

# Rural Land Market Report

Analysis of land sales data 2020-2022



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# Executive Summary

### Background

This summary presents the findings of the second Rural Land Market Data Report published by the Scottish Land Commission, reporting on land market transactions. This research was based on land sales data provided by Registers of Scotland (RoS), which was collated and enriched by the Commission to develop a quantitative assessment of land market activity and land values in Scotland (for Scottish farmland, forestry and estates markets) for the 2020-2022 period. The report identifies challenges for longer term land market assessment, as well as recommendations for this work in future years.

### Methodology

The methodology used in this report consisted of three main elements: 1) collation and analysis of Registers of Scotland non-residential land values data; 2) enrichment of data with additional data sources; and 3) data synthesis and outlining methodological considerations for future analysis.

Land sales data collated from RoS was cleaned and enriched with additional datasets, including INSPIRE, a RoS spatial dataset made up of polygon shapes showing the position and indicative extent of ownership of land for each land registered property in Scotland, Ordnance Survey Codepoint Open, and Scotland's Rural Urban Classification system. Data was reduced to a shortlist focusing only on land sales of 25 hectares or more, in rural areas, categorised as either forestry or agriculture in the applications for registration received by RoS or identified as such by retrieving additional information through manual searches. In addition, as 'estate' is not a category required to be provided by law to RoS during the land registration process, land sales in this category were identified through manual searches. All collated RoS data was cross-checked against published market reports for these three land-use categories covering the three-year period, and additional sales that were able to be identified in the RoS data were added to the final shortlists.

The combined data collection and reduction process resulted in a final dataset being created for farmland, forestry and estate sales in Scotland 2020-2022. The total number of final sales identified for further analysis in each category are shown in Table 1.

Table 1 – Number of rural land sales by category 2020-2022

Category	2020	2021	2022	Total
Estate	25	23	25	73
Farmland	126	154	157	437
Forestry	93	83	54	230
Total	244	260	236	740

### Market analysis caveats

The RoS data, while comprehensive in terms of capturing land sales, is specifically collated as part of the legal requirements relating to title registrations. As such, it is not specifically designed for undertaking land market assessments. There are several important caveats and related challenges to undertaking market assessments based on RoS data and/or merging RoS data with land transactions information from other sources. Key specific caveats include: 1) the difficulty in assigning area (hectarage) to all land sales due to uncaptured data and delays in cadastral parcel mapping; 2) the difficulty in assigning full price paid to all land sales due to the prevalence of non-monetary considerations registered with RoS. This lack of full sale price information has resulted in some market assessments being a considerable underestimate in terms of total market value and average sale price, due to the reliance on guide price as opposed to final sale price; 3) the difference in timescales between completion of registrations and land sales actually occurring, which can result in a RoS based analysis excluding more recent sales due to pending registrations. The first two points combined both increase the methodological reliance on manual searches, as well as significantly reducing the number of sales that can be identified as relevant to this analysis.

### **Key findings**

#### **Overall**

- The vast majority of rural land sales identified in this analysis (between 91.4% and 95% each year) were smaller than 500 hectares.
- Very few land sales over 3,000 hectares took place over the three years only 1.1% of all sales we identified.
- Eastern Scotland (including the Borders) had the highest total number of sales over the three-year period, followed closely by the South West Scotland region.

#### Farmland market analysis

- A total of 437 titles were identified from the RoS data relating to whole farms, part-farms and areas of farmland (referred to hereafter collectively as farmland sales) sold in 2020, 2021 and 2022. This number increased each year, from 126 in 2020, to 154 in 2021, and 157 in 2022.
- The trend of increasing sales in each year was also evident in relation to the total area of farmland marketed each year, with 12,838 hectares in 2020, 14,193 hectares in 2021, and 19,136 hectares in 2022.
- Combined, farmland sales averaged 106 hectares in size, with a lower average size in 2021 (92 hectares) compared with 2020 (102 hectares), with the highest average in 2022 (122 hectares).
- Most farmland sales were under 150 hectares, with only between 13% and 20% farmland sales in each year larger than 150 hectares. Furthermore, between 69% and 72% farmland sales in each year were under 100 hectares.

<sup>&</sup>lt;sup>1</sup> According to regulation 12(2)(a) of the <u>Land Register Rules etc.</u> (Scotland) Regulations 2014, a consideration must be provided. However, this consideration can be non-monetary, e.g. a gift. Where a full monetary consideration is provided, RoS include the value in this dataset. While non-monetary considerations (and monetary considerations which only relate to a share of the property and therefore do not reflect the market value of the property) are replaced with £0.

- The total value for all farmland sales 2020-2022 was £473M. There is a trend of increasing values with growth each year. The 2021 value (£167M) represented an increase of 37% on 2020 (£122M), whereas the 2022 value (£184M) represented a 10% increase on 2021.
- Sale price varies considerably across the dataset, with 28 farms sold for over £3M, 11 of which sold for over £4M (five of which were in 2022). At the lower end of the market there were 17 sales in 2020-2022 for under £100,000, seven of which were in 2020.
- Analysis of all farmland data (2020-2022) identified an average per/ha value of £13,290, with per/ha values varying widely in relation to region and farm type. Highest market shares 2020-2022 were found in Aberdeenshire, Angus, Perthshire, Ayrshire, Fife, Kirkcudbright and Dumfriesshire, all of which have productive farming sectors.

#### Forest and woodland market analysis

- A total of 230 titles were identified as relating to forest or woodland sales in Scotland in 2020-2022. There was a downward trend in the number of sales each year, with 93 in 2020, 83 in 2021 and 54 in 2022.
- A larger area (21,926 hectares) of forestry and woodland sales was recorded for 2020, compared to 2021 (13,342 hectares), which in turn was larger than 2022 (10,316 hectares).
- Across the three-year period, forestry sales averaged 198 hectares in size, with average sizes of 236 hectares in 2020, 161 hectares in 2021, and 191 hectares in 2022.
- Most forest sales in 2020-2022 were under 300 hectares, indeed almost two thirds in each year were under 150 hectares. A much smaller proportion were over 300 hectares, with only six sales over 1,000 hectares. Four of these 1,000+ hectare sales took place in 2020, where they made up 38% of the total area sold in that year.
- The total market value was £201M for all sales in 2020, £286M in 2021, and £173M in 2022.
- South West Scotland exhibits the highest overall per/ha values (£21,813 per/ha) and the highest number of sales overall (73), although Eastern Scotland exhibits the highest overall market share 2020-2022, at £248M. The bulk of the forestry market value was concentrated in four counties (Dumfriesshire, Roxburghshire, Argyll, and Perthshire).

#### **Estate market analysis**

- As 'estate' is not a land classification option when registering a land sale with RoS, identifying estates in this data is particularly difficult. This analysis identified 25 in 2020, 23 in 2021 and 25 in 2022.
- This research found a declining trend in the area of estates sold, with 32,825 hectares in 2020, 17,695 hectares in 2021 and 14,426 hectares in 2022. However, these figures are significantly lower than industry reports, highlighting the methodological challenges in using RoS data to research sales of estates.
- The majority of sales categorised as estates were relatively small, with 47 of 73 estates sold under 500 hectares in size.

- The total market value was estimated at £72M in 2020, £57M in 2021, and £75M in 2022. The average sale prices recorded from the RoS data were £2.9M in 2020, £2.5M in 2021, and £3M in 2022. Both market value and average sale prices were less than industry reports over the same period. Sale price of estates varies according to the size/quality of an estate house as well as area of land.
- The majority of the estates market value in each year related to estates sold in Eastern Scotland and the Borders. The lowest component of the market share related to estate sales in North East Scotland in 2020, although this region increased its market share significantly in 2021 and 2022. Eastern Scotland has the highest total market value share over the three-year period, despite having smaller estates on average than those in the Highlands and Islands and North East Scotland.

#### **Conclusions**

Taken as a whole, the Scottish Land Commission's approach to assessing the land market using RoS data has been partially successful, particularly in relation to determining the number of sales, area of land sold, and market value for a set of identified sales. Farmland and forestry findings in this report were broadly similar to industry estimates over the same period. Farmland continues to make up the majority of rural land sales, with the area and value of farmland steadily increasing over the three-year period. For forestry, the findings indicate that in 2022, some of the heat from the 2021 market subsided with lower per/hectare average prices than in 2021. This chimes with the findings from the Rural Land Market Insights Report 2023, in which land agents reported more "caution" entering the market.<sup>2</sup>

Identifying estates in the RoS data is a challenge for three key reasons; 1) because "estate" is not a land use category required to be provided by law to RoS during the land registration process, 2) because area is not routinely provided in this dataset, and 3) because consideration may not be monetary, and for registrations without a full monetary consideration, RoS provide a consideration of £0. It appears that area and full price paid information is less likely to be captured for estates. Because of this, the estimates in this report for estates are further away from market reports than the 2022 report. This demonstrates the value in the involvement of an industry partner in assessing estates (in 2022 the report benefited from the involvement of Strutt & Parker, who provided internal data).

Gaining an accurate picture of the estates market is vital for those working on a whole range of policy objectives, from land reform to the just transition, and this therefore poses a particular challenge to overcome in future iterations of this report. Reporting on this requires data sources additional to RoS data to identify either the area or the price paid for land. In this report, an attempt was made to automate the process of identifying area for a large number of sales by incorporating additional RoS spatial data (INSPIRE). Ultimately, due to the challenges and time-lags with the cadastral map upon which this spatial data is based, the area data provided by this approach was unreliable, and it therefore proved to be less successful than anticipated. However, it did allow for an increased number of sales to be identified overall for 2020 and 2021 compared with the 2022 Data Report. Further iterations of this report should explore further ways to automate overlaying additional data, as well as exploring the feasibility of improving the raw data with RoS. Understandably, their data is not produced for research purposes, as this is not their core remit, and they clearly outline the limitations of the RoS Cadastral Parcels (INSPIRE) dataset in their user guide.<sup>3</sup> Yet the need for accurate data to underpin evidence-based land reform policy is vital, and therefore alterations to their core remit should be explored.

<sup>&</sup>lt;sup>2</sup> Merrell, I., Pate, L., Glendinning, J. and Thomson S. (2023) <u>Rural Land Market Insights Report 2023</u>. A report commissioned by the Scottish Land Commission.

<sup>&</sup>lt;sup>3</sup> Registers of Scotland. (2021) <u>Registers of Scotland Cadastral Parcels (INSPIRE) dataset information sheet</u>. Registers of Scotland.

## 1. Introduction

The research presented in this report is part of a series of reports from the Scottish Land Commission focused on improving reporting of land market transactions in Scotland. The findings presented in this report build on work undertaken by researchers at Scotland's Rural College (SRUC) in 2021 and 2022. The Commission has published three reports since 2022 by SRUC, the two Insights reports, based on interviews with land agents, valuers, and land managers about their perceptions of land market activity in the previous 12 months, looked at the 2021<sup>4</sup> and 2022<sup>5</sup> calendar years respectively. The final report, Rural Land Market Data Report, analysed land sales data from 2020 and 2021 and provided proposals for improving future reporting of land market transactions. This current report provides an update on this data report, collating and analysing rural land sales data from Registers of Scotland (RoS) for the three years 2020, 2021 and 2022 to quantify land market activity and value in three main areas: 1) farmland markets; 2) forest and woodland sales; and 3) Scottish estates. The project has benefitted from the advice and support of the authors of the previous report as well as Simon Gibson-Poole at SRUC.

