

**Narrator:** Murray Fulton (MF)

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**Interviewer:** Nancy Perozzo (NP)

**Recorder:** Nancy Perozzo (NP)

**Transcriber:** Jake Alfieri

**Summary:** Professor of agriculture economics and public policy at the University of Saskatchewan Murray Fulton discusses the historical and contemporary developments in the Canadian grain trade. He begins by describing his upbringing on a grain farm, his interest in agricultural decision making, and his university career in agricultural economics. He explains the development of the transcontinental railway, its purpose of nation-building, and its exemplary nature of Canada's proclivity for public sector inclusion in industry. He then explains how Canada differs from the United States in their reliance on the private sector to develop industrial needs, and he uses the example of the Canada Grain Act to prove the early Canadian desire for government regulation. Fulton touches on the development of farmer cooperatives first in the US and then in Canada before discussing the rapid industrialization of agriculture that forced companies to scale up and consolidate their operations. He describes the demise of the Pools, the demise of the Canadian Wheat Board, and provides context for why these major changes were brought about. Other topics discussed include Thunder Bay's importance as a grain hub, alternate realities of the Canadian grain industry had the Pools amalgamated, lack of farmer involvement in industry decision-making, and the increasing importance of north-south relations.

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Time, Speaker, Narrative

NP: Nancy Perozzo on June 21, 2013, and this interview is taking place in Saskatoon, Saskatchewan. I will have our narrator introduce himself and a little bit about the kind of work that he does.

MF: My Name is Murray Fulton. I am a professor at the University of Saskatchewan. I'm an agricultural economist by training and for many years was a member of the Agricultural Economics Department at the university. More recently I moved over to the Johnson Shoyama Graduate School of Public Policy.

NP: What is that? Is it associated with the university?

MF: Oh yes. It's a graduate school. We train master and PhD students in the area of public policy. Our big, flagship program is a professional program that trains people for the public service, non-profit sector. That sort of thing. Plus, we also have research degrees of both the master's and the PhD level.

NP: Great. Now we usually start these interviews with talking to people about how they became involved or interested in the grain industry aspect. Can you tell us a little bit about your history and how it unfolded?

MF: Yes. I guess probably the place to start--. I grew up on a farm in southern Saskatchewan. A small town called Kincaid, Saskatchewan. I spent my summers there, and so I got introduced to the grain industry firsthand. I then came to, you know, eventually came to university, migrated to agriculture economics because I was--. The ag industry interested me. It was something I knew something about, or I thought I did. What really intrigued me was the way people organize their activities.

What I now know is the organizations and the institutions that govern the way that we work and interact on a daily basis, it was that that interested me. I actually didn't have much interest in how plants grew or how animals digested their material. Not that that's not important, it's just that isn't what made my brain tick. I ended up going into agriculture economics because that was the place that was looking at these questions of human interaction, human decision making.

As you move into the academic world, you look for interesting areas where there's things happening that need to be explained, that are unique, that are--. Academics don't go looking at the stuff where it's just the same old, same old. You look for things where there's something interesting going on. And the grain trade over the years has provided, if you like ample fodder, for that kind of investigation. I think, in a nutshell, that's where I came in. It's just a fascinating area. I must admit, I was drawn initially to debates because these were very, very much part of the discourse, the discussion.

When I was going to university—questions about the Wheat Board, the role of the Wheat Board, questions about the role of multinational corporations—all these issues that have dominated the grain trade, in fact, since its inception, or its introduction to western Canada back at the turn of the turn of the 20th century, those issues kept coming back again and again in different guises. In a way, it wasn't just looking at the grain trade per se, but in fact, these are the questions that were being played out in the grain trade were ones that are in some ways really fundamental to--. These are key questions that society keep asking themselves about.

Where's that balance between individual action, individual freedom, collective action, collective goods? What's that balance between the group and the individual? How much involvement should the state have? How much involvement should the market have? These are age-old questions that keep coming back in different guises, and the grain trade has been a great place to explore some of those and see how people deal with them and react to them.

NP: Oh jeez. We're going to have to speak at double time. [Laughing] Because as you said, all of those issues are—if you've read anything on the history—they do recur, but they have been just a flurry of activity over the last 20 years.

MF: Yes, that's right.

NP: Now I want to ask a question related to my part of the country. I'm not even certain if you have a comment on it, but I thought I'd get it out of the way first, and then we'll go to more recent history, if that's okay with you.

MF: Sure.

NP: The focus of our project is on developing what a fellow at Lakehead University, Livio Di Matteo, calls the grain industry nexus, which is where the rail, the ships, and the handling facilities were developed. If you think back on what you just said about what your area of study is, do you have any comments to make on how that developed and how that fit into those decisions about private versus public and individual?

MF: Yes, so there's other dimensions to the grain trade, and the one that you've just highlighted is one of the other dimensions. In some ways, it touches upon some of these other debates that I was just mentioning, but in some ways, it's a separate one. Here it's a debate that's gone on again over the centuries about how does a particular industry develop industrially, what are the components, where, geographically, are some of these hubs located? We see this in the other key sectors where then there is a change over time in terms of where that hub is located.

