

THE FARMLAND INVESTMENT MARKET IN CANADA

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Abstract

Farming in Canada has changed significantly over the past 50 years. The biggest changes have resulted from the adoption of new technologies that have made farming very capital intensive, increased land productivity, significantly reduced the required labour and management effort per hectare, and has increased average farm size many fold. Farmers have had to constantly improve their management and entrepreneurial skills to compete and most importantly, they had to grow their farm operations to survive economically. Throughout these changes, farmers have become real estate investors as well as farm commodity producers. This paper assesses and discusses the 'separation' of the farmland investment decision from farm operating decisions, maximum farmland debt ratios and the implications for financing farmland in Canada. The results in this study indicate a significant difference between reported net farm income in Canada and the actual Canadian returns to farm operations and land investment. The differences are so large that reported net farm income will lead to wrong conclusions about farm and farmland financial performance. The Canadian farm sector is financially healthy, producing investment returns that are competitive with, but slightly lower than average international stock market returns. As the Canadian farm sector continues to change, farmers must realize that they are real estate investors just as much as farm commodity producers. Production is still a large part of land value but other factors are becoming more and more important.

Introduction

Farming in Canada has changed significantly over the past 50 years. The biggest changes have resulted from the adoption of new technologies that have made farming very capital intensive, increased land productivity, significantly reduced the required labour and management effort per hectare, and has increased average farm size many fold. Throughout these changes, farmers have had to constantly improve their management and

entrepreneurial skills to compete and most importantly, they had to grow their farm operations to survive economically. Along with the agribusinesses changes that farmers have adapted to, they have also had to adapt to the growing non-farm demand for farmland. As farmland normally represents the largest asset on a farm balance sheet, farmers have come to realize that they are not just food producers but real estate managers as well. As non-farm demand for farmland grows, more and more of farmland value is being determined by factors unrelated to food production (Painter 2008). As Oltmans indicated, “Managers need to view the land ownership decision more as an investor in the land and less as producer on the land.” (Oltmans 2007). Oltmans applied his “New” Analysis of farmland returns which separated the land investment from the farm operations and provided significantly improved information about financial performance. One of his conclusions is that farmland will not cash flow itself (Oltmans 1995 and 2007), and as the non-farm demand for farmland increases, the portion of farmland value that can be cash flowed becomes even smaller. Farmland investors, who most often are farmers, need to treat farmland like any other growth asset, which has implications for financing, such as maximum sustainable debt ratios. This paper assesses and discusses the ‘separation’ of the farmland investment decision from farm operating decisions, maximum farmland debt ratios and the implications for financing farmland in Canada.

Background and Objectives

The average total return on investment (ROI or yield) for US stock markets for the period 1969 – 2008 has been approximately 8% annually (Morgan Stanley 2008), of which 2.4% has been cash dividend yield (cash flow to the investor) and 5.7% has been capital gain yield (non-cash growth in stock values). A simple example of an average US stock portfolio (almost any stock market in the world will provide a similar result) illustrates why growth assets (like farmland) may not cash flow themselves. For simplicity, assume a US stock worth \$1,000 is purchased with an expected dividend yield of 3% and an expected capital gain yield of 5%. Suppose the investor borrows the \$1,000 at an interest rate of 6% to purchase the stock. The annual cash flow required to pay the interest on the loan (exclude the principal payment for simplicity) is \$60. The total annual return on the

