



# Insights from the United Kingdom's People with Significant Control register

## Research report

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## 1. Introduction

Ensuring the accuracy and reliability of beneficial ownership (BO) information is essential for it to serve its intended purposes, whether in tackling corruption, preventing money laundering, or supporting fair taxation. International standards and national regulations provide a range of verification mechanisms, including basic data validation (e.g. completeness of required fields), sworn declarations by company representatives, checks by authorised professionals, and discrepancy reporting by financial institutions.

While these measures are effective in identifying inconsistencies within individual company records, such as missing information or contradictions between registry and financial institution data, they are primarily limited to detecting internal or self-contained errors.<sup>1</sup> More complex forms of misreporting, such as coordinated falsehoods that are consistently reported across multiple entities, can evade detection through these standard checks.

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<sup>1</sup> See: Leyla Ates, Andres Knobel, Florencia Lorenzo, and Markus Meinzer, “The transnational legal ordering of beneficial ownership registration”, *Transnational Legal Theory* (2025): 1–26, <https://doi.org/10.1080/20414005.2025.2471184>.

Identifying such systemic anomalies requires a broader analytical approach. This involves first establishing what constitutes a “normal” ownership structure, then defining both expected values and variations so that deviations can be flagged as potential outliers or red flags.

With this in mind, [Maria Jofre](#), Data Analyst at Open Ownership, and [Andres Knobel](#), Beneficial Ownership Lead Researcher at the Tax Justice Network, collaborated to explore and analyse the ownership structures of United Kingdom (UK) legal entities. This report presents the findings of that effort. It outlines methodological challenges and best practices, and includes a reproducible [Python notebook](#) to support future analysis using BO data.

## 2. Research objectives

This research emerged from Andres’s deep curiosity about BO and complex corporate structures, combined with Maria’s expertise in data analysis and BO systems. Together, we set out to achieve three key objectives:

- to explore policy-relevant aspects of beneficial ownership, with a focus on the dynamics and complexity of ownership structures;
- to identify outliers and anomalous patterns that could support further investigation by competent authorities; and
- to develop an analytical framework for exploring ownership structures across different contexts and jurisdictions, aimed at informing researchers and authorities in their assessments of risks associated with ownership networks.

### 2.1 Exploring key aspects of policy reform

We explore crucial elements of BO policy reform by analysing how ownership interests, thresholds, and complexity manifest in practice.

#### **Beneficial ownership interests**

A clear and comprehensive definition of beneficial ownership should capture all relevant forms of ownership and control, both direct and indirect.<sup>2</sup> Such clarity is essential in order to prevent exploitation of disclosure frameworks and to strengthen overall transparency. Ownership should be understood to include the right to use, enjoy, and derive benefit from a legal vehicle or its assets.

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<sup>2</sup> See: Open Ownership, “Definition” in *Open Ownership Principles for beneficial ownership disclosure* (Open Ownership, updated 2023), <https://www.openownership.org/en/principles/definition/>.

Capturing the full spectrum of control and benefit helps close loopholes that could otherwise obscure the true nature of ownership.

In line with this definition, our analysis investigates how different types of ownership and control interests are distributed, both individually and in combination (e.g. when an individual holds multiple interests in the same entity, such as shareholding and voting rights). Understanding these patterns offers valuable insights into how entities are controlled and owned within a jurisdiction, shedding light on the various mechanisms through which influence is exercised.

## Beneficial ownership thresholds

Both the definition of beneficial ownership and the thresholds for BO disclosure are widely debated. The Financial Action Task Force (FATF) recommends a maximum threshold of 25%, encouraging countries to adjust it based on current risks of money laundering and terrorism financing. Similarly, the European Union applies a 25% threshold but allows for reductions (e.g. to 15%) in high-risk sectors.<sup>3</sup>

Civil society organisations generally advocate for lower or no thresholds to enhance transparency. Open Ownership does not promote a specific threshold but supports a risk-based approach with national policy goals, such as tackling corruption or money laundering. Lower thresholds reduce the risk of concealing relevant ownership or control, whereas extremely low thresholds may generate higher compliance costs without necessarily adding actionable insights.<sup>4</sup> For high-risk sectors, however, lower thresholds can close critical transparency gaps while maintaining a balance between regulatory burden and effective risk mitigation.<sup>5</sup>

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<sup>3</sup> See: FATF, *Guidance on Beneficial Ownership of Legal Persons* (FATF, 2023), <https://www.fatf-gafi.org/en/publications/Fatfrecommendations/Guidance-Beneficial-Ownership-Legal-Persons.html>; Leyla Ates, Andres Knobel, Florencia Lorenzo, and Markus Meinzer, “Competition and Complementarity of EU and FATF Beneficial Ownership Transparency Orders” in I.J. Mosquera Valderrama, F. Heitmüller, J. Chaisse, and A. Christians, (eds.) *Redefining Global Governance. Emerging Globalities and Civilizational Perspectives* (Springer, Cham, 2025), 85–96, [https://link.springer.com/chapter/10.1007/978-3-031-69793-7\\_7](https://link.springer.com/chapter/10.1007/978-3-031-69793-7_7); European Commission, “Anti-money laundering and countering the financing of terrorism at EU level”, 2024, [https://finance.ec.europa.eu/financial-crime/anti-money-laundering-and-countering-financing-terrorism-eu-level\\_en](https://finance.ec.europa.eu/financial-crime/anti-money-laundering-and-countering-financing-terrorism-eu-level_en).

<sup>4</sup> For more information on thresholds, see Figure 2 in this report: Tymon Kiepe and Peter Low, “Thresholds”, in *Beneficial ownership in law: Definitions and thresholds* (Open Ownership, 2020), <https://www.openownership.org/en/publications/beneficial-ownership-in-law-definitions-and-thresholds/thresholds/>.

<sup>5</sup> See: Kiepe and Low, “Thresholds”.

