

The New Zealand Valuer

NEW ZEALAND INSTITUTE OF VALUERS

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1955 -1957	R. J. Maclachlan, Wellington.	1978 1979	P. G. Cooke, Nelson-Marlborough.
1957 1958	V. W. Cox, Napier.	1979-1981 -	P. E. Tierney, Tauranga.
1958 1960	G. C. R. Green, Dunedin.		

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The New Zealand Valuer

VOLUME 25 NUMBER 1

MARCH, 1982

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Publications of the New Zealand Institute of Valuers

(OBTAINABLE FROM THE GENERAL SECRETARY,
BOX 27-146, WELLINGTON, N.Z.)

URBAN LAND ECONOMICS		\$4.00
SCALE OF CHARGES		\$2.00
N.Z. VALUER (Back copies)		\$3.00
N.Z. VALUER (Full year Non-Members)		\$12.00
INSURANCE PADS		\$7.00
VALUATION OF UNIT TITLES		\$2.50 member \$2.00 student
METRIC CONVERSION TABLES		\$5.00
LAND TITLE LAW		\$3.00 \$2.50 student
VALUERS' HANDBOOK		Being revised and reprinted.
PROCEEDINGS OF THE 8th PAN PACIFIC CONGRESS OF REAL ESTATE APPRAISERS AND VALUERS		\$2.50
MODAL HOUSE SPECIFICATIONS MODAL HOUSE QUANTITIES		Being revised and reprinted.
STATISTICAL BULLETINS		\$15.00 per year (to Bureau Members)
SALES LISTS (Auckland Urban 30 cents per page) (Other Lists 34 cents per page)		(Available to Bureau Members)
SUBSCRIPTION FOR BUREAU MEMBERSHIP		\$15.00 per year
LAND ECONOMICS - Reprint of Articles from the N.Z. Valuer for Economics II students		\$8.50
URBAN VALUATION IN N.Z. - Vol. 1 (Bulk Orders of 10 copies or more \$25.00 per copy)		\$28.00
INDEX TO VOLUMES 20 to 23		\$1.00
PAST EXAMINATION PAPERS	(One Paper Subject)	\$1.50 set.
(Sets of approx. 5 years)	(Two Paper Subject)	\$3.00 set.
GUIDANCE NOTES ON VALUATION OF PROPERTY ASSETS FOR CURRENT COST ACCOUNTING (C.C.A.)		\$10.00 per copy

Editorial Comment

With this issue your publication takes another step forward. Contributors will note the updated format, now in A4, and the redesigned cover. However, a moment's glance through the pages will assure readers that the content is unchanged. A continuing high standard in keeping with past publications is dependent upon members' contributions.

The new format allows for the inclusion of a ready reference Contents page, but no major changes are envisaged. An attempt will be made to group articles of a similar content into one issue, dependent on copy available.

Members of our Institute are anxious that "The New Zealand Valuer" should move forward from its position of strength to one of greater strength. A quick search back through issues of the past 15 years shows three changes of format,

confirming a continuing growth in the profession. Suggestions for further improvements to this publication will be welcomed.

We take this opportunity to record the valuable contributions made by your past Editor, John G. Gibson, and the Assistant Editor, Hamish F. MacDonald.

John Gibson has terminated his Editorial association with "The Valuer" after a period of seven years during which time the size of the publication has doubled. Members should appreciate that John has spent many long hours in their service.

Hamish MacDonald has been associated as John's Assistant for four years, adding the necessary rural valuation expertise required for a balanced publication.

THANK YOU.

Report on 1981 Pan Pacific Congress Melbourne

Prepared by Dominion President R. M. McGough

I am sure that those who attended the Pan Pacific Congress in Melbourne would have been impressed with the excellent organisational abilities of our Australian counterparts who seemed to be able to arrange even suitable weather.

New Zealand was well represented with some 41 members plus 32 partners registering. Messrs R. E. Hallinan, A. Fear and L. M. Sole as well as myself, presented papers at the conference. Mr K. J. Cooper participated as a panel speaker while Messrs M. R. Mander, P. E. Tierney and J. N. B. Wall acted as session Chairmen. My thanks go to all those who contributed.

A new event at this Congress was a "Festival of Nations" night in which each country was able to participate with food or entertainment of their own choice. The presentation pack of Kiwifruit given to each couple as they departed the hall as well as a New Zealand table of food, appeared to be well received.

I would advise members attending future Congresses to stick with the hotels booked by the organising country. The tariffs at those hotels may appear to be higher than normal from here but in the overall result, well worth it when transport and other factors are taken into account.

Korea was admitted to full membership by the Board of Directors and the 12th Pan Pacific Congress will be held in Kuala Lumpur,

Malaysia in August of 1983. From all accounts, the organisation is already well advanced and the friendliness of the Malaysian contingent indicates that this will be a Conference not to be missed.

The 13th Pan Pacific Congress will be hosted by the Americans in Honolulu in 1985. A post conference meeting can be held on the mainland for those wishing to proceed there.

At the 10th Pan Pacific Congress in Japan, Australia sought a conference in 1988 to coincide with the Australian Bi-centennial year. This was approved by the Board at that meeting and it became necessary to resolve the position of our next turn as hosts, which was to have been in 1987.

It became very apparent to me that a Congress in 1987 in New Zealand with another in Australia in 1988 would probably result in neither being successful. With that in mind I reluctantly found it necessary to forego our 1987 opportunity in the interests of the Pan Pacific Organisation, a decision that was difficult to make and one for which I must take the responsibility. There will thus be no Congress in 1987.

Overall it is obvious that our participation in the Pan Pacific Congress is well worthwhile and I am sure that all those who attended over the years will heartily agree. I can recommend to you all to start planning to be at Kuala Lumpur in 1983.

Membership

ADMITTED TO INTERMEDIATE:

Corbett, T. J.	Waikato.
Graham, C. E.	Waikato.
Hope, C. W.	Waikato.
Johnson, D. R.	Southland.
McGregor, R. G.	Central Districts.

ADVANCED TO ASSOCIATE:

Kingston, R. J.	South Canterbury.
Malcolm, P. C. A. (Miss)	Wellington.
McDonald, A. S.	Auckland.
Nurse, W. A.	Hawke's Bay.
Perkins, F. H. T.	Otago.
Were, K. F.	Waikato.

CONVERTED TO NON-PRACTISING:

Henty, D. J.	Northland.
Meyers, M. F.	-- Wellington.
Winter, M. G.	Auckland.

RESIGNATIONS:

Clayton, P. B.	Hawke's Bay.
Hubbard, W. W.	Central Districts.

RETIRED:

Brown, N. R.	Southland	Rule 14(2)
Gregan, J. D.	Canterbury/West.	
MacDonald, I. G.	Waikato	
Martin, I. A.	Hawke's Bay	
Martin, H. R.	Hawke's Bay	11

DECEASED:

The following death is noted with regret:-
Coldham, R. F. Auckland.

Students' Section

From George Hunter - Education Officer

1.-PROFESSIONAL EXAMINATIONS - 1981:

The following candidates were successful in the Professional Examinations held in November, 1981. Results are subject to confirmation on receipt of official result cards.

The Code Numbers refer to the following subjects:

1. Construction I; 2. Town and Country Planning; 3. Valuation Law; 4. Valuation I; 5. Economics I; U6 Construction II; U7 Economics II; U8 Valuation II - Part A; U9 Valuation II - Part B; R6 Agriculture; R7 Farm Management; R8 Rural Land Economy; R9 Valuation II.

Auckland: Armitage, I. R., U6; Bennett, R. S., U6; Borich, S., U7; Hamilton, M. J., U8, U9; Lambert, M. G., U6; McIntosh, S. R., U8, 3; Rhodes, J. B., 3, U9; Rowntree, T. W., U6; Saunders, P. H., 2; Stafford-Bush, B. R., U7; Suridge, J. G., U7, U8.

Hamilton: Brown, I. M., 1; Brown, R., U7; Gerbich, W. N., U7, U9; Johannsen, M. I., R8; Power, M. P., 2, R9.

Rotorua: McKinley, M. G., 1, R9; Owen, D. J., U9; Stewart, K. R., 1.

New Plymouth: Baker, I. D., U7; Malthus, R. M., U8.

Napier: Beggs, B. J., U7; Eaton, M. D., U7, U9.

Wanganui: Carr, T. E., 1, R8; Gray, W. F., R8, R9; Routh, D. A., 3.

Pahnerston North: Arneson, P. S., 3, 5.

Wellington: Atkinson, M. R., 1, 2, 3, 4, 5; Barton, R. H., U6, U7, U8; Beacham, S. J., 1, 3; Delbridge, I. D., U7, U9; Faherty, M. P., U9; Hearfield, B. J., U9; Hitch, R. G., U6; Hitchins, D. R., U6; Hutchison, I. J., 4, U7; Jansen, G. P. L., U9; Louisson, L. T., U6, U8, U9; McCarroll, S. L., U7; McQueen, A. T., U6; Mauchline, J., U6, U7; Miller, G. D., U7, U8; Pollock, R. J., U6; Puketapu, H. J., U6, U8; Rose, G. E., 2, 3, U7; Senior, P. W., U9; Stewart, R. C., U8; Stigter, F., U6, U7; Tiller, B., U9; Vink, R. J., U7, U9; Wallace, E., 5, U6; Whitaker, B. J., U9; Ford, M. T. D., R7, R8, R9; Garland, K. J., R6; Orchard, C. S., R6, R7, R8, R9.

Christchurch: Allison, A. B., U6, U9; Chand, R., U7; Dryden, S. E., U6, U9; Johnson, N. J., U9; Lucas, T. W., U7; McDonald, G. J., U8; Martin, A. B., 2, U9; O'Callaghan, B. R., U6; Oxenham, F. W., U8; Paterson, G. J., U6, U7, U8; Paul, B. E., U6; Robertson, G. L., U7, U8; Ross, R. J., U9; Ryder, S. J., 3, U7, U8, U9; Williams, B. N., U7, U9.

Dunedin: Donaldson, S. J., U6, U7; Rosevear, J., U6, U8; Whelan, J. R., U6; Wright, T. M., 1, 3.

Invercargill: Cavanagh, S. M., U6; Chapman, A. G., U6, U7; Renouf, C. C., 3; Muskee, A. H., U9.

Overseas: Betham, E. P., U8.

2.-Termination of N.Z.I.V. Professional Examinations

In compliance with Council's decision to terminate the Institute's Professional Examinations the Education Committee decided (in 1979) on a phasing out programme. In terms of this programme the subjects Construction I, Valuation I and Economics I were set for the last time in November, 1981.

The remaining subjects, Town and Country Planning, Valuation Law and all Second Professional subjects will be set in 1982.

In 1983 the Practical and Oral (subjects U10 and RIO) only will be set.

3.-Tuition by N.Z. Technical Correspondence Institute

In line with the above phasing out programme the Technical Correspondence Institute will continue to provide tuition for the remaining subjects of the N.Z.I.V. Professional Examination. The following notice has been received from the T.C.I. regarding their 1982 programme of tuition.

In 1982 TCI will continue to provide tuition, from existing assignments with updated answers wherever possible.

ASSIGNMENTS AVAILABLE FOR 1982

FIRST PROFESSIONAL LEVEL

(Note Phased Out Subjects)

- Subject 1 Construction I - Phased out.
Subject 2 Town and Country Planning - Ten fully updated assignments.
Subject 3 Valuation Law - Nine not updated but adequate assignments. McVeagh's Land Valuation Law, Seventh Edition, is recommended for certain areas.
Subject 4 Valuation I - Phased out.
Subject 5 Economics I - Phased out.

SECOND PROFESSIONAL LEVEL (Urban)

- U6 Construction II - Adequately covered by mainly updated assignments.
U7 Economics II - Selected assignments from existing TCI courses cover the syllabus in most areas. Land Economics by the NZIV Education Committee is essential reading. Cost \$8.50.
U8 Valuation IIA (Urban) - A series of 11 assignments is available but these are still mainly in imperial units. If used in conjunction with Urban Valuation in N.Z., and articles in the N.Z. Valuer, adequate coverage is provided. Updated sample answers are provided.
U9 Valuation IIB (Urban) - It is hoped that tuition will cover the full syllabus.

SECOND PROFESSIONAL LEVEL (Rural)

- R6 Agriculture - Fully covered by 20 updated assignments.
R7 Farm Management - A composite selection of assignments is available.
R8 Rural Land Economy - A composite selection of 16 assignments. Further reading is recommended.
R9 Valuation II (Rural) - Fourteen existing assignments are used. A considerable amount of additional material is supplied during the course of tuition. The new textbook The Valuation of Rural Property is required reading.

TUITION FEES

One subject	\$25
Two subjects	\$35
Three subjects	\$45
Four subjects	\$55

ALL ENQUIRIES TO:

Head of Agriculture Department
N.Z. Technical Correspondence Institute,
Private Bag,
LOWER HUTT.

TIMETABLE

Date	Time		Subject
Monday 1 November	9 a.m. - 12 noon	U6	Construction II Paper A.
		R6	Agriculture Paper A.
Tuesday 2 November	2 p.m. - 5 p.m.	3	Valuation Law.
	9 a.m. - 12 noon	U8	Valuation II - Part A - Paper A.
Wednesday 3 November	11	R6	Agriculture - Paper B.
	2 p.m. - 5 p.m.	U7	Economics II.
Thursday 4 November	9 a.m. - 12 noon	U9	Valuation II Part B - Paper A.
	11	R8	Rural Land Economy.
Friday 5 November	2 p.m. - 5 p.m.	R7	Farm Management - Paper A.
	9 a.m. - 12 noon	U8	Valuation II - Part A - Paper B.
	11	R7	Farm Management Paper B.
	2 p.m. - 5 p.m.	U6	Construction II - Paper B.
	11	R9	Valuation II (Rural) - Paper A.
	9 a.m. - 12 noon	U9	Valuation II - Part B - Paper B.
	11	R9	Valuation II (Rural) - Paper B.
	2 p.m. - 5 p.m.	2	Town and Country Planning.

ENTRIES

Closing Date for Entries - Entries will be accepted from 1st June to 20th August. Entries received after 20th August must be accompanied by a late entry fee of \$20. No entries will be accepted after 3rd September.

Entry forms can be obtained from Branch Secretaries and the T.C.I. or from the Education Officer.

Entry Fees - The entry fees for the examination are \$15 per paper (subjects with two papers \$30).

Withdrawal of Entries - Considerable extra work and inconvenience results from candidates who enter for the examination subsequently withdrawing their entries. In many cases the reasons given for withdrawal are trivial and often a refund of fees is asked for.

Withdrawals for adequate reason will be considered up to 20th October. An administration surcharge will be imposed. After 20th October, withdrawals will not be accepted (except for emergency reasons) and entry fees paid will be forfeited.

ADVERTISEMENT

TITLE SEARCHES

J. & C. PEARCH LIMITED has been operating for many years in Auckland as a search and registration agent for a large number of professional people, including valuers.

For those of you who do not know our firm, it has two principals, Colleen (a former Assistant Land Registrar) and Jeff Pearch, and a substantial and experienced staff offering prompt specialised services covering property and company searches, registration, Government valuations, Court attendances and many other related services.

Of particular interest to valuers is our firm's daily Land Transfer searching service. Search

instructions can be phoned through or sent by mail. Search information can be phoned back and extra copies of titles sent to other parties, if required.

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Contact:-

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P.O. BOX 5346, AUCKLAND.

Regional News

Members wishing to contribute to this section are invited to contact the Regional Correspondent for their area.

CHRISTCHURCH REGION REPORT

Contributed by D. A. Johns

RESIDENTIAL

The strong demand for established homes has continued and spread into the medium price range areas and group housing localities.

Waimairi County permits for new homes are at the highest levels for several years especially for quality homes.

There has been a noticeable increase in residential house rentals of up to \$80 per week for three bedroom homes and up to \$20 per bedroom for student accommodation.

Maximart - A new concept in shopping

The multi-million dollar discount and department store owned by L. D. Nathan opened at Shirley in February and has generated enormous public interest.

This is the biggest single floor store in New Zealand spreading over 6724 square metres. The three-million dollar store has a huge variety of merchandise of over 35,000 different lines spread over 86 departments. Parking for 500 vehicles is provided and the store employs 70 staff. Business hours include late night Thursday and Saturday morning shopping. Bankcard and Visa are accepted for purchases over \$10 and hire purchase facilities are also available.

OTAGO SOUTHLAND REGIONAL REPORT

Contributed by J. Dunckley

DUNEDIN CITY

1. Commercial and Industrial:

Market inquiry is at a high level with an influx of out of town buyers seeking investments. Several properties which have been on the market for a considerable period have sold. One of the large, older central city buildings, which was rumoured to have been signed up at \$1.5 million, is now on the market again.

2. Residential:

Agents report a quieter post Christmas period, after a record year in 1981, and listings are building up. The availability of finance is the restricting factor, although good properties are still selling well and the market indicator will come in March, with the usual spate of Auctions now advertised.

RURAL OTAGO CENTRAL

Prices are continuing to climb in spite of the higher interest rates and the general restriction on mortgage funds. However the sales volume has reduced and the market is expected to firm over the next few months.

Syndication is becoming more common, the motivation being capital gains and taxation advantages. On the forestry scene there is a strong demand for good suitable blocks.

AUCKLAND REGIONAL REPORT

Contributed by S. N. Dean

The past 12 months have shown just what the property market can do. Record sales volume (higher than 1973) and some spectacular sales in the residential market at prices previously not even dreamt of.

The residential sector has experienced a strong upward movement, that continued from the previous period in central areas, and spread during the last 12 months to the Urban Fringe. Areas such as Mt. Roskill, Mt. Albert, Onehunga, Mt. Wellington, New Lynn, etc. were the first to show the effects of rising central city values, with the wave spreading to Massey/Te Atatu in as late as August, 1981.

Very little residential real estate is available under \$40,000, with the cheap property normally between that figure and \$50,000. Areas like Glenfield, Birkenhead, Mt. Roskill, One Tree Hill, now have average house prices between \$60,000 and \$70,000.

Not very long ago, a six figure house price was something of a rarity, a talking point, an item to be noted for reference. Today however, there are literally hundreds of sales a year at this level and higher. Several hundred have been recorded on the North Shore alone in the past year.

Probably the next target figure of this type will be \$500,000.

In developed and good quality areas, vacant sites for housing are in keen demand. As comparatively few new sections have been constructed over recent years, the existing supply is dwindling rapidly thus pushing prices sharply upwards.

In good areas virtually nothing is available under \$20,000 with prices of \$40,000 to \$60,000 for sites without good views and prices well into six figures for good views/beach frontage.

The first "spec" houses for some time are now appearing on the market.

The market for good home units, is likewise very firm, particularly in good areas.

Prior to the election (early November) the residential market suffered a substantial turn-over drop, but without any noticeable down turn in prices. Since Christmas evidence has come to hand of reductions in some of the sillier asking prices, but this can be classed as a return to realism rather than a reduction in price. This trend is only really evident in six figure asking prices. Though volume is down, prices remain firm for most properties below \$100,000. Some reports have suggested however that it may now be marginally a buyer's market.

The residential rental market is particularly keen, with three bedroom dwellings where available achieving in excess of \$100 per week unfurnished in inner areas, and not that much less over the entire Urban Area.

The industrial scene has quickened in pace, towards the end of 1981 and in early 1982. Vacant land for new developments appears again to be in demand, with the North Shore particularly active. Here a number of new buildings are under way, with rumours of more to follow.

Rentals for factory space (new) have exceeded \$35.00 per metre and in a number of cases \$40.00 per metre. This trend is inevitable if an adequate return on costs is to be achieved.

The commercial market has perhaps shown least activity, but in recent times a number of shop developments in Queen Street have significantly increased the pool of retail space.

Perhaps the most exciting recent Central City development is the completion of the redevelopment within the historic Custom House fronting Customs Street. A variety of shops, coffee shops, restaurants and theatres has ushered in a new era for this old charmer, and generated tremendous interest and activity.

Suburban Commercial development has been fairly quiet, but several proposed new developments in Takapuna may change the face of that city, if all proceed.

Recommended Guide for the Floor Measurement of Commercial and Industrial Buildings

*A Joint Publication by Building Owners and Managers Association of N.Z. Inc. and,
The Property Management Institute Inc.; Reprinted by Permission.*

BOMA and PMI have combined in this endeavour to establish a basis applicable throughout New Zealand which will be acceptable to property owners, developers, investors, lessees, the professions and all those involved in the provision and utilisation of space.

Introduction

The aim of this publication is to provide a uniform and impartial method of measuring commercial and industrial building space: office accommodation, retail shops, warehouses, factories and the like.

This guide is primarily directed to the measurement of floor space for such purposes as determining occupancy areas, rentable areas, tenancies, leasable areas and the like. It is not directed at the building envelope in a construction sense. It does not attempt to dictate what space a tenant shall or shall not pay rent for. It provides a means for easy comparison of like with like.

The term "Rentable Area" is applied throughout to the various categories of accommodation described. This is believed to be the simplest and most descriptive term for the type of measurement this guide sets out to establish. PMI and BOMA believe there is a need for a commonly acceptable yardstick of this nature. The approach is not revolutionary and methods already in general use have merely been codified herein.

It is recommended by BOMA and PMI that this method of measuring be used as widely as

possible. To avoid possible misunderstandings measurements in accordance with the guide should be identified as "BOMA/PMI Rentable Areas" and the relevant Method applied should be specified.

Method 1 Office Accommodation (Entire Building/Whole Floor).

This category of accommodation is most commonly found in the modern, multi-storey office blocks. The method of measurement can be applied to any office accommodation in an office building of similar type. It may be used for measuring the Rentable Area of an entire building or the Rentable Area of a whole floor.

- 1.1 The Rentable Area of a building is the total of all the whole floor Rentable Areas.
- 1.2 The whole floor Rentable Area is the floor space in square metres confined within the building at each floor level adopting the following method of measurement:
 - 1.2.1 Measurements to be taken between internal surfaces of external walls and internal walls between the internal surfaces of the glass line.

- 1.2.2 Measurements to be taken at a height of 1.5 metres above the floor. where there are windows in the ex-
- 1.2.3 Areas occupied by structural columns (free-standing or protruding) to be disregarded and the area included in the Rentable Area.
- 1.2.4 Lift lobbies, toilets, tea making facilities, cleaners cupboards and the like are included in the Rentable Area.
- 1.2.4.1 Where toilet or other facilities are to be separately identified measurement of these facilities should be generally in accordance with sections 1.2.1, 1.2.2. and 1.2.3 but shall be to the external face of internal enclosing walls and shall disregard all fixtures, fittings and other protrusions. Where facilities, to be separately measured, are adjoining they may be measured as a single whole or alternatively may be measured separately to the centre line of dividing walls.
- 1.2.4.2 Lift lobbies shall be measured to the lobby face of the doors giving access to the lift shaft.
- 1.2.5 The following (not generally found on a tenancy floor and only described for clarity) are to be excluded from Rentable Areas:
- 1.2.5.1 All stairs, utility cupboards, lift shafts, escalators, where provided as standard facilities in the building for non-exclusive use.
- 1.2.5.2 Areas set aside as public space or thoroughfares, such as the ground floor entrance lobby, and not used exclusively by occupiers of the building.
Note: Any additional common areas resulting from subdivision of a whole floor to accommodate more than one tenant does not constitute "public areas or thoroughfare" for this purpose.
- 1.2.5.3 Areas set aside as plant and lift motor rooms or for the provision of facilities or services to the building not for the exclusive use of an occupier or occupiers of the building.
- 1.2.5.4 Areas set aside for use by service vehicles and for delivery of goods and accessways thereto.
- 1.2.5.5 Areas set aside for carparking and accessways thereto.
- 1.2.6 Measurements to be taken to the tenancy side of walls or partitions around areas to be excluded from the Rentable Area.
- 1.3 Retail and retail type areas on the lower floor or floors of an office building to be measured in accordance with Method 4.
- 1.4 Basement storage areas for exclusive use of Occupier/s to be measured from the internal surface of external walls, to the centre line of intertenancy walls, the tenancy side of other walls or partitions and otherwise generally in accordance with Method 1.
- Method 2 Office Accommodation (Part Floor).**
This category of accommodation is identical with that described under Method 1 but is applicable where it is necessary to measure Rentable Areas for more than one occupier on an office floor.
- 2.1 As for Rentable Areas for whole floors but measuring to the centre line of intertenancy walls or partitions, thus excluding public corridors and lift lobbies.
- 2.2 The sum of part floor Rentable Areas, and any corridors, lift lobbies, toilets, tea making facilities, cleaners cupboards and the like, on any floor should equal the whole floor Rentable Area measurement for the same floor.
- Method 3 Shops (Excluding Shops Located Within Shopping Centres).**
This category of accommodation comprises most types of individual shop premises fronting on to a public thoroughfare in C.B.D., suburban or other location.
- 3.1 The Rentable Area is the floor space in square metres confined within the building and available for exclusive use by the occupier.
- 3.1.1 Measurements to be taken between internal surfaces of external walls and where there are shop or display type windows to the external walls between the internal surfaces of the glass line. Where the glass surface is other than vertical measurements are to be taken to the point furthest out on the internal glass line.
- 3.1.2 Measurements to be taken to the centre line of inter-tenancy walls or partitions.
- 3.1.3 Measurements to be taken at a height 1.5 metres above the floor.
- 3.1.4 Areas occupied by structural columns (free-standing or protruding) to be disregarded and the area included in the Rentable Area.
- 3.1.5 Areas of recessed entries and the like to be included with measurements taken from imaginary straight lines from the tenancy boundaries on either side.

- 3.2 All toilets, cupboards, store rooms, stairs, loading bays and the like, set aside for the exclusive use of the occupier to be included in the Rentable Area.
- 3.3 Mezzanine floors to be taken to the outside face of balustrades or equivalent.
- 3.4 Basements to be measured to the internal face of external walls and the centre line of intertenancy walls.

Method 4 Retail Space in Shopping Centres.

Shopping Centres for the purposes of this category of shop premises are retail, trading and business establishments built, and intended to operate, as a planned group and which usually provide a degree of related pedestrian and parking areas and a measure of common facilities and amenities.

- 4.1 The Rentable Area is the floor space in square metres available for exclusive use by the occupier.
 - 4.1.1 Measurements to be taken from the outside face of external walls and the real or imaginary boundary line between the establishment and the public pedestrian area.
 - 4.1.2 The boundary line between the establishment and the public pedestrian area is to be a straight line between the extremities of each side boundary where these meet the public pedestrian area (unless there is a definable boundary beyond the straight line in which case measurement shall be to the definable boundary).
 - 4.1.3 Areas for recessed entries, corner splays and the like to be disregarded and the area included in the Rentable Area.
 - 4.1.4 Measurements to be taken to the centre line of walls or partitions between establishments.
 - 4.1.5 Measurements to be taken at a height 1.5 metres above the floor.
 - 4.1.6 Areas occupied by structural columns (free-standing or protruding) to be disregarded and the area included in the Rentable Area.
- 4.2 All toilets, cupboards, store rooms, stairs, loading bays and the like set aside for the exclusive use of the occupier to be included in the Rentable Area.
- 4.3 Mezzanine floors to be taken to the outside face of balustrades or equivalent.
- 4.4 Basements to be measured to the internal face of external walls and the centre line of intertenancy walls.

