

SCALING UP CROP ENTERPRISES

PART 2:
LEASE BIG OR BUY SMALL - WHAT WINS?



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Part 2: Lease big or buy small - what wins?

In the last weeks article (Part 1) we noted that differences in capital allocation were the first point of potential sensitivity in a comparison of a farm land lease and operate model with a land purchase and operate model. In this article (Part 2) we examine some additional analysis assumptions and statements of methodology before delivering the analysis outcome.

This is the type of analytical approach and presentation of data delivered in Agrista's recently released Farm Leasing for Growth Course. Further details on the course can be found here:

<https://www.agrista.com.au/leasing-business-growth>

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Assumptions

To simplify the analysis several assumptions have been made. The first is that all expansion opportunities are adjoining, or close to, the existing area and consist of land class and infrastructure that delivers returns consistent with the existing business. This means that additional purchased or leased assets have similar productive capacity to the existing business. It also means that cost inefficiencies, that can occur when additional land is located some distance from the main farm block, do not convolute the analysis.

The second assumption is that the lease and the purchase are both totally funded using debt. The debt is leveraged using the security in the existing farm business. Other important assumptions include capital growth on land value at 5% compounding rate per annum (sensitised), land value of \$11,733 per hectare and no marginal machinery costs required in the lease or land purchase.

The extent of the increase in scale in the lease scenario results in the near replication of the overhead cost structure in the existing business which means that there is little reduction in overhead cost per hectare between the existing business and the proposed lease. The only reduction in overhead cost is a reduction in rates and rents as this is a cost incurred by the landlord. The magnitude of this reduction is \$38 per hectare. Labour costs have been increased on a pro-rata basis at the same rate as they were in the business prior to expansion.

Due to the small scale of the land purchase it is assumed that a number of overhead cost efficiencies (economies of scale) can be achieved. Labour accounts for most of the cost efficiency as it is assumed that the existing labour can manage the additional area purchased. The total value of the cost efficiency relative to the leasing scenario is \$50 per hectare.

Lease costs are assumed to be incurred at a rate of 3.75 percent of starting land value and do not change during the period assessed. Assigning lease rates on a percent of land value has been done not because percent of land value is seen as an appropriate methodology for valuing leases but rather as it is a language that appears to be understood by producers and because it provides a simple means of sensitising the analysis. The lease rate of 3.75 percent of land value has been chosen as it is around the lower end of the starting point is that this is the rate where there is little marginal difference between leasing and owning land, given the assumptions.

The equity in the existing business is assumed to be high enough that the security in the existing business is adequate to fund the additional liabilities.

How to compare the relative value

The method that has been used to compare the value of leasing versus purchasing land is the discounted marginal cumulative value of wealth over a ten year period, net of borrowings.

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Marginal wealth is calculated as the additional accrued sum of capital gain plus annual returns net of interest costs and tax at an assumed average marginal tax rate of 30 percent over the ten year period. Marginal cashflows have been discounted at 8 percent.

It could be argued that the discounting of cashflows has a greater impact on the land purchase relative to the lease. The reason for this is that the majority of the returns in the land purchase come at the end of the cashflow as capital returns from an assumed liquidation of assets. As these returns occur further from the start of the investment period their relative value after discounting is less when compared to those returns that occur in the early stages of the cashflow.

The outcome

Table 1 shows that the net present value of purchasing is marginally lower (\$8,765) compared to the return from purchasing given the base assumptions. The net discounted return from the leasing investment equates to \$671,207 compared with an only marginally lower return of \$662,442 from land purchasing.

The key assumption driving this outcome is the operating profit and the lease cost of 3.75 percent of land value (\$440 per hectare or \$175 per acre). Once lease rates increase above these levels then the outcome is quickly weighted in favour of purchasing the smaller scale farm.



Table 1 With the same capital invested total returns from leasing are similar to purchasing where lease rates equate to 3.75% of land value and the compounding rate of capital growth is 5 percent.

Analysis component	Lease	Purchase	Difference
Marginal scale (hectares)	1,810	151	1097%
Marginal liabilities (\$)	\$2,001,660	\$2,001,748	0%
Marginal annual EBIT (\$)	\$999,370	\$91,024	998%
Marginal annual finance costs - interest & lease (\$)	\$856,471	\$60,000	1327%
Net earnings after finance & tax (\$)	\$100,030	\$21,717	361%
Net present value of 10-year cashflow	\$671,207	\$662,442	1%
Discounted benefit of leasing over purchasing	\$8,765		

The cashflows are very different between investments because wealth creation in leasing is completely reliant on net earnings from operating while wealth from purchasing is driven primarily by capital growth.

In the next weeks article we look at sensitivity of the outputs of this analysis to productivity, cost efficiencies (scale), lease cost and capital gain. For more information head to <https://www.agrista.com.au/leasing-business-growth>

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Figure 1 shows that the discounted cumulative cashflows are very different from leasing relative to land purchasing. All the returns are from operating the business in the lease while the capital returns from land appreciation contribute a significant proportion (approximately 80%) of the gross return in the land purchase investment. The operating returns from land purchasing are far lower in gross terms as the scale of the purchase is twelve times smaller than the lease.

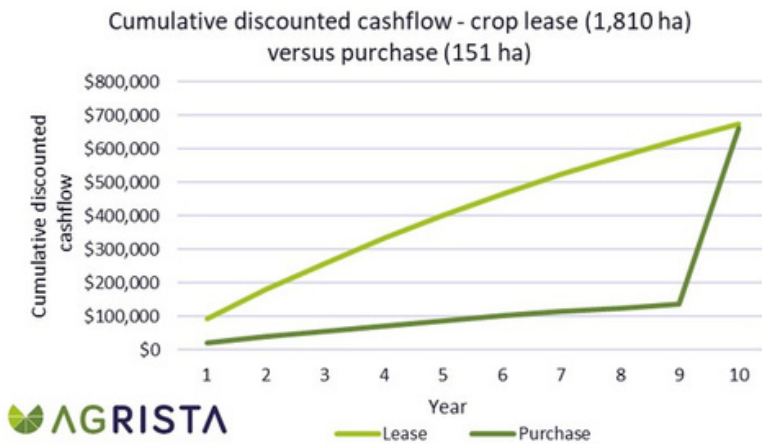


Figure 1. Operating returns account for 100% of returns from the lease but a far smaller proportion of total returns where land is purchased.

What this means to you?

On the basis of the assumptions in this analysis there appears to be little difference between a large scale lease and operate model and a small scale purchase and operate model. The next article (Part 3) deals with the factors or assumptions to which these outputs are sensitive.