stock is \$80 (\$1,000 x 8%) but only 3%, or \$30 of dividends, is the actual cash flow return. The other 5%, or \$50, is accrued capital gain due to growth in the stock price and is only a cash flow if the investor sells the stock. Therefore, if the intent is to hold the stock for long term growth, the investor would need to supplement the cash flow from the dividends with another source in order to make the debt payment. The growth stock will not cash flow itself. This is usually true of any growth asset, farmland included. Suppose an investor purchases Canadian farmland for \$100,000 and the expected cash operating return (farm net income) is 3% per year while the farmland value is expected to grow by an average 6% per year, which is a non-cash capital gain return. The overall expected annual return of 9% (operating + capital gain) is satisfactory to the investor, given the perceived farmland investment risk level. If the investor decides to finance the purchase with a \$100,000 bank loan at an interest rate of 6% repaid over 25 years, the annual payment would be \$7,820 (interest plus principal reduction). Since the initial annual cash operating return is only \$3,000, the land cannot cash flow itself and the investor would need another source of cash to make up the shortfall. To the extent that the cash operating portion of the return on farmland is less than the debt rate (or required return), a growth asset like farmland will not cash flow itself, even though the overall expected return on investment is satisfactory to the investor.

The maximum amount of debt that could be taken to finance a growth asset is:

$$MD = \frac{I \times DY}{DR} \quad (1)$$

Where:

MD = maximum debt;

I = total investment;

DY = dividend or cash operating yield;

DR = debt interest rate.

In the stock example the maximum serviceable debt for the \$1,000 investment is the cash dividend return of \$30 divided by the debt interest rate of 6%, which is \$500, or a 50%

debt ratio. The maximum debt ratio is simply the cash operating yield of 3% divided by the debt interest rate of 6%, or 50% maximum debt ratio. In the farmland example, the maximum debt ratio is approximately 38% when the debt payment, including the principal payment, is used in the calculation (\$3,000 operating cash divided by \$7,820 loan payment). If the dividend or cash operating yield is equal to or greater than the debt payment, the asset will cash flow itself. If not, either other sources of cash flow are needed (farmers have off-farm employment, for example) or equity financing is used for that portion of the investment that cannot be cash flowed. Equity financing is 'patient' in that equity investors are willing to wait for their cash returns, eventually selling the asset at a higher value and realizing a cash capital gain.

Separating the land investment decision from the farm operations gives a better picture of financing requirements and provides much better information for farm business and land investment analysis. Farmers, like any other business managers, need good information in order to make sound decisions. The standard 'net farm income' approach used by government reporting agencies in Canada does a very poor job of providing farm financial information for business decision making and indeed, mixes and confuses returns to operations and farmland investment, and often leads to incorrect conclusions about farm business performance (as Oltmans very clearly showed). For example, near the end of 2008, the president of the Canadian National Farmers Union (NFU) said; "Grain prices may have soared earlier this year, but the 20-year average income of the Canadian family farmer remains at zero." In an address made at the NFU convention, she said farmers have generated two-thirds of a trillion dollars in gross income during the past 20 years and have kept none of it, implying zero net income¹. This illustrates the problem associated with how farm income is calculated and reported. The NFU president is either misinformed or unable to calculate farm incomes and returns, because when calculated correctly, they have been far from zero over the past 20 years. Relying on poor information such as this will lead to poor farm business and investment decisions. This paper will discuss how to improve the 'net farm income' source of information.

¹ Paulson, Joanne (2008). "Free trade hurts farmers, claims NFU president". Saskatoon Star Phoenix, Friday, November 21, 2008

The main objectives of this paper are to analyze the reported net income and investment yields for Canadian farmland in five major agricultural producing provinces for the period 1972 – 2007 to assess the following:

- a) The separation of Canadian ‘net farm income’ into farm operating income and farmland investment income;
- b) Farmland ownership investment yields over the study period, broken down into cash and growth components, and how they have compared to similar risk growth assets;
- c) The portion of Canadian farmland that can be cash flowed (maximum debt ratios) and how this has varied by province over the study period;
- d) The implications for financing Canadian farmland in light of the growing non-farm demand.

