Understanding the Benefits of Diversification in Ownership, Tenure, and Control

Prepared for the Scottish Land Commission

May 2021

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Executive summary

A more diverse pattern of land ownership, tenure and/or control would allow more people in Scotland to enjoy the associated rights, opportunities, and responsibilities. There is evidence to suggest that greater diversification of land ownership, tenure and control can stimulate wide-ranging economic, social and environmental benefits which will promote more inclusive and sustainable economic growth in Scotland over the years to come. Specifically, these potential benefits include local economic development; strengthening of local culture, traditions, and social networks; a more equal distribution of the proceeds generated from land; and more sustainable management of the environment and biodiversity.

Lessons from models of corporate governance

Three prominent models of diversified corporate governance include co-operatives, mutual organisations, and firms with employee codetermination, all of which have been adopted effectively internationally and across numerous industries. Involving stakeholders – such as employees, customers, and suppliers – in the corporate governance of a firm is thought to foster trust and loyalty between key stakeholders and develop a culture which promotes sharing of knowledge and ideas. By granting voting rights to employees, diversified models of corporate governance can also increase the bargaining power of workers, supporting a more labour-friendly work environment. Whilst further research may be needed, there is potentially scope for these models of governance to be directly adapted to the context of supporting greater diversification of land ownership and control in Scotland.

Models of diversified corporate governance are found to promote benefits for workers including greater security of employment; a level of control of the operations and strategic direction of the firm; and participation in the surplus profits of the firm which would otherwise go to shareholders. Importantly, the evidence seems to suggest that these benefits can be realised without compromising a firm's productivity. The evidence in support of the theory that businesses with greater employee ownership and control underinvesting appears to be inconclusive. Whilst there is limited direct evidence, it seems plausible that member-centric models of diversified corporate governance support a higher level of wellbeing of their members compared with traditional firms. Findings suggest that greater employee ownership and control in corporate governance can support improved business performance by increasing resilience in financial performance and investment through economic downturns, as well as a greater focus on long-term performance over short-term profitability; as a result, increasing firm longevity.

Lessons from land-based models of ownership, tenure and control

There are several existing land models in place in Scotland which promote the diversification of land ownership, tenure and control. Two such prominent models including crofting, a form of regulated tenancy, and community ownership, where a community-controlled body owns and governs the land. Whilst there is limited robust empirical evidence concerning the impact of these models, qualitative evidence sheds certain insights on the many benefits that can flow from more diversified land ownership, tenure and control. The evidence suggests that keeping ownership and control of land within communities leads to benefits including: greater sense of community ownership, pride and self-confidence; distribution of any profits yielding from the land use for the benefit of the community (promoting greater equality of wealth); promotion of local economic development and local employment; sustaining local culture, traditions and social networks; promoting better stewardship of the local environment and biodiversity; and population retention.

Whilst the literature review has found that there is limited robust empirical research evidencing the benefits of land-based models of ownership, tenure and control, there is one high quality empirical study in the US context which finds that greater diversification of land ownership can increase investment, property value and stimulate population growth. Additionally, qualitative evidence concerning the experience of community land ownership and crofting has identified benefits spanning a wide range of economic, social and environmental outcomes.

Implications for policy

The findings from the corporate governance literature strongly point toward wider benefits from diverse ownership and control, including greater security of employment, but without strong evidence to suggest foregone productivity. Whilst there is limited evidence quantifying equivalent effects from diversity of land ownership and control, the best empirical source found during the literature search robustly demonstrates positive effects of diversity on investment, property values and population growth in the US. Taken together, these findings suggest that policy reforms that seek to increase diversity of land ownership and control in Scotland are likely to generate beneficial effects. These might take the form of improvements in wellbeing more than increases in measured economic activity, as seen in the corporate governance literature, or may instead translate to higher GDP.

Introduction and objectives

Background and policy context

Scotland's concentrated pattern of land ownership is amongst the highest in the world, with 1,252 owners holding 67% of rural land and much of this concentration being "a product of historical relationships between owners and tenants during the 18th and 19th centuries"(Hindle et al., 2014). Despite some large estates going through a fragmentation process at the beginning of the 20th century, over the past few decades the distribution of land has remained relatively unchanged and a pattern of low turnover is not expected to change in the near future (Glass et al., 2019; Scottish Government, 2016).

The Scottish Land Rights and Responsibilities Statement, which was published in 2017 by the Scottish Government, is the first such statement in the world, setting out the vision for ensuring a strong relationship between Scotland's land and people. One of its aims is to balance public and private interests such that the benefits from the land are spread widely. Greater diversification of land ownership and use is an explicit goal of the Scottish Government, with Principle 2 of the Scottish Land Rights and Responsibilities Statement stating that *"there should be a more diverse pattern of land ownership and tenure, with more opportunities for citizens to own, lease and have access to land".* Indeed, there are a number of policies and frameworks already in place in Scotland that encourage community ownership and diversification of land use, including community land ownership and crofting tenure.