Method 5 Industrial Type Buildings.

This category covers a wide selection of commercial and industrial uses but the types of building envisaged bear a similarity in that

they are mostly (though not necessarily) a single storey, free-standing and with office accommodation built in, attached or adjacent.

- 5.1 This category consists of those buildings or premises in which not less than 50% of the total Rentable Area is used for industrial, commercial, warehousing, storage or the like purposes.
- 5.2 When calculating the Rentable Area of industrial type buildings all such buildings to be measured on the same basis regardless of actual use.
- 5.3 The Rentable Area is the sum of the fully enclosed, partly enclosed and unenclosed areas.
 - 5.3.1 The fully and partly enclosed area is in square metres measured at all levels to the normal outside face of enclosing walls, balustrades or supports (ignoring projecting or recessed columns and the like).
 - 5.3.2 The partly enclosed and unenclosed areas are the usable roofed or covered space in square metres (areas occupied by structural columns or supports included).
- 5.4 Measurements to be taken at a height 1.5 metres above the floor.
- 5.5 Open courtyards, lightwells and the like should not be included in the area measurement.
- 5.6 Where this category of building is subdivided into two or more tenancy or occupancy areas the measurements between these are to be taken to the centre line of intertenancy walls or partitions.
- 5.7 It is the intention that office areas, cafeterias, toilets, ablutions and all other uses within the building shall be included in the measurement of Rentable Area.
- 5.8 If there is a separate and detached office building with a Rentable Area in excess of 50% of the combined industrial and office uses then the office building shall be measured in accordance with measurement Method 1, while the industrial premises shall be measured in accordance with measurement Method 5.

This Guide was the work of a committee of four; two representing PM! and two representing BOMA:

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Editor's Note: The N.Z.I.V. Executive Committee has referred a copy of this guide to the Statistical Committee for a report. There is currently no authoritative reference of this type in New Zealand.

Current Cost Accounting and the Valuer

Bob McGough is our current Dominion President and has been actively involved with Institute Affairs for many years. Bob has been Auckland's Branch Councillor since 1977. His special interest in past years has been that of Students in Auckland including Lecturing and Tutorial Posts at Auckland University and Auckland Technical Institute respectively.

Paper presented to the Eleventh Pan Pacific Congress, Melbourne, October, 1981, by R. M. McGough, Dip. Urb. Val. FNZIV, MPMI.

INTRODUCTION:

Firstly, might I make it very clear that as the writer of this Paper I do not hold myself out to be other than a valuer with but a very small knowledge and certainly no competency, in the accounting field. I feel equally sure that the majority of the accounting profession would admit to the reverse.

Current Cost Accounting as opposed to Historical Cost Accounting requires an input of up-to-date values for assets rather than factual costs made at some time in the past. Perhaps one could put it more cynically and say that it involves the replacement of one set of fictitious figures for another. Not necessarily so.

Economic conditions over the last 20 years have led to the growing inadequacy of the Historical Cost Accounting approach and have sent both the producers and users of accounts searching for more appropriate alternatives. The outcome is a move towards current cost accounting which, for assets, clearly poses a more difficult valuation problem than historical cost. The relevance of my opening remarks becomes apparent in this respect and leads in summarised form to the following consequences:

1. The need for valuers to fully understand the requirements of the accounting profession. Under this heading one might highlight the term consistency.
2. The need for the accounting profession to recognise that assets, particularly real estate assets, can vary in value quite significantly over relatively short periods and more importantly, that this impact is different for different properties, even adjoining ones. Hence, our total opposition to any form of indexation in the valuation of real estate.
3. The need for users of accounts to acknowledge that the enterprise cannot perform without the utilisation of assets and when prices are rising, historical cost methods fail to identify that portion of revenue which must be retained if financial stability is to be maintained.

Inflation in itself is not the real reason for the move towards C.C.A. but increased inflationary trends during the 1970's have no doubt accelerated

the push. In the case of Companies in New Zealand, the Companies Act 1955 imposes both a general standard and specific requirements. In addition to the requirement that a Company keep "proper books of account in which shall be kept full true and complete accounts of the affairs and transactions of the Company", the Act goes on to state:

"Every balance sheet of a Company shall give a true and fair view of the state of affairs of the Company as at the end of its financial year and every profit and loss account of the Company shall give a true and fair view of the profit and loss of the Company for the financial year".

The bold print is mine.

In New Zealand, the issue has been somewhat clouded by a reluctance from Government to recognise C.C.A. for two very valid reasons:

1. The poor performance that many Companies would record. A report in the New Zealand Herald of 11 June, 1981 outlined a survey by the Reserve Bank, in conjunction with the University of Otago, analysing the accounts of 21 Companies. I quote:

"The total nett income attributable to owners, for all 21 surveyed, amounted to \$M39.5 on a C.C.A. basis, compared with \$M171.4 on an historic cost basis. The amount distributed as dividends was \$M55.8 - \$M16.3 in excess of nett C.C.A. earnings".

One might well conclude that while for many years we have lived on the milk of the cow, we are now eating the carcass.

2. In a report in the Auckland Star. 10 February, 1981, the Minister of Statistics, Mr Templeton, was quoted as saying:

"Considerable experience will be necessary before inflation accounting could be adopted for all businesses or used as a basis for taxation".

The report then went on to outline moves to create appropriate indices for C.C.A. The New Zealand Institute of Valuers do not hold themselves out as being competent to comment on indices for other than property but are strongly opposed to their use for real estate assets.

Turning back to the point that accounts should show a *true and fair view* of the enterprise and that increased inflation has accelerated the push, let me cover briefly some appalling figures:

1. New Zealand's Oil Bill:
1972 \$93.7 million.
1978 \$492.3 million.
1980 \$1504 million.
2. A report in 1980 by the Chairman of The Securities Commission, Mr C. I. Patterson, that the 1980 purchasing power of \$1 was the equivalent to:
6 cents in 1910.
14 cents in 1950.
21 cents in 1960.
31 cents in 1970.
50 cents in 1975.
\$1 in 1980.
3. The New Zealand Institute of Valuers Modal House Building Cost Index which is reflected in all building costs:
1930 - \$17.01 per square metre.
1940 - \$22.71 per square metre.
1950 - \$44.57 per square metre.
1960 - \$63.93 per square metre.
1970 - \$87.71 per square metre.
1980 - \$290.27 per square metre.
April 1981 - \$349.60 per square metre
4. In my own firm:
September 1974 purchase of a 2 litre Ford Cortina \$4,250.
June 1979 purchase of a 2 litre Ford Cortina \$9,700.
June 1981 purchase of a 2 litre Ford Cortina \$12,600.

The above figures are frankly horrendous but in my view illustrate that no matter how subjective any valuation of a particular asset may be, it must surely be more realistic than historic cost.

Situations in which a Valuation may be used or acquired:

I can well remember in my student days the old saying that a property could have only one value. That principle possibly still applies but with one major variation - to whom and under what circumstances.

For example, a valuation for mortgage purposes is designed to protect and inform a lender. One of the very basic assumptions in such a valuation is that the property will have to be sold in the event of default. Emphasis is therefore placed on an open market value to an alternative user, the exact opposite of C.C.A. requirements which will inevitably be value to the business.

New Zealand has an extremely efficient and highly regarded Valuation Department charged with the revaluation of all property in New Zealand at not more than 5 yearly intervals. However, those valuations must be made in accordance with statutory provisions, the prime objective of which could fairly be stated as being

uniformity for rating and taxing purposes. Hence, value to the business is not a consideration, leases or other charges must be ignored and the valuations are not made subject to adequate profitability of the business. The basis is thus different to C.C.A. requirements but in my view would nevertheless certainly be preferable, to the use of indices

One could continue with further examples but the above are sufficient to illustrate that a valuation obtained for one purpose need not be suitable for another. In a not insignificant number of cases a valuation made for one purpose can be suitable for another but the opposite is equally true in too many cases for the profession to refrain from emphasising same or stating quite clearly in their reporting the basis or purpose for which an assessment is made and that responsibility will not be taken if used for some other reason.

Users of Public Accounts:

The accounts or financial statements of any business should seek to satisfy the needs of the users. External or published statements are thus of interest to:

- Equity investors.
- Creditors.
- Management.
- Employees.
- Government.
- The Public.

The number of users will of course vary with size. In the case of large public companies the accounts may be used by all of the above but for a sole trader, the use is probably limited to himself, his banker and the Inland Revenue Department.

If the valuer is to have a role in the preparation of accounts on a current cost basis then he or she must recognise the needs of both the accounting profession and the users of financial statements. In very broad terms those requirements will include:

OBJECTIVITY:

Asset valuations of property in particular are of necessity subjective. They are therefore personal, affected by peculiar emotions and subject to bias. Our profession thus has a vital role to play in ensuring that the approach is as objective as possible through proper education, the sharing of information, consistency and rigorous policing of any unethical conduct or bias. Perhaps the hardest decision for any individual valuer will be the recognition of the point at which he or she may be beyond their scope of competence.

REALISM:

We should recognise that valuations can never be completely precise and realism should avoid giving that impression.

COMPARABILITY OR CONSISTENCY

The users of a particular financial statement will often want to compare the return on assets with those of other enterprises. Historical cost accounting fails in this respect. While the valuation of assets for C.C.A. may be subjective and open to some variation of opinion between individuals, that does not preclude consistency of approach. Hence, the inevitable need for the production of appropriate guidance notes for valuers that recognise both national and international needs.

UNDERSTANDABILITY:

This calls for the provision in the clearest and simplest form of all of the information that a reasonably well informed reader can use. It will not include superfluous or unnecessary information.

ECONOMY OF EFFORT AND EXPENSE

Our profession must ensure that the effort and expense incurred by the enterprise in obtaining valuations, is not disproportionate to the use for which it is required. For example, a small enterprise may require nothing other than advice as to whether a valuation made for another purpose requires adjustment.

The Accountants' and Auditors' Requirements:

It is not my intention to impinge on the domain of the various panelists associated with this Paper. It is sufficient under this heading to say that in New Zealand, there are considerable conflicts of interest and ideas.

From the accountant's point of view, the main criteria would undoubtedly be relevance, the availability of valuation data, whether that data can be verified, its reliability or objectivity and the cost of obtaining same. All of these will vary from enterprise to enterprise. Are the necessary skills available, are they sufficiently objective and what would be the cost?

The auditor must be in a real dilemma. How can two totally different results, one based on historic cost and the other on current cost, be said to represent a true and fair view of the financial affairs of the enterprise.

Couple these interests with the needs of the users of financial statements and the problem increases. On the one hand we have the Government, fearful of the poor results that might eventuate in a switch from historical to current cost accounting, but at the same time recognising the problems and lack of experience in the field.

No doubt the employees, represented as they are by their unions, are equally fearful and indeed, many public companies themselves are reluctant to publish supplementary accounts based on C.C.A. for the very same reasons.

Both the Securities Commission and the New Zealand Society of Accountants take the opposite stance. Their opinion is quite simply that a true and fair view is the real purpose of financial reporting and that the public interest is paramount.

With such a divergence of interests the introduction of current cost accounting is likely to be both stormy and rocky. Let not the valuer founder.

In essence, both the accountants' and auditors' approach will bear in mind the going concern concept. Certain businesses will no doubt fail and some are even designed to exist for only a limited period. However, the vast majority of business activity is conducted on the basis of a continuing enterprise.

With regard to property assets, the principle of *value to the business or deprival value* is likely to remain the prime consideration in the accountant's and auditor's approach.

These terms really sum up the approach required of a valuer by the accountant for C.C.A. purposes. Essentially, they mean a value to the business and in relation to an asset means the measure of the direct loss to the business if deprived of those assets.

As can be seen from the following definitions though, *deprival value* has many variations on a theme and it is in this respect that valuers will need explicit and full instructions.

The Valuer's Approach:

Having recognised that a valuation made for one purpose is not necessarily suitable for another it becomes apparent that the valuer can only meet the accountant's requirements with proper, clear and explicit instructions as to the basis. Unfortunately in New Zealand, specific instructions are seldom given and this is a serious deficiency when one considers that by changing the assumptions one can materially alter the valuation.

OPEN MARKET VALUE:

Most people will be quite satisfied that a reasonable definition of *Open Market Value* would be:

The best price at which an interest in a property may reasonably be expected to be sold by Private Treaty as at the date of valuation assuming:

- (a) A willing seller.
- (b) A reasonable period within which to negotiate a sale, taking into account the nature of the property and the state of the market.
- (c) That values will remain static through the period.
- (d) The property will be freely exposed to the market-
- (e) No account is to be taken of an additional bid by a special purchaser.

It would be relatively simple if in terms of value to the business, we could stop there. However, this is not possible because land and buildings (as opposed to movable assets) are generally held by a Company for a variety of reasons. The main reasons include:

- (a) For occupation by the business and this category can be further subdivided into two sub categories:
 - (i) Non specialised properties.
 - (ii) Specialised properties
- (b) As investment properties.
- (c) Surplus to the requirements of the business.

In each category the *value to the business* needs to be considered separately and further definitions must also be rationalised in order

for the accountant's requirements to be met.

For example *open market value* to an ongoing business would include the costs of acquisition but if surplus to the requirements of the building or held for disposal, the Company will want to make a deduction for estimated selling expenses in order to show *nett realisable value*.

EXISTING USE VALUE:

Again we must remember that for current cost accounting purposes, the basic assumption is *value to the business*. The definition of *open market value* must therefore be extended to include the existing use by the Company concerned and this should not be confused with the same meaning as in planning law. Nor should the term be interpreted so narrowly as to confine the value of a standard non specialised building to the particular trade of the Company concerned.

Essentially, existing use excludes the cases where a property might have a substantially different value for an alternative use. It is what is commonly known in New Zealand as the "apples for apples" principle.

For example, a substantial office building placed in an unusual location (say industrial) may have a very limited alternative use value even as offices. However, if utilised as a head office building for a concern whose interests spread well beyond that locality, it is the value to the enterprise that must be considered.

As an opposite, a single storey shop on a high rise commercial site, may have an alternative use well in excess of the *value to the business*. While the existing use may not warrant its retention, the value to the business is as a shop. Whether it is to be retained as such is for the Company to decide.

ALTERNATIVE USE VALUE:

Land and buildings may possess a value differing from their existing use value when the prospective use of the property for some other purpose is reflected.

Normal accounting concepts assume an ongoing business and where properties are occupied for the purpose of that business an *alternative use value*, which could only be realised on a closure or removal of the business to other premises, is not suitable for inclusion in the accounts.

Alternative use values however, may have relevance to an overall appraisal of the Company's situation. Accordingly, despite the existing use principle for C.C.A. purposes, where alternative use differs materially (either above or below) it should be reported by the valuer.

Where the Directors declare land and buildings to be surplus to requirements, the definition of *open market value* will of necessity take into account any possible alternative use.

DEPRECIATED REPLACEMENT COST:

Specialised properties rarely change ownership by a sale or letting on the open market. Because of their specialised nature, they are normally sold by way of a sale of the business in occupation. Specialisation comes about in the form of construction type, arrangement, size or even geographical location.

If one accepts that this type of property is normally sold in conjunction with the business, the business itself can only have a value if sufficient income is generated to show an adequate return on the value of the assets employed. As this involves factors well beyond the scope of the valuer, any assessment of a specialised property based on *depreciated replacement cost* must be made *subject to adequate profit ability*. It is for the Directors and not the valuer to decide if the business is sufficiently profitable to carry the property in its balance sheet at its full *depreciated replacement cost* or whether, some lower figure should be adopted.

A *depreciated replacement cost* valuation requires an estimate of an open market value of the land in its existing use plus an estimate of the new replacement cost of the building and site works from which, deductions are made to allow for age, condition, obsolescence and any other factor that would make the existing property worth less than a new replacement.

In arriving at a new replacement cost though, account should be taken of the following:

1. If current building techniques and materials make a modern substitute building less costly than the existing, then the lower figure is the one to be used.
2. It is assumed that the building is ready for occupation at the valuation date and not the cost to erect in the future.
3. The cost should include all necessary professional fees and finance or holding charges.
4. Special Government grants or investment allowances should not be included.

GOING CONCERN VALUE:

As opposed to the specialised property discussed under the *depreciated replacement cost* heading, there is a further specialised type property where business income is generated from within the real estate itself. Typical enterprises include hotels, motels, cinemas, service stations and so on.

These properties are usually sold as a single entity inclusive of goodwill, fixtures and fittings. More significantly, properties of this nature may well have an identical *depreciated replacement cost* but a substantially varying going concern value stemming primarily from location or the extent of competition.

In New Zealand, this problem has yet to be grappled with but it would seem to me that the assessment of goodwill, or lack of it, combines both the valuer's and the accountant's skills. Either is quite capable of assessing goodwill but probably neither can do so without the assistance of the other.

The difficulty in accounting for an intangible asset like goodwill, arises from the uncertainty of its nature, value and estimated life. Current cost accounting will not resolve these difficulties but it is fair to say that in relation to the specific type of business being discussed under this heading, goodwill is a marketable factor and the amounts paid are known to both valuers and accountants alike. As reference can be made to market transactions, either the valuer or accountant can make an objective assessment. The treatment of that assessment in the accounts, seems to have always been a problem and is probably not one for the valuer to solve. While the problem is not one for the valuer to solve, its assessment, if required, is.

PROBLEMS ARISING:

Definitions assist in recognising problems but do not in themselves overcome basic difficulties.

For the accountant, current cost accounting poses a problem in the proper, objective and consistent valuation of assets.

For the valuer, the accountant's requirements necessitate a variation from many ingrained principles, not the least of which is the principle that a property can only have one market value. That market value in turn relates to a sale to the world at large.

The need for communication and a sharing of these problems between the professions becomes obvious and must be extended further to include a sharing of problems between the various international organisations represented at this Congress.

As an example, it would be appropriate for me to point at this stage to the tremendous assistance given by the R.I.C.S. to the N.Z.I.V. in the preparation of guidance notes to our members. Without that assistance I would venture to suggest that we would be still working on it.

On the other hand I am reluctant to report that when the New Zealand Government instituted a Committee of Inquiry into Inflation Accounting in 1975, the N.Z.I.V. did not appear as a contributor to that Committee's deliberations. I would not recommend a similar approach by valuers in other countries as it could well explain the following:

1. The almost negligible reference to the role of the valuer in the Committee's recommendations.
2. An expression of concern as to the cost of independent valuations and whether the necessary skills were available.
3. An emphasis on the use of indices in the valuation of assets, the use of which most of you would totally oppose on the grounds of unreliability when related to property.

We missed the bus. However, we endeavoured to repair our omissions by:

- (a) The establishment of an Assets Valuation Standards Committee.
- (b) The issue in May 1980 of Guidance Notes on the Valuation of Company Property Assets.

- (c) A move away from our long enshrined fee structure based on the value of the property rather than the time factor involved.

If valuers are to be entrusted with the valuation of property assets for current cost accounting we must be prepared to meet in a professional manner the following requirements:

Communication:

The accounting and valuation professions must in the interests of the users of financial statements, communicate openly and freely in order to share and appreciate the others' problems. More importantly, the valuer must communicate to the accountant the possibility of alternative value approaches. Where they apply, discuss openly these alternatives and expect in return equally open advice from the accountant on his requirements.

Directions:

The ultimate responsibility for the financial statements of an enterprise lies with the Directors. They are called Directors to direct. This does not mean that either the accountant or the valuer should accept directions blindly. Where necessary, alternatives to a direction should be pointed out in a professional manner. So too, should directions or instructions be made in a professional manner. Too often, the Company's requirements are not made with sufficient clarity.

Clear Statement of Valuation Basis:

It is essential that the valuer state in clear and concise terms the basis of valuation adopted. In the majority of cases this will be *open market value*. Where a property is valued on *depreciated replacement cost* or *open market value for the existing use*, but has a materially different value for alternative use, the *alternative use value* should be stated in order to assist the Company in their decision making.

The Auditor:

The Companies Act in New Zealand gives the auditor the right of access at all times to the books and papers of the Company. Indeed, how can his job be done without such access?

There does not however appear to be any legal position between the auditor and a valuer who is not an officer of the Company concerned. An external valuer can thus refuse to produce his file and even refuse to answer an auditor's questions.

The adoption of such an approach by the valuing profession would be totally against its own interests, certainly against the interests of the users of financial statements and would undoubtedly give rise to serious doubts as to our credibility. With equal certainty, it would be an invitation to the auditor to qualify the accounts.

In the case of fixed assets, where valuation is of necessity a matter of subjective opinion, the auditor is not himself valuing but checking the basis on which the valuation has been made and the facts relied upon.

Our profession should therefore regard the auditor as its greatest ally and an independent

check that the instructions and information provided by the client are sufficient for a true and fair view to be presented. In my experience to date, insufficient emphasis has been placed on explicit instructions and the provision of information by the Company to the valuer. As a valuer, I would strongly recommend to auditors that they make this avenue one of the first priorities on their check list.

Information and Assumptions:

It is accepted that a valuer will be supplied by the client with information, the accuracy of which he must rely upon in order to complete his certificate. He will also obtain information from other sources which may require verification as to its accuracy.

If we are to regard the auditor as our ally, we must in turn state clearly the information on which reliance is based, its source, and make it clear that the information so used needs to be verified by the client's auditor or legal adviser. Any discrepancies revealed by the auditor or legal adviser can then be referred back to the valuer before damage is done. This will particularly apply to legal documents such as property titles, easements, leases and so on, especially where those documents are not available for public inspection.

Assumptions on the other hand, need to be stated in order to allow others to make appropriate decisions. For example, the valuation of a specialised property based on *depreciation replacement cost* should be expressed as being *subject to adequate profitability*. Should this not be the case, the Directors may wish to adjust that value. Similarly the Company will be vitally interested in those instances where the *alternative use value* differs significantly from the existing use.

A clear statement of the information and assumptions on which a valuation is based should be designed to assist the users of that valuation rather than being regarded as a protection for the valuer.

Disclosure:

I will openly admit that I am not one who believes that a professional person should hide behind disclaimers or non publication clauses. We should stand up, be counted and accept the responsibility of our decisions.

Nevertheless, any reader of this Paper should by now realise that valuations are made for different purposes and on the basis of different assumptions. It is the use of that valuation for a purpose for which it was not intended, that must be guarded against. For the public protection therefore, and for that reason only, there should be a non publication clause in the valuer's certificate unless the valuer has given written approval as to the form and content in which his or her statements may appear.

For the same reasons, the valuer may wish to include a clause excluding liability to third parties, particularly in the case of C.C.A. assessments as the valuation may be quite inappropriate for other uses.

Separation of Plant from Property:

Frankly I can see no problem under this heading other than the problem of communication between the valuer, the client and any other advisers the client may wish to employ. For any given country, tax laws are likely to dictate those parts of a building which the accountant may wish to segregate for accounting purposes.

Valuers when assessing the value of premises, normally include all items of plant and machinery which provide services to the land and buildings and which the open market regards as an integral part of the premises for letting or sale or as a security for a loan. They normally exclude items which are installed wholly or primarily in connection with the occupier's industrial or commercial process.

Certainly, there are border lines. For example, special electrical installations beyond the distribution board, freezer linings incorporated as part of the building and so on. These can be included or excluded very easily provided the communication lines are open with either clear instructions or a clear statement by the valuer of the inclusion or exclusion of items that might be in doubt.

The Problem of Fees:

Historically, the N.Z.I.V. and their clients have always been accustomed to a fee structure based on the value of the property concerned. I have no hesitation in suggesting that in too many cases, such a fee structure would be a major barrier for the accountant in the use of a valuer's advice.

The basic tight ropes that must be walked are simply these:

1. Regardless of what type of fee structure is developed, in no way should it permit any reduction in the standards of professional conduct expected of an independent and professional valuer.
2. It is in both the public and the profession's interest that we as valuers can provide a service that is commensurate with the costs involved.

In these days, time means money and it seems to me realistic that fees for current cost accounting in particular should be based on time. How can that time be reduced in the interests of both the public and the profession.

1. The most outstanding contribution, and one which I am sure would be the envy of you all, is the provision in New Zealand of a sales notification scheme to all Registered Valuers. Since 1964, all valuers in our country have had access to a sales notification scheme of sorts. In 1980, the Government Valuation Department converted those notices of sale to a computerised system and our Valuer General, Mr M. R. Mander, decided that in view of rapid changes in value it was in the public interest that all valuers should be notified as quickly as possible of the latest information.

As a consequence, and with the assistance of computer processes, all practitioners, are now notified of sales through the whole of New Zealand, at fortnightly intervals.

I would venture to suggest that New Zealand valuers are as well informed as anywhere in the world, a situation that could never have occurred without both communication and co-operation which will ultimately benefit both the profession and the public alike. The investigative time factor has thus been considerably reduced and the profession is now endeavouring to embark upon policies that will extend those information services even further.

2. Clients themselves can assist considerably in reducing the time element either by:
 - (a) Explicit instructions which leave the valuer in little doubt as to what is required.
 - (b) Quick and easy access to Company records on items such as initial costs, lease documents, building plans etc.
 - (c) A well documented asset register stating land entitlements, building ages, previous valuations and their purpose, leasing arrangements, plant and machinery separation and so on.

Essentially then, the time factor is dependent upon co-operation between the parties. The profession must co-operate within itself and the clients must co-operate with the profession. In this way, it could well be probable that many short cuts in time could be achieved without a reduction in standards-

Summary:

As best I can, this Paper endeavours to cover the broad principles required of a valuer in making assessments for Current Cost Accounting purposes. Last, and certainly by no means least, if current cost accounting assessments are to be a widening horizon for the valuer, integrity will be the key. High standards by the individual will be necessary as well as a free flow of information and ideas between all of the parties associated with the accounting process.

Given that co-operation, together with the information sources that are available to the valuer, I see no reason why fully objective valuations cannot be provided at a reasonable cost. The benefits of independence will be obvious. In New Zealand, valuers are already providing many Companies with valuation services for a variety of purposes and an extension into the Current Cost Accounting field would pose little difficulty, given adequate instructions.

The Valuer as a Witness

Judge A. J. Sheehan

A paper presented at a recent meeting of the Hawke's Bay Branch.

Judge Sheehan is the District Court Judge at Napier and is the Chairman of the Hawke's Bay Land Valuation Tribunal.

First, some basic points about evidence given in a Courtroom or before a tribunal.

Evidence given by a witness requires to be:

- (a) Relevant to the matter for determination.
- (b) The best evidence procurable, i.e. the original of a document, rather than a copy, should be tendered by the witness.

There are three stages in the giving of evidence by a witness. These are examination in chief, cross-examination, and re-examination.

