Beneficial ownership transparency for companies listed on the stock exchange

Andres Knobel*

5 November, 2020

Summary: Many beneficial ownership registration frameworks fail to obtain beneficial ownership information from listed companies for two main reasons. Either high thresholds in the definition (based on percentage of ownership or voting rights) prevent the identifying of any beneficial owners, or listed companies are directly exempted from registering beneficial owners because they supposedly already disclose ownership information to the stock exchange or securities regulator. However, this brief explains why disclosures required by securities laws fall short of registering and disclosing beneficial owners. They have different goals and definitions. Thus, listed companies should not be exempted from beneficial ownership registration, and appropriate thresholds should apply to the beneficial ownership definition of listed companies so that all relevant people (investors) are registered.

1. Background: beneficial ownership of legal vehicles or assets

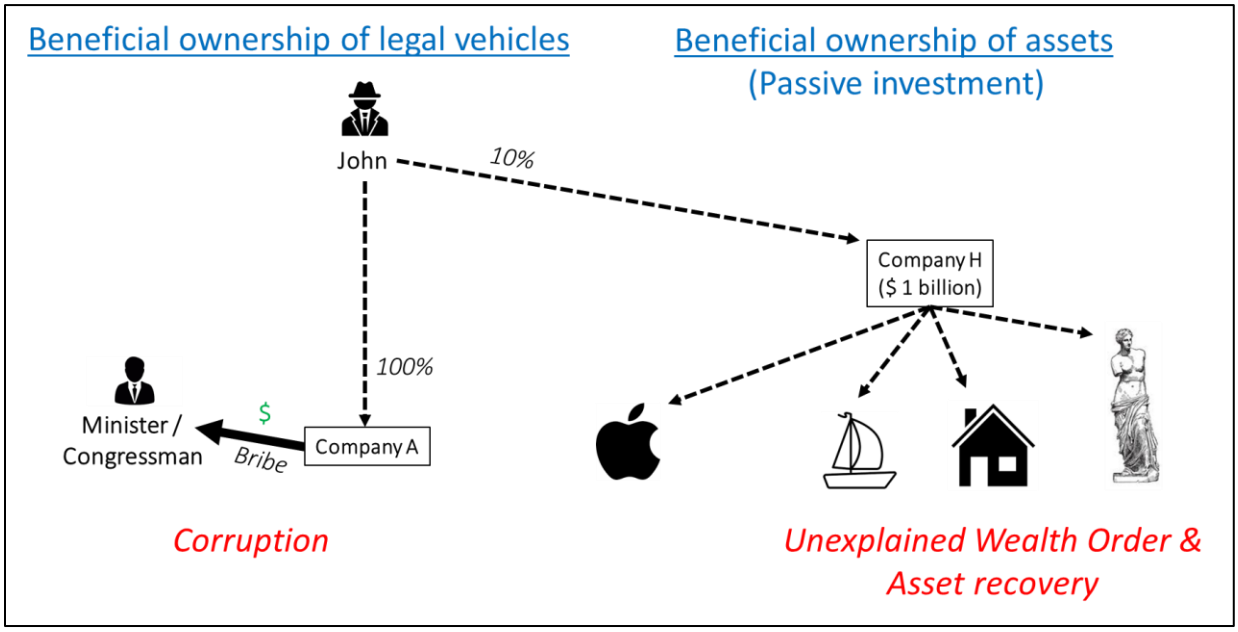
Beneficial ownership transparency refers to identifying the natural persons ("beneficial owners") who ultimately own, control or benefit from legal vehicles such as companies, partnerships or trusts, as defined by the Glossary of the Financial Action Task Force (FATF)'s Recommendations on Anti-Money Laundering (AML).

Although many beneficial ownership frameworks attempt to reveal the beneficial owners behind legal vehicles, the number (and usefulness) of individuals who end up being identified will depend on the goal and focus chosen by each country. Many frameworks focus on identifying whoever controls an entity that could be involved

* The author received very useful feedback from Markus Meinzer and Sol Muñoz for the preparation of this brief, although the ideas and facts presented here are not necessarily shared by the reviewers.

in any wrongdoing, but miss identifying the beneficial owners of assets, which may be equally relevant for addressing illicit financial flows.

Figure 1. Beneficial ownership of legal vehicles or assets



A narrow approach to beneficial ownership transparency focuses only on the left case of the figure above. A company could be engaging in illegal activities, such as corruption, so it's important to know who "controls" or hides behind the company in order to prosecute them. In this case, it would be relevant to identify John, the beneficial owner of Company A. Based on this approach, many beneficial ownership frameworks use very high thresholds, usually based on 25 per cent of ownership or voting rights, to define who the beneficial owner is. Anyone with a lower threshold would be assumed, unless proven otherwise, not to have control over the entity.

Instead, a comprehensive approach to beneficial ownership transparency would also be concerned about the right side of the figure above (passive investment). Even if John merely holds 10% of Company H (so clearly he doesn't control it), given that Company H has underlying assets worth $1 billion, John's small 10% is worth $100 million.

This comprehensive approach is useful because authorities may not be aware of John's corruption scheme. However, by knowing that John is one of the beneficial owners of Company H, authorities could check whether John's declared income can explain how he afforded the $100 million in assets to begin with. Otherwise, authorities could start an investigation or issue an unexplained wealth order.

