoning of the land was Residential 7 under the Auckland City Operative District Scheme - a zone designed to cater predominantly for:-

Dwellings.
Semi-detached houses.
Apartments.
Boarding houses.
Reserves.
Administrative and professional offices.
Private hospitals.
Churches.
Other uses.
Conditional uses states as permitted in the code were:
Halls for recreation etc.
Educational institutions.
Shops (with limitations).
Restaurants.
Commercial offices.
Residential clubs.
Travellers' accommodation.
Licensed tourist houses.
Pensioner housing.

There are also other uses which need not be set out.

Adjoining properties:

The lessee has acquired by purchase a lease from the Maori Trustee (called "the Maori leasehold") of an area to the south. This lease is for a period of 21 years from 7th August, 1960 with a perpetual right of renewal at a rental calculated at 4% of the land value. The rate of 4% is fixed by Statute. The lessee also holds a lease from the Railway Department of an area to the north. The plan below shows the situation of the three properties in relation to each other.

Relevant History and Dates of transactions leading up to acquisition by the lessee of the lease and the Maori leasehold.

(a) On 4th February, 1964 Rangitoto Court Limited became the original lessee of the lease.

(b) By a transfer dated 10th November, 1966 but not registered until 1971, the lease was transferred to the "Lindsay Brown Trust" at a price of $35,000.

(c) On 16th March, 1972 the lease was transferred back to Rangitoto Court Limited at a price of $73,486.

(d) On 17th May, 1972 Rangitoto Court Limited acquired the Maori leasehold at a price of $40,000.

(e) On 25th July, 1974 99 shares (out of 100 total shareholding) in Rangitoto Court Limited were sold to Town House (Wellington) Limited at a price of $150,000. The assets represented by the said shares were the lease and the Maori leasehold which Rangitoto Court Limited had, as earlier stated, acquired for a total price of $113,486.

(f) On 5th May, 1978 the lease and the Maori leasehold were transferred to the lessee, for a price of $156,724. The lessee also got the benefit of the consent for conditional use which had been granted on 4th December, 1975.

Town Planning History:

(a) 7th October, 1974. An application was made by Town House (Wellington) Limited to the Auckland City Council for consent to a conditional use for the construction of a licensed tourist house on land in the lease and the Maori leasehold.

(b) 4th December, 1975. Approval was granted for the erection of a licensed tourist house subject to certain conditions of which the following ought to be specially mentioned:-

(2) Before a building permit is issued and prior to any site works being undertaken the applicant shall consult the Director of Parks as to the measures necessary to protect and preserve the Norfolk Pine on the south western extremity of the site.

(7) Carparking spaces shall be provided on the site, in accordance with the plans submitted.

(11) That the approval hereby given would continue only for so long as the two leasehold interests are held in common ownership.

(Note): Condition 11 refers to the Maori leasehold.

(c) There had been considerable discussion and negotiation concerning the number of carpark sites. The general requirement of one for each unit (i.e. 114) was reduced to 61 by negotiation and were sited on both properties.

Present improvements:

A tourist hotel of 114 rooms has been built on the land but there is a slight encroachment of a minor nature into the area of the Maori leasehold (said to be in contravention of planning approval). Car parking is provided for in Basements numbers 1 and 2, and in front of the building as well as on the Maori leasehold which latter area is also essential for access to the basement areas. The whole of the area of the Maori leasehold is used either for parking or for the *passage* of to and from the basements. This was the reason for condition 11 which limited approval only so long as the two leasehold interests are held in common ownership.

Method of fixing the assessed rent:

All valuers have assessed rent by ascertaining the land value and applying a yearly percentage rate. It is now agreed that the appropriate rate is 61 per centurn so the sole question is the fixing of the value of the land.

The Law Applicable:

It is accepted that the law is laid down in Drapery & General Importing Co. of N.Z. Ltd. v. Wellington City Corp. [1912] NZLR 598, 605 where it is stated:

> . the true basis on which the valuers must proceed is that there are no buildings or improvements on the land. They must ascertain what a prudent lessee would give for the ground-rent of the land for the term, and on the conditions as to renewal and other terms. etc., mentioned in the lease. They must put out of consideration the fact - if it be a fact -- that there are buildings or improvements on the land.