Previous Research

The recognition that farmland is a growth asset has been reported in many studies. Melichar (1979) pointed out the importance of properly estimating and including expected earnings growth in farmland valuation (to explain the capital gains portion of the return) and properly accounting for technological change so that a true estimate of earnings could be obtained. Alston (1986) concluded that growth in earnings, as opposed to other factors such as inflation, could explain capital gains on farmland, which supports the standard theory of valuation. Castle and Hoch (1982) indicated that valuation analysis must include expected growth in earnings and the discount rate used must not be the average debt rate but rather a risk-adjusted opportunity cost for farmland investors. These studies all showed that a significant portion of farmland returns are attributed to growth, which implies a non-cash component of the return. Oltmans (1995) demonstrated very clearly that farmland is a non-depreciable asset with growing cash flows, which produces an expected capital gain to farmland investors. Since part of the value of farmland is from the expected growth component, which is future cash flows as opposed to current, it will not cash flow itself today. Painter (2000 and 2002) showed that Canadian farmland has a significant growth component in its historical return on investment, implying that

Oltmans' conclusion is valid. Painter (2006) showed that because of the high growth component in farmland returns, Canadian farmers will need more sources of external equity financing if they are to keep growing at the rate necessary to remain competitive. Painter (2008) assessed the impact of non-farm demand on farmland values in Canada and concluded that Alberta and Ontario exhibited significant non-farm value premiums, which further reduces the cash portion of the overall farmland return on investment.

Methodology and Data

The Canadian farm financial data were derived from provincial departments of agriculture; Alberta Agriculture, Food and Rural Development, Saskatchewan Agriculture and Food, Manitoba Agriculture and Food, Ontario Agriculture and Food, and Ministère de l'Agriculture in Quebec². The main part of the methodology is in disaggregating net farm income into two components; land investment income and farm operating income.

Land Investment Income and Return on Farmland Investment (ROI)

The total land investment income is made up of two parts: lease income and capital gain income. The capital gain income (or loss) is simply the change in the value per hectare from one year to the next. The lease income for farmland in Canada is calculated using an average net lease value that could be obtained by a farmland owner for leasing out the land. The method used in this study is based on a standard crop share approach, where the land owner receives a percentage of the gross revenues produced (in this study, 17.5% of total revenue is used to calculate the gross lease revenue to the farmland owner³). The farmland owner is then responsible for paying property taxes and building depreciation, which are deducted to arrive at a net lease income to farmland ownership.

The income return to land ownership is measured by the Net Lease Income/hectare (NLI) in each province, calculated as follows:

² Other data sources that were used included Agriculture and Agri-Food Canada, Canada Grains Council, Canadian Wheat Board, Canadian Grain Commission, Canadian Transport Agency, Farm Credit Canada, and Statistics Canada.

³ 15% - 20% of gross revenues is a common crop share arrangement in North America, which compares closely with cash rents that are usually in the 5% - 7% of land values range.

$$NLI_t = CS_t - PT_t - BD_t \quad (2)$$

where,

NLI_t = Net Lease Income/hectare in year t;

CS_t = average gross lessor crop share/hectare in year t (17.5% of gross cash receipts);

PT_t = average property tax/hectare in year t; and

BD_t = average building depreciation/hectare in year t.

Then, the return on farmland investment, or yield, is calculated as:

$$ROI_t = \frac{NLI_t}{V_{t-1}} + \frac{V_t - V_{t-1}}{V_{t-1}} \quad (3)$$

where,

ROI_t = average investment yield on farmland and buildings investment in year t;

V_t, V_{t-1} = average value of farmland and buildings/hectare in years t and t-1;

$\frac{NLI_t}{V_{t-1}}$ = farmland owner's lease income yield on farmland investment in year t;

