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Drivers of change in Norwegian agricultural land control and the emergence of rental farming



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Norway represents one of the last countries in Europe where the structural development of agriculture is strongly state regulated through legislation and economic instruments. The result is an agriculture dominated by very small farms while, in most of the rest of Europe, farming has been rationalised into much larger units – thus improving the structural efficiency of agriculture. This study looks at how and why the pattern of farmland control (ownership and renting) in Norway has changed over the last fifty years. Using a study of agricultural policy documents, an investigation of statistics on farmland control changes, and a qualitative survey, we explore the considerable growth in the number of partly rented farms over this period. We suggest that change is attributable to three key factors: techno-economic development leading to a growing need for economies of scale, social norms curbing the transfer of farm properties outside of the family, and policy and legal instruments reducing the extent of property transfer. In addition, the weakening of compensation to smaller farmers since the 1990s has encouraged many to leave agriculture and made more rental land available – ultimately leading to a rapid shift from traditional owner occupation to a predominantly rented land system.

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1. Introduction

The nature of agriculture is changing. Within the European Union, for example, multifunctional policies are encouraging the development of a diversified agricultural sector while, on the other hand, the forces of “market productivism” are restructuring agriculture in favour of larger, more commercialised and specialised businesses (Potter and Tilzey, 2007). Norway, a country outside the EU but strongly influenced by EU policy approaches, is now experiencing similar structural change. In 1959 there were 198,315 agricultural holdings in Norway with 87 percent of the properties wholly owned by the farmer operator (Statistics Norway, 2002). Half a century later the total number of agricultural holdings has

fallen to 46,624 (Statistics Norway, 2011b), while the number of agricultural properties has remained relatively stable.¹ These changes can be attributed to two main factors: firstly, working farms have increased in size over the last 50 years and, secondly, there has been a dramatic change in the way farmland is controlled – a shift from owner occupation to renting such that, by 2008, farmers in Norway were on average leasing 40 percent of their land (Landbruks- og matdepartementet, 2011-2012).

This represents an important shift in Norwegian agriculture. Historically, agriculture in Norway was based on a post-WWII “social contract” between the government and the then largely rural Norwegian population (Almås, 2004), which placed emphasis on productivity, self-sufficiency, efficiency and maintaining an average farming income comparable to that of urban workers – as well as contributing to rural employment and rural settlement (Rønningen et al., 2012). Later, ensuring a viable agriculture and living cultural landscapes throughout the country became an important objective. However, as Bjørkhaug and Richards (2008) point out, even though Norway is “situated toward a ‘strong’ end of a continuum of a level of multifunctional agriculture” (see Wilson, 2008), this multifunctionality is based firmly on active farming. Only farmers on the production register qualify for subsidies for the provision of public goods such as biodiversity, cultural landscapes, viable rural communities and so forth (Ministry of Agriculture and Food, 2006).

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¹ In 2010 there were 185,098 agricultural and forestry properties in Norway. Of these 170,734 had farmland. On 126,433 properties the farmland was rented out or not used while the rest, 44,301 properties, had owner-occupied agricultural activity (Statistics Norway, 2011a). The reason this figure is somewhat smaller than the number of holdings registered in the Census of Agriculture and Forestry (46,624) is that some farms have more than one holding.

Nevertheless, Norwegian agriculture is not sufficiently economically viable to maintain the many relatively small farms across the country. Low profitability and long hours combined with a strong urban labour market have meant that payments for production have not been sufficient to stem a steady decline in the number of active farms.

In this paper, we seek to explore changes in farmland control as part of the general development of agriculture in Norway over the last half century. In particular, we detail legal and economic instruments that have guided Norwegian agriculture and assess how they, together with other factors, have contributed to the observed changes. The outline of the paper is as follows. First, we review changes in property relations in Europe and the importance of farmland control. Second, we present a methodology for the investigation of the issue. Third, we present the results in three parts: a description of agricultural policy with a specific focus on legal and economic instruments, an analysis of public statistics on farmland control, and a qualitative survey of farmers. Finally, we discuss the results and propose a model of farmland control before concluding on the likely future for land control in Norway.

2. Farmland control – changes in property relations in Europe

There are two key dimensions to control over farmland. The first dimension concerns how the control is exerted, that is through formal or informal means. Formal control exists through legislature, regulatory agencies and courts, whereas informal control takes place mainly in families, communities and associations. The second dimension regards the type of governance. In principal, farmland can be controlled through spontaneous as well as intentional forms of economic governance (Williamson, 1996). Spontaneous governance corresponds to the classical market – the “invisible hand” (Smith, 1991 [1776]). Intentional governance refers to conscious, purposeful governance, of which agreement and ownership are two forms. In practice, the long-term nature of agricultural production has meant that intentional governance through agreement and ownership have been the most widely used ways to control farmland (Geisler and Salamon, 1993).

Why is this important? From a structural perspective, the control dimensions noted above have different consequences for farming systems in terms of incentives, adaptability, legislation and bureaucratic costs (Williamson, 1996). However, they are also important from a social perspective. Brown (2007) for example, notes that the nature of property and land control matters because of the role it plays in determining how people can engage with land, in particular, who can access specific parts of land and how they are able to use it. Thus land tenure, in a sense, governs the relationship between people and the environment by setting restrictions and rights on our physical interaction and consequently defining permissible cultural engagement. This relationship is reciprocal. Changes in society can also alter our needs for land governance such that institutional structures that functioned in the past may cease to adequately reflect the changing requirements of the population (Blomley, 2005).

One of the key drivers of change in farmland control in Norway is the liberalisation of economic and political governance (e.g. Potter and Tilzey, 2005; Potter and Tilzey, 2007). While neoliberal reforms involve multiple changes, those relevant to the relationship between people and agricultural land are largely concerned with the reduction in state regulation, promotion of individual choice, enforcement of private property rights and increased emphasis on market based solutions (see Peck and Tickell (2002), for a critical overview). These tendencies have been apparent in agricultural policy since the 1990s, but the result so far is far from complete liberalisation. There are both strong elements of social

democracy and rights remaining (e.g. allodial law) and sectorally based differences in the level of adherence to market principles. In terms of land use change in Europe, the influence of neoliberalism is evident in the loosening of government regulation but, more generally, in farmers’ increasing need to rely on market forces rather than government financial support. In this context, as Evans (2009) observes, “renting land is clearly a quick and convenient way of increasing the size of the farm business and responding to market and/or policy signals”.

However, the increased flexibility associated with market reforms and globalization has also been argued to create greater need for security of identity within an increasingly uncertain society (Beck, 1992). As a result, land control is being governed by two competing forces – one pushing flexibility of land use as a market resource and the other leading farming families to seek security of identity. As market forces push some (many) farms out of business as economic units, so the desire to maintain family identity compels historically farming families to hold on to farmland, with the consequent development of land rental markets (while maintaining control over the resource) providing a solution to both issues.

