The ‘land question’ on the prairies amidst intersecting crises:

Perspectives of grain and oilseed farmers in Alberta

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ABSTRACT

Across the Prairie Provinces, concern is growing as investor actors of various stripes continue to show interest in purchasing farmland, in addition to the broader trends of increased rates of tenant farming, and farmland concentration. These tenure changes are not being closely monitored at the provincial level. Due to the inaccessibility of the land titles data in Alberta, it is not yet possible to do a quantitative analysis of tenure changes, as has been done in Saskatchewan. This study instead hones in at the community level in three regions of Alberta through 40 interviews, primarily with grain and oilseed farmers. The interviews reveal that financial players -- investor actors, as well as banks -- are pushing up the price of farmland, creating a widening gap between its market value and productive value. I argue that irrespective of the landlord, tenant farming arrangements will not allow the kinds of transformations to alternatives that are necessary in the face of the farm income crisis as well as the climate crisis. I also analyze the unravelling of rural community structures under neoliberalism, and consider how these changes impede the collective action needed to push for transformation.

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Thank you to all my interviewees -- both farmers and community members -- who were willing to sit and share with me. It was an honour to receive your trust, and I have taken seriously my job of doing justice to the stories you told.

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DEDICATION

This thesis is dedicated to Cory Ollikka [1970-2020] -- Albertan farmer, long-time community and NFU organizer, and self-described dancer with a rousing and grounded sense of alternative possibilities: “It’s not an inevitability that we are here or that we will always be here.”

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TABLE 1: LIST OF ACRONYMS

AFA = Alberta Federation of Agriculture
AFSC = Alberta Financial Services Corporation
CPP = Canadian Pension Plan
CWB = Canadian Wheat Board
FCC = Farm Credit Canada
GMO = Genetically Modified Organism
MD = Municipal District
MFSC = Manulife Farmland Services Canada
NDP = New Democratic Party
NFU = National Farmers Union
OTPP = Ontario Teachers' Pension Plan
REITS = Real Estate Investment Trusts
ROI = Return on Investment

1. INTRODUCTION

1.1 Background & rationale

Across Canada, there continues to be a clear trend toward fewer and larger farms as smaller- to medium-sized operations have been forced out and those that remain continue to grow (Statistics Canada, 2018; Somerville & Magnan, 2015). From 1966-2016, Canada lost over half of its farms (Statistics Canada, 2019a). This pattern of farmland concentration has persisted particularly since the 1990s when the agricultural sector was put through a neoliberal transformation (Desmarais et al., 2017; Skogstad, 2008; Sommerville & Magnan, 2015). Farmers have been forced to compete in global markets following neoliberal structural changes including a reduction in government supports such as price stabilization programs, free trade productivist policies, and the growing power of transnational agribusinesses (Desmarais et al., 2017; Sommerville & Magnan, 2015; Qualman et al., 2018). These changes have produced a decades-long farm income crisis that continues to this day across many production types, as capital and input costs have increased amidst pressure to expand while commodity prices have remained stagnant. In addition to net farm incomes being squeezed, they are now distributed among farmers more inequitably than ever (Qualman et al., 2018). Together, these factors have produced a dramatic farm "debt bomb" (NFU, 2015, p.29) which surpassed $109 billion in 2019 (FCC, 2020a). As farmland costs have risen steeply since the early 2000s (FCC, 2019), farmers are increasingly becoming tenants, some on land they once owned themselves. Sommerville and Magnan (2015) note that while the primary model of agriculture on the prairies has long been that of the family farm that employs family labour and owns much of its land, "the continuing dominance of this model belies important shifts in its character" (p.124).

Alongside the ongoing concentration of farmland ownership among farmers in Canada (Statistics Canada, 2017a), the interrelated world food, energy and financial crises of 2006-08 led to a "revaluation" of farmland by a range of investor actors who began making large-scale acquisitions in this new asset class across both the global South and the global North (Borras & Franco, 2012; Desmarais et al., 2017; De Shutter, 2011; NFU, 2015). These investments, in their diverse forms, shift ownership and access to land and its resources from local communities to financial capital and corporate interests, and push up the price of farmland (Desmarais et al., 2015). The methodologies used in existing literature on this shift, now termed "land grabbing"[1] (NFU 2015; Ouma, 2014), have been criticized for "false precision", lacking in reflexivity and rigour (Oya, 2013), relying too much on sources such as newspaper reports, and representing the phenomenon too simplistically by reducing the story down to numbers of acres (Edelman, 2013). Geisler (2015) and van der Ploeg et al. (2015) implore scholars to do a better job of grounding knowledge of land grabbing at the community level.

While the investor farmland buy-up has been extensively documented in the global South (see, for example GRAIN, La Via Campesina, *Development and Change, Globalizations, The Journal of Peasant Studies,* and *Third World Quarterly*), it is becoming increasingly clear that the "global land rush is indeed global" (van der Ploeg et al., 2015, p.147) and taking place here at home. Academics (Desmarais et al. 2015; 2017; Magnan, 2012; Sommerville & Magnan, 2015; Sommerville, 2013), media outlets (see for example CBC Docs, 2019; Hume & Tomlinson, 2017; Pratt, 2015) and civil society groups (NFU, 2015) have begun to document farmland purchases in Canada by investors such as pension plans, private investment funds, and wealthy individuals. Growing concern across the country recently led the Standing Senate Committee on Agriculture and Forestry to investigate the impact of farmland acquisitions and consider "how to keep farmland in the hands of farmers" (2018).

Investors are particularly attracted to the Canadian Prairies due to the abundance of high-quality farmland and fresh water, stable soil conditions, and the expectation that demand and prices for staple crops grown in the region will continue to rise (Sommerville & Magnan, 2015). Prairie farmland is understood to be undervalued and affordable compared to other farmland in North America, and these factors, alongside the region's solid infrastructural networks, stable political, trade, and legal climates, and proximity to prominent markets make these provinces a particularly appealing site for investment (Sommerville & Magnan, 2015). As the Prairies collectively contain 71.6% of Canada's farmland (Connell et al., 2016), the region is an essential place for study. Saskatchewan has been a primary site of interest and research on the topic of

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[1] First coined by GRAIN, the international non-profit that also runs farmlandgrab.org, a collection hub for news reports on land grabbing (Desmarais et al., 2015; NFU, 2015). I will not be using this term throughout my thesis as the dynamics of farmland tenure changes in Alberta differ in some key ways from land grabbing in the global South, although the financial forces and logics behind the trends in both locales are the same and both are part of the global land rush. For example, as Sommerville and Magnan (2015) point out, investor landownership in the global North does not necessarily involve significant changes in production practices, as is often the case with land grabbing in the global South.

farmland tenure in Canada, particularly following the Canadian Pension Plan Investment Board's (CPP) purchase of 115,000 acres in 2013 (not, in fact, from farmers, but from another farmland investment firm, Assiniboia Capital Corp.; Magnan, 2018). This case made waves in the media, and following public consultations, led to the subsequent tightening of ownership regulations in the province (Desmarais et al., 2017; Magnan, 2018). Changing farmland tenure in Alberta has received considerably less scrutiny thus far.

Desmarais et al. (2017) were the first in the country to produce a meticulous analysis of provincial changes in farmland ownership patterns utilizing land titles data in Saskatchewan. After initially mapping ownership and honing in on three rural municipalities (the relative equivalent to Municipal Districts and counties in Alberta; Desmarais et al., 2015), the researchers then set out to analyze the whole province in greater detail. They found that between 2002 and 2014, the amount of land owned by investors increased 16-fold, from 51,957 acres to 837,019 acres, although the percentage of privately-owned farmland in investors' hands in Saskatchewan remained low, at 1.44% (Desmarais et al., 2017). Despite this low percentage, the researchers argue that these purchases can still have significant impacts at the local level. This is in part because investor ownership is clustered in some areas, with investors owning as much as 10% of farmland in certain rural municipalities in 2014. Magnan and Sunley (2017) determined that during this same period of analysis in Saskatchewan, investors paid more, on average, for farmland than others did. This is not surprising given investor actors' buying power and access to pools of capital, and as relatively little farmland trades hands each year, investors' purchases likely contributed to the inflation of farmland markets considerably (Desmarais et al., 2017). Desmarais et al. (2017) also found that concentration had increased; for example, the percentage of land held by the four largest private landowners in the province went up 6-fold from 2002 to 2014.

This research in Saskatchewan has prompted a multitude of questions concerning how farmland tenure patterns are changing in other provinces, and the impacts and implications of these changes on rural communities, those working in the agricultural field, and farming practices. My thesis research will build on Desmarais et al.'s 2015 and 2017 work by shedding light on how grain and oilseed[2] farmland tenure is shifting in Alberta, through 40 interviews

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[2] Hereafter largely referred to as the "grain sector", "grain farming", "grain farmers" etc., for simplicity's sake.

conducted across the province. My research is part of a larger project taking place in all three of Canada's Prairie provinces (Alberta, Saskatchewan, and Manitoba) seeking to address both of the above noted gaps in the literature -- that is, the need for 1/ more precise reporting, and 2/ in-depth studies at the local level -- through detailed quantitative work using land titles data, and interviews in each of the provinces.

1.2 The longer story of land tenure on the prairies

It is essential to link the more recent period under consideration in this research to the longer history of land tenure across the Prairies. This history is the story of the violent dispossession of Indigenous peoples from their territory and "multiple and coordinated" (Woolford & Benvenuto, 2015, p. 374) acts of physical, biological, and cultural genocide[3] committed in service of settler colonialism, a structure that remains to this day (National Inquiry into Missing and Murdered Indigenous Women and Girls, n.d.). Access to farmland that is suitable for grain farming in Alberta, both in quality and in quantity, largely remains the privilege of the settlers whose families were initially given access to land during this original enclosure -- land "'acquired' through unscrupulous practices (Daschuk, 2013), and treaties that the state has failed to honour or understand" (Kepkiewicz & Dale, 2019, p.989). Alberta is home to 48 First Nations, and 8 Métis Settlements (Government of Alberta, n.d.a). Although the province exists primarily on Treaty 6, Treaty 7, and Treaty 8 territory (I conducted interviews across all three), Indigenous consent over the course of Canada's history as a nation-state has been "ignored, coerced, negotiated, and enforced", far from the "restorative, epistemic, reciprocal, and legitimate" consent that Indigenous communities have long been fighting for (The Yellowhead Institute, 2019, p.9).

Settler colonialism was justified through a cultural discourse which portrayed Indigenous peoples as savages, incapable and unwilling to work the land in service of capital accumulation (Harris, 2004). Through the need to maintain this narrative, in addition to the dismissal of land as territory (as it is understood in many Indigenous cosmologies [Kepkiewicz & Dale, 2019]), there remains an erasure of the historical contributions of First Nations and Métis farmers on the

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[3] Huseman and Short (2012, drawing on Mercredi, 2009) add the term "slow industrial genocide" to the Alberta context to highlight how the tar sands, "widely considered the most destructive industrial project on earth", have been a central colonial motivation and cause of genocide (p.220).

prairies, who were engaged in agricultural production prior to colonialism (Carter, 2013). After the collapse of the bison in the late 1870s drove Indigenous nations into famine and desperation, starvation was used as a deliberate tool by the Dominion government to pacify Indigenous communities, force them onto reserves, and make way for the development of the railway and the incoming settlers (Daschuk, 2013).

Once on reserves, Indigenous communities were actively farming or seeking to farm, and fought hard to receive the tools and training they were promised in the treaties to switch to full-on agricultural lifestyles, but agents and government bureaucrats were continually unwilling to provide communities the supports promised (Carter, 1990). Then, when some reserve communities began to have great success at farming despite the lack of support, a permit system was instituted (alongside a pass system which restricted the movement of Indigenous peoples off their reserves, thus further restricted their ability to sell their products; both systems continued to be enforced until the mid-20th century) in order to restrict Indigenous farmers from selling their food and making a livelihood, so as to protect the market share for settler farmers (Carter, 1990).

There were also other policies implemented at different times such as the Peasant Farm Policy that mandated Indigenous farmers use older technology as opposed to mechanized equipment (Carter, 1990). Hence, the lack of agriculture on reserves was not a result of a dearth of interest or effort, but of barriers put up by the Dominion government, including that the land allocated for reserves was typically marginal, as the most fertile land was given to settlers (Carter, 1990). While the 2016 census showed that the number of Indigenous farmers has been increasing, they make up only 1.9% of agricultural operators, while representing 4.9% of Canada's population (Gauthier & White, 2019). First Nations and Métis farmers are even more underrepresented in sectors with higher revenue potential, such as dairy and grain farming (Gauthier & White, 2019). I note these disparities not to suggest assimilation into capitalist farming systems, but because these numbers reflect ongoing marginalization and the unequal distribution of wealth along racial lines.

My interviews revealed a clear link through family histories between the European agrarian colonization at the beginning of the 20th century and those who own farmland in Alberta today. As one farmer put it,

> We have a lifestyle now that we are in a position to help our son and daughter-in-law out, but that has taken generations to build to that place. So the path that has been laid out for us has made our path easier. (#20)

Of my interviewees who were farmers, just under 90% either grew up on family farms, or married into farm families. Although the transfer of land and other assets from one generation to the next can be complex and costly, and even out of reach in families where those exiting need to sell out to the highest bidder to pay off debts and retire, it remains that the associated advantages of a family farm background are essential for entry into Albertan grain farming. Of the 90% with family farming ties, several traced family histories on the land back three or four generations, to grandparents and great-grandparents who came over from Europe, the US, or Eastern Canada. For many of these early settlers, coming to North America meant they were able to go from being wage labourers in their home countries to independent producers (Harris, 2004). Interviewees expressed pride in their histories, and in how while "the guys who came out here came here with nothing" (#1), they had still managed to start farms that continue on today. One older farmer from central Alberta told me about his father, who had come to Alberta alone at age 17 from Romania in 1926 to start a farm for his family who later followed (#10). In a group interview, three brothers described to me how their grandfather in the Peace Region had "opened and broke" 1400 acres himself (#38).

Without seeking to dismiss these family histories, it is crucial to emphasize that the early settlers who came seeking land were a tool of eastern and European capital, as well as a tool in the formation of the Canadian state and its goal of achieving dominion, and gave momentum to the dispossession and repossession of Indigenous territories (Harris, 2004; Knuttila, 2003). The very physical presence of the settlers helped to solidify the imposition of the Western property regime (Harris, 2004): getting settlers, particularly young white males, onto plots of land as quickly as possible was the way to secure ownership, and to spread an army across the landscape as "a substitute for direct military force" (Carter, 2013, p.26). Blomley (2003) reminds us that the insertion and ongoing maintenance of the Western property regime has not only been backed by discourse, nor been merely an "act of persuasion" (as per Rose, 1994, p.296), but also been maintained by material and corporeal acts of violence.

This reality was thrown into sharp relief on March 28th, 2020, not far from where I was conducting interviews north-east of Edmonton, when a Métis-Cree uncle and nephew, Maurice Cardinal and Jake Sansom, were shot to death on a rural road after spending the day out moose hunting (Boothby, 2020; Johnston, 2020). Although the case has not been closed, two non-Indigenous men have been brought into custody. The real threat of violence, whether at the hands of the state or racist vigilantes, remains constant for First Nations and Métis communities in Alberta. There were also expressions of subtle and overt racism in some of my interviews. Rising rural crime was on the forefront of the minds of many of my interviewees, and there was a noticeable difference between the forgiving tone offered to unemployed white settler oil workers participating in rural crime, and the inherent criminality ascribed to Indigenous community members or whole reserves. The most chilling moment was when a farmer told me about an incident that had just happened earlier that week in January 2020. He suggested that an Indigenous man had stolen the truck of a friend of his. The friend had jumped in another vehicle and chased him down the road. Supposedly, when the friend later went to the police, the officer asked why the friend had not driven the Indigenous man into the ditch. The interviewee used this story to highlight why, in his mind, farmers should always be allowed to carry guns. Ongoing settler colonial violence is the underbelly of all land tenure dynamics across the prairies.

1.3 Methods

Building on the pilot project led by my supervisor, Dr. Annette Desmarais, the initial plan for the ongoing larger project was to conduct a land titles analysis in Alberta and Manitoba, as was done in Saskatchewan. Then, the quantitative results were to be layered with qualitative interview data from a sample of communities which had experienced the highest rates of farmland concentration and investor farmland purchases. Unfortunately, although the land titles data in Alberta remains publicly managed by the Land Titles Office (part of the Registry Services Division of Service Alberta), unlike in many other provinces where the information has been fully or partially privatized, the cost to access the data is close to $50,000. The inaccessibility of this price tag has thus far impeded the research team from mapping and conducting a detailed quantitative analysis of the changes in farmland ownership across the province as originally planned. If we had been able to access the land titles data for Alberta and conduct a fine-grained analysis such as in Saskatchewan, I would have used this information to decide where to conduct my interviews. In the absence of the data, I used other measures, which I elaborate on below.

In addition to the secondary sources that informed this thesis, such as academic literature, media articles, and reports, I conducted 40 semi-structured interviews with a total of 52 participants (I count interviews with multiple interviewees as a single interview). I conducted 10 interviews each in three different regions of Alberta, and 10 context interviews with government employees, farm leaders, investor actors, and community members across the province. To ensure the anonymity of participants, I will not be naming the specific Municipal Districts (MDs)/counties I visited. Instead, I will refer to three interview regions: the north-east, near Edmonton; the Peace Region, in the north-west; and the central corridor, between Calgary and Edmonton[4]. I chose each of these locations after weighing several factors. I used the maps in the Agricultural Land Resource Atlas of Alberta (Government of Alberta, n.d.b) to understand where most of the grain farming was taking place. Reviewing the maps titled "Soil Groups", "Cultivation Intensity Index", "Suitability for Grains", "Fertilizer Expense Index", and "Manure Production Index" in tandem gave me a good idea of the MDs/counties best suited for my research. I was looking for locations that were dominated by grain farming over other production types such as ranching: the three regions I chose all have medium-to-high soil quality, high rates of cultivation, and prime suitability for grain farming. In the end, I went to Alberta before having finalized exactly where I would be conducting interviews because I realized I needed to meet with MD/county staff on the ground and conduct context interviews prior to making the final selections. I knew before arriving in the province that finding MD/county staff who were keen to support the research could be immensely helpful, so this informed my choices of locations as well.

While the initial plan was to choose three MDs/counties with high rates of investor ownership and concentration, and then to find participants within these boundaries (as my fellow researchers on the project in Saskatchewan and Manitoba were doing), without the land titles data, limiting my interviewees to a given MD/county did not make as much sense. Finding participants was a challenge, and the desire to find a diversity of participants and hone in on any incidences of investor activity I caught wind of in a region led me to widen the geographical size of my three studies. I still worked hard to find interviewees within a relative distance of one another, so that their local context remained similar: at least half of the interviewees in each study lived in one MD/county, and the rest lived in adjacent MDs/counties.

[4] I did not choose a site in the south of the province because much of the grain land there is irrigated, which means higher land prices and slightly different dynamics. Southern Alberta would be a great site for further research.

In each region, 8 of the interviews were with farmers, and 2 were with municipal officials. The municipal officials, with the exception of one Reeve and one Chief Administrative Officer, were all Agricultural Fieldmen. Alberta's Agricultural Fieldmen are responsible for the Agricultural Service Board Act, the Weed Control Act, the Soil Conservation Act, and the Agricultural Pests Act (AAAF, n.d.). They are highly in-tune with farmland tenure and the farmers in their MD/County, and all but one of the Agricultural Fieldmen I interviewed were also farmers themselves. All but one of my interviews with farmers and MD/county staff were conducted in-person, through three separate visits to Alberta in November and December 2019, and January 2020. Interviews with MD/county staff occurred at the offices where they worked, whereas interviews with farmers typically took place at their farms, although 3 occurred at a conference, and another 3 in other public spaces. Interviewing farmers at home was desirable because it ensured interviewees felt comfortable speaking their minds without anyone else hearing them. Given that the topic of land ownership is so embroiled with politics, power, privilege, and inequality (Geisler, 2015), as well as complex interpersonal dynamics, it has the potential to be contentious.

I also conducted 10 context interviews that were not region-specific. I used these interviews to better understand the geography of grain farming regions in Alberta, and to get the inside scoop from those involved in Albertan farming and farmland tenure from other perspectives. All but one of my context interviews were conducted over the phone due to the geographic spread of where the interviewees were located. These interviews included Lynn Jacobson, President of the Alberta Federation of Agriculture (n=1); Toby Malloy, Alberta Board Member for the National Farmers Union (n=1); Brent Swallow, a professor in the faculty of Agriculture, Life, and Environmental Science at the University of Alberta (n=1); a pair of farmland real estate brokers (n=2); Roy Farrer, Vice President of Asset Management at Bonnefield (a Canadian asset management firm that oversees farmland real estate investment trusts; n=1); an MD/county Tax/Utility Clerk (n=1); an Agricultural Fieldman (n=1); a farming couple in the centre-east of the province (n=2); Government of Alberta employees working in the Ministry of Agriculture and Forestry (n=2); and an organic agrologist consultant in northern Alberta (n=1).

Since my research is part of a larger research project covering the Prairies, certain aspects of the research were decided upon as a team. For example, the team made the choice to conduct the majority of the interviews for this project with grain farmers. Within the confines of a Master of Arts thesis, this allowed us to hone in on the farmland tenure dynamics specific to this type of operation[5]. This decision regarding interviewees was not made to uplift grain farmers' voices above those of the other rural community members, nor to imply that those who own or operate the most land deserve the most say. It was a strategic choice: these farmers have the most information about the dynamics of changing farmland tenure, and because they own and produce on vast swaths of land, their realities, perspectives, practices, and plans are worth investigating.

When I arrived to a new region, I began by reaching out to MD/county offices to arrange interviews with Agricultural Fieldmen, who were able to give me a lay of the land. From there, I found farmers to interview through a couple of different methods. The most effective method was to ask a previous interviewee to pass along my contact details and information about the project to other grain farmers in the area. This was a particularly fruitful strategy for finding female participants, as female interviewees always knew of other female farmers, and were excited to get other women involved (whereas male participants would often suggest they did not know of any female farmers in the area). I also did some cold calling from the names on MD/county ownership maps, when I was able to find their phone numbers online, but typically the only numbers listed online were landlines, so this was not a particularly useful method. I also found several participants through media articles and the websites of organizations farmers are a part of, such as the Agricultural Service Boards, the network of Agricultural Fieldmen, the different commodity commissions, the Alberta Federation of Agriculture (AFA), and the National Farmers Union (NFU).

I attempted to attain as much diversity among my farmer interviewees as possible, in terms of the size of their operation, their farming practices, their ratio of rented land to owned land, their time farming, and who they were renting from. The majority were exclusively farming grain, although about a third of interviewees who farmed were or had been mixed farmers (primarily grain and cattle), and a handful were retired from farming or had switched from grain to cattle. Among the 28 interviewees who both farmed and reported their acreage numbers to me, the average operating size was 4694 acres (however, this number was swayed by a couple of

[5] In the 2016 census, grain and oilseed operations made up 46.3% of agricultural operations on the prairies, by far the highest percentage of any single category (Statistics Canada, 2017a), and Alberta reported 25.3 million acres of cropland (Statistics Canada, 2017b).

particularly large farms). The smallest-scale farmer I interviewed operated 230 acres, while the largest operated 33,500 acres. Farmers' tenure arrangements varied from owning 100% of the land they were operating, to renting as much as 95%. I also hoped to have the gender breakdown of my interviews reflect the fact that 30.8% of farm operators in Alberta were female in 2016 (Statistics Canada, 2017b); in the end, 38% of the total research participants were women, and 32.5% of the 40 interviews were with women alone. It was important to me to try and interview women on their own, so that they would be free to speak their minds and to ensure their voices were not overshadowed, as was distinctly the case in most of my interviews with mixed gender couples.

Participants were divided into three categories, and each received a different consent form and slightly different set of questions. The interview questions were consistent across the three Prairie provinces, which we deemed important in order to have some capacity for future comparison across the larger research project. However, I did add some questions early in my interview process, as certain issues rose to the surface that were either key to the Albertan context, or of particular interest to me. For some of my context interviews, I drafted whole new sets of questions (also in Appendix A). I had all of my interviewees sign consent forms (listed in Appendix B). The consent form for farmers indicated to them that they would remain anonymous across the research. The consent form for MD/county officials and staff and for the context interviews gave interviewees the following three options: they could remain anonymous and not be directly quoted, remain anonymous and be directly quoted, or have their name and/or position associated with their words. I audio recorded each of my interviews and asked for interviewees' verbal consent on the record, and then later transcribed and coded the interviews. I did my coding using Dedoose, an online software that made it easy to group pieces of text from the interviews under different themes and subthemes. I coded both for themes I had anticipated, and for new themes which emerged from the data throughout the coding and analysis process.

Flyvbjerg (2006) argues that verification is a problem all researchers experience: "It is the peculiar and perpetual error of the human understanding to be more moved and excited by affirmatives than negatives" (Bacon, 1853, as cited in Flyvbjerg, 2006, p.234). I worked to keep this in mind throughout my research, particularly given that my personal politics are strongly rooted in land sovereignty. A constant consideration of "what can be known" through interviews was an important component of my reflexivity practice (Doucet & Mauthner, 2008). I strived to employ what Doucet and Mauthner (2008) describe as a “soft” poststructuralist lens, through which interview subjects have agency and intention even as what they convey is simultaneously understood to be socially constructed and bound by the confines of the narrative form.

My research, and initial desire to be a part of this research project, are informed by the critical paradigm, through which the primary goal is to create “practically significant research” (Tracy, 2010, p.846). Tracy (2010) argues that “aiming for practical change is no more subjective than research that aims to build theory” (p.846). I decided to sign on to this research project because I believed that my supervisor, Dr. Desmarais, was committed to conducting practically significant research. Previously a Saskatchewan grain and cattle farmer herself, she is also deeply tied to national and transnational farmers’ movements and organizations, and I trusted that she had her finger on the pulse of the kind of research that was needed for those on the ground. Through my previous work for a farm organization in New Brunswick, I had witnessed investors vying to purchase farmland from indebted farmers, and was concerned about the possible ramifications and lack of state monitoring. Finally, I was motivated to conduct this research knowing it would be a piece of a larger research puzzle which will continue to build upon itself. To ensure that this research does not sit on the shelf, I will present all participants with a summary of my research findings, and disseminate the findings to groups like the NFU, the Young Agrarians, the AFA, and Food Secure Canada. To reach the broader public, I will be striving to publish news and academic articles after my thesis is complete. In short, I hope to make this research a useful tool through translating my analysis written in academic language into clear and accessible storytelling.

1.4 Objectives

Flyvbjerg (2006) acknowledges, drawing on Kuhn (1987), “that a discipline without a large number of thoroughly executed case studies is a discipline without systematic production of exemplars, and that a discipline without exemplars is an ineffective one” (p.242). I had initially envisioned employing the comparative case study methodology, wherein my three MD/counties would each be case studies, which I would compare and contrast. Without access to the land titles data in Alberta, I ended up expanding the bounds of my three study regions, as explained above. Thus what was initially to be three MD/county case studies is now more of a provincial exploration, which can be used comparatively against what my two MA colleagues have produced on Saskatchewan and Manitoba. I hope that my research contributes to humanizing what is happening on the ground in Alberta, or as Denzin and Lincoln (2000, p.3) write, “makes the world visible”, and bridges what is happening provincially to broader, transnational processes such as neoliberalism and financialization (as cited in Ritchie et al., 2003, p.2).

More specifically, the three objectives of this research are as follows:

1. To examine how financialization is contributing to shifting grain farmland tenure in Alberta, through honing in on investor involvement and inflated farmland values;
2. To analyze the social and environmental impacts and implications of these changing tenure patterns at the community level and under ongoing neoliberalism, and;
3. To discuss the potential and need for alternatives in light of neoliberalism and the financialization of farmland in rural Alberta.

1.5 Situating the researcher

I am a white settler who has lived on Treaty 1 Territory in Manitoba throughout this MA degree, and an outsider to Alberta and to grain farming. While I have worked on small-scale, diversified farms, these operations and the farms under consideration in this research are incommensurable. Being an outsider to Alberta and to the grain industry forced me to put in extra work to better understand the research context, but also provided some advantages. My initial lack of knowledge prompted me to ask many questions, and read lots before, during, and after my field research to fill in the gaps.

Denzin (1997) suggests putting one’s politics at the forefront and “ceaselessly” questioning what is produced through them (as cited in Pillow, 2003, p.187). Lather (1993) argues that we must continue to attempt to employ reflexivity within our own work but only through heavy recognition of the shortcomings inherent in the process (as cited in Pillow, 2003). I strived to embody Pillow’s (2003) “reflexivities of discomfort” in the production of my research, beginning with the recognition that reflexivity cannot change my positionality or allow me to transcend it. I have attempted to reflect on my own worldview and the “filters” through which my interpretation is produced for more than the sake of confession (Pillow, 2003; Ely et al., 1997) and to contend with the immense challenge of "mark[ing] where [one] end[s] and another begins" (Pillow, 2003, p.182). While this research project is largely inductive, it does have strong political leanings in alignment with land sovereignty, which stands in opposition to the tenure trends taking place in Alberta.

For me, reflexivity has looked like a healthy amount of self-doubt, and returning to the data when in doubt. It has been a constant balancing act of working to do justice to interviewees' experiences and stories, while also considering their positionality within the broader body politic, and the longer, wider, story of land tenure on the prairies. It has involved constant questioning of what can be known through the rich messiness of qualitative research, and of recognizing the power and privilege I have had being the one to weave together a narrative from so many diverse stories.

1.6 Outline of thesis chapters

Chapter 2 lays out the theoretical literature I draw on for my analysis, and explains the current context of grain farming in Alberta. This is followed by four empirical chapters each focused on a particular dimension of changing farmland tenure. Chapter 3 examines the involvement of investors of various stripes. In Chapter 4, I discuss what is influencing rising farmland prices, and how these prices are affecting farmland tenure patterns. Chapters 5 and 6 address the impacts and implications of the financialization of farmland and neoliberalism on rural communities in Alberta, with Chapter 5 focusing on the social, and Chapter 6 on the environmental. In Chapter 7, my final discussion chapter, I will consider the potential and need for alternatives.

2. LITERATURE REVIEW

2.1 Neoliberal agricultural restructuring in the Canadian Prairies

Alongside a process of globalization, neoliberalism has come to dominate ideologically and in practice since the 1980s (Patel & McMichael, 2009). It emerged from the abstract intellectual ideas of Hayek and Friedman and was first enacted in the Global North through state restructuring under Thatcher and Reagan (Peck & Tickell, 2002). Over the last 50 years as this "ideological coup" occurred (Baradaran, 2020, n.p.), neoliberalism in practice (as with globalization) has been presented as a "neutral force" or "biological law", and this anonymity contributes to its strength and pervasiveness (Monbiot, 2016, n.p.). In reality, neoliberalism has been a deliberate political project of the world's elites to organize globalization in service of their own profit motives (White et al., 2012).

Neoliberal ideology posits that human well-being is maximized through the prioritization of free trade, free markets, and private property rights (Harvey, 2005). It is a return to the social Darwinism of the late 1800s, in which competition is the "defining characteristic of human relations", and a "survival of the fittest" mantra prevails, emphasizing the individual over the collective (Monbiot, 2016, n.p.). Wealth is understood as resulting from merit and hard work, and struggle as resulting from personal failure (Monbiot, 2016). In practice, neoliberalism "seeks to bring all human action into the domain of the market" (Harvey, 2005, p.72). It has been at once a "roll-back" of the state beginning in the 1980s through deregulation, privatization, and reduced social provisioning (as taxes were cut and social spending limited), followed closely by a "roll-out" in the 1990s, a social, political, and economic re-regulation process which fundamentally reordered the balances of power in favour of capital and transnational corporations (Bernstein, 2010; Lawrence & Smith, 2018). In this way, state power has played a key role in imposing the "market(-like) rule" that is portrayed as independent and neutral (Tickell & Peck, 2003, p.166 as cited in Jaffe & Quark, 2005, p.231).

The Canadian state had long accepted the need to protect farmers, thanks in part to strong agrarian organizing, and the view that grain exports were essential to the growth of the national economy. Rising from the confluent crises of the Great Depression into the 1930s required massive public-private cooperation; however, as early as the end of the 1960s, the state's role in ensuring the viability of family farms was being challenged (Knuttila, 2003). By the late 1980s, the belief that farmers should have to fend for themselves on the market came to the fore through the rhetoric of the farmer entrepreneur in government publications and the media (Qualman et al., 2018). This shift entailed a whole series of dramatic changes in policies, regulations, and marketing structure including the privatization of grain handling that was previously run by co-operatives, the privatization of the railway, and the end to regulated and subsidized grain freight rates, which caused transport prices to increase considerably (see the table in Qualman et al. 2018 for a more complete list). The state also reduced its support and protection programs that acted as social safety nets during tough years while realigning government programs in favour of increasing trade, productivity, and international competitiveness (Sommerville & Magnan, 2015).

In the 1990s, by signing the Canada-US Trade Agreement, the North American Free Trade Agreement, and the World Trade Organization's Agreement on Agriculture, Canadian agricultural policy focused increasingly on productivity maximization for export (Desmarais et al., 2017; Knuttila, 2003; Sommerville & Magnan, 2015). This transition reflects in part the increased influence of corporate power over state agriculture policy. As farmers' marketing power and protections have diminished, and as the model of grain farming swung further toward even greater use of external inputs, new technologies, and restrictions on seed saving alongside the private patenting of new genetics, agribusiness captured a greater market share and exercised more control over farmers' decision making, thus limiting their agency (Diaz & Stirling, 2003). The narrative that Canada is the "breadbasket of the world" is a story that helps to bolster support for this conventional model[6] (see for example Brown, 2013).

It was also in the mid-1980s that the farm income crisis began, a crisis which continues into the present moment and is characterized by low net farm incomes even amidst ever-rising gross farm revenues (NFU 2015; CFA, 2006 as cited in Sommerville & Magnan, 2015). From 1986-2016, Canadian farmers' realized net incomes were a mere 2% of gross revenues from the markets, with the rest of the value captured by machinery, input, and energy companies, banks and lenders, and service providers such as accountants (Qualman, 2017). During this same period, farm debt tripled, and Canada lost a third of its farms (Qualman, 2017). Through their

[6] Throughout this thesis I use the term conventional to refer to non-organic grain farmers who are practicing the industrial model that is most common across the prairies. However, I reject the way this word choice normalizes and naturalizes a way of producing that is in no way inevitable.

near-monopolies, agribusiness corporations have taken advantage of times when farmers appeared to be doing better by increasing the cost of inputs as well as capital requirements such as machinery in order to skim off profits from what might otherwise have been farmers' incomes. In the grain sector, taking wheat as an example, even as input, machinery, and land costs have skyrocketed, and the retail value from bread produced from a bushel of Canadian wheat has continued to increase, the price per bushel that farmers have received, adjusted for inflation, has been lower than ever, below $10 since the beginning of the 1980s (Qualman et al., 2018).

A powerful example of neoliberal structural change within the Canadian grain sector was the dismantling of the Canadian Wheat Board (CWB) in 2012. In the words of CWB scholar André Magnan, the CWB was, "for nearly 70 years, the most important agricultural institution in Western Canada" (2019, p. 100). The CWB was a marketing collective, enshrined in federal legislation, through which all wheat and barley farmers were mandated to sell their grain. Because it represented tens of thousands of farmers, grain companies had no choice but to negotiate on prices. The CWB was also an equity mechanism, as returns were pooled and all farmers growing a certain class and grade of grain were given the same price per bushel (Magnan, 2019). Although the CWB had long been under attack[7], in 2006, newly-elected Conservative Prime Minister Stephen Harper announced his mission to dismantle it. He argued the CWB's mandated collectivism to be an affront to farmers' liberty and that it disturbed the natural hierarchy through market distortion (McGregor, 2011). Müller (2013) sums it up thus: "Collective marketing that had been innovative and largely consensual in the middle of the twentieth century became residual and a threat to prevailing market liberalism at the onset of the twenty-first century" (p.129).

The Harper government, and then Agricultural Minister Gerry Ritz, finally succeeded in taking down the CWB in 2012 after they won a Conservative majority, even as grain farmers fought fiercely to try and save it. The CWB legislation was replaced with the *Marketing Freedom for Farmers Act*, and the CWB's assets were sold to Bunge, a multinational grain company, and what is now called G3, a Saudi Arabian agricultural investment firm (Boehm,

[7] Criticism had been raised by conservative forces in Canada, and the US government had filed complaints through the World Trade Organization's dispute reconciliation mechanism. It is worth noting that the US actions were all unsuccessful (Roppel et al., 2006).