The case of McKee v. Valuer-General) [1971] NZLR 436 has an important application in the determination of the new rental. Before passing to a further discussion on its relevance it is apposite to cite the following passage on p. 442:

> In Tetzner v. Colonial Sugar Refining Co. Ltd. [1958] AC 50 the Judicial Committee, in considering the proper method of assessing the unimproved value of land in a case very different from that now before us, thus expressed the principle, which we think one of general application, as follows at p. 57:
>
> "The land will then be valued void of buildings but situated in the community with the amenities and facilities which have grown up around it".
>
> We add; "and with any disadvantages which a general zoning clause in a town planning scheme has imposed upon it".

In McKee's case the owners had built blocks of multi-flats on land which, at the time of a previous quinquennial valuation, had been limited to three-units. Before the next valuation the district scheme had been changed so that the erection of such multilfats became a "conditional use" which is defined as:-

" . . . . any use specified in the operative district scheme as a use that is permitted only if the Council consents and only subject to such conditions as the Council may impose, whether generally or in respect of the particular use or in respect of the particular site."

The owners had each obtained a consent to the erection of, and had erected, six flats on their respective pieces of land. The land for which such consent had been obtained exceeded the sale value of comparable land in respect of which no such consent had been obtained and such excess bore a definite relationship to the number of units authorised. The question was whether the excess was to be ascribed to "improvements" or to the "unimproved value." Omitting the first item in the headnote, the Court of Appeal held:

(2) The restrictions which the zoning of a town planning scheme imposed upon the land and buildings within a zone were to be taken into account in assessing the unimproved value of the land within that zone.

(3) The consent obtained was not an "improvement". In assessing the "unimproved value" the valuer must put the consent on one side as if it had not been obtained. and assess the value of the land without it but with the chance of obtaining such consent.

From the authorities therefore, I deduce the following propositions:

(1) The present development on the land is irrelevant to the assessment of rent.

(2) The land thus must be valued as to rent as if it were void of improvements, but with the amenities and facilities available in the area.

(3) Zoning restrictions are to be taken into account in assessing the unimproved value.

(4) The fact of the existence of consent to the present conditional use cannot be taken into account.

(5) The chance of obtaining a consent to a "conditional use" if the land were in an unimproved state as at 4th February, 1978 is a matter for assessment in fixing the unimproved value.

Two valuers were called on behalf of the lessor, Mr Dean of the Valuation Department and Mr Eyles a practising registered Public Valuer. Mr Barratt-Boyes, also a practising registered Public Valuer, was called on behalf of the lessee. There was other evidence to which I shall refer in due course at appropriate times. The respective values were:-

Mr Dean said:

In the case of the subject property I therefore believe that in arriving at my valuation I must firstly value the land as zoned, and then assess the chances of obtaining a conditional use again, and to add the valuation of those chances to the valuation arrived at by reference to its zoning. This is the premise upon which my valuation is based.

Note: The use of the word "again" is misleading. The fact that a consent has been granted must be put aside: vide McKee's case.

The witness, after giving his reasons, valued the land as zoned at $210,000 and then continued by considering the potential and concluded that the value was $320,000, which, at the agreed percentage rate, produces an annual rental of $20,800.

Mr Eyles, without quantifying the "chance of consent to conditional use", summarised his opinion as follows:-

1. Full value for Tourist House site:	$324,600
2. Value by comparable zone sales:	$185,000
3. Value by lease rental analysis (1):	$336,700
4. Value by lease rental analysis (2):	$250,800
5. Value by Subject sale analysis:	$245,000

In consideration of all of these sales I conclude that $275,000 is the correct freehold land value applicable as at the date of rental review, taking into account the chance of obtaining a consent to conditional use and in consequence assess the rental for the final seven years of the term from 4th February, 1978 as follows:

$275,000 x 6.5% ..... $17,875 p.a.