These shifting patterns of ownership/rental land control can be seen as part of a long history of land ownership change in Europe (Kloppenborg and Geisler, 1985; Munton, 2009). Prior to c1900 this relationship was heavily in favour of the land owner (Gjerdåker, 2002; Lunden, 2002) with ownership holding connotations of power, status, self-determination and even the democratization of society. In this era the self-sufficient farmer owning and controlling his/her own farmland became a powerful political ideal in both the United States (Gasson and Errington, 1993; Wunderlich, 1993) and European countries such as Norway (Gjerdåker, 2002; Lunden, 2002). As a result, widespread legislation was introduced leading to a significant reduction in the proportion of land under rental agreements in many countries – for example, England (Gasson and Errington, 1993), the US (Kloppenborg and Geisler, 1985), and Norway (Gjerdåker, 2002).

In recent decades we have seen a return to the trend of leasing land for agricultural production (Dramstad and Sang, 2010; Munton, 2009; Wunderlich, 1993). However, rather than the simple landlord/tenant exchanges of the past, these arrangements are becoming increasingly complex. As Hodge (2009) observes, even the hybrid categories of land ownership such as “part-owner-operatorship” (Kloppenborg and Geisler, 1985) and “mixed tenure farmers” (Hill and Gasson, 1985) are often no longer sufficient to describe land/resource control as farm businesses gain access to land and resources by a wide variety of arrangements (Evans, 2009; Ward et al., 1990). Moreover, Ravenscroft (1999) found that a ‘neo-feudal’ lease system where there is a balance between owner and leaser underpinned by government is a more stable and flexible way of controlling farmland than ‘extreme’ systems where either the owner is the dominant (‘feudal’ systems) or the leaser is the most powerful (‘post-feudal’ systems). Further, he contends that notions of a linear historical progression from feudalism to post-feudalism should be rejected.

At the moment, land leasing seems to be becoming an increasingly important means of developing the required economies of scale for modern agriculture. For example, Smithers and Johnson (2004) observed that farmers were using tenancy to enlarge the scale of their operation as part of an “assisted growth” strategy. Valbuena et al. (2008) identified a group of young well educated farmers on already relatively large farms (“expansionist diversifiers”) who were seeking to increase both income from non-agricultural sources and agricultural production scales. In another case, Maye et al. (2009) in a study of 390 tenant farmers in the UK observed that, whereas only 18.5 percent of farmers were renting from landed estates, 20 percent of tenant farmers in their survey were renting from 3 or more private landlords. Recent research in

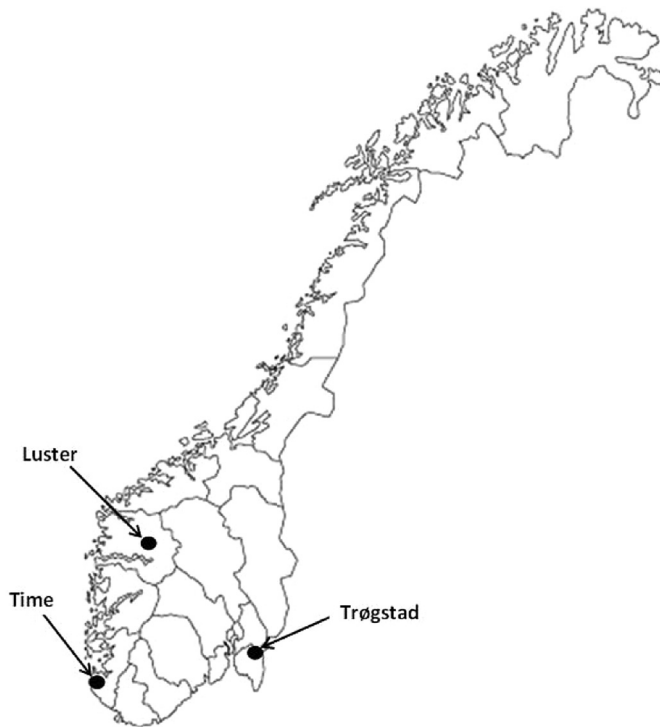


Fig. 1. Map showing municipalities and regions where farmers were interviewed.

the U.K. suggests that farmers find dealing with large institutions, corporations or landed estates more difficult than renting land from smaller private owners as “they were often not so concerned about obtaining a fully commercial return from the land” and often, as they lived locally, could adequately understand the circumstances and requirements of the renter (Ilbery et al., 2010).

The issue of changing land control in Norway has been the subject of very little recent research. Yet, as we note above, the role of land tenure in governing the relationship between people and the environment is a critical one – making it important to understand how land control is changing in Norwegian agriculture. In particular, the dramatic changes in the number of active farms over the last decade suggest significant changes are occurring and it is these that are the focus of our investigation.

3. Methodology

The study builds on qualitative and quantitative data drawn from three sources. First, to describe relevant factors and changes we conducted a document analysis of Norway’s agricultural policy development. This is supplemented by information available on the internet including law texts, protocols from the annual agricultural negotiations (“Jordbruksforhandlingene”, available on www.regjeringen.no/nb/dep/lmd), directives on regulations, and guides to subsidy schemes. Second, in order to explore changes in farmland control in Norway we obtained statistical data (both publically available and on request) from Statistics Norway. These data were then processed by the authors to, for example, produce time series and calculate relative proportions within variables.

Third, in order to better understand farmers’ perspectives and arguments, interviews were conducted with 18 farmers in three agricultural regions in Norway: Eastern Norway, Jæren, and Western Norway. These regions were chosen for the contrasting nature of their agriculture – from the important cereal growing area of Eastern Norway to intensive livestock production in Jæren and, finally, extensive livestock systems (on common grazings) with

some fruit and berry production in Western Norway. This reflects a basic division in Norwegian agriculture between conditions highly favourable for agriculture in Jæren and other lowland areas (Eastern Norway and Trøndelag) and the unfavourable conditions prevalent in the rest of the country. While the interview data are over-representative of Norway’s better agricultural land these are the areas where agriculture is focused (and is likely to continue) in Norway. From the three regions (see map in Fig. 1) we recruited six farmers from each of the regionally ‘typical’ municipalities of Trøgstad, Time and Luster.²

Interviewees were selected with the assistance of local agricultural authorities. The researchers made a written request to the farmers combined with a brief preliminary questionnaire concerning features of the farm/farm family to ensure that the sample included farms in a variety of relevant situations. The local agricultural authorities then sent the request to 40 farmers/farm owners with an invitation to complete the questionnaire. On average the response rate was 50 percent. Among respondents willing to be interviewed we selected six farmers/farm owners in each municipality. In particular, as the study was focused on farmland control and structural issues, we ensured that the sample contained representatives from the farmland control categories of interest, see Table 1 below, namely: “wholly owned”, “mainly owned” and “mainly rented” as well as the category of non-farming owner (“rented out”). We received no responses in the category “wholly rented” and, owing to the difficulties recruiting farmers in this category and their relatively small number, made no additional efforts to recruit respondents from this category.