2020). There were protests on Parliament Hill and in front of provincial legislatures, lobbying efforts, court actions, and diverse media campaigns; farmers even blockaded a rail line with their combines (Müller, 2013). Despite the stronghold of free-market ideology, polls in 2011 indicated that a majority of farmers (62% for wheat and 51% for barley) were in favour of keeping the CWB (Magnan, 2019). There was, however, a clear generational divide in the polling between the older generation's staunch support for the CWB and the younger generation's uncertainty or opposition to it.

One older farmer, reflecting on what happened in 2019, said he believed that because the younger generation of grain farmers came of age under the CWB but still struggled to enter the industry and make a living, they could not conceive of the CWB's value, and were more easily swayed that it was inhibiting them from succeeding (Magnan, 2019). World wheat and barley prices were low for most of the years between 1985 and 2007, and the seeds of CWB doubt were watered by agribusiness and the minority of farmers who wanted collective marketing gone (Magnan, 2019). Anti-CWBers believed collective marketing limited the potential of an individual farmer to make more than others through an ideology that demands the right to inequality and promises that everyone will get what they deserve (Monbiot, 2016). Some deemed it unfair that farmers of all sizes were afforded the same say through the existing CWB legislation. This cooperative principle of one-farmer-one-vote differs from shareholder boards where the number of shares equates to a say, and opposition to this principle reflects a reorientation across the economy toward prioritizing shareholders over stakeholders (a component of financialization; Burch & Lawrence, 2009).

The same factors that make life difficult for grain farmers are both dissuading and outright impeding new farmers from entering the sector, creating a "crisis of generational renewal" not just in Albertan grain farming, but in agricultural production across the country (Qualman et al., 2018). In Qualman et al.'s (2018) article using Statistics Canada data to analyze the political economy of this crisis, they outline four contributing and interwoven structural factors and forces: "low net incomes, an imbalance in market power between farmers and agribusiness corporations, increasingly unaffordable farmland, and corporate- rather than farmer-focused state regulatory regimes" (p.102). Not only are farmers under the age of 35 exiting farming at twice the rate of other farmers, but they are also increasingly not entering at all (Qualman et al., 2018). While certain other sectors of the agricultural industry in Canada have incredibly high entry costs as well (such as dairy, given the cost of purchasing quota within the supply-managed system), the conventional grain industry is notable due to the amount of land needed to make a living given the low price-per-bushel of grain commodities in relation to the cost of land, machinery, and inputs.

2.2 Neoliberalism at the community level

Peck and Tickell (2002) write that scholars must strive to balance and link wider, more abstract, transnational accounts of "omnipresent" neoliberalism with grounded analyses of distinct iterations, strategies and impacts at the community level. Writing on Saskatchewan, Jaffe and Quark (2005) argue that neoliberalism has restructured the political economy of the prairies, "demanding the renegotiation of axes of social cohesion and cleavage in rural communities" (p.230). They further write:

> neoliberalism represents a deep restructuring of the cultural, social, political and economic relations of state, market, and society, which manifests in distinctive expressions of local entrepreneurialism based upon local contexts and relationships. (p.229-230)

The neoliberal agenda propels itself forward in part through these renegotiated relationships, as "a market economy can function only in a market society" (Polanyi, 1944, p.57, as cited in Jaffe & Quark, 2005, p.236). Neoliberal ideology has become hegemonic, as the "central, effective and dominant system of meanings and values, which are not merely abstract but which are organized and lived" (Williams, 2006, p.135), and Thatcher's notion that "there is no alternative" lives on down to the community level as a lack of ability to imagine a different future, or an alternative role for the state.

In their research in Saskatchewan, Jaffe and Quark (2005) found that communities participated in their own submission as they fought to secure public and private funding, present themselves as "open for business", and practice competitive entrepreneurship. People become "compliant and complicit in their own domination and exploitation" through self-regulation, or what Foucault called "governmentality" (Jaffe & Quark, 2005, p.238). Neoliberal ideology justifies increased inequality and constricted access to public goods through disciplining narratives that posit struggle as the failure of the individual, not the failure of systems or states to support individuals. Jaffe and Quark (2005) found that community members showed the most respect for the farmers who had managed to succeed at competing and expanding under the productivist regime. They also describe how competitive dynamics between community members had become heightened through the increased concentration and cost of farmland: neighbours and friends were forced to consider, for example, how they might benefit from the demise of other farmers in their community through potentially gaining access to their land. The demonization of collective processes, increased differentiation, and inequality of farm scale and income create greater distance between the motivations, worldviews, and interests of community members, weakening the potential for organizing to shape agricultural policy or increase marketing power (Gertler et al., 2002).

In her research in the US midwest, Dudley (2000) found that farmers in circumstances of financial desperation were often ostracized by other community members, who saw them as "bad managers" (p.xii):

> A pioneering spirit runs deep in the hearts of those who till the land, and these settlers of the prairie have never looked kindly upon those who succumb to adversity, blame their troubles on others, or start crying for help when the going gets tough. (p.5)

The irony is that while farmers remain icons of independence across North America, they are severely constrained by "the forces of nature and capitalist society" (Dudley, 2000, p.7). In internalizing neoliberal rhetoric, neoliberalism is reproduced and enabled (Monbiot, 2016, n.p.): Dudley (2000) found that the association of farm failure with the entrepreneurial failure of the individual kept the vast majority of farmers from organizing and protesting during the 1980s farm crisis.

Müller (2013) and van der Ploeg (2020) use the term 'farmer entrepreneur' to encapsulate the particular ideology of the capitalist farmer under neoliberalism as well as the way farmers have come to be seen by the state. Through the rhetoric of the farmer entrepreneur, farmers have their best shot at success in the absence of government intervention. Van der Ploeg (2020) characterizes the farmer entrepreneur thus:

> Entrepreneurial farms need to continually expand. They are permanently engaged in a 'race forward'. Ironically, this race is not only grounded in material needs (high financial costs, and an increased vulnerability to cost increases and price decreases), but equally has ideological considerations. Agricultural entrepreneurs feel engaged in a struggle for the future. They perceive the future as a 'limited good' (Foster 1965) - that there is only space for a limited number of very large farms who are able to operate at world market level - and each and every one of these entrepreneurs wants to be part of this scarce future. This triggers ruthless competition. (p.596)

He describes the recent wave of farmer agitation in the Netherlands (in many ways a similar agricultural context to Alberta) as a right-wing rural populism that “reflects the degree to which entrepreneurial agriculture has internalized the logic of capital” (p.589).

As farmers follow the path of rationalization, Müller (2008) suggests they do irrational things, such as take out loans that they know are too large in order to expand. As the life-world of the farmer is transformed by this rationalization, the rationale of market economics emerges, justifies, and solidifies itself: “the market is naturalized while nature is denaturalized” (Gertler, 2003, p.56). One example of this is the internalization of isolation and competition as the primary relationship between community members, which in turn leads to farmers facing down the barrel of their struggle alone. While “social dislocation and disorganization are portrayed as necessary costs of development” (Gertler, 2003, p.56), Müller (2008) writes that during her interviews with farmers in Saskatchewan, this belief sat alongside regret about how community structures were being dismantled.

In neoliberal ideology, the most effective way to feed the world and attain food security is thought to be through the existing corporate food regime following “comparative advantage”: that is, a system wherein countries and corporations produce and export whatever they are most efficient at under “free trade” arrangements (McMichael, 2009). “Feeding the world” becomes a key component of the ideology of the farmer entrepreneur, serving as a narrative of justification. As van der Ploeg (2020) stresses: “entrepreneurial farmers believe they have the *moral right* (if not duty) to keep expanding - precisely because they are ‘feeding the world’” (p.596). They also need to keep expanding to pay down their debts and to attempt to capture economies of scale.

Another key component of the internalization of neoliberal ideology is the rewriting of stories. In my introduction, I mentioned the proud family histories farmers shared with me, such as that of a grandfather who had “opened and broke” 1400 acres on his own (#38). Writing on Saskatchewan, Müller (2008) calls this “the myth of the self-sustaining pioneer” (p.393). She found that the collective action and state intervention from the 1930s until the neoliberal period had been rewritten in the minds of her interviewees in a way that limited what the farmers conceived to be possible for the future:

> it is precisely the marrying of reinterpretations of the past as an individual struggle to current neoliberal ideologies of the person that effectively shapes [the farmers’] form of agency when faced with current conditions. (p.390)

She explains in depth how settler colonization and the particular iteration of agriculture on the prairies was nothing of the idealized individualistic affair it was painted as by her interviewees, but a highly coordinated and well-supported project by the state. In reality, the massive investments, both public and private, that went into producing a landscape fit for industrial grain production -- such as railways and grain elevators -- left farmers with few options. In this way, Müller (2008) demonstrates that farmers' relationships to nature are "intensely political" and argues that the nature they produce in turn shapes them:

> Canadian prairie farmers mould their natural environment according to the requirements of productivism, [and] they are, as a consequence, subjected to the social and natural environment that they have themselves transformed. (p.390)

To reinforce her point, she writes of a surprise finding in her interviews: that those farmers who had shifted to organic production out of necessity experienced dramatic shifts in their worldviews and priorities[8]. In this way, she goes beyond the consideration of how hegemonic ideology influences practices to ask how practices and relationships to farmland shape one's politics. She argues that in practicing organic agriculture, paying close attention to the soil, farming a smaller number of acres (as a result of tighter time windows and higher labour requirements), and becoming independent in a much more real way through the detachment from buying inputs from agribusiness,

> the truths of the established system crumble. To the extent that farmers insulate themselves from market dependency on the input side, they also free themselves from the external pressures that push them towards economic calculation at the cost of those alternative goals of production. (Mooney, 1988, p.65; as cited in Müller, 2008, p.403)

The farmers she interviewed who transitioned to organic agriculture developed new perspectives on collectivism, partly as a result of needing to join networks in order to learn how to farm organically and also to overcome the lack of public support and disdain from conventional neighbours.

It is key to emphasize that the current period of the farmer entrepreneur follows decades of strong collectivist, cooperative agrarian movements across the prairies, as well as strong labour movements across the country that fought to keep Fordist-Keynesian fiscal and monetary policies in place. Prairie farmers have long demonstrated a remarkable capacity to organize,

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[8] She claims necessity to be a more common motivator for prairie farmers to transition to organic production than the ethical sway that drives, for example, many European farmers (Müller, 2008).

particularly through production, marketing, and consumer cooperatives. Their collectivist movements pushed for the rural public healthcare in Saskatchewan that predated Medicare (Wiebe, 2019): the first universal, publicly managed and funded medical insurance plan in North America (Brown & Taylor, 2012). They were a major force behind the creation of progressive parties such as the Co-operative Commonwealth Federation, a merging of farmer, labour, and socialist parties, that eventually merged into the New Democratic Party (NDP) in 1961 (Wiebe, 2019).

While the neoliberal program seeks to "*call into question any and all collective structures* that could serve as an obstacle to the logic of the pure market" (Bourdieu, 1998, n.p., as cited in Jaffe & Quark, 2005, p.233), oppositional or alternative value systems always exist under hegemony, and can be either residual of a "previous social formation", or "emergent" (Williams, 2006, p.137). On the production end, despite the prevalence of sole proprietorships and strong focus on independence in farmer ideologies, informal cooperation in rural agrarian communities, such as between family members, neighbours, and other farmers, have always been important, although these networks are not always visible in data or to the untrained eye (Gertler, 2007).

2.3 Financialization

Financialization is a process whereby financial actors, motives, markets, and institutions have become increasingly powerful across diverse sectors of the economy and in the process they have "infiltrated and fundamentally reshaped the underlying non-financial economy and the democratic societies in which [they] reside" (Clapp & Isakson, 2018, p.5). Lawrence and Smith (2018) argue that understanding financialization requires a breakdown of its relationship to globalization and neoliberalism, as they are "the three key macro-sociological concepts that can be harnessed to understand the contemporary dynamics of change within the capitalist economy" (p.1). All three influence one another as broad processes with dynamics of their own. For example, through neoliberalism (as ideology and practice), the free market is given priority over everything else, as reflected in discourse and government policies, which both validates financialization and allows for its proliferation (Lawrence & Smith, 2018). Deregulation policies that came to prominence in the 1980s have been central to the rise of financialization (Burch & Lawrence, 2009; Lawrence & Smith, 2018). Lawrence and Smith (2018) argue globalization is the most foundational and independent of the three processes, and that it has been central in breeding neoliberalism and financialization. Burch and Lawrence (2009) remind us that as capital is the most mobile of the three central components of production (land and labour being the other two), globalization enables financialization.

Grappling with financialization requires understanding the distinction between financial activities and the "real" or "productive" economy. Productive activities involve the production, distribution, and trade of goods, as well as the provision of services. In financial activities, profits are obtained without the creation of a good or offering of a service, such as through speculation followed by capital gains, rent, dividends or interest (Clapp & Isakson, 2018). Financial channels allow those with existing wealth the potential to become wealthier through elite rent seeking (Geisler, 2015; Monbiot, 2017). Financialization exacerbates inequality by providing opportunities for elites to syphon value from everyone else, either through provisioning loans to those who are limited in their access to capital, through the enclosure of what was once publicly or collectively owned, through speculative activities that can dangerously distort prices, or through becoming shareholders by purchasing stocks.

The beginning of financialization can be traced back to the 1970s, when global capitalism faced a crisis of overaccumulation as supply superseded demand and competition was heightened, which led to capital flight from productive to speculative activities (Lawrence & Smith, 2018). The majority of capital is now captured through financial channels, and the financial economy has become increasingly distanced from the productive economy (Clapp & Isakson, 2018). A key component of financialization has been the transition from "stakeholder capitalism" to "shareholder capitalism" (Burch & Lawrence, 2009, p.271) whereby shareholder value became the top priority for firms, "regardless of social and ecological costs" (Clapp & Isakson, 2018, p.14). The prioritization of shareholder value has led to corporate consolidation, job losses, and the redistribution of wealth within firms, and as Clapp and Isakson (2018) highlight, it is one of three primary "mutually reinforcing aspects of financialization and food system change" (p.20). The second is the "financialization of everyday life" whereby the state largely absolves itself of risk management, which then gets taken up by financial actors, and thus individuals become engaged with the financial sector in ways that temper resistance. The third aspect involves "new arenas for accumulation" and is the most relevant to my research as it includes the financialization of farmland.

2.4 The financialization of farmland

The global crises of 2006-08 led to the financialization of farmland as investors "discovered" the value of farmland as a new and stable asset class which would allow them to capitalize on the chaos (Clapp & Isakson, 2018; Li, 2014; Ouma, 2014). Previously, investors had considered returns on farmland to be too low (Fairbairn, 2014), but volatility across various sectors of the economy in the mid-2000s led to a reassessment of its potential as an asset. Diverse groups such as pension funds, hedge funds, sovereign wealth funds, and wealthy individuals began buying up large tracts of land around the globe (Clapp & Isakson, 2018). Despite the challenges farmland presents as an asset class, investors became enthused by farmland as a steady place to store wealth, a hedge against inflation, a way of diversifying one's portfolio, and as an asset which can increase wealth through rent, production, and appreciation followed by capital gains (Fairbairn, 2014).

Certain investor actors accrue wealth through purchasing farmland, leasing it to farmers, and banking on its value appreciation, an arrangement in which the risks of production and changing commodity prices are borne by individual farmers; other investor actors are involved in primary production on the land (Ouma, 2014). Investors buying farmland are often well-aware of the climate crisis and hoping to capitalize on the anticipated rise in food and land prices. Fund managers and individual investors who choose to be involved in the production process predominantly seek to increase the productivity of farmland through the industrial agricultural model, and through concentrating smaller plots of land into larger farms (Clapp & Isakson, 2018; Li, 2011).

Thus far, the global peak in investment in farmland was somewhere around US$30-40 billion in 2012, although the trend continues (Clapp & Isakson, 2018; Ouma, 2014). The financialization of farmland is a "contested process", requiring considerable discursive work, given that successfully turning farmland into an asset class has proven challenging, full of uncertainty, and prone to failure (Magnan, 2018, p.109). In the context of neoliberal restructuring and austerity, financial actors and their backers suggest that financial capital is necessary in capital-intensive production such as the grain sector, and portray these investments as "benign" alternative lending services that are a win-win for both farmers and investors (Magnan, 2018).

The depiction of scarcity and a lack of production as the central problem within our food system (see, for example Guyot-Bender, 2013; FAO, 2009; Hertel, 2015; Foley, 2014; The

World Bank, 2011) belies the reality that the world produces more than enough calories to feed everyone (Patel & McMichael, 2009; FAO, 2018; Bernstein, 2010). Food and farmland scarcity are socially produced, in service of the productivist pursuits of agribusiness players, and make output the lone market of success (Mann, 2018). During and following the 2006-08 food price crisis, "feeding the world" rhetoric was reinvigorated, and many argued for the necessity of incorporating "unproductive" land and labour into the agrifood system (Desmarais et al., 2017, Li, 2011; White et al., 2012). As Clapp and Isakson (2018) write, "Whereas critical and Marxist scholars situate the land rush in the socio-economic contradictions of neoliberal capitalism, promoters for financial funds deploy a Malthusian-inspired narrative of a shrinking resource base and rising food insecurity" (p.85). For example, Agcapita, a Canadian farmland investment company, has the following tag line on their website that exemplifies investors' scarcity logic: "Agcapita believes farmland is a safe investment, that supply is shrinking and that unprecedented demand for "food, feed and fuel" will continue to move crop prices higher over the long-term" (2019, n.p.).

Geisler (2015) reminds us that "power and property are first cousins, if not siblings" (p.244), and argues that land concentration is the greatest contributor to inequality around the globe. In many countries the current disparities in farmland ownership are staggering (Geisler, 2015). In analyzing the Census of Agriculture data, Qualman et al. (2020) found that in 2016 only 6% of farms in Alberta (those over 5000 acres) controlled 40% of the province's farmland; and as the authors point out, the situation may even be much worse since these statistics do not fully reflect the rates of farmland concentration as many farmers are now renting land. There is no indication that the trend of increasingly inequitable farmland ownership will change unless there are significant economic or government policy shifts (Qualman et al., 2020) or a crisis causes us to reckon with current production models.

Owning land confers immense powers, and elites owning large swaths of land can even call state sovereignty into question (Geisler, 2015). The distribution of control of productive assets is intimately tied to the potential for a democratic society, as well as the level of employment, income and wealth inequality (Qualman et al., 2018). Lobao and Stofferahn's (2008) review found that industrial agriculture and its land tenure patterns were largely correlated with higher income inequality, as well as a decline in democratic political decision-making within local governments. Land grabbing has exacerbated the pre-existing trend of farmland becoming increasingly concentrated, and it has also changed the actors involved, as well as the landlord-tenant and landlord-community relationships. While there are studies on the motivations and models of farmland investors, minimal research has looked at how they do or do not engage with farmers, tenants, local communities, and farmland markets (Sippel, 2015 and Larder et al. 2015 on Australia are two exceptions).

The land deals that have been taking place since primarily 2006-08 are not a new phenomenon across history, but are exemplary of “a significant surge in the continuing capture of ordinary people’s rights and assets” (Wily, 2012 as cited in White et al., 2012, p.623). White et al. (2012) frame the current global food regime as a period of “new enclosures”, in which corporate elites have been capturing previously public or collective value to derive wealth from it, and in the process, farmers increasingly become tenants. Beyond farmland, these new enclosures include public goods such as water, genetic materials, and infrastructure such as rail lines. Andreucci et al. (2017) describe this process of enclosures as “value grabbing”, and they do so to “render visible and politicize taken-for-granted distributional relations that have implications for socio-ecological struggles and inequalities” (p.29). In essence, this is the privatization of social and ecological assets, the value of which is not represented in the financial transfer of ownership (Geisler, 2015).

The loss of such public resources has massive social and ecological consequences (Lipton, 2009 as cited in Geisler, 2015). Land holds ecological services, value contributions from nature, improvements resulting from collective taxes and efforts over time, and through land grabbing this “‘social mortgage’ goes un- or under-compensated” (Geisler, 2015, p.246). Desmarais et al. (2017) similarly contrast financial investment in farmland with “social investment” in farmland, the latter described as, “the investment of labour, ingenuity, and social commitment made by those who work the land for the purpose of realizing future security and social wellbeing and political goals as well as economic development” (p.153). Social investment in farmland is discounted through neoliberal policies which facilitate land grabbing, and in the process social assets are enclosed (Desmarais et al., 2017).

Through a contextual, grounded analysis of farmland tenure changes in Alberta, it has become clear that the recent financialization of farmland is having profound impacts on the farmers, communities and ecologies across the province, largely through exasperating pre-existing neoliberal trends. Clapp and Isakson (2018) break down the broader implications of financialization into three categories, writing that it “1) concentrates wealth and power; 2) compromises socio-ecological resilience; and 3) impedes collective action” (p.17-19). My empirical chapters will begin to explain the way the first two categories are playing out in rural Alberta, and I will address the way the financialization of farmland, within the wider context of decades of neoliberalism in ideology and in practice, is inhibiting resistance.

2.5 Land sovereignty

Opposition to farmland concentration, elite enclosures, the financialization of farmland, and rent-seeking behaviour requires a progressive land politics that support movements and communities mounting resistance (Desmarais et al., 2017; Geisler, 2015). Land sovereignty is a normative theoretical framework of which the foundational principle is “the right of working peoples to have effective access to, use of, and control over land and the benefits of its use and occupation, where land is understood as resource, territory, and landscape” (Borras & Franco, 2012, p.6). Land sovereignty raises questions of agrarian political economy specific to land: “who gets how much of what kind of land, and why” (Borras et al., 2015, p.610). In essence, it politicizes access to and control over land.

The land sovereignty framework is closely connected to food sovereignty, the political project driven by mass movements such as La Via Campesina, that strives for democratic, localized control over food and farming systems around the world (Desmarais et al., 2017). Under land sovereignty, the understanding that land can also be conceptualized as territory and landscape ensures the inclusion of groups such as Indigenous peoples who are often left out of discussions of land reform (Borras & Franco, 2012). It additionally assigns land rights to non-agrarians, through advocating a counter-enclosure of “the 99%” - to all communities who require land to reproduce themselves as well as those in urban areas who “are more land dependent than they may know” (Geisler, 2015, p.249). Importantly, land sovereignty also grapples with the role of the state, as states are often agents of dispossession, actively maintaining private property regimes through violence and/or underlying threats of violence (Blomley, 2003). While recognizing that states are well-positioned and best able to institute processes of large-scale land redistribution or to change ownership laws, movements fighting for land sovereignty remain somewhat wary of whether or not and how to involve the state (Borras & Franco, 2012).

As such, land sovereignty strives in part to be a useful tool in working towards democratic land control and in addressing inequalities in land ownership and access (Borras & Franco, 2012). While land sovereignty challenges hegemonic private property regimes, elite enclosures, and associated land-use practices, it does so without "romanticizing" the commons (Roman-Alcalá, 2015, p.3). It argues for contextual nuance – a willingness to recognize and accept the complexities of each locale in efforts to achieve land sovereignty (Roman-Alcalá, 2015). Land sovereignty weighs land beyond its resource value, and beyond its commodity status under financialization. It emphasizes land's "life-giving affordances" (Li, 2014, p.591), and in this sense, is a "fusion of land-and-life rights" (Geisler, 2015, p.250). This is in sharp contrast to what Clapp and Isakson (2018) deem the "abstraction of the cultural and physical qualities of food and land into financial value of interest to investors" (p.11). The impacts of this abstraction are far reaching as food and land are central to the existence and quality of human and non-human life.

While there were clear signs in my research that the financialization of farmland is accelerating in the province, it is not occurring smoothly and is mired in contradictions and failures. Evidence demonstrates that turning farmland into an asset class is proving complex as it creates the conditions for acquiescence and crisis while simultaneously undercutting and inciting social and environmental resiliencies.

3. INVESTOR ENGAGEMENT WITH FARMLAND & FARM OPERATIONS

This chapter begins by explaining what it was like to try and uncover information on changing farmland tenure without the land titles data, and what I learned about how little Alberta's provincial government seems to be tracking the changes and considering their effects. I then address what my interviews revealed about the extent of investor involvement, the sorts of actors involved, their motivations and projections, and the various arrangements they are setting up with grain farmers. I finish by explaining how interviewees perceived investors owning farmland, and how their perceptions are in part tied to the fact that farmers are increasingly thinking and acting like investors themselves.

3.1 Without the land titles data

The experience our research team had in struggling to access land titles data across the Prairie provinces led us to wonder if anybody was monitoring what was taking place. As previously mentioned, Alberta's land titles data is publicly managed, but the high cost of the provincial data restricted us from obtaining it for public research. In my interview with two staff from Alberta's Agriculture and Forestry department, both of whom hold high-level positions (one is a manager and the other an executive director) in provincial agriculture and one of whom works directly on the topic of agricultural land use, I was shocked to learn that even they do not have access to Alberta's land titles data. They did not consent to being named or directly quoted, but I will paraphrase some of what they told me as it was a particularly illuminating interview.

As I tried to understand how it could be possible that public servants working on agricultural and farmland-specific issues did not have access to this most essential body of data, we had a confusing back-and-forth. The interviewees suggested that, 1/ they did not have the budget to purchase the land titles data[9]; 2/ they suspected Municipal Affairs was not allowed to share that information with other departments[10], and; 3/ they had never seen the land titles data before. These communications reveal that Alberta's government is not paying close attention to how farmland tenure is shifting. One of my context interviews was with an MD/county Tax/Utility Clerk in central-eastern Alberta, and she confirmed what the provincial employees

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[9] It is bizarre to imagine this being a limitation between departments within the same government, especially regarding such crucial information.
[10] The data is in fact held by the provincial government through the Registry Services Division of Service Alberta.

were saying about access to the data being highly restricted even among public employees working on issues of land tenure. She explained that she is the only person who has full access to the land titles data (including sales information) for her MD/county: “the information is very flammable [...] my assessor doesn’t even have access to it” (#26).

When I asked if the Agriculture and Forestry Department was tracking investor farmland ownership, one of the provincial employees stumbled on her words, telling me they are not tracking it in any kind of regular way, but that they have done some review. The employees went on to explain that their tracking of investor farmland ownership was restricted to examining the Statistics Canada census data category of “non-family corporation”. One of the staff highlighted that while the number of non-family corporations has been on the rise, it has started to level off, and that the category makes up less than 2% of farms. According to the staff, this category reflects the number of farms, with non-family corporations including incorporated family farms that hire non-family workers; thus, this 2% does not reflect the number of *acres* owned by non-family corporations, or the number of *acres* owned by investors, and so does little to track investor farmland ownership. The employees seemed to be trying to downplay investor involvement in order to defend how little they knew about the extent to which it was happening, and to defend the lack of legislation around ownership. They were under the impression that the law passed in Saskatchewan restricting institutional investors from owning farmland had hyped up the issue of investor farmland ownership in Alberta, and that they needed to determine whether or not it was an actual problem before proceeding to do something about it. It is unclear how the provincial government will be able to make such an assessment, given their lack of attentiveness to a development that many believe is underway in Alberta.

When I asked interviewees about the trend of investor farmland ownership in the province, most acknowledged it was happening in their region, and/or elsewhere in the province. Often, however, they did not have more detailed information than that. Lynn Jacobson, President of the AFA, the province’s largest producer-funded general farm organization, had this to say when I asked if he had a sense of where the majority of investor action was taking place: “I suspect it’s probably all over Alberta… it’ll be isolated districts, it’s not really really widespread but we don’t know the exact details at this point in time” (#9). When I asked about investor farmland ownership, a few interviewees made comments such as “roughly half of that county was owned by one guy” (#3). Often, interviewees had a hard time keeping the different institutional investors straight. It was clear that the stories of investor farmland activity that had made large splashes in the media, such as the case of the failed One Earth Farms[11] and the CPP's large purchase in Saskatchewan (Desmarais et al., 2016) had taken root in farmers' minds.

The institutional investors that came up the most in my interviews were the CPP and the Ontario Teachers' Pension Plan (OTPP). When I asked a pair of farmers about the OTPP purchasing farmland locally after hearing from another interviewee that the pension plan had done so, one of the farmers responded, "It's like a myth going around… [E]veryone talks about it but I don't know anyone it's actually happened to, where they've purchased land and rented it back to them" (#29a). This quote highlights how, even at the community level, it was often unclear to interviewees whether or not, and the extent to which investor farmland ownership was taking place.

In my attempts to verify farmland ownership, the one piece of land titles data I did have access to was the MD/county maps, which have landowners' names written on every quarter section (140 acres). I thought that perhaps these would be useful in assessing investor involvement in an MD/county, or figuring out who the largest landowners were. However, these maps did not provide much clarity, as farmers and investors alike have landholdings under multiple names, subsidiaries, and numbered companies. Additionally, each MD/county map has hundreds, if not thousands of land titles on it, in a format which cannot be easily analyzed. Even the representative from Bonnefield I interviewed acknowledged how difficult it can be to access data on farmland ownership:

> One of the issues with the [farmland real estate] industry is it's pretty opaque, right. We're dealing with all these fragmented businesses, and most of them are private companies, so they don't have to disclose any accounting reports, or what they own [...] it's really hard to figure out who owns what and what they paid for it and comparable sales. (#19)

Despite a frequent lack of clarity, my interviews were rich with a range of information about investor involvement in grain farming in Alberta from those bearing witness at the community level.

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[11] A partnership between Sprott Resource Corp., a Toronto-based investment firm, and First Nations communities in Alberta and Saskatchewan (Sommerville & Magnan, 2015).

3.2 Investor involvement

There are a wide diversity of landlords from whom farmers rent farmland, including retired farmers, the children or grandchildren of retired farmers (who often live outside the community), other active farmers, acreage owners, individual investors, and institutional investors. Distinguishing between investor and non-investor landowners can be challenging. Most simply, investor landowners are those who purchased farmland without planning to farm it, in the hopes of profiting from rent or cropsharing, as well as from appreciation. This disqualifies retired farmers and the offspring of farmers from the category, although as families continue to hold on to farmland for multiple generations without farming it or ever planning to farm it again, particularly as absentee landowners[12] living outside the community, it becomes harder to distinguish them from investors. The category of institutional investors includes large financial players such as private equity funds and pension funds. Certain actors, such as Bonnefield, which I group with institutional investors for the sake of ease, are actually asset managers looking after farmland investment portfolios on behalf of groups of investors, who are the real owners of the land. Investors are also engaging with Albertan grain farming without purchasing farmland, by investing in farmers' operations. What's more, many active farmers are themselves beginning to think and act as investors, some becoming what Desmarais et al. (2017) refer to as "farmer/investor hybrids."

In her research in the US, Fairbairn (2014) identifies three primary models through which investors engage with farmland: "own-lease out", "own-operate", and "lease-operate". The own-lease out model is the most straightforward and least risky arrangement, through which farmland is a pure financial asset for investors (Fairbairn, 2014) -- the landlord collects cash rent, and is not involved in production (although they likely have some stipulations on how the farmer practices through a verbal or written contract). Interviewees indicated that own-lease out was by far the most common arrangement in Alberta, among both investor landlords and other landlords, but that cropsharing and custom farming arrangements were also taking place to a lesser extent. These latter arrangements fit within the own-operate model, through which investors have purchased the land and are also financially involved in production, even if they are making none of the actual production decisions (Fairbairn, 2014). Cropsharing or custom farming is when the

[12] Absentee landowners are landowners who do not live in the community where they own land.

landowner takes a predetermined cut of the profits from production instead of a cash rent, and pays a portion of the cash inputs and sometimes even the overhead (the machinery, etc.). Contributing financially to production allows landlords to show risk, thus enabling them to pay the lower farmland property tax rate. Overall risks and potential for rewards are higher for landlords in the own-operate model (Fairbairn, 2014). I did not hear of many investors engaging through the lease-operate model, although one farmer from the central corridor did tell me that he has seen "consortia of investor groups get together and rent farmland to run a commercial scale farm, or at least what they thought was a commercial scale farm" (#3). He went on to explain that these groups will hire managers to run the farms, and in turn push up local rental rates and push out local farmers. He suggested few of these operations are able to succeed: "Very few of them, very very few of them ever last more than 3-4 years, then they're broke" (#3).

One of the more notable stories of the own-lease out model that I heard involved a farm family in the Peace Region who sought out an investment company to buy a piece of land from them. I heard the story from the farmers who were directly involved (#38a, #38b) as well as from another pair of interviewees (#35, #35a) who lived in the area[13]. The latter two began the story:

> #35: Five years ago here, we had a… huge block of land for sale. A local farmer, big huge family farm, had over [6720] acres[14] [...] for sale. And they had recently just purchased it on interest-only loans. And for whatever reason they said they decided it wasn't good, they wanted to sell it. [...]
>
> #35a: At the price they paid for it, or higher.
>
> #35: No. It was way higher. They had paid roughly $350,000/quarter, and the [sale] price was $425,000/quarter. This is what it was and there was no negotiating, because they had an offer in their back pocket.

The interviewees (#35, #35a) went on to explain that while the farmers selling the land were offering up smaller pieces for high prices, they did not get enough local demand, and ended up selling the entire block of land to an investment company, which the interviewees believed to be the OTPP. The farmers who sold the land then became the tenants.

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[13] All of the aforementioned (#38a, #38b, #35, and #35a) are farmers, but I will refer to #38a and #38b as farmers and #35 and #35a as interviewees for clarity throughout the story. To complicate matters further, #38b is the code for three separate sons, whose voices I could not distinguish in my transcription. Each instance of #38b could be any one of the three sons speaking.

[14] The interviewees (#35, #35a) said 8000 acres, but I have changed the number according to what the farmers (#38a, #38b) who purchased the land told me it was: 6720 acres.

When the interviewees were later offered 2200 acres of that land to rent from the new investor owners, they declined, saying that the rental rate was too high. When I asked, "Do you think you can turn a profit as a farmer with the rental rate they offered you?" one of the interviewees responded:

> I mean it's not impossible. It's...doable [...] They fight their case when you try to bargain with them: "these prices are outrageous!". So they'll send you a spreadsheet, and say "if you can make X number of bushels, these are the projected costs… Look! There's money left at the end of the day!" But you say, "Ok, but you just pictured a perfect picture here, it's not the way it is all the time. You gotta have an average. But they're in it for the money, so. (#35)

As I will expand on in Chapter 4, several interviewees highlighted how institutional investors demand rental rates that are higher than the community standard which can threaten to ripple out and influence the rental rates of other landlords in the area.

A couple of days later, without initially realizing it, I interviewed the "big huge family farm" in #35 and #35a's story, who gave me their version of what had transpired. The farm is made up of three siblings. The siblings explained that after they had initially purchased the 8000 acres, one of the brothers became seriously ill. Realizing they had to reduce their total acreage in order to keep managing the business, the family began looking for a buyer for the block (they had already been operating around 16,000 acres previous to adding the 6720 acres). They ended up selling the land to Canterra Capital Corp[15]:

> #38b: What's the company called? I keep calling them the CPP but their subsidiary is [...]
>
> #38b: I think it's essentially the Canadian Pension Fund.
>
> #38b: Assina… Assiniboia. I think essentially they represent the CPP.
>
> #38b: Yeah they do. It's Canterra Capital. It was Assinaboia but they changed over to Canterra Capital and they represent Canadian Pension Plan.

The farmers went on to explain that this was the first farmland purchase Canterra had made in Alberta, and that they had sought Canterra out themselves. Another farmland asset management firm had been interested in buying the land, but the farmers said the negotiating was not going well, and Canterra was willing to pay more for it:

[15] A company based in Regina, Saskatchewan that manages 175,000 acres of farmland in Canada (Canterra Capital Corp., n.d.).

> It happened quick. It was nice. At the time they were a blessing, because it's too big of a package to try and break up and sell. We had mentioned it to a couple of neighbours, and [they said] "Oh, maybe I'd buy two quarters at $300,000 a piece", or whatever. (#38b)

As some grain farms begin operating at a much larger scale than the rest of the surrounding farms, they can have a lot of trouble finding buyers once they look to sell their blocks of land, particularly if they are asking "top dollar", because the size and price of these blocks is far out of range of other nearby farmers.

The brothers claimed that Canterra "has been really good" (#38b) as a landlord, and that the purchase has been good for the community too. They said they believe that most people in the community do not know what happened, and that those who do know are happy about it because it means they might be able to rent the land eventually:

> #38b: A lot of people out there are happy that the Hutterites aren't there. Like locals. Because the Hutterites come in and then they buy everything, and then that's it. They're there forever, right. They have a 500-year plan, and we have a 5-year plan, right.

The majority of farmers I interviewed expressed more concern about Hutterite colonies owning large amounts of farmland than about investors purchasing farmland, with a few implying they would prefer to have investors owning farmland over Hutterite colonies. Based on comments from interviewees, this attitude toward Hutterite farmland ownership appeared to be rooted in a combination of religious bigotry, and the belief that Hutterite colonies' collectivism was unfair competition for the farmer entrepreneur. This attitude was also grounded in the fear of farmland markets tightening further and purchase and rental options becoming even more slim.