The Tax Justice Network advocates for a no-threshold approach, requiring disclosure for all individuals holding at least one share, vote, or benefit.<sup>6</sup> This is also the approach used in Argentina.<sup>7</sup> Critics of this model argue that it would increase compliance costs for registries and financial institutions, as more beneficial owners would need to be identified and verified. However, the Tax Justice Network contends that such concerns are overstated.<sup>8</sup> Even under the FATF's 25% threshold, it is necessary to identify and verify all individuals with any level of ownership or control. This is because direct and indirect ownership must be aggregated to determine who ultimately controls 25% or more. The underlying mapping effort is therefore required regardless of the reporting threshold.<sup>9</sup>

Some opponents claim that individuals with smaller stakes can still be captured through the inclusion of "other means of control", a provision intended to capture situations where a beneficial owner controls or influences the decisions of a legal vehicle without holding a majority ownership stake. In response, the Tax Justice Network notes that assessing influence or special rights is often impractical without access to internal company documents.<sup>10</sup> Furthermore, it hypothesises that the majority of UK companies have a single beneficial owner or a very limited number of owners.<sup>11</sup> This suggests that lowering thresholds would not significantly raise compliance costs. Since most beneficial owners are declared based on ownership rather than control, lower thresholds could more effectively expose hidden interests than relying solely on control-based declarations.

Building on this debate, our analysis examines the distribution of shareholding and voting-rights percentages, highlighting how different ownership patterns emerge under varying scenarios. By

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<sup>6</sup> See: Andres Knobel, "Roadmap to Effective Beneficial Ownership Transparency (REBOT)", Tax Justice Network, 7 February 2023,

<https://taxjustice.net/2023/02/07/roadmap-to-effective-beneficial-ownership-transparency-rebot/>.

<sup>7</sup> See: Andres Knobel, "Argentina finally has a beneficial ownership register. Now, it should make it public", Tax Justice Network, 20 April 2020,

<https://taxjustice.net/2020/04/20/argentina-finally-has-a-beneficial-ownership-register-now-it-should-make-it-public/>.

<sup>8</sup> See: Andres Knobel, *Why beneficial ownership frameworks aren't working – and what to do about it* (Tax Justice Network, 2023),

<https://taxjustice.net/wp-content/uploads/2023/12/Why-beneficial-ownership-registries-arent-working-Tax-Justice-Network-Dec-2023.pdf>.

<sup>9</sup> For example, if a company knows that Mary owns 40% of the shares, this information alone does not suffice to register the company's beneficial owners. The company must also identify all direct and indirect owners of the remaining 60% to ensure that no one else holds more than 25%, and to verify if Mary has additional indirect ownership. BO laws require the disclosure of exact shareholding or control of each beneficial owner. Without this information, the company would only know that Mary owns at least 40%, but not her precise ownership.

<sup>10</sup> Knobel, *Why beneficial ownership frameworks aren't working*, 13.

<sup>11</sup> Andres Knobel and Oliver Seabarron, "Exploring UK companies' legal ownership chains to detect red flags and verify beneficial ownership information: Part 1", Tax Justice Network, 6 July 2020, <https://taxjustice.net/2020/07/06/exploring-uk-companies-legal-ownership-chains-to-detect-red-flags-and-verify-beneficial-ownership-information/>.

exploring these dynamics, this research sheds light on the practical implications of different threshold settings for transparency and control, offering a nuanced understanding of how thresholds can either strengthen or weaken the integrity of BO disclosures.

## **Beneficial ownership complexity**

Corporate ownership structures can often be layered and opaque, providing avenues for beneficial owners to obscure their influence and evade scrutiny.<sup>12</sup> The Tax Justice Network has long called for stronger regulations to address these complex structures, since evidence shows these present a higher risk of misuse, particularly for illicit financial flows and tax evasion. At the same time, a 2020 Tax Justice Network study using Orbis data found that most companies maintain relatively simple ownership structures.<sup>13</sup> This finding supports the case for more granular disclosure requirements given that such reforms would predominantly affect higher-risk, complex structures without placing excessive burdens on the majority of businesses.<sup>14</sup>

This research tests this hypothesis using UK data to assess whether complex ownership is as rare as previously suggested. The analysis explores the prevalence of complex ownership models, their structural features, and the implications they pose for transparency and control. By unpacking these dynamics, the research offers deeper insights into how policy measures targeting ownership complexity can improve the effectiveness and integrity of BO disclosure regimes.

## **2.2 Detecting outliers**

In addition to exploring aspects of policy reform, this research has also sought to identify outliers – that is, ownership structures that deviate significantly from typical patterns. These included entities that failed to register any beneficial owner despite legal requirements to do so; entities reporting an unusually high number of beneficial owners; and individual beneficial owners linked to an exceptional number of entities. Identifying such anomalies is essential for flagging potential risks, supporting enforcement efforts, and improving understanding of irregular ownership patterns which may be used to obscure control or influence.

## **2.3 Establishing an analytical framework**

To support broader application of our findings, the project has also aimed to develop a replicable and scalable framework that can be applied across jurisdictions and datasets. This framework is

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<sup>12</sup> See: “What is beneficial ownership transparency?”, Open Ownership, n.d., <https://www.openownership.org/en/about/what-is-beneficial-ownership-transparency/>.

<sup>13</sup> See: Knobel and Seabarron, “Exploring UK companies’ legal ownership chains”.

<sup>14</sup> See: Andres Knobel, *Complex Ownership Structures: Addressing the Risks for Beneficial Ownership Transparency* (Tax Justice Network and Financial Transparency Coalition, 2022), <https://taxjustice.net/wp-content/uploads/2022/02/Complex-ownership-chains-Reduced-Andres-Knobel-MB-AK.pdf>.

intended for use by government authorities, researchers, activists, and other stakeholders working to improve beneficial ownership transparency (BOT). It supports both the exploration of key policy areas, such as ownership interests, thresholds, and complexity, as well as the detection of anomalous patterns within BO data. All analytical steps, visualisations, and results are documented in a structured [Python notebook](#) to facilitate reuse, allowing others to download, replicate, and adapt the methodology for their own purposes and contexts.

## 3. Methodology

### 3.1 Terminology

To ensure clarity, this research adopts consistent terms for key elements in BO information (Figure 1):<sup>15</sup>

- **Individual beneficial owner:** An individual who ultimately owns, controls, or benefits from an entity. Also referred to as an *ultimate beneficial owner*.<sup>16</sup>
- **Intermediary entity:** An entity registered as a *corporate* beneficial owner. In the UK, a (UK-based) entity may be listed as a beneficial owner if it is registered with Companies House and its own beneficial owners are disclosed. For example, if Company A is owned by (UK-based) Entity 1, and Entity 1 is owned by Sophia, only Entity 1 is listed as the beneficial owner of Company A, while Sophia appears as the beneficial owner in Entity 1's records.
- **Entity:** A legal vehicle that may be owned by individuals and/or corporate beneficial owners. This includes companies, trusts, foundations, or limited liability partnerships.
- **Relationship:** A direct or indirect connection through which ownership, control, or benefit is conferred.