Interviews involved personal visits to the farms. Where couples were farming we encouraged both parties to take part in the interview, resulting in 8 interviews with farming couples and 10 with individual farmers. The interviews were semi-structured and based on an interview guide covering various relevant topics including structural change in agriculture and the history, development, activity, ownership, and leasing of farmland in the farm holding. Interviews were carried out between May 2011 and September 2012 and lasted between 1 and 1.5 h. All interviews were recorded and fully transcribed. The interview transcripts were coded in NVivo and analysed using a cross-sectional code and retrieve approach.

Hence, the approach we employed involved data triangulation of multiple sources of evidence (Yin, 2003). The purpose was not necessarily to obtain data that converged on the same set of facts or findings but to obtain a comprehensive illumination of the phenomenon (Bryman, 2004). Although some may raise the issue of representativeness and/or reliability of conclusions drawn from 18 interviews it should be remembered that we were not hypothesis testing (where quantitative approaches and larger surveys are required) but exploring how the issues that emerged from the document and statistical analyses were being framed by the farmers themselves. While additional perspectives could have been revealed from further interviews (in particular interviews with farmers from other regions), the size of the sample was constrained by resource limitations. In addition, interviews revealed a relatively consistent set of responses across respondents regardless of region – reflecting the national implementation of the key policies and legislation influencing land tenure systems as well as social and structural similarities across the country.

4. Results

This section is divided into three sub-sections. The first provides a brief overview of agricultural policy in Norway in the post-WWII

² Luster represents the less favoured areas in Norway.

period and a more detailed account of relevant legislation and economic instruments. This is followed by an analysis of Norwegian statistics that explores changes in the control of farmland from 1959 to the present. Finally, the third sub-section explores the drivers and motivators of change from land owner and farmer perspectives through an analysis of the interviews.

4.1. Agricultural policy in Norway and legal and economic instruments

Agricultural policy has a major impact on the control of farmland (Ravenscroft, 1999). In Norway the structure of farming (e.g. size distribution of farms, ownership forms) has been a policy concern during the entire post-WWII period with both legal and economic instruments being applied to obtain policy goals. These two instrument types affect different areas of agricultural land control. Legal instruments impact directly on land ownership and transfer of land rights through state control. In contrast, economic instruments tend to guide the way in which the land is used (what is produced and how) and influence changes in farmland control by determining which land use options are economically desirable (Sevatdal and Sky, 2003). For example, subsidy schemes can be designed to support farms of a certain size (generally small farms in the EU) while deterring others.

Although compensation payments were focused on smaller farmers, until the early 1970s the main emphasis in Norway was nevertheless – as in other parts of Europe (Wilson, 2001, 2008) – on increasing the efficiency of agriculture (Sagelvmo, 2000). The annual agricultural negotiations between the state and farmers' organisations had been introduced in 1950 to ensure that farmers received a liveable income from the sale of agricultural produce while also stimulating efficiency improvements through adoption of new technology and adjustments in the production structure. This objective was enshrined in legislation through the 1955 Agricultural Act. This act highlighted the role of the state in providing agricultural land to people who wanted to own and operate farms that were big enough to provide income for a family (Almås, 2002). A new provision introduced in the law to obtain this goal was the prohibition of partitioning of farm properties unless approved by the state. In 1958 the agricultural agreement formalised price- and market-arrangements with state guaranteed prices for the production of grain and milk. The state also subsidised the cost of such input factors as feed concentrates and fertilizers.

The 1970s witnessed a shift in agricultural policy in Norway towards an increasing emphasis on food self-sufficiency and farmers' welfare and incomes (Almås, 1994). As well as lowering production efficiency goals, these changes sought to equalise income across farms of different sizes and to support welfare through payments such as the provision for holiday relief. A new Allodial Act was legislated in 1974 giving men and women equal rights when taking over farms. The new Concession Act adopted the same year introduced the provisions of "boplikt" (obligation of residency) and "driveplikt" (obligation of farming) for farmers. The aim was to secure active farmers. In addition the new law illustrated how maintaining population in rural areas had become a key goal in agricultural policy.

While maintaining rural population has remained important in agricultural policy, the social welfare dimension lost support during the 1980s as it appeared to be contributing to overproduction. It was replaced by a new policy in the 1990s emphasising deregulation and market orientation (Almås, 1994; Landbruksdepartementet, 1992–93) and "robust agriculture" became the new slogan (Almås, 2002). Subsidies were reduced and prices cut, especially for grain, which in turn meant cheaper fodder for livestock farmers. The maximum legal size of animal production systems based on concentrated feed was

increased markedly. Subsidies for typical rural production systems such as those based on local fodder (grass) were changed to lesser degree, but still underwent significant changes. For example, from 1997 the buying and selling of milk quotas was permitted and regulations adjusted to stimulate cooperative milk production between farmers. Investment grants for new farm-based rural production were also introduced in the 1990s, together with environmental regulations and a policy shift towards emphasising the multifunctional outputs (biodiversity, cultural landscapes) of farming (Bjørkhaug and Richards, 2008).

In the remainder of this sub-section we outline in more detail legislative and economic instruments relevant for farmland use and control.

4.1.1. Legislation

Three key pieces of legislation are responsible for agricultural property relations in Norway – the Allodial Act, the Concession Act, and the Agricultural Act. In addition there is specific legislation on spreading of manure that, while not legislated as an Act, constitutes a legal requirement that has strong implications for land control.

4.1.1.1. The Allodial Act. The Allodial Act is an ancient law that automatically provides family members the status of preferred buyer in situations where agricultural properties are made available for sale (Gjerdåker, 2001; Lilleholt, 1998). While it is difficult to assess the impact of the legislation over informal family agreements, in total, 59 percent of transactions of farmland are made within the family (Statistics Norway, 2011c). However, to obtain allodial right the property must have at least 2.5 ha agricultural land. Hence, the percentage of family transfers must be expected to be higher on properties with 2.5 ha agricultural land or more and lower when it comes to smaller properties and single parcels (Sevatdal and Sky, 2003). Overall, the impact of the Allodial Act combined with a preference for family transference in Norway (Flemsæter, 2009; Flemsæter et al., 2011) reduces the probability that leasers purchase the farmland they rent and, in general, maintains farmland within family ownership. However, the circle of family members with allodial rights has been steadily declining due to changes in the Allodial Act over the decades (Forbord, 2006; Landbruks- og matdepartementet, 2011–2012; Odelsloven, 1974).