Theory suggests that greater diversification of ownership, tenure and control can yield significant benefits to both the users of assets and the wider society. Diversification should in theory enable more people to participate in the use of assets. Assets have the potential to generate income or reduce costs (such as reducing expenditure on rent), with a wider distribution of income supporting a more equal distribution of wealth through society. HM Treasury, in their Green Book guidance for policy appraisal, argue that there is a case for weighting the incomes of low-income households more highly than those of households on higher incomes. This treatment is based on the economic theory that the value of an addition pound of income will be higher for those on low incomes than a high-income recipient, and supports the case for policies which result in some level of redistribution from high to low income households. However, theory would suggest that limits to the extent of redistribution are also advisable, with higher levels of redistribution reducing the incentive for those on high incomes to engage in economic activity.

Diversification of ownership can increase the vested interest of those who use an asset, with potential for stimulating productivity, investment, and more sustainable management of assets. Additionally, diversification of control can equip stakeholders with the powers to ensure an asset is managed in their interests; for example, worker control in an enterprise may enable workers to advocate for improved working conditions. Accumulation of human and social capital within communities can also flow from diversification (the OECD defines social capital as "networks together with shared norms, values and understandings that facilitate co-operation within or among groups"), which in themselves may improve the productivity of land and assets. Indeed, through granting more people a tie to land, diversification may support the proliferation of local cultures, traditions, and social networks.

Several recent studies in Scotland have focussed on the impacts associated with land concentration or diversification of scale.[1] However, it is thought that scale could be less important than diversification of ownership, use or control in achieving land reform objectives. While diversity of land ownership is the overarching policy target, it could be that similar benefits are generated via achieving diversity of land tenure and control even where ownership remains concentrated. For example, in the case of crofting tenure, while the land involved is mostly owned by private landowners, the local crofting communities have secure legal rights of occupation and use.

Objectives of this study

Alma Economics was commissioned by the Scottish Land Commission (SLC) to identify and review the available literature concerning the benefits of models that promote greater diversification of ownership, tenure and control. The first aim of the study was to explore various models of land ownership, tenure, and control – both in Scotland and more widely – by outlining the practicalities of each model and describing the evidence supporting the existence of benefits flowing from the adoption of different models. The review then identified the full range of benefits, including the social, economic and environmental impacts of each model.

Secondly, the research went beyond the context of land to explore the lessons that can be drawn from other sectors of the economy, providing evidence about what the benefits of diversification of ownership and control are in a corporate setting, and highlighting the mechanisms specific to each model through which these arise. The study concludes by highlighting the lessons learned from the evidence concerning both land and other sectors that could help shape the future direction and formation of land policy in Scotland.

[1] For example, see: *Investigation into the Issues Associated with Large scale and Concentrated Landownership in Scotland* (Scottish Land Commission, 2019) and *The impact of diversity of ownership scale on social, economic and environmental outcomes: Exploration and case studies* (Scottish Government, 2016).

Lessons from models of corporate governance

- Models which promote diversified ownership and control of businesses have been adopted successfully across numerous countries and industries. Such models include co-operatives, mutual organisations and firms with employee codetermination.
- Involving members – such as employees, customers, and suppliers – in the corporate governance of a firm is thought to foster trust and loyalty between key stakeholders and develop a culture which promotes sharing of knowledge and ideas. By granting voting rights to employees, diversified models of corporate governance can also increase the bargaining power of workers, supporting a more labour-friendly work environment.
- Firms with diversified ownership or control are found to be no less productive than traditional firms, and in some cases more productive, whilst generating a range of benefits for employees.
- Employees who are afforded ownership and/or control of an enterprise, through the co-operative business structure or codetermination provisions, stand to benefit directly from any surpluses made by the firm as well as from more stable employment, although the latter could be at the expense of more frequent wage adjustments. On a macro level, findings also suggest that codetermination can lead to improved equality of income within a country.
- Employee owned and/or controlled firms benefit from greater business resilience and a greater focus on long-term viability of the business, with employee owned or controlled firms on average outliving traditional firms. Whilst often theorised in the literature, the evidence supporting the existence of an underinvestment hypothesis for employee owned and controlled firms is mixed.

This section explores the evidence base concerning the efficacy of various corporate governance mechanisms for diversifying ownership, tenure and control. The models of ownership and control explored include co-operatives, mutual organisations and firms with employee codetermination. We also discuss the evidence base concerning non-land community ownership which provides additional evidence in support of community ownership models.

Co-operatives and mutual organisations

The co-operative model

The term co-operative is used in the UK to describe an organisation which is owned and controlled by its members, who actively participate in the operations of the enterprise, and where maximising profitability is often not the leading objective of the firm. Distinguishing from other corporate ownership models, whose members are often external shareholders, the members of co-operatives and mutual organisations typically have a closer tie to the enterprise, with members including any combination of workers, customers, and suppliers. Any surplus profits are typically used to benefit members, through distributions or other benefits, or retained as internal finance to safeguard the organisation. The International Co-operative Alliance (ICA) defines a co-operative organisation as:

"…an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise."