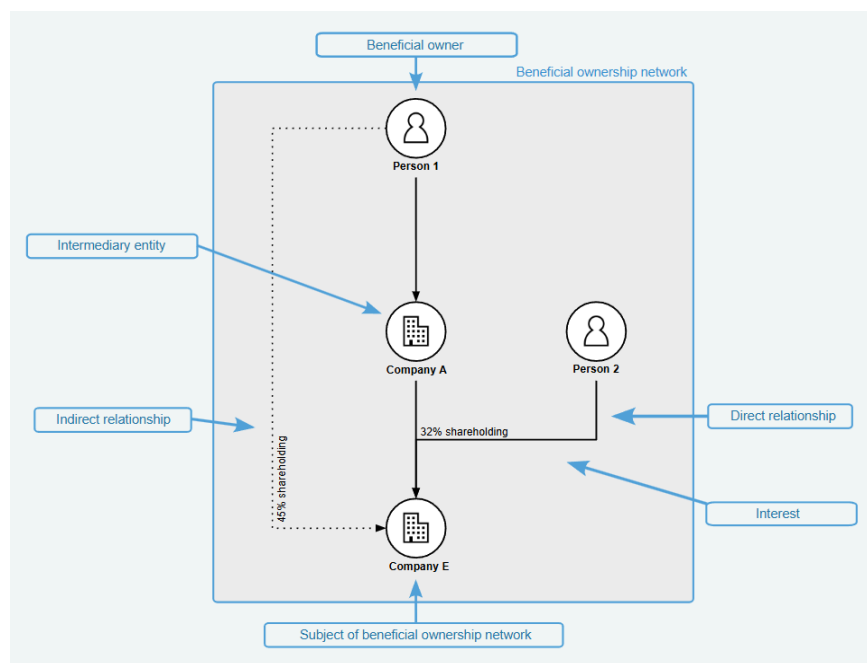
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<sup>15</sup> For more information about key elements of BOT see: “Beneficial Ownership Data Standard vo.4 – Key concepts”, Open Ownership, n.d., <https://standard.openownership.org/en/o.4.o/standard/concepts.html#beneficial-ownership-concepts>.

<sup>16</sup> The FATF Glossary defines the beneficial owner of legal vehicles as “the natural person(s) who ultimately owns or controls a customer and/or the natural person on whose behalf a transaction is being conducted. It also includes those natural persons who exercise ultimate effective control over a legal person. Only a natural person can be an ultimate beneficial owner, and more than one natural person can be the ultimate beneficial owner of a given legal person”. See: FATF, *The FATF Recommendations: International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation* (FATF, updated 2025), 123, <https://www.fatf-gafi.org/content/dam/fatf-gafi/recommendations/FATF%20Recommendations%202012.pdf.coredownload.inline.pdf>.

- **Interest:** The nature of the connection between an owner and an entity, which may include shareholding, voting rights, board appointments, rights to surplus assets on dissolution, or other forms of influence or control. In the UK register, shareholding and voting rights are disclosed in percentage ranges (e.g. 25–50%, 50–75%, and 75–100%) rather than as exact values.

**Figure 1. Key components of beneficial ownership information**



## 3.2 Data collection and processing

This research analyses BO data from the UK People with Significant Control (PSC) register, using the republished and standardised version made available by Open Ownership as of 7 June 2024.<sup>17</sup> The PSC register, launched in April 2016, contains information on individuals and entities that hold significant control over companies registered with UK Companies House.

Open Ownership republishes this data in line with the Beneficial Ownership Data Standard (BODS), ensuring consistency with international best practices for structuring and processing BO information.<sup>18</sup> The dataset is further reconciled and enriched using bulk data from

<sup>17</sup> The version of the UK PSC data republished by Open Ownership can be downloaded at: “UK People with significant control (PSC) Register (2024-06-07)”, Open Ownership, Beneficial ownership data analysis tools, 2024, [https://bods-data.openownership.org/source/UK\\_PSC/](https://bods-data.openownership.org/source/UK_PSC/).

<sup>18</sup> “Beneficial Ownership Data Standard”, Open Ownership, n.d., <https://www.openownership.org/en/topics/beneficial-ownership-data-standard/>.



OpenCorporates, and it aligns with the terminology adopted in this study to support clarity and comparability.<sup>19</sup>

Structured according to the BODS schema, the dataset is organised into tables representing the three core elements of beneficial ownership: individuals, entities, and relationships. For analytical purposes, records linked to dissolved or inactive entities and ended relationships have been excluded. To enhance accuracy and eliminate duplication, individuals and entities are mapped to unique and consistent identifiers.

### 3.3 Analytical strategy

To address the research objectives of exploring policy reform, detecting outliers, and developing a structured approach, a two-stage analytical strategy was applied.

In the first stage, a comprehensive overview of the UK PSC register was conducted to quantify key components, including the number of beneficial owners, entities, and relationships. This stage also involved summarising key ownership characteristics across the dataset.