4.1.1.2. The Concession Act. Rather than controlling transfer within the family, the Concession Act enables the state to control who is able to acquire farm property and at what price (Konsesjonsloven, 2003; Lilleholt, 1998; Sevatdal and Sky, 2003).³ Two requirements are of specific interest to changing land ownership. Firstly, there is a general obligation of residency (Storstad et al., 2009) which provides the authorities with the ability to demand the buyer reside on the farm property for a minimum of five years after take-over (a rule also applicable to take-over by a family member). This reduces the opportunity for farm expansion through land purchase, setting an indirect limit to the number of farm properties that can be owned by one person or a couple – although it does not prevent family members from nominally taking over a farm. Secondly, the Concession Act regulates the purchase of land by legal persons (e.g. limited companies) by providing preference to potential purchasers whose stated occupation is farming (Forbord, 2006). In practice, this means that where land is taken over by a company at least one person must be an active farmer.

³ The objective of controlling the price is to ensure that the property remains profitable for agricultural purposes.

4.1.1.3. The Agricultural Act. While the Allodial Act is an almost distinctively Norwegian law – there are some vestiges of allodial (Udal) law in Scotland (Mackenzie, 2004) – and concession legislation is rare, most countries, in contrast, have an Agricultural Act. In Norway the objective of today's law (adopted in 1995) is to ensure that all land resources are used in the best way possible for society and farmers, for example, through promoting rural settlement, employment and agricultural development (Jordloven, 1995). Two aspects of the Agricultural Act are particularly relevant to the issue of land control. Firstly, the Act places responsibility on the owner of the land to ensure that it is being actively farmed (“driveplikt”), either by farming it personally, or renting out the land to an active farmer. To ensure the leasing of farmland is a secure option for both leaser and owner,⁴ the law further stipulates a minimum rental period of 10 years, that the land must be maintained in good condition, and that the contract is formally written rather than verbal.

Second, the Act stipulates the conditions for eventual partition of farm property. In general, partition is not permitted but it may be allowed by the agricultural authorities if it is deemed likely to lead to social improvements such as “increased harmony between the property structure and the holding structure” (Jordloven, 1995). Consequently, in some cases farm owners have been permitted to sell the agricultural land to an active farmer (in many cases the leaser of the land), while retaining the rest of the farm property (residential buildings, outbuildings, garden and a small piece of agricultural land). In such cases three purposes in the Agricultural Act can be met at the same time: rural settlement, employment and agricultural rationalisation. Such cases are thus far infrequent in Norway, but proposed revisions to Norway's agricultural policy calls for this type of land restructuring to be more widely applied (Landbruks- og matdepartementet, 2011–2012).

4.1.1.4. Legislation on spreading of manure. In addition to the Allodial, Concession and Agricultural Acts one other legal requirement has had strong implications for land control. In Norway all farms with livestock production are obliged to either hold sufficient land for spreading animal manure or have an agreement for its removal/disposal (Lovdata, 2002). Such an agreement has normally to be written and last at least five years. As a result, where fodder is purchased and manure removed for use elsewhere, livestock production can be concentrated on relatively small farms. In this case the scale of production tends to be dependent on the costs of transporting fodder and manure rather than the size of the farm on which the production is occurring. In general, however, as livestock production is dominant in Norway, this rule provides an incentive for expansion to provide both feed for the animals and a place for the disposal of manure.

4.1.2. Economic instruments

While legal instruments have been created to influence farmland control, the purpose of economic instruments (e.g. subsidies) is to influence production, income and certain structural variables in agriculture (Landbruks- og matdepartementet, 2010, 2011–2012; Statens landbruksforvaltning, 2012). In general, the aim is to strengthen farm incomes, even out incomes between different production types, farm sizes and regions, and contribute to environmentally sound production. The farmer must have a certain minimum production level and be registered in the business

register (“Enhetsregisteret”). Beyond this, payments for cultivated land (arable/grassland production) and livestock production differ in design and so are described separately.

4.1.2.1. Arable/grassland production. All cultivated land in Norway receives a subsidy per land unit consisting of two parts. The cultural landscape support (“Kulturlandskapstilskuddet”) is provided as a fixed sum per land unit in all regions, while the agricultural land support (“Arealtilskuddet”) is differentiated by type, size and regional localisation of production. The aim of these instruments is to maintain the area of cultivated land in Norway, contribute to environmentally sound farming, and strengthen and even out farm incomes. The structure of the land subsidies has changed over time. Until 2004, maximum payments for grassland were limited by area; 20 ha in 1992 and later and until 2004 40 ha (Landbruks- og matdepartementet, 2010). From 2004 all grassland has been eligible for area payments however payment levels have been divided into two levels with the higher rate payable for the first 20 ha up until 2009 and 25 ha from 2010.

Support for grain production has always been paid irrespective of farmed area. In 1992 there were three payment thresholds, with a very small rate for production of up to 4 ha, a larger rate for farmers producing between 4 and 40 ha of grain, and a lower rate above 40 ha. In 2000 the lowest interval was merged with the second interval. For a brief period from 2002 to 2005 a single rate was paid, but in 2006 the two-interval model was re-introduced with a moderately lower rate (5–10% lower) for production of above 80 ha.

Although area payments for production are differentiated by farm size, the payment of additional cultural landscape support removes much of the differentiation between the size-based payment categories. For example, in Zone 1 in 2012, the best agricultural regions in the South-East of Norway, the total support for grassland up to 25 ha was NOK 2810 (\$US 505) per ha and NOK 2560 (\$US 460) for land above 25 ha. For grain the corresponding figures were NOK 3140 (\$US 565) and NOK 2930 (\$US 527) below and above 80 ha respectively (Statens landbruksforvaltning, 2012). The consequence of the changes in subsidy structure for cultivated land has been that it has become more profitable for farm holdings to increase their volume of arable/grassland production – in particular grain, but also grass and especially, since 2002, in the best agricultural regions.

4.1.2.2. Animal production. In contrast to grain/grass production there are subsidy limits in place for all forms of animal production (Statens landbruksforvaltning, 2012). For example, in 2012 farmers were limited to subsidies for 50 cows, 250 other cattle, 300 breeding sheep, 35 breeding pigs, 1400 slaughtered pigs and 5000 hens. Each class has between 2 and 4 herd size payment thresholds with the exceptions of pigs where there are no thresholds, and poultry, which does not receive any subsidy. However, there are size restrictions per holding for concentrated-feed-based animal production through concession limits (Lovdata, 2004). These limits were raised significantly in 2004, for example, to a maximum size of 120,000 slaughtered chickens per year and 2100 slaughtered pigs per year. Because only concentrated feed is required, expansion of such production can be conducted independently of on-farm fodder production, be it on owned or rented land. However, agreement with another farmer concerning land for spreading manure is necessary (see above).