Bonnefield, a Canadian asset management firm that oversees farmland real estate investment trusts (REITS) on behalf of investors, is another investor actor that came up in my interviews. Bonnefield currently has two funds owned by "high net-worth Canadians," and another three owned by "Canadian institutions, so pension funds" (#19), with a total of $900 million in assets and 125,000 acres across seven provinces (Bonnefield, n.d.). One of my interviewees, an MD/county staff in the north-east, had last counted 57 quarters (9120 acres) under Bonnefield's management in his MD/county. He reinforced the above story from the Peace Region regarding how large farmers seek out institutional investors when they struggle to find anyone to buy their large blocks of land at current prices: "A lot of [the land Bonnefield manages] is our bigger farmers who wanna retire [but] can't find anybody that wants to pay what the value is worth" (#2).

After learning about Bonnefield's involvement in the north-east, I decided to try and secure an interview with someone who worked for the firm in order to get a better understanding of the way they were structuring their arrangements with farmers, and how optimistic they are about their farmland investments. I ended up interviewing Roy Farrer, Bonnefield's Vice President of Asset Management. Farrer explained what is enticing about farmland as an asset class:

> Farmland has some return characteristics our investors like, that are not correlated with the equities market or the bond market, so stocks and bonds. [Farmland funds] have consistent appreciating returns, and they also produce a cash yield every year. And they play into some of the exposures that investors currently aren't exposed to, so commodity exposure without actually having the physical commodity. Exposure to water without actually owning water. And in that way it helps our investors round out and diversify their portfolio to reduce risk. (#19)

Farrer estimated only 2.5-3.5% of Canada's farmland trades annually (#19). Because farmland is a relatively illiquid asset[16], financial actors have had to devise new financial instruments to turn it into a more liquid asset class. Through their REITS, Bonnefield uses securitization, a process that Fairbairn has described as "the aggregation of income streams from a pool of underlying assets [...] in which investors buy shares" (2014, p.780). Farrer explained that Bonnefield increases the liquidity of their funds by making them open-ended, a maneuver that makes investors' equity more like shares: after a set amount of time, investors are able to price their equity in the fund, and find someone to buy them out, thus allowing them to benefit from farmland appreciation even if the farmland has not been sold (#19).

According to Farrer, Bonnefield manages 33,400 acres in Alberta, spread throughout the province. Although 33,400 acres is not very much (relatively speaking -- I interviewed a single family farm around that size), they do have plans to expand their land base in Alberta. When I asked Farrer where in Alberta they wanted to expand, he explained that each region had its own advantages:

> One of the things we try to do in our funds is . . . to diversify the portfolio across different regions just so that the risks are spread out in a way to help dampen any one macro shock that would happen to farming in any particular area. (#19)

[16] Illiquid assets are assets that cannot be turned into cash quickly through sale, or without losing much of their value.

While investors spread their risk across the multiple farms in each REIT, farmers continue to bear the risk of their operations on their own. Farrer described their funds as “long-term”, and explained how this longer horizon allows their investment funds to surf over disasters in the farming community, such as extreme weather events or changing trade agreements:

> Because these are long-term funds we’re in, we’re a 20-year horizon on our investments. And so, we’re not worried about these little blips, but we do have to work with our farm partners to make sure they’re managing their cash effectively so that they’re not doing activities on the farm that are going to degrade the farm or doing anything rash like that. [...] And our farmers are really good, and they’re on a long-term horizon too, so we match up well that way. (#19)

It is true that as farmers are renting increasing amounts of the land in their operations on 3-year or 5-year contracts, Bonnefield’s horizon begins to look like the more stable one. The firm offers farmers 5-year revolving leases: for every year farmers meet Bonnefield’s conditions, another year gets tacked on to the end of the lease.

Farrer revealed that Bonnefield has found investors to be slow and trepidatious about buying into their farmland funds; he attributed this to farmland being a relatively new asset class. The land brokers I interviewed agreed that investors were wary about farmland investments, and that they had not yet fully come around to it as an asset class. One of the brokers, however, felt strongly that, “we’ve proven that over 100 years, you’re going to get a 10% return. Over 10 years you are probably going to get a 10% return. [...] Short-term you can get a 2-3% cash-on-cash return, if you buy cash” (#18). The two brokers then went on to debate between themselves whether the short-term returns were actually there, with one suggesting the returns from rent were closer to 1%. The other one then said, “But you get this 10%, so show me somewhere over the long-term where you can hold -- and my hold is an indestructible asset -- over the long-term that will get you 10% or 11% return. That’s very low risk” (#18). This broker felt certain that with time, more investors would recognize this and open up to the idea of buying farmland or investing in REITS: “Once they really understand the story, and the investor goes, ‘My goodness! Why not?’” (#18).

In contrast to investors’ hesitancy, Farrer told me farmers are more willing participants:

> I would say all of our demand for buying farms is really driven from the farm community and the farmers. And we now have a pipeline of deals that we could do, we just need more capital from investors to do them. So really, we could do more transactions if we had more investor capital. The farm community has really been vocal about wanting this,

> wanting to work with us specifically, and we just don't have enough cash to satisfy them. (#19)

Farrer described two types of farmers who want to work with Bonnefield. The first is those who are "way overleveraged and have too much debt on their balance sheet and their cash flows from farming are restricted because they're paying too much in servicing this debt"; the second is those who want to "adjust their portfolio of the land they own", for example, by selling some of their land to Bonnefield in order to buy other land closer to their home quarter (#19).

In another context interview, two farmers in central eastern Alberta told me that there were farm operations around them that had expanded significantly through partnering with different investment companies (#23a, #23b). They mentioned a specific example of a farmer who was interviewed for an article in *Country Guide* about his arrangement with Area One Farms, an asset management firm that owns 140,000 acres across 4 provinces, with assets under management totaling $450 million (Lovell, 2019; Area One Farms, n.d.). Area One Farms works as more of a cropshare model or custom farming arrangement, that begins similarly to the Bonnefield model with the firm purchasing land the farmer subsequently rents. Then, instead of the farmer paying a cash rent, the farmer gets 15% of the profit and capital appreciation on the land over the course of a 10-year lease, and the firm takes the rest (Lovell, 2019). Because the farmers involved in these partnerships get a cut of the capital appreciation, Area One Farms claims to provide equity to farmers in a way that other lenders do not, and after 10 years, allows the farmer the possibility of purchasing the land from the investor (Lovell, 2019). The farmer featured in the *Country Guide* article explains that the Area One Farms model reduces the risk of taking on significant debt through purchasing land with loans, and meanwhile, as he claims, "we [as farmers] are still in charge of our own destiny" (Lovell, 2019, n.p.). He also says his sons-in-law would not have been able to come back to the farm without the partnership with Area One Farms.

One farmer from central Alberta explained that there is not a lot of investor action around him: "The land prices have risen so fast in the area that I think a lot of those kinds of people, they're looking for the deals. And there aren't a lot of deals along Highway 2[17], the main corridor of Alberta. There's not a lot of deals at all" (#14). This was reiterated by the other

[17] Highway 2 runs north-south through Alberta's three largest city centres, Calgary, Red Deer, and Edmonton.

farmers in the central corridor. The larger challenge in their region is fragmentation, and high farmland prices, due to being in the Highway 2 corridor and competing with acreage owners commuting to the city. Fragmentation in this context means that due to a combination of high competition for farmland, urban sprawl, and acreage owners living on single quarters, not only is competition for farmland access fierce, but it is also difficult to access larger parcels of land that are next to each other. This leaves farmers moving large, slow, expensive equipment long distances, significantly increasing the expense and complexity of their operations. The primary investors in their region are individual investors, as opposed to institutional ones. This rings true with what the land brokers and Bonnefield representative said, as well as what Area One Farms indicated in the *Country Guide* article: that institutional investors are not looking to pay top dollar in the areas where farmland is the most expensive, as they will not be able to make their desired annual return-on-investment (ROI) through rent. They are more interested in more remote areas, where they are more easily able to outbid local actors and capture a 2-3% ROI through rent.

Individual investors purchasing farmland is an equally worthy topic of analysis. In Saskatchewan, the largest landowner is Robert Andjelic, an individual investor; Desmarais et al. (2017) determined him to be the largest landowner in the province in 2017, and his website proclaims that he now owns over 200,000 acres (Andjelic, n.d.). Interviewees across the different regions of Alberta suggested there are a fair number of wealthy individual investors who own and continue to purchase pieces of farmland, many of whom obtained their wealth in the oil industry:

> It’s fairly typical now when you go into these counties, to find one or two guys who really have an inordinate number of quarters of land they’ve picked up. And usually they’re oil people, doing it as a sort of investment lark. (#3)

Interviewees believed some individuals were in it to collect rent, store their wealth, and eventually cash in on the farmland’s appreciation, whereas others were more distinctly housing or industrial land developers. One interviewee said that in his area of the Peace Region, “We’re not dealing with One Earth Farms, or big operations like that. It’s more… ok well, this entity owns 30 quarters and they rent five to this farmer, and six to this farmer or else one person rents it all” (#5).

Overall, it was clear across the interviews that absentee farmland ownership is on the rise, whether by the descendants of farmers living in the city, or by

> urban people, doctors, lawyers, people with a lot of disposable income and no place to invest it. And that's the other thing that's happened, with the very low interest rate environment we've had for a long time, people are looking for places to invest their money [where it] will appreciate. (#3)

Particularly in regions close to cities, there are also many acreage owners who purchase quarter sections to live on, and then rent out the majority of the acres to a farmer. One of the land brokers I interviewed noted:

> I think that the day is going to come, I mean I have to think this, that city money is going to realize that [farmland] is a very safe place to put your [money]. Buy a quarter, rent to a guy, buy a half section, buy 1000 acres. (#18a)

This form of ownership, among individuals such as acreage owners, wealthy folks, and the children and grandchildren of farmers may seem benign compared to other trends such as institutional investment. However, farmers' descendants holding onto farmland many generations out and wealthy individuals seeking farmland as an investment (whether a single quarter, or several quarters) contributes to the rise of the tenant farmer, the impacts and implications of which I will explore further in the coming chapters.

3.3 Perceptions of investor involvement and farmer-investor hybrids

There was clear concern among interviewees with regards to farmers increasingly renting farmland. However, there was also a strong belief that those who can afford to purchase farmland should be able to do so, including investors. Additionally, some of the farmers I interviewed saw institutional investor farmland ownership as a practical solution to the problems they are faced with, as a useful tool in dealing with the crisis of low net incomes, high farmland prices, and the expansionist model of grain farming. The land brokers I interviewed were particularly enthusiastic about investor ownership (perhaps unsurprisingly):

> #18a: I think it's great!
>
> #18b: I don't see anything wrong with it.
>
> #18a: And maybe that's the only way a lot of these [farmers] can expand right, because that's how Bonnefield, that's what they're doing, they're going in and saying "look, dad wants to get out of here, so let's keep the home quarter for your boy, we're gonna buy all this other land off of you, we'll rent it back to your son". So there's programs like that.
>
> #18b: Lots of them!
>
> #18a: So I think it's good. I think it's good.

What the brokers are referring to is a scenario many farmers are in, where the older generation is looking to retire but are too indebted or cash poor to facilitate an effective succession to their children looking to enter the industry (i.e. the parents need to sell the land and assets to the highest bidder in order to retire). Proponents of investor farmland ownership point to investors' ability to provide the agricultural sector with a much-needed source of capital as an argument for why investor farmland ownership is great for farmers as well (Magnan, 2018).

In one of my interviews, two young farmers in the north-east discussed whether or not investors were purchasing farmland in their area, with one portraying investor ownership as something to be kept secret, and the other, as a great opportunity:

> #29a: It's like a myth going around… [E]veryone talks about it but I don't know anyone it's actually happened to, where they've purchased land and rented it back to them. [...]
>
> #29: Well and maybe they're just keeping it on the downlow.
>
> #29a: There's nothing secret that people wouldn't talk about, you wouldn't think. Like so you sold your land and you get to keep on renting it, that's a pretty good deal if you ask me!

Whether or not investors of various stripes intentionally keep a low profile to avoid backlash, institutional farmland investors put in the discursive work to portray their involvement as a service to farmers and communities (Magnan, 2018), a logic that #29a seems to accept.

Other farmers expressed clear skepticism and dismay at the trend of investors owning farmland. Some said they knew farmers who sold to investors (knowingly or unknowingly) and regretted it afterwards:

> #28: My parents sold to a bigger farmer I think, in that it was actually him [who bought it], but it was the Teachers… Pension plan out of Ontario that had bought it. So then that bigger farmer had just made a deal with the Teacher's Plan to rent it and not actually own [it].
>
> Interviewer: So he was like a front?
>
> #28: Yes. And when my parents found out, they wanted to buy it back, the home quarter, and that was not an option.

This case emphasizes what some other interviewees expressed as well: it is important to many farmers who they sell their land to. Some wanted to sell to family members, or to support a new farmer in getting going. Others stated they did not want to sell to investors or to Hutterites, and expressed wanting to keep land in the hands of local farmers. However, many farmers do not have a choice: "the guys that are deep in debt, they won't see the wealth until they go to retire.

And they're all hoping that when they go to retire, there is somebody there that will be able to afford to buy them out" (#2).

Part of the reason many interviewees were unopposed to investor farmland ownership is likely due to the fact that they themselves are increasingly viewing farmland through the lens of investment. Farmers constantly referred to their land as an investment, and many are banking their retirement on farmland values continuing to rise. It is not uncommon for farmers to run in the red for most of their lives until they go to sell their land. A young farmer in the north-east explained how her dad had been able to benefit from rising farmland values:

> [...] My dad recently [...] bought some land, two quarters [...] he paid $100,000 each, and this is near [town name], so a much larger farmer community or central area then we are, and he just sold the half section for 1.5 million. So it's a [more than] 700% increase between 1997 and 2019, so that's an investment, right? I don't think, well some people make that on the stock exchange but you have to be right place, right time kinda investment (laughs), but land is kinda like a sit and wait kinda thing. (#4)

My interviewees have all borne witness to rising farmland prices, and have watched some, those who were lucky enough to buy land at the right time or to inherit land, benefit immensely.

Some interviewees also spoke of farmers who had bought more land than they were able to farm, renting the extra acres out to other farmers and hoping it would appreciate. One interviewee described a man who had come from Europe with a lot of money and begun farming while simultaneously buying additional land he had never planned to farm:

> Well I think he was speculating too. He knew land was gonna go up because I mean he is from Germany and we know what happened there. Because he bought… He bought those 55 quarters, and I think he paid $3.5 million, or something like that, and now it's worth $27 or $30 million? It was a good investment, I mean, if you have $3.5 million kicking around [to make the initial purchase]. (#36b)

Even those who expressed uncertainty about investor farmland ownership remarked on how smart it was to purchase or invest in farmland. Additionally, high rental rates can allow landowners to benefit significantly from farmland ownership even without capital gains:

> If you think about [name of local farmer-turned-landlord], that's basically what he did. He bought a bunch of land. But he did farm it for about 10 years himself, but now he's renting it all out. And I think he did end up buying like 2500 acres, so I think his rental income is like $200,000 some a year. And that's an investment, right. Like if I won the lottery I would be buying every quarter I could (laughs) because it's an excellent investment! (#4)

This leads to retired farmers and the absentee descendants of farmers holding on the land and renting it out when they might otherwise have sold out and cashed in, and further muddles the distinction between farmers and investors.

As the two increasingly merge together, Desmarais et al. (2017) use the term farmer/investor “hybrid”. They define hybrids as “rapidly growing agribusiness entities” that typically expand at a faster rate than other family farms (p.155). While the owners of the farm are typically involved in production decisions, they are often more so “logistics managers with equipment and employees” than farmers (#40). Desmarais et al. (2017) also write that hybrids are often vertically integrated, with direct ownership or ties to other agribusiness components -- however, this was not a connection I was able to make in my research. For my research, I am using the term hybrid to encapsulate the largest farms and/or the farms with models that leaned the most heavily toward investor and logistics manager tendencies. When I asked about investor involvement in the area, some farmer interviewees would start to talk about the large farms, and particularly those that were run by farmers who live outside the community. This reinforces the hybrid concept, as clearly some interviewees perceived these large farmers to be farmer/investor hybrids as well.

In the Peace Region, a couple of interviewees told me about a farming family that perfectly encapsulates the farmer/investor hybrid, a family supposedly operating on “hundreds and hundreds” of quarters (#40). An interviewee told me it can be difficult to locate this hybrid on the map because various family members have different business names, and they additionally rent a significant amount of land. In fact, the hybrid rents much of their land from another farmer/investor hybrid who owns land across multiple counties (#40). The latter hybrid is run by a wealthy individual who invested in farmland, operated a bison farm and feed operation, and now rents out all of his land. The interviewee explained, as others did, that at this scale, farmers become more like a kind of “lease-operate” investor because they are engaged more in managing than they are farming. At the site of this interviewee’s smaller-scale operation, he is so boxed in by farmland concentration by these two hybrids that he cannot envision how he would ever pick up more land if he wanted to expand. He also doubted whether he could even rent his acres out because his parcel is too small for the large operators to take interest and there are no other farmers close by (#40).

Some interviewees spoke of other investment models in which farmers were recruiting wealthy individuals to invest in their operations. It was not clear to me how common this model was, and I would imagine there might be less community awareness of farmers doing so because it is perhaps easier to conceal than a land deal. One farmer told me she knew of several farmers in her area who had built websites in an attempt to source investment (#34). An MD/county staff who also farms in the central-east of the province revealed in a context interview that she knows two or three farmers in her area who are each funded by multiple individual investors; one of these farmers is an organic farmer, who she said is able to secure funding from five investors who were enthusiastic about organic practices (she referred to the money from these investors as "donations", so it is not clear whether or not this was an actual investment). When I asked her if this model was new to her area, she referred to how farmers' children used to work in the city and become the "silent investors" in the family farm, and how the more recent investors with no relational ties to the farm have come to replace this familial support.

In my interview with the Tax/Utility Clerk in central-eastern Alberta, I asked if she sees investors showing up on the land titles, and she explained:

> If there are investors, they've got a farmer as a front, so we wouldn't know. Like we don't have any titled property that is investors', let's put it that way. So like if a big company farmer has investors we don't know about it, it's in the background. (#26)

This model of investment, where the farmer owns the land and other actors invest in the operation, adds a layer of complexity in the quest to determine the extent of investor involvement in grain farming in Alberta.

Conclusion

This chapter began by emphasizing that the farmland tenure changes taking place do not seem to be being monitored by the Alberta provincial government, and the financial barrier to accessing the land titles data means that other civil society groups are not able to track it either. I then enumerated the diverse ways a variety of investor actors have been engaging with grain farming in Alberta, most notably through purchasing farmland but also by investing directly in farmers' operations. The complexity and breadth of these arrangements, combined with a lack of monitoring from the state and a lack of access to the land titles data, makes it difficult to get a thorough sense of the extent that investors are involved. It is clear that often it is farmers themselves who are turning to individual investors and investment firms as a way to keep their farms afloat. Furthermore, the line between farmers and investors continues to blur, complicating matters more. While some interviewees were skeptical about investors owning farmland, many perceived this shift to be somewhat inevitable. Others saw investor involvement as a useful solution to farmer indebtedness, the farm income crisis, and high land values amidst ongoing pressure to expand, as a way of swapping land to amend fragmented land bases which require moving equipment long distances, and as a tool in facilitating succession.

4. CAUSES & INFLUENCE OF RISING FARMLAND VALUES

Central to changing grain farmland tenure patterns in Alberta is the high price of farmland, which influences who is able to own land and what they choose to do with it. Overall, my interviews revealed that it seems likely investors do not yet own large amounts of farmland in Alberta and that the concentration of farmland ownership among farmers is a more impactful trend in terms of number of acres. However, investor speculation has played, and continues to play, a key role in pushing farmland prices up. In exploring how they have done so, this chapter sheds more light on what I gathered from my interviews about the involvement of investor actors in grain farming in Alberta. The other key influence on farmland prices seems to be the lending policies of financial institutions. The influence of speculation and lending policies together reflect a financialization of farmland and a distancing of the cost of farmland from its productive value. This is having devastating consequences, as it is severely limiting who can access farmland, indebting farmers and further squeezing their net margins, opening a window for greater levels of non-farmer ownership, and reducing the capacity to prioritize social and ecological values across millions of acres of cropland in Alberta.

The purchase price of farmland has surged in Alberta in recent years, and is a major contributing factor to grain farmers' squeezed margins and increased rates of renting, the loss of the smaller and medium-sized farmers, and the inability of new farmers without family connections to enter the sector. One farmer commented, "When it did start to go up, it went so fast. We bought land in 2008, I bought 2 quarters from my aunt for $150,000...and today [in January 2020], you can't buy anything for under $425,000" (#35). Interviewees traced spikes in farmland prices to different dates, which is unsurprising partly because regions of the province experienced spikes at varying times, with prices rising more quickly in some regions than in others. FCC's historic report shows that from 1985 to the early 2000s, with the exception of 1994-1997, farmland values in Alberta and across Canada either decreased year-to-year or increased in the single digits (2019). Then, in the early 2000s, values started to rise more significantly, particularly in Alberta which experienced a notable spike in 2007 when farmland prices went up by 17.4%. Prices did not re-enter the double digits in Alberta until 2012 and 2013 when there was another spike. Since 2013, farmland price increases averaged 8%, although the 2019 jump was notably low, at 3.3% -- the smallest jump in prices since 1993 (FCC, 2019; FCC, 2020b). While changing values provide important information, so do average prices.

Saskatchewan, for example, had some wild spikes in farmland prices such as a jump of 28.5% in 2013. However, despite similar input and machinery costs and commodity prices, average farmland values across Saskatchewan have long been about half the average value of Alberta farmland (Statistics Canada, 2020), which creates a significant contextual difference between the provinces.

When asked about the causes of farmland prices rising, interviewees gave a range of answers, many of which were contextual to the MD/county where they lived. A few highlighted the boon of higher commodity prices over the past decade -- for example, one farmer told me, “2013, 2014 there, that’s when grain prices shot up, like what we’ve never seen before, like $14, $15 a bushel for canola” (#36) -- having given farmers a better cash flow and bumping up demand for land. Several also had a Malthusian perspective, such as this interviewee, who when I asked what he thought was fueling the rising prices, responded: “Just the fact that they don’t make it anymore (laughs). Supply demand. That’s the going joke, they don't make it anymore, so everybody is grabbing on to anything they can get” (#31). These factors only scratch the surface of the complex dynamics that have been influencing the cost of farmland prices in Alberta since they began to rise significantly in the early 2000s.

4.1 The ripple effect

The “ripple effect” is nothing new, but intense land speculation during the period of rising oil prices post-2008 increased the impact of the phenomenon in Alberta. Some interviewees used this term or variations on it to describe when the price of farmland in one region rises due to speculation on urban expansion or industrial development, and farmers sell out and move to areas where farmland is cheaper, using their newfound buying power to purchase more acres than they had owned before. This both increases farmland concentration and creates price ripples, increasing the cost of farmland in regions further and further away from the site of the initial price increase. Those selling farmland, whether farmers or non-farmers, are incentivized to buy new land because purchasing more farmland with the sale money exempts the seller from having to pay the capital gains tax. Interviewees told me that the capital gains tax further incentivizes retiring farmers to hold on to their land and rent it out instead of selling.

The ripple effect has impacted regions of the province unevenly, with those MDs/counties further away from the Highway 2 corridor experiencing the price shocks later, and/or to a lesser extent. All three of the regions where I interviewed farmers and MD/county staff were within relative proximity to cities and industrial developments, and so they all experienced the ripple effect. Many of the farmers north-east of Edmonton described the impact the Fort Saskatchewan industrial area has had on farmland prices in their more rural counties further afield. Fort Saskatchewan, known as “Alberta’s industrial heartland” (#1), is an area where several pipelines converge and various industrial developments -- such as refineries, fertilizer plants, and transmission towers -- exist together in a concentrated area. As the “upgraders”[18] purchased farmland surrounding Fort Saskatchewan for exorbitant prices during the oil boom around 2011, those farmers who sold their land to them were able to move to MDs/counties further out where land prices were cheaper, and buy more acres than they had previously owned with enough buying power to outbid those living locally. As one farmer in the north-east stated:

> We have a number of guys who are farming up here now because, again, they got bought out or they sold their land down there for development, for you know $4 or $5 million a quarter, and then they come up here and they buy 4-5 farmers out. (#2)

This phenomenon then sets a new price per acre standard in the area. Here, another farmer in the north-east told me that while not much land in his area was moving year-to-year, a single purchase could change the price of land:

> It doesn’t take much for one extreme land sale to really reflect the average though. For example, the guy in [MD/county name] purchased two quarters for $1.5 million, and there were only two land sales that year, so with that… it affects the average on paper, but really… the land is still really worth the same. (#29a)

The farmland prices resulting from the ripple effect are completely disconnected from the value of what farmers are able to produce on the land. The cost of farmland becomes further abstracted from any math that makes sense for grain farmers. An older farmer from central Alberta explained that the quarter of land most recently sold near him was purchased by some farmers for $1.12 million. He expressed his confusion: “That has no relationship to farm returns. None. So… I’m not sure why [the farmers] bought it. If they had cash from someplace else, if they’re buying it in speculation because it’s right on [highway 2]... I don’t know” (#11).

[18]A term meaning facilities which turn crude oil products into synthetic crude oil (Government of Alberta, 2018), which interviewees seemed to use to describe all kinds of industrial developments.

I was also able to gain some insight from my interview with two land brokers on how investor speculation on farmland in parts of the province caused waves further afield. They spoke excitedly about their experience brokering land deals across southern Alberta during the investor land rush post-2008, and the ripple effect it had on prices:

> The hype was just unbelievable [...] Within 25-30 minutes from Calgary, in a circle. So what happens is you buy this quarter section off this farmer and turn him loose with five million bucks, and if he's not ready to retire he goes out and buys more land. So it was like throwing a rock into a pond: this money got spread out right across the province, because hell there was guys going to Northern BC to buy ranches with the money that they got, right! (#18a)

Despite the regulation in Alberta which limits foreign individuals or majority (51%) foreign controlled corporations from owning more than 20 acres of farmland (a regulation that the brokers argued is strictly enforced), the brokers described how actors such as themselves were in the business of actively recruiting foreign money such as by making many trips to China[19] (#18a, #18b). Foreign money can still flood the farmland market while adhering to the restrictions, either through the use of a Canadian permanent resident on the land title, or through corporations that are up to 49% foreign controlled. The brokers claimed that during the boom period, the market was so hot that investors were making land purchases rapidly, often on false promises that developments (urban or industrial) were coming to the area of the sale. Because many investors lived outside of the province, they were disconnected from the realities on the ground, and easily manipulated. Although some of these developments never materialized and it became clear that many investors had paid far above market value for the land, the rise in farmland prices stuck, and continues to haunt farmers.

One farmer I interviewed rents a quarter from what she estimates to be 30 offshore investors who got caught up in farmland speculation without enough local knowledge: "they paid a lot of money for this land, much much more than what our current market value is. And they were sold the land on the basis that it was going to be turned into a housing development" (#34). She went on to describe how the purchase --which she believed occurred in 2004-05 as oil prices

[19] It is worth noting that the land brokers described these attempts at recruiting Chinese money as unsuccessful. They theorized that this was because some Chinese investors had been "burned" by purchases of Alberta farmland in the past, and that word had gotten around. The racially-charged stereotype that the Chinese are behind a vast number of investor farmland purchases in the prairies, while brought up by a few interviewees, did not seem to be true in Alberta.

were climbing high prior to the 2008 crash -- resulted from an announcement that upgraders were coming to the south side of a small hamlet an hour away from Edmonton. The sellers convinced the investors that this hamlet would become the “next boomtown”, even though there was a gas plant and a river between the piece of farmland they purchased and the town. For the farmer who told me this story, it was clear all along that this location would never become a boomtown because it would not make sense to bring amenities over there. She went on to explain what has happened since:

> We’ve had a lot of foreign ownership around the town, a lot of receiverships. They’ve gone broke, because they haven’t been able to resell [the farmland] and their owners are demanding a return that isn’t there. So then, we find a lot of times, for sale signs go up, you inquire with the real estate agent and stuff. But you can’t ever get, you can’t really put an offer in because we find they are claiming bankruptcies and it’s just someone else [that] comes in and buys it at a portion of the price. They’re not really interested in a farmer coming in to buy it, anyways. (#34)

Any outside money coming into the community can disrupt the existing price structure, which likely had some closer correlation to soil quality, climate, and overall production capacity. A few interviewees also highlighted the impacts and expressed their wariness of farmers moving to Canada from other regions such as Europe where the land values are much higher, as they often arrive with a lot of buying power in a sort of international-scale ripple effect. The extent to which this is a significant factor in Alberta at the present moment was not clear from my interviews.

4.2 Buying power & the influence of lending institutions

Interviewees named three groups that have the buying power to purchase farmland for more than its productive value: established and/or large farmers, Hutterite colonies[20], and investors. This disproportionate buying power concentrates farmland ownership and allows high farmland prices to be sustained, even as they are unaffordable to the average small or medium-sized grain farmer. As one farmer put it,

> It’s only very, very established farms that still buy a piece of land in my area. In fact, we just sold one quarter, about one year ago now, and I would have never bought it (laughs). It’s just too expensive. . . [The only ones who can buy land are] nonfarmers or huge farmers with enough equity to do it. And [those who] still have faith that it will continue

[20] The majority of Canada’s Hutterite population is in Alberta, at just under 17,000 people across 175 colonies in the 2016 census (Ryan, 2019).

> going up, because as you probably know, there is absolutely no way on paper that you can pay for a quarter section of land by farming it, and that's the situation. (#10)

Another farmer matter-of-factly explained, "You can't be farming like 600 acres of land and then go buy 150 acres of land and then expect to pay that off in your lifetime" (#17).

The buying power of investors is obvious since they are drawing on sources of capital that are independent of farming, and institutional investors are drawing on huge pools of wealth, allowing them to pay more for farmland (Magnan & Sunley, 2017). As Clapp and Isakson (2018) highlight,

> investing in farmland has provided an outlet where financial actors can safely and profitably deposit their over-accumulated capital despite a more general condition of economic malaise. Long-term investment in natural capital like farmland can help resolve a general crisis of accumulation. (p.85)

It is not so much the need for capital as the overabundance of it that draws investors to farmland ownership.

One interviewee argued that Hutterites will eventually be the only ones who will be able to compete with investors (#6). Hutterite colonies' buying power comes from their collective structure that allows them to pool resources (both within and between colonies) and bail each other out during tough seasons thus ensuring they are not forced to sell their land. Hutterite colonies are often engaged in multiple production types, which adds to their resiliency. For example, a Hutterite farmer I interviewed claimed Hutterites control 70% of the egg quota in the province alongside being heavily engaged in grain production (#33). Many interviewees attributed Hutterites' success to their "free labour" (#20), but others doubted this argument since the high-tech farming systems they are employing do not have high labour demands.

Hutterite collectivism was often portrayed by interviewees as a kind of unfair advantage in contrast with the relative autonomy of other farmers. One (non-Hutterite) farmer commented,

> They're very good at what they do, but then they're able to throw just a whole whack of capital at it, and they don't need to have the same return on investment that a conventional farm would have because they are not borrowing from banks. They have their own internal financing system, so. (#3)

Many interviewees saw Hutterite colonies as a threat to other non-Hutterite "family farms", even more than they perceived investors or others outside the community purchasing farmland as a threat. When asked what the future of farmland tenure might look like, one farmer said, "I see the Hutterites owning 100% of the farmland in Alberta and it doesn't make me very happy"

(#23a). Interviewees consistently argued that once a colony purchased land, it would never go back on the market. As one (non-Hutterite) farmer put it: “for the Hutterite colonies, once it’s in their possession, it’s in their possession forever” (#6). Colonies were always described by interviewees as being some of the largest farms around, although a few did qualify that Hutterites’ acres-per-person ratio is typically smaller than for non-Hutterite family farms[21]. Regardless, Hutterites' large landholdings (they almost never rent land), diversified, high-tech industrial operations, and collective economic structure give them considerable buying power.

Among the remaining farmers, it is those with the largest landholdings who have the most buying power and potential to afford high farmland prices, irrespective of their capital flows, as a result of the borrowing power their land equity gives them[22]. One of the largest farmers I interviewed said that it can be beneficial for him when farmland prices rise: “For our debt to equity ratio to stay in line, if they keep driving [the price of land] up, it’s not a bad thing, right” (#32). In theory, large grain farms also have more capacity to benefit from economies of scale[23], thus contributing to their buying power. For example, large farmers are able to spread machinery expenses over more acres, to some extent, as one interviewee put it:

> Yeah, and that’s, like I said, these guys paying $600,000, $700,000 for a quarter of land, I don’t know how you’re ever going to make that back. But if you’re farming 20,000 acres, yeah you’d be able to, because that is just an extra day on that quarter and when it's [time to] combine, when they come in, they come in with six combines, right. (#2)

Many of these large farms are still run by families, often through variations of joint venture structures that allow family members to both hold a level of sole proprietorship while also benefiting from some level of collectivism. Here was one such farm, run by three siblings, explaining their model:

> #38b[24]: We’ve always had our own companies and worked as a joint venture, but now mom and dad are out, so.

[21] Canadian Hutterite scholar John Ryan notes that “each Hutterite family has less than 50 per cent of the land of a typical single-family farm on the prairies” (2019).
[22] Although I will be focusing on grain farmers here, in some regions of the province, large dairy farms, which need lots of land to grow forage and to spread manure on, are a significant source of competition for land as they also have a lot of buying power.
[23] It is worth noting that Statistics Canada data from the 2016 census indicates that in Alberta, there is little to no change in the gross revenue and net income farmers are able to make per acre across different grain and oilseed farm sizes, with the exception of gross revenue per acre for farms 10,000 acres or larger (Qualman et al., 2018).
[24] As before, the code #38b represents three different sons whose voices I could not distinguish on the recording.

> #38b: The joint venture is changing a little bit but we've always had a joint venture, just to capture efficiencies, right. Equipment, buying power, working together is more efficient, for us.

In this case, each of the siblings owns land independently, while other aspects of the business are done together, and the joint venture gives them notable leverage when it comes to buying power.

Interviewees explained how easy it is for large farmers to borrow against the equity of the land they already own. One farmer's experience of accessing capital highlighted this: although he was relatively young, he entered grain farming by joining his dad and uncle, who already operated a large land base. When I asked if he had ever had difficulties in purchasing or renting farmland, he told me:

> No. It was extremely easy [...] Everyone wants you to borrow money. It's the easiest thing to do. It's whether you can handle the risk. The lending institutions… mind you, you have to have a healthy bottom line, but if you do, it's probably the easiest thing I've ever had to do. (#35)

Interviewees described how banks' lending practices have changed over the years. Previously, it was much harder to get credit on equity alone, and you needed to be able to demonstrate how you would pay the money back. Now, banks are willing to lend on equity and the assumption of appreciating land value. They even dole out interest-only loans, where farmers do not need to pay down their principal at all, which leads to farmers essentially renting land from the bank as landlord. When considering the number of acres farmers own, or the percentage of farmers' operations that is owned as opposed to rented, it is essential to recognize that many of those acres are not owned outright, may never be paid off in the farmer's lifetime, and might in this sense more accurately be viewed as rented acres.

One farmer I spoke with gave me an example of someone in his region of the central corridor who had owned a half section outright, rented another four quarters, and planned to rent an additional four quarters for the coming spring. The man had also purchased new equipment in order to handle the extra acres. As the farmer put it, "There was no way on God's green earth he was even going to make a living doing that because his capital costs far outstripped his equity" (#3). He went on to explain that this man's banker would have looked at the half section the man owned, close to Calgary, assumed this land would continue to rise dramatically in value each year, and been willing to loan money to the farmer on the basis of the equity. As the farmer went on to explain:

> [...] that's created a kind of Ponzi scheme in the agricultural community [...] because people are borrowing not against the productive value of their operations, but against the equity value of their land and of course if things go badly, like say China doesn't like to buy canola with a bunch of junk in it anymore, that can play havoc with the finances. And just like in the early 1980s, if land prices start to fall, the bankers will start to get nervous, and say 'your equity has climbed this year', when in effect nothing has really changed physically, the numbers are different. (#3)

What this farmer is explaining is illuminating in that it suggests that financial institutions deliberately push up farmland prices through their lending policies, in order to ensure they get their money back. This leaves the agricultural sector especially vulnerable to shocks, such as the drop in the price of canola in 2019 when China announced they would no longer be buying from Canada.