#### **Project objectives**

The objectives of this project were to:

- 1. Identify and collate available data on rural land sales (and values) in Scotland during 2020-2022.
- 2. Assess collated land sales data to identify trends in land market activity and land values during this period (including variability in market activity by region etc).
- 3. Identify key data gaps and challenges for longer term land market assessment and set out proposals (or alternative options) for future collation of quantitative and qualitative data and reporting on land market activity.

The focus taken throughout this series of reports has been on assessing land market activity in rural areas and specifically landholdings generally above 25 hectares in size. This size cut-off was applied to reduce the potential for residential properties with large gardens and equestrian properties (which represented a different and higher value market segment) to be included to allow for a more specific focus on farming, forestry and estate land markets. While some of the estate and farm holdings included in this review may incorporate residential property, housing and smaller plots of land have not been part of the specific focus of this research.

<sup>&</sup>lt;sup>4</sup> McMorran, R., Glendinning, J and Glass, J. (2022) <u>Rural Land Markets Insights Report</u>. Scottish Land Commission, Commissioned Report.

<sup>&</sup>lt;sup>5</sup> Merrell, I., Pate, L., Glendinning, J. and Thomson S. (2023) <u>Rural Land Market Insights Report 2023</u>. A report commissioned by the Scottish Land Commission.

<sup>&</sup>lt;sup>6</sup> McMorran, R., Thomson, S. and Glendinning, J. (2022) <u>Rural Land Market Data Report</u>. Scottish Land Commission, Commissioned Report.

#### Developing evidence for improving understanding of land markets

As Scotland works towards achieving net zero through a just transition, reforms to ensure land markets work effectively to create public value are becoming ever more important. Without reform, Scotland's land will not create the success it could. However, to facilitate meaningful reform it is important to achieve a full picture of how the market operates. As it stands there remains limited information about the volume of off-market, or private, land transactions occurring, as well as the motivations of both buyers and sellers. Understanding levels of land market activity, the volume of on and off-market sales, current and projected land values, longer term trends and the factors influencing and driving land markets, represent critical aspects of understanding how markets operate and how this might affect access to land for individuals, communities and businesses.

Various industry reports currently exist, offering important insights into rural land markets in Scotland, including Strutt and Parker's Scottish Estate and Farmland Market Reviews,<sup>7</sup> The Farmland Market from Savills,<sup>8</sup> the Knight Frank Farmland Index and The UK Forest Market Report.<sup>9</sup> Yet uncertainty remains around the total volume of sales including those marketed privately (off-market transactions), and these are all based on private sources of data. While measures are underway to improve the transparency of information relating to landownership, information on landownership and values remain challenging to collate.

In light of these challenges, one of the Commission's areas of focus is reforms to land markets. Addressing this priority requires the development of an enhanced evidence base, to ensure the effects of any measures taken to increase transparency or regulate markets can be assessed over the longer term. In addition, developing a clear picture of current land market activity can help improve understanding of how effectively land markets are working in relation to transparency and limiting barriers to people, communities, and businesses acquiring land in the future.

<sup>&</sup>lt;sup>7</sup> Strutt and Parker (2023) <u>Scottish Estate Market Review</u> and (2023) <u>Scottish Farmland Market Review</u>.

<sup>&</sup>lt;sup>8</sup> Savills (2023) The Farmland Market. Spotlight: Savills Research.

<sup>&</sup>lt;sup>9</sup> Tilhill & Goldcrest Land and Forestry Group (2022) The UK Forest Market Report 2022. Tilhill.

# 2. Methodology

The methodology used in this report consisted of three main elements: 1) collation and analysis of Registers of Scotland non-residential land values data; 2) enrichment of data with additional data sources; and 3) data synthesis and outlining methodological considerations for future analysis. The approach has been designed to be repeated or adapted for future land market assessments, to facilitate increased transparency in the rural land market and identify longer term trends in market activity and key drivers for land sales and acquisitions. Although the methodology used in this report draws heavily from the methodology developed in the initial 2022 Data Report, this report uses an updated methodology and therefore numbers are not directly comparable between publications.

In general, numbers in this report are rounded to the nearest whole number, or to one decimal place for some percentages.

#### 2.1 Data

#### Registers of Scotland Non-Residential Land Value (NRLV) points

In order to understand what is happening in Scotland's rural land market, this report aims to identify the location, value, area and use of rural land that has been transacted within a given year using Registers of Scotland (RoS) data. Data was sourced from RoS for all non-residential transactions that occurred during the calendar years 2020, 2021 and 2022. The raw data provided by Registers of Scotland included 14,624 data rows for 2020, 19,335 for 2021, and 18,665 for 2022. The majority related to smaller parcels of land (e.g., building plots or commercial property) and only a much smaller subset was directly relevant to this land market review.

The data acquired from Registers of Scotland (in many, but not all, cases) included the price paid ('consideration') for the land related to the specific registration. This included on and off-market transactions. Several thousand transactions did not include a monetary consideration. This might happen for changes in registration where there was no monetary consideration (e.g., land was gifted or willed to a family member resulting in a change in registration etc.). However, the exclusion of a monetary consideration does not necessarily confirm its absence in reality, as this information may not have been reflected in the deed of conveyance submitted to RoS for registration. Additional relevant information provided in the data included land classification (see Table 2 below), deed type, 10 geographic (XY) coordinates relating to the centroid of the relevant cadastral land parcel (i.e., the extent of the mapped title). All listings included a specific title number (including a county identifier) and a parent title number where the registration related to a land sale of a portion of an existing parent title/holding. Additional data was also provided in separate CSV files for the address related to each application, as well as further context; for example, the address of a commercial entity involved in a transaction. The total area of the land relating to the title change was sometimes provided as text in the 'Full subjects' field, although area was not included for all registrations and area was not included as a separate data column. In many cases the area of the title was not included within the standard RoS data (e.g., in each of the three years examined, between 68% to 70% of the registrations did not include area).

Table 2 – Land use categories in RoS NRLV point data

Land use	Guidance notes
Commercial (C)	Transaction over an existing building, office, shop etc., used as a place of business.
Land only (L)	Transaction over land not for agricultural or forestry use, e.g., a house plot, a site for housing or other building development, area(s) of garden ground, etc.
Agriculture (A)	A sale of land, a farm (e.g., a farm house with 2 hectares of land or over) or farm buildings for agricultural use.
Forestry (F)	Sale of existing woodland/forestry plantation.
Other (O)	A transaction that does not fall into the above e.g., lock-up garage; car parking spaces; lochs and rivers.

#### RoS INSPIRE polygon data

To address the fact that not all titles in the RoS data included information on the area of the related land sale, further work was undertaken to join this dataset with a related dataset. Registers of Scotland Cadastral Parcels (INSPIRE) dataset is a spatial dataset made up of polygon shapes showing the position and indicative extent of ownership of land for each registered property in Scotland.<sup>11</sup> The data can be used in a geographic information system (GIS) to view and query title extents. The INSPIRE polygon data is made up of 33 separate datasets representing Ros registration counties<sup>12</sup> and is a freely available subset of the cadastral map. The entire dataset is updated and released on a quarterly basis. This report is based on INSPIRE data from March 2023.

#### Further data

Additional data sources were used to enrich the RoS data, including Scottish Government Urban-Rural Classification System<sup>13</sup> and Ordnance Survey Code-Point Open.<sup>14</sup>

<sup>&</sup>lt;sup>11</sup> Registers of Scotland (2021) <u>Cadastral Parcels (INSPIRE) dataset Information Sheet</u>. Registers of Scotland.

<sup>&</sup>lt;sup>12</sup> Registers of Scotland (2023) <u>Land register counties and operational dates</u>. Registers of Scotland.

<sup>&</sup>lt;sup>13</sup> Scottish Government (2022) <u>Scottish Government Urban Rural Classification 2020</u>. Geographic Information Science & Analysis Team, Rural and Environment Science and Analytical Services Division.

<sup>&</sup>lt;sup>14</sup> Ordnance Survey (2023) <u>Code-Point Open</u>.

### 2.2 Data preparation

Funded by Scottish Government's Rural and Environment Science and Analytical Services Division (RESAS), SRUC have been developing a spatial analysis strategy that aims to identify land transacted in any given year. This report followed their methodology for cleaning data and joining RoS NRLV point data with their associated INSPIRE polygons using Quantum GIS software (QGIS), in order to try to identify area data from INSPIRE polygons where they were not present in RoS NRLV data. A summary of this process is outlined here but a fuller methodology is outlined in a 2023 working paper outlining their spatial analysis approach. In the spatial analysis approach.

#### Matching the registrations with their associated INSPIRE polygons

Due to the very high proportion of registrations missing area data, the first stage of this research attempted to identify additional area data for registrations. Registers of Scotland maintain a Cadastral Map of Scotland, which is a map showing legal title including rights and burdens. It consists of cadastral units, which each represent a single registered plot of land, and is made up of geospatial data which can be represented as a polygon on a map. Because the XY coordinates provided in the RoS NRLV data and the INSPIRE polygons are both derived from this cadastral map, in theory they should be able to be linked. However, as the cadastral map shows rights and burdens as well as ownership, if the actual ownership (rather than for example, mineral rights) extent cannot be identified by RoS using a rule-based algorithm which attempts to read each registration's title sheet, then an INSPIRE polygon will not be generated.

#### Identifying the location of a registration

Many land sales in the RoS dataset are missing XY (location) data. Work was undertaken to identify alternative XY data for RoS registrations where this was missing, both to increase the number of potential matches with INSPIRE data, and also because the location of land sales is of relevance to this research, which focuses on rural land only. The related address records for each NRLV application sometimes contained XY data, as well as sometimes containing a postcode. Therefore, where XY data did not exist for the main registration record but did for a related address record, then this data would be used, and if neither existed, but a postcode was included, then the postcode would be transformed to an XY location instead. If no distinct postcode was provided in the Address records, then the text boxes "Subjects in brief" and "Subjects in full" were searched for a postcode, which was then compared with Ordnance Survey Code-Point Open data to verify. Finally, for records that still had no XY data but did have some address data (short of a postcode), their details were automatically loaded into MMQGIS, a set of Python vector map layer plugins for QGIS, to geocode a location.

<sup>&</sup>lt;sup>15</sup> <u>RESAS 22-27: SRUC-e3-1 Impacts Of Land-based Financial Support Mechanisms On Land Values, Landownership Diversification And Land Use Outcomes \* Joint With SRUC-c3-1</u>

<sup>&</sup>lt;sup>16</sup> Quantum GIS is an open-source Geographic Information System. This report used Version 3.28.0.