4.2. Change in farmland control in Norway

The number of farms (holdings) in different farmland control categories has been surveyed at regular intervals in Norway through Census of Agriculture, carried out approximately every tenth year (Statistics Norway, 2011b). Table 1 shows the number and proportions in the four categories (“wholly owned”, “mainly

⁴ Some adjustments in the conditions for leasing of farmland have recently been suggested (Landbruks- og matdepartementet, 2011–2012). Among other things it has been suggested that the minimum leasing period should be reduced to five years and special rules applied in cases of crop rotation.

Table 1
Holdings by type of farmland control and farm properties 1959–2010, Norway.

	Holdings					Number of farm properties
	Wholly owned ^a	Mainly owned	Mainly rented	Wholly rented	Total	
1959	171,572	10,039	2644	14,060	198,315	Ca. 210,000
Share	87%	5%	1%	7%	101%	
1979	86,401	22,353	6428	10,120	125,302	191,707
Share	69%	18%	5%	8%	100%	
1999	31,994	23,455	9543	5748	70,740	200,900 ^b
Share	45%	33%	13%	8%	99%	
2010	16,226	16,148	10,508	3742	46,624	185,098
Share	35%	35%	23%	8%	101%	

^a Farmland control categories defined as follows: Wholly owned: <0.1% rented farmland; Mainly owned: 0.1–50% rented farmland; Mainly rented: 50.1–99.9% rented farmland; Wholly rented: >99.9% rented farmland.

^b Figure for the year 2000 (Source: Statistics Norway).

Table 2
Key characteristics of farms on which interviews were made.

Region	Farm#	Ownership situation	Agricultural land owned, ha	Total land owned, ha	Production(s) on the farm	Part-time or full-time?	Annual person years
A = Østfold	1	Mainly owned ^a	20–29	35	Grain Sheep	Part-time	0.5–0.9
A	2	Mainly owned ^a	30–49	65	Milk Chicken	Full-time	>2.5
A	3	Mainly rented ^a	10–19	30	Grain Egg	Full-time	1.5–1.9
A	4	Rented out	30–49	89	(Grain)	–	–
A	5	Mainly rented	30–49	63	Grain Pig	Full-time	>2.5
A	6	Rented out	20–29	53	(Grain)	–	–
B = Rogaland	1	Rented out ^a	10–19	20	(Sheep)	–	–
B	2	Wholly owned ^a	5–9	7	Egg	Part-time	1.0–1.4
B	3	Mainly owned	>50	85	Milk Sheep	Full-time	>2.5
B	4	Mainly owned ^a	30–49	77	Milk	Full-time	>2.5
B	5	Wholly owned	10–19	38	Cattle Christmas trees	Part-time	1.0–1.4
B	6	Mainly owned ^a	10–19	20	Milk Pig	Full-time	2.0–2.4
C = Sogn og Fjordane	1	Mainly rented	5–9	60	Milk	Full-time	1.5–1.9
C	2	Rented out ^a	5–9	12	(Milk)	–	–
C	3	Mainly owned	10–19	103	Milk	Full-time	2.0–2.4
C	4	Rented out	0–4	>4	(Cattle)	–	–
C	5	Mainly owned	5–9	33	Sheep	Part-time	0.5–0.9
C	6	Mainly owned	5–9	30	Apples Raspberries Milk Sheep	Full-time	2.0–2.4

^a Interview with couple.

owned”, “mainly rented” and “wholly rented” – see definition below table) at four points in time between 1959 and 2010. In addition, data on the total number of farm properties in existence is included (Statistics Norway, 2011a).

Table 1 illustrates how the proportion of wholly owned holdings has steadily decreased from 87 percent in 1959 to 35 percent in 2010 while the proportion of wholly rented holdings has been stable and low throughout the period. At the same time there has been a notable increase in partly rented farm holdings (the two middle categories) from a six percent share in 1959 to a 58 percent share in 2010. The only category to have experienced constant numerical and proportional growth over the time period has been the “mainly rented” category (50.1–99.9% rented), see Fig. 2.

From almost none in 1959, the proportion of farms in this category has increased exponentially so that, by 2010, 23 percent of farms in Norway are now mainly rented. While it is not possible from available data to ascertain how this change in composition has occurred (i.e. movement between categories) it appears likely that this is a result of owner occupied farms renting increasingly large amounts of farmland in order to expand the business. This suggests, as Evans (2009) observed, that renting land is seen as an opportunity for “achieving

agrarian accumulation through the ‘conventional’ post-war productivist mechanisms of efficiency and economies of scale.”

This is supported by statistics indicating that in 2010 farmers in the “mainly rented” category had the largest total farm sizes (32.8 ha) and, at the same time, the highest average number of livestock, for example: dairy cows, breeding sheep, and pigs (Statistics Norway, 2011b).⁵ Consequently, to overcome the legal and economic barriers to expansion detailed above, farmers appear to be increasingly turning to renting land over the difficult task of a transfer of ownership.

We contend that this increase in “accumulation renting” is fuelled by a number of coinciding factors. First, owing to the instability of agricultural incomes and the contractual nature of formal rental arrangements (see above), expansion through renting is widely seen as leading to increased risk (Daskalopoulou and Petrou, 2002; Iraizoz et al., 2007). In Norway, however, high production subsidies substantially reduce the risk to farmers of entering into

⁵ These figures were generated on request through calculations on the Census 2010 data carried out March 2012 by Anne Snellingen Bye, Statistics Norway.

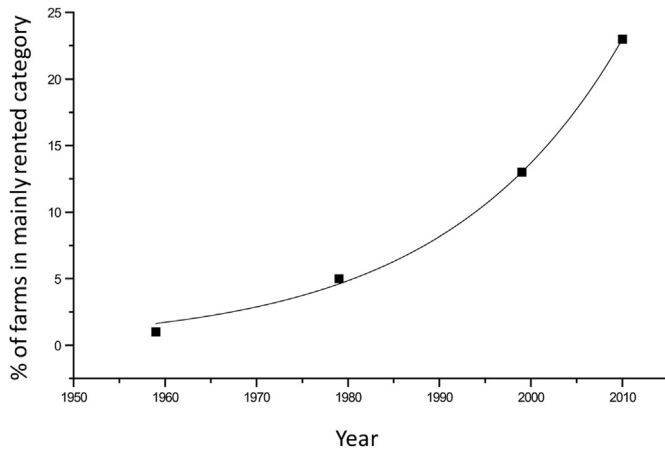


Fig. 2. Share of Norwegian farms in "mainly rented" category 1959–2010.

rental contracts – rendering rapid expansion a relatively secure option. This security is increased by the 10 year minimum period for renting contracts as required under the Agricultural Act. Further, the increase in the past decade of mainly rented farms is likely to have been encouraged by a significantly lower difference in subsidy rates between small and large areas, both for grain (from 2002) and grassland (from 2004) (see Section 4.1.2).