In a different scenario, authorities may be aware of John's corruption scheme. In this case, in addition to prosecuting him, it would be necessary to know all the assets held directly or indirectly by John in order to confiscate them.

From the perspective of the comprehensive approach, identifying the beneficial owners who "control" Company H (ie who make the decisions) may be irrelevant if the company is not engaging in illegal activities. In fact, Company H does nothing other than hold assets (passive investment). In this case, however, beneficial ownership transparency is relevant from an asset perspective, where ownership, no matter how small, does matter. (The $100 million held by John could be the proceeds of corruption, money laundering, tax evasion, etc.).

From the perspective of asset beneficial ownership (or transparency for passive investments), any interest (eg one share) or at least interests worth a minimum value threshold (eg $1,000) would be relevant.

2. The dual quality of companies listed on the stock exchange: active entities and financial assets

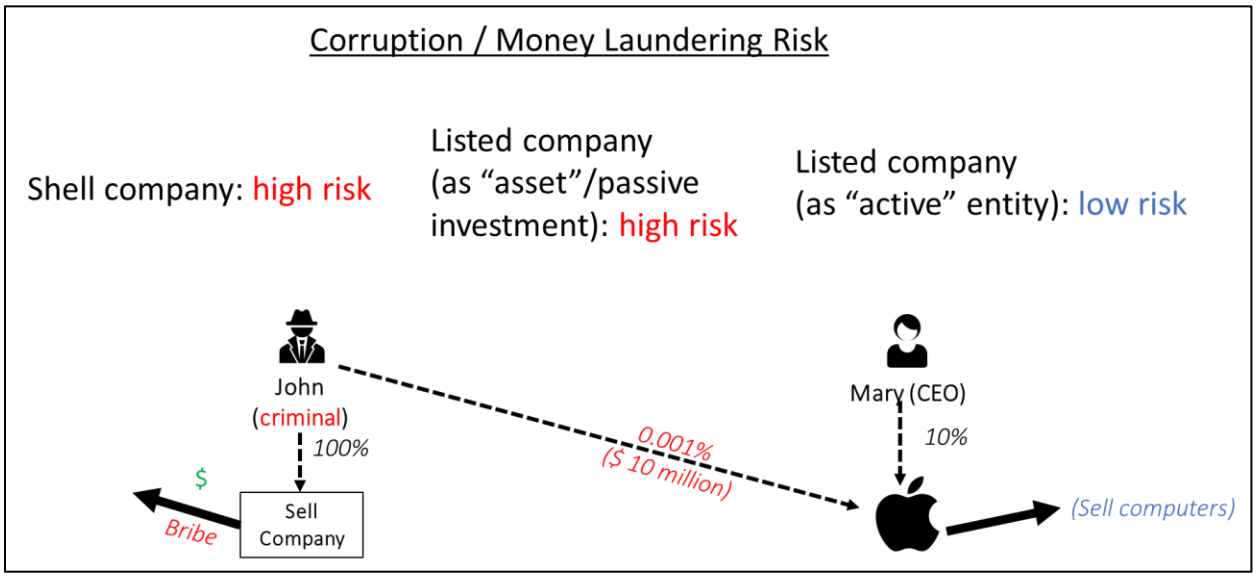
Companies listed on the stock exchange, and in a way investment funds (eg mutual funds, hedge funds) that invest in financial assets such as shares of listed companies or bonds, sovereign debt, etc are on the one hand "active" entities: they do not just "passively" hold underlying assets, but they engage in activities (eg sale of goods or services) and have a valuable know-how, software or technology that allows them to be successful.

Depending on the ownership structure, it may be possible that no individual controls the listed company or investment fund, other than the CEO or fund manager (who may be more of an employee than an individual with absolute power). At the same time, for well-known companies listed on a regular stock exchange, or for regulated investment funds open to the public, it is expected that none of them are created with the main goal of using the legal structure to allow a criminal to hide behind the corporate structure in order to engage in corruption or money laundering. It has traditionally been assumed that criminals do not create a successful listed company or investment fund to hide their identity in order to conduct illegal activities the way they would by creating an opaque shell company. However, that does not mean that listed companies or investment funds are not involved in any wrong-doing. Listed companies and investment funds may very well be involved in corruption schemes, money laundering, tax evasion and major fraud, either on the part of a low-key employee or by the senior management, eg Odebrecht, Enron, Parmalat, 1MDB, etc. They are also highly involved in tax abuse, eg the Cum-Ex scandal.

This perceived "irrelevance" of listed companies and investment funds for corruption or money laundering purposes from their quality as "active entities" (ie no one creates a successful listed company only to hide behind it to engage in corruption), explains why listed companies or regulated funds may be exempted from many transparency regulations that have the goal of identifying the individual who may be controlling the entity.

However, given the increasing extreme value of listed companies (eg Amazon, Apple, Google and Microsoft are each worth more than $1 trillion) or the assets under management in an investment fund, even a tiny ownership interest in either of them, eg 0.01% may be worth millions of dollars which could turn out to be the proceeds of corruption, part of a money laundering scheme or income or wealth over which taxes were evaded. In other words, listed companies and investment funds may be very relevant from the perspective of asset beneficial ownership (passive investments).