I think that what you've seen in the case of the Lakehead, Thunder Bay, is that that was the key in the beginning of the 20th century. That was the key conduit for grain coming from western Canada. It is no longer that. It has all shifted to the West Coast. This now has issues of industrial development. Rise and fall of regions. Ebb and flow of both political in this particular issue. There is a connection, but in some ways they're very much their own sort of area of study, or area of interest.

NP: One of the conclusions that I've gradually come to—which I'd like to check out with you—in speaking different people is some of those changes, the actual local community has little control over.

MF: Right, that is right.

NP: And would you say that's a--.

MF: Yeah, because when you start thinking about these--. So we were just talking about these industrial changes that are occurring on a macro scale within Canada, so this move from the Lakehead to the West Coast. But of course, what was also happening at that same time is dramatic changes. In fact, much more dramatic than what went on at the macro level.

At the micro level is tremendous change going on. Within those communities—at the same time that those communities were undergoing other change—they were losing population. They were losing services, schools, hospitals, grocery stores, et cetera. So, there was something going on. The developments in the grain trade of course. Although the grain trade had looked at them independently, they weren't independent. They were part of a much larger industrialization of the grain industry in western Canada and all the things that went with that.

NP: When you look at it historically, and we certainly see the development, both recent and past, and although Western Canada may not have been aware of it--. [...*audio skips*] Interested in an earlier comment saying that it's been a since-forever situation, where humans have tried to decide how much public, how much private, how much individual? So if you think back to the development of the early grain trade and the relationships, the companies, what kind of balance do you think was achieved there? Or was there, even in the early days, a shift in Canadian acceptance of involvement from--. Maybe I'm not being too clear. But what I'm thinking of, for example, is the railways, that individuals would not have been able to build the railways.

MF: Right.

NP: But, was there a time, was there a shift in when government was actively involved? What changed? Is that making any sense to you?

MF: I'm okay. The economic historian, who was here at the University of Saskatchewan, he links the development of the grain trade to, in fact, the development of Canada. This was part of nation building. The pushing of the railway across Canada was, in part, to secure for Canada the west, so the west didn't migrate to the United States and become part of the United States. That was obviously a key aspect of pushing the railway across. But as you push that railway across, it isn't just enough to have the railway there, you need people to be able to populate it and to be connected in some way to what's going on in other parts of, particularly, central Canada.

He was writing with other people that were writing at the time, for instance, looking at putting forward this idea that there was a periphery that was supplying the central core. And the periphery, in essence, was the Prairies. On the other side of central Canada, it was the East Coast. The institutions were being set up in some ways to funnel the demand for goods and services into the central part of Canada with the manufacturing base was. So, they would produce the farm machinery, the supplies that farmers needed, they would be shipped out on the rail, and coming back would be the grain. The fascinating thing, looking back on this, is that I think in some ways he probably overstated it, but it didn't matter because what he did get right was that that was the myth. That was the way that the west did perceive themselves and their role within Canada. That in turn drove many of the decisions.

Let me just connect this back up. Part of this nation building is the state saying, "We need to be involved in creating a railway." That is a critical element. They do that in a couple of ways. The state itself, in some cases, built the railway. In other cases, they give very strong property rights to a private company in order to be able to build it. This becomes sort of a hallmark of Canada, is this some involvement by the public sector and then some involvement by the private sector, which we have seen played out.

In some ways, I think the end of the Canadian Wheat Board marked the end of an era, where that balance seems to be now shifted much, much more to the private sector that's involved. If in 100 years, there's someone else doing these kind of interviews, we may well have seen a pendulum shift back by that time because we are talking about that kind of timescale which these things occur over.

NP: Now you talked about the myth, and I wondered that myself. How seeing today—how things just happen or seem to just happen—how much of the development of the grain industry was actually planned. [...*audio skips*] Were the members of the government actually planning to have companies, or to see companies set up in the west, or did it just happen?

MF: No, I think that there was more than, "It just happened." It's very clear, you know, the government sent out the Palliser Expedition on a couple of occasions. Now, here's where I have to go back. I can't remember all my history, but you have at least two or three surveys of the west as to its suitability for growing crops, on the basis of that could be undertaken. There is, I think, a

deliberateness that is at play here where people are looking for economic opportunities. Again, you have to think about that particular time, late 1800s. This is the time of exploration, where people are pushing into new frontiers. Well Europeans are—and this is really critical—Europeans are pushing into parts of Africa. They're pushing into northern Canada. They've already pushed across the United States. They're pushing into parts of Central and South America. This is what's going on around the world. The colonial powers are pushing their boundaries out. This is being driven in part by governments but also by private business saying, "Can we make money doing this? Are there places where the geography would work for us to be able to grow grain and harvest it and make money?" So, they do deliberately take steps to try to put this together.

Now, did they foresee what it has become? No. That would be stretching things. Nobody can really see very far out into the future. Did they have, in fact--? What they were looking at, at the time, did they think it was reasonable? Probably not even at that point. I mean the ads that were placed in European newspapers about the opportunities in western Canada for advertising--. But partly it was, I think, this hubris of that particular era.

