Peasants and Stock Markets
Pathways from Collective Farming in the Post-Soviet Grain-Belt

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Abstract
What happened in the post-Soviet, European grain-belt after collective farms were dissolved and in what way can we say that collective farm legacies influence agrarian developments in this region today? These are the main questions of this thesis, which is a work of critical human geography, but is also inspired by theories, methods and approaches from the social sciences, broadly defined. Territorially, the focus is Ukraine, but several articles in this thesis take a wider geographic perspective beyond Ukraine, in particular taking into account the role of Nordic investors in the agrarian sector in Ukraine and Russia. The main aim of this thesis is to examine how farms of different sizes – from small peasant farms to super large corporate farms – develop and change in post-communist circumstances. Another purpose is to reinterpret Soviet agrarian history, in light of what happened after the collapse of communism, in order to incorporate the Soviet experience in a global historical narrative, and to better understand the legacy of collective farming today.

These issues are explored in four papers and a comprehensive summary. The first article examines small-scale, household “peasant” agriculture in southern Ukraine and shows the conditions and factors, which have contributed to an impressive intensification of farming in certain villages. The second article investigates large-scale, Nordic investments in Ukrainian and Russian agriculture, with the aim of explaining why many (but not all) such investments have not succeeded to the degree that investors hoped. The third paper focuses on the legacy and afterlife of Soviet-era investments in large-scale irrigation in southern Ukraine, and uses the post-Soviet reincarnation of irrigation in this region to problematize traditional narratives on Soviet environmental management in a global context. The fourth paper, with a wider historical lens, explains the link between collective farms and today’s agroholding agriculture in much of the region, while also discussing the sustainability crisis in agriculture both in a Soviet and post-Soviet context, concluding with a description of a possible and ironic (but by no means inevitable) scenario whereby post-Soviet agriculture saves global capitalism.

Theoretically, this thesis is informed by agrarian political economy; related, contemporary debates on the financialization of agriculture; and critical human geography discussions on uneven development and the geographies of difference. This thesis also is inspired by Actor Network Theory, and the view that reality is constituted by hybrid subject-objects, which are instantiated through the agency of an assemblage or network of different actors, material things, discourses, institutions, etc... While such Actor Network approaches are certainly not new, their application to Soviet and post-Soviet change is relatively new. The source material, which is the basis for the empirical approach of this thesis, is eclectic, and produced via mixed methods from different locations. Analysis is based on interviews (75 interviews in southern Ukraine, in Kyiv, and in Stockholm, plus 28 visits to household farms in one study village in southern Ukraine); participant observation (carried out in the study village in southern Ukraine and in corporate shareholder meetings mostly in Stockholm); various texts, such as corporate documents and newspaper commentary; agricultural statistics; and satellite data.

Among other conclusions, this thesis argues that, given certain factors, small-scale, household agriculture can be viable, at the same time that the concentration and consolidation of agriculture into large-scale holdings is likely to continue, at least in the short term. This thesis also highlights similarities between Soviet and capitalist agriculture in a global historical context, which is one reason that the transformation from Soviet to capitalist agriculture could occur so fast in some areas.

Keywords: Agrarian change, environmental history, Ukraine, Russia, U.S.S.R., large-scale agriculture, agroholdings, financialization, smallholders, peasants, irrigation, uneven development, actor network theory, multi-sited and mixed methods.

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Acknowledgements

One often sees social media memes describing PhD research following individually and unexpectedly challenging paths to completion, and this has of course been true for me. In looking back on my PhD years, several challenges stand out. The more recent, and what feels most prominent now, is the fact that I have been, as it infelicitously is called in English, a trailing spouse, that is, I have spent three years living in a country that is neither Sweden, nor the country of most interest in this thesis, Ukraine, but a third country, the Republic of Georgia, where my wife’s work with the Swedish International Development Agency (Sida) brought us. I came to Georgia in the wake of a rejection of my first article, and at the time – the summer of 2014 – there was not one written page of this thesis in existence. I do not want to overdramatize it, but this was the lowest and most daunting point of my PhD. At the same time, as I write these lines and prepare this thesis to be printed, I also don’t want to make this into an heroic story of perseverance. Everyone who has completed a PhD (and many who have not) have persevered. I simply want to note the conditions under which much of my thesis was written.

Since I wrote much of my thesis sitting in a home office in Tbilisi, I could perhaps be excused if I developed notions of myself as a lone researcher doing all the work by myself. Nothing could be farther from the truth, in large part thanks to the miracle of modern communications. There is much I want to thank my thesis advisors for – Anders Wästfelt and Mats Widgren – but their flexibility in advising me at a distance is high on the list. Beyond this flexibility, I wish to express my deepest gratitude for their support over the years. Mats, who was my primary thesis advisor in the first years in Stockholm, but in later years became my secondary advisor, has that professorial superpower of very clearly seeing both the forest and the trees, and insightful comments reflecting this ability have burst forth like lightning on numerous occasions, and had an important impact on various aspects of this thesis. Anders, who was originally my secondary advisor but then was “promoted” to be my primary advisor, also provided sage advice on numerous occasions. We have written a paper (together with a Oane Visser mentioned below). With regard to this paper, it was particularly instructive to witness him, as a master at field work, initiate conversations with people involved in Swedish farming ventures in Eastern Europe, and later interview them, all done in such a way that the most natural thing in the world would be to have a recorded discussion.
touching on all aspects of the business. It has truly been a great pleasure working with both Mats and Anders, and I cannot thank the two of them enough for their patience and insightful comments over the years. (Note that I naturally own all the mistakes in this thesis.)

Administration does not magically work by itself – there are people working hard who make all this happen, and in this regard, I would like to thank Lotta Wistedt, Iris Claësson, Niklas Johansson and Anders Rickegård for their help over the years. I would also like to thank Johan Cederström and Stefan Ene for IT and GIS help over the years, but I mostly want to thank them for the thoroughly enjoyable _skit- och halvskitsnack_. I spent a two year period teaching with varying degrees of intensity. This was a great experience that would not have been possible without the support of Johan Berg. As Director of Studies, this is to a degree his responsibility of course, but his patient and detailed explanations to the uninitiated went above and beyond the call of duty, and for this I am grateful. Peter Maandi of Uppsala University and Ulf Jansson were reviewers of my final seminar draft of this thesis and provided very helpful comments. Thank you! Also Ulf Jonsson from the Department of Economic History read and commented on paper 4, which was highly appreciated. The dissertation support service of the Stockholm University library has provided terrific and highly appreciated assistance in, literally, putting this thesis together so that it can printed. Finally, I want to thank the Stockholm University library in general for providing outstanding research services.

I would like to express my appreciation for the fact that the PhD student collective in the department is a very nice collective to be a part of. More specifically, I would like to thank Annemiek and Chris in the landscape research profile group, for comments on drafts, for organizing interesting seminars, and for interesting discussions on all things having to do with landscape studies. I would like to thank Martina for the same, and also for enlightening discussions on things not related to the landscape. A particularly heartfelt thanks goes to the various colleagues with whom I have shared an office at different times: Natasha, Ida, Estelle, Tola and Qian. Swedish workplace etiquette was explained to me, field work stories shared, funny stories told, and, as far as I can tell, no one rolled their eyes at my corny jokes, though certainly at least a few of them deserved a swift and brutal eye roll. Most importantly, I’m grateful for your friendship – it was fun sharing an office with you! I would like to thank Pontus who helped on different occasions with some GIS related questions. I would also like to thank Micke, who also explained how the department works, and whose honesty and friendship have been a great support, and whose cutting humor (sometimes at my expense) nevertheless was cause for much needed laughter.

When it takes a lot of time to complete one’s PhD, one tends to work under many different Directors of PhD Studies. I risk sounding trite here, but it is in fact the case that all of them over the years – (in order) Bo Malmberg, Lotta
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It was a particular challenge to balance small children with work on a PhD, but thanks to the Swedish Social Insurance Agency (Försäkringskassan) – and the possibility they offer to take leave from work when children are sick – this challenge was made endurable. I can say that getting a PhD has long been this American’s dream, but only in Sweden with its social insurance and salaried PhD positions – was it possible.

It is somewhat of a non-sequitur, but while I’m on the topic of thanking government agencies, let me thank the U.S. Geological Survey (USGS) and the European Space Agency (ESA) for making satellite data freely available for everyone (USGS) and for researchers (ESA).

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My seven year old son recently asked me if, after I was finished with the “doctor-thingy,” I would have more time to play with him and his sister. On the one hand, I do actually devote a lot of time to my children (as any parent should!) and it is has, as I see it, only been traveling for field work or shorter periods, particularly the last couple of weeks before final submission of this thesis, that I have been busier than usual. Still, children grow fast, and, when it on occasion seems that time is slipping out of my grasp, I find myself feeling that all I can do is watch and pray. On such occasions I have wondered, why the hell am I writing a dissertation? While most of my doctoral education certainly has been edifying, there is nothing I treasure more than the moments we have together as a family, doing whatever it is we’re doing. Eric and Antonia, you have been a tremendous source of joy and happiness in my life, and a simple “thanks” is inadequate. I cannot dance, much to my wife’s chagrin. But our daily life together in trying to both work and be the best parents we can be, sometimes feels like an elaborate dance, where we swirl around each other, often helping each other, but sometimes dancing solo, in taking care of children, family logistics, jobs, and travel. It has certainly worked over the years; it has usually even been fun. Helena, without your support, this thesis would never have been written. Thank you for being my dancing partner through life!

Tbilisi, September 3, 2017
Brian J. Kuns
List of Papers and Co-authorship


*BK is sole author of this paper*


*BK led the research and writing for this paper. BK and AW collaborated on conducting interviews in Sweden, where the larger part of the interview material used in the paper comes from. OV conducted one interview in Estonia, and provided empirical material from previous research in Russia. BK undertook Ukrainian related empirical research, including one interview. BK, AW and OV attended shareholder meetings in Stockholm and BK and OV attended one shareholder meeting in Copenhagen. BK examined discourse contained in corporate documents and news commentary and analyzed the totality of the interview material, often receiving feedback from OV and AW during this phase. The drafts were primarily written by BK, though OV provided content for roughly half of the theoretical section and half of the conclusions. Both OV and AW provided comments and feedback to the various drafts (including as it went through peer review).*

**Paper III:** Kuns, B. ‘In These Complicated Times’ The disassembly and assembly of landscapes of irrigation in post-Soviet southern Ukraine, unpublished manuscript.

*BK is the sole author of this paper*

**Paper IV:** Kuns, B. Soviet nature and the post-communist agrarian transformation in Ukraine, unpublished manuscript

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1 Introduction

In late March 2017, in a conference room in a high-power law firm with a fantastic view over central Stockholm, a small number of shareholders, myself included, gathered to decide about the disposition of some 240,000 ha of agricultural land in Western Russia. The 240,000 ha belong to Russian subsidiaries of the Jersey company Black Earth Farming (BEF), which is (still, at the time of writing) traded on the Stockholm stock exchange, with mainly Swedish owners. The matter at hand on this sunny but breezy day in early Spring was should Black Earth Farming agree to the terms of sale offered by the Russian farming company, Volga-DonSelkhozInvest. The main shareholders in BEF had already agreed to the terms, so in one sense this shareholder meeting was a formality, though formal approval was of course essential, and it was granted by the assembled shareholders, a major step in the process of liquidation of BEF and transfer of all its Russian assets to the Russian company. Several questions arise from this meeting. The first question was how did BEF, which began operations in 2006 with high expectations, end up in this situation? This was the question most often posed in the Swedish press. A more basic question arises, however, which is: how could such a meeting with shareholders in Sweden discussing the disposition of land in the former Soviet Union even take place?

The first question deals with more “routine,” but certainly important matters such as corporate strategies, movements in the price of wheat or maize on domestic and international markets, and unpredictable fluctuations in the weather, while the second question focuses attention on historic changes and processes in the former Soviet Union, such as agricultural land reform and the de-collectivization of agriculture, and the linking up of former Soviet countries to international capital and trade networks. While these questions are clearly related, most scholarly attention, understandably so, has been centered on the second question. This thesis however seeks to merge these questions, i.e. to assess epoch-making land and other economic reforms in the post-Soviet, European grain-belt through studying how different farms develop, change, expand, and sometimes, as in the case of BEF, disappear.
1.2 Situating the Research Focus within Debates on Land Reform and Agrarian Change

Though this thesis has begun with an account of a very large corporate farm, farming at all scales of production, from small-scale “peasant” holdings to some of the largest farming companies in the world, are dealt with here. In this sense, this thesis studies how agrarian structures i.e. the mix and distribution of different kinds and sizes of farms, have evolved in the former Soviet Union following the collapse of the collective farm sector. Variations on this question have generated a large amount of research, examining the question from institutional, economic, ethnographic and historical environmental points of view. These perspectives are all valuable, and the question would rather be, why do we need a new treatment in the form of this thesis? There are several possible answers.

There was understandably a lot of focus on agricultural land reform in Russia and Ukraine, which commenced in earnest in the early 2000s, and which I would characterize as not only historic, but as world-historic. Examining the results of these reforms in the early years, a debate arose as to whether land reform outcomes were primarily the result of entrenched, informal networks and power relations or if they were the result of institutional design. Allina-Pisano (2007), seeing a reconstitution of a classic Soviet agrarian structure in eastern Ukraine and western Russia, whereby the former collective farm management continue large-scale production, and the former workers (and now landowners) continue to rely on their household plots for their subsistence, made the argument that informal power relations combined with still weak legal norms, allowed land reform to be hijacked at the local level so that agriculture could proceed, as much as possible, as it had done before. She memorably termed this state of affairs: “The post-Soviet Potemkin village.” Wegren (2009), on the other hand (looking only at Russia), argued that land reform was always intended as an “illiberal” reform, and he finds indirect support from Lerman et al. (2007) who argue that land reform allowed land to circulate as a production factor, permitting much needed investment in the sector. Who controls land is of course an important question, but over the years it has become increasingly clear that post-land reform farming possibilities are as much determined by, as Allina-Pisano later stated, “ambient economic conditions” (Allina-Pisano, 2009, p. 189). Land after all is but one factor of production, an important one of course, but there are other production

1 Most surely know the origin of the term “Potemkin village,” but it is nevertheless of historical interest to recount it here, because Prince Grigory Potemkin, who had village facades arrayed along the route that Catherine II would be traveling to view her newly conquered southern Ukrainian territories, thus giving a false image of his (Potemkin’s) progress in encouraging the settlement of the southern Ukrainian provinces, is buried in the city of Kherson, which is the administrative capital of the study area for two of the papers of this thesis.
factors to take into account. So the purpose of this thesis is to look at land, of course, but also to look beyond it at those “ambient economic conditions” and how they affect farming trajectories.

There is no deficit of economic treatments of post-Soviet agriculture, and these certainly help to explain the post-Soviet collapse in agricultural production and subsequent recovery beginning around 2000. Thus the depth of the agricultural collapse is attributed to the degree of communist-era price distortion in the agricultural sector, i.e. the more distortion, the greater the collapse (Swinnen and Vranken, 2010). Recovery is linked to how liberal the reform is (ibid; Lerman, 2008), and it is shaped by the pre-existing mix of production factors, chiefly labor and land (Swinnen and Vranken, 2010). However, while these analyses can help understand why there might be a tendency towards a certain kind of agrarian structure, say a smaller number of large farms or a larger number of smaller farms in a particular (post-Soviet) country, these analyses only get us so far. First, because this discussion takes place at an aggregated national level, they obscure sub-national agricultural variation. Secondly, this literature tends to downplay the role of climate and agroecology in agriculture, when in fact there is convincing evidence that agricultural conditions and climate have significantly shaped post-Soviet agrarian change (Ioffe et al., 2006; Pallot and Nefedova, 2007). Most importantly, while such perspectives can perhaps provide some insights, they do not explain why farm companies like BEF succeed or fail. We need an approach then that takes into account farm-level dynamics, including the importance of agro-ecological conditions, and that connects the farm-level to regional, national and global contexts and factors.

In terms of finding an approach that takes into account farm-level dynamics, it is worthwhile to recall the words of Small that “there is no ‘theory’ of post-Soviet agrarian change” (2007, p. 31). What she means is that there is little or no political-economic theory on post-Soviet farm reproduction that treats “peasant” livelihoods in relation to larger farms, and links up with similar treatments in other parts of the world, thereby contributing to a macro-theoretical understanding of post-Soviet agrarian change in a world-historical context. As a result post-Soviet agriculture is often downplayed or outright ignored in debates about “global” agrarian change. Meanwhile, the urgency of developing such a theory has increased as super-large farms, otherwise known as agroholdings, become an ever more prominent feature of the agrarian landscape in this region, discursively erasing peasants from the debate, and thus threatening to physically displace them as well.

Apropos super large farms, much of the previous research on land reform and agrarian change was conducted before the word “agroholding” had even entered the Russian, or, for that matter, the English language, that is to say, the agroholding phenomenon had yet to be manifest when much of this initial debate took place. Agroholdings appeared quite rapidly after 2005, and can now be said to be one of the most visible long-term results of post-Soviet land
reforms in the grain-belt of Russia and Ukraine. Yet, such a development was not anticipated (Kitching, 1998a), and how could it be? While agroholdings have since received considerable attention (Matyukha et al., 2015; Visser et al., 2012; Visser and Spoor, 2011; Walther, 2014), including in this thesis (See paper 2 / Kuns et al., 2016), this literature tends to focus on the super large farms to the exclusion of other, smaller kinds of farms, with some notable exceptions (Mamonova, 2015). Plus, agroholdings are often treated as something wholly new that is in tension with Soviet agrarian legacies. While there is some truth to this, it sometimes feels as if they appeared out of thin air, which is patently not the case. So, part of the purpose of this thesis is to situate agroholdings both with respect to Soviet and post-Soviet agrarian history, and with respect to the whole post-Soviet agrarian structure.

Finally, the literature on post-Soviet agrarian change and structures is weighted towards Russia, again perhaps not so strange as it is the largest country in the region and seen as the inheritor of the Soviet Union. However, this thesis – the opening lines notwithstanding – will actually focus more on Ukraine, which is in agricultural terms arguably as important as Russia. As noted above, agroholdings in Ukraine do receive considerable attention. However, this thesis moves beyond an exclusive focus on agroholdings to also ask how peasant and other smaller farms reproduce themselves in post-communist Ukraine.

1.3 Research Aims and Questions

In light of this brief review, the aim of this thesis is thus to trace post-Soviet farming trajectories, mostly, but not exclusively, in Ukraine, and focusing on farm-level dynamics, including the agro-ecological context, while also connecting these farm-level dynamics to broader regional, national and international contexts. This thesis focuses on material practice, which is to say the technological, and production relations of farming, plus the “style of farming” (van der Ploeg, 2009), i.e. how farmers organize the work process. Farm reproduction is also a focus of this thesis, i.e. how a farm survives and/or grows or declines and decomposes. Finally, this thesis seeks to situate post-Soviet farming in a longer-term agrarian and environmental history to put the developments of the last 25 years into a broader context.

Given these aims, the following questions are pursued in this thesis:
1) What are the ways and means of peasant farming in post-communist Ukraine, in the wake of land reform, and can it be a viable form of production? (Paper 1)
2) What was the context for investment in large-scale agriculture in the region and what factors differentiate successful investments from failed investments? (Papers 2 and 4)
3) How have Soviet era farming legacies and investments, especially but not only in irrigation, affected post-communist agrarian change? (Papers 3 and 4)

4) What implications does the Soviet and post-Soviet example have for critical global theory on agrarian change in the present conjuncture? (Papers 2, 3, and 4)

The first question is an empirical question of identifying small-scale farmers, according to various characteristics (size, orientation), but also by their “style of farming.” The second question then seeks to address the farming history and development trajectory of mega farms in the former Soviet Union, with a particular focus on large-scale Nordic investments, explaining why few have succeeded in generating consistent profits. The third question seeks to put post-Soviet farming trajectories, particularly with respect to irrigated farming, in a broader historical context, asking if there are any important continuities with the Soviet past. Finally, the fourth question seeks to situate developments in post-Soviet Ukraine in the broader theoretical debate on contemporary agrarian change. These questions are explored in four papers. The questions will be addressed, as mentioned above, mostly with respect to Ukraine. However, paper 2, and to a lesser degree, paper 4 will address these questions across the grain-belt of Ukraine and Russia (which is the reason that the title of this thesis has a broader geographical scope than just Ukraine). Additionally, and before the papers, the comprehensive thesis summary will provide an overview of Ukrainian land reform and how the agrarian structure has changed in the post-communist period. The comprehensive summary will also present a theoretical discussion, which merges peasant-question debates from various perspectives with discussions in critical human geography about uneven development, and which then presents a framework for theorizing about agrarian trajectories, taking into account environmental degradation, struggles for farmer autonomy, and the role of the state. This summary also contains a method section detailing the methods and sources used to produce this research.
Research Context: Continuity and Change in “Post-Soviet” Agrarian Structures in Ukraine

2.1 The Expiration date for the term “post-Soviet”

Surely, more than a quarter century after the collapse of the Soviet Union, we can finally retire the word “post-Soviet”? This is a particularly relevant question for a thesis dealing with a country (Ukraine), which is actively seeking to put its Soviet legacy behind it – as most dramatically illustrated by the veritable tsunami of post-Euro-Maidan, Lenin-statue removals. The broader literature on the region is also, speaking metaphorically, removing its Lenin statues. Specialists are doing this, not in an anti-communist spirit of course, but rather with the growing realization that words such as “post-Soviet” (and cognates such as “post-socialist” and “post-communist”), when used unreflexively, accentuate a monolithic sense of uniformity across this vast region (Beyer, 2016, p. 173), while disconnecting this region from the rest of the world under claims that it is *sui generis*, thus reinforcing “differences and oppositions” (Gentile, 2017) between East and West originating during the Cold War, and obscuring both the rich variation present in the region referred to as post-Soviet and the diverse new (and old) ways in which different parts of this territory are reaching out to the wider world establishing connections that in some cases align with established perspectives in Western social science, but in other cases confound such perspectives (Rogers, 2010). The concern about the word post-Soviet and cognates becomes even more acute when it expands to also cover notions of “transition” (Chari and Verdery, 2009; Herrschel and Forsyth, 2001; Hörschelmann and Stenning, 2008; Stenning and Hörschelmann, 2008). As it is usually deployed in the literature, “transition” has tended to imply a teleological perspective in which post-communist countries are judged according to the degree that they are or have become more “Western” and therefore “normal” or “modern” in economic, political or social terms. It is not only scholars from outside the region applying this perspective, but also scholars and leading reformers from inside the region, in essence redrawing East-West lines of differences straight through the middle of Eastern European societies (Buchowski, 2006).