<sup>&</sup>lt;sup>17</sup> Gibson-Poole, S. & IS Sepulveda (2023) <u>Working paper on data/spatial analysis strategy and site selection</u>. SRUC-E3-1/ C3-1 – D4.1.

<sup>&</sup>lt;sup>18</sup> Registers of Scotland (2022) <u>The cadastral map</u>. Registers of Scotland.

#### Identifying the area of a registration (where provided by RoS)

As previously noted, area is not an independent attribute present within the RoS NRLV point files. Instead, where it is included, it is within one of two free format text fields describing a registration. These fields were therefore explored and the words "acre", "ac", "hectare", "ha", "square met" and "sqm" were selected to be extracted through the use of regular expressions in QGIS. These values were calculated in hectares. Where multiple areas were given in any registration, the first indication of area was selected.

#### **Combining NRLV point data with INSPIRE polygons**

Following Gibson-Poole's methodology, <sup>19</sup> a graphical model was created within QGIS to allow a series of algorithms to match each of the 33 INSPIRE datasets to the RoS NRLV data. The model follows a number of stages involving matching the XY data from RoS NRLV to centroids generated for each INSPIRE polygon, before flagging the status of each resultant match. The status ranges from good to poor and is based on how close the locational match is, whether the XY location is within the polygon's extent, as well as whether the area provided by RoS is within 10% of the area of the matched INSPIRE polygon.

# 2.3 Identifying registrations relating to sales in the rural land market

#### **Step 1: Initial filtering**

Following the matching process, the matched results were queried to identify registrations relevant to this research. For the purposes of this research, only high and medium confidence matches were initially considered. Where several matches to one polygon were found, the highest value, earliest registered item was automatically selected as the main match. To address the main objective of this review of sales in the rural land market, this stage of work aimed to remove registrations relating to land transactions with an area of less than 25 hectares, land transactions in urban locations, and registrations that did not relate to the transfer of the ownership of land. Using the Scottish Government Urban Rural Classification (8 categories) (UR8) 2020, which provides a consistent way of defining urban and rural areas across Scotland, the results were filtered by rurality.<sup>20</sup> Results were shortlisted which were located in areas with a population of fewer than 3,000 people (UR8 Class 6, 7 or 8). Results were filtered by the area of the associated INSPIRE polygon and only those with an area of 25 hectares or greater were initially retained. Finally, registrations whose deed code did not include 'disposition' were excluded.<sup>21</sup> This resulted in an initial short list of around 561-765 registrations in each year.

<sup>&</sup>lt;sup>19</sup> Gibson-Poole, S. & IS Sepulveda (2023) <u>Working paper on data/spatial analysis strategy and site selection</u>. SRUC-E3-1/ C3-1 – D4.1.

<sup>&</sup>lt;sup>20</sup> Scottish Government (2022) <u>Scottish Government Urban Rural Classification 2020</u>. Geographic Information Science & Analysis Team, Rural and Environment Science and Analytical Services Division.

<sup>&</sup>lt;sup>21</sup> Disposition is deed code 11 in the dataset, and any registrations that did not include 11 (either alone, or in addition to another deed code) were excluded from the analysis.

#### **Step 2: Matched area registrations**

Where the INSPIRE area matched the RoS area to within 10%, the registration had a consideration that was more than  $\mathfrak{L}0$ ,  $^{22}$  and the registration was marked as land class "A" or "F", these were generally accepted, and the results were initially categorised as farmland and forestry respectively.  $^{23}$ 

Where the INSPIRE area matched the RoS area to within 10%, the registration had a consideration that was more than 0, and the registration was marked as land class "C", "L", "M" or "O", these results were searched for the words "estate", "wood", "forest", and "farm". Resulting registrations were checked manually using Scotland's Land Information Service (ScotLIS),<sup>24</sup> which sometimes listed a different land class to that provided by the RoS NRLV data,<sup>25</sup> as well as internet searches for sales particulars confirming land use.

#### Step 3: Missing or unmatched area

The next stage focused on registrations where INSPIRE area was more than or equal to 25 hectares, but either no RoS area was provided, or the RoS area did not match the INSPIRE area within 10%. Although the initial hope was to be able to use INSPIRE polygon areas for registrations that were missing area, manual searches of these registrations often found that the INSPIRE area was incorrect based on sales particulars retrieved. Therefore, at this stage INSPIRE area was ruled out as an accurate representation of the area of registrations. All registrations in this set were therefore searched manually. This did result in some shortlisted registrations, but far fewer than in Steps 2 or 4.

#### **Step 4: RoS Area and consideration**

This stage involved ignoring INSPIRE match status and focusing instead on registrations for which the original RoS data had provided both area (>25ha) and consideration (>0). For this set, the land class process followed in Step 2 was used again, with "F" and "A" becoming forestry and farmland, and searches carried out on "C", "L", "M" or "O" for keywords. This stage resulted in a high number of low confidence INSPIRE matches being brought back into consideration, as well as a number of registrations that could not be matched with INSPIRE polygons at all. This stage also included some registrations which could not be classified according to the Urban-Rural classification system because they were missing XY data. Manual searches confirmed locations and only those relating to rural areas were retained.

#### Step 5: Cross checking against published market reviews

The final stage of shortlisting involved cross checking results against published market reviews to see if any further registrations could be identified in the RoS data. Strutt & Parker market reviews were reviewed for each year, as well as news articles from 2021 and 2022. In addition to adding a small number of registrations, this also resulted in a small number of sales being recategorised as estates or farms.

<sup>&</sup>lt;sup>22</sup> Some initial searches were carried out on registrations that had a consideration or 0 or missing, however, as this resulted in very few shortlisted registrations, these were excluded at this stage.

<sup>&</sup>lt;sup>23</sup> These results were later searched for the word "estate" and a few registrations were subsequently recategorised if additional manual searches confirmed them as estates.

<sup>&</sup>lt;sup>24</sup> Scotland's Land Information Service, <u>ScotLIS</u>.

<sup>&</sup>lt;sup>25</sup> Land classification on ScotLIS is provided by the customer and has not been subjected to quality assurance by RoS.

Table 3 – Number of sales shortlisted by processing steps 2-5

Step	2020	2021	2022	Total
Step 2: Matched area registrations	109	134	113	356
Step 3: Missing or unmatched area	12	28	17	57
Step 4: RoS Area and consideration	119	94	99	312
Step 5: Cross checking against published market reviews	4	4	7	15
Total shortlisted	244	260	236	740

#### 2.4 Caveats and data limitations

Although the methodology has changed slightly compared with the 2022 Data Report, it relies on the same underlying data. Therefore, many of the caveats and limitations identified in the previous report remain. The RoS data, while comprehensive in terms of capturing land sales, is specifically collated as part of the legal requirements relating to title registrations. As such, it is not specifically designed for undertaking land market assessments. This analysis has made the best use of the data possible to provide estimates for rural land market activity in Scotland from 2020-2022, however, the estimates are based on a sample of registrations for which key data were available. Notably, as apparent from the above methodology and as referred to more specifically in the results sections, there are several important limitations relating to the data used for this analysis. These include but are not limited to the following key caveats in particular:

- 1. Although registrations must include a consideration (as required by a deed of conveyance), it can be monetary, non-monetary (e.g., the implement of a will), or a mixture of the two. Where it is non-monetary or a mixture, RoS state a consideration of £0. This significantly reduces the sample available to a market analysis such as this as most of these registrations cannot be included. Where a registration had a consideration of £0 (e.g., for some found in published market reviews, or during earlier searches), if a consideration was available from ScotLIS or found through internet searches, this was used. For a minority of cases no consideration was found but where sales particulars included, for example, "Offers over £3.5M", this value was used as a proxy for consideration. It should be noted that the results here are likely to be an underestimate, firstly because many land sales vastly exceed the asking price, and secondly because consideration values found on ScotLIS but not in the RoS data are likely to be underestimates because they relate to non-full-market considerations which is why they are not present in the RoS data.
- 2. The timescale for RoS completing registrations and updating the title register is variable but often lags behind actual land market activity (i.e., confirmed sales), particularly where a registration change requires a change to the underlying cadastral land parcel (map). For assessing more recent market activity (e.g., the 2022 market) this results in data gaps where title registrations have not yet been completed or have been delayed. Basing annual market assessments on RoS data can therefore result in a market analysis which relates to a different timeline than a market assessment based on recording open-market transactions and sales. As apparent from this analysis, this results in some sales from the last 6-12 months not appearing on the register or registrations appearing but with no confirmed area as the related cadastral parcel mapping changes have not yet been completed.

- 3. In practice, this registration time-lag may result in the market analysis figures from a RoS based analysis not fully aligning with wider farmland, forestry and estates market reports for the same time period. This will be explored in the results section below.
- 4. While the registration categories (agriculture, forestry etc.) provide a useful basis for segmenting large volumes of title data, there are examples of farm sales and forestry sales occurring in other categories (e.g., commercial, other and land), due to how the sale was categorised at the point of registration. Likewise, agriculture and forestry can contain sales unrelated to this research, e.g., crofts and farmland bought for housing development. Where possible, these have been excluded from this review. Identifying a distinct subset of sales data (e.g., estate sales) can be relatively time consuming as a result. This complexity is exacerbated by 'lotted' properties, with some larger estate or forestry sales often occurring in multiple lots (with the related registrations not necessarily completing at the same time). Finally, this report cannot account for the sale of bare land for the purpose of forestry development.
- 5. Additionally, area data is not recorded as a distinct category (data column) within RoS data for land sales (with area occurring within the text of the 'full subjects' column but not for all registrations). As the area of a title also relates specifically to the underlying cadastral parcel, titles requiring re-mapping are likely to take longer to complete the registration process. Attaching actual area (hectares) to land sales, particularly more recent sales, can therefore be relatively complex and can result in an incomplete land values dataset in terms of area data. Related to this, where it is the first registration of a piece of land, there appears to be a greater lag in RoS updating the polygons, presumably because they require mapping.
- 6. While many listed sales in the forestry and agriculture categories relate mainly to land, based on details in the 'Full subjects' and the per/ha value of certain holdings, it is apparent that some farm holding sale values include residential property (e.g., a farmhouse). This potentially inflates average sale and average per/ha land values in some regions/categories and per/ha values (when based on smaller sample sizes) should be treated with caution.
- 7. Additionally, it is not possible to comprehensively categorise farm or forestry sales by farm type or forest/woodland (e.g., commercial, amenity etc.) type or to categorise listings as on or off-market sales based on the RoS data listings alone. Any more comprehensive market assessment by holding type and on/off-market sales status therefore requires that RoS data be enriched using other data sources (e.g., land agent data or online sales particulars for properties where available). This approach is likely to be time consuming and require ongoing data gathering and market assessment. This report has not attempted to categorise sales in either of these ways.
- 8. While per/hectare values are useful for identifying variation in value (e.g., by region or by holding type), the relatively small sample sizes in most cases and the variability in properties coming to the market, suggests that short term changes in per/hectare values should not necessarily be taken as conclusive evidence of a market trend.

