Beneficial ownership verification: ensuring the truthfulness and accuracy of registered ownership information

Andres Knobel*

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Executive Summary

In a world where billion-dollar corruption and money laundering schemes can travel through developed countries’ financial institutions undetected, the only chance for any country’s authorities to successfully address financial crime is to apply cutting edge technology for crime detection. At the core of the fight against illicit financial flows is authorities’ ability to verify the identity of the beneficial owners who control the world’s companies and trusts. Applying advanced analytics and inter-connecting ownership registries is the only way to make sure legitimate businesses flourish, while preventing the abuse of legal vehicles that rob countries off their resources and erode trust in democracy and state institutions. This will also be good for real businesses. By helping businesses easily and effectively check their supply chains and the companies they work with business can better prevent sanctioning risks to their reputation for having engaged with the wrong people.

There is a global trend to improve beneficial ownership transparency as a tool to tackle illicit financial flows. International organisations such as the Financial Action Task Force (related to anti-money laundering) and the OECD’s Global Forum (related to tax and exchange of information) have started to assess countries more thoroughly on this issue.

Civil society pressure, intensified by the Panama Papers and other scandals, has pushed more countries to start requiring beneficial ownership registration. The European Union is at the vanguard, requiring public beneficial ownership registries for companies and other legal persons. The United Kingdom and Denmark already have public beneficial ownership registries in place that can be accessed for free online in open data format. However, in most cases, little verification of disclosed information takes place, turning beneficial ownership registries into depositaries of self-declared information, regardless of the accuracy or truthfulness of the data.

In order to verify information, countries need to ensure that all relevant data is collected in the first place: how could you know if “John” refers to “John Smith” or “John White” if you didn’t ask for the last name? This paper first describes all the elements and regulations that countries should establish to ensure that comprehensive data is collected about all legal vehicles (companies, trusts, etc) and their owners. This includes proper definitions of beneficial ownership, details on the ownership chain to be collected, regulations in relation to bearer shares and nominees, and sanctions (as incentives) to ensure that registered information will be registered and updated.

The second step describes all the validation checks that countries should establish to ensure that registered data will be “valid”. This includes establishing an IT system (checks should be automated, not run by humans) that would automatically check that details on owners and directors declared to the beneficial ownership registers are consistent with existing data held by government databases (eg the tax identification number declared by a beneficial owner matches the one held by the tax authorities). This IT system should also run other more sophisticated checks.
including plausibility and legality. These are necessary to prevent, for example, a company from indicating a public park as its address, or a dead person from being listed as a director or shareholder. Beneficial ownership registries should also confirm that a registered beneficial owner or director is who they say they are (authentication), for example by requiring digital signature, biometric data or a video conference. Also, that a person is indeed intending to create or direct a company (authorisation), for example by contacting that person at their official email or mobile number (not the one declared to the commercial register, but the one on file at the tax authorities or other government database) to make sure that someone’s identity wasn’t stolen to create a company.

The last step of verification includes finding patterns of legal vehicles’ structures and their owners for redflagging purposes, meaning to confirm the reasonableness of the declared data, even if it looks valid because it matches government records. This redflagging involves big data and advanced analytics, as already applied by banks to prevent fraud and by businesses to do targeted marketing of their products. These advanced analytics techniques should also be applied to find patterns and other basic features of legitimate and illegitimate legal vehicles and their registered owners. This would allow identification of outliers and comparisons with other legal vehicles (“does this company look more like a legitimate one or like one involved in corruption?”). No legal vehicle or owner should automatically go to jail or be banned from the register only because they were redflagged. The only consequence would be to warn authorities that they should look in more detail into the legal vehicle and its owners to verify the reasonableness of registered information.

Banks already apply advanced analytics to analyse each of the millions of transactions taking place every day and determine whether the transaction looks like a potential case of fraud or money laundering that needs to be further investigated or blocked. Companies are already acquiring profiles and details of consumers from data brokers to market their products at targeted audiences. By applying similar advanced analytics techniques, authorities could prevent suspicious legal vehicles from incorporating or registering dubious information in the first place, or at least to act in a timely manner if the legal vehicle already exists. For example, if a shell company incorporated years ago had no activity or income but it suddenly changed its owners and won a government contract, authorities could readily be notified and look into it, rather than wait until a case of corruption or conflict of interest takes place.

The use of the latter more advanced analytics to find patterns would require countries designating an authority to set up an IT system capable of handling the required tasks. This IT system could be responsible for handling both the basic verification tasks and the advanced analytics, or could be a separate IT system handling just the advanced analytics and held by a different authority. This IT system would assemble existing data from government databases (e.g. the commercial register, tax authorities, the central bank, civil registries, etc). Some
authorities (eg the financial intelligence unit or the tax authorities) may already be doing advanced analytics for their own purposes. In such case, this sophisticated analysis could be widened and applied for verification of beneficial ownership information. This massive data on the details of legal vehicles and their owners and directors wouldn’t be disclosed to the public. Appropriate safeguards for the protection of data from security breaches and unauthorised access should be paramount (just as it happens with the massive information already held by tax authorities and other agencies). Human access to this bulk data should be restricted even in the case of authorities, except to supervise the system, to train it and to discard false positives. Access to the IT system’s data should only take place with regard to redflagged cases (not to bulk data) and only by designated authorities in charge of investigating crimes.

It should be up to each country to designate the authority in charge of the IT system and to determine the amount and type of data (eg income, age, etc) available to the IT system for these advanced analytics. This determination will be based on the information that state agencies already collect and on confidentiality provisions and exchange of information within state agencies. However, the more details available, the better this big data analysis would work to find patterns and basic features for redflagging purposes.

For example, hypothetically speaking, after collecting information on thousands of local companies, the system could identify that legitimate companies usually have between two and three individuals who are at the same time shareholders and beneficial owners, who have reported incomes above US$60,000; while companies found to be involved in corruption or money laundering usually involve at least five shareholders who consist of legal persons, foreign entities incorporated in tax havens, directors who appear as directors of a hundred other companies and shareholders aged 75 or older with no declared income. For every new company to be set up, and during the life of a legal vehicle (when more details on income, assets, employees, etc, on the legal vehicle are available) the system would check if the company under analysis shares more features with a legitimate or an illegitimate entity. If a legal vehicle has suspicious details (eg it’s a highly profitable company with government contracts but its directors are all resident in low-income neighborhoods and have no declared income; or the company had a very high income only hours after being set up, with many changes of addresses and of shareholders, and with bank accounts with many deposits where all money was withdrawn in cash), the system would alert not the public, but the designated authority (eg financial intelligence unit, the tax authorities or other law enforcement agencies) for further investigation.

This system could also work in relation to shareholders or directors who are foreigners. A foreign country wouldn’t need to share personal details about its residents to other countries, but only to allow “zero-knowledge proof” types of checks. For example, if a German resident tries to set up a UK company, the UK verification system could run an automated query with the German system asking:
“Hans Müller is trying to set up a UK company and he declared that he is German, that he lives on X street and that his tax identification number is Z”. The German system would merely reply “all the information declared by Hans Müller matches the information we hold” or “there is a discrepancy with the information we hold about this person” without sharing the information held by the system on the person. If Hans Müller’s information isn’t consistent, he wouldn’t be allowed to set up a UK company until he files matching information.

In addition, beneficial ownership registries should become living and dynamic databases where banks and other economic actors are required to consult in real time the status of any legal vehicle before they engage in business with them such as a bank transfer. Beneficial ownership registries should publish a list of “active” entities that are currently compliant with all regulations and filings (eg all annual returns were filed, and all information was valid and didn’t raise any suspicions). This would prevent noncompliant entities (those that failed to update their information or those who registered information that was later proven to be invalid) from operating in the economy.

While this verification system may sound as science fiction or too expensive, one should remember that the private sector is already spending millions of dollars to ensure that they identify their customers. The technology applied by the private sector (to prevent anti-money laundering and fraud) is already more sophisticated than what we are proposing here. Likewise, data collection and profiling of consumers for marketing seems to be an even bigger industry. The US Federal Trade Commission described in 2014 that some data brokers hold information on 700 million consumers, based on billions of transactions (adding three billion records each month). Based on all the details collected from governments, public sources and websites (eg email, age, education, marital status, height, weight, political affiliation, vehicle usage, etc) data brokers create profiles of potential consumers (eg "Financial Newsletter Subscriber" or "Twitter user with 250+ friends") and sell this information to businesses for targeted marketing campaigns.

Financial crime investigators should catch up with the technology on advanced analytics and invest enough money to fight against corruption, money laundering and illicit financial flows. Governments have dramatically ramped up their spending on surveillance technology and normalised mass surveillance of their citizenries in order to prevent terrorism. Yet the technology and investment governments have put towards tackling widespread illicit financial flows that enable the financing of terrorism remain dangerously lacking.

Governments need not reinvent the wheel or do it all alone. They could partner up with the private sector so that the sophisticated verification system that we are proposing here adopts the technology and best practices already available in the financial and consumer industry. Governments could explore having this system be partially financed by the private sector, so that it becomes effective and trustworthy enough that financial institutions and service providers were also allowed to rely on
such official beneficial ownership registers for their due diligence purposes (instead of paying money to third parties to verify their customers’ information). Financial institutions and other holders of beneficial ownership information should also be required to report any discrepancy they find to the beneficial ownership register.
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Introduction
This paper is an update and upgrade of Tax Justice Network's paper *Technology and online beneficial ownership registries: easier to create companies and better at preventing financial crimes*.1 While many countries are starting to require beneficial ownership registration, the issue of verification remains one of the biggest challenges. If registered beneficial ownership information is inaccurate, it becomes unreliable, unhelpful and even harmful. This will undermine the call for beneficial ownership transparency around the world.

Section 1 of this report briefly reviews the concept and importance of beneficial ownership. It describes countries’ contradictory or insufficient measures in relation to beneficial ownership transparency needed to address illicit financial flows related to corruption, money laundering or the financing of terrorism. Section 2 refers to all the relevant data on beneficial ownership that should be collected in the first place to allow for verification. It summarises the definitions of beneficial ownership depending on the various types of legal vehicles and their combination. It lists all details that should be collected and it adds new innovative proposals for ensuring registered beneficial ownership is accurate and easier to verify. Section 3 and 4 are the core of this paper and describe the IT system that governments should establish to automatically cross-check and verify beneficial ownership information, both in terms of validity (section 3) as well as advanced analytics for redflagging purposes (section 4). Section 5 discusses issues relating to costs and sanctions for noncompliance.

1. The importance of beneficial ownership
Beneficial ownership registration refers to identifying the “beneficial owner(s)”, meaning the individual(s) who ultimately own and control a company, trust or other legal vehicle.

Legal vehicles (eg companies, partnerships, trusts or foundations) are present in all countries, although their total number is unknown. Depending on the jurisdiction, legal vehicles may be incorporated in person or remotely, for oneself or on behalf of someone else. Creating, merging or dissolving them may take as little as a few minutes.

The vast majority of legal vehicles are used for legitimate purposes, such as to undertake a business (eg to sell goods or services), to establish an association or charity for public interest (eg education, health, religion, etc) or to protect vulnerable people. However, this widespread use of legal vehicles for legitimate goals and the ease with which they may be created or terminated, also makes them attractive for criminals. A company or trust that appears to be engaging in a

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1 Knobel, ‘Technology and Online Beneficial Ownership Registries’.
commercial endeavour or the protection of vulnerable children, may in reality be (ab)used to hide the proceeds of corruption, to launder money or to evade taxes. The World Bank’s *Puppet masters* report describes the use of companies, trusts, partnerships and foundations involved in grand corruption cases. The Financial Action Task Force’s *Concealment of beneficial ownership* publication describes the use of companies, partnerships, trusts and foundations in money laundering and tax evasion schemes.

Beneficial ownership is relevant to enforce compliance with the law, especially when it comes to criminal activity. A real prospect of a prison sentence for criminal activity can act as an important deterrent for engaging in that activity in the first place. Instead, if a person manages to remain hidden behind legal vehicles, authorities will be unable to enforce a prison sentence and other penalties for individuals (a company, which only exists on a piece of paper, cannot go to prison). If criminals are under no threat of prosecution, crime will flourish, affecting societies both in terms of fostering a culture of impunity as well as suffering from the consequences of tax evasion, corruption, money laundering and terrorism.

Beneficial owners will have no fear of being identified by authorities if the legal vehicle is not required to register any information about its owners, or when this information is simply impossible to know (eg a company that issued bearer shares is owned by anyone holding the paper bearer shares at any given time). In other cases, even when some information about the legal vehicle is registered with authorities, the complex control structure or separation of ownership rights (over the legal vehicle and its assets) may blur who is really in control, as usually happens with some trusts. Other secrecy strategies involve using nominees or interposing many entities (many layers) between a legal vehicle and its beneficial owners.

### 1.1 Authorities and beneficial ownership transparency

In recent years, there has been progress to improve transparency over legal vehicles. The G20 established in 2014 the *high level principles of beneficial ownership transparency*. The Financial Action Task Force (FATF) and the OECD have been calling on countries to prohibit or at least immobilize bearer shares, and to ensure availability of legal and beneficial ownership information of legal vehicles. While some *secrecy jurisdictions* and financial centres (eg *the US*) still offer fully secretive legal vehicles (either deliberately or because of lack of interest or political will to change this), others like the European Union have shown real progress by

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2 Van der Does de Willebois et al., ‘The Puppet Masters. How the Corrupt Use Legal Structures to Hide Stolen Assets and What to Do About It’.


4 [https://www.g20.org/sites/default/files/media/g20_high-level_principles_on_beneficial_ownership_transparency.pdf](https://www.g20.org/sites/default/files/media/g20_high-level_principles_on_beneficial_ownership_transparency.pdf); 21.12.2018.

5 Based on the Financial Secrecy Index, this paper prefers the term “secrecy jurisdiction” over “tax haven”, although they are used interchangeably: [https://www.financialsecrecyindex.com/faq/what-is-a-secrecy-jurisdiction](https://www.financialsecrecyindex.com/faq/what-is-a-secrecy-jurisdiction); 21.12.2018.

requiring all companies to disclose their beneficial owners in public registries under the EU’s 5th Anti-Money Laundering Directive (AMLD 5).  