Mr Barratt-Boyes assessed the land value at $168,-000 thus producing an annual rental of $10,920. He did not quantify a value as zoned and then add a potential for the chance of obtaining a consent to a conditional use, but, like Mr Eyles he took the potential into account.

It will thus be seen that basically each valuer applied the principles laid down in McKee's case but Mr Dean took the step of valuing the land as zoned and added a specific figure for potential. Mr Eyles appears to have assessed a potential of $90,000 based on his opinion of value "by comparable land sales" (viz. $185,000). I can see no reason why the potential should necessarily be quantified so long as it is clear that, if it has a value (and that is a question of fact to be determined), that value must reflect itself in the ifnal figure.

The estimate of a chance is a matter of individual judgment on a consideration of all relevant factors, and in the end the fixing of a value, with or without a potential being added, is a matter in which a large number of relevant factors which cannot and do not, in the absence of a "market" for an identical commodity, produce any precise figure but must result in an informed judgment arrived at by an expert on all the evidence which he considers relevant, and giving such weight to each factor as he thinks proper in deducing what overall figure is a fair value. The result usually is, as it is here, that the arbitrator has for his consideration differing assessments from each of the highly qualified and experienced valuers called. To summarise then I have the following assessments:-

(1) Mr Dean at $320,000 producing a rental of $20,800.
(2) Mr Eyles at $275,000 producing a rental of $17,875.
(3) Mr Barratt-Boyes at $168,000 producing a rental of $10,920.

The task which I have to perform may be summarised as follows:-

(a) the relevant date is 4th February, 1978,
(b) that the land is to be considered as if in an unimproved state,
(c) it may be used as of right in respect of the predominant uses earlier set out,
(d) there is a chance that consent may be granted for any one of the conditional uses also earlier set out,
(e) such a consent may be subject to conditions imposed by the Auckland City Council and such conditions may be more or less onerous as the Council may consider proper,
(f) there was a demand for suitable tourist hotel development for the City of Auckland generally and the Auckland City Council desired to encourage such an activity in the City area,
(g) the area must be considered for potential development as an individual and separate piece of land and as to its own shape size and situation together with all the amenities and facilities which were available for its separate development and use and together with the likelihood that it might be so acquired for development as a tourist hotel,
(h) the fact that a consent to conditional use was granted must be put to one side,
(i) the consent granted was not to the use of the land simpliciter but was in respect of the use of a greater area for access and parking.

General comment on evidence of valuers for lessor.

Mr Dean is incorrect when he says (page 2) that the existence of a particular building on the land is a relevant consideration. This conclusion is reached by a misconstruction of the true meaning of clause 16 - a matter which was later conceded during the hearing. Early in his opinion he considered the sale of the shares on 25 July 1974 for $150,000 to have some significant relevance to the valuation required for lease renewal purposes. This transaction and the transfer of the two leaseholds to the lessee on 6th October 1978 for $156,724 have in my view been given a significance and weight to which they are not entitled under the principles which must be applied. With the greatest respect I find most of the discussion on the granting of a conditional use for other motels or tourist houses of comparatively minor importance in relation to the size, shape and situation of the land in the lease when considered as a separate entity. The evidence to be relevant, must be related to similar development on the site without the use of the Maori leasehold. Mr Dean does not define such development. Reference is made (page 7) to the prospect of again establishing a conditional use and also to the fact that, if an application for consent had been made for a number of rooms in excess of 114 such an application may have succeeded as well. This statement ignores the fact that the conditional use consented to required additionally the use of the Maori leasehold. I have already commented on the use of the word "again".

