RURAL ECONOMY

Returns to Farmland Investment in Alberta, 1964-89

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Project Report 93-08

Farming For The Future Project 91-0936

PROJECT REPORT

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Abstract

The objective of this study was to analyze the performance of Alberta farmland relative to investment opportunities from financial securities. It is an extension of an earlier study undertaken by Mercier (1988) and Phillips et al. (1989). This study re-examines the period from 1964 to 1985, and extends the data series to 1989.

The results show that Alberta farmland out performed the stock market in both nominal and real terms, but with greater volatility. In nominal terms, farmland had an annual return of 19.8% as opposed to 12.2% in the stock market. The standard deviation of returns in farmland was 20.6% compared to 16.2%. The real return for farmland was 12.6% whereas the stock market earned 5.9%. About 55% of the total return to investment in Alberta farmland was due to capital gain; measured in real terms, income accounted for the major portion at about 66%.

Farmland and stock market returns were found to be uncorrelated in both nominal and real terms. Beta values, which measure the degree of association, were estimated at -0.1632 and -0.1351 for nominal and real terms respectively. Neither nominal nor real beta values were significantly different from zero at the 5% probability level. These results are not inconsistent with earlier studies, and are attributed to the fact that returns in agriculture are subject to a different set of economic and environmental influences than are present for the stock market generally. This suggests possibilities for risk reduction by including stock market investments in conjunction with farmland ownership.

Whereas no correlation was found between farmland and the stock market, returns in excess of what can be explained by compensation for risk were detected. The estimated alpha values of 11.27% and 10.21% for the nominal and real situations were significantly different from zero at the 5% level of probability. These values may be due, partially, to the fact that real estate taxes were not deducted in computing the results. Furthermore, the costs of administration in farmland investments, because of the much less formal market environment in which they are held, may be considerably greater than for the stock market. In addition, stock market investments are considerably more divisible and liquid than is the farmland counterpart. Factors such as these bear further study.

Contents

List of Figures

List of Tables

List of Appendix Tables

1. INTRODUCTION

Land is the single largest asset held by most farm businesses. This study attempts to quantify the return earned by farmland and the risks which are involved in its ownership. It extends an earlier study undertaken by Mercier (1988) and Phillips et al. (1989) by re-examining the period from 1964 to 1985, and augmenting the data series to 1989. The specific objective of this study is to determine the risks and return of Alberta farmland from 1964 through 1989 relative to investment opportunities in the stock market and treasury bills over the same period.

An accepted approach to the analysis of asset returns is comparison to other investment opportunities, usually a well diversified stock market portfolio. As part of its methodology, this study attempts to describe farmland investment in terms comparable to a stock market index, specifically the Toronto Stock Exchange (TSE) 300 total returns index (TRI). The TSE has two components, the returns attributable to capital gain and those attributable to income (dividends). Farmland has similar attributes, however some difficulties arise in specification of the income component. For analytical convenience we have examined the farmland situation from the perspective of a landlord. The income portion is then readily established as the rental income collected at the end of each year. If rental contracts are written in an efficient market situation they should reasonably reflect the income portion attributable to the farmland investment.

There are peculiar attributes to farmland in comparison to other financial securities. If one purchases a share in a company, one is assured that share is exactly the same as every other share in the company. Such is not the case in farmland where there is considerable quality variation. An acre in one location may be significantly different from an acre in another part of the county, or for that matter from an acre across the road or even within the same field. Value of land is therefore intimately related to quality. Quality variation brings with it information problems (adverse selection) which add to the risks faced by farmland purchasers. Furthermore, farmland is not as divisible as are other financial securities. Generally farmland must be legally traded in lots of a minimum size, eg a quarter section. Nevertheless, farmland has sufficient similarity to financial securities so that much can be learned by studying the returns in comparison to the stock market.

2. MEASUREMENT OF RISK AND RETURN

Returns from land can be divided into two components: the capital gain component and the income(dividend) component. Both are analogous to the capital gain and income component of common stock.

2.1 Returns to Alberta Farmland

The capital gain component in farmland results from the change in value from the beginning of the year to the end. It is described in the following relationship:

$$r_{k,t} = \frac{V_t - V_{t-1}}{V_{t-1}}$$

where $r_{k,t}$ represents the nominal percentage return from capital gain in period t , V_t represents the value of land per acre at the end of period t and V_{t-1} the land value at the beginning of the period t.

Expected annual percentage return from capital gain, $\bar{r}_k$ is expressed as the mean annual return computed in the standard manner over a series on n years, in this case 26 years.

$$\bar{r}_k = \frac{1}{n}\sum_{t=1}^{n} r_{k,t}$$

Risk associated with the capital gain component of return is computed as the standard deviation.

$$s_k = \left[\frac{1}{n-1}\sum_{t=1}^{n}(r_{k,t} - \bar{r}_k)^2\right]^{1/2}$$

The annual income from land, analogous to the dividend paid to the shareholders of the common stock, is expressed as follows:

$$r_{l,t} = \frac{I_t}{V_{t-1}}$$

where I_t and $r_{l,t}$ respectively represent the nominal dollar and percentage returns from rental income in period t.

The expected annual percentage return from rental income, $\bar{r}_l$ is the mean of annual returns:

$$\bar{r}_l = \frac{1}{n}\sum_{t=1}^{n} r_{l,t}$$

Risk associated with the income component of return is computed as the standard deviation:

$$s_i = \left[\frac{1}{n-1} \sum_{t=1}^{n} (r_{i,t} - \bar{r}_i)^2 \right]^{1/2}$$

The total percentage return to land, $r_{l,t}$ is the sum of returns from capital gain, $r_{k,t}$ and returns from income, $r_{i,t}$.

$$r_{l,t} = r_{k,t} + r_{i,t}$$

The expected annual total percentage return to land is the mean annual return:

$$\bar{r}_l = \frac{1}{n} \sum_{t=1}^{n} r_{l,t}$$

Risk associated with the total return is expressed as the standard deviation and is computed in the usual manner as the square root of the sum of squared deviations from the mean:

$$s_l = \left[\frac{1}{n-1} \sum_{t=1}^{n} (r_{l,t} - \bar{r}_l)^2 \right]^{1/2}$$

In this form, returns to land become consistent with returns to other financial assets enabling comparison with common stocks as in the Toronto Stock Exchange (TSE) 300 and with Treasury bills (T-Bills). The returns defined above are in nominal terms. Real rates of return were obtained in an identical method to that outlined above. All nominal values were first deflated to their real counterparts prior to computation of the annual returns and the associated statistics. The inflation rate is represented by the GDP Implicit Price Index (Statistics Canada,11-210, 1991/92). This deflator is used to obtain all real values in the study.

2.2 Returns to Common Stocks and Treasury Bills

The most comprehensive Canadian index used in calculating returns from the stock market is the TSE 300 Composite Index. The TSE 300 Total Returns Index (TRI)[1] provides a measure of investment performance through time taking into consideration both appreciation and appreciation resulting from reinvestment of dividends. The capital gains to the market is obtained from the Stock Price Index (SPI)

[1] The TSE 300(TRI) is calculated on the assumption that dividends are accumulated to the end of the period and then re-invested at the index value on the last day of the period.

while the dividend portion is obtained by subtracting the returns on the SPI from the returns on the TRI. Annual total returns were obtained according to the following formula:

$$r_{m,t} = \frac{V_{m,t} - V_{m,t-1}}{V_{m,t-1}}$$

where $r_{m,t}$ represents the total return from the stock market in period t , $V_{m,t}$ represents the value of TRI at the end of period t and $V_{m,t-1}$ the value of TRI at the beginning of period t. TSE 300 monthly returns were averaged to obtain an annual rate. This removed any short-lived up or down turns in the stock market at year end and made the TSE 300 series consistent with the annual series developed for farmland.

The rate of return on six month Treasury Bills was used as an approximation of the risk free rate of return, $\bar{r}_f$. The monthly rates were taken as the Thursday tender following the last Wednesday of each month as reported in the Bank of Canada Review and the Bank of Canada Statistical Summary.

2.3 Risk Premium

A widely accepted method of measuring risk in assets builds on the notion of risk premium. Risk premium is the difference between the return obtained (or expected) from a risky asset above that of a riskless asset. A well diversified portfolio of stocks, for example the Toronto Stock Exchange 300 Composite index, is usually used as a bench mark against which to measure the performance of other assets. The riskless asset is normally represented by government securities, for example Government of Canada Treasury Bills. The risk premium on the portfolio of stocks is represented by $(\bar{r}_m - r_f)$, where $\bar{r}_m$ is the return expected from the stock market and r_f that from the risk free asset.

The risk premium from other risky assets can be expressed in the same way, for example the premium expected from an investment in farmland would be $(\bar{r}_l - r_f)$. Here $\bar{r}_l$ represents the return expected from farmland.

The degree of association between the stock market and other risky assets is of interest to investors because it reveals the contribution of risk to the market portfolio should the asset in question be added. The degree of association is represented by what is called, in the investment community, the asset's beta value. The relationship can be expressed as:

$$(\bar{r}_l - r_f) = (\bar{r}_m - r_f)\left[\frac{\sigma_{l,m}}{\sigma_m^2}\right] = (\bar{r}_m - r_f)\,\beta_{l,m}$$

where $\sigma_{l,m}$ represents the covariance (the degree to which the returns from the asset and the stock market move in the same or opposite direction from each other), and σ_m^2 the variance (the volatility of the market portfolio). The degree of association represented by $\beta_{l,m}$ (beta) is the ratio of the covariance to the variance. The lower the value for beta, the less the risky asset being added contributes to the portfolio risk.

The value for beta can be estimated by regressing the historic risk premium earned by the asset of interest, in this case farmland, against that earned in the stock market. The regression model is:

$$(r_{l,t} - r_{f,t}) = \hat{\alpha}_l + (r_{m,t} - r_{f,t})\,\hat{\beta}_l + \epsilon_{l,t}$$

where $(r_{l,t} - r_{f,t})$ and $(r_{m,t} - r_{f,t})$ are the actual risk premia experienced in year t for farmland and the stock market respectively, $\hat{\beta}_l$ is the estimated beta value, $\hat{\alpha}_l$ is the estimated alpha value and $\epsilon_{l,t}$ the unexplained residual error. The alpha term measures the returns earned by the asset in excess to what would be needed as compensation for risk.

3. METHODOLOGY

The quantities V_t and V_{t-1} were estimated from information contained in the Farm Credit Corporation (FCC) land sales registry. This registry contains all agricultural land sales in Alberta known to FCC agents since its inception in 1963, whether FCC financing was involved or not. To ensure that only agricultural land transactions were considered in this analysis, only those sales involving parcels consisting of 80 acres or more were included. Sales of grazing leases and non-arms-length sales were excluded. The value of buildings, including houses, was also excluded so that only bare land would be considered.

Data for the income component were constructed from price and yield data obtained from Alberta Agriculture. The estimates were based on the assumption that the landlord obtained 25% of the crop and paid real estate taxes. This is based on the most common practice prevailing in the Province.

The four crops chosen to develop the rental income series account for at least 75% of seeded acreage in most Census Divisions in Alberta from 1973 to 1985 (Phillips et.al., 1989). A map showing the Census Divisions is included as Figure 11.

Rental income is calculated from the following equation:

$$I_t = [\,A_{w,t} Y_{w,t} P_{w,t} + A_{o,t} Y_{o,t} P_{o,t} + A_{b,t} Y_{b,t} P_{b,t} + A_{c,t} Y_{c,y} P_{c,t}\,]\,A_{s,t} R - T_t$$

where I_t represents the per acre rental income in year t ; $A_{w,t}$, $A_{o,t}$, $A_{b,t}$, and $A_{c,t}$ represent the proportion of seeded acres devoted respectively to wheat, oats, barley and canola; $Y_{w,t}$, $Y_{o,t}$, $Y_{b,t}$ and $Y_{c,t}$ respectively represent the per acre yields of wheat, oats, barley and canola in kilograms; $P_{w,t}$, $P_{o,t}$, $P_{b,t}$ and $P_{c,t}$ respectively represent the per tonne prices of wheat, oats, barley and canola. The terms in the bracket represent the revenue from 1 seeded acre; $A_{s,t}$ represents the proportion of total improved acres seeded, since all land is not used in production; R represents the proportion of crop received by the landlord, i.e 25% in this case; and T_t represents the per acre real estate taxes paid by the landlord.

Crop acreage, yield and price data were obtained from the Statistics Division of Alberta Agriculture. A number of data problems were encountered, mainly because of changes in Census Division (CDs) and Agricultural Reporting Area (ARAs) boundaries. To maintain as much consistency as possible we followed the Census Division structure in existence in 1985. Census Division boundaries were re-drawn and re-numbered in 1986. For example the former CD 8 was divided into the current CDs 8 and 9, and the former CD 15 was divided into CDs 17, 18 and 19. Some Census Divisions are of only minor agricultural importance and were, for the purpose of this study, combined with neighbouring divisions in which agriculture is significant. Specifically we combined CD 9 with CD 8, CD 16 with CD 12, CD 14 with CD 13, and CDs 18 and 19 with CD 17. This required combining separately reported yield data series for 1987 and beyond. Yields for the combined Census Divisions were therefore calculated as acreage weighted averages.

The income component was based on the proportion of acreage in each of the four principal crops. In the earlier years of the study canola was relatively unimportant. Thus canola acreage was reported only for the province as a whole prior to 1978. Consequently the provincial proportion of seeded acres devoted to canola was used for each of the CDs over the period 1964 through 1977. Canola acreage data have became progressively more disaggregated so that more regional figures, based on ARAs were available from 1978 through 1985. Since 1986 and through to the end of the study period canola acreage data were available on a CD basis.

The proportion of total improved acres seeded was determined from the ratio of summer fallow average data, $A_{f,t}$ and total improved acreage, $A_{T,t}$ as obtained from Statistics Canada and Alberta Agriculture data. The procedure is shown in the following equation:

$$A_{s,t} = 1 - A_{f,t} / A_{T,t}$$

Unfortunately, reliable real estate tax data were unavailable and so this factor has not been included in the analysis. Accordingly the return figures must be interpreted as prior to the deduction of real estate taxes.

4. RESULTS AND INTERPRETATION

4.1 Farmland Returns, Risk and Risk Premium

Table 1 shows the total annual returns, broken down into the capital gain and income components, as well as the risk premia for the TSE 300 composite index, Alberta farmland as well as farmland in the Census Divisions. Annual results along with the data used for these calculations can be found in the Appendix. The results show that for the province as a whole, the total nominal returns from farmland for the period was 19.8% with a standard deviation of 20.6%, compared to the nominal returns of 12.2% and a standard deviation of 16.2% for the stock market. In real terms the total return to farmland was 12.6% with standard deviation of 16.9% and the total return to the market was 5.9% with standard deviation of 15.5%.

The risk premium of the stock market over the period in nominal terms averaged 3.1% compared to 10.8% earned by holders of agricultural land. This finding is consistent with earlier findings of Kost(1968) and Barry (1980) in the United States.

The results are depicted in figures 1 through 10. Figures 1 and 2 show land values and rents respectively in nominal and real terms. Land values increased moderately between 1964 and 1971. It is evident from Figure 1 that there was a substantial increase in land values in 1972, reaching a maximum in 1981 before declining. Land values however tumbled between 1981 and 1987 before increasing again. Figure 2 shows that rental income also increased in a zig-zag fashion between 1964 and 1989. Figure 3 shows the nominal and real percentage returns attributable to capital gains for farmland while Figure 4 shows nominal and real percentage returns on rental income. Figure 5 compares capital gain and percentage returns on rental income from farmland in nominal terms while Figure 6 compares them in real terms. Figure 7 compares returns to farmland in Alberta. It shows that returns reached their peak in 1972 and were negative in 1966, 1968 (in real terms), 1970 and also between 1980 and 1986. Figure 8 shows the nominal and real returns to Treasury Bills (the risk-free rate). It reveals that in real terms, these rates were negative between 1971 and 1974. This means that during this period, debtors benefited and creditors lost money. In real terms, Figures 9 and 10 compare the returns to Alberta farmland and the TSE (the market) in nominal and real terms respectively. Both show considerable fluctuations over the period although fluctuations in the returns to farmland were greater than those to the market. However, on the whole, returns to Alberta farmland over the study period were above returns to the stock market.