As described by the Tax Justice Network’s *State of play of beneficial ownership* paper based on the 2018 edition of the *Financial Secrecy Index*, 45 jurisdictions are already – or will soon - require beneficial ownership registration.

Nevertheless, other types of legal vehicles (eg some trusts and foreign incorporated companies) may still pose secrecy risks. In addition, for those vehicles that do have to register ownership information, enforcement of these new transparency provisions remains a big challenge, especially when sanctions don’t create sufficient incentives to comply, or when these ownership registries function rather as depositaries of self-declared information, without any regard for the accuracy and truthfulness of the registered data.

1.2 The private sector and beneficial ownership transparency

Contradictorily, while governments neglect ensuring that legal vehicles’ ownership information is accurate (if available at all) at the time legal vehicles are created, they do demand this from others. Financial institutions (eg banks) and other actors (eg real estate brokers or notaries) are usually required to accurately determine the ownership structure of legal vehicles when they engage in business with them (eg when legal vehicles open a bank account or purchase real estate) to prevent money laundering and the finance of terrorism. However, the lack of accurate beneficial ownership information available in countries’ commercial registries makes it harder for financial institutions to verify the ownership information declared by their customers.

The private sector has thus been investing billions of dollars in technology for compliance with anti-money laundering and to prevent fraud. Consequently, while a credit card company is able to instantly block an online purchase that looks

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suspicious, countries are allowing individuals mentioned in US sanctions lists\textsuperscript{11} to create companies, without doing anything to prevent it.

This imbalance between governments and the private sector in resources for the fight against corruption and money laundering is not accidental. Governments do invest in fields where they have a genuine interest: tax authorities are usually properly equipped because local tax evasion affects a country’s own resources. However, when it comes to fighting against corruption or money laundering, countries often fail to resource this type of work sufficiently. In the best case scenario, this may be a consequence of lack of coordination or of taking a narrow approach. The finance or economic ministry may be trying to attract foreign investments (to create local jobs or to bring liquidity to the financial market) by reducing redtape around the setting up of a business - eliminating, in the process, the transparency measures that help prevent money laundering\textsuperscript{12}. The World Bank’s \textit{Doing Business}\textsuperscript{13} report may be partly responsible for this because it favours countries that allow entities to be created fast and easy, regardless if they require proper transparency.

In other cases, however, secrecy jurisdictions may be deliberately trying to attract ill-gotten money by offering secretive legal vehicles (eg discretionary trusts\textsuperscript{14}). These tax havens usually shield themselves from these legal vehicles so that other countries will suffer the consequences. For example, some jurisdictions allow the setting up of “international business companies” that are only allowed to operate abroad and are banned from owning local land or engaging in business with residents of the country in which the companies are incorporated.

In order to effectively tackle legal vehicles’ secrecy and its consequences, countries should take a holistic approach in relation to the entities incorporated or operating in their territories. First, ease of setting up a business shouldn’t come at the expense of transparency. After all, foreign and local investors not engaging in money laundering or other crimes should have no problem in disclosing their identity. Second, preventive measures should be taken against secretive legal vehicles created in secrecy jurisdictions. Third, verification measures should ensure that ownership information is accurate and truthful. This paper will present proposals on these three issues.

\footnotesize{\textsuperscript{11} \url{https://www.globalwitnes.org/ru/blog/what-does-uk-beneficial-ownership-data-show-us/}; 21.12.2018.}
\footnotesize{\textsuperscript{12} See for example, Argentina’s case: \url{http://www.mondaq.com/Argentina/x/733024/Shareholders/THE+ARGENTINE+OFFICE+OF+CORPORATIONS+IGJ+SIMPPLIFIES+THE+REGISTRATION+OF+FOREIGN+COMPANIES+HEADQUARTERED+IN+BUENOS+AIRES}; 21.12.2018.}
\footnotesize{\textsuperscript{13} \url{http://www.doingbusiness.org/en/methodology/starting-a-business}; 21.12.2018.}
2. Ensuring access to all relevant data
First, countries should ensure that all relevant data on legal vehicles is collected so that ownership verification may take place. This section covers all the relevant data (legal ownership, beneficial ownership, directors, etc) that should be collected, what legal vehicles should be subject to registration and where to hold such information.

2.1 Where to hold ownership data: beneficial ownership registries
This subpart will explore who should hold beneficial ownership information and who should be required to report this beneficial ownership information.

The best approach to ensure access to accurate ownership information is for countries to establish a beneficial ownership register, either within the existing commercial register or a new one. The Tax Justice Network has produced a checklist on all issues that should be consider to set up an effective beneficial ownership register. Open Ownership has developed a beneficial ownership data standard for the same purpose.

In essence, the beneficial ownership register should be:

- **Central**: a unique register for the whole country will ensure easy access to information. Otherwise, requests for information will have to be submitted to each subnational or local register. In addition, having many registers would increase the risk of inconsistencies on how and what information is collected.

- **Government held**: the beneficial ownership register should be held by the commercial register, or the tax authorities, or the Central Bank to make it official. If the register is held by the private sector (eg a private company or a

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Box 1: How can federal countries establish central registers (one for the whole country), without the support of cantons, states or provinces?

In federal countries, company incorporation may be up to each local region, state, canton or province, beyond the federal government’s power. If a country’s reputation or international sanctions are not enough to compel all subregions to agree on one central register of beneficial ownership for the whole country, or to require beneficial ownership collection at all, federal governments could leverage the fact that relevant institutions (eg tax authorities, the Central Bank) are usually part of the federal government. The proposed partial solution is thus to establish a federal central register of beneficial ownership and to require registration with this new beneficial ownership register (in addition to any local registration that took place) for any legal vehicle willing to:

- Obtain a tax identification number (in order to operate in the country);
- Open a bank account; or
- Obtain any outcome dependent on the federal government (eg be registered in a federal registry such as a land register, engage in procurement contracts, etc).

This is just a partial solution because it would ensure availability of beneficial ownership information only about legal vehicles operating in the country, but not for those operating abroad (who wouldn’t need to obtain a local tax identification number or a bank account). To tackle this gap, foreign countries (eg banks in foreign countries) should refrain from recognizing or engaging in business with these unregistered legal vehicles until they register with this federal register.

As a first step, both the tax authorities and the Central Bank could share all ownership information they currently hold for the federal government to set up a beneficial ownership register.

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15 Knobel, Meinzer, and Harari, ‘What Should Be Included in Corporate Registries?’
chamber of commerce), wrong incentives may apply, because the register’s clients will include the (potential) criminals trying to remain hidden. Nonetheless, this risk will be present even if held by authorities in secrecy jurisdictions that deliberately attempt to attract ill-gotten money or that consider the fees of incorporating entities an important source of revenue. This paper includes measures against tax havens’ secretive entities (see below).

- **Public access:** access to legal and beneficial ownership information should be available online and accessible by the general public. This way, other local authorities (eg law enforcement) and foreign authorities will have immediate access to some beneficial ownership information, facilitating the global fight against illicit financial flows. This will also free resources from national authorities that would otherwise need to spend time to respond to each request to access beneficial ownership information (from other local or foreign authorities).

Public access also assists financial institutions and other agents required to perform their due diligence on customers (which includes determining the beneficial owners of their customers) to prevent money laundering and the financing of terrorism. Lastly, public access helps civil society organisations as well as investigative journalists run their investigations on financial crimes and report to authorities about inaccuracies or wrong data present in the register. For example, in 2018 Global Witness analysed the UK beneficial ownership register available in open data. Their report found that 328 companies are part of circular ownership structures where they appear to control themselves; 7,848 companies share a beneficial owner, officer or registered postcode with a company suspected of having been involved in money laundering; more than 208,000 companies are registered at a company factory (an address with more than 1,000 companies registered there); and more than 9,000 companies are controlled by beneficial owners who control over 100 companies (indicating potential cases of nominees being registered instead of the real beneficial owner).

- **Open data:** beneficial ownership information should be publicly available and online, but also for free and in open data format (eg machine readable, reusable, etc). This way, authorities, civil societies organisations and investigative journalists will be able to easily use the information, apply advanced analytics (eg big data) and other sophisticated analyses to verify and crosscheck the registered information (as described below). This can help identify redflags that would require further investigation.

- **Retaining information:** ownership information contained in the register should be kept for at least for five years after the legal vehicle is dissolved or

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17 Global Witness, ‘The Companies We Keep. What the UK’s Open Data Register Actually Tells Us about Company Ownership’. 
terminated, although ideally information would be kept indefinitely (eg as part of a blockchain).

2.1.1 Complements to the beneficial ownership register: obligations on legal vehicles and other holders of beneficial ownership information

Instead of requiring public beneficial ownership registries, international organisations such as the Financial Action Task Force (related to anti-money laundering) and the OECD’s Global Forum (related to tax evasion) give governments a lot of slack on how they ensure beneficial ownership information is made available to authorities. They allow countries to choose at least one of three alternatives: directly holding beneficial ownership in a central register (as described above), obtaining information from those who may already hold some beneficial ownership information (eg tax authorities, banks or corporate service providers) or requiring beneficial information be provided directly from the legal vehicle under investigation.

Ideally, all three approaches should be mandatory. First, countries should establish public beneficial ownership registries, as described above, because this is vital to tackling financial crime, corruption and terrorism at a local and global level. Second, they should require tax authorities, banks or any other holders of information (eg lawyers and other professionals required to carry out due diligence processes) to report any inaccuracies or discrepancies to the register, so that information in the central register remains accurate and up to date (the European Union Anti-Money Laundering Directive 52018 requires this under the amended Paragraph 4 of Article 30). Lastly, legal vehicles themselves should be required to keep an updated list of their beneficial owners and to report this to the register whenever a change occurs. Germany’s law in some cases relies on the beneficial owners themselves, not the company, to register with the beneficial ownership register. This makes it very hard to enforce the law since no one is required to know who the beneficial owners are aside from the beneficial owners themselves.

If countries don’t establish a central register but rely only on either of the other two alternatives, several shortcomings will remain. On the one hand, relying only on banks, corporate service providers and others who may have collected some beneficial ownership is problematic because it assumes that all legal vehicles have engaged with a bank or a corporate service provider in the first place. This may not be the case if the legal vehicle only operates abroad. Second, the bank or corporate service provider (eg a lawyer or notary) may have conflicting incentives at play – continued lucrative business fees from criminals versus delivering on their responsibility to detect and report crime. As a result, banks and corporate service providers may be disincentivized to provide accurate beneficial ownership

19 OECD, 2016 TERMS OF REFERENCE TO MONITOR AND REVIEW PROGRESS TOWARDS TRANSPARENCY AND EXCHANGE OF INFORMATION ON REQUEST FOR TAX PURPOSES.
information or to collect it in the first place – this is particularly true for small banks or corporate service providers that could simply dissolve and have its directors flee the country. This problem is exacerbated by poor supervision of banks and corporate service providers (eg Panama Paper’s Mossack Fonseca, Denmark’s Danske bank\(^{22}\)), as well as the limited punishment and prison sentences against banks considered too big to jail\(^{23}\) even when engaging in money laundering. At the most, banks may have had to pay fines that look high for a lay person, but not so much for a big bank, especially if the fines end up being tax deductible\(^{24}\).

An even worse alternative is for authorities to rely only on legal vehicles themselves to hold beneficial ownership information and to provide it on request. By the time authorities need the information, they may find out that the entity actually failed to update it or collect it in the first place. An automated central register would solve this because it could automatically check all submissions and thus identify entities that failed to register or update all ownership information (eg an entity that didn’t file an annual return in 2017). With a central register that automatically checks filings by each entity and requires noncompliant entities to do so, authorities could ensure that beneficial ownership information of all legal vehicles has already been registered and updated before it’s actually needed. On the contrary, if authorities rely on an entity itself to provide beneficial ownership information when requested, the availability of updated information is not the only risk. In reality, it would be very unlikely that a legal vehicle involved in illegal activities will disclose all relevant and accurate information that incriminates itself and its owners. This risk is exacerbated if authorities are not able to impose effective sanctions against an entity that fails to provide beneficial ownership information, for example because the entity’s directors themselves are other entities or if company officers are located abroad.

**2.2 Which legal vehicles should register with the beneficial ownership register**

In order to avoid loopholes, all relevant legal vehicles should be registered. This includes any legal vehicle (not only legal persons, but also trusts or similar arrangements) or any vehicle or structure, other than a human being, that could own assets or engage in business by selling or purchasing goods or services in its own name.


Specifically, each country should require registration of all types of legal vehicles (legal persons and legal arrangements) that:

i. are incorporated according to, or governed by local laws;
ii. are operating (e.g., own assets or bank accounts, sell or purchase goods or services) in the country’s territory; or
iii. have a party (e.g., shareholder, director, settlor, trustee, protector, beneficiary, etc) that is resident in the country.

There should be no exemptions from beneficial ownership registration (e.g., for companies listed in a stock exchange), unless information is duplicated (already available somewhere else in an equally accessible format). Even in that case, a legal vehicle wouldn’t be exempted from beneficial ownership registration but would simply provide the hyperlink or source where all the relevant beneficial ownership information is already published and accessible (e.g., in another country’s public beneficial ownership register).

2.3. What information to register about each legal vehicle: legal ownership, beneficial ownership, the ownership chain, and directors/officers

This subsection will explain all the types of ownership and control information that should be registered about each legal vehicle. These include beneficial ownership information, legal ownership information, the ownership chain and details on directors and managers of the legal vehicle.

2.3.1 Registration of beneficial ownership information

As expressed above, all legal vehicles should register their beneficial ownership information at public beneficial ownership registries. To do this properly, the most relevant factor is to determine who should be considered a beneficial owner. The first task is to establish relevant definitions for each type of available legal vehicle, differentiating between legal persons and legal arrangements.