This report provides an estimate of Scottish land market activity between 2020-2022. Many of the findings echo industry reports over the same period, suggesting that this methodology provides a useful assessment of the market. However, the findings are likely to represent an underestimate of total market activity due to the caveats listed above.

# 3. Number and Size of Sales Overall

### 3.1 Size and number of transactions over time

A total of 740 titles were identified from the RoS data relating to rural land sales over 25 hectares of estates, farmland and forestry over the three-year period. The total area of land (identified in the RoS data) sold in each year was relatively small, between 0.6% (2022) and 0.9% (2020) of Scotland's total land mass each year.<sup>26</sup> The number and area of sales in each category is presented in Table 4.

Table 4 – Number and area (hectares) of rural land sales by category 2020-2022

	2020		2021		2022		Total	
	Number	Area	Number	Area	Number	Area	Number	Area
Estate	25	32,825	23	17,695	25	14,426	73	64,947
Farmland	126	12,838	154	14,193	157	19,136	437	46,168
Forestry	93	21,926	83	13,342	54	10,316	230	45,583
Total	244	67,589	260	45,230	236	43,878	740	156,698

The number of sales by size threshold are presented in Table 5. The vast majority of rural land sales (between 91.4% and 95% each year) were smaller than 500 hectares. Very few land sales over 3,000 hectares took place over the three years — only 1.1% of all sales we identified. Map 1 (page 17) shows all land sales by size category over the three-year period.

Table 5 – Number of rural land sales by size threshold

Size (hectares)	20	2021		21	2022		Total	
<500	223	91.4%	247	95.0%	219	92.8%	689	93.1%
500-1000	9	3.7%	8	3.1%	10	4.2%	27	3.6%
1000-2000	4	1.6%	2	0.8%	3	1.3%	9	1.2%
2000-3000	3	1.2%	2	0.8%	2	0.8%	7	0.9%
>3000	5	2.0%	1	0.4%	2	0.8%	8	1.1%
Total	244	100%*	260	100%*	236	100%*	740	100%*

<sup>\*</sup> rounded up to the nearest decimal point.

<sup>&</sup>lt;sup>26</sup> Based on a total land area of 7,878,900 hectares. The combined 2022 industry reports report 0.9% of Scotland's land (although this is based on farmland marketed in 2022, not sold), which is a larger figure because of the estates market, discussed in further detail in Section 6 of this report.



#### Map 1 – Scottish rural land sales by land use category 2020-2022

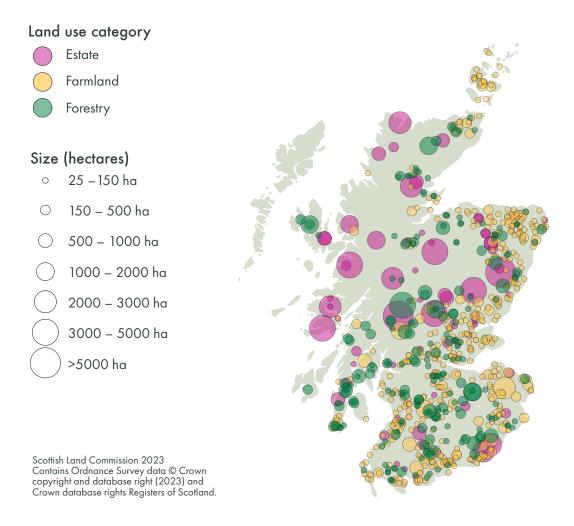


Table 6 breaks down the number of land sales by region (NUTS II regions).<sup>27</sup> Eastern Scotland (including the Borders) had the highest total number of sales over the three-year period, followed closed by the South West Scotland region. Maps 2 and 3 (pages 18 and 19) show further regional variation in number and price per hectare of sales.

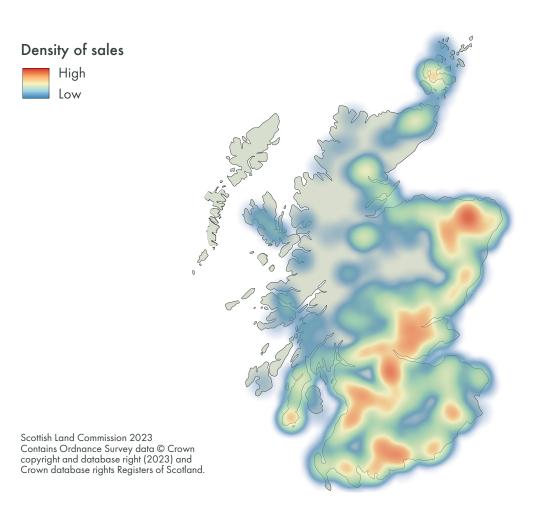
Table 6 - Rural land sales 2020-2022 by region

Region	2020	2021	2022	Total
Eastern Scotland	79	78	77	234
Highlands and Islands	54	54	56	164
North East Scotland	32	49	38	119
South West Scotland	79	79	65	223
Total	244	260	236	740

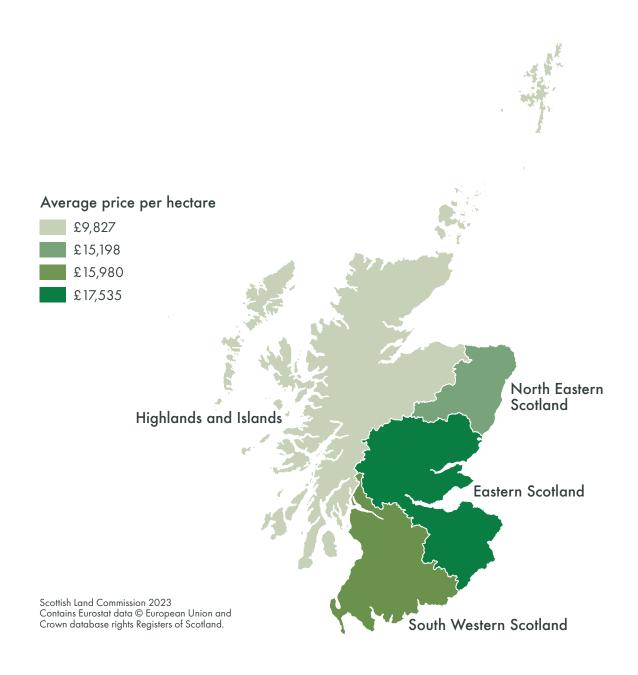
<sup>&</sup>lt;sup>27</sup> The NUTS classification (Nomenclature of territorial units for statistics) is a hierarchical system for dividing up the economic territory of the EU and the UK from Eurostat. This report uses the NUTS level II regions from 2013 because their geography is better suited to land market analysis than later versions.

# Map 2 – Heatmap showing distribution of number of rural land sales 2020-2022





Map 3 – Average price per hectare by region 2020-2022



The following sections will break these results down further by category and compare them to industry reports.

# 4. Farmland Market Analysis

#### 4.1 Number of farmland sales and area of land sold

A total of 437 titles were identified from the RoS data relating to whole farms, part-farms and areas of farmland (referred to hereafter collectively as farmland sales) sold in 2020, 2021 and 2022. This number increased each year, from 126 in 2020, to 154 in 2021, and 157 in 2022. The number of sales represents an increase on the number identified in Strutt & Parker Scottish Farmland Market Reviews<sup>28</sup> of 40 farms in 2020, 62 in 2021, and 65 in 2022.<sup>29</sup> This difference can be attributed to three factors: 1) the Strutt and Parker database focuses on whole farms over 100 acres (40 hectares) whereas the RoS data includes lotted sales and part holdings/holdings over 25 hectares; 2) the RoS data includes off-market sales which are not reported in the Strutt and Parker reviews; and; 3) the time lag for registrations can result in sales being assigned to different years relative to recording sales as they occur on the open market.

The trend of increasing sales in each year was also evident in relation to the total area of farmland marketed each year, with 12,838 hectares in 2020, 14,193 hectares in 2021, and 19,136 hectares in 2022. These figures are all higher than the equivalent areas recorded (as marketed, not sold) in the Strutt & Parker Review for 2020 (6,111 hectares), 2021 (11,371 hectares), and 2022 (16,835 hectares). However, this is likely due to the inclusion of smaller farms and the inclusion of off-market sales, of which Strutt & Parker reported an increase in 2022. <sup>30</sup> Both sets of data agree that the increase in total area of farmland sold (or marketed) in 2022 is significant, equating to an increase of 35% (RoS, farmland sold) or 48% (S&P, farmland marketed) on 2021. Map 4 (page 21) shows farmland sales by size category and year.

Combined, farmland sales averaged 106 hectares in size, with a lower average size in 2021 (92 hectares) compared with 2020 (102 hectares), with the highest average in 2022 (122 hectares) (Table 7). The median size was lower than the mean in all three years, influenced by a small number of larger sales, particularly in 2022 (with three sales over 1,000 hectares in 2022 and none in either 2020 or 2021).

<sup>&</sup>lt;sup>28</sup> Strutt & Parker's 2021, 2022 and 2023 Scottish Farmland Market Reviews

<sup>&</sup>lt;sup>29</sup> These figures are based on the proportion of marketed farms Strutt & Parker reported as sold or under offer in each year. I.e., In 2022, 87 farms were marketed, of which Strutt & Parker reported 75% sold or were under offer. In 2020 and 2021, 50 and 77 farms respectively were marketed, of which 80% sold in both years.

<sup>&</sup>lt;sup>30</sup> Strutt and Parker (2023) Scottish Farmland Market Review Spring 2023. Strutt & Parker Rural Hub.