The second stage focused on segment-specific analysis, investigating patterns and anomalies across four targeted scenarios:

- **Entities with no individual beneficial owners:** This segment includes entities that do not list any individual beneficial owners. It comprises two groups: entities with no BO records at all (red entity in Figure 2); and entities that list intermediary legal entities as beneficial owners but do not disclose any individual beneficial owners (orange entity in Figure 2). Our analysis has estimated the number of such cases and examined anomalies within the second group, particularly those involving layered or complex ownership structures with multiple intermediary entities.
- **Individual beneficial owners with multiple entity connections:** This analysis explores individuals linked to more than one entity (e.g. an individual listed as a beneficial owner of two or more entities, as shown by the green entities in Figure 2). The focus is on identifying patterns of ownership concentration and detecting unusual cases of interconnected ownership networks. While some entities in this segment may have several beneficial owners, each case includes at least one individual who controls more than one entity.
- **Individual beneficial owners with single entity connections:** This segment focuses on individuals who are beneficial owners of only one entity. These individuals are further categorised into those with a single declared interest (e.g. individuals with exclusive

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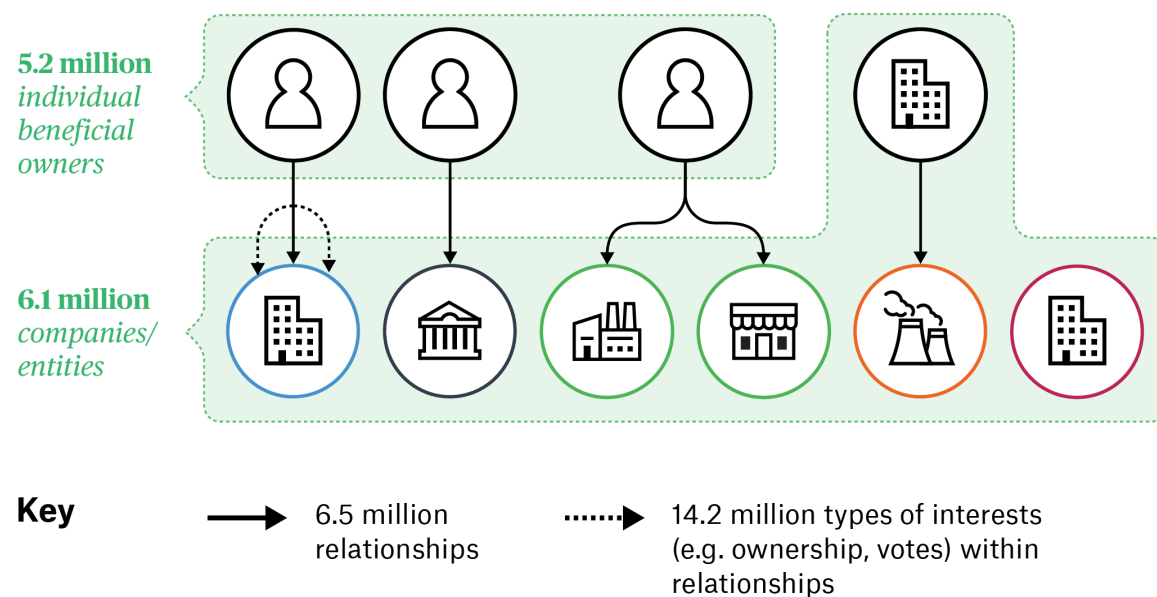
<sup>19</sup> Open Ownership believes that individuals using BO information to achieve stated policy aims, both inside and outside governments, should have access to sufficient information in order to meaningfully use the data.



shareholding, shown by the black entity in Figure 2) and those with multiple interests in the same entity (e.g. individuals holding both shareholding and voting rights represented by the blue entity in Figure 2).<sup>20</sup>

- **Entities with at least one individual beneficial owner holding multiple interests:** In this segment (e.g. the blue entity in Figure 2), we calculate the number of individual beneficial owners who hold more than one type of interest in a single entity and identify cases that suggest unusually high concentration of ownership and control. The analysis also examines entities with two beneficial owners, assessing whether their interests are balanced (e.g. equal 50% shares) or uneven, potentially indicating symbolic ownership (e.g. 99% vs. 1%).

**Figure 2. Visualisation of the UK PSC information**



### 3.4 Limitations

Analysing BO data is challenging due to its complexity and the limitations of data collection. One major constraint is the absence of structured legal ownership data. For instance, if Sofia owns Entity A, which in turn owns Entity B, treating Entity A and B as separate without recognising their relationship obscures the underlying ownership structure. A 2020 study by the Tax Justice Network attempted to address this by focusing on “target companies” that do not own other entities,

<sup>20</sup> We differentiate these groups to avoid conflating distinct populations. For example, if Sofia owns Company A and has voting rights in Company B, it might incorrectly appear as though she holds both ownership and control over one entity. Without this separation, the data could become skewed, as beneficial owners linked to a single entity may exhibit different relationship patterns compared to those connected to multiple entities, who are often wealthier individuals or nominees.

distinguishing them from intermediaries.<sup>21</sup> However, this approach overlooks circular or layered structures and risks excluding legitimate businesses while missing shell or high-risk companies.

UK legislation further complicates the analysis. Intermediary entities registered with Companies House can be listed as corporate beneficial owners (entities) without disclosing their ultimate beneficial owners (individuals). For example, Entity B can name Entity A as its corporate beneficial owner if Entity A is registered with Companies House and lists Sofia as its beneficial owner. This practice makes it difficult to trace ultimate ownership, requiring additional steps to understand control and influence.

The presence of intermediary entities adds further complexity. Ownership chains often span multiple layers, where intermediary entities are owned by other entities, forming dense and opaque structures. Ideally, shareholder information would be structured and integrated with BO data, enabling analysts to reconstruct full ownership networks and assess control distribution. However, in the UK, shareholder data is unstructured and maintained separately from BO data, posing significant barriers to comprehensive analysis.<sup>22</sup>

Limitation in data formatting also hinders transparency. Shareholding and voting rights are reported in broad percentage bands (25–50%, 50–75%, and 75–100%) rather than exact figures, limiting the ability to precisely assess ownership stakes. There is growing advocacy for more granular data on ownership relationships, including exact percentages for shareholding and voting rights.<sup>23</sup>

Finally, data verification remains a critical issue. The UK PSC register does not currently verify the accuracy of reported information, leaving the data vulnerable to errors, inconsistencies, and outdated entries. Until Companies House fully implements its gatekeeper powers under the Economic Crime and Corporate Transparency Act 2023, the reliability of the register remains in question.<sup>24</sup> Robust verification mechanisms will be essential to ensuring the credibility and effectiveness of the register as a transparency and accountability tool.<sup>25</sup>

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<sup>21</sup> See: Knobel and Seabarron, “Exploring UK companies’ legal ownership chains”.

<sup>22</sup> More information can be found here: UK government, Companies House, “Guidance: Companies House data products”, updated 25 October 2022, <https://www.gov.uk/guidance/companies-house-data-products>.

<sup>23</sup> Open Ownership, “Detail”, in *Open Ownership Principles for beneficial ownership disclosure* (Open Ownership, updated 2023), <https://www.openownership.org/en/principles/detail/>.