Other factors may also have contributed. For example, the continuation of restrictions on transfer of land ownership via the Allodial Act and the general prohibition of partitioning of agricultural properties through the Agricultural Act (Forbord, 2006) are likely to have decreased the opportunity for expansion through acquisition of ownership and rendered renting land a better option for expansion minded farmers. The impact of these changes can also be seen in the statistics on general structural changes in Norwegian agriculture (Statistics Norway, 2011b). These illustrate that between 1999 and 2010 the number of holdings with grain and oilseed crops under 40 ha has almost halved (from 20,446 holdings in 1999 to 11,577 holdings in 2010) while the number of such holdings with 40 ha or more increased by 33 percent (from 1462 to 1956 holdings) (Statistics Norway, 2012).

The change in farmland control has been paralleled by a steady decrease in the number of holdings, from 198,315 in 1959 to 46,624 in 2010 – while the total number of farm properties has remained relatively stable. A consequence of this is a rise in the number of farmers in the fifth category of "non-farming owners" who are not actively farming the land but rather rent farmland to others.⁶ However, the non-farming owners have the legal responsibility under the Agricultural Act to maintain farmland in good condition (Jordloven, 1995) and may engage in other types of activity based on resources on the farm such as farm tourism or renting out farm buildings. The growth in "non-farming owners" may reflect the phenomena of socially related land control (i.e. maintaining the land for intrinsic reasons such as long historical family association), however, it may also reflect the difficulties of land transference in Norway. Regardless, this group represents an increasingly important section of Norway's rural community.

4.3. Ownership and renting from the farmer perspective

While analysis of policy and statistics can inform us of structural changes at a macro level, such analysis alone is unlikely to illuminate

change and motivations for change at the farm level. To extend the investigation, therefore, we also interviewed farmers in three regions of Norway to ascertain what other processes might be responsible for changes in land ownership structures. Table 2 provides an overview of the 18 farms where interviews were conducted.

4.3.1. Drivers of the increase in partly rented farms

As with elsewhere in Europe (e.g. Munton, 2009; Ilbery et al., 2010) a key driver of expansion for interviewed farmers was the need to develop economies of scale in order to support the investments required in machinery for modern agriculture. For example, farmer A3 observes: "The more hectares you have, the cheaper the equipment becomes." The international nature of farm machinery production and increasing farm sizes outside of Norway means that tractors, harvesters and so on are increasingly unsuited to Norway's small farm businesses (Kvalvik et al., 2011). On the other hand, the development of labour markets outside of agriculture (Zimmermann et al., 2009) has led to a scarcity of labour and the necessity of larger machinery.

Among our interviewees there were few examples of renting land for the main purpose of manure dispersal. The interviewed farmers in Trøgstad with livestock production on concentrated feed (A2, A3 and A5) were all active grain growers and were thus able to distribute the manure as fertiliser on their own farms. Farmer B6 in Time had grassland (for milk production) on which to disperse manure from his pig production. Interestingly, the only specialised producer of livestock on concentrated feed (Farmer B2 – egg producer) had little farmland and no rented land, but had an agreement with another farmer to disperse the manure.

Relative to the purchase of land the renting of land is often seen as a good solution for both those who rent and those renting out. This is for a number of reasons. First, the cost of renting land is relatively cheap compared to purchasing it. Farmer A5 from an intensive agricultural area observes: "Some farmers say that not owning your farmland is a problem. I haven't felt it that way. I mean, it would have been very expensive to buy that land." In other less intensive farming regions the situation may be even better for renting in part as a result of the requirements to maintain the land in farmed condition combined with an increasing lack of potential tenant farmers. For example, Farmer C5 observes: "Those who rent out have so much interest in the farmland being rented out that they are unlikely to claim much rent. They are just glad of having someone to farm the land."

That land rental agreements are mutually beneficial can be seen in the positive relationships between renters and land owners – as was noted by both the renters (e.g. farmers B6 and A5) and land owner (A6). This may be attributable to the small scale, local and personal nature of the renting arrangements in Norway.

The recent rapid decline in the number of active farms may also be contributing to the rise in rental properties because of the impact it has on the presence of potential successors on the agricultural properties that remain. This acts both as incentive to rent out (rather than sell) land, and as an incentive not to purchase land. For example, farmer C3 observes that he is not looking to purchase land because his 22 year old son is now working off the farm and there is some uncertainty as to whether he will return:

I could be interested in buying farmland, but then my son is now 22, and he would have to be involved in the decision. It may be that he has too good a job (outside the farm) to be interested in taking over the farm. I don't know.

Thus, while succession remains uncertain the economic rationality of purchasing farmland appears to be limited – particularly

⁶ A similar increase in non-farming owners has been observed for neighbouring Sweden (Djurfeldt and Gooch, 2002).

given the high cost as farmer A5 observes: “buying that land would be very tough. So, we talk about – you have to pay, up to NOK 100,000 (\$US 18,000) per hectare now to buy farmland” (also commented on by B4). On the other hand, the small scale of Norwegian farms provides an incentive to expand when a successor is available. For example, farmer A5 observes:

I am 58, the rest of my career is short, but the motivation for what we are doing here ... Most of what we did the last 10 years, would not have happened if no one had been interested in taking over the farm. Then we would have slowed down considerably.

This is not a situation unique to Norway. Numerous studies have suggested that having a successor to take over the farm plays a key role in farm strategic decision-making by increasing the planning horizon for farm investments, see e.g. (Lambert et al., 2007; Marsden et al., 1989; Ward and Lowe, 1994), as well as creating periods of major business restructuring such as the intensification of production or expansion of the farm (Ellis et al., 1999; Smithers and Johnson, 2004). The prospect of succession can also act as a disincentive for selling the farm. For example, farmer B1 – a former milk producer currently renting out the farmland (and the milk quota) to a milk producer – observes how he is holding the farm together with the intention of providing his children with the opportunity for re-entering milk production. He notes:

We are waiting a bit [to sell the milk quota] because we have two grown-up boys ... I doubt they will ever start milk production again but they will be given the opportunity if they want. ... to sell or divide the farmland is not an option.

Prospective succession driven by the recency of the move away from agriculture in Norway is thus contributing to a reluctance to sell farms, a reluctance of farmers to purchase land, and a need to expand farm sizes to attract successors. At the same time, once the successor has left the farm and the farmer has retired, requirements to keep agricultural land in active use under the Agricultural Act mean land effectively must be rented out if it is not sold.

When young people are trying to establish a living based on farming, the lack of availability of a farm property for purchase may hinder future engagement with agriculture. Farmer A1, for example, explains why it is undesirable to engage in agriculture on a wholly rented farm:

Being in my 30s and then beginning a ten year renting contract not knowing whether you can buy – that is entirely uninteresting ... So having ownership is very important.