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2 “Euro-Maidan,” or the “Revolution of Dignity,” as it is also called in Ukraine, refers to the series of protest demonstrations in late 2013 and early 2014 in Kyiv that eventually led to the collapse of the then government and its replacement with a pro-European government.
Not only do I broadly agree with these criticisms, this thesis also seeks a break with the concept of transition (see paper 3). Yet, I persist in using the word “post-Soviet” and cognates. Why? First, I need the term as a geographical container to refer to a swath of (today very contested) territory stretching from Ukraine to western Russia where similar agricultural production systems were installed in the Soviet period, and where similar large-scale agricultural business models were attempted in the 2000s. There is still not a new, adequate geographical terminology to discuss this territory, a situation made all the more fraught by the active military conflict in the area. Allina-Pisano (2007) uses the term “Black Earth” as a geographic marker for the stretch of territory from Kharkiv Oblast in Ukraine to Voronezh Oblast in Russia that was the focus of her study on land reform. In doing so, she is essentially following local vernacular use of the Russian word *chernozem’e* (чernozemье), translated as “black earth belt”, which of course refers to the famed *chernozem* or black earth soils that dominate in the region. I long considered using the same term, but ultimately decided against it for several reasons. Firstly, in the spirit of geographic precision, parts of my study region in the south of Ukraine do not actually contain chernozem soils, but “brown”, and somewhat less fertile, chestnut (*kastanozem*) soils. A second reason is that “Black Earth” (like the habitual use of “post-Soviet”) as a regional marker has a conflating tendency for a region that is undergoing profound differentiation today. The key difference with “post-Soviet” in this regard is that different versions of “post” at least have an implied if not explicit expiration date. In this sense, in using the term “post-Soviet,” I am, figuratively speaking, purchasing an item where the expiration date is quite near, but where other comparable items on the shelf do not quite match my needs. If it is any consolation to critics of the use of the word “post-Soviet”, I stood at the shelf for a long time, thinking about what item to purchase. In this sense, I follow Lemon (2006, p. 219) in seeking to “bracket” this discussion until better labels become available.

However, there is another sense in which I want to use the word “Soviet” and “socialist.” “Soviet” in “post-Soviet” is evocative of particular kinds of production systems and agrarian structures and relations, and the question becomes what allows particular kinds of structures and practices to later persist, change or re-combine into new/old configurations. The use of the word post-Soviet is thus meant to signal a focus on Soviet legacy effects and how systems and practices from the Soviet era have evolved over time, a usage that Gentile (2017), following Kotkin and Beissinger (2014), finds potentially acceptable. At the same time, I point to how Soviet (agricultural) practice was far from monolithic, and I seek to reposition Soviet agricultural practice in relation to, but not in opposition to, “Western” practice. In this regard, I follow the insights of Scott (1999) that late Soviet, high-input, industrialized agriculture actually has much in common with “modern” large-scale capitalist agriculture (see paper 3). In this context, what I am in effect doing is both following
Roger’s call (2010) for an “unbound” understanding of post-socialism, following new pathways and connections leading in and out of the region, and applying this insight to similarly “unbind” our understandings of socialisms. Thus what I seek to do, in a small, but significant way is rebrand the word “Soviet” and “socialist” for use in broader discussion about the history, fate, effects and future of “modern” agriculture. For these reasons, then, the word “post-Soviet” and its cognates, are considered appropriate, though certainly provisional, terms for this thesis.

2.2 Agrarian Structure in Ukraine Today

This section will briefly present information on Ukraine’s agrarian structure, based on data from the Ukrainian State Statistics Committee, plus a brief account of the main land reforms which have created this structure. When Ukraine became independent in 1991, there were some 11,000 state (ryadgosp/sovkhoz) and collective farms (kolgosp/kolkhoz) in Ukraine (Gorton et al., 2002; Johnson et al., 1994). Throughout the 1990s, there were intense debates about if and how to reform the agrarian sector, and reform initially proceeded quite slowly. One exception, however, was the possibility to become a so-called fermer, or individual farmer. This first became possible in the late Soviet period, and was a reform roughly modelled on the Western family farm. However in the early 1990s, a Ukrainian law on individual farming (fermerstvo) was passed, which provided for the possibility to receive up to 50 ha of land for free. The land generally came from (at the time still existing) collective farm land reserves. Many of the fermery interviewed for this thesis, who received land in the 1990s via this procedure, report that actually getting the land was not straightforward, and that often the land they received was the worst quality land of the collective farm – either sloping land or land that had been used as a waste-ground.

In the meantime, many state farms were converted into collective farm enterprises, and workers and pensioners from these farms were issued certificates entitling them to a certain amount of land. These certificates were initially “conditional” in that the parcel of land was not identified “in nature.” In theory collective farm enterprises at this point were supposed to make lease payments to collective farm members for the use of this land, though due to the deep economic crisis in general and the catastrophic situation in the agricultural sector in particular, farms were having problems making any payment

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3 Note on language. When two translations are presented, it is first the Ukrainian, and then Russian. When only one translation is presented, it is, unless otherwise stated, either Russian or it is the same word in Russian and Ukrainian.

4 I interviewed a person for this thesis, who had become a fermer in the late Soviet period, and was one of the first persons to become a fermer in Ukraine.
(including wages), and reports from this period indicate that collective farm reform, such as it was, had not actually changed relations between management and workers (Allina-Pisano, 2007; Gorton et al., 2002). In the 1990s there was a strong agrarian lobby represented in parliament, which opposed breaking up the collective farms (Gorton et al., 2002; Wilson, 2015). The then Ukrainian President Leonid Kuchma was able to get around this opposition by issuing a decree in December 1999 (President Ukraini, 1999), which called for land parcels to be surveyed and identified “in nature,” and allowed for collective farm members to withdraw their parcels (referred to as pai) from the collective farm without permission from the collective farm assembly. Also, according to this decree, the farm category “collective farm enterprise” was to be eliminated, and all collective farms were to be reorganized into a market-oriented organizational form, either a joint stock company, a cooperative, or an independent enterprise. The real era of reform thus began in and around 2000. By this point, however, agricultural output had greatly decreased, and there had been a great deal of de-capitalization of farming complexes (see papers 3 and 4). The prospects going forward did not look good.

Table 1: Agrarian Structure in Ukraine 2008 and 2015. Note, the total number of households in the 2008 column is actually from 2009, as this data was not available for 2008. Data on rural households with land is from 2008. Source: State Statistics Service of Ukraine.

<table>
<thead>
<tr>
<th>Farm type</th>
<th>Number 2008/9</th>
<th>Number 2015</th>
<th>Land '08 M ha</th>
<th>Land '15 M ha</th>
<th>% output 2008</th>
<th>% output 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enterprises</td>
<td>14,926</td>
<td>13,076</td>
<td>16.7</td>
<td>16.4</td>
<td>40.3%</td>
<td>47.2%</td>
</tr>
<tr>
<td>Fermery</td>
<td>42,932</td>
<td>32,303</td>
<td>4.32</td>
<td>4.34</td>
<td>5.7%</td>
<td>7.9%</td>
</tr>
<tr>
<td>All households (Rural)</td>
<td>17.2 m (4.6 m)</td>
<td>15 m (4.1 m)</td>
<td>15.69 (6.6)</td>
<td>15.7 (6.3)</td>
<td>54.0%</td>
<td>44.9%</td>
</tr>
</tbody>
</table>

The distribution of land in pai was a significant event in Ukraine. Some seven million former collective farm workers, corresponding to 16.2% (Nizalov et al., 2016) of the Ukrainian population received on average 4.2 ha of land (OECD and The World Bank, 2004, p. 86). Those entitled to receive land were workers at a collective farm enterprise, and pensioners from a collective farm, but not people working in the rural “social sector” such as teachers and doctors. The size of the pai depended on the number of beneficiaries receiving land from the farm, the size of the collective farm, and the quality of land – irrigated pai tended to be smaller for example. While land was indeed distributed “in nature”, meaning that beneficiaries received title to a specific plot of land, the land reform carried transitional provisions, still in force at the time of writing, prohibiting the sale of agricultural land, and the use of land as collateral for a loan, until certain conditions are met. The so-called moratorium on agricultural land sales has become a contentious issue and has been called
by Nizalov et al. (2016) “without exaggeration, the biggest and most problematic question related to land reform in Ukraine.” As the International Monetary Fund (2017) has renewed pressure on Ukraine to remove land sale restrictions, this issue appears, at the time of writing, to be coming to a head, though as usual with this question, it is not certain that the Ukrainian Rada (parliament) will pass new land reform legislation allowing land sales, or if they do, it will be in a form that the IMF approves (Aris, 2017). In any case, land lease remains, at the time of writing, the primary mechanism allowing for the circulation of agricultural land in Ukraine. How lease markets work in Ukraine is covered in papers 1 and 2.

Figure 1: Total amount of land under farm enterprises (including farmery) of different farm size categories. Source is State Statistics Service of Ukraine (2009, 2011, 2013, 2016a).

Table 1 shows the agrarian structure as of 2008/09, the earliest years such comprehensive information is available from the State Statistics Committee of Ukraine, and 2015, the latest year (at the time of writing) such information is available. Reality, as discussed in paper 1, is a lot messier than conveyed in the table, and there is a grey area between households and farmery, constituted by farms that would be large (from ~5 to 300 ha) by any measure, except perhaps a post-Soviet measure. Such farmers variously refer to themselves as chasnik (private businessperson), odnoosibnik / edinolichnik (“single farmer”), or they simply say “I do it myself” (Ya sam...). Odnoosibnik, strictly speaking, refers to a person who uses their own pai and nothing else, though I encountered this word being used for people who, in addition to their own pai, leased land from others. The important point about such farmers is that they are in the shadow economy, and as such, do not figure in statistical reports. This is in contrast to farmery, on the one hand, and households, on the other. Farmery are registered legal persons. The advantage of being a farmery
is that there are subsidy programs specifically for fermery, however this support is provided irregularly. Also, a suspiciously small amount of fermery have, in the past, received support (Kropivko, 2012). Perhaps unsurprisingly I encountered several former fermery that had de-registered their farm, complaining about all the paperwork, but continuing to operate their farm as osobistie selianske gospodarstvo (hereafter OSG) or “individual peasant farm.” Persons registering their land as OSG can receive up to two ha of land for free from village or district land reserves, and the produce from this land is untaxed provided that the bulk of what they produce is used for own consumption. Individuals who are thus registered are not considered unemployesc, and therefore not entitled to unemployment benefits.

Figure 2: Location of public agroholdings in Ukraine and highest wheat yielding regions of Ukraine. The source of information on agroholding location has been collated from the corporate documents of the public agroholdings. Note that in some cases an agroholding can have more than one cluster in an oblast. In the above map, however, there is only one point per oblast per company. In those cases where there is more than one cluster in an oblast, the location of the point has been decided by what appears to be the most significant cluster in that particular oblast. The wheat yield data for the years 2006 – 2015 is from State Statistics Service of Ukraine (2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016a).

According to the official figures, the number of farms (farm enterprises, fermery, and farming households) has gone down between 2008 and 2015, by almost 25% in the case of fermery. Some of these disappeared fermery had
likely already ceased to exist by 2008, as official statistics indicate that 4,100 fermery did not have any land in 2008 (State Statistics Service of Ukraine, 2009, p. 158), while only 325 fermery did not have land as of 2015 (State Statistics Service of Ukraine, 2016a, p. 50). This could be a natural lag in fermery bankruptcy being reflected in statistics (Kopivko, 2012; Mamonova, 2015). Also, some of these disappeared fermery may be still operating as odivnosobniki, and thus no longer visible in official statistics. In any case, the total number of farms, whether legal persons (farm enterprises and fermery) or farming households (particularly in rural areas) does appear to be declining. The implication of this is that land concentration is apparently occurring in all farm categories.

![Map of fermery in Ukraine](image)

**Figure 3: Resilience of fermery in Ukraine.** This figure shows the number of fermery per oblast (the graduated size of the circle), and the proportion of fermery among all agricultural enterprises per oblast (the % figure in the graduated circles). This figure also indicates where the number of fermery has decreased the most (19% or more) and where it has decreased the least or even increased, (6% or less). Note that the number of fermery and enterprises for Crimea and Luhansk are from 2013 and not 2015. The source of data is State Statistics Service of Ukraine (2009, 2016a).

Agroholdings are, by definition, farm enterprises, but table 1 otherwise does not give us much information on the agroholding phenomenon. Figure 1, however, which shows the total amount of land in different farm size categories, including both farm enterprises and fermery, but not households, provides some indicative information about the rise of agroholding agriculture. There are different definitions of an agroholding (for a discussion see paper 2 and
Walther, 2014). Some have defined an agroholding as any farm with over 10,000 ha (Lapa et al., 2010; cited in Walther, 2014), which is fortuitous (but probably not coincidental), as this is the largest farm size category in Ukrainian statistics. The tendency to create mega farms began in and around 2005. In 2008, there were 93 farm enterprises (not shown) with 10,000 ha or more, which together had 1.7 million ha of land. By 2015, this had risen to a total of 161 such enterprises (not shown), whose combined land holdings were 3.5 million ha. It should be noted that the number of agroholdings and their combined land holdings were even higher in 2014. However, 2014 was a crisis year, which apparently affected farms of all size categories, as the number of farms in all size categories registered a drop between 2014 and 2015 (not shown). 2015 is shown here (instead of 2014) because it is the latest available data.

Figure 1 appears to show an increase in farms over 10,000 ha over the last eight years, though some caution is required in terms of reading farm trends from this data, as the author is unaware of studies validating official statistics on farm size. Agroholdings appear to be growing at the cost of farms in size categories ranging between 1,000 ha to 5,000 ha. Figure 1 does not show this, but the number of fermery in these size categories has not decreased as much as farm enterprises in this size category. In some cases the number of fermery in these size categories has increased slightly over the period shown in figure 1. This indicates that it is mainly farm enterprises within these size categories that are either getting bought out by fermery or agroholdings or going bankrupt and their land then being transferred to either agroholdings or fermery.

The geography of different types of farming in Ukraine helps to understand how the agrarian structure shown in table 1 developed and is changing. Figure 2 shows the location of all public agroholdings in Ukraine, divided into “pure-play” (which is terminology used in paper 2 signifying an agroholding focusing on arable crop production), and vertically integrated companies, who have a significant crop production segment (and thus a lot of land), but whose revenues mainly come from food processing (such as sunflower oil, chicken meat or eggs, or sugar refining). Figure 2 also counts the number of times that an oblast’s officially reported wheat yield is among the top three yielding oblasts for the years 2006-2015. With respect to the latter, a clear geography is apparent in which the best wheat yielding areas are south and southwest of Kyiv. While figure 2 only shows public agroholdings, these agroholdings combined have, as of 2015, 1.7 million ha, or just under half of the total amount of land under farms of more than 10,000 ha as shown in figure 1. In any case the geography of public agroholding farming in Ukraine shown in figure 2 is consistent with information presented in Deininger et al. (2013) and in the report Ukrainian Agroholdings 2016 (UCAB, 2016), which are based on more comprehensive information (not just public agroholdings), which is to say agroholdings (private and public) are concentrated in a broad belt from western Ukraine, across north-central Ukraine to northeastern Ukraine. Much of this
belt is located in the area with Ukraine’s highest wheat yield potential (see figure 4). The geography of high wheat yields, shown in figure 2, is also indicative of better agricultural conditions in the “agroholding belt,” though it can of course be the case that agroholdings are helping to create, at least partially, the geography of best wheat yields in Ukraine.

Figure 4: Agro-climatic wheat yield potential for Ukraine. This figure shows the agro-climatic yield potential for wheat, as calculated by IIASA and FAO (2012a) and based on a high input use scenario (IIASA/FAO, 2012b). This data serves as the basis for figure 5 of paper 4 of this thesis.

Figure 3 shows where fermery are concentrated in terms of both absolute numbers of fermery per oblast, as of 2015, and in terms of the percentage of fermery among all agricultural enterprises in the oblast. The total number of fermery in Ukraine was highest in 2007-2008, and since then, as shown in Table 1, the number of fermery has steeply declined. In terms of this decline, figure 3 outlines (in bold) the five oblasts that have registered either an increase in fermery between 2007 and 2015 or the smallest decline in percentage terms (< 6% decline). Interesting to note is that, (1) the area where fermery have declined the least (or increased slightly), coincides mostly with the high wheat yielding oblasts (see figure 2). The exception is Chemihiv Oblast which is also a site of agroholding investment (see figure 2), and has relatively high yield potential (see figure 4). (2) the area of highest fermery concentration in absolute and percentage terms is in the south of the country in Odessa, Miko-

layiv and Kherson Oblasts, where agricultural conditions are more challeng-
ing. It is also the case (but not shown) that the average farm size of such fermery is larger in the south, and thus the overall territory under such farms is greater in the south. Figure 4, as mentioned, shows the agro-climatic yield potential for wheat, as calculated by the Food and Agricultural Organization and the International Institute for Applied Systems Analysis (IIASA/FAO, 2012a) under a high input use scenario. The “high” input use scenario means that production “is based on improved or high yielding varieties, is fully mechanized with low labor intensity and uses optimum applications of nutrients and chemical pest, disease and weed control” (IIASA/FAO, 2012b). Superimposing figures 3 and 4, one sees that fermery thrive best in the region with highest yield potential, while they are most numerous in the regions with Ukraine’s worst wheat yield potential. Yield potential is discussed more in paper 4.

Figure 5. Average size of rural household land holding per oblast 2016. The land holding size is reflected both in the size of the graduated circles and in the figure indicated inside each circle. Source of data is State Statistics Service of Ukraine (2016b, p. 24).

Finally, figure 5 shows the average household land holding size for rural households in Ukraine as of 2016. Official statistics do not count the number of rural households per oblast, but they do conduct a regular survey of around 29,000 rural households from which they can calculate an average land holding size. Again we see the south of the country with the highest average holding size. However, the distribution of holding size (not shown) is most uneven in the south, with a relatively few households holding a large amount of land (large, that is, for households), while a greater number of households have an
amount of land under 0.5 ha. In contrast, the distribution between small, medium and large holdings among households in the northwest of the country, where there is also a large average holding size, is more evenly distributed (again not shown). Paper 1 focuses on household farms in the south of the country, and found them to be quite market oriented. A speculative inference would be that the market orientation of household farms in the south is, in part, driving the distribution of plot sizes. The chain of inference in this regard is as follows: not all households in the south are significantly involved in market production, but the more market-oriented, the larger the household plot. There are then evidently enough of these market-oriented, large household plots in the south of country to drive up the average size to the largest in the country.

Several other inferences can be made from information contained in these maps and tables. First, fermery are more numerous in the south of the country, both in percentage terms and in absolute terms. This is also the area in Ukraine were a relatively small number of households have the largest household land holdings, perhaps due to intensive market engagement, pushing up the average household land holding size to the largest in the country. I interviewed six unregistered odnoosibniki in Kherson Oblast (see annex) but encountered many more – at sizes between an average fermer and a large household plot. I suspect that the south of the country has a high number of these unregistered farmers compared to other parts of the country, though I have not done or seen research in other parts of the country to confirm this. I would argue however that the high number of fermery, plus the relatively large size of a relatively small number of household farms, is suggestive of this. The implication of this is that the south of the country, relatively speaking, may have more individual or family-oriented farming, defined here as fermery, odnoosibniki and household farms, than other parts of the country.