The Method adopted by Mr Eyles. He said:-

> . Clearly the site is valuable for tourist house accommodation and this would seem to have been recognised at least since 1974 when Townhouse (Wellington) Limited purchased the Rangitoto Court Limited Company. Other sites of comparable size and zone were no doubt available at that time but the decision was made to buy here, highlighting its desirability for that particular use. The first measure therefore should, I believe, be the full value of the land for use as a tourist house site on the assumption that a structure, such as that now existing could be erected without conditions.
>
> Secondly I believe that the value of the land should be determined in comparison to sales of similarly zoned sites adding to that a measure of value to the extent offered by the chance to obtain a Conditional Use. Evidence is appended to estimate the basic levels of both above approaches but, in view of the absence of evidence to me as to the measurement of chance I have preferred to rather weigh all the evidence before coming to my conclusion. It should be said however that the chances of obtaining the Conditional Use would have been good and in support of this would briefly record the process of the actual application which was lodged on 8th October, 1974."

The witness then went on to give the history of the steps taken in obtaining consent to the conditional use of both areas.

In my respectful view the first measure is not that above set forth and underlined by me. Such a structure could not be erected without conditions because it required the use of the Maori leasehold and further 114 carpark spaces would be necessary unless some concession was made. I am at a loss to know what structure is contemplated "without conditions". This is an approach contrary to that laid down in McKee's case and contrary to the principles I have already set out.

I agree that the use of similarly zoned sites is a proper basis for comparison and that the chance of obtaining a conditional use, must be considered. But, as it appears to me, the values of Mr Eyles are unduly and wrongly inflated by the history of the acquisition and use of an area much larger than the subject land, namely, the combined areas of that land and the Maori leasehold. The fact that any consent to a conditional use has been granted must be put to one side as if it had not been obtained. That is now clear law. The chances of obtaining a consent must be confined to the use of the subject land as if void of buildings – a matter which Mr Eyles overlooks and fails to say what particular development he had in contemplation if such development was so confined.

Mr Eyles continued by saying that the conditions imposed "will hardly be considered onerous". Apart from the exclusion of the area taken by the tree it

must be remembered that the development consented to required the acquistion and use of the Maori leasehold. In my view, not only was the condition as to the use of the Maori land an onerous condition, it was also the wrongful intrusion of an "adjoining owner" influence in considering the use of the land in the lease as a separate entity. According to the witness the Government value of the Maori leasehold is $90,000 and the annual rent $3,600. He apportioned the price paid for the shares in Rangitoto Court Limited as to $53,400 for the Maori leasehold. The land is condemned to use as a carpark for some 30 vehicles and as an access to the basement areas of the lease and thus has lost its whole potential for development. Failure to recognise this patent factor has caused me considerable concern both in the evidence generally of this witness and that of Mr Dean.

Mr Eyles continued by valuing the site for a tourist house at $324,600. This was based on room values for ifve other developments of tourist houses varying from $3000 per room to $4314 per room from which figures he arrived at $4000 for 114 rooms for the subject site. This figure of $324,600 was used in arriving at a final value of $275,000 and appears to be quite significant in raising the values of comparable zone sales ($185,000) and value by "subject sale analysis" ($245,000). His analyses on a rental basis refer first to the lease of the area north of the subject site acquired for parking purposes. It is a highly restricted lease with onerous and unusual provisions. On the information before me, I do not accept it as a basis for comparison by the arbitrary addition of 50% to the rental for such restrictions. The second rental analysis related to the Maori leasehold and I will say more of that later.

The true method of valuation.

The land must be considered in an unimproved state on the relevant date. Even if it had on the one hand valuable improvements of an entirely different type at that date of good potential earning capacity or on the other hand had on it buildings which were at or coming to an end of profitable exploitation, or had the present development on which both Mr Dean and Mr Eyles placed great weight, the value of the land must be exactly the same. This follows inexorably from the well-known principles which can bear re-statement because too frequently, as has been the position in the present case, the actual development and use of the site has tended to outweigh and colour, and even distort the true inquiry. I refer to:-

(a) Drapery & General Importing Coy of N.Z. v Wellington City Corporation 31 NZLR 598, 605 where it was said: "(The Valuers) must put out of consideration the fact, if it be the fact, that there are buildings or improvements on the land.