EXAMINATION-IN-CHIEF

After a witness has been sworn or has affirmed, the party calling him examines him in chief, or directly, in order to elicit from the witness all the facts he can prove in support of that party's case. As indicated, the witness may give evidence in chief of facts at issue or relevant to the issue or matter to be tried. He may also, in certain cases, give hearsay evidence or his opinion as to such facts; also facts showing any special means of knowledge, opportunities of observation, reasons for recollection or belief, or other circumstances increasing his competency to speak on the particular case.

Leading questions are not generally permitted in examination in chief. A leading question is one which by its form suggests the answer to the witness. In other words, the answer is put in the witness's mouth. The rule is intended merely to prevent the examination from being conducted unfairly. The judge or tribunal has a discretion in the matter, and the discretion is not open to review. The rule is relaxed where evidence is given as to facts where no dispute can possibly arise, or which are merely formal or introductory.

A witness may, while under examination, refresh his memory by referring to any writing made by himself contemporaneously with the facts about which he is testifying or so soon afterwards that it is likely that the transaction was fresh in his memory. He may also refer to any document made by another person if it was made in the presence of the witness or assented to, or checked, by him. To refresh his memory, or to confirm or correct his opinion, an expert may refer to professional treatises although not written by himself. For example just as a doctor may refer to a medical volume, and an expert on foreign law may refer to statutes containing that law, the valuer may refer to any paper,

publication or work written by an expert in the sphere.

CROSS-EXAMINATION

At the conclusion of the examination in chief, the witness is then liable to be cross-examined by, or on behalf of, the other party. The purpose of the cross-examination is to weaken, qualify or destroy the case of the other party.

Cross-examination is not confined to the facts to which a witness testifies on his examination in chief. The slightest direct examination, even for formal proof, opens up the whole of the cross-examiner's case. However, the cross-examination requires still to be confined to subjects which are relevant to the issue to be tried or determined. Summing up, cross-examination therefore is directed to:

- (a) the credibility of the witness.
- (b) the facts to which he has deposed in his evidence in chief;
- (c) the facts to which he has not deposed, but for which the cross-examiner thinks he is able to depose.

It is permissible to ask leading questions in cross-examination.

RE-EXAMINATION

The third and final stage in the giving of evidence is re-examination. This requires to be confined to explanation of matters arising from cross-examination. New facts or new matters may be raised in re-examination only by leave of the court or tribunal, and then only subject to the right of the other party to cross-examine on the new matter introduced. Leading questions are barred in re-examination.

QUESTIONS TO THE WITNESS FROM THE COURT OR TRIBUNAL

Sometimes at the conclusion of the evidence (whether by examination in chief, cross-examination or re-examination) the tribunal or its members may ask the witness some further questions. Sometimes, then, the tribunal gives leave to the parties to ask questions arising out of the questions of the tribunal. Strictly speaking, if such permission is given the questions sought to be asked by the parties require to be asked through the chairman of the tribunal - unless he directs that the questions be put direct.

EXPERT EVIDENCE

Now we come to the topic which is of most concern to valuers. This is the topic of expert evidence. Now generally whatever a person thinks or believes about any matter before the court or tribunal is generally irrelevant and therefore inadmissible. A person called as a witness must, as a rule, only state facts; his personal opinion is not evidence. The reason for this rule is that it is for either the judge or the tribunal to draw all the inferences from facts. The court or tribunal must, if possible, form its own judgment on the facts brought before it. The opinions of skilled witnesses are admissible whenever the subject is one on which competency to form an opinion can only be acquired by a course of special study or experience. The expert must be "skilled" by special study or experience, but the fact that he has not acquired his knowledge professionally goes merely to the weight to be given to the evidence, not to its admissibility. An expert, such as a valuer, may be cross-examined to test his competency and credit. An expert giving evidence may refer to text-books or reports or papers to refresh his memory or to correct or confirm his opinions. The books etc., are not evidence per se but extracts may be read and adopted by the expert as part of his own testimony.

The opinion of an expert is not as a general rule, admissible, to answer the very question the court or tribunal has to decide. However, in land valuation matters, this rule does not seem to be followed to any great extent; and usually no objection is taken when the expert, such as the valuer, does give his own opinion on the very question the court or tribunal requires to decide.

POINTS TO BE BORNE IN MIND WHEN GIVING EVIDENCE

Very well, what are the points which the valuer should bear in mind when giving evidence. It is assumed that the valuer has prepared his case well. With proper preparation comes confidence. The quietly confident valuer will impress any court or tribunal. The main points to be borne in mind are as follows:

1. The valuer should prepare his evidence in anticipation of the likely cross-examination on the contentious issues. He will be better prepared for the questions when they come.

2. He must give the impression of impartiality. He should avoid the suggestion that he is in any sense an advocate for the party by whom he is called. Any financial interest in the transaction, whether direct or indirect, will affect his impartiality. In this context, I quote from the case of Mountney and Young, reported in 1947 New Zealand Law Reports at page 436, where Archer J. said:

"It is an elementary principle of valuation practice that a valuer should be independent, by which is meant that he should have no financial interest in the property he is called on to value, nor, save as to his proper remuneration as a valuer, in the completion of the transaction in connection with which he is employed. In

accordance with this salutary rule, it is generally recognised that a land agent who has effected the sale of a property and whose commission may be dependent on the granting of consent to the sale, is not competent to appear before a land sale committee or before the court as a valuer in respect of that particular property . . . the evidence of valuers having even an indirect interest in the transaction must, notwithstanding their wide experience, be subjected to the most critical examination."

Later he says:

"The evidence of valuers preferring other methods is entitled to a weight commensurate with their experience and the extent to which their opinions appear to be supported by the relevant facts . . .

Insofar as the evidence of experts however experienced is based on their opinion unsupported by a reasoned survey of the relevant facts, it is open to the criticism that it cannot be checked or critically examined, and it is therefore of limited probative value."

These comments are a lot less harsh than Lord Campbell stated in the Tracy Peerage case of 1843 in England where he said: "Really this confirms the opinion I have entertained, that hardly any weight is to be given to the evidence of what are called expert witnesses; they come with a bias on their minds to support the cause on which they are embarked."

To recapitulate therefore, the witness must give the appearance of complete impartiality.

3. The witness is unwise to rely on an expression of opinion only. He should endeavour to support his opinion with evidence of actual sales.

4. His competency to express an opinion as to the value of the land in question will be assessed in the light of his professional experience. For example, a rural valuer cannot expect to have as much weight attached to his assessment of valuation of an urban property as would the evidence or opinion of an urban valuer. The converse also applies of course.

5. He should not mislead the court. In referring to sales of properties he should never omit sales if they happen not to suit his case. If, for any reason, he does omit a sale or sales which would cause comment by the omission, and if he considers he has good reason for omitting the sales, he should bring the matter to the attention of the court or tribunal. Similarly, if a witness finds that he has made a mistake in any respect of the opinion or valuation, then the mistake should always be admitted. Otherwise, the rest of the evidence which may be perfectly valid and be of persuasive force, may be prejudiced in the eyes of the tribunal to some extent at least.

6. I am addressing you now as the valuer giving evidence. Do not hesitate to ask leave of the court or tribunal to refer to notes made at the time of inspection of any property. As a matter of courtesy to the tribunal permission should first be asked before referring to the notes.

7. If you do not know the answer to, any particular question, then say so. You are not there to guess. Although you are an expert witness, experts don't know everything and there is no stigma attached to admitting that you don't know the answer to a particular question.

8. To the extent practicable avoid presenting a mass of factual evidence leaving the court to co-ordinate this evidence and to make its own assessment of value. The court prefers a valuer, when called to give evidence, to present a complete valuation of the land, to vouch for each step therein, and for the final conclusion arrived at.

9. Above all, speak clearly, and sufficiently loudly, so that all in the room can hear. Do not speak too fast. Do not outpace the stenographer. Always wait for the full completion of the question before answering. It is advisable after a question is asked, to pause before embarking on the answer.

10. Avoid becoming angry.

11. If the party cross-examining you does not allow you to complete an answer to a question, then seek the leave of the Tribunal to complete the answer.

12. When producing documents in court, such as reports, valuations, and the like, always endeavour to produce the original. If the original is not available for any reason and the other party does not object to the copy then produced, then when tendering the exhibit bring to the attention of the court the fact that the document is a copy.

13. When speaking to the tribunal address the Tribunal with formulas such as "If the Tribunal

pleases . . . " or "may it please the Tribunal". When speaking directly to any member of the Tribunal address him or her as "Sir" or "Madam".

14. Dress: Your mode of dress should be suitable to the occasion. The subject matter of the case is a matter of some moment for the party calling you. The party is entitled to expect his expert witness to look the part. A suit and tie should not be too much to expect of the witness.

15. Reports, maps, plans etc.:

Prepare six copies of these for presentation at the hearing - one for each of the three Tribunal members, one for each party and one for the witness. However, with large or unwieldy plans or maps the Tribunal could be restricted to the one plan for joint use although when the Tribunal comes to reserve its decision each member of the Tribunal prefers to have a copy of all exhibits or material produced at the hearing.

16. Nervousness:

Finally you would be an unusual witness indeed if you did not become nervous prior to going into the witness box. The better prepared you are, the more confident you will be but some nervousness is inevitable. After all it is but the mind's way of preparing the body for a trial or test. Some hide their nervousness better than others of course. Adopt the practised public speaker's trick of taking a deep breath or two just before you are due to go into the witness box. Console yourself with the thought that if you recount your evidence with no embroidery or exaggeration little embarrassment or harm can befall you.

Liability of Sole Valuers

J. A. B. O'Keefe

Mr O'Keefe has been a past contributor to the Valuer and is an Honorary Member of the N.Z. Institute of Valuers and a Solicitor of The Supreme Court of N.Z.

Keenan v. Coombe, Supreme Court Grey-mouth, 17th July, 1979, A/4/76 is about the law concerning the liability of the sole valuer of the wet and dry stock of an hotel. The law has been transformed in recent years. For a long time it was thought that a sole valuer acted in an arbitral capacity and could not be sued for negligence, but it now seems clear that he owes a duty to both parties to act with reasonable care and skill in making his valuation. If he negligently gives a figure which is too high he may be sued by the purchaser, if too low, he may be sued by the vendor.

(*Sutcliffe v. Thackrah & Others* [1974] 1 All E.R. 859; *Arenson v. Casson Beckman Rutley & Co.* [1975] 3 All E.R. 901; and *Campbell v. Edwards* [1976] 1 All E.R. 785).

The duties and responsibilities of valuers are defined in 39 Halsbury's Laws of England 3rd Ed. at page 11 as follows:-

A person who holds himself out, or purports to act, as a valuer, represents himself as having the skill and knowledge which a reasonably competent member of his profession or calling would have, and it is his duty to his employer to use such skill, care and diligence as is reasonably required in the work which he has undertaken.

If, in making his valuation, a valuer fails to exercise due care and skill and diligence, he is liable in damages but, of course, lack of professional skill is very much a matter of opinion, or a question of degree, and it would seem that a valuer will not be held liable if he acts as

would other valuers in similar circumstances, and the mere fact that there is an over or under valuation does not of itself show negligence.

In *Baxter v. Gapp & Co.* [1938] 4 All E.R. 457, Goddard L. J. said, speaking of a valuer, at page 459:-

"His duty was, first of all, to use reasonable care in coming to the valuation which he was employed to make and he must be taken to have held himself out as possessing the experience and skill required to value the particular property. If he did not know enough about the property market, or the value of the property at the place where the property was situate, he ought to have taken steps to inform himself of the values of properties there, or of any circumstances which might affect the property. It would be no defence, for instance, to say: "I made this valuation, but the reason why my valuation has proved incorrect, if it has proved incorrect, is that I was not a person, as you knew who practised in that locality." It may have been that it would have been wiser to employ a person practising in the locality, but, if a man undertakes the work, of course, he cannot be heard to say, if his valuation turns out wrong, and to be such as cannot possibly be supported: "The reason for that was that I did not know enough about property in that neighbourhood". On the other hand, one also has to bear in mind very carefully the fact that valuation is very much a matter of opinion. We are all liable to make mistakes, and a valuer is certainly not to be found guilty of negligence merely because his valuations turn out to be wrong. He may have taken too optimistic or too pessimistic a view of a particular property. One has to bear in mind that, in matters of valuation, matters of opinion must come very largely into account."

And in the same case on appeal ([1938] 2 All E.R. 752) where the decision was affirmed, Du Parcq L. J. said at page 758:-

"It is, of course, quite clear that the mere fact that there is an over-valuation does not of itself show negligence. Gross over-valuation, unless explained, may be strong evidence either of negligence or of incompetence. I have no doubt that there was in this case gross over-valuation, and one looks to see whether or not there is any explanation of it, and whether or not it can be seen that the defendant has failed to take any steps which he ought to have taken, or to pay regard to matters to which he ought to have paid regard. I think that, upon investigation, one finds that it is quite plain that he paid no regard to matters which were of the most vital importance."

In the present case it was stressed that the court was not dealing with the proof of objective facts but with matters of opinion as set out in the evidence of two valuers who differed in their opinions. It was accepted that in New Zealand at the present time a thirty per cent difference was not unusual and the court said that where it is satisfied that a valuation has been carried out by the normally accepted methods, it would

be difficult to find negligence simply because another valuer, using similar methods, had reached a different opinion. An interesting practical point emerged - the central heating plant was regarded as a "fixture", being a permanent and substantial improvement to the premises and consequently not within the cope of wet and dry stock.

For a general discussion of a valuer's legal liability see J. A. B. O'Keefe, "Valuer's Legal Liability", [1966] N.Z. Valuer 453, [1967] N.Z. Valuer 173, and subsequent reviews of the law in the light of later cases in [1970] N.Z. Valuer 100, [1977] N.Z. Valuer 35 (P. Brown).

In a recent case of significance, *Barrett v. Dalgety N.Z. Ltd.*, Supreme Court, Christchurch, 23rd April, 1979, R410/77 which dealt with negligent mis-statement in the situation of reliance on a land valuation by a third party it was held that valuers owed a duty to any person who would advance mortgage moneys in reliance upon the recommendation in a report. The facts of this case were that the plaintiff lent \$12,000 on first mortgage at 14% in response to a newspaper advertisement. The mortgagor's solicitor supplied a valuation report for the property showing a value of \$20,000, such report having been prepared by two valuers employed by the defendant company. The mortgagor subsequently defaulted and went bankrupt and on a mortgagee sale the plaintiff was forced to buy in the property at \$10,000. The property was found to have a government valuation of \$8,500, but efforts to resell were fruitless and the only offer was for \$6,310 by the Department of Lands and Survey, should funds become available at some later date. The property concerned was one of four which were valued overall at \$69,000, but only one of the other properties contained a small dwelling and difficulties would be found in finding a suitable site and obtaining Council permission to build on the lot in question. It was sited in a bleak area and the Judge found that it was obviously grossly overvalued by the defendant's valuers. The duty of a valuer as set out in 39 Halsbury Laws of England (3rd ed) 11, namely that he must possess skill and knowledge which a reasonably competent member of the profession would possess, was applied.

Accordingly, damages were assessed against the defendant, made up as follows: The principal sum, interest thereon at 14% under the mortgage up to the date of mortgagee's sale, the cost of the mortgagee sale, subsequent interest at 7.5%, the noxious weed penalties for two years the clearance cost \$1,096, county rates for two years; less the value of the land (\$6,310); leaving a balance payable to the plaintiff of \$13,204.60 plus costs and witness expenses.

In commenting on this case in "Recent Law" the learned editor observed: "The judgement shows that neither the plaintiff, his solicitor, nor a valuer employed by him inspected the land and all simply relied upon the mortgagor's valuation report. Accordingly, valuers preparing such reports cannot expect that the lender of money will necessarily obtain any independent valuation."

Discounted Cash Flow - Valuation Technique

By Seph Glew Dip. Urb. Val. (Hons.), B.Com. (Econ.), A.N.Z.I.V.

Seph Glew is currently with a development Company (Chase Group of Companies) in Auckland. He received his initial training with the Housing Corporation valuing in Auckland and Wellington before joining the A.M.P. Society as Property Investment Officer. He is well qualified in the practical application of Discounted Cash Flow Analysis.

There have been many articles and books written on the subject of discounted cash flow but it still seems that the practising valuer sees DCF as an academic exercise which is not relevant in the world of practical valuation. This is probably true when considering non-income producing property since, if there is no income, there is no cash flow to be discounted but investment property is another matter.

The value of investment property is a function of the income which may be separated from it and what the land or buildings would cost to replace seldom has any relevance at all. The heterogeneous nature of property means that it is not always possible to buy a vacant site and construct a building of equivalent amenity. This is especially so with investment property as a specific location or site configuration may be difficult or even impossible to duplicate. In addition it must be remembered that investment property, by nature, has more than one interest involved and the existence of other interests can have a significant effect on value. For instance the purchaser may prefer a vacant Queen Street shop to one which is leased since tenants are abundant and as much as \$20,000 in key money may be elicited from an incoming tenant. Similarly, the purchaser of a freehold interest in an industrial property would usually pay a lower price if there is more than one tenant or if the property is vacant and will certainly pay an even lower price if the property is leased for say 25 years with no rent reviews.

Of course the physical improvements do have a bearing on the value of a property but the potential income flow is nearly always the overriding factor. A building may be judged to have an economic life of 60 years in one location but in another location may be demolished to make way for a higher and better use.

In past years it seems that investors were content to assume that provided a property was physically sound it would be a good investment. The anticipated life of the improvements and future potential of the site were reflected in the different yield required from various property types and discounted cash flow calculations would have been viewed with suspicion and distrust.

Today's investor is becoming more sophisticated and it now seems only a matter of time before the depth of analysis which is usually provided with a conventional valuation report

will be seen as inadequate. Many investors now realise that investment property involves the distribution of property rights amongst various parties and the property owner only receives those rights which are not contracted to others. In most instances the property owner is left with a future income stream and reversion but these can vary significantly depending on the rights of other parties.

In effect, the purchaser of an investment property is gaining a future cash flow which is variable as to size and duration. To assess the true worth of such an investment, the valuer should consider all factors which are likely to influence this cash flow and compare the net result with alternative investment opportunities.

The conventional income capitalisation approach assumes that the income flow is constant and variables such as; unfavourable lease terms, age of improvements and design are supposedly reflected in the capitalisation rate. But what rate is applied to the central city office building which has been leased for 60 years with no rent review, or the property in Newmarket (currently for sale), which has a lease with a rent review in four years, a further rent review in 19 years and reviews at four yearly intervals for the next 12 years. To further confuse matters the latter property has improvements which would probably be demolished if the lease didn't exist.

Discounted cash flow is the only realistic approach to the valuation of various interests in properties such as these, but the time is coming when investors are going to expect the investment advice which is inherent in any DCF calculation, in all professional valuation reports on investment property.

To date, it seems that valuers and others involved with property investment have avoided the use of DCF for two reasons:-

- (a) The mathematical calculations involved are tedious and disproportionately time consuming.
- (b) It is difficult to analyse market evidence on a DCF basis.

The time involved in calculations was a very real concern since even with an electronic calculator it could take hours to complete a DCF analysis. Fortunately this restraint no longer exists as \$200 can now purchase a calculator capable of handling complex cash flow problems in a matter of seconds.

The apparent problem of analysis, I suggest, is little more than a problem in selecting the right technique. In my experience most competent valuers use one approach in their assessment of the value of a property and then apply whatever alternative methods are available as a check, and it is in this checking role that DCF has its greatest benefit.

Consider the situation where a valuer has assessed the value of an investment building using a conventional capitalisation technique. The income would be known and the capitalisation rate would be based on the anticipated economic life of the improvements, the income growth potential and the likely value of the reversion. In effect the valuer would use his intuition to select a rate applicable to the subject property when compared with known market evidence.

It is my contention that the valuer should then try to quantify the economic life, income growth potential and likely reversion and produce a cash flow schedule for the property. The cash flow is prepared for a period of say 15-20 years but should not be for a shorter period as the estimated value at the end of the period will probably be derived in a similar manner to the original value and with a short cash flow this would influence the result.

At the beginning of the cash flow the estimated value of the property should be entered and with a respectable calculator it is then simply a matter of pushing the correct buttons and the internal rate of return for the investment may be calculated. The internal rate of return (IRR) is the real return which the investor is likely to receive and may be compared with alternative investment opportunities. If the IRR is high or low then either the assumptions are wrong or the valuation is wrong.

At first it may appear that the assumptions could produce widely discrepant answers but with some practice it is found that in comparing one exercise with the next very consistent results will be achieved.

In this paper I won't dwell on the maths associated with the calculation of an internal rate of return as there are ample text books available. However, for those unfamiliar with discounted cash flow I will point out that if the cash flow for each year were discounted to its present value using the IRR as the discount rate then the sum of all the discounted values would be the present value of the property. A calculation of this type would take considerable time without the proper equipment and I suggest that it is essential that the user has a calculator which is able to handle the calculations. The valuer's time should be spent in properly considering the results and ensuring that the cash flows are entered in the correct time sequence.

At this point it may be worthwhile outlining a few examples. The examples which follow have been selected from actual situations which I have encountered in recent years and, because they are real examples I have entered the actual cost of each investment rather than the estimate

of value at the time. I hope that this will lead readers to conclude that DCF analysis should be used in the wider field of investment advice rather than being restricted to the valuation exercise.

EXAMPLE `A'

A nine-year-old office building in a fringe city location, fully leased to a number of tenants for relatively short terms. Current nett income was estimated at \$66,100 but one tenant had a pre-determined growth clause which would raise the income to \$66,700 in one year and \$67,000 the following year. All rents would be reviewed to market in three years.

Other factors:

- The current nett market rent was estimated at \$69,000.
- The likely future increase in market rent for this property was estimated at 5% p.a.
- By market comparison the current capitalization rate was estimated at 9%. It was estimated that in 15 years the increased age of the building would raise this capitalization rate to 9.5%.
- The value of the property in 15 years was calculated as the estimated nett market rent at that time, capitalized at 9.5%.
- The building had an extraordinary requirement for repainting so this was separately identified. Current cost of repainting was estimated at \$9,000 and it was assumed that this would be required at five yearly intervals. The increasing cost of this work was allowed at 8% p.a.
- The purchase price was \$690,000.

With these assumptions it is possible to produce an estimate of the investor's real cash flow requirements and receipts (see table below).

By scheduling the nett cash flows we are able to calculate the resulting internal rate of return at 14.3%.

EXAMPLE `B'

An industrial development leased to a single tenant on a long term lease with three yearly rent review to market. The initial rent was to be 91% of the cost of the project but the lessee agreed to pay holding costs to reduce the initial rent. The project was to take eight months to complete.

Other factors:

- The capital cost, including escalation, was estimated at \$880,000.
- It was estimated that the lessee would pay \$44,000 in holding costs.
- The current capitalization rate for the property was estimated to be 10%. It was estimated that this would be 11.5% if the property were 15 years old.
- The current market rent was estimated at \$87,780.
- It was estimated that the market rent for this property was likely to increase by 7.5% per annum for the first six years, then dropping to 5% p.a.

The projected cash flow, in this case, suggested an internal rate of return to the investor of 15.87% (see table below).

Armed with this analysis, it is now possible to make a direct comparison with alternative investment opportunities and their relative risk factors and tax benefits.

For example, investment A may be preferred to a blue chip company debenture offering 15% (say five year) on the grounds that investment 'A' offers a tax free element (capital gain) and has the potential for higher earnings. In addition, it may be considered that the company debenture contains a risk element in that it may not be possible to reinvest at the same rate when the initial debenture matures.

Although investment 'B' suggests a higher rate of return than investment 'A', it may still be that both investments are comparable when their respective risks components have been considered. Example 'A' is an established building with an established market demand; it also has a number of tenants and the exposure to the risk of defaulting tenants is therefore smaller. Example 'B', on the other hand, is not yet constructed and many things may happen before it is completed and occupied.

D.C.F. calculations have their most direct application when considering the disposal of assets. Many established property portfolios contain investments with outdated and disadvantageous leasing arrangements and these properties tend to be obvious targets for culling as their past performance is easily compared. But should these properties be disposed of and if so what should be the minimum sale price (i.e. what is their value)?

A simple example may illustrate the situation.

EXAMPLE 'C'

Assuming a situation where a property has been leased for say 40 years without review at a nett rent of \$35,000 p.a. Fifteen years remain under the lease and there is a considerable benefit to the lessee in that the market rent is currently \$60,000. The vacant land value is estimated at \$330,000 and it is determined that the improvements will be of no value at termination of the lease.

In this situation the lessor's interest is represented by a fixed income for 15 years plus the reversion of the land at the end of the term.

An investment of this nature is unlikely to reflect a satisfactory historical yield and it often occurs that the lessee would like to relocate but not without capitalizing on his interest under the lease. In these circumstances the lessor will often find an opportunity to dispose of his interest but at what price?

Applying a D.C.F. approach to this problem, the investor must determine what long term yield (IRR) is available from alternative investments. For the purpose of this example an IRR of 14% has been selected. It has also been estimated that with inflation and other factors the value of the vacant land will rise at an average 5% p.a.

With these assumptions an anticipated cash flow chart may be constructed (see table) and by discounting this flow at the selected IRR (14%) the nett present value of \$301,382 is calculated. The investor now knows that he should only sell at a price above \$301,382 unless, in reassessing alternatives, it is decided that alternative investments of comparable risk are available with IRRs greater than 14%.

EXAMPLES 'D' AND 'E'

These are two non-property calculations which have been included as a useful basis for comparison with yields available from property. Both examples apply the same 15 year term to fit in with the other examples.

Example 'D' takes the situation of a commercial mortgage at 141%. It is estimated that the loan will be repaid in 10 years and that changing circumstances will cause the reinvestment rate to drop to 10.0%. With these assumptions the IRR is 13.8% (see table).

Example 'E' assumes a share investment with a 10% dividend rate and 3% p.a. dividend and value growth. The IRR is 12.9% (see table).

Much of what has been discussed here may seem unrelated to the work of a Valuer preparing an assessment of the market value of a property. It may be argued that the Valuer's role is to interpret the market and that investment selection is the responsibility of the investor himself. But who is better placed to judge the future of a property investment?

We are all familiar with the fact that every property has a value but a property does not make a good investment simply because it is purchased at, or below, value. There are many property investors, present and past, who have found themselves holding unsatisfactory portfolios, even though much of their property has been purchased on the basis of a Valuer's report. Perhaps a simple D.C.F. analysis contained in these reports may have helped these investors to avoid many pitfalls and increase the confidence in the work of the Valuer.

I suggest that D.C.F. analysis including projections of growth and changing capitalization rates should supersede the summation calculation which is still ritualistically included in most valuation reports, regardless of the type of property. Investment property is nearly always encumbered in one form or another and the valuation becomes an assessment of one party's interest. There is no basis for the assumption that the summation calculation reflects the value of the lessee's interest, lessor's interest or any other interest which may exist. If anything, the inclusion of summation calculations in the assessment of the value of an investment property (lessor's interest) is likely to mislead the various parties reading the report.