In field work in Kherson Oblast, I have documented widespread collective farm collapse and liquidation (see paper 1). The question is if this is an enabling condition for the number and size of fermery and other smaller-scale farmers in the south of the country. Did collective farm collapse leave the fields clear, so to speak, for individuals and families to expand farming operations, either as fermery, odnoosibniki or households? Again, field work on collective farm liquidation and its consequences was not conducted in other parts of Ukraine, so I cannot speak authoritatively about the conditions for individual or family farming outside the south, and I leave connections between collective farm collapse and a high degree of individual or family farming (however defined) as a speculative hypothesis. Going deeper into the question of collective farm collapse and individual farming would require more sociological analysis on defining different types of farms in relation to, and, to a certain degree, in contradiction of the official categories used here. Paper 1 starts this process, but there is much more work on this question to be done.
In general, it can be observed that farm trends appear to have a regional character, though the nature of these regional trends require more research, which is probably most optimally done with sub-oblast data. One can however assert with some certainty, from the information contained in figures 2 through 4, that agricultural conditions in the south are not as good as in the north-central part of the country. This can be seen directly in the geography of high (in the Ukrainian context) wheat yields in figure 2 and in the map of potential wheat yield in figure 4. Fermery appear to be more resilient in this more agriculturally favorable region, as indicated by marginal declines or even slight increases in the number of fermery there. There have been significant declines of fermery in the west of the country, despite what appears to be favorable agricultural conditions (figure 3), though compared to the south the initial number of fermery in the west was always much less. There thus appears to be more “space” for fermery and households in the south, though the more challenging agricultural conditions also entail a greater likelihood for farm failure (the 2008 number of fermery in Odessa, Mykolayiv and Kherson Oblasts has declined by 20% or more). The purpose of these figures is to present an indicative picture of the major trends in Ukraine’s agrarian structure and also to show where in Ukraine the broadly defined categories of farms are concentrated. Within this broad picture, the rest of the thesis will consist of more regionally based case-studies, mostly, but not exclusively focusing on the south of Ukraine (note that papers 1 and 3 will present more information about the specific regional context in the south of Ukraine).
3 Theoretical Overview: Peasants, Farmers and Uneven Development

A framework is presented in this chapter for helping to situate peasant struggles for livelihood in a broader narrative about regional farming possibilities in relation to market tendencies and environmental degradation. Discussion begins with considerations of the so-called peasant question from different perspectives, but seeks to merge such discussions with critical human geography treatments of uneven development and the geographies of environmental difference to arrive at a broader, geographically informed theory of agrarian change with respect to different kinds of farms (not just peasant farms). Along the way, this discussion touches on questions of returns to scale in agriculture. Also, related claims from the food sovereignty movement, which has emerged in recent years as a major counter discourse to both mainstream productivist agriculture and Marxist critical theory, are critically evaluated. The purpose for laying out this framework and the critical comments, is (1) to situate the Ukrainian example in current debates, but also (2) to find and highlight, as flagged in the introduction, ways of theorizing about trajectories of different kinds of farms in the former Soviet Union in such a way as to incorporate developments in this important agricultural region with developments in other parts of the world. Much of this discussion reflects thought and work that is included in the four papers that constitute the main part of this thesis.

3.1 21st Century Peasant Questions

To engage in discussion on the “peasant question” is to invoke a wide-ranging debate that goes back over a century. In its original formulations, much of which relate to pre- and early Soviet Ukraine and Russia (Chayanov, 1925; Lenin, 1974), this debate dealt with the problem of how the workers movement in Europe should deal with land-holding peasant farmers, who were seen as essentially conservative, and therefore politically suspect, at the same time that it was assumed – based on some evidence, but also on the logic of the

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5 As a matter of fact, the study area for papers 1 and 3 of this thesis coincide with territory that Lenin referred to as his Exhibit A in proving that capitalism and class formation had penetrated the Russian countryside (Ukraine then of course being a part of the Russian empire). See Lenin (1974, p. 70).
central tendencies of capitalism as put forward by Marx – that capitalist penetration of the countryside would dispossess most peasants, whereupon they would flood into the cities and, it was hoped, become proletarians (Hussain and Tribe, 1983). In the meantime, farming would become as thoroughly capitalist in its forms as industry. This is the standard Leninist prescription, even if there is some indication that Lenin was perhaps ambiguous on this score (Akram-Lodi and Kay, 2009; Boltvinik, 2016). The agricultural economist A.V. Chayanov, on the other hand, argued for peasant persistence, based on, among other things, peasants’ ability to outcompete capitalist farms due to their capacity for “self-exploitation”, i.e. in bad years, peasants can reduce consumption while capitalist farms would go out of business. Though this question for communist/Bolshevik minded parties was in part about tactical political positioning (Bernstein, 1996, p. 23), the essence of the debate concerns contrasting development models for the countryside with the Leninist model based on “depeasantization” in connection with the development of agrarian capitalism as a necessary condition for overall industrialization and development, while Chayanov and other “populists” (narodniki) instead argued for basing the rural economy on peasant production, which was said to be more productive.

In one sense, the terms of this debate are still valid in that in many places the Leninist assumption that capitalism would “oust” (Lenin, 1974, p. 75) peasants has proven to be erroneous (Djurfeldt, 1981; Kitching, 1998b; Mann and Dickinson, 1978). There are still a great number of peasants in the world, as traditionally defined, even if the question of numbers can be vexed, and there are arguments today in the spirit of Chayanov, promoting peasant led agrarian development. However, in many ways, the terms of debate on the agrarian question have shifted significantly owing to structural changes in the global economy, and more and more attention in critical debates today is being drawn, not to land-holding peasants, but to the growing ranks of landless (ex) peasants, what Bernstein calls “classes of labor” (2010, p. 111), who straddle previously hard distinctions between urban and rural, and industry and agriculture in a struggle for survival. Scholars attribute this state of affairs to, among other reasons: (1) the decreasing importance of agriculture, or surpluses extracted from agriculture, for the development of capitalism in the era of globalization (Akram-Lodi and Kay, 2009; Bernstein, 2004); (2) at the same time that transnational food corporations dispossess “peasants” of their land through, among other things, low food prices (McMichael, 2009); plus (3) obstacles developing countries today face in developing modern industry; and (4), in any case, modern industry’s declining need for workers (Bernstein, 2004; Kitching, 2001a; Weis, 2007, p. 26, 2010, p. 335). Given this situation, and the fears of an impending ecological crisis in agriculture (Moore, 2015; Weis, 2010), the question of what to do about peasants, and the broader category of classes of labor, and if and how these groups fit into different models of development, has become ever more acute.
In this regard, Ukrainian statistics point to extensive land holding among rural inhabitants. According to the Ukrainian State Statistics Service, there are 4,108,400 rural household farms as of 2015, with an average land holding of 1.54 ha (see table 1 and State Statistics Service of Ukraine, 2016a, p. 55). Given the fact that the average rural household in Ukraine has 2.67 members (Derzhavna Sluzhba Statistiki Ukraini, 2016, p. 11), the 4.1 million households corresponds to roughly 10.9 million people. The rural population in Ukraine currently stands at 13,175,500 people (Derzhavna Sluzhba Statistiki Ukraini, 2017), which means that clearly a large majority of the Ukrainian rural population has and/or uses land. Obviously the intensity of land use will vary, as will the degree to which household members have other employment, but the point I wish to make here is that land holding is widespread. This suggests that the peasant question, as it is classically formulated linking peasants to land, is relevant for Ukraine. This is, however, not to say that the newer question of a global “precariat” (classes of labor) is irrelevant to post-Soviet circumstances. The large informal sectors of post-Soviet economies, fed in large part by exploding rural-to-urban migration would indicate that this also is a relevant question for the former Soviet Union. However, one cannot cover everything in a thesis, and this important topic has not been addressed here.

3.1.1 Peasants, Family Farmers and Food Sovereignty

Complicating this discussion is basic theoretical and linguistic disagreement on terminology, in particular on the importance and meaning of the word “peasant” (and synonyms or overlapping terms like “smallholder” and “family farmer”). A basic definition would be that “peasants” are farmers, usually in rural areas, who are “incompletely” integrated into “imperfect” factor markets (Ellis, 1993), primarily produce their own subsistence, with some surplus perhaps being sold, and are dependent on family labor for all or most operations (Boltvinik, 2016). Within this definition there are disagreements if exclusion from market relations is a sign of exploitation and subordination (Akram-Lodi and Kay, 2009) or if it rather is a sign of peasant autonomy and “resistance” (van der Ploeg, 2009). Another axis of difference concerns how relevant the term is today. Some argue that the term is too vague to cover all the empirical circumstances that can be said to describe peasants (Friedmann, 1980), while others argue instead that it is too narrow, preferring broader “classic” terms such as petty commodity producer (Bernstein, 1986; Mann and Dickinson, 1978) or, more recently, “classes of labor,” (Bernstein, 2010, 2016a). Part of the reason for this disagreement is differing theoretical and epistemological commitments behind explanations for peasant persistence. Thus the view of peasants as subordinate often reflects an implicit or explicit structuralism to be found in sociological or political-economic approaches, while peasants as resistance often, but not always, reflects a more anthropological or ethnographical bottom-up approach to studying the peasantry.
This is further confused by the linguistic diversity, which characterizes the every-day use of the word “peasant.” In (American) English, for example, the word tends to have a negative connotation (Graddy-Lovelace, 2017). Kitching (1998b) shows how post-communist Russian peasants deploy the word strategically to express a mix of bitterness, resignation and resistance with respect to failed Soviet promises to deliver modernization, defined as depeasantization. Meanwhile, the food sovereignty movement seeks to bestow a badge of honor on the word “peasant” – peasants constitute a “moral reserve” and “a civilizing inspiration” (Bartra, 2016, p. 93) in providing new solutions to growing ecological contradictions in industrialized agricultural production. These differences clearly reflect different positionings in terms of identity and politics. Politics it must be said is seldom far from the theoretical debate discussed immediately above, especially as the use of a concept of the peasantry is often accompanied by a plan of what to do about it. Even if it is often precisely where analytical concepts are converted into political judgments and plans (i.e. models of development) that some of their weaknesses are revealed, saying something is political, in this reflexive age, is not meant to delegitimize the argument. If it is true that everything is political, it is also true that shedding light on hidden or explicit political positionings helps in the assessment of the basic validity of a concept.

Consider the related and similarly loaded term “family farmer.” Part of the neo-liberal model of development is to convert, at least some peasants, into “family farmers,” through implementation of land reform or redistribution. This is based on some (albeit of course contested) empirical evidence of an inverse relationship between farm size and productivity (see below), which in turn is explained chiefly by lower transaction and monitoring costs associated with smaller, family owned and operated farms (Allen and Lueck, 2000, 1998; Binswanger and Rosenzweig, 1986), and which is the classical economic explanation for the persistence of family farming over corporate farming in much of the West. Critics however argue that the development of family farming in Europe and North America is the product of an historically contingent political economic process, and that only later was the image of commercial family farming naturalized (Friedmann, 1978a, p. 550) through discursive actions of powerful farm lobbies seeking to promote and protect their position in society (Goodman and Redclift, 1985, pp. 233–234). It is, in other words, questionable if this model can be translated into other circumstances. Moreover, critics argue that land reform rarely goes far enough to do more than make a dent in the profound systemic inequalities to be found in many developing countries, particularly where large-scale farm units have competing interests (Bernstein, 2004, p. 196), and thus will not result in significant gains for a large section of the rural population. The results of post-Soviet land reform in Ukraine appear to bear out this criticism. Thus Ukrainian land reform, carried out in the early 2000s, led to a spectacular agricultural recovery in Ukraine in the 2000s (Lerman et al., 2007, p. 153), while post land reform conditions in
villages (where the new land owners live) remained “bleak” (ibid, p. 11). Or as Allina-Pisano (2007, p. 190) put it, Ukrainian land reform beneficiaries “face[d] greater physical hardship, uncertainty, and poverty than at any time since World War II.”

Today, a new answer to the ‘peasant question’ is currently becoming more prominent. Under the banner of food sovereignty, scholars, activists, and peasants themselves advocate a peasant-based model of rural development (van der Ploeg, 2014; Weis, 2007) that seeks to bypass the contradictions of modern globalized capitalism by building autonomy based on sustainable and local food production systems. In support of this model, claims are made not only that such peasant production is more ecologically sustainable, but that it is also as or more productive than conventional agriculture (Altieri et al., 2012; Altieri and Toledo, 2011; Rosset, 1999). The claims put forward by food sovereignty advocates are, as ever, highly contested. In particular the movement is accused of “utopianism” in its political program, a lack of realism in its agricultural agenda (i.e. feeding the world), and, arguably the most serious charge, “[short-circuiting] the analytical and empirical demands of advancing knowledge of the moment of world capitalism we inhabit” (Bernstein, 2016b, p. 643). Moreover, it should be noted that food sovereignty, as an overt movement has not really taken root in post-communist Russia or Ukraine (Visser et al., 2015). However, it will be argued in the following section (3.1.2) that elements from the underlying theory behind food sovereignty, particularly as developed by van der Ploeg (2014; 2010, 2009), are useful for understanding the present situation of peasants in Eastern Europe. Later (in 3.2.1 and 3.2.2), the contested empirical claims of food sovereignty will also be examined.

3.1.2 Commoditization vs. Resistance in Farm Reproduction

In building his theory, van der Ploeg (2009) proceeds from the bottom-up, defining what a peasant is by what they do. In so doing, however, he does not wholesale discard standard structural considerations from the political economy literature. Thus, in line with Friedmann (1980, 1978a, 1978b) and others (Ellis, 1993), a key component in van der Ploeg’s definition of a peasant is the degree to which the reproduction of the farm is “commoditized”, i.e. whether or not continuous reproduction or renewal of the farm (household) is dependent on up- and downstream market relations. In standard critical theory, reproduction of capitalist farms is defined by their total immersion in market relations. This allows, Friedmann argues, for the logical deduction of the conditions of reproduction of a capitalist farm, that is the conditions of capitalist farm reproduction can be determined by calculations based on prices of inputs, farm-gate prices, credit-rates, etc... Peasants, meanwhile, are defined “negatively and provisionally” (Friedmann, 1980, p. 170) by their exclusion from “imperfect” (Ellis, 1993, p. xiv) or “missing” (de Janvry et al., 1991) market structures, and their situation has to be defined empirically in every instance...
(Friedmann, 1980, p. 166). In van der Ploeg’s hands however commoditization is both significantly nuanced, and, more importantly, placed in a contradictory, dialectical relation with peasant / farmer agency.

In terms of nuance, the standard approach has all too often, according to van der Ploeg, been used to separate market oriented farms from peasants, with the former often being considered “modern”, while the latter are considered backward. This binary is often accompanied by a particular center-periphery geography – farms in the west are market oriented and modern, and farms in developing countries are constituted by backward peasants. Van der Ploeg points out, however, that given the scale of government interventions in agriculture in developed countries, farming in the West can hardly be defined by the ‘invisible’ hand of the market (van der Ploeg, 2010, p. 10). Indeed, in many cases, would-be peasants actually confront unbridled market forces to a much greater degree than “modern”, capitalist farms in the West, a point which can be made both about Russian farms (Ioffe et al., 2006), and the Ukrainian smallholders profiled in paper 1 of this thesis. Furthermore, van der Ploeg argues, market regulation is increasingly carried out through the “monopoly power” of giant transnational corporations (or networks of corporations), which van der Ploeg calls “food empires” (van der Ploeg, 2009, 2010; see also Marsden, 1997; Friedmann, 1993; Weis, 2007), and which concretely link (while simultaneously seeking to obscure these links) “spaces of poverty with spaces of wealth” (van der Ploeg, 2010, p. 10). Van der Ploeg actually accepts the importance of commoditization and its potentially marginalizing impact, but he argues that commoditization does not bifurcate reality; all farmers – be they “peasant”, “entrepreneurial” family farmers, or corporate farms – are interlinked and participate in the same “mode of ordering” (van der Ploeg, 2010, p. 17). They just occupy different spaces in the “continuum” (Edelman, 2013, p. 9) of privilege and opportunity in that ordering.

Beyond this important qualification, van der Ploeg argues that commoditization is something that can be actively resisted. It is this resistance that is the crucial element in understanding van der Ploeg’s peasant agriculture. Resistance is traditionally conceived as overt or even violent protest, but as van der Ploeg writes, it can also be expressed in the everyday practices of agriculture, whether it be “the varieties that are sown, the cropping patterns that are designed, the technology that is chosen, and the grasslands that are created” (van der Ploeg, 2010, p. 22). Resistance, is in other words, expressed chiefly through the labor process, which is structured in such a way that there is a striving after autonomy. This is accomplished through two inter-related processes: distancing from markets and creating and then maintaining a measure of control over the resource base however defined (land, water, soils, etc...). Distancing from upstream markets (for inputs) means that resources have to be husbanded carefully, through various (non-market) mechanisms – primarily their own hard labor, but also through exchange via kinship or communal ties, or some sort of moral economy, etc... Defining labor as resistance, van
der Ploeg thus emphasizes the agency of “peasants” in the face of forces contributing to marginalization or dependence, i.e. that peasants have within their capacity the ability to mitigate marginalization, to shape their reality in some fashion. This agency, as conceived by van der Ploeg, is not a “voluntarist” (cf. Bernstein, 2016b) force for overcoming marginalization, but rather resistance constitutes part of an “interface” (Long, 1984, p. 180), between the local and extra local, which helps to define how extra-local forces get mediated and negotiated into the concrete history of particular places.

In essence van der Ploeg has not only synthesized a long simmering debate in agrarian political economy about persistence of family farming, but he has also more properly situated “peasant” agriculture within this debate. On one side of this debate is Friedmann and Chayanov, who argue that family farming persists because of the possibility for “flexible consumption” on the part of family households, who much more than corporate farms can draw down on costs (by decreasing consumption) in years of crop failure or low prices (Chayanov, 1925; Friedmann, 1978a). Moreover, peasants can sacrifice labor productivity – working uneconomically “beyond the logic of capitalist profit accounting” (Friedmann, 1986, p. 188) – either for the sake of land productivity, thereby, on a per hectare basis, out-producing capitalist farms, and/or as van der Ploeg writes, to secure the sustainability of the resource base allowing for more stable production amid weather, price and other shocks. On the other side of this debate is Goodman and Redclift (1985) who argue that while capitalism has not directly taken over farming as Lenin and Marx predicted, i.e. organized the labor process along the lines of an industrial firm, it has in fact formally “subsumed” family farming in developed countries, placing it in a dependency relation through its control of agri-inputs (seeds, fertilizer and other agri-chemicals, machines, etc…) and credit. As such the broad Marxist / Leninist predication has actually happened, if not quite as predicted. The reason capitalism has not completely subsumed farming is that various aspects of farming – and in particular the “non-identity of labor and production time”, which hinders the circulation of capital – present difficulties to the efficient extraction of surplus value from farming (Mann and Dickinson, 1978). Capitalists are quite happy then to let families bear the risk associated with having capital lying (or standing) in the fields over the growing season subject to all the vicissitudes of nature.

What van der Ploeg shows is that these are not opposed theories, but dialectically related tendencies. In this regard, the peasantry, is a “process” (Shanin, 1973; van der Ploeg, 2010, p. 2) of trying to avoid, mitigate or resist dependency by self-reliance, moral economy, and sustainable husbanding of

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6 This argument is usually attributed to Goodman and Redclift (1985), but Djurfeldt (1981) made the same argument four years earlier. Perhaps more interesting, Chayanov made a version of this argument as early as 1925 with reference to developments in late Imperial Russia and North America (Chayanov, 1925, p. 262).
or seeking autonomous control over available resources. While there are certainly pressures towards subordination, there is no preordained teleology (Friedmann, 1986; McLaughlin, 1998), and a great variety of outcomes on a spectrum between “peasant” farming and capitalist farming are possible. While farms undergoing or participating in this peasant process are perhaps more likely to be found in developing countries, van der Ploeg demonstrates that peasants so defined are found everywhere.

3.2 Practical Theory and its Discontents

Beyond the underlying analysis of the balance of dependency and autonomy in the agrarian economy, food sovereignty is more popularly known as a political movement, promoting an alternative peasant-led model of development (van der Ploeg, 2014). A number of empirical claims have been made in support of such a program that have, as mentioned above, been highly contested. The purpose of this section is to interrogate some of these empirical claims, while also relating these claims to post-Soviet Ukraine. Among other things, this section will review arguments concerning the so-called inverse relationship – i.e. the smaller the farm, the more produce per unit of land it produces – and in particular the claim that small-scale peasant farms practicing agroecology or organic agriculture can out-produce large-scale farms.

3.2.1 Inverse Relationships

The empirical question of an inverse relationship between farm size and land productivity is a contentious question in both agricultural economics and critical agrarian studies. One reason this question is so fraught is a range of opposing, but potentially far-reaching policy preferences follow, depending on where one stands with respect to this question. That smaller farms, owned and managed by families (practicing conventional agriculture) are superior in terms of productivity is one mainstream view that has long been predominate, and, among other things, influenced many land reform programs sponsored by Western countries seeking to replicate this state of affairs in developing countries. Another view that is becoming increasingly prominent today is that organizational and technical innovations are now (potentially) making it possible for larger-scale farms, even super large farms, to be more productive (Deininger and Byerlee, 2012). Such arguments have been used in support of large-scale investments in former Soviet countries (see paper 2). Even though this idea is receiving renewed attention today, it is important to note that the supposed advantages of larger farms is also an idea with a long pedigree, and served, for example, as one of the justifications of collective farm agriculture (Ellman, 1981, p. 981; Scott, 1999, pp. 193–201) and other projects (Johnson
and Ruttan, 1994). In the meantime, food sovereignty advocates generally reject conventional agriculture, and some advocates argue that low-input, organic agriculture on small, family (peasant) farms can be more effective in terms of land productivity than large-scale industrial farming (Altieri et al., 2012; Altieri and Toledo, 2011; Rosset, 1999), i.e. they produce more per land area than on industrialized farms, an assertion which serves as the basis for the bold claim that food sovereignty can feed the world (Campesina, 2010), and as support for (but not the only basis of) an alternative peasant program of agrarian development.