Figure 2. Listed companies' dual quality: active business and passive investment



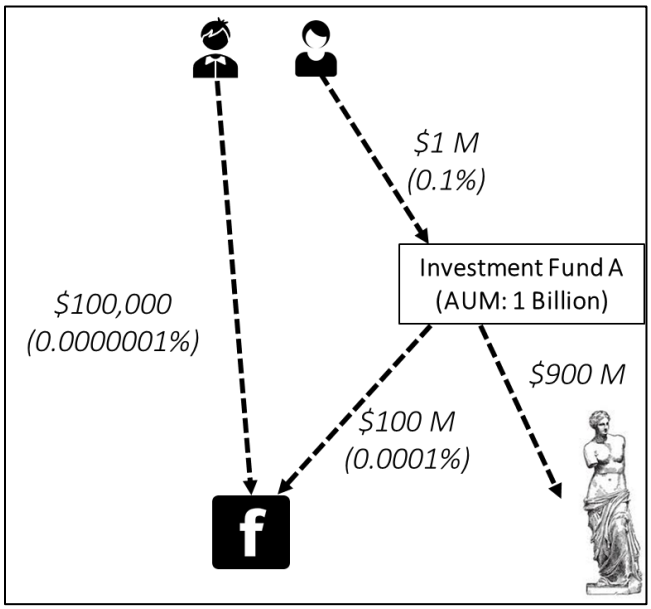
As figure 2 shows, while it is clear that beneficial ownership transparency is necessary for regular companies, eg a shell company, because it may have been created with the main goal of conducting illegal activities, listed companies (as active legal vehicles selling goods or services) are considered to have a lower risk of money laundering or corruption based on hiding the beneficial owner. However, this approach usually fails to consider the high risk posed by listed companies as "assets" or "passive investment". Given that any investor who may be hiding proceeds of corruption or engaging in money laundering or tax evasion by holding interests in listed companies, it is relevant to know who these investors are (despite their tiny ownership interest that would give them no control over the listed company).

3. Lack of transparency on listed companies and investment funds

As the next figure shows, investors may directly hold interests in listed companies (either directly or through a broker or financial intermediary). Alternatively, investors may hold interests in investment funds which in turn hold interests in shares of listed companies as well as on other assets which may, or may not be subject to some type of registration (eg real estate), eg precious metals, art works,

etc. In 2017 it was reported that the "Big Three" of the passive index fund industry, BlackRock, Vanguard, and State Street combined constitute the largest shareholder in 88 per cent of the S&P 500 firms. For this reason it is necessary to know the beneficial owners (end-investor natural person) of listed companies, as well as of investment funds.

Figure 3. Interests in listed companies and investment funds



Listed companies and investment funds are in essence also legal vehicles. Listed companies are usually companies, and investment funds are usually organised as limited partnerships or trusts, eg unit trusts. However, there are three main scenarios where listed companies and investment funds, despite essentially being regular legal vehicles, avoid the beneficial ownership transparency requirements that apply to most types of legal vehicles:

i. Inappropriate thresholds (eg more than 25 per cent)
ii. Excluded from registration based on the type of legal vehicle
iii. Excluded from registration based on the wrong assumption that securities regulation ensure proper transparency

3.1 Inappropriate thresholds

Even where listed companies and investment funds are covered by beneficial ownership registration, if the beneficial ownership definition is based on high thresholds, no proper transparency will be achieved. As explained above, most beneficial ownership definitions are based on the thresholds meant to identify whoever is in control. Thus, they refer to ownership thresholds of around 25 per cent of ownership. Given that it is very unlikely for any individual, other than the company's founders, to have that much interest in a listed company or an investment fund (either directly or indirectly), no relevant investor will be identified.

Consequently, the beneficial owner investors who may have millions of dollars of interests in either listed companies or investment funds will not be identified because their overall interest would be unlikely to amount to more than 0.1%.

3.2 Exclusion based on the type of legal vehicle

This exclusion relates mostly to investment funds. As explained above, investment funds are usually organised as limited partnerships or trusts because these vehicles allow two very distinct roles: investors (as limited partners or trust beneficiaries or unit holders) who give their money but have no decision power, and fund managers (eg general partner or trustee) who have decision power but very little to no economic interest in the fund.

However, as explained in other research, beneficial ownership transparency may fail to cover limited partnerships if they are not considered "legal persons" (eg in the UK and other Common Law). The framework may also fail to cover trusts: there may be no registration at all for trusts, or registration may depend on the location of the trustee (which could easily be abused by locating the trustee in a different jurisdiction).

Apart from the exemption from beneficial ownership registration, even public *legal* ownership information may be missing for small shareholdings (see below on securities' disclosure, where regulations cover shareholders with at least 5 per cent). In addition, nominee ownership is exacerbated in the case of listed companies and other financial assets. Not only could the end-investor be using nominee shareholders or entities to hold their investment, but in addition to that, the financial assets themselves could be under the name of an intermediate holder (eg a fund or a custodial bank) creating even more secrecy.