(b) McKee v Valuer-General [1971] NZLR 436, 443 "the valuer (is) obliged to contemplate the land, as at the moment of valuation, but with the buildings on it notionally removed, (and) he (is) left with notionally vacant plots..... 11

(c) McKee's case:- The consent to conditional use must be put to one side as if it had not been obtained.

I turn now to consider the position by applying the principles which I have laid down. The present development and use of the Maori leasehold to enable such development must be put to one side. I assume that the Maori leasehold has a similar provision for the ifxing of rent renewals in which case the present development on it must be ignored and the rent for this must be fixed as if it were vacant land with its full potential. The lessee must pay its proper rental value. The fact that the respective leases may be vested in the same ownership is irrelevant. In respect of each lease a fair rental must be paid for the land as being notionally vacant and not a rental which may reflect a more beneficial use of, or market for, the land because two or more areas may be combined in the same ownership. To transpose this to the fixing of a fair rent for each on a percentage basis, the value of the land for each area must be separately fixed irrespective of any adjoining owner influence. If one owns land A one may be prepared to pay more for the adjoining land B or vice versa. Similarly, and as a necessary corollary the combined areas may fetch a better price than single sales to separate purchasers and may be exploited to a greater advantage than by separate development.

Viewed in the light of what I have just said I cannot accept that an analysis of the transactions which have included the Maori leasehold, have any real validity in ifxing the value of the subject land as a separate area. It is pure speculation to assess in respect of the transactions which took place what the price would be if one only of the two leaseholds had found a market at that time independently of the other. Indeed, there may then have been no demand for the individual units without the prospect of acquiring both. It would similarly be speculation to assess what potential might be added in respect of the future development of either site as a separate area. It is clear that each transaction was entered into with the intention of combining the two areas in any future development. For these reasons I do not place any reliance on any reasoning which was based on the acquisition of both sites and the subsequent consent to conditional user and the development of a Town House of 114 rooms or any other number of rooms based on a similar development.

If a suitable plan confined to the subject site for the erection of a licensed tourist house or similar accommodation had been submitted to the Auckland City Council, I have little doubt but that consent to conditional use would have been forthcoming. What conditions as to access and parking on the area might be imposed is not certain. Whether such development might then be considered by an investor or developer as a development of the lease site I do not know. But no such plan was submitted and the course which was taken on the combined areas has, in my respectful view, limited evidential value. The evidence is clear that the basic requirement is one carpark for each unit - a requirement which may be modified as it was in fact in the present development. The lessor did not produce any concrete evidence to show how the potential of the subject site, taken as an individual site, could be developed as a tourist house or motel site, and, in particular with provision for parking, either at the stated or at a reasonable lesser rate per unit, including, of course, provision for access, the situation of administrative areas and other matters which have been successfully and conveniently accommodated by the use of both sites so that the one complements the other in the present development.

It is convenient now to attempt to state and to compare the respective land values assessed by each valuer. Mr Dean gave a figure of $210,000 to which he added a potential of $110,000. Mr Eyles assessed the comparable zone sales value at $185,000, which, as counsel for the lessor acknowledged, meant that the witness had added $90,000 for potential. Mr Barratt-Boyes assessed a figure of $168,000. He said:-

> (My) valuation disregards potential development taking place on this site and planning consents obtained, but does have regard to the potentialities of the site for that use - which is, in fact, shared by many other sites within the same zoning.

Mr Barratt-Boyes in his oral evidence said there was no premium built into the prices paid for land acquired for the "Sheraton Development". His professional involvement qualified him to express that opinion. However, I believe that potential has, in monetary terms, played a very small part in his present valuation and consider that I should treat the figure of $168,000, although it professes to take potential into account, as being a proper basis for comparing the above respective figures of Messrs Dean and Eyles. We, therefore have for comparison the following valuations of the land, namely:-

(1) Mr Dean	$210,000
(2) Mr Eyles	$185,000
(3) Mr Barratt-Boyes	$168,000

It is agreed that the "unit method" is more reliable than the "area method". The respective unit figures are $5500, $4750 and $4500. Both Mr Eyles and Mr Barratt-Boyes accepted a frontage of 30.61 in whereas Mr Dean added 5% for more effective width. The depth factor varied. Mr Dean adopted 119.1%, Mr Eyles 121% and Mr Barratt-Boyes also 121%. Accordingly Mr Dean has a considerably higher unit figure and greater frontage factor with some diminution in the depth factor. If Mr Dean's figure of $5500 is related to a frontage of 30.6 and his stated depth of 119.1% the value is in round figures $200,500.