Some of the reasons why an inverse relationship might exist were discussed above, but in this section the empirical fact (or lack thereof) will be discussed. The weight of the empirical evidence does appear to align with the following statement, as expressed by Lipton (2009, p. 65; See also Binswanger et al., 1995, p. 2706): “while in developed countries there is a direct relationship between farm size and land productivity – there is an inverse relationship in labor abundant developing countries: small farms produce more, per hectare per year, than large farms.” There are, however, enough either confounding examples or credible doubts expressed, particularly with respect to the inverse relationship in developing countries (Byres, 2004; Chavas, 2001; Dorward, 1999; Dyer, 2004; Sender and Johnston, 2004; Woodhouse, 2010), but also concerning direct farm-size productivity relationships in developed countries (See for example Sheng et al., 2015), that debate continues on this topic.

This question has not been studied extensively in post-Soviet circumstances, but available results in Ukraine would suggest that this is certainly not a settled matter in that country. First, Lerman et al. (2007, pp. 113–123), found an inverse relationship when comparing the land productivity of small household peasant farms and commercial farm enterprises (whether fermery or corporations), but, against expectation, no relationship whatsoever, neither in terms of land productivity nor in terms of total factor productivity, between smaller-scale commercial farms (on the order of 100s of ha) and larger scale farm enterprises (>1000 ha). They concluded, based on their sample, that there are “no economies of size” in Ukrainian agriculture (ibid, p. 9). It is important to note that this particular study did not examine the question if super large farms, i.e. agroholdings, would be more productive, because when data was gathered for their report, this was as yet not a significant trend. However, two more recent studies (Balmann et al., 2013; Deininger et al., 2013), which did specifically include super large farms in Ukraine, came to similar conclusions, again despite expectations. Superior performance (yield) on the part of larger

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7 The authors are proponents of the inverse-relationship argument, and promote fermery in Ukraine as an analogue to Western family farming.
8 They did not have the data to compare total factor productivity between small household farms and commercial farms.
9 In this case, the authors are proponents of large-scale farming.
farms was actually noted in both studies, but in one case this was attributed to more intensive use of inputs (Balmann et al., 2013), and in the other case it was accounted for by variables relating to managerial skill and locational effects, i.e. more suitable land or other resource endowments (Deininger et al., 2013). The latter study also, interestingly, found that agricultural productivity rose the least in areas that in 2001 (the first year of their time series) had the most concentration of land under large farms.

The results from Ukraine on this question are thus as yet inconclusive in the terms of the classic way the question is framed, i.e. that farm-size is determinative of productivity. Indeed, the Ukrainian studies cited above, if anything, indicate the importance of context – in terms of agrarian structure and agricultural conditions, among many other factors – in shaping the direction, magnitude and relevance of farm-size and productivity relationships. Along these lines, the small-scale producers in paper 1 are, on the one hand, highly productive, and would seem to conform to the inverse relationship view. However, paper 1 emphasizes the rather specific post-Soviet conditions which have brought about this state of affairs, i.e. context matters. Two implications flow from this. First, to the degree that there is a tendency towards an inverse relation in developing countries, and the opposite in developed countries, it should not be raised up to a one-size-fits-all “transcendental” law informing policy (Bernstein, 2004, p. 195; See also Harrison, 1979, p. 91). Second, given the importance of context which can change from country to country and region to region, there is a need for more geographic study both in theoretical and empirical terms of farm-size / productivity relationships.

3.2.2 Critical vs Practical Theory

The debate above concerns farms of different sizes practicing conventional agriculture. As mentioned above, (some) food sovereignty advocates make an additional claim, which is that small, household peasant farms, practicing agroecology or organic agriculture, can be more productive than conventional farms. This claim is a potential game-changer, for if it were to be substantiated then farmers practicing such agriculture could both feed the planet and reduce environmental degradation caused by agriculture, which of course, is an increasingly untenable consequence of industrialized agriculture. The problem with this claim is that, as Jansen argues, the local, and apparently impressive agro-ecological solutions that constitute the interesting cases – System of Rice Intensification (van der Ploeg, 2014, p. 1023), Milpa or polycultures of maize and beans in Central America (Altieri et al., 2012, pp. 4–5) – that serve as the basis for this proposition have not been shown (yet) to be exportable or scalable (Jansen, 2015, pp. 222–224; see also Sheehy et al., 2004). A more principled and consistent stance from food sovereignty advocates, then, is to completely reject mainstream notions of “agricultural productivity” since many of
the most significant costs of agricultural production are, in such models, externalized to society (Weis, 2010, p. 334). While this critique of mainstream notions of agricultural productivity is certainly cogent, it is not clear if the kind of de-industrialized agriculture, which serves as the basis of proposals to completely refocus agriculture away from productivity towards a “radical sustainability” is realistic.


<table>
<thead>
<tr>
<th>% of Ukrainian smallholders with over 1 ha of land using different inputs, averaged from 2005 to 2015</th>
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<tr>
<td>Synthetic fertilizer</td>
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<td>Organic fertilizer</td>
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<td>Chemical plant protection</td>
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For example, it might not even be the case that peasants who organize under the banner of food sovereignty themselves actually reject the “technical” package of intensive agriculture. Jansen describes in this regard demonstrations under the banner of food sovereignty in Costa Rica where peasants demanded state help to acquire synthetic agri-inputs for the production process (2015, p. 225), while Henderson (2017) reports that despite utopian rhetoric, the local politics of food sovereignty in Central and South America is actually often oriented towards practical matters related to access for peasants to technical assistance and resources to aid their farm production. Van der Ploeg, who otherwise praises Chinese agrarian development, writes that Chinese “peasants” nevertheless by and large succumb to the “seductive alternative” (van der Ploeg, 2010, p. 5) of intensive synthetic input use (van der Ploeg, 2014, p. 1010). Statistics from Ukraine indicate that many household farms also use synthetic inputs (see Table 2). The implication of this is that the problem with regard to industrial farm inputs for many peasants is not the environmental consequences per se, but a practical and democratic problem of access to such inputs.

It is also a relevant question whether or not peasants today, so to say, like their job. The post-Soviet experience provides some insight. Kitching, in his analysis (1998b) of the state of peasant agriculture in post-communist Russia, argued that for many peasants, the term “peasant” is a negative identity – i.e. that they are peasants because the (Soviet) state failed in its modernization goals, goals which at some level had the support of many (see also Siegel-
baum, 2016). Probably few around the world want to be “peasants” (for discussion on this from India see Agarwal and Agrawal, 2017), but the question is the degree to which peasants resent the lack of choices, or, to put this in economistic terms, the low opportunity cost attached to peasant farming (cf. Millar, 1970). As noted in Visser et al. (2015, p. 521), many post-Soviet small-holders would probably happily curtail their farming if presented with a salaried job. While post-Soviet “peasants” display a style of farming (with some exceptions hinted at above and to be discussed more below) that is consistent with the food sovereignty paradigm, it does not follow that they also reject the modernization project. To the degree that post-Soviet peasants express opposition, it is not rejection of modernity per se (an explicit rhetorical aim of the food sovereignty movement), but rather the feeling that the modernity project has rejected them. Such considerations belie claims to vast numbers of peasants in the world today (cf ETC Group, 2009, p. 2) and their potential political power (cf van der Ploeg, 2014, p. 1025).

Finally, the question of the state, and what role it might play in support of peasant-led agrarian growth is of vital importance. In van der Ploeg’s treatment, the state is not conceived as a positive actor in the development of peasant agriculture and its production potential, but rather as something that is “asphyxiating” (van der Ploeg, 2010, p. 23) to greater or lesser degrees, and thus something to be managed and, if possible, “distantiated.” In a similar fashion McMichael, another proponent of food sovereignty, seems to imply that solutions to the present contradictions in agriculture will not come from the state, but “on the margins” (McMichael, 2009, p. 293).

Bernstein argues, however, that if the ambitions of food sovereignty advocates to feed the world are to come true, then the state will have to be involved, pursuing a wide-range of policies supporting peasant agriculture, akin to the substantial subsidy regimes and price supports, favorable trade policies and extension services that support large-scale commercial agriculture and undergird the present productivist bounty in Europe and North America (Bernstein, 2014, p. 1054). It is also relevant to point out – as discussed in paper 1 – that the early 20th century Russian / Soviet agricultural economist A.V. Chayanov, whose explorations of peasant farm productivity in the late Russian imperial and early Soviet periods are an inspiration to 21st century advocates of food sovereignty, explicitly argued that a state-peasant alliance would be necessary for the creation of the highly productive peasant economy that he envisioned (Chayanov, 1925, pp. 264–266). There has to be an explicit and radical accommodation between peasants and the state on a mutually beneficial program

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10 While the tragic circumstances of Chayanov’s life can hardly be used as an argument against food sovereignty, it is nevertheless relevant to point out that Chayanov, who considered himself a socialist, was eventually arrested and executed under Stalin, in part for his advocacy of a policy of state support for peasant agriculture, instead of the policy, eventually chosen by Stalin,
of support. The question is how realistic is such a development given the fact that, as Bernstein (2014, p. 1054) writes, the “appeal to such comprehensive and progressive state action is launched in a historical context in which most states most of the time are deeply implicated in the ongoing march of capitalism (and once state socialism) ‘against the peasant’” (Welty et al., 2016, pp. 133–136 make similar arguments).

In partial defense of the food sovereignty programs of the likes of van der Ploeg, some of these disagreements noted above can be accounted for by the differences between a theory that is more purely critical (i.e. seeks to focus on and explain systemic inequality), as in the case of Bernstein, and a theory which seeks to be both critical and practical, that is to say also provide a theory on how an alternative could be constructed. In comparison, the latter, which is the ambition of van der Ploeg, is the more difficult task. Nearly fifty years ago, Harrison (1979) complained of a relative dearth of practical theory in relation to theories of agrarian change and identified this as a serious defect in academic Marxism. Among other things, the lack of practical theory of alternatives has the effect, Harrison argues, of leaving the field relatively free for “policy-relevant” research in mainstream economics.

The present thesis is primarily, alas, also a work of critical theory, and not practical, but, in closing this section, I wish to present some arguments about the development of a practical theory of alternatives in light of the discussion above. First, notwithstanding critique of one or the other detail, van der Ploeg, following in the footsteps of Chayanov, has created vital space, based on substantial empirical material, for discussion of an alternative practical theory of agrarian change, and this is an important achievement. Second, science in general, and scientific agronomy in particular, come under scrutiny from food sovereignty advocates and critical scholars. On the one hand, such scrutiny is well-deserved, especially where science has been the handmaiden of colonialism (Moore, 2015). However, agronomy itself is hardly “a monoculture of ideas” (Martínez-Torres and Rosset, 2014, p. 994) as some allege. A (legitimate) concern about overly technicist solutions and narrow economic models, does not mean that we have to reject agronomic technology tout court (Clark and Tilman, 2017). For example, strategic and responsible use of synthetic inputs in some smallholder systems, it has been shown, can even have – beyond a productivity boost – positive environmental effects, such as preventing erosion (Lotter, 2015). None of this is meant to deny the biophysical contradictions of agriculture (Weis, 2010), but merely to argue for a more nuanced, pragmatic approach with respect to science and agriculture going forward.

of extracting all available surpluses from the countryside, at the cost of rural famine, to fund a breakneck industrialization program.
3.3 Uneven Development, the Limits of Capital, and the Agrarian Question

One of the main concerns of food sovereignty as a practical and critical theory concerns degradation and limits, i.e. that the consequences – climate change, toxification of environments, resource depletion, soil erosion – of high-input industrialized agriculture are too dire for the future of food production to allow this state of affairs to continue (Moore, 2015; Weis, 2010). Given what is at stake, it is understandable why the question of limits is central to various counter narratives promoting alternatives to dominating farm production systems today. However critical theory, as will be explained below, indicates that this may lead to misunderstandings of farmer motivations in the context of market engagement and competition and the struggle for farm reproduction. This section will thus turn to the question of limits with respect to critical theory, suggesting a framework for discussing agricultural limits, which at the same time situates limits in a broader context with respect to market tendencies and agrarian trajectories. This framework – which falls broadly under the rubric of uneven development – will more decisively move discussion to the terrain of geography. Research examining farming through the lens of uneven development has tended to focus on family farming in the market contexts of North America or Europe. However, when combined with arguments on accumulation from below and above from agrarian political economy, it is argued here that uneven development provides a way of theorizing about the trajectories of different types of farms – peasant, family farmer and agribusiness – in a way that is sensitive to the question of environmental degradation.

The theory on uneven geographic development and the geography of difference tends to focus on urban areas and industry, so it is not immediately obvious that it can even be applied to agrarian economy. The basic definition (Harvey, 2006, 1982; Smith, 2008), presented here in abstract form, concerns a fundamental tension in capitalism between the need for capital to be both mobile, seeking new opportunities for profitable investment, and to be fixed in place in the form of infrastructure and fixed capital, which on the one hand are “the absolutely necessary preconditions to all production and consumption...” (Walker, 2004a, p. 437), but on the other hand, with time, become burdens on capital as inevitable wear and tear leads to the need for new investment to keep fixed capital and infrastructure functioning. In other words, “while increasing investment in fixed capital facilitates the accumulation process by minimizing the turnover time of commodity and financial capital, it does so at the cost of eliminating capitalism’s dynamism and adaptability, and constraining accumulation to a limited number of spatial and temporal (including technological) pathways” (Napoletano et al., 2015, p. 202). What aggravates this tension, in the standard Harveyian treatment, are recurring devaluation crises brought on by overaccumulation, which arise due to what Marx calls the tendency for the rate of profit to fall, i.e. how time after time
technological improvement in capitalism combined with the accumulation imperative “[produce] a surplus of capital relative to opportunities to employ that capital” (Harvey, 1982, p. 192).

There are varying responses to this dilemma. Quite a lot of capital manages to break through “spatial barriers and regional distinctions” (Harvey, 1982, p. 417) (i.e. colonialism, foreign investment, etc...) in order to profitably invest somewhere else, providing for a temporary “spatial fix.” Creating the conditions for the mobility of capital requires of course supporting states. Some capital however is “imprisoned” (ibid, p. 428), i.e. it cannot move, and the options are to either seek a resolution to the problem of overaccumulation through “deepening” (ibid, p. 419) of investment in regional fixed capital, built environments or infrastructure, or otherwise offload – through engagement in the political process – the burdens of devaluation to someone else (the taxpayers, disadvantaged groups or areas, etc...). Local “capitals” can often build a regional alliance to fend off devaluation, at least for a time, though, as Harvey maintains, “the coherency of the local alliance is always under challenge” (ibid, p. 421).

Over time, of course, the “outer” movement of capital – what is usually understood by “spatial fix”11 – recreates the original capitalist dilemma in a new location. The “space economy” (ibid, p. 429) of capitalism, is inherently differentiating. Put another way, the spatial configuration of capitalism in particular regions or places comes, from time to time, under assault by devaluation. Depending on the situation and the place, varying proportions of capital either “flee”, stay and somehow manage for a while to withstand the assault, or lose the fight, becoming devalued. Capitalism is spatial churn, which at any given moment entails that some regions experience economic growth, while others experience economic decline. This churn is evident, of course with varying intensity, at every geographic level of analysis or scale. Capitalism thus presents as an uneven and complex, but not random, landscape of economic development opportunities.

From the late 1980s to mid-1990s, a number of studies applied this approach to agriculture (Marsden et al., 1992, 1987; Roberts, 1996; Roberts and Emel, 1992). Not only did a greater understanding of tendencies towards overaccumulation and devaluation help to understand agrarian trajectories, it also provided a way to relate questions of resource depletion within agriculture to market tendencies and agrarian trajectories (See in particular Roberts, 1996; Roberts and Emel, 1992). As such, and as will be described below in more detail, this approach provides a richer, critical understanding of processes of environmental degradation in agricultural landscapes, in relation to agricultural markets, farmer adaptation and agency, and processes of intra- and inter-regional farm differentiation. These particular studies deal with groundwater depletion in the southern Great Plains of the U.S., but it is argued here that

11 As Schoenberger (2004) reminds, the concept is actually more multifaceted.
these studies can in general serve as a template for the study of agrarian possibilities in the present age of agricultural limits.

3.3.1 Uneven Development, the Landscape and Natural Resources

Applying the concept of uneven development to farming requires an understanding of the interrelationships between farming and the bio-physical environment. Different biophysical qualities of the landscape, and the location of the farm in relation to markets, obviously present different possibilities for agricultural production. Better soil and more favorable location in relation to outlet markets will result, all else equal, in better productivity (per unit of territory) and more profit for the farmer due to lower marketing costs. This is the source of Marx’s differential rent I (Djurfeldt, 1994, p. 34), and of course makes a basic contribution to uneven development. However, bio-physical properties of the agricultural landscape, and “natural resources” are instantiated by use, investment, technology, and other factors (Roberts and Emel, 1992). Changes in macro-economic conditions, farm regulations, improvements in technology, and of course the farmer’s own agency can allow resources to “grow and contract” (Roberts and Emel, 1992, p. 260) – irrigation water can perhaps be spread out over a larger area than before via investment in new technology (more efficient pumps for example or better water delivery mechanisms that lead to less water loss), or clever, but incremental changes to the landscape allowing water to flow more efficiently to fields (Doolittle, 1984). On the one hand, investment and biophysical properties of the landscape “fix [agricultural] production to the landscape” (Roberts, 1996, p. 401), which can create tension in the event of a later devaluation process. Some capital can be moved, but certainly not a farm. On the other hand, the properties of these fixed investments and resources can change in relevance, albeit usually slowly, in relation to a variety of social-economic factors. Uneven development thus emphasizes path dependency based on prior investments, on the one hand, while on the other hand there is recognition that, certainly in a longer term perspective, the influence of past investments becomes more and more negotiable.

In emphasizing how resources like water or land can “grow and contract” in response to prevailing conditions, and prior investments in land and infrastructure, Roberts and Emel (1992) can be seen as precursors to the Actor-Network turn in human geography (Castree, 2002; Murdoch, 1998, 1997), and to broader social science discussions of resource hybridities (Bakker and Bridge, 2006; Li, 2014; Richardson, 2016), including with respect to agriculture (Goodman, 2001, 1999). Indeed some of the researchers who wrote about uneven agrarian development later specifically took this turn (Marsden, 1997; Roberts and Dieleman, 1995). What this approach emphasizes is, among other things, that “matter matters” (Swyngedouw, 2015, p. 28), but in relation to an
assemblage of various elements – discourses, imaginaries and calculating devices, social and political economic conditions, etc... This means that the objects we study are hybrids (Latour, 2007; Marsden, 1997), in which neither the material nor the discursive has ontological priority, but are each moments in the process of becoming (Harvey, 1996). This is, among other things, a reaction to and criticism of capitalism’s (and modernity’s) privileging and separation of society from nature. This externalization has led to the mainstream view of nature as a “passive set of assets to be scientifically assessed, used and valued in commercial (money) terms” (Harvey, 1996, p. 131). In this mainstream view, getting nature “right,” even among those inclined to value non-human nature highly, turns into a “technical discourse on the proper allocation of scarce resources” (ibid), thereby obscuring both how the production process necessitates, produces and differentiates environments (ibid; Moore, 2015), and how non-human nature also has “agency”, and performs a vital mediating function. Even if there is usually a distancing from purer forms of Actor Network Theory (Castree, 2002; Kirsch and Mitchell, 2004; Moore, 2015), this ontological stance is now an important if not dominant strand within critical human geographic thinking (Harvey, 1996; Moore, 2015; Swyngedouw, 2015). Though still emerging at that time, the geographical literature on uneven agricultural development is, thus, fully consistent with the view today that, as Swyngedouw (2015, p. 205) states “the modalities of enrolling nature – discursively, symbolically, and materially – in the relational fabric of life is the stake around which struggles coalesce.”

3.3.2 “Negotiating” change: Farm trajectories and Autonomy

What really presents a conundrum for market integrated farmers is worsening terms of trade, due to over production, threatening to unleash devaluation on farm production complexes, a state of affairs, which, depending on the crop, characterizes much of the late 20th century. Above, autonomy was defined as a quality attending to “peasants” engaging in market avoiding practices that are simultaneously more sustainable. These are bundled together under the rubric of farmer agency, which is deployed in opposition to capitalism, an opposition, which is, on the one hand, quiet, but, on the other hand, still inherently political. In this section, a broader notion of autonomy will be presented, one where farmers still seek to resist subordination, but not in opposition to capitalism per se, and while autonomy is apparently achieved, the practices underlying that autonomy are not sustainable from the perspective of resource use. Like van der Ploeg’s peasants, this broader autonomy is political, but in a more overt sense. In other words, for farmers with the possibility and capacity for organization, resistance to subordination can mean mobilizing a local coalition to protect the interests of a local farming community. Just as van der Ploeg’s strategic withdrawal ultimately has to do with controlling resources, this more overt political mobilization also is principally focused on securing
local control over some aspect of the resource base, for example underground water resources, which the Great Plains farmers studied in Cunfer (2005) and Roberts (1996), and Roberts and Emel (1992) fought, mostly successfully, to assert control over. Harvey identifies the formation of regional class alliances whose primary interest is “[establishing] a pattern of governance in which the stakes are fundamentally the economic health and well-being of the region” as “one of the great variables of uneven geographic development.” (2006, p. 103). What this means in the context of market oriented farming is that, regional political alliances, or what Roberts and Emel call the “ubiquitous politics of locality” (Roberts and Emel, 1992, p. 263) can give farmers the political cover they need to control resources sufficiently to allow for intensification of production, so that production remains profitable even in worsening conjunctural conditions.