and

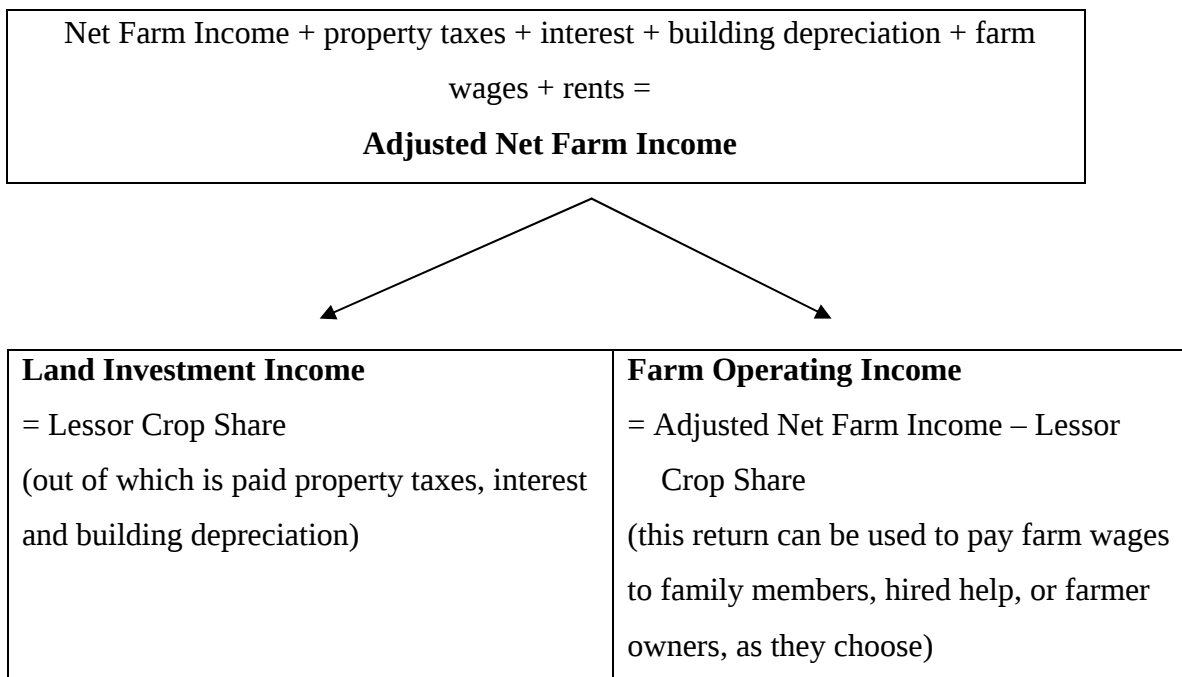
$\frac{V_t - V_{t-1}}{V_{t-1}}$ = farmland owner's capital gain yield in year t.

Farm Operating Income

With this approach, the farmer's operating income is the residual left after all other expenses and returns to land investment have been paid. In Canada, close to 50% of all farmland is leased. The farmer lessee must pay the lease payment just like any other expense, leaving the residual as the operating income. In the case where the farmer owns the land, the farmer's opportunity cost is the lease revenue that could otherwise be obtained by leasing out the land, leaving the residual as the operating income.

The farm operating income is the residual after paying all cash *operating* expenses and deducting the crop share paid to the lessor. The normal accounting for net farm income does not provide an indication of this residual or the land investment income.

Adjustments need to be made to the stated net farm income to arrive at the total net income that can be divided into the farm operating income and the land investment income. The expenses that need to be adjusted in the calculation (added back to arrive at adjusted net farm income) are; 1) land rent, building depreciation and interest expenses⁴, as they are paid out of the land investment income, and 2) paid hired and family labour expenses (often paid to family members for tax purposes) as they are part of the overall farm operating income⁵. The annual adjusted net farm income can then be divided into land investment income and farm operating income, as follows:



Therefore, the calculation of farm operating income excludes all paid hired and family workers and any imputed value for unpaid family work and represents labour and

⁴ Only interest on farmland and building debt is added back, not operating interest as it is considered an operating expense. Building depreciation and interest is added back because buildings are included in farmland values (value of farmland and buildings).