2.3.1.1 Definition of beneficial ownership for legal persons (e.g., companies)

For legal persons similar to companies, definitions usually cover all individuals who are in control based on:

<table>
<thead>
<tr>
<th>Legal persons (e.g., companies)</th>
<th>Legal arrangements (e.g., trusts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporated in an EU country [similar to our proposed first factor, but not under other circumstances, e.g., our proposed factors ii and iii]</td>
<td>a) The trustee is resident in the EU [only partially complying with our proposed third factor, but not with our proposed first factor];</td>
</tr>
<tr>
<td></td>
<td>b) The trust sets up a financial relationship in the EU [only partially complying with our proposed second factor]; or</td>
</tr>
<tr>
<td></td>
<td>c) The trust acquires real estate in the EU [only partially complying with our proposed second factor];</td>
</tr>
</tbody>
</table>

Source: Tax Justice Network’s “The EU’s latest agreement on amending the anti-money laundering directive”
• Ownership;
• Voting power;
• Right to appoint or remove Directors or senior management; or
• Influence or control the legal vehicle in any other way (see examples here\textsuperscript{25}). [Anyone holding a power of attorney or power of administration over the entity should also be considered a beneficial owner]

When determining what “ownership control” or “voting power” means, countries should establish that any individual directly or indirectly holding at least one share should be considered to be a beneficial owner. After all, many countries already apply this “one share threshold” to identify legal owners (any individual, entity or nominee directly holding at least one share must usually be registered a shareholder or legal owner. In the case of trusts and legal arrangements thresholds are also prohibited). However, many countries’ beneficial ownership laws\textsuperscript{26} follow an example suggested by the Financial Action Task Force\textsuperscript{27} and apply thresholds of “more than 25 per cent” of ownership or of voting rights to determine who a beneficial owner is. Such high thresholds make it extremely easy to avoid being identified as a beneficial owner. For example, a company equally owned by two parents and two children, or by four friends, would have zero beneficial owners identified because everyone would have 25 per cent but not more than 25 per cent of ownership.

If applied, thresholds should be as low as possible. Uruguay\textsuperscript{28}, for example, applies a 15 per cent threshold. However, even a 10 per cent threshold has proven to be easy to avoid. For example, in the BTA Bank case where former banker Mukhtar Abyazov was accused of embezzling US$5 billion from the Kazakh BTA Bank\textsuperscript{29}. Among the secrecy strategies he utilised to conceal his wealth, he managed to hide his ownership of the bank he chaired by using parallel chains of entities that would each hold between 9.50 per cent and 9.96 per cent interests in the bank, enabling him to avoid the disclosure requirements that were triggered at the 10 per cent ownership threshold.\textsuperscript{30}

Establishing that anyone holding at least one share is a beneficial owner (as proposed by the Tax Justice Network\textsuperscript{31}) shouldn’t be considered too burdensome or complicated. The definition of “beneficial owner” of Curacao\textsuperscript{32}, for example, uses

\textsuperscript{26} Knobel, Harari, and Meinzer, ‘The State of Play of Beneficial Ownership Registration: A Visual Overview’.
\textsuperscript{30} Nougayrède, ‘The Use of Offshore Companies in Emerging Market Economies: A Case Study’.
\textsuperscript{32} The FSI detailed report on Curacao wrote: “All individuals who on the basis of the Articles of Association or contractually or otherwise are entitled to receive distributions from its equity are considered to be the entity’s “ultimate beneficial owners” (Article 45(6)). In practice, Curacaonian authorities interpret this as including all
this low threshold (although Curacao’s law on beneficial ownership registration has loopholes\textsuperscript{33} that need to be closed).

For countries that will nevertheless apply high thresholds, additional measures should at least be applied to neutralise the risks created. First, countries should require that whenever no individual passes the threshold, the vehicle shouldn’t be allowed to be created because it has no beneficial owners. Alternatively, if no one passes the threshold, then at least the top 5, 10 or 20 owners should be identified as beneficial owners (even if each of them holds only 2 per cent of the shares).

In addition, based on Financial Action Task Force recommendations\textsuperscript{34}, many countries’ beneficial ownership laws require that when no person can be identified as the beneficial owner, a person holding the position of a senior manager should be identified instead. This is problematic as it then fails to redflag a company failing to identify its beneficial owners. It also allows companies to structure their ownership so that no one holds more than the threshold, in order to put forward a senior manager (eg nominee director or CEO) to be identified as the beneficial owner. If countries will apply the senior manager rule, at the very least the beneficial ownership register should indicate as a red flag that the registered person is merely a senior manager, but not a real beneficial owner, and this should be considered a high risk by banks and other agents that engage with such an entity. Legal vehicles should register who all of their senior managers and directors are as described below, but no director or manager should be registered as a “beneficial owner” just because the real beneficial owner wasn’t identified.

\textbf{2.3.1.2 Definition of beneficial ownership for legal arrangements (eg trusts)}

For legal arrangements such as trusts (and for similar vehicles such as private foundations, which are actually legal persons that have to incorporate), the Financial Action Task Force recommends and the \textit{EU Anti-Money Laundering Directive}\textsuperscript{35} requires every party to the trust (or private foundation) to be identified as a beneficial owners, including:

- The settlors or founders
- Trustees or members of the foundation council
- Protectors
- Beneficiaries or a description of their class
- Any individual with control over the trust or private foundation

Importantly, in the case of trusts and private foundations, every party must be identified as a beneficial owner, regardless of any proof of control. For example, a settlor must be identified even if it’s an irrevocable trust. A beneficiary must be


identified, even if it has only a contingent interest in the trust, or if it may merely obtain a distribution of 1 per cent of the trust’s assets.

2.3.1.3 Definition of beneficial ownership for combined cases
For legal vehicles whose *ownership structure combines different types of legal structures*\(^36\), eg a company owned by a trust, or a trust with a corporate trustee, beneficial ownership definitions must be applied comprehensively.

**Figure 3: Combination of legal persons and trusts**

In the case of a company owned by a trust (see Figure 3 on the right), the beneficial owners of the company will be all the parties to the trust (the settlors, trustees, protectors and beneficiaries), assuming that they are all natural persons.

In the case of a trust where any of the parties is an entity, eg a corporate trustee, as shown in Figure 3 on the left, the beneficial owners of the trust will be the settlors, the protectors, the beneficiaries (assuming that they are all natural persons), and the individuals who own or control the company acting as a trustee. In essence, given that beneficial owners must always be natural persons, all entities or trusts involved in an ownership chain must be “looked-through” to identify the individuals ultimately owning or controlling them.

2.3.2. Registration of legal ownership information
In addition to disclosing beneficial ownership (see point above), all legal vehicles should also register their legal ownership information at the beneficial ownership register.

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\(^{36}\) Knobel, ‘Regulation of Beneficial Ownership in Latin America and the Caribbean’. 
Legal ownership refers to the individuals or legal vehicles that directly hold or own a specific legal vehicle. In other words, the first tier of direct or immediate ownership of a legal vehicle (e.g., the shareholders of a company). If an individual directly owns a company, they will be its legal and beneficial owner at the same time.

Legal ownership registration requires that every legal owner be registered without thresholds (e.g., any legal vehicle holding at least one share in a company is usually subject to registration). If there are different types of owners or members, e.g., limited and unlimited partners, or different types of parties to a trust, e.g., settlor, trustee, protector, beneficiaries, etc., they should all be registered and updated upon any change.

Legal ownership, which tends to be registered in most countries, is less useful than beneficial ownership because it doesn’t identify those individuals with ultimate control, but instead may include other legal vehicles, as well as nominees (people who offer to put their own name as the owner while allowing the beneficial owner’s name to remain hidden, in exchange for money). However, legal ownership is still indispensable to verify beneficial ownership information: if a country has no idea about which individuals or entities directly own a company (legal ownership is the first tier of ownership), it may be impossible to know which individuals ultimately and indirectly control or benefit from that company (beneficial ownership is the last tier of ownership). In other words, how could one know the last link of the chain, without knowing the first one?

Box 3: How to discourage nominee directors?

For countries unwilling to prohibit nominee directors, countries shouldn’t allow directors to invoke their status as “nominees” to avoid liability. Nominee directors should be required by law to be informed about the business and operations of the company and report any wrongdoing. Indemnities in favour of nominee directors should also be restricted.

Corporate directors (directors that are entities, instead of individuals) shouldn’t be allowed. At least one natural person director should be resident in the country where the entity is incorporated, so that laws may be enforced against them, for any wrongdoing.
2.3.3. Registration of the full ownership chain

In addition to disclosing their beneficial and legal ownership information, all legal vehicles should register their full ownership chain with the beneficial ownership register.

Countries usually require legal ownership to be registered (see the point above) but this only covers the first tier of ownership. If a company doesn’t disclose all the tiers (the full ownership chain), it may be difficult to identify the beneficial owner. Take a company with five tiers of ownership. Even if the legal owners (first tier) are known because they have to be properly registered, how could authorities identify or verify the beneficial owner, if there is no registration or information about tiers two, three and four? Even if someone (eg “John”) is registered as the beneficial owner (fifth tier), if the ownership chain is a black box (because there is no information about what’s inside), there is no way to ensure that John is really the beneficial owner, or that he keeps being the beneficial owner throughout time.

If the full ownership chain isn’t disclosed, it remains a “black box”, preventing the beneficial owner of being identified and verified:
To make matters worse, if any company in the ownership chain has bearer shares (not registered or immobilised by a government custodian), then it may be impossible to determine who the beneficial owner is.

Countries should take measures to prevent the ownership chain from being an obstacle to identifying, verifying and updating beneficial ownership information. Therefore, at the very least, countries should require the full ownership chain to be registered (every tier of legal owners until the beneficial owners). This should be updated upon any change.
2.3.3.1 Restrictions on the ownership chain to increase transparency

Even if the full ownership chain is disclosed, many risks will remain, as identified in the box above about globally spread out ownership chains. For example, a UK company could disclose that it is owned by a tax haven company (that didn’t need to register its legal owners), which in turn is owned by an offshore company that issued unregistered bearer shares. In other words, knowing the full ownership chain of the UK company, doesn’t make it any easier to ensure who the beneficial owners are, because the ownership chain involves highly secretive entities. Complex ownership structures that are globally spread out are one of the main ways to conceal beneficial ownership, as described by the Financial Action Task Force report on concealment of beneficial ownership information37. In Mr. Ablyazov case mentioned above, for instance, “two and half years of effort were required in order to compile sufficient circumstantial evidence [about ownership] involving only eight companies”.38

In order to address these remaining risks, countries could undertake more extraordinary measures. Understandably, many countries will be reluctant to unilaterally impose these additional measures, because they could fear that this would deter foreign investment in their country and would likely lead to a worse ranking under the World Bank’s ease of doing business report. However, major

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countries and blocks, eg the US or the European Union, could lead by example. After all, there are examples of transparency measures originally perceived as radical, which are now mainstream. Consider for example automatic exchange of banking information. In a world where banking secrecy was the norm, the US decided to unilaterally impose disclosure requirements on all banks in the world, with the enactment of the Foreign Account Tax Compliance Act (FATCA). The result of this wasn’t that banks and individuals stopped investing or opening accounts in the US, but rather that within three years more than 100 jurisdictions decided to follow suit and required automatic exchange of information also for themselves under the OECD’s Common Reporting Standard (CRS)\textsuperscript{39}. Similar strong measures should be taken by major economies, but this time on beneficial ownership transparency.

The following two measures may sound radical now, but could easily be regarded as indispensable by many countries to finally ensure the transparency of legal vehicles:

\textbf{a) Limits on the quality (and origin) of the ownership chain}
Countries could require that the ownership chain may only include legal vehicles, local or foreign, that have been required to disclose their legal owners (and ideally their beneficial owners too) in their country of creation, ideally in public online registries.

For example, country A could establish that any foreign legal vehicle integrating into the ownership chain of a local company (incorporated in country A), must be incorporated in a country that also requires legal ownership registration (and ideally beneficial ownership too). If this information is available online to the general public, authorities from country A would be able to directly verify the ownership chain of the local company up to the beneficial owner, without needing to make a request for information to a foreign authority. No company with bearer shares (or from a country where bearer shares are allowed) should be allowed to integrate into the ownership chain. Similarly, for example, Argentina’s Resolution 7/2005 from the commercial register prohibited offshore companies to operate in the country, unless they registered shareholder information as local companies.

To identify the full ownership chain, the legal owners of each tier must be known. Knowing the beneficial owner of each tier is not strictly necessary but would be useful for crosschecking information.

\textsuperscript{39} Knobel and Meinzer, ‘‘The End of Bank Secrecy’’? Bridging the Gap to Effective Automatic Information Exchange. An Evaluation of OECD’s Common Reporting Standard (CRS) and Its Alternatives‘‘.
A less radical approach would be for countries to require that, when disclosing the full ownership chain of a local company, the local company must disclose also the beneficial owners of each vehicle integrating into the ownership chain. This provides more valuable information, but it doesn’t allow information to be verified against an official register (it’s merely more self-declaration by a local company).

In order to promote this full disclosure throughout the whole economy, countries could impose a restriction not only on the ownership chain of local vehicles (eg restricting which types of foreign entities may own a local company) as described above, but on a local company’s suppliers, contractors and clients, requiring all invoices to refer to a company or entity that has disclosed its legal ownership information in a public register.

Ideally, there will be one global register of all legal vehicles, where the validity and ownership information of legal vehicles can be checked. Until such a global register of all legal vehicles exist, local entities would have to disclose the place (eg website) where the relevant ownership information is declared. For example, if company 0 is owned by Company 1, which is owned by Company 2, then Company 0 should disclose to the commercial register the ownership information of companies 1 and 2 (and the website for where to crosscheck this information). If Company 0 engages in business with Company 3, it should disclose to the tax authorities the ownership information of Company 3 (and the website where to crosscheck this).
b) Limits on the quantity (length) of the ownership chain

The other extraordinary measure would be to require that the ownership chain must have at the most one or two tiers of legal owners preceding the beneficial owner. Longer ownership chains must be authorized on a case by case basis if proper justifications are given.