#### Map 4 – Farmland sales by size and year 2020-2022



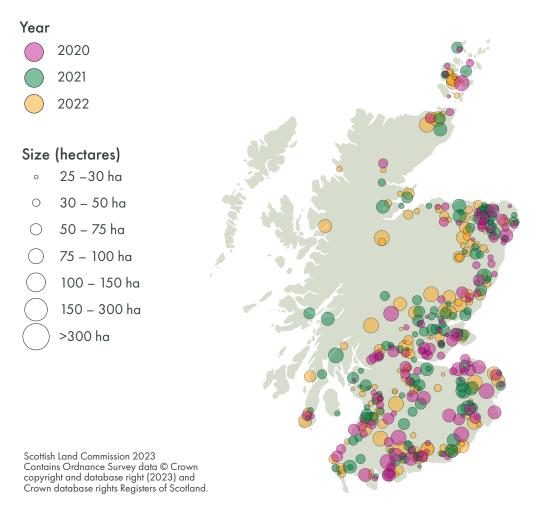
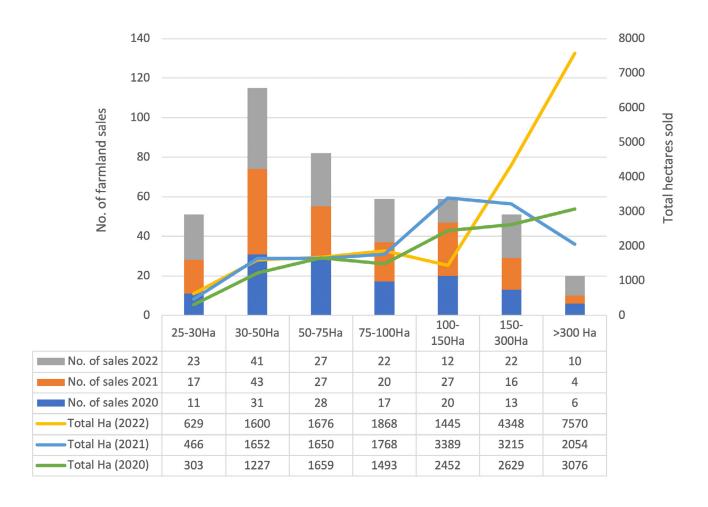


Table 7 – Area of farm and farmland sales, 2020-2022

Area (hectares)	2020	2021	2022	Total
Total area (Ha)	12,838	14,193	19,136	46,168
Average size (Ha)	102	92	122	106
Minimum (Ha)	25	25	25	25
First quartile (Ha)	42	39	37	39
Median (Ha)	63	64	66	64
Third quartile (Ha)	117	112	111	112
Maximum size (Ha)	925	828	2010	2010

As shown in Figure 1, most farmland sales were under 150 hectares, with only between 13% and 20% farmland sales in each year larger than 150 hectares. Furthermore, between 69% and 72% farmland sales in each year were under 100 hectares. In terms of total area sold, the 300+ hectare category accounts for the largest area component relative to the other size categories, despite the very small number of farms sold in this category. This is because of the previously mentioned three farm sales over 1,000 hectares in 2022. Indeed, farms larger than 150 hectares represented a far more important component of the total area of farmland sold in 2022, accounting for 11,918 hectares (32 sales) or 62% of the farmland market, more than double the hectarage of these categories in both 2020 and 2021.

Figure 1 – Number and area of farmland sales in 2020, 2021 and 2022 by size category



#### 4.2 Farm and farmland market value

The total value for all farmland sales 2020-2022 was £473M. The 2021 value (£167M) represented an increase of 37% on 2020 (£122M), whereas the 2022 value (£184M) represented a 10% increase on 2021. Sale price varies considerably across the dataset, with 28 farms sold for over £3M, 11 of which sold for over £4M (five of which were in 2022). At the lower end of the market there were 17 sales in 2020-2022 for under £100,000, seven of which were in 2020. The median sale value was slightly lower than the average sale value in all years (Table 8), due to comparatively high value sales (outliers) in the high end of the distribution of sales values.

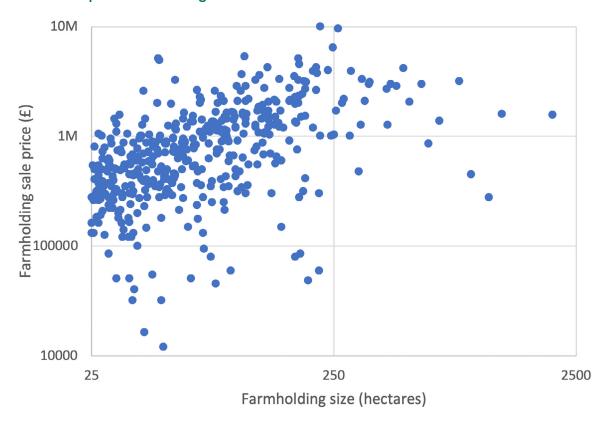
Table 8 – Total market value, average sale price, and prices Per/ha for 2020-2022 farmland sales

Market value	2020	2021	2022	Total
Market value of all sales	£121,641,502	£166,840,270	£184,188,628	£472,670,400
Average price	£965,409	£1,083,378	£1,173,176	£1,081,626
Median price	£700,000	£715,000	£860,000	£734,946
Average Per/ha value	£12,014	£13,261	£14,342	£13,290
Minimum Per/ha value	£243	£867	£250	£243
Median Per/ha value	£9,533	£11,440	£12,792	£11,344
Maximum Per/ha value	£108,118	£63,399	£103,882	£108,118

Table 8 also shows the average, median, maximum, and minimum per hectare value for all farmland sales. Per hectare values varied significantly across the dataset, with different prices reflecting differences in farm type. The dataset also includes both farmland and entire farms, some of which include housing and buildings. It was not possible to isolate bare farmland, so variation likely represents per/ha values of fully equipped farms at the upper end. That said, the average per/hectare values are similar to those reported by Savills for Scottish farmland values (all types) of £14,628 per hectare (reported as £5,920 per/acre).<sup>31</sup> Average per hectare values were higher than median per hectare values in all years. Figure 2 illustrates the overall spread of farmland sales by price and size in hectares, showing both outlying high value and large area farm sales.

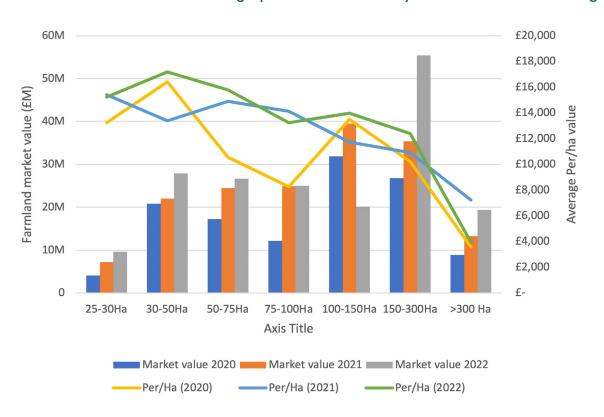
<sup>&</sup>lt;sup>31</sup> Savills (2023) <u>The Farmland Market</u>. Spotlight: Savills Research.

Figure 2 – Scatterplot of farmland sale price and farmland sale size 2020-2022. Both axes are plotted on a logarithmic scale.



As Figure 3 shows, the majority of farmland market value related to sales between 75 and 300 hectares, with larger properties accounting for a much larger proportion of total market value in 2022. Average per/ha sales values are relatively high in most of the smaller size categories. 2022 average per/hectare prices were highest for 30-75 hectare and 100-300 hectare sales, whereas 25-30, 75-100, and 300+ hectare sales were higher on average in 2021.

Figure 3 – Market share and average per/ha sale value by farmland sale size category



## 4.3 Regional analysis of farm and farmland sales

A summary regional market analysis (based on NUTS II regions) is shown in Table 9 and summarised in Figure 4 (page 27). Per/hectare values have increased across all regions of Scotland over this period, apart from in Eastern Scotland where per/ha values did not change between 2020 and 2021. The lowest per/ha values were found in the Highlands and Islands in all years. The average per/ha value for Highlands and Islands sales over 2020-2022 (combined) was just over half (53%) of the average per/ha value across all farmland sales in all regions. The Highlands and Islands region also had the smallest market share by value overall and the lowest market share by area in 2020 and 2021. This reflects the lower number of holdings sold but also the lower land capability in the Highlands and Islands relative to high productivity areas in the south and east of Scotland. Map 5 shows the geographical distribution of the number of farmland sales over the three-year period.

Map 5 – Heatmap showing distribution of number of farmland sales 2020-2022



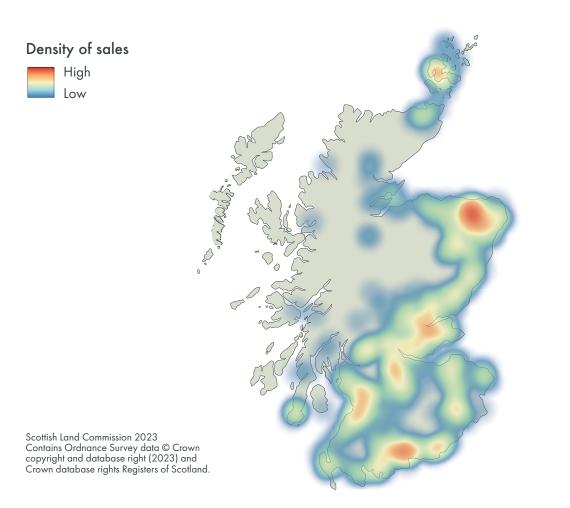


Table 9 – Farmland sales 2020-2022 in Scotland by region

	North East Scotland	Eastern Scotland	Highlands and Islands	South West Scotland
2020				1
No. of farm sales	22	48	14	42
Total farmland area (Ha) 2020	1724	5168	1134	4811
Market value 2020	£18,907,482	£61,539,417	£6,364,250	£34,830,353
Mean per/ha value	£12,306	£15,580	£6,212	£9,719
Mean holding size	78	108	81	115
2021				
No. of farm sales	36	53	19	46
Total farmland area (Ha) 2021	3385	4616	2553	3639
Market value 2021	£49,446,852	£66,293,287	£14,666,246	£36,433,885
Mean per/ha value	£14,955	£15,579	£6,709	£11,971
Mean holding size	94	87	134	79
2022				
No. of farm sales	30	45	31	51
Total farmland area (Ha) 2022	1919	7960	3558	5699
Market value 2022	£36,982,404	£77,680,827	£23,265,530	£46,259,867
Mean per/ha value	£19,462	£16,080	£7,733	£13,814
Mean holding size	64	177	115	112
Total 2020-2022				
No. of farm sales	88	146	64	139
Total farmland area (Ha)	7028	17744	7245	14150
Total market value	£105,336,738	£205,513,531	£44,296,026	£117,524,105
Mean per/ha value	£15,829	£15,734	£7,096	£11,967
Mean holding size	80	122	113	102

Higher per hectare values are evident in 2020 and 2021 in Eastern Scotland (which includes the Borders and Lothian), however in 2022, higher values were found in North East Scotland. The average farmland sale size was largest in the South West Scotland region in 2020, Highlands and Islands in 2021 and Eastern Scotland in 2022.

Figure 4 – Average farmland sale size and average per/ha value by region (2020-2022)

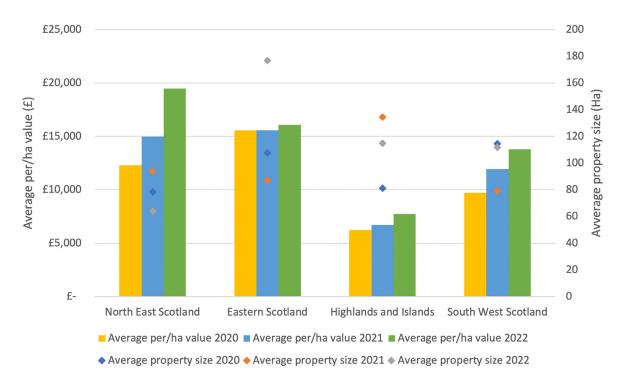
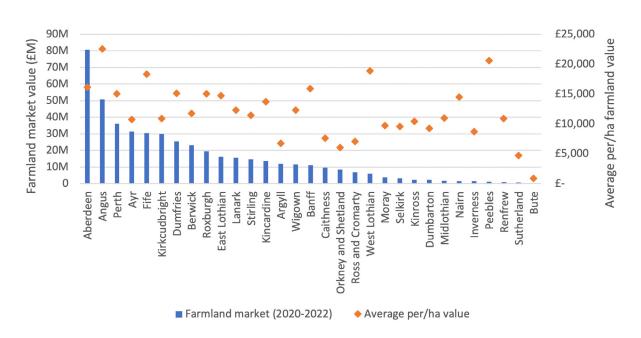


Figure 5 summarises combined farmland sales (2020-2022) by RoS Registration County, with particularly large market shares evident in Aberdeenshire, Angus, Perthshire, Ayrshire, Fife, Kirkcudbright and Dumfriesshire, all of which have productive farming sectors. The average per/ha values at county level also show considerable variation, with particularly high values evident in Angus, Fife and West Lothian, which reflects some areas with a higher degree of arable land. However, when broken down by county these values are generally based on very small sample sizes they may also be skewed by other factors, including the sale of a single high value farm property which may include residential property (and the size of the county). For example, the average per/ha value for Peebles in this graph is based on one single land sale, a large organic farm with a shop, which is inflating its value.