⁵ Farm operating income is not net of a labour and management expense but rather an amount available to pay labour and management inputs. All paid hired and family labour must be added back in order to determine the total amount *available* to be paid to labour and management efforts. How the farm owners choose to pay out this portion is their choice, as they can pay themselves a wage, or a wage to other family members, or they can hire workers if the farm owners decide to engage in off-farm employment. Regardless of who it is paid to, it represents the return available to the labour and management effort.

management income available to the farm family⁶. The net farm operating income per hectare (FOI) is calculated for each year in the study period and for each province, as follows.

$$FOI_t = ANFI_t - CS_t \quad (4)$$

where,

$ANFI_t$ = adjusted net farm income/hectare in year t ; and

CS_t = gross lessor crop share/hectare in year t .

Analysis of Results

Table 1 illustrates the disaggregation of reported 'net farm income' into farm operating income and land investment income. The difference between net farm income and the total of farm operating income and land investment income is significant, which would lead to very different conclusions about the profitability of farming and investing in farmland. The main problem with reported net farm income is that it mixes and confuses farm operating income with land investment income. Reported net farm income includes costs associated with farmland investment that are not operating expenses, such as farmland and building debt interest, rents, property taxes and building depreciation, even though it does not take into account the non-cash farmland investment income associated with appreciation or depreciation of the farmland assets. As well, some wages are included but not all, and nothing for management wages, which makes it very inaccurate⁷. The farm operating income (FOI) represents the return to farm labour and management while the land investment income represents the return to the land ownership investment; this represents the information farmers and farmland investors need to make management and investment decisions.

⁶ It should be recognized that some of the wages may have been paid to non-family members.

⁷ Farm operating income and land investment income add up to significantly more than 'net farm income'. It is important to remember that some significant expenses such as paid wages and land debt interest are included in 'net farm income' but are excluded after the adjustment because farm operating income is the amount *available* to the farmer for labour and management and the land investment income is the amount *available* to pay the source(s) of land financing, whether that is debt or equity or some combination.

Table 1 illustrates that the average level of farm operating income (per average farm) is between \$20,000 and \$30,000 (all in Canadian \$) and between \$17,000 and \$30,000 for land investment income, over the study period. The total farm income is between \$46,000 and \$57,000, compared with average total family incomes ranging from \$58,000 to \$78,000. It appears that farm income is lagging average total family income; however, it should be noted that average farm incomes are based on average farm size, as indicated in Table 1, which does not represent full employment for a family⁸. Over 80% of Canadian farm families have at least one source of off-farm employment income. According to Agriculture and Agri-Food Canada,⁹ average Canadian non-farm income per farm family in 2007 was \$53,338. When this is added to the farm incomes in Table 1, farm families are significantly better off than non-farm families. This also explains why average Canadian farm family net worth is significantly greater than average family net worth. The latest survey of Canadian family net worth was in 2005, which indicated average Canadian family net worth to be \$148,350¹⁰ while in the same year, the average net worth of all Canadian farm families was \$1,035,944¹¹. The calculated incomes provided in Table 1 combined with the statistics for average net worth in Canada indicate how misleading average net farm income can be. Canadian farm families are doing very well, both on an annual income basis and on an accumulated wealth basis (net worth) but if you look only at reported 'net farm income' alone, your conclusion about the financial performance of Canadian farm families might be as wrong as that of the National Farmers' Union president, who said, "the 20-year average income of the Canadian family farmer remains at zero." The importance of good financial information for making farm operating and investment decisions cannot be over-emphasized.

⁸ This is a problem with many farms in countries where agriculture is subsidized – they are not large enough to be viable economic units on their own and therefore suffer income and cash flow problems.

⁹ Agriculture and Agri-Food Canada is the Government of Canada Ministry of Agriculture. (www.agr.gc.ca)

¹⁰ The average is for economic families only. Source: The Wealth of Canadians: An Overview of the Results of the 2005 Survey of Financial Security. Statistics Canada.

¹¹ Source: Farm Financial Survey 2006, Statistics Canada. There was significant variance in average farm family net worth by province: Quebec \$987,472; Ontario \$1,145,619; Manitoba \$856,700; Saskatchewan \$689,366; and Alberta \$1,254,741.