Also, complicated forms of “bricolage” (Sehring, 2009) can be possible, whereby actors (farmers) selectively conform to some aspects of the main “mode of ordering” (van der Ploeg, 2010, p. 17), while acting to undermine other aspects of these structures to make them more amenable to farmer interests, actions which are usually indirect, can at times be interpreted as corruption or subterfuge, and are usually not conducted with the explicit intention of resisting or overthrowing the dominant order. Such situations tend to arise in the aftermath of an institutional rupture, where new institutions have yet to assert total dominance and informal institutions and behaviors from previous epochs are still common, as in the former Soviet Union (Kotkin and Beissinger, 2014). Bricolage, as a practice, can also be deployed to secure access to critical farming resources, which, in Sehring’s Central Asian case (again) is water for irrigation. This is another example of the “ubiquitous politics of locality” (Roberts and Emel 1992), albeit a more subtle and indirect form that is, for obvious reasons, harder to uncover. Both bricolage and the more overt political mobilization described above are illustrations of Nunn’s conclusion with respect to different institutions designed to encourage farms to more sustainably use groundwater resources in the southern Great Plains: “No property system will be adopted [or in the spirit of bricolage, no property system will successfully be implemented], which injures interested parties who are powerful enough, through their command over economic, social, or political factors, to keep it from being adopted.” (Nunn, 1985, p. 891). While the main example in this discussion involves water for irrigation – which is certainly a relevant question for this thesis – these observations can of course be extended to include land itself as a resource for farming.

An important implication of this approach concerns the link between autonomy and sustainable farm practice, which van der Ploeg argues is essential for peasant production. While uneven development as applied to farming emphasizes the politics of resource control for farmers, which is in alignment with van der Ploeg, it does not follow that the broader struggle for control over
resources automatically entails more sustainable husbandry of those resources. While one would perhaps expect unsustainable resource use on the part of farmers fully integrated into markets, “peasants,” as discussed above and in paper 1 of this thesis, also engage in extensive use of synthetic fertilizers, agro-chemicals and (potentially) long-term unsustainable resource use. The interpretation in this regard put forward in paper 1 is that peasants who originated from collective farms, where large-scale, high input agriculture was the norm, are not averse to adopting the same practices on their own smaller plots when they want or need to boost production (and can afford the inputs). However, they do not engage in such practices blindly. My distinct impression in researching paper 1, was that farmers and peasants, whether tinged with regret or not, know what they are doing. Roberts similarly writes that, with respect to wasteful water use of Great Plains farmers, there was no “lack of knowledge of the finiteness of the resource” (Roberts, 1996, p. 413; See also Sanderson and Frey, 2015, p. 403; VanWinkle and Friedman, 2017, pp. 615–616).

The broader point is to ask what the ultimate goals are that farmers are seeking to realize in these struggles for autonomy. In many cases, the answer is the same (that is for family farmers) – farm reproduction and farm succession. However the manner in which this is achieved – with the market or against it, sustainably or unsustainably – is variable. Thus, van der Ploeg writes that it is precisely with respect to the question of farm succession that Western European “peasants” seek to mitigate the effects of the market by finding “far cheaper” (van der Ploeg, 2009, pp. 51–52) ways to hand down the farm. Marsden et al. (1992) show, on the contrary, that synchronizing farm succession plans with market dynamics and capital accumulation is difficult, but not necessarily in tension, as it was the most capitalized farms in their sample drawn from different parts of England that also had a higher tendency to have farm succession plans in place. Roberts, while also citing the importance of intergenerational reproduction of the farm, instead emphasizes the importance of shorter-term accumulation (within the lifetime of one farmer) for providing a secure enough financial basis for farm adaptation to changing market and agro-ecological circumstances. She shows for example how farms that had previously accumulated enough capital, though intensive irrigation that ultimately depleted ground water, were better able to change farming orientation to adapt to and thrive under new (dry-land farming) circumstances. Farmers in her sample that had not accumulated enough capital previously were much more vulnerable to farm dissolution. What is important then is accumulating enough capital to be able to “negotiate” change (Roberts, 1996, p. 413). Addressing the question of farmer goals entails asking what avenues for achieving autonomy are possible (for example can farmers organize in an overt political manner?), but it also involves addressing the question of farmer values, principles and agency in order to understand which practices are seen as permissible.
It is hardly a revelation that market integrated farmers seek farm reproduction through maximal accumulation and that accumulation can trump concerns for sustainability. The focus here is rather both on the importance of the struggle for autonomy as a basis for achieving accumulation and the diverse avenues (overt political mobilization, bricolage, strategic withdrawal, etc...) for pursuing autonomy. The diverse avenues notwithstanding, the struggle is generally about securing control over resources, however defined (water, land), which, as discussed above, are not static categories, but can “contract and grow.” In terms of understanding this struggle for autonomy, it is important then to understand the broad market (structural) tendencies and local and national politics. However, in order to get a grip on the moment of resource control, it is also important to foreground farmer autonomy and knowledge. After all, farmers, regardless of production orientation, do usually know the status and capacity of their fields. In this way, accumulation can be more systematically linked to resource use and depletion. Importantly, autonomy, as a political struggle dealing primarily with control over resources, which at any given point in time are fixed in location, implicates particular places as the arena for this struggle, whether it is more confined spaces such as fields and villages, or larger spaces such as districts or regions.

3.3.3 Autonomy and Accumulation
The above discussions intersect with, and, as will be discussed below, somewhat problematize, debate on agrarian accumulation from below or above (Bernstein, 1996; Mamdani, 1987). Agrarian accumulation from below is defined as when agricultural surpluses are generated from within a pre- or semi-capitalist class of farmers or peasants, who use those surpluses to invest in farm machines and technology, thereby allowing more complete participation in markets, i.e. a transition to capitalist (family) farming. Such was the situation with respect to, for example, farmers on the southern Great Plains in the United States, profiled above. Bernstein argues that a benevolent state is required to ensure such a transition (see above), and this can be seen in the case of Great Plains farmers who generally benefitted from benevolent federal and state policies. However, the uneven development perspective adds that an ongoing local politics of resource control is also a necessary condition in developing, and maintaining, that local agrarian capitalism, i.e. the impetus for accumulation is local.

Agrarian accumulation from above would correspond to situations where the driving force for accumulation occurs to a significant extent due to interventions from interests located outside the local farming sphere, in particular outside capital and financial interests (banks, investors) usually in some sort of alliance with the state. The alliance with the state is needed to ensure control of labor, and to build and maintain expensive, but necessary infrastructure, such as dams and irrigation canals (Worster, 1985). The term “from above”
generally refers to state pressure to ensure both the control of labor and the relative “cheapness” of labor, often through “extra-economic coercion” (Mamdani, 1987, p. 202).

What role, if any, is there for local autonomy in accumulation from above? One would think, at first glance, that there is little or no role, as more capitalism in agriculture is often associated with more subordination (Goodman and Redclift, 1985; See also Gray and Gibson, 2013). However, as Walker demonstrates (2004b) Californian agriculture potentially confounds this view. On the one hand Californian agrarian history displays a number of characteristics that would identify it as a clear case of accumulation from above, including: (1) the importance of outside capital interests in financing scaled-up operations, (2) the role of the state (both federal and state level) in building necessary large-scale infrastructure, in particular for irrigation (Worster, 1985), and (3) the abundance of cheap labor, whose low pay and horrible working conditions are clearly (Mitchell, 2012) the result of “extra-economic” forces and coercion. On the other hand, California “growers”, who are a diverse group of actors of different sizes, also seek autonomy, in relation to both the state and financiers. Walker writes: “growers here have not been reduced to semi-proletarians whose money, inputs, management directives, and market outlets are all commanded by outside capital...” (2004b, p. 287). Walker, using a provocative, but accurate word, says that growers in California rather have been “promiscuous” (ibid, p. 288) in constantly and “fluidly” seeking mutually advantageous alliances with a variety of actors, ensuring their autonomy over land and water (among other things) in the commodity production chain.

Farming in California is certainly distinct as Walker argues, but it is also, in agricultural terms, one of the great powerhouses of the world. Its example is, in other words, instructive, and several implications follow. First, autonomy comes in many different forms and is not inherently progressive (in a political sense). Actors – even capitalists – at every step in the circulation of capital are trying to create more wiggle room for themselves. Studying how actors try to overcome obstacles they encounter or pressure they face provides important insights to how capitalism(s) works. As alluded to in paper 4, actors in different places and at different levels in the Soviet command economy behaved similarly, and trying to understand the dilemmas facing Soviet officials contributed greatly to contemporary understandings of how the Soviet Union worked (Fitzpatrick, 1986), even as this approach was heavily criticized, at least initially (see Fitzpatrick, 2007), by scholars who preferred the frame of top-down totalitarianism to explain Soviet society and politics, and believed the “bottom-up” approaches emerging in the 1960s and 1970s were tantamount to being “soft on communism” (ibid, p. 81). In a similar way, acknowledging a struggle for autonomy at every place and link of the circulation of capital can have – depending on how one does it – the consequence of humanizing or being soft on capitalism. Like the debates on understanding Soviet society from above or below, this may not sit well with some, but I would
nevertheless assert that what one loses in critical edge, one gains in overall understanding. The study of agroholdings in this thesis, plus other studies (Ouma, 2016), reflect this dilemma.

The intention of course is not to discard the critical edge altogether, which leads to the second implication, which is the degree to which an agrarian trajectory is “reactionary”, to quote Bernstein (1996), or progressive, hinges to a great degree on labor relations, thus nevertheless underscoring the importance of Marxist political economy. Family farmers (like those on the Great Plains) who mostly do not rely on laborers are often therefore considered more progressive (Byres, 1996, p. 30; Cousins, 2013, p. 120), while the California model (at least horticulture), which is more properly categorized as corporate agriculture or agribusiness (Walker, 2004b), and which depends on cheap migrant labor working in horrible conditions, is rightfully condemned. There is, however, a considerable grey area here, as many family farmers nevertheless rely on seasonal laborers – horticulture in Sweden, large-scale vegetable production in Southern Ukraine, the examples are legion – and one wonders about the conditions of employment and reproduction of these seasonal laborers. Another question which arises in this regard is how to treat Eastern European agroholdings whose business model does not rely so much on cheap labor, as on cheap land. Paper 4 of this thesis, however, links the question of cheap labor and cheap land. Land reform in the former Soviet Union, was, for all intents and purposes, a buy-out program for collective farm workers to effect a painful agricultural downsizing. The question is if this was a fair buy-out? Lindstedt, who wrote a reportage of Black Earth Farming’s first full summer of operations provides some vivid passages where even Swedish investors are shown wondering if the low price they were paying for Russian land was “morally right”12 (Lindstedt, 2008, p. 184). This is an important question, but in addressing it, it is also relevant to ask what would have been realistic alternatives to the land reform program that was carried out.

Third, the California case again highlights the importance of state support as a necessary condition for any accumulation from farming – from above or from below. Walker, in contrast to Worster (1985), makes plain that it was the growers in the driver seat in the California example and not the state, but that is not the point here. The point here is that regardless of who is in the driver’s seat, this further accentuates the argument made above that, even if autonomy is everywhere, accumulation depends on a supportive state in some, way, shape or form. Fourth, this is not at all to say that autonomy is therefore unimportant, because understanding the struggle for autonomy at every link and

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every place in the circulation of capital, helps to comprehend uneven develop-
ment and underscores that “actually existing capitalism” (Walker, 2004b,
p. 18) has simultaneous “multiple histories.” (Ouma, 2016, p. 216). The prob-
lem here of course, that is the research problem, is that autonomy is a joker in
this drama, i.e. it is hard to a priori theorize its significance and role in any
given case.

Along these lines, and in concluding this section, I want to argue that the
fact that the struggle for autonomy can just as likely lead to unsustainable farm
practices and even exploitative labor relations is only an apparent contradic-
tion of van der Ploeg’s approach, as his labor intensive, sustainable “peasant”
is clearly described as an ideal type, and he recognizes that in the real world
there is often overlap between peasants, on the one hand, and agribusiness and
commercially oriented family farmers (“Entrepreneurial farmers” in his ter-
minology), on the other hand (van der Ploeg, 2009, p. 37). Among other things
the emphasis I am making here is that it is important to explore in all its gritty
material aspects how autonomy is attempted, and in some cases achieved, in
this area of overlap. Also, van der Ploeg speaks of the importance of political
economic space, and harsh and marginal environments, all of which seems to
suggest a geographic aspect, but the agricultural geography of different kinds
of farms is not explored in his work. What the perspective of uneven develop-
ment, as laid out here, brings to the agrarian question (including questions of
different accumulation paths) then is more consistent theorization of the im-
portance of place and landscape to agrarian change. Van der Ploeg puts peas-
ants and capitalist farms in the same analytical field, but what uneven devel-
opment does is situate them in different places in the same region and perhaps
even the same landscape. Importantly, the landscape, and complex and uneven
geographic patterns of economic development possibilities, are not just ves-
sels in which all this change takes place, but active constitutive moments in
the creation of different agrarian trajectories.

3.4 Regional Agrarian Questions and Historical
Geographical Materialism

So far, this overview has charted a materialist approach to understanding farm
trajectories, i.e. understanding and tracing farm trajectories entails (1) focusing
on market conjunctures and the terms of trade for farm production; (2)
detailing farm practice and production relations; (3) uncovering the relevant
metabolic relations, i.e. the circulation, transformation, and consumption of
biophysical nature in the production of commodities, and (4) mapping out how
prior investments in infrastructure and technology (fixed capital) shape re-
source use. All four are inter-related, but it is the first (market tendencies), all
else equal, that tends to drive the logic of accumulation or devaluation in any
given period. To these four aspects of farm trajectories, I would add, from the foregoing, that understanding agrarian trajectories requires mapping efforts to establish and maintain local control over essential resources in particular places or in some other way establish autonomy. This effort in turn touches on practice and metabolism and helps to explain how some farmers can manage and adjust even in worsening conjunctures. Finally, it is important to be aware that farmers cannot or do not always present a united front on such matters, and farm differentiation can occur within regions, with the prior development and history of accumulation of the farm playing an important role in determining viability in tough conjunctures. Where the state stands on these issues, what sort of agrarian model its policies support, also plays an important role, depending on the capacity of the state in question.

To a certain degree, this approach can be operationalized as an empirical mapping exercise – matching autonomy (and its consequences) to particular places. Such a matching exercise would need to touch on, but not be limited to, elucidating property and land relations of farmers (including informal relations) and also interrogating farmer knowledge about the history and condition of their fields. In matching autonomy to particular places, it is also important to account for certain recurring geographical factors that are prominent in studies of agrarian change, in particular: population density (Boserup, 2005; Ioffe et al., 2006; Netting, 1993) and market access (for examples from Russia see Pallot and Nefedova, 2007; Wegren et al., 2008). My main point here is that the relevance of these factors cannot be understood without reference to the aspects driving uneven development listed above. The most prominent recent studies (Ioffe et al., 2006; Pallot and Nefedova, 2007) concerning the former Soviet Union, which emphasize analysis of population density and market access, also explicitly or implicitly relate these factors to the broader context of market tendencies, material practice, prior capital investments, and environment creation and maintenance. Also, apropos the discussion above on the relationship between farm-size and productivity, these factors, and of course an understanding of the dynamics of uneven development, form the crucial context for determining the relevance, and to a certain degree, the existence of any farm-size and productivity relationships in a particular region (van der Ploeg, 2010, p. 14).

This approach is, by definition, regional, and it is not certain that what transpires in one region is relevant for the rest of the world. It is thus important to link agrarian change in one area, to agrarian trajectories elsewhere, particularly in the same country, but also internationally. Agrarian transitions, as Bernstein defines it – the transformation of pre-or semi-capitalist agriculture into capitalist agriculture – are linked, with transition in one area influencing transition in another (Bernstein, 1996, p. 39). At the same time, it is important to acknowledge that this more regional approach does yield more modest conclusions as far as global agriculture is concerned. There is a movement today
to locate the agrarian question at a global level (Weis, 2007), because of globalization and because this is the level of operation of increasingly powerful and concentrated “food empires” (van der Ploeg, 2009), whose decisions affect countless farmers in different parts of the world. This is an important perspective – a number of the driving factors in agriculture today do operate at a global level – but because degradation and depletion depend on such local factors it is hard to meaningfully incorporate this important question at the global level. The regional approach outlined here at least has the merit of being able to integrate concern for depletion and degradation in agrarian trajectories.

3.4.1 Discourses on Place and Authenticity

There is one important aspect to farming and the local politics of resource control, which is not amenable to mapping, and that is its discursive aspect. The politics of local resource control are also about asserting a “natural” and “authentic” identity in the face of forces, market and otherwise, which seek to enforce subordination and/or homogeneity. This discursive element of place politics is important to uncover, as it feeds into practice, though not necessarily in a straightforward manner. There are two aspects to place-centered authenticity discourses that however deserve comment. The first, which is a warning explicitly underscored by Harvey, is that while authenticity is a powerful weapon in any struggle, it is a weapon for which there is always a potential for abuse. The example that Harvey cites is that of the German philosopher Martin Heidegger who often pointed to his secluded cabin located in the German Black Forest as a site where it was possible, through intimate “dwelling” (Harvey, 1996, p. 300), to experience an unmediated relationship with nature, which in turn helped to resist the alienating depredations of modernity and capitalism. The main problem here of course is that Heidegger felt that his philosophy was consistent with the views of the Nazi party. The politics of authenticity thus contain a latent potential for a retrograde, exclusionary politics (Harvey, 1996, p. 311).

The second aspect relates to the fact that “authentic” identities can be created and advanced not only as resistance to capitalism, but to promote certain groups and places firmly ensconced in capitalist relations. The studies on uneven development and farming cited in this study do not specifically take up the idea of identity, but identity can and does result from the kinds of civic boosterism and local coalition building that such overt politics entail. Harvey makes an important, but subtle argument in this regard. He argues that the question of identity, place and capitalism are complex and that “it does not follow that all mediated relations are necessarily alienating, and that the intimacy of place is the only locus of ‘authentic’ social-ecological relations” (1996, p. 311). Without in any way detracting from the importance of studying subjugated or subaltern groups, he criticizes the movement to automatically
brand such identities as authentic in contrast to “inauthentic” identities embedded in capitalist relations. The point is that authenticity is in the eye of the beholder. What we can do is critically evaluate discourses on identity and compare them with material practice and point out inconsistencies and contradictions. These aspects of place, identity, and authenticity should be kept in mind when reviewing all discourses be they related to agribusiness or the food sovereignty movement.

3.4.2 Historical Geographical Materialism

The basic approach of this thesis can be defined as historical geographical materialism, as put forward by Harvey (1996) and Swyngedouw (2015), but applied to agriculture. According to this approach, reality is constructed in a series of overlapping and interconnected moments – discursive, bio-physical, power-political, cultural, etc. – of which the moment of production is arguably the greatest among equals (Harvey, 1996, pp. 78–93). Nevertheless, studying these other moments is also important for explaining farm trajectories. This means that geographic-historical materialism necessitates an ontological turn, asking “what is land?” or “what is water?” to capture the assemblage of discourses, materials, natures, landscapes, institutions, etc... which are “mobilized, attached, collectivized and networked” (Swyngedouw, 2015, p. 35) to construct and stabilize, in this case, a farm. This requires taking into account the agency of objects (technology, infrastructure, biophysical nature), which materially shape and constrain possible activities and uses on the part of human actors, even as they themselves can “grow and contract,” albeit sometimes at time-scales that are out of sync with capital circulation. While this is in fact important for studying any place, including urban areas, getting a handle on bio-physical nature is especially important in understanding farming.

Geographic historical materialism also requires a discursive turn, looking at how (human) actors seek to enroll, at the level of discourse, “natural resources” and biophysical nature into projects, thereby, in a broad sense, contributing to the creation of said resources, and in a more concrete sense, prescribing their use in certain ways, and with respect to particular users or actors. This discursive turn is inherently political, and is an important part of environment making, depending of course on the success of converting discourse into political and economic practice. Thus, discourses about optimal farm size and scale are also discourses about creating particular environments, and this is true whether the discourse in question concerns large-scale corporate agriculture, or small-scale organic peasant agriculture. Such discourses, in this approach, should not be examined in isolation from material practice, because, as Harvey argues, material practice is, “the point where we can tangibly judge what has been accomplished” (Harvey, 1996, p. 93).
To summarize, geographic historical materialism, as applied to agriculture, foregrounds the moment of agricultural production, and how a regionally specific process of accumulation and devaluation plays out, creating intra- and interregional difference, as farms act, sometimes in concert, to secure local autonomy to facilitate accumulation, but also as different farms have different possibilities to weather ups and downs and crises. Looking at production also involves studying how non-human natures are enrolled and metabolized, how this enrollment is affected by the material’s own agency, and how this is a crucial vector creating differences that are simultaneously social, environmental and geographic. There is an important discursive element to this enrollment, in which there is an attempt to naturalize a particular way of engaging and using biophysical nature. This however leads to the (obvious) question of the degree to which such discourses inform material practice or deviate in some important ways. The overall result is not positivist, falsifiable theory, but a “theoretically informed history” (Harvey, 2006, pp. 78–79) that allows for the linking up of events in one region with other regions that are not only undergoing processes defined by analogous accumulation/devaluation logics, but are in fact networked into the same “wider socio-metabolic flows, networks, configurations of governance, and political-ecological dynamics” (Swyngedouw, 2015, p. 36).
4 Method and Sources

As stated above the epistemological goal of this thesis is theoretically informed history. I now turn to an account of the methods and sources which I have used to construct this theoretically informed history. Methodologically, this thesis has been informed by mixed methods (Philip, 1998), mostly employing qualitative research strategies, but also using Geographic Information Systems (GIS) and satellite remote sensing, and other quantitative data to present an image of how agriculture in Ukraine and beyond is changing. The qualitative methods used in this thesis range from standard interviews and analysis of discourse to approaches that are better characterized as ethnographic. In this regard, it is important to note that this is a “multi-sited” ethnography (Marcus, 1999, 1995), meaning I seek to trace connections between activities and interactions in one location with others distant in time and space.