As it was described above, the longer the ownership chain, the harder it is for authorities to identify the beneficial owner. However, there is generally no restriction on the number of tiers integrating the ownership chain of a legal vehicle. For example, a study on procurement companies in the European Union found that some of the companies that won tender contracts had an ownership chain of 20 tiers preceding the beneficial owner40. By adding many layers or tiers, a criminal may create secrecy obstacles for free, while all the burden and cost is passed on to authorities who will have to invest much more resources to identify the beneficial owners of those complex ownership chains.

The law, however, offers another approach when someone introduces a risk or danger into society. In this case, such person will have to bear the consequences of the hazard they introduced. This applies for example in “strict liability” (the imposition of liability regardless of the person’s fault or negligence). In some civil law countries, the owner of a car has strict liability in case of a car accident (regardless of any negligence), because the owner introduced a risk/danger (the car) into society.

Based on this principle of requiring the person who introduces a danger into society to bear any subsequent costs, rather than to pass on these costs to the victims, countries should transfer the burden to the individual who created a legal vehicle with a complex ownership chain, instead of bearing the burden themselves.

This paper isn’t proposing to impose strict liability on anyone involved in a complex legal vehicle (although this could be explored further). The proposal is to apply the principle that those who introduce a risk should bear the consequences (eg be required to comply with more conditions than those who establish a legal vehicle with a simple structure).

Countries could either prohibit complex structures that have more than one or two tiers of legal owners preceding the beneficial owner to eliminate the risk altogether, or require a justification for every extra tier to make sure that such complexity is indispensable and unavoidable.

Alternatively, extra requirements could be requested from these legal vehicles to make complex structures undesirable while providing the transparency that they neglect. For example, extra requirements could include presenting a monthly notarized and apostilled certificate of the legal ownership of each foreign tier and other burdensome processes (eg video conference with a representative of each tier

or require their in-person presence). Importantly, this wouldn’t discourage foreign investment or business. Investments and business would still be easy, as long as the ownership structure is simple (in this case, no monthly notarization or monthly video calls would be needed).

c) Limits on the right to become a legal or beneficial owner in the ownership chain
Ideally, only individuals (or entities, in the case of legal owners) that are able to prove the legal origin of the funds used to acquire an interest in a legal vehicle, should be allowed to integrate into the ownership chain and become legal or beneficial owners.

While usually banks and real estate brokers are already required to check the origin of funds before they allow someone to transfer millions of dollars or to purchase a house, the same doesn’t apply to legal vehicles. There are usually no preventive checks on the acquisition of shareholdings or interests in a legal vehicle. There is currently no limit to become a legal owner (eg a shareholder) of a company, let alone a beneficial owner.

While countries should impose sanctions for registering false information (this paper also proposes below verification steps for preventing false information), criminals may still be tempted to register strawmen as beneficial owners to blur the identity of the real beneficial owner or to impede investigations by authorities. For example, as described by Nougayrède in Mr. Ablyazov’s BTA Bank case mentioned above, the beneficial owners of one investigated company changed five times within two years. Each change coincided with key phases in the judicial proceedings, and the appointments were even backdated. In the end, the judge understood that Mr. Ablyazov had been the true beneficial owner of the company all along. Another company owned by Mr. Ablyazov under investigation also had many backdated changes of beneficial owners take place, but the court disregarded these alleged beneficial owners on the grounds that they didn’t have any wealth of their own.

One way to prevent the registration of false ownership information is for example in countries where transfers of shares must be done through a public notary. In such cases, however, the transfer isn’t usually blocked - at the most the notary will file a suspicious transaction report in case of suspicion of money laundering. The same should be enforced in relation to other corporate service providers, but they are hardly ever subject to filing of suspicious transaction reports, especially if they are lawyers.

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While it may sound like an extraordinary requirement, this paper also proposes that whenever the transfer of an interest in a legal vehicle (e.g., a shareholding) is registered with the commercial register, tax authorities should be notified about the transfer for them to check whether the purchaser had the means to make such a purchase in the first place, based on their declared income or wealth. Again, this already applies to the acquisition of real estate, so extending it to the acquisition of legal vehicles shouldn’t be regarded as impossible. In principle, the transfer of shares would be valid, unless the tax authority reports any redflags (in the future, approval should be required before the transfer takes place). The tax authorities’ “sufficient means” analysis may not need to happen all the time, but only for transactions beyond certain thresholds, e.g., if the purchase price is above, say, US$10,000, or if it represents the acquisition of at least 10 per cent of a company involved in government procurement or in a company whose income or assets are above US$100,000. For example, tax authorities should redflag and notify the financial intelligence unit, if a person without any declared income acquires the ownership of a company worth millions in income or assets. In such case, the register should withhold listing the suspicious purchaser as a legal or beneficial owner (basically, put the transfer on hold), or redflag the entity for financial institutions and other actors to be aware of the risk it represents.

A person or entity without sufficient means, however, could claim that they received financing (e.g., a bank loan) for that purchase of shares. In that case, authorities should contact the bank or the declared financer to verify that the loan took place and investigate the financer or the loan itself if suspicions remain.

Nevertheless, a criminal could avoid the check on the legal origin of funds altogether, by implementing the acquisition of interests as a donation instead of a purchase (there’s no need to be rich to receive a gift). Donations may be discouraged, however, because they are usually subject to fraudulent conveyance (where creditors of the debtor-donor may object to the donation if the debtor becomes insolvent by such dispossession). Therefore, an even more sophisticated strategy would be to use a trust. If the legal vehicle’s interests (e.g., shares of a company) are owned by a trust, the trustee or the protector (depending on the trust) could appoint new beneficiaries based on their discretion – beneficiaries would not need to prove any income or wealth to become beneficiaries. Appointing beneficiaries in an existing trust isn’t subject to fraud actions either. In order to address this risk of non-monetary acquisitions of interests in a legal vehicle, beneficial ownership registries should redflag any free transfer of shares or of other interests in a legal vehicle (e.g., a donation or appointing new beneficiaries), especially if the recipients are not family members of the donor or settlor.

2.3.4 Registration of other persons relevant to the legal vehicle: directors and those with power of attorney

In addition to registration of legal and beneficial ownership information, and the full ownership chain, ownership registries should also collect information about officials of the legal vehicle (e.g., directors, company secretary, senior managers, etc) as well
as anyone with a power of attorney to manage the legal vehicle (who should be considered a beneficial owner for having influence or control over the entity).

Depending on the risk of the legal vehicle (eg its involvement in government procurement), additional data about it should be collected (though not necessarily by the beneficial register, so long as the crosscheck system has access to all relevant data). For example, information on suppliers or contractors of the legal vehicle may be relevant to determine cases of corruption or conflict of interest, given that sophisticated criminals would not be directly involved with the company winning a government bid, but with a contractor or supplier of such company. Information about who the contractors of the company are would be available with the tax authorities, based on an entity’s invoices, or by banks, based on banking transactions of the entity. Allowing the algorithm to check who has a power of attorney over the risky legal vehicle’s bank accounts may also be relevant to screen for potential corruption or conflict of interest.

2.4 Details to be registered about legal owners, beneficial owners and directors

The details of legal and beneficial owners, directors, officers and those with power of attorney should include enough data to be able to identify a specific individual or legal vehicle (in the case of legal ownership) without doubt. For this reason, a very basic level of data should include name, commercial address (residential address could be collected but remain confidential) and country of residence, nationality or incorporation.

However, collecting just a basic level of data does raise some problems. First, a name or address can be written in different variations. For example, an address may be listed starting with the street name or building number. Since there is no standard for transliteration, names in different languages can be spelled in many different ways in English, such as Mohamed, Mohammed, Muhamed and Muhammed. Even when a name is spelled consistently (in English or phonetics), there may be many thousands or even hundreds of thousands of individuals with the same name and last name (eg John Smith, Zhang Wei, Hugo Garcia). For this reason, collecting a more discerning level of data that includes identifier numbers is better: eg date of birth, passport number, tax identification number, etc.

Just as entities may now choose to obtain a global unique identifier (called Legal Entity Identifier or LEI), in the future, individuals should be issued a “global unique stakeholder identifier (GUSI)”. That way, it will be possible to know if the John Smith appearing as the owner of a company in Panama is the same John Smith appearing as the owner of a company in Germany.

National identity or tax identification numbers can help mitigate some of the risks of illicit financial flows through company ownership. Yet these identification numbers fall short for a number of reasons. For example, not all countries issue tax identification numbers, there is no seamless crossborder exchange of the numbers and associated details, and new passports (with new details and identification
numbers) may be purchased in exchange for money. It remains also questionable whether it is desirable from a human rights perspective for every individual to be given a single global identification number which is centrally administered. Therefore, a targeted solution such as a system for a “global unique stakeholder identifier (GUSI)” could be developed that is given exclusively if and when individuals are legally related to a legal vehicle. Ideally, such an identifier would be issued by the country of birth (which cannot be changed, unlike the nationality).

For example, if John Smith was born in Australia, and was applying to becoming the director or beneficial owner of a UK company, the UK beneficial ownership registry would request him to provide his Australian issued GUSI, which he would need to request to be issued from the Australian authority. Once issued, this number would not change over his lifetime, and it would be required for any stake in legal vehicles anywhere in the world (director, legal owner, beneficial owner, trustee, nominee, settlor, beneficiary, etc). Like a primary key in a relational database, the GUSI would serve as a tool to disclose corporate and legal interests of any individual stakeholder across the world, and thereby enhance data integrity of any business and other registers. No additional personal information on John Smith would need to be disclosed because of the GUSI aside from the information that would already be available in any of the public registers where John Smith has corporate interests. In our example, this would be at the UK companies house (eg name, commercial address, type of beneficial ownership, month and year of birth, etc).

Other secondary details to the identity of a person should still be collected, because of their relevance in the fight against illicit financial flows. For example, whether a person is a local or foreign politically exposed person (PEP), or related to a PEP, as well as details on the country where the person is a PEP and how long the person has been a PEP. If the register warned in a public list that a director or shareholder of a company is a PEP (just as it should warn in a public list that a company is inactive for failing to update information - see below), this detail could be relevant for banks operating with that company or if the company participates in a public tender for a government contract, because there would be a higher risk of corruption.

As regards legal and beneficial ownership, information should specify what kind of ownership or control each owner has, and since when. For example, “On May 1 2018 John Smith became the legal and beneficial owner of Company A because he directly owned 82 per cent of the shares” (instead of only disclosing ownership brackets, eg 50-75%, as in the UK) or “Mary White has been a beneficial owner of trust B since April 1 2018 because she is the settlor”.

The next section will describe all details that should be collected about each beneficial owner, not only to be able to identify each specific person beyond any doubt, but also to crosscheck and verify information.
2.5 Update of all registered information
In all cases (legal owners, beneficial owners, directors, etc), information should be updated upon any change, ideally within 15 or 30 days (e.g. if a new person becomes the beneficial owner of a company or if a new beneficiary is appointed in a trust). If no changes took place, confirmation of the accuracy of the current information should also be filed on an annual basis. This is essential to ensure the accuracy of the information at any given point in time and to improve proactive compliance with the register and the ability of authorities to follow up with companies where they believe details are incorrect.
Box 6: How to ensure timely updating of legal and beneficial ownership information and discourage the use of nominee shareholders?

Ownership information that isn’t updated is of little use since a lawyer or corporate service provider could have incorporated a company, appearing as the owner, only to immediately transfer the ownership to a new person. Outdated ownership information is as useful as the identity of a nominee shareholder: neither allow the beneficial owner to be identified. In addition to merely “prohibiting” the use of nominees or requiring information to be updated, countries should establish proper incentives in the form of sanctions.

Monetary sanctions for failing to update information are of little use by themselves, because they may be considered another “cost” of money laundering or corruption. Criminal sanctions for failing to provide information on changes in beneficial ownership (as those available in the UK) are much better. However, additional sanctions should be added to complement the civil and criminal sanctions mentioned above.

These additional measures could address the fact that individuals usually don’t mind pretending to lose control, but certainly don’t want to lose real control and protection under the law. For example, strawmen (informal nominees) are used even in countries where doing so is prohibited. In this case, however, no private contract between the real owner and the strawman would be valid under the law. If the strawman decides to steal from the real owner by keeping the company or assets to himself, there is nothing the real owner can do. Violating the law has its consequences too. Based on this, we propose the following measures to ensure update of ownership information:

- Only consider information registered in the central register to be valid, meaning that registration itself creates rights (“constitutive effect”). Information that is not registered should be considered void, without being able to prove the contrary. For example, a woman shouldn’t be allowed to claim that she is the real beneficial owner, despite not being registered, because of a private transfer of shares or because the registered shareholder is only a nominee. If a company failed to register a transfer or new issuance of shares, the only legal and valid owners or directors are those that appear in the register. Any decision taken by the new (but unregistered) owners or directors should be considered void (incentive for the new owners or directors to ensure registration). Likewise, old (but still registered) shareholders or directors should still be liable to the company and to third persons (incentive for old shareholders and directors to register their transfer of shares or resignation).

- Legal vehicles that fail to comply with annual returns (to update ownership information) should be prevented from operating in the economy. For example, commercial registries should keep a public list of “active” entities by automatically checking all the submissions by all registered entities – if an entity forgot to file an annual return by the due date, the register will automatically consider the entity to be “inactive” and remove it from the list of “active” entities. Banks and anyone operating in the economy should constantly check this list of active entities to ensure that the customers or suppliers they engage with are still “active” and thus allowed to operate (to open a bank account, to transfer money, to sign a contract, etc). A bank shouldn’t be allowed to operate with that company while it remains inactive. Likewise, if a supplier signs a contract with the inactive company (while it is inactive), the contract should be considered void. Being inactive should be equal to not being registered or not existing under the law.