It seems to me that the logical second approach to the appraisal of an investment property is the D.C.F. analysis. Applied as illustrated here, this analysis can be used to reflect the probable internal rate of return if the property is purchased at value. With increased usage and analysis I believe that it will be prac-

licable to select the appropriate internal rate of return and apply it to the projected cash flow to arrive at the value of each investment opportunity and, in time, this approach may prove more reliable than the present capitalization approach.

NOTES:-General

- Brackets indicate a nett cash outflow.
- All cash flows are assumed to occur at the end of the year.
- The final cash flow (year 15 in the examples) represents the income for that year plus the anticipated income for the following year

capitalized in perpetuity (anticipated sale price).

This assumption is varied for properties expected to be nearing the end of their economic life in the final year. In these situations the final cash flow is the income that year plus the escalated land value.

- Example `A' - The net income reduction in some years is due to the allowance for repainting.
- Example 'B'-The nett cash outflow at year 0 represents the direct project cost of \$888,000 less the \$44,000 received as interest payments.

PROJECTED NETT CASH FLOWS

Year	Example A	Example B	Example C	Example D	Example E
0	\$ (690,000)	\$ (836,000)	\$ (301,382)	\$ (1,000)	\$ (10,000)
1	66,100	83,600	35,000	145	1,000
2	66,700	83,600	35,000	145	1,030
3	67,000	83,600	35,000	145	1,061
4	66,652	109,049	35,000	145	1,092
5	79,876	109,049	35,000	145	1,125
6	79,876	109,049	35,000	145	1,159
7	92,467	135,471	35,000	145	1,194
8	92,467	135,471	35,000	145	1,230
9	73,037	135,471	35,000	145	1,267
10	107,042	156,825	35,000	145	1,305
11	107,042	156,825	35,000	100	1,344
12	107,042	156,825	35,000	100	1,384
13	123,914	181,544	35,000	100	1,426
14	95,365	181,544	35,000	100	1,468
15	1,633,872	2,009,022	651,046	1,100	16,638
IRR	14.3%	15.9%	14.0%	13.8%	12.9%

Which Offer is Worth More?

By William F. Benage, Jr.

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Introduction

Today's real estate market is requiring more and more creative methods of financing the purchase of real property. This can result in confusion for the seller who receives several offers. While none of the offers may be completely satisfactory, two or three may be attractive enough to warrant serious consideration.

When a seller reaches the point where he/she is ready to accept one of two or three offers, the decision could come down to which one has the highest monetary value. But comparing two offers that have different amounts of cash down payment, different amounts of note principal, different interest rates and different lengths of time, may seem, at first, near impossible. Discounted cash flow analysis can make this comparison not only possible but simple and straight forward as well.

For Example

The following example demonstrates the use of discounted cash flow for comparison of two offers. The offers are hypothetical but are used to show the discounted cash flow method of comparison.

Offer 1 is \$1,000,000 payable as follows:

- \$100,000 cash down payment.
- \$900,000 note payable in equal monthly instalments for thirty years.
- Instalments to include principal and interest at 81% per year.

Offer 2 is \$900,000 payable as follows:

- \$140,000 cash down payment.
- \$760,000 note payable in equal monthly instalments for twenty-five years.
- Instalments to include principal and interest at 10% per year.

First, to simplify the analysis, assume that neither note is likely to be paid off early; that each offer is from a financially qualified buyer and that the risks of each offer are equal. The highest present value will be the determining factor.

The cash is the easy part. Its face amount is its present value. But what about the notes? For ease of comparison, assume that one (in this case the 10% one) has a present value that is its face value.' This makes the present value of Offer 2, \$900,000.

It should be clear to everyone that the note in Offer 1 is not comparable to that in Offer 2 on its face. Therefore, finding its present value, at a comparable interest rate (here 10%), is necessary. The following steps will demonstrate how to do this:

1. Find the payments under the terms of the note ^{2, 3} (81 % interest for thirty years)
 $\$900,000 \times .007689135 = \6920.22
2. Find the present value of the monthly payments at 10% interest rate for the term of the note (30 years) ^{4, s}

$$\$6920.22 \times \frac{1}{.0087757157} = \$788,564.74$$

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1. The present value to anyone will be determined by one's required rate of return (i.e. someone may require 10%, someone else may require 15%, making any note worth more to the former). As for this analysis, any interest rate equal to, or greater than 10% will result in choosing the same offer.

2. The factor .007689135 is from a loan payment table. The formula for computing payments not listed in the table is in footnote 3.

3. The general form of the equation is:

$$A \frac{1 - (1 + i)^{-n}}{i} = PV$$

Where: PV present value.

A = payment per period.

n = number of periods.

i interest rate per period.

Solving for A:

$$PV \frac{i}{1 - (1 + i)^{-n}} = A$$

For further explanation see A. W. Richeson, Financial Mathematics.

4. Ibid.

5. The factor .0087757157 is from a loan payment table.

3. Add the present value of the note and the present value of the cash.

\$788,564.74
100,000.00

\$888,564.74

The present value of Offer 1 at 10% interest rate is \$888,564.74 and the present value of Offer 2 at 10% interest rate is \$900,000. Comparison now is easy: Offer 2 is worth \$11,435.26 more than Offer 1.

(It should be noted that this entire example can be calculated in less than one minute with a calculator with interest functions.)

A More Practical Example

What happens when the notes are all due and payable in five years? The present value analysis is still used; however, the steps are slightly different.

Since a common interest rate is still needed, again assume, for this analysis, 10% as before. This again makes Offer 2 have a present value of \$900,000. To find the present value of Offer 1 at 10% with five year due date, the steps are as follows:

1. Find the payments under the terms of the note as before.
2. Find the present value of the monthly payments at 10% interest rate for the first 60 payments (5 years).¹

$$\$6920.22 \times \frac{1 - (1 + 0.10)^{-60}}{0.10} = \$325,702.71$$

3. Find the balance due in 5 years (300 payments - 25 years - at 8i% interest) 7.⁸

$$\$6920.22 \times \frac{1 - (1 + 0.08)^{-300}}{0.08} = \$859,412.23$$

4. Find the present value of the balance due in 5 years.¹ \$859,412.23 X .6077885916 = \$522,340.95.

5. Add the present value of the cash, the present value of the first 60 payments and the present value of the balance due in five years.

\$100,000.00
325,702.71
522,340.95

\$948,043.66

The present value of Offer 1 at 10% interest

rate is \$948,043.66 and the present value of Offer 2 remains at \$900,000; therefore, Offer 1 is better. However, to use the present value analysis properly, not only must the usual terms of the note be known but also the planned pay-off time (which may or may not be one of the terms of the note).

A More Complex Example

In today's market, frequently, offers are a little more complex. A look at three offers, of the type not uncommon in times of high interest rates and tight money, will demonstrate the use of this analysis for more complex financing schemes. The three offers to be analyzed are:

Offer A is \$1,000,000 payable as follows:

\$50,000 cash down payment
\$50,000 cash in one year plus 81% interest per annum compounded monthly
\$900,000 note payable in equal monthly instalments, amortized over 30 years, all due in seven years. Instalments to include principal and interest at 82% per annum.

Offer B is \$940,000 payable as follows:

\$50,000 cash down payment
\$50,000 cash in one year without interest
\$40,000 cash in two years plus 10% per annum interest compounded monthly

\$800,000 note payable in equal monthly instalments, amortized over 25 years, all due in four years. Instalments to include principal and interest at 10% per annum.

Offer C is \$950,000 payable as follows:

\$40,000 cash down payment
\$60,000 cash in one year plus 9.21% interest per annum compounded monthly
\$850,000 note payable in equal monthly instalments, amortized over 22 years, all due in four years. Instalments to include principal and interest at 9

As in the previous analysis, a required rate of 10% per annum. return of 10% will be used. The present value of Offer A is found as follows:

1. Find the amount to be received in one year for the \$50,000 deferred payment at 82% per annum interest compounded monthly.
\$50,000(1.08839091) = \$54,419.55

Where: PV = present value.

FV = future value.

i = interest rate per period.

n = number of periods.

10. Future value of a dollar can be found in a future value table or from the following formula:

$$FV = PV (1 + i)^n$$

Where: FV = future value.

PV = present value.

i = periodic interest rate per period.

n = number of periods.

For Offer A: 085112

$$FV = \$50,000 \times 41 + - = \$54,419.55$$

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6. The factor .0212470447 is from a loan payment table.

7. The factor .0080522708 is from a loan payment table.

8. The balance of a loan can be found by taking the present value of the remaining payments immediately after a payment is made. For further explanation see A. W. Richeson, Financial Mathematics.

9. The factor .6077885916 is found in a present value table or from the following formula:

$$PV = FV$$

- Find the present value of the amount due in one year at the 10% per annum rate compounded monthly.

$$\$54,419.55 (1.095212430) = \$49,261.25$$

- Find the payments on the note.

$$\$900,000 (.007689135) = \$6920.22$$

- Find the present value of the 84 monthly payments (7 years) to be made on the note at the 10% per annum rate compounded monthly.

$$\$6920.22 \frac{1 - 1}{0.1660118} = \$416,850.99$$

- Find the balance due in 7 years (276 payments - 23 years - at 81%)^{2,1*}

$$\$6920.22 \frac{1 - 1}{.008260865} = \$837,711.26$$

- Find the present value of the balance due in 7 years at 10% per annum rate compounded monthly.

$$\$837,711.26 (1.49802777) = \$417,203.47$$

- Add up the present value of all payments to be received:

Cash down payment	\$50,000.00
Deferred cash payment	49,261.25
Monthly pay. on note for 7 yrs.	416,850.99
Balloon payment in 7 years	417,203.47

$$\$933,315.71$$

Finding the present value of Offer B is much simpler due to the 10% interest rate on the interest bearing amounts and to the choice of 10% as the required rate of return. The computation follows:

- Find the present value of the amount due in one year.

$$\$50,000 (1.095212430) = \$45,260.62$$

- Find the present value of the amount due in two years and the present value of the note.

Since the payments bear 10% per annum interest compounded monthly and the required rate of return is the same/10% per annum compounded monthly/the face amount of the notes are their present values, \$50,000 and \$800,000 respectively.

- Add up the present values of all payments to be received:

Cash down payment	\$50,000.00
Year one deferred cash payment	45,260.62
Year two deferred cash payment	50,000.00
All payments on the note	800,000.00

$$\$935,260.62$$

In finding the present value of Offer C the same steps used in Offer A are followed:

- Find the amount to be received in one year for the \$60,000 deferred payment at 92% per annum interest compounded monthly.

$$\$60,000(1.09924758) = \$65,954.86$$

- Find the present value of the amount due in one year at the 10% per annum rate compounded monthly.

$$\$60,000 (1.09924758) = \$65,954.86$$

- Find the payments on the note.

$$\$850,000 (.009044613) = \$7687.92$$

- Find the present value of the 48 monthly payments (4 years) to be made on the note at the 10% per annum rate compounded monthly.

$$\$7687.92 \frac{1 - 1}{.025362583} = \$303,120.54$$

- Find the balance due in four years (216 payments - 18 years - at 92%).

$$\$7687.92 \frac{1 - 1}{.009679114} = \$794,279.27$$

- Find the present value of the balance due in four years at the 10% per annum rate compounded monthly.

$$\$794,279.27 (.671431999) = \$533,304.52$$

- Add up the present value of all payments to be received:

Cash down payment	\$40,000.00
Deferred cash payment	59,703.16
Monthly payments on note for four years	303,120.54
Balloon payment in four years	533,304.52

$$\$936,128.22$$

Clearly Offer C has the highest present value. However, a closer look at the present values of these offers shows that Offer C is only 0.3% greater than Offer A and only 0.2% greater than Offer B. Should so small a difference be the deciding factor? Not generally. In the situation shown in this example, the seller probably should consider the offers equal from the present value analysis and make the decision, about which to accept, based on his/her other needs, wants and desires. It is important to note that had the present value analysis not been done on these offers the seller could have easily taken Offer A thinking that it is worth more when, in fact, all three offers have approximately the same present value.

Things to Remember

When using DCF, payments (cash flow), both monthly and balloon, must be computed at the interest rate in the note, but the present value of the payments must be computed at the individual's required rate of return.

In analyzing offers with differing financial terms, the analysis presented here is a valuable tool. However, it should not be the only analysis made of the offers. This is especially important when present values are approximately equal. Furthermore, the assumptions stated in the analysis, i.e., financially well qualified buyer and risks being equal, must be true in fact or compensating adjustments must be made to the required rate of return. In addition to all of the above, other needs, wants and desires of the seller must be considered.

Valuation Mathematics

By Tan Tze Chye Jason, Dip. Urb. Val., A.N.Z.I.V., A.C.I.S., A.S.I.V., M.S.I.S.

Tan Tze Chye Jason studied Valuation at the University of Auckland under the auspices of the Colombo Plan. Since his return to Singapore in 1973 he has been with the Property Tax Division, Singapore, where he is involved in the valuation of properties for rating, stamp and estate duty purposes and for compulsory acquisition. He obtained Associateship of the Institute of Chartered Secretaries and Administrators in 1976. Mr Tan is an executive Valuer in the Property Tax Division, Singapore.

With the advent of sophisticated and economical calculators and desk-top computers Valuers find the employment of cash flow analysis and discounted cash flow techniques increasingly practical. This article seeks to discuss certain aspects of valuation mathematics involving compound interest and annuities which Valuers encounter in their practice.

Force of Interest

To begin with, we introduce the concept of "force of interest", represented by the symbol g . In normal practice the interest rate is stated as a percentage per annum. However, where the payment instalments are on a monthly basis, as is usual in the case of mortgage loan repayments, the effective interest rate is higher. For instance a loan of \$100,000 for 10 years at 11% p.a. will require a yearly repayment of \$16,980 at the end of each of the 10 years. When collection is effected at 1/12th of that amount, i.e. \$1415, at the beginning of each month during the same period, the effective interest rate works out at 12.57% p.a. In such instances the 11% p.a. is known as the nominal interest rate as distinguished from the effective interest rate of 12.57%.

If we imagine the interval between repayments to decrease from 1 month to a point of time, the effective rate of interest will then be the force of interest, g . This is arrived at as follows:

Let the growth rate of an amount of money be a function of time, t , such that the initial amount $f(0)$ will grow to $f(t)$ after time t .

The growth is in fact the interest, and between time t and $(t + h)$, it amounts to $f(t + h) - f(t)$.

The rate of growth per unit interval of time is therefore $[f(t+h) - f(t)]/h$, and the rate of growth per unit of the amount at the commencement of the time interval is

$$[f(t + h) - f(t)]/hf(t)$$

The instantaneous rate of growth per unit amount,

$$g = \lim_{h \rightarrow 0} \frac{1}{h} \frac{f(t+h) - f(t)}{f(t)}$$

$$\frac{1}{f(t)} \frac{d}{dt} f(t)$$

$$\frac{d}{dt} \ln f(t)$$

When $t =$

$$g = \frac{d}{dt} \ln f(t)$$

[\ln = natural logarithm]

$$\bullet \ln f(t) = \int_{f(0)}^{f(t)} \frac{1}{f} df = g$$

Since the amount of an unit after one year at an effective interest rate of i per annum is $(1+i)$

Hence when	i	$\ln(1+i)$
	0.11	0.1053
	g	$\ln(1.1257)$
		0.1184

The force of interest serves as a reference point when comparing nominal interest rates to which differing terms are affixed.

Present Value of Outstanding Mortgage

If it is desired to determine the present value of the abovementioned mortgage loan, the ordinary annuity formula $= (1 - V^n)/i$ is not accurate since repayment is made in advance on a monthly basis while interest is convertible yearly. To allow for this factor we find the payment which when made at the end of each year is equivalent to the monthly sums paid during the year.

This annual equivalent is equal to

$$P \{ (1+i)^{-1} + (1+i)^{-2} + \dots + (1+i)^{-n} \}$$

when p instalments are paid each year.

$$P \left\{ \frac{1 - (1+i)^{-n}}{1 - (1+i)^{-1}} \right\} = E$$

Hence the present value of the mortgage loan is the discounted sum of a series of amount $(E \times \text{annual instalment})$ at the end of each year for n years, i.e.

$$N - X \quad P(1 - v)^n + \text{annual instalment}$$

When $i = 0.11$ and $p = 12$,

$$E = 1.0586$$

In effect, by requiring monthly payment in advance, the mortgagee gains by \$0.0586 for every \$1 he lends out, immediately upon the signing of the loan agreement. This is another way of saying that the interest rate has been effectively raised.

Fractional Terms

It is often assumed that the present value of an annuity for $n + k$ years (where k is a fraction), comprising a series of 1 for n years and a final payment of k at the end of $n + k$ years, may be calculated thus:

$$A_{n+k} = \frac{1 - v^{n+k}}{i}$$

This is not a correct assumption since

$$A_{n+k} = \frac{1 - v^n}{i} + \frac{v^n - v^{n+k}}{i}$$

$$= \frac{1 - v^n}{i} + \frac{v^n(1 - v^k)}{i} = \frac{1 - v^n}{i} + \frac{v^n(1 - v^k)(1 + i)^{k-1}}{i}$$

Hence the final payment should not be k but $[(1 + i)^k - 1]i$ if the formula is to hold. If the final payment is in fact k , it should be separately valued and add to A_n . In that way no inaccuracy results.

Non-level Annuities

When it comes to finding the present value (IA) of an annuity which shows a steady increase in the periodic instalment, the usual method of summing the respective product of each instalment and its appropriate reversion factor is definitely tedious. This calculation may be needed when the rent of a property is assumed to grow by a certain amount, H , each period for n periods. Then, if the initial instalment is P

$$(IA) = Pv + (P+H)v^2 + (P+2H)v^3 + \dots + (P+(n-1)H)v^n$$

$$(1+i)(IA) = P+(P+H)v+(P+2H)v^2+(P+3H)v^3+\dots+(P+n-1H)v^{n-1}$$

$$i(IA) = P+H(v+v^2+\dots+v^n) - IA^n - T1H$$

$$= P(1-v^n) + H(v+v^2+\dots+v^n) - v^n IA^n - T1H$$

$$(IA) = \frac{P(1-v^n)}{i} + \frac{H(a1-nv^n)}{i^2}$$

$$Pai - i \quad ||(a1 - nv^n)$$

In the case of a declining annuity, the present value

$$(DA) = \frac{Pant - H(an1 - nv^n)}{i}$$

Dual Rate

Among other things the ravages of inflation have rendered many valuation tables obsolete. The range of interest rates is often inadequate in covering the real life situation. Because of the many permutations possible the dual rate tables tend to be rather more narrow in range.

To wean ourselves from dependency on such tables, we must be familiar with the following derivation. In a dual rate situation, the annual instalment is the sum of 2 elements:

- (a) the required interest at the remunerative rate, I and
- (b) the sinking fund factor allowing the replacement of 1 after n years, i.e. $1/5i$ at the reproductive rate, i .

Since the annual instalment is $1/W$, where W is the present value of the annuity,

$$1/W = I + 1/s$$

But $1/a = 1/s + i$, by the same reasoning.

$$\text{or } 1/s = 1/a - i$$

Substituting this in the equation above,

$$1/W = I + (1/a - i)$$

$$= (I - i) + 1/a$$

$$W = \frac{A_n}{1 + (I - i)A_n}$$

Thus in a dual rate problem the present value factor can be easily derived once A_i at interest rate i is found.

$$I = \frac{1 - v^n}{1 - v^n} \cdot \frac{1}{i}$$

Conclusion

The mechanics of valuing annuities-certain becomes decidedly complex when one delves into the subject. It is hoped that the foregoing provides some useful short cuts for the Valuer in his work.

EDITOR'S NOTE

The Editor would welcome comment from readers on the practical validity of mathematical calculations associated with discounted cash flow techniques and the possible application of the above formulae to practical valuation problems in New Zealand.

Recent Problems in the Hypothetical Subdivisional Approach to Value

By Squire L. Speedy, B.Com., M.Phil. (Hons.), F.N.Z.I.V., J.P., F.C.A., F.C.LS., M.P.M.I.

Squire Speedy is a noted author on property investment and economic theory. He is a well-known contributor to "The Valuer". He practises as a private consultant valuer and urban land economist in Auckland, and lectures part-time at the University of Auckland. This paper was presented to the Western Australian Institute of Technology as a visiting Fellow in August, 1981:

1. The Role of the Hypothetical Subdivisional Approach to Value

The method of valuing land under the hypothetical subdivisional method arises when land is "ripe" for subdivision either as a prime method or as a check on the block value of land by comparison with sales of comparable land. Because it is often difficult or impossible to obtain satisfactory evidence of truly comparable sales of similar blocks of land with similar subdivisional potentialities, the method has long been accepted in the valuation of land with a strong subdivisional potential. In other words, while comparable sales evidence is a prime method, where for various reasons this is not available or satisfactory the hypothetical subdivision method is an acceptable method.

In essence a hypothetical prudent purchaser is assumed to pay for the land a sum sufficient to satisfy the owner to give him a minimum acceptable return on his capital outlay for period of time it is sunk into the venture, together with a margin of profit sufficient to provide for the risks involved in such a venture, plus a profit allowance akin to what accountants call gross profit.

Many assumptions are necessary in respect of the hypothetical purchaser and his use of the basic hypothetical subdivision formula. In practice there are of necessity many factual and hypothetical problems a valuer is required to resolve to arrive at the estimated market value, to which the subdivisional formula is a strong guide, but of necessity merely a guide. An example of a subdivisional formula is given in Table 1. Each item calls for the consideration of various practical, theoretical and sometimes legal matters.

2. Land Must be "Ripe" for Subdivision

The hypothetical subdivisional method of valuing land is justifiable only when land is "ripe" for development. That is, the prospective hypothetical purchaser would believe that there was such a demand for sections that there would be a reasonable prospect of selling all available sections and making an adequate profit within a reasonable period of time.' When land is ripe for subdivision, a subdivider may be expected to pay more than a purchaser proposing to hold it in its unsubdivided whole.

An essential prerequisite for this approach is that the land is correctly zoned' for the proposed hypothetical scheme and that it would comply with normal local authority or similar legal and practical requirements. The town planning or similar land use controls are relevant to the value of the land because they define or limit the purpose for which the land can be used, thereby affecting the hypothetical section and the value of the land. If the land is not so zoned and approvals for subdivision or other requirements or consents not reasonably likely to be obtained, then the hypothetical subdivisional method is not appropriate. Neither would it be appropriate if the land was not ripe, nor the plan acceptable for approval'.

Whether a subdivision will be economic may depend on the price at which the land can be purchased by a prospective subdivider, that is the price at which the owner of the land would sell¹⁴. Such a price may be brought about by the land having a high alternative economic use. The formula would not be suitable where the land is not immediately ripe for subdivision but nevertheless the potential buyers are likely to hold the land for long-term subdivisional purposes. Any attempt to apply the extra consideration of extra deduction and discounts, as well as consideration of administrative overheads and consideration of the whole profitability of the business of such a buyer⁵. Clearly, other methods in these circumstances would be more reliable. Neither is the method suitable when land is not capable of subdivision because of a rural zoning with no foreseeable prospect of any change in zoning'. On the other hand, the refusal of a subdivisional consent because of the impending acquisition is to be disregarded as being the first step in the acquisition'

3. Zoning

A valuer may have to consider the zoning with special reference to the special circumstances of compensation valuation.

- (a) The existing (or technical) zone when valuation is made.
- (b) The zone for "before" valuation purposes in line with the Coomber principle. *Coomber v. Birkenhead City*, NZV Vol. 24 No. 2 (June 1979) p. 102.
- (c) The zone for "after" purposes, if necessary adjusted for the de facto situation.

4. Services

Part of the physical aspects are the provisions for services such as water and sewage disposal. Sometimes alternative means of providing for services may have to be found.

5. Legal Pre-conditions

Any restrictions or consents which may be necessary call for full investigation.

6. Economic Factors

The simple issue is: will the subdivisional development pay? What is the state of the market?

7. Potentialities

While the hypothetical subdivisional approach takes into account the potentialities of the land, it must always be remembered that it is the present market value of those potentialities which have to be valued. The Whareroa principle is that unless the land could in fact be sold as separate sections (blocks) the land must be valued as a single parcel of land (in globo).

Under the Whareroa principle land with a subdivisional potentiality is to be valued at the relevant date with all its potentialities being taken into account as a whole unless the necessary legal consents to a plan of subdivision have been given and the land was in fact subdivided and could at the date have been immediately sold and title given to individual purchasers. Accordingly, where at the date of acquisition the land was in an unsubdivided whole, then it could only have been sold in that condition at that date.

While sales of comparable land offer the best evidence⁹, particularly the sale of the subject land itself¹⁰ if it has recently occurred, it is usual for land with a subdivisional potential to be valued by the well recognised hypothetical subdivisional method¹¹. This method takes into consideration all factors uniquely applicable to the land and may be used as a guide to value. The essential task is to assess what a prospective purchaser of the land for subdivision could reasonably expect to pay after taking into account the estimates of realisation and proper deduction. It is in accordance with accepted practice for the Court to have regard to all material relevant to value and to check the value deduced from the assumptions of a hypothetical sale and subdivision by reference to such other evidence as is available¹².

8. Treatment of Delay in Ability to Subdivide

Two aspects of delay in subdivision have been my special concern. I refer to the Tauhara case (Tauhara Properties Ltd. v. Minister of Works (1978) N.Z. Valuer Vol. 24 No. 4 (December 1979), 283); and Schischka v. ARA (1978) Supreme Court, Auckland, LVT (1979) A. 313/1974.

In the Tauhara case the land was zoned just beyond the city boundaries due to be brought within the city and zoned residential as soon as the legal formalities were possible. These were estimated to take three years. The Court decided

to use a present value discount system after first arriving at its value by hypothetical subdivisional methods.

In the Schischka case, stages of development were considered and an allowance was made within the subdivisional budget.

However, unless a subdivisional development is capable of development within a reasonably short time, alternative methods of valuation are more appropriate.

9. Relevant Date

Usually the instructing solicitor will produce evidence of the relevant date. However, the valuer must himself decide what is the correct date. In a fast moving market the precise date can be material. The choice has arisen when entry on to the property was made before the date of proclamation. In fact one compensation dispute involved a series of different dates resulting from different parts being entered on different dates. On top of that the surveyed area differed from the proclaimed area. While solicitors should be able to assist, in most cases it is the valuer who must assist the solicitor in this respect.

10. Market Conditions at Relevant Date

In several cases I have had to produce an economic analysis of the state of the general economy to show the state of buoyancy of the market. Official figures have to be ferreted out. Statistics which might have a bearing on the matter have to be considered. An example of one approach by me was adopted in the Tauhara decision. Statistics which might be useful could include the following: building permits, rate of inflation, land values, sale turnovers and prices, value of exports, money supply, mortgage finance and interest rates and charges.

11. Subdivisional and Delevopment Standards

As conditions change from time to time, the requirements at the relevant date, or changes which could reasonably have been foreseen must be considered, not necessarily those that did in fact take place. Subsequent legislative requirements must also be disregarded.