4.2 Asset Risk and Beta Values for Farmland Investments

The alpha and beta values for the Province as well as for the Census Divisions, both in nominal and real terms, are shown in Table 2.

The results show that the beta for Alberta farmland for the nominal values was -0.1632, while that for the real values was -0.1351. Both are not statistically different from zero at the 5% level of significance. This means that returns to farmland over the period were uncorrelated with returns in the stock market. With such high returns, land could therefore be a suitable asset for use in portfolio diversification. Alternatively stated, holders of farmland might find diversification in the stock market attractive. With the exception of CD1, the beta for all the Census Divisions, both nominal and real values, were also not statistically significant at the 5% level of significance.

The alpha values, both for the Province and for the Census Divisions in nominal and real terms, were statistically different from zero at the 5% level of significance. This suggests that the returns thus obtained were in excess of the risks involved. For the nominal values, all the alphas were statistically different from zero except for CD2, CD3, CD5 and CD8&9. For real values, with the exception of CD2, CD3, CD5 and CD6&15, all the other CDs had significant alphas. This means that in real terms the other CDs enjoyed returns above those commensurate with risks in farming over the period of study.

5. CONCLUSION

The objective of this study was to analyze the performance of Alberta farmland in relation to investment opportunities in the stock market and treasury bills. It is an extension of an earlier study undertaken by Mercier (1988) and Phillips et al. (1989). This study re-examines the period from 1964 to 1985, and extends the data series to 1989.

The results show that Alberta farmland out performed the stock market in both nominal and real terms, but with greater volatility. In nominal terms, farmland had an annual return of 19.8% as opposed to 12.2% in the stock market. The standard deviation of returns in farmland was 20.6% compared to 16.2%. The real return for farmland was 12.6% whereas the stock market earned 5.9%. About 55% of the total return to investment in Alberta farmland was due to capital gain; measured in real terms, income accounted for the major portion at about 66%.

In both nominal and real terms, farmland and stock market returns were found to be uncorrelated. Beta values which measure the degree of association were estimated at -0.1632 and -0.1351 for nominal and real terms respectively. In both cases these values were not significantly different from zero at the 5% probability level. These results are not inconsistent with earlier studies, and are attributed to the fact that returns in agriculture are subject to a different set of economic and environmental influences than are present for the stock market generally. This suggests possibilities for risk reduction by including stock market investments in conjunction with farmland ownership.

Whereas no correlation was found between farmland and the stock market, returns in excess of what can be explained by compensation for risk were detected. The estimated alpha values of 11.27% and 10.21% for the nominal and real situations were significantly different from zero at the 5% level of

probability. These values may be due, partially, to the fact that real estate taxes were not deducted in computing the results. Furthermore, the costs of administration in farmland investments, because of the much less formal market environment in which they are held, may be considerably greater than for the stock market. In addition, stock market investments are considerably more divisible and liquid than is the farmland counterpart. Factors such as these bear further study.

This study is one of only a few that have investigated the performance of the largest single asset in the farming community. The data series on land values dates back only to 1963 and the data on rental income was built from secondary sources. We are left with some important unanswered questions. What are the long-run performance attributes of farmland? This series covers only the period 1984 to 1989. Are the results obtained due to short-term peculiarities of this time period? It is vital that accumulation of the underlying data be continued and refined to reflect on these important issues.

Figure 1
Nominal and Real Land Values for Alberta Farmland

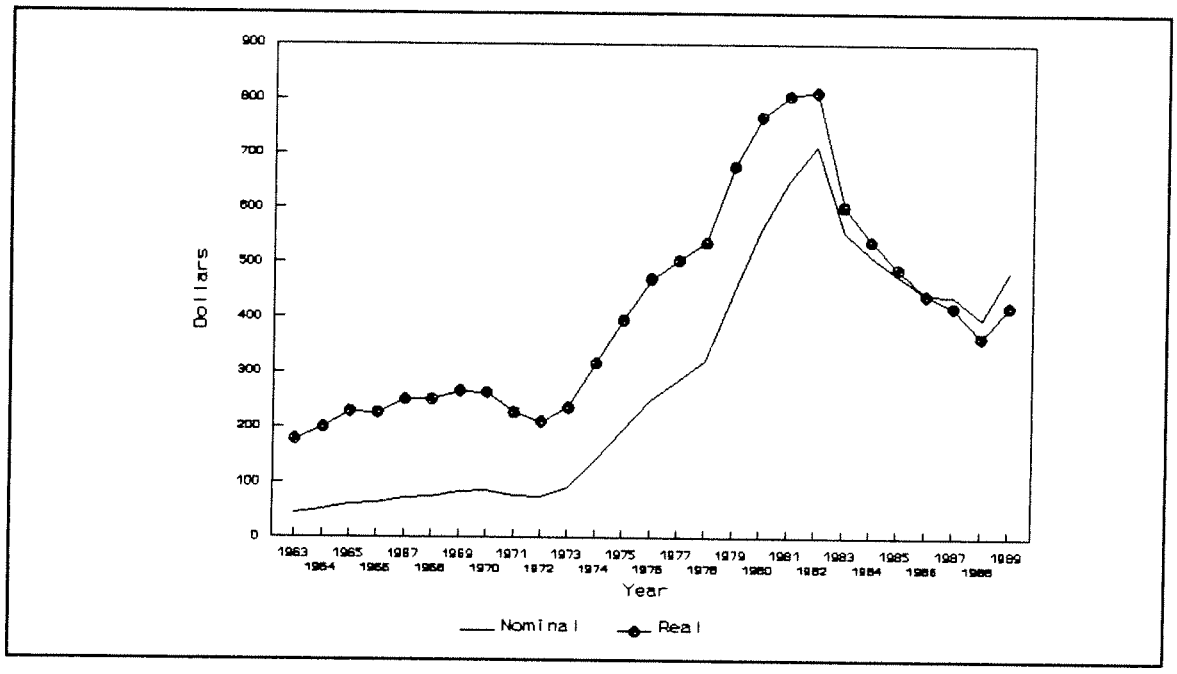


Figure 2
Nominal and Real Rental Income for Alberta Farmland

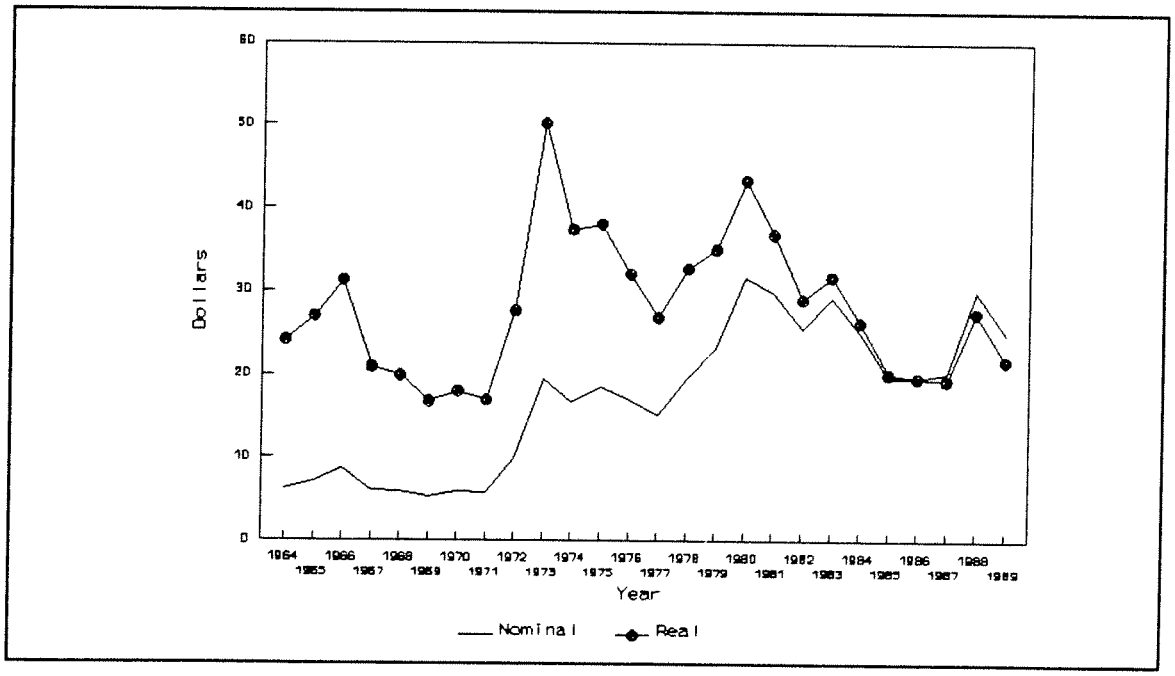


Figure 3
Nominal and Real Rates of Return from Capital Gain for Alberta Farmland

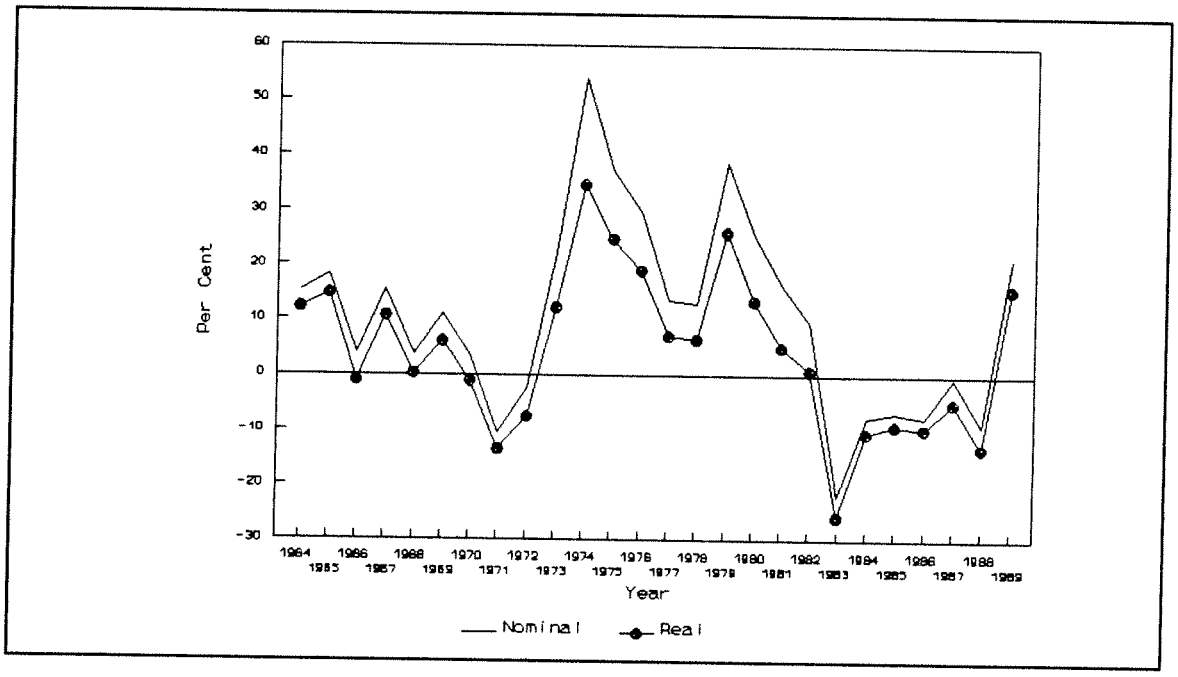


Figure 4
Nominal and Real Rates of Return from Rental Income for Alberta Farmland

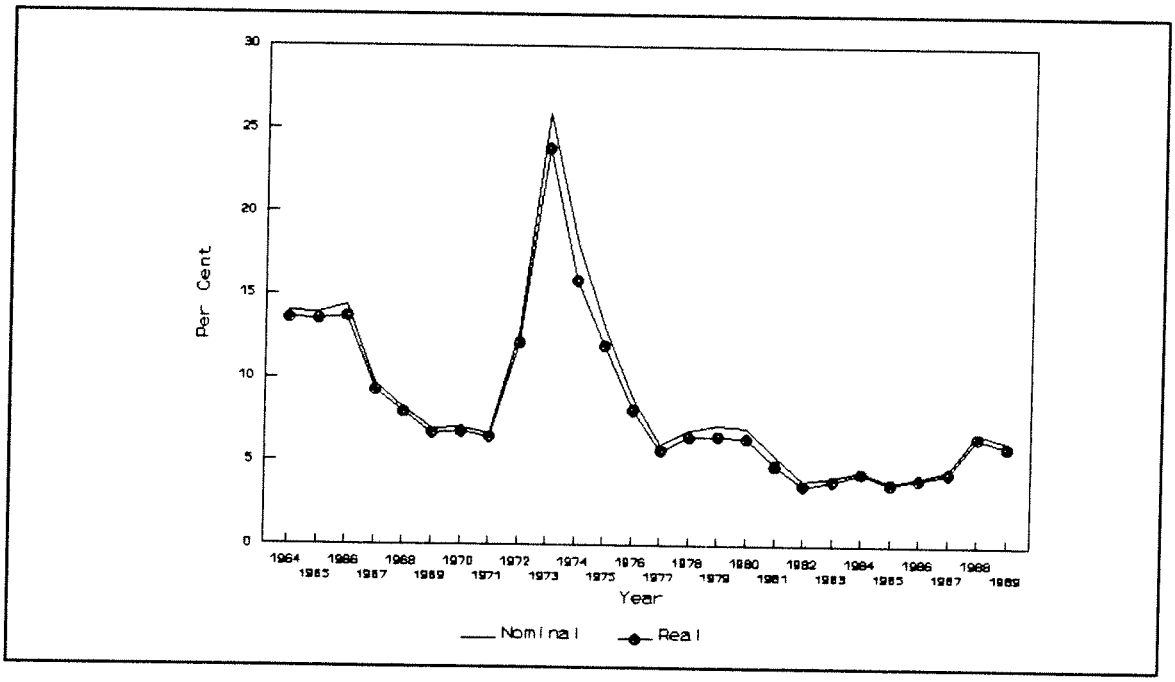


Figure 5
Nominal Rates of Return from Capital Gain and Rental Income for Alberta Farmland

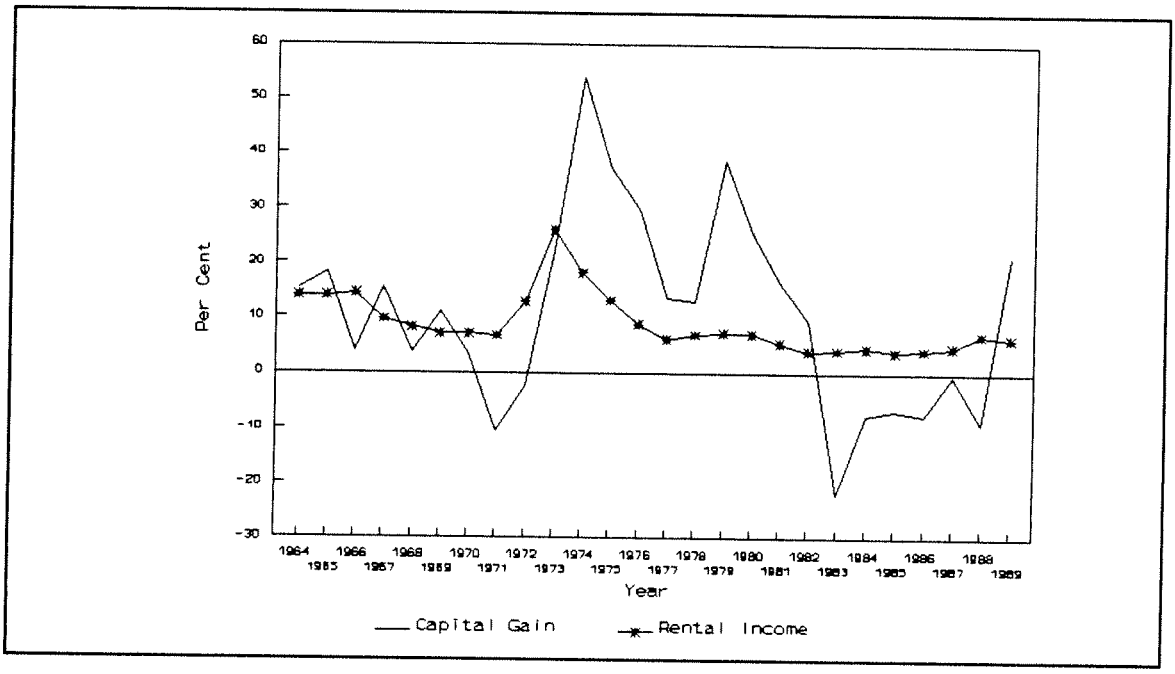


Figure 6
Real Rates of Return from Capital Gain and Rental Income for Alberta Farmland