The Co-operative model in the UK is governed by the Co-operative and Community Benefit Societies Act 2014. ICA's *Statement on the Co-operative Identity* outlines seven guiding principles for co-operatives:

1. Voluntary and open membership, with membership open to all of those willing to accept responsibilities of participation.
2. Democratic member control, with active participation by members in governing the organisation and each member having equal voting rights in electing its representatives.
3. Member economic participation, with any surpluses used to develop the co-operative, setting up reserves, benefiting members and supporting approved activities.
4. Autonomy and independence.
5. Education, training and information.
6. Co-operation among co-operatives, emphasising responsibility of co-operatives to work together through local, national, regional, and international structures.
7. Concern for community, with co-operatives working toward sustainable development of their communities.

According to the Co-op Economy report 2020, 3 million co-operatives exist internationally, including 7,063 in the UK (Co-operatives UK, 2020). The UK's co-operative sector accounted for annual revenue of £38.2bn, with well-known co-operatives in the UK including The Co-op Group, John Lewis Partnership and Arla Foods. Co-operatives operate in a multitude of sectors with the three largest sectors by revenue consisting of retail (£26.9bn), agriculture (£7.9bn), and sports and recreation (£0.7bn).

There is little distinction between a co-operative and a mutual organisation, although organisations self-identifying as mutual organisations are commonly found in the insurance and financial sectors, including building societies, credit unions and friendly societies. Mutual organisations run for the mutual benefit of members and similarly do not aim to profit maximise and have no external shareholders. Notable mutual organisations in the UK include Scottish Building Society, Nationwide and Royal London.

Benefits, drawbacks and unintended consequences

Theory would suggest that granting members ownership and control of an enterprise should enable the operations and strategic direction of the business to better reflect the interests of those employees, customers and suppliers who have a vested stake in the business. Whilst the evidence base primarily focuses on the differences in outcomes between member-owned organisations and traditional firms, Leadbeater and Christie (1999) theorise on the mechanisms through which benefits and disbenefits are realised. They argue that the nature of the membership base of mutual organisations and co-operatives allows the underlying enterprise to benefit from greater trust and loyalty amongst its members compared with traditional investor-owned and public sector organisations. Additionally, it is theorised that co-operatives and mutual organisations are better able to leverage the institutional knowledge and ideas of their members through the closer involvement of its members in operational and strategic decision-making.

Limitations of member-owned organisations are also theorised by Leadbeater and Christie (1999), including potential for lack of coordination in decision-making processes; membership becoming too large, dispersed, and diverse to maintain a common sense of purpose; membership lacking the skills, knowledge or outlook to effectively govern an organisation which could result in resistance to new ideas from outside and risk aversion in favour of stability and maintaining the pay structure; and high costs incurred by members to govern and manage the firm, such as time commitment and effort.

The empirical evidence base primarily focuses on how member-owned organisations differ from traditional firms in terms of outcomes such as productivity, stability, and employment. There is evidence to suggest that co-operatives are more resilient than other businesses, with 75.7% of co-operatives in the UK surviving the first 5 years of existence versus 42.4% of companies (Co-operatives UK, 2020). Suggested reasons for this resilience include members being vested in the long-term success of each co-operative, and more prudent financial management. However data from France for the period 1979-1998 showed little difference in the failure rate between working co-operatives and other firms (Perotin, 2015).

Fakhfakh et al. (2012) explored the relative productivity and labour outcomes of labour-managed and conventional firms in France in an empirical analysis spanning the period 1987 - 2004 for a range of industry groups. The study found that worker co-operatives are at least as productive as traditional firms and use their inputs more efficiently. The underinvestment hypothesis theorises that worker co-operatives will underinvest in the enterprise, and hence operate at an inefficient scale, under the assumption that employees have reduced incentive to invest as they relinquish their stake in the firm upon leaving the firm. However, the empirical evidence supporting this hypothesis appears to be inconclusive. Fakhfakh et al. (2012) found no evidence to suggest that labour-managed firms produce at such an inefficient scale which would lead to underinvestment, with labour-managed firms no less capital-intensive in most industries analysed.

In terms of employment outcomes, Fakhfakh et al. (2012) also found evidence that during a period of recession or slow growth co-operative firms cut jobs less quickly, or even increased their workforce, relative to conventional firms. It is argued that participation by employees in governance and profits can enhance human capital through promoting a sense of self-determination and dignity amongst employees and incentivising employees to work harder and "smarter". In turn, it is argued that co-operatives may benefit from improved quality of decision-making and increased employee retention.