We're living in a period now, today, 2013, where we've come off this sort of hubris of the early 2000s, which lead to the stock market financial crisis in 2008. That's the hubris of today. There was a hubris in the 1880s, the 1890s. It just took a different form. In some ways I think we need to interpret those ads and so forth as part of that—as a reflection of that hubris. This is what they thought could be created. What was actually created was something very, very different.

NP: Why would you say it's different, or did it just take a whole lot longer to accomplish it?

MF: It's very different because to some extent this was, it turns out, that you can grow grains of the different sorts quite well. But what we're finding is that in order to be able to do that, we needed technology that is completely outside of any box that people could've imagined back in the 1880s, the 1890s, the 1900s. I was talking to somebody that was just down at the farm progress show in Regina this week. The farm machinery that is on display is, you know, for somebody even from 40 years ago, it would be incomprehensible. GPS systems that can keep track of a seeder that's 90 feet wide and keep track of it within an inch. This is a far cry from a 6-foot seeder that was being used back in 19--. [...*audio skips*]

NP: I'm going to ask the next question in relation to the railways and then broaden it a bit. You mentioned that the way that the railways were developed in Canada, with the private/public partnership was our way of operating.

MF: Right.

NP: Was that not the way in the States? And then secondly, and this moves us into the way that the communities progressed, and the difference between the growth of cooperatives in Canada and less so in the States.

MF: Well, actually, maybe not. But yes. There is an interesting--. So let's start with the railways. Part of it is that I don't know enough of my railway history in the United States to give you a really complete answer to this. But what I can say is that the US relied much more on the private sector for their railways than we did. That I think is pretty clear, and they created, at the time—in fact this was to become quite famous—the grand railway monopolies. This was incorporated into Monopoly boards, the four railways on the Monopoly board. In the US the state said, “We're going to use our power. We're going to make sure the railways do get built, but we're going to do that by giving them some kind of exclusive ownership of these areas to entice them to be able to build.” That's one of the differences. That's one of the areas there's a difference between Canada and the US in terms of how we start on our evolutionary path.

NP: Did not Canada do the same thing?

MF: Well, we did both. We had both a private railway and a public railway. They come at different times, and in some cases, piecemeal investments and so forth. There's a sense of a mix that we don't see in the United States.

NP: How much of that might have been due to the difference in population size?

MF: Oh, I think this is—I was going to actually say this—I think there's at least two major factors. One would be the one you just mentioned, which is population. You have, in the American situation, much higher population densities with settlers, and this is because really different climatic conditions that allows the land to support many more people. What we know is—and I'll give you some other examples of this later—this does allow the private sector to move in in a way it can't in Western Canada. I think that there's also a philosophical difference that's in play. The US is always much more leery of government involvement and government ownership than Canada has been, historically. This is just one of the tenets of American politics is that the state doesn't get involved in the same way. I think you have to make sure that you get that factored in. Now, let me just tie this into the co-ops, because this is actually quite interesting. This is actually a subtle distinction--.

NP: Okay, before you do that, you had said there was two reasons. One was the population size and the other was the philosophical right?

MF: The other one is the philosophical.

NP: Okay, sorry.

MF: What's interesting, again, to think about the comparison between the United States and Canada around the grain trade is in Canada, by the early 1900s—in fact late 1890s—we're starting to see some settlers in western Canada, Manitoba, Saskatchewan. They're starting to produce grain in sufficient volumes to export it. They start to become concerned about the power that's being exerted by the elevators and by the railways as well.

Two things happened. One is there is, I think this is right--. So the first fact is the Manitoba Grain Act. I think it's 1903 or 1904—I should know this, I looked it up a while back—which actually sets out a regulatory framework for both the rail industry and the elevator industry that is picked up and mirrored in many ways and has been the Canada Grain Act, I think, in 1906, a couple of years later, the piece of national legislation. There's a willingness of the state, and again this is partly that difference between Canada and the United States, a willingness of the state to say, "We are going to get involved in the regulation of activity." Producer cars are given legislative authority, so farmers can load their own cars. There is grading rules put in place, so that you can cut down on some of the opportunistic behaviour that was taking place. These are developments that weren't quite being paralleled in the United States, where they were relying more on creating competition rather than some of the regulation.

NP: Now, that leads me to ask a question. What was it about the Canadian politicians that made them make that choice towards willingness to get in versus the Americans that took a more hands-off approach?

MF: It's a very good question and I--. Perhaps someone has done the economic history around that, and I don't know.

NP: Personalities?

MF: Personalities.

NP: Experience. [Laughs]

MF: Again, I think a bit of philosophy and it would certainly be--. I mean if I was looking to try to explain, and I would take a look at who were those groups that had influence over the government at the time.

NP: Does—and again I know I'm sort of pushing you outside of the area that you spent more time in—but would Britain be more similar to Canada in that way?

MF: I don't know enough about Britain to be able to comment. But having said that, it is clear that we were borrowing ideas from Britain because many of the legislators were British, and they were bringing concepts from there. This willingness of Canada to have government involvement only goes so far because as farmers started to complain about the competitive nature of the local elevators, there were many cries by the people involved for the government to get involved and actually own the elevator companies. In all instances--. Well, no that's not true. Manitoba there was actually a bit of an experiment with government involvement. In Saskatchewan and Alberta, at that point, they weren't in--. Well in 1905 they were straddling that period when they'd become provinces. That impulse was resisted, quite firmly. They say, "No. We're not going to get involved." Instead, what the state did—this is the provincial governments—they said, "We wouldn't actually encourage farmers to own the elevator companies." This is really, in the grain trade, the beginning of the cooperative movement.