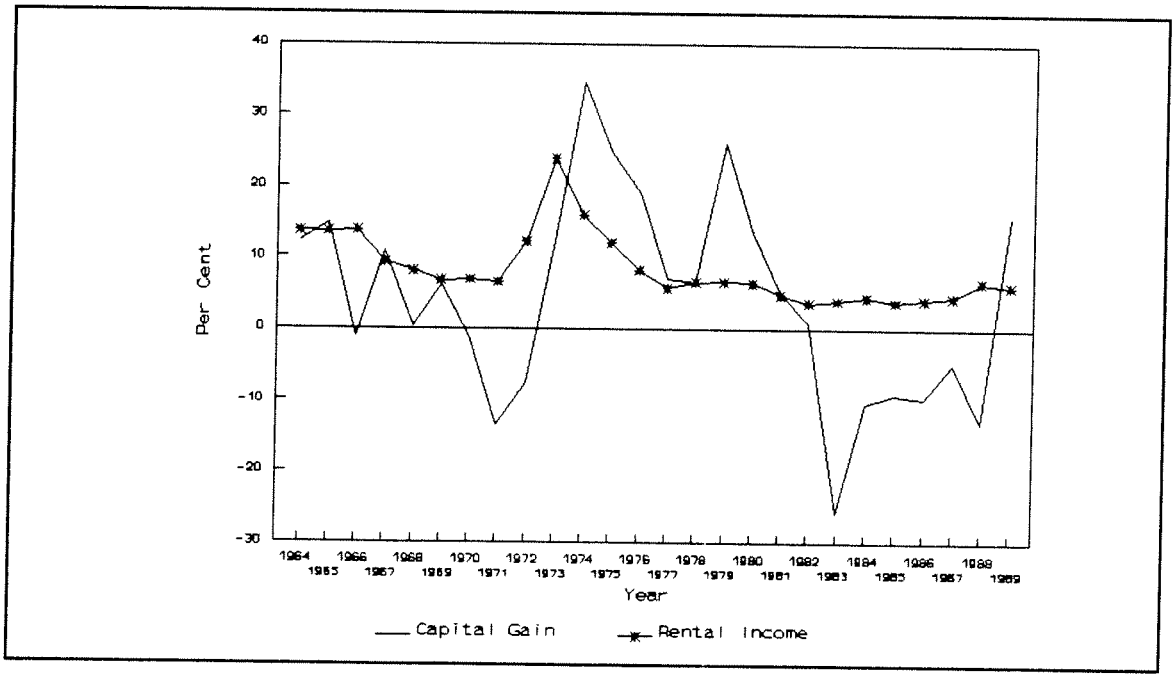


Figure 7
Total Nominal and Real Rates of Return to Alberta Farmland

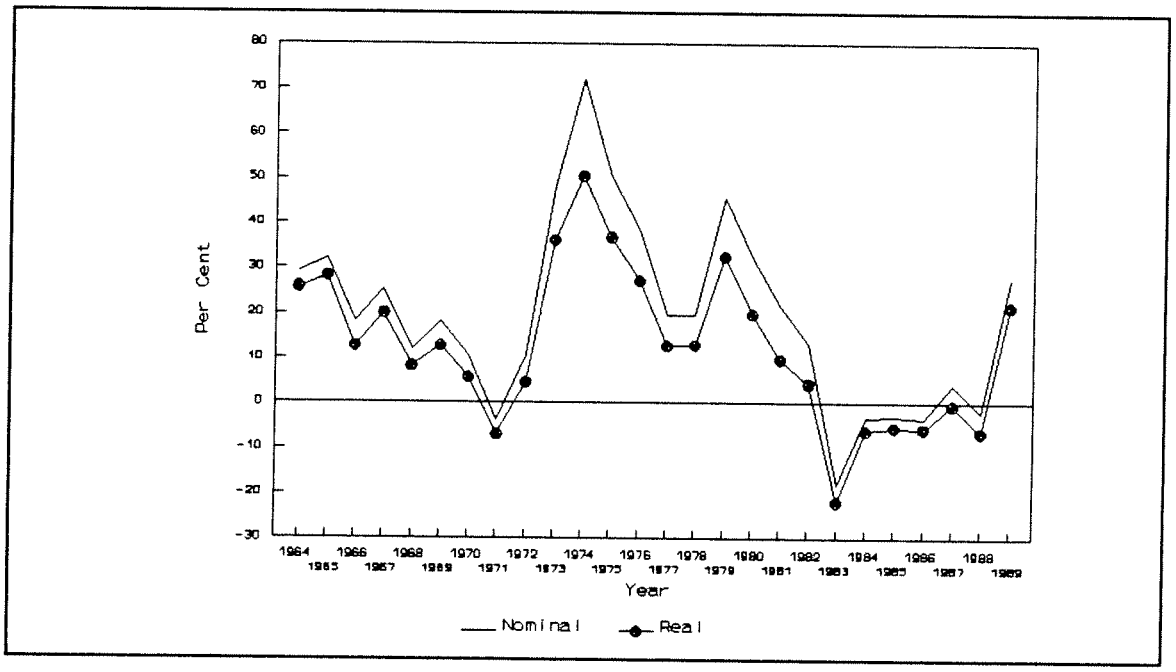


Figure 8
Annualized Nominal and Real Rates of Return to Treasury Bills

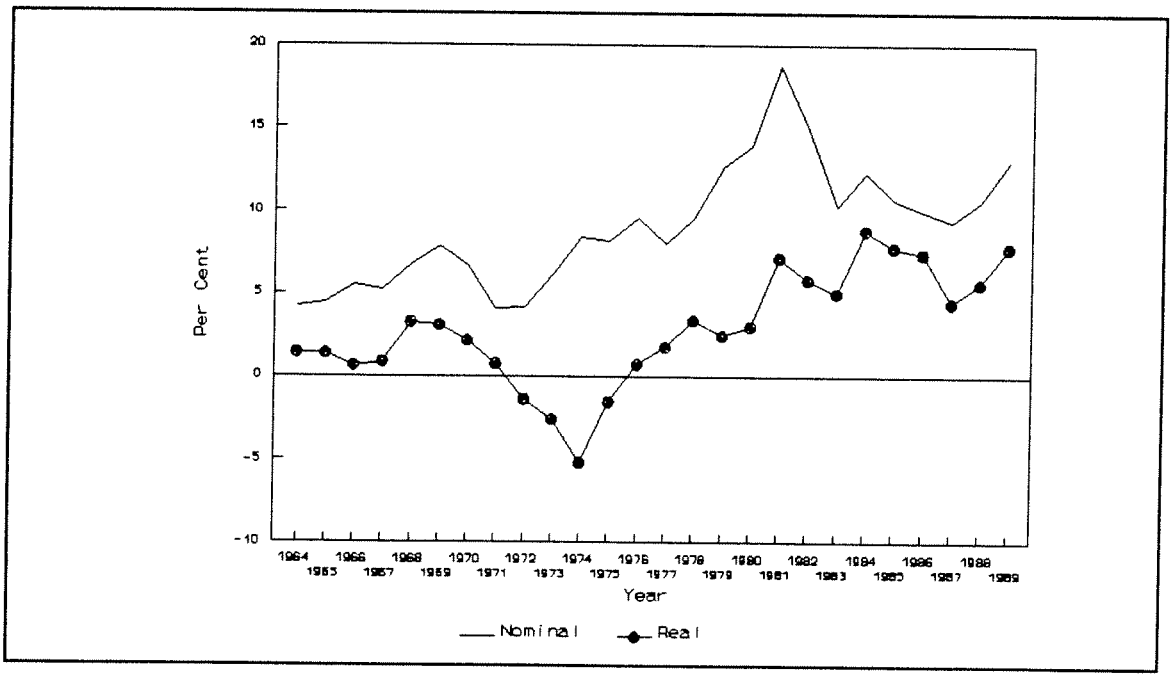


Figure 9
Nominal Rates of Return to Alberta Farmland and the TSE

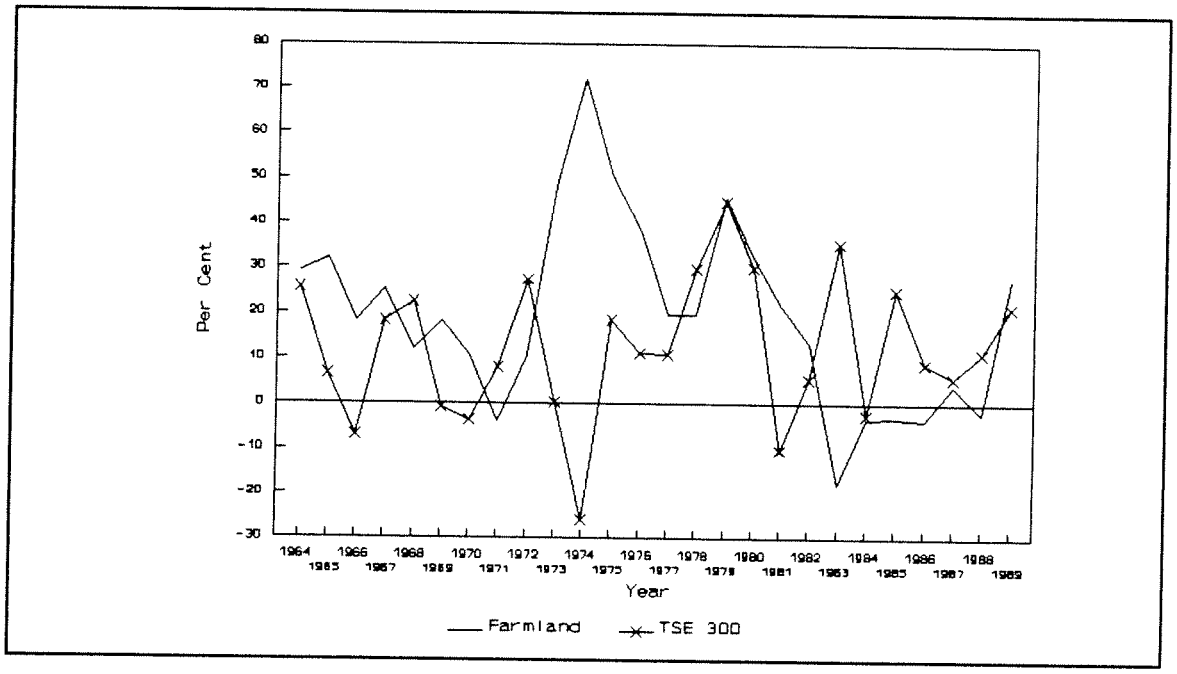


Figure 10
Real Rates of Return to Alberta Farmland and the TSE

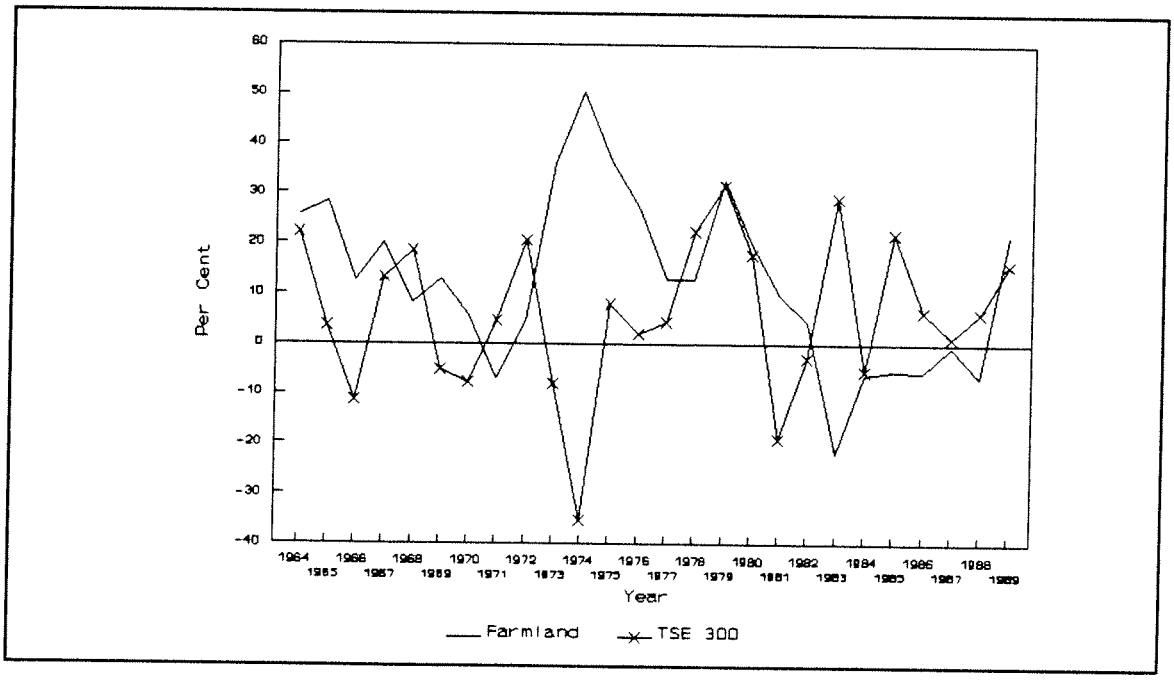
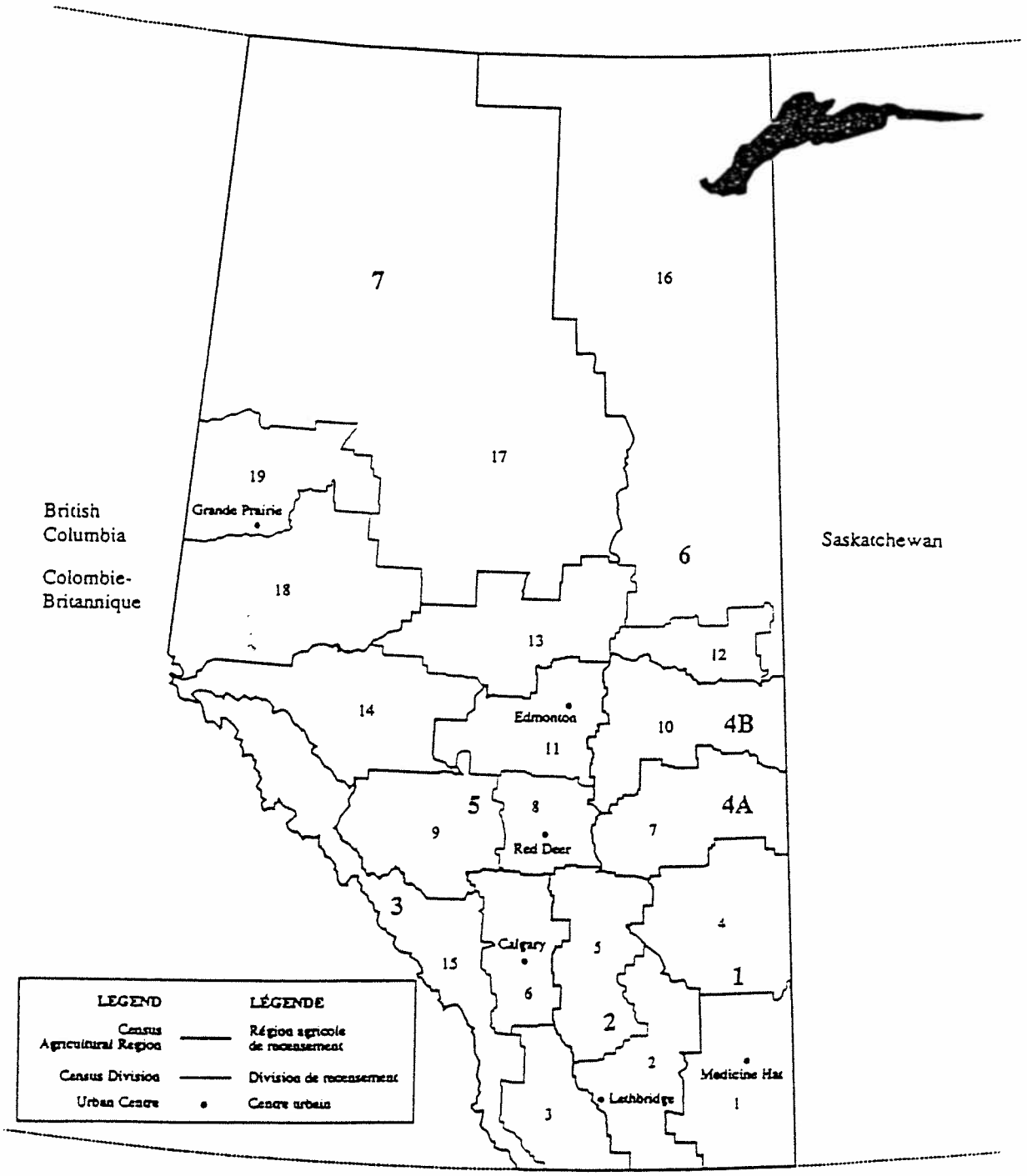