To obtain the unit figure of $5500 Mr Dean considered the sale of 57A Symonds Street "to be the

most readily comparable" and adjusted the price to $5580. Mr Eyles gave the sale figure at $4197 and adjusted it to $4407 but he considered the unit value of the land at the much higher figure of $4750. Mr Barratt-Boyes, in his first report, stated the unit price was $4100 and that the site compared well with the lease area as to zoning and distance from the central city area. He used this as a factor in fixing a frontage rate of $5000 for the land less 10% for 10% contour disability. In his second report he gave a fuller history of this transaction which in fact was part of a very much larger operation and said that considering all factors it compares to the earlier valuation of $5000 from which he deducted 10% In my view the sale of 57A Symonds Street does not support a unit value of $5500. Mr Dean also stated the sale of 9 Eden Crescent was comparable. He adjusted the value to $5350. Neither of the other valuers relied on this sale. It took place in 1973. In the absence of much more detailed information and inquiry I am not prepared to accept this transaction as having the weight given to it by Mr Dean.

The lessor called Mr Taylor a Planning Officer employed by the Auckland City Council. His evidence does not advance the matter. He was asked to give evidence on the probability of a second planning consent being granted if the present structure had been destroyed. His opinion was subject to re-building being kept within general bulk and location guidelines for zoned predominant uses and subject to the City Traffic Planner being satisfied with parking and access provision. He said he would report favourably on the issue of a further consent to the present use. I accept this view but there is no evidence which leads me to come to a conclusion on what likelihood there was at the relevant time that any such application might even be considered by a developer who was confined to the subject land, or exactly what that development would entail or what conditions might be imposed. This evidence is no more than a re-statement of what has already happened, namely, that such a consent has already been granted and there is no reason to think that, if all requirements are again complied with, the policy of the Auckland City will change. In short what applied on 5 December 1975 still applied on 4 February 1978. In the absence of some material change in the meantime I would have thought this was a self-evident proposition. Further comment is unnecessary.

In addition to Mr Barratt-Boyes the lessee called two witnesses. One Mr Parton, a Town Planning Consultant, and Mr Evans who was, in fact, the developer and who, until recently held a half-financial interest and is still retained as a financial consultant by the lessee.

The opinion of Mr Parton was expressed as follows:-

> . although consent was granted to the original 114 unit tourist house with only 61 car parks, I doubt whether Council would grant a similar relaxation for a 30 unit motel which would be expected to provide 30 car parks. Although it is not possible to be categoric on this point, I would think that a motel or tourist house development containing in the order of 40-45 units and having in the order of 30 off street car parks may have been consented to on the crown site in February 1978, but I doubt whether approval would have been forthcoming for a development of 56 units with 30 off street car parks for the reasons which I have outlined. In reaching this conclusion I have still taken into account the proximity of the crown lease site to the Auckland Railway Station but have given less weight to its likely use by tour groups."

The witness produced plans to illustrate his opinion.

This evidence highlights the problem of determining just what development of the type canvassed ought to be evaluated on the chances of obtaining a consent to a conditional use and what the chances were that a developer would even consider such a use of the land. In short, the question is what was the market for the land and its potential use as an individual site at the relevant date?