Interviewees helped me to trace the trajectory of bank lending policies in Alberta through their own experiences over the last 40 years. Following the 1980s farm crisis when a combination of low commodity prices, high interest rates, and declining net incomes led to the collapse of many farms, banks were wary of lending money to farmers. As a farmer from the Peace Region explained:

> In the early 90s, you could probably almost not borrow money. Like if you didn't show any substantial amount of down payment, they wouldn't give you much, because banks got also hurt by the high interest rates because people defaulted, [banks] couldn't deal with this. (#8)

This farmer went on to say that to convince the bank to lend him and his partner the money needed to purchase a couple of quarters, by the late 1990s they were still required not only to make a significant down payment, but also to show how they would be able to cash flow the rest of the payments. Then, as they set out to continue expanding into the early 2000s, lending policies took a sharp turn:

> [...] what had happened is the bank must have completely switched policies by then [...] they did not ask anything about cash flow projections or nothing. All they said was we will stand behind you, and we will finance you up to like $1000-$1100/acre. And that was significantly more money than we had ever paid for land before. (#8)

He explained that he became skeptical when he talked to other farmers in his area of the Peace Region and learned they had been made the same offer. It became clear to him that this was a refinance scheme: the largest farm in the area had come up for sale in the early 1980s, a total of 29 quarters, but the farmer had been unable to sell for the price he wanted, and eventually the bank, which was out a substantial amount of money on the land, started making all the local farmers the same offer, $1000-$1100/acre if they wanted to buy a piece of the parcel. When the farmers checked the land title, they found that the mortgage matched the price per acre that the bank was offering to lend. As he put it:

> The bank wants their money back. They are having their money invested in this farm and they see it is not working, so they are willing to disperse their debt from that farm across a broad section of farmers in the area. (#8)

The farmer argued that in this sort of scenario, if the new farmers who borrow to purchase the pieces of land are unable to pay it back in a few years, the bank will simply refinance it again, and it will appear as a sale and a purchase although no farmer has ever truly owned the land throughout the entire process:

> So I would argue, partly it is the refinance, and also possibly new purchases, but I also say it is a change of land ownership from a farmer to a financial institution. Because most of the purchases are not paid cash. [...] You have the bank possibly to help you, but they actually are essentially the owner, you're just the worker. So in a way you could say it's a new model of peasantry [...] (#8)

This story reflects a cyclical process of financialization, through which deregulated financial institutions have an upward influence on the price of land through their control over lending, and then these higher farmland prices require farmers looking to purchase land to take out larger loans. Low interest rates have also played a significant role, as another farmer highlighted:

> And of course there has been an appreciation in farmland, and that's not because farmland is more productive than it used to be, it's because with very low interest rates, farmers are encouraged to expand their operations. If you look at it really with a cold eye, it's not really viable, a lot of what they are doing. (#3)

The impacts of these changes in lending policies since the 1980s have been profound. Throughout my interviews, farmer after farmer told me that the price of farmland in Alberta had, on the whole, reached a point where it was impossible to pay a quarter of land off in a lifetime of growing grain on it. As one farmer I interviewed sees it:

> As long as the land values have been increasing, the banks, the lender gets assured that he gets his money, and the overall equity in the farm increases, and it looks like any financial problems from the past get smaller due to the asset increase. So our land values are going up and up and up. We have $500,000 [for a quarter] in my area now. We purchased for $50,000 in 1991, and we have $500,000 as of last week in these [local farmland] sales. (#8)

As the value of this farmer's land increased by 1000% over the 28-year period from 1991-2019, input and machinery costs went up dramatically as well. For the farmers who acquired land at the right time or who were lucky enough to inherit land, these increases in value may benefit them greatly if they go to sell. But before farmers retire, increasing farmland values does not help them pay down their debts, and if they are continuing to expand, then they also have to try and acquire land at these new high prices. If they have children who would like to farm, then they may never see the benefits of the rise in farmland prices; or conversely, the need to sell farmland and other assets to pay down debts may inhibit them from getting their children started. It helps to put this in context: in 2018, farmers in Canada experienced the biggest increase in farm expenses in 6 years in Canada, alongside a 45.1% decrease in realized net farm income for agricultural producers in the country, with Alberta experiencing the most staggering decrease, at 68.1% (Statistics Canada, 2019).

The majority of my interviewees did not emphasize or expressly recognize the impact that deregulated lending policies were having on farmland prices. This is consistent with Clapp and Isakson's (2018) argument that both the ever-increasing complexities of financialization, as well as the individualization of responsibility and financialization of everyday life, have shrouded people's ability to see and understand the role financialization plays. Only a couple interviewees recognized the impacts, such as this farmer:

> I wonder if the lending policies of farm credit corporation, AFSC, and these banks maybe too [...] aren't contributing to these inflated land prices [...] and are they really doing these young farmers a favour by lending them 2 million dollars if they can't ever pay it back? (#11)

For another farmer, financial institutions were not only a major player in changes in farmland tenure, but also a viable locus for intervention by the state. As he explained:

> Land tenure is largely dictated by banking arrangements. Arrangements between individuals and their banks, landowners and their banks. You could change everything by just… and I'm not saying necessarily large sweeping changes, but slowly starting to tip the balance away from land speculation, farms getting larger and larger and larger at the expense of the smaller farm being able to compete for land. You could just start turning the tide a little bit by... you know, regulation on the banking system, and who gets the money and for what price. (#40)

This was one of the few examples where a farmer was able to imagine a different role for the state (whether local, provincial, or federal) in the agricultural sector other than the neoliberal iteration which currently exists.

4.3 Other notable influences

"First-acreage-out" both increases farmland prices, and is also a strategy employed by both farmers and other landowners to deal with high prices. There are different iterations of first-acreage-out, but in each case it involves subdividing out a couple of acres for people to live on from a quarter section. The original buyer, whether a farmer or non-farmer, might keep the land, or might keep the acreage. While most interviewees spoke of farmers employing the first-acreage-out strategy by purchasing a quarter and selling off an acreage, a farmer in the Peace Region also told me he knew of wealthy individuals in his area who were purchasing quarters, selling an acreage, renting out the rest to a farmer, and collecting the oil and gas revenues. Interviewees also described retiring farmers employing first-acreage-out on their home quarters, where they would subdivide out a few acres around their house and then sell off the rest of the farmland on the quarter.

Some farmers were in favour of first-acreage-out, because it can give them better access to purchasing land, and because it has the potential to help repopulate rural areas. The cost to subdivide the first acreage is relatively cheap and is easy to do (it gets more expensive and complicated after the first). Although this strategy can be very effective for farmers, it can also increase land prices, as a farmer in the north-east explained:

> Our guys started seeing in [name of adjacent MD/county], people buying a quarter of land at half a million dollars, subdividing the acreage, which costs about $10,000 [to do], and then [selling] the acreage for $350,000, and they're going, hey! They just bought 140 acres for $160,000? That's cheap! And then these guys started doing that. And in the meantime, they kept driving the prices up and a lot of the farmers around here that are retiring, that's what they're doing. (#2)

In regions such as the central corridor, where farmland is close to urban centres, there are lots of people looking to live on acreages and commute to the city for work, and so demand can dramatically hike up the price of a quarter section.

Other interviewees had qualms with the subdividing of acreages for other reasons. One farmer told me:

> they disrupt the rural setting because farming becomes more and more complicated when you have all this, you know like if you have subdivisions, acreages, horses, dogs -- like you name it right -- it becomes more and more complicated to have a functional agriculture. (#8)

This particular farmer had had to get rid of his sheep because of issues he was having with his acreage neighbours' dogs. Another farmer expressed skepticism toward the first-acreage-out practice for a different reason, as he wondered if it was a strategy pushed by lending institutions as a way for them to navigate burgeoning farmer debt:

> The one subdivision out? That started years ago… the notion was that farmers could retire and maintain their farmstead and sell the farmland. And I have a suspicion that it was partly the banks that pushed for that, because… it gave them more protection, if they could repossess a quarter of land and leave the people their house. That's kind of cynical, maybe. (#11)

While I cannot confirm whether or not lending institutions have been a driver of first-acreage-out, it certainly seems possible. If it is true, it is another example of the financial sector's influence on farmland tenure in Alberta, and another example of the financialization of farmland inconspicuously remodelling the rural landscape.

In the Albertan context, the other significant factor that influences the price of farmland is the oil and gas sector. The oil and gas sector and the agricultural sector are inextricably linked even beyond industrial agriculture's direct reliance on petrochemicals, oil, and gas for production, and the price of farmland is affected by the fluctuations and volatilities of both sectors. The significant role of the oil and gas sector in Alberta's economy means that the fate of rural communities is often closely linked to the turbulence of oil prices. When there is an oil boom, there is more money moving around the province, which increases the demand for farmland. Many farmers have off-farm jobs[25], and some of my interviewees either currently work in the oil patch in the winters, or have done so in the past. Additionally, many farmers have wellsites and pipelines on their farmland; some of these continue to pay out to farmers in the thousands of dollars each year, although others have stopped paying, and farmers have been left with infrastructure on their land that can cause all kinds of problems. Farmers have little recourse to get oil and gas infrastructure removed as most do not own the mineral rights, many oil companies have gone bankrupt, and it is now up to the province to do the clean up.

At this point, interviewees did not seem to think that farmland with unpaying oil and gas infrastructure on it cost any less than other farmland. However, one farmer, who has "spent 35

[25] A report by the Government of Alberta's Economics and Competitiveness branch showed that, from 2001-2013, 79% of household income among farm families in Alberta came from off-farm income -- the highest percentage of the Prairie provinces (2017). It is notable that this includes income from financial sources such as investments.

years keeping the oil boom off [his] farmland" argued that the long-term environmental liabilities of oil and gas activity on farmland "will come home to roost for people eventually" (#3). He also highlighted how expensive it is to move big machinery around oil and gas infrastructure, and how the mandatory offset area around the infrastructure often makes it impossible to build new structures needed to employ, for example, the first-acreage-out tactic. Another farmer argued that the money from oil and gas, when combined with the potential for rental income, further encourages nonfarmers or retired farmers to hold on to their land (#5). Most interviewees believed there to be positive and negative sides to the oil and gas/farmland intersection, such as this farmer who expressed: "the oil industry [...] has kind of massacred the landscape. As much as I like the cash! (laughs)" (#11).

4.4 Increasing rates of renting & increasing rental rates

As farmers seek to expand amidst incredibly high farmland values, they are increasingly renting larger portions of their land base. One farmer commented that: "On some of these farms I personally know, they were 70-80% land ownership, easily, and now I would say they are down to that 50-60%, not because they've sold, just any new land they've acquired, it's all been rentals" (#34). Renting has long been an alternative to purchasing land, but it has now become an essential strategy for coping with farmland prices. Farmers consistently estimated that over 80% of the grain farmers they knew were renting some portion of their land base[26]. However, rental rates have also been rising to troublesome levels: "The price on the rented land is going up, and at the end of the day when you do the math, it does not seem like you are making any money" (#39).

Although rental rates must remain more closely tied to what farmers can make through production than farmland purchase prices, they can still be influenced by other factors. The high value of farmland and tight rental markets lead to landlords having heightened expectations of what they can charge for rent. One interviewee put it like this:

> [higher rental rates make farmland] a better short-term investment, because the short-term cost of renting is going up, quite substantially in the last few years actually. So even on a

[26] A Government of Alberta report of census highlights shows that in 2016, across all types of agricultural production, approximately 55% of total acres farmers operated on were owned and 44% of total acres were rented, leased, cropshared, or otherwise used without being owned (2018b). Unfortunately these figures were not broken down by production type, but they still give us a strong sense of how prevalent the tenant model has become.

> short-term investment people are starting to see, sure there's a long-term investment, the appreciation of value when I go to sell it someday, but there is more cash in the year-to-year, so as a short-term investment it makes more sense too. (#30)

It is also likely that high rental rates and competition among farmers to rent land can also push up the purchase price of farmland.

The same ripple effect that happens with farmland purchases appears to be occurring with rental rates too, and some parts of the province have seen dramatic changes in landlords' rental expectations in recent years. Rent-seeking behaviours have become more commonplace, even among retired farmers, as a farmer in the north-east explained:

> In this area [previously], all guys were asking for in rent was how much the land taxes were. And sometimes land taxes were only like $600 for a quarter of land, so that's all they wanted for rent, and that was only 10 years ago. Now you're looking at guys, farmers, are moving in from areas like [names of adjacent counties closer to the industrial heartland] they're moving in, they're moving into this area because the rent is a lot cheaper than the rent they were paying over there. (#28)

Interviewees pointed to institutional investors employing the own-lease out model as having the highest expectation for rental rates, and thus contributing the most to the ripple effect, due to annual ROI expectations from shareholders. Interviewees explained that institutional investors aim to obtain a given percentage of the original purchase price through rent, typically between 2-5%.

One farmer I interviewed rented 95% of the land she operated (the highest rental percentage of all my interviewees) and she described the work and creativity required to manage relationships with the approximately 40 different landlords from whom she rents. Her landlords range from local retired farmers, to absentee owners such as the kids or grandkids of farmers who live in the city, to those who have purchased the land purely as an investment. She described the fear she felt when the OTPP purchased land in her area at "well above market value" and the farmers who had previously owned the land began renting it back: "[...] it set a precedent in the area and especially for myself when I very much develop or rely on our landlords, it's gonna start pushing rent up" (#34). She went on to explain:

> #34: Their rental rates are [...] 50% above what our highest rent is in the area.
>
> Interviewer: In your mind is it possible for a farmer to turn a profit with those kinds of rates?
>
> #34: [Only] because they've been paid [by the OTPP] for the land at the high dollar. Only those farmers who did the sale [to the OTPP] can afford [the OTPP's rental rates].

> Interviewer: But if that trickles out to other rental rates, then it doesn't make sense for anyone?
>
> #34: No. Like on our farm we try to let our landowners know what the situation was, why they're potentially hearing those numbers in the area, and why it would never be a realistic expectation of us to ever be able to pay.

When an investor purchases land from a farmer who then becomes the tenant, it creates a unique situation where the farmer has an injection of cash with which they are able to pay a higher rental rate. The farmer quoted above needs to be vigilant to ensure her 40 landlords both keep renting to her, and keep their rental rates at a level that she can afford. Another interviewee who lived nearby similarly spoke about an institutional investor (he referred to them as the Ontario School Board, and so I am suspecting he is talking about the OTPP) renting the land back to the farmers they had purchased it from for $150/acre. He said that this high rate is having a "domino effect" on rental rates in the area even though "there is something wrong with the math" (#33).

One of the larger farmers I interviewed explained that he had been approached by the lead of a new venture between Manulife and Burlington Capital (based in Omaha, Nebraska) called Manulife Farmland Services Canada (MFSC). MFSC emerged in 2017 in Calgary with plans to first focus on farmland purchases in Alberta. The farmer explained that MFSC is trying to follow a similar model to Bonnefield, but with more realistic evaluations of possible rental rates:

> [The lead of the MFSC] wanted to do like 1000 acre blocks, farm the land… they want to work with a farmer, make sure he is profitable, and not necessarily do a joint venture, but be sure that they are doing something that is realistic. That's how he pitched it to me. The problem is the value of the land is too high so they can't get the ROI they want, so. They want to get the $1000/acre land, which is hard to find. Hard to find good land for that price. (#32)

Interviewees expressed clear doubt that the rental expectations of institutional investors can be met through farmland investments in Alberta in the current climate. While farmers may be willing to take out large loans to purchase farmland, because they are able to benefit from the equity and will in theory own it eventually, the math with rental rates is simpler: farmers will not rent land at rates that negate their ability to come out with a positive net income.

4.5 Can it be sustained?

After several seasons of difficult harvests and market turbulence due to issues with trade deals, some farmers claimed the price of farmland has steadied, or even decreased slightly as sellers have not been able to make their asking price, despite farmers everywhere looking for land. One farmer suggested the market is "gonna have to adjust itself because it's not really sustainable" (#26), as farmland prices, both purchase prices and rental rates, are so high and disconnected from the productive value of the land. If renting farmland has been farmers' primary coping strategy for dealing with high purchase prices, and rental prices are becoming unattainable, what comes next? Qualman et al. (2018) write:

> Evidence suggests that Canada may actually be in the midst of a farmland-price bubble: a period of rapidly rising asset prices, unsupported by economic fundamentals, which risks ending in a price contraction. Over the past decade-and-a-half, prices have risen more, and faster, than at any time in Canadian history. (p.109)

Although the 2019 increase in farmland prices in Alberta was the lowest since 1993, FCC's chief agricultural economist, J.P. Gervais, notes that the price of land relative to "per acre farmgate revenues" has never been higher (Cross, 2020, n.p.). Across the country, he said, "No matter where you live, the price of land relative to expected revenue on a per acre basis is significantly higher now compared to what the average over the last 50 years has been" (Blair, 2020, n.p.). Gervais explained that the Covid-19 pandemic is only going to exacerbate a capital crisis for farmers that was already on its way (Blair, 2020). Some interviewees said they believe the prices have reached an absolute limit and will not go any higher. High farmland purchase and rental prices are squeezing farmers' net margins to the point where, as one Agricultural Fieldman and farmer put it,

> Everybody is at a standstill. We haven't had any farms moving [...] Yeah, 5 bad years. I think after this year there's some that are definitely on their… they're squeezing their buttcheeks because they might not be good next year. The banks are definitely calling. (#39)

This same Agricultural Fieldman went on to explain that she had declared a state of disaster in her municipality this fall due to the terrible harvest conditions.

Several interviewees expressed doubts about the model of institutional investors as landlords, as they believe that, at least as current land prices and farmers margins stand, the ROI their shareholders are expecting will not be possible over the long-term. Some farmers said it seemed like the investor activity in their area had slowed, or that they believed institutional investors were looking for a way out:

> #38b: Well they're looking for a return on investment, right. They need a certain percentage back every year. And they're not buying land anymore, they're not buying farmland anymore.
>
> #38b: Well at this time they're not.
>
> Interviewer: Why do you think that is?
>
> #38b: Because the returns aren't there. Everybody wants high prices, and they can't… They can put their money elsewhere and get better returns.
>
> #38b: Well I don't think we're any different right, let's face it. It's been chopping inches all over Western Canada the last couple of years, with weather, markets…

Even the land brokers, who spoke so highly of farmland as an investment opportunity, expressed doubts about Bonnefield's newest fund that is about to be deployed: "If someone said, 'Here's $130 million dollars, get me 2% farmland return', that would be… very tough" (#18a).

Sky-high farmland prices in Alberta and an aging population of retired farmers owning farmland as well as active farmers nearing retirement and possibly looking to sell out means that these changing farmland tenure patterns are likely to accelerate unless some serious changes are made. Although it seems as though drumming up investor dollars for farmland as an asset class has proved slow in Canada, the words of the farmland brokers I interviewed ring out in my mind, speaking on farmland as an asset class: "I do believe that investors are going to figure it out soon enough. Europeans have it figured out. Some of the largest family fortunes have all been because of owning land [...] I think one day they're gonna get it" (#18). Bonnefield representative Roy Farrer also expressed how appealing Albertan farmland was to the firm: "Alberta is definitely an area that we really like [...] We think all areas of Alberta have potential, and will probably be involved in any future funds we do" (#19).

Conclusion

There are some grain farmers who have been able to benefit tremendously from rising farmland prices, but as one farmer put it: "The guys that are supposedly wealthy doing it, well it's like second, third, fourth generation farming, or they are those that got out by the upgrader" (#2). It became clear to me early on in my interviews that the dramatic increase in the price of farmland in Alberta, alongside long-stagnant grain commodity prices, is the factor most shaping farmland tenure right now. The high cost of land both enforces the push to expand, as farmers' capital costs are heightened, as it simultaneously pushes all but the largest farmers out of the game, increasing concentration of ownership dramatically. It leaves only large, established farms, Hutterite colonies, wealthy individuals, and investors the opportunity to purchase farmland, exasperating inequality and increasing tenant farming. While investor farmland purchases and speculation are not the only factor in rising farmland prices in Alberta, it became clear that this is the defining impact investor farmland ownership is having: it is likely not the number of acres enclosed (yet), so much as the ability of investors to increase the cost of farmland further and further beyond what producers are able to make on it through grain farming in their lifetimes. This disparity creates an ever-wider window for elite enclosure and widening inequality in the absence of intervention.

5. SOCIAL IMPACTS & IMPLICATIONS

These next two empirical chapters focus more closely on the community level with this chapter shedding light on the social impacts and implications of what has been described in the previous chapters. The financialization of farmland exists alongside and is enabled by neoliberal restructuring and hegemony at the community level, and investor farmland ownership and the upward pressure on farmland values as a result of speculation exacerbate existing neoliberal impacts. Grain farming is becoming increasingly unviable while the distance (literal and figurative) between farmers is increasing and competition is now a central feature of social relationships. Rural areas are being hollowed out and underfunded, deeply affecting community vitality. Debt burdens are higher than ever, and new farmers' ability to enter the grain sector is severely compromised. And finally, neoliberal ideology is constraining the potential for collectivism and progressive resistance, although interviewees did give some strong examples of organizing which I will relay. The social crises taking place in rural Alberta, intimately bound to the environmental crises, must not be understated.

5.1 The failure stigma, competition & inequality

When farms are in crisis or cannot be sustained, it can be especially devastating because of the long family histories that farmers want to live up to. It was clear in my interviews that farm "failure" was associated with the failure of individuals as entrepreneurs. My interviewees often laid personal blame on the farmers they knew were struggling and associated the success of other farmers with good business skills. Some suggested that the farmers who were deeply indebted had expanded too rapidly, had become too greedy, or were caught up in purchasing unnecessary new equipment as soon as they saw that their neighbours had done so:

> I notice like if sons take over their dad's land, and their dad has been farming that way for years and years, and all of a sudden the son takes over, [then] there's a million and half dollar drying system and bins and everything [...] And then they don't get their crop off for 5 years and then they'll lose their parents' farm. [...] If I was to buy a new seeder tomorrow, probably three guys will need a new seeder the next day. (#39)

One smaller-scale farmer expressed his respect for the largest farmers: "Well, you didn't get to be 10,000 acres by being a fool, right. Your farming method is obviously a relative success" (#14). Farmers who had managed to get all of their crop in during the difficult 2019 season always distinguished themselves this way: "[My husband] is very competitive, and he can honestly say we've never had crop left in the field since 1979. And that's his legacy, that's his thing, his superman cape says that on it" (#20). Farmers who were able to fund the majority of their family income through farming also seemed to attribute this to personal entrepreneurial success, regardless of the other factors that may have set them up to do so.

Just as the farm crisis gets pinned on individual farmers under neoliberal rhetoric, neoliberal structural changes have pushed Albertan grain farmers into more competitive relationships with each other. With the dismantling of the organized marketing that existed through the CWB until 2012, farmers have had to compete directly against one another for elevator contracts. The seasons since then have, overall, been immensely challenging. One of my interviewees expressed the pairing of this struggle with competitive relationships between farmers:

> [...] we're all just treading water and trying to keep our head above water with managing expenses, managing the workload, managing the weather, managing [...] And all the while keeping your cards close to your chest and not really divulging anything because all your neighbours are your competitors. You don't want to give them an advantage, why would you! Know what I'm saying? It's like if there is space for grain to be hauled at Louis Dreyfus, and there's 10 trucks that need to go, my husband is not phoning the neighbour and saying, 'hey, let's all get together for coffee and haul grain'. He's like screw that, I'm booking in my 10 trucks, ok, sorry. (#20)

Another large-scale farmer with farmland scattered across various counties in the north-east who is always looking to sell land to be able to buy pieces closer to his storage bins told me he would not want to sell any land to a farmer operating at a similar scale and thus in direct competition with him (#32). Albertan grain farmers face tight competition to access farmland as the price to purchase or rent land has increased dramatically in recent years. One farmer and Agricultural Fieldman in the Peace Region noted:

> You know there's a little more competition for [renting] too, where after [a 3-year contract] the [landlord] goes 'Ok, well I'm going to see who else is interested', and all of a sudden somebody else comes in and says, 'Well I'll rent your land for you and I'll pay more than what your other renter was paying'. (#5)

A farmer who also works as an Agricultural Fieldman in the north-east similarly told me about the "bidding wars" that happen in his community, including a case the year prior where the bidding between two farmers for a half section escalated to $1.3 million between two neighbours. When I asked him if those dynamics caused tension in the community, he responded, "No, no, that's just the way it is. If you want it, you're gonna pay for it" (#2). These competitive dynamics are heightened and the sense of solidarity is further strained by the fact that the inequality of net incomes among farmers continues to increase: presently, the 20% of farmers with annual revenues above $500,000 capture 80% of net income across Canada (Qualman et al., 2020). In Alberta in 2016, farms larger than 5000 acres, making up a mere 6% of total farms, operated 40% of the land, while 61% of farms operated on only 15% of the land (Qualman et al., 2020). Among my interviewees alone, operations ranged from less than 500 acres to more than 30,000 acres.

The concentration of farmland ownership among large farmers, non-farmer landlords, and investor actors furthers wealth divides, as many farmers become tenants across an increasing portion of their operations. One farmer who also works as an Agricultural Fieldman in the Peace Region explained:

> I think we're going back to a landlord type of system that we're now seeing in the EU, where no one owns anything, it's just all rented [...] The money is going all to one place… [T]he majority of the people won't be able to achieve a different economic path, so we're seeing a bigger spread between the rich and the middle class and we're seeing a reduction in the middle class. (#6)

Inequality of incomes and access to land has the tendency to threaten collective action in communities (Flora et al., 1992, as cited in Jaffe & Quark, 2005). Farmers are getting pushed further apart along class lines, between large-scale farmers, ever-disappearing medium-scale farmers (conceived as the more traditional family farm), and part-time farmers who must make most of their income elsewhere as their farms do not provide enough of a livelihood[27] (Knuttila, 2003). As this differentiation happens their "differing interests, divergent worldviews, and greater social distance" undermine previous community organizing strategies and networks, thus leading farmers to view each other through a business lens as opposed to a neighbourly one (Gertler et al., 2000, as cited in Jaffe & Quark, 2005, p.243).

One of my interviewees discussed how general farm organizations such as the NFU used to be a larger force across the prairies, but now, "There's a lot of politics with it [...] Farmers don't work well together. If you can find a unifying functional group that can unify farmers… Oh my god. You'll be making history. They're all competing with each other" (#20). Writing about the Saskatchewan context, Jaffe and Quark (2005) argue that specialization and the

[27] It is worth noting again here that Albertan farmers, on average, obtained 79% of their household income off the farm from 2001-2013 (Government of Alberta, 2017).

reduction of mixed farms has led to membership in general farm organizations being replaced with membership in specific commodity groups and business associations (Knuttila, 2003, notes this as well). This certainly proved true in my interviews: I asked several farmers about their engagement with farmer organizations, and the majority were only involved in individual commodity commissions, such as the Alberta Canola Commission, that work closely with corporate agribusiness players. As Jaffe & Quark (2005) found, this diminishes farmers' sense of each other as being producers with common interests.

5.2 Population loss & rural austerity

The consolidation and centralization of farm services alongside the ongoing concentration of farmland contributes to farmers seeing less of each other. This compounds with diminishing farm numbers and general population in many rural areas, and the lack of these spaces of regular interaction weakens community ties, diminishing the impetus for local farmers to see each other as more than mere competitors.

Equipment dealerships and input suppliers have gone under or consolidated, as have grain elevators. One farmer acknowledged, "It's more centralized, that's basically what it is. It's becoming a Costco way of thinking" (#2). Another spoke of how there used to be many independent agricultural dealerships in the province, but now the vast majority have sold out to conglomerate dealerships in the past 15 years, and now there are two John Deere dealers with outlets across the province:

> What's happened there is the independents were kinda knocked out because [...] the low interest rates meant that [...] the manufacturers have offered these low-interest loans on machinery. So what happens with a dealer is that if I go in and buy a new combine, a new John Deere, John Deere finances that for me, but the dealer has to finance the cost of the [...] combine I gave him [as a trade in] for that. So what happened is a lot of these independent dealers ended up with just a whole whack of equipment sitting on their books that they just could not get rid of anymore because of course people are just buying new and scaling up all the time and the number of farmers dwindles. (#3)

This consolidation process has taken away not only a source of local employment and wealth, but also essential social sites where farmers would frequently run into each other. One farmer explained that in 1982, he was part of a local elevator co-operative along with 54 other farmers. Now, there are only six of those farmers left, and he has to drive elsewhere to deliver his grain (#3). Another older farmer also emphasized the social value of the local elevators:

> When we had an elevator in Sylvan Lake, which is five miles away, where we sold our grain, that's where you kept in touch with the community, because people, all the neighbours were coming in and out of there on a regular basis, and that was an information network. So now our closest grain delivery point is 50 kms away, and it's… there's a big lineup of trucks, and in the lineup of trucks we might know two people, because [everyone] comes from a much bigger area. (#11)

A farmer in the Peace Region estimated that in the 8-year period from 1990-1998, every second farmer in his area had quit and had been bought out by those who remained (#8). Another older farmer in the central corridor described to me how his community has changed:

> Ok, when I started, the average farm size was probably 500 acres average, 3 to 4 quarters, in that area. And we knew all our neighbours, and there was a lot more working together. You look over the fence to see what your neighbours are doing, and now lots of times when we're out there farming you can look around and you won't see another tractor, or a combine, because the big farmers will move in and they'll do this land and then [in] two days, they're gone. (#11)

Today's large farms often have land across multiple counties, and this means that they own or operate land in communities in which they are not engaging or contributing.

The only farm scale that increased in number of operations from 2011-2016 in Alberta were farms over 2,880 acres (Government of Alberta, 2018a). In one of my context interviews in the central-east, a farmer told me that there are three large farms in her area, all larger than 10,000 acres. She described a similar scene to the above quote by #11:

> [These farmers] have maybe 12 or more quarters in other counties, so they are definitely around, and they don't mind driving an hour, half an hour between fields, and I mean when you have six combines roll into a field and three grain carts, you take it off that day and move on to the next one. (#24)

The solidarity and harvest support networks that farmers described experiencing in their youth are now sparser than they used to be. As Desmarais et al. (2015) put it, drawing on Wiebe (2012):

> Losing the physical and social presence of erstwhile neighbours entails losing their knowledge, diverse skills, and aid when needed, all of which undermines the cultural diversity and wisdom of place necessarily for the resilience and sustainability of rural environments. (p.40)

Farmland concentration, the loss of local farm numbers, greater physical distance between farmers, and increasing differentiation and specialization all degrade communitarian practices and make space for an individualistic ethic to solidify itself.

Increasingly, absentee farmland owners of all sorts further reduce rural populations and community engagement. As one farmer I interviewed put it, “the local farmer is local, will contribute to the community [...] there is a community with that, whereas absentee landowners don’t contribute to the community except in the most marginal of ways” (#3). Interviewees explained that some absentee owners have never even physically stood on the land that they own. One farming family renting from Canterra explained that they only see someone in-person once a year, during their annual inspection (#36b). When I asked how renting from Canterra differed from renting from other landlords, they said, “It’s very business… They have a very business-minded approach” (#36b). This is a business exchange, not a neighbourly relationship grounded in a physical community.

For those renting from retired farmers, often the retirees are a key source of labour and support, as they are sometimes the only ones in the area with the right skills: “As all these old front-end boomers croak in the next 10-15 years, labour is going to be a problem for these larger farmers because there is no skilled labour left in the countryside to do it” (#3). A couple of interviewees mentioned this same concern about a lack of skilled labour, although it is also worth noting that grain farming has become so heavily mechanized and for those farmers farming conventionally with the newest technology, remarkably little labour is required across thousands of acres. Part of the challenge of finding labour is that grain farmers typically only need to hire people for a couple of months in the spring and the fall, which means wage labourers must typically come from the local area[28]. Previously, farms relied much more heavily on family labour, but as fewer and fewer young people and children of farmers see a place for themselves in grain farming and agriculture generally, and move to cities instead, this labour pool has diminished. Qualman et al. (2018) counter the argument that technological shifts in grain farming represents a labour “efficiency”, as they write that farmer numbers have simply moved from the land to working for seed, chemical, machinery, farm-retail and wholesale, and technology companies.

Interviewees also spoke of how farmland rental agreements are changing, from verbal agreements or “handshake deals” (#5) to written contracts. Verbal agreements reflect intimate trust between community members. While some interviewees said they still have verbal

[28] None of my interviewees knew of grain farmers hiring workers through the Temporary Foreign Worker Program.

agreements with local landlords or local farmers, many, particularly the larger farmers, were adamant about the importance of detailed rental contracts. This transition is partially a result of the higher dollar values that are now on the line, as well as the reality that the combination of larger farmers (who may be farming across multiple MDs/counties) and absentee landowners means farmers are more likely to be renting from someone with whom they do not have a personal relationship or history. Interviewees also expressed that while landlords typically give better rental deals to tenants they know, this is starting to change.

The remaining grain farms in Alberta persist in landscapes that have either been hollowed out, or where farm families have been replaced by oilfield workers or acreage owners who commute to the city for work. For those communities that have held steady population numbers, some interviewees described the divide between acreage owners and farmers, or as one farmer put it, “I don’t have anything in common with those people” (#11). For the communities that have lost population numbers, they have also lost the tax base to fund schools, community halls, curling rinks, hospitals, and other services. The Tax/Utility Clerk I interviewed explained that rural areas are particularly strapped because the assessed value of farmland for taxation purposes remains as it was in the 1980s, and so taxes on farmland are significantly lower than taxes on other land classifications[29]. Consequently, municipalities are being increasingly burdened. MD/county staff gave various examples of this reality, including the dismantling of a federal shelterbelt (bush line) protection program that has left MDs/counties trying to create a replacement program, and the provincial government’s response to public concern about rural crime, which involved putting more officers in rural communities, while expecting the MDs/counties to put the new salaries on their payrolls. In essence, the situation in rural Alberta reflects exactly what Peck and Tickell (2002) found in their study of the politics of neoliberalism in that, “In the asymmetrical scale politics of neoliberalism, local institutions and actors were being given responsibility without power” (p.386).

In some regions of Alberta, the oil and gas industry has acted as a cover for damage done by decades of rural austerity and the agricultural changes I have described. Some interviewees talked about how heavily their MDs/counties rely on the oil and gas industry, both for population

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[29] It appears farmland is assessed based on its productive value: that is, what a farmer can make through producing on it, as opposed to its market value (Government of Alberta, 2010). It seems the Tax/Utility Clerk’s comment is reflective of how little commodity prices have changed since the 1980s.

numbers as well as revenue, and how dramatic the impact can be when this source of wealth disappears: "If the oil field moves on [...] to a different location, that's when you see the real impact, what really happened in the last 20 years" (#8). Another farmer from the Peace Region described it this way, and simultaneously commented on the damage farm consolidation does to communities, a trajectory he perceived to be inevitable:

> Well, for the past 35, 40 years, [town name] has been [...] subsidized by the oilfield. And it was obvious. It was busy, houses for sale, houses were selling, and since the crash here, there's nothing going on. Like farming is here, but there are less people. So… if there's less people farming the same amount of land, it's not good for the town. I mean I don't think we're ever gonna get away from it because farms are getting bigger and people are moving to the cities. It's killing towns, there's no way you can deny that. (#35)

Oil and gas revenues have long been behind what is called the "Alberta Advantage": high quality services alongside low tax rates. Even as climate change demands an end to oil and gas production, and as crises such as the Covid-19 pandemic continue to cause oil and gas prices to fluctuate wildly and put increasing pressure on the health care system, Premier Kenney has been cutting taxes even further[30]. The end of the Alberta Advantage is likely on its way, and rural communities subsidized by oil and gas will undoubtedly begin to feel the full weight of rural austerity and neoliberal agricultural restructuring.

As the majority of farmers or farm couples also rely on off-farm work (Government of Alberta, 2017), some of the farmers I spoke to also worked in the oil and gas industry. Even if the local community hall has managed to remain in a given community, interviewees spoke of how gatherings or organizing efforts were few or poorly attended, and some attributed a lack of community engagement to farmers being over-extended through working larger numbers of acres alongside other jobs:

> Before you'd have 30-40 people volunteering at a function, and now it's ten. You know… everybody wants the same services, but they're not there to help out. [...] They're just so busy running their own lives too right, because now instead of them doing 800 acres, they're doing 8000 acres. [...] You drive by any farm and there's a grain dryer going, because everything they had to take off this year was wet, so they're drying it. Or they're doing something with the cows if they have cattle. [...] You have to have so much more now to do what you did before because of just [the] cost of living and everything. (#2)

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[30] For example, as of July 1st, 2020, the corporate tax rate is now 8%, the lowest in the country (Government of Alberta, 2020).

When I asked interviewees about loss of community, some countered that the Internet and a greater ability to travel have allowed them to build networks that span wider geographical distances. Many also described the different ways they worked diligently to keep organizations and services afloat, to build community and support one another. When I asked a young farmer if it felt like there was a solid support network around her, she responded, reflecting on 2019's particularly brutal harvest season:

> Yes, actually this harvest it really shone through, right. A lot of people were leaning on each other [...] Sometimes farming can be very competitive and people are trying to compete against each other but in the end, I think a lot of people do [support each other]. (#4)

It is not that economic imperatives have eclipsed social solidarities, or that individualism has fully overtaken collectivism, so much as that the balance is shifting and to some extent, as Jaffe and Quark (2005) found in their Saskatchewan study, that "the contradictions are becoming too acute to manage" (p.243).