3.3 Exclusion based on securities regulation

This exclusion related mostly to listed companies. It is based on the Financial Action Task Force (FATF) Recommendation 10 regarding Customer Due Diligence rules. These rules, adopted by many beneficial ownership frameworks, exclude listed companies, because they assume that the stock exchange or financial regulator will have appropriate transparency:

> *Where the customer or the owner of the controlling interest is a company listed on a stock exchange and subject to disclosure requirements (either by stock exchange rules or through law or enforceable means) which impose requirements to ensure adequate transparency of beneficial ownership, or is a majority-owned subsidiary of such a company, it is not necessary to identify and verify the identity of any shareholder or beneficial owner of such companies.* (Interpretative Note to Recommendation 10, Part C)

The core of this brief is to analyse this last exclusion.

4. Examples of countries which exempt listed companies from beneficial ownership registration

Many countries exclude listed companies from beneficial ownership registration. Below are a few examples.

4.1 The EU Anti-Money Laundering Directive (AMLD)

Article 3.6 of the EU AMLD reads:

> *'beneficial owner' means any natural person(s) who ultimately owns or controls the customer and/or the natural person(s) on whose behalf a transaction or activity is being conducted and includes at least: (a) in the case of corporate entities:*
>
> *(i) the natural person(s) who ultimately owns or controls a legal entity through direct or indirect ownership of a sufficient percentage of the shares or voting rights or ownership interest in that entity, including through bearer shareholdings, or through control via other means,* ***other than a company listed on a regulated market that is subject to disclosure requirements consistent with Union law or subject to equivalent international standards which ensure adequate transparency of ownership information****.* (emphasis added)

4.2 The UK

The UK registration of "persons with significant control" (beneficial owners) established by Part 21A states under Chapter 1, Section 790B:

> *Companies to which this Part applies.*
>
> *(1) This Part applies to companies* ***other than—***
>
> ***(a)companies with voting shares admitted to trading on a regulated market which is situated in an EEA State****, and…* (emphasis added)

The UK statutory guidance writes in an easier language:

> *Part 21A does not, however, apply to certain companies, for example, those which are listed on a UK main or "regulated" market.*

4.3 The US FinCen Geographic Targeting Orders (GTOs)

The US does not have a beneficial ownership register for legal vehicles but the financial intelligence unit (FinCen) requires title insurance companies to report the beneficial owners of legal entities that purchase real estate worth more than $300,000 in several US districts, eg Manhattan, Miami, etc, in situations where no

bank financing is involved (eg cash-based purchases). The definition of legal entity excludes listed companies:

> *For purposes of this Order:*
>
> *i. "Beneficial Owner" means each individual who, directly or indirectly, owns 25% or more of the equity interests of the Legal Entity purchasing real property in the Covered Transaction.*
>
> *ii. ii. "Legal Entity" means a corporation, limited liability company, partnership or other similar business entity, whether formed under the laws of a state, or of the United States, or a foreign jurisdiction,* ***other than a business whose common stock or analogous equity interests are listed on a securities exchange regulated by the Securities Exchange Commission ("SEC") or a self-regulatory organization registered with the SEC, or an entity solely owned by such a business****.* (emphasis added)

5. What listed companies *really* disclose to securities regulators

Listed companies, despite having disclosure requirements usually at the 5 per cent threshold, do not necessarily cover the natural person end-investor. The main reason is that disclosure requirements under securities laws do not have a focus on combatting illicit financial flows, but are based on investor protection (preventing controlling shareholders from negatively affecting minority shareholders).

The 2016 OECD report on "Disclosure of Beneficial Ownership and Control in Listed Companies in Asia" explained that the focus of financial markets' transparency is on investor confidence and protection: *"Conventional thinking suggests that investor confidence in financial markets depends, in large part, on the existence of an accurate disclosure regime that provides transparency in the beneficial ownership and control structures of publicly listed companies…. there is a risk that controlling beneficial owners, with large voting blocks, may also have an incentive to divert corporate assets and exploit opportunities for personal gain (private benefits of control), at the expense of minority investors and to the detriment of the best interests of the company. Consider related party transactions, asset stripping and share dilutions… The rationale behind disclosure requirements seems clear: by alerting minority investors or potential investors to material changes in control and ownership structures, allowing them to make a more informed assessment about the company's prospects."*[1]

Although disclosure requirements for listed companies may refer to the "beneficial owner" (as in the US), this does not mean that it refers to a "natural person", which

[1] Page 7: https://www.oecd.org/daf/ca/Disclosure-Beneficial-Ownership.pdf

is the key element of the beneficial ownership definition for anti-money laundering purposes.

In a nutshell, the main shortcomings of securities' disclosure requirements as a source for beneficial ownership information (especially in relation to beneficial ownership of assets or passive investments) are:

i. Failure to focus on a natural person
ii. Inappropriate thresholds
iii. Focus only on voting power (or disposal of financial assets)

First, if the disclosure does not cover a natural person, then we cannot be referring to a beneficial owner. Second, while securities regulation tends to have thresholds usually at 5 per cent (which is lower than the usual "more than 25 per cent") it is still extremely high from an asset ownership perspective, where an interest of 0.1 per cent may be worth millions of dollars. Lastly, the goal of investor protection means that disclosure is based on voting power (control over corporate decisions) or the ability to dispose of securities. This means that ownership without voting power, or where voting rights are available but will not be used because the investment is merely "passive", will be excluded from disclosure requirements.