The sites of research have been corporate conference rooms in Stockholm and Kyiv, and farm offices and fields and peasant homesteads in Ukraine. This is thus an ethnography that is “embedded in a world system” (Marcus, 1995, p. 96; See also Tsing, 2005), meaning it is in part defined by “macro-theoretical” political economy, but, and this is important, by no means exclusively so.

One of the main reasons for the mixed approach is the general difficulties of doing research in this part of the world (which is discussed in more detail below) where there is an assumption that obtaining valid data – be it qualitative or quantitative – is difficult. For example, Pallot and Nefedova (2007, p. 14) have spoken of the importance of gatekeepers in the former Soviet Union to respondents and data, and the question is if one is being steered to particular kinds of respondents and data. At the same time there are persistent questions about the reliability of official statistics in this region. My response to this dilemma was to engage the gatekeepers for sure, but also to seek alternate ways of acquiring different kinds of information on the subject at hand. The methodological approach in this thesis was thus informed by a need for triangulation. Triangulation was employed in the different senses of the concept (Jick, 1979, pp. 602–603). It was used as cross validation between different information streams (e.g. comparing official corporate discourse with interviews or using satellite data to validate official irrigation statistics), but (particularly in paper 1) it was also employed to scale-up observations from one village to a larger area. In this case, qualitative observations from one village were matched to tendencies identified in both quantitative data, (official sta-
tistics) and qualitative data (interviews) over a larger area. Finally, triangulation was used to give an holistic description of phenomena under study. I emerged from this effort with a healthy respect for the difficulties of obtaining reliable and valid information in Ukraine. However, I have also come to the conclusion that Ukraine is not the extreme outlier in this regard that it is sometimes made out to be (more on this below). More specific descriptions and explanations of particular types of sources that were developed or handled in this research follow.

4.1 Interviews and Participant Observation

For this research, I mainly sought perspectives that, because they are at a local level, are not sufficiently contained in official statistics, or, because they are indicative of tensions and problems, are sometimes inadequately described in official or corporate presentations and documents. Another way of putting this, using the language of the previous section, is I sought narratives about particular places and farming practices, perspectives which also speak (if relevant given the respondent) to how autonomy is or is not achieved. Interviews, and participant observation were the most important strategies employed to attain such perspectives. In this regard, I have conducted 75 formal interviews (including seven respondents who were interviewed twice), meaning that I have had 75 semi-structured, “sit-down” interviews with, primarily: household farmers, commercial farmers, corporate farm managers, and local officials (see annex). Of these 75 interview encounters, 12 were with female interlocutors, the rest being male. These interviews could last anywhere from 25 minutes to three hours. Over half of these interviews (41) were recorded, including six respondents who were interviewed twice (one respondent who was interviewed twice agreed to be recorded the first time, but not the second). Subtracting the respondents interviewed twice, it turns out that a slim majority of interview subjects (35 out of 68) agreed to be recorded.

In addition to these 75 interviews, I conducted 28 “field visits” as part of the research for paper 1. What I mean by “field visit” is that I approached a household farmer working in their field in the study village showcased in paper 1, and asked them a set of questions about their household farm, its history, or development trajectory, and especially about how they perform their farming work. I consider these so-called “field visits” to be different from “standard” formal interviews, because there was a participatory element to these encounters, meaning that I also observed many of these respondents as they worked over a span of weeks, often returning to ask follow up questions or just ask how the harvest was proceeding. I also spent several very hot days taking part in various aspects of the harvesting and marketing of produce in the study village, which gave important insights into the farming practices in this area.
The formal interviews were, as mentioned, semi-structured, which is to say that I had a protocol of questions for different types of respondents, but that I would pursue an interesting line of questioning not contained in the protocol if it came up. For the farmers interviewed for this study, the questions were designed to elicit an oral history of the farm and their practices. Most of the respondents falling under the category of “local officials” were village mayors (голова сельского / председатель сельсоветов), or in a few cases, someone working for the mayor, either the secretary of the village council or the village land planner (землевладелец / землеустроитель). Here the line of questioning was designed to establish an oral history of the village, in particular focusing on the period of land reform and if/how the collective farm collapsed and what came after. There were also questions about material conditions in the village, such as supply of water and electricity, and the degree to which farmers (who farm the land around the villages) today help villages with urgent needs. Interviews were conducted in Russian, which was generally unproblematic as southern Ukraine tends to be Russophone. In only a few cases was this a problem, as two respondents answered questions in surzhyk, the Russian-Ukrainian pidgin that is spoken in much of rural southern and eastern Ukraine. In one case, a colleague in Kherson helped me to transcribe the interview, while in the second case, I was still able understand the concrete information offered about the village, even if some of the longer responses evaded me.

With respect to the representativeness of this sample of respondents, I have to caution that I did not, with one exception, employ a random sampling strategy. With respect to the 28 “field visits”, which were the first research encounters for this thesis, I simply approached people I could find working in their fields. Most agreed to let me ask them questions and observe their work. Concerning large-scale farmers, approaching them in their fields was not logistically possible, as the landscape of large-scale agriculture in Ukraine is just too big. It would be hard to find the farmer at work. In order to interview such farmers, I proceeded through contacts in the city of Kherson, and to a lesser degree, in the town of Kakhovka. The Kherson State Agricultural University in particular was helpful in establishing contacts with farmers in different municipalities. Also, I spent some time at Kherson State University (KSU), and, the primary business in the region being agricultural, KSU students were sometimes able to help make contact with relatives or acquaintances who were farmers or village officials. Finally, in some cases, one respondent would lead to another, i.e. snowballing.

There is thus a degree of serendipity to how respondents were selected. This was partially balanced, however, by an attempt to select village mayors randomly. In 2012-2013, for example, I determined which municipalities were interesting for me – in particular for paper 1 – and then chose three villages randomly from each of these municipalities (see figure 1 in paper 1). Village mayors have a responsibility to represent the village to the public, so randomly selected mayors generally were receptive to interview requests, though it
helped that colleagues at KSU phoned the mayors in advance to set up the interviews. In total 12 such randomly selected villages were visited. Later, after work on paper 1 was completed, opportunities were presented to visit other villages in the same municipalities and in municipalities that I had not been to before, and I generally did not refuse the possibility to meet with additional village mayors.

A final, but important note on the interviews and “field visits” is that it was decided to withhold the identity of interviewees in order to preserve their privacy. In many cases, this was probably not necessary, since interviewees made statements that I deemed to be uncontroversial. In one case, I found a newspaper interview with someone I had interviewed, and this person made similar sorts of statements publically as he made to me. Nevertheless, there were certainly cases where it was important to preserve privacy, because respondents told of their informal access to and use of resources. Even though such practices are wide-spread it is still obviously important to preserve privacy in such cases. For the same reason, the name and location of the village where most research took place for paper 1, has remained anonymous.

An important element in this research was participant observation of shareholder meetings of public farming companies traded on the Stockholm stock exchange but active in Russia and Ukraine (see paper 2). This required that I purchase (a small number of) shares in these companies. While on the one hand, information presented at shareholder meetings does not deviate much from the public information the companies already publish (in the form of press releases, investor presentations, and annual and quarterly financial reports), with some exceptions (explained and justified below), I have not cited much information that I learned at shareholder meetings. The value of these meetings, as explained in paper 2, was rather that (1) in that I have seen countless presentations over corporate operations and results, the shareholder meetings helped to establish a detailed history of the companies over the years. To put this in terms used above, these meetings helped to establish the development trajectory of the companies. (2) Attendance at the meetings helped to understand the mood of investors. (3) The shareholder meetings offered a platform to mingle with corporate managers and investors, and in some cases, set up interviews. (4) Mutual attendance at a shareholder meeting generally made the interview more informative, and in any case also helped to polish and hone questions for respondents in later interviews. (5) Finally, these meetings were an opportunity to see live performances, as it were, of corporate farming discourses, which helped to assess the degree to which corporate discourse is accepted or challenged by other participants.

Some comment is in order to explain how some information from shareholder meetings was nevertheless cited. Shareholder meetings of public companies are semi-public gatherings where press are often in attendance. In fact, at one of Swedish-owned, Agrokultura’s shareholder meetings (see paper 2),
the CEO instructed any journalists in attendance to switch off recording equipment. My interpretation of this statement was that journalists were welcome, but not unambiguously. For this reason, corporate officials cannot presume that what they say at a shareholder meeting can remain private. One might add that it is hard to conceive of CEOs and other corporate managers as vulnerable populations requiring sensitive treatment and protection. Indeed, given the sums of money involved, a case can be made that rigorous scrutiny is required. To their credit, most managers who were interviewed as part of this project appeared to accept that such scrutiny is a fact of business. Conversations at shareholder meetings with individual shareholders, of which I have had a few, are a different story. Even if I have always identified myself as a researcher conducting research in these (generally brief) conversations, such conversations cannot be considered interviews, and I have not reproduced any such conversation in any research. In some cases, I, or research partners, have requested follow-up meetings in order to conduct interviews, requests which have sometimes been granted and sometimes refused.

4.2 Document Analysis

Studying discourse has also been an important approach for this thesis. In keeping with historical geographical materialism, discourse is analyzed with particular attention to how it relates to and is translated into practices (Harvey, 1996; Swyngedouw, 2015; See also Hajer and Laws, 2008). This of course means that where discourse diverges from or is silent about practice is also important. The important question is what are the texts that constitute this discourse? The main texts have been corporate documents such as annual and quarterly financial reports, prospectuses before stock listing or sale of corporate bonds, investor presentations, and press releases. Such documents from public companies are, as argued in paper 2, an underutilized source in research about post-communist farming, where information is scanty about large-scale private farms (Matyukha et al., 2015). While the public firms represent a minority of corporate farms active in the region, they nevertheless are among the largest corporate farms in both Russia and Ukraine and play a leading role in the agricultural sector.

However, this is not to say that use of such documents is unproblematic. To a certain degree, this research strategy requires a naïve relation to corporate documents, taking them at face value. This is one reason, per comments above,

13 For the record, while I always have my dictaphone with me at shareholder meetings, only because I always carry it with me if I am in a research situation, I have never recorded any shareholder meeting.

14 A possible exception would be corporate insider whistle blowers, but then such activity is unlikely to occur at a shareholder meeting.
we have conducted interviews with corporate managers and investors (a total of 15), i.e. for cross-validation. Also, public companies, all else equal, tend to generate more news coverage and commentary than non-public companies, and such news reports (in English, Swedish and Russian) were also important texts for this thesis. In terms of cross-validation, nothing in the interviews or in the news reports generated any doubts about the operational or financial indicators presented in corporate documents of Nordic companies, which leads me to conclude that the (Nordic) companies are, by and large, transparent, with one exception that concerns only one of the Nordic companies and does not touch on matters of operational or financial reporting. Note that the same cannot be said for all public farming companies, and this question, plus the exception, will be taken up in future research (Kuns and Visser, 2016).

Beyond indicators of farm performance, the documents were also interesting as examples of corporate discourse, and how it changed over the years (for change it did). Also, an analysis of the various texts constituting the corporate discourse, plus the “live performance” of the discourse, helped to see how the discourse is (or is not) translated into practice. Let me give an example. In paper 2, we identified the Nordic companies as “investor-led” companies, by which is meant that corporate strategy was decided by the main investor or investors. This is an aspect of the financialization of agriculture, whereby financial goals, such as developing shareholder value, displace or influence production related goals. This is discussed in more detail in paper 2, however, here I want to exemplify how this can be substantiated in corporate presentations.

For many years, the quarterly conference calls from Trigon Agri began with a presentation from the then Chairman of the Board, who represented the main owner of the company, Trigon Capital. While in and of itself, this is not necessarily odd, it does indicate that the main investor in the company was not a passive owner. Moreover, small details like this, gleaned through what can only be called a kind of agroholding Kremlinology, help develop an overall picture of how these companies operate.

On a separate track, local newspaper reports were used to help establish the history of irrigation in southern Ukraine. These news reports are, as it turns out, quite similar to the corporate documents above in that a face-value relationship with what is reported is potentially problematic, because local newspapers in Ukraine are often closely tied to municipal and oblast authorities and

15 Not all of these 15 interviews count towards my total of 75 interviews, as several interviews used for paper 2, had previously been conducted separately by one of the co-authors.

16 Kremlinology is the “formalized study of hard facts in a closed society, observing appointments, organization, decrees, and formal speeches” (Åslund, 2016). It is an occasionally ridiculed research approach with respect to the Soviet Union and post-Soviet states. To be fair, public corporations are generally much more open than “closed societies.” Indeed, transparency can be considered one of the successes of the public agroholdings. However, no public corporations is wholly transparent, leaving the analyst, in best Kremlinological fashion, to occasionally read between the lines.
therefore generally publish news slanted according to the preferences of the local leadership. Be that as it may, it is still possible, as argued in paper 3, to trace a history of irrigation in these papers, and, to deduce, by reading through the lines, some of the irrigation problems that are not being directly mentioned, particularly when newspapers from different municipalities and different administrative levels are used and compared against each other. Again, the discourse itself is also of interest here, and in this regard the connection with local authorities is of key importance. As outlined in paper 3, “ideas, meanings, laws, concrete fixtures, management techniques hang together in a way that makes the hegemony of an idea seem natural, at least until confronted with a problem or contradiction that reveals it to be held in place by a web of powerful but ultimately changeable relations.” (Linton, 2010, p. 9). I would argue, a la Linton, that the economic crisis in Ukraine was so palpable for everyone in the 1990s and early 2000s that officialdom, and newspapers putting out their views, cannot but reflect, at least from time to time, the “web of powerful relations” desperately trying to hold “things” together.

4.3 Use of Official Statistics

The question of the reliability of statistics in developing countries is more vexed than many are prepared to acknowledge (Jerven, 2013), which raises important questions about the reliability of research that is produced based on those statistics. This becomes an even more vexed question when it is seen how agricultural statistics “have... a life of their own” (Tomlinson, 2013, p. 86), slowly mutating from positivistic statements about the state of agriculture to normative statements about how agriculture should be organized, thereby framing official discourse in favor of certain policies. Tomlinson highlights in this regard how the positivistic statement that food production will need to either double or increase by 70% in the future is deployed later in a normative fashion to support status quo productivist agricultural policies.

Jerven’s study on “poor numbers” focuses on Africa, but there are of course also questions about Soviet and post-Soviet statistics. The Soviet Union tightly controlled such information, for example not even releasing agricultural data in years of crop failure (Dronin and Bellinger, 2005), while there was a long history of “report padding” on the part of Soviet enterprises and collective farms to make production figures look better (Clark, 1993; Kitching, 2001b; Tishchenko, 2017). The reliability of statistics was not only an issue for researchers. Indeed, the “economy of shortage” (Kornai, 1992) in communist countries was in part created by the fact that planners and enterprise managers did not have access to accurate statistics about what was happening in the economy. In the post-Soviet era, statistics have become more detailed and more available, but questions about their reliability remain. For example, the Ukrainian Club of Agribusiness, as cited by Agriculture.com
(Mykhailov, 2016), claims that production from 17 million ha in Ukraine is in
a so-called “black zone,” i.e. not reported to relevant authorities. The very last
interview conducted for this thesis was with a quite successful and prosperous
farmer with about 300 ha of land operating in Ukraine’s shadow economy,
and with respect to the question of missing production volume, he admitted
that “the state does not see me.” (Interview in Kherson Oblast, September
2016). A separate issue is reporting of false information, as is alleged to have
happened (Rachkevych and Vertyuk, 2014) in the case of the large western
Ukrainian agroholding Mriya, which defaulted on its debts in the fall of 2014.

While I have not conducted quantitative analysis in this thesis, I have used
Ukrainian statistics to illustrate important tendencies. However, given the dis-
cussion above, I have taken some care in using official statistics. For example,
I have thoroughly checked the reliability of local (Kherson oblast) statistical
reports on irrigated agriculture (Derzhavna Sluzhba Statistiki Ukraini
Golovne Upravlennia Statistiki u Khersons’koi Oblasti, 2014, 2012, 2011,
2009; Ministerstvo Statistiki Ukraini, Khersonskoe Oblastnoe Upravlenie
Statistiki, 1991). This was done through a separate count based on satellite
data (see paper 3), and the results appear to show that the statistical reports are
accurate. Another statistic that is used in this thesis is yield per ha at the na-
tional level for different crops. While I have conducted no test of the reliability
of such statistics, I consider official yield statistics to be roughly reliable for
several reasons. First, as shown in paper 2, the reported yield of Nordic agro-
holdings, when possible to break down by oblast, aligns almost perfectly with
reported yield for the entire (relevant) oblasts (See figures 5 and 6 in paper 2).
Second, different studies have found solid correlations between satellite de-
duced vegetation indices (which measure biomass), and reported (wheat) yield
in Ukraine at the oblast level (Becker-Reshef et al., 2010; Franch et al., 2015;
Kussul et al., 2013). Thus, while some caution is perhaps justified, yield sta-
tistics appear to align with other measures, suggesting that they are reliable.
While I still maintain that a healthy skepticism of official statistics is im-
portant, these two examples (the cross validation of yield and irrigation statistics) have increased my confidence in Ukrainian agricultural statistics in gen-

4.4 Attention to the Landscape

Finally, I have also sought to make my own maps. These have analytical value
and help visualize some of the processes that I discuss in this thesis, particu-
larly in paper 3. However, I would also argue that, following Börjeson (2004),
maps have methodological value as well, as the activity of making maps is an
important part of being attentive to and learning to see the landscape, and it
helps to channel discussions with respondents about the material practices that
created the landscape. To be sure, my map making in this thesis is but a dim
echo of Börjeson’s “detailed participatory landscape mapping,” but I would nevertheless wish to underscore that the landscape is also method in this thesis. “To map form” Börjeson writes (2004, p. 75) “is a way to confront past activities, processes, movement and social relations in the landscape.” With respect to my project, considering the agricultural landscape is a way of prioritizing research questions, asking what things (inputs) are put in the land and where they have been procured, how the land is worked and with what tools, and what things (crops) are taken out of the land, and where (how far) they are taken to be sold? In considering a parcel of land, then, one interrogates, among other things, the marketing and trade networks with which the user has engaged to acquire inputs and tools and to sell output, and how, moreover, these networks potentially affect and structure land-use practices. Such questioning has obvious implications for understanding material practice of farmers.

4.5 Reflexivity and Positionality

We live in a reflexive age, which is mostly for the better. Feminist scholarship has convincingly shown us in this regard that all knowledge production is situated in particular places and times and with respect to gender, ethnicity, sexuality, and other factors (Haraway, 1991). Part of the research process then is, in the interests of transparency, accounting for these factors. However, as Rose (1997) convincingly and poignantly points out, there is always a degree, perhaps a great degree, of uncertainty in any research encounter, which obviously affects the quality of knowledge produced from that encounter. The best we can do is to continue to reflect honestly about it, if nothing else to at least arrive at some gauge of the uncertainty. This is of course a broad and important topic, and full justice cannot be done to it here. I will instead cook it down to two questions. Can who I am – a white man who has grown up in the United States but spent most of his adult life in different parts of Europe – mean that I have misinterpreted or misunderstood what respondents in Ukraine were telling me? The second question, related but broader, is if I have completely missed something because of who I am? Per Rose there are no definitive answers to these questions, but the discussion below will sketch my thinking on these matters.

I will address these questions, first, by relating several humorous but also potentially troubling anecdotes from the field. The first concerns an interview I had with a village mayor in left bank Kherson oblast. In addition to the village mayor the village land planner, and, for some time, the village secretary (who was mostly silent) also were present during the interview. The village mayor appeared open and friendly throughout, as did the village land planner, who, however, stepped out of the office on several occasions, something which I did not at the time think was significant. I had hired a driver to take me to this village, and the driver was waiting in his car just outside the office.
where this interview was taking place. When I came out of the interview, the
driver, laughing, described a man who, judging by the description, sounded
like the village land planner, and who had emerged from the village admin-
istration building several times, talking on his mobile phone. The driver over-
heard this person asking whoever was on the other end: “can I tell him the
truth?” It would thus appear to be the case that when the village land planner
left the interview, he called somebody – perhaps in the district administration
– and asked for permission to tell me how things really were in the village.