5.3 Getting into farming & living in debt

When I asked interviewees what it was like for farmers entering the grain industry, they explained that young farmers need to be willing to take on massive levels of risk, in the form of large and lengthy loans. Even without large loans, grain farmers are at the mercy of the weather and markets. As one farmer told me, "It takes 15-20 years to get a good season" (#7), a "bumper crop" season when all the factors align to a profitable end. Another explained:

> For you to get into farming you gotta actually be going from your parents [...] or you gotta finance yourself so high with FCC[31] or AFSC[32], or one of those lending institutes that you gotta… (laughs) you gotta have God on your side because you're praying every day that something doesn't fail. (#2)

This farmer went on to tell me that often the challenge for young farmers in the grain sector is not that they cannot get a loan, but that they must take out a huge loan that will take them decades to pay off:

> It's a big investment to get into it, and that's where a lot of guys are telling me the banks won't [lend you] $1 million, $2 million to start farming; they'll [lend] them $10 million,

[31] Farm Credit Canada, a federal commercial Crown corporation (FCC, n.d.).
[32] The Agriculture Financial Services Corporation, a provincial crown corporation with a private sector Board of Directors (AFSC, n.d.).

> cause then they know you're serious. Well, if you're 25 years old and you want to take that chance, all the power to ya. I know a couple guys that took that chance, but they still had parents and grandparents that were farming that were always there to help 'em, right. You might have it paid off by the time you're grandparents, but… And that's where these [farmland investment] companies come in and take over, right. (#2)

These huge loans heighten the risk of insolvency, and as the farmer notes and Farrer from Bonnefield explained, it is typically over-leveraged farmers who look to sell their land to investors. The above quote reinforces how aggressive lending policies are artificially inflating the price of farmland well beyond its use value. Additionally, this is a good example of how lending policies can influence practices, in this case funneling farmers into a model of high-tech, large-scale grain farming (Clapp & Isakson, 2018).

Interviewees were adamant that in the present context, "to start a viable grain farm, from scratch? Can't be done. The margins are just not sufficient in farming to enable anyone to do that" (#23a). Some farmers thought that while it might be possible to get started through renting, "for a young farmer today, I guess landownership [...] is out of the question" (#8). I spoke to one young female farmer who explained that she and her fiancé have been trying to buy land for 15 years without success (#16). She said that most land is spoken for, and that even land being sold by friends and family is often being sold at a premium. She and her husband hope that they will be able to rent land from an uncle in the future,

> which is fine, because there is still profit in renting, but the margins are that much tighter when you are renting. So… I mean we would like to purchase, but if it's not an option, the only game you can play is renting. So you just… have to? (#16)

It was evident in her tone that she was not particularly hopeful, but also that she was having trouble coming to terms with the reality that farmland prices are rising as net farm income per acre is not (Qualman et al., 2018). I spoke with another young female farmer who seemed likewise to have come to terms with the fact that she would never be able to make a living off grain farming without an additional off-farm job:

> Interviewer: Do most folks work off the farm as well?
>
> #6a: If you're starting out, you don't have a choice. Like my husband and I both work off the farm.
>
> Interviewer: Is it your hope to farm full-time at some point?
>
> #6a: (laughs) It would be nice… I don't know if it will ever happen though.

The limited ability of new farmers to enter the grain sector and purchase farmland means that farmland will continue to be concentrated among the few who are able to. It also increases the possibility of farmland being purchased by non-farmer actors with deeper pockets. This is particularly true as the average age of farm operators across Canada is 55 years, meaning many will soon be headed into retirement, but less than 12% of grain and oilseed farms in Canada reported having a succession plan in 2016 (Statistics Canada, 2017).

Even in the case of those entering the grain sector with a family farming background, some farmers lamented that the intergenerational transfer of farmland and other assets can be "super expensive, for either the parents or the kids, or both" (#3), due to the regulations around capital gains taxes. One farmer told me,

> I talked with people at Alberta Agriculture about [family farm asset and land transfers] back in the 1970s and 1980s and their attitude was that, well, 'we think this is good for the general economy because we want people in debt and we want them producing to the maximum to pay their debts because that spins off a lot of value into the rest of the economy'. Now, I suppose there is some truth to that, but it's kind of an exploitative system, at best. (#3)

What this farmer is pointing to is the reality that, as a professor of critical political economy put it, "credit is the lifeblood of global capitalism": the majority of our money is created as debt, as dictated largely by commercial banks (Di Muzio, 2020, n.p.). In Canada, adjusted for inflation, farm debt has tripled since the 1990s (Qualman et al., 2018). Canadian farmers paid a total of $93 billion dollars in interest on their debt from 1986-2018, as taxpayers simultaneously subsidized farmers a near-equal $108 billion dollars (Qualman et al., 2018). As agribusiness captures the lion's share of value from farm production, financial institutions collect billions of dollars in interest, and the Canadian public subsidizes this transfer of wealth to elites.

When grain farmers borrow a lot of money to purchase farmland, they are banking on economies of scale, commodity prices remaining steady (at the very least), and farmland appreciation. They need everything to line up for their slim margins to pan out, as one farmer explained: "It becomes an ongoing game where people just get larger and larger and larger hoping that they can make just a little bit per acre, but they need lots of acres to do it" (#10). With regards to those able to purchase farmland, he noted, "[they must] still have faith that [the price of farmland] will continue going up, because as you probably know, there is absolutely no way on paper that you can pay for a quarter of land by farming it" (#10). In this sense, farmers are engaged in a speculative game as much as a productive one. Even if farmland does continue to appreciate, while farmers are still working, the land cannot be sold to repay their debts. High debt loads decrease the resiliency of farming communities, and also create an economic situation that is fragile and volatile (Surowiecki, 2009, n.p.).

A farm debt crisis is arguably on its way across the prairies, and the Covid-19 pandemic may prove an accelerator. High debt loads keep the children of farmers from entering the sector because family members must sell their land and assets to the highest bidder to pay off those debts and finance their retirement. As one interviewee put it, “the guys that are deep in debt, they won’t see the wealth until they retire, and they’re all hoping that when they go to retire, there is somebody there that will be able to afford to buy them out” (#2). Even renting some of their farmland at a lower rate to children can be a challenge for many farmers. Only those with enough of their land paid off and enough accumulated assets are able to support the next generation in entering grain farming[33]. I spoke with an older retired farmer who broke into tears telling me how important it was for him that he is able to pass his land on to his children and grandchildren, the way his father had done for him: “I want them to have a start like I did… My father, his aim was the same as mine, because he gave us a very good start...so I want to do the same” (#10). He expressed how “fortunate” he felt that he was able to pass some farmland onto his family, as he understands that without this transfer of family assets, “the young ones will never get in” (#10).

5.4 Limits to organizing

A couple of the older farmers I interviewed, notably those who had been involved in the NFU and the struggle to save the CWB, had a clearer sense of what needs to be done to change the landscape of grain farming in Alberta. I spoke with one older farmer who had been a strong supporter of orderly marketing and supply management all his life (#10). Though now retired, throughout his farming career he had worked across various production types, including supply-managed eggs, and he farmed grain before the CWB was dismantled. When I asked him what he would do to make life better for Albertan grain farmers, he came back to the importance of farmers having some form of market organization:

> That’s why I went into orderly marketing, supply management. It was a place where we could write down our cost of production. We didn’t get overpaid, but we got paid enough,

[33] There are also those able to enter the grain sector without a family farm background who have become wealthy through other means, most notably through the oil sector in Alberta.

> based on the formula, to pay for our costs. And that is still the main problem with agriculture today, in grain, livestock… the prices go up, some people fall off, some people take chances and lose. What I would do is what we started 50 years ago[34]! I think farmers should be organized so that they could reasonably ask for a reasonable price on their product, you know. And unless that happens, it'll squeeze us out, for sure. (#10)

Though some of my interviews lamented the loss of the CWB, others, particularly younger farmers, argued grain farmers were better off without it. One young CWB skeptic explained a sentiment others brought up as well: "I think it's people that hate doing the marketing that liked [the CWB] when it was here" (#35). This sentiment reflects the neoliberal rhetoric that collectivism is the excuse of those unable to succeed as individuals. This same farmer expressed, "I don't know how you can run a business and not be in control" (#35). While farmer entrepreneurs may have more "control" now to the extent that they are sometimes able to negotiate their own prices, as individuals they also have less leverage to garner a good price. Grain farmers have much less control and ability to mediate market turbulence than they did when they had collective marketing power through the CWB. Still, many interviewees viewed the CWB as having been a limiting factor in their ability to succeed as entrepreneurs. When I asked one older farmer, a CWB supporter, if he thought the CWB would ever come back, he responded: "No. It won't come back. Even if the desire was here the corporate power is too much now" (#14).

Opposition to collectivism could also be seen through interviewees' views of Hutterite colonies. Across the majority of my interviews, Hutterite colonies were painted as a bigger "threat" to non-Hutterite grain farmers than non-farmer landowners. Hutterite colonies' collectivism, both within the colonies themselves as well as among colonies, was seen as unfair competition to the entrepreneurial family farmer, operating "on their own". There is a historical precedent for this view: in the middle of the 20th century, the Alberta government put in place discriminatory laws aimed at restricting Hutterite farmland ownership, including that Hutterite colonies had to be established a minimum distance of 40 miles from each other (these laws were repealed in the 1970s) (#3; Canada's Human Rights History, n.d.). There was a fascinating contrast between interviewees simultaneously commenting on what incredible farmers the Hutterites are, what services they provide to communities, such as running the volunteer fire

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[34] What he is referring to having helped start 50 years ago is the NFU, which was founded in 1969 as a merger of provincial unions.

departments, and what a danger they pose. Those interviewees who worked as MD/county staff spoke particularly highly of how great the Hutterite colonies were to work with. However, many farmer interviewees expressed resentment toward Hutterites' system of pooling resources and labour, which was understood to be a form of "cheating the system". An interviewee explained how if one colony was unprofitable in a hard year, the others would financially support them so that they were able to keep their land base; she contrasted this with family farmers, who she didn't think would ever be bailed out similarly by a neighbour (#16).

On the one hand, farmers view themselves as independent, and seemingly they are, through having control of labour, management, and capital within the family unit (Müller, 2008). Some may make a good profit during a "bumper crop" year, although for the years or even decades in between, they may be deeply indebted. The independence farmers feel is in contrast to the societal norm of close supervision by a boss. However, farmers are constrained by an ideology that correlates productivity and worth, business failure and personal failure, as well as by a lack of social supports and by a model of farming which is in fact being dictated not by farmers, but by the agribusiness corporations. A resurgence of the Prairie agrarian movements of the mid-20th century is required, but most interviewees did not see this as a possibility: "Farmers don't work well together. If you can find a unifying functional group that can unify farmers… Oh my god. You'll be making history. They're all competing with each other" (#20).

In addition to inequality, specialization, and the hollowing out of rural communities creating greater physical and relational distance between farmers (which all limit their organizing capacity), neoliberalism's disciplining effects influence what farmers feel they can protest, be angry about, team up on, and what they view as possible solutions (Dudley, 2000). This is evidenced in part by where farmers direct their anger. A recent example that brought farmers together in Alberta was Bill 6, introduced and passed under the NDP Notley government in 2015 to increase farm and ranch workers' health and safety protections under the Labour Relations Code. The bill led to fury from some farmers who quickly organized themselves thereby revealing their capacity to do so: there was a petition with more than 9000 signatures (The Calgary Eyeopener, 2015); a protest of over 1000 people at the provincial legislature (Bellefontaine, 2015); as well as smaller protests, such as on the highway in Nanton (Fletcher, 2015). The United Conservative Party (UCP) happily stoked the flames of farmers' anger and campaigned on repealing the bill. When elected in 2019, the UCP Kenney government replaced it with the Farm Freedom and Safety Act, which effectively dismantled the majority of the labour protections.

Although diminishing farm numbers and decreased organizing has reduced farmers' political clout, Albertan producers remain central to the rural populist energy that interest groups look to channel in a direction that is favourable to them (Epp, 2019). Under neoliberalism, while it is acceptable to come together in anger toward the government for attempting to improve labour relations, it is less acceptable to join together in a fight against corporate control and/or the lack of collective marketing power since the ideological connotation that a farmer struggling under these conditions is a personal entrepreneurial failure (Dudley, 2000). These lines drawn around what is appropriate to protest are also reflective of how both the complexity and anonymity of financialization and neoliberalism, alongside the individualization of responsibility, have "deflected attention away from the need for broader systemic change" (Clapp & Isakson, 2018, p.19).

Some interviewees did have counter-hegemonic ideologies or stories of resistance to share, and almost without exception, those farmers who spoke about this were involved with the NFU, an organization with a long history of agrarian activism. For example, one farmer told me about the organizing work he had done with a neighbour to keep a "gigantic" power line from being built through the area (#3). They organized all of the landowners along the corridor where the line was to go and spent 8 ½ years in regulatory processes in court and finally succeeded in ensuring the power line would not be built in their district. The regulatory body had hired a private investigation firm to infiltrate the organizing group, an experience he described as "sobering" (#3). He lamented, "that's just the way things work in Alberta [...] you realize the regulatory bodies in Alberta are absolutely and completely under the control of industry" (#3).

Another older farmer gave a remarkable example of how his community had organized themselves by joining farmers and acreage owners together and successfully blocking a development from being built:

> What happened in this community… most of [the other rural areas], there is no community, but here we fought, the whole community fought a development of about 300 and some houses on this lake to the south of me. And as a result it's a community! There are community gatherings and parties. We rebuilt the community hall. You know, I know most of my neighbours, which is something that is disappearing [in the communities around here]; you know, there was the acreage owners and the farmers, but

> now I know a lot of the acreage owners. But this is a community that is actually an exception. (#14)

These experiences are clear signs of visible progressive resistance, a phenomenon that is not often linked to current rural Alberta. But, as Gertler's (2007) work on cooperatives reminds us, informal cooperation has always persisted and been essential to surviving on the Prairies. And, Brazilian educator Paulo Freire's thoughtful comments on resistance spur us to dig more deeply:

> Sometimes, in our uncritical understanding of the nature of the struggle, we can be led to believe that all the everyday life of the people is a mere reproduction of the dominant ideology. But it is not. There will always be something of the dominant ideology in the cultural expressions of the people, but there is also in contradiction to it the signs of resistance [...] (as cited in Smucker, 2017, p.18-19)

Conclusion

The individualization and stigmatization of struggle, isolation, normalization of competition as "the defining characteristic of human relations" (Monbiot, 2016), and diminishing community structures have implications for building the kinds of collective power that will be required to fight for alternatives to the multipronged crisis grain farmers and rural Albertans are experiencing. All of these social impacts also compound on one another to have other dark ramifications: farmers across Canada are facing a mental health crisis. I spoke with two Agricultural Fieldmen in the Peace Region who told me how they have been dealing with the repercussions of the 2019 season (for many, the fifth difficult season in a row):

> We just went and put together a workshop, as a county, on mental health and the struggles of producers facing adversity, bad crop, bad commodity prices, wet year, ahh... Right now we're probably going to see an increase in mental health issues with most of the population. So that's going to have some social consequences. (#6)

While mental health was not something I discussed much with interviewees, a 2016 survey from the University of Guelph of over 1000 Canadian farm operators demonstrated that farmers suffer significantly higher rates of anxiety and depression than is the norm across the general population, with female farmers showing higher rates than male farmers, and nearly two-thirds of all farmers being classified as "experiencing psychological distress" (Jones-Bitton et al., 2020, p.233). The study also used a metric to calculate farmers' "resilience" score[35], which they found to be lower than in other studies across the general population.

The results of this study are sadly not surprising, given the social impacts and implications of neoliberalism and financialization at the local level as I have detailed in this chapter. In 2019, the Standing Senate Committee on Agriculture and Agri-Food released a report titled "Mental Health: A Priority For Our Farmers", reflecting the fact that this plight has become dire enough to garner national attention. The report details the mental health crisis and some of the "challenges farmers face", outlines the current supports that exist, and offers ten recommendations. Unfortunately, the recommendations come nowhere close to targeting the underlying factors pushing farmers into crisis, and are focused primarily on band-aid solutions.

[35] Jones-Bitton et al. (2020) draw on Luthar and Cicchetti (2000), who write that resilience is not an innate personal attribute, but the process or phenomenon of positive adaptation in face of adversity.

6. ENVIRONMENTAL IMPACTS & IMPLICATIONS

In this final empirical chapter, I examine what interviewees understood to be the environmental ramifications of changing farmland tenure patterns in their communities. The environmental impacts and implications of the conventional model of grain farming that covers most of the prairies are well-documented. According to the former UN Special Rapporteur on the Right to Food, Olivier De Schutter, the large-scale, high-tech, corporate-led, fossil-fuel based agricultural program that swept the West and many other parts of the world since the mid-1950s has resulted in "increasingly unsustainable farming practices and higher levels of greenhouse gas emissions, soil [and water] contamination, and erosion of biodiversity" (2013, p.7). My goal here is not to reiterate these problems, but to highlight what my interviews revealed about the ways recent farmland tenure shifts in Alberta further undermine ecological resilience in the present, and how they threaten our collective future.

6.1 The risks of renting

When I asked farmers whether their farming practices differed on the land they rent and the land they own, most were quick to say no. It seemed important to farmers, and a point of pride, to convey that they manage every acre of land in their operation as though it were their own. This reaction may also be due to the need for tenant farmers to demonstrate to landlords that they are employing "best practices" on rented land in order to increase their chances of being able to continue renting. However, across the interviews it became clear that renting land does influence farmers' practices, either because landlords impose stipulations -- Sommerville and Magnan (2015) describe this as a rationalizing or disciplining of tenants -- or because farmers are adapting to the limitations of renting and attempting to mitigate the risks renting confers to their operations.

The meaning of "best practices" for grain farming has the potential to differ depending on the landlord. When I asked farmers (active and retired) what they look for or would look for in a tenant farmer, the majority said they want tenants who they can trust to employ "good" land management practices (alongside prioritizing renting to family and friends). For farmers, "good" practices seemed to mean however they themselves had practiced or are currently practicing -- tenants they could trust in order to avoid having to break the cultural expectation of noninterference. While some farmers renting from retired farmers had signed contracts that included standards of care, others merely had verbal agreements.

Some farmers who are renting from the absentee offspring (children or grandchildren) of farmers or other non-farmers felt that these landowners were disconnected from the realities of farming, and that this was reflected in their expectations of what happened on the land. As an interviewee explained: “We’ve got one [landlord] who inherited through their grandparents, two quarters, so there's a little bit of education you have to do. They follow me on social media and I’m sure they don’t like my pro-GMO stuff (laughs)” (#32). Another farmer explained that one of her landlords, an acreage owner, does not want any spraying or chemical fertilizer on the land, and so the farmer grows hay there “because we are not organic farmers, but the hay we can use for our cattle” (#28).

When the offspring of retired farmers take over the land, landlord-tenant dynamics can also change as the land can become more of “a commodity that the [offspring] want to rent to whomever will give the most money in the short-term” (#23). The children or grandchildren often live outside the community, and may have none of the same relationships with or loyalties to existing tenants, and they also may not care about renting or selling to them at a fair price. One farmer who currently rents from several aging retired farmers explained her fears as follows:

> [...] we think that all our [landlords] are old school, and they all are [...] They haven’t jacked their rental rates, like a lot of other guys have had their rates jacked, so we’re lucky like that. So we think if they decide to sell before they pass, they won’t do that. But if the sale happens after, then we’re scared that yeah, they’re gonna be like yeah, we want this much, and you can’t pay more than what the crop is gonna pay for it, so. (#29)

In crop sharing rental arrangements, which are less common than cash rental arrangements, landowners take a predetermined share of the final crop, and thus ensuring high productivity is particularly important. I spoke with one farmer who does “custom farming”, a sort of crop share in which the landowner is theoretically sharing in the decision making and purchasing, thus also theoretically sharing in the risk and able to qualify for tax breaks. When I asked the farmer if he farms differently on land he owns compared to land he custom farms, he responded:

> [...] we make damn sure that we don’t put less fertilizer on rented land or [...] let weeds propagate; we almost farm land we rent better. Probably not, but we put a lot of effort in to make sure we don’t neglect rented quarters, because that’s a good way to not get asked back on. (#32)

Another farm family renting from a farmland investment fund explained how they get "graded" each year during an annual inspection, in part on how well they have met the land use stipulations in their contract (#38). They get assessed on their profitability too, regardless of the fact that the farmers pay a cash rent, to assure investors that they will continue to receive their payments.

Several interviewees also believed many farmers employ different practices on owned land and rented land irrespective of stipulations from landlords, even if those interviewed were unwilling to admit to doing so themselves. Renting farmland, no matter who from, adds a measure of limitation and vulnerability into a farmer's operation. As explained in Chapter 3, the majority of farmland rental contracts in Alberta are for three or five years. The exception to the rule are typically the institutional investment actors, who look for slightly longer arrangements to assure their investors. Some tenants renting from retired farmers, family members, or other local community members are also able to feel a stronger sense of stability as a result of the relationships they have with each other, but regardless, in both cases, there are no guarantees. When I pressed Farrer from Bonnefield on their slogan, *Farmland for Farming*, asking if the company could guarantee that the land they purchased would not be sold off for development, he responded, "I can't… guarantee the sun is going to rise tomorrow. I'm pretty sure it will, but I can't guarantee it" (#19). Often landlords will promise tenants first right of refusal to purchase the land if they decide to sell, which is helpful, but only if farmers have the ability to afford the high land prices at the moment the landlord chooses to sell. If a number of a farmer's landlords decide to sell at the same time, the farmer is unlikely to be able to purchase all of the land in order to maintain their land base.

Tenant farmers, especially those with multiple landowners and rental contracts, may have a significant portion of their land base coming up for renewal in any given year, and adjust in different ways in an attempt to protect themselves against this vulnerability. One farmer who rents 70% of the land in his operation explained that he deals with the lack of stability by running older, cheaper machinery and "hop[ing] for the best" (#7):

> [...] if you're doing 11,000 acres like we are, [...] and the end of some of these contracts come along, you could be farming 6000 acres the next day because you don't know. If the guy decides to sell his land and you can't buy it all -- obviously in one shot -- it would be major financing; or he rents to someone else, or he goes back farming, or who knows. (#7)

He went on to say that since he has contracts coming up for renewal just about every year, the uncertainty is unrelenting. Another farmer, who grows pedigree seed on 95% rented land, said she pushes for five-year contracts as much as possible because the longer time frame is the minimum necessary to meet the requirements of producing pedigree seed, and is also important for her economic stability given how little land she owns (#34). The stress of rented land going up for sale or rental rates increasing can be immense, especially in regions with high land values and tight land markets.

When rental contracts come up for renewal, farmers also risk losing the value of fall preparations, and pre-purchased supplies for the coming spring. Some interviewees claimed that they knew of farmers who use less fertilizer and chemical on rental land, particularly in the last year of a contract as a way of protecting themselves from this kind of risk[36]. Some also claimed they knew farmers who took advantage of a lack of stipulations from certain landlords and seeded canola back-to-back, effectively risking the spread of clubroot and damaging soil fertility. An Agricultural Fieldman explained it this way:

> We find more often than not, rented land seems to have problems with shorter rotations. But it also makes sense, just economy wise, if you can get the most out of that land in the short amount of time you have it. And if you're renting it, what's your commitment to the long-term health of that land? (#13)

This same Agricultural Fieldman argued that if farmers own the land, a longer rotation is "in [a farmer's] best interest". He described a 10-year rotation including both annuals and perennials as "textbook", although he acknowledged that he does not see many farmers doing so.

Annual rental payments reduce farmers' capacity to employ practices that do not generate an immediate profit. One farmer told me he runs into this trouble when it comes to seeding perennial forages such as alfalfa (#11). He explained that the first year alfalfa is planted, it does not produce much of a harvest, and so on rented land he seeds alfalfa with oats and barley and takes the silage off in order to pay the cash rent, which is less effective in building soil health. Hence, the willingness to diversify a rotation or attempt unconventional practices is reduced when farmers are renting, partly due to the continuous pressure to make rental payments, and partly due to the lack of security.

[36] However, I did speak to one large-scale farmer renting from many landlords who had figured out a way around this by including a stipulation in his rental contracts that ensured he would receive back the value of anything applied to the land in the fall if he had lost the contract by the spring (#32).

For farmers who are paying large mortgages on farmland, the effect can be similar to that of the rental payments, although the difference is that farmers theoretically have more security, and will be able to reap the benefits of long-term investments on their land in the future. One of my context interviews was with a couple who have a smaller-scale cattle operation, and who are deeply committed to building topsoil. Their reflections on the correlation between owning land and the way that they farm are worth noting:

> #37a: The reason it was so interesting to get our land, our name on the title, is that we wouldn't treat it the same if it was not ours.
>
> #37: So if something happened to my brother and my family decided to sell it, the time we spent building topsoil would just be...
>
> #37a: Gone.
>
> #37: Gone to some grain farmer somewhere. [...] So when we got our name on it, it meant we could spend a little more time trying to build topsoil on that land.

This couple inherited some of their land, and had purchased the rest of it before prices shot up. They explained that with all their land paid off, they are able to let portions of their land rest when it needs to rest. If they were still paying a lot of money for their land, one of them imagined they would,

> [...] need a cash crop now, fertilize the crap out of it, whatever I need to do, herbicide, because it has to be not for building topsoil, it has to be really productive cash wise. Whereas I can wait a few years. In the end, I firmly believe [that] when I look at what we have now [on our farm], we are headed toward something that will be more productive in the end. (#37)

It also appears that government programs need to catch up to the reality of the prevalence of tenant farming and adjust structures accordingly. One of the most prominent provincial programs to incentivize regenerative agriculture among grain farmers is a carbon offset program that rewards farmers for reducing their tillage, among other things. No-till practices have become much more common among Albertan grain farmers in recent years, and several interviewees who mentioned this shift considered it to be a significant ecological improvement (although others argued against this[37]). Beyond the fact that many producers say the program has become "too demanding, too restrictive, and less beneficial", causing many producers to abandon filling out

[37] See p.40-43 of the Qualman's (2019) discussion paper for further details on the pros and cons of no-till farming.

the paperwork, an added disincentive is that the credit always defaults to the landowner (Melchior, 2017, n.p.). One of my interviewees explained how they have to try and get landlords to agree to sign off on carbon credits so that they, as the farmers, are able to collect them (#32). The farmer said that the credit usually runs between $1 and $1.15/acre, which seems abysmally small, but for farmers operating thousands of acres, it can amount to a significant sum.

For some farmers, even rental rates have gone so high that they are unable to expand their operations enough to make a living growing conventional grain. One of the agricultural fieldmen I interviewed explained how this can force farmers to employ cash crop rotations which are destructive to the soil and risk the spread of pests and diseases even on the precious land that they own in efforts to maximize profits in the short-term on their insufficient number of acres:

> I see it here with guys that own their own land, they're canola-canola-wheat, canola-canola-wheat, and it's like one of these days that's gonna bite you. But they say 'you don't have my bills, you don't understand'. And then they can't rent the land, because they're in an area where they got all these big guys around them paying $100/acre and they're not willing to pay that. So they try to get everything they can out of their 10-15 quarters, and they just do canola-canola-wheat, canola-canola-wheat, right. (#2)

It is clear that an emphasis on long-term soil health is unlikely in tenant farming models. However, even on land that farmers do own they may not be able to practice with a longer horizon in mind.

6.2 Scaling up under the net income squeeze

Tenant farming, overall, appears to have impacts on farming practices and the agency and adaptability of grain farmers, although there are no conclusions to be drawn here to suggest that any given type of landlord, in the absence of policies or regulation, produces more or less assurance of some clear definition of environmental care. However, on both owned and rented land, the bounds of the conventional model, set by corporate agribusiness, and agricultural policy centred on export maximization, are at the root of environmental impacts and implications. It is a model which leaves farmers managing larger numbers of acres than ever before as they grapple with how to come out of each year with a positive net income, at the expense of environmental or social considerations. The ideology of the farmer entrepreneur both contributes to these challenges and is reinforced by them:

> People want to make a living […] Economics have driven people to once again, with that mentality, psychology… the mentality, you know, if the economics [are] encouraging

> you to do something, you can convince yourself that it's the right thing to do pretty easily. And that's been a very insidious phenomenon in agriculture, particularly in large-scale conventional agriculture in the 1990s and 2000s. These very large farmers that are on a wheat-canola rotation, not doing good for their soil, [...] pounding the inputs in… (#40)

Having land that is fully paid off certainly helps to widen net margins and expand farmers' agency, but for many, some portion of the land they "own" is still owned by the bank, as they are in the process of paying off lengthy mortgages. The tight net margins in conventional grain farming ensure that no matter the values farmers hold, their agency to enact those values on the land is limited.

In an attempt to capture efficiencies and economies of scale to deal with their squeezed margins, grain farms continue to grow in size and employ short-term strategies which have long-term ramifications. Interviewees described bush lines being increasingly torn down to avoid losing revenue from having to make extra turns with sprayers or seeders. As one interviewee in the north-east ominously explained:

> Farmers in the area, they want every single acre farmable. So the amount of tree lines that have come down, bush areas, willow patches, lots of clearing, lots of [...] mulching happening. They'll come in and mulch root systems and stuff like that, because they want corner to corner, everything nice and open [...] That started in this area very aggressively in… right about 2010 to 2011. Climate wise, what we noticed is that we were never windy up here -- now we have wind. And some days we will have days and days of wind. And I often wonder, is it because there is nothing to stop the wind, or slow it down? The wind was always here, just the bush lines and those tree stands and everything helped stop the wind. We never had soil drifting, ever, in this area -- now we do. (#34)

Another farmer in the central corridor explained that ever since his neighbour cut down 60 acres of bush line across the road from him, the wind blows in from the west so strongly that he is taking on significant wind damage. This is a trend, he explained:

> There was a time when people were quite happy to have trees and birds and wildlife -- not everybody, but the vast majority. And now people will brush land with no hope of ever paying for the brushing because the margin isn't there, so it's more attractive to a potential renter, and that has happened around the area. I call it the War on Trees. They've even taken out big well-established windrows that were planted to prevent erosion. (#14)

The high monetary value of the land incentivizes landowners, as well as farmers, to do whatever necessary to ensure maximum productivity. One interviewee had this to say about what she described as the "next generation of farmer":

> So as soon as the land values started going up then they're like, 'well yeah, if we clear the two acres [of bush], if we go to sell, that's two acres at the full value', versus at a treed value. When we look at purchasing a quarter of land, we always look at how much of it is farmable, and how much of it is your marginal bush, whichever, buildings, that sort of thing. So the idea is clear all that off and you've got top dollar for every acre. (#34)

Interviewees also expressed concerns about the extent and impacts of drainage practices. Manipulations of the flow of water over the land are another strategy to make every acre farmable. While many of these practices -- such as the draining of wetlands -- are not new, interviewees argued their cumulative effects are catching up. One explained that many farmers, due to their scale, now own larger equipment -- such as land scrapers -- which allow them to alter water patterns more drastically (#34). This is particularly a concern as climate change brings more extreme weather such as droughts and severe rain events. On bald prairie, the lack of trees and other perennials combined with a lack of soil rich in organic matter means water flows through the land in new, more destructive patterns. One farmer said he has noticed the surface water table decrease, even during particularly wet periods, alongside increased humidity in the air, leading to problems at harvest: "Humidity was never a problem in this country but now when I'm haying, probably an hour before sunset you gotta stop haying because it's too wet" (#14). He claims he can bale all night without getting too tired, but in the last few years, he has always had to stop early because of the humidity.

While there are regulations restricting drainage practices, some interviewees said that these are "largely ignored" (#14):

> #34: Fieldmen do come around. They [farmers] do know that they are not allowed to do it, the law states that you are not allowed to… how is it written? It's basically that you cannot negatively impact anybody further down the line, basically.
>
> Interviewer: Specifically in relation to water?
>
> #34: Yep. But enforcement… Is almost nonexistent.

This same farmer expressed how she struggles with flooding on her land as a result of others who are draining their land around her: "I'm the collection pool" (#34). She lacks the equipment to deal with the problem, and she expressed frustration at the lack of effective action from the MD/county staff and the provincial government after she filed a report. When water runs off the land quickly, it can also create erosion problems which compound with the wind erosion from a lack of shelterbelts.

One the questions I asked interviewees was if they have seen changes in the ways people think about and/or value land. Interviewees consistently found the framing of the question confusing (or assumed value to mean financial value), and so I would reframe it, asking if they have seen changes in how farmers or landlords relate to the land. Some interviewees argued that when farms get to a certain size, farmers become "logistics managers with equipment and employees" (#40), as opposed to stewards who are in tune with what is happening in and on the ground. The remarkable capacity of the machinery and technology employed on Albertan grain farms means that even farmers operating thousands of acres only employ a handful of employees. Here is an exchange between two farming partners (who farm around 2500 acres) questioning the logistics manager model:

> #23a: But what they do, the larger operations, is substitute technology, to an extent, for stewardship. And you will find a number of farmers who have smaller acreages and who've been farming a long time who know every acre of their land. And appreciate it. And, you know, [are] careful about where stuff is put and how it is treated. [...] wouldn't you say [#23b]?
>
> #23b: I think probably [...] And I sorta get a laugh outta these people trying to sell us the remote sensing technology[38]. They look at a satellite map and they say look, here's the slough! Well that's not a big surprise to me that there's a slough there.
>
> #23a: (laughs) Been farming around it for 40 years!

These farmers are highlighting the way technology is constantly coming out to replace human-scale attention to the ecology of the land. I mentioned the size of their operation above to note the shocking reality that even at 2500 acres, they see themselves as smaller-scale farmers. It is hard to imagine knowing 2500 acres intimately, but even harder to imagine stewarding a 10,000 acre farm in any intimate way. However, the net income crisis, alongside ideological factors, lending practices, and government support for the productivist paradigm, has meant that the average size grain farm continues to grow.

Asking farmers about how relationships with the land are changing highlighted the very personal tension many experience between wanting to care for the wider prairie ecosystem and needing to pull as much crop off the land as possible at the lowest possible cost in order to "keep

[38] This mention of remote sensing technology brings up the ramifications of this and other technologies being sold to farmers by agribusiness that contribute to the collection of information used by corporations to further their profits ("big data"), but I do not have the space here to dive into this issue.

afloat" (#2). Some interviewees believed that local farmers, particularly those with long agrarian family histories, held unique relationships to the land that were expressed through better stewardship:

> [...] [local farmers] look on it as a family heritage, so you don't tear down the shelterbelt grandpa planted - it's just not the right thing to do, kinda thing. And [...] usually they're pretty sensitive to their environment. And it's not just the shelterbelts, but it's how the land itself is managed as well. So you can take a big crop off a piece of land for a few years or you can take a very good crop off the same piece of land for decades. And of course the more you are being driven by debt, the more you exploit. Short-term it works; long-term, maybe not so well. (#3)

As farmers expand their acres, increasingly on rented land, bear higher debt loads, and operate land further away from their home quarters due to tight land markets, these heritage connections diminish or are unable to be upheld. The entrepreneurial relationship some farmers have with the land was expressed through the language they use to describe it. Any given quarter is a "piece of dirt" (#38), or a "piece of ground" (#18a), and land that is not perfectly suitable for grain farming is a "dirty quarter" (#28), "garbage land" (#33), or "marginal land" (#23, #28, #34, #38). "Bush" is a term universally applied to any type of vegetation, even forest. One farmer from a region of the province with seemingly endless, flat, treeless farmland perfectly suited to grain farming described the land in another part of the province as "little shit pieces [of farmland] with trees and creeks and these people are paying [stupid] amounts of money" (#35). It is possible this kind of industry terminology has been common for a long time, but it still seems indicative of a particular kind of relationship to the land.

During one of my interviews with two generations of farmers from the same large family business, there was an interesting dialogue between the father (#38a) and his sons (#38b) in the Peace Region about whether or not there was any value in keeping some quarters of "bush". I have changed their codes below from numbers to familial positions to more clearly illustrate the generational divide in the discussion[39]:

> Son: We own a couple thousand acres of forested land.
>
> Son: Boreal forest.
>
> Father: I still love forests. I love forests. My wife is very… It's important to her to have forest. The lungs of the earth.

---

[39] And again, this is three sons represented as one voice because I could not distinguish them on the recording.