This may explain why, in the past, only a small proportion of active farms in Norway have been wholly rented. If the increase in rented land experienced over the past 50 years continues without land becoming more readily available for purchase, this observation will become increasingly relevant as it suggests the development of a predominantly “rented” farm market in Norway may discourage younger farmers from entering the profession. However, currently, owning a farm with the option of renting additional farmland appears to be the main means for younger farmers to enter the profession at a commercial level.⁷

4.3.2. Fragmentation of farmland, familial obligations and soil maintenance

Fragmentation of land emerged as a key issue for farmers in the interviews. The rapid growth of “mainly rented farms” in a landscape occupied by multiple small farm properties and with legislative controls limiting land transfer has led to a major issue with fragmentation of land – one that is now affecting the operation of farms. For example, respondent A5 observed of farmers in his locality that:

Many operate land in many different areas ... we spend most of our farming time in the spring on public roads ... and that is not a positive development. Many small areas of land and tens of kilometres between them. That’s what we have to look after through the season ... its expensive and inefficient.

This issue has been noted in other countries with large agricultural populations and relatively small farm sizes, for example Greece (Daskalopoulou and Petrou, 2002). Despite the problems and inefficiencies involved in farming small fragmented land packages, many farmers that expand by renting are forced to rent multiple small units – although, interestingly, the choice of land packages to rent is not always made on a purely economic basis. For example, farmer A3 notes that while most of his rented fields are within 2–3 km of the farm:

I have one farm that is, yea, 10 km away. But that has to do with family relations; we do that to be kind ... it is a bit far to go with our equipment. It is getting awkward.

Others also note distant family connections as a motivation for taking on dispersed land packages, for example, farmer A2 observes:

I lease two smaller farms up in the forest – old smallholding (“husmannsplass”) farms. Its background is that my great grandfather and grandfather and father had a farmhand over three generations. He lived up in the forest, and we were offered the lease as he gradually retired from farming.

Farmer A5 similarly observes that he rents a farm in another municipality that “family on my mother’s side leased to me” because they felt a personal obligation, even though “For us, driving to and operating nine hectares is actually not very profitable.” This leasing on the basis of historical family connections is an interesting development. It indicates Norway’s rapidly declining population of active farmers, prioritisation of social obligations (also see Flemsæter (2009) and Flemsæter et al. (2011)) and requirement for land to be actively farmed are together contributing to farm structural development – with the returns from the structural change largely social rather than economic (e.g. see Sutherland and Burton, 2011).

In another case, informant A6 observed that it is the type of farmer renting land in combination with the fragmented nature of Norwegian farmland that is important. She notes that the “rental entrepreneurial” type of farmer tends to damage rental properties because the long transport distances, fragmented land parcels and size of the farm combine, leave the entrepreneur using “horribly large and heavy” machinery while, at the same time, being unable to work the farms under optimal conditions. This, she suggests, leads to soil damage and limits the extent to which the farmer pays attention to the land before, during and after the growing season. In this case, the way the legislative system regulates land transfer arrangements combined with forces for more rational agriculture in Norway are clearly contributing to the problem.

⁷ As an indication in our interview sample the average age was 53 years. The age was lowest in the “mainly rented” category (44 years) and highest in the “rented out” category (58 years).

5. Discussion

5.1. Changes in farmland control in Norway

The rapid increase in the proportion of ‘mainly rented’ farms observed above suggests that Norway is moving away from a century-old pattern of small, owner occupied farms towards a more conventional, if fragmented, pattern of agricultural development. This change may be attributed, to a large part, to the historical development of agriculture and legislative/economic controls. In particular, we contend that high levels of subsidisation and the security of the subsidy regime (as emphasised by the ‘social contract’ between the government and rural population) have meant that agriculture in Norway has become highly adapted to the legislative and economic environment, such that any significant change in the subsidy system (for example, a smaller differential between rate levels or an increase in thresholds) or legislation can lead to marked structural adjustment.

Just such a change occurred with the reforms of the incentive systems in the 1990s and 2000s. In particular, the introduction of payments (although at a lower level) for grassland above the 20–25 ha threshold and the removal of the threshold for grain subsidies combined with an increase in the number of animals claimable for, appear to have had a significant impact on farm structures in Norway. Structural adjustment to changes in subsidy regimes is not unusual. For example, Gaspar et al. (2008) observe that the CAP reforms of 1992 and 2000 had a marked effect on the *dehesa*⁸ sheep farming systems in Spain as farmers intensified production to maximise subsidy returns, while Morgan-Davies et al. (2012) noted the impact of the removal of production subsidies on the potential for dramatic extensification and even land abandonment in Scotland. However, what is perhaps unique is how this has combined with three other factors to influence changing patterns of land control.

The first is the nature of legislative controls in Norwegian agriculture. As we note above, the Allodial Act reduces the probability that land is transferred away from those with allodial rights through a transfer of ownership.⁹ While this has been tempered to some extent by the decline in the number of family members with allodial rights, the overall impact is to increase the likelihood that farmers control land through rental agreements rather than ownership. Regulations under the Agricultural Act requiring owners to maintain the land in good condition also act as a major incentive for renting out land, as does the general prohibition against partitioning of farm properties in the Agricultural Act (“*delingsforbudet*”) – even though in the 2000s this regulation has been amended to allow for more sales of individual fields and parts of farmland.

Second, Norway’s long history of multiple small farm ownership has established numerous social obligations between farm families as has been illustrated by the interview data. A number of farmers experience a feeling of obligation to manage land on the basis of old family connections – regardless of distance from the farm or whether it is convenient from a business perspective. Non-farming owners also have strong connections to their farm properties. In a study in 1998 in the county of Møre og Romsdal among owners not living on the property, strong personal connections to the property and the local community and a wish to wait for the next generation to make decisions about take-over were the most important

reasons for not selling the property (Fylkesmannen i Møre og Romsdal, 1998; Landbruksdepartementet, 2003). Allodial right was the third most important reason for not selling. Nevertheless, a substantial share (41 percent) of all transfers of farmland properties in Norway is to persons outside the family (Statistics Norway, 2011c).¹⁰

Third, even an ambitious agricultural policy with instruments aiming at compensating and/or encouraging structural differences in farming and regulating farm property transfers does not prevent the influence of what can be termed techno-economic factors. Such factors include developments in farming technology, changing markets and demand for farm products and income opportunities in other economic sectors. In fact, the statistics presented in Section 4.2. illustrate that even in periods with rather generous subsidies and detailed regulation (such as in Norway in the 1970s) the pattern in development of farmland control types was not much different from that in previous and later periods. Consequently, even though we have found indications of a more extensive shift in farmland control categories from the late 1990s and onwards, the picture for the whole period (1959–2010) suggests “stable change” rather than sudden and rapid shifts.