Pencavel et al. (2006) analysed panel data for employees of 2,000 Italian co-operatives and 150,000 capitalist firms from 1982-1994 to investigate any employment, wage and capital differentials between co-ops and capitalist firms using multivariate regression techniques to control for confounding variables and unobserved factors such as employee education levels and personality traits. The study found evidence to suggest that employment levels were more stable in worker co-operatives compared with capitalist firms, however wage levels were adjusted somewhat more frequently in co-operatives (Pencavel et al., 2006). The authors suggest this is consistent with the notion of employee power protecting workers from employment reductions. The finding that employment levels are more stable through crises for co-operatives is further supported by results from an empirical study of Uruguayan worker co-operatives (Burdín and Dean, 2009).

Birchall (2013), in a report analysing the performance of European financial institutions through the 2008/9 financial crisis, found that financial co-operatives and credit unions exhibited greater resilience through the crisis. The report found that European co-operative banks were underrepresented in banking losses between Q3 2007 and Q1 2011, accounting for 7% of the European banking industry's write-downs in this period despite having a 20% market share. The report suggests that this may be linked to co-operatives having higher capital reserves, partly a function of not needing to distribute profits to shareholders, and generally engaging in less risky activities. The study argues that ownership by members yields several benefits including avoiding conflicts of interest between owners and customers, lower incentive to engage in excessively risky behaviour, and access to a mutual support network. Control by members is argued to yield benefits such as aligning interests between members and the managing board, controlling risk-taking behaviour, informational advantages (as customers are members), and opportunities to pursue ethical aims.

Wren (2020), in a study of qualitative data collected from employees at worker co-operatives in England, was able to provide insights into the work culture within a co-operative organisation. The study suggested that the culture of worker co-operatives encompassed five values: a whole life perspective, shared values, self-ownership, self-control and secure employment. Self-control was associated with a culture in which "either there were no managers, or everyone was a manager", with voting structures embedding democracy into corporate governance. Whilst it is suggested these attributes generally have a positive impact on employee satisfaction and retention in co-operatives, the study also suggests there are stresses associated with the responsibility of worker self-management.

Codetermination

The model of employee codetermination

Employee codetermination is when employees participate in the corporate governance of an enterprise. This model therefore affords employees an element of control of the enterprise without necessarily sharing in the ownership and profitability. Whilst codetermination has been adopted in several European countries, including Austria, Poland, Denmark and Sweden, perhaps the most prominent system of codetermination exists in Germany, where it is often termed "Mitbestimmung". Under the Codetermination Act 1976, employees of public and private companies with over 2,000 employees (or employee elected trade union representatives) are granted an equal participation in firm decision-making.[2]

Benefits, drawbacks and unintended consequences

By guaranteeing workers a significant share of voting rights in corporate governance, theory would suggest that through the channels of increased worker bargaining power, outcomes for firm employees can be improved through, for example, hiring more worker-friendly managers and achieving a more balanced split of surpluses between workers and shareholders (Jager et al. 2020). In a review of the literature on codetermination in theory and practice, Hayden and Bodie (2021) argue that codetermination "empowers" workers by giving them a voice and role within the governance of a firm. They conclude that codetermination can yield benefits to both employees and wider corporate constituents. Benefits of codetermination referenced include

[2] This rule is more relaxed for smaller German companies, with a third of the supervisory board required to be representative of workers for companies with 500-2,000 employees.

greater job security, greater information flows within firms, and a greater focus on the long-term health and stability of the firm given the alignment of worker and shareholder interests.

In an empirical analysis of the performance of the codetermination business model for German firms between 2006 -2011, Rapp and Wolff (2019) find that companies with codetermination performed better across multiple performance measures including: profitability, capital market valuation, employee outcomes, and inward investment. The authors, applying multivariate regression techniques to financial data to compare the relative performance through the 2008/9 financial crisis of 280 listed German companies with codetermination to a selection of European peers, found that operating profits - as measured by earning per share yield - with codetermination were 28 percentage points higher for companies with codetermination than for those without. Similarly, it was found that investment levels with codetermination remained resilient through the financial crisis, increasing in the period 2008-2009 by 2.2% compared with a 0.2% reduction in investment levels without codetermination.

Additionally, during the 2008/9 financial crisis employment levels with codetermination were significantly more resilient – registering a 2.4% reduction, compared with 7% reduction without codetermination - and recovered at a greater rate in the period immediately after the crisis – a 2.1% increase, compared with 1.9% reduction without codetermination (Rapp and Wolff, 2019). However, it was found that the resilience in employment levels with codetermination may come at the expense of greater downward wage adjustments for retained employees (although notably average wages for employees of firms with codetermination were significantly higher initially so this effect only closed the gap). The authors argue that these findings may be a result of the reorientating of companies' goals towards the interests of workers.

Fitzroy and Kraft (2005), in an empirical study analysing the impacts of stronger codetermination regulations on 179 German public companies, found that greater codetermination did indeed have a small but significant positive effect on firm productivity.[3] The authors further note that this analysis did not capture the impact of codetermination on human capital formation and job satisfaction which may yield additional benefits (Fitzroy and Kraft, 2005).