The Stanfield¹³ rule is that in order to assist in the estimate of gross realisation from the hypothetical subdivider a plan of subdivision must be prepared to show the details of the sections. Such a plan to be of assistance must be complete. Unless it shows the size of sections and their relationships to one another usually it would be impossible to estimate the section prices, selling period, costs of development and any other relevant matters including allowance for profit and risk. A valuer must satisfy himself that any such plan would be approved by all relevant authorities¹⁴. Such a plan would provide for the number of lots which a hypothetical developer wishing to sell upon subdivision at the relevant date would consider he could fairly obtain and be able to sell on subdivision. In consequence such a hypothetical purchaser should not be imputed with a degree of prescience exceeded by the Council Officers¹⁵

12. Area of Land Affected

In most cases the area taken is well defined on a plan. Less well defined may be facts relating to the usable land. I wish to refer to a case involving a road set-back which resulted in the loss of buildable land as a consequence. The settlement was reached after extensive negotiations, in which the principal cases were traversed and the economic effect the taking had on the balance of the severed land. In the Schischka case the effect of the taking was to sever a large valley from its potential as a subdivisional project. The "after" valuation was made on this de facto use as rural, even though the actual zone was residential. It was necessary to define the area of the after plan from a factual situation.

In the same case the line of taking was purely arbitrary and unrelated to the realities of the land as a development project. One valuer was led astray by adopting the taking line for the 'before' valuation purposes.

Should there be any difficulty or doubt as to the areas and their respective date, it is desirable to have a plan prepared. If a valuer is in doubt or confused, the lawyer and Court are also likely to be confused. Proper factual information must remove such doubts. The Courtroom is no place for a valuer to find out that the basis of his valuation was wrong!

13. Evidence of Other Takings Not Normally Admissible

This is often a contentious issue. The Tauhara principle now applies, but the question of other sales in land designated or taken for public purposes seems too strong to be ignored by some valuers. Clearly if the sales are not arms-length free market little weight (if any) can or should be given to them. Nevertheless, the valuer should be aware of them, if only for background and if necessary to explain why they are not relevant.

14. Estimates of Gross Realisation

In estimating the gross realisation from the notional subdivision the selling prices for the sections should be assessed at the values ruling at the relevant date of valuation. Such prices are based on what a willing but prudent purchaser might have been expected to pay¹⁶. It is necessary to assume that the sections (blocks) were available for sale at the relevant date. There should be no reference to values hoped to be received when presumed to be available¹⁷. In general they should be conservatively assessed".

While these will be valued by normal comparisons, it is helpful to have a contour map with key points marked for reference. Ideally, pegs would help identify various areas. The sections can be valued individually or in groups. One matter that needs special consideration, is that the sections have to be visualised as if roaded and developed. For example, the land may be damp and rough when inspected, but the finished sites after stormwater drains and earthworks will be totally different. Similarly, gullies may be filled and present a totally

different picture. Conscious effort is needed to keep the most probable finished section (block) in mind.

15. Terms or Cash Sales

How should the level of values be assessed? My policy is to use the valuation criteria of sales on such reasonable terms and conditions as are prevailing in the market. Thus, if term sales are the norm, that becomes the standard. Cash sales would then be adjusted up to the terms level. If term sales are the criterion then due allowance will have to be made in either the profit and risk allowance or period of realisation. It would not necessarily be wrong to discount the terms sales to cash, provided this fact was taken into account elsewhere in the valuation.

16. Selling Expenses

New Zealand practice is to treat selling commissions and legal fees as arising after the sale is made, so are a direct deduction from gross realisation before profit and risk allowance is deducted.

A separate publicity and promotion allowance may be made as part of the subdivisional expenses. To some extent the price level of the sections (blocks) can be related to promotion. A single seller has less chance to promote his land compared to a development company.

17. Open Space Reserves

The legal issues involved in either setting aside land or cash payment in lieu, should be decided with the help of the surveyor. He will have had to decide this issue at quite an early stage.

18. Allowance for Subdividers' Profit and Risk

Over the years there has been much heart burning by owners whose potential subdivision has been taken wholly or in part because of the "loss" of potential profits referred to under the heading of "subdividers' profit and risk allowance". In any subdivisional project there is always substantial risks, so what some people regard as "profit" is an allowance for several factors. One is in respect of a profit to the developer which falls in the same category as "gross profit" in accounting terminology. The profit and risk allowance is similar to the accountants' gross profit. Gross profit is the profit when actually made and accounted for, from which various other expenses are deducted including wages, salaries and expenses of administration, interest on outside monies raised to finance the project, as well as providing a return on owners' equities including indirectly their personal liability for income tax at such rate or rates as may be appropriate to their particular legal structure, ownership, interests and circumstances.

Further, the allowance covers subdivider's risks. Even what appears to be a straightforward development has all manner of risks and uncertainties. Even before the project can commence there may be delays and uncertainties in respect of approvals to a scheme plan of subdivision, including layout of roads, lots and any reserves or cash contribution required in

lieu of reserves, or engineering requirements in respect of roads, or the provision for services such as sewage and stormwater disposal, the provision of a city water supply and electric power or telephone facilities. This could include changes (for better or worse) in respect of the physical features of the developed section or lots, marketing conditions when the land is placed on the market at some future date, changes in development costs through price variations, unexpected contingencies related to engineering problems and standards or requirements, changes in requirements by government or local or ad hoc authorities, delays caused by shortages of imported material, strikes and lockouts, delays in local body or other approvals, particularly where the right to object and appeal have¹⁹ been given neighbours or other persons likely to be affected by the project²⁰. Other delays in receiving monies may be related to changing financial circumstances of a buyer and the delays and practical administrative difficulties in taking appropriate legal action. Until the cash has been actually received the nominal book debt related to the sale is of doubtful value, and does not help the cash flow. There are always acts of God to contend with including weather conditions and unexpected geological problems relating to sub-surface conditions. There may even be delays and risks of encountering archaeological finds which have recently been protected in New Zealand".

Judge Archer summed up the position when he said that to ignore the factor of risk and to treat this allowance as all profit (and as an assured profit) involves a grave and unwarranted disregard of the fundamentals of valuation. On the other hand the principle of liberality applies and the allowance for profit and risk must be strictly limited". In essence, full allowance should be made if at the relevant date the land was not subdivided or the potentiality of the land was not immediately realisable by sales of subdivided lots. In addition to the various allowances, the allowance by way of deduction must include an allowance for entrepreneurial enterprise²³.

The refusal of a Court to grant compensation for loss of profit to a dispossessed owner for the opportunity of developing the land may appear inconsistent with his statutory right to "full" compensation or on "just terms", but the loss is limited to the market value of the land". In this respect the market value at the relevant date is regarded merely as capital which can be used for any purpose the owner chooses. Should he choose to employ his capital in a subdivisional scheme, the anticipated profit cannot increase the value of the land". While anticipated profits from a business might be taken into account in assessing the market value of the property, the owner is not entitled to claim any additional sum for the loss of those profits²⁶.

Another view of subdividers' profit allowance is to regard it as a discount to eliminate the risks attached to faulty estimates, contingencies or market fluctuations and the desirability of "a bird in the hand". A cash offer for the land as

a block would eliminate those risks. Granting that much actual work would be done by sub-contractors and specialists whose remuneration is covered by the deduction for development works and survey expenses, a cash offer avoids the substantial time, thought and ability and administration costs involving management time and skill necessary beyond that which would be required by merely investing capital in a gilt-edged security which produces interest".

Where an owner has had part of land severed which had a subdivisional potential, not only does he lose his land, but the severance may detrimentally affect the subdivisional potential to the residue balance of land". This may arise by disturbing the subdivisional layout and may involve proportionally extra costs of development. This can arise because the fixed costs may well be spread over fewer subdivided lots, or proportionally lower returns may result from a less efficient subdivisional scheme. A subdivider may be involved with substantial extra costs should basic services have to be brought to the boundary of the property.

Rate of Deduction for Profit and Risk

The actual amount of deduction for subdivisional profit and risk is assessed after determining all relevant circumstances. In the absence of comparable supporting evidence the assessment has been harshly referred to as a guess²⁹. Although the amount selected may well be based on comparable deductions and professional judgment, nevertheless, all such estimates are technically guesses if there is no supporting factual evidence. The Courts have allowed deductions over a wide percentage, from 121 percent³⁰ to 40 percent". While frequently 25 percent of capital outlay is allowed, a larger allowance may in appropriate circumstances be desirable as profits greatly in excess of 25 percent are frequently sought and recovered by those engaged in the subdivision of land³². It is wrong to regard 25 percent as "usual" or "normal" deduction, although this figure is frequently adopted, the appropriate allowance must be assessed in relation to the particular facts³³. The deduction must be related to the risks and the likely period of realisation³⁴ as well as possible difficulties and changes in development requirements. For example where the complete disposal of sections is likely to take more than two years, a prudent subdivider would require a margin of more than 25 percent". Although an extra allowance for "interest" on capital outlay is necessary for the extra period of realisation, that extra period of realisation still tends to increase the risks of the venture³⁶. In determining the proper allowance the Court is less concerned with what may in theory appear reasonable or adequate, but with what in practice is necessary. Subdividers take care to cover all risks and expect to receive substantial profits, which reflects in the prices they are prepared to pay and the market value of the land". The fixing of a proper rate of deduction for profit and risk and contingencies must be related to the particular facts having regard to the degree

of risk in relation to gross realisation and the costs of development". It should be remembered that the amount allowed for profit and risk is intended to provide a sufficient, but no more than sufficient inducement to purchasers likely to be buying the property for purposes of subdivision.

Provided the section values have been conservatively estimated, and the costs of development carefully calculated the element of risk should be comparatively small, particularly as the gross return may be more or less than the estimate³. Naturally a subdivider would hope that the risks will be negligible and the profit enhanced⁴⁰. But as a subdivider does not in fact receive his profit until all the sections have been sold and the proceeds realised, the period of realisation is of vital importance⁴¹. There is always the possibility of delays at various stages of the project and the possibility of a fall in values or rises in costs during the period of realisation⁴².

In determining the rate of deduction, the Court is not concerned with the attitude of any particular person towards the allowance for risk and profit but by the extent of such allowance by a prudent purchaser of proposing to subdivide the land⁴¹.

19. Deductions for Direct Costs

It is necessary to deduct from the estimated gross realisation all direct costs related to the production of the section lots and the selling expenses. These items are mainly matters of fact for which a valuer may seek professional assistance. As they may also involve matters of opinion and judgment, the valuer should make such other enquiries from appropriate authorities and others to satisfy himself (and the Court) that they are appropriate in the circumstances.

(a) Commission and Publicity

It is usual to allow for selling expenses at the appropriate rate based on the local scale of charges. This deduction is made even in circumstances when the owner has the proven record of selling his own land. There are several reasons. First, the formula approach is to establish the market value, with a normal willing buyer, willing seller as the criterion. Such a hypothetical person would have to employ someone to sell the sections so it is considered a normal business cost. Even if such a hypothetical buyer (or the original owner for that matter) was to sell the sections himself, he is entitled to be recompensed for the time, effort and skill involved. To claim the item in such circumstances is a matter not directly related to the value of the land. The allowance for publicity and advertising will vary with the size and nature of the subdivision. In a small subdivision, no amount need be deducted if the custom is for the agent to pay the costs out of his commission allowance. On the other hand, where the comparable sales of sections show that they have been obtained by a sophisticated publicity campaign it would be reasonable to provide for a similar cost.

(b) Legal and Incidental Administrative Costs

The deduction for legal fees and associated disbursements should be made at the appropriate current charges. The amount should be fair and reasonable after taking into consideration the surrounding circumstances and the size and complexity of the hypothetical development.

(c) Subdivisional Development Costs

It is necessary for the notional plan of subdivision to meet the requirements of the local authorities. Sometimes a plan of subdivision may have previously been approved in respect of the land. Provided circumstances have not changed, this plan would afford the best basis. On the other hand, because of the pending or actual compulsory acquisition, the local authority may not wish to notionally approve a hypothetical plan. In such circumstances, inquiries must be made for such information as may be available to ensure, (as much as one can ensure in the circumstances), that the hypothetical plan would have met the reasonable requirements of the authorities and was capable of approval. While it is often possible to have an infinite number of designs, the hypothetical plan should be one which would best meet the circumstances taking into account not only the technical and legal requirements but also the current practice which is recognised by the marketing conditions.

The engineering costs must be based on factual evidence. The hypothetical engineering design would follow the same criteria as for the plan of subdivision itself. Not only should minimum acceptable standards be met, but also the standards which a prudent subdivider would require to produce sections of at least a similar engineering standard as those to produce the comparable sales. Included also would be any aesthetical features desirable in a subdivision of the land in the locality producing sections of the anticipated price levels.

20. Direct Holding Costs

Holding land during the period of the subdivisional development and the notional realisation of the hypothetical sections, will mean direct and indirect costs. Direct costs can include allowances for local authority rates or other charges, possibly land tax as well as ground maintenance. Part or all of these items may be off-set by any revenue earned from the property. The actual calculation for a future period of time can be difficult, but the principle of market value at a relevant date and sales values at the same relevant date provides by analysing the key to the problem. In other words the level of charges and costs are taken as at the relevant date unless there is evidence to suggest a change in the reasonably near future or other special circumstances.

21. Indirect Holding Costs

In the hypothetical subdivisional formula, a deduction is made for what is usually termed "interest" on outlay. The principle upon which this deduction is based is that a hypothetical subdivider is entitled to a reasonable return on his

capital in addition to his profit on the under-taking. This allowance is not based on the assumption that the capital outlay would be borrowed but that a subdivider is entitled to a return on his capital outlay" for the period from acquisition until all the sections have been sold and realised⁴⁵

The use of the word "interest" is unfortunate because it leads to the confusion concerning rates of interest in respect of borrowing money, whereas it should be viewed within the principle of what economists call "opportunity cost"⁴⁶

The application of the principle is that a subdivider is entitled to expect a fair return on his capital, because he has the opportunity or alternative of investing his capital elsewhere. As the profit and risk allowance covers the subdivisinal risks and profits, the allowance for return on outlay should be at a lower safer return. This amount will not be at the very lowest because there still is the element of some risk and loss of liquidity attached to the property as an investment in its unsubdivided state. It is comparable at least to a mortgage investment in the subdivision. For this reason the comparable mortgage market would offer a good guide to establish the appropriate rate of return to use.

The capital outlay as used in the subdivisinal formula is based on the total cost before providing for an allowance for profit and risk. In considering the appropriate deduction, the amount to be ascertained is what the market evidence shows a prudent purchaser would allow. This is completely unrelated to the official rates of interest for monies borrowed by the acquiring authority,⁴⁷ or the rate of interest a subdivider would have to borrow money to subdivide.

22. Stages of Development

An area of land may be developed as a whole or alternatively it may be developed as two or more stages. This procedure is often adopted for several reasons. The first is that the total number of sections may be excessive for the demand at the comparable price levels. Too many sections on the market at one time might "flood" the market and necessitate forcing sales at lower prices. Secondly, as the purchase and development involves the expenditure of substantial sums of capital, staging the development allows the project to proceed with cash flow generated from each earlier stage helping with the financing of a later stage. Thirdly, the risks relating to a subdivisinal development are substantially reduced by the staging development. Not only is less capital at risk at any one time, but as each stage is completed, the experience gained helps to reduce the risk of each later stage. A fourth advantage is that as each stage is completed and building improvements take place, the effective undeveloped "frontier" moves forward, carrying with it the associated level of values which usually are associated with properly developed subdivisions. A practical advantage arises for long-term investors who may prefer to take advantage of a rising market. Such speculative activity, while affecting the demand for areas of land with subdivisinal potential, do not

directly affect the consideration of the value of the land at the relevant date.

Where land is to be valued which is reasonably capable of development in stages, suitable adjustments should be made to the formula depending on the particular circumstances. The rule that sections values and development are to be taken as at the relevant date must also be applied to staging development. If it is expected that the capital to be outlaid on development work for each stage will be for an average of one or two years, then the allowance equivalent to interest on that portion of the capital outlay would be for the same period of time and not for the whole period of the project.

Where some development works are of such a size and nature that the full cost cannot properly be recouped from any one stage, then such capital cost could be considered as being concerned for the full period of realisation. The cost of a causeway, or bridge, or bringing in a long access road, or feeder service line could fall into this type of capital development. In a technical sense, these costs are fixed costs whose outlay should be spread (like the cost of land) fairly over the whole of the subdivisinal development.

In the Schischka case the Court considered the traditional approach should be adopted, but nevertheless deducted 30 percent of the amount of interest as a result of submissions that at no stage would interest or the actual development be out more than the normal period of time.

23. Purchasing Costs

The standard subdivisinal formula provides for a deduction for purchasing costs of the hypothetical purchaser, which usually consist of legal fees plus legal disbursement including stamp duty. The question is sometimes asked by a dispossessed owner as to why on a compulsory acquisition, there should be a deduction for items when he already owns the property being taken.

The answer lies in the valuation criteria being based on the willing-seller, willing-buyer hypothesis. A hypothetical willing-buyer should take into consideration all relevant costs which must include the cost of acquisition. Whether an equivalent amount will be allowed a dispossessed owner as an item of cost towards the provision of an alternative property will depend on the particular circumstances. But such allowance is not based on a matter arising other than in respect of the value of the land.

24. Rounding of Final Figures

The hypothetical subdivisinal formula, of necessity, includes provisions for estimates of gross realisation and various allowances of direct and indirect costs. The resulting arithmetically calculated value is a guide to value⁴⁸ rather than a precise amount. For this reason, the final estimate of market value should be a rounded figure, or a rounded amount per unit commonly used in practice in the particular market. Evidence overwhelmingly shows that sales of properties are at such rounded amounts. A

valuation completed to an odd amount gives an artificial illusion of accuracy which is not often reflected in the realities of the market, however careful the valuer has been with his estimates of likely realisation and expenditure and allowance. It is because the sales evidence is not strictly comparable that the formula approach is necessary, but merely because precise mathematics are used, does not necessarily increase the fine degree of accuracy such arithmetic suggests. It is a matter of statistical practice that an estimate should be rounded off to the average degree of accuracy of that estimate⁴⁹. The final valuation figure should only include the number of significant figures up to the degree of accuracy of the final figure.

25. Cross, Check

After the in globo or block value has been calculated it should be cross-checked against any other sales of land, even if not strictly comparable. It is necessary to see that such other evidence is known, analysed and comparisons drawn. It is difficult and undesirable that the final value as calculated by the hypothetical subdivisional figure should rest on itself alone. Nevertheless, there are times when because of

the unique features that this must be done. All the more reason for broad cross checks, by whatever means there may be available.

26. The Report

Because of the technical nature of a valuation for compensation purposes I believe that it is important to carefully set out the assumptions on which it is made particularly the following:

- (a) That the land is being valued in accordance with the provisions of specified legislation.
- (b) Open market criterion at the stated relevant date.
- (c) That the subject land is assumed to be in its original state (if it has since been altered).
- (d) That gross realisation and costs are as at relevant date.
- (e) The basis of zoning with reasons if that basis varies from the official zoning.
- (f) Relevance of subsequent sales and how dealt with.
- (g) And other relevant assumptions that it has been necessary to make for the particular purpose of the valuation.

TYPICAL SUBDIVISIONAL BUDGET

From Neil Construction Ltd. v. Manukau City
 NZV, Vol. 23 No. 8 (December 1977) 426 at 430.

Gross Realisation			
179 lots at \$8,250		\$1,476,750	
35 lots at \$6,500		227,500	
			\$1,704,250
Less			
Commission:			
5% of \$214,000		10,700	
2 % of \$1,490,250		37,256	
		47,956	
Legal Costs:		12,840	
			60,796
			\$1,643,454
	25		
Profit and Risk 25% (-)			328,691
	125		
OUTLAY			\$1,314,763
Less Development Costs:			
Roading and Engineering		428,555	
Advertising		5,350	
Reserves at 10%		170,425	
Rates		6,616	
Interest (at 8% on the rates		167,632	
Contingencies (1%)		5,250	
			783,828
			\$530,935
Less Stamp Duty and other costs of purchase:			5,935
			\$525,000

FOOTNOTES:

- 1 *Barwick v. City of Gisborne* 20 NZV 5 (March 1968) 250; *Butt River Board v. Lower Hutt City Council* [1960] NZLR 1107, LVCB 324.
- 2 *Kennedy Street Pty. Ltd. v. The Minister* 17 *The Valuer* 7 (July 1963) 532; *Chong v. Fairfield Municipal Council* 20 *The Valuer* 405; *Chapman v. The Minister* 20 *The Valuer* 5 (January 1969) 382.
- 3 *Tilby v. Valuer-General* (1953) 11 NZV 1 (March 1953) 27, LVCB 410; *Todd v. Valuer-General* (1953) 11 NZV 1 (March 1953) 30; *Pringle v. The Minister* 20 *The Valuer* 397.
- 4 *Skerton v. Minister of Works* (1962) 18 NZV 1 (December 1963) 409.
- 5 *Pringle v. The Minister* 20 *The Valuer* 399, 400; *Young v. The Minister* (1962) 18 *The Valuer* 2 (April 1964) 153.
- 6 *Pringle v. The Minister* 20 *The Valuer* 399, 400; *Chapman v. The Minister* 19 *The Valuer* (April 1966) 157.
- 7 *Lewis v. Christchurch Drainage Board* [1972] NZLR 229; 22 NZV 7, (September 1974) 294.
- 8 *In re Whareroa 2E Block, Maori Trustee v. Minister of Works* [1959] NZLR 7; LVCB 272; but see E. D. Morgan; *Turner v. The Minister of Public Instruction* (1956) CLR 245; L. M. Turner v. The Crown 18 *The Valuer* 1 (January 1964) 42; *Para Vale Estates Pty. Ltd. v. Minister of Works* 18 *The Valuer* 4 (October 1964) 333.
- 9 *Neil Construction Ltd. v. Manukau City* (1977) NZV Vol. 23 No. 8 (December 1977) 426.
- 10 *Block Buildings Ringwood Pty. Ltd. v. City of Ringwood* 20 *The Valuer* 8 (October 1969) 765.
- 11 *Barwick v. City of Gisborne* 20 NZV 5 (March 1968) 250.
- 12 *Minister of State for the Navy v. Rae* (1945) 70 CLR 339, 344, LVCB at p 135; *Marshall v. Minister of Works* [1950] NZLR 339; [1950] GLR 20; LVCB 127; *Ford v. Minister of Housing* 18 *The Valuer* 7 (July 1965) p 579.
- 13 *Stanfield v. Commissioner of Main Roads* 21 *The Valuer* 8 (October 1971) 624 at p 626.
- 14 *De Menech v. Lower Hutt City* LVCB 444; *Barwick v. City of Gisborne* 20 NZV 5 (March 1968) 250.
- 15 *Ford v. Minister of Housing* 18 *The Valuer* 7 (July 1965) 579.
- 16 *Scales v. Borough of Morrinsville* 17 NZV 1 (March 1959) 36.
- 17 *Napier City Council v. Napier Park Racing Club* (1964) 19 NZV 6 (June 1965) 235.
- 18 *In re Murray* 16 NZV 3 (September 1958) 34.
- 19 *Montgomery Investments Ltd. v. Minister of Works* LVCB 453 (1962).
- 20 See *Water and Soil Conservation Act* 1967.
- 21 See *Historic Places Amendment Act* 1975.
- 22 *Lower Hutt City Corporation v. Dyke* [1954] NZLR 166, LVCB 165.
- 23 *Turner v. Minister of Public Instruction* (1956) 95 CLR 245; *Whareroa 2E Block, Maori Trustee v. Ministry of Works* [1959] NZLR 7 LVCB 272; *Carlton Heights Ltd. v. Minister of Works* [1963] NZLR 973, LVCB 366.
- 24 *Minister of Works v. Green and McCahill (Contractors)* [1965] NZLR 580, LVCB 384.
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- Pastoral Finance Association Ltd. v. The Minister* [1914] AC 1083; 26 *The Valuer* 1 (January 1968) 73.
- 27 *Herring v. General Manager of Railways* (1955) 17 NZV 6 (June 1960) 229.
- 28 *Stanfield v. Commissioner of Main Roads* 21 *The Valuer* 8 (October 1971) 624 at p 626.
- 29 *Lena Mary Turner v. The Crown* 18 *The Valuer* 1 (January 1964) 42 and 45.
- 30 *Thistlewaite v. The Minister* (1954) AC 475 19 LGR 87.
- 31 *V. L. Brett, Valuation of Subdivisional Lands* 20 *The Valuer* (July 1969) 515 at p 516.
- 32 *Carlton Heights Ltd. v. Minister of Works* [1963] NZLR 973 LVCB 366; *Lena Mary Turner v. The Crown* 18 *The Valuer* 1 (January 1964) 42.
- 33 *Minister of Works v. Green and McCahill (Contractors) Ltd.* [1965] NZLR 580 LVCB 384.
- 34 *Barwick v. City of Gisborne* 20 NZV 5 (March 1968) 25.
- 35 *Ibid.*
- 36 *Carlton Heights Ltd. v. Minister of Works* [1963] NZLR 973 LVCB 366.
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- 38 *Cook v. The Queen* LVCB 436.
- 39 *In re Murray* 16 NZV 3 (September 1968) 34.
- 40 *Carlton Heights Ltd. v. Minister of Works* [1963] NZLR 973 LVCB 366.
- 41 *Ibid.*
- 42 *Altona Estate Proprietary Limited v. Shire of Altona* 20 *The Valuer* 163.
- 43 *Turner v. Minister of Public Instruction* (1956) 95 CLR 245; *Carlton Heights Ltd. v. Minister of Works* [1963] NZLR 973 LVCB 366 at p 370.
- 44 *Prestige Homes Corporation v. Ministry of Works* [1968] NZLR 383.
- 45 *Barwick v. City of Gisborne* 20 NZV 5 (March 1968) 250.
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- 48 *Hazell v. Minister of Lands and Works* 24 *The Valuer* 5 (January 1977) 504.
- 49 *F. C. Mills, Statistical Methods*, New York (1924) Henry Holt & Co. 719.

The Role and Future of the Plant, Machinery and Chattel Valuer in New Zealand

By J. A. Kennedy, M.B.E., A.N.Z.I. V., F.R.E.I.N.Z., F.C.I.Arb., M.P.M.I.

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HISTORICAL

The valuation of plant, machinery, equipment and chattels started more than 150 years ago in the Greater Manchester and London areas. It grew with the Industrial Revolution with continuing specialisation and the integrity of the individual being the cornerstone of both acceptance and success. Experience and technical ability of the individual followed until the present time when specialist plant, machinery and chattel valuers play a key role in the commercial fabric of the western world.

Elsewhere in the world, plant, machinery and chattels are generally valued by specialist plant and machinery valuers and not engineers. This is not to state that engineers are not capable of undertaking this specialist type of work but to use an analogy relevant to our own profession, not all builders make competent land and building valuers.

ROLE

The role of the plant, machinery and chattel valuer is that of an independent professional person employed to produce an item by item valuation of the assets of a concern for whatever purpose instructed.