Mr Edwards was very favourably impressed with the site (that is a combination of both properties) for development as it has now been developed and he held out high hopes for a successful investment. These hopes have not been realised. He was adamant that at least 100 units were essential to make such development a viable proposition and that the land "in isolation" had no value for such development. I find it unnecessary to detail his evidence but it re-inforces my view that any opinion, unduly coloured by taking into account the present development, must be treated with serious reservations. I must treat the land in the lease as if it was void of buildings and no consent to conditional use had ever been granted and assess the value, including a value (if any) for the chance of using the property for development (in this case as it is the only one put forward) as a tourist house, considering the land to be held by an individual not an adjoining owner and ignoring the present dual development.

I do not accept that my task is necessarily one of determining as an exact figure the unimproved value of the land in respect of its predominant uses and then to add, if I found any such additional value, an amount or a percentage to that figure for the chance of obtaining a consent to a conditional use and, in particular as a tourist house of the type developed. Such a procedure may commend itself to others or in other circumstances, but, in the present case I propose to ifx a global figure. I accept the approach by the Administrative Division of the Supreme Court in McKee's case in applying the Court of Appeal decision by using the test of an informed prudent and willing purchaser. There the Court was concerned only to assess the one element whereas my task is, in the end, to assess the total value of the land. I do not find it necessary to determine exactly what the nature of the development may be, that is to say, how many rooms, what access, what parking spaces and what administrative and other provisions may be necessary for a successful development of the site without the use of an additional area. There is insufficient evidence. Further, I do not accept that "in isolation" there is no potential for successful conditional use which a prudent purchaser would take into acocunt. I believe there is.

I do not accept the assessment of potential by Mr Dean at $110,000 and the possible figure of Mr Eyles which appears to be $90,000 or something less. When these assessments are put aside I have, as earlier stated, land values as follows:-

Mr Dean	$210,000
Mr Eyles	$185,000 (For comparable sales)
Mr Barratt-Boyes	$168,000

For reasons already given I do not accept the approach of Mr Dean so I eliminate the figure of $210,000. The site has its attractions and these were clearly accepted by Mr Edwards although the particular development is not now prospering as expected. That is a matter of subsequent history and I put it aside. Any potential development of the land (divorced from the complementary or any other use of adjoining land) is not supported by any specific evidence of what form that development might take. The sales of the combined leasehold interests I find not only contain the inherent difficulties of assessing land values from leasehold sales but also contain a strong influence of combined ownership of adjoining properties suitable for common development as an entity. The completed tourist house development in other areas, whilst useful to give an overall picture, I find an unreliable basis for assessing the value of this piece of land. So far as "room values" are concerned, I am not prepared to calculate any values based on any particular number of rooms notionally built on the land as a separate entity.

Although I have rejected the land value of Mr Dean I have carefully considered all those portions of his evidence concerning sales which he thought relevant and which I consider may have a bearing on my task. I have given similar and careful consideration to the relevant portions of the evidence of Mr Eyles and that of Mr Barratt-Boyes. In the result I ifnd that, having made comments on the evidence of Mr Dean and Mr Eyles, and, having considered that Mr Barratt-Boyes has not given sufficient weight to potential, I must come to my own conclusion on what sum properly reflects both the land value as zoned and its potential arising from the chance of its conditional use as a licensed tourist house. As I have emphasised earlier there is insufficient evidence to show exactly what development a prudent purchaser might have in mind when confined to the site of the lease. However, I am satisfied that there is a poten-

tial value to be taken into account in assessing the value.

In McKee's case the extended form of conditional use was clear and well-demonstrated as was the enhancement of value if a conditional use was consented to. For the reasons I have given earlier no such clear cut case has been made out but it is worthy of comment that in McKee's case no percentage of the order assessed by Messrs Dean and Eyles was added. The actual percentages were 25% and 15%. However, each case rests on its own particular facts. On the principles I have laid down, and, on an overview of all the evidence which I find acceptable, I ifx the value of the land at $195,000. This gives a rental of $12,675 yearly.

Each party will pay the costs of its own witnesses. All other costs are to be borne equally. In case of any dispute the matter may be referred to me. The fee for the arbitrator is fixed by an attached memorandum.

In witness whereof I have made and published this award on the 28th day of June, 1982.

T. HENRY, ARBITRATOR.

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or
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