Table 1: Disaggregated Net Farm Income by Province (1972 – 2007)

	Alberta	Sask	Man	Ontario	Quebec
	Real 2007 CDN\$ per hectare				
Reported Net Farm Income	\$ 45.99	\$ 60.95	\$ 74.18	\$ 175.40	\$ 282.69
Add back:					
Property Taxes	5.73	8.78	9.99	34.73	29.52
Land & Building Interest	21.45	14.03	22.75	84.94	97.54
Building depreciation	9.34	3.54	5.40	64.27	42.95
Rents	15.44	14.98	20.16	48.89	15.67
Farm Wages	21.61	11.11	24.68	185.12	145.63
Total Adjustments	73.57	52.45	82.98	417.95	331.31
Adjusted Net Farm Income	119.55	113.40	157.16	583.35	614.00
Gross Crop Share Expense	63.03	47.51	79.80	282.54	277.57
Farm Operating Income (eq 4)	56.53	65.89	77.36	310.81	336.43
Net Lease Income (equation 2)	47.96	35.19	64.41	183.54	205.11
Capital Gain Income	36.95	3.21	13.73	127.16	97.31
Land Investment Income	84.91	38.40	78.15	310.70	302.41
	Alberta	Sask	Man	Ontario	Quebec
	Real 2007 CDN\$ per average farm				
Average Farm Size (hectares)	361	448	301	80	90
Reported Net Income	\$16,621	\$27,301	\$22,330	\$14,018	\$25,348
Farm Operating Income	20,431	29,514	23,287	24,840	30,166
Net Lease Income	17,333	15,761	19,390	14,669	18,391
Capital Gain Income	13,354	1,439	4,134	10,163	8,725
Land Investment Income	30,687	17,200	23,524	24,831	27,117
Farm Op & Investment Income	51,118	46,714	46,811	49,672	57,283
Average Family Income¹²	78,400	60,500	58,700	66,600	59,000

Table 2 compares the average annual investment yields for Canadian farmland, bonds and international stock markets for the period 1972 – 2007. It is interesting to note that farmland investment yields are very similar to average stock market yields. Farmland average income/dividend yields are normally higher than for stock markets, while the average capital gain yields are lower for farmland. Farmland investment also appears to

¹² This is average total family income by province, from the 2006 Canadian Census. Source: Statistics Canada, CANSIM 111-0009

be lower risk, as indicated by the lower coefficient of variation.¹³ Farmland investment yields and risk are most similar to high dividend yielding blue-chip stocks.¹⁴ It is clear that farmland is a growth asset where, on average, 36.5% of the total investment yield is from income (cash return) while the reminder, 63.5% is from growth (non-cash return). This has important implications for financing farmland; specifically the amount of debt financing that can be sustained.

Table 2: Average Annual Investment Yields for Canadian Farmland, Bonds and International Stock Markets (1972 - 2007)

Income/Div Yield			Cap Gain Yield		Total Yield		Coefficient
Avg Yield		Std Dev	Avg Yield	Std Dev	Avg Yield	Std Dev	of Variation
T-bills					7.3%	0.0%	n/a
Long Bonds					8.5%	2.8%	0.33
Canadian Farmland:							
Alberta	2.8%	0.7%	7.1%	12.5%	9.8%	12.8%	1.30
Saskatchewan	3.3%	0.9%	5.3%	11.8%	8.6%	12.3%	1.43
Manitoba	4.7%	0.9%	6.0%	9.5%	10.7%	9.7%	0.90
Ontario	2.6%	0.7%	6.9%	10.5%	9.5%	10.8%	1.14
Quebec	6.5%	1.6%	8.1%	7.7%	14.6%	8.6%	0.59
Stock Markets:							
Australia	3.2%	0.9%	7.4%	23.3%	10.6%	24.0%	2.26
Canada	2.6%	1.0%	7.9%	19.7%	10.5%	19.9%	1.90
France	2.7%	1.6%	9.4%	27.5%	12.2%	27.9%	2.29
Germany	2.2%	0.9%	9.8%	29.2%	12.0%	29.6%	2.47
Hong Kong	4.4%	1.7%	11.2%	45.7%	15.4%	46.9%	3.05
Italy	2.2%	0.9%	6.5%	35.7%	8.6%	36.2%	4.21
Japan	1.2%	0.9%	9.3%	33.8%	10.4%	34.3%	3.30
World	2.4%	0.9%	7.7%	16.6%	10.1%	17.0%	1.68
United King	3.8%	1.2%	7.2%	26.1%	10.9%	27.1%	2.49
United States	2.5%	1.1%	7.3%	16.8%	9.7%	17.2%	1.77