NP: Now you started to, and I took you off track, you started to say it was quite interesting about the co-op movement in Canada versus the US.

MF: Yeah. So interestingly, there is at the same time, 15 years earlier perhaps, in the United States, a very similar movement going on in the grain, in a whole variety of agricultural commodities, grain. In California, it's fruits and vegetables. On the Great Plains, it's grain. So, you're seeing the development of agricultural cooperatives there, roughly the same time, about maybe 10-15 years earlier, and that's simply because this is that time gap between the settlement period in these two regions. So in some ways these are actually quite similar. In some ways, in this respect, you're seeing a set of institutional developments occurring in the same geographical region—I'm thinking the Great Plains—that is quite similar all the way through the Great Plains, regardless. In some sense, the border doesn't matter in terms of how people are responding to these.

Now even this, though, goes only so far because it turns out that there actually is a difference at the border. We actually have to wait until the 1930s to see this. What we see in the '30s is a—this is taking us away from the grain trade a little bit, but this is important—what we see in the '30s is the period of rural electrification. This is the beginning of rural electrification. Electricity is now coming to farms. You need to find some way of providing the service to these, in some cases, quite remote rural areas.

This takes us back to our population question. In both Canada and the United States, the private companies are unwilling to move out into the rural areas. They can supply electricity to the urban areas quite nicely. A little bit later, they can supply telephone services to the urban areas quite nicely. They can make a nice profit. To step out and try to supply this to rural areas is much more problematic. And yet, there's this demand. There's still a significant enough population in the rural areas that they have political influence, so the government feels compelled to try to do something. What's interesting by the '30s is that the response in Canada and the US are different. In the US, it's government saying, "We are going to encourage the formation of cooperatives." This is

the formation of the rural electric co-ops and the rural power utilities. Many, almost all at the time, were organized on a cooperative basis.

In Canada, at least in Saskatchewan and Manitoba, to a lesser degree in Alberta, but even there, the response was for the state, well actually, for municipalities to become involved, for instance in telephone provision. This is local government. Eventually, as the need for consolidation occurred, the state then took over those municipal systems. This is a different response. It partly reflects this rare willingness of Canada to look at public sector solutions, whereas the US would always shy away from that as the option. What they went to was the encouragement of individuals to form co-ops to do this.

NP: If we look at the grain industry though, is it the opposite? Or were there, because it would be—and I may be completely off base here—the companies such as the Saskatchewan Cooperative Elevator Company, the Saskatchewan Wheat Pool, the Albertan, Manitoba Wheat Pools were growing? Was that happening in the States?

MF: Yeah, oh yeah. At that time starting in--. So you're right. You've got the Saskatchewan Elevator Company starting in the initial elevators that were to become that system starting in 1908, that period. That same period in the United States there is something very similar going on. Aaron Shapiro, the California lawyer, who helped set up some of the marketing co-ops for fruits and vegetables in California, of course, he comes to western Canada to talk about pooling and plays some role in the formation of the Pools here. There is this similarity during this period. This actually links up with something else that my economic historian colleagues keep reminding me of, that is that during the early part of the 20th century, the one that we've always focused on is this inflow of settlers from Europe.

We pay a lot of attention to the Ukrainians coming and the Finns and the Swedes and these different ethnic groups, in part being driven out of their areas because of the political and economic upheavals that are occurring back home. What people don't talk about, but is actually very important, was the people who had settled in America, who had been in America even for a generation, coming up to Canada. My wife's family, that's their way into western Canada, was through the United States. This is one of the ways that these ideas of how to organize get transferred. These things don't just happen through the wind. They get transferred by people who arrive. They came from--. Because they need a model to select from.

NP: What brought them, do you know? Do you know what was going on that pushed or pulled?

MF: Oh, both. I think you'd have to go into the individual stories of different families. In some cases, it was being pulled by--.

NP: Free land still available?

MF: Free land still available in western Canada. This was very attractive to-- Or almost free land still available. Whereas land was starting to become more expensive in the United States. I suspect that some of the people ended up here because they couldn't make a go of it down there, and so then they moved. Probably didn't make a go of it here either, but they kept moving. Some people, I suspect, there would be instances where people were sort of more driven from their locale. I suspect that this is true. I have to go back and check that there would be ethnic groups that weren't finding it hospitable in whatever area they had settled in the United States, and so they were moving to a place that they could form something that was a bit more to their liking.

NP: Because of the relatively short time we have today, I'm going to fast forward. Talk about--. Because it has an impact on Thunder Bay, every time there was a major amalgamation in the grain industry it impacted Thunder Bay in that at least one terminal elevator would be decommissioned. What happened? What were the winds of change blowing to create the--? I think I have a pretty good understanding what created the Wheat Board initially, what created the co-ops initially. And then when did the change start to occur that those institutions were on the chopping block? And why the acceleration of it?