The appropriate basis of valuation may include assessment for balance sheet purposes, current cost accounting, "existing-use" valuations generally carried out in conjunction with land and buildings, valuations for insurance purposes or financial valuations for such as takeover bids, disposal by sale or even for receivers and liquidators if a business fails.

Within these categories there may be other reasons for such a valuation. These may include:

- Bank loans and other funding activities.
- Family Marriage Act.
- Probate.
- Stock Exchange declaration.
- Takeover and merger (and avoidance).
- Product costing.
- Debenture issue.
- Sale as a going concern.
- Performance efficiency analysis.
- Private information for Directors.
- Compulsory purchase.
- Termination of partnership and other associations.
- Replacement and indemnity calculations.
- Fire loss consultancy and assessing.
- Leasing a business or similar.

The above list is not comprehensive but shows the wide variety of purposes for which plant, machinery and chattel valuations may be required.

TRAINING

There is a long training period necessitating specialisation and overseas experience.

Traditionally, training has entailed a junior working under an experienced valuer, sitting examinations and learning the work as time progresses. Although this has produced many qualified plant, machinery and chattel valuers, there are obvious limitations in that the scope tends to be limited to that of the experienced valuer and any inefficiencies in methods are compounded.

The complex nature of the training is such that a plant, machinery and chattel valuer now requires a comprehensive knowledge of such a variety of equipment as machine tools, boiler, high and low voltage electrical installations, air-conditioning plants, computers, refrigeration equipment, together with a basic mechanical knowledge to enable the plant valuer to value the machinery in any industry.

The ideal plant and machinery valuer should be able to talk with knowledge to a draughtsman regarding the original drawings, a pressed tool specialist, a template craftsman, a pattern maker, and any other type of shop floor specialist so that the worth of the assets can be assessed for the particular type of valuation. In addition, the valuer should be able to discuss these and other problems with the financial and technical directors to obtain the management's point of view regarding such assets. These particular views may well be materially different from the perhaps limited view on the shop floor.

It has been stated with some truth that a qualified plant, machinery and chattel valuer may be required to value any article from a sewing machine to an atomic reactor. This has certainly been the experience of New Zealand-based plant, machinery and chattel valuation specialists over recent years.

However, the scope of industry within New Zealand is limited, and overseas training is almost a prerequisite for subsequent successful commercial practice. The long-standing time involved inevitably results in many aspirants dropping out before qualifying.

BASIS OF VALUATION

It is necessary to establish the basis of valuation before starting a particular project, as the approach may well differ. However, generally the valuation will be based on the cost of replacement of existing assets with identical or substantially similar equipment at manufacturers' new prices, together with cost of transport and installation, commissioning costs and consultancy fees. Only by knowing what is the current new value of the machinery can the various other depreciated values be calculated. It is as important to know what to include and what to exclude in any particular valuation, as it is to know the current new values.

DETAILED LIST

Having established the required basis of the valuation, the next step is to compile a list of the plant, machinery and other chattel contents in the factory or premises. The compilation of such a list will entail a detailed physical check throughout the premises as reliance on clients' records have frequently been found to be insufficient. Many such records have been compiled from information provided by intermediaries and kept up to date by the same means.

VALUATION PROCESS

An analogy may be drawn between industrial plant and a motor vehicle. A potential motorist cannot budget for the new vehicle if he simply orders (say) a Cortina. To calculate the extent of the financial commitment, it must be established if the vehicle is a basic GL or GHIA model. The engine size must be known, whether it is a saloon or a wagon, is automatic or manual, and many other alternatives. Account must also be taken of the extra costs of tinted glass, vinyl roof, radio, towbar, and other extras. All this adds up to the total.

So it is with machinery and chattels. The plant, machinery and chattel valuer must assess not only the machine but must also give due weight to the extra cost options fitted at the time of manufacture, the equipment supplied with the machine and any extras beyond the standard issue.

A fundamental basic need of the plant and chattel valuer's experience is therefore a thorough knowledge of specifications covering a wide range of machinery.

In most valuations, there will be plant and chattels which have either been made by the client or adapted from commercially available machinery or chattels. Valuations of such equipment are made by combining whatever relevant information is available with the valuer's skill and judgment.

The total content of the factory which, together constitutes the total value, must include more than the ironmongery of the machinery itself. Benches, racks, cupboards, lockers, carpets, crockery, curtains and furniture are obvious assets. Other items which must be taken into account include travelling and fixed cranes, power cabling and pipes, often concealed,

internal transport fleet and equipment in open yards.

The plant and chattel valuer will have to establish whether cash and personal effects of employees should be included in the valuation, and instructions should be clear regarding any items which are to be excluded. As an example, a recent case in Christchurch in which a fire loss valuation report and claim for approximately \$1.2m for the buildings and approximately \$1m for the plant, machinery and chattels, was required to include detail of the personal contents of employees' lockers in the changing rooms, even down to such items as shoes, spectacles and pens.

On completion of the basic inventory, valuation is made by reference either to the library of costs and prices which all professional valuers compile over the years, or by pursuing other established courses of investigation. Cost of transport, monetary exchange fluctuations, projection of time, installation and commissioning are taken into account. Depreciation may then be allowed, at varying rates, to arrive at the value for the relevant type of valuation.

DEPRECIATION FACTORS

Depreciation, according to age, condition and other relevant factors, is the most fundamental aspect of the valuer's art. Calculations of the nett value take into account:

- (1) Total economic working life of the item in question.
- (2) Age and remaining economic working life.
- (3) Condition.
- (4) Standard of maintenance.
- (5) Workload to which it is subjected.
- (6) Suitability of the asset for the use to which it is put.
- (7) Efficiency of plant layout.
- (8) Condition and suitability of the building.
- (9) Tenure of the building.
- (10) Degree of technical obsolescence.
- (11) Replacement of component parts since new.
- (12) Location of the factory and suitability of communications.
- (13) Residual value at the end of the economic life.
- (14) Other relevant factors.

Certain external features can also affect the valuation of plant, machinery and chattels. Industries based on finite resources, such as quarries and brickworks, must give due weight to the future availability of raw material supplies upon which they are based. Market trends which are of a permanent nature, as opposed to short term trade fluctuations, must be collated with the other factors in order to arrive at the correct nett value. Government legislation which will affect the sale or distribution of the final product must also be considered.

VALUATION REPORT

The precise content of the valuation report is a matter for discussion with the client, although

generally the designation of plant, buildings, stock and goodwill which is adopted in the company accounts will have to be followed. As a general rule, such items as drawings, jigs and fixtures, patterns, press tools and dies are considered to be part of the goodwill of the company when carrying out financial valuations, since their value depends as much on demand for the product for which they are specifically produced, as on their age and condition. Motor vehicle fleets are often included in financial valuations and contractors' plant, ships and aeroplanes are also regularly valued for this purpose.

When the valuation has been finalised, the client will be presented with a formal certificate of valuation which briefly outlines the general content of the valuation, its location, the name of the owner, the date and the basis of assessment.

Exclusion must be exhaustively noted, and the certificate should state that written consent must be obtained if the valuation is to be published.

When required, a plant register may be provided showing as much detail as the client requires for their own purpose.

PLANT COST ACCOUNTING

In an attempt to overcome some of the shortcomings of depreciated historical cost accounting, a system of current cost accounting has been devised which recommends a method valuing plant, machinery and chattels generally similar to the method used by plant valuers for financial valuation services.

The place of current cost accounting is not finally determined. Should it be adopted, the professional valuation of plant, machinery and chattels may not be mandatory as both the gross and nett value of relevant plant will be required, ideally with a plant register showing individual values. No doubt there will be opportunity for more detailed examination of current cost accounting valuation procedures as applicable to plant, machinery and chattels when further Governmental announcements are made.

EXISTING USE

The appropriate basis of calculation for financial purposes is "existing use". This may be defined as open market value based on the assumption that the plant, machinery and chattels will continue in its present use and position in the business of the company.

INSURANCE VALUATIONS

In virtually all industrial fire insurance policies there will be found the condition of "average". This states that if the insured property is collectively of greater value than the sum insured, the insured party shall be considered to be their own insurers for the difference, and shall bear a rateable share of the loss accordingly.

The working of the condition of average, in cases of under-insurance, applies in the same way to buildings and trade stocks.

It is a mistake to be misled into thinking that penalty under the average clause is purely academic. Insurance companies apply average in cases of under-insurance and the effect can be not only devastating but permanent. Each year, companies go out of business simply because they were under-insured at the time of a fire and considerable hardship is caused to shareholder, employer and employee alike.

There is no advantage to be gained by over-insurance since average does not work in reverse. Payment over and above the loss incurred would not be made under any circumstances.

The object of insurance valuation of plant, machinery and chattels is to establish the value at risk of the plant, machinery, chattels and all other contents (excluding stock and materials in trade), at the relevant premises, in accordance with the conditions of the insurance specification.

Therefore, it is essential that before starting a valuation, the plant, machinery and chattel valuer should obtain a copy of the specification and the plant to which it refers, and particular attention be paid to the clauses and special conditions which may well affect the value at risk.

Most insurance valuations in New Zealand are carried out with both the company's ordinary insurance policy and the compulsory earthquake and war damage policy in mind. It is important that the valuer here have a thorough knowledge of the Earthquake and War Damage Act 1944 and amendments as there are many items excluded by this Act which would normally be covered by the client's insurances.

FINANCIAL VALUATIONS

The media have extensively publicised the erratic course of industrial and commercial property values in recent years, and asset stripping takeover activities find regular prominence in the national media. These have taught painful lessons. Today's industrialist must know the importance of being fully and competently advised on the value of the company's land, buildings, plant, machinery and chattels.

Certainly it will be appreciated that the value of the real estate, for balance sheet or potential sale purposes, cannot realistically be established by depreciating the purchase price each year until either a nominal or nil value remains.

Substantial companies and subsidiaries regularly become the subject of takeover deals where plant, machinery and chattels are valued at their depreciated historical cost book value. Subsequent valuations of the acquired assets by qualified plant, machinery and chattel valuers, on behalf of the new owners, often show that the plant, machinery and chattels have changed hands at a fraction of their true value as part of a going-concern or even at a price which is significantly less than would be realised should they be auctioned under forced-sale conditions.

The directors and shareholders of an acquired company may be literally millions of dollars out of pocket, simply because a takeover deal was transacted which included plant, machinery and chattels at an unrealistic balance sheet value.

MARKET VALUATIONS

This is an important category of plant, machinery and chattel valuation work involving assessment for disposal. In addition to the actual valuation, the client may well request advice on the various preferred methods of sale. Such categories will generally be required where plant and chattels become surplus to the requirement and also in cases of company insolvency. Advising for market price purposes on a willing seller/willing buyer basis is frequently required whether or not the transaction is to form part of a more comprehensive deal with an important factor being whether the plant will be moved or remain in situ. Advice on plant, and chattel values for sale or leaseback and funding of same is also frequently required.

INSOLVENCY

In cases of insolvency, a receiver will be appointed to manage the affairs of the company. Two of the functions are:

- (1) To assess the possibility of maintaining the firm as a going-concern.
- (2) To assess likely realisation resulting from the sale of fixed assets, both as part of the going-concern and under forced sale conditions.

The final decision on whether or not to liquidate an insolvent company will be dependent largely on the receiver's report to the party by whom appointed, and for this reason it is essential that the receiver is fully informed by professional advisers in respect of likely realisation.

Ideally, the receiver will consult a firm of specialist plant, machinery and chattel valuers who will provide advice on relevant valuation matters including the estimated realisation price under forced sale conditions, the 'existing use' value, assuming the company is capable of profitable operation, and the best method of disposal of assets should the decision to liquidate the insolvent company be taken.

Such testing of the expertise of a plant, machinery and chattel valuer for disposal purposes on the market is similar to the almost daily circumstance throughout the country by which a land and building public valuer is tested as to his opinion.

However, a thorough knowledge is essential of dealers' secondhand prices and the price structures of the industry in question. Estimation is much a matter of the valuer's expert knowledge and continuing research into price levels on the secondhand market.

TECHNOLOGY

Currently the computer age is with us and has much influence on society. Provided a plant, machinery and chattel valuer can be involved in the preparation of a programme for a computer-based plant register, it can be ensured that all necessary information for future requirements are built into the system.

Adaptation to new technology applies as much to equipment on which a plant, machinery and chattel valuer has to apply as it does to a land and building valuer and to the methods used by both professions.

The silicon chip has been a popular talking point but already it is obsolescent for the gallium arsenide chip operates approximately twice as fast and will probably supersede the former within an estimated five years.

THE FUTURE

Changing technology will continue to make demands on the plant, machinery and chattel valuer more than ever before as the rate of change is increasing. Accountancy procedures will regularise with more increasing frequency the work currently carried out and the "art" and the "flair" for the job will be more and more controlled. How often do we hear this applied to the land and building valuation profession?

Plant, machinery and chattel valuation is a highly specialised profession not to be entered lightly. If overseas criteria is any guide, it will continue to hold a place alongside the land and building profession already well established in New Zealand.

Useful texts and references:

U.K. Chartered Surveyor - February, 1979
- C. J. C. Derry, A.R.I.C.S.

U.K. Chartered Surveyor - August, 1980
- J. Foord, F.R.I.C.S., F.C.Arb.

Earthquake and War Damage Act 1944 and Amendments.

Legal Decisions

CASES RECEIVED

Notice of cases received are given for members' information. They will be printed in the "Valuer" as space permits and normally in date sequence.

CASES NOTED

Cases `noted' will not normally be published in the "Valuer".

Copies of cases `received' and `noted' may be obtained from the Registrar of the Court under whose jurisdiction the case was heard. (A charge is normally made for photocopying.)

IN THE HIGH COURT OF NEW ZEALAND

ADMINISTRATIVE DIVISION

WANGANUI REGISTRY

LVP. 103/75, 104/75, 105/75

BETWEEN THE PROPRIETORS OF ATIHAU-WHANGANUI INCORPORATION a body duly constituted under the Maori Affairs Amendment Act, 1967

Objector

AND IAN FREDERICK MALPAS of Wanganui, Farmer

Respondent

AND CORIN SCOTT MCGREGOR of Rangiwahia, Farmer, DOUGLAS JOHN MCGREGOR of Raetihi, Farmer, MARGARET ALISON MCGREGOR of Palmerston North, Spinster, and HELEN ISOBEL HAYWARD of Mangaweka, Married Woman

Respondents

AND WALTER CRACROFT WILSON of Raetihi, Farmer

Respondent.

Hearing: 16th, 17th, 18th, 19th and 20th November and 23rd, 24th, 25th and 26th November, 1981.

Counsel: D. H. Brown and C. P. Brosnahan for Objector.

P. Moran for I. F. Malpas and the McGregor family.

A. P. McKenzie and D. Laing for W. C. Wilson.

C. J. McGuire for Valuer-General.

Judgment: 22nd December, 1981.

JUDGMENT OF SPEIGHT, J. and

RALPH FRIZZELL, Esq.

Previous judgements concerning these lands have been reported in the "Valuer" at Vol. 23 No. 8 page 424 and Vol. 24 No. 7, pages 589 and 596. This lengthy judgement followed two weeks of hearing which covered the complex issue of determining unimproved values on farm land previously in bush. An important case which traverses valuation principles concerning "original state" and the treatment of indigenous timber trees of commercial value which had been removed. The Court, in its opinion, adopted a "cut-over" state.

The above-named Incorporation, which will be referred to as "Atihau", is registered as the proprietor

on behalf of a number of individual Maori owners pursuant to the abovementioned statute, of large areas of land in the Wanganui District and, in particular, in the cases with which we are concerned, three properties near Raetihi in that picturesque part of that land district usually referred to as the "Paraparas". The Respondents and their predecessors in title, usually their fathers, have been lessees of the land pursuant to a number of leases and renewals stretching back to shortly after the turn of the century, either as original lessees or as assignees. There have been a number of Acts of Parliament which have governed the terms and conditions under which land owned by Maoris may be leased, with particular limitations as to the term of the lease and the number of renewals which may be granted. All this derives from the long and troubled history of the relationships between the Maori owners on the one hand and European settlers on the other, and the necessity to produce formulae which would attempt to safeguard the interests of the Maori owners and at the same time give sufficient encouragement for settlers to develop and improve what was originally unproductive land. The balance has had to be sought between the need to stop exploitation of the original owners and the need to encourage fruitful farming methods for productive purposes. There has been the Maori Lands Administration Act, 1900, the Native Land Act, 1909, and the Maori Vested Lands Administration Act, 1954, to name but some. Because of the difficulties which have arisen from time to time there has been at least one Royal Commission investigating these land problems, particularly that appointed in 1950 which sat in that and the following year. Originally this was to have been under the Chairmanship of Sir Michael Myers, but he died before commencing the task and thereupon Judge D. J. Dalglish became Chairman. He was assisted by two members, Messrs H. M. Christie and R. Ormsby. The final report of the Royal Commission dated 19th June, 1951, is essential reading for an understanding of the problems and the background behind the attempts to provide rational solutions in the 1954 Act.

In the present case, although the Respondents have been recited in the sequence above, it is perhaps convenient to deal with the case of Mr Wilson and his forbears first as his was by far the largest property and much of the evidence led related to his leases, with the cases of the McGregor family and Mr Malpas requiring less time during the course of the hearing. Under the leases granted under the 1900 Act there were certain rights of compensation for lessees at the termination of their occupancy for any substantial improvements which may have been made through their

efforts during the currency of the lease. There were somewhat differing provisions in the 1909 Act and the whole matter was completely revised in the 1954 Act. The extent of these compensation rights will be discussed in more detail later, but it is worth noting at this point that as the hearing progressed doubts arose, enquiries were made, and submissions were heard from time to time on changing aspects of the situation which emerged as the case went along.

However, it is clear that under leases granted under the 1954 Act, which were not in fact renewals but were new leases granted to Mr Wilson, to the McGregor family and to Mr Malpas, rights to compensation existed if and when under the terms of the leases and pursuant to the provisions of Section 15, the Atihau Incorporation (as successor to the Maori Trustee) gave notice, after the expiry of the first twenty-one year period, that it declined to grant a renewal and intended to resume the land from the lessees. Section 27 clearly provides that in respect of the 1954 leases at least, and arguably in respect of the 1900 and 1909 leases, the lessee was to receive compensation for all improvements effected by him to the extent of two-thirds of the value of those improvements according to a special valuation to be made in that behalf by the Valuer-General. Sections 12 and 13 provide the mode of valuation to be carried out by the Valuer-General for this purpose, and the notification thereof to the interested parties. Amongst the matters required to be valued under Section 12 were the unimproved value of the land and the capital value of the land, and by definitions contained in Section 2 - which will be examined at much greater length later - one can for present purposes abbreviate by saying that the compensation to be paid for improvements is to be calculated, broadly speaking, as the difference between capital value and unimproved value. Fuller discussion will be required. Under Section 14 of the Act the Maori Trustee (now the Atihau Incorporation) can object to the valuations, and that is how this case has arisen.

The Wilson, McGregor and Malpas leases under the 1954 Act expired in 1975. The Atihau Incorporation has been apparently desirous of resuming as many farm properties as can reasonably be administered for the purposes presumably of returning the same to the native owners or running them for their benefit. From the practical point of view the number of properties which can be resumed on the expiry of leases depends upon the compensation which must be paid for the Incorporation does not, of course, have limitless funds. One understands that quite a number of leases expired in 1975 and the Incorporation gave the lessees of the three properties that were concerned with notice of resumption, it being anticipated that this would be all that the Incorporation could afford at that time. Other leases have presumably been renewed but there are eighty or more objections under other parts of the Act against the Valuer-General's figures and we have been told that there are upwards of 150 Atihau Incorporation leases to which the present proceedings will have relevance.

The Valuer-General's figures for capital value and unimproved value and improvement as at 1975, were as follows:-

	Capital Value	Unimproved Value	Improvement Value
Wilson.....	\$674,000	\$62,500	\$611,500
McGregor ...	432,000	41,650	390,350
Malpas	199,300	18,800	180,500

It will be seen, therefore, that if these valuations were sustained compensation required would be of the order of two-thirds of \$1,182,350.

The objection hearings commenced before the Land Valuation Committee sitting in Wanganui on the 12th April, 1976, and were adjourned on a part-heard basis on the 15th April, 1976. By that date it had become apparent to the members of the Committee that not only were the issues extremely complicated but because of the number of other objectors to special valuations a decision could affect other properties of the Atihau Incorporation with capital values in excess of \$20,000,000, let alone other vested land lessors. Accordingly on the fourth day of the hearing the Committee, with the consent of counsel, agreed that the interests of all parties would be best served by transferring all three

objections to be heard de novo in the Administrative Division of the (then) Supreme Court. The matter was set down to be heard by the late Chief Justice, Sir Richard Wild, but before that hearing could commence counsel agreed that there was an important point of law to be decided as to the meaning of part of one of the definitions, and that it should conveniently be dealt with prior to the substantive hearing by an application under Section 22 (1) of the Land Valuation Proceedings Act, 1948. Accordingly the Chief Justice heard argument on the 6th October, 1976, and delivered a judgement on the 7th February, 1977. There is in Section 2 a definition of unimproved land from which there is excluded "the value of any indigenous timber trees". The subject properties had had indigenous timber growing upon them at the commencement of the leases, and there was still some, though much less timber growing there in 1975. The question on which interpretation was sought was whether the words "exclusive of the value of any indigenous timber trees" referred only to indigenous trees on the property at the time of the valuation, or such trees on the property at any time. The Incorporation's case was that the trees to be excluded were those which had been on the property at the date of valuation. Counsel for the lessees, however, submitted that the indigenous trees, the value of which was to be excluded, were those which had been on the land at any time. The Chief Justice gave a decision reported in (1977) 1 N.Z.L.R. 609, adopting the argument of the Incorporation. More of this later. From this the lessees appealed and the appeal was heard in the Court of Appeal on the 15th May, 1979, and judgement given on the 14th December, 1979. It is reported in (1979) 2 N.Z.L.R. 545, under the name of *The Proprietors of Atihau-Whanganui Incorporation v. Malpas*. There is a joint judgement of Cooke and McMullin, JJ. and a separate judgement of Richardson, J. The judgement of Wild, C. J. was upheld as being the correct interpretation of the definition as to the exclusion of trees and no question has since arisen on that point.

The Court of Appeal, however, made a number of other helpful observations on the procedure and principles which might be adopted in the Administrative Division in solving some of the problems which would arise, but made it clear that it was proceeding on certain factual premises advanced to the Court (some of which have subsequently emerged as being at variance with evidence received). It was made clear in the judgements that the Court's views were without the benefit of the evidence which would in due course be presented. The matter was then set down for hearing before the Administrative Division. All parties agreed that the voluminous notes of evidence which had been recorded in front of the Valuation Committee over four days should be taken as evidence, and this was supplemented by a very large number of witnesses who were heard over a period of two weeks.

In the original objection before the Land Valuation Committee Mr Brown, on behalf of the Appellants, had largely ventilated differences in valuations from the figures supplied by the Valuer-General, but these were the routine type of objections heard in the courts when there is difference of valuation opinion. At that date he was speaking of valuations which might result in a reduction in his client's favour of something in the order of \$200,000. He did, however, also call some evidence concerning the valuation of timber trees. Since the Court of Appeal decision has been received, however, it has obviously been the subject of careful scrutiny by counsel on all sides, particularly the advice offered as to the mode of approach and the tests to be applied by the Administrative Division. It is fair to say that interpretations of those judgements have differed widely. On one view, advanced by Mr Brown, his clients are entitled to have taken into account in the unimproved value the 1975 valuation of commercially millable trees which had been extracted over many years during the currency of the leases. Extensive expert evidence was called as to the extent of commercially millable trees that were believed to have been upon the property in earlier days and their value in 1975 terms. This was in excess of \$3,000,000, so that if the submissions advanced by Mr Brown are correct and the value of these non-existent trees is added in to a 1975 unimproved value but not, as Mr Brown submits, to the capital value, then this notional unimproved

value would so greatly exceed any figures for capital value set by the Valuer-General or by any other valuers called that there would be no value for improvements and therefore no compensation would be payable. It is fair to say, therefore, that the proper interpretation of the Court of Appeal decision became crucial to the resolution of the very difficult legal and factual differences which lay between the parties.

A starting point of particular relevance here is the case *In re Wright's Objection* (1959) N.Z.L.R. 921, a decision of Judge Archer in the Land Valuation Court and particularly appropriate, first, because it deals with exactly the same sort of lease under the 1954 Act and was an appeal by the Maori Trustee against a decision of the Wanganui Land Valuation Committee in respect to land which was close to and on inspection proved to be very similar to the subject properties. It was on the Parapara road near Raetihi and was originally thought to have been in heavy bush. Secondly, importance attaches because it has been widely followed and the method of valuation adopted has been specifically approved by the Court of Appeal in *Aitihau-Wanganui Incorporation v. Malpas and Ors.*

The judgement in *Wright's Objection* shows that the Court had clearly in mind the relevance of the special valuation under Section 17. to the question of compensation to be paid to a lessee. After a discussion of the definitions in Section 2 and other provisions of the Act, the Court held that the principles to be applied were the same as those in dealing with valuations under the Valuation of Land Act, 1951, and pointed out that though capital value and unimproved value were to be ascertained by reference to the state of the property market, no method was prescribed for ascertaining "added value" for improvements. The judgement discusses the difficulty and in fact undesirability of attempting to value improvements separately more particularly such invisible matters as clearing, stumping and cultivation, and it concluded that such an approach was not only not the method prescribed by the Act for the ascertainment of compensation, but that even as a check upon the accuracy of an assessment otherwise derived it was subject to severe limitations. It rejected as erroneous the approach of attempting to value improvements and then ascertaining unimproved value by subtracting this from capital value which, of course, is more easily determined. It recognised the difficulty of assessing unimproved values because it was a notional exercise made more so by the difficulty of ascertaining the condition that the land would have been in without improvements. Nevertheless it was a task which the Act requires the valuers to undertake and which the Court proceeded to do in that case.

It is particularly relevant to note, because of the proximity of the subject land to the present properties, that the Court said that it assumed, though it was not proved, that it was originally in heavy bush and it considered evidence of comparable sales, such as there were, and assessed the value in its unimproved state and in bush as for a notional sale as at the relevant date. Through the industry of counsel we have been supplied from various records with copies of some of the valuation reports which were put in in *Wright's case* and the transcript. It is clear that the valuers assumed that the country had been in bush, but it is necessary in examining that evidence, and particularly in the context of the present case, to recognise that the word "bush" can have a multitude of meanings which may vary from scrub cover to standing millable timber having commercial value if extracted. There is no reference in the material that has been obtained from the valuers in *Wright's case*, nor in the judgement, to there being any commercially millable timber on the *Wright* property, and it is apparent that no consideration was given in the judgement to the possibility that the presence of such timber in former times would affect subsequent valuations. It is important to realise that the evidence there given as to bush and its removal appears to have referred solely to cutting, clearing and stumping and the final calculation as to value of improvements undoubtedly included credit for this work.