- Individuals related to the inactive entity (eg shareholders, directors, etc) could be subject to harsher consequences if the entity doesn’t resolve the issue. They could be prevented from integrating other legal vehicles, their tax identification number could be suspended, or they could suffer other administrative consequences, e. losing their license if they are corporate service providers.
3. How to ensure accuracy and validity of registered ownership information

Until now, the paper referred to all the information that all legal vehicles should register and update with the beneficial ownership register to allow for verification. Without governments’ collection and access to all this relevant information, effective verification is impossible: how could countries know if beneficial owner “John” refers to “John Smith” or “John White” if they didn’t ask for the last name in the first place?

This section will explore the first part of the verification process. Based on the Tax Justice Network’s paper on Technology and online ownership registries and Open Ownership’s blogs, legal and beneficial ownership registration should comply with the following steps to ensure that legal vehicles (especially those created online, remotely and in less than 24 hours) are not used for illicit purposes.

The verification process involves ensuring that information contained in the official register refers to the people who they say they are (authentication), that those persons have authorised or agreed to be involved in a legal vehicle (authorisation) and that all the registered data is valid (eg the declared address must exist). It also involves checks after the legal vehicle was set up to make sure for instance that all information is updated (eg if legal vehicles are supposed to file annual returns, the system should check that they have been filed).

Box 7: Use of blockchain for ownership registries

While blockchain may have several uses (eg Germany is currently considering it to combat tax evasion), ownership registries could use them for at least two different purposes.

First, to keep track of ownership. Any transfer or issue of shares or membership would be registered in the blockchain (which could be centralized by the ownership registry). This way, the full ownership history of any legal vehicle would remain immutable. Ideally, there would be one global ownership register so that the full ownership chain of any legal vehicle would be tracked.

Second, blockchain technology could be used to ensure the authenticity and immutability of documents registered by legal vehicles, eg their financial statements.

In other words, blockchain would be relevant for the tracking and immutability of the registered data, but not for ensuring that the registered data is accurate or even true. This paper, however, proposes tools to ensure that the data will be accurate and true.

Importantly (and regardless if incorporation of companies, trusts and other legal vehicles is done remotely or in person, in 24 hours or less), registration of information should be carried out through an IT system (old registered information available on paper should be digitalised). This would allow the verification process described below to be performed and help prevent deliberate losses of corporate information as well as arson that could destroy evidence.

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44 Knobel, ‘Technology and Online Beneficial Ownership Registries’.
An automated system of verification and advanced analytics

The verification process proposed in this paper is not supposed to be carried out by humans, but by an IT system with human supervision. Countries should decide whether this IT system is held by the beneficial ownership register or by a different authority (eg tax authority or financial intelligence unit). There could also be different IT systems (eg one for validation and crosschecks) and another one for advanced analytics and big data. Either way, verification of beneficial ownership information could be undertaken by authorities that already apply advanced analytics for other purposes. As described in our previous paper\textsuperscript{48}, for instance, Argentina has Sintys\textsuperscript{49}, a federal system to crosscheck tax and pension information (originally created with a World Bank loan to detect fraud by making sure that recipients of social pensions actually needed them). It allows a public officer to validate a person’s identity, and detect whether they are recipients of retirement, education or social pensions, whether they hold real estate, cars, have interests in companies, employment – or unemployment insurance – and have any additional addresses. Argentina’s tax authorities not only have access to this information, but also to banking records, credit card consumptions, data of students at private schools, insurance and utilities, foreign bank accounts, donations and more\textsuperscript{50}.

The proposal envisages that the IT system for verification of beneficial ownership information (eg an algorithm, not the public or human authorities) will be able to have access to data already collected and held by other state agencies for crosschecking and advanced analytics purposes. It will be up to each country to establish secure frameworks and safeguards for the protection of personal data. Governments should also determine how much information the IT system will be able to access for crosschecking and for advanced analytics purposes based on the information that state agencies already collect and hold, and based also on security and confidentiality provisions about each type of information and the possibility to exchange information within state agencies. The more information available to the IT system, the better it will work (“big data” is about finding patterns based on vast amount of data, not just on a few basic fields).

For example, civil registries may already hold relevant personal information (eg name, address, deaths, births and family relationships); tax authorities may hold relevant economic information (eg profession, tax identification number, assets, declared income and information from invoices about clients, contractors and suppliers, etc); the central bank may hold relevant banking information (eg bank account balances, bank transfers, etc), the financial intelligence unit may hold information about money laundering (eg based on suspicious transactions reports); the commercial register may hold corporate information (eg shareholders, beneficial

\textsuperscript{48} Knobel, 'Technology and Online Beneficial Ownership Registries'.
owners, directors, etc); and the immigration agency may hold information about
residence (trips abroad and destination, frequency, etc).

3.1 Authentication
The first step of verification is for the beneficial ownership register to ensure that all
legal owners (including the full ownership chain) and beneficial owners (of the legal
vehicle about to be created) are who they say they are. One way to do this would
be by requiring digital signatures for any process at the beneficial ownership
register, as it’s currently explored by the Financial Action Task Force.51

For beneficial owners and for legal owners who are natural persons, biometric data
(eg finger prints, eye retina scans, etc) could also be required. For example, the UN
is already using eye scans to pay Syrian refugees52. In addition, beneficial
ownership registries should explore current anti-fraud technologies that allow
persons to be identified through, for example, their computer’s IP address (eg if
they claim to be a German beneficial owner, the IP address shouldn’t refer to that
of a different country). Countries could explore additional technologies used by
home banking applications which are based on a user’s digital identity.53 Banks are
applying even more advanced technologies, for example to prevent fraud, by
determining the digital footprint of users based on how they type on their
computer’s keyboard, how they move their computer’s mouse, how they hold their
cell phones, etc. Cell phones and laptops already offer the option to unlock them
based on a user’s finger prints or face recognition.

Alternatives to digital identities or biometric data includes beneficial ownership
registries requiring the filing of scanned copies of passports or other national
identification – as is already the case for Denmark’s beneficial ownership register
for companies. Ideally, the process to set up a legal vehicle should entail also
having an in-person meeting or at least a video conference with each beneficial or
legal person to verify that the passport photo matches the person’s face. Digital
banks such as Starling already use these types of checks via a mobile phone when
setting up new bank accounts.

As regards legal persons, registries should verify that the legal person is registered
in an actual registry, and that such registration is still active, ideally following the
proposal of point 2.3.3.1 above (to only allow legal owners and ownership chains as
long as they are legal persons incorporated in countries with public ownership
registries and where bearer shares or nominees are not allowed).

In addition, signed declarations confirming the validity of all submitted information
should be required. Most official forms, eg customs and immigration declarations
when entering a country, or documents submitted to a bank require the user to
sign a declaration stating all submitted information is true and accurate. This works

52 https://www.reuters.com/article/us-un-refugees-blockchain/u-n-glimpses-into-blockchain-future-with-eye-scan-
payments-for-refugees-idUSKBN19C0BB
as an incentive to submit accurate information since the declaration could be used in the future to prove “intent” to provide false information, in case criminal proceedings are applicable.

Lastly, if ownership registries outsource authentication processes, only certified authenticator companies should be allowed. These should be required to have directors or senior managers who are liable in case wrong information is authenticated. In order to enforce liability, directors should be individuals (not entities) who are resident in the jurisdiction.
Box 8: Do trust and corporate service providers replace the need for beneficial ownership registries?

The short answer is no. Secrecy jurisdictions have been favouring this approach (that gives more work to their financial sector while ensuring secrecy). Trust and corporate service providers are obviously useful in identifying the relevant beneficial owners and verifying their information, given their close relationship to them. However, they shouldn't replace but complement beneficial ownership registries: if corporate service providers are involved in setting up or managing a legal vehicle, they should be part of the verification process, together with financial institutions (as proposed by the Anti-Money Laundering Directive LD 5, new Article 30.4) so that they report to ownership registries any discrepancy that they discover.

There is no reason to choose between beneficial ownership registries or corporate service providers when countries could easily require both. However, relying only on corporate service providers poses risks and challenges.

First, corporate service providers have the wrong incentives, as Panama Paper’s Mossack Fonseca showed: their clients are the people who may want to remain hidden to engage in illegal activities and they may have a deliberate interest in being kept at arm’s length from the details of their clients. In view of these incentives, there should be effective sanctions to ensure trust and corporate service providers do not assist individuals in concealing their identity, as described by the FATF/Egmont Group paper on Concealment of beneficial ownership. Such sanctions could include criminal proceedings, loss of license to operate and a requirement to have a natural person resident in the jurisdiction, so that sanctions may actually be enforced.

The second reason is that trust and corporate service providers see only a small portion of information - whatever the client is disclosing to them. However, global or at least interconnected ownership registries, will be able to crosscheck data against global databases to ensure accuracy of the registered information.

Trusting corporate service providers from secrecy jurisdictions (instead of public beneficial ownership registers) also pose challenges. For example, as described by Tax Justice Network’s Trusts: Weapons of Mass Injustice? A response to the critics, Jersey’s court system concerningly seemed more interested in protecting the island’s reputation than discovering a beneficial owner. In the “Essam” case, there was evidence suggesting that a man was the beneficial owner while his wife (who was registered as the beneficial owner) was a mere nominee. The man provided finance to the companies both directly and by guaranteeing loans to the companies. He was also granted a power of attorney to act on his wife’s behalf in relation to the companies. However, during a lawsuit where the man claimed to be the real beneficial owner, it appears that the court favoured considering the wife as the beneficial owner, to be consistent with what Jersey’s corporate service providers had certified:

"There is a public interest – a very strong public interest – in the Island being able to demonstrate that it has the ability to identify the beneficial owners of companies, or the beneficiaries under trusts."

Even if a country could prove that their corporate service providers are effective, as Tax Justice Network’s paper concluded, “it is far easier to verify that beneficial ownership information is indeed available in a public register, rather than trying to ensure that every country is spending enough resources and political capital to confirm that corporate service providers are doing their job. But, why choose between one or the other, when we can have both?".

In essence, countries shouldn't choose between public beneficial ownership registries and requiring corporate service providers to collect information, but they should implement both.
3.2 Authorisation
When a lawyer or corporate service provider creates a company or another legal vehicle on someone’s behalf, registries should make sure that the legal owners and/or beneficial owners are actually aware and have given written authorisation for them to do this. In fact, registries could require this confirmation in all cases (even when no corporate service provider is involved) and even if a power of attorney is presented. This would help safeguard against fraudulent practices identified by the Financial Action Task Force like incorporating legal persons or opening bank accounts using stolen identities or identities “bought” from students or highly indebted persons in exchange for US$100.54

In Brazil55, for example, public notaries involved in issuing a power of attorney or administration over a company are required to notify the commercial register within three days about the new document. This helps ensure that information will be updated, but not necessarily that the power of attorney is real (although the involvement of a public notary is supposed to address that risk). Ideally, however, one option would be for registries to notify directly each legal and beneficial owner, and director, about their inclusion as owners or directors in a legal vehicle. Communications should be made to their official email or mobile number (e.g. the email, address or phone number registered with the National Register of Persons, or with the tax authorities), not the email or address registered in the company formation process - an impostor could have provided a fake email or phone number.

An alternative would be to require each legal and beneficial owner, or director, to confirm their authorisation (to be included as a legal or beneficial owner) using a token or “passcode card” like those used for home banking operations to approve a bank transfer or online purchase. Countries could hand out these tokens for official processes, e.g. setting up a company.

If Paul (claiming to be John) sets up a company in the UK, then the automated verification software of the ownership register should contact John at the email or phone number he’s registered to in the UK’s official databases, not at the email or number given by Paul, and ask him to confirm that he is indeed setting up a company. This would be similar to how a credit card sends an email to the credit card owner to confirm that it was them who made an online purchase in order to prevent fraud. If countries don’t have contact details of every natural person registered as a legal or beneficial owner or director of a legal vehicle (e.g. because they are foreigners), at the very least they should publish a list of legal and beneficial owners and directors of legal vehicles and the vehicles they own or direct so that any person can check the list and make sure they are registered as owners what they are supposed to be own.

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This is hardly science fiction and there are already precedents for such an approach. Any email provider or credit card will contact a user (at a prearranged email account or cell phone) to confirm that they were indeed changing their email password, accessing the inbox from a different device or making a specific online purchase.

At the same time, websites already allow a person to check, for instance, whether their email address has been compromised in a leak or breach (eg “haveibeenpwned.com”).

3.3 Validity of registered information
The two previous verification steps (authentication and authorisation) refer to the beneficial ownership register allowing for advanced identification processes to take place (digital signature, biometrics identification, video conference, etc) and to automatically contact the legal owner, beneficial owner or director to confirm their intention to be involved in the legal vehicle.

This part of validation relies on the automated IT system described above, to crosscheck data available in other government databases or in public sources (eg Google maps).

3.3.1 Before the legal vehicle is set up
In the process of setting up or updating a legal vehicles’ information, each field of registered data, should be subject to the following validation checks, if applicable, before information is allowed to enter the registry.

a) Data entry validity
Digital platforms for legal vehicle registration should only allow valid data entries. For example, a name field shouldn’t allow a number entry. A country of residence or nationality shouldn’t allow a free text, but should be a choice from a list (eg Global Witness discovered 500 different ways to spell “British” in the UK beneficial ownership register). A tax identification number should only allow valid entries, eg if the tax identification must have six figures, then neither a word nor a two-figure number should be allowed.

b) Data consistency
The IT system should crosscheck all declared information against data already held by government agencies: does the declared information (eg name, address, date of birth, passport number, tax identification number, driver’s license details, social security, social programmes, benefits, etc) of the registered natural persons match those contained in the government’s databases? If not, that person shouldn’t be allowed to be registered as a legal owner or beneficial owner or director.

In other words, if John Smith registers his address as living in Buckingham Palace, while the UK’s register indicates that there is no John Smith with an address in
Buckingham Palace, then John wouldn’t be allowed to enter that address. Same applies to his date of birth and all other required data.