> Interviewer: So owning the forest is just for… what?
>
> Son: Ahh… we, you know, I don't know if… I'm a business guy so to say that we're saving it for the animals and the environment, I guess we are in a roundabout way but… it's just, it's cheaper to go buy an open quarter than to open forested land. Takes a long time to get it into production. So we just... I think the stuff we have left we just leave cause it's not worth it, that's my opinion.
>
> Father: I kinda like the trees.
>
> Son: Yeah… we do…
>
> Father: I mean I see bald prairie, a lot of it. And I mean we do have bald prairie; we have big fields. But maybe after a few years…
>
> Son: It's a percentage, right.
>
> Father (to me): Maybe they're just humouring me and mum.
>
> Son: No!
>
> Father: But... my wife doesn't like to see trees go down very much. She was really happy when I told her the hoe was busted the other day. (chuckles)

Multiple interviewees who had "bush" quarters that they had not cleared expressed how fellow farmers could not understand why they might choose to do so and questioned them about it. When I asked what the forested acres were for, I was playing into this a bit, and it seemed evident that the son who responded was uncomfortable, as a "business guy", to be associated with this "unproductive" land use. He had to explain keeping the acres forested in terms of a smart financial decision.

Some interviewees spoke of a generational divide in how farmers relate to the land, suggesting that the younger generation was more blindly profit-focused. Others expressed that "it's much more of a business for everybody now" (#16). One farmer explained it this way:

> There are still some people who value the land as [...] a heirloom, a hereditary heirloom. And there are still people who value it as the foundation of life that needs stewarding. There are still people who see those different types of values: the inherent value rather than the monetary value of land. So that's a qualifier. But in my lifetime, I have seen people shift somewhat to a… colder and more calculating view of land as a means to an end. (#30)

This generational shift may reflect the dialectic between ideological constructions of society-nature relations, farmers' material production practices, and how farmers are then shaped by both these practices and the nature these practices produce (Müller, 2008; Wittman, 2009). It is also fundamentally reflective of the pressures of the net income squeeze.

6.3 Alternatives and their obstacles

In addition to the many conventional grain farmers I interviewed, I also spoke to a few organic grain farmers. For those producing organically or seeking to do so, the risks and limitations of tenant farming are exceptionally clear. Organic agriculture involves building and maintaining soil health, a process which typically involves longer rotations, meaning each year on any given acre, an organic farmer may not make enough to pay rent. Organic farmers also require longer security of tenure because of the requirements for certification: it takes a minimum of three years to transition land previously farmed conventionally to land on which a certified organic crop can be grown (Organic Alberta, n.d.)

There are many who bemoan organic agriculture and who suggest it has been co-opted by corporate agribusiness. For example, critics argue that certified organic practices alone do not represent any real challenge to capitalist/commodity agriculture (Wittman, 2009) and this is certainly the case in Alberta. While organic grain farming, particularly when practiced on a large scale, is in no way a comprehensive solution to the challenges presented in this thesis, neither should it be written off as it does offer significant harm reduction as well as considerably better profit margins for farmers amidst the net income crisis. For other sectors such as vegetable production or livestock raising, there are well-trodden paths to transition to direct marketing, which can provide considerably higher profit margins; for grain farmers, however, the path to smaller-scale, direct marketed grain is more difficult and less clearly marked. The production of organic grain for commodity markets currently represents the primary alternative to the conventional grain paradigm in Alberta.

Müller (2008) suggests that practicing organic agriculture allows for more than reductions in spray usage or input costs: she argues that even for farmers who transition to organics for purely economic reasons, the transition can foster the development of a critical view of the dominant paradigm through a partial liberation from agribusiness dependency, altered relationships with the land, and increased reliance on farmer networks. In my research it was at least true that the organic farmers I interviewed had distinct political leanings from most of the others, and all were involved in the NFU, which they said was a key source of learning and support for them. The NFU brings farmers together in-person to share knowledge and to organize, and this kind of collective support network becomes more essential for farmers attempting a divergent path. Additionally, it is worth noting that most of them were older farmers who owned the majority of their farmland.

Organic grain farming offers better margins to farmers and thus the ability to make a living on fewer acres, as the price per bushel for organic grains is significantly higher and input costs are significantly lower (Organic Alberta, 2020). One organic farmer I interviewed explained:

> You know if there's a recession or something, and the market goes flat for organic, then I don't get that premium so my profitability will go down, but I can still produce my product cheaper than the conventional farmer can with what we are doing. (#8)

Many organic grain farms, beyond the wider diversity of their rotations, are in fact mixed farms with cattle in their rotation, and the cattle serve in part as an economical input-maker. Non-organic mixed farming can offer many similar benefits to organic farming, and by way of diversification, adds resiliency into a farmer's operation. One mixed farmer explained that through the difficult 2019 harvest season, her farm had been able to use any lower quality grain as feed for their livestock (#24). She explained that farmers who only grow grain are left hoping there is enough diversity among the wider community of farms that there are sufficient livestock farms in need of the feed. The organic farmers I interviewed also described the advantages they have had over their conventional neighbours through the environmental turbulence increasingly brought on by climate change. An organic farmer in the Peace Region recounted how well his fields fared in the 2019 season, despite flooded acres all around him (#8). He attributed this relative success to his healthier soil having greater capacity for water retention.

In Alberta in 2011, there were 256 certified organic hay and field crop farms (defined as "hay, grains, field peas, beans, potatoes, coriander and other spices, etc.") (Statistics Canada, 2020a). Unfortunately, the breakdown of organic farms by production type was terminated prior to the 2016 census, but as the total number of certified organic farms went up by 64 overall -- from 290 in 2011 to 354 in 2016 -- it is clear that there has not been much of an increase (Alberta Agriculture and Forestry, 2018). Although we cannot determine the exact percentage of grain and oilseed farms that are organic, for comparison, there were a total of 13,451 grain and oilseed farms in the province in 2016 (Alberta Agriculture and Forestry, 2018). Across all production types, just 1% of Albertan farms were organic in the 2016 census, which is low compared to the rest of Canada, with a national average of 2.2% (Alberta Agriculture and Forestry, 2018).

Given the financial benefits alone, one would assume that many conventional grain farmers would be tempted to make the switch to organic, but the barriers are immense, and these statistics paint another story. As one farmer who had transitioned from conventional to organic grain farming stated, “the farming community and government interest and corporate interest is absolutely stacked against us going organic” (#8). During my interviews with conventional farmers and MD/county staff, I also picked up on some stigma toward organic producers. Agricultural Fieldmen are responsible for enforcing the Weed Control Act, and a few of them expressed variations on the following from one of the Fieldmen:

> [...] then you get into organics… which are just weed farms (laughs) in my opinion. I’m not against organics, if organics are farmed the way organics should be farmed and not “Canada thistle central”. So they’re a little bit of a headache for me. You know you got the farmers that, you’re not quite sure what they planted. (#39)

One organic producer told me the MD/county agricultural staff were “outright nasty toward us” (#8) when he and his partner explained that they had a “no spray” policy on their land, and thus would manage the “noxious weeds” (as defined under the Weed Control Act) in their ditches themselves, instead of having the Agricultural Fieldmen spray them.

At the provincial level, I sensed a similar stigma toward organics from the two high-level staff I interviewed in Alberta’s Department of Agriculture and Forestry. When I asked about what they perceived to be the biggest misperception the public had of agriculture in Alberta, one of the staff shared his view that the public is needlessly wary of technology such as genetically modified seeds and high-tech machinery like irrigation equipment (#25b). He went on to insinuate that organic agriculture is unsophisticated and inefficient. Then, while suggesting he neither supported nor opposed organics, he explained that organic farming is far less efficient, and that it uses vastly more water than conventional farming does. In his opinion, this was why organic products charge a premium.

The public supports that exist for those transitioning to organics are closely tied up with agribusiness partners, which reinforces the argument that organic agriculture does not innately offer solutions to challenges such as corporate motives setting the rules of the game. For example, Organic Alberta’s Prairie Organic Grain Initiative, funded by both the federal government and the Prairie provinces, is also 40% funded by agribusiness actors such as General

Mills and Nature's Path Foods (Organic Alberta, n.d.). There are also some private consulting groups, such as Sustainable Grain, as well as non-profits like the Mackenzie Applied Research Association that operates in Mackenzie County in the north-west of the province (where the highest percentage of organic farms are located).

The obstacles facing the transition from conventional grain farming to alternatives such as organics persist in the context of the growing threat of climate change, which not only demands comprehensive transformation across the agricultural sector, but also reveals its vulnerabilities. The past four harvest years have been particularly difficult in Alberta. Summer droughts, smoke from wildfires in British Columbia, and wet and cold weather during the fall harvest period have led to thousands of acres of crop left out in the field, as well as the extra and expensive work of drying the crop once it is harvested. Parallel to this harsh reality, the majority of interviewees remained wary of the term "climate change", and had doubts about whether it was happening, and/or whether it was human caused. As one interviewee said, "Climate change is all the time, right. There's been a joke in agriculture for 50 years that next season we're going to have a normal year. Well what's normal? (laughs)" (#5).

The belief that weather patterns have always gone in cycles and always been somewhat erratic was common among interviewees, and they would reference the extreme weather events and tough seasons their parents and grandparents had gone through as evidence: "You know the old timers say it ebbs and flows, right. You get five years of wet years, and five years of dry years" (#29). Farmers also expressed doubt toward the institutions that relay information about climate change, as well as a range of conceptualizations of what climate change is and explanations for why it is not real. Here was one farmer grappling with all of this:

> It seems like we are getting more extremes. We had a cold wet year this year… I don't know. There's a lot of skepticism because a lot of other stuff that comes with it, if anybody says climate change or global warming, so. Is it any more than it has been in years? I don't know, maybe? Some of the hailstorms seem to be getting bigger, we tend to get more moisture, but I think we record things better than we used to do, so I don't know, it's a tough one to say. As farmers we always say with GMOs, we'll believe the science, and supposedly the scientists say there's climate change, but I don't know. We could talk about that all night. (#31)

A lack of trust in experts and institutions ("climate change is a money grab by the government!" [#36b]) is definitive of the right-wing populism that is strong in rural Alberta (Thomas, 2018). One couple, after explaining how difficult the last few seasons had been, between the wildfire smoke blocking the sunlight and stopping their canola from curing, to droughts and dramatic rain events and crop left out in the field, laughed as they conveyed their distrust of sources of climate change information:

> #29: We're skeptical on climate change… It just… I don't see an ice age coming any time soon.
>
> #29a: I thought they changed it now so it's gonna be a heat wave. Don't they change it all the time?
>
> #29: I hope so.
>
> Interviewer: You're ready for a heatwave?
>
> #29a: Especially tomorrow when it's supposed to be -28C!

Despite having their doubts about climate change, many farmers did agree that they were experiencing environmental and weather changes, and others agreed that climate change was happening. An older farmer, a self-declared believer in climate change, explained:

> [...] there has been a shift from balsam poplar to aspen [...] I have seen shifts in other plants[…] animals are showing up here that we never had. We're seeing pests that we've never had. Ticks [...] Killing frosts come far later. In my farming career, killing frosts have gone two weeks later. Storms are more violent. When it rains it literally pours. (#14)

The shifting and widening frost-free window was mentioned by multiple interviewees. Although some perceived this as a benefit for grain farmers, one interviewee argued that the potential benefits of this extra growing time have been diminished due to a simultaneous increase in droughts and wet spells (#23a). Another argued that a warming climate could only be good for Albertan grain farms, many of whom live far to the north (#31). At the time of my interviews, the recent federal carbon tax, which was in the process of being challenged in the courts by Premier Kenney, frequently played into conversations as a source of frustration. During the fall 2019 harvest, farmers were exempt from paying the tax on fuel, but not exempt from paying it on the natural gas and propane they were using to dry their bushels after a wet harvest season. Farmers were enraged about this, and the carbon tax made climate change a hot topic of discussion.

A 2018 national survey conducted by Canada's Ecofiscal Commission revealed that Albertans hold the highest levels of skepticism around climate change. Additionally, only 54%

of Albertans surveyed believed climate change was human caused, in comparison to 70% nationwide (Canada's Ecofiscal Commission, 2018). One farmer who believed in climate change explained the views of his peers:

> We're in rural Alberta, let's be clear here. There is a lot of climate denialism. I mean, I think people are just overwhelmed and feel completely disengaged from having any effect on climate change that they just kind of ignore or willfully don't think about it or… Or cling on to whatever skepticism they hear in the news or whatever. (#40)

Given the well-funded propagandist work of oil and gas corporations and decades of co-opted provincial governments linking Alberta's fate and identities to the oil and gas industry, Albertans' climate denialism is not surprising. The Kenney government has even created the Canadian Energy Centre, dubbed the energy "war room", to spout pro-oilsands advertising and to demonize those resisting with a budget of $30 million per year (Flexhaug, 2019; Johnson, 2020). It is also unsurprising that grain farmers would want to doubt the reality of human-caused climate change, as conventional grain farming relies heavily on oil and gas at every stage, from the petrochemicals applied to the land (fertilizers, pesticides, herbicides, insecticides) to the fuel used to run the machines and the grain driers, to the fuel used to transport the grain to its final destination. Norgaard (2006), who conducted ethnographic research in Norway, uses the term "socially organized denial" to explain how such a highly educated and well-informed population can continue to express skepticism toward climate change. Socially organized denial is a collective coping strategy that is perpetuated through social interactions at the community level (Norgaard, 2006), which in Alberta occurs in the context of hegemonic pro-oil and gas narratives propagated by public and private actors.

Ironically, just as conventional grain farmers feel threatened by the push to move away from fossil fuels, their livelihoods, which have always been at the whim of the weather, are immensely vulnerable to the impacts of climate change. The very fossil-fuel heavy, monocropped, productivist practices farmers seek to defend through climate denialism are the same practices that leave them exposed to increasing weather extremes. The 2019 harvest season was a particularly stressful one in much of the province ("terrible" [#35]; "a disaster" [#36a]; "really, really rough" [#5]) due to too much moisture, cold weather, early snow, leading to vast acres of crop left out in the field, and endless hours running expensive grain dryers to reduce the moisture content of the crop that did get harvested. In the province as a whole, 89.6% of all crops were harvested in 2019, as opposed to 94.7% in 2018 and 98.6% in 2017 (Short, 2020). Certain regions of the province were hit far worse than others, with only 67.7% of crops harvested in the Peace Region to the north-west of the province, and only 86.9% harvested north-east of Edmonton (both regions where I conducted interviews). When I asked one interviewee in the Peace Region how close many farmers were to crisis prior to the arrival of the dismal 2019 season, he responded:

> Oh, a lot. Well, this is just my personal opinion -- I don't know everybody's balance sheets -- but I know there are a lot of farmers who are right at the line. And for some you have to be, I mean you have to take a risk. But all of a sudden, if you drive down the highway, there is a 'land for sale' sign. East of town, oh, for sale, for sale, for sale. (#35)

Across Canada, the agricultural system currently accounts for approximately 12% of the country's total emissions, and in certain provinces such as Manitoba, agricultural emissions reflect a much high percentage of total emissions (calculated by Qualman, 2019 using data from Environment and Climate Change Canada and Dyer et al., 2006, Dyer et al., 2014, and Dyer et al., 2015); however, as Qualman (2019) crucially distinguishes, "agriculture does not produce GHG emissions, agricultural inputs produce GHG emissions" (p.23). The use of nitrogen fertilizer in conventional agriculture, for example, has a huge footprint: nearly half of Canada's agricultural emissions result from its use (Qualman, 2019). This is a good example of the massive improvements an admittedly reformist transition to commodity organic grain would bring. Carrying on with the conventional, fossil-fuel based grain farming model on the prairies is no longer possible. As the reality of climate change worsens each year, the conventional model also leaves producers, and the food system more broadly, immensely vulnerable.

Conclusion

When farmers rent land on short-term contracts, the pressure of annual payments and lack of stability of tenure create a disconnect between the long-term health of the land and the producer. It keeps farmers from employing more sustainable practices such as growing green manures, using mixed farming methods that incorporate cattle, growing forage, or transitioning to organics. As farmland market values continue to rise, and as farmers rent more of their land base in order to avoid these high prices, the long-term health of the land and the wider ecosystem declines. As one farmer lamented, "Every generation has taken a little bit away from the land and from the quality of the land. And then at the same time we are having the escalation on the land values" (#8). Tenant farming has serious ecological impacts and implications, irrespective of the landlord.

While renting farmland can provide new farmers an entry point into the grain sector, and allow farmers to expand when they otherwise would not be able to, the margins on renting are often razor thin, if they exist at all. Moreover, a tenant farming system where much of the land is in the hands of absentee owners and elites, in which farmers must focus first-and-foremost on turning an annual profit, will not allow, nor incentivize, the kinds of radical transformations in farming practices that are necessary. One farmer put the shift toward tenant farming this way: "Well, I think it's a dead end. I think what is going to happen is with climate change, [renting farmland] doesn't allow the methods that are going to be necessary for farming" (#14). Under the farm income crisis, as farmers grow their land base through owning and renting amidst sky-high land prices, they become burdened by debt pressures, become logistics managers instead of stewards, and engage in environmentally destructive practices, such as the clearing of shelterbelts. Landlords such as investment firms may also inhibit transformations in practices out of concern for meeting their annual ROI.

Many farmers have come to act and see themselves as farmer entrepreneurs, equipped with a rhetoric of justification for decisions that are not ecologically sound. Without absolving them entirely of their agency, it is also true that even on land they own, grain farmers are so financially constrained within the current model that they cannot be expected to produce in a way that is life-giving, with the long-term health of the land, the wider ecosystem, and the community in mind. Those seeking alternative paths face considerable obstacles, even as the net income crisis and climate change demand a completely new vision.

7. CONCLUSION: FUTURE VISIONS

The purpose of this research was to gather the perspectives of grain farmers, MD/county staff, and other actors across rural Alberta to analyze how grain farmland tenure is changing, and the reverberations of these changes. In doing so, my study has revealed that decades of neoliberal structural shifts and hegemonic neoliberal ideology at the community level shape farmers' ability to see one another as collaborators as opposed to competitors, their conceptualizations of their own struggles, and the alternatives they are able to envision. Even more fundamentally, it has become clear through this research that the land question -- "who gets how much of what kind of land, and why" (Borras et al., 2015, p.610), as well as what they are able to do with it depending on the conditions of access -- plays the largest role in shaping the potential for, and/or limitations facing a move toward alternatives. And alternatives are of the essence.

For the climate, and for so many prairie farmers, crisis has already come home to roost. Across millions of acres, the climate crisis, farm income crisis, farmland price bubble, and farm debt bomb together forecast devastation and collapse unless drastic measures are taken. These crises are not only concurrent: they are closely tied in that they share root causes, as well as solutions (Qualman, 2019). They demand radical transformation across the agricultural sector away from large-scale, export-oriented, energy-, capital-, and emissions-intensive production methods, away from the control and value capture of corporate agribusiness and elite enclosure, toward a system that is life-sustaining.

In addition to farmland concentration, tenant farming is becoming increasingly pervasive, and a central conclusion of this research is that irrespective of the landlord, renting farmland does not allow for the prioritization of non-financial values on the land, due primarily to the combination of a lack of long-term security of tenure and the pressure of annual fees. The further we go down the current path -- the path of tenant farming, absentee landlords, investor ownership, and farmland concentration among fewer, larger farms -- the more difficult it will become to reverse course. I must highlight again that in 2016, across all types of agricultural production in Alberta, approximately 55% of total acres farmers operated were owned and 44% of total acres were rented, leased, cropshared, or otherwise used without being owned (Government of Alberta, 2018b).

The financialization of farmland is accelerating and exacerbating the decades-old products of neoliberalism: the restructuring of the grain sector and rural communities, the farm income crisis, shifting farmland tenure patterns, and the pervasiveness of neoliberal ideology. Investors buying up farmland follows a history of the prioritization of short-term financial returns superseding the other social and environmental goals of production on agricultural land in Alberta. The challenges Albertan grain farmers face have now long been so significant that desperate short-term thinking pervades across the vast majority of acres, both owned and rented.

Alberta has over 50 million acres of farmland, second only to Saskatchewan as the province with the most farmland in Canada (Government of Alberta, 2018b). We are entrusting much of this immense and essential public (and arguably global) good to fewer and fewer conventional grain farmers who are deeply enrolled in a neoliberal agenda that desperately squeezes them, and increasingly to non-farmers who see land as a financial asset, leaving little room for consideration of non-financial values. There so often becomes a dissonance between how farmers want to practice and how they are able to, which reinforces the strength of rationalization arguments. Even as interviewees recognized the damage farmland concentration and non-farmer farmland ownership caused in rural communities, they largely reiterated the present path's necessity and inevitability, as Müller (2008) found in Saskatchewan.

Since 2007, crop prices in the grain sector have been better overall, with national net farmer income having turned positive in 2008 after many years in the red. However, income inequality has also increased, and while some farmers have become wealthy, many continue to struggle (Qualman, 2019). Farmers overall continue to have their incomes bolstered significantly by off farm-income (Government of Alberta, 2017), a trend Magnan (2004) conceptualizes as farmers subsidizing the cost of food production. In other words, the farm income crisis continues, and keeps the majority of farms perched on the line between viable and nonviable. In an interview I did with a farmer in a hut in his bin yard over the loud drone of his grain dryer, he told me tiredly,

> You survive. You survive. You try and make your payments to pay your bills. You survive. Price of land goes up, so you're making money. Then the day comes in your life where you sell your land, you get a little windfall. If you pass your land onto your kids then you're poor all your life. So it goes (chuckles). (#7)

This quote highlights three things: 1/ many grain farmers are merely surviving, not thriving; 2/ many farmers are now relying on rising farmland prices more than anything else, and; 3/ in this context, bringing the next generation onto the land becomes difficult, if not impossible, as evidenced by the crisis of generational renewal (Qualman et al., 2018).

The delinking between farmland prices and production values means that farmers are becoming like speculators themselves in their relationship to land. This reality complicates any consideration of solutions involving regulating farmland prices. A crash in farmland prices would be a disaster, when considering the billions of dollars of debt farmers are carrying alongside the farm income crisis, and a crash in prices might allow for a terrifying land grab by investor actors. Conversely, ongoing high farmland prices paired with low net incomes from production also continues to facilitate elite enclosure and farmland concentration among only the largest farms. The debt bomb, part and parcel of the farm income crisis, lurks just below the surface, but infuses the whole system with immense fragility, and means that the public is subsidizing farmers as they pay interest to the banks (Qualman et al., 2018).

My study has revealed that the financialization of farmland is indeed having a significant impact on farmland tenure in Alberta. Financial actors are involving themselves in farmers' grain operations in diverse ways. Although we cannot be certain about the number of acres investors have purchased thus far in the province without the land titles data, my interviews seem to reinforce Desmarais et al.'s (2017) finding in Saskatchewan that while the percentage of total acres owned by investors is relatively small (1.44% of farmland in Saskatchewan in 2014), their deep pockets and tendency to pay more (Magnan & Sunley, 2017) can inflate farmland prices considerably at the local level. Additionally, I found that even a couple of instances of investor speculation can create wide ripples: for example, in the case of farmers getting bought out by those anticipating the arrival of petrochemical plants -- and in the context of the capital gains tax and an expansionist production system -- farmers will likely take their cash and purchase a larger number of cheaper acres in other MDs/counties for more than the going rate. Investor purchases can similarly wreak havoc on rental rates, often leading to annual costs that become untenable for any farmer that has not recently become flush with cash.

The second major factor in the financialization of farmland in Alberta is the loose lending policies of banks. Farmers described lending policies in which loans are given to producers based on their land equity as opposed to their capital flows, and a preference to allocating only large loans to new farmers, thus influencing the production methods they employ. Financial institutions are ensuring the price of farmland continues to rise, even as commodity prices remain stagnant; they are motivated to do so in order to refinance themselves, and the result is artificially inflated prices. As many farmers spend their whole lives mortgaged, and as some are also paying interest-only loans, the bank is essentially a landlord, and a landlord that is rationalizing and disciplining farmers through its lending policies. I return to this quote I cited from a farmer in Chapter 4: “You have the bank possibly to help you, but they actually are essentially the owner, you’re just the worker. So in a way, you could say it's a new model of peasantry [...]” (#8).

There were clear signs in my research that the financialization of farmland is not only accelerating in Alberta, but that it is also mired in contradictions and failures. The speculation boom post-2008 seems to have been a bust for many investors, who were sold land on promises that did not materialize. For investment firms needing to meet shareholder expectations, the irony is that the gulf between farmland prices and per-acre net returns is so wide that even firms that have sought out the most undervalued farmland are still struggling to meet their desired ROI through rental rates, except temporarily from the farmers they have just purchased the land from. However, on the presumption that farmland will continue to appreciate, the long-term benefits of owning farmland will remain enticing for those with deep enough pockets to purchase it and wait.

We should also assume investment firms will continue to devise new models and financial instruments in order to “value grab”, as Andreucci et al. (2017) put it, and we should consider how this will play out in the context of climate change. Farrer, the representative from Bonnefield, told me they are well aware of the risks and opportunities climate change may present, and explained how they are using models such as securitization in order to bundle farms into funds and shield investors from the heightened risks (#19). He also explained that one way Bonnefield promotes farmland ownership to investors is by touting benefits they believe will only increase in the context of climate change, such as “exposure to water without actually owning water” (#19). While some farmers, particularly larger ones, claim to have benefited from selling to investors, this is a clear transfer of value from farmers to the financial class (Clapp & Isakson, 2018). Clapp and Isakson (2018) write: “[...] one could argue that oftentimes when financial actors acquire farmland from “willing” sellers they are, in fact, preying upon the hardships faced by contemporary farmers” (p. 94). On the ground in Alberta, it seemed like the discursive work of portraying investor farmland ownership as a “service to farmers” (Clapp & Isakson, 2018, p.94) or a “benign” alternative lending service (Magnan, 2018) has had relative success.

This brings up another crucial point: if farmers were not so indebted and cash strapped, they would likely not sell to investors so much. Interviewees, while often not ideologically opposed to investor farmland ownership, made it clear that they would prefer to sell their land to other local farmers or to young farmers getting started, if not to family members. And while I have focused on elite value capture via farmland ownership, we must not forget that the farm income crisis is also directly tied to the increased power of transnational agribusiness, which captures the majority of the value of what farmers produce (Qualman, 2017). If grain farmers were able to unravel themselves from the grips of agribusiness, rates of tenant farming would decrease, and the capacity for alternative, regenerative practices even on rented land would increase. As Borras and Franco (2012) write in their initial article on land sovereignty,

> Neither land reform nor land tenure security alone are well-equipped to be frameworks for analysis or action in the current conjecture. Land reform remains important, but its limitations as a call to action are being exposed by the current cycle of land grabbing. Likewise, land tenure security is important, but alone is not enough, since adverse incorporation of the rural working poor classes into the corporate-controlled global food-feed-fuel regime does not necessarily require moving them off the land. (p.2)

Farmers detaching themselves from agribusiness' regime, or at least retrieving their collective marketing power, is just as essential to building social and ecological resiliencies as alternate farmland tenure patterns.

At the community level, progressive resistance is tempered through the nature of the relationships neoliberalism and financialization produce between farmers. They are no longer seeing one another field to field, at the elevator, or at events at the community hall as often as they once did. And even if they are still meeting up, the sense of camaraderie and collaboration has tipped toward competition, similar to what Müller (2008) found in her research in Saskatchewan:

> Because they have internalized the identity of the farmer-entrepreneur they are set to confront these obscure forces of the market alone. From being inseparably interwoven with the traditional conditions of life, family and neighbourhood, craftsmanship and religion, village and church, the farmers and their land become inseparably connected to market and capital, technology and innovation, corporations and banks. (p.393)

In the absence of organizing among farm groups and other rural community members around a clear vision of alternatives, and as a subsequent result of their lack of collective power, shape-shifting neoliberalism and financialization, pervasive and yet so often unnamed, continue to be viewed as solutions to the very insecurity and struggle these phenomena have created (Clapp & Isakson, 2018).

It is essential that we craft alternative visions that we can draw on in moments of crisis, as these are also moments of political opportunity (Di Muzio, 2020). When Keynesianism reached a crisis point in the 1970s, the neoliberal camp was at the ready to capitalize on the crisis and push its agenda to the fore. Di Muzio (2020) argues that one of the key reasons neoliberalism persisted following the 2006-08 intersecting crises was that a viable alternative program was not at the ready. As Naomi Klein likes to emphasize, in the words of Milton Friedman,

> Only a crisis - actual or perceived - produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around. That, I believe, is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes the politically inevitable. (as cited in Muzio, 2020, n.p.)

Smucker (2017) critiques this idea, as he insists that "right does not equal might", and that the emphasis on the need for ideas ("Enlightenment thinking") and the spread of ideas through popular education, will not get us anywhere if we do not learn how to organize and build expansive counter-hegemonic power (p.41-42).

With a critical research paradigm in mind, it is useful to consider the bounds of interviewees' imaginations in light of how financialization and neoliberalism can inhibit collective action. It is also pertinent to present land sovereignty as an example of an alternative, both as a practical and utopian vision. The following two sections will discuss interviewees' limited ability to imagine alternate paths forward, and consider land sovereignty in the Albertan context. I will conclude with some of the major questions that have come out of this research.

7.1 Ability to imagine an alternate future

When one of the farmland brokers I interviewed told me he imagined the future of farming would involve operations getting "bigger and bigger and bigger" (#18a), I asked if he thought there were any potential disadvantages of farmland concentration. "Not if you're trying to feed the world!" (#18a), he responded, and went on to espouse technological advancements in crops and genetics. Behind the concentration of wealth and power taking place are strong rhetorics of justification. This was exemplified by the farmer I interviewed who perhaps most clearly fit the definition of a farmer entrepreneur. She farms 5000 acres with her husband, and defended their rivalrous relationship with neighbours through what she explained was her raison-d'etre:

> I felt strongly that the land needs to continue producing food because I seriously understand the need for food globally. We're facing huge population increases and there are too many people going hungry, and as a mom and now a grandmother and a good producer, I really take offence for that. There is no need for it. And my thing is that there should never be any empty bellies anywhere in the world. (#20)

The justifications that fuel the farmer entrepreneur in expanding and furthering farmland concentration are reflected by financial actors who use Malthusian logic to highlight all the reasons elite investment in farmland is dutiful in ensuring food security and ultimate efficiency. Clapp and Isakson (2018) write, " Such narratives serve a dual purpose. In addition to sparking investors' "animal spirits," or their emotional urge to speculate (Keynes, 1936), and attracting funds, they are deployed to win public approval for land acquisitions (Larder, Sippel, and Lawrence, 2015)" (p.87). This appeared to be a logic shared by a minority of farmers that saw investor farmland ownership as positive, and necessary.

As farmers explained their struggles throughout my interviews, even those with a keen grasp of the root causes expressed some variation on "that's just the way it is" (#2). On the topic of farmers increasingly renting their land from non-farmers, Lynn Jacobson, President of the Alberta Federation of Agriculture, called this transition "just a natural occurrence that's going to happen" (#9). There was a strong sense the future had already been scripted. A large-scale farmer and Reeve of a MD/County in the Peace Region expressed, with regards to farmland concentration: "I mean the trend is all over the country, so as far as getting up in arms and trying to reverse the trend in your particular community, I'm not sure how you could do that" (#7). On the topic of investors owning farmland, this Reeve deferred to the law, although it was clear he was skeptical of investor farmland ownership:

> #7: I'm not sure that the [...] Ontario Teachers' Fund should be buying land in Alberta, to compete against individuals. But is it against the law? Probably not, otherwise somebody would have shut it down.
>
> Interviewer: If you were in charge, would you restrict land ownership in any way?
>
> #7: Well… I'd have to learn more about… the logistics and the legalities of it before I could comment on it.

Another farmer had resigned herself to the possibility that at some point she might have to seek outside investment:

> I've seen websites, we have websites in the area for some local farms that are actively advertising for outside investment. It's a new way of thinking about farming. Something I've never… I've never looked into it but it might be something that is necessary. It's definitely not how my dad farmed, or anybody that farmed before. (#34)

As interviewees grappled with the increased rates of renting, several predicted that we are headed toward a feudal system. When I asked what the future might look like, one farmer and leader of a farm organization envisioned the future as "a European system where people are renting everything and not owning anything" (#31). Another expressed that soon enough, "We'll be like they were in England! [...] Just landowners and serfs [...] How do you reverse the trend? I don't know" (#7).

At the end of each interview, I asked participants what they would do to make life better for Albertan farmers if they were in a position of power, such as Premier of Alberta or Prime Minister. I left the question fairly open, so that interviewees could respond with regards to farmland tenure or other structural or policy changes they wanted to see. Even among my interviewees who work for municipalities or who are in leadership roles within agricultural organizations, there was a clear lack of vision of alternative paths forward. Some bordered on hopelessness, such as this older farmer who was critical of conventional agriculture and tuned-in to the threat of climate change:

> These farmers are stuck in a high input loop if that makes sense to you. And it allows probably a lot less farmers, altogether at a time when we probably need more. Like when I look at it, I see… I don't see a bright future for agriculture. [...] I mean eventually it's going to have to change or we'll be dead, at the rate we're going. (#14)

Another older, retired farmer who was involved with the NFU told me about how he had been "heavily involved in organizing, many many years" in the north-east: "I travelled and wore out cars trying to organize and we probably had one of the highest organized areas of the country" (#10). He described what he saw, at the time, as an ideological divide between the northern and southern halves of Alberta, which he attributed to a difference in heritage - eastern European settlers to the north, and greater US settlement and influence to the south. He has now lived in the central corridor for many years, and expressed his despair:

> [Those in my community] were brainwashed to think that anything to do with getting together, organizing, working together, they had one word, the word I used, "oh you're a communist!" or "you're a socialist!". All the branding. And I think, I honestly think it's too late to change that, because those people are all old now, and the young ones will never get in [to farming]. There is no way they can get into farming at a million and a

> half for a quarter [160 acres]. A quarter! You can't do it. So I feel fortunate that I can… (starts to cry)... That I can move a little [land] on to my family. (#10)

A few interviewees suggested that my question of what they would do if they had power to influence the future was a "loaded question", and when I asked why, they pointed to the number of competing interests, the complexity. Even the most thoughtful farmers I interviewed seemed stuck on questions of what might be done about farmland tenure:

> I mean there's all sorts of consequences to any kinds of policies that would restrict [investor farmland ownership] and they have to be looked at very carefully. You do have to have some liquidity probably, you don't want to crash land prices and hurt people the other way, so having investor speculators being able to come in [...] in a market that might be crashing, a bubble that might be bursting, might be something that you want to happen, right, so. It's just extremely complex, I guess, to get into government policy, and how you would want to adjust things. (#40)

In the current context, as farmers fight to succeed as individuals under the supposedly neutral market, and under the prevalence of market ideology, it is widely perceived that any other type of state intervention would be biased and unfair:

> [...] you try and redraw the balance, and there's always going to be somebody unhappy. Which is why governments try not to and just let the so-called free market run amok, as if that isn't making a decision in itself. But people seem to think that there is some invisible hand that then they can't blame anybody, so then they're happy, regardless of the fact that they are still being picked as a winner or a loser… (#40)

One farmer and Agricultural Fieldman noted, for example, that restricting investors from purchasing farmland would be problematic, because certain farmers are benefiting from these financial arrangements (#6). An Assistant Agricultural Fieldman and young farmer commented that regulating farmland prices to keep them from rising too high would be controversial, because it would bring down the value of farmland for farmers looking to sell (#6a). A young female farmer and MD/country staff said she had never been asked a question such as this one before, and inferred that it was almost too rich, like having cake and getting to eat it too (#24). A pedigree seed producer told me, "I don't know how we will get out of it" (#34). A farmer with a leadership role in the Alberta Federation of Agriculture expressed, "we don't have the answer to that" (#23b), before going on to say farmers needed to be less greedy. A farmer involved with the Alberta Seed Growers Association said, "I don't know… It's a tough one" (#29), before bringing up the challenges with fusarium restrictions on seed growers -- those involved in the various commodity commissions pointed to the work they are already engaged in, such as on issues of trade, or pushing back against the federal government's work to reduce the use of neonicotinoid pesticides. I present these examples of responses alongside interviewees' community roles to emphasize a key paradox: on the one hand, they are active and involved in organizations, yet on the other hand they feel a strong sense of hopelessness and lack of unity. Farmers' answers to what could be done or what needed to be done remained bound tightly by the limits of the neoliberal imaginary.

7.2 Land sovereignty and questions for further research

The hegemony of neoliberal ideology at the community level, the lack of farmer cohesion and organizing, and the inability of most interviewees to imagine alternative futures together bring us to the question I have been grappling with the most throughout my research: *What social actors will bring about the change that is necessary?* Will it be farmers and other rural community members, or are they too deeply enrolled in neoliberalism? More research is evidently needed to better understand the extent, limits, and potential for progressive rural resistance in Alberta, and how this resistance will address the land question.