The following examples illustrate how the three shortcomings may be available.

5.1 The US Securities Exchange Commission (SEC)

The US Securities Exchange Commission (SEC) appears to require "beneficial owners" of listed companies to file the famous Schedule 13D form:

> *Schedule 13D is commonly referred to as a "beneficial ownership report." The term "beneficial owner" is defined under SEC rules. It includes any person who directly or indirectly shares voting power or investment power (the power to sell the security). When a person or group of persons acquires beneficial ownership of more than 5% of a voting class of a company's equity securities registered under Section 12 of the Securities Exchange Act of 1934, they are required to file a Schedule 13D with the SEC.*

At first glance, it appears that Section 13D also refers to beneficial ownership, after all, it's called "beneficial ownership report". But does it?

5.1.1 Any person

Although Section 13D form refers to "any person" which could suggest an individual, the term "person" may be misleading because "legal persons" such as companies are also "persons".

In fact, of all the possible categories of reporting "beneficial owners" from Section 13D, only one of them refers to an individual:

Figure 4. Types of beneficial owner reporting persons of Section 13D form

(14) *Type of Reporting Person* — Please classify each "reporting person" according to the following breakdown and place the appropriate symbol (or symbols, i.e., if more than one is applicable, insert all applicable symbols) on the form:

Category	*Symbol*
Broker-Dealer	BD
Bank	BK
Insurance Company	IC
Investment Company	IV
Investment Adviser	IA
Employee Benefit Plan or Endowment Fund	EP
Parent Holding Company/Control Person	HC
Savings Association	SA
Church Plan	CP
Corporation	CO
Partnership	PN
Individual	IN
Other	OO

A law firm confirms that "person" may refer both to individuals or entities:

> *the persons subject to the reporting requirements under Section 13 and Section 16 (each, a "reporting person") generally include both individuals and entities*.

In fact, the very same Section 13D instructions refer to non-natural person filers:

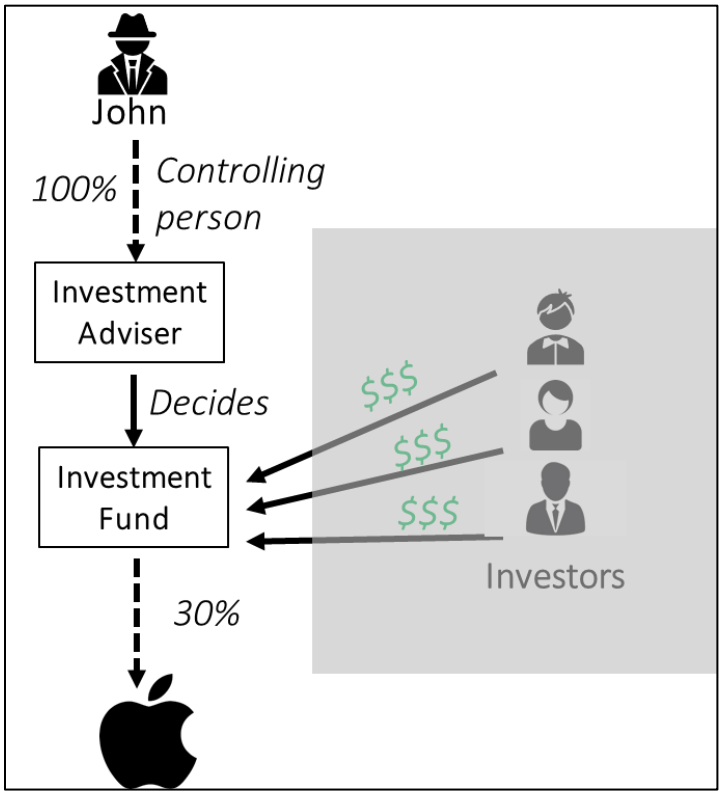
> *C.* ***If the statement is filed by a general or limited partnership, syndicate, or other group****, the information called for by Items 2-6, inclusive, shall be given with respect to (i) each partner of such general partnership; (ii) each partner who is denominated as a general partner or who functions as a general partner of such limited partnership; (iii) each member of such syndicate or group; and* ***(iv) each person controlling such partner or member****.*
>
> *I****f the statement is filed by a corporation*** *or if a person referred to in (i), (ii), (iii) or (iv) of this Instruction is a corporation, the information called for by the above mentioned items shall be given with respect to (a) each executive officer and director of such corporation;* ***(b) each person controlling such corporation****; and (c) each executive officer and director of any corporation or other person ultimately in control of such corporation.* (emphasis added)

However, given that a partnership or corporation would also have to disclose information on "each person controlling" the corporation or the partner/member of the partnership, maybe this "controlling person" refers to a natural-person beneficial owner who ultimately owns, controls or benefits from the listed company.

Unfortunately, this is not the case. For instance, some articles have explained who this "controlling person" would be, in the case where an investment advisor is who "beneficially owns" a security and files a Section 13D form.

As the next figure shows, the main problem when an "investment adviser" as the beneficial owner reporting Section 13D is that its controlling persons would never refer to the end-investors. While these are the ones who gave their money to the investment adviser and thus they ultimately (and indirectly) own or benefit from the shares in a listed company, the regulation cares about the controllers of the investment adviser (eg John) who would in practice exercise the voting power over the listed company.