Costa Rica’s beneficial ownership register, going into force in 2019, will have an IT system running those checks on the identity information declared by the beneficial owner against details available in state databases including those of: the elections high court (on national identification), the foreign ministry (on diplomats’ identities), the immigration office (on foreigners’ identities), the commercial register (on legal persons), the economy ministry (on trusts) and the bar of public notaries (on validity of notarized documents).

Figure 6: Validation of beneficial ownership information in Costa Rica

Source: Presentation by Jorge Quiros of Costa Rica’s Central Bank, at the “Beneficial ownership registration” event held in Buenos Aires, on August 8th, 2018
The IT system of Costa Rica’s beneficial ownership register will also check ownership thresholds reported by different legal vehicles in the ownership chain to ensure that registered data is consistent, not with state data, but with the data declared by different legal vehicles. If company A’s ownership chain declares that it is owned by company B, which in turn is owned by John, then the register shouldn’t allow company B to register Mary as its owner (because John is supposed to be its owner).

**Figure 7: Validation of beneficial ownership thresholds in Costa Rica**

Box 9: What happens if the beneficial owner is a foreigner and local authorities have no government data against which to crosscheck the foreigner’s declared details?

The IT system should be able to run an automated query (not to access the full data) against a foreign country’s database. Countries wouldn’t be sharing personal details of their citizens to foreign countries, but they would allow an algorithm or software to run “exact match” queries to their databases, in what is known as a zero-knowledge proof. For example, if a German individual tries to register as the beneficial owner of a UK company, the UK registry could automatically “ask” the German database whether this individual with the provided name, address, passport number, etc who claims to be a German resident actually exists and whether all the information declared by the person is consistent with German records. The UK registry would only get a confirmation on whether the information does or does not match. If the information does not match, the UK registry would not receive the information held by the German database. The UK registry would then not allow that individual to register until the information is rectified and a matching confirmation is received (to prove that the information is at least, consistent). The number of queries that can be made would need to be limited, to prevent an abuse of the system (eg trying to identify the real tax identification of a person by running multiple queries). The system, however, could also warn whether a person was redflagged or is related to other risks, eg being a politically exposed person in the foreign country. These foreign queries about existing information on foreigners should be run annually, to make sure registered information is kept up to date.
c) Plausibility validation

The IT system should also validate data to be registered to make sure it actually exists, and if possible, to ensure plausibility. For example, a registered address should be checked on Google Maps (or any government register) to make sure it exists (eg to prevent someone from registering “123 Fake street” - to quote *The Simpsons*). However, the analysis should be taken further. The address may exist (because there is a street with that name and the street number sounds possible), but the check should be more sophisticated and check for example if an actual building exists on that address (rather than a park). Even if a building exists, the check should consider if it’s a plausible commercial address for a private entity – this wouldn’t be the case if the address of a private company refers to the location of school or the Central Bank of a country.

d) Legal validation

The IT system should also crosscheck registered information for legality validation. For example, no dead person or liquidated company should be registered as an owner of a legal vehicle. If John is declared as the beneficial owner of company A, but the national persons register indicates that John died last year, the register shouldn’t allow John to be listed as a beneficial owner. Likewise, no minor should be allowed to be a company officer. Data should also be crosschecked against applicable sanctions lists (eg UN sanctions list, US office of foreign asset control (OFAC) sanctions list, list of disqualified directors, lists of persons subject to bankruptcy, etc).

3.3.2 During the life of the legal vehicle

Once a legal vehicle comes into existence, all the above checks should take place in case any change of the registered information occurs. In addition, the digital beneficial ownership register should run a simple check to confirm compliance of all legal vehicles with the requirements to:

- File annual returns updating or listing the current list of legal owners, eg shareholders), beneficial owners and directors
- File financial statements
- File tax returns

The first check would be whether all required filings (eg annual return, financial statements, etc) were actually submitted. Otherwise, notifications and requests to correct the situation should be automatically sent to the legal vehicles and their representatives, and if necessary, to their legal and or beneficial owners.

3.4 Beneficial ownership registers as sources to check status in real time before engaging with legal vehicles: lists of “active” entities

Up until now, beneficial ownership registries should have ensured that all relevant information about legal owners, beneficial owners and directors has been
registered, and that such information includes all relevant details, has been authenticated, authorised, is consistent with details held by other government agencies and is plausible and legally valid (no fake street nor dead people registered as owners). In addition, beneficial ownership registries should have already confirmed that existing legal vehicles have filed all applicable submissions (annual returns, financial statements, tax returns, etc).

All this information is extremely relevant to a country and shouldn’t be kept a secret of the commercial register but should become a resource for the financial institutions and other actors that operate in the economy. As explained in box 6 of section 2.5, beneficial ownership registries should become living and dynamic databases where banks and other economic actors were required to consult in real time the status of any legal vehicle before they engage in business with them, eg to do a bank transfer.

Beneficial ownership registries should publish a list of “active” entities that are currently compliant with all regulations and filings (eg all annual returns were filed and all information was valid and didn’t raise any suspicions56). Legal vehicles that failed to file returns or corrections should be removed from the list, or directly considered “inactive” until they resolve their flaws. Being “inactive” should be equal to not being registered or not existing under the law, until the entity becomes “active” again.

Banks and anyone operating in the economy should constantly check this list of “active” entities to ensure that the customers or suppliers they engage with are still compliant and thus allowed to operate (to open a bank account, to transfer money, to sign a contract, etc). A bank shouldn’t be allowed to operate with that company while it remains “inactive”. Likewise, if a supplier signs a contract with the inactive company, the contract should be considered void. A company owning real estate should be unable to sell the property while the company appears as “inactive”.

4. Pattern finding and redflagging
This section refers to the second part of verification, relying on advanced analytics. Up until the previous section, beneficial ownership registries would have certified that all legal vehicles registered valid data and that they complied with all required filings (eg annual returns). However, criminals could have used frontmen and women who registered valid data. How could countries verify that these registered beneficial owners aren’t mere frontmen? A common sense check of the beneficial owner’s circumstances, ownership history and relationship to the legal vehicle could easily reveal suspicious beneficial ownership. Argentina has many examples of this. For instance, the company that won a government contract to print the national currency included a representative with power of attorney who declared his real

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56 A filing may be suspicious for example if a company filed financial returns but it has no turnover or no employees, indicating that the company is in practice “inactive” (not operating), as suggested by Skuhrovec in ‘Analysis of Czech Political Party Donations’, 2015, available in: https://www.econlab.cz/files/2015/03/2015-01-12-Analysis-of-Czech-Political-Party-Donations.pdf; 18.1.2019.
address and passport with the commercial register. However, he turned out to be a poor and retired man who was given US$200 to sign documents but had no other relationship to the company. More recently, there is an investigation currently underway into a company involved in corruption that channelled approximately US$20 million, where the two shareholders have no declared income and in fact were beneficiaries of two different types of pensions for low income households (including one for people living in areas without access to distribution of gas).

This section looks at how big data and advanced analytics can be used to prevent beneficial ownership fraud, similar to how big data and advanced analytics are already used by banks to prevent fraud and by businesses to carry out targeted marketing. For this, the IT system would also need access to information held by other state agencies to analyse the details on thousands of legal vehicles, legal and beneficial owners and directors. In this case, however, the IT system wouldn’t try to match declared details with government records, but it would try to find patterns and other basic features of legitimate and illegitimate legal vehicles and their registered owners. This would help identify outliers and establish comparisons with other legal vehicles (e.g. “Does this company look more like a legitimate one or like one involved in corruption?”). However, no legal vehicle or owner should automatically go to jail or be banned from the register just because they were red flagged by the system. The only consequence would be to notify authorities to look in more detail into the legal vehicle and its owners to verify the reasonableness of registered information.

Banks already apply advanced analytics to analyse each of the millions of transactions taking place every day and determine whether the transaction looks like a potential case of fraud or money laundering that needs to be further investigated or blocked. Companies are already acquiring profiles and details of consumers from data brokers to market their products at targeted audiences. The US Federal Trade Commission described in 2014 that some data brokers already hold information on 700 million consumers spanning billions of transactions (adding three billion records each month). Based on all the details collected from governments, public sources and websites (e.g. email, age, education, marital status, height, weight, political affiliation, vehicle usage, etc.) data brokers create profiles of potential consumers (e.g. “Financial Newsletter Subscriber” or “Facebook users with 250+ friends”) and sell this information to businesses for targeted marketing campaigns.

Similar advanced analytics techniques that are part of the everyday life of the private sector should be utilised by authorities to prevent suspicious legal vehicles from incorporating or registering dubious information in the first place, or at least to act in a timely manner if the legal vehicle already exists. For example, if a shell

company incorporated years ago had no activity or income but it suddenly changed its owners and won a government contract, authorities could readily be notified of the suspicious behaviour and look into it, rather than wait until a case of corruption or conflict of interest takes place.

The latter more advanced profiling analytics would require countries to designate an authority to set up an IT system capable of handling the required tasks. This IT system could be responsible for handling both the basic verification tasks and the advanced analytics, or could be a separate IT system handling just the advanced analytics and held by a different authority. This IT system would assemble existing data from government databases (eg the commercial register, tax authorities, the central bank, civil registries, etc). Some authorities (eg the financial intelligence unit or the tax authorities) may already be doing advanced analytics for their own purposes. In such case, this sophisticated analysis could be widened and applied for verification of beneficial ownership information. Experts on anti-corruption and anti-money laundering could help set up the IT system and its indicators, for example, based on a country’s national risk assessment for anti-money laundering (eg if the assessment finds that most legitimate local companies involve only two shareholders, then any legal vehicle with more than three should be suspicious). However, the details of legal vehicles and their owners and directors that would be accessed by the IT system wouldn’t be disclosed to the public. Appropriate safeguards for the protection of data from security breaches and unauthorised access should be paramount (just as it happens with massive information already held by tax authorities and other agencies). Human access to this bulk data should be restricted even in the case of authorities, except to supervise the system, to train it and to discard false positives. Access to the IT system’s data should only take place with regard to redflagged cases (not to bulk data) and only by designated authorities in charge of investigating crimes.

It should be up to each country to designate the authority in charge of the IT system and to determine the amount and type of data (eg income, age, etc) available to the IT system for these advanced analytics. This determination will be based on the information that state agencies already collect, and on confidentiality provisions and exchange of information within state agencies. However, the more details available, the better this “big data” analysis would work to find patterns and basic features for redflagging purposes.

The redflagging analysis should be constantly run. Some basic features of the legal vehicle’s ownership structure, address and related parties (legal owners, beneficial owners, directors, etc) may be relevant to find suspicious cases before the legal vehicle is allowed to incorporate. However, in most cases, relevant data about the legal vehicle will only become available during the life of the legal vehicle: its number of employees, income, assets, bank account balance, etc.
4.1 Identification of patterns and basic features: resemblance to legitimate or to illegitimate legal vehicles

In order to find patterns and basic features, the IT system must learn what legitimate and illegitimate legal vehicles and persons look like. Based on the expertise of authorities in charge of tackling tax evasion, corruption and money laundering, and by accessing detailed data about thousands of existing legal vehicles (e.g., the number of shareholders, number of beneficial owners, number of directors, countries of residence, ages, etc), the IT system would be able to identify the characteristics or patterns of “legitimate” legal vehicles and those known to be involved in illegal activities (those sentenced or at least investigated for corruption, money laundering, tax evasion, etc). For example, a study\(^{60}\) calculated the average “beneficial ownership distance” for companies (i.e., the number of layers in an ownership chain preceding the beneficial owner) in each EU country and also by economic sector.

Knowing the characteristics of both categories of legal vehicles (legitimate ones and shady ones), would allow the system to predict whether a new legal vehicle bears closer resemblance to one or the other category for redflagging purposes.

For example, cases of alleged corruption and money laundering from Azerbaijan, Pakistan, Guinea and Nigeria\(^{61}\) investigated by the International Consortium of Investigative Journalists (ICIJ) involved structures that usually combined a private foundation (either from Panama or Bahamas) with a company (usually from Panama or the British Virgin Islands). So, hypothetically, if a legal vehicle to be incorporated includes in its ownership chain private foundations and companies from Panama or the British Virgin Islands, the system may redflag this. Likewise, if the system finds that the ownership structures of most legitimate companies involve two to three natural person shareholders who are also the beneficial owners, when a company under creation tries to register 30 shareholders who are not natural persons the software would redflag this case for authorities to take a closer look at.

Redflagging isn’t about identifying illegal things, but only taking a closer look into types of legal vehicles that look different from the norm, especially if they resemble those involved in illegal activities. It is also important so that governments can better direct limited resources and scrutiny towards a smaller subset of companies meriting further investigation.

Human supervision is important to analyse redflags, especially in relation to false positives. For instance, after analysing data on thousands of local companies, the IT system may find that most beneficial owners and directors are highly educated and high-income earners. Therefore, a beneficial owner with low income residing in a low income neighbourhood may be redflagged. The same if a director appears to


have no education. In both cases, further investigation could reveal that these redflags were false positives. For example, the company could in fact be a small entrepreneurship, eg a beauty salon in a low income neighbourhood (which explains why the beneficial owner declared an address in a low income area). Likewise, a director with no formal education may be an individual who started as an intern and after decades of experience in the company managed to become a director despite not having any formal education. Countries should ensure that human rights experts are part of the development of the IT system to prevent the redflagging process from becoming biased against underprivileged individuals or groups, eg based on race or ethnic backgrounds. In fact, such a comprehensive analysis of the features of local legal vehicles may end up showing the need for specific public policies. For example, the IT system’s results may show a gender imbalance (that most beneficial owners and directors are males) or that certain groups may be underrepresented in the corporate sector. Agencies in charge of human rights and economic development could use this data to address these inequalities.