MF: There's a whole bunch of things here to talk about, so let's talk about the consolidation first. I talked earlier about the tremendous difference in the scale of farm machinery, but in fact, we need to think beyond what was actually happening on the farm. In many ways and by far in a way the largest but in fact all the way through all aspects of the grain trade, we see this, I used the term earlier, this industrialization going on. The history of agriculture really is trying to take this biologically based enterprise that is subject to, in its sort of initial form, subject to a tremendous amount of variation. The obvious one that comes to mind is the weather—droughts, floods, et cetera. But in fact, the variation is much bigger than that. You can think of the variation even within a particular variety of the qualities of wheat and the very different properties they have in terms of bread making or what have you.

If you think about this world as one where we start with this huge variety in all dimensions, this huge variation in all dimensions, in many ways the history of agriculture has been to try to reduce that variability as much as possible. There's only so much you can do on the weather side, but the agricultural scientists have made huge advances in terms of reducing the variability on other dimensions. It isn't just the technology. It's the technology alongside the way that we've organized the system to segregate grades into increasingly narrow categories that are really very, very homogenous—a variety of this particular grade, this particular protein, will behave in a mix. Then you change the formula just a little bit and then it behaves in a very, very different way. This has been going on in the grain sector. If you go to the livestock sector, particularly chickens and hogs, going on to even greater degree there. This is really what the industry has been about.

That's one aspect of this technological development, and the other aspect of the technological development is growing more from less. Using fewer inputs to get more output. That involved switching--. As the ag scientist went to work on those problems, what they ended up doing is finding that they had to switch inputs. More of other things to get more output, and so this is partly why you see this. This is the reason why you see this tremendous exodus of people from agriculture because labour's being substituted for other inputs, and the other inputs are increasingly based upon what's cheap in the economy, which is oil, petroleum products.

You're seeing the rise of fertilizers and chemicals and so forth, as these become the cheaper way to produce output in a much more--. And of course, they also provide--. Not only are they cheaper, but they're also providing this reduction in variabilities. The introduction of fertilizer means that yields become more homogeneous over fields, which is what the farmers find advantageous. The use of chemicals allows farmers and the whole industry to remove foreign matter and weed seeds and so forth. Both of those is this greater, people you can call it mechanization, but I'm going to call it industrialization because the industrial sector, if you think about manufacturing, is all about being able to really accurately predict, "If I have this much steel, I'm going to get this much of a particular part." What we see in agriculture is moving more and more to that kind of industrial model. As you do that, you can then import all of the techniques from the industrial sector, and so with that comes scale. It's scale at the farm level, it's scale at the local elevator level, and it's scale at the terminal level.

What you saw both on the West Coast, but in the case of Thunder Bay, is being influenced by these larger technological changes. The organizational structure of the industry has to change. What we know from basic industrial economics is that if you have this technology that is highly industrialized, that the corresponding industrial structure is one that's highly concentrated. These two things go together. The reason is quite simple. The industrialization allows you to operate on a very, very large scale. New management systems, new information technology systems that we start to see being developed, that allows individual managers to govern and manage increasingly large organizations, so they can actually manage this larger industrial scale. All this feeds into ever larger organizations. In a way, this is the technological argument, as to what was happening at the Lakehead.

NP: Regardless of the fate of the Wheat Pools, the consolidation was going to occur in any case.

MF: Exactly. Yes. Absolutely. This is actually a good way to get into what happened to the Pools. I've written quite a bit about what happened to the Saskatchewan Wheat Pool. It's clear that by the late 1980s, early 1990s, the people in charge of the Pool knew this. They knew that they were going to have to change their industrial structure quite significantly. The activities that they undertook in the mid 1990s to build large concrete elevators and so forth was a recognition that they needed to probably consolidate them. There were some discussions as early as the late '80s of the Wheat Pools actually merging. What stopped it from happening were the personalities involved.

You had at least two individuals that were running these respective organizations that each thought that they were king of the hill, and there was no way that they were going to give up that spot. There were other issues as well, but that was certainly part of it. They set out trying to find a way of making this transformation in their technological structure and playing with what they needed to do, started to think about what had to happen organizationally to try to bring this into a larger scale that would correspond to their technology, and they failed.

They didn't get it right. What they didn't get right was they needed to move but they moved too fast. They took on too many things. They were trying to restructure too many parts of the system at the same time, and they couldn't handle all the stuff that was going on. Two or three of these things all moved together at the same time, and they all moved down. They had too much debt, and they couldn't take it on. But they understood that they needed to do that, to make that switch, because there was this--. I mean to call it imperative is a bit too strong, but the industrial structure is such an important driver of costs that if they were going to actually survive as an organization, they knew that they needed to be able to change that structure.

NP: So many questions arise. One, the result because of mistakes and personalities was a disappearance of the co-ops, at least as any major player. What impact have you seen to date of that change of ownership? And what would you predict, if any, changes from private ownership versus cooperative ownership?