In earlier empirical chapters, I gave examples of forms of resistance I encountered in my research, such as those who have done, and continue to do, organizing work in their communities, those involved with progressive farmers' organizations, and those who are farming organically. Using Williams' (2006) terms, most of the examples or embodiments of resistance I witnessed would be classified as residual as opposed to emergent: these came through older farmers who had been a part of the more vibrant collectivist agrarian movements in the middle of the 20th century. Willams (2006) also distinguishes between counter-hegemonic social life and cultures that are alternative, and those that are oppositional, with the latter maintaining a desire for broader systemic change, as opposed to the former, which might be content living a quiet, alternative life. The Hutterite colonies' collectivist economic and social structures are seemingly a good example of an alternative culture in Alberta. The farmers I interviewed who are involved with the NFU are an example of a more oppositional current, as were those who spoke of organizing their neighbours to resist developments. Among those practicing organic agriculture, they could be split down the middle: many appeared to be content with their own farm being organic, whereas others wanted to bring other farmers over.

A limitation of my research is that in predominantly interviewing large-scale grain farmers, I certainly missed many resistance currents. With a couple of exceptions, I did not interview farmers who had transitioned away from grain farming into other forms of production, nor did I hear from the voices of other community members. I do not feel like I saw many examples of emergent forms of resistance, but I know these could be found outside conventional grain farming. Hopefully future research on the topic of changing farmland tenure in Alberta may be able to gather the perspectives of a wider range of community members.

There were also examples of resistance which could best be described as right-wing populism, such as farmers organizing in opposition to farm worker protections and carbon taxes, as I explained in Chapter 6. As populism is particularly strong in rural Alberta, it was fascinating to read a recent issue of *The Monitor* (CCPA, 2019) that examines present-day left- and right-wing populist movements, in Canada and elsewhere. In one of the articles, Neubauer (2019) argues that in a place like Alberta, it could be possible to transform the existing extractivist populism by building a strong counter-narrative, and then channelling this energy into a new ecological populism. Populist energy is volatile, and in the right moment, with the right leadership and organizing, it can sometimes be redirected rapidly, such as with the election of the NDP provincial government.

Stewart Wells, a grain farmer and past NFU President (not one of my interviewees) believes:

> The early generations of western Canadian farmers were big-picture thinkers whose mindset was 'the sky's the limit, and if we can dream it we can build it - including better institutions'. That mindset has now been lost and largely replaced with the mindset of, 'we have to take what the grain companies and railways give us'. (Magnan, 2019, p.119)

One of the farmers I interviewed honed in on how this "mindset" shift is tied not only to a demonization and dismantling of collective structures such as the CWB, but also to altered visions of the role of the state and a lack of empowerment:

> [...] we've gotten so far away from any kind of government activism in our society -- it's almost hard to put yourself in the position of what would be good to be done, because it's so far from our concept of what will, or is even possible under certain current political thought processes. (#40)

An Agricultural Fieldman told me: "Producers don't like governments" (#6). The provincial staff in the Department of Agriculture and Forestry explained very clearly that they are constantly considering what their role is as government, and continuously coming around to the same understanding that their role is to ensure some kind of predictable structure for industry, and stay out of the way in order to avoid thwarting any entrepreneurial energy (#25a, #25b). They suggested that their central role as a department with regards to supporting grain farmers is in ensuring access to markets, and access to capital for new farmers.

When I pressed the provincial staff on whether the government had any kind of mandate to keep farmland in the hands of farmers, they said yes only in that they have lending programs for beginner farmers (#25a, #25b). When I asked if they saw any difference between farmers owning farmland and non-farmers owning farmland, they said no. They claimed it to be dangerous for the government to involve itself in economic decisions, because it would limit the creativity of entrepreneurs. These kinds of responses from government employees put the inattentiveness of the provincial government in not actively tracking investor farmland ownership into perspective: by not tracking, the government seems to be taking a clear pro-investor stance.

When I asked if the provincial staff thought there could be any negative impacts of farmland concentration on communities, they suggested it might change communities, but not for better or worse. They also deflected the responsibility of ensuring vibrant rural communities onto MDs/counties, reinforcing what Peck and Tickell (2002) call "the asymmetrical scale politics of neoliberalism" (p.386). This asymmetry was revealed in other interviews as well, such as with an Agricultural Fieldman who explained how austerity measures are straining local budgets while MDs/counties are simultaneously being forced to pay millions of additional dollars for policing as Alberta adds 300 officers to the force in response to public outcries about increasing rural crime[40] (#39; Huncar, 2019).

The role that the state should play is highly contested in land sovereignty movements. Some argue that land sovereignty will only be possible through a recognition of the messy nuances and "inconvenient complexities" of each local context, as opposed to attempts at sweeping or top-down directives (Roman-Alcalá, 2015, p.3; Borras & Franco, 2012, p.1). Ajl (2018) cites the Egyptian economist Fawzy Mansour who argued that any project focused exclusively on the local setting and ignoring the macro context would lead to frustration and

[40] The UCP's Justice Minister ominously called this move "the largest single investment in rural policing since the March West" (Huncar, 2019, n.p.).

failure, suggesting that the state must play a central role in order to achieve solutions. Borras and Franco (2012) write that land sovereignty "treats the role of the state non-dogmatically, accepting that states both facilitate land dispossession and concentration, and offer potential opportunities for increased land access for non-elites" (p.7). This certainly describes the role of the settler-colonial government both provincially in Alberta, and federally, in Canada, and yet it is simultaneously true that the state apparatus has the most capacity to enact broad land reforms. Borras and Franco (2012) argue that land sovereignty "is anchored in two inseparable pillars of sovereignty: state and people" (p.11) -- that it is at once a demand for a stronger state which will protect its citizens from corporate enclosure, and an assertion of the right of working people to be in control over land. But can the two exist effectively in tandem?

Beyond farmers and the state, there is a third factor to consider. Wittman (2009, drawing on Castree, 1995 and Goodman, 2001) argues that we must "'bring nature back in' to understanding agro-ecological change involving both material and social processes", and "identify the 'lively' or material agency of nature" in order to do so (p.821). I have come to suspect that the acceleration of the climate crisis will be the most likely cause of radical change to grain farming on the prairies. Nature is "striking back" as never before (Wittman, 2009, p.812) and so it follows that we must ask: *What transformation will emerge from the conjoined social and environmental crises unfolding on the prairies, and most importantly, who will this inevitable reorganizing serve?*

Blomley (2003) reminds us, "When we talk about land and property, we are not simply talking about technical questions of land use, but engaging some deeply moral questions about social order" (p.122, drawing on Ryan, 1984). In considering the problems inherent in tenant farming and the importance of ownership or security of tenure among farmers, we must also consider the farmland concentration that currently exists. Qualman et al. (2020) estimate that in 2016, approximately 94,000 farmers and their families -- less than 0.3% of Canadians -- owned half of the country's (privately-owned) farmland. Land sovereignty importantly assigns land rights and land access to all peoples, far beyond a minority of producers (Geisler, 2015). Ribot and Peluso (2003) argue that access is a more useful framework than property rights in terms of who has the ability to derive benefit from land; legal ownership rights do not necessarily correlate to access, and certainly cannot secure it. Land sovereignty's "'access' orientation" allows it to be flexible and pragmatic depending on the context in order to democratize land resources (Roman-Alcalá, 2015, p.3).

This brings me to a controversial but key question on the path to envisioning alternatives, which is whether or not we can continue to revere and fight for the preservation of the settler family farm. In most instances in Canada, the idolization of the family farm reflects a reverence for the private property regime. The family farm model remains dominant on the prairies even though its structure has shifted dramatically (Sommerville & Magnan, 2015). As was made clear by interviewees, coming from a farm family is virtually the only way to enter the grain sector at the present time, even as this access point becomes increasingly tenuous.

Along these same lines, if tenant farming limits the ability to employ life-giving practices such as diversified rotations, the ability to consider non-financial values in decision-making processes, and the space to transition to alternatives, then it follows that we must be also be concerned with the trend of farmers' descendants holding onto farmland through the generations without planning to become farmers. We must wrestle with the reality that whether a landlord is a farmer's descendant living in Edmonton, or an investment firm in Toronto, the material and social outcomes on the land and in rural communities appear to be similar, and both landlords are rent-seeking and speculating. If we are to strive for land sovereignty, in considering the crisis of generational renewal (Qualman et al., 2018), we must move beyond striving to preserve white settler access to farmland and grain farming to determine how we might widen access to all who want to farm on the prairies, and to the 99% assigned the right to land under land sovereignty.

The ongoing legacy of settler colonialism and the need to return land to Indigenous nations and defer to Indigenous leadership undergird all other challenges presented in this thesis. In analyzing recent farmland tenure changes in Alberta, it is my hope that this research might contribute to conceptualizations of future farmland tenure patterns in Alberta that deviate from the current trajectory, and these must consider that,

> settler impulses to create equitable food systems by being stewards or 'keepers' of Indigenous lands are problematic in a context where settlers have violently appropriated land from Indigenous peoples and denigrated Indigenous cosmovisions and relationships to land. (Kepkiewicz & Dale, 2019, p.984)

The Yellowhead Institute's 2019 Red Paper, *Land Back,* as well as Borras and Franco's 2012 land sovereignty framework, are both key resources to help us envision a future of regenerative livelihoods for those working the land and living in rural communities alongside reparations and land restitution for Indigenous peoples across the Canadian prairies. As *Land Back* argues, nothing short of political and economic transformation can bring us to such a future (The Yellowhead Institute, 2019), but with a common and empowered vision, we might build the organizational power necessary to achieve it.

8. REFERENCES

AFSC [Agriculture Financial Services Corporation]. (n.d.). About AFSC. https://afsc.ca/about-afsc/

Ajl, M. (2018). Delinking, food sovereignty, and populist agronomy: notes on an intellectual history of the peasant path in the global South. *Review of African Political Economy, 45*(155), 64-84.

Alberta Agriculture and Forestry. (2018, September). Agriculture Statistics Yearbook. https://open.alberta.ca/dataset/da3573a5-465c-4dc1-8793-36e9dc02b775/resource/13883472-6b75-4e9f-8ee4-1a5ffa12803a/download/agriculture-statistics-yearbook-2017.pdf

Andjelic. (n.d.). *The Andjelic Story.* https://andjelic.ca/about#lease

Andreucci, D., Garceia-Lamarca, M., Wedekind, J., & Swyngedouw, E. (2017). "Value Grabbing": A Political Ecology of Rent. *Capitalism, Nature, Socialism*, *28*(3), 28-47.

Area One Farms. (n.d.). Private equity financing for Canadian farms. https://areaonefarms.ca/

Bellefontaine, M. (2015, November 30). 1000 farmers, ranchers, protest Bill 6 at Alberta legislature. *CBC News.* https://www.cbc.ca/news/canada/edmonton/1-000-farmers-ranchers-protest-bill-6-at-alberta-legislature-1.3344336

Bernstein, H. (2010). *Class Dynamics of Agrarian Change.* Fernwood Publishing.

Blair, J. (2020, April 14). Alberta farmland values likely to be unaffected by Covid-19. *Alberta Farmer Express.* https://www.albertafarmexpress.ca/news/alberta-farmland-values-likely-to-be -unaffected-by-covid-19/

Blomley, N. (2003). Law, property, and the geography of violence: The frontier, the survey, and the grid. *Annals of the Association of American Geographers, 93*(1), 121-141.

Boehm, T. (2020, July 30). 2020 Hindsight: Ending the Canadian Wheat Board was an economic tragedy. *National Farmers Union.* https://www.nfu.ca/2020-hindsight-ending-the-canadian-wheat-board-was-an-economic-tragedy/

Bonnefield. (n.d.). Farmland for Farming. https://bonnefield.com/

Boothby, L. (2020, June 29). Father and son will be tried together in killing of two Métis hunters. *Edmonton Journal.* https://edmontonjournal.com/news/crime/father-and-son-will-be-tried-together-in-killing-of-two-metis-hunters

Borras Jr., S. M., & Franco, J. C. (2012). A 'land sovereignty' alternative? Towards a peoples' counter-enclosure. TNI Agrarian Justice Programme Discussion Paper, July. Transnational Institute. https://www.tni.org/files/a_land_sovereignty_alternative_.pdf

Borras, Jr., S. M., Franco, J. C., & Suárez, S. M. (2015). Land and food sovereignty. *Third World Quarterly*, *36*(3), p.600-617.

Brown, J. (2013, September 18). "Canada's potential to feed the world the focus of breadbasket summit". *Global News.* Retrieved from https://globalnews.ca/news/650987/canadas-potential-to-feed-the-world-focus-of-breadbasket-summit/

Burch, D., & Lawrence, G. (2009). Towards a third food regime: behind the transformation, *Agriculture and Human Values*, *26*(4), 267–279.

Canada's Human Rights History. (n.d.). Hutterites. https://historyofrights.ca/encyclopaedia/main-events/hutterites/

Canada's Ecofiscal Commission. (2018). Perceptions of carbon pricing in Canada. Retrieved from http://ecofiscal.ca/wp-content/uploads/2018/04/Ecosfiscal_Polling_February2018_FINAL_RELEASE.pdf

Canterra Capital Corp. (n.p.). *About Us.* https://canterracapital.ca/about-us

Carter, S. (1990). *Lost Harvests.* McGill-Queen's University Press.

Carter, S. (2013). Erasing and Replacing: Property and Homestead Rights of First Nations Farmers of Manitoba and the Northwest, 1870s-1910s. In A. Perry, E. W. Jones, & L. Morton (Eds), *Essays on Western Canada: Place and Replace* (18-39). University of Manitoba Press.

CCPA [Canadian Centre for Policy Alternatives]. (2019, July/August). We the People: Conservatism, Populism, and Crisis. *The Monitor.* https://www.policyalternatives.ca/sites/default/files/uploads/publications/National%20Office/2019/07/CCPA%20Monitor%20Jul%20Aug%202019%20WEB.pdf

Clapp, J. & Isakson, S. R. (2018). *Speculative Harvests: Financialization, Food and Agriculture.* Fernwood Publishing.

Cross, B. (2020, April 6). Farmland value rate increases are slowing. *The Western Producer.* https://www.producer.com/2020/04/farmland-value-rate-increases-are-slowing/

Daschuk, J. (2013). *Clearing the Plains: Disease, politics of starvation, and the loss of Aboriginal life.* University of Regina Press.

De Schutter, O. (2013). Mission to Canada: Report of the Special Rapporteur on the right to food, Olivier De Schutter, presented to the 22nd Session of the United Nations Human Rights Council. http://www.srfood.org/images/stories/pdf/officialreports/20121224_canadafinal_en.pdf

Desmarais, A.A., Qualman, D., Magnan, A., & Wiebe, N. (2015). Land grabbing and land concentration: Mapping changing patterns of farmland ownership in three rural municipalities in Saskatchewan, Canada. *Canadian Food Studies*, *2*(1), 16-47.

Desmarais, A. A., Qualman, D., Magnan, A., & Wiebe, N. (2017). Investor ownership or social investment? Changing farmland ownership in Saskatchewan, Canada. *Human Values*, (34), 149-166.

Diaz, H. P. & Stirling, P. (2003). Degradation of Farm Work in the Canadian Prairies. In H. P. Diaz, J. Jaffe, & R. Stirling (Eds.), *Farm Communities at a Crossroads* (pp.31-44). Canadian Plains Research Centre.

Di Muzio, T. (2020, April 21). Covid-19 Capitalism, Neoliberal Debt, & the Need For Sovereign Money. *Progress in Political Economy.* https://www.ppesydney.net/covid-19-capitalism-neoliberal-debt-the-need-for-sovereign-money/

Doucet, A., & Mauthner, N. S. (2008). What can be known and how? Narrated subjects and the Listening Guide. *Qualitative Research, 8*(3), 399-409.

Dudley, K.M. (2000). *Debt and Dispossession: Farm Loss in America's Heartland.* The University of Chicago Press.

Ely, M., Vinz, R., Downing, M., & Anzul, M. (1997). Working in interpretive modes. In M. Ely et al. (Eds.), *On Writing Qualitative Research: Living by Words* (pp.223-273). Falmer Press.

Epp, R. (2019). The End of Exceptionalism: Post-rural Politics in Alberta. In D. Bratt, K. Brownsey, R. Sutherland, and D. Taras (Eds.), *Orange Chinook: Politics in the New Alberta* (pp. 293-316). University of Calgary Press.

Fairbairn, M. (2014). 'Like gold with yield': evolving intersections between farmland and finance. *Journal of Peasant Studies*, *41*(5), 777-795.

FAO [Food and Agriculture Organization of the United Nations]. (2009). Global agriculture towards 2050 (Issue Paper from How to Feed the World 2050 - High Level Expert Forum). http://www.fao.org/fileadmin/templates/wsfs/docs/Issues_papers/HLEF2050_Global_Agriculture.pdf

FAO [Food and Agriculture Organization of the United Nations]. (2018). 2018: The State of Food Security and Nutrition in the World. http://www.fao.org /state-of-food-security-nutrition/en/

FCC [Farm Credit Canada]. (2019). 1985-2018: Historic FCC Farmland Values Report. https://www.fcc-fac.ca/fcc/about-fcc/reports/2018-farmland-values-historic-report-e.pdf

FCC [Farm Credit Canada]. (2020a). Balance sheet of agriculture - debt increased faster than equity in 2019. https://www.fcc-fac.ca/en/knowledge/ag-economics/debt-increased-faster-than-equity.html

FCC [Farm Credit Canada]. (2020b). 2019 FCC Farmland Values Report. https://www.fcc-fac.ca/fcc/resources/2019-farmland-values-report-e.pdf

FCC [Farm Credit Canada]. (n.d.). Corporate Profile. https://www.fcc-fac.ca/en/about-fcc/corporate-profile.html

Fletcher, R. (2015, November 30). Bill 6 protest near Nanton joins 1000-strong demonstration at Alberta Legislature. *CBC News.* https://www.cbc.ca/news/canada/calgary/bill-6-protest-Near-nanton-highway-2-1.3344190

Flexhaug, D. (2019, December 17). An inside look at Alberta's 'war room'. *Global News.* https://globalnews.ca/news/6302677/alberta-war-room-canadian-energy-centre/

Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry, 12*(2), 219-245.

Foley, J. (2014). Where will we find enough food for 9 billion? *National Geographic Magazine.* Retrieved from https://www.nationalgeographic.com/foodfeatures/feeding-9-billion/

Gauthier, N. & White, J. (2019, January 17). Aboriginal peoples and agriculture in 2016: A portrait. *Statistics Canada.* https://www150.statcan.gc.ca/n1/pub/96-325-x/2019001/article/00001-eng.htm

Geisler, C. (2015). Trophy lands: why elites acquire land and why it matters. *Canadian Journal of Development Studies*, *36*(2), 241-257.

Gertler, M., Jaffe, J., & Swystun, L. (2002). *Beyond Beef and Barley: Organizational Innovation and Social Factors in Farm Diversification and Sustainability.* University of Saskatchewan.

Gertler, M. (2007). Production Co-operatives and Co-operative Production: Legacy and Promise. In M. Knuttila & B. Sterling (Eds). *The Prairie Agrarian Movement Revisited* (pp.107-126). Canadian Plains Research Centre.

Gertler, M. E. (2003). Innovation, Drurable Communities, and Long-Haul Economies. In H. P. Diaz, J. Jaffe, & R. Stirling (Eds.), *Farm Communities at the Crossroads: Challenge and Resistance* (pp.55-65). Canada Plains Research Centre.

Government of Alberta (n.d.a). Indigenous Community Data. https://www.alberta.ca/indigenous-community-data.aspx#toc-0

Government of Alberta. (n.d.b). Agricultural Land Resource Atlas of Alberta. Retrieved from https://www.alberta.ca/agricultural-land-resource-atlas-of-alberta.aspx

Government of Alberta. (n.d.c). Foreign Ownership of Land. https://www.alberta.ca/foreign-ownership-land.aspx

Government of Alberta. (2010, January). Guide to property assessment and taxation in Alberta. *Municipal Affairs.* https://www.banff.ca/DocumentCenter/View/231/AB-Guide-to-Property-Assessment?bidId=

Government of Alberta. (2017, February). Off-Farm Income in Alberta: Sources, Drivers, and Comparison with Saskatchewan/Manitoba. *Economics and Competitiveness Branch.*

https://open.alberta.ca/dataset/f7faefb0-52f2-4da0-9bf4-c2743ef8aec1/resource/2b4d5655-fae2-4781-9e0a-e3e8cd9a0ce6/download/offfarmincomefinal2017.pdf

Government of Alberta. (2018a, November). Upgraders and Refineries: Facts and Stats. https://open.alberta.ca/dataset/98c15cad-c5d9-4d96-b39c-423210a3050c/resource/7367e817-4fea-4744-a80c-0a81ce5fc907/download/factsheet-upgraders-and-refineries.pdf

Government of Alberta. (2018b). 2016 Census of Agriculture for Alberta: Provincial Agriculture. https://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/sdd16594/$file/Ag_Census_2016.pdf?OpenElement

Government of Alberta. (2020). Corporate Income Tax. https://www.alberta.ca/corporate-income-tax.aspx

Guyot-Bender, C. (2013). How do we feed our growing population?: Our experts tackle this complex question at the first international conference on Global Food Security. *Action Against Hunger Canada.* https://www.actionagainsthunger.org/blog/how-do-we-feed-our-growing-population

Harris, C. (2004). How did colonialism dispossess? Comments from an edge of empire. *Annals of the Association of American Geographers, 94*(1), 165-182.

Harvey, D. (2005). *A Brief History of Neoliberalism.* Oxford: Oxford University Press.

Hertel, T. W. (2015). The challenges of sustainably feeding a growing planet. *Food Security, 7*(2), 185-198.

Huseman, J., & Short, D. (2012). 'A slow industrial genocide': tar sands and the indigenous peoples of northern Alberta. *The International Journal of Human Rights, 16*(1), 216-237.

Jaffe, J., & Quark, A. (2005). Social cohesion: theory or politics? Evidence from studies of Saskatchewan rural communities under neoliberalism. *Prairie Forum, 30*(2), 229-252.

Johnson, L. (2020, October 19). Alberta war room set to ramp up pro-oilsands advertising after six-month lull, Jason Kenney says at party AGM. *Edmonton Journal.* https://edmontonjournal.com/news/politics/alberta-war-room-set-to-ramp-up-pro-oilsands-advertising-after-six-month-lull-jason-kenney-says-at-party-agm

Johnston, J. (2020, April 1). Two Alberta men gunned down in what may have been random attack. *CBC News.* https://www.cbc.ca/news/canada/edmonton/alberta-murders-jake-sansom-maurice-cardia-siebert-lake-1.5516904

Kepkiewicz, L., & Dale, B. (2019). Keeping 'our' land: property, agriculture and tensions between Indigenous and settler visions of food sovereignty in Canada. *The Journal of Peasant Studies, 46*(5), 983-1002.

Knuttila, M. (2003). Globalization, Economic Development, and Canadian Agricultural Policy. In H. P. Diaz, J. Jaffe, & R. Stirling (Eds.), *Farm Communities at the Crossroads: Challenge and Resistance* (pp.289-302). University of Regina.

Lawrence, G., & Smith, K. (2018). The Concept of 'Financialization': Criticisms and Insights. In H. Bjorkhaug, A. Magnan, & G. Lawrence (Eds.), *The Financialization of Agri-Food Systems: Contested Transformations*. London, United Kingdom: Routledge.

Li, T. M. (2011). Centering Labor in the Land Grab Debate. *Journal of Peasant Studies*, *38*(2), 281-298.

Li, T. M. (2014). What is land? Assembling a resource for global investment. *Transactions of the Institute of British Geographers*, *39*(4), 589-602.

Lovell, A. (2019, September 11). Investment model offers opportunity for farm expansion. *CountryGuide.* https://www.country-guide.ca/guide-business/investment-model-offers-opportunity-for-farm-expansion/

Macrotrends. (2020). Crude Oil Prices - 70 Year Historical Chart. Retrieved from August, 2020 from https://www.macrotrends.net/1369/crude-oil-price-history-chart

Magnan, A. (2004). Implications of Genetically Modified Crops in Saskatchewan. *The Journal of the Plains Research Centre*, *29*(2), p.301-316.

Magnan, A. (2018). Farmland values: Media and public discourses around farmland investment in Canada and Australia. In H. Bjorkhaug, A. Magnan, & G. Lawrence (Eds.), *The Financialization of Agri-Food Systems: Contested Transformations* (pp.108-126). Routledge.

Magnan, A. (2019). Organizing the Market. In A. Desmarais (Ed.), *Frontline Farmers: How the National Farmers Union Resists Agribusiness and Creates our New Food Future* (pp. 100-119). Fernwood Publishing.

Magnan, A., & Sunley, S. (2017). Farmland investment and financialization in Saskatchewan, 2003-2014: An empirical analysis of farmland transactions. *Journal of Rural Studies, 49*, 92-103.

Mann, A. (2018). Food Sovereignty and the Politics of Scarcity. In M. A. Dawson, C. Rosin, & N. Ward (Eds.), *Global Resource Scarcity: Catalyst for Conflict or Cooperation?* (p.131-145).

McGregor, J. (2011, October 17). ANALYSIS: 'Oppressive' no more: Harper's 'reorganized' Wheat Board. *CBC News*. https://www.cbc.ca/news/politics/analysis-oppressive-no-more-harper-s-reorganized-wheat-board-1.1023216

McMichael, P. (2009). A food regime analysis of the 'world food crisis.' (2009). *Agriculture & Human Values, 26*(4), p.281-295.

Monbiot, G. (2016). Neoliberalism - the ideology at the root of all our problems. *The Guardian.* https://www.theguardian.com/books/2016/apr/15/neoliberalism-ideology-problem-george-monbiot

Monbiot, G. (2017). *Out of the Wreckage.* Verso.

Melchior, J. (2017, September 11). Carbon credit program ain't what it used to be. *Alberta Farmer Express.* https://www.albertafarmexpress.ca/news/carbon-credit-program-aint-what-it-used-to-be/

Müller, B. (2008). Still Feeding the World? The Political Ecology of Canadian Prairie Farmers. *Anthropologica, 50*(2), 389-407.

Müller, B. (2013). The Canadian Wheat Board Struggle: Taking Freedom and Democracy to Market. In C. Counihan & V. Siniscalchi (Eds.), *Food Activism: Agency, Democracy, and Economy* (pp.129-142). Bloomsbury Academic.

NIMMIWG [National Inquiry into Missing and Murdered Indigenous Women and Girls]. (n.d.). A Legal Analysis of Genocide. Retrieved from https://www.mmiwg-ffada.ca/wp-content/uploads/2019/06/Supplementary-Report_Genocide.pdf

NFU [National Farmers Union]. (2015). Losing Our Grip. https://www.nfu.ca/wp-content/uploads/2018/07/Losing-Our-Grip-2015-Update-Web-Version.pdf

Norgaard, K. M. (2006). "We don't really want to know": Environmental Justice and Socially Organized Denial of Global Warming in Norway. *Organization & Environment, 19*(3), 347-370.

Organic Alberta. (2020). Current Organic Prices. https://organicalberta.org/grow-organics/organic-resources/organic-price-quotes/

Organic Alberta. (n.d.). Steps to Getting Started. https://organicalberta.org/grow-organics/getting-started/transitioning-your-farm-to-organics/steps-to-getting-started/#:~:text=With%20your%20information%20in%20hand,will%20you%20have%20to%20make%3F

Patel, R., & McMichael, P. (2009). A Political Economy of the Food Riot. *Review, 32*(1), 9-35.

Peck, J. & Tickell, A. (2002). Neoliberalizing Space. *Antipode, 34*(3), 380-404.

Pillow, W. (2003). Confession, catharsis, or cure? Rethinking the uses of reflexivity as methodological power in qualitative research. *International Journal of Qualitative Studies in Education, 16*(2), 175-196.

Qualman, D. (2017). Agribusiness takes all: 90 years of Canadian net farm income. https://www.darrinqualman.com/canadian-net-farm-income/

Qualman, D. (2019). Tackling the Farm Crisis and the Climate Crisis: A Transformative Strategy for Canadian Farms and Food Systems. *In collaboration with the National Farmers Union.* https://www.nfu.ca/publications/tackling-the-farm-crisis-and-the-climate-crisis/

Qualman, D., Akram-Lodhi, H., Desmarais, A. A., & Srinivasan, S. (2018). Forever young? The crisis of generational renewal on Canada's farms. *Canadian Food Studies, 5*(3), 100-127.

Qualman, D., Desmarais, A.A., Magnan, A., & Wendimu, M. (2020). Concentration matters: Farmland inequality on the Prairies. *Canadian Centre for Policy Alternatives.*

Ribot, J. C., & Peluso, N. L. (2003). A theory of access. Rural Sociology; Columbia, 68(2), 153–181.

Ritchie, J., Spencer, L., and O'Connor, W. (2003). Carrying out qualitative analysis. In J. Ritchie, & J. Lewis (Eds.), *Qualitative Research Practice: A guide for social science students and researchers* (pp.219-262). Sage.

Roman-Alcalá, A. (2015). Broadening the land question in food sovereignty to Northern Settings: A Case Study of Occupy the Farm. *Globalizations*, *12*(4), 545–558.

Roppel, C., Desmarais, A. A., & Martz, D. (2006, April). Farm Women and Canadian Agricultural Policy. *Status of Women Canada*. http://www.aic.ca/gender/pdf/Farm_Women.pdf

Ryan, J. (2019). Hutterites in Canada. *The Canadian Encyclopedia*. https://www.thecanadianencyclopedia.ca/en/article/hutterites

Short, D. (2020, January 5). Percentage of crops harvested across Alberta down again in 2019. https://edmontonjournal.com/business/local-business/alberta-percentage-of-crops-harvested-down-2019

Smucker, J. M. (2017). *Hegemony How-To: A Roadmap for Radicals.* AK Press.

Sommerville, M., & Magnan, A. (2015). 'Pinstripes on the prairies': examining the financialization of farming systems in the Canadian prairie provinces. *Journal of Peasant Studies*, *42*(1), 119-144.

Standing Senate Committee on Agriculture and Forestry. (2018, March). A Growing Concern: How to keep farmland in the hands of Canadian farmers. https://sencanada.ca/content/sen/committee/421/AGFO/reports/Farmland-final_e.pdf

Statistics Canada (2017a). 2016 Census of Agriculture. Retrieved from https://www150.statcan.gc.ca/n1/daily-quotidien/170510/dq170510a-eng.htm

Statistics Canada. (2017b, May 10). Alberta has the most beef cattle in Canada and the second largest total farm area. https://www150.statcan.gc.ca/n1/pub/95-640-x/2016001/article/14808-eng.htm

Statistics Canada. (2017c, May 17). A portrait of a 21st century agricultural operation. https://www150.statcan.gc.ca/n1/en/pub/95-640-x/2016001/article/14811-eng.pdf?st=rYYR0sRT

Statistics Canada. (2018, December 13). Female and young farm operators represent a new era of Canadian farmers. https://www150.statcan.gc.ca/n1/pub/96-325-x/2017001/article/54925-eng.htm

Statistics Canada. (2019a). Farm income, 2018. https://www150.statcan.gc.ca/n1/daily-quotidien/190528/dq190528a-eng.htm

Statistics Canada (2019b). Number of farm operators by sex, age and paid non-farm work, historical data. Table 32-10-0169-01. Retrieved from https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=3210016901#timeframe

Statistics Canada. (2020a). Census of Agriculture FAQs. https://www.statcan.gc.ca/eng/statistical-programs/document/3438_D4_T9_V2

Statistics Canada. (2020b). Value of farmland and buildings at July 1. https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3210004701

Surowiecki, J. (2009, November 16). The Debt Economy. *The New Yorker*. https://www.newyorker.com/magazine/2009/11/23/the-debt-economy

The AAAF (Association of Alberta Agricultural Fieldmen). (n.d.). About the Association of Alberta Agricultural Fieldmen. Retrieved from https://aaaf.ab.ca/about/about-aaaf.html

The Calgary Eyeopener. (2015, November 26). Bill 6 petition in Alberta has thousands opposing NDP's farm safety legislation. *CBC News.* https://www.cbc.ca/news/canada/calgary/petition-against-alberta-farm-safety-1.3338226

The World Bank. (2011). Rising Global Interest in Farmland: Can it Yield Sustainable and Equitable Benefits? Retrieved from https://siteresources.worldbank.org/DEC/Resources/Rising-Global-Interest-in-Farmland.pdf

The Yellowhead Institute. (2019, October). *Land Back: A Yellowhead Institute Red Paper.* Retrieved from https://redpaper.yellowheadinstitute.org/wp-content/uploads/2019/10/red-paper-report-final.pdf

Thomas, M. (2018, December 12). What we mean when we talk about Alberta conservatism: It's less about values, more about identity. *CBC News.* https://www.cbc.ca/news/canada/calgary/alberta-populism-melanee-thomas-polling-data-1.4939893

Tracy, S. J. (2010). Qualitative quality: Eight "big tent" criteria for excellent qualitative research. *Qualitative Inquiry, 16*(10), 837-851.

van der Ploeg, J. D. (2020). Farmers' upheaval, climate crisis and populism. *The Journal of Peasant Studies*, *47*(3), 589-605.

White, B., Borras Jr., S. M., Hall, R., Scoones, I., & Wolford, W. (2012). The new enclosures: Critical perspectives on corporate land deals. *Journal of Peasant Studies*, *39*(4), 619-647.

Williams, R. (2006). Base and Superstructure in Marxist Cultural Theory. In M. G. Durham & D. M. Kellner (Eds), *Media & Cultural Studies* (pp.130-143). Blackwell Publishing.

Wittman, H. (2009). Reworking the metabolic rift: La Vía Campesina, agrarian citizenship, and food sovereignty. *The Journal of Peasant Studies, 36*(4), 805-826.

Woolford, A., & Benvenuto, J. (2015). Canada and colonial genocide. *Journal of Genocide Research*, *17*(4), 373-390.

APPENDIX A: SEMI-STRUCTURED INTERVIEW QUESTIONS

Short Interview Guide (30 – 45 minutes): Farm leaders, Rural Municipal officials/staff, journalists

General information: How long have you worked in your position and/or been elected in your position?

1/ Interview theme: Changes in land ownership

- What kinds of changes in farmland ownership have you seen in your rural municipality over the past decade? What about the province as a whole? (Probe: What exactly are some of the most significant changes that you have seen? To what extent are investors or other absentee landowners affecting land ownership patterns? To what extent are large farmers affecting land ownership patterns? Are you seeing a lot more land concentration in your area?)
- Do you think that some RMs are more affected than others? If so, which RMs do you know of where there has been significant change?
- Do you know who is buying up farmland? In the last decade, do you know if investor and absentee purchases of farmland have increased, decreased, or stayed about the same in your RM? What about the province as a whole? Do you know of some RMs where investors have been particularly active?
- When looking at the farm size statistics, we can see that farms are certainly getting bigger, which means that there is an increased concentration of land among farmers. Is this happening in your RM? And, are there some RMs where this is more of an issue than in others? Which RMs?
- When farmland comes up for sale, what difference does it make if the land is bought up by an investor, and absentee owner, or a local farmer?
- How is the involvement of outside buyers affecting the local farmland market? What effects, if any, is this having on local farmland buyers?
- How is the involvement of larger farmers affecting the local farmland market? What effects, if any, is this having on local farmland buyers? (Probe: What is your perception of how farmland concentration, that is, farms getting bigger and bigger, is leading to changes in the community?)

2/ Theme: Social and environmental impact of the changes in land ownership

What impacts do you think farmland ownership changes are having in your community? (Probe: For example, what impact, if any, have these changes had on:

- the rural municipal office and the work that it does?

- infrastructure (i.e. if farms are bigger then heavier and larger equipment is needed, how does this affect the infrastructure and finances of the municipality)?
- services in the municipality?
- community spirit / well-being?
- the kind of farming that is practiced?
- environment?

<u>Long Interview Guide (60-90 minutes): RM staff and officials</u>

General information:

- How long have you lived in this RM?
- How long have been an elected RM official? Or, how long have been employed by the RM?

1/ Interview theme: Changes in land ownership

- When looking at this map of your rural municipality, how have land ownership patterns in your RM changed over the last 10 years? (Probe: What are some of the most significant changes that you have seen? To what extent are investors or other absentee landowners affecting land ownership patterns? To what extent are large farmers affecting land ownership patterns?)
- Do you know who is buying up land? In the last 10 years, have investor and absentee purchases of farmland increased, decreased, or stayed about the same?
- How is increased concentration among farmers impacting the community? (Probe: What is your perception of how farmland concentration, that is, farms getting bigger and bigger, is leading to changes in the community?
- When farmland comes up for sale in your community, what difference does it make if the land is bought up by an investor, and absentee owner, or a local farmer?
- How is the involvement of outside buyers affecting the local farmland market? What effects, if any, is this having on local farmland buyers?
- How is the involvement of larger farmers affecting the local farmland market? What effects, if any, is this having on local farmland buyers?

