Exploring UK companies' legal ownership chains to detect red-flags and verify beneficial ownership information – Analysis Factsheet

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This factsheet demonstrates why sample 1 is representative of all the other samples (similar results) and the extent to which the five conditions do not significantly alter the results.

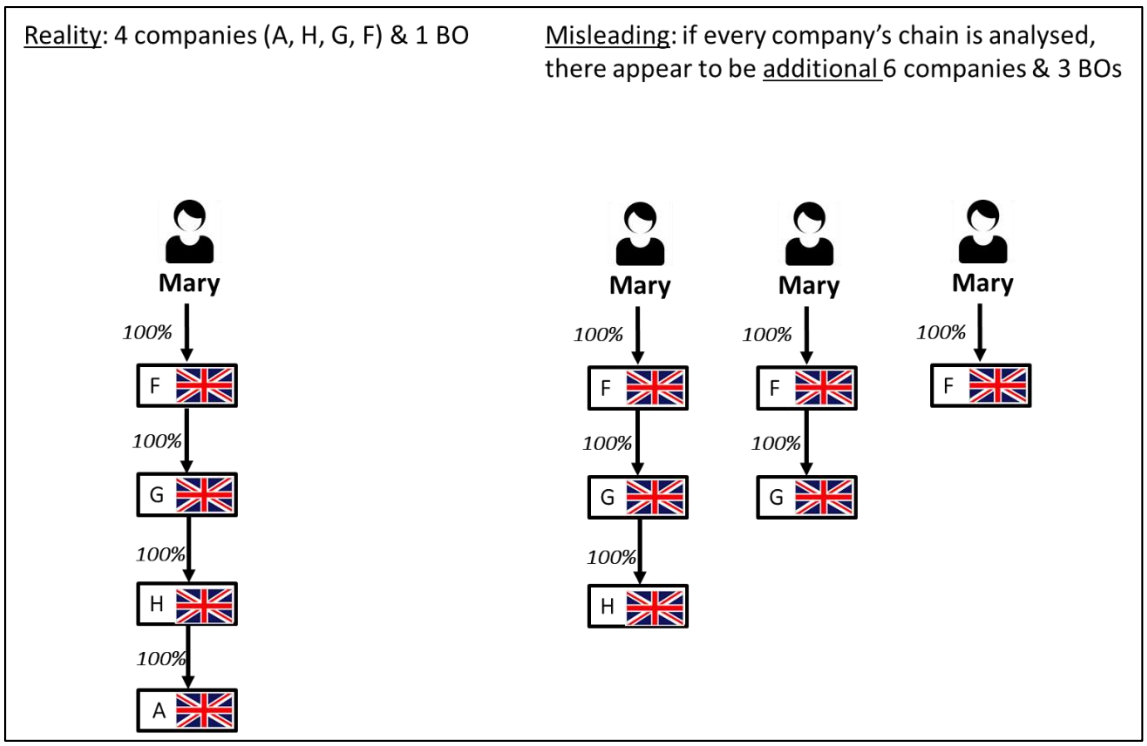
The analysis used data from the Orbis 2018 international database of private companies to map out company ownership structures, based on the framework and conditions described below. Companies were linked using shareholder data to build global ownership chains of UK companies. This factsheet presents the technical details, sample statistics, and robustness checks of the construction of the ownership chains. The analysis of these global ownership chains in the context of beneficial ownership verification will be published as a series of blogposts on the Tax Justice Network website.

The analysis framework

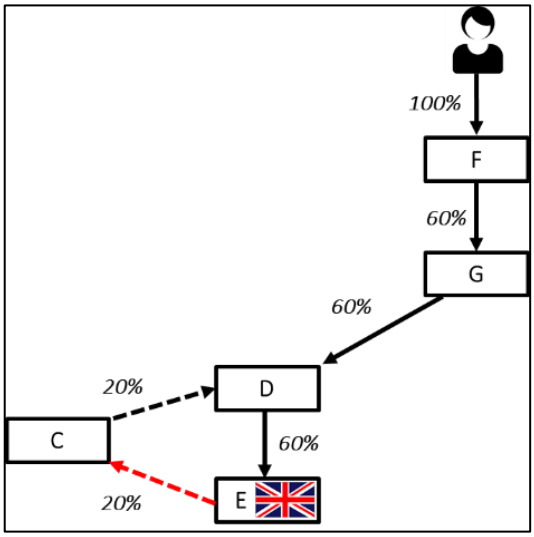
Global corporate ownership structures are complex networks. For example, they may include many shareholders at each layer, a range of entity types, and circular ownership loops. This inevitably makes analysis difficult, particularly in the context of understanding legal and beneficial ownership.

In order to facilitate the analysis of company ownership chains from the data, several conditions are imposed to simplify the structures:

1. Terminal companies: the analysis covers only companies that didn't own other companies (or those that owned less than 50 per cent of another company). This prevents companies integrating a long ownership chain to be considered as independent chains (in which case we would be double counting some companies).