MF: Excellent question, and it's a really hard one to answer. Let me just say something about why it's a hard one to answer. This is really an important concept to get across, why these things are so difficult to say, "Well, this is what the impact of these developments might be." The reason it's such a hard question to answer is that it is, one could say, it is impossible to know what the counterfactual is. What would have happened, had this not occurred? One of the things I tell my students is you have to think about two parallel universes where everything is bumping along these two universes. Then at one point in time, something changes in one of them, and it doesn't happen in the other one, but everything else continues the same. The same drivers of technology, the same changes in the economic environment, et cetera, occur in both environments, and you keep running your movie, if you like, and you try to see what happens over the next number of years. Then, what you really want to compare is what's happening in these two parallel universes? We know what happened in the one that we're in. We don't know what happened in the one that we're not in. When I say it's impossible, it's literally impossible to know what would have been.

NP: Have other jurisdictions--? You mentioned that the US was operating 15 years in advance of Canada of the development of the cooperatives so--.

MF: So, I think that this is a very good point. While it's technically impossible because Canada is Canada, and you can only have Canada, one can sort of get a peek of what this parallel universe might be by looking at some other jurisdictions, and the US is a

good example. There, on the grain side, what we saw was a failure of a couple of their large ag co-ops, Farmland Industries under very similar circumstances to the Pool, failed for very similar reasons. Taking on, making too many gambles at the same time and having them all go south at the same time. But they've held on to some of their co-ops, and what we know about what's happened to those co-ops is that they are now very, very large. They have diversified in the way that the other multinationals have done. The large co-ops that did survive are now looking at becoming international players. They're investing in Europe. They're investing in the former Eastern Bloc. They're investing in lots of places around the globe. One could say that's probably what would have happened had you seen successful amalgamation of say the three Prairie Pools, had you seen them move a little less aggressively into some of the businesses that they did, so they would have been able to survive. I expected you would have seen something like that.

In terms of the competition at the country level and what farmers see, I think that there's probably a subtle distinction that happens, though. While the outward structure of these large ag co-ops now looks like, in many ways, the outward structure of some of the large multinational grain companies, private companies, I think there actually is something that's different inside their DNA. There's a little, perhaps—maybe more than perhaps—just a different philosophy about willing to provide just a different level of service than I think some of the private companies might operate. Again, I'll probably go back to that distinction we were making earlier. When you have areas where there's lots of population, the private companies are going to be quite willing to move into those. They're going to be quite willing to provide a wide range of service. Those are actually the areas you don't have to worry about. The market works very, very well. It's the areas where that isn't the case, where the population is pretty small, and, relatively speaking, it's a little less attractive for some of the grain companies. I think that may be one of the places where you see a difference.

NP: We have 20 minutes left. I hope that your 10:00 appointment doesn't come early. [Laughs]

MF: No, I have to phone in, so.

NP: Okay. This is a very broad question. What impact does the failure of the co-ops in Canada and--. Well let's deal with the failure of the co-ops. What impact does that have on farmer control, if any, and profits, which I think might be more difficult to predict?

MF: I think you're absolutely right. I think the profit side is really difficult to predict. In my mind, I think the bigger loss of these organizations, but in some ways, this was the reason for their loss, was that--. And so this is all tied up together. It's all, as we economists would like to say, it's all endogenous. There's a feedback effect from one to the other, and it just keeps going

around—that there was a failure. Take a look at the failure of Sask Wheat Pool. It was the failure of leadership. It wasn't just the CEOs. It was also the board at the time that didn't keep the CEO and the senior management to make the proper investments.

That actually then makes us ask, "Why was that failure in leadership? What was happening? Why were the right sorts of leaders not coming forward?" I think that ultimately this is the big question that is sort of facing agriculture, "Are we going to see the--?" Which has been the historical norm in both Canada and the United States. Just take a look because, again, we've been doing this comparison, where we've had a significant involvement by farmers in the running of the industry in some way, shape, or form. They do this in myriad ways, but it involves the mundane of going to board meetings, serving on committees, working through decisions, and just this day-to-day churn of stuff that has to happen in keeping on top of it, trying to put those individual decisions into some larger context into where the world is going. I don't have any sort of hard empirical evidence, so this is where I think it's more a value judgement. But I think that that's actually important for a sector to remain healthy is when you have—and it doesn't need to be total control, and that's never been the case—but some involvement by a wide range of group of individuals.

I said just a moment ago that I don't have any hard evidence. Maybe actually I do. If you take a look again to the economic historians, the people that have been looking at events for the last 500 years in various parts of the world--. My favourite authors these days are an economist from MIT and a political scientist from Harvard, Daron Acemoglu and James Robinson. They talk about why nations fail. They say nations fail when what's created within these nations are a set of institutions that are in essence controlled by a very small group of people. The countries and regions that have prospered over these last 500 years are ones that have been able to develop institutions that are much more open to a variety of players and a variety of perspectives. People have been able to effectively challenge existing ways of doing business, existing ways of structuring things. In essence they've been able to be able to be innovative.