<sup>24</sup> UK Parliament, Government bill, “Economic Crime and Corporate Transparency Act 2023”, Originated in the House of Commons, Session 2022–23, updated 28 February 2024, <https://bills.parliament.uk/bills/3339>.

<sup>25</sup> Open Ownership, “Verification”, in *Open Ownership Principles for beneficial ownership disclosure* (Open Ownership, updated 2023), <https://www.openownership.org/en/principles/verification/>.

## 4. Results

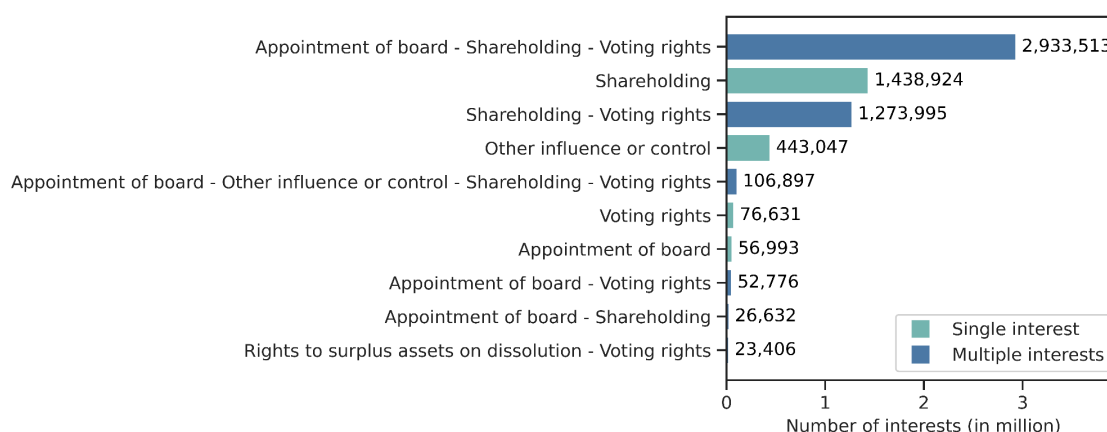
### 4.1 Overview of the UK PSC register

The UK PSC register includes records on approximately 5.2 million individual beneficial owners and 6.1 million entities, suggesting an average ratio of one natural person per entity. It also contains 6.5 million recorded relationships between owners and entities, of which 96% are linked to individual beneficial owners and 4% to intermediary entities.

These relationships account for 14.2 million declared interests, indicating that each relationship typically involves two to three types of ownership or control. Among these, shareholding is the most commonly reported interest (41%), followed by voting rights (31.9%) and board appointment rights (22.6%). Less frequently reported are other forms of influence or control (4.2%) and rights to surplus assets on dissolution (0.3%). For both shareholding and voting rights, the most frequent reported threshold range is 75–100%, comprising 56% of all such interests. This suggested that many entities are fully owned and controlled by a single beneficial owner, reflecting a pattern of concentrated ownership and decision-making power.

The expected pattern of two to three interests per relationship is confirmed when analysing the combination of interests held by beneficial owners across all 6.1 entities (outlined in Figure 3). The most frequent scenario involves a single beneficial owner holding shares, voting rights, and board-appointment rights simultaneously. This is followed by two categories with nearly equal prevalence: shareholding alone; and a combination of shareholding and voting rights. A significant number of interests fall under the category of “other influence or control,” warranting further investigation to better define and interpret the nature of these relationships.

**Figure 3. Top ten most common interest types and combinations**

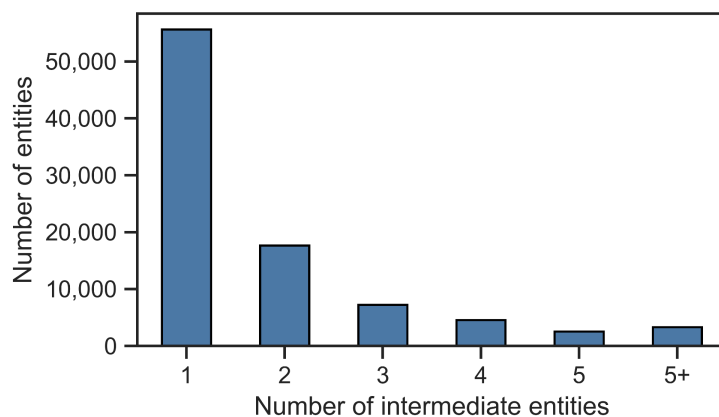


## 4.2 Entities with no individual beneficial owners

Some entities do not list any individual beneficial owners. Out of the 6.1 million entities in the dataset, 1,201,176 (20%) do not have a registered individual beneficial owner. Among these, 1,114,708 entities (93%) lack any BO record at all. This may reflect instances of noncompliance, data entry errors, or the use of legal provisions in the UK that exempt entities from registering a beneficial owner when no individual meets the disclosure threshold (e.g. when no individual holds more than 25% of shares or voting rights, or exercises control through other means). Unlike many jurisdictions, the UK does not require a senior manager to be listed in such cases.

The remaining 86,468 entities (7%) report at least one intermediary entity as a corporate beneficial owner. Notably, 64% of these are linked to only a single intermediary entity (Figure 4). However, there are notable outliers: in some cases, entities have listed up to 18 intermediary entities, suggesting a high level of structural complexity that may warrant further scrutiny.

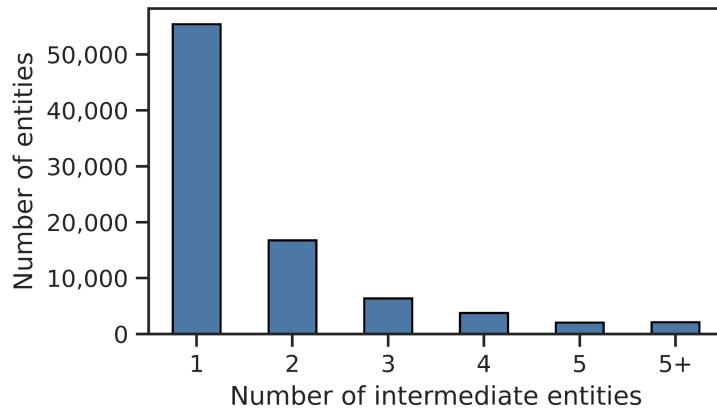
**Figure 4. Distribution of the number of intermediary entities (as corporate beneficial owners) per entity**



## 4.3 Individual beneficial owners with multiple entity connections

The dataset reveals that 644,405 individual beneficial owners – around 12% of the 5.2 million total – are linked to more than one entity. While the majority are connected to just two entities, some individuals exhibit significantly higher levels of ownership concentration (Figure 5).