Figure 11
Alberta Census Divisions



Source: 1991 Census of Agriculture, Agriculture Division, Statistics Canada

TABLE 1A

Nominal Performance of Alberta Farmland and the TSE 300

	Capital Gain		Income		Total Return		Risk Premium	
	mean	std	mean	std	mean	std	mean	std
T-Bill					9.04	3.69	12.00	16.21
TSE300	7.97	15.57	4.20	1.05	12.17	16.21	3.13	16.26
Province	10.93	17.50	8.86	5.22	19.80	20.57	10.75	21.08
CD1	16.46	34.95	7.03	4.75	23.49	36.57	14.45	36.03
CD2	9.87	22.60	6.41	3.48	16.28	24.49	7.24	24.45
CD3	11.11	27.48	7.33	4.47	18.44	29.86	9.40	29.76
CD4	15.71	34.39	9.17	5.82	24.88	35.80	15.83	35.95
CD5	10.70	20.38	6.89	4.62	17.59	23.04	8.55	23.83
CD6	10.20	23.18	6.01	3.72	16.22	25.24	7.17	26.13
CD7	11.75	19.92	10.66	6.96	22.41	24.13	13.37	24.64
CD8&9	10.76	20.40	8.50	5.02	19.26	23.38	10.21	24.13
CD10	11.58	20.38	10.07	6.05	21.65	23.28	12.61	23.60
CD11	11.54	18.52	7.07	3.90	18.61	20.05	9.57	20.59
CD12&16	11.25	23.34	12.79	7.87	24.05	27.06	15.00	27.80
CD13&14	11.26	18.35	12.11	7.68	23.37	22.52	14.33	23.60
CD17,18,19	10.75	22.05	15.92	8.80	26.67	26.91	17.63	27.28

TABLE 1B

Real Performance of for Alberta Farmland and the TSE 300

	Capital Gain		Income		Total		Risk Premium	
	mean	std	mean	std	mean	std	mean	std
T-Bill					2.83	3.48		
TSE300	4.78	14.78	1.12	1.51	5.90	15.51	3.08	15.02
Province	4.31	14.09	8.32	4.78	12.63	16.88	9.79	19.37
CD1	9.41	31.15	6.60	4.42	16.01	32.54	13.18	33.47
CD2	3.22	18.98	6.02	3.23	9.24	20.72	6.41	22.76
CD3	4.40	23.51	6.87	4.10	11.27	25.58	8.44	27.18
CD4	8.97	32.06	8.58	5.30	17.55	32.96	14.72	33.70
CD5	4.04	16.68	6.47	4.25	10.51	19.09	7.68	21.84
CD6	3.55	19.30	5.66	3.46	9.22	21.23	6.39	23.87
CD7	5.05	16.37	9.99	6.35	15.04	20.13	12.21	22.61
CD8&9	4.11	16.77	7.98	4.58	12.08	19.44	9.25	22.08
CD10	4.92	17.26	9.44	5.49	14.35	19.70	11.52	21.89
CD11	5.01	16.33	6.65	3.58	11.65	17.64	8.82	19.30
CD12&16	4.60	20.20	11.99	7.15	16.58	23.27	13.75	25.68
CD13&14	4.72	15.82	11.37	7.03	16.09	19.49	13.26	21.83
CD17,18,19	4.25	19.88	14.93	8.02	19.18	24.10	16.35	25.60

TABLE 2A

Nominal Alpha and Beta Coefficients for Alberta Farmland and the TSE 300

	Alpha	T-ratio		Beta	T ratio	
TSE 300 TRI	0.0000			1.0000		
Province	11.2650	2.6413	*	-0.1632	-0.6215	
Census Division 1	17.3180	2.5877	*	-0.9165	-2.2247	*
Census Division 2	7.8907	1.5976		-0.2087	-0.6864	
Census Division 3	11.1110	1.9180		-0.5475	-1.5353	
Census Division 4	18.4910	2.7306	*	-0.8484	-2.0352	
Census Division 5	9.6296	2.0388	*	-0.3456	-1.1887	
Census Division 6&15	7.8878	1.4951		-0.2278	-0.7014	
Census Division 7	13.9360	2.7927	*	-0.1813	-0.5901	
Census Division 8&9	10.7770	2.2061		-0.1799	-0.5982	
Census Division 10	12.6640	2.6304	*	-0.0172	-0.0581	
Census Division 11	9.7050	2.3122	*	-0.0432	-0.1673	
Census Division 12&16	14.7820	2.6092	*	0.0707	0.2027	
Census Division 13&14	14.3340	2.9780	**	-0.0011	-0.0037	
Census Division 17,18&19	17.7400	3.1891	**	-0.0365	-0.1066	

* Significantly different from zero at the 5% level of probability
** Significantly different from zero at the 1% level of probability

TABLE 2B

Real Alpha and Beta Coefficients for Alberta Farmland and the TSE 300

	Alpha	T-ratio		Beta	T ratio	
TSE 300 TRI	0.0000			1.0000		
Province	10.2100	2.5917	*	-0.1351	-0.5160	
Census Division 1	15.9550	2.5495	*	-0.9020	-2.1688	*
Census Division 2	7.0462	1.5287		-0.2085	-0.6806	
Census Division 3	9.9780	1.8681		-0.5005	-1.4099	
Census Division 4	17.2110	2.6788	*	-0.8104	-1.8979	
Census Division 5	8.5962	1.9675		-0.2997	-1.0320	
Census Division 6&15	6.9740	1.4393		-0.1918	-0.5956	
Census Division 7	12.6290	2.7436	*	-0.1375	-0.4494	
Census Division 8&9	9.7118	2.1627	*	-0.1494	-0.5006	
Census Division 10	11.4890	2.5666	*	0.0111	0.0373	
Census Division 11	8.9068	2.2577	*	-0.0269	-0.1024	
Census Division 12&16	13.4720	2.5696	*	0.0918	0.2634	
Census Division 13&14	13.1790	2.9534	**	0.0262	0.0883	
Census Division 17,18&19	16.3560	3.1250	**	-0.0004	-0.0013	

* Significantly different from zero at the 5% level of probability
** Significantly different from zero at the 1% level of probability

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7. APPENDIX

TABLE A.1
Nominal Land Values per Acre by Census Division (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963	44.39	41.08	75.19	54.89	36.60	58.67	74.01	31.86	59.88	40.30	57.85	31.32	31.64	30.58
1964	51.17	44.51	66.65	66.35	33.96	68.37	86.58	37.87	67.52	47.90	70.83	33.57	40.34	38.21
1965	60.50	42.59	84.46	76.74	31.84	69.33	95.45	47.16	76.34	58.37	81.07	31.69	45.99	41.84
1966	62.79	45.99	94.29	75.06	36.85	84.03	105.09	57.98	89.29	61.92	78.38	34.63	47.61	30.81
1967	72.51	55.46	96.47	85.15	43.17	95.15	125.86	60.01	91.47	70.69	93.08	38.48	52.39	36.02
1968	75.20	59.89	91.57	86.62	57.33	88.07	127.95	69.70	92.24	70.38	121.15	50.08	61.46	39.97
1969	83.50	81.11	106.57	96.01	55.03	82.43	135.94	60.84	85.13	63.23	129.11	48.05	53.50	24.25
1970	86.27	60.92	104.46	83.97	57.57	78.31	126.01	57.09	86.14	56.14	134.28	47.83	58.97	34.72
1971	77.11	78.60	104.16	87.38	41.31	94.35	150.84	53.63	79.53	59.74	132.72	42.33	64.20	36.97
1972	75.27	60.11	118.47	85.14	61.44	91.33	138.94	57.09	95.23	67.87	130.28	44.52	51.32	41.00
1973	92.03	93.95	145.36	119.28	59.66	111.41	197.55	62.51	111.22	71.15	139.93	53.31	63.89	47.82
1974	141.64	134.56	192.64	200.25	114.08	194.62	354.94	100.55	188.21	103.28	185.58	78.72	89.16	57.91
1975	194.26	172.00	302.22	277.72	144.08	269.52	441.96	150.07	237.00	147.70	250.34	112.16	121.02	77.95
1976	251.50	314.86	439.43	265.26	155.48	317.34	544.67	194.17	309.28	206.14	335.93	126.86	162.33	111.76
1977	285.89	301.93	425.27	315.70	221.03	408.12	608.88	220.16	377.03	256.54	461.64	192.73	224.17	130.15
1978	322.46	263.49	444.81	346.00	183.40	451.63	578.26	230.66	476.78	266.07	535.77	185.76	227.29	161.62
1979	446.96	388.43	671.57	517.90	154.84	505.36	930.35	299.67	602.33	385.58	658.23	295.59	340.35	200.85
1980	560.63	377.62	833.21	552.27	194.56	685.80	1094.63	415.11	874.06	489.10	894.49	406.95	377.72	217.76
1981	652.03	758.93	1189.25	1043.37	216.05	811.29	1242.45	554.39	857.34	591.27	1011.96	412.42	414.79	304.91
1982	713.78	811.39	1265.99	756.30	309.50	844.30	1075.82	573.85	1004.81	706.24	1166.11	462.42	449.21	350.98
1983	556.45	461.71	947.83	607.56	193.94	788.17	913.77	521.05	749.07	536.19	678.06	406.08	397.56	252.14
1984	513.27	521.14	913.97	701.86	219.98	643.15	849.75	464.64	739.25	491.39	740.68	333.25	356.54	256.17
1985	478.44	499.42	753.15	595.41	203.84	596.29	717.32	452.22	603.47	434.98	751.77	313.67	374.77	244.61
1986	442.01	340.44	611.92	635.93	442.47	480.78	630.44	489.70	605.85	400.89	753.97	322.37	387.40	249.62
1987	439.74	465.87	484.44	483.44	607.98	559.54	609.98	471.20	631.75	421.20	728.75	459.94	443.19	169.70
1988	399.72	753.46	538.91	452.16	534.30	495.31	529.69	380.29	520.30	331.15	567.83	358.91	367.05	208.18
1989	484.41	699.10	518.12	425.15	597.72	554.72	566.29	390.68	565.27	454.15	661.17	295.37	360.39	242.48

TABLE A.2
Nominal Rental Income per Acre by Census Division (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963	6.67	2.24	5.57	6.88	6.04	7.61	8.83	9.46	9.21	8.31	7.26	5.70	6.05	3.33
1964	6.19	3.67	6.41	5.78	3.02	6.84	8.19	5.33	8.03	5.14	6.77	4.06	7.09	6.96
1965	7.14	5.26	7.94	7.64	5.30	7.58	8.99	6.67	7.60	6.91	7.89	5.93	6.00	5.43
1966	8.69	7.91	10.07	9.22	6.12	9.91	11.08	7.92	10.05	6.49	9.41	5.66	8.70	7.14
1967	6.06	4.20	6.55	5.23	3.76	5.72	7.24	5.97	7.58	6.63	7.43	6.07	5.57	4.60
1968	5.96	5.30	7.39	7.22	3.52	6.27	8.17	4.71	6.13	4.40	6.10	4.06	5.92	6.55
1969	5.27	3.84	5.99	5.62	3.90	5.28	6.57	4.86	6.14	4.96	5.78	5.08	5.56	3.80
1970	5.91	3.82	5.59	5.37	4.63	4.94	6.98	5.31	6.88	5.83	7.16	5.19	5.69	5.07
1971	5.75	4.25	5.85	5.70	4.07	5.59	6.56	5.54	5.81	5.81	6.66	4.90	4.59	5.46
1972	9.89	6.08	10.19	11.51	5.04	8.62	12.59	9.29	13.46	9.30	12.27	8.53	9.98	9.13
1973	19.57	12.51	16.92	17.13	15.23	19.60	24.67	19.06	21.57	21.39	23.58	17.87	19.75	17.34
1974	16.69	10.41	16.62	18.84	12.94	17.29	22.51	14.63	21.22	14.86	18.70	13.41	14.57	14.55
1975	18.64	13.32	21.22	21.31	13.08	17.69	20.92	16.19	22.39	17.32	22.00	17.96	18.93	16.72
1976	17.08	13.05	17.95	19.25	12.67	14.50	17.46	16.06	21.06	16.78	20.79	16.94	19.65	15.21
1977	15.18	9.03	9.93	13.11	8.16	10.85	18.71	13.51	22.71	17.25	21.10	15.75	16.44	11.44
1978	19.65	16.91	23.19	23.74	10.55	18.55	23.32	15.89	23.56	18.05	21.29	17.97	17.58	17.18
1979	23.16	17.31	24.79	19.48	16.37	19.59	25.19	24.58	29.23	23.87	27.45	22.97	20.31	20.10
1980	31.61	21.86	35.63	31.32	18.60	28.48	36.24	33.10	37.83	33.34	35.59	29.36	31.11	27.95
1981	29.82	26.01	38.62	36.68	19.51	32.88	36.67	25.04	35.14	27.65	32.81	27.15	9.19	21.88
1982	25.48	20.72	29.04	24.95	17.67	25.28	29.48	29.76	26.92	27.63	27.27	22.61	23.84	18.06
1983	29.31	23.06	31.93	26.71	19.90	27.04	33.48	29.65	37.30	27.67	27.76	28.09	27.05	29.63
1984	24.99	12.67	21.62	12.36	11.66	17.11	18.98	25.42	36.57	31.11	35.25	28.16	32.34	27.05
1985	19.63	9.35	18.96	10.32	9.16	14.64	16.58	21.92	24.52	23.70	31.80	23.50	28.27	17.26
1986	19.65	13.60	18.99	18.70	10.76	19.27	25.55	21.01	25.28	21.03	24.28	17.47	20.95	9.56
1987	20.28	15.14	22.81	20.39	9.25	18.05	23.93	18.94	25.09	20.09	22.78	18.65	21.74	14.19
1988	30.05	12.30	25.06	17.90	7.07	25.34	35.41	26.52	45.04	32.37	43.82	32.92	41.14	36.10
1989	24.96	16.32	31.23	23.55	7.61	19.80	29.53	20.71	33.82	27.91	30.52	23.88	26.34	25.58