Jager et al. (2020), in an empirical study evaluating the impact of removing a codetermination requirement for newly incorporated firms, find no evidence to suggest that worker control discourages investment on the basis that any disincentives to invest may be offset by codetermination facilitating longer-term perspectives and co-operation between owners, managers and the workforce. However, the authors also found no evidence to suggest that greater board level codetermination had an impact on profitability, wage levels or the sharing of surplus between labour and capital.

Whilst there has been limited research into the macroeconomic impacts of codetermination, Hörisch (2012), in an empirical study using data from 32 EU and OECD countries, sought to understand the impact of codetermination on the income distribution within an economy, controlling for other relevant macroeconomic factors. The study found that higher levels of codetermination in western welfare states were associated with more equally distributed income levels, as indicated by a lower Gini Index.[4]

[3] The Codetermination Act 1976 extended worker codetermination requirements from one third parity to almost parity.

[4] OECD defines the Gini index as "the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution… A Gini index of zero represents perfect equality and 100, perfect inequality".

Community owned projects

A significant literature exists concerning the emergence of models of community ownership of non-land assets; mostly commonly, renewable energy projects. International Renewable Energy Agency (IRENA) references over 4,000 community ownership initiatives internationally in the energy sector as of 2018, typically in the form of co-operatives or partnerships, of which several can be found in Scotland and the rest of the UK (IRENA, 2020). Several examples are highlighted which emphasise a range of benefits accruing to the communities that own each project:

- **Eigg Electric:** a community owned, managed and maintained company that provides renewable energy for residents of Eigg Island in Scotland. Energy has been generated for residents since 2008 via a combination of hydroelectric, wind turbines and solar power.
- **Wiltshire Wildlife Community Energy:** consisting of two community-owned solar photovoltaics (PV) projects. Revenues earned from sale of the surplus energy generated are then utilised for community and environmental benefit, with a small proportion also paid out as dividends to members.
- **Ripple energy:** a co-operative and alternative energy supplier, with customers charged an upfront fee for a stake in a wind farm, yielding returns for the community in the form of energy savings through the life of the project.

Numerous benefits of community projects are discussed by Haggett and Aitken (2015). A key benefit identified is the generation of financial revenue, or other benefits for the community. This also acts to reduces reliance on outside income sources such as public sector subsidies. Several social benefits are also referenced including improving community spirit, social cohesion, and a sense of empowerment and responsibility.

Benefits, drawbacks and unintended consequences

Warren and McFayden (2008) conducted a questionnaire-based study of residents of Kintyre and Gigha, finding evidence to suggest that community ownership can have a positive impact on public attitudes toward windfarm developments. 95% of surveyed residents from Gigha, where a small community owned windfarm exists, were positive toward the increasing development of wind power in Scotland compared with 64% of residents surveyed from Kintyre, where commercial windfarms provide power.[5] These findings suggest that community ownership may support the enabling of projects with wider social and environmental benefits where delivery may not be feasible within the private sector.

The study also references several other social and economic benefits of the community owned project, including: the reversal of a long term trend of population decline (this evidence is anecdotal); local job creation; and an increased community sense of pride and connection (Warren and McFadyen, 2008). Additionally, the project has generated 95% of Gigha's electricity since inception and yielded a net profit of £85,000 which has been reinvested in the community through the Isle of Gigha Heritage Trust. The authors argue that community ownership is driven by perception of greater fairness, including an equitable sharing of costs and benefits (Warren and McFadyen, 2008)

However, several drawbacks and risks are discussed; community projects may expose community bodies and communities themselves to substantial risk including difficulties obtaining

[5] The authors argue that Kintyre is closely integrated with Gigha and has similar socio-economic conditions and location, hence offering a reasonable basis for comparing the impacts of different development models for windfarm projects.

finance, higher cost, and exposure to uncertainty such as delays, which contradicts the preference of many communities for stability and guaranteed income (Haggett and Aitken, 2015). It is discussed that communities may lack knowledge, experience, skills or time to deliver a successful energy project. It should be noted that policies already exist in Scotland to address such concerns, including the Community and Renewable Energy Scheme, which offers advice to communities and grants loans for development and capital costs of energy projects.

Another study discusses how community owned energy projects may suffer from reduced economies of scale and greater administrative burden compared to large, private sector windfarms (Bolinger, 2001).

Models of land ownership, tenure and control

- Evidence concerning the impact of existing structures which promote diversified ownership, tenure and control in Scotland suggest a range of economic, social and environmental benefits including retaining wealth within local communities and spreading it more equitably; local economic development and employment; more sustainable management of landscapes and biodiversity; greater community self-confidence, responsibility and empowerment; and sustaining cultural traditions.
- However, research into the impact of policies which promote greater diversification in land ownership, tenure and control is an area of the literature which is relatively under-researched in the context of developed economies, with relatively few empirical studies that are able to distinguish between other confounding variables in their methodologies.
- One prominent empirical study finds that a reform which promoted greater land diversification in American frontier areas supported higher property values, investment, and population growth over a 150-year period.
- Potential drawbacks to more diversified land ownership and tenure might include coordination issues, increased risk, and a greater administrative burden.
- Evidence from developing economies, whilst perhaps less relevant to the context of Scotland, appears to find benefits to measures which promote diversified ownership and greater security of tenure to tenants. However, the literature also finds that smaller size plots, a by-product of greater land diversification, are typically less productive as a result of being less able to take advantage of economies of scale.