I think there's a very strong linkage to the work of an important 20th Century economist by the name of Joseph Schumpeter who talked about creative destruction, that the economic systems, that--. This is where you can link it up. He talked about creative destruction where an industry, in order to be creative, would actually destroy existing products and existing institutions in order to create new ones. What Acemoglu and Robinson are saying is that the successful countries are those that allow creative destruction to occur, that they allow these areas and activities to fall as people say, "There's an opportunity over here that I could do, but by doing this that means there's this other area." It's not good for the area that falls, but it turns out over the centuries that it's actually good for the entire region. If I can sort of bring up--. [...*audio skips*]

You need an ability for different people to have a say in the system. I think this would be what I would worry about is—and it doesn't have to be through the cooperatives—but there does have to be this openness within our grain system, within our society

just generally, because this doesn't apply just to the grain sector. This is about how we organize ourselves as a country. Where we're willing to allow a greater set of people at the table making decisions.

NP: I'm not hopeful for what you said. [Laughs] Maybe my interpretation is--. Here's a couple of things that have come up as a result of what you said. First of all, I said I was asking the question about what farmers stand to gain.

MF: Yes.

NP: Is it accurate to say, then, that farmers have the work of decision-making at the organizational level, which is a cost because there's your time involved, which is what you've said?

MF: Right.

NP: So they've been willing to give that up in return for letting business, or the grain companies, do it?

MF: That's a good question. I actually think that's one of the really important questions that need to be better understood. "Is this what's actually going on out there?" And it's a good way of putting it. Have farmers just become tired? Is that cost-benefit analysis of however one sort of thinks that it might be done, whatever goes into that sort of weighting, farmers are saying, "Eh, no. I've actually got better things to do." Now, what the important thing to note here is again there's this endogeneity then you will back out which will actually then further exacerbate the fact that you don't have the involvement, which further makes it costly to get involved. These things can feed on each other in some really important ways. But yeah, I think this is a question that needs to be--.

NP: And it's not just in farming.

MF: Not just in farming.

NP: It happens on the community level.

MF: Absolutely.

NP: That people have just said, "No, I'm not going to do that."

MF: Yup.

NP: And what's the result? Well, the result is, from what you said, why nations fail. That's why I'm sounding--. [Laughs]

MF: Yup, yup.

NP: And you've talked about industrialization and the tendency towards bigness being inevitable but where does it stop? The question that I'd like to ask here then is the result of the failure of the co-ops that has been seen already is private industry--. [...*audio skips*] And the Canadian piece of that industry is very small relative to, let's say Cargill and Glencore—which are the Archer Daniels—are much bigger. What's to prevent the Canadian component, which is much smaller, not being able to compete with the larger organizations?

MF: I guess there's some worries here. I actually wouldn't be worried about so much of the Canadian component. I think that if there's money to be made in western Canada, somebody's going to come and eventually play a role. Now, whether we're going to be able to control that or not, that's the question. I'm not sure I'm doing a good job at answering this, Nancy.

NP: That's okay. Can we just leave it at that?

MF: Yeah. Yeah.

NP: Because I'd like to move on to the Wheat Board.

MF: Okay

NP: Which was the other organization that had a substantial amount of farmer input and that is not the case, is that fair to say, any longer?

MF: Potentially, yeah.

NP: So, what's the impact of that? How did that happen?

MF: I started off at the beginning talking about these big ideas, these big ideas that philosophers and economists and political scientists and sociologists all have been dealing with and that is what's the role of the individual versus the role--? [...*audio skips*]

This is the way that the Wheat Board issue was portrayed and, actually, because that is the way that it was portrayed, that is why it is an example of that. Because that's the way that—if you like the discourse around it—took place. In the end, I think two things happened. Let me just back up. First of all, what you saw with the removal of the Wheat Board single desk selling powers a year ago was what political scientists call a punctuated equilibrium. This idea is, it's a long term, but it's a great term. It means we had an equilibrium for actually a very long period of time, about 75/80 years and then there's a punctuation. This new equilibrium will last for a fairly long time as well. Economists and political scientists and others are really interested in what causes systems to go from one equilibrium to another equilibrium. First of all, within this equilibrium--. It's called an equilibrium, but in fact, even within that equilibrium, things change actually quite a bit. If you take a look at even the Canadian Wheat Board in the early 1970s, very, very different than the Wheat Board by the mid 2000s, much more farmer involvement, a Wheat Board that was much more responsive to the demands of farmer. By 2005, they've introduced all kinds of marketing options, et cetera. All of that is change within this sort of existing structure.

But 2012, there's this punctuation that sort of identified two things. One is that you have a discourse that becomes--. The discourse changes around the Wheat Board. The people that were arguing, and the way of looking at the Wheat Board in terms of the benefits it would generate to people, the economic benefits, interests me. That argument declines in the importance, and instead what replaces it is the argument that it's about freedom. It's about individual choice. It's about this quite abstract idea.

This is fascinating to me. You see an examination being replaced with a much more philosophical focus. The philosophical dimension, actually, it's the one that has a lot more traction with people than does the economic benefit one. You will get people saying, "Well, in fact," the economic benefit people "the Board wasn't able to show that it was there," and so forth. And yes, there was that going on at the same time, but I still think this was an example where this particular idea actually took—this idea of a freedom—it was the one that really took root and said, "No, this is the idea that we need. It trumps other dimensions."

NP: Two questions as a result of those comments. The freedom issue--.

MF: Right.