2/ Theme: Social and environmental impact of the changes in land ownership

a) What impacts do you think farmland ownership changes are having in your community? (Probe: For example, what impact, if any, have these changes had on:

- the rural municipal office and the work that it does?
- infrastructure (i.e. if farms are bigger then heavier and larger equipment is needed, how does this affect the infrastructure and finances of the municipality)?
- services in the municipality?
- community spirit / well-being?
- the kind of farming that is practiced?
- environment?

3/ Theme: Identifying the different impact of investor and farmer ownership of farmland

- What differences, if any, are there between investor owners, absentee owners, and local farmers when it comes to the relationships they establish with their renters? Probe: In what way does the type of landowner (i.e. local or absentee) influence rental agreements? How the land is farmed? Who is hired to work on the farm?

a) What kinds of relationships are investors and absentee landowners developing with those living in the rural municipality?

b) What kinds of relationships are local landowners and local farmers developing with those living in the rural municipality?

<u>Long Interview Guide with Farmers</u>

1/ Interview theme: Experience in farming and farmland ownership

a) Which of the following best describes your situation today?

- Actively farming
- Semi-retired or retired farmer (skip to question e)

b) How many years have you been farming? (Less than 10 years = early-career farmer; 11 years or more = established farmer).

c) How much land do you currently farm?

- Of this, how much land do you own? Is the land you own under your name, a spouse/family member's name, or both?
- How much of your land is rented?
- How much of your land is shared under some other arrangement?

d) Acquiring farmland:

- How did you acquire the land that you own? (Probe: Did your family own the land? Did you buy it from a neighbouring farmer?)
- Established farmers: In the last 10 years, have you increased the amount of land that you farm? If yes, when did you expand? By how much did you expand? Did you expand by purchasing land, renting land, or both?
- Early-career farmers: Since you began farming, have you increased the amount of land that you farm? If yes, when did you expand? By how much did you expand? Did you expand by purchasing land, renting land, or both?
- Have you faced any difficulties in purchasing or renting land for your farming operation? If so, what kinds of difficulties? (skip to question f)

e) Semi-retired or retired farmers only:

- How many years did you farm? Why did you choose to retire (or partially retire) when you did?
- In the last 10 years, have you sold farmland? If so, when and why did you sell your land? Did you sell all of it, or do you now rent some out? Probe: If not all land was sold, why did you not sell it all?
- Once you stopped farming, did you stay in the community or move away? If you moved, do you still have ties to the community? If so, what kinds of ties?
- Can you tell us about the process of selling your land? Was there a lot of interest in purchasing your land? (Probe: did you get a lot of offers from other farmers? from investors?) Were there any challenges in selling your land?
- Who did you sell the land to? (Probe: young farmer from the community? Investor? Older, well-established farmer in the community?) Did it matter to you who bought your land? (Probe: If yes, why does it matter?)

f) In your view, what are the advantages and disadvantages of owning versus renting farmland? (Please elaborate)

g) There has been quite a bit of land changing hands over the past years. What effect have these changes had on your livelihood/farming operation?

h) Has any of the land in your municipality been purchased by investors? If YES: Do they live the community? What effect do you think investors are having on the local farmland market? What is the community's perception of investors buying up land in your RM?

2/ Interview theme: Landlord/tenant relationships resulting from changes in land rental arrangements

a) Semi-retired or retired farmers who are renting land to others: To whom are you renting your land? Does it matter to you who is renting your land? (Probe: If yes, why does it matter?)

- How do you choose your tenants? What are you looking for in a tenant? Probe: What is most important to you (whether the farmer stays in the community? Whether they are what you consider to be a good farmer? Etc.)?
- How do you decide on how much to charge? When you rent out the land do you place any conditions on the farming practices? Probe: What conditions? Why do you do this?
- What do you think about the shift towards farmers increasing the amount of land then rent?

b) Active farmers who are renting land from others: You mentioned that you are renting XX acres of farmland.

- Who owns that land? Probe: Is it a neighbouring farmer? An absentee or local landlord? An investor? A combination of different landlords?
- How would you describe the relationship you have with your landlord(s) (investor, absentee, or local landlords)? Probe: Do your landlords impose conditions on your farming practices? If yes, what conditions?
- What do you look for in a landowner?
- When you're looking for land to rent what is most important to you? Probe: Land quality? Renting from a farmer as opposed to an investor? Trust in the landowner? Cost? Location? The person's relationship to the community? Why is this particularly important to you?
- Does renting land change the way you farm?
- Would you prefer to own more farmland or continue renting? Why?

c) In the last 10 years, how have landowner/tenant relationships changed in your community?

3/ Theme: Identifying differences in impact between investor and farmer ownership of farmland

a) In the last 10 years, what have been the most important changes of land ownership in the community? Probe: (try to get impact of each change) Absentee investors? Big sales? Significant changes in land values? Concentration?

b) What impacts are farmland ownership changes having on your community? Probe: For example, what impact, if any, have these changes had on:

- the rural municipal office and the work that it does?
- infrastructure (i.e. if farms are bigger then heavier and larger equipment is needed, how does this affect the infrastructure and finances of the municipality)?

- services in the municipality?
- community spirit / well-being?
- the kind of farming that is practiced?
- the impact on the environment?

c) Have you noticed any changes in the ways that people think about and/or value of land?

d) When land comes up for sale in your community, what difference does it make if the land is bought by an investor, an absentee landlord, or a local farmer? Probe: Depending on the type of landlord, are there differences in rental agreements, how the land is farmed, or who is hired to work on the farm?

<u>Tax/Utility Clerk</u>

1. What's your background? Farming? How long have you been in Flagstaff County?
2. Can you tell me about what you do in your role as the Tax/Utilities Clerk and the role you play regarding assessment? How long have you been in this role?
3. How have you seen the transfer of farmland, or farmland ownership, changing in Flagstaff during your time in your position?
4. How has the value of farmland been changing?
    a. How do sale prices relate to assessment value?
    b. What do you think is contributing to these changes?
5. What is your sense of how what is happening in Flagstaff with farmland ownership compares to what is happening elsewhere in Alberta?
6. Who is selling farmland these days (Retired farmers, active farmers who get bought out, children of farmers, investors, etc.)
7. Who is buying farmland these days? Have you seen an investors (wealthy individuals, investment companies, institutional investors) buying up farmland?
8. What size parcels of farmland do you typically see being sold?
9. To what extent have you seen the assessed productive value of farmland in Flagstaff changing? Increasing, decreasing, or remaining the same?
10. When performing a regulated assessment of farmland, how do the pervious farming practices employed on the land affect the value?
11. Do you receive many complaints regarding the farmland assessment process?
12. To what extent you seen a changing tax base (changing population numbers) influencing the county? Services? Infrastructure? County office?
13. Do you think farmland concentration has an impact on rural communities?

Farmland Brokers

1. Tell me a bit about yourselves and what Hansen Brokers Ltd. does.
    a. Are you from farming or ranching backgrounds? What kinds of farms?
    b. I understand that you buy land as well as sell it, as opposed to just facilitating and taking a cuts of the sales?
    c. What kind of land do you buy/sell, and where?
2. Tell me about this region of the province – what kind of farming takes place?
    a. I've heard a bit about the giant ranches in the Porcupine Hills area.
3. What changes in farmland ownership patterns have you seen, and what do you attribute those changes to?
4. What sorts of trends have you seen in farmland prices and markets, and what do you attribute those changes to?
5. What platforms or tools do you use to do your job, and how has this changed over time?
    a. What kinds of data are useful or necessary for your business?
6. What do you take into consideration when deciding whether to buy a piece of farmland?
7. Who are the majority of your farmland buyers? Farmers, investors?
    a. What kinds of farmers? Young, old? Huge, medium sized?
    b. What kinds of investors? Wealthy individuals? Investment firms? Institutional investors? Locals? From outside the province? Outside the country?
8. What do most investors plan to do with the farmland once they buy it – rent it to farmers? Hire a farm manager to be more directly involved in production? Subdivide it? Develop it?
9. What is appealing to investors about Albertan farmland?
10. I see from your website that Shawn visited China in the fall of 2018 through the Canada Asia Synergy Group. Can you tell me a bit about your process of recruiting foreign investment? How are you able to navigate Alberta's limitations on foreign ownership of farmland?
    a. What is appealing to foreign investors about Albertan farmland?
11. What are the main concerns of farmland buyers? What kinds of questions do they have for you?
    a. What are buyers looking for in land when they contact you? Location (certain areas of the province), number of acres, quality, proximity to other things etc. ability to rent, resource revenue, multiple revenue streams?
    b. Have you seen buyer desires or requirements change over the years?
12. Who is selling land these days and why?
        i. Have reasons changed over the years?
        ii. When people are selling land, what are they seeking from you? For example, the best price? Do they want to sell to people in particular? Can they specify who they want to sell to? Does that happen?
        iii. Are people reluctant to sell or relieved to sell?
13. Do you believe farmland is becoming increasingly concentrated across the province?
    a. If so, what do you think the impacts of this might be on farmers and rural communities?
14. What is your biggest challenge you are faced with in what you do?
15. From all these trends and changes you have told me about, what do you see the future of farming and farmland ownership looking like?

Staff at the Department of Agriculture and Forestry

1. I'd like to start by getting each of you to give a brief description of your roles and your backgrounds.
2. What are the greatest threats to agricultural land in Alberta, and what is being done to mediate these threats? You mentioned conversion and fragmentation in your email. Can you elaborate?
3. Why do you think farmland concentration is taking place, and what are the impacts of it on rural communities?
4. In which regions of the province do you see the highest rates of concentration, i.e. the largest landholdings?
5. How does farmland tenure differ between grain farming and livestock farming?
6. You also mentioned in your email that the issue of farm ownership and access to land is a recent topic that has been brought to the Minister of Agriculture and Forestry to keep an eye on. Who has been bringing this concern forward, and how does the Minister plan to "keep an eye on it"?
7. Is the Alberta government tracking investor farmland ownership?
    a. How is this trend perceived within the government?
8. When you look at the high agricultural land prices and how this limits who is able to purchase farmland alongside a retiring and aging farming population, what do you envision farmland ownership looking like into the future?
    a. Tenant farming? What are some possible advantages or disadvantages with this model?
    b. In terms of working to preserve farmland, how does your department perceive the trend of farmers renting more and more of their land from non-farmers, whether the children of farmers, absentee owners, acreage owners, or investors? Do you see non-farmers owning farmland as a systemic vulnerability?
9. What are the major environmental concerns resulting from agriculture in Alberta?
10. Can you tell me a bit about the private land stewardship program?
11. Is "public assurance" a new department within the government? For how long has there been a need for "public assurance" and where do you think this need stems from?
12. To what extent are there links between the public assurance project and agri-input/supply companies like Cargill?
13. In your mind, where do the greatest misperceptions lie between public understanding of agriculture and the practices farmers are employing?
14. Is "food sustainability assurance" about getting farmers to practice more sustainably, or more about convincing the public that existing practices are already sustainable?

15. To what extent are each of your departments planning for both the impacts of climate change on agriculture and the need to change agricultural practices to reduce emissions?

Bonnefield

1. What is enticing about farmland as an asset class?
    a. Do you foresee investor interest in farmland continuing to rise? And, why do you think this is the case?
2. How much farmland do you currently own in Alberta, and where in the province is it located?
    a. [MD/county name] – you own close to 10,000 acres (57 quarters) according to someone at the MD/county office (on the county map it says "Bonnefield GP III Inc.")
3. Do you have a particular strategy in mind when looking for land? Or, do you try to accumulate whatever land comes on the market?
4. What kind of farmer are you most often buying farmland from and what is their reason for selling?
5. As I understand it, your model involves buying land from farmers and then leasing it back to them. Is that correct?
    a. Is it always the farmers who owned the land previously who become the renters, or does it vary? Why does Bonnefield prefer this model?
    b. Does Bonnefield ever engage more directly in production, such as through hiring a farm manager? Has this ever been a consideration? What are the benefits and drawbacks of this?
6. What qualities does Bonnefield look for when purchasing farmland (both in terms of the land and the farmer)?
7. How long is a typical lease agreement?
8. What stipulations do you have in your agreements with farmers in terms of their farming practices?
    a. For example, do you have rules about grain farmers' crop rotations and use of inputs?
9. How do you determine your rental prices?
10. What are some of the primary challenges Bonnefield has faced, both in acquiring land and in renting it out?
    a. Have rising farmland prices been a problem for you?
    b. What kinds of financial tools do you use to help make turn farmland into more of a liquid asset class?

11. Is Bonnefield concerned about climate change and how climatic volatility, new pests, etc. might affect farming in the decades to come?
12. Who are your primary investors? Wealthy individuals? Institutional investors?
    a. Farmers in Alberta keep associating you with “Canada Pension Plan” or the “Ontario Teachers’ Pension Plan” – what is the connection here?
13. On your website, it says: “We do not buy farmland for redevelopment. Our goal is to preserve farmland for farming.” To what extent is this a guarantee?
14. Do you see any potential challenges going forward as farmers increasingly rent more and own less of the land they are farming?

<u>Hutterite Colony Manager</u>

Introduction

1. Tell me about your background – where are you from? Did you grow up farming?
2. Tell me about your farming operation.
    a. How much land are you currently farming?
    b. How did you come to own this land?
        i. How does land ownership work for your colony – is it purely collective?
    c. What kinds of production are you engaged in?
    d. Many farmers have expressed to me what excellent farmers Hutterites are, in their view, and how well your farming model works. What would you attribute this to?

Acquiring farmland

1. Have you faced any challenges in purchasing or renting land?
2. What do you look for or take into consideration when purchasing land?
3. Is your farm recently expanded its land base, or do you expect to expand in the future?

Renting

1. Do you rent any of the land you farm?
2. If NO – would you ever consider it?
3. What do you think about farmers increasingly owning less and renting more of their farmland?
4. In your view, what are the advantages and disadvantages of owning versus renting farmland?
5. If YES - What do you look for in a landlord? What aspects of a rental situation are most important to you?
6. If YES - Do your landlords have any stipulations about how you farm?
7. Does renting land change the way you farm?

Selling farmland

1. Have you sold any farmland in recent years?
2. If yes, what is most important to you when selling farmland?

3. How might you respond to farmers who are wary of Hutterites buying up farmland because they believe that means the land will "never go back on the market"?

Changing land values

1. How have land values changed in this area over time?
2. In your view, what has had the biggest impact on changing farmland prices in this area?
3. Have higher farmland prices created problems for you?

Investors

1. Have you witnessed investors buying up farmland in this part of the province?
2. What do you think about investors owning farmland?
3. What is your sense of how the community perceives this trend?

Concentration

1. Would you say that farmland in this county is becoming increasingly concentrated? If yes, why do you think that is?
2. What are the impacts of farmland concentration on your/the wider community? (on services, wellbeing, spirit, environment, infrastructure, democratic functionings, etc.)

The future

1. What, in your mind, makes a good farmer?
2. When you look ahead to the future of farming given the trends we are seeing now, how do you feel about it? Is there anything that concerns you?
3. Have you seen any changes throughout your lifetime in how people value their land?
4. Have long-term changes in weather patterns been affecting the way you farm?
5. If you were in Premier, what changes might you implement to make life easier for farmers in Alberta?
6. What does the future look like for your colony?

APPENDIX B: INFORMED CONSENT FORMS

UNIVERSITY OF MANITOBA | Department of Sociology and Criminology

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Interview Informed Consent Form (Farmers in Manitoba, Saskatchewan and Alberta)

Research Project Title*:* Changing Farmland Ownership in the Canadian Prairies

Researcher: Dr. Annette Aurélie Desmarais, Associate Professor, Canada Research Chair in Human Rights, Social Justice and Food Sovereignty, Department of Sociology and Criminology, University of Manitoba, Winnipeg, Manitoba. Tel: [redacted]; Email: Annette.desmarais@umanitoba.ca

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Dr. Mengistu Wendimu, Independent Researcher and Research Team Member, 55 Karen Irvine Crescent, Winnipeg, Manitoba, R2N 0K4. Tel: [redacted]; Email: Mengistu.wendimu@umanitoba.ca

The project also includes the following three graduate students as co-researchers who are completing their Masters in the Department of Environment and Geography at the University of Manitoba.

1. Hannah Bihun is responsible for the research fieldwork in Manitoba. Her contact information is as follows: Room 310, 220 Sinnott Building, 70 Dysart Road, University of Manitoba, R3T 2M6, Tel: [redacted]; Email: umbihunh@myumanitoba.ca

2. Melissa Davidson is responsible for the research fieldwork in Saskatchewan. Her contact information is: c/o Department of Environment and Geography, 220 Sinnott Building, 70 Dysart Road, University of Manitoba, Winnipeg, Manitoba, R3T 2M6. Tel: [redacted]; Email: davids34@myumanitoba.ca

3. **Katherine Aske is responsible for research fieldwork in Alberta.** Her contact information is as follows: c/o Department of Environment and Geography, 220 Sinnott Building, 70 Dysart Road, University of Manitoba, Winnipeg, Manitoba, R3T 2M6. Tel: [redacted]; Email: askek@myumanitoba.ca

Sponsors: Social Sciences and Humanities Research Council (SSHRC) Insight Grant and Canada Research Chair Program.

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more details about something mentioned here, or information not included here, you should feel free to ask the Masters student responsible for research fieldwork in your province. The student's contact information is provided above. Please take the time to read this carefully and to understand any accompanying information. The consent form begins by providing a brief description of the research project and requests your consent to participate in the research project entitled "Changing land tenure in the Canadian Prairies."

The goal of this research is to explore the social and environmental implications of changing patterns of farmland ownership in the Canadian prairies. Your experience as a farmer, living and working in a rural community, is of great interest to this project as we seek to understand the positive and/or negative effects of changes in farmland ownership in the prairies. This research is part of a larger project that is investigating the changes in farmland ownership patterns including increased land concentration among farmers and the presence of investors (that is, non-farmer land owners) in the farmland market across the prairies and to understand how these changes are affecting rural communities. In all three prairie provinces, the research will highlight the voices of rural people to better understand how their lives and communities are changing as a result of shifting patterns of land ownership in four rural municipalities.

Your participation in this research is welcomed. You have been contacted to participate in the research because you are a farmer who either rents, owns and/or farms land in at least one of the rural municipalities under study. You are being asked to participate in an individual interview that will likely last about 60 to 90 minutes. We will begin by asking you some specific questions to get some basic information (your name, some contact information, and several questions about the land you farm). Next, you will be asked some more open ended questions related to your experience as a farmer, land ownership and rental changes in your area, and your observations of the impact of changing land ownership in your community. You may choose not to answer any question that you are not comfortable answering and you may withdraw from the interview at any point.

With your permission, the interview will be voice recorded, and MA student conducting fieldwork in your province will also be taking notes as she conducts the interview. Only this student, her graduate supervisor (Dr. Annette Desmarais) and possibly a transcriptionist, who will have signed a confidentiality form, will have access to the audio-recording. The transcription of your interview may be shared among the research team members (all listed on page 1 of this form) for comparative purposes with interviews conducted in all three prairie provinces. However, in this process, your confidentiality will be protected as explained further in the section below entitled "Confidentiality and Anonymity".

Risks and Benefits: The potential risks associated with this research are minimal. You may be asked questions related to: what changes in land ownership you have seen happening; what kind of responses have you seen in your rural municipality as a result to changes in land ownership; and what are the farming business structures, strategies and practices you are seeing as a result of changes in land ownership. Although there is no direct benefit to you as a participant, this research will shed light on the implications of new patterns of farmland ownership and structure for the farming community and for society at large.

Confidentiality and anonymity: Your right to confidentiality and privacy is important. The information you provide may be used in reports, journal/magazine articles, blogs, books, media interviews or public and academic presentations; the information may be presented as summaries of interview material, some summary statistics, and may also include direct quotations. We will not use your real name in any of the information resulting from this research. Following the interview, we will transcribe the recording and remove all direct identifiers. All of the information will be kept confidential and will be stored on password protected computers and password protected hard drives belonging to the MA students and the PI. All data (voice recordings, transcripts, and notes) will be kept for at least three years post publication of the results, after which time all of the data will either be deleted/shredded.

We will supply only a generic reference, use a pseudonym, and all attempts will be made to disguise your identity. However, even in cases where your confidentiality is to be maintained, there is a possibility that your comments could be attributed to you by someone reading the research results based on the context of your remarks and the information you provide.

The answers you provide to our interview questions, that is, the audio recording and the transcription of your interview, will be kept in password protected folders on password protected computers of the Principal Investigator and the MA student doing work in your home province. The MA students and the PI will also keep a backup of the material that will be stored in password protected hard-drives and placed in secure locations. A research assistant may also have access to these materials, but only on condition that they uphold the same commitment to your confidentiality outlined above.

Results: A summary of the results of the study will be made available to participants once we have analysed the data and written the results of the research. We expect a summary of the research to be completed in October, 2020. Please print your name here if you would like to receive a copy of the summary and include an address or e-mail address where it can be sent: (Please note that the MA student researcher will note down your contact information so that the summary of results can be sent to you).

Name: ____

Address: ____

____

____

Email: ____

Consent:

Your participation is voluntary and you can answer only those questions that you are comfortable with.

By consenting verbally to participate in this research, you are indicating that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities.

You are free to withdraw from the study at any time before we begin analysing the data on February 1, 2020, and/or refrain from answering any questions you prefer to omit, without prejudice or consequence. After February 1, 2020 you will no longer be able to withdraw from the research. If you would like to withdraw your consent please contact Katherine Aske (askek@myumanitoba.ca). Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

The University of Manitoba may look at the research records to see that the research is being done in a safe and proper way. This research has been approved by the Psychology/Sociology Research Ethics Board at the University of Manitoba. If you have any concerns or complaints about this project you may contact any of the above-named person or the Human Ethics Coordinator (HEC) at 204 474-7122 or e-mail humanethics@umanitoba.ca.

Please note that your verbal consent will be audio recorded by the MA student research.

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Informed Consent Form for Rural Municipal Officials and Staff

Research Project Title*:* Changing Farmland Ownership in the Canadian Prairies

Researcher: Dr. Annette Aurélie Desmarais, Associate Professor, Canada Research Chair in Human Rights, Social Justice and Food Sovereignty, Department of Sociology and Criminology, University of Manitoba, Winnipeg, Manitoba. Tel: [redacted]; Email: Annette.desmarais@umanitoba.ca

Co-Researchers:

Dr. André Magnan, Department of Sociology, University of Regina, 3737 Wascana Parkway, Regina, Saskatchewan, S4S 0A2 Tel: [redacted]; Email: Andre.magnan@uregina.ca

Dr. Mengistu Wendimu, Independent Researcher and Research Team Member, 55 Karen Irvine Crescent, Winnipeg, Manitoba, R2N 0K4. Tel: [redacted]; Email: Mengistu.wendimu@umanitoba.ca

The project also includes the following three graduate students as co-researchers who are completing their Masters in the Department of Environment and Geography at the University of Manitoba.

1. Hannah Bihun is responsible for the research fieldwork in Manitoba. Her contact information is as follows: Room 310, 220 Sinnott Building, 70 Dysart Road, University of Manitoba, R3T 2M6, Tel: [redacted]; Email: umbihunh@myumanitoba.ca

2. Melissa Davidson is responsible for the research fieldwork in Saskatchewan. Her contact information is: c/o Department of Environment and Geography, 220 Sinnott Building, 70 Dysart Road, University of Manitoba, Winnipeg, Manitoba, R3T 2M6. Tel: [redacted]; Email: davids34@myumanitoba.ca

3. Katherine Aske is responsible for research fieldwork in Alberta. Her contact information is as follows: c/o Department of Environment and Geography, 220 Sinnott Building, 70 Dysart Road, University of Manitoba, Winnipeg, Manitoba, R3T 2M6. Tel: [redacted]; Email: askek@myumanitoba.ca

Sponsors: Social Sciences and Humanities Research Council (SSHRC) Insight Grant and Canada Research Chair Program.

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more details about something mentioned here, or information not included here, you should feel free to ask the Masters student responsible for research fieldwork in your province. The student's contact information is provided above. Please take the time to read this carefully and to understand any accompanying information. The consent form begins by providing a brief description of the research project and requests your consent to participate in the research project entitled "Changing land tenure in the Canadian Prairies."

The goal of this research is to explore the social and environmental implications of changing patterns of farmland ownership in the Canadian prairies. You have been contacted to participate in the research project because your work as a public servant, either as an elected official or staff person, working at the rural municipal level.

Your experience and knowledge are of great interest to this project as we seek to understand the positive and/or negative effects of changes in farmland ownership in the prairies. We are investigating the changes in farmland ownership (including increased land concentration among farmers and the presence of investors) in the farmland market across the prairies and how these changes are affecting rural communities. In all three prairie provinces, the research will highlight the voices of rural people to better understand how their lives and communities are changing as a result of shifting patterns of land ownership in rural municipalities.

You are being asked to participate by participating in a face to face interview. If this is not possible, we will interview you by phone or skype. We expect that your participation in this research will not take more than 60 to 90 minutes of your time. We will begin by asking you some specific questions: the first questions are geared to getting some basic information (your name, position and contact information). Next, with a rural municipal map containing land-titling data in hand, you will be asked some more general questions regarding your knowledge of land ownership transactions, and changes in land tenure and land use in your rural municipality. You may choose not to answer any question that you are not comfortable answering and you may withdraw from the interview at any point.

With your permission, the interview will be voice recorded, and MA student conducting fieldwork in your province will also be taking notes as she conducts the interview. Only this student, her graduate supervisor (Dr. Annette Desmarais) and possibly a transcriptionist, who will have signed a confidentiality form, will have access to the audio-recording. The transcription of your interview may be shared among the research team members (all listed on page 1 of this form) for comparative purposes with interviews conducted in all three prairie provinces. However, in this process, your confidentiality will be protected as explained further in the section below entitled "Confidentiality and Anonymity".

Risks and Benefits: The potential risks associated with this research are minimal. You may be asked questions related to: what changes in land ownership you have seen happening; what kind of responses have you seen in your rural municipality as a result to changes in land ownership; and what are the farming business structures, strategies and practices you are seeing as a result of changes in land ownership. Although there is no direct benefit to you as a participant, this research will shed light on the implications of new patterns of farmland ownership and structure for the farming community and for society at large.

Confidentiality and anonymity: Your right to confidentiality and privacy is important. The information you provide may be used in reports, journal/magazine articles, blogs, books, media interviews, or public and academic presentations; the information may be presented as summaries of interview material, some summary statistics, and may also include direct quotations. Given your public role as elected official or staff person for the rural municipality, the information you provide will be most useful if your name and organization can be attributed to your comments. If you are not comfortable with this, you may choose a different option as in the following paragraph.

There are several options for you to consider if you decide to take part in this research. If you prefer not to identify yourself or your organization, a generic reference will be used instead in the dissemination of the results of this research. That is, all attempts will be made to disguise your identity. There is a chance, even in cases where your confidentiality is to be maintained, that your comments could be attributed to you by someone reading the research results based on the context of your remarks and the information you provide.

Please put a check mark on the corresponding line(s) that grants us your permission to: (Please note that since we are obtaining verbal consent, the MA student researcher will note which of these options you select)

a/ Use your name in relation to information you provide to us: Yes: ___ No: ___
b/ Use your position in relation to information you provide to us: Yes: ___ No: ___
c/ Quote your words in relation to information you provide to us: Yes: ___ No:___

Please note that if you have selected no to the above, all attempts will be made to disguise your identity by supplying only generic references and using a pseudonym when referring to anything that you communicated to us. We will remove all direct identifiers in the notes of the interview. All of the data (notes and analysis of the notes) will be stored in a password protected folder in password protected computers and password protected hard drives belonging to the MA student doing research in your home province and the PI. The data will be kept for at least three years post publication of the results, after which time all of the data will either be deleted/shredded.

The answers you provide to our interview questions, that is, the audio recording and the transcription of your interview, will be kept in password protected folders on password protected computers of the Principal Investigator and the MA student doing work in your home province. The MA students and the PI will also keep a backup of the material that will be stored in password protected hard-drives and placed in secure locations. A research assistant may also have access to these materials, but only on condition that they uphold the same commitment to your confidentiality outlined above.

Results: A summary of the results of the study will be made available to participants once we have analysed the data and written the results of the research. We expect that for the research in Saskatchewan and Manitoba this will be in April 2020 while the summary for research in Alberta is expected by July 2020. Please print your name here if you would like to receive a copy of the summary and include an address or e-mail address where it can be sent: (Please note that the MA student researcher will note down your contact information so that we can send you the summary of results once they are ready).

Name: ____
Address: ____
Email: ____

Consent:

Your participation is voluntary and you can answer only those questions that you are comfortable with.

By consenting verbally to this study, you are indicating that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities.

For research participants residing in Alberta, you are free to withdraw from the study at any time before we begin analysing the data on February 1st, 2020, and/or refrain from answering any questions you prefer to omit, without prejudice or consequence. After February 1st, 2020, you will no longer be able to withdraw from the research. If you would like to withdraw your consent please contact Katherine Aske (askek@myumanitoba.ca). Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

The University of Manitoba may look at the research records to see that the research is being done in a safe and proper way. This research has been approved by the Psychology/Sociology Research Ethics Board at the University of Manitoba. If you have any concerns or complaints about this project you may contact any of the above-named person or the Human Ethics Coordinator (HEC) at 204 474-7122 or e-mail humanethics@umanitoba.ca.

Please note that the MA student researcher will audio recording your verbal consent.

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Informed Consent Form for Short Interviews
(Farm leaders and staff of farm organizations, Rural Municipal officials/staff, journalists)

Research Project Title*:* Changing Farmland Ownership in the Canadian Prairies

Researcher: Dr. Annette Aurélie Desmarais, Associate Professor, Canada Research Chair in Human Rights, Social Justice and Food Sovereignty, Department of Sociology and Criminology, University of Manitoba, Winnipeg, Manitoba. Tel: [redacted]; Email: Annette.desmarais@umanitoba.ca

Co-Researchers:
Dr. André Magnan, Department of Sociology, University of Regina, 3737 Wascana Parkway, Regina, Saskatchewan, S4S 0A2 Tel: [redacted]; Email: Andre.magnan@uregina.ca

Dr. Mengistu Wendimu, Independent Researcher and Research Team Member, 55 Karen Irvine Crescent, Winnipeg, Manitoba, R2N 0K4. Tel: [redacted]; Email: Mengistu.wendimu@umanitoba.ca

The project also includes the following three graduate students as co-researchers who are completing their Masters in the Department of Environment and Geography at the University of Manitoba.

1. Hannah Bihun is responsible for the research fieldwork in Manitoba. Her contact information is as follows: Room 310, 220 Sinnott Building, 70 Dysart Road, University of Manitoba, R3T 2M6, Tel: [redacted]; Email: umbihunh@myumanitoba.ca

2. Melissa Davidson is responsible for the research fieldwork in Saskatchewan. Her contact information is: c/o Department of Environment and Geography, 220 Sinnott Building, 70 Dysart Road, University of Manitoba, Winnipeg, Manitoba, R3T 2M6. Tel: [redacted]; Email: davids34@myumanitoba.ca

3. **Katherine Aske is responsible for research fieldwork in Alberta.** Her contact information is as follows: c/o Department of Environment and Geography, 220 Sinnott Building, 70 Dysart Road, University of Manitoba, Winnipeg, Manitoba, R3T 2M6. Tel: [redacted]; Email: askek@myumanitoba.ca

Sponsors: Social Sciences and Humanities Research Council (SSHRC) Insight Grant and Canada Research Chair Program.

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more details about something mentioned here, or information not included here, you should feel free to ask the Masters student responsible for research fieldwork in your province. The student's contact information is provided above. Please take the time to read this carefully and to understand any accompanying information. The consent form begins by providing a brief description of the research project and requests your consent to participate in the research project entitled "Changing land tenure in the Canadian Prairies."

The goal of this research is to explore the social and environmental implications of changing patterns of farmland ownership in the Canadian prairies. You have been contacted to participate in the research project because your work as a public servant (either as an elected official or staff person) working at the rural municipal level, your position as a farm leader/member or member of a farm organization, or your work as a journalist.

Your experience and knowledge are of great interest to this project as we seek to understand the positive and/or negative effects of changes in farmland ownership in the prairies. We are investigating the changes in farmland ownership (including increased land concentration among farmers and the presence of investors) in the farmland market across the prairies and how these changes are affecting rural communities. In all three prairie provinces, the research will highlight the voices of rural people to better understand how their lives and communities are changing as a result of shifting patterns of land ownership in rural municipalities.

You are being asked to participate by answering some questions that will be sent to you by e-mail or posed to you over the telephone or face to face. We expect that your participation in this research will not take more than 45 minutes of your time. We will begin by asking you some specific questions: the first questions are geared to getting some basic information (your name, position and contact information), and next you will be asked some more general questions regarding your knowledge land ownership transactions, and changes in land tenure and land use in your rural municipality and/or the province in which you reside.

With your permission, the interview will be voice recorded, and MA student conducting fieldwork in your province will also be taking notes as she conducts the interview. Only this student, her graduate supervisor (Dr. Annette Desmarais) and possibly a transcriptionist, who will have signed a confidentiality form, will have access to the audio-recording. The transcription of your interview may be shared among the research team members (all listed on page 1 of this form) for comparative purposes with interviews conducted in all three prairie provinces. However, in this process, your confidentiality will be protected as explained further in the section below entitled "Confidentiality and Anonymity". You may choose not to answer any question that you are not comfortable answering and you may withdraw from the interview at any point.

Risks and Benefits: The potential risks associated with this research are minimal. You may be asked questions related to: what changes in land ownership you have seen happening; what kind of responses have you seen in your rural municipality as a result to changes in land ownership; and what are the farming business structures, strategies and practices you are seeing as a result of changes in land ownership. Although there is no direct benefit to you as a participant, this research will shed light on the implications of new patterns of farmland ownership and structure for the farming community and for society at large.

Confidentiality and anonymity: Your right to confidentiality and privacy is important. The information you provide may be used in reports, journal/magazine articles, blogs, books, media interviews, or public and academic presentations; the information may be presented as summaries of interview material, some summary statistics, and may also include direct quotations. Given your public role as elected official, staff person, farm leader/member or staff of a farm organization, the information you provide will be most useful if your name and organization can be attributed to your comments. If you are not comfortable with this, you may choose a different option as outlined below.

There are several options for you to consider if you decide to take part in this research. If you prefer not to identify yourself or your organization, a generic reference will be used instead in the dissemination of the results of this research. That is, all attempts will be made to disguise your identity. There is a chance, even in cases where your confidentiality is to be maintained, that your comments could be attributed to you by someone reading the research results based on the context of your remarks and the information you provide.

Please put a check mark on the corresponding line(s) that grants us your permission to: (Note that the researcher will note your verbal consent as to which of a, b and/or c you choose)
a/ Use your name in relation to information you provide to us: Yes: ___ No: ___
b/ Use your position in relation to information you provide to us: Yes: ___ No: ___
c/ Quote your words in relation to information you provide to us: Yes: ___ No:___

Please note that if you have selected no to the above, all attempts will be made to disguise your identity by supplying only generic references and using a pseudonym when referring to anything that you communicated to us. We will remove all direct identifiers in the notes of the interview.

The answers you provide to our interview questions, that is, the audio recording and the transcription of your interview, will be kept in password protected folders on password protected computers of the Principal Investigator and the MA student doing work in your home province. The MA students and the PI will also keep a backup of the material that will be stored in password protected hard-drives and placed in secure locations. A research assistant may also have access to these materials, but only on condition that they uphold the same commitment to your confidentiality outlined above. The data will be kept for at least three years post publication of the results, after which time all of the data will either be deleted/shredded.

Results: A summary of the results of the study will be made available to participants once we have analysed the data and written the results of the research. We expect that for the research in Saskatchewan and Manitoba this will be in April 2020 while the summary for research in Alberta is expected by July 2020. The MA student researchers will note down the information you provide to her over the phone so that we have a record of where to send the summary of research results.

Your Name: ____
Your Address: ____
____

Your Email: ______________________________

Consent:

Your participation is voluntary and you can answer only those questions that you are comfortable with.

By consenting verbally to this research you are indicating that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities.

For research participants residing in Alberta, you are free to withdraw from the study at any time (before we begin analysing the data on February 1st, 2020), and/or refrain from answering any questions you prefer to omit, without prejudice or consequence. After February 1st, 2020, you will no longer be able to withdraw from the research. If you would like to withdraw your consent please contact Katherine Aske (askek@myumanitoba.ca). Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

The University of Manitoba may look at the research records to see that the research is being done in a safe and proper way. This research has been approved by the Psychology/Sociology Research Ethics Board at the University of Manitoba. If you have any concerns or complaints about this project you may contact any of the above-named person or the Human Ethics Coordinator (HEC) at 204 474-7122 or e-mail humanethics@umanitoba.ca.

Please note that your verbal consent will be noted by the MA student researcher.