In this section we review different models of land ownership, tenure and control and seek to understand the benefits flowing from each, as well as any drawbacks or unintended consequences associated with implementing each model. This includes a review of relevant land reforms in developed economies as well as a review of the evidence on crofting tenure and community land ownership in Scotland. We also briefly consider the evidence from developing countries, for which the evidence base is more developed, although there is less emphasis placed as findings may be less relevant to the Scottish context.

Evidence from developed economies

A study of the impact of two "randomly" assigned land policies in the American frontier, one encouraging land diversification and one encouraging land concentration, found significant long-run and persistent benefits to diversification of land ownership (Smith, 2021). Taking advantage of data spanning 380,000 square miles of land in the US, the author found evidence that historical land concentration resulted in 3-8% lower population, 23% lower investment and 4.5% lower property values over a 150-year timeframe. The author argues that these differences stem from low intensive economic strategies adopted by the larger landowners and the reduced incentive to invest in the land, partly the result of the system of share tenancy.

In a 2016 study, the Scottish Government found that small-scale ownership, a common by-product of land diversification, was associated with higher agricultural output and higher population growth, although given the methodologies used it was not possible to directly attribute these outcomes to scale over other potentially confounding factors (Scottish Government, 2016). The same study also found an association between smaller scale land holdings and higher rates of population growth. However, in an empirical study estimating the impact of land fragmentation in the Western region of Brittany (France), it was found that greater land fragmentation, measured across several dimensions including average plot size, was generally associated with higher production costs and decreased yields, revenue, profitability and efficiency (Latruffe and Piet, 2014). The authors propose several reasons for this finding, including “impossibility to exploit economies of scale” and “limited uptake of innovations or investments”.

Crofting and common grazings

Crofting is a regulated system of land tenure specific to Scotland which grants tenancy to “crofters” for designated crofting land subject to adhering to a set of duties. As of 2019/20 there were 21,186 crofts registered in the Crofting Commission’s *Register of Crofts*, of which 15,137 were tenanted and the remainder were owned. Crofting land is commonly involved in the production of traditional agricultural commodities such as beef and sheep, although it is increasingly being used for the leisure economy (Sutherland et al., 2014).

The designated regulatory body of the crofting tenure is the Crofting Commission, an independent non-departmental public body (NDPB) of the Scottish Government. Its stated principal functions include *“regulating crofting, re-organising crofting, promoting the interests of crofting and keeping under review matters relating to crofting”*. The crofting system in Scotland is governed by the Crofter’s (Scotland) Act 1993, and subsequent amendments. Under this legislation crofters have specified legal duties with respect to the designated crofting land, including:

- Being a resident on, or within 32 kilometres, of the relevant croft (Section 5AA).
- Committing to not misusing or neglecting the relevant croft (Section 5B).
- Cultivating the croft or putting it to another purposeful use (Section 5C).

Furthermore, the Land Reform (Scotland) Act 2003 (Part 3) gives crofting communities the right to acquire and control croft land (also known as the *“Crofting community right to buy”*). Importantly, this community right to buy power can be exercised at any time and so is akin to compulsory purchase rights.

Crofting operates alongside a system of common grazings, which are areas of land where multiple crofters share the right to utilise the land for certain purposes, including the grazing of livestock. According to the Crofting Commission, there are over 1,000 common grazings in Scotland spanning 500,000 hectares of land. Similar to crofting, common grazings are governed by the Crofter’s (Scotland) Act 1993 and subsequent amendments. The legislation requires that common grazings are communally regulated via shareholder-operated Grazing Committees.

Benefits, drawbacks and unintended consequences

The literature references numerous benefits flowing from crofting tenure. The duties to be resident, not to neglect and to put the land to a purposeful use should act to reduce land speculation, absenteeism and neglect of land (Shucksmith and Ronningen, 2011). The *Crofting Inquiry* of 2008 is perhaps the largest review of the efficacy of crofting tenure to date, setting out a series of proposals for the future of crofting following a review of the existing evidence and a synthesis of the views of experts and other stakeholders. The Crofting Inquiry (2008) references numerous social, economic and environmental benefits of crofting tenure, including:

- **Supporting rural development and local employment:** this conclusion is supported by Sutherland et al. (2014), in a study of agricultural census statistics in Scotland from 2000 to 2011, who found that small-scale holdings (such as crofts) represent a small percentage of Scottish agricultural land but a large proportion of agricultural labour. This is despite the finding that over 40% of smallholdings, including crofting and non-crofting land, report no commodity production or labour.
- **Population retention:** crofting promotes a desire to remain in an area through the process of granting access and a tie to land, which in turn facilitates a sense of local connection and belonging.
- **Safeguarding landscapes and biodiversity:** crofting provides environmental public goods in the form of maintaining the diverse and numerous landscapes and biodiversity found on crofting land. 80% of the respondents to the 2008 Crofting Inquiry's *Call for Evidence* reported that crofting activities had a positive impact on the landscape and nature, with crofters viewed as "guardians" of the environment. It was argued that maintenance of biodiversity and the environment is associated with the low-intensity nature of traditional crofting practices, mixed farming systems and small field sizes (Crofting Inquiry, 2008).
- **Sustaining cultural diversity:** crofting is associated with promoting cultural diversity such as Gaelic and Scots language and culture in the Western and Northern Isles respectively. Respondents also highlighted the benefits of crofting tenure in promoting communal activities and encouraging connection between successive generations and place.

However, the literature also cites several disbenefits or limitations of crofting tenure. Despite the legislative duties of crofters, the Crofting Inquiry found that a significant degree of absenteeism remains and cited complaints of neglect of crofting land associated with limited enforcement by authorities. This was said to contribute to a stock of unusable croft land which reduced the availability of land for prospective tenants. Additionally, difficulties in accessing croft land for prospective buyers have been referenced due to multiple holdings (Crofting Enquiry 2008). Whilst the crofting community's right to buy provisions grant communities the right to acquire and control crofts (akin to compulsory purchase), according to the Scottish Government only two applications have been made to date; the Scottish Government states that the requirements for crofting community right to buy are "both complex and demanding" and to be used only as a "fall-back" if commercial negotiations are not fruitful.[6]

Shucksmith and Ronningen (2011) argue that the lower productivity of smaller scale cultivation, given the reduced ability to benefit from economies of scale and a higher cost of production, may

[6] Crofting community right to buy guidance: https://www.gov.scot/publications/crofting-community-right-buy-under-part-3-land-reform-scotland

require interventions in the form of grants and subsidies for enterprises to remain viable. The authors emphasise the role of the state in offering financial support and regulating land transfers and occupancy.

Community land ownership

Community land ownership typically involves the acquisition of land by a community body - often a community land trust, or a company limited by guarantee or charity - which has the remit of managing the land to the benefit of that community. Whilst the land is owned by the community body, community land ownership gives the communities themselves control of their land through a democratic form of decision-making. As of 2017, 2.9% of Scottish land by area was community owned.[7]

Under Section 51 of the Land Reform (Scotland) Act 2003, a community body must meet several criteria including obtaining written confirmation from Ministers that they are satisfied its main purpose is consistent with the achievement of sustainable development. As well as community acquisition through direct agreement with landowners, there exists several right to buy provisions which facilitate opportunities for acquisition of land holdings by communities. Part 2 of the Land Reform (Scotland) Act 2003, and subsequent amendments, provide community bodies with the right to buy land which is activated when the land comes up for sale. Furthermore, Part 3A of the Land Reform (Scotland) Act 2003 grants communities the right to buy abandoned, neglected, or detrimental land (ANDL), akin to the right of compulsory land purchase. The policy is supported by the Scottish Land Fund, which is funded by the Scottish Government and delivered in partnership with The National Lottery Community Fund and Highlands and Islands Enterprise, offers grants of up to £1m to help communities take ownership of land and buildings. To obtain funding communities need to demonstrate that their project will benefit their local community.[8]

Benefits, drawbacks and unintended consequences

Mullholland et al (2015), in an *impact evaluation of community right to buy* argue that despite the existence of anecdotal evidence, "systematic assessments of the social, economic or environmental impacts of land and asset ownership by communities and land reform more generally are somewhat limited in Scotland" (Mullholland et al., 2015). They summarise findings from multiple studies, arguing that the key benefits associated with community land ownership include: greater security of tenancy allowing better planning into the future; ability to use assets for more diverse purposes; improved access to funding; efficiencies gained from availability of social networks; retaining and reinvesting surpluses from wealth-creating activities back into communities; promotion of social cohesion and pride; encouragement of greater transparency and accountability in decision-making and increased efficacy in community engagement with other bodies.

In a study which draws on the views of residents of Gigha, that was subject to a community purchase, Satsangi (2007) found that community ownership was associated with the provision of several economic and social benefits including community self-confidence, population growth, and a wider distribution of wealth through the community. The study also identifies benefits such as greater member participation in decision-making and enhanced relationships between residents and the state (Satsangi, 2007).

In a study involving four in-depth case studies incorporating 77 semi-structured interviews,

[7] Scottish Government statistics: https://www.gov.scot/publications/estimate-community-owned-land-scotland-2017/

[8] Scottish Land Fund: https://www.tnlcommunityfund.org.uk/funding/programmes/scottish-land-fund

McMorran et al. (2014) find that community land ownership is responsible for a range of perceived social and economic benefits which promote the sustainability of local community, including: more sustainable resource management, empowering and improving community confidence, and more effective governance through knowledge sharing and investing for the long-term. The direct line into long-term community development associated with community land ownership has also been found to increase collaboration with state and non-governmental bodies, and to make communities a more credible recipient of private and public investment (McMorran et al., 2014).