2. Shareholders with greater than 50 per cent ownership: only shareholders with greater than a 50 per cent direct share of ownership are considered. This ensures each company/layer has only one shareholder/entity and prevents the formation of circular ownership loops (as a company cannot own more than 50 per cent of a company higher up in the ownership chain). For example, if a company E is owned 60 per cent by company D, E cannot be considered a shareholder of D, despite the fact it may own some percentage of D either directly or indirectly (i.e through C). However, one company can own multiple companies, for example D may own any percentage of many other companies in addition to E.



3. Certain legal entities are considered "natural persons" and disregarded as a "layer": Ownership by certain types of entities is not considered an ownership layer, because these are deemed to be natural persons (or similar). These "non-layer ownership" cases include ownership by:
   - Individuals
   - Employees/Managers/Directors
   - Public quoted companies
   - Aggregated unnamed private shareholders
   - Other aggregated unnamed shareholders

4. In addition, while condition 2 (disregarding any ownership below 50 per cent) would prevent a loop (circular ownership where A owns B, which in turn owns A), loops may still exist due to discrepancies in the data. We prevent this potential loop by specifying that an entity can only appear in an ownership chain once.

5. Any instances where there is a shareholder, but the percentage of ownership is unknown, are excluded from the samples.

These conditions have a number of implications. Firstly, some terminal companies will be categorised as having 0 layers because they do not have any legal entity shareholders with greater than 50 per cent ownership. Secondly, some of the ownership chains will be broken or cut short further up the chain, when a company mid-chain has no greater than a 50 per cent shareholder but does have a legal owner with less than 50 per cent ownership (i.e would be a layer but excluded due to condition 2). If the shareholder with less than 50 per cent of ownership is a UK company, it and the rest of the chain will be captured as a separate chain. Otherwise, the remainder of the chain is excluded. We discuss the frequency of which both of these cases occur below. Moreover, these chains are built using one primary shareholder, and therefore any chains through minority shareholders, that may present different results, are not captured. Despite this the analysis does reveal a variety of interesting results.

Data

The Orbis data used has the following limitations:

- It isn't official legal ownership data.
- It doesn't necessarily identify beneficial owners but merely different types of shareholders, including natural persons.
- There may be outdated, contradictory, or missing data about who owns a specific company.

Samples, statistics, and robustness checks

The companies which are designated terminal companies are varied across 4 samples, to investigate any differing patterns.

In sample 1 these are UK companies which own no other companies + UK companies which own less than 50 per cent of other companies.

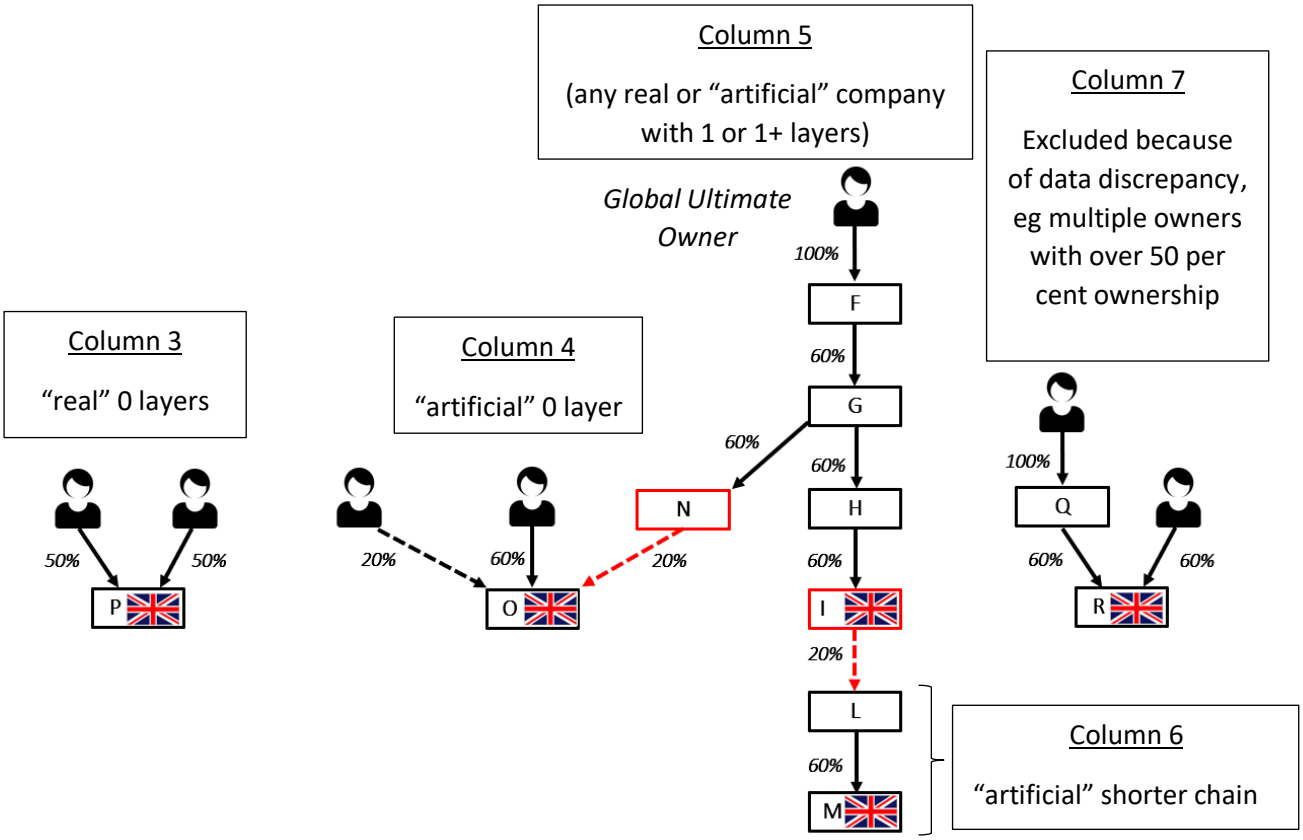
In samples 2 and 3, terminal companies are only UK companies which own no other companies, and only UK companies which own less than 50 per cent of other companies respectively (so, sample 1 divided in two).