Figure 5. Controlling persons of an investment adviser are not the end-investors



One law firm described:

The following persons are, or are likely to be, considered "control persons" of an investment adviser with a separate Schedule 13G or Schedule 13D reporting obligation:

- *any direct or indirect controlling partner or shareholder of the investment adviser…*

- *the direct or indirect parent company of the investment adviser and any other person or entity that directly or indirectly controls the investment adviser (e.g., a controlling shareholder of the parent holding company);*
- *if the investment adviser (or parent holding company) is directly or indirectly owned by two partners or shareholders, generally each such partner or shareholder must file;*
- *if the investment adviser (or parent holding company) is directly or indirectly owned by three or more partners or shareholders, each partner or shareholder who owns a significant interest in the investment adviser and who is actively involved in the management of the investment adviser or who has entered into an oral or written agreement with respect to the disposition of the Section 13 Security must file.*

Another law firm suggested the same situation:

The following persons are likely to be considered "control persons" of an investment manager:

- *any general partner, managing member, trustee, or controlling shareholder of the investment manager; and*
- *the direct or indirect parent company of the investment manager and any other person that exercises indirect control.*

Note that at no point do any of the articles state that the controlling person (let alone the "beneficial owner" filing Section 13D form) must refer to a natural person. After all, a member, shareholder or partner may be another legal person.

5.1.2 **Voting power**

The Securities Exchange Commission refers to *any person who directly or indirectly shares voting power or investment power (to sell a security).* This would exclude ownership without voting power.

Moreover, there is another exclusion for passive holdings (where, despite considerable voting rights, the holder of the listed shares has no intent to exercise any influence). In such case, instead of filing a Section 13D form, it is possible to file a simplified form under Section 13G (disclosing even less information) in cases where the reporting person is a "passive Investor" because they beneficially own more than 5 per cent (but less than 20 per cent) of the shares and those shares were not acquired or held with the purpose or effect of changing or influencing control of the listed company.[2]

5.1.3 Thresholds

[2] https://www.paulhastings.com/publications-items/details/?id=fb75716c-2334-6428-811c-ff00004cbded

As expressed above, the Securities Exchange Commission refers to *"a person or group of persons [who] acquires beneficial ownership of more than 5% of a voting class of a company's equity securities."* To put this number in perspective, as of October 2020, 5 per cent of Facebook would be worth ca. $40 billion. For authorities investigating corruption or money laundering, investors holding much lower thresholds would be just as important.

5.2 The UK

The UK's Financial Conduct Authority's (FCA) Disclosure Transparency Rule 5.1 (DTR 5.1) requires: *"A person must notify the issuer of the percentage of its voting rights he holds as shareholder or holds or is deemed to hold through his direct or indirect holding of financial instruments falling within DTR 5.3.1R (1) (or a combination of such holdings) if the percentage of those voting rights: (1) reaches, exceeds or falls below 3%, 4%, 5%, 6%, 7%, 8%, 9%, 10% and each 1% threshold thereafter up to 100% (or in the case of a non-UK issuer on the basis of thresholds at 5%, 10%, 15%, 20%, 25%, 30%, 50% and 75%) as a result of an acquisition or disposal of shares or financial instruments falling within DTR 5.3.1 R."*[3]

In the UK, while the threshold is slightly lower (3 per cent instead of 5 per cent), the main problem is that it also refers to voting rights (not mere ownership). More importantly, the term "person" is not necessarily a natural person. The UK FCA defines "person" as*: "(in accordance with the Interpretation Act 1978) any person, including a body of persons corporate or unincorporate (that is, a natural person, a legal person and, for example, a partnership)."*[4]

6. Countries that do require beneficial ownership registration for listed companies

Some countries do require listed companies to disclose their beneficial owners, understood as natural persons. However, they may also face other shortcomings.

6.1 The UK companies listed on the secondary market (AIM)

While the UK excludes companies listed on the stock exchange (eg London Stock Exchange) from registering their beneficial owners (see point 4.2 above) after a 2017 amendment, companies listed on a secondary market (eg AIM) are no longer exempted, so they are required to register their beneficial owners with Companies House (in addition to disclosure requirements based on securities regulation). While this refers to a natural person based on ownership or voting criteria, the thresholds of more than 25 per cent are too high to be relevant.

6.2 India

[3] https://www.handbook.fca.org.uk/handbook/DTR/5/?view=chapter
[4] Ibid.

In 2018, India's securities regulator added a specific beneficial ownership requirement for listed companies, based on the beneficial ownership registration framework of the Companies Act.[5] While the beneficial ownership registration refers to natural persons, the definition is based on indirect holdings of at least 10 per cent of ownership, voting rights or rights to dividends. In this case, the only (but major) shortcoming is the high threshold of 10 per cent.