4.1.1 Patterns based on critical data: politically exposed persons and suspicious transaction reports

In order to determine whether a legal vehicle looks legitimate or not, the first step would be to look into critical data that would usually be related to a higher risk of corruption and money laundering. The IT system should ideally check:

- Is any legal or beneficial owner or officer (eg a director or trustee) a local or foreign politically exposed person (PEP)? This ideally should have been declared and crosschecked earlier during data validation, eg against a public list of PEPs or just by crosschecking it against the official gazette that publishes the names of Ministers, Secretaries and other government officials regarded as PEPs. Beneficial ownership registries could add a warning in the public list of “active entities” (see point above) that a legal vehicle involves a PEP, for financial institutions or procurement processes to be more careful.
- Does the legal vehicle have any officer, service provider, address, lawyer, accountant or notary that was related to an entity involved in corruption, money laundering or tax evasion, or against which there is a suspicious transaction report (STR)?

In both cases, the IT system could extend the analysis to spouses and children of the legal and beneficial owner, or director. In addition, based on the level of risk (eg for legal vehicles involved in government procurement contracts or with high declared income or assets) the analysis could also be extended to friends and business associates of each legal owner, beneficial owner and director. However extreme this may sound, for an algorithm in the IT system to crosscheck a list of PEPs against John Smith or also against five other people (the wife and children of John Smith) should pose no problem. For example, the algorithm would first check the declared beneficial owner (John Smith) against the list of PEPs to see if there’s a match. Then the algorithm would retrieves the names of John Smith’s family members (from the national register of persons, where marriages and births are
registered) and check these five names also against the list of PEPs. The identity of business associates could be retrieved from any other legal vehicle where the PEP is a shareholder or director.

**4.1.2 Patterns based on general data**

Given that criminals may be sophisticated enough not to involve a person who is a PEP or against whom a suspicious transaction report has been filed, the IT system should also consider plenty of other data to determine what legitimate and illegitimate legal vehicles look like.

**4.1.2.1 Regarding legal owners, beneficial owners, directors or other officials of the legal vehicle**

Some data may be suspicious by itself. For example, if a director or trustee of an entity with a declared capital of US$10 million is someone living in a low income neighbourhood with no declared income and no formal education, this could indicate that the company is exploiting a poor person as a front man or woman). Likewise, if the directors of a multimillion dollar company are above 75 years in age and highly indebted, the directors may be being exploited by the company to serve as nominees.

In other cases, suspicions may be raised because they refer to outliers. A study by Transcrime on organised crime infiltration in Europe found that “the ratio of female owners [in companies infiltrated by the mafia] is above the national average, as there is evidence that women are used as figureheads.”

Data to be accessed and analysed by the IT system (from existing government databases) should include:

- Address - this can help provide an indication of the level of affluence
- Income or income bracket- if this information isn’t available, taxpayer category could be collected instead (large taxpayer, low taxpayer, etc)
- Education level
- Age or age bracket
- Personal debt or credit score - highly indebted people could be exploited to serve as nominees in exchange for money to pay for their debt
- Assets - do they own real estate, yachts, cars, planes, horses, farmland? If so, what is the gross value of these?

**4.1.2.2 Regarding the legal vehicle**

**a) Before the legal vehicle is set up**

In some cases, non-critical data such as the address may indicate a high risk if for example the same address is shared by thousands of companies (even if there is no suspicious transaction report against any of them). The structure of the ownership

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chain may also be relevant, if for example a private company (not listed in any stock exchange nor involved in investment activities) is divided into more than 100 shareholders, or if the ownership chain involves 11 layers of entities from secrecy jurisdictions.

Data to be accessed and analysed by the IT system to find patterns and basic features should include for example:

- Number of legal owners who are locals or non-residents, along with information on any non-resident legal owners’ countries of residence (eg most local companies only have up to two legal owners who are locals, while company X is declaring legal owners who are companies from secrecy jurisdictions)
- Number of beneficial owners who are locals or non-residents, along with information on any non-resident beneficial owners’ countries of residence (eg most local companies only have up to two beneficial owners who are locals, while company X declaring beneficial owners from countries offering golden visas).
- Distribution of shareholdings - are shares equally distributed among all legal owners and beneficial owners or are the vast majority of shares held by one owner?
- Does the legal vehicle have people with power of attorney for general administration?
- Is the legal vehicle declaring a purpose that includes a lot more activities than would be considered usual for a legitimate commercial endeavour (eg involved in banking, agriculture, investment, legal services and IT development)?
- Does the purpose mentioned in the statute of the company involve a high risk activity (eg consulting, services) where it is easier to fake transactions? It may be easier to fake that a consulting service took place, than to fake the provision of goods.
- Does it have a high risk address (eg same address as a vehicle involved in illegal activity)?

**b) During the life of the legal vehicle**

After a legal vehicle is incorporate, more data about the vehicle becomes available that can also be analysed for suspicious activity. Such suspicious activity could include, for example, a company generating an extremely high income or gaining a government procurement contract shortly after it was created. Another indication of risk is a company declaring high income and receiving many bank transfers, while having no registered employees, electricity consumption or other indicators of real local business activity. Such a company may likely be a shell company. A company changing its name and address very often could indicate it’s attempting to remain hidden from authorities (and from official notifications).
For example, the Transcrime report mentioned above found that mafia-infiltrated “firms have significantly less financial debt, as illicit revenues make bank loans unnecessary.”

For each existing legal vehicle, the IT system could check:

- What is the value of the vehicle’s assets? What is its annual income? If this information is confidential, the system could at least check which asset or income bracket the vehicle falls under.
- Does the vehicle have any relationships (eg as a supplier or provider) to a company known to the tax authorities for issuing fake invoicing?
- How long has the legal vehicle existed for?
- Does the entity appear on any websites or social media platforms (eg LinkedIn)?
- Does it own real estate, cars, yachts, planes, horses, or farmland?
- How many other legal vehicles does it share the same address, directors, legal owners, beneficial owners, suppliers, etc with?
- Does legal vehicle own local bank accounts? If so, how many and in how many banks? What bank account balance bracket does it fall under? (eg below US$100,000, US$1 million to US$10 million, US$10 million to US$100 million, above US$100 million)
- Does it have branches, subsidiaries, offices elsewhere in the country and abroad?
- How many employees does the legal vehicle employ?
- Are bank transfers received by the legal vehicle automatically transferred to another bank account or withdrawn? Is the bank balance close to zero, despite frequent incoming and outgoing transactions?
- Has the legal vehicle frequently changed its address?
- Is the legal vehicle the only client of a supplier? Eg, the legal vehicle is involved in procurement and all of the supplier's invoice are to the legal vehicle.
- Does the legal vehicle have the same supplier as many different companies involved in procurement? This, for example, can indicate the risk of a cartel
- Does the legal vehicle’s name match the activity or services it provides? (eg a company that exports fruit but is called “consulting ltd”). Does the legal vehicle’s name mimic the names of high profile companies? (eg Googgle consulting, Mycrosoft investments)

Ratio based analysis should be done to help distinguish and compare legitimate and illegitimate legal vehicles. For example:

- **Income vs number of employees** ratios could indicate whether legal vehicle is a shell company.

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63 Ernesto Savona and Michele Riccardi, 90.
- **Income vs bank deposits ratios** could indicate whether the invoices a legal vehicle is receiving are fake. If a lot of invoices are billed but then no money gets deposited in the bank, this may indicate fake invoices are being used for tax evasion purposes.
- **Income vs consumption ratios** could indicate whether real activity is taking place, eg a lot of billing made to an office where little consumption of gas and electricity happens.
- **Income vs time since incorporation ratios** could indicate whether a company was involved in corruption or conflict of interest, for example if a new company with no references obtains a procurement contract.

As explained above, all the finding of patterns and redflagging analyses should be confidential (so as to not alert legal entities involved), but they should be submitted to authorities (eg financial intelligence unit, tax authorities, etc) and should also be available to any financial institution or professional with which a legal vehicle is trying to operate (eg real estate broker).

Authorities should supervise the system to discard false positives and include human rights experts to make sure that the IT system is not biased against vulnerable groups who are already excluded from important positions in companies and other legal vehicles. In any case, redflagging based on identified patterns wouldn’t mean that an individual cannot own a company or that they have done something illegal, but that their case should be subject to more scrutiny and investigation.
Box 10: Does an effective verification system make “public” registries obsolete?

Currently most countries lack any sophisticated ownership verification. At most, the staff of the commercial entity may manually check that all forms were submitted or that basic legal requirements were met. Under this scenario, public access to beneficial ownership information becomes indispensable. First, because it allows some basic verification by investigative journalists and civil society organisations (as demonstrated by Global Witness’ analysis of UK companies’ data described in section 2.1). Second, this works as a deterrent effect for individuals to discourage filing inaccurate information, knowing that their data may be checked and scrutinised by the public at large.

However, one may wonder whether in the future, public beneficial ownership registries would still be necessary once countries implement the sophisticated verification process described in this paper. The answer is yes.

Even if country A establishes a sophisticated verification process, public access to country A’s registry information would ensure easy access by foreign authorities and foreign and local banks or other actors subject to anti-money laundering provisions. In addition, legal ownership and beneficial ownership information isn’t only relevant for financial crimes. Investors and businessmen have a right to know who they are engaging in business with. Verification would help ensure that registered information is accurate and truthful, but an investor may still want to know who owns and directs a company (knowing that all declared confidential information was truthful doesn’t really solve the investor’s concerns).

Lastly, public access is necessary to hold authorities to account, instead of blindly trusting public officers. While laws may be perfectly written, and while many countries enjoy separation of power between the legislative, executive and judiciary branches, and have federal auditors, prosecutors and anti-corruption agencies, access to information by the public are still considered necessary to ensure the proper function of governments (e.g., freedom of information laws). For instance, statistics published by the EU Commission in 2018 about automatic exchange of banking information within the European Union revealed that some authorities were simply not doing their job: “Bulgaria, Slovakia and Malta, reported not having opened the files received. (...) Nine states reported not using the information received.”

Figure 8: Difference between confidential information accessed by the IT system for validation and red-flagging versus beneficial ownership data available to the public.
5. Sanctions, enforcement and compliance
Ownership registries should become living and dynamic platforms. Instead of a static ledger where information was once registered and thus a legal vehicle came into existence, ownership registries should be constantly updated in real time and should become the source for validation for any operation by the legal vehicle (eg checking if the entity is still “active”). In other words, just as one cannot confirm that a person is still alive only by showing a photo taken when that person was indeed alive, legal vehicles shouldn’t be considered to be active and valid just because a certificate of incorporation shows that their incorporation took place in the past.

While administrative penalties could be imposed, and criminal sanctions should also be considered to deter wrongful actions, the main point of this paper is on the preventive side.

The following features include sanctions that are at the same time incentives to ensure compliance with comprehensive and updated ownership information:

i. Effects on the legal vehicle: registration of information should have “constitutive effect“. Rights of the legal vehicle and its parties (shareholders, directors, etc) should exist only upon proper registration (and ideally public disclosure). In other words, a company or trust shouldn’t be considered to exist until it has been properly registered or incorporated. Likewise, a shareholder should have no voting or dividend rights until they have been properly registered as a shareholder. Directors who resigned would still be liable until they have been de-registered.

ii. Effects on third parties engaging with the legal vehicle: only “active” legal vehicles should be allowed to operate in a country. As explained above, the beneficial ownership register should not only collect and very ownership information, but also publish a list of “active” legal vehicles (those that are currently complying with all requirements, eg they filed annual returns, tax returns, or corrected any issue notified by the registry). This analysis of “activeness” would be automatic, eg the register’s software would check whether company X filed the annual return or not.

Any person or entity (eg notary, real estate broker, bank, etc) should permanently (and automatically) check the list of “active” entities before engaging in any transaction or business with a legal vehicle (eg sign a contract, open a bank account or make a bank transfer, sell a house, etc). There would be no need for a court order or any extra measure because economic actors (eg banks) should be prevented from engaging with an “inactive” legal vehicle (just as a bank doesn’t need a court order not to open a bank account of a customer that fails to present all required information to open the account).
6. Who should pay for such a verification system

The proposed system of verification for analysing legal vehicles’ data is, in theory, technically possible. The technology applied by blockchain, virtual currencies, on-demand apps, email service providers and anti-fraud systems of banks and credit cards are already\textsuperscript{64} way more advanced than what is proposed here.

The main argument to oppose this, however, may be the cost.

When it comes to legal vehicles, especially companies, most countries want to ease the process of creating and freeing legal vehicles to do what they are supposed to: engage in business, create jobs, add value, pay taxes. Anything suggesting more red tape, bureaucracy or checks is seen as opposing business, economic growth, entrepreneurship and development.

As described above, most individuals trying to create legitimate legal vehicles with simple structures (not long ownership chains nor spread involving secrecy jurisdictions) and those who provide true information (their real address, name, tax identification number, etc), should have no problem in easily creating legitimate legal vehicles.

However, setting up a fully automated verification system as described in this paper will include upfront costs. At the same time, automation will also save time for individuals trying to set up legal vehicles as well as for public officials who will not need to manually check all information.

Interestingly, some high costs aren’t questioned in public discourse. Take, for example, anti-terrorism security measures at airports. No one really questions the time and money spent on airport security. Every single person has to go through multiple checks, making the whole flying experience much slower. However, no one seems to question the need to go through these security checks. If airlines offered a flight for people who refuse to go through security, it’s very likely that very few people would actually choose to get on that plane. What is an hour and the trouble of removing your shoes compared to the risk of terrorism?

Shouldn’t we then give the same consideration to preventing illicit financial flows that fund the same terrorism we seek to prevent at airports? Given that the fight against illicit financial flows related to money laundering, corruption, tax evasion and avoidance and the financing of terrorism is equally important, governments should implement the necessary measures, as outlined in this paper, and resource this sufficiently. Verification of ownership information isn’t about creating economic growth or fostering entrepreneurship, so it shouldn’t be measured against achieving those goals. But neither is distributing a new vaccine. However, both are important to the public interest, and should be given all necessary resources.

Governments should pay the cost to improve and increase the fight against illicit financial flows that affect societies and governments (e.g., corruption or tax evasion may result in having no resources to distribute vaccines). This could be partially financed by fines and other penalties related to filing wrong information to the register. In addition, this cost could be shared by creating synergies with those who are already spending millions to improve the accuracy of beneficial ownership transparency: the private sector.