**Figure 5. Distribution of entities linked to individual beneficial owners with multiple entity connections**



Although acting as a nominee is not illegal in many jurisdictions, and the use of nominee shareholders does not inherently signal wrongdoing, such arrangements can obscure the identity of the true beneficial owners. This opacity may be exploited for illicit purposes, warranting further scrutiny. Authorities should verify that nominees are not being recorded in place of actual beneficial owners and assess whether these structures are being used to evade transparency.

The most extreme case observed in our analysis involves an individual who appears in the UK PSC register as the beneficial owner of 1,296 entities. According to prior investigations by civil society organisations, the same individual is linked to a UK company-formation agent known for supplying so-called “shelf companies” – dormant, pre-registered companies kept for resale to clients who prefer buying an existing entity instead of setting up a new one.<sup>26</sup>

The remaining individuals in the top five beneficial owners with the most links to entities are closely behind, with 1,064, 810, 665, and 654 connections, respectively. All five also appear in external investigative resources, such as the latest Aleph dataset by the Organized Crime and Corruption Reporting Project (OCCRP).<sup>27</sup>

Although no wrongdoing is suggested solely by the registered data, instances where individuals are linked to an exceptionally large number of entities may signal potential risks or irregularities. Individuals associated with more than 20, or even 100, entities are likely to be either senior managers or nominees acting on behalf of others – patterns which warrant closer investigation.

<sup>26</sup> See: “The companies we keep: What the UK’s open data register actually tells us about company ownership”, Global Witness, 1 December 2020, <https://globalwitness.org/en/campaigns/corruption-and-money-laundering/the-companies-we-keep/>.

<sup>27</sup> “UK People with Significant Control”, OCCRP Aleph, accessed 8 April 2025, <https://aleph.occrp.org/datasets/2053>.

## 4.4 Individual beneficial owners with single entity connections

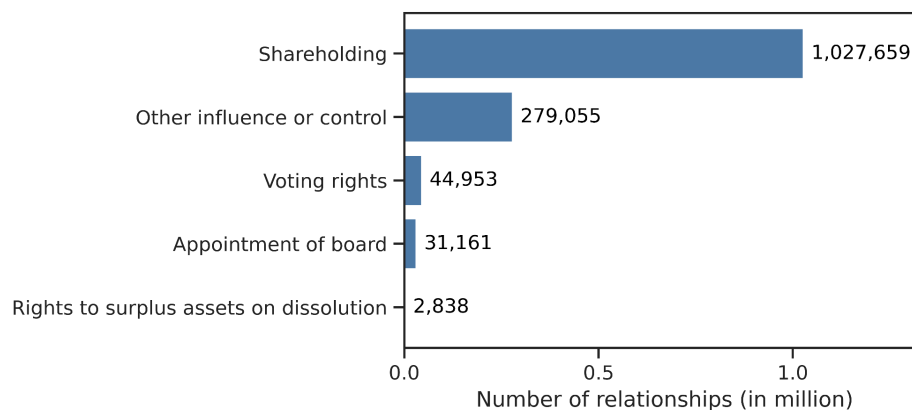
Out of the 5.2 million individual beneficial owners in the UK PSC register, 4.5 million (88%) are linked to just one entity. Within this group, approximately 1.4 million (31%) hold a single type of interest, while the remaining 3.1 million (69%) declare multiple types of interests in the same entity.

### Individual beneficial owners with a single interest in a single entity

Among the 1.4 million individual beneficial owners who hold a single type of interest in a single entity, shareholding is the most common type (74%), followed by other forms of influence or control (20%) (Figure 6). These patterns reveal notable connections:

- Around 1 million individual beneficial owners hold shares but lack voting rights. Of these, 55% fall within the 75–100% shareholding range, suggesting sole ownership by a single person.
- Approximately 280,000 individuals report other influence or control without shareholdings or voting rights. These cases may involve senior managers who are not necessarily required to register in the UK.
- Nearly 45,000 individuals report voting rights without shareholdings. Among them, almost 79% fall within the 25–50% threshold, indicating entities with two to four beneficial owners sharing voting control.

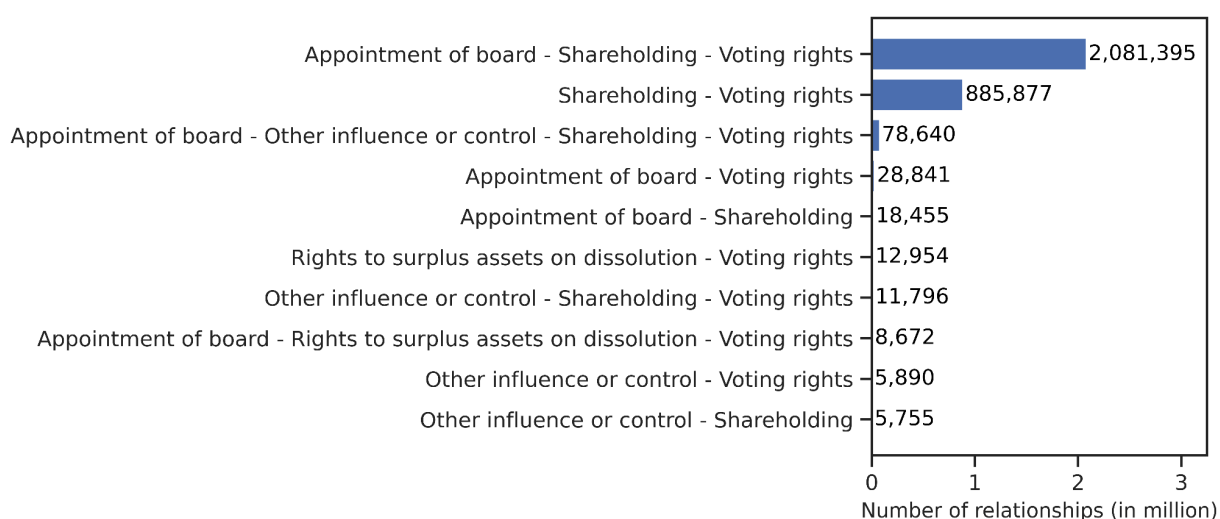
**Figure 6. Distribution of interest types for individual beneficial owners with a single interest in a single entity**



## Individual beneficial owners with multiple interests in a single entity

Among the 3.1 million individual beneficial owners who hold multiple types of interests in a single entity, the most common combination – accounting for 66% (2.1 million) – includes shareholding, voting rights, and board-appointment rights. The second most frequent combination involves shareholding and voting rights, representing 28% of cases (Figure 7).