However, McMorran et al. (2014) highlight several drawbacks and unintended consequences associated with community ownership. Some study participants referenced the financial vulnerability of community projects, with projects often reliant upon public funding such as grants, to make them commercially viable. It was referenced that in some instances, efforts to diversify income streams through projects such as renewable energy projects have failed or have been delayed following changes to incentive schemes as well as community and wider stakeholder resistance. Additionally, challenges in management and governance of community land projects were highlighted. Some landowners referenced challenges in governance and partnership arrangements, including *"conflicting viewpoints, highlighting differing agendas, cultural mindsets and ideologies"*. It was noted that disagreements can occur between members of the community, such as conflicts between development proposals and their environmental impacts, or the diverging local interests of those involved in crofting against those involved in tourism (McMorran et al., 2014). It is unclear however the extent to which these points are specific to community owned land or general problems associated with land development. Finally, the study also highlighted that governance of land could benefit from local knowledge and networks, and the credibility of local leaders.

Evidence from developing economies

In general, we found that the evidence base around the benefits of land diversification, tenure and control in developing economies is focussed on outcomes relating to productivity, primarily in an agricultural context.

A systematic review of quantitative and qualitative studies concerned with the effects of land tenure recognition interventions in developing countries on agricultural performance concluded that land tenure recognition can markedly increase farm productivity and income, although inter-regional differences exist (Lawry et al., 2016). The authors argue that these gains may act through perceived tenure security and increased investment. However, the authors also cite negative social effects such as financial barriers to participating in the reformed land tenure system. The systematic review also raised concerns about the quality of the literature reviewed, with doubts noted around the robustness of research methodologies reviewed, and none of the research methodologies making use of randomised control-trials for example.

A study of the impacts of land fragmentation on crop production and diversification using remote sensing data from Zhejiang Province, China, between 1995 and 2015 found that greater fragmentation of land had a significant negative impact on grain crop production (Qui et al., 2020). However, it was also found to promote greater production diversification contributing to greater dietary diversification amongst local households.

An analysis of land fragmentation in Bangladesh found that a 1% increase in land fragmentation reduced agricultural output by 0.05% and efficiency by 0.03% (Rahman and Rahman, 2009). However, the same study found that ownership of inputs (including land, labour and capital) significantly increases efficiency, at least partially offsetting the productivity decrease associated with land fragmentation, with a 1% increase in owned inputs improving efficiency by 0.04%.

A 2005 study which employed econometric techniques to estimate the determinants of farm profitability, analysing a sample of 100 farms from the Plovdiv region of Bulgaria, concluded that the link between land fragmentation and farm profitability was ambiguous (Di Falco et al., 2010).[9] The study found that on average more fragmented land reduced farm profitability, potentially explained by greater coordination requirement and the absence of economics of scale. However, it was also found that more fragmented land gave rise to greater crop diversity which was linked to greater farm profitability. This might be explained by the reduced price and production risk associated with greater diversity of crops.

[9] Land fragmentation is defined by the author as the number of plots on a given farm.

Conclusions

In summary, the evidence reviewed suggests that there is a convincing case for greater diversification of land ownership, tenure and control as a policy objective for Scotland, with a wide range of economic, social and environmental benefits generated from measures and models which promote this goal, in both land setting and beyond.

There are a wide range of "non-financial" benefits of models of corporate governance which promote greater employee participation in ownership and/or control, and importantly these do not appear to come at the expense of reduced business performance. Indeed, the evidence suggests that firms with greater employee participation can experience benefits such as increased business stability and longevity. Greater ownership and control of firms by employees is also found to enhance human capital and provide additional benefits to employees, through increased employee influence in decision-making, increased job security and allowing employees to participate in the profits of business success. These findings support the case for further focus and research on such models, or similar, as a means through which to promote greater diversification of land ownership, tenure and/or control in Scotland.

Whilst the literature review has found that there is limited robust empirical research evidencing the benefits of land-based models of ownership, tenure and control, there is one high quality empirical study in the US context which finds that greater diversification of land ownership can increase investment and property values and stimulate population growth. Additionally, qualitative evidence concerning the experience of community land ownership and crofting has identified benefits spanning a wide range of economic, social and environmental outcomes.

The findings from the corporate governance literature strongly point toward wider benefits, e.g. greater security of employment, from diverse ownership and control but without strong evidence to suggest foregone productivity. Whilst there is limited evidence quantifying equivalent effects from diversity of land ownership and control, the best empirical source found during the literature search robustly demonstrates positive effects of diversity on investment, property values and population growth in the US. Taken together, these findings suggest that policy reforms that seek to increase diversity of land ownership and control in Scotland are likely to generate beneficial effects. These might take the form of improvements in wellbeing more than increases in measured economic activity, as seen in the corporate governance literature, or may instead translate to higher GDP.

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