For the record this particular village land planner appeared to be frank. For
example, when I asked how many odnooisbniki (as defined above – informal
“single” farmers using their own land) there were in the village, he gave a high
number, but then said “most of them aren’t real odnooisbniki,” explaining that
they are people who had leased out their land informally. I was well aware of
the phenomenon of informal leasing of land, which is extensive and an irritant
to local and national authorities, but not all village officials talked so openly
as this person who apparently was concerned about revealing the truth.17

A second (less humorous) anecdote involves the mayor of another left-bank
village, but much more remote. This particular mayor had been hard to con-
tact, and the village itself was hard to reach, and he did not show up in his
office at the agreed time. None of this boded well for the interview. However,
the mayor finally showed up and turned out to be – what seemed to me – quite
honest and, for the most part, friendly. At one point, early in the interview, he
looked at me sharply, and asked “do you really think you are going to under-
stand our reality?” Later in the interview, he remarked that the district admin-
istration had dug ditches near the village to install gas pipes so that the village
would potentially receive piped gas for heating and cooking in the future.
Whether or not a village has gas is a significant marker of the state of devel-
opment in the village – otherwise they have to use wood or coal to heat their
houses. I automatically, and a bit too cheerfully, remarked, “oh so the village
will get gas soon?” The mayor looked at me, with sad eyes (I have a clear
recollection of his facial expression), and he said flatly “we are not going to
get gas.” My response was of course naïve, because I was aware, even at that
time, that district authorities, particularly in election years, would occasionally
promise improvements, and even make some gesture towards implementing
these improvements, but not follow through. I believe what the mayor was
referring to, when he questioned whether or not I would be able to understand
Ukrainian village reality, was the endless manipulation, power games, and

17 Despite the fact that one can legitimately wonder if I was told the truth in this particular
interview, I did use this village in the description and count of villages receiving support from
farmers leasing land belonging to villagers (see paper 1). Nowhere in southern Ukraine did this
particular line of questioning appear to provoke any apparent discomfort among respondents,
including in this interview.
corruption that mark the daily lives of post-Soviet villagers in the context of scarce resources.

One can certainly say that the spirit of Prince Grigory Potemkin lives on. Potemkin, who was governor in southern Ukraine in the late 1700s, is famous for installing fake village facades, in advance of a visit by Catherine II, to create a false impression of progress with respect to his responsibility to settle the newly conquered territories in Ukraine. It is difficult to penetrate such “Potemkin” facades, particularly for a foreigner. I will not pretend otherwise. I can however say the following. First, as Pallot and Nefedova report (2007), being a foreigner (in Pallot’s case) is not always a disadvantage, as respondents can be at ease knowing that I (as a foreigner) most likely do not represent the local tax authorities. Also, while I of course realize that few people are going to admit to any corrupt deeds in which they themselves have been involved (though I did hear some oblique references), I have found that some respondents (but not all) are quite willing to talk about what they suspect other people have been up to. Some sense of a gritty reality still comes through interviews. Third, and more generally, Haraway and Rose would surely agree that the spirit of Potemkin and his facades is not only relevant to the former Soviet Union, but, really, to our “Western” reality as well. In this regard, Potemkin is particularly relevant to the study of the “spectacles” (Tsing, 2005, p. 57) of 21st century speculative capitalism. In other words, the former Soviet Union in general, and the literal birthplace of Potemkin facades in particular (i.e. southern Ukraine), are perhaps not so special in their Potemkin-esque manipulations, and all social research must in some way, shape or form come to terms with Potemkin.

Nevertheless, it is still important to recognize that knowledge production in empirical research, as the anecdotes above hint at, is at some level indeed a negotiation. I have thought a great deal about these and other encounters, and they have affected how I conduct research in Ukraine and what kind of knowledge I expect to produce. In abstract terms, what I (now) seek to do is document the surface reality as well as it can be documented, so I can at least be (reasonably) sure of what happened, where and when. For example: what year was the collective farm liquidated? How many farm (enterprises) operate in the fields of the former collective farm at the present moment? What sort of material help, if at all, do these farms provide to the social infrastructure of the village (providing concrete examples)? How much water are district irrigation authorities delivering to farms today? What is the price of wheat? What do corporate farms say their plans are? Then, depending on the information of course, I use that documentation to make what I argue are reasonable inferences about what may be happening under the surface. Sometimes this can be

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18 Continuing from footnote 5 (on page 18), it is perhaps not a coincidence that the home of Potemkin facades is also the “exhibit A”, according to Lenin, of agrarian capitalism in Imperial Russia.
done because detailing that “surface” has revealed cracks and contradictions. Also, even when there are little or no such cracks, I would argue, echoing the comments above about Kremlinology, that the surface, face-value of phenomena often reflect in some way what may be happening beneath the surface. After all, Potemkin’s famous facades were intended for viewing by someone racing by in a carriage, not by someone who might stop the carriage, and carefully inspect the facade, and it is the same with many if not most modern Potemkin villages. This is not to say it is easy. One cannot assume, for example, that Potemkin facades in one place will sync with facades in another, further underscoring themes from earlier in this comprehensive summary on the importance of local or regional studies. In any case, proceeding in this manner demands, I believe, caution and humility and a willingness to forsake universal claims.
5 Article Summaries

5.1: Beyond coping: smallholder intensification in southern Ukraine


This article empirically investigates rural, small-scale, household farming in post-Soviet southern Ukraine, focusing on a particular group of households that have managed to intensify their production beyond subsistence without help from large farms. Large farm support for small-scale household agricultural production in the former Soviet Union is generally considered necessary for small-scale household farming, so the absence of this support is noteworthy. The conditions of this intensification are explored and mapped out. Further, this intensification is related to discussions in the peasant study literature on the general viability of intensive smallholder production. While the investigated farms do present some sustainability concerns, this paper concludes that this production is not less viable than large-scale agricultural production. The main future challenge is how upcoming agrarian reforms will affect smallholders, particularly with respect to formalizing informal resource use.

5.2 The stock market and the steppe: The challenges faced by stock market financed, Nordic farming ventures in Russia and Ukraine

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Situated in the global discussion on large-scale land acquisitions, this paper examines the poor performance of Nordic owned, publicly traded, very large-scale farms (agroholdings) in Russia and Ukraine. In depth study of concrete examples of this emerging farm organization is still rare. This paper investigates the impact of the financialization of agriculture on the performance, agricultural and otherwise, of such farm companies, which is also an emerging field of inquiry. This paper thus seeks to go beyond discussion of “land-grabbing” and return to an older question concerning large-scale farming in developing country settings: is it even successful? In unique, exploratory research,
the authors have gone “inside” these companies through interviews and attending shareholder meetings. Also, the authors have examined the discourse found in press accounts and corporate documents, the latter an underutilized source in research on corporate mega-farms. We find that finance, usually asserted as an advantage for such large-scale farms, proved in important respects to be incompatible with farming in the investigated companies, as it led to the initial prioritization of short-term speculative strategies over longer-term, production-oriented strategies. We further find that investors initially failed to appreciate the unique climatic and other local challenges presented by agriculture, compared to other economic endeavors. Finally we note that these corporations are struggling to demonstrate economies of scale. Our results suggest that, unless conditions change, stock market financed large-scale farming companies are unlikely to play an important role in future direct food production in the region.

5.3 ‘In these complicated times:’ The disassembly and assembly of landscapes of irrigation in post-Soviet southern Ukraine

This paper examines the state of irrigation in post-communist southern Ukraine, mapping and explaining the continuity of late Soviet investments in center pivot irrigation technology for large-scale agriculture in the post-Soviet period, but also situating large-scale irrigation in a regional context where there are significant changes in access to water. Some areas and groups have more, while others have less. Framing post-Soviet agrarian and irrigation change within long-term Soviet and global environmental history, particularly in relation to the 20th century expansion of irrigation, this paper argues that post-Soviet developments should be seen as the consequence of a collapsing (and changing) modernization project. Theoretically, an Actor Network approach is used to explore the ontological politics surrounding different possible uses of irrigated farm fields in times of great social change, as well as the “agency” of center pivot irrigation technology, which “acts” to undermine land owners rights. This is noted as a significant irony, because the center pivot technology was originally imported from the United States during the Cold War, while post-communist land reform was influenced by the Washington Consensus. Beyond the consideration of large-scale center pivot irrigation, the emergent and uneven access to water is mapped out in and surrounding the area with most center pivot irrigation. Understanding the uneven geography of water access helps to put post-Soviet agrarian change in Ukraine in perspective, identifying the disappearance of collective farms as a primary
factor driving changing access to water. The paper concludes with an assessment that the massive 20th century Soviet investments in irrigation are potentially more sustainable than other such investments, such as in the American west, thus further complicating the conventionally negative view of Soviet environmental management.

5.4 Soviet nature and the post-communist agrarian transformation in Ukraine

*Manuscript*

This paper seeks to situate Soviet and post-Soviet (mostly) Ukrainian agrarian history within the Cheap Nature and world ecology framework of Jason Moore. This framework is used to explain both how late Soviet agricultural productivity eventually stalled and how post-Soviet agricultural productivity is now improving beyond Soviet era “limits.” The role of the peasantry is a significant factor in this history and the material situation of Soviet and post-Soviet peasants are contrasted. Finally, looking forward, this paper questions, based on the example of Ukraine, whether or not we are approaching new agricultural production limits in the present epoch.
6 Conclusions

The approach of this thesis has been characterized as historical geographical materialism, which emphasizes the role of material practice, infrastructure and the landscape in constraining and shaping change, but in connection with a broader array or assemblage of actors, discourses, institutions and biophysical nature. In this regard, linking material practice to discourses, seeing how they interact and diverge, has proven especially fruitful with respect to post-Soviet circumstances, which are characterized by a widening rupture or gap between dominating discourses and material reality. One main gap, studied in this thesis, is, on the one hand, corporate agroholding discourse on agricultural possibilities in the region and, on the other hand, the material and practical realities of farm success and failure today. It is worth reflecting on this, in these final pages, because, as it turns out, many of the more specific conclusions of this thesis can be related to discrepancies between corporate farming discourse in the former Soviet Union and material reality, particularly when we consider the “text” of farm-field photographs and images, which are features of almost all agroholding web-sites (domestic and foreign) and promotional publications.

Such images show broad fields, with lushly growing crops, and more often than not a sparkling new piece of farm equipment working the fields. These images are seemingly innocuous, but they are not innocent. Their simplicity belies both a deeper complexity and ambiguity, on the one hand, and a powerful discourse, on the other, about the future of post-Soviet agriculture. Perhaps the most important aspect to note about such images is the almost complete lack of people. Twenty-first century agriculture does not need them, not as employees, and not as denizens of a lived landscape. Still, such images appeal to a powerful current of opinion in the former Soviet Union, people who despaired of chronic agricultural inefficiency in the Soviet period. These images, however, are also a kind of mirage – at least for investors. They promise a hyper-modern bounty and handsome profits, but not every company delivered on the promise contained in these photos and many investors were disappointed. Below more specific conclusions of this thesis will be drawn in light of or in comparison with corporate discourse, including the “text” of promotional farm-field photos.
6.1 Research Question 1: The Peasant Question

It is not the case that rural people do not figure at all in the corporate documents or promotional material. However, when rural people do make an appearance in these texts, it is inevitably in a section on corporate social responsibility, i.e. through varying degrees of generosity, agroholdings underscore the subordinate status of (many) post-Soviet peasants. One consequence of such images and discourse is that household agriculture is made invisible (Palloot and Nefedova, 2007). While much of this agriculture is subsistence-orientated, Ukrainian households can be competitive, as shown in paper 1, given the right set of conditions. The main condition in the dry southern Ukrainian context was access to water. Access to water, however, is not simply or only a question of proximity. It is also a political question involving village autonomy and control over land and resources. This autonomy is achieved, not through overt political mobilization, but through the material practice of “taking liberties” with resources. Paper 1 does not romanticize this autonomy. Peasants may have inherited villages, from which they have created spaces of autonomy, but this is also accompanied by official neglect and an overall decline in living standards that many peasants rue.

A broader question is if there is a potential peasant path of development here a la van der Ploeg (2014). Paper 1 argues that in certain villages in southern Ukraine accumulation from below is occurring. However, given the special circumstances that attend to the development and growth of peasant farming in this area, providing more support for household agriculture is unlikely, as formulated in paper 1, to be a “silver bullet” solving the rural unemployment problem, particularly in light of arguments presented in this comprehensive summary concerning the fact that many peasants would rather not be farmers. Still, it has to be said that expansion of household agriculture would probably do more to stimulate employment compared to the status quo of continued large farm expansion, especially given declining agricultural employment in farm enterprises (see paper 4). Nevertheless, as paper 1 also makes clear, it is difficult to imagine the post-Soviet, Ukrainian state changing its rural development priorities to facilitate a peasant-led path of rural development, and the status quo of slow growth of some peasant farms in particular places in spite of state inattention is likely to continue.

6.2 Research Question 2: The Agroholding Question

Paper 2 argued that the regulatory differences between Ukraine and Russia have played a role in shaping agroholding success, in that Ukraine’s more restrictive land laws (not allowing the buying and selling of agricultural land) have encouraged agroholdings in that country to pursue production oriented strategies as opposed to strategies focused on land speculation, which was the
focus of some companies investing in Russia, which does allow the purchase and sale of agricultural land. I would add that Ukraine’s more favorable agroecology should not be downplayed in shaping outcomes, particularly with respect to companies whose main revenues come from arable crop production. Nevertheless corporate farm-field images show the likely future of post-Soviet agrarian capitalism, the uneven success notwithstanding. Arable crop production requires capital. Due to the destructive devaluation of Soviet agricultural complexes in the 1990s, much capital had been destroyed (see for example papers 3 and 4). Acquiring and deploying capital is what (some) agroholdings excel at. Until there is broader access to finance, it is hard to imagine a different development in this region.

Let me qualify what I mean by future tendencies. In Paper 2, we concluded that, given the volatility of arable crop production, the stock market is unlikely to deepen its engagement in farm production in this region, unless and until rising agricultural commodity prices make profits more reliable. That being said, while there have been a number of farm bankruptcies, the mega farm sector shows no overall tendencies towards decay, and privately funded agroholdings will likely continue to expand opportunistically. Smaller "large" farms on the order of 5,000 to 10,000+ ha, particularly older farms that have had time to accumulate capital, will also probably continue to prosper and modernize. The question going forward is if new actors will enter the market? Acquiring land in this region is still relatively inexpensive by global standards, but falling commodity prices threaten profitability, and potentially portend a new round of (slow) devaluation. There remains some interest in East European farmland, though this interest is more domestic in origin (especially in Russia), and in any case is nowhere close to the fever pitch of ten years ago. Together these tendencies would seem to suggest that the trend, noted in section 2 of this comprehensive summary, towards consolidation of existing farming companies, and thus continued concentration of land, will continue.

6.3 Research Question 3: Collective Farm Legacies

In Paper 2 we make the point that agroholding discourse tended to frame agricultural investments as occurring on a \textit{tabula rasa}. Along these lines, the agroholdings generally made a point of stating that the land they purchased or took control over was abandoned (see paper 2), which is in fact partially true. Nevertheless, the legacy of Soviet agricultural landscape planning shines through the farm-field images seen in the corporate documents. For example, they indicate an industrialized farming model on a landscape made “legible” (Scott, 1999) for productive purposes. As pointed out in papers 3 and 4, and discussed in Vogeler (1996), the immense fields in post-communist Eastern Europe – which have proven ideal even for capitalist agriculture – is ironically a legacy of Soviet planning. The steppe was completely re-landscaped in the
Soviet period in line with the needs of high-input, high-volume agriculture. A further irony, as pointed out by Max Spoor (Spoor et al., 2012), is that Lenin, whose vision for Soviet agriculture was informed by the notion of Fordist “factories in the field”, would likely have approved of the efficient, farming methods implied by the farm-field images in corporate farming reports and websites. Thus companies like Black Earth Farming certainly represented change, in that they were foreign investors literally owning part of the steppe, but the Swedish company, notwithstanding its promises to “revolutionize” agriculture in Russia, also represents continuity with the past.

In considering history, it is important, for a variety of reasons, to restore the collective farm as a legitimate historical subject. First, the conditions of the reproduction of labor on the late-Soviet collective farm look relatively generous in world-historical terms. Of course Soviet decision-makers had ulterior motives for this (staunching rural-urban migration), and there had been a particularly vile prior history of subordination and oppression. Also, even in the late Soviet period, it was not the case that agricultural labor conditions in the Soviet Union were uniformly generous. Still, I consistently encountered nostalgia on the part of respondents in southern Ukraine for life on the collective farm in the late Soviet period. As Allina Pisano writes (2009, p. 194): “The Soviet system of agriculture had forced attachment to collective land for a generation, but the violence of collectivization in the 1930s did not preclude subsequent generations from cultivating affective ties with the land and farm where they lived and worked.”

Second, collective farm legacies have shaped agrarian change. For example, agroholdings, as detailed in papers 2 and 4, were often able to acquire all the land belonging to a collective farm in one fell swoop, during the initial scramble for land in 2007 and 2008. This is a function of the territorial division of the land, where villages correspond to the boundaries of collective farms. However, this is also likely a function of the tight social ties binding people in a collective farm and village within districts (raioni) and oblasts, i.e. agroholdings could often negotiate with collective farm chairman for the sale or acquisition of the land of most or all of the village. This involves an obvious element of hierarchy and patron-client relationships between collective farm chairmen and villagers, but the point here is that understanding the collective farm as a socially cohesive place helps to understand how agroholdings could acquire such large land areas so fast.

As alluded to in the introduction, Wegren (2009), who focuses exclusively on Russia, took issue with Allina-Pisano’s description (2007) of land reform in Russia and Ukraine as an example of local elites and local populations covertly “resisting” pressure from the center for genuine land reform. He makes a number of arguments to the effect that land reform design, and the institutions it created, can explain land reform outcomes better than resistance to these new institutions on the part of local elites and peasants. Some of these
arguments are convincing. In particular, Wegren details (2009, p. 66) how rural elites actually waged an overt political struggle to prevent land reform (in Russia – but the same can be said for Ukraine), a struggle that, by the end of the 1990s, they clearly had lost. Still, in one sense, this thesis suggests that Wegren was wrong. He argues that land reform (in Russia) was a “giving reform” (Wegren, 2009, p. 66) and not a “taking reform,” in that (former) collective farm workers received something concrete, a parcel of land. Why would anyone resist that? On the contrary, I would argue that enough peasants understood that the rural “balance of power” was shifting inexorably against them, despite the fact that they received a parcel of land (see paper 4). They were gaining a piece of land, but losing a “place.” This place was in many ways not ideal, but it was a place, which nonetheless had been instrumental in securing their livelihoods, and where they felt a sense of belonging. This thesis in other words argues, in line with Allina-Pisano, that, particularly with respect to the peasantry, there was a basis for resistance, and that resistance – as expressed in farming practice – is an important dimension for understanding the fortunes of rural household farming today in the former Soviet Union.

6.4 Research Question 4: Soviet and Post-Soviet Farming in a Global Context

This thesis, and in particular paper 3, puts Soviet environmental management in a clearer, global context, arguing that the irrigated landscape in southern Ukraine created under Soviet auspices in the post-war period, and run today in much the same way, albeit now within a market economic context, appears to be on an equally, if not more, sustainable trajectory compared to other large-scale irrigated landscapes, such as in the US. The implication of this argument is that, while there certainly are some examples of extremely unsustainable Soviet environmental management (the Aral Sea, Chernobyl), the Soviet record is probably generally on par with Western or American efforts in the same period. This is a potentially important argument, as research and commentary during the Cold War and immediately following it tended to emphasize how sub-optimal Soviet environmental management was in comparison with the West. This in turn underscores the similarities between the Soviet Union and the West in their industrialized approach to agriculture. In other words, while there are of course also differences, the Soviet environmental record, particularly in the later Soviet period, is nevertheless a poorly chosen “other” to contrast with the Western or American record.

Paper 4 picks up this theme, arguing, within the context of debates on the sustainability of global agriculture, that the post-Soviet area in general, and Ukraine in particular, provide a good example of Jason Moore’s thesis that
environmental and agricultural limits are historically constituted and not innately given. Soviet agriculture, which clearly was experiencing diminishing marginal returns on investments due, among other reasons, to sluggish labor productivity growth, was exhausted, but not depleted. With “nature” somewhat re-configured, and labor productivity now improving, the same fields are bursting through Soviet yield constraints. In this regard, farm-field images from agroholdings are the discursive counterpoint to figure 3 in paper 4 (showing an increasing yield trend for all major Ukrainian crops). In line with a view of capitalism as possessing multiple histories and being inherently uneven, this change is seen as both progressive – for those who despaired of chronic agricultural inefficiency in the Soviet period – and negative, as it has occasioned repeasantization and worsening rural living standards.

There is, it has to be said, a lot more scope for fruitful exploration of Soviet and post-Soviet environmental and agrarian history from the Cheap Nature perspective of Jason Moore. For example, the intersection between gender and class (in this case peasant) and “nature” might help to explain low Ukrainian land lease rates. As described in paper 4, the law of value can only work when it is embedded in “natures” that are unvalued, which then allows a great deal of free or cheap work and energy to be used in the service of commodity production. Such “natures” often include the work of categories of people, who, for a variety of what are usually quite unjust reasons, are not considered part of “society.” One such category, as Moore writes, are women, whose unremunerated work in the home (historically) has helped to (re)produce the working class in the capitalist West at a rate that is far lower than would have otherwise been the case without this unremunerated work. How does this relate to post-Soviet Ukrainian farming? Land owners in Ukraine are disproportionately older, which means that, as a result of skewed post-Soviet demographics whereby men die much earlier than women, land owners in Ukraine are disproportionately older women. The lease rate for land is also quite low for a number of structural and institutional reasons (see papers 1 and 2). In light of the environmental history of Cheap Nature, the question can be posed if another structural reason for low lease rates in Ukraine is related to the fact that land is disproportionately owned by women? Already their status as peasants would mean that on a spectrum they are closer to “nature” than “society,” and the question is if traditional notions of gender roles in post-Soviet countries drive or reinforce that definition? It can be the case, however, that this issue cuts both ways, at least in Ukraine. There are few more positive words in any language than “grandparents”, in general, and “grandmother” in particular. Perhaps a contributing factor to the angst and disagreements over the issue of allowing the sale of agricultural land in Ukraine is that it is associated with taking land away from one’s beloved grandmother. Such a question would potentially also intersect with notions of rural areas being the cradle of national identity, which is the case in many post-Soviet countries.
It is a separate question if improving post-Soviet agricultural productivity has any consequence for the global regime of cheap food, which many scholars see as threatened by climate change and growing ecological crisis. The fourth paper outlined a plausible scenario of continued increases in agricultural productivity in Ukraine, such that Ukraine would increase its production of wheat by 30%. The question is if similar productivity increases can be expected from other crops and from other post-Soviet regions. The argument from paper 4 was that, to the extent that this is possible, new agricultural surpluses from post-Soviet regions might contribute to the continuation of the current global regime of cheap food, thus postponing a crisis in the capitalist system. This would be a tremendous irony, since agriculture in this region has so long been ridiculed as backward, and a reason why it is so productive today is, in part, the legacy of socialism.