6.3 The Philippines

The 2019 Circular 15 of the Securities Exchange Commission requires listed companies to report the beneficial owners understood as the natural persons who ultimately own or control the entity. While the definition covers many different situations, most of them refer to control, and ownership thresholds refer to at least 25 per cent of ownership or control.[6]

6.4 Ecuador

Ecuador's Regulation 536 of 2016 issued by the tax administration requires shareholders to be disclosed up to a natural person. While this definition is inconsistent with the beneficial ownership definition of the Financial Action Task Force (because it only focuses on ownership but not on control), it does provide an interesting alternative. In the case of listed companies, based on Art. 6, disclosure is based on a threshold of 2 per cent. While this is lower than other thresholds, it is still high from the perspective of asset ownership.

However, Ecuador applies an interesting threshold to investment funds. Based on Art. 5.2, in addition to disclosing the fund managers, the holders of "more than five basic units subject to 0 per cent income tax" (which for the year 2020 it appears to refer to ca. $56,000) would also have to be reported.[7]

7. Conclusion and Recommendations

Many countries are moving towards beneficial ownership registration for legal vehicles. However, this does not ensure that authorities, let alone the public, will be able to access information on the beneficial owners of listed companies or investment funds. From an "asset" perspective, the beneficial ownership of listed companies and investment funds should cover at least the identity of any investor who, directly or indirectly, holds interests in the listed company or investment fund. Availability of this information would allow authorities to detect cases of unexplained wealth (which may relate to corruption or money laundering) or tax evasion, as well as to enable asset recovery.

[5] SEBI/HO/CFD/CMD1/CIR/P/2018/0000000149 and SEBI/HO/CFD/CMD1/CIR/P/2019/36

[6] https://www.sec.gov.ph/mc-2019/mc-no-15-s-2019-amendment-of-sec-memorandum-circular-no-17-series-of-2018-on-the-revision-of-the-general-information-sheet-gis-to-include-beneficial-ownership-information-2019-revisio/

[7] http://descargas.sri.gob.ec/download/anexos/acc/NAC-DGERCGC16-00000536.pdf

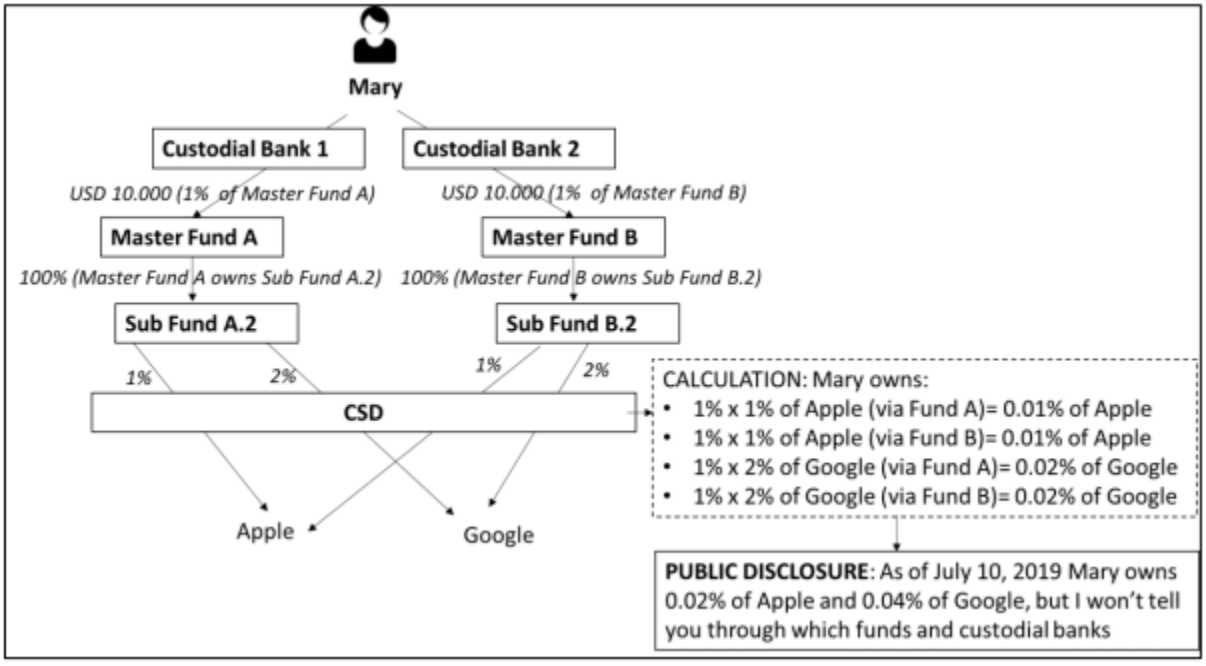
For this reason, it is recommended that:

1) All types of legal vehicles, including limited partnerships and trusts, should be subject to beneficial ownership registration in a centralised register.

2) Ideally for all types of legal vehicles, but especially for listed companies and investment funds, any individual directly or indirectly holding at least one share should be required to be identified and publicly registered., If thresholds are to be applied, they should not be based on percentages, but on economic interests, eg anyone who invested or holds interests worth at least $1,000 in a listed company or investment fund, or who has any voting rights or rights to receive dividends.