TABLE A.3

Market and Financial Data (1963-1989)

	GDP index	Inflation rate	Nominal T-Bill	Nominal TSE300	Real T-Bill	Real TSE300	Premium nominal	Premium real
1963	25.00							
1964	25.70	2.80	4.24	25.43	1.40	22.02	21.19	20.62
1965	26.50	3.11	4.48	6.68	1.33	3.46	2.20	2.13
1966	27.80	4.91	5.55	-7.07	0.62	-11.41	-12.62	-12.03
1967	29.00	4.32	5.21	18.09	0.86	13.20	12.88	12.34
1968	30.00	3.45	6.80	22.45	3.24	18.36	15.65	15.12
1969	31.40	4.67	7.87	-0.81	3.06	-5.23	-8.67	-8.29
1970	32.80	4.46	6.68	-3.57	2.13	-7.68	-10.25	-9.81
1971	33.90	3.35	4.11	8.01	0.73	4.50	3.90	3.77
1972	35.80	5.60	4.13	27.38	-1.40	20.62	23.26	22.02
1973	39.00	8.94	6.13	0.27	-2.58	-7.95	-5.85	-5.37
1974	44.60	14.36	8.41	-25.93	-5.20	-35.23	-34.34	-30.03
1975	49.00	9.87	8.19	18.48	-1.53	7.84	10.30	9.37
1976	53.30	8.78	9.55	11.02	0.72	2.07	1.47	1.35
1977	56.60	6.19	8.04	10.71	1.74	4.25	2.66	2.51
1978	60.00	6.01	9.56	29.72	3.35	22.37	20.16	19.02
1979	66.00	10.00	12.66	44.77	2.42	31.61	32.11	29.19
1980	73.00	10.61	13.92	30.13	2.99	17.66	16.22	14.66
1981	80.90	10.82	18.74	-10.25	7.15	-19.01	-28.99	-26.16
1982	87.90	8.65	14.96	5.54	5.81	-2.86	-9.42	-8.67
1983	92.30	5.01	10.26	35.49	5.01	29.03	25.22	24.02
1984	95.20	3.14	12.23	-2.39	8.81	-5.37	-14.62	-14.17
1985	97.70	2.63	10.60	25.07	7.77	21.87	14.46	14.09
1986	100.00	2.35	9.91	8.95	7.38	6.45	-0.95	-0.93
1987	104.70	4.70	9.33	5.88	4.43	1.13	-3.45	-3.30
1988	109.60	4.68	10.54	11.08	5.60	6.12	0.54	0.51
1989	114.90	4.84	12.98	21.37	7.77	15.77	8.39	8.00
mean		6.09	9.04	12.17	2.83	5.91	3.13	3.08
std		3.15	3.69	15.89	3.48	15.51	16.26	15.02

TABLE A.4
Nominal Returns from Captial Gain by Census Division in Per Cent (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963														
1964	15.27	8.36	-11.36	20.87	-7.20	16.54	17.00	18.89	12.76	18.85	22.45	7.16	27.50	24.94
1965	18.23	-4.33	26.71	15.67	-6.25	1.40	10.24	24.51	13.06	21.87	14.46	-5.58	14.03	9.52
1966	3.79	7.99	11.64	-2.19	15.73	21.20	10.10	22.96	16.96	6.09	-3.32	9.25	3.52	-26.37
1967	15.48	20.59	2.31	13.43	17.17	13.23	19.77	3.50	2.44	14.16	18.75	11.11	10.03	16.91
1968	3.71	7.99	-5.08	1.73	32.79	-7.44	1.66	16.15	0.84	-0.43	30.15	30.17	17.31	10.95
1969	11.04	35.43	16.38	10.84	-4.01	-6.40	6.24	-12.71	-7.71	-10.17	6.57	-4.05	-12.94	-39.33
1970	3.32	-24.89	-1.98	-12.55	4.62	-5.00	-7.30	-6.16	1.18	-11.21	4.01	-0.46	10.21	43.20
1971	-10.62	29.02	-0.29	4.07	-28.24	20.48	19.70	-6.08	-7.67	6.40	-1.16	-11.50	8.87	6.49
1972	-2.39	-23.52	13.73	-2.56	48.71	-3.21	-7.89	6.45	19.73	13.61	-1.84	5.18	-20.06	10.90
1973	22.27	56.29	22.70	40.10	-2.88	21.99	42.18	9.51	16.79	4.84	7.41	19.73	24.49	16.62
1974	53.91	43.23	32.52	67.88	91.21	74.68	79.67	60.85	69.23	45.16	32.62	47.67	39.54	21.11
1975	37.15	27.82	56.89	38.68	26.30	38.48	24.52	49.25	25.92	43.02	34.90	42.48	35.74	34.59
1976	29.47	83.06	45.40	-4.48	7.91	17.75	23.24	29.39	30.50	39.56	34.19	13.11	34.13	43.37
1977	13.67	-4.11	-3.22	19.01	42.16	28.61	11.79	13.38	21.91	24.45	37.42	51.92	38.10	16.46
1978	12.79	-12.73	4.59	9.60	-17.02	10.66	-5.03	4.77	26.46	3.71	16.06	-3.62	1.39	24.18
1979	38.61	47.42	50.98	49.68	-15.57	11.90	60.89	29.92	26.33	44.92	22.86	59.13	49.74	24.27
1980	25.43	-2.78	24.07	6.64	25.66	35.70	17.66	38.52	45.11	26.85	35.89	37.67	10.98	8.42
1981	16.30	100.98	42.73	88.92	11.04	18.30	13.50	33.55	-1.91	20.89	13.13	1.34	9.82	40.02
1982	9.47	6.91	6.45	-27.51	43.26	4.07	-13.41	3.51	17.20	19.44	15.23	12.12	8.30	15.11
1983	-22.04	-43.10	-25.13	-19.67	-37.34	-6.65	-15.06	-9.20	-25.45	-24.08	-41.85	-12.18	-11.50	-28.16
1984	-7.76	12.87	-3.57	15.52	13.43	-18.40	-7.01	-10.83	-1.31	-8.36	9.23	-17.94	-10.32	1.60
1985	-6.79	-4.17	-17.60	-15.17	-7.34	-7.29	-15.58	-2.67	-18.37	-11.48	1.50	-5.87	5.11	-4.52
1986	-7.61	-31.83	-18.75	6.81	117.07	-19.37	-12.11	8.29	0.39	-7.84	0.29	2.77	3.37	2.05
1987	-0.51	36.84	-20.83	-23.98	37.41	16.38	-3.25	-3.78	4.28	5.07	-3.34	42.67	14.40	-32.02
1988	-9.10	61.73	11.24	-6.47	-12.12	-11.48	-13.16	-19.29	-17.64	-21.38	-22.08	-21.97	-17.18	22.68
1989	21.19	-7.21	-3.86	-5.97	11.87	12.00	6.91	2.73	8.64	37.14	16.44	-17.70	-1.81	16.48
mean	10.93	16.46	9.87	11.11	15.71	10.70	10.20	11.75	10.76	11.58	11.54	11.25	11.26	10.75
std	17.50	34.95	22.60	27.48	34.39	20.38	23.18	19.92	20.40	20.38	18.52	23.34	18.35	22.05

TABLE A.5
Nominal Returns from Income by Census Division in Per Cent (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963														
1964	13.95	8.93	8.53	10.52	8.26	11.66	11.06	16.73	13.42	12.76	11.71	12.96	22.41	22.76
1965	13.95	11.81	11.91	11.52	15.60	11.09	10.39	17.61	11.25	14.44	11.14	17.67	14.87	14.21
1966	14.37	18.57	11.92	12.01	19.21	14.29	11.61	16.80	13.16	11.13	11.61	17.86	18.92	17.06
1967	9.66	9.14	6.94	6.97	10.21	6.81	6.89	10.29	8.49	10.70	9.48	17.54	11.69	14.92
1968	8.22	9.56	7.66	8.48	8.16	6.59	6.49	7.84	6.70	6.23	6.55	10.56	11.29	18.19
1969	7.01	6.41	6.54	6.49	6.80	5.99	5.14	6.97	6.66	7.05	4.77	10.15	9.04	9.51
1970	7.08	4.71	5.24	5.59	8.42	6.00	5.13	8.73	8.08	9.22	5.54	10.80	10.63	20.90
1971	6.67	6.97	5.60	6.79	7.08	7.14	5.20	9.70	6.74	10.35	4.96	10.24	7.79	15.74
1972	12.82	7.73	9.78	13.17	12.20	9.13	8.34	17.32	16.92	15.57	9.24	20.16	15.55	24.68
1973	26.00	20.81	14.28	20.12	24.78	21.46	17.75	33.38	22.65	31.52	18.10	40.13	38.47	42.29
1974	18.14	11.08	11.43	15.79	21.70	15.52	11.39	23.40	19.08	20.89	13.36	25.15	22.80	30.43
1975	13.16	9.90	11.02	10.64	11.47	9.09	5.89	16.10	11.89	16.77	11.86	22.82	21.23	28.87
1976	8.79	7.59	5.94	6.93	8.79	5.38	3.95	10.70	8.89	11.36	8.30	15.10	16.23	19.51
1977	6.04	2.87	2.26	4.94	5.25	3.42	3.44	6.96	7.34	8.37	6.28	12.41	10.13	10.24
1978	6.87	5.60	5.45	7.52	4.77	4.55	3.83	7.22	6.25	7.03	4.61	9.32	7.84	13.20
1979	7.18	6.57	5.57	5.63	8.93	4.34	4.36	10.66	6.13	8.97	5.12	12.36	8.94	12.44
1980	7.07	5.63	5.31	6.05	12.01	5.64	3.90	11.05	6.28	8.65	5.41	9.93	9.14	13.91
1981	5.32	6.89	4.63	6.64	10.03	4.79	3.35	6.03	4.02	5.65	3.67	6.67	2.43	10.05
1982	3.91	2.73	2.44	2.39	8.18	3.12	2.37	5.37	3.14	4.67	2.70	5.48	5.75	5.92
1983	4.11	2.84	2.52	3.53	6.43	3.20	3.11	5.17	3.71	3.92	2.38	6.08	6.02	8.44
1984	4.49	2.74	2.28	2.04	6.01	2.17	2.08	4.88	4.88	5.80	5.20	6.93	8.13	10.73
1985	3.82	1.79	2.07	1.47	4.17	2.28	1.95	4.72	3.32	4.82	4.29	7.05	7.93	6.74
1986	4.11	2.72	2.52	3.14	5.28	3.23	3.56	4.65	4.19	4.84	3.23	5.57	5.59	3.91
1987	4.59	4.45	3.73	3.21	2.09	3.75	3.80	3.87	4.14	5.01	3.02	5.79	5.61	5.69
1988	6.83	2.64	5.17	3.70	1.16	4.53	5.81	5.63	7.13	7.69	6.01	7.16	9.28	21.27
1989	6.24	2.17	5.79	5.21	1.42	4.00	5.57	5.45	6.50	8.43	5.38	6.65	7.18	12.29
mean	8.86	7.03	6.41	7.33	9.17	6.89	6.01	10.66	8.50	10.07	7.07	12.79	12.11	15.92
std	5.22	4.75	3.48	4.47	5.82	4.62	3.72	6.96	5.02	6.05	3.90	7.87	7.68	8.80

TABLE A.6
Nominal Total Returns by Census Division in Per Cent (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963														
1964	29.23	17.29	-2.83	31.40	1.06	28.20	28.06	35.63	26.17	31.60	34.16	20.12	49.91	47.70
1965	32.18	7.48	38.62	27.18	9.35	12.49	20.63	42.12	24.31	36.30	25.60	12.09	28.90	23.73
1966	18.15	26.56	23.56	9.83	34.94	35.50	21.71	39.76	30.12	17.21	8.29	27.12	22.44	-9.31
1967	25.14	29.72	9.25	20.40	27.39	20.04	26.66	13.78	10.92	24.86	28.23	28.65	21.72	31.83
1968	11.93	17.55	2.58	10.21	40.95	-0.85	8.15	24.00	7.54	5.79	36.70	40.73	28.60	29.14
1969	18.05	41.84	22.93	17.33	2.78	-0.40	11.38	-5.74	-1.05	-3.12	11.34	6.10	-3.90	-29.82
1970	10.39	-20.18	3.27	-6.95	13.04	1.00	-2.17	2.57	9.26	-1.98	9.55	10.34	20.84	64.09
1971	-3.95	36.00	5.32	10.86	-21.17	27.62	24.91	3.62	-0.93	16.75	3.79	-1.27	16.65	22.22
1972	10.43	-15.79	23.51	10.61	60.91	5.93	0.46	23.77	36.65	29.18	7.41	25.34	-4.50	35.58
1973	48.26	77.10	36.99	60.22	21.90	43.46	59.93	42.89	39.44	36.36	25.50	59.86	62.97	58.91
1974	72.04	54.30	43.95	83.67	112.90	90.20	91.07	84.25	88.31	66.04	45.99	72.83	62.34	51.54
1975	50.31	37.72	67.90	49.32	37.77	47.57	30.41	65.35	37.81	59.79	46.75	65.30	56.97	63.46
1976	38.26	90.65	51.34	2.45	16.70	23.12	27.19	40.09	39.38	50.92	42.49	28.21	50.37	62.89
1977	19.71	-1.24	-0.96	23.96	47.41	32.03	15.23	20.34	29.25	32.82	43.71	64.34	48.23	26.69
1978	19.66	-7.13	10.05	17.12	-12.25	15.21	-1.20	11.98	32.71	10.75	20.67	5.71	9.23	37.38
1979	45.79	53.99	56.56	55.31	-6.65	16.24	65.24	40.58	32.46	53.89	27.98	71.49	58.68	36.71
1980	32.50	2.84	29.38	12.68	37.67	41.34	21.55	49.57	51.39	35.49	41.30	47.61	20.12	22.33
1981	21.62	107.87	47.37	95.57	21.07	23.09	16.85	39.58	2.11	26.54	16.80	8.01	12.25	50.07
1982	13.38	9.64	8.89	-25.12	51.44	7.19	-11.04	8.88	20.34	24.12	17.93	17.61	14.04	21.03
1983	-17.94	-40.25	-22.61	-16.13	-30.91	-3.45	-11.95	-4.03	-21.74	-20.16	-39.47	-6.11	-5.48	-19.72
1984	-3.27	15.62	-1.29	17.56	19.44	-16.23	-4.93	-5.95	3.57	-2.55	14.43	-11.00	-2.19	12.33
1985	-2.96	-2.38	-15.52	-13.70	-3.17	-5.01	-13.63	2.04	-15.05	-6.66	5.79	1.18	13.04	2.22
1986	-3.51	-29.11	-16.23	9.95	122.35	-16.14	-8.55	12.93	4.58	-3.00	3.52	8.34	8.96	5.96
1987	4.07	41.29	-17.11	-20.77	39.50	20.14	0.55	0.09	8.42	10.08	-0.32	48.46	20.01	-26.33
1988	-2.27	64.37	16.42	-2.77	-10.96	-6.95	-7.36	-13.67	-10.51	-13.69	-16.07	-14.81	-7.90	43.95
1989	27.43	-5.05	1.94	-0.77	13.29	15.99	12.48	8.18	15.15	45.57	21.81	-11.05	5.36	28.76
mean	19.80	23.49	16.28	18.44	24.88	17.59	16.22	22.41	19.26	21.65	18.61	24.05	23.37	26.67
std	20.57	36.57	24.49	29.86	35.80	23.04	25.24	24.13	23.38	23.28	20.05	27.06	22.52	26.91