Figure 5 – Farmland market value and average per/ha value by Scottish county

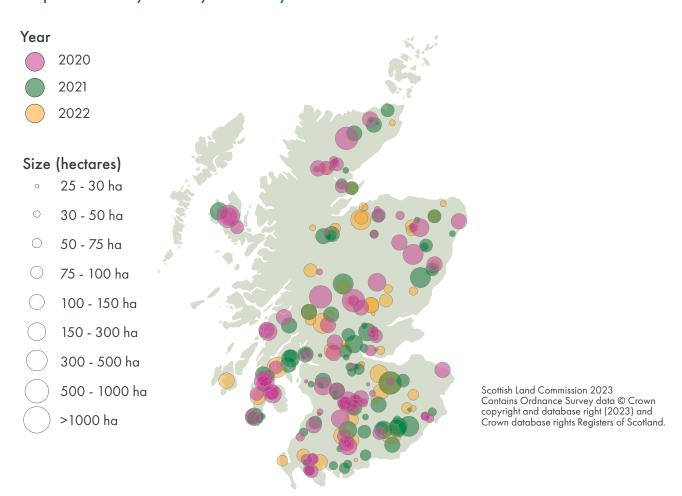


# 5. Forest and Woodland Market Analysis

# 5.1 Number of forest and woodland sales and area of land sold

A total of 230 titles were identified as relating to forest or woodland sales in Scotland in 2020-2022, with 93 in 2020, 83 in 2021 and 54 in 2022. The overall number of sales differ slightly from UK Forest Market Report figures (combined commercial forestry and mixed woodlands); 91 in 2020, 103 in 2021, and 95 in 2022. However, these figures are based on commercial forestry over 20 hectares and other woodlands over 10 hectares, an annual period between 1st October to 30th September, and the UK as a whole (although Scotland accounted for between 69% and 84% UK commercial forestry market value between 2020-2022). Despite these differences, the UK Forest Market Report also found a decrease in the number of transactions between 2021 and 2022. Map 6 shows forestry sales by size category and year.

Map 6 – Forestry sales by size and year 2020-2022



<sup>&</sup>lt;sup>32</sup> These figures are based on the combined number of sales for commercial forestry and mixed woodland in the <u>2022</u>, <u>2021</u> and <u>2020</u> UK Forest Market Reports from Tilhill.

<sup>&</sup>lt;sup>33</sup> Tilhill & Goldcrest Land and Forestry Group (2022) The UK Forest Market Report 2022. Tilhill.

Table 10 summarises the area of forest and woodland sales, with a larger area (21,926 hectares) of sales recorded for 2020, compared to 2021 (13,342 hectares), which in turn was larger than 2022 (10,316 hectares). This downward trend is also reflected in the UK Forest Market Reports, which recorded an area of 13,292 hectares in 2020, 11,423 hectares in 2021, and 8,683 hectares in 2022 for commercial and mixed woodland combined.<sup>34</sup> The area estimates in this report are significantly higher than the Tilhill figure for 2020, but broadly similar for 2021 and 2022. Across the three-year period, forestry sales averaged 198 hectares in size, with average sizes of 236 hectares in 2020, 161 hectares in 2021, and 191 hectares in 2022. The median size was markedly lower than the mean in all years, due to several outlying larger sales in the dataset (with a maximum sale of 4,473 hectares in 2020, 1,029 hectares in 2021, and 1,023 hectares in 2022).

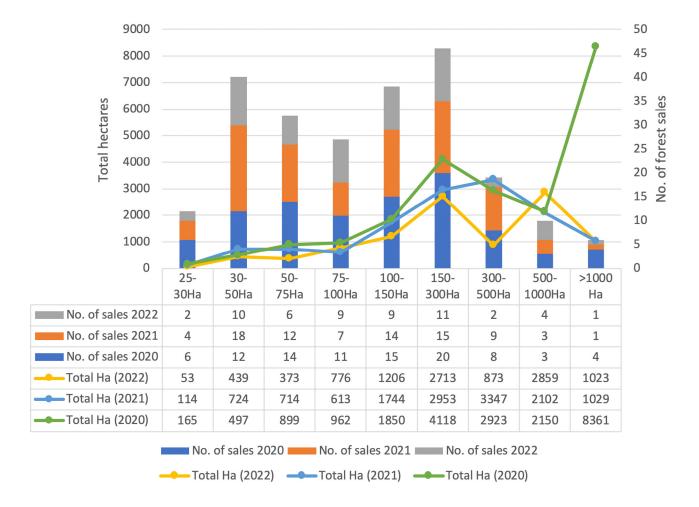
Table 10 – Area of forest and woodland sales 2020-2022

Area (hectares)	2020	2021	2022	Total
Total (Ha)	21,926	13,342	10,316	45,583
Average size (Ha)	236	161	191	198
Minimum size (Ha)	25	25	25	25
Median size (Ha)	113	102	107	105
Maximum size (Ha)	4,473	1,029	1,023	4,473

<sup>&</sup>lt;sup>34</sup> These figures are based on the combined area sold for stocked commercial forestry and mixed woodland in the <u>2022</u>, <u>2021</u> and <u>2020</u> UK Forest Market Reports from Tilhill.

As Figure 6 shows, most forest sales in 2020-2022 were under 300 hectares, indeed almost two thirds in each year were under 150 hectares. A much smaller proportion were over 300 hectares, with only six sales over 1,000 hectares. Four of these 1,000+ hectare sales took place in 2020, where they made up 38% of the total area sold in that year.

Figure 6 – Number and area of forest sales 2020-2022



### 5.2 Forest and woodland market values

Table 11 shows the total market value for forestry and woodland sales 2020-2022 and the average, minimum, median, and maximum sale price. The total market value was £201M for all sales in 2020, £286M in 2021, and £173M in 2022. This compares to UK Forest Market Report estimates of £138M in 2020, £152M in 2021, and £164M in 2022. However, these figures only account for commercial forestry, and, as previously noted, cover a slightly different timescale. Furthermore, Tilhill's 2022 sample was significantly different to previous years in terms of value, which is discussed further below in relation to price per hectare.

Sale price varies across a wide range (from £29,000 to £35M), with the average ranging from around £2.2M-£3.4M depending on the year. The median sale value is lower than the average in every year, with a larger gap between the average and median in 2021 and 2022, due to the occurrence of a small number of very high value sales in the data set (two in 2021 and one in 2022). Only 63 of the total 230 forests were sold for higher than the combined average, making the median value more representative of the dataset.

Table 11 – Market value for 2020-2022 forest and woodland sales

Market value	2020	2021	2022	Total
Market value of all sales	£200,873,549	£285,857,524	£172,930,671	£659,661,744
Average price	£2,159,931	£3,444,067	£3,202,420	£2,868,095
Minimum price	£29,000	£30,000	£100,000	£29,000
Median price	£1,350,000	£1,100,000	£1,650,000	£1,300,500
Maximum price	£23,500,000	£31,100,000	£35,000,000	£35,000,000

Table 12 shows the average, minimum, median, and maximum per/hectare values for forest and woodland sales. Although the average per/hectare values for 2020 (£14,685) and 2021 (£21,637) are comparable to the UK Forest Market Report (£15,962 and £19,300 per/ha respectively), the average for 2022 (£15,241) is considerably lower than the Tilhill estimate of £28,100 per hectare. However, the UK Forest Market Report 2022 acknowledged a change in the mix of forestry properties in their sample for 2022, with very few inexpensive properties and a small number of expensive outliers, leading them to conclude the like-for-like change in value was lower. Looking at an alternative data source, Strutt & Parker's Forest Market Review 2023 found that the average price for stocked commercial forests in Scotland was £13,100 in 2020, £26,100 in 2021, and £21,000 in 2022. These figures, which are based on the calendar year like the figures in this report, also show a decrease in price per hectare in 2022 compared with 2021.

<sup>&</sup>lt;sup>35</sup> This is calculated as Scotland's market share of the total market value of commercial forestry, both figures provided in each of the <u>2022</u>, <u>2021</u> and <u>2020</u> UK Forest Market Reports from Tilhill.

<sup>&</sup>lt;sup>36</sup> 2022, 2021 and 2020 UK Forest Market Report, Tillhill

<sup>&</sup>lt;sup>37</sup> Tilhill & Goldcrest Land and Forestry Group (2022) The UK Forest Market Report 2022. Tilhill.

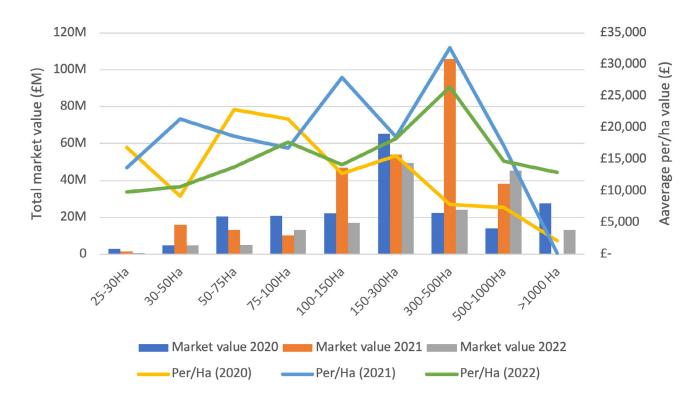
<sup>&</sup>lt;sup>38</sup> Strutt & Parker (2023) The Forest Market Review 2022. Strutt & Parker Rural Hub.

Table 12 – Average and median per/ha values for forestry and woodland sales 2020-2022

Average per/ hectare sale values	2020	2021	2022	Total
Average Per/ha value	£14,685	£21,637	£15,241	£17,324
Minimum Per/ha value	£137	£146	£737	£137
Median Per/ha value	£8,425	£11,459	£12,623	£11,427
Maximum Per/ha value	£93,871	£151,366	£52,359	£151,366

As Figure 7 shows, per/hectare values for smaller properties (25-30 hectares) tended to be lower, with some of these smaller properties likely to be amenity/non-productive woodlands. Both 2021 and 2022 included sales with much higher per/hectare values, with three sales in 2021 close to or over £30M, and one sale in 2022 for £35M.