¹³ Coefficient of Variation = standard deviation (risk) divided by the total yield, representing risk per unit of return.

¹⁴ However, it should be noted that these average farmland investment yields and risk are based on a provincially diversified farmland portfolio so the risks for an individual farmer would be somewhat higher.

Table 3 illustrates the maximum and actual average debt ratios for Canadian farmland investment over the study period. Equation 1 is used to estimate maximum debt in year t , which is then divided by the farmland value in year $t-1$ to get the maximum debt ratio. The average actual debt ratio is significantly lower than the average maximum, which implies that farmers have been somewhat conservative with debt financing and that there is a significant amount of equity in the farmland market. It is likely that farmers use some of the net lease income to cover costs other than debt, pay themselves incomes and so on, leaving less cash flow available to finance debt. Figure 1 shows the comparison of actual and maximum debt ratio for Alberta farmers,¹⁵ over the period 1972 – 2007. During the 1980's the maximum debt ratio fell very quickly due to very high interest rates and the actual debt ratio rose due to farmers using more debt to finance purchases at increasing prices. This left many farmers in financial difficulty and is probably another reason why farmers keep a large cushion between their maximum and actual debt ratio.

Table 3: Average Maximum and Actual Debt Ratios for Canadian Farmland Investment by province (1972-2007)

	Alberta	Sask	Manitoba	Ontario	Quebec
Maximum Debt Ratio	26.2%	31.7%	44.7%	24.5%	59.2%
Actual Debt Ratio	16.1%	16.9%	22.4%	15.1%	32.9%

¹⁵ Because of space constraints, only Alberta is shown here but the pattern is identical in each of the other provinces.

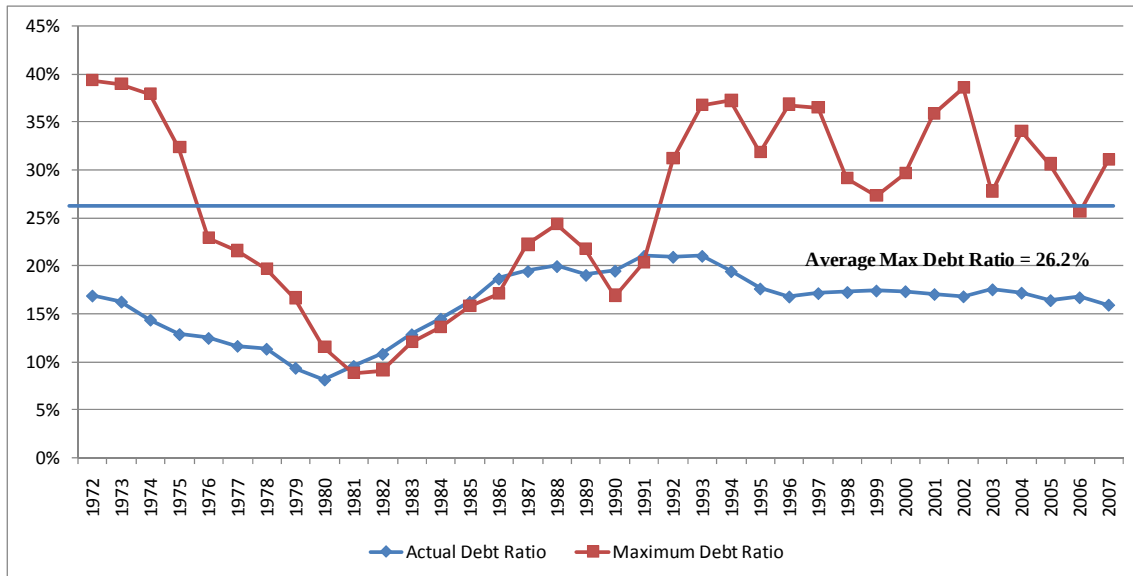


Figure 1: Alberta Farmland Debt Ratios (1972 – 2007)