TABLE A.7
Nominal Risk Premium by Census Division in Per Cent (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963														
1964	24.99	13.05	-7.07	27.16	-3.18	23.96	23.82	31.39	21.93	27.36	29.92	15.88	45.67	43.46
1965	27.70	3.00	34.14	22.70	4.87	8.00	16.14	37.64	19.83	31.82	21.12	7.60	24.42	19.24
1966	12.60	21.01	18.00	4.27	29.39	29.94	16.16	34.21	24.57	11.66	2.74	21.57	16.89	-14.86
1967	19.93	24.51	4.04	15.19	22.17	14.83	21.44	8.57	5.71	19.65	23.02	23.44	16.51	26.62
1968	5.13	10.75	-4.22	3.41	34.15	-7.65	1.35	17.20	0.74	-1.01	29.90	33.93	21.80	22.34
1969	10.18	33.98	15.06	9.46	-5.08	-8.27	3.51	-13.60	-8.91	-10.98	3.48	-1.77	-11.77	-37.68
1970	3.71	-26.86	-3.41	-13.63	6.36	-5.68	-8.85	-4.11	2.58	-8.66	2.87	3.66	14.16	57.41
1971	-8.06	31.89	1.21	6.75	-25.27	23.52	20.80	-0.48	-5.03	12.65	-0.31	-5.37	12.55	18.12
1972	6.31	-19.92	19.38	6.48	56.78	1.80	-3.67	19.64	32.53	25.06	3.28	21.21	-8.63	31.46
1973	42.14	70.97	30.86	54.09	15.77	37.33	53.81	36.77	33.31	30.23	19.38	53.73	56.84	52.78
1974	63.63	45.89	35.54	75.26	104.49	81.79	82.65	75.84	79.90	57.63	37.57	64.41	53.93	43.13
1975	42.13	29.53	59.72	41.13	29.58	39.38	22.22	57.16	29.63	51.60	38.57	57.11	48.78	55.27
1976	28.71	81.10	41.79	-7.11	7.15	13.57	17.64	30.54	29.83	41.37	32.94	18.65	40.81	53.33
1977	11.67	-9.28	-9.01	15.91	39.37	23.98	7.18	12.30	21.21	24.78	35.66	56.30	40.18	18.65
1978	10.11	-16.69	0.49	7.56	-21.80	5.65	-10.76	2.43	23.15	1.19	11.11	-3.85	-0.32	27.83
1979	33.13	41.33	43.90	42.65	-19.31	3.58	52.58	27.92	19.80	41.23	15.32	58.83	46.02	24.05
1980	18.59	-11.07	15.46	-1.23	23.75	27.42	7.64	35.65	37.47	21.58	27.38	33.69	6.20	8.41
1981	2.88	89.12	28.62	76.82	2.33	4.35	-1.89	20.84	-16.64	7.80	-1.94	-10.73	-6.49	31.32
1982	-1.58	-5.32	-6.07	-40.08	36.47	-7.78	-26.00	-6.08	5.38	9.16	2.97	2.65	-0.92	6.07
1983	-28.20	-50.52	-32.87	-26.40	-41.17	-13.71	-22.21	-14.30	-32.00	-30.42	-49.74	-16.37	-15.74	-29.98
1984	-15.49	3.39	-13.52	5.33	7.21	-28.45	-17.15	-18.17	-8.65	-14.78	2.21	-23.23	-14.41	0.10
1985	-13.56	-12.98	-26.12	-24.30	-13.77	-15.61	-24.24	-8.56	-25.65	-17.26	-4.81	-9.43	2.44	-8.38
1986	-13.42	-39.02	-26.14	0.04	112.44	-26.05	-18.46	3.02	-5.32	-12.91	-6.39	-1.57	-0.95	-3.95
1987	-5.26	31.96	-26.44	-30.11	30.16	10.80	-8.78	-9.24	-0.92	0.75	-9.66	39.13	10.68	-35.66
1988	-12.81	53.83	5.87	-13.31	-21.50	-17.49	-17.90	-24.21	-21.06	-24.24	-26.61	-25.35	-18.44	33.40
1989	14.45	-18.03	-11.05	-13.75	0.31	3.01	-0.50	-4.80	2.16	32.59	8.83	-24.03	-7.62	15.78
mean	10.75	14.45	7.24	9.40	15.83	8.55	7.17	13.37	10.21	12.61	9.57	15.00	14.33	17.63
std	21.08	36.03	24.45	29.76	35.95	23.83	26.13	24.64	24.13	23.60	20.59	27.80	23.60	27.28

TABLE A.8
Real Land Values per Acre by Census Division (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963	177.56	164.32	300.78	219.56	146.39	234.67	296.02	127.42	239.54	161.21	231.38	125.30	126.55	122.32
1964	199.11	173.21	259.35	258.16	132.15	266.05	336.90	147.37	262.74	186.37	275.61	130.61	156.95	148.67
1965	228.30	160.71	318.72	289.59	120.15	261.62	360.18	177.96	288.09	220.27	305.94	119.60	173.56	157.90
1966	225.86	165.43	339.17	270.01	132.54	302.27	378.02	208.58	321.20	222.75	281.95	124.56	171.27	110.83
1967	250.03	191.24	332.64	293.61	148.87	328.11	434.01	206.94	315.41	243.76	320.97	132.67	180.66	124.21
1968	250.67	199.63	305.23	288.73	191.10	293.56	426.50	232.35	307.47	234.61	403.82	166.94	204.85	133.22
1969	265.92	258.30	339.40	305.77	175.26	262.53	432.92	193.77	271.12	201.36	411.17	153.04	170.39	77.22
1970	263.02	185.73	318.48	255.99	175.53	238.76	384.18	174.07	262.61	171.16	409.38	145.83	179.78	105.85
1971	227.46	231.86	307.27	257.76	121.87	278.33	444.95	158.19	234.61	176.21	391.49	124.87	189.37	109.06
1972	210.25	167.91	330.92	237.82	171.61	255.10	388.11	159.46	266.00	189.57	363.91	124.36	143.36	114.53
1973	235.97	240.89	372.73	305.86	152.99	285.67	506.53	160.29	285.17	182.44	358.79	136.69	163.83	122.61
1974	317.58	301.71	431.92	449.00	255.79	436.37	795.82	225.46	422.00	231.56	416.10	176.51	199.90	129.85
1975	396.45	351.01	616.77	566.77	294.05	550.04	901.96	306.27	483.67	301.44	510.91	228.90	246.97	159.08
1976	471.86	590.72	824.44	497.67	291.70	595.39	1021.89	364.30	580.26	386.75	630.26	238.01	304.55	209.68
1977	505.11	533.44	751.36	557.77	390.50	721.06	1075.76	388.98	666.13	453.25	815.62	340.51	396.06	229.94
1978	537.43	439.15	741.34	576.67	305.66	752.72	963.77	384.43	794.64	443.44	892.94	309.60	378.81	269.37
1979	677.21	588.53	1017.54	784.70	234.60	765.70	1409.62	454.05	912.63	584.21	997.32	447.86	515.68	304.32
1980	767.99	517.28	1141.39	756.53	266.52	939.45	1499.50	568.65	1197.34	670.00	1225.33	557.47	517.42	298.30
1981	805.97	938.11	1470.03	1289.71	267.06	1002.83	1535.78	685.28	1059.75	730.87	1250.88	509.79	512.72	376.90
1982	812.04	923.08	1440.26	860.41	352.11	960.53	1223.91	652.84	1143.13	803.45	1326.63	526.08	511.04	399.29
1983	602.87	500.22	1026.91	658.25	210.12	853.92	990.00	564.52	811.56	580.92	734.63	439.96	430.73	273.18
1984	539.15	547.42	960.05	737.25	231.07	675.58	892.59	488.07	776.52	516.16	778.02	350.05	374.51	269.09
1985	489.70	511.17	770.88	609.43	208.64	610.33	734.21	462.87	617.67	445.22	769.46	321.06	383.59	250.37
1986	442.01	340.44	611.92	635.93	442.47	480.78	630.44	489.70	605.85	400.89	753.97	322.37	387.40	249.62
1987	420.00	444.96	462.70	461.74	580.69	534.42	582.60	450.05	603.39	402.29	696.04	439.30	423.30	162.08
1988	364.71	687.46	491.70	412.55	487.50	451.92	483.30	346.98	474.72	302.14	518.10	327.47	334.90	189.94
1989	421.59	608.44	450.93	370.02	520.21	482.79	492.86	340.02	491.97	395.25	575.43	257.06	313.65	211.03

TABLE A.9
Real Rental Income per Acre by Census Division (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963	26.70	8.96	22.29	27.50	24.16	30.42	35.31	37.86	36.84	33.25	29.05	22.81	24.19	13.33
1964	24.10	14.27	24.95	22.48	11.77	26.61	31.85	20.74	31.26	20.00	26.35	15.80	27.59	27.09
1965	26.93	19.84	29.95	28.84	19.99	28.61	33.94	25.16	28.67	26.09	29.79	22.38	22.63	20.48
1966	31.27	28.45	36.21	33.16	22.01	35.65	39.86	28.50	36.15	23.36	33.85	20.37	31.31	25.68
1967	20.91	14.49	22.58	18.04	12.97	19.73	24.96	20.57	26.13	22.85	25.62	20.95	19.19	15.85
1968	19.87	17.68	24.62	24.06	11.74	20.91	27.24	15.69	20.43	14.67	20.33	13.55	19.72	21.84
1969	16.79	12.23	19.08	17.89	12.41	16.81	20.94	15.48	19.57	15.81	18.41	16.19	17.69	12.11
1970	18.01	11.65	17.04	16.37	14.12	15.07	21.27	16.19	20.98	17.78	21.81	15.82	17.34	15.45
1971	16.96	12.53	17.27	16.82	12.02	16.49	19.34	16.34	17.13	17.14	19.64	14.44	13.54	16.12
1972	27.62	16.97	28.45	32.15	14.08	24.07	35.16	25.94	37.59	25.98	34.27	23.84	27.89	25.49
1973	50.17	32.08	43.39	43.91	39.04	50.26	63.25	48.87	55.30	54.86	60.45	45.81	50.63	44.46
1974	37.43	23.33	37.27	42.23	29.02	38.76	50.46	32.79	47.59	33.32	41.92	30.06	32.66	32.62
1975	38.05	27.19	43.31	43.48	26.70	36.09	42.70	33.05	45.69	35.35	44.90	36.66	38.63	34.12
1976	32.05	24.49	33.69	36.12	23.77	27.20	32.77	30.14	39.51	31.48	39.00	31.78	36.86	28.54
1977	26.82	15.96	17.54	23.17	14.42	19.18	33.06	23.87	40.13	30.49	37.29	27.82	29.05	20.22
1978	32.75	28.18	38.66	39.56	17.59	30.92	38.86	26.48	39.26	30.08	35.48	29.95	29.30	28.64
1979	35.09	26.22	37.57	29.51	24.80	29.69	38.17	37.24	44.28	36.16	41.60	34.80	30.77	30.45
1980	43.31	29.95	48.81	42.90	25.48	39.01	49.65	45.34	51.82	45.66	48.75	40.22	42.61	38.28
1981	36.86	32.16	47.73	45.34	24.12	40.65	45.33	30.95	43.44	34.18	40.56	33.56	11.36	27.04
1982	28.99	23.57	33.03	28.39	20.10	28.76	33.54	33.85	30.62	31.43	31.03	25.72	27.12	20.55
1983	31.76	24.99	34.60	28.94	21.57	29.29	36.28	32.12	40.41	29.98	30.07	30.44	29.30	32.11
1984	26.25	13.31	22.71	12.99	12.25	17.97	19.94	26.71	38.41	32.67	37.03	29.58	33.97	28.41
1985	20.09	9.57	19.41	10.56	9.38	14.98	16.97	22.44	25.10	24.26	32.54	24.05	28.93	17.67
1986	19.65	13.60	18.99	18.70	10.76	19.27	25.55	21.01	25.28	21.03	24.28	17.47	20.95	9.56
1987	19.37	14.46	21.78	19.48	8.83	17.24	22.85	18.09	23.97	19.19	21.75	17.81	20.76	13.56
1988	27.42	11.23	22.87	16.33	6.45	23.12	32.31	24.19	41.10	29.54	39.99	30.04	37.53	32.94
1989	21.72	14.21	27.18	20.49	6.62	17.23	25.70	18.03	29.44	24.29	26.57	20.78	22.92	22.26

TABLE A.10
Real Returns from Captial Gain by Census Division in Per Cent (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963														
1964	12.13	5.41	-13.77	17.58	-9.73	13.37	13.81	15.65	9.69	15.61	19.11	4.24	24.02	21.54
1965	14.66	-7.22	22.89	12.18	-9.08	-1.66	6.91	20.75	9.65	18.19	11.00	-8.43	10.59	6.21
1966	-1.07	2.94	6.42	-6.76	10.31	15.54	4.95	17.21	11.49	1.12	-7.84	4.15	-1.32	-29.81
1967	10.70	15.60	-1.93	8.74	12.32	8.55	14.81	-0.79	-1.80	9.43	13.84	6.52	5.48	12.08
1968	0.25	4.39	-8.24	-1.66	28.37	-10.53	-1.73	12.28	-2.52	-3.75	25.81	25.83	13.39	7.25
1969	6.09	29.39	11.20	5.90	-8.29	-10.57	1.50	-16.60	-11.82	-14.17	1.82	-8.33	-16.82	-42.04
1970	-1.09	-28.09	-6.16	-16.28	0.16	-9.05	-11.26	-10.17	-3.14	-15.00	-0.43	-4.71	5.51	37.08
1971	-13.52	24.84	-3.52	0.69	-30.57	16.57	15.82	-9.12	-10.66	2.95	-4.37	-14.38	5.33	3.03
1972	-7.57	-27.58	7.70	-7.74	40.82	-8.35	-12.78	0.80	13.38	7.58	-7.04	-0.41	-24.30	5.02
1973	12.23	43.46	12.63	28.61	-10.85	11.98	30.51	0.52	7.21	-3.77	-1.41	9.91	14.28	7.05
1974	34.58	25.24	15.88	46.80	67.20	52.75	57.11	40.66	47.98	26.93	15.97	29.13	22.02	5.91
1975	24.83	16.34	42.80	26.23	14.96	26.05	13.34	35.84	14.61	30.17	22.78	29.68	23.55	22.51
1976	19.02	68.29	33.67	-12.19	-0.80	8.25	13.30	18.95	19.97	28.30	23.36	3.98	23.31	31.81
1977	7.05	-9.70	-8.86	12.07	33.87	21.11	5.27	6.77	14.80	17.19	29.41	43.07	30.05	9.67
1978	6.40	-17.68	-1.33	3.39	-21.73	4.39	-10.41	-1.17	19.29	-2.16	9.48	-9.08	-4.35	17.15
1979	26.01	34.02	37.26	36.07	-23.25	1.72	46.26	18.11	14.85	31.74	11.69	44.66	36.13	12.98
1980	13.40	-12.11	12.17	-3.59	13.61	22.69	6.38	25.24	31.20	14.68	22.86	24.47	0.34	-1.98
1981	4.95	81.35	28.79	70.48	0.20	6.75	2.42	20.51	-11.49	9.08	2.09	-8.55	-0.91	26.35
1982	0.75	-1.60	-2.03	-33.29	31.85	-4.22	-20.31	-4.73	7.87	9.93	6.06	3.19	-0.33	5.94
1983	-25.76	-45.81	-28.70	-23.50	-40.33	-11.10	-19.11	-13.53	-29.01	-27.70	-44.62	-16.37	-15.72	-31.58
1984	-10.57	9.43	-6.51	12.00	9.97	-20.89	-9.84	-13.54	-4.32	-11.15	5.91	-20.44	-13.05	-1.50
1985	-9.17	-6.62	-19.70	-17.34	-9.71	-9.66	-17.74	-5.16	-20.46	-13.74	-1.10	-8.28	2.43	-6.96
1986	-9.74	-33.40	-20.62	4.35	112.07	-21.23	-14.13	5.80	-1.91	-9.96	-2.01	0.41	0.99	-0.30
1987	-4.98	30.70	-24.39	-27.39	31.24	11.16	-7.59	-8.10	-0.41	0.35	-7.68	36.27	9.27	-35.07
1988	-13.16	54.50	6.27	-10.65	-16.05	-15.44	-17.04	-22.90	-21.32	-24.89	-25.56	-25.46	-20.88	17.19
1989	15.60	-11.49	-8.29	-10.31	6.71	6.83	1.98	-2.01	3.63	30.82	11.07	-21.50	-6.34	11.10
mean	4.31	9.41	3.22	4.40	8.97	4.04	3.55	5.05	4.11	4.92	5.01	4.60	4.72	4.25
std	14.09	31.15	18.98	23.51	32.06	16.68	19.30	16.37	16.77	17.26	16.33	20.20	15.82	19.88