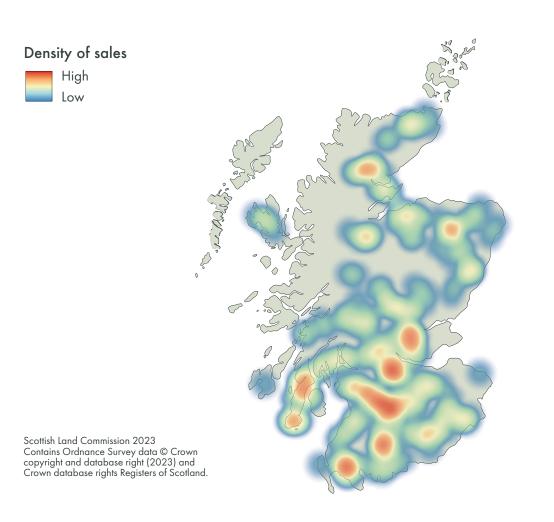
Figure 7 – Market share and average per/hectare sale value by forest size category 2020-2022



## 5.3 Regional analysis of forest and woodland sales

Map 7 – Heatmap showing distribution of number of forestry sales 2020-2022





Map 7 shows the geographical distribution of the number of forestry sales over the three-year period. A summary regional market analysis (based on NUTS II regions) is shown in Table 13 and summarised in Figure 8. These show that North East Scotland (including Aberdeenshire) accounts for a comparatively low market share relative to other regions, with only 21 sales between 2020 and 2022. South West Scotland exhibits the highest overall per/ha values (£21,813 per/ha) and the highest number of sales overall (73), although Eastern Scotland exhibits the highest overall market share 2020-2022, at £248M.

Table 13 – Forestry sales (2020-2022) in Scotland by region

	North East Scotland	Eastern Scotland	Highlands and Islands	South West Scotland	
2020					
No. of forestry sales	7	20	32	34	
Total forestry area (Ha) 2020	1551	8026	7502	4847	
Market value 2020	£17,788,176	£50,334,008	£79,744,512	£53,006,853	
Mean per/ha value	£16,648	£15,281	14,612	£13,997	
Mean holding size	222	401	234	143	
2021					
No. of forestry sales	9	20	26	28	
Total forestry area (Ha) 2021	1331	4526	4468	3017	
Market value 2021	£17,574,350	£129,298,012	£47,609,157	£91,376,005	
Mean per/ha value	£15,781	£25,723	£9,405	£31,958	
Mean holding size	148	226	172	108	
2022					
No. of forestry sales	5	24	14	11	
Total forestry area (Ha) 2022	455	4261	2980	2621	
Market value 2022	£8,185,837	£68,974,375	£19,675,029	£76,095,430	
Mean per/ha value	£16,011	£16,603	£8,774	£20,148	
Mean holding size	91	178	213	238	
Total 2020-2022					
No. of forestry sales	21	64	72	73	
Total forestry area (Ha)	3336	16812	14950	10485	
Total market value	£43,548,363	£248,606,395	£147,028,698	£220,478,288	
Mean per/ha value	£16,125	£19,040	£11,597	£21,813	
Mean holding size	159	263	208	144	

Average forest size varies between regions and between years, with Eastern Scotland exhibiting the largest overall average size (263 hectares), although this was heavily influenced by a small number of very large sales in 2020 (bringing the average size in 2020 up to 401 hectares). The average per/ha values for the Highlands and Islands region are lower than for other regions overall and in every year apart from 2020, when South West Scotland recorded a lower average per/hectare value of £13,997. Figure 8 below clearly shows a spike in average prices per/ha in Eastern Scotland (including the Borders) and the South West region of Scotland in 2021.

Figure 8 – Average size and per/ha value for forest sales by region (2020-2022)

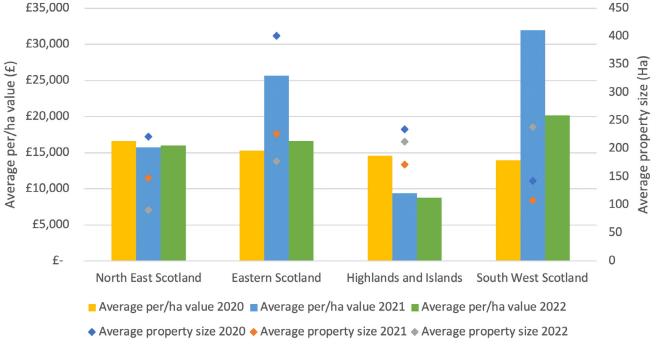
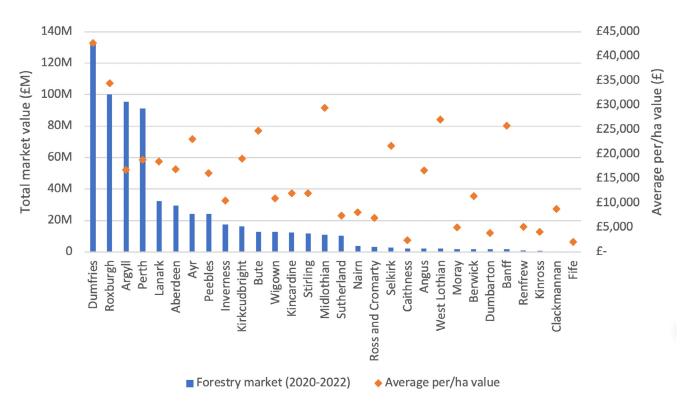


Figure 9 summarises forestry sales from 2020-2022 by Scottish county, with the bulk of the market value concentrated in four counties (Dumfriesshire, Roxburghshire, Argyll, and Perthshire). Although the two highest per hectare average values also are found within these four (Dumfriesshire and Roxburghshire), per/hectare market values are generally more varied across the country, with high values evident in some counties which had a low market share overall in 2020-2022. Per/hectare sale values were particularly high (over £20,000 per hectare) during this period in Ayrshire, Bute, Midlothian, Selkirk, West Lothian and Banff. However, the county-based analysis often relates to very small sample sizes and/or sales in only one year, especially on the right hand side of the graph, so these average figures should be read with caution. As additional data points are added over time, county-based per/hectare averages will become more robust.

Figure 9 – Market value and average per/ha value of forest sales (2020-2022 combined) by Scottish county



# 6. Estates Market Analysis

### 6.1 Number of estates and related area of estate land sold

As "estate" is not a land classification option or requirement in terms of land registration legislation, identifying estates in this data is particularly difficult. As described in the methodology, estates were mainly identified by conducting searches of registrations for the word "estate", and by cross-checking published market analyses. This analysis identified 25 in 2020, 23 in 2021 and 25 in 2022. Strutt & Parker Estates Market Reviews over the same time period identified 24, 28 and 23 estates respectively.<sup>39</sup> However, this report includes fewer than were identified in the SRUC 2022 Data Report, because of changes to the methodology. Map 8 shows estate sales by size category and year.

#### Map 8 – Estate sales by size and year 2020-2022

# Year

2020



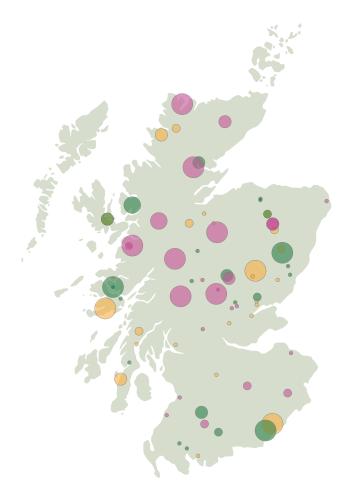
2022

Size (hectares) 25 - 250 ha

250 - 500 ha

500 - 1000 ha

1000 - 2000 ha  $3000 - 4000 \, \text{ha}$ >4000 ha Scottish Land Commission 2023 Contains Ordnance Survey data © Crown copyright and database right (2023) and Crown database rights Registers of Scotland.



<sup>&</sup>lt;sup>39</sup> Strutt and Parker (2023) **Scottish Estate Market Review**. Strutt & Parker Rural Hub.

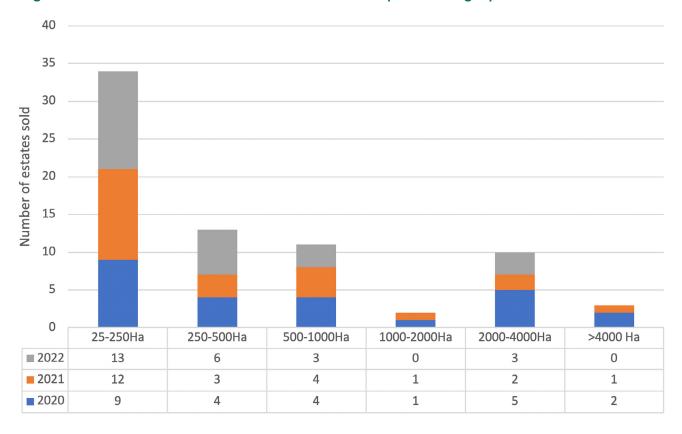
Table 14 summarises the area (hectares) of estates sold. It shows a declining trend in area of estates sold, with 32,825 hectares in 2020, 17,695 hectares in 2021 and 14,426 hectares in 2022. Strutt & Parker reported 29,137 hectares in 2020, 43,706 hectares in 2021, and 47,763 hectares in 2022. The gap between these figures and those calculated using the RoS data demonstrate the methodological challenges in using RoS data to research sales of estates. In all years, the median estate sizes are considerably lower than the average, due to a small number of much larger estates in each year. The median is therefore more representative of estate sizes for the dataset as a whole.

Table 14 – Total area and average size of estate sales in Scotland 2020-2022

Area (hectares)	2020	2021	2022	Total
Total area (Ha)	32,825	17,695	14,426	64,947
Average size (Ha)	1,313	769	577	890
Minimum size (Ha)	27	27	28	27
First Quartile (Ha)	94	102	54	82
Median (Ha)	419	228	234	301
Third Quartile (Ha)	2,016	631	464	687
Maximum size (Ha)	7,659	6,354	3,525	7,659

The total number of estates sold in different size categories are also shown in Figure 10. The majority of sales categorised as estates were relatively small, with 47 of 73 estates sold under 500 hectares in size.

Figure 10 – Number of estates sold 2020-2022 by size category



### 6.2 Estate market values and average sale values

Table 15 shows the market value for estate sales 2020-2022. The total market values of £72M in 2020, £57M in 2021, and £75M in 2022 are less than the total market recorded in the Strutt & Parker Estate Reviews in each of these years (£113M, £347M, and £188M respectively). The average sale prices recorded from the RoS data (£2.9M in 2020, £2.5M in 2021, and £3M in 2022) are also considerably lower than the Strutt & Parker estimates of £4.7M, £8.8M, and £8.2M in each of these years. Two factors that may be causing these differences are 1) a larger number of smaller estates identified in the RoS data, and 2) as information supplied to RoS for land registration did not always include a price, for several estates asking prices were used instead of price paid, which can sometimes be several million pounds over the asking price.