**Figure 7. Top ten interest combinations for beneficial owners with multiple interests in a single entity**



Notably, combinations involving both shareholding and voting rights consistently show identical threshold range distributions, with 57% of cases falling within the 75–100% threshold for both. This pattern suggests a one-share-one-vote structure, indicating strong alignment between ownership and control.

**Table 1. Frequency of the most common percentage ranges for shareholding and voting rights among different combinations**

Shareholding range	Voting rights range	Frequency (percentage of the total)
25–50%	25–50%	1,172,544 (38%)
50–75%	50–75%	129,737 (4%)



75–100%	75–100%	1,755,427 (57%)
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## 4.5 Entities with at least one individual beneficial owner holding multiple interests in a single entity

Among the 2.6 million entities linked to the 3.1 million beneficial owners who hold multiple interests, 80% (2.1 million entities) are controlled by a single beneficial owner. These cases suggest relatively straightforward ownership structures, where one person maintains full control through a combination of interests.

The remaining 20% (512,873 entities) have multiple beneficial owners, with at least one holding multiple interests. In 93% of these cases (477,344 entities), there are exactly two beneficial owners, one of whom holds multiple types of interests. However, a small number of outlier cases involve highly complex structures with up to 41 individual beneficial owners.

In the most extreme instance, all 41 individual beneficial owners are recorded as holding both board-appointment rights and voting rights, with each declaring voting rights in the 25–50% range. This result is an anomaly and clearly inaccurate, as their combined voting rights would far exceed 100%. A manual check on the UK PSC register confirms these disclosures,<sup>28</sup> highlighting the need for automated validation systems capable of flagging mathematically implausible entries. Such inconsistencies, though rare, warrant further scrutiny by the registrar.

The persistence of complexity, even within this narrowly defined subset, underscores broader structural limitations. UK regulations that allow intermediary entities to be registered as corporate beneficial owners – combined with the lack of structured legal ownership data – complicate efforts to reconstruct full ownership chains. Integrating structured shareholder data with BO records would greatly improve the ability to trace direct and indirect ownership and identify ultimate control within complex networks.

### Entities with two beneficial owners, one holding multiple interests

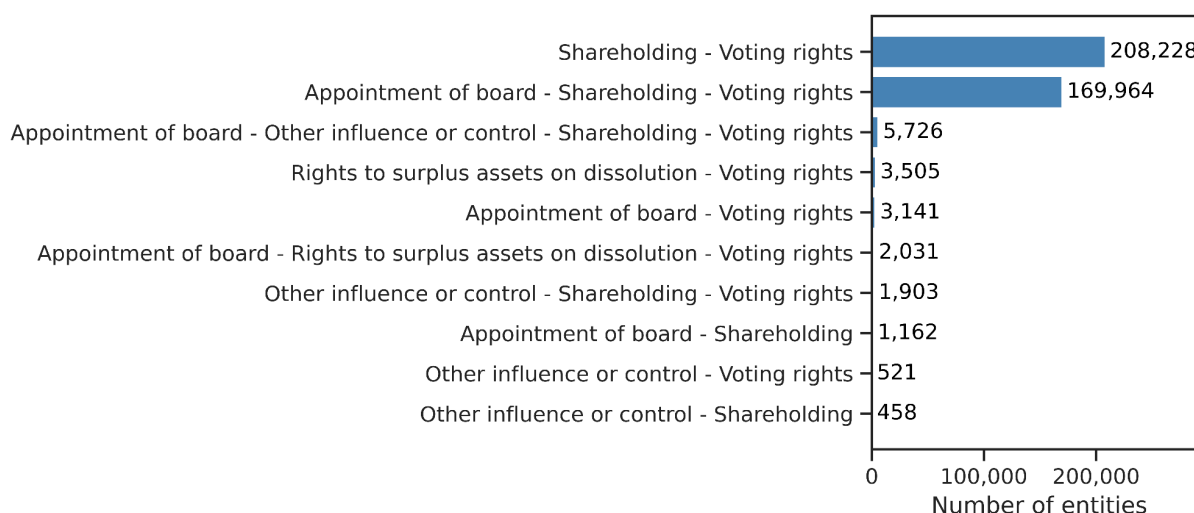
Among the 477,344 entities with exactly two beneficial owners and where at least one holds multiple interests, 83% (about 400,000 entities) show the same type of interest combination shared

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<sup>28</sup> “BRICKDALE HOUSE MANAGEMENT RTM COMPANY LIMITED”, UK government, Companies House, PSC Register, accessed 8 April 2025, <https://find-and-update.company-information.service.gov.uk/company/15092649/persons-with-significant-control>.

between owners. Within this group, 52% report a combination of shareholding and voting rights, while 43% include shareholding, voting rights, and board-appointment rights (Figure 8).

**Figure 8. Top ten interest combinations for pairs of beneficial owners of entities where at least one beneficial owner holds multiple interests**



The lower end of the distribution requires closer attention, particularly in instances where other influence or control is declared alongside either shareholding without voting rights (458 entities) or voting rights without shareholding (521 entities). These cases may reflect either inconsistencies in reporting or genuinely complex ownership arrangements that warrant further investigation.

Notably, in the top three combinations shown in Figure 8 (383,918 entities), both beneficial owners report identical percentage ranges for shareholding and voting rights, most likely indicating 50/50 split (Table 2). While the disclosure format prevents precise confirmation, this suggests a general tendency towards balanced ownership rather than disproportionate distributions, such as 99/1 splits, which may indicate symbolic ownership arrangements.