The effect of the case is clear in laying down the principles which must be adopted in using the definitions under Section 2, namely, that estimation of the value

of improvements is a mathematical calculation consequent upon the ascertainment of capital and unimproved values. It is necessary to bear clearly in mind that the problem which has figured prominently in the hearing of the present case in this Division relating to commercially millable timber was never considered in *Wright's case*, nor, as we shall attempt to show, does it appear to have been crucial to the matters discussed in the two judgements of the Court of Appeal in the *Malpas* appeal.

During the course of the case we had some doubts as to the correctness of the basis upon which the initial attack had been made as to relevant dates for considering commencement of lessees' rights. It appears that at the original Land Valuation Committee hearings it was assumed by counsel that all lessees had compensation rights in respect of all improvements whenever done. But that clear position, as existed for example in *Wright's Objection* relating to a 1954 lease, might not govern entitlement for earlier work. This is because the 1954 leases of Wilson and others were shown to have been elections by the lessee to take up new leases not renewals. This right is conferred by Section 15 (1) (b) and it was shown in the letter of offer from the Maori Trustee (Exhibit 8). Copies of such new leases were produced and, of course, they are in terms incorporating the clauses in the First Schedule to the Act. The earlier leases originating in 1906 had been superseded after being temporarily extended by various empowering Acts between 1948 and 1954, but their compensation clauses were different.

Clearly the properties which were resumed in 1975 under Section 15 (1) (a) were resumed as a result of the powers contained in the 1954 leases. What then were the rights of compensation for improvements in respect of the period 1906 to 1954? Unless there was retrospective provision in the 1954 Act one would be required to turn to the original lease of - in *Mr Wilson's case* - 1906, and similarly with the other respondents.

In the Royal Commission's Report at paragraph 22, it was said that the difficulties in attracting people to take up these leases prior to 1903 arose from the inadequate provision for compensation for lessees, as a result of which Regulation 78A was then introduced. It reads as follows:-

"78A. In any case where a lease is granted with a right of renewal for one further term only, not exceeding twenty-one years, the Council shall, on the expiration of such further term, or on the expiration of the original term, or in the case of a lease where the right of renewal is perpetual, on the expiration of any term, if the right of renewal has in any case been surrendered or otherwise determined, weight the land with the value of the improvements of the outgoing tenant on again offering it for lease; or the Council may in its discretion retransfer the land to the Native owners on payment of the value of the improvements and all other charges to which the land may be lawfully subject. The value of such improvements, or the balance thereof after deducting any amounts which may be due to the Council by the outgoing lessee, shall, when recovered by the Council, be paid over to him."

In the submission made before the Royal Commission it was claimed that this did provide compensation for improvement on the expiry of the lease or a renewed lease, but it is significant to note that Sir Alexander Johnstone, acting for the Maori beneficial owners, raised doubts as to the meaning of the regulation, although when the leases were advertised for tender it was specifically stated that there was compensation payable for improvements at the expiry of the term. In our view the wording of Regulations 78A, 79, 83, 84 and 85 leave it open to doubt whether as at 1906 the outgoing lessee was entitled to compensation from the lessor, as distinct from a new occupier on an assignment, or resumption by the beneficial owners.

This question caused the Court to query whether there were compensation rights available for the period 1906 to 1948 (and extended thereafter). It was also noted that in the Royal Commission's Report reference was made to new leases having been granted after the

original 21 years. This caused counsel to make additional researches and part way through the hearing it was discovered that fresh lease documents were available and copies of some of these were produced by consent. These were dated 1927 and purported to be "in renewal" of the rights granted under the 1906 leases, although there is reference to them being as the result of "an acceptance of a fresh lease for a further term".

Having drawn attention to the doubts which had arisen, the Royal Commission suggested (paras. 23-25) that the provisions for full compensation were only enacted in the Native Land Act, 1909 - Section 263, and that those compensation provisions would not have applied to leases before that date. Section 263 (1) reads as follows:-

"263. (1) Every such lease the term whereof (including the term of any renewal thereof under a right of renewal) is not less than ten years shall confer upon the lessee a right to compensation, on the termination of the lease or of any such renewed lease by effluxion of time, for all substantial improvements of a permanent character (as defined by the Land Act, 1908, or any other Act amending or substituted therefor and in force at the time when the improvements were effected) which are put upon the land during the continuance of the said term and are unexhausted on the termination thereof."

The provisions and the meaning of the 1927 leases as to compensation have been debated by counsel - they are expressed to be granted in exercise of the powers in Parts XIV and XV of the Native Land Act, 1909, which included Section 263. The clauses were not as full as those contained in the 1900 Regulations, nor those in the First Schedule to the 1954 Act. There is debate between counsel as to whether the 18 conditions set out are all inclusive or whether the 1909 Act was also imported into the lease, and we are of the view that this latter situation applies, so that on our reading Section 263 as to full compensation applies. That would cover the question of improvements from 1927 onwards but the provisions also appear to be retrospective. Clause 13 provides for methods of valuation of the fee simple and of substantial permanent improvements made "by the lessee during the preceding and current term". There is no right of renewal in these leases and as mentioned the lease is itself expressed to be a renewal of the previous lease, so the "preceding term" would appear to be that which commenced in 1906. If there were no clearly defined compensation provisions in 1906, this clause either created them or was declaratory of them. Although Mr Brown has submitted that compensation there referred to is only that payable for damage done by the owner Board (Clause 12), we do not accept his submission. The references in Clauses 14, 16, 17 and 18, and the incorporation of Section 263 of the 1909 Act, are too clear to admit of any other interpretation, though Clauses 17 and 18 create restrictions on the mode of payment out.

As has already been mentioned the 1927 leases would have expired in 1948 but they, with others, were extended from year to year by Maori Purposes Acts. Section 29 of the 1953 Act extended them to 30th September, 1954. The Maori Vested Lands Administration Act came into force on the 29th September, 1954, and by Section 2 the 1927 lease became a subsisting lease.

The question then is whether the compensation rights, which we hold had either originally existed or had been retrospectively created for 1906-27 and 1927-54, enured for the benefit of the lessees under the new 1954 leases.

Mr Brown and Mr McKenzie made careful analyses of the definitions in Part I and Part II of the 1954 Act regarding the rights from such subsisting leases. We are influenced by Mr McKenzie's submissions based on Mr Wilson's status as a subsisting lessee. There was, for valid reasons explained in the letter Exhibit 8, no application under Section 11 by the Maori Trustee or the Valuer-General for a special valuation. Accordingly Section 14 giving a right of objection to such a valuation was inapplicable. As therefore no objection had been made to a special valuation (because there was none) Section 15 came into play and under Section 15 (1) (b) the Maori Trustee served a notice requiring

Mr Wilson to elect whether he would take a new lease or to have the same submitted to public tender. Mr Wilson elected to take a new lease, which was granted. It is common ground that similar steps were taken by the other Respondents.

We digress to say that we do not accept a submission made that the terms of the Maori Trustee's letter and its acceptance constitute a special agreement outside the provisions of the Act under Section 8 except in so far as they were waiving the mode of rental fixation. In all other respects, as that letter shows, the new lease offered and accepted was in the terms of the 1954 Act.

That takes us straight to Section 27, which is really the primary determining piece of legislation and the area of disagreement in counsel's submission as to meaning:-

"27. Provision as to compensation for improvements:
(1) Every new lease and every renewal thereof shall contain a provision to the effect that, due notice of his intention to resume possession of the land having been given by the Maori Trustee in accordance with the provisions of section twenty-one of this Act, the lessee shall be entitled, on delivering possession of the land, and not being in any way in default under the terms of his lease, to receive compensation for all improvements effected by him to the extent of two-thirds of the value of those improvements according to a special valuation to be made in that behalf by the Valuer-General as at the date of the expiry of the lease or of the expiry of the fifteenth year of the term of the lease, as the case may require."

It will be noted that it is "the lessee" who is entitled to receive compensation and a lessee by definition includes the successors, executors, administrators and assigns of a lessee, so that in a case (as happened with one of the Wilson leases from an original lessee named Scott) the assignee makes his bargain with the former lessee and becomes entitled to all his rights thereunder, and the assignor loses his rights, if any, to compensation having accepted a purchase price. So that the entitlement of a lessee under Section 27 includes the entitlement held by his predecessor, and that entitlement is to receive compensation for all improvements "effected by him to the extent of two-thirds of the value of the value of those improvements." Mr Brown's submission is that this section is dealing only with a new lease and a new lessee, and that the words "by him" are deliberately chosen in contra distinction to the definition in Section 2 of "improvements effected by the lessee", which the definition allows to include improvements by former lessees. He submits that this change of phraseology is deliberate so that the lessee under a 1954 lease only benefits from work done since the commencement of his new lease. Mr McKenzie submits to the contrary. He points out, quite correctly, that in the usual case the new lessee will probably be the subsisting lessee who has accepted under Section 15 (1) (b), and that Mr Brown's interpretation would deprive that person of the improvements which he has made, possibly over decades - in the case of Mr Wilson and his father a total of more than fifty years - during which time the property has been turned from remote hill country covered with vegetation, to high class farm land with buildings, fences and other attributes of value. That, of course, would be a grave deprivation and very unfair and in opposition to what the Royal Commission recommended as being a desirable pattern of provisions for the benefit of both parties. One can assume from its whole structure that this was the intention of the 1954 Act. Also it will be noted that under Sections 5 to 7 care was taken to preserve the rights of subsisting lessees and indeed under Section 16, during the extension period, the subsisting lessee was deemed to continue to be the lessee "for the purposes of this Act".

We are of the opinion that it was the intention of the Legislature against the background outlined by the Royal Commission, that compensation rights should carry through. The construction for which Mr Brown contends would render grave injustice and would be contrary to what we believe to have been that intention. If the statute spells out in clear terms that Mr Brown's

interpretation is unequivocal, then we would be obliged to adopt it. But where ambiguity appears intention must always be looked to. For reasons previously canvassed that intention is clear. In our view the use of the words "improvements effected by him" comprehend those effected by him in his capacity as a new lessee, and also by the definition in Section 2, effected by former lessees. We would be content to rest our conclusions on this base, but there is a further argument which gives ancillary support. One which has been briefly mentioned, and we need refer to it in no great detail, is Clause 13 of the 1927 lease. Mr Laing in a succinct submission analysed the clauses of that lease. We are satisfied that compensation to be paid is not merely compensation to the lessee for damage done incidental to the Board exercising its powers under Clause 12 to win all minerals. It is to be noted that Clause 13, already referred to, provides a method of valuation of improvements similar to those in the 1909 Regulations and in the 1954 Act. Also Section 16 indicates that the value of improvements which have been destroyed shall be set off against compensation payable to the lessee, so that inferentially that clause is recognising that compensation, not only for damage incurred under Clause 12 but for improvements made, is payable. Clause 17 deals with the mode of charging compensation against the land and it refers again to Section 263 of the Native Land Act, 1909, which is a full compensation provision. As already said the recitals at the commencement of the 1927 leases refer not only to the earlier lease being granted under the provisions of the 1900 Act, but is in exercise of the powers of the Maori Land Board under the 1909 Act.

In these circumstances, as Mr Laing submitted, the reference in Clause 13 to substantial improvements of a permanent character made during the preceding and current terms are an agreement by the lessor to pay compensation for both periods or else an acceptance of the existence (which has been debated) of compensation rights as from 1906. This appears to be a valid argument. If then the 1906 rights were brought forward into the 1927 leases, and preserved by Section 5 of the 1954 Act, Section 27 must be construed consistently with that legislative pattern.

This has been a substantial digression, and it might be wondered why it has been pursued when we have merely returned to the original stand adopted by the parties in 1976. However, the question arose during the course of the hearing, as a result of which new documents and statutory provisions not previously consulted emerged. Now Mr Brown in his final written submissions submitted that only improvements since 1954 should be compensated for. For reasons given we reject this argument. It follows, however, that as Section 5 provides that all compensation rights in subsisting leases are to be read and construed subject to the provisions of the Act, the two-thirds assessment in Section 27 will be applicable to the whole period from 1906.

So far we have postponed setting out the relevant Section 2 definitions in full because it is more convenient to have them at this part of our judgement. In so far as relevant the Section reads:-

Interpretation:

- (1) In this Act, unless the context otherwise requires -

"Capital value" of land means the sum which the owner's estate or interest therein, if unencumbered by any mortgage or other charge thereon, might be expected to realise at the time of valuation if offered for sale on such reasonable terms and conditions as a bona fide seller might be expected to require:

"Improvements" on land means, subject to the provisions of sub-section two of this section, all work done or material used at any time on or for the benefit of the land by the expenditure of capital or labour by any owner or lessee thereof in so far as the effect of the work done or material used is to increase the value of the land, and the benefit thereof is unexhausted at the time of valuation; but does not include work done or material used on or for the benefit of the land by the Crown or by any statutory public body, except so far as the work

done or material used has been paid for by the owner or lessee by way of direct contribution:

"Improvements effected by the lessee" means improvements effected by a lessee during the currency of a subsisting lease or during the currency of any former lease; and includes improvements paid for, purchased, or otherwise acquired by a lessee whether from a former lessee or otherwise:

"Lessee" includes the successors, executors, administrators, and assigns of a lessee:

"Subsisting lease" means a lease of vested land subsisting at the commencement of this Act:

"Unimproved value" of any land means the sum, exclusive of the value of any indigenous timber trees, which the owner's estate or interest in the land, if unencumbered by any mortgage or other charge thereon, might be expected to realise at the time of valuation if offered for sale on such reasonable terms and conditions as a bona fide seller might be expected to impose, and if no improvements (as hereinbefore defined) had been made on the said land:

"Value of improvements" means the added value which at the date of valuation the improvements give to the land:

As already discussed the value of improvements is not ascertained by assessing the residual value of individual items of work done and then aggregating. The correct approach is set out in *Re Wright's Objection* (supra) at p. 924:-

"The Valuer must first satisfy himself as to the unimproved state of the land, a problem which may involve difficult questions of law and fact and one likely to be complicated by a dearth of evidence as to the condition of the land in its original state."

Consideration of this task cannot usefully be had in the context of this case without studying the judgements of the members of the Court of Appeal in *The Proprietors of Atihau/Whanganui v Malpas* (supra). As has been said a difficulty in respect of land under the Maori Vested Lands Administration Act, 1954, arose from the insertion in the definition of unimproved value of the exemption of the value of any indigenous timber trees, and this led to the preliminary point being determined. It is not necessary to burden this judgement with a repetition of the matters which were ventilated before the Court of Appeal when the preliminary ruling of Wild, C. J. was tested. As already discussed the point in issue on that appeal was whether or not the indigenous timber trees excluded from unimproved value were, as the Incorporation maintained, only those indigenous trees present upon the land at the relevant date or whether all trees which at any time had been upon the land were to be disregarded.

For reasons which were clearly demonstrated in the judgements, the Court held that the excluded trees were only those which were in fact upon the land in 1975, and by a parity of reasoning the same were excluded from the capital valuation. This point need detain us no longer. The Court, however, went on to analyse problems which might thereafter confront this Court when the matter was argued in full and the evidence not then available was placed before it. In both judgements it was clearly stated that the exercise would involve considering the state of the land at the commencement of the lease in order to ascertain the difference between the state it would have been in for the purpose of an unimproved value, as against its actual state in 1975. This, of course, could indicate that if all the work done to transform from the former to the latter state was an improvement as defined and unexhausted, it would approximate the sum within the meaning of the definition to which the lessee would be entitled by the deduction process, disregarding in-applicable exceptions such as work by the Crown, a statutory body or the lessor.

In this context Richardson, J. used the colourful phrase that the land had to be taken as if the phantom trees which had been removed were still upon the property in 1975, and it is this phrase which has undoubtedly caught the imagination of many persons who have been interested in the judgement because of the wide ramifications within this and other districts.

With respect, while we accept that the phrase ideally portrays the concept that the learned Judge had in mind, we believe it has led counsel for the Appellants into error. The members of this Court have given a great deal of thought to the propositions advanced by Mr Brown on the basis of the restricted passage of Richardson, J.'s judgement in which that sentence is found. Based upon it Mr Brown has submitted that the exercise requires that all the bush and forest, of whatever nature, which was growing upon the property, at the commencement of the lease was, in imagination, still there in 1975 for the purpose of ascertaining the unimproved value - but not for capital value. The effect of this, though the matter was not disclosed to the Court of Appeal, would be to produce a very odd and in our view unfair and unintended consequence against the background of the history of these and similar leases and the problems which the 1954 Act was designed to overcome.

In arriving at the Unimproved Value we are concerned with what has happened in the past only in so far as it assists in determining the Unimproved state of the land.

This state should be determined by examining each identifiable and separate change which has occurred to the land from its original state and having identified these changes applying to them the definition of improvements.

In so far as any change complies with the full definition its presence is notionally removed and replaced with either the state originally existing or such lesser state existing prior to improvement being made. This lesser state can be brought about by such operations as the extraction of the substance of the land by an owner or occupier, by an act of God such as the spread of fire as has been discussed in this case or by acts or omissions by the public in general in such matters as the introduction of noxious weeds and animals and their resultant effect on the land.

As the evidence came before this Court it was shown that there had been many large trees of millable quality standing on the land at the beginning of this century. The painstaking research by Mr Perston and the thoughtful analyses of this data by himself and Mr Olsen, coupled with the evidence which has been discovered upon the ground and in the records of the Incorporation and elsewhere, show that profitable milling has been done over a period of many years up to 1975, and indeed some small amount thereafter. This has occurred principally on the Wilson property. In the earlier part of the century native timber was in plentiful supply here and elsewhere, some in more favoured locations, and there is evidence of a number of timber mills operating at different locations on the properties from time to time. It is, of course, common knowledge that there has been increasing scarcity of commercially millable native timber, certainly since the end of World War II, and prices have continued to increase as have royalties. The evidence of Mr Olsen persuades us that had the forest in its original state remained upon the land in 1975, there would have been keen demand for the timber and a ready market. It was suggested that for all three properties timber value alone may have been of the order of 3= million dollars and that sum, of course, had the forest still been there, would have been included in the unimproved value.

The consequence of this thesis developed by Mr Brown in accordance with his interpretation of the Court of Appeal decision, would have great significance when examined against the capital value of the property in its present state. Regardless of what may have been the improvements by the lessee properly understood in the way of constructing buildings, erecting fences, producing thousands of acres of pasture land, all would be extinguished and more by this enormous but theoretical counter-balancing figure for timber value. It is with the greatest of anxiety therefore that we have examined the judgements of the Court of Appeal to ascertain whether this clearly unintended result, which we are sure the Court of Appeal would not have had in anticipation, is in fact a necessary or even permissible conclusion to be drawn from the Court's observations. We are persuaded that this is not so. Indeed to the contrary. In our view when properly read and understood the judgements show the true meaning of the

definition of improvements, namely, it is work done on or for the benefit of the land in so far as the effect is to increase the value and is as yet unexhausted.

The Court of Appeal, and in particular the judgement of Richardson, J., points out that there is a clear distinction between work which is done which improves the land and work which is done which extracts valuable material from it but does not result in benefit, indeed may result in detriment. For example, coal mining operations which, though undoubtedly profitable for whomever is entitled to the benefit of the product extracted, leaves the land reduced and not increased in value. The judgements in a number of places specifically state that the observations made as to the principles applicable for the valuation exercise were formulated without the benefit of the evidence which would be given before the Administrative Division, and from the judgements it is apparent that the members proceeded upon the acceptance of submissions presumably made by counsel that there had been no commercially millable timber extracted. In other words, the Court's judgement is founded upon the belief, in the absence of evidence which we have now had, that all the work done was the removal of bush cover for the purpose of and with the result of increasing the value of the land.

All members of the Court appreciated that there could be work done which did not increase the value of the land but did not apprehend that this was such a case. The majority decision refers but briefly to this concept, but Richardson, J. examined it in greater detail. Read in this light the judgements obviously do not support the submissions now put forward by Mr Brown.

At page 549, line 5, Cooke, J., delivering the judgement of himself and McMullin, J., expressed the answer to the referred question in the way already discussed. He said that the case did not thus far present much difficulty but more difficult questions arose. He observed that because it turned on evidence not yet given it could not be dealt with as a preliminary point, but that it was right "having regard to the way the case was argued and to some observations in the Supreme Court judgement" (emphasis added) that something general should be said. The learned Judge then immediately quoted the following passage from the judgement of Wild, C. J. -

"I think it follows from the words "and if no improvements (as hereinbefore defined) had been made on the said land" which conclude the definition of "unimproved value" that in assessing that value the valuer must imagine the land in its virgin or primeval state but with the roads, railways and other services referred to as extrinsic circumstances by the Full Court in *Cox v. Public Trustee* (1918) N.Z.L.R. 95, 99. The "unimproved value" must therefore include an assessment of the value of any timber trees that stood on the land in its virgin state and no account may be taken of any "improvement" effected by its being cleared of bush."

Now we do not see in any subsequent part of the judgement any approval of these observations and it may well be that Cooke, J. had reservations on their correctness and hence thought it necessary to discuss general principles. After a quotation from Cox's case the reference to "virgin state" used by Wild, C. J. was not adopted. With great respect to the late Chief Justice we believe the passage quoted above to be erroneous and in conflict with the definition of unimproved land. The correct emphasis is on unimproved state - that does not mean its virgin state, but its state with improvements (which are defined) removed.

After discussing and approving the approach of Wright's Objection, which has already been referred to, Cooke, J. went on to say (p. 551, line 15):-

"If, as with the lands in the present cases, bush clearance has taken place many years ago, it may be impossible to obtain any reliable data as to the original state of the land or the methods of clearing adopted. Another is that to ascertain the present-day value of clearing, one has to consider the cost of clearing by present-day methods; and there may be little up-to-date evidence. Yet another is that comparable contemporary sales of uncleared land, which would be evidence on which to assess

the unimproved value of the subject land, become increasingly rarer. Then again, according to the Royal Commission's report (paras. 122-4), when bush has been burnt the lessee gets the benefit in the years immediately after clearing of the fertility previously built up by rotting vegetation and enhanced by the ash."

Bush, we suggest, is being spoken of as something to be cleared."

Again a little later reference is made to the provisions in the Valuation of Land Amendment Act (No. 2) 1970, excluding from consideration as improvements the removal or destruction of vegetation - but it is noted that this would not apply to existing leases.

It is then said that the valuer first considers the land in its actual state, including buildings, roading and clearing. Then he disregards standing indigenous trees. Then he assumes no improvements have been made - viz. work done at any time for the benefit of the land. The judgement then continues (p. 552, line 22) :-

"This will include, for instance, bush clearing and breaking in (whether by burning, felling, stumping, sowing or otherwise) and the erection of buildings. But any work done, or material used will only be an improvement if its effect is to increase the value of the land at the valuation date."

And at line 41:-

"We understand that in the cases affected by this appeal the bush was removed to convert the land to pasture (or for cropping) and that there has been no commercial milling of timber. If there had been some commercial milling there might perhaps be room for an argument that any subsequent stumping or sowing could be treated as entirely separate operations, independent of what had gone before and amounting to improvements in themselves, notwithstanding that the prior milling had impoverished the land. Leaving aside such a case, as to which no opinion is now called for, we do not think that the statutory definition of 'Improvements' should be read so as to treat one part of the conversion process (for example, stumping) as independent of an essential prior stage (for example, burning). The work as a whole, although probably carried out gradually, has been a process of clearing and development."

To anticipate, we point out that the Judge did not favour treating as independent steps the process of stumping and the process of burning. Quite so - they are conversion works within the concept of "improving" - so too would felling non-commercial timber. But no opinion was expressed as to the place if any within the definitions of commercial milling, as that type of operation had not engaged the attention of the two learned Judges quoted - but it has become the paramount matter before this Division.

We do not overlook those passages in the judgement which go on to say that destruction of a valuable asset should not be left out of account, and that "replacement of native forests by pasture" should not be regarded as an improvement unless this was clearly demonstrated by evidence or unambiguously required by the Act. Having heard the evidence and examined documents, some of which have only just come to hand, we conclude that the evidence does require such a conclusion and also that result was contemplated, if not by the Act, then certainly by the leases drawn under the Act(s).

First let us note that the leases dealt with millable timber specifically - it was reserved to the Maori owners - under the 1954 leases the lessees were prohibited from touching it, and under earlier leases special provisions were incorporated whereby for example the lessees were entitled to burn it all if they wished. See for example Clause 9 of the 1927 leases:-

the lessee may fell, cut and burn any timber or timber like logs (all being hereafter included in the term 'timber') standing or being upon the said land PROVIDED that if the lessee shall sell the said trees or logs or the timber produced therefrom . . . the lessee shall pay half the royalty rates . . .

In our respectful opinion these are special provisions which take these matters outside general

principles. Of course one would think that in the absence of provision to the contrary it would be desirable that detrimental work by a lessee in the process of using the land should not be disregarded when credit is being given for beneficial work. But most leases specifically guard against waste being committed with penalties for the same. More particularly in these leases the removal of timber is especially provided for, as just mentioned, either by requiring it to be cleared (Clause 74 of the 1900 Regulations), permitting it to be cut and removed on terms as to division of the proceeds (Clause 9 of 1927 Lease), or prohibiting it (Clause 30 of 1954 leases and Section 29 of 1954 Act) and reserving the rights of extraction and the returns therefrom to the owners. They have in fact over the whole period not only condoned but actively encouraged the removal of these millable trees. If this conclusion is not valid and Mr Brown's contention were accepted the farcical result would be that the Maori owners would not only be receiving monetary payment for the timbers milled but would also have credited to them in a compensation award the value of the same timber long since severed. Secondly, evidence also shows that unless special arrangements are made with a bush contractor at very substantial additional cost, the process of clear felling land, of stumping and burning, is an agricultural operation for the production of pasture, and is in practice executed quite separately from the extraction of the timber asset. The judgements of the Court of Appeal anticipated that such evidence might emerge to show such a distinction and in the event evidence clearly so demonstrated.

Before examining this further, however, help can also be gained from examining the separate judgement of Richardson, J. As has been mentioned he paid particular attention to the difference between work which depreciates and work which improves. Again we are aware that fragmentary extracts from a judgement do not necessarily reflect its true import. But we believe the following passages, allied to what has already been said, demonstrate that in contemplating the state of the land for fixing unimproved value one is required by the definitions to subtract the pluses, not add back the minuses and the definitions are the sole guide. At page 556, line 20, Richardson, J. said:-

"First, if the only work done on the land diminishes or does not add to its value, there is nothing by way of improvements to be excluded, the unimproved value equals the capital value and it is the value of the land in its actual state as at the time of valuation which is material. Consider the value of coal bearing lands. The value of the coal in the land is assessable as part of the unimproved value (R. v. Buller County and Valuer-General (1956) N.Z.L.R. 726; Nightcaps Coal Co. Ltd. v. Valuer-General (1906) 25 N.Z.L.R. 977). The concern is necessarily with the coal that remains and not with the coal that has been mined. It is implicit in the statutory scheme that any value that would have been gained by any item of property which has ceased to exist must be ignored.