Table 15 – Market value of Scottish estate sales (2020-2022)

Market value	2020	2021	2022	Total
Market value of all sales	£72,044,381	£56,923,879	£75,204,132	£204,172,392
Average price	£2,881,775	£2,474,951	£3,008,165	£2,796,882
Minimum price	£180,000	£60,000	£65,000	£60,000
Median	£1,811,000	£2,100,000	£2,200,000	£2,100,000
Maximum price	£10,250,000	£7,865,520	£17,555,000	£17,555,000

<sup>&</sup>lt;sup>40</sup> Strutt and Parker (2023) <u>Scottish Estate Market Review.</u> Strutt & Parker Rural Hub.

Figure 11 summarises the total market value (share) and average estate price within different estate size categories. As expected, there is a rough trend of average estate prices increasing with larger estate size categories, however the small number of sales within each category weakens this trend. Smaller estates (i.e., under 500 hectares) represent a key component of the estates market in terms of the number of estates sold and the overall market value share with estates under 500 hectares accounting for half, or nearly half, of the total value of estates in each year, and more than half of the total value 2020-2022.

£9 £80 £8 £70 Average estate sale price (£M) £7 £60 estate market value £6 £50 £5 £40 £4 £30 £3 Total £20 £2 £10 £1 £-£-25-250Ha 250-500Ha 500-1000Ha 1000-2000Ha 2000-4000Ha >4000 Ha ■ Market value (£) 2020 ■ Market value (£) 2021 ■ Market value (£) 2022 ◆ Average price (£) 2020 ◆ Average price (£) 2021 ◆ Average price (£) 2022

Figure 11 – Total market value and average sale price by estate size category 2020-2022

### 6.3 Regional analysis of estate sales

Table 16 provides an additional summary of estate sales in Scotland by region, which demonstrates that the bulk of the estates market value in each year related to estates sold in Eastern Scotland and the Borders. The lowest component of the market share related to estate sales in North East Scotland in 2020, although this region increased its market share significantly in 2021 and 2022. Eastern Scotland has the highest total market value share over the three-year period, despite having smaller estates on average than those in the Highlands and Islands and North East Scotland.

Table 16 – Estate sales in Scotland (2020-2022) by region

	North East Scotland	Eastern Scotland	Highlands and Islands	South West Scotland	
2020					
No. of estate sales	3	11	8	3	
Total estate area (Ha)	1283	12652	18390	500	
Market value	£1,440,000	£42,988,508	£22,369,873	£5,246,000	
Average sale price	£480,000	£3,908,046	£2,796,234	£1,748,667	
Mean holding size (Ha)	428	1150	2299	167	
2021					
No. of estate sales	4	5	9	5	
Total estate area (Ha)	7,003	1,411	6,171	3,111	
Market value	£13,505,000	£21,317,350	£11,670,000	£10,431,529	
Average sale price	£3,376,250	£4,263,470	£1,296,667	£2,086,306	
Mean holding size (Ha)	1,751	282	686	622	
2022					
No. of estate sales	3	8	11	3	
Total estate area (Ha)	1,067	6,283	6,920	156	
Market value	£7,976,293	£34,180,154	£23,327,685	£9,720,000	
Average sale price	£2,658,764	£4,272,519	£2,120,699	£3,240,000	
Mean holding size (Ha)	356	785	629	52	
Total 2020-2022					
No. of estate sales	10	24	28	11	
Total estate area (Ha)	9,353	20,346	31,481	3,767	
Total market value	£22,921,293	£98,486,012	£57,367,558	£25,397,529	
Average sale price	£2,292,129	£4,103,584	£2,048,841	£2,308,866	
Mean holding size (Ha)	935	848	1,124	342	

Figure 12 below highlights the variation in estate size over time and between regions. It shows the price premium that estates in Eastern Scotland hold, where average prices are highest across the three-year period despite only holding the highest average size in 2022. Figure 12 also shows the substantial increase in prices for estates in North East Scotland after 2020.

5M 2500 4M 2000 4M Average property size (Ha) Average price (£M or £K) 3M 1500 3M 2M 1000 2M 1M 500 500K K 0 North East Scotland Eastern Scotland Highlands and Islands South West Scotland Average price 2020 Average price 2021 ■ Average price 2022

◆ Average property size 2020 ◆ Average property size 2021 ◆ Average property size 2022

Figure 12 – Average size and value for estate sales by region (2020-2022)

# 7. Conclusions

### Key conclusions

Taken as a whole, the Scottish Land Commission's approach to assessing the land market using RoS data has been partially successful, particularly in relation to determining the number of sales, area of land sold, and market value for a set of identified sales. This report identified a larger number of farmland sales than industry reports, indeed more than double those identified in the Strutt and Parker Scottish Farmland Market Reviews. However, Strutt & Parker reviews only cover larger farms (40 hectares) and more importantly, do not include all off-market sales, which market reviews report as increasing for farmland sales. Additionally, the average per/hectare values are similar to those reported by Savills for Scottish farmland values (all types), which suggests the use of RoS data to assess farmland sales is accurate. The number of farms, although higher, also follows the trend of industry reports of increasing numbers of farmland hectares sold in each year 2020-2022. The average price per hectare for farmland has increased in each year, echoing the Insights Report for 2022, which found that the value of prime arable and upland farmland has continued to rise, driven by high demand.

Forestry sales identified in this report were in a similar ballpark to those identified by industry reports (this report identified between 54 and 93 each year, whereas UK Forest Market Reports identified between 91 and 103 overall in the UK). This report identified a downward trend in the total area of forestry sold. This corresponds with UK Forest Market Reports 2020-2022. This also echoes evidence from the Rural Land Market Insights Report which found that more "caution" entered the market in 2022 due to a variety of factors affecting confidence and values. The 2022 Insights Report, which focused on 2021, found that financial incentives in the form of planning grants were a driver of commercial forestry creation. However, due to inflation, the increase in commodity prices and demand for forestry services, the land agents reported that in 2022 grants were no longer cost-effective, with some buyers being put off or negatively affected by this. 43 Market values reported in this report were higher than industry reports, however, as noted, they only covered commercial forestry whereas this review has covered all forestry and woodland sales over 25 hectares. This report's analysis of RoS data found that high 2021 prices per hectare represented a spike, with average prices per/hectare decreasing significantly. This finding echoed Strutt & Parker's Forest Market Review 2022, which found that Scottish commercial forestry average price per hectare had decreased 20% on 2021 prices.<sup>44</sup> This report also found that the high per/hectare values and larger average areas found in Eastern Scotland (and the Borders) and the South West of Scotland in 2021 have not been matched in 2022.

Identifying estates in the RoS data is a challenge for three key reasons; 1) because 'estate' is not a land use category required to be provided by law to RoS during the land registration process, 2) because area is not routinely provided in this dataset, and 3) because consideration may not be monetary, and where only part of the consideration is monetary RoS provide a

<sup>&</sup>lt;sup>41</sup> Strutt and Parker (2023) Scottish Farmland Market Review Spring 2023. Strutt & Parker Rural Hub.

<sup>&</sup>lt;sup>42</sup> Merrell, I., Pate, L., Glendinning, J. and Thomson S. (2023) <u>Rural Land Market Insights Report 2023</u>. A report commissioned by the Scottish Land Commission.

<sup>&</sup>lt;sup>43</sup> Merrell, I., Pate, L., Glendinning, J. and Thomson S. (2023) <u>Rural Land Market Insights Report 2023</u>. A report commissioned by the Scottish Land Commission.

<sup>&</sup>lt;sup>44</sup> Strutt & Parker (2023) <u>The Forest Market Review 2022</u>. Strutt & Parker Rural Hub.

consideration of £0. It appears that area and full price paid information is less likely to be captured for estates. Because of this, the estimates in this report for estates are further away from market reports than the 2022 report. This demonstrates the value in the involvement of an industry partner in assessing estates. The 2022 report led by SRUC, benefitted from a collaboration with Strutt & Parker, who provided access to their data on estate sales which increased the number of estates identified in the RoS data. Without this data enrichment, this report found fewer estates than the previous report. Although this report found a similar number of estates to market reports (between 23 and 25, compared with Strutt & Parker's Estates Market Reviews, which found between 23 and 28), further analysis demonstrated that they were different, much smaller, estates. The total area and value of estates found in the RoS data were significantly lower than industry reports.

As demonstrated by this analysis, undertaking land market assessments based on RoS data is a broadly feasible approach to assessing land markets over the longer term, but this approach faces several key challenges. The challenges have been set out in more detail in Section 2.4 (caveats and data limitations) and relate to: 1) the difficulty in assigning area (hectarage) to all land sales due to uncaptured data and delays in cadastral parcel mapping; 2) the difficulty in assigning full price paid to all land sales due to the prevalence of nonmonetary considerations registered with RoS. This lack of full sale price information has resulted some market assessments being a considerable underestimate in terms of total market value and average sale price, due to the reliance on guide price as opposed to final sale price; and 3) the difference in timescales between completion of registrations and land sales actually occurring, which can result in a RoS based analysis excluding more recent sales due to pending registrations. The first two points combined both increase the methodological reliance on manual searches, as well as significantly reducing the number of sales that can be identified as relevant to this analysis. These challenges pose particular issues for assessing the estates market, due to the higher number of estates missing key relevant information. Gaining an accurate picture of the estates market is vital for those working on land reform policies, and this therefore poses a particular challenge to overcome in future iterations of this report.

Reporting on the land market requires additional data sources to the RoS data to identify either the area or the price paid for land sales. This year, a new approach was taken in the methodology in attempting to more accurately match each registration in the RoS data to its associated INSPIRE polygon. The initial research strategy was designed to rely heavily on the area of INSPIRE polygons. This would unlock a greater number of RoS registrations for which there is a consideration available but there is no area. However, many of the resulting areas provided for registrations were found to be inaccurate, usually because they related to a larger area, of which only a small part was being sold, and evidently the INSPIRE polygons (and Cadastral Map) had not been updated to reflect these new ownership extents. Ultimately because of this, this methodology proved to be less successful than anticipated. However, it did allow for an increased number of sales to be identified overall for 2020 and 2021 compared with the 2022 Data Report. Further iterations of this report should explore further ways to automate overlaying additional data, as well as exploring the feasibility of improving the raw data with RoS. Understandably, their data is not produced for research purposes, as this is not their core remit. Yet the need for further accurate data to underpin evidence-based land reform policy is vital, and therefore alterations to their core remit should be explored.

An additional challenge was identifying transactions that occur off-market. Although in theory any off market sales are included in the RoS data (provided they are submitted for registration in the Land Register), there is currently no way of identifying these and therefore this report has not commented on on/off-market sales.

Despite the challenges this remains an important piece of research that will, over time, strengthen the evidence base for policy around land reform, especially as further years of data are included. Further iterations of this report should seek to improve the methodology every year.

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