**Table 2. The most common percentage range combinations for shareholding and voting rights (first three categories in Figure 8)**

Interest combination	Most common range	Shareholding frequency	Voting rights frequency
SH+VR	25–50%	195,308 (94%)	195,263 (94%)
AOB+SH+VR	25–50%	151,961 (89%)	151,817 (89%)

AOB+OIoC+SH+VR	25–50%	4,870 (85%)	4,863 (85%)
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*Reference: SH (Shareholding), VR (Voting rights), AOB (Appointment of board), OIoC (Other influence or control).*

## 4.6 Summary of segment-specific analysis and associated ownership dynamics as well as anomalous patterns

The following table summarises key findings across different segments of the dataset, highlighting ownership dynamics and identifying anomalous patterns that may warrant further scrutiny.

**Table 3. Summary of segment-specific analysis: Ownership dynamics and anomalous patterns**

Segment of the dataset	Ownership dynamics	Anomalous patterns
Entities with no individual beneficial owners (20% of active entities)	<ul style="list-style-type: none"> <li>- 93% have no beneficial ownership records at all</li> <li>- 7% list only intermediary entities as beneficial owners, with 64% of these linked to a single intermediary</li> </ul>	One entity listed 18 intermediary entities as beneficial owners, creating a highly layered and opaque ownership network
Individual beneficial owners with multiple entity connections (12% of all individuals)	Most are linked to just two entities	Outlier cases include individuals linked to over 800 entities, e.g. individual listed as the beneficial owner of 1,296 entities
Individual beneficial owners with single entity connections (88% of all individuals)	<ul style="list-style-type: none"> <li>- 31% hold a single type of interest</li> <li>- 69% hold multiple interests, most commonly a combination of shareholding, voting rights,</li> </ul>	Among those with a single interest, approximately 280,000 report other influence or control without shareholdings or voting rights (potentially because they are senior managers)

	and board-appointment rights (66%)	
Entities with at least one individual beneficial owner holding multiple interests (43% of all entities)	<ul style="list-style-type: none"> <li>- 80% are controlled by a single individual with multiple interests</li> <li>- 20% involve multiple beneficial owners, with 92% of these having exactly two owners</li> </ul>	One entity linked to 41 individual beneficial owners, all declaring board-appointment and voting rights within the 25–50% range, exceeding ownership limits

## 5. Conclusions

This research highlights how relatively straightforward analytical methods can yield valuable insights into ownership structures and expose potential anomalies. By examining ownership interests, threshold distributions, and relationships between entities and beneficial owners, this study identifies deviations from expected patterns that may indicate opacity, complexity, and noncompliance.

Key findings include:

- A strong concentration of interests in shareholding and voting rights, with the majority falling within the 75–100% range, suggesting that many entities are likely fully controlled by a single beneficial owner.
- A notable subset of beneficial owners declare influence or control without corresponding shareholding or voting rights. While this may reflect legitimate governance arrangements (e.g. senior managers), it may also reveal inconsistencies in reporting or loopholes in disclosure rules.
- Outlier cases involve extreme ownership configurations, including individuals linked to hundreds of entities, entities with multiple intermediary owners, and entities with implausibly high numbers of beneficial owners.

These findings reinforce the value of structured, data-driven analysis in improving the integrity of BO information. The approach applied in this research offers a scalable framework for identifying anomalous patterns and supporting proactive oversight. By equipping authorities, financial

institutions, and researchers with practical tools to detect red flags, this methodology contributes to more effective enforcement, greater transparency, and stronger trust in BO registers.

## 6. Challenges and best practices in data analysis

This assessment revealed key challenges in analysing BO data and highlighted strategies to improve data accuracy and usability. Below are three major challenges and approaches to address these.

### Challenge 1: Deduplicating persons and entities

Multiple records for the same entity or person were identified, often resulting from updates in ownership relationships (e.g. changes in shareholding) or changes in reported attributes (e.g. address updates). To resolve this, Companies House identifiers were used to identify entities, while auto-generated person identifiers from Open Ownership's BODS-formatted data from the UK PSC register were applied to individuals. This approach enabled effective deduplication, reducing entity records by 10% and person records by 5%.

### Challenge 2: Interpreting ownership interests with range-based values

The UK PSC register discloses shareholding and voting rights in broad percentage ranges (25–50%, 50–75%, 75–100%) rather than exact values. This limits granular analysis, including detecting precise distribution patterns and calculating exact percentage differences between beneficial owners of the same entity, a useful metric for assessing disproportionate control.

Compounding this challenge is the lack of structured information on direct versus indirect relationships, which constrains the ability to reconstruct full ownership chains. Without these links, it becomes difficult to differentiate between direct control and influence exercised through intermediary entities. Integrating structured shareholder data with BO disclosures would enhance the ability to trace ownership flows and better detect complex or layered structures.

Despite these limitations, this research focused on the most commonly reported ownership ranges to identify meaningful patterns. This approach allows for insights into ownership distribution and supports the detection of anomalies, even without precise percentage values or information on whether relationships are direct or indirect.

## Challenge 3: Managing outdated information

The dataset includes historical entries, such as inactive or dissolved entities and ended relationships. While capturing changes over time is valuable and considered good practice, retaining outdated entries can distort current ownership structures and increase computational load.<sup>29</sup> Filtering out non-active entities and relationships helps ensure the analysis reflects the present state of ownership networks. In this study, removing non-active entities reduced the volume of entities by 32%, while excluding ended relationships reduced the number of ownership links by 11%.

Insights from the UK PSC register highlight the importance of reliable identifiers for accurate entity and person matching, precise ownership values for detailed interest analysis, and effective historical-data management to ensure relevance and reliability. Addressing these challenges enhances the accuracy, efficiency, and utility of BO analysis, supporting more informed policy decisions and greater transparency.

### Suggested citation

Maria Jofre and Andres Knobel, *Insights from the United Kingdom's People with Significant Control register* (Open Ownership and Tax Justice Network, 2025), <https://www.openownership.org/en/publications/insights-from-the-united-kingdoms-people-with-significant-control-register>.

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<sup>29</sup> See: Alanna Markle, *Sufficiently detailed beneficial ownership information* (Open Ownership, 2025), <https://www.openownership.org/en/publications/sufficiently-detailed-beneficial-ownership-information/>.