5.2. Implications

In terms of the future structure of Norwegian agriculture an important observation to make is that the current exponential increase in the proportion of “mainly rented” farms is clearly unsustainable. However, judging from the rate of increase and historical trends, we do not expect the distribution to stabilize at its current point but rather the trend for an increasing proportion of “mainly rented” farms to continue – particularly if there is no shift in legislative controls and the subsidy structure remains. Legislative changes making it easier to purchase land could result in a shift back to ownership and, further, we may see a rationalisation of fragmented land use patterns as the impact of historical family obligations on renting decisions declines due to continued demographic change. Furthermore, in principal the state could, together with local farmers and authorities, play a role in regulating fragmented farmland. To what extent this will happen depend on political will and farmers’ organisations.

What problems are likely to result from these structural changes in land control? One often noted problem with rental land is the effect of a limited time horizon on environmental management and stewardship. Globally, studies have indicated that rented land is managed poorly (for example, in terms of soil conservation, cultural heritage and biodiversity) compared to privately own land (Fraser, 2004; Lobley and Potter, 2004). Stokstad (2010) also notes that land rented out in Northern Norway was more likely to end up partly abandoned than owned land – although Dramstad and Sang (2010) found no evidence of a similar connection between tenanting and abandonment in southern Norway. This geographical difference within a country has also been found in the UK where Ward et al. (1990) suggest that the custodianship of rented land depends largely on the “far from uniform” approaches of tenants and landlords and is tied to both the types of policy support and the histories of the farms themselves.

Our study has shown that land fragmentation can create difficulties for both individual farms and farming communities. As noted in the qualitative interviews, expanding farms in Norway sometimes rent distant land packages, and not only for economic

⁸ Dehesa is a type of agroforestry and cultural landscape system where grazing is combined with various non-timber forest productions.

⁹ The number of farm properties with allodial rights was estimated to 130,000–140,000 in 2003 (Landbruksdepartementet, 2003), that is, around 70 percent of the properties.

¹⁰ These statistics include properties with at least 0.5 ha agricultural land and/or 2.5 ha productive forest and can be parcels as well as “whole” properties with buildings and courtyard.

reasons, but in order to fulfil historical/familial obligations. This is likely to present a major problem for the rationalisation of Norwegian agriculture – particularly given that the legal protection under the Allodial Act makes transfer of ownership outside the family difficult and the limited “good land” for farming is often geographically scattered. Difficulties may also emerge elsewhere. For example, increasing structural land fragmentation is likely to make cohesive landscape management increasingly difficult (Macfarlane, 2000), can lead to a loss of farmed land area (van Dijk, 2003), and makes the establishment of cooperative machinery purchase more difficult as the economics of common acquisition of small machines is questionable (Thenail, 2002).

5.3. A model

As a final stage in the discussion we propose a general model for looking at changes in farmland control (Fig. 3).

The model proposes three broad groups of factors affecting farmland control. First, *techno-economic factors* have overall contributed to both the need (due to increasingly large machinery and changing rural populations) and opportunity (to grow the business) for each farmer to manage an increasingly large area of farmland. Developments in the food markets and public expectations of reduced food prices have also generally pushed in this direction. Changes in other economic sectors leading to declining rural populations, a lower chance of succession and a lower attractiveness of agricultural employment also fall into this category. Second, *social norms* play a role. In our case social mechanisms and expectations related to farm properties and farmland are of special interest. Such social norms involve among things moral obligations to the land (e.g. Setten, 2004), the expectation of intergenerational continuity on a farm (e.g. Rossier, 2005) and social obligations to neighbouring farmers (e.g. Sutherland and Burton, 2011). By and large such social norms have led to holding back transfer of farm properties and upheld the existing farm property structure. Third, as discussed above, *agricultural policy* exerts an important influence. In the Norwegian context legal instruments have the effect of limiting the number of property transfers, whereas economic instruments have in general allowed farmers to remain profitable at what might elsewhere be considered uneconomically viable farm sizes (although changes in the design of subsidies in the 2000s have reduced the incitement to “stay small”). A combined effect of the three factors can explain the change in the pattern of farmland control in Norway over the last fifty years.

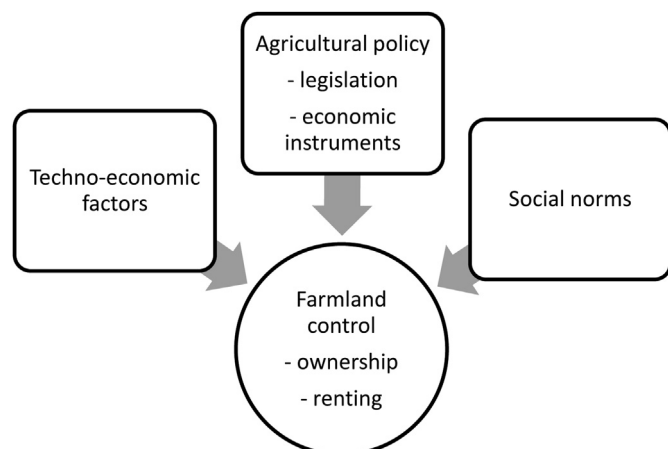


Fig. 3. Factors affecting farmland control.

6. Conclusion

Our study has illustrated, based on three key sources of data, how farmland control in Norway has shifted within a period of 50 years from a situation where 87% of farms were owner occupied to one where the renting of land is increasingly the dominant arrangement. Compared to the complicated process of purchasing land with its legal requirements, family involvement and high economic costs, renting farmland to many seems like a far more attractive option (also see Dramstad and Sang (2010)). In addition, for those farmers stuck in a situation where they are required by law to have the land farmed but the rural population is declining, succession is uncertain and social and moral connections to the land and local community are still strong, renting out land offers perhaps the only alternative to abandonment – if not of the land itself, at least to the hope of a farming future.

In this study the key changes as illustrated in the model (Section 5.3) were in the policy and techno-economic areas with the social norms playing a role in influencing land fragmentation patterns and a tendency to hold onto land for succession and its social value. However, this situation is unlikely to last. Norwegian politics (as elsewhere) has witnessed a rise in support for neoliberal governance with substantial gains made recently by free-market oriented political parties. These parties advocate the ‘freeing of the farmers’ – opening up Norwegian agriculture to international competition by removing trade barriers and subsidies. Likewise, the social factors will change over time as increasing numbers of farmers accept that succession is unlikely and the social ties (and obligations) between farmers in local communities disappear along with the rural population decline. What the final outcome is likely to be is unknown. However, as these likely future changes point to both an increasing need for economies of scale and a reduction in social norms maintaining the existing system, it seems likely that the move towards rental forms of land control combined with the abandonment of smaller farms in remoter areas, e.g. Northern Norway (Stokstad, 2010), will continue in the foreseeable future.

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