The point of this exercise, however, is merely to point to the possibility of this happening and not say definitively that it will happen. Moore argues that capitalist agriculture is now experiencing “negative value” (2015, p. 277), a kind of blow back from “nature” in the form of climate change and uncontrolled environmental degradation that will challenge agricultural productivity going forward. He writes for example that “super weeds,” i.e. weeds that have developed resistance to various pesticides, are threatening yields from “[the US state of] Georgia to Manitoba” (ibid, p. 273-274). My reply based on the approach and the scenario laid out in paper 4 and in the comprehensive summary is that certainly a variety of factors will impinge on how super weeds, or other forms of environmental degradation, will affect agricultural productivity going forward, and that the farmer response and potential adaptation to this (scary) phenomenon will be uneven, i.e. differentiated and differentiating. Probably some farmers will be able to adapt, but others not, and understanding this unevenness will help to comprehend the magnitude of the problem. This is not at all a rejection of the notion of biophysical contradictions of agriculture. On the contrary, it is rather a call to take up negative value and biophysical contradictions as a basis for a research program looking into farming systems, material practice, and yield potential, not at a global level (cf Weis, 2007), but in specific regions where these processes are in danger of taking hold.

6.5 Concluding Remarks

This thesis has argued, at a meta-level, that the collective farm should be taken out of the historical dust-bin, and dusted off, so to say, and properly situated in the history of modernity and agriculture. In this dissertation, this has entailed attention to the different and contradictory ways new farming systems emerged out of the old, with an emphasis on the material legacy of collective farm infrastructure. But it is also important to look at what this means on a
broader historical canvas. There is a general movement today in the critical literature to excavate the violent, historical underpinnings of resource extraction in general, and agriculture in particular. Jason Moore’s scholarship, profiled in paper 4, can be seen as a powerful expression of this movement, but there are other examples (see also Holleman, 2017). Large-scale commercial agriculture in many places where it is practiced is, in this view, framed as ecological imperialism, because of the environmental degradation resulting from the industrial cropping systems associated with it, and because (indigenous) people generally had to be moved in order to use the land. In this context, it is important not to forget the extreme violence of the Holodomor, which was instrumental in clearing the Ukrainian countryside for the collective farm system. In other words, it can be said that the collective farm emerged out of one of the most shocking episodes of ecological imperialism in the history of modernity. In this sense, Soviet environmental history as history of modernity is an outlier.

This thesis has detailed numerous ways farmers, from peasants to agroholdings, have built their farming operations out of the ashes of collective farms. In this sense, the collective farm legacy has proven to be more “positive” than it is usually given credit for. However, it is a separate question if, looking forward, the pathways of change that lead from collective farming can be described as ideal or not. Here the legacy is much more mixed. For example, it can be said that peasants have created spaces of autonomy out of the collective farm inheritance in certain places, but this has not been possible everywhere, notwithstanding the conclusions from paper 1, and where it has been possible, it is still difficult for peasants to expand their zone of autonomy out of that space. At the other end of the agrarian structure, Soviet farm “capital” has facilitated developments towards a renewed, and if anything, even bigger gigantomania, with mixed economic results and negative consequences for the notion of the countryside as a lived landscape. The argument here is not that the landscape was solely determinative of the agroholding phenomenon. There were many factors at play. The argument is rather that it is difficult to see how a more equitable agrarian structure with a greater number of viable smaller farms, or at least more evenly distributed farm sizes, could arise in a landscape specifically designed for large scale agriculture. The implication of this argument is that a practical theory that focuses on improving rural livelihoods should also look more closely at the landscape, and what physical changes can and should be made to promote livelihoods for the greatest number of people.
7 Summaries

7.1 Короткий виклад українською мовою

Головними питаннями, що розглядаються в даній дисертації, яка, не дивлячись на те, що вона відноситься до сфер критичної економічної географії, надихалася також теоріями, підходами і методами соціальних наук, є питання, що ж відбулося з пострадянським європейським зерновим поясом після зникнення колгоспів, і що нам сьогодні дає спадок колгоспного землеробства. Хоча дисертаційне дослідження сфокусовано на українському сільському господарстві, в деяких розділах воно виходить за межі території України, і стосується інших країн, зокрема, Західної Росії, або концентрується на діяльності скандинавських інвесторів, які з 2000-х років реалізували різні аграрні проекти в Україні та Росії. Головна мета дисертації – простежити та проаналізувати становлення, зміни та перспективи різних господарств, від дрібних приватних селянських господарств до крупних агрохолдингів, дати нову інтерпретацію історії радянського аграрного сектору в світлі того, що відбулося після колапсу комуністичної системи, інкорпорувати радянський та пострадянський досвід в світову історію сільського господарства та переосмислити спадок колгоспного ладу.

Відповіді на ці питання викладені в чотирьох розділах і розгорнутих висновках. В першому розділі розглядаються невеликі селянські господарства в певних селях на Півдні України, а також умови та фактори, що сприяють значній інтенсифікації сільського господарства в них. В другому розділі вивчається досвід крупних скандинавських інвестикцій в сільське господарство України та Росії з метою знайти відповідь на питання чому більшість з них (але не всі) не стали такими прибутковими, як очікувалося. Для спростування усталених західних концепцій відносяне радянського досвіду перетворення довкілля, в третьому розділі увага концентрується на новому витку використання побудованих в радянські часи масштабних зрошувальних систем на Півдні України. В четвертому розділі мова йде про зв’язок між колгоспами і сьогоднішніми агрохолдингами в регіоні, а також розглядається криза сьогодення розвитку сільського господарства як в радянському, так і в пострадянському контексті. Розділ завершується описом цілком можливого (але не неминучого) сценарію розвитку сільського господарства як в Україні, так і в інших республіках.
колошнього Радянського Союзу, в результаті реалізації якого пострадянське сільське господарство, як не іронічно це звучить, може спасти капіталізм.

Теоретичною базою дисертації є аграрна політекономія, а також сучасні дебати відносно фінансізації сільського господарства та критичні (марксистські) дискусії в області економічної географії про нерівномірний розвиток та географії нерівності, що були започатковані географом Давидом Гарві. Дисертація також спирається на теорію мережевої взаємодії (Actor Network Theory), яка була започаткована як критика та реакція на марксистські підходи в суспільних науках, але пізніше, змішавшись з ними, дала новий синтез, особливо в економічній та соціальній географії. Згідно теорії мережевої взаємодії, дійсність представлена гібридними суб’єктами-об’єктами, які конкретизуються за допомогою діючої сили мережі різноманітних людей, установ, дискурсів, природи, матеріальних речей тощо. Ці теоретичні підходи не є новими, однак лише в останній час вони стали використовуватися для пояснення і розуміння змін в пострадянському просторі.

Емпірична база дослідження представлена різноманітніми серіями матеріалів, що обули одержані різними методами і в різних місцях. Так, в ході дослідження було проведено серію формалізованих інтерв’ю (75 інтерв’ю на Півдні України, в Києві та Стокгольмі); здійснено огляди 28 домогосподарств в модельному селі Півдні України; застосований метод включенного спостереження (використаний на зборах акціонерів, що торгували на біржі скандинавських корпорацій та вкладали кошти в аграрний сектор України та Росії); проаналізовані різноманітні тексти, наприклад відкриті звіти корпорацій, заяви та коментарі в ЗМІ; офіційна статистика; історичні супутникові дані.

У висновках дисертації вказується на те, що невеликі селянські господарства в певних умовах можуть бути життєздатними та конкурентоспроможними, в той час коли існуюча тенденція крупномасштабних сільськогосподарських підприємств до концентрації та укрупнення, вірогідно, буде продовжуватися, хоча б в короткостроковій перспективі. Дисертація також вказує на певну схожість між радянським та капіталістичним сільським господарством в глобальному історичному контексті, що виступає однією з причин того, що сільське господарство колгоспного типу в цьому регіоні змогло відносно швидко формуватися в сільське господарство капіталістичного типу.

Ключові слова: аграрна зміна, історія довкілля, Україна, Росія, СРСР, крупномасштабне сільське господарство, агрохолдинг, фінансізація, селяни, дрібній фермер, зрошування, нерівномірний розвиток, теорія мережевої взаємодії (ANT), різноманітні методи, багатоцентрове дослідження

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7.2 Краткое изложение на русском языке

Главными вопросами, рассматриваемыми в данной диссертации, которая, несмотря на то, что относится к сфере критической экономической географии, вдохновлялась также теориями, подходами и методами социальных наук, являются вопросы, что же произошло с постсоветским европейским зерновым поясом после того, как исчезли колхозы, и что нам сегодня даёт наследие колхозного земледелия. Хотя диссертационное исследование сфокусировано на украинском сельском хозяйстве, некоторые её разделы выходят за пределы территории Украины, и относятся к другим странам, в частности, к Западной России, или концентрируются на деятельности скандинавских инвесторов, которые с 2000-х годов реализовывали различные аграрные проекты в Украине и России. Главная цель диссертации — проследить и проанализировать становление, изменения и перспективы разных хозяйств, от мелких частных крестьянских хозяйств до крупных агрохолдингов, дать новую интерпретацию истории советского аграрного сектора в свете того, что произошло после коллапса коммунистической системы, инкорпорировать советский и постсоветский опыт в мировую историю сельского хозяйства, и осмыслить наследие колхозного строя.

Ответы на эти вопросы изложены в четырёх разделах и развёрнутых выводах. В первом разделе рассматриваются небольшие крестьянские хозяйства в определенных сёлах на Юге Украины, а также условия и факторы, способствующие значительной интенсификации сельского хозяйства в определенных селах. Во втором разделе исследуется опыт крупных скандинавских инвестиций в сельское хозяйство Украины и России с целью найти ответ на вопрос почему многие из них (но не все) не стали такими прибыльными, как ожидались. Для того, чтобы оспорить устоявшиеся западные концепции в отношении советского опыта преобразования окружающей среды, в третьем разделе внимание концентрируется на новом витке использования построенных в советские времена крупных оросительных систем на Юге Украины. В четвертом разделе речь идёт о связи между колхозами и сегодняшними агрохолдингами в регионе, а также обсуждается кризис устойчивого развития сельского хозяйства как в советском, так и в постсоветском контексте. Раздел завершается описанием вполне возможного (но не избежного) сценария развития сельского хозяйства как в Украине, так и в других республиках бывшего Советского Союза, вследствие реализации которого постсоветское сельское хозяйство, как не иронически это звучит, может спасти капитализм.

Теоретической базой диссертации является аграрная политэкономия, а также современные дебаты в отношении финансализации сельского хозяйства и критические (марксистские) дискуссии в области
экономической географии о неравномерном развитии и географии неравенства, которые были изначально предложены географом Давидом Гарви. Диссертация также опирается на теорию сетевого взаимодействия (Actor Network Theory), которая сначала возникла как критика и реакция на марксистские подходы в общественных науках, но позже, смешавшись с ними, дала новый синтез, особенно в экономической и социальной географии. Согласно теории сетевого взаимодействия, деятельность представлена гибридными субъектами-объектами, которые конкретизируются посредством действующей силы сети разнообразных людей, учреждений, дискурсов, природы, материальных вещей и т. д. Данные теоретические подходы не являются новыми, хотя только в последнее время они стали применяться для объяснения и понимания изменений в постсоветском пространстве.

Эмпирическая база исследования представлена разнообразными рядами материалов, полученными разными методами и в разных местах. Так, в ходе исследования было проведено серию интервью (75 интервью на Юге Украины, Киеве и Стокгольме); осуществлено 28 осмотров домохозяйств в одном исследуемом селе на Юге Украины; применён метод включенного наблюдения (использовался на собраниях акционеров, которые торговали на бирже скандинавских корпораций и вкладывали средства в аграрный сектор Украины и России); проанализированы разнообразные тексты, например открытые отчёты корпораций, заявления и комментарии в СМИ; официальная статистика; исторические спутниковые данные.

В выводах диссертации указывается то, что небольшие крестьянские хозяйства в определённых условиях могут быть жизне- и конкурентоспособными, в то время как существующая тенденция крупномасштабных сельскохозяйственных предприятий к концентрации и укрупнению, по всей вероятности, будет продолжаться, хотя бы в краткосрочной перспективе. Диссертация также указывает на определяющее сходство между советским и капиталистическим сельским хозяйством в глобальном историческом контексте, который служит одной из причин по которой сельское хозяйство колхозного типа в этом регионе могло относительно быстро трансформироваться в сельского хозяйство капиталистического типа.

Ключевые слова: изменения аграрной сферы, история окружающей среды, Украина, Россия, СССР, крупно-масштабное сельское хозяйство, агроходлинг, финансализация, крестьяне, мелкий фермер, орошение, неравномерное развитие, теория сетевого взаимодействия (ANT), разнообразные методы, многоцентровое исследование

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7.3 Svensk sammanfattning

*Hur gick det sen* i det post-Sovjetiska spannmålsbältet, efter det att kolcho-
serna upplöstes, och på vilket sätt kan man säga att kolchoserna eller arvet
efter dem trots allt lever kvar? De är huvudfrågorna i denna avhandling, som
skrivits huvudsakligen inom ramen för kritisk kulturgeografi, men har även
inspirerats av teorier och metoder från samhällsvetenskapen i stort. Artiklarna
i avhandlingen fokuserar först och främst på Ukraina, men två artiklar tar ett
vidare geografiskt grepp, och undersöka den roll svenska investerare har spe-
lat i jordbrukssektorn i Ukraina och Ryssland. Det grundläggande syftet är att
analysera hur olika jordbruk – allt från småbruk till enorma jordbruksföretag
– utvecklas och förändras under post-kommunistiska förhållanden. Ett annat
syfte är att omtolka synen på det sovjetiska jordbruket under 70- och 80-talet,
i ljuset av det som hände sedan, för att ge det sovjetiska jordbruket sin rätta
plats i den globala jordbrukshistorian och för att bättre förstå arvet från kol-
choserna under den post-sovjetiska perioden. Ett tredje syfte är att skaffa en
överblick över jordbruksstrukturen idag i Ukraina.

Dessa syften utforskas i fyra artiklar och en sammanfattande kappa. Den
första artikeln behandlar småbrukare i södra Ukraina och visar på de förhål-
anden och faktorer som har lett till en kraftig jordbruksintensifiering i vissa
byar. Den andra artikeln undersöker storskaliga nordiska jordbruksinveste-
ringar i Ukraina och Ryssland, i syfte att förklara varför många investeringar
inte har levt upp till aktiemarknadens förväntningar. Den tredje artikeln foku-
serar på arvet efter stora sovjetiska investeringar i bevattnande i södra Ukraina,
och använder återväxten av bevattningsystemen på 2000-talet för att proble-
matisera den etablerade bilden av Sovjetisk miljövård i ett globalt samman-
hang. Den fjärde artikeln tar ett större historiskt grepp om sovjetiskt och post-
sovjetiskt jordbruk och förklarar kopplingen mellan dagens stora jordbruksfö-
retag och gårdagens kolchoser, samtidigt som den diskuterar jordbruksens håll-
barhetskris både i ett sovjetiskt och post-sovjetiskt sammanhang. Artikeln av-
slutas med en beskrivning av ett ironiskt och möjligt men långt ifrån ound-
vikligt) scenario där utvecklingen i post-sovjetiskt jordbruk räddar världskap-
italism.

Teoretiskt bygger avhandlingen på jordbruks politiska ekonomi; besläk-
tade debatter om jordbruks pågående finansialisering; och diskussioner
inom kritisk kulturgeografi om ojämn utveckling ("uneven development") och
ojämlikheternas geografier ("geographies of difference"). Avhandlingen in-
spireras också av perspektiv från Actor Network Theory (ANT) som betonar
den inneboende multipliciteten i alla objekt. För att bestämma och definiera
vår verklighet, enligt ANT, krävs ett nätverk av olika personer, institutioner,
diskurser, materiella ting, och andra aktörer, inklusive objekt som traditionellt
anses sakna egen verkande kraft eller ”agency”. Sådana perspektiv är i sig
knappast nya, men deras tillämpning på post-Sovjetisk förändring och konti-
nuitet är relativt ny. Empirin bygger på många metoder och källor, insamlade
på olika platser. Analysen bygger på intervjuer (75 formella intervjuer genomförda i södra Ukraina, i Kyiv och i Stockholm samt 28 besök på olika småjordbruk i studiebyn i södra Ukraina), deltagande observation i en by och på bolagstämmor, bolagsrapporter och nyhetskommentarer, jordbruksstatistik och historiska satellitdata.

Avhandlingen argumenterar för att, givet vissa faktorer, är småbruk mer livskraftigt än vad många tror samtidigt som koncentrations- och konsolideringsvågen som pågar bland stora producenter lär försätta inom den närmaste framtiden. Avhandlingen lyfter också fram likheterna i ett globalt historiskt sammanhang mellan sovjetiskt och kapitalistiskt jordbruk, vilket i sin tur förklarar hur övergången till kapitalistiskt jordbruk i vissa områden i det forna Sovjet kunde ske så fort.

Nyckelord: Jordbruksförändring; miljöhistoria; Ukraina, Ryssland, USSR, storskaligt jordbruk, agroholdings, finansialisering, bönder, bevattning, ojämn utveckling, actor network theory, månglokala kontexter, blandade metoder
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Annex

Table 3: List of Interviews. Note this list does not include the 28 “field visits” to different household farms which served as the basis for paper 1. The gender of the interview is indicated by “m” or “f”.

<table>
<thead>
<tr>
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<th>DATE</th>
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<td>Apr-10</td>
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<td>2</td>
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<td>Nova Kakhovka</td>
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<td>Apr-10</td>
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<td>Sep-12</td>
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<tr>
<td>10</td>
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<td>Sep-12</td>
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<td>Village Secretary (m)</td>
<td>Kakhovka</td>
<td>Oct-13</td>
</tr>
<tr>
<td>50</td>
<td>Odnoosibnik (m)</td>
<td>Skadovsk</td>
<td>Oct-13</td>
</tr>
<tr>
<td>51</td>
<td>Agroholding Manager (m)</td>
<td>Stockholm</td>
<td>Dec-13</td>
</tr>
<tr>
<td>52</td>
<td>Former Agroholding Manager (m)</td>
<td>Stockholm</td>
<td>Jan-14</td>
</tr>
<tr>
<td>53</td>
<td>Agroholding Board Member (f)</td>
<td>Skype</td>
<td>Jan-14</td>
</tr>
<tr>
<td>54</td>
<td>Agroholding Manager* (m)</td>
<td>Stockholm + skype</td>
<td>May-14</td>
</tr>
<tr>
<td>55</td>
<td>Agroholding Investor (m)</td>
<td>Stockholm</td>
<td>May-14</td>
</tr>
<tr>
<td>56</td>
<td>Accountant (m)</td>
<td>Stockholm</td>
<td>Jun-14</td>
</tr>
<tr>
<td>57</td>
<td>Stock Market Analyst (m)</td>
<td>Stockholm</td>
<td>Jul-14</td>
</tr>
<tr>
<td>58</td>
<td>Agroholding Managers (m)</td>
<td>Kyiv</td>
<td>Nov-14</td>
</tr>
<tr>
<td>59</td>
<td>Agroholding Manager* (m)</td>
<td>Skype and Kyiv</td>
<td>Dec-14</td>
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<td>60</td>
<td>Agroholding Manager (former) (m)</td>
<td>Stockholm</td>
<td>Dec-14</td>
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<td>61</td>
<td>Former Agricultural Official (m)</td>
<td>Kakhovka</td>
<td>Oct-15</td>
</tr>
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<td>62</td>
<td>Irrigation Official (m)</td>
<td>Kherson</td>
<td>Oct-15</td>
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<td>63</td>
<td>Irrigation Official (m)</td>
<td>Hola Pristan'</td>
<td>Oct-15</td>
</tr>
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<td>64</td>
<td>Irrigation Official (m)</td>
<td>Chaplinskii</td>
<td>Oct-15</td>
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<td>Fermer (m)</td>
<td>Chaplinskii</td>
<td>Oct-15</td>
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<tr>
<td>66</td>
<td>Farm manager (m)</td>
<td>Chaplinskii</td>
<td>Oct-15</td>
</tr>
<tr>
<td>67</td>
<td>Odnoosibnik (m)</td>
<td>Skadovsk</td>
<td>Sep-16</td>
</tr>
<tr>
<td>68</td>
<td>Farm Owner Manager (large-scale) (m)</td>
<td>Hola Pristan'</td>
<td>Sep-16</td>
</tr>
</tbody>
</table>

* interviewed twice