NP: How much impact did non-farmer messaging impact on it? And, tied to that, how lazy were the farmers? Maybe I shouldn't have used that term, but going back to--. How tired were the farmers, I think is a better term?

MF: I said there were two factors. One was this change in the discourse. The other one was of course a government that came in that was committed to make the change. Now, why was that particular government willing to make the change? Well, this really ties into the question you were asking. In part because they now knew that they--. [Phone chimes]

Of farmers. I don't know what that number was, but you don't need 50 percent to make that switch. My guess is that someplace in the order of 30-35 is enough. In order to keep that original equilibrium of the Wheat Board, you probably needed a solid of 80 percent of the farmers behind you. If you start to get under 80, it starts to become a bit iffy whether you can keep that system in place. I have no empirical evidence for that slight dip from a couple of other jurisdictions, but that's sort of where I think the magic mark is. That was part of it.

The other part, on the political side, and in having a government that is willing to do this, is that they were being lobbied in very, very substantial ways by the grain trade. They, from a political perspective, they don't see any downside to making this move, so they're willing to make that move, and of course that's what you need. You need a government to actually be able to change the legislation to be able to do it because ultimately this was a piece of legislation. Those are the two things. A change in discourse and then a sufficient shift in the political interests that enable the government that was both sensitive to those as well as sensitive to that philosophical discourse that was going on.

NP: Just one last question. How much--. [...*audio skips*] To impact decisions change as a result of those two changes, do you think?

MF: I think it's going to really going to depend upon what farmers end up doing in other areas. And it's also going to depend upon what the government does in terms of allowing some of that to happen because, as I said earlier, there's feedback connections here. If it's not conducive to having farmer involvement, then farmers don't do it, and then that tends to, in turn, lead to less control and less influence. It just sort of goes on. There's some really important areas that--. So you know farmer involvement in the grain trade, per se, now fairly small. You still see a little bit in terms of some of the producer-owned facilities around the country and some of the short-line railways, but this is relatively small. The big area where there's still room for farmer involvement is in the area of research and development for agricultural products, particularly crops. One of the big areas that people are now really turning their attention to is what's going to happen to research and development over the next period of time and can we get sufficient R&D of the right kind to really start to address this issue of food security that people are increasingly raising as a global issue. In some ways, that's where the real action now lies within the grain industry.

The interesting thing in Canada will be what role will farmers have in that system? This is where, coming back to the attitude of farmers, is going to be critical. Are farmers going to be willing to not just get involved in the decision making, but in order to get

involved in the decision making, they actually have to put money into the system to actually help finance the R&D. Now, all the studies indicate that the returns to those investments to check off systems and so forth is actually very, very high, higher than any farmer could get in their bank account or on the stock exchange. But they come a long way down the road, and they come in intangibles that are hard to measure because by the time--. It comes in yields that are constantly changing so you can't--. It's hard to do the counterfactual that we were talking about before. Farmers actually could play a really important role if they're willing to put some money on the table to then have some dollars to play with, and thereby influence where the decisions are going.

NP: Will it also impact on what they see as what comes back to an advantage to them as opposed to as an advantage to private sector?

MF: Yes, it will. This is where perceptions are really important because our economic analysis indicates that, in fact, even given the structure of the grain trade, they'll get a fair bit back. There's a perception that they, in fact, won't.

NP: So the discourse. The discourse comes to be--.

MF: We're back to myth and discourse that I started with, right?

NP: Yes. I'm sorry, one last question.

MF: Yes.

NP: The north-south--. I started to read about development of a big elevator, or grain handling facility, in southeastern Saskatchewan north of North Dakota, just one item, *Western Producer* whatever. I don't know how far along the line is, but we started out the discussion with the east-west and the development of western Canada. So from the perspective of Thunder Bay to here, north-south patterns 100 years after the fact, can you make a brief statement on that?

MF: I think that the big experiment that is Canada is really, in many ways—and I think it's been a tremendous success—but it's been to say we are going to politically, we're going to create systems that are going to ignore—not ignore—not get quite as much importance to the north-south connections that are the kind of--. I never like to use natural because nothing is ever natural, but the obvious economic linkages are north-south and--.

NP: Even probably geographical for shipping.

MF: Well, certainly, geographical and, certainly, on the Great Plains, cultural. I go down to Nebraska once a year to work with a colleague down there, and you can talk to people in Nebraska. On some levels there is a difference between Canada and Nebraska and other levels, you understand them in a way that's, *snap*, just like that. There's cultural linkages that are really strong. What's interesting is 100 years doesn't make much impact on those north-south linkages. Those are going to become increasingly important. That's one of those things that Thunder Bay is going to have to recognize, that east-west that was created by willpower, this political willpower in the creation of Canada, that is going to be slipping, increasingly. We've seen this over the last 100 years, and we're into a period where that north-south is going to be important. Now, in part depends on what happens politically with, sort of if you like, that height of that US/Canada border and how many restrictions are put on. But I think those will probably be reasonably low, given other things in the world, but one can never quite tell.

NP: Thank you very much, I could spend much more time, but you don't have that so--. [Laughs]

MF: Well, this has been very good.

NP: Why thank you.

MF: You're very welcome.

**End of interview.**