3) Given that beneficial ownership needs to be updated, but that in the case of listed companies and investment funds there may be multiple trades per day, the identity of the end-investor beneficial owners could be determined as of the end of business each day. (This could be based on this paper's proposal, see pages 66-69, as shown in the next figure:

Figure 6. Reporting overall interests in financial assets



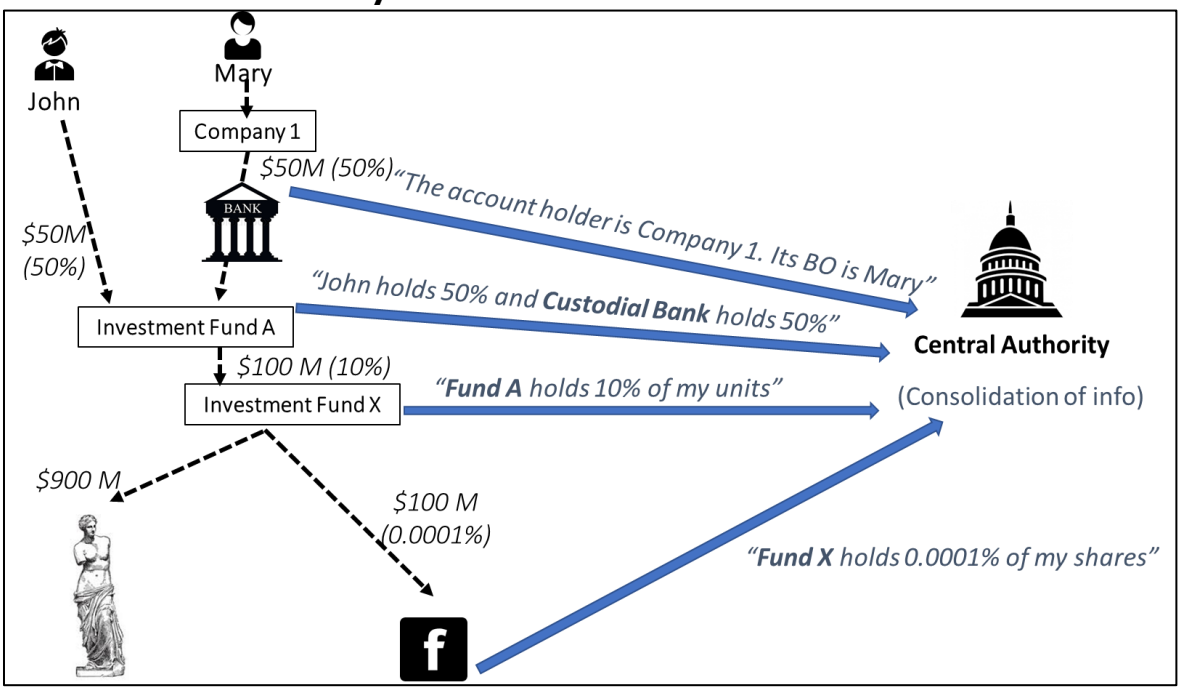
Source: https://www.taxjustice.net/wp-content/uploads/2019/10/The-transparency-risks-of-investment-entities-working-paper-Tax-Justice-Network-Oct-2019.pdf

3') As a partial step, beneficial ownership information could at least be reported annually or quarterly, indicating every end-investor (and their holdings) as of 31 December of each year.

4) Given that no single intermediary may hold beneficial ownership information on every end-investor and in relation to every financial asset, authorities should centralise this information and require every relevant intermediary to report the information they hold (or to request it from the intermediary above them) until the full picture can be determined (of which end-investor indirectly holds each share or unit from a listed company or investment fund). A useful tool to enable this seamless chain of ownership could be facilitated through the widely enacted Legal Entity Identifier which already ensures financial intermediaries' identification across borders.

The next figure shows, starting from the underlying financial asset, how each intermediary could provide the information that they already hold, until the central authority can put all the pieces together.

Figure 7. A central authority compiles and consolidates information from each intermediary



This way, the central authority could produce reports on the legal and beneficial owners of:
-Underlying financial assets (eg Facebook shares)
-Investment funds (eg Funds A and X)
-Other intermediaries (eg Custodian Bank)

Authorities should also be able to access holding information from each legal or beneficial owner. For instance:

-"John directly holds 50% of Fund A, and ultimately owns $45M in Artworks (50% x 10% x $900M) and 0.000005% of Facebook (50% x 10% x 0.0001%)".

5) Until the full disclosure mentioned above happens, partial transparency improvements should include:
    i. All financial intermediaries, eg brokers, investment funds (including hedge funds and private equity funds) should be subject to anti-money laundering provisions and customer due diligence measures.
    ii. Regulators should frequently supervise investment funds and audit their processes and risk matrix.
    iii. Investment funds should share information on their customers with other intermediaries down the chain, so that each intermediary is able to assess the money laundering and other risks of the "customer of my customer" - instead of only relying on assessing their customer's due diligence procedures. In other words, if John is an investor in Fund A, which in turn invests in Fund B, Fund B should not only assess Fund A's customer due diligence measures, but also find out about John's identity (the customer of the customer) so that they can also directly assess John's risks. Fund B shouldn't merely trust that Fund A did proper checks on John. It is similar to correspondent banks, who should also be able to check the customers behind each transfer, rather than blindly trust each sending bank to have done the proper checks.
    iv. At the very least, investment funds should publish information about the type, risk and nationality of their investors. For example, "85% of investors are resident individuals and 10% are other funds or regulated entities, and 5% are foreign entities".