The lower maximum debt ratios in Alberta and Ontario are a function of the non-farm demand for farmland and the resulting impact on farmland prices. Painter (2008) showed that “there appears to be a significant non-farm price premium in Ontario and Alberta due to non-farm demand for farmland”. This implies that in Ontario and Alberta, farmland prices have been bid up to a level higher than would normally be paid by farmers, based on the income and growth potential of the farmland. This does not imply that the farmland in those provinces is overpriced but that the farmland investor will likely have to rely proportionately more on the growth potential of the farmland (from farm and non-farm sources) than on its farm income producing ability. This is further illustrated in Table 2, where the income/dividend yield for Ontario and Alberta farmland is lower than for the other provinces. This suggests that in those two provinces, farmers will have to be aware that part of their investment return could come from non-farm demand (potentially higher future selling price) which is not an annual cash flow. This indicates a lower maximum debt ratio and a greater requirement for equity financing.

Summary and Conclusions

The results in this study indicate a significant difference between reported net farm income in Canada and the actual Canadian returns to farm operations and land

investment. What are the implications of this result? The differences are so large that reported net farm income will lead to wrong conclusions about farm and farmland financial performance. As Oltmans suggested, farmers and farmland investors should not use net farm income for making operational and investment decisions but rather separate the income to get a clear picture of the real returns. Governments in Canada must also have the correct information when setting agricultural policy. Farm lobby groups should be careful when picking and choosing their financial information for public announcement; reported net farm income might convince the public that farm subsidies are needed but how do you reconcile farm subsidies with average farm family net worth?

The results show that the Canadian farm sector is financially healthy, producing investment returns that are competitive with, but slightly lower than average international stock market returns. But, the risk levels of provincially diversified farmland portfolios in Canada are lower than average stock market portfolios, making the risk-return tradeoff comparable and Canadian farmland an attractive investment.

The average growth component in Canadian farmland investments is 60% - 65% of the total return, which combined with average income yields relative to farmland debt interest rates, implies a significant amount of equity financing required. Maximum debt rates for the five provinces range from 24.5% in Ontario, which has the lowest average income yield at 2.6%, to 59.2% in Quebec, which has the highest average income yield at 6.5%. The higher is the income portion of the yield, the higher the sustainable debt ratio. Currently, the three most common sources of equity financing for Canadian farmers are a) farm profits, b) off-farm employment income, and c) farmland leases. However, a growing source of new equity is from farmland corporations¹⁶, wealthy individuals purchasing large farms, and individuals, businesses or governments purchasing farmland for both farm and non-farm purposes (acreages, hobby farms, urban expansion, commercial development, and any other demands for farmland that are not for agricultural production). As growth in farmland prices increases due to farm plus non-

¹⁶ An example is the Agriculture Development Corporation in Western Canada, which manages over 32,000 hectares for its farmland investors. (www.farmlandinvestor.ca)

farm demand for farmland (which is currently the case in Alberta and Ontario: Painter 2008), the maximum affordable debt ratio declines while the minimum required equity financing increases, putting even more pressure on finding new equity sources of financing in the agriculture industry. Canadian farmers must realize that they are real estate investors just as much as farm commodity producers. The conclusion is that farmers in Canada need to heed Oltman's advice: The land ownership decision needs to be viewed as 'investor in the land' as much as 'producer on the land'. Production is still a large part of land value but other factors are becoming more and more important.

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