Sample 4 is the same as sample 1 (UK companies which own no other companies + UK companies which own less than 50 per cent of other companies), except that terminal companies of sample 4 are branches of multinational companies (MNCs).

The following statistics inspect how accurately the analysis reflects true ownership structures, and the implications of, and an understanding beyond, the conditions applied. It is notable that the statistics are broadly consistent across these samples, excluding columns 3 and 4 for sample 4, which is due to the nature of multinational companies. Our analysis of sample 1 is therefore relatively representative of all samples.

1. Sample and Description	2. Total Terminal Companies	0 Layers		1+ Layer(s)		
		3. % 100% Natural Persons Shareholders	4. % No > 50% Shareholder	5. % With Layers	6. % Cut Off	7. % Otherwise Excluded
Sample 1: Terminals as UK companies which own none, and UK companies which own < 50% of other companies.	327587	4.7	7.2	87.8	3.4	0.6
Sample 2: Terminals just as UK companies which own none.	321921	4.7	7.2	87.8	3.3	0.6
Sample 3: Terminals just as UK companies which own < 50% of others.	5666	4.8	7.1	87.7	6.7	0.7
Sample 4: Equivalent to Sample 1 but of MNC branches.	625837	0.0	0.0	96.7	6.6	3.3

- Column 2: The total terminal companies are those in the data which meet the sample criteria.
- Column 3 is the percentage of these which are 100 per cent owned by individuals (or similar), such as company P in the diagram below.
- Column 4 is the percentage of total terminals which do have an entity owner but don't meet the ownership threshold, such as company O. Together these two columns make up the companies with 0 layers, based on the analysis conditions.
- Column 5 is the percentage of total terminal companies which have 1 or more layers, such as companies M and I.
- Column 6 is the percentage which have 1 or more layers but that are estimated to have their chains cut short due to condition 2 (because no shareholder has more than 50 per cent), for example company M but not I, as discussed below. Therefore, there is overlap between the final two columns (those in column 6 are also included in column 5).
- Column 7 is the percentage otherwise excluded which includes terminal companies that either do not meet the layer conditions, possible due to data discrepancies (eg owned at more than 50 per cent by more than one individual or entity).



The percentage of chains which are cut short is estimated for terminal companies with 1 layer or more by finding the percentage of chains for which the last (highest) company or entity in the chain is not equal to the global ultimate owner company, at the 50 per cent ownership level. The global ultimate owner company is defined as the independent company or entity (not controlled by other companies or entities) with the highest percentage of direct or total (including indirect) ownership. This is essentially what would be expected to be the highest entity in an ownership chain, before the ultimate natural person owners. For example, in the chain of terminal company M, which is cut short at L due to condition two, the last company in the chain, L, is not equal to the global ultimate owner company, F. However also captured by this measure are chains with 1 layer or more where there is missing shareholder data; there is no global ultimate owner company at the 50 per cent ownership level; or the global ultimate owner data is missing. This makes it likely to be an overestimate of the number of chains cut short due to condition 2.

Looking at sample 1 it can be seen that the share of companies with 0 layers is 11.9 per cent (4.7 per cent + 7.2 per cent from columns 3+4). However, fewer than half of these are actually completely owned by natural persons like company P in the diagram, the rest have 0 layers due to the ownership threshold conditions, like company O.

Furthermore, the estimate of the total share of chains which are cut short due to this condition is 10.6 per cent (columns 4+6). This includes those with zero layers such as company O and those with one or more layers such as company M. Consequently, there will be a slight overestimate, which means roughly just less than a tenth of chains are likely to be shorter than in reality.