TABLE A.11
Real Returns from Income by Census Division in Per Cent (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963														
1964	13.57	8.69	8.30	10.24	8.04	11.34	10.76	16.28	13.05	12.41	11.39	12.61	21.80	22.14
1965	13.53	11.46	11.55	11.17	15.13	10.75	10.07	17.07	10.91	14.00	10.81	17.13	14.42	13.78
1966	13.70	17.70	11.36	11.45	18.32	13.63	11.07	16.02	12.55	10.61	11.07	17.03	18.04	16.26
1967	9.26	8.76	6.66	6.68	9.79	6.53	6.60	9.86	8.14	10.26	9.09	16.82	11.21	14.30
1968	7.95	9.24	7.40	8.20	7.89	6.37	6.28	7.58	6.48	6.02	6.33	10.21	10.92	17.59
1969	6.70	6.13	6.25	6.20	6.49	5.73	4.91	6.66	6.36	6.74	4.56	9.70	8.64	9.09
1970	6.77	4.51	5.02	5.35	8.06	5.74	4.91	8.36	7.74	8.83	5.31	10.34	10.18	20.00
1971	6.45	6.75	5.42	6.57	6.85	6.91	5.03	9.39	6.52	10.02	4.80	9.90	7.53	15.23
1972	12.14	7.32	9.26	12.47	11.55	8.65	7.90	16.40	16.02	14.74	8.75	19.09	14.73	23.37
1973	23.86	19.11	13.11	18.47	22.75	19.70	16.30	30.65	20.79	28.94	16.61	36.83	35.32	38.82
1974	15.86	9.69	10.00	13.81	18.97	13.57	9.96	20.46	16.69	18.27	11.68	21.99	19.94	26.61
1975	11.98	9.01	10.03	9.68	10.44	8.27	5.37	14.66	10.83	15.27	10.79	20.77	19.33	26.27
1976	8.08	6.98	5.46	6.37	8.08	4.95	3.63	9.84	8.17	10.44	7.63	13.88	14.92	17.94
1977	5.68	2.70	2.13	4.66	4.94	3.22	3.23	6.55	6.92	7.88	5.92	11.69	9.54	9.64
1978	6.48	5.28	5.15	7.09	4.50	4.29	3.61	6.81	5.89	6.64	4.35	8.80	7.40	12.45
1979	6.53	5.97	5.07	5.12	8.11	3.94	3.96	9.69	5.57	8.15	4.66	11.24	8.12	11.31
1980	6.39	5.09	4.80	5.47	10.86	5.10	3.52	9.99	5.68	7.82	4.89	8.98	8.26	12.58
1981	4.80	6.22	4.18	5.99	9.05	4.33	3.02	5.44	3.63	5.10	3.31	6.02	2.20	9.07
1982	3.60	2.51	2.25	2.20	7.53	2.87	2.18	4.94	2.89	4.30	2.48	5.05	5.29	5.45
1983	3.91	2.71	2.40	3.36	6.12	3.05	2.96	4.92	3.53	3.73	2.27	5.79	5.73	8.04
1984	4.35	2.66	2.21	1.97	5.83	2.10	2.01	4.73	4.73	5.62	5.04	6.72	7.89	10.40
1985	3.73	1.75	2.02	1.43	4.06	2.22	1.90	4.60	3.23	4.70	4.18	6.87	7.73	6.57
1986	4.01	2.66	2.46	3.07	5.16	3.16	3.48	4.54	4.09	4.72	3.16	5.44	5.46	3.82
1987	4.38	4.25	3.56	3.06	2.00	3.58	3.63	3.69	3.96	4.79	2.89	5.53	5.36	5.43
1988	6.53	2.52	4.94	3.54	1.11	4.33	5.55	5.38	6.81	7.34	5.74	6.84	8.87	20.32
1989	5.96	2.07	5.53	4.97	1.36	3.81	5.32	5.20	6.20	8.04	5.13	6.35	6.84	11.72
mean	8.32	6.60	6.02	6.87	8.58	6.47	5.66	9.99	7.98	9.44	6.65	11.99	11.37	14.93
std	4.78	4.42	3.23	4.10	5.30	4.25	3.46	6.35	4.58	5.49	3.58	7.15	7.03	8.02

TABLE A.12
Real Total Returns by Census Division in Per Cent (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963														
1964	25.71	14.09	-5.48	27.82	-1.69	24.71	24.57	31.93	22.74	28.02	30.50	16.85	45.83	43.68
1965	28.19	4.24	34.44	23.35	6.05	9.09	16.98	37.83	20.56	32.19	21.81	8.70	25.01	19.99
1966	12.63	20.64	17.78	4.69	28.63	29.16	16.02	33.22	24.04	11.73	3.23	21.17	16.72	-13.55
1967	19.96	24.36	4.73	15.42	22.11	15.07	21.42	9.08	6.33	19.69	22.93	23.33	16.68	26.38
1968	8.20	13.63	-0.84	6.54	36.25	-4.15	4.54	19.86	3.96	2.27	32.15	36.04	24.31	24.84
1969	12.79	35.52	17.45	12.10	-1.80	-4.85	6.41	-9.94	-5.46	-7.44	6.38	1.37	-8.19	-32.95
1970	5.68	-23.58	-1.14	-10.93	8.21	-3.31	-6.35	-1.81	4.60	-6.17	4.87	5.63	15.69	57.09
1971	-7.07	31.58	1.90	7.26	-23.72	23.48	20.85	0.26	-4.14	12.97	0.43	-4.47	12.87	18.26
1972	4.57	-20.26	16.96	4.74	52.37	0.30	-4.87	17.20	29.40	22.33	1.71	18.69	-9.57	28.39
1973	36.10	62.57	25.75	47.07	11.90	31.69	46.81	31.17	28.00	25.17	15.21	46.74	49.59	45.87
1974	50.44	34.93	25.88	60.61	86.17	66.32	67.07	61.12	64.67	45.19	27.66	51.13	41.96	32.51
1975	36.82	25.36	52.83	35.91	25.39	34.32	18.70	50.50	25.44	45.44	33.58	50.45	42.87	48.78
1976	27.11	75.27	39.13	-5.82	7.29	13.19	16.93	28.79	28.14	38.75	30.99	17.86	38.24	49.75
1977	12.73	-7.00	-6.74	16.73	38.82	24.33	8.51	13.32	21.71	25.08	35.33	54.76	39.58	19.31
1978	12.88	-12.39	3.81	10.48	-17.22	8.68	-6.80	5.64	25.19	4.47	13.83	-0.28	3.04	29.60
1979	32.54	39.99	42.32	41.19	-15.13	5.67	50.22	27.80	20.42	39.90	16.35	55.90	44.26	24.28
1980	19.80	-7.02	16.97	1.88	24.47	27.79	9.90	35.23	36.87	22.50	27.75	33.45	8.60	10.60
1981	9.75	87.57	32.98	76.47	9.25	11.07	5.44	25.95	-7.86	14.19	5.40	-2.53	1.29	35.41
1982	4.35	0.91	0.22	-31.09	39.38	-1.35	-18.12	0.21	10.76	14.23	8.54	8.24	4.96	11.39
1983	-21.85	-43.10	-26.30	-20.13	-34.20	-8.05	-16.15	-8.61	-25.47	-23.97	-42.36	-10.58	-9.98	-23.54
1984	-6.22	12.10	-4.30	13.97	15.80	-18.78	-7.83	-8.81	0.42	-5.52	10.95	-13.71	-5.17	8.90
1985	-5.44	-4.87	-17.68	-15.90	-5.65	-7.44	-15.84	-0.57	-17.22	-9.04	3.08	-1.41	10.15	-0.39
1986	-5.73	-30.74	-18.16	7.42	117.23	-18.07	-10.65	10.34	2.18	-5.23	1.14	5.85	6.45	3.52
1987	-0.60	34.95	-20.83	-24.33	33.23	14.74	-3.96	-4.40	3.55	5.14	-4.80	41.80	14.63	-29.64
1988	-6.64	57.02	11.21	-7.11	-14.94	-11.11	-11.50	-17.53	-14.51	-17.55	-19.82	-18.62	-12.02	37.51
1989	21.55	-9.43	-2.76	-5.34	8.07	10.64	7.30	3.19	9.83	38.85	16.19	-15.15	0.50	22.82
mean	12.63	16.01	9.24	11.27	17.55	10.51	9.22	15.04	12.08	14.35	11.65	16.58	16.09	19.18
std	16.88	32.54	20.72	25.58	32.96	19.09	21.23	20.13	19.44	19.70	17.64	23.27	19.49	24.10

TABLE A.13
Real Risk Premium by Census Division in Per Cent (1963-1989)

	Province	CD1	CD2	CD3	CD4	CD5	CD6	CD7	CD8&9	CD10	CD11	CD12&16	CD13&14	CD17,18,19
1963														
1964	24.31	12.69	-6.88	26.42	-3.09	23.31	23.17	30.53	21.34	26.62	29.10	15.45	44.43	42.28
1965	26.86	2.91	33.11	22.02	4.72	7.76	15.65	36.50	19.23	30.86	20.48	7.37	23.68	18.66
1966	12.01	20.02	17.16	4.07	28.01	28.54	15.41	32.61	23.42	11.11	2.61	20.56	16.10	-14.17
1967	19.10	23.50	3.87	14.56	21.26	14.21	20.56	8.22	5.48	18.83	22.07	22.47	15.83	25.52
1968	4.96	10.39	-4.08	3.30	33.01	-7.39	1.30	16.62	0.72	-0.97	28.91	32.80	21.07	21.60
1969	9.73	32.46	14.39	9.04	-4.86	-7.90	3.36	-13.00	-8.51	-10.49	3.32	-1.69	-11.24	-36.00
1970	3.55	-25.71	-3.27	-13.05	6.09	-5.44	-8.47	-3.94	2.47	-8.29	2.74	3.50	13.56	54.96
1971	-7.80	30.85	1.17	6.53	-24.45	22.75	20.12	-0.47	-4.87	12.24	-0.30	-5.20	12.14	17.53
1972	5.97	-18.86	18.35	6.14	53.77	1.70	-3.48	18.60	30.80	23.73	3.11	20.08	-8.17	29.79
1973	38.68	65.15	28.33	49.66	14.48	34.27	49.39	33.75	30.58	27.75	17.79	49.33	52.18	48.45
1974	55.64	40.13	31.08	65.81	91.37	71.52	72.27	66.31	69.87	50.39	32.86	56.33	47.16	37.71
1975	38.34	26.88	54.35	37.44	26.92	35.85	20.23	52.03	26.97	46.97	35.10	51.98	44.40	50.31
1976	26.39	74.55	38.42	-6.53	6.57	12.48	16.21	28.07	27.42	38.03	30.28	17.15	37.52	49.03
1977	10.99	-8.74	-8.48	14.99	37.07	22.58	6.76	11.58	19.97	23.33	33.58	53.01	37.84	17.56
1978	9.54	-15.74	0.46	7.13	-20.57	5.33	-10.15	2.29	21.84	1.12	10.48	-3.63	-0.30	26.25
1979	30.12	37.57	39.91	38.77	-17.55	3.25	47.80	25.38	18.00	37.48	13.93	53.48	41.84	21.86
1980	16.80	-10.01	13.98	-1.12	21.48	24.79	6.90	32.23	33.88	19.51	24.76	30.46	5.61	7.61
1981	2.60	80.42	25.83	69.32	2.10	3.92	-1.71	18.80	-15.01	7.04	-1.75	-9.68	-5.86	28.27
1982	-1.46	-4.90	-5.58	-36.89	33.57	-7.16	-23.93	-5.60	4.95	8.43	2.73	2.43	-0.84	5.59
1983	-26.85	-48.11	-31.30	-25.14	-39.21	-13.06	-21.15	-13.62	-30.48	-28.97	-47.36	-15.59	-14.99	-28.55
1984	-15.02	3.29	-13.11	5.17	6.99	-27.59	-16.63	-17.62	-8.39	-14.33	2.14	-22.52	-13.97	0.10
1985	-13.22	-12.65	-25.46	-23.68	-13.42	-15.21	-23.62	-8.34	-25.00	-16.82	-4.69	-9.18	2.38	-8.17
1986	-13.11	-38.12	-25.54	0.04	109.85	-25.45	-18.03	2.96	-5.20	-12.61	-6.24	-1.53	-0.93	-3.86
1987	-5.02	30.52	-25.25	-28.75	28.81	10.32	-8.39	-8.83	-0.87	0.71	-9.22	37.37	10.20	-34.06
1988	-12.24	51.42	5.61	-12.72	-20.54	-16.71	-17.10	-23.13	-20.11	-23.15	-25.42	-24.22	-17.62	31.91
1989	13.78	-17.20	-10.54	-13.12	0.30	2.87	-0.48	-4.58	2.06	31.08	8.42	-22.93	-7.27	15.05
mean	9.79	13.18	6.41	8.44	14.72	7.68	6.39	12.21	9.25	11.52	8.82	13.75	13.26	16.35
std	19.37	33.47	22.76	27.18	33.70	21.84	23.87	22.61	22.08	21.89	19.30	25.68	21.83	25.60