The second consequence is that it does not warrant ignoring any changes to the original state of the land which are not in themselves part of the improvements which are excluded. The direction is not to value the land as it stood at some time in the primeval past but as it would have been as at the date of valuation if on that day it had no improvements on it. The comparison is not with the land in what was its natural state at an earlier time but with what its state would now be had no improvements been made to it."

As the learned Judge pointed out shortly after this passage, none of the reported cases to which reference has been made were concerned with the position where work done diminishes rather than enhances value.

Then the following important passage appears:-

"The Court was discussing factors increasing the value of the land and it was not called on to consider the effect of changes diminishing its value. The reference to the original state of the land in the second passage is I think directed to ascertain-

ing the vegetation cover on the land at the time it was originally cleared which is necessary information to have when determining what work was involved in the clearing of the land. I do not think that the Court intended to suggest that the state of the land as at an earlier time should be transposed to the present. Indeed, in giving the formal answers to the questions posed the Court said (p. 103) that the unimproved value was "the value in its natural state as for the time being affected by extrinsic circumstances, but not by what has been done to it or upon it in the shape of improvements of any kind."

An equally crucial passage then reads:-

"The underlying concept is of the expenditure of effort and money which increases the value of land. It is not directed at the commercial exploitation of the land and the profit motivated taking of property of value from the land. It would ordinarily be a misuse of terms to describe coal mining as an improvement to the land. So, too, the commercial milling of timber. In these situations it is the development work undertaken after the mining activities or milling operations have been carried out that ranks for consideration as improvements."

The rest of the judgement continues in this vein, confirming, we respectfully suggest, the interpretation of the definition that it is only improvements no longer exhausted that are stripped away to ascertain unimproved value. The reference to the work involved in felling the phantom trees is in the context of non-profitable work required to turn unproductive land into pasture and the notional replacement of that much discussed growth was centred on the fact that its removal for improvement purposes, being an improvement, was to be disregarded in the mathematics. As widely prophesied, the resolution of the reality would depend upon evidence; evidence was given in abundance that millable timber was taken out if and when it appeared profitable to the owner (and before 1954 shared with the lessee), but the land was not improved thereby. If anything it was diminished. The land remained covered with scrub - the so-called "cut-over" state. As a separate operation, often many years later, and at considerable expense, the lessee, as and when he could afford it, cut down the remaining growth - often as high as 80 per cent cover - stacked the fallen material, burned, stumped and cleared. Sometimes this was twenty years later. It was expensive. Mr Wilson waited from 1927 to 1953 before he could afford to spend \$60,000 to clear 1,000 acres of bush from which valuable trees (about 7 to 9 to the acre) had previously been extracted on the special royalty sharing basis provided in the lease. The concept of replacing the "phantom trees" has, we believe, been totally misconstrued by the objector. It must be noted that in the very next sentence following that phrase Richardson, J. said at page 558, line 54:-

"Thus, if the bush would now be of no commercial value, then all the work involved from felling to grassing qualifies as improvements to the extent that it adds value to the land. However, if the notional timber would be commercially millable, any work associated with the milling of the timber is not an improvement, for it does not add value to the land."

In our respectful view this is a correct statement of the situation and nothing could be added to give clearer understanding except two supplementary points:-

- (i) Richardson, J. recognised that the evidence might support Mr Mathieson's submission that clearing and grassing should be regarded as quite distinct from the milling of the timber. The evidence, as already referred to, has demonstrated overwhelmingly that in practice this has been the rule.
- (ii) The judgement was reached without the advantage that we have had that by contractual and statutory provisions the benefits from the extraction of commercially valuable timber are not within the ambit of a valuation exercise for the parties have removed such calculations from consideration, so the reasoning of Richardson, J. applies a fortiori.

We therefore reject the submissions on behalf of the Objectors that the bush replacement, envisaged by

the Court of Appeal when speaking of original state, requires credit to be given on 1975 values for indigenous native timber of commercial value removed since the commencement of the leases. We listened with interest and respect to the highly informed and accurate opinions of Messrs. Perston and Olsen, but in our view their conclusions are irrelevant to this enquiry.

The question is:-

- (a) What was the capital value at 1975?
- (b) What was the unimproved value of the land disregarding improvements, defined as the Act requires - i.e. on the present facts, the land in "cut-over" state?

DEVELOPMENT:

All the properties subject to these objections were, we understand, leased in 1906 under a standard lease which provided under Clause 74 that 20 per cent of the land was to be cleared and grassed within four years and additional substantial improvements would be provided at not less than \$2.00 on first class land or \$1.00 on second class land per acre. The addendum not included in the Regulations under the Maori Lands Administration Act 1900, provided for the sharing of royalties between lessor and lessee equally of any marketable timber sold off the property.

Access to the properties was initially poor and the living standards in the early stages must have involved considerable hardship measured by present standards.

It appears that initially development required the destruction of all timber including the trees of millable size and species because of the absence of mills and the poor access.

Development continued in this manner until the Raetihi Fire in 1918. Although considerable damage was done to the felled areas of the McGregor property the expert evidence of Mr Perston and the hearsay evidence from Mr McGregor (a grandson of the original lessee) confirms that it is likely that in this area the bush containing millable trees was untouched in spite of the possibility of this having occurred of which evidence was given by Mr Childs.

Probably because of improved access and the removal of indigenous trees in areas closer to the markets the first mill to exploit the millable timber in this area was located on Wilson's property in 1927. From this time onwards we must presume that there were trees of some commercial milling value on the then undeveloped areas. The provision of the fifty/fifty sharing of timber royalties was carried forward in the 1927 lease renewals and this no doubt provided some incentive to mill the timber prior to development into pasture. In retrospect it is interesting to note that this was added as a proviso to clause 9 which authorised the felling and burning of all timber.

By 1954 when the Maori Vested Lands Administration Act reserved the timber to the lessor, much of the properties had been developed to substantially their present grassed condition - portions of the development having been carried out prior to 1927 when the millable timber had generally no value, portion between 1927 and 1954 when half the royalties were payable to the lessee, and other portions subsequent to 1954 when all royalties have been paid to the lessor.

From the factual and reliable hearsay evidence we have come to the conclusion that:-

- (a) An initial and fairly concentrated development of the better land occurred from 1906-1918.
- (b) The 1918 fire did affect the McGregor property but we have no knowledge whether it did any damage to the other two.
- (c) The effect of the 1918 fire had considerable financial effects on some of the owners depending on the amount of damage sustained. Mr McGregor particularly was unable to carry out further new development until the losses sustained were made good due to the 1951 wool prices.
- (d) With the establishment of a commercial value for the standing millable timber from 1927, funds would have been available for the lessees with millable timber still standing and the Wilson property in particular did receive significant royalties.

- (e) With the injection of the wool retention funds in the period from 1951 to 1956, there were substantial funds available for improving the existing developed areas and together with 50 per cent of the timber royalties (until 1954) funds were available for the development of new areas.
- (f) The legislation of 1954 provided a new framework within which the lessees worked and generally improved the then developed grassed areas, but development into new areas with marketable timber was determined by the lessor's decision on when it would be extracted.

TIMBER:

Having determined and enumerated the general principles which we consider should be applied in determining the unimproved state of land as a prerequisite to arriving at the Unimproved Value, and having made this brief historical reference, we turn now to the particular properties.

It was established as common ground by Mr Childs for the Valuer-General and Messrs. Perston and Olson for the Objectors, that the "prairie" state of the land was in podocarp hardwood bush of mixed quality. The only evidence of the effect of the 1918 Raetihi Fire was that damage occurred to structures and pastures on felled and grassed areas. Although Mr Childs produced evidence that fires could have occurred on the unmilled areas, in the absence of any evidence to confirm this and in view of Mr Perston's evidence, we consider that the 1918 fire did not affect any of the unmilled bush areas to any significant extent.

Having determined that no extrinsic factors were responsible for the removal of any of the indigenous timber cover, we now apply our thoughts to the state of the land without "improvements" as defined as at 30th June, 1975.

In general terms it can be said that most of the millable timber was removed at this date either to improve the properties or to extract a valuable part of the land (i.e. the millable trees).

VALUATIONS:

We now turn to the valuation evidence. Mr Sole amended his valuations prepared for the earlier hearings on the basis of his interpretation of the Court of Appeal decision from:-

	Capital Value	Unimproved Value	Value of Improvements
Wilson	\$517,000	\$243,000	\$274,000
McGregor	\$298,000	\$154,000	\$144,000
Malpas	\$142,000	\$66,000	\$76,000
to:-			
Wilson	\$517,000	\$517,000	Nil.
McGregor	\$298,000	\$298,000	Nil.
Malpas	\$142,000	\$142,000	Nil.

On the basis of our ruling we have rejected Mr Sole's amended valuations and given consideration to his earlier valuations in reaching our decisions on the three properties. We view the unimproved state of the properties as at 30th June, 1975, as being in cut-over bush which has been extracted by current milling techniques with the land containing the seeds of noxious weeds introduced by birds and wild animals and the noxious animals then presently existing at that date.

We are concerned with the method whereby much of the evidence was presented by valuers in this case. A considerable amount of important evidence was given orally which meant that the written reports were only a partial presentation of the necessary facts concerning the properties relevant to the cases. We refer particularly to the apparent reluctance of some of the valuers who, having adopted a particular approach to arrive at their final valuations, appeared to consider it unnecessary to record the essential factors and quantitative measurements used in arriving at their final conclusions. We are not assisted either by schedules of allegedly comparable sales presented which did not record the manner in which major features of these properties differ from the subject properties. Indeed not only are many of these differences ignored but where they are recorded the positive versus negative aspects of these differences are not even distinguished.

The acceptance of globality in arriving at the three values we are concerned with does not in our opinion preclude the valuers from examining different factors of the total development process and allocating values to these factors within the global figures so that valid comparisons can be made with the subject property and comparable sales. In *Sullivan v. Valuer-General* (unreported, Dunedin, 16th-17th October, 1962) Judge Archer said:-

"It is well recognised that prices actually paid for land may properly be analysed with a view to apportioning the prices actually paid between improvements and the land itself. Such an apportionment amounts of course to no more than a useful expression of opinion by the valuer but in the absence of any better evidence, however, a value based upon a proper analysis of comparable sales is usually acceptable in preference to one based on unsupported opinion."

This opinion of Judge Archer can, we consider, be applied with equal validity to the analysis of sales in support of capital value as well as unimproved value. It is axiomatic however that the greater the degree of differentiation required to arrive at a direct comparison the less reliable the comparison becomes. Some valuers were unable to supply the areas of different classes of land within properties which they were endeavouring to use as comparable sales - this to our mind carried the concept of globality to a point which relied on the presentation of unsupported intuitive valuations rather than a fully reasoned examination of sales evidence and supportable values.

COMPARABLE SALES:

We were somewhat surprised in view of the decision of Judge Archer in the Wright Objection that there were such wide divergencies of opinion of the land in its unimproved state - these divergences associated with an almost complete absence of any sales of land in an unimproved state led to very wide differences in the unimproved values presented. Differences of opinion as to what constituted unimproved state, according to the individual valuer's interpretation of the Court of Appeal judgements widened the range even further. We were unable to place any significance on unimproved values which were determined on the basis of land being in a state which differs from that which the principles we have discussed require. Further discussion of Mr Sole's valuations will refer to those he gave at the Committee hearing.

All valuers, with the exception of Mr Sole, placed considerable reliance for unimproved assessment on the sale Fantham/Edwards, a partially developed property of 1,727 acres, sold in July 1973 for \$45,650, and situated at Horopito. This property has been inspected. It has very few characteristics of similarity with these properties other than that the undeveloped area was in cut-over bush. On analysis the residual price attributed to the unimproved state was approximately \$17,000 and approximately \$28,000 was allocated to existing improvements. We have reached the conclusion that because of the lack of true comparison and the sensitivity of the residual analysis of \$10 per acre to minor variation in the valuation of improvements included in the sale, little reliance can be placed upon it. If the valuers had appreciated these matters we would have expected that as a check they would have endeavoured to simulate the approach of a prudent and well informed purchaser to the matter. In our opinion a prudent and informed purchaser would have had regard to the costs, tax benefits, institutional benefits and the holding costs associated with development, and related these to the market value of developed land and on this basis arrived at a price he would be prepared to pay for the unimproved land. No valuer appears to have carried out this exercise in any form and we consider they were remiss in the circumstances we are considering not to do so. We consider Mr Sole rightly placed little reliance on the Fantham/Edwards sale. He turned to the sales of land for forestry purposes to guide him in establishing his unimproved value. It is generally recognised today that institutional forest developers can out-bid farm developers for land similar to that with which we are concerned. While it is not inappropriate to carry out an exercise similar to Mr Sole's, due allowance must be made for the question

of demand for this land for forest use. We are not convinced that there was such a demand for these properties in 1975, and we have to largely discount the weight Mr Sole gave to these sales in arriving at his unimproved value.

The assessment of the capital value produced sales analyses containing properties over a very wide range of comparability and in some cases it was very difficult to determine the weightings given to the several properties compared. Mr Sole placed considerable reliance in arriving at his capital value on physical land comparability and time of sale, but placed little emphasis on comparability in size. Mr Watters placed considerable emphasis on comparability of size and less emphasis in searching for comparability in physical characteristics. Most other valuers appeared to adopt criteria falling somewhat between those two extremes.

We are of the opinion that unless the properties given the greatest weight in comparative analysis fall within the same general price and productivity range, the analysis does not necessarily reflect the aspirations, motivation and financial resources of vendors and purchasers. It is indeed difficult to imagine a similar group of purchasers participating in auctions for the Wilson as for the Malpas property.

We have therefore arrived at the conclusion that a sale which is of considerable direct comparability with the Malpas property could have little significant weighting as a comparison to be used for the Wilson property.

We turn our attention to the individual properties and we have the following additional comments to make.

W. C. WILSON:

On reading the evidence of Mr Fletcher which was given at the Committee, we came to the conclusion that it was of little assistance. We do not accept Mr Sole's assessment of capital value because of the considerable reliance he placed upon a property (McLean to Driscoll) which, while undeniably similar in soil, location and date of sale, was of leasehold tenure substantially smaller and sold for \$60,000 in July 1975. We consider this comparison very tenuous if it is to be used to support a capital value of this property of \$51.7,000. The use by Mr Sole of the sales of land for forestry use was of little assistance to us for the reasons stated earlier. We consider he placed too much reliance upon a demand for forestry use in this area which was not confirmed in other evidence given.

Mr Girdwood placed considerable reliance in arriving at his capital value on the McLean/Lilburn sale of \$182,839 in May 1974, and used this directly to support his capital value of \$677,033. His supporting evidence tended to lead us to the conclusion that the latter figure was arrived at intuitively rather than through the conclusions he could have arrived at by an in depth analysis of his major sales comparison. As an example there were some errors in fact in the carrying capacity used. Mr Girdwood appeared to have little confidence in the ability of any person to accurately determine unimproved value, and this may well have been reflected in his use of the Fantham/Edwards sale at its face value. Mr Watters, in our view correctly approached the determination of capital value by considering sales of similar price and productivity even although they were not necessarily in the immediate district. He, in our opinion, misdirected himself to some extent in determining the unimproved state of the land and placed too much reliance on the sale Fantham/Edwards. This reliance on the Fantham/Edwards sale when adopted produced a series of historic Unimproved Value/Capital Value relationships made by the Valuation Department which were not in the context of Capital Value increases and Development Cost increases, satisfactorily explained. For these and other reasons we consider Mr Watters under-estimated the unimproved value.

We have considered the evidence given by Messrs. Wilson and McGregor as to initial costs of clearing over different periods of time and have considered the estimate of 1975 costs to clear and grass by Messrs. Watters and Girdwood at approximately \$100 and \$117 per acre respectively. It seems to us that an allowance of approximately \$100 per acre for this work is excessive bearing in mind the taxation benefits available for the development of farm land.

We are convinced that the valuations of the unimproved values placed upon the land by Messrs. Girdwood and Watters do not adequately reflect a market appreciation of the net capital cost of developing this land

C. S. MCGREGOR AND OTHERS:

Mr Sole's evidence on this property made use of the same sales evidence as for Wilson and the comments we made there apply in this case,

Mr Girdwood's reliance on the McLean/Lilburn sale became of more relevance than in the Wilson case, although the sale price of \$182,839 still reflected unfavourably as a valid comparison with his capital value of \$430,565 and the use of the Fantham/Edwards sale in determining the unimproved value had the same shortcomings discussed in the Wilson case.

Mr Morgan's evidence was descriptive and neither his direct evidence or cross-examination revealed any details of how he arrived at his values. We therefore view his evidence as a largely unsupported opinion and find it of little use in determining the values we are concerned with

Mr Taylor's evidence tends to confirm that like the other valuers other than Mr Sole, he placed considerable weight on the McLean/Lilburn sale. He introduced fresh evidence into his comparable sales list from those considered by Mr Watters in the Wilson case, and some weight would have been given to these additional sales. We have the same criticism of the use of the Fantham/Edwards sale as we have made of its use by other valuers in this instance. We consider that Messrs. Girdwood, Morgan and Taylor did not examine the sale of McLean/Lilburn in sufficient detail to determine the bona fides of the sale itself. We are far from convinced that an adequate allowance was made in adjusting the price paid by Lilburn to that of a normal open market sale. The fact that Lilburn's owned an adjoining property - that the vendor did not rescind the contract due to delay in settlement - that no evidence was given concerning the bona fides of Mr Bryant (the under bidder) lead us to the inevitable conclusion that the sale was made at a premium price.

The Valuation Department valuers and Mr Girdwood arrived at values for development of pasture at approximately \$130 per acre on this property compared with approximately \$100 per acre on the Wilson property for what was essentially similar work and productive benefit. We considered that both the capital value and value of improvements were too high on this property and the unimproved value was too low for reasons similar to those given in the Wilson case.

I. F. MALPAS:

Mr Sole's evidence on this property made use of the same sales evidence as for Wilson and the comments we made there apply in this case. Mr Wright's evidence was like Mr Morgan's in the McGregor case, being descriptive, and neither his direct evidence or the cross-examination revealed how he arrived at his valuation. In his oral evidence, however, Mr Wright stated that shortly before the auction of McLean to Lilburn in 1975, he made a valuation of \$144,000 to determine a reserve price at auction. The property subsequently sold at \$182,839 and Mr Wright did not proffer any reason for this difference or the apparent use of this higher figure in an unqualified manner as a comparable sale of major importance in arriving at his capital value. His unimproved value was identical to that of Mr Taylor.

Mr Taylor and Mr Wright appeared to place considerable reliance on the comparability of the McLean/Lilburn sale but they both, we consider, failed to adequately allow for the special circumstances of the sale to Mr Lilburn. The analysis by Mr Taylor of the McLean to Lilburn sale at approximately \$131 per acre and approximately \$154 per acre land value on this property represents from any evidence presented to us the optimum differential which could be expected for market and property differences between these properties. We can only assume that the sale was accepted as fully bona fide. We disagree and to this extent we consider his assessment of the capital value was too high.

We have the same comments of his use of the Fantham/Edwards sale as we voiced in the McGregor case.

PROPORTIONALITY:

We are not impressed with the argument that the unimproved value should bear a constant relationship with the capital value. The fallacy of this argument becomes apparent when perhaps a substantial improvement is added to a property mutually satisfying this proportionate criteria. If the added value of the building equates cost, and the capital value is increased accordingly, by implication the increase in the capital value of this addition is proportional between the unimproved value and the value of improvements - clearly an erroneous concept.

Summarising the figures which these gentlemen produced we find the relative values considered were as follows:-

	c.v.	U.V.	V.
W. C. Wilson:			
Mr Sole	\$517,000	\$243,000	\$274,000
amended to ...	\$517,000	\$517,000	Nil.
Mr Girdwood ...	\$677,033	\$59,225	\$617,778
Mr Waiters.....	\$674,000	\$62,500	\$611,500
Mr Fletcher	\$476,000	\$106,000	\$370,000
C. S. McGregor and Others			
Mr Sole.....	\$298,000	\$154,000	\$144,000
amended to	\$298,000	\$298,000	Nil.
Mr Girdwood ...	\$430,565	\$36,394	\$394,171
Mr Taylor	\$432,000	\$41,650	\$390,350
Mr Morgan	\$445,550	\$33,000	\$412,550
I. F. Malpas			
Mr Sole	\$142,000	\$66,000	\$76,000
amended to ...	\$142,000	\$142,000	Nil.
Mr Taylor.....	\$199,300	\$18,800	\$180,500
Mr Wright	\$203,535	\$18,800	\$184,735

Relativities between the unimproved value and invisible improvements presented by the various valuers produced comparisons which are difficult to reconcile. All three properties have an estimated productivity of approximately 3 to 3.5 stock units per productive acre and are developed from soils of similar inherent quality. The following schedule indicates the variations which we have had to consider under the following headings - Land Value (i.e. Capital Value disregarding structural improvements), Unimproved Value, and the Value of Development excluding structural improvements. Figures are given to the nearest dollar and are applied on a per acre basis over the developed areas.

With the (above) table it has been shown that Mr Sole has adopted a development value over all three properties of a similar amount per acre for the development necessary to bring all the lands up to a similar carrying capacity from a similar unimproved state. It is apparent that the Valuation Department (Mr Watters and Mr Taylor) has adopted a development value approximately \$40 per acre higher on the McGregor and Malpas properties than Wilson's. Because of the similarities of the unimproved values and capital values of all the other valuers with the Valuation Department values, the presumption is that they could have arrived at a similar decision.

If we accept that capital value sales indicate a difference of \$45-\$50 per acre for the smaller areas of productivity, we find it difficult in the absence of any direct evidence in support of this that the increase could fairly be attributed on the basis of \$5-\$10 per acre in the unimproved value, \$40-\$45 to the added value of the Development improvements. We accept that it would normally be more costly to develop a smaller area due to lack of scale and that the lessee of a smaller block would be unlikely to receive as much benefit from tax credits and allowances as a larger scale developer but not to the extent adopted by the Valuer-General and adopted inferentially by the Respondents' valuers.

RATIO OF INCREASE:

Another disturbing feature emerged from a comparison of the figures put forward by the Valuer-General and the Respondents' valuers which show the respective rates of increase which is claimed for the different values. This is similar to the situation which confronted Judge Archer in Wright's Objection. The Valuer-General's capital value increased in that case from \$7,980 in 1913 to \$44,880 in 1957. Of this increase \$36,992 was attributed to the Value of Improvements and the Unimproved Value had declined by \$92.

In the cases we are concerned with and in the evidence presented a somewhat similar situation arises between 1957 and 1975. The Valuer-General's capital values for Wilson, McGregor and Malpas increased by \$560,040, \$449,320 and \$184,770 respectively, of which increase \$508,120, \$317,730 and \$167,330 was attributed to the Value of Improvements and \$51,920, \$31,590 and \$17,740 to the Unimproved Value.

It has not been explained satisfactorily to this Court why with generally similar land such a high proportion of the increase was attributable to the value of Improvements and why increases in the Unimproved Values over the same period amounted to such variable amounts as 490 per cent, 314 per cent and 1282 per cent respectively. In the case of the Wilson property the increase in the value from 1957 to 1975 was at a compound rate of approximately 1412- per cent with both Unimproved Value and Value of Improvements increasing at the same rate. During this period the consumer price index (reflected in the increased cost of making improvements) increased at an annual compound rate of 7.5 per cent

The valuations we have assessed will on examination show an annual increase of the Capital Value by 141 per cent - the unimproved value by 201, per cent and the value of improvements by 14 per cent - figure which should make adequate provision for additional costs if any above the consumer price index, and any increase in new improvement over the period. The increase in Unimproved Value reflects a differential rate of increase which we consider must occur.

Having given considerable thought to the value issues at stake for both lessors and lessees, we determine the following:-

W. C. Wilson	
Capital Value	\$675,000
Unimproved Value.....	\$120,000
Value of Improvements.....	\$555,000
C. S. McGregor and Others	
Capital Value	\$384,000
Unimproved Value.....	\$91,000
Value of Improvements	\$293,000
I. F. Malpas	
Capital Value	\$185,500
Unimproved Value.....	\$42,750
Value of Improvements.....	\$142,750

To the extent that there is variation from the Valuer-General's figures the objections are allowed and the foregoing figures substituted.

That recital could conclude our judgement, but as a supplement we record the following for the sake of comparison: (See schedule below) -

Consideration of these figures is relevant on the question of costs. From the financial point of view the Objector has been successful against the original valuations. But it is only partial success. Half of the protracted hearing was taken up in evidence and submission aimed at totally extinguishing improvements and this has been rejected. It has undoubtedly put the Respondents to great expense. For reasons advanced by Mr McGuire an order for costs against the Valuer-General is not appropriate.

Considering all these matters we conclude that each party should pay its own costs.

Solicitors:

Horsley, Brown & Co., Wanganui, for Objector.
 Armstrong, Barton & Co., Wanganui, for I. F. Malpas and McGregor family.
 Brandons, Wellington, for W. C. Wilson.
 Crown Law Office, Wellington, for Valuer-General.

	CV	UV	VI	Development excluding structures and fencing
WILSON (5128 acres)				
Court				
Total	675,000	120,000	555,000	407,000
Per Acre	(\$129)	(\$23)	(\$108)	(\$78)
Sole	(\$99)	(\$47)	(\$53)	(\$29)
Girdwood	(\$130)	(\$11)	(\$118)	(\$83) (est)
Watters	(\$129)	(\$12)	(\$117)	(\$89)
Fletcher	(\$91)	(\$20)	(\$71)	(\$49)
McGREGOR (2398 acres)				
Court				
Total	384,000	91,000	293,000	193,000
Per Acre	(\$160)	(\$38)	(\$121)	(\$81)
Sole	(\$124)	(\$64)	(\$60)	(\$27)
Girdwood	(\$180)	(\$15)	(\$164)	(\$126) (est)
Taylor	(\$180)	(\$17)	(\$163)	(\$128)
Morgan	(\$186)	(\$14)	(\$172)	n/a
	CV	UV	VI	Development excluding structures and fencing
MALPAS (970 acres)				
Court				
Total	185,500	42,750	142,750	86,750
Per Acre	(\$191)	(\$44)	(\$151)	(\$90)
Sole	(\$146)	(\$68)	(\$78)	(\$26)
Taylor	(\$205)	(\$19)	(\$186)	(\$128)
Wright	(\$210)	(\$19)	(\$190)	n/a

The award of compensation is not our function, but it may be of interest to list the consequences of the Valuer-General's figures against the consequences of our determination.

	Valuer-General	Court Determination	Relief obtained by Objector
(a) Wilson	2/3 of \$611,500 \$407,667	2/3 of \$555,000 = \$366,667	\$41,000
(b) McGregor.....	2/3 of \$390,350 = \$260,233	2/3 of \$293,000 = \$188,667	\$71,566
(c) Malpas	2/3 of \$180,500 \$120,333	2/3 of \$142,750 = \$95,166	\$25,167
			\$137,733

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