TABLE A.14
Yield (Bu/acre) by Census Division (1963-1989), Barley

	PROV	CD1	CD2	CD3	CD4	CD5	CD6(&15)	CD7	CD8(&9)	CD10	CD11	CD12(&16)	CD13(&14)	CD17(18,19)
1963	28.7	16.8	37.3	47.8	36.4	51.9	49.4	47.9	44.3	38.8	33.5	25.0	26.6	15.1
1964	32.2	26.4	41.2	37.0	16.9	44.4	42.2	24.4	35.2	22.2	28.2	18.0	31.0	30.5
1965	33.9	39.7	47.9	46.9	32.8	48.8	44.5	34.2	31.0	33.1	29.3	27.5	24.3	24.1
1966	41.0	45.4	54.9	52.2	29.9	57.6	50.9	38.7	42.5	28.5	38.9	26.1	36.6	31.8
1967	32.2	27.3	41.7	32.9	20.9	36.8	39.1	30.7	37.0	31.8	34.8	31.3	26.9	21.9
1968	38.3	43.0	53.3	52.4	27.1	52.9	48.8	33.2	32.7	26.3	32.0	24.6	33.3	36.6
1969	40.0	38.7	52.3	47.2	32.4	52.0	50.1	38.4	40.9	36.2	35.6	33.1	37.1	24.4
1970	42.0	40.0	47.5	44.1	38.7	49.2	49.8	45.1	41.5	43.0	42.6	32.9	35.0	31.8
1971	39.4	35.6	46.7	42.7	31.0	48.6	46.0	42.3	35.3	39.4	40.5	32.2	26.9	35.2
1972	44.2	36.3	52.2	51.7	27.6	50.2	50.2	46.8	49.2	39.9	44.1	35.4	37.0	36.5
1973	38.2	34.1	38.2	34.4	36.2	50.4	47.5	40.6	35.8	41.0	39.3	31.0	33.9	33.8
1974	36.9	33.1	40.4	43.0	31.3	46.5	44.8	32.8	39.5	30.4	36.9	25.9	29.9	33.7
1975	42.2	40.1	54.3	49.6	36.3	50.9	41.4	40.1	43.1	37.9	42.7	39.0	37.8	38.1
1976	45.4	45.4	54.5	49.8	39.8	47.1	42.2	47.5	47.2	43.9	48.7	42.9	47.9	39.6
1977	45.9	33.3	49.8	35.4	25.6	38.1	53.3	43.2	57.9	50.6	54.4	43.3	39.9	35.9
1978	45.1	47.2	59.4	57.7	27.3	52.8	56.0	36.7	51.9	35.9	43.9	40.7	39.9	34.3
1979	45.9	39.8	49.3	36.4	36.6	44.5	47.2	50.5	52.1	47.0	50.7	44.4	39.1	41.9
1980	50.7	44.4	64.2	52.1	37.2	55.2	53.1	55.1	53.9	51.4	51.1	43.3	46.8	42.0
1981	49.6	51.7	67.1	56.7	38.3	61.6	58.9	38.7	56.2	43.3	52.3	45.7	49.7	34.4
1982	49.5	51.3	59.8	45.6	43.9	55.3	57.0	55.1	51.4	55.0	53.7	48.0	48.1	34.7
1983	45.9	48.5	58.4	39.0	42.3	50.7	52.6	44.8	56.1	38.0	37.4	44.9	40.5	43.9
1984	41.0	29.2	42.8	13.7	23.9	30.6	28.5	37.5	51.3	45.5	51.7	43.7	48.8	40.3
1985	41.7	31.0	49.6	15.4	26.7	34.3	31.2	42.5	42.3	43.9	62.6	44.6	55.4	31.9
1986	59.5	52.5	65.3	50.8	47.2	65.2	69.2	62.0	65.2	62.8	65.0	53.0	58.4	44.7
1987	54.0	57.1	70.0	55.5	32.4	55.6	61.5	46.8	61.7	49.4	57.5	45.4	53.5	44.5
1988	56.8	42.8	59.0	27.8	23.5	50.2	57.1	45.9	71.4	55.5	68.7	54.8	68.5	56.1
1989	51.4	44.6	68.6	45.1	24.1	44.6	56.2	40.7	59.8	53.2	55.6	45.1	46.8	48.9

TABLE A.15
Yield (Bu/acre) by Census Division (1963-1989), Oats

	PROV	CD1	CD2	CD3	CD4	CD5	CD6(&15)	CD7	CD8(&9)	CD10	CD11	CD12(&16)	CD13(&14)	CD17(18,19)
1963	51.2	29.1	46.3	52.9	42.5	61.4	68.3	60.3	66.2	54.2	51.3	38.5	40.5	26.4
1964	40.5	29.9	47.6	36.6	23.3	52.2	52.8	32.0	54.3	31.1	40.8	27.2	46.0	46.4
1965	47.3	45.5	59.6	50.7	37.9	57.2	60.8	41.8	53.2	47.3	53.4	39.5	36.1	30.0
1966	48.5	48.7	64.2	50.0	37.8	70.8	63.6	46.0	64.3	37.1	55.1	31.7	50.1	39.8
1967	40.8	34.3	53.6	37.0	23.6	42.3	44.7	35.7	55.5	40.6	47.9	36.8	35.2	27.9
1968	48.0	49.7	63.4	55.7	33.3	65.4	65.8	43.2	51.4	36.7	50.0	34.6	50.1	53.4
1969	51.6	43.6	62.6	52.9	39.8	62.5	64.0	48.3	62.1	48.2	53.9	41.9	51.8	36.2
1970	57.1	49.3	58.9	48.4	42.2	62.5	66.5	55.9	64.7	57.7	67.6	42.4	55.7	43.9
1971	51.7	39.8	59.9	48.0	37.2	60.3	56.4	48.7	58.7	51.8	63.3	36.1	44.8	50.8
1972	56.8	45.3	65.3	59.9	39.2	60.9	61.2	57.2	65.1	51.9	65.0	47.4	57.3	52.2
1973	55.5	44.0	51.1	40.8	48.4	62.8	58.7	52.7	65.3	53.8	64.8	52.7	55.1	50.8
1974	47.1	42.9	51.5	44.2	37.9	52.3	62.2	39.9	64.9	40.9	50.0	46.8	41.9	49.2
1975	55.3	47.8	66.2	59.0	43.5	60.3	54.2	51.9	58.9	51.2	64.2	52.3	57.6	55.8
1976	58.9	53.6	63.5	54.4	48.1	52.3	53.2	57.2	65.9	56.9	66.1	55.7	63.9	59.2
1977	58.1	35.1	52.6	39.1	25.4	44.9	60.8	48.8	71.0	65.7	73.0	50.9	59.4	56.7
1978	52.4	54.8	68.9	66.7	33.0	60.8	67.0	44.4	66.4	44.2	57.3	56.8	54.2	48.2
1979	58.4	45.4	59.5	40.2	41.4	51.7	59.4	58.9	67.6	59.5	67.2	60.1	60.8	60.8
1980	63.1	47.1	71.2	56.5	45.4	62.6	69.7	65.1	71.5	62.2	69.1	58.6	66.8	58.7
1981	62.3	59.0	79.0	67.0	45.2	75.0	79.3	49.3	78.4	56.4	73.8	61.3	73.1	48.7
1982	62.9	56.6	69.6	52.1	47.8	63.9	71.4	66.9	68.0	66.5	71.2	58.0	65.3	48.7
1983	59.1	52.4	68.7	42.2	47.5	59.0	64.5	56.5	74.1	55.0	59.6	61.6	62.8	66.0
1984	53.9	29.8	58.8	15.6	27.0	36.4	39.6	44.1	65.6	56.3	66.2	54.4	66.6	53.4
1985	54.5	28.0	58.7	16.6	31.0	39.6	43.4	51.7	57.7	51.7	70.3	57.0	69.4	43.4
1986	72.3	52.4	71.2	52.7	53.1	78.4	82.2	74.8	80.3	76.0	82.0	67.0	76.5	60.1
1987	67.5	50.6	72.8	66.2	37.9	68.0	78.9	57.5	79.8	64.2	75.8	61.8	70.8	67.6
1988	73.8	27.5	78.1	33.0	30.7	55.4	75.2	55.1	86.0	68.0	91.9	70.9	91.3	80.8
1989	61.8	39.4	68.4	51.6	24.9	44.9	64.0	46.9	73.1	65.5	71.0	53.9	71.9	67.8

TABLE A.16
Yield (Bu/acre) by Census Division (1963-1989), Wheat

	PROV	CD1	CD2	CD3	CD4	CD5	CD6(&15)	CD7	CD8(&9)	CD10	CD11	CD12(&16)	CD13(&14)	CD17(18,19)
1963	25.1	8.1	19.8	25.3	22.0	30.4	32.7	34.6	34.7	32.3	28.3	20.0	21.9	10.4
1964	22.3	15.1	24.5	22.3	11.4	29.7	30.6	20.4	31.3	20.4	28.8	13.1	25.3	22.8
1965	25.3	20.3	28.8	27.3	19.2	30.9	29.7	23.0	27.4	24.6	30.4	17.9	23.2	17.6
1966	29.4	29.0	34.4	30.8	21.2	38.1	36.8	27.1	33.6	22.6	34.4	17.7	30.4	21.9
1967	22.7	17.0	24.9	20.1	14.1	24.3	26.8	23.4	29.6	27.0	30.2	22.5	21.9	17.8
1968	25.7	27.6	32.6	30.0	16.5	33.2	33.1	20.9	24.9	20.0	26.5	15.1	24.2	25.5
1969	26.4	22.5	31.4	29.3	20.0	32.8	32.2	25.6	29.5	25.7	29.4	24.5	27.8	19.2
1970	27.7	23.0	28.8	27.6	24.0	31.2	32.7	28.9	31.9	30.5	32.1	24.4	27.6	22.9
1971	26.4	20.2	27.7	25.1	18.7	29.6	30.2	27.4	27.4	31.0	34.1	25.4	25.2	27.7
1972	27.4	20.7	31.6	30.0	15.7	31.6	33.3	29.7	36.9	27.9	36.1	22.9	29.2	26.5
1973	27.0	18.7	23.5	22.5	23.6	31.9	31.4	28.6	33.2	31.2	34.1	25.6	28.7	24.8
1974	24.3	16.3	24.8	25.8	21.6	29.2	29.4	23.1	31.4	25.0	30.3	17.2	22.5	22.7
1975	30.0	26.2	35.5	31.2	25.4	32.6	29.5	27.5	34.3	29.3	35.0	29.6	29.4	29.0
1976	32.5	28.9	35.1	32.0	27.7	31.2	30.4	33.7	38.6	35.3	38.4	32.6	34.8	33.0
1977	24.8	17.6	27.6	20.7	15.4	22.3	31.1	26.8	38.3	32.9	39.3	28.9	31.0	27.7
1978	29.8	30.0	35.7	35.4	18.8	33.1	36.3	25.0	40.1	28.4	34.8	27.9	30.7	27.5
1979	28.5	23.5	29.0	21.7	22.0	27.0	30.9	31.9	37.5	33.0	37.8	31.3	32.7	33.6
1980	33.0	27.9	37.2	31.0	22.3	34.4	37.1	35.7	39.9	35.6	39.0	29.7	36.2	31.3
1981	34.1	33.3	43.3	39.8	24.6	41.0	42.7	26.7	42.6	30.2	40.2	31.7	38.6	28.6
1982	32.4	31.0	36.3	29.8	26.5	34.8	39.1	35.2	40.7	33.7	35.9	30.5	32.3	22.6
1983	32.5	31.3	36.0	27.8	27.8	33.1	36.8	30.5	42.8	30.4	34.8	33.6	33.5	35.1
1984	24.6	18.4	24.8	14.2	16.4	21.3	20.4	25.9	38.7	33.0	39.1	29.7	36.1	30.4
1985	23.7	16.4	26.9	13.0	15.8	22.9	21.9	26.8	31.6	31.3	44.8	31.4	35.6	22.7
1986	34.9	32.0	37.3	32.7	24.8	40.8	45.7	35.4	49.3	36.6	43.2	31.2	39.2	26.5
1987	29.3	29.2	38.4	29.3	17.9	31.2	35.5	22.2	40.4	27.0	35.5	28.6	37.7	30.5
1988	27.7	15.4	26.7	17.8	8.5	30.0	34.9	25.6	46.9	34.9	49.7	32.7	45.5	42.3
1989	31.2	25.5	44.1	28.7	12.5	29.4	37.2	25.3	48.6	36.5	44.7	34.3	41.0	32.1

TABLE A.17
Yield (Bu/acre) by Census Division (1963-1989), Canola

	PROV	CD1	CD2	CD3	CD4	CD5	CD6(&15)	CD7	CD8(&9)	CD10	CD11	CD12(&16)	CD13(&14)	CD17(18,19)
1963	16.0	23.2	23.2	23.2	23.2	23.2	23.2	23.2	24.2	24.2	24.2	24.2	24.2	10.3
1964	16.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	19.2	19.2	19.2	19.2	19.2	14.1
1965	12.9	19.5	19.5	19.5	19.5	19.5	19.5	19.5	17.7	17.7	17.7	17.7	17.7	9.1
1966	17.6	23.2	23.2	23.2	23.2	23.2	23.2	23.2	19.1	19.1	19.1	19.1	19.1	14.0
1967	13.9	16.5	16.5	16.5	16.5	16.5	16.5	16.5	17.6	17.6	17.6	17.6	17.6	9.9
1968	16.7	23.8	23.8	23.8	23.8	23.8	23.8	23.8	17.2	17.2	17.2	17.2	17.2	14.8
1969	14.3	17.5	17.5	17.5	17.5	17.5	17.5	17.5	16.2	16.2	16.2	16.2	16.2	11.2
1970	17.6	19.2	19.2	19.2	19.2	19.2	19.2	19.2	18.0	18.0	18.0	18.0	18.0	16.0
1971	16.1	17.3	17.3	17.3	17.3	17.3	17.3	17.3	16.3	16.3	16.3	16.3	16.3	14.9
1972	18.5	20.5	20.5	20.5	20.5	20.5	20.5	20.5	18.8	18.8	18.8	18.8	18.8	17.0
1973	16.5	17.3	17.3	17.3	17.3	17.3	17.3	17.3	18.7	18.7	18.7	18.7	18.7	14.3
1974	16.3	18.2	18.2	18.2	18.2	18.2	18.2	18.2	17.1	17.1	17.1	17.1	17.1	14.8
1975	17.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	18.5	18.5	18.5	18.5	18.5	16.3
1976	19.7	20.8	20.8	20.8	20.8	20.8	20.8	20.8	22.3	22.3	22.3	22.3	22.3	14.2
1977	22.9	21.0	21.0	21.0	21.0	21.0	21.0	21.0	27.0	27.0	27.0	27.0	27.0	17.0
1978	21.0	16.9	25.6	26.3	16.9	25.6	26.3	18.3	25.2	21.4	25.2	20.2	20.2	18.3
1979	18.1	18.9	19.9	19.9	18.9	19.9	19.9	22.2	22.2	18.2	22.2	14.7	14.7	15.3
1980	22.7	19.3	25.2	22.0	19.3	25.2	22.0	26.7	22.6	25.1	22.6	20.1	20.1	20.0
1981	23.1	24.5	31.5	29.9	24.5	31.5	29.9	24.3	27.3	24.4	27.3	22.8	22.8	17.2
1982	22.6	23.4	26.6	26.4	23.4	26.6	26.4	28.3	24.0	24.0	24.0	20.0	20.0	16.5
1983	18.8	21.5	23.2	21.4	21.5	23.2	21.4	20.7	21.6	18.0	21.6	16.6	16.6	15.9
1984	20.0	16.2	18.3	11.7	16.2	18.3	11.7	19.7	26.1	23.4	26.1	22.8	22.8	16.8
1985	19.6	18.5	19.3	13.1	18.5	19.3	13.1	21.0	23.0	21.4	23.0	23.8	23.8	15.8
1986	25.0	33.2	31.5	24.0	28.8	31.5	27.7	27.9	25.9	25.4	28.9	22.0	22.7	20.6
1987	25.3	44.2	36.1	25.2	25.9	30.0	27.3	26.5	25.2	25.4	27.6	22.9	26.0	22.0
1988	24.0	23.5	30.2	14.4	16.0	24.8	25.6	21.9	28.8	24.1	29.0	24.0	24.2	23.3
1989	21.9	40.0	31.5	22.3	8.0	21.1	22.8	19.6	24.5	23.4	23.7	20.9	20.0	21.1

TABLE A.18

Average Price of Crops ($/BU) (1963-1989)

	Wheat	Barley	Oats	Canola
1963	1.73	0.93	0.53	2.52
1964	1.55	0.98	0.6	2.74
1965	1.64	1.02	0.68	2.41
1966	1.73	1.03	0.67	2.47
1967	1.61	0.84	0.64	1.92
1968	1.31	0.81	0.53	1.83
1969	1.17	0.62	0.53	2.29
1970	1.35	0.69	0.55	2.33
1971	1.3	0.67	0.5	2.16
1972	1.84	1.26	0.84	3.16
1973	4.24	2.5	1.61	5.72
1974	3.96	2.2	1.52	7.06
1975	3.51	2.31	1.42	5.09
1976	2.8	1.88	1.13	6.07
1977	2.75	1.6	0.95	6.39
1978	3.66	1.72	1.02	6.36
1979	4.86	2.31	1.42	6.14
1980	5.36	3.03	1.79	6.38
1981	5.03	2.5	1.59	6.33
1982	4.54	1.96	1.17	6.3
1983	4.71	2.53	1.56	8.6
1984	4.44	2.71	1.6	7.98
1985	3.55	2.14	1.46	6.39
1986	2.55	1.55	1.06	4.47
1987	3.04	1.45	1.39	5.83
1988	4.6	2.54	2.05	6.8
1989	3.78	2.28	1.3	6.06

Source: Alberta Agriculture (Statistics Branch)