First, the cost could be shared by those interested in incorporating a legal vehicle. After all, no one is obliged to create one. Those who want to benefit from engaging in business or holding their assets through a legal vehicle (and enjoying limited liability for instance) should have to pay and contribute for the verification of the information they register. The more complex the structure (e.g., many legal owners, long ownership chains, involvement of foreigners, etc.), the more money they should pay.

The second (and much larger) payers of the system should be banks and other financial institutions. Currently, banks and other institutions spend millions in compliance and third-party verification to ensure the integrity of their customers. Banks are currently not allowed to rely on information declared in beneficial ownership registries and must do their own checks. Instead, countries could envisage a system where banks and other financial institutions pay for the highly sophisticated system of verification proposed here (instead of paying a private company to verify information). Once this beneficial ownership register is fully effective (for example, if all the proposals mentioned here are implemented well), banks should be allowed to trust the ownership information that is registered there (unless there are suspicions that information is inaccurate, in which case the bank should do more research and inform the registry about the potential inaccuracy).

In essence, governments could change the legal framework as suggested in this paper to make sure that the right sanctions, incentives, and legal effects will ensure that beneficial ownership registers will collect all relevant information. At the same time, financial institutions that are already spending millions to check the beneficial ownership data themselves (because they cannot trust whatever little information is currently registered) could pay for the official beneficial ownership register to do all the crosschecks and advanced analytics to make sure that the registered ownership information has been verified and is thus accurate and may be relied upon.
References


Knobel, Andres, Markus Meinzer, and Moran Harari. ‘What Should Be Included in Corporate Registries? A Data Checklist-Part 1: Beneficial Ownership
## Annex

**Summary I: Pre-requirements to ensure comprehensive data collection**

<table>
<thead>
<tr>
<th>Subject to registration</th>
<th>At a minimum</th>
<th>Ideal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All legal vehicles that are: (i) incorporated or governed by local laws; (ii) operating (eg own assets or bank accounts) in the country’s territory.</td>
<td>Also, in cases where the legal vehicle: (iii) has a party (eg shareholder, director, settlor, trustee, etc) that is resident in the country.</td>
</tr>
</tbody>
</table>

### Definition of beneficial owner

| For legal persons (eg companies): all individuals who control or benefit from the legal person through ownership, voting, right to appoint or remove director, using the lowest possible threshold, eg 1% or 5%; For legal arrangements (trusts): all parties, including all settlors, protectors, trustees, beneficiaries and their classes, or anyone else with control over it. For combined cases: apply these rules in case a trust owns a legal person or if a party to the trust is a legal person. | For legal persons: use no threshold (as it happens with trusts and for companies’ legal owners): anyone holding at least 1 share should be considered a beneficial owner. |

### Consequences if no individual is identified as a beneficial owner (in case thresholds are applied for legal persons, eg companies)

| (i) Identify the individuals who are directly or indirectly the top 10 or 20 shareholders; (ii) A senior manager should never be identified as a beneficial owner because no one passed the threshold. In such case, redflag that the legal person wasn't able to identify any beneficial owner should be considered a warning for financial institutions | Don't allow such a legal person to be registered. |

### Ownership register

| Central, government-held, public, free, online, updated, retaining information after vehicles dissolve. | In open data format. |

### Regulations about bearer shares and nominees

| Bearer shares: prohibit them or immobilise them with a public authority. Nominees: prohibit corporate directors or require that at least one director must be an individual and resident in the country. | Prohibit nominee shareholders and directors. Claiming to be merely a nominee shouldn't exclude personal criminal liability. Indemnities in favour of nominee directors should be restricted. |

### Regulations about the ownership chain of the local legal vehicle

| Register: (i) all legal owners; (ii) all beneficial owners; (iii) the full ownership chain (all the tiers/layers of entities between the local legal vehicle and its beneficial owners); (iv) all directors or officers of the legal vehicle (eg senior managers); and (v) anyone with power of attorney or administration over the legal vehicle. | Establish limits: (i) on the quality of the ownership chain (eg allow in the ownership chain only foreign entities that didn’t issue bearer shares and that had to disclose their legal owners in a public register); (ii) on the length of the ownership chain (eg allow only 1 or 2 layers/tiers of entities between the local legal vehicle and its beneficial owners. Otherwise, justify the need for more layers/tiers. |

### Update and discrepancy feedback

| Any change to the registered information (legal owners, beneficial owners, directors, ownership chain, etc) should be updated within 15 to 30 days of any change. If no change occurred, legal vehicles should annually confirm (ie in annual returns) that current registered information is still up to date. | Financial institutions, corporate service providers and other holders of ownership information (eg tax authorities) should report to the ownership register any discrepancy or inaccuracy that they find with the registered information. |

### Sanctions (incentives for compliance with update of information and discourage even informal nominees)

<p>| Administrative and criminal sanctions (eg prison sentence) for filing false information. | (i) Consider that registration has a “constitutive effect”: only de-registration creates or terminates rights. If a person isn’t registered as a shareholder/beneficial owner, they wouldn’t be allowed to obtain dividends, vote or claim ownership of assets against the nominee shareholder (even if a confidential agreement proves it): any corporate decision taken by shareholders or directors who weren’t registered, would be void; if a director is still registered as such, they will still be liable without being able to prove that they intended to resign in the past. (ii) Establish a public list of “active” legal vehicles (those that have complied with all annual return, tax return filings). Financial institutions should constantly check the list of “active” legal vehicles and refrain from operating (eg making a bank transfer) with any “inactive” legal vehicle. |</p>
<table>
<thead>
<tr>
<th>Checks</th>
<th>Legal vehicle (company, partnership, trust, etc) and its parties (legal owners, beneficial owners, directors, etc)</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upon registration or filing of new information (eg update in annual returns)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Data entry validation</strong></td>
<td>All fields in registration form should only allow valid entries.</td>
<td>&quot;Name&quot; entry should allow letters instead of numbers, &quot;country of residence&quot; should be from a list, not a free text entry.</td>
</tr>
<tr>
<td><strong>Consistency with official databases (does the declared information match exactly with the data held by the government?)</strong></td>
<td>Check that all registered data, including name, address, date of birth/incorporation, tax identification number, country of residence, country of nationality, etc matches official local or foreign information.</td>
<td>The declared tax identification number must match with the tax identification number held by local or foreign tax authorities; the declared date of incorporation of a corporate shareholder must match with information held at the local or foreign commercial register.</td>
</tr>
<tr>
<td><strong>Plausibility check</strong></td>
<td>In case there is no official data on a specific field, check for plausibility (confirm that the data looks reasonable or probable).</td>
<td></td>
</tr>
<tr>
<td><strong>Legality check</strong></td>
<td>Check that declared information complies with the law and lists of applicable sanctions (eg UN, US OFAC, disqualified directors, etc).</td>
<td>Check the identity of shareholders and beneficial owners against official register of persons to make sure none of them are dead or subject to UN sanctions; a minor shouldn't be allowed to act as a director of a company, etc.</td>
</tr>
<tr>
<td><strong>Authentication</strong></td>
<td>Ask for digital signature, biometric data, in-person or video conference plus copies of passports to check that registered people (legal and beneficial owners and directors) are who they say they are, and that legal vehicles related to the registered legal vehicle appear as &quot;active&quot; entities in the corresponding commercial registers.</td>
<td>If a foreign company is the shareholder of a local company, check that the foreign company is actually registered and still &quot;active&quot; in the corresponding commercial register.</td>
</tr>
<tr>
<td><strong>Authorisation</strong></td>
<td>Contact each party to the legal vehicle at their official email or address (the one held by the government, not the one declared in the registration process) or publish a list of them, for each person to confirm that they are indeed willingly party to that legal vehicle.</td>
<td>If John Smith appears as the director of a new company, check with him at this official email that this was his intention and not that someone stole his identity. This is similar to a token or two-step identification to access an email or other app.</td>
</tr>
<tr>
<td><strong>During the life of the legal vehicle</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Compliance with filings</strong></td>
<td>Check that annual returns, tax returns, financial statements and other required documents have been filed. Commercial registries should publish a list of &quot;active&quot; legal vehicles (those that are in compliance with all filings). Banks, real estate brokers and any other economic actors should constantly check the list of &quot;active&quot; legal vehicles and refrain from doing business or operating with legal vehicles that aren't currently active.</td>
<td>A bank should refuse to make a bank transfer for a company that appears as &quot;inactive&quot; in the public list of active companies.</td>
</tr>
<tr>
<td><strong>Sufficient funds or relationship check to become a new shareholder, beneficial owner or trust beneficiary</strong></td>
<td>Just as a notary involved in a real estate transaction must check the legal origin of funds to purchase a house, the beneficial ownership register should check with the tax authorities that above certain thresholds (eg US$10,000) whoever acquires an interest in a legal vehicle (a new shareholder) has sufficient income or wealth to be acquiring these shares. Otherwise, check their source of funding. For free transfers of shares (donation) or for appointments of new trust beneficiaries, check if the beneficiaries are close family members. Otherwise, obtain reasons why the donor or settlor is giving such a gift to a stranger.</td>
<td>A company may constantly change its legal and beneficial owners to hinder an investigation against it (see the Ablyazov case below). The register shouldn't accept those transfers of ownership, unless the new shareholders or beneficial owners had the means to acquire those interests in the first place.</td>
</tr>
</tbody>
</table>
### Summary III: Advanced analytics for finding patterns and redflagging (for legal vehicles that registered all valid data, based on the table above)

<table>
<thead>
<tr>
<th>Checks</th>
<th>Legal vehicle (company, partnership, trust, etc)</th>
<th>Parties of the legal vehicle (legal owners, beneficial owners, directors, persons with power of attorney or administration over the legal vehicle or its bank account, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upon registration or filing of new information (eg update in annual returns)</td>
<td>Is anyone a politically exposed person (PEP) or a family member of one?</td>
<td>Are there suspicions of being a nominee? (eg the director or beneficial owner has that status with 100 other legal vehicles)</td>
</tr>
<tr>
<td>Critical data</td>
<td>Have any suspicious transaction reports (STR) or criminal proceedings been filed against any of them?</td>
<td>Identify patterns or characteristics of parties of legitimate versus illegitimate legal vehicles by collecting all registered information about them. (hypothetical example: most companies that aren't suspected of any wrongdoing usually have as directors individuals who are university-level educated and aged between 21 and 50, while companies involved in money laundering usually involve individuals older than 75 and with little education and no declared income.)</td>
</tr>
<tr>
<td>General characteristics of legitimate versus illegitimate legal vehicles, also based on national risk assessment for money laundering</td>
<td>Identify patterns or characteristics of legitimate versus illegitimate legal vehicles by collecting all registered information about them. (hypothetical example: companies that aren't suspected of any wrongdoing usually have up to two shareholders who are also the only beneficial owners, while companies involved in money laundering involve at least four shareholders who are companies from tax havens, etc.)</td>
<td>Identify patterns or characteristics of parties of legitimate versus illegitimate legal vehicles by collecting all registered information about them. (hypothetical example: companies that aren't suspected of any wrongdoing usually have as directors individuals who are university-level educated and aged between 21 and 50, while companies involved in money laundering usually involve individuals older than 75 and with little education and no declared income.)</td>
</tr>
<tr>
<td>Fields the algorithm should collect from existing databases (eg the Central Bank, tax authorities, financial intelligence unit, etc) to establish patterns of &quot;legitimate&quot; legal vehicles and their legal owners and beneficial owners, compared to &quot;illegitimate&quot; ones.</td>
<td>How many other legal vehicles does the vehicle share the same address, directors, legal owners, beneficial owners, suppliers, etc with? Are any of them investigated for corruption or money laundering?</td>
<td>Which neighbourhoods is their address located in? (upper, middle, lower class)</td>
</tr>
<tr>
<td>This data WILL NOT BE PUBLIC, it's only for the algorithm to find patterns</td>
<td>Has it changed its address many times? (eg trying to make it harder to get notified by authorities)</td>
<td>Are they a recipient of pension (eg for individuals on low income)</td>
</tr>
<tr>
<td>[This is a summary: see a full list of fields further below in the Annex]</td>
<td>Does it appear on social media? (eg LinkedIn)</td>
<td>What is their income level (eg taxpayer category) and education level?</td>
</tr>
<tr>
<td></td>
<td>Are legal owners and officers all legal vehicles, all individuals or both?</td>
<td>How old are they or what age bracket do they fall in?</td>
</tr>
<tr>
<td></td>
<td>What is their income vs number of employees ratio?</td>
<td>Are they a local resident? If not, what is their country of residence?</td>
</tr>
<tr>
<td></td>
<td>Are incoming bank transfers immediately transferred to another account or withdrawn in cash? Is the account balance close to zero despite receiving many transfers?</td>
<td>Are shareholders and directors over the age of 75 or highly indebted? (eg they could be forced to become nominees in illegal activities, in exchange for money to pay for their high debts)</td>
</tr>
<tr>
<td></td>
<td>Are legal owners or beneficial owners also officers (eg directors) staffed in executive roles by the vehicle?</td>
<td>Economic profile of each party (legal owner, director, etc): Do they own real estate, yachts, cars, planes, horses or farmland? If so, what is the combined gross value of these assets?</td>
</tr>
</tbody>
</table>
Diagrams exemplifying verification steps from set up and during the company’s life

**Year 1: Company set up**

- **Company 1 (Denmark)**
  - Kathy Smith (UK) 50%
  - Hans Müller (Germany) 50%

**UK Companies House verification system on data validation**

- **UK Companies House verification system**
  - on profiling and red-flagging (based on big data analysis of millions of UK companies)
  - "Company 2" raises no suspicions. Its ownership structure resembles that of most UK companies. Kathy and Hans have characteristics (age, neighbourhood, education, income level, etc.) of most beneficial owners of UK companies. There are no suspicious transaction reports against them nor are they being investigated for any wrongdoing

- **UK Companies House**
  - Incorporation

- **UK Companies House verification system**
  - UK Tax Authorities
  - UK Civil Register
  - Germany's verification system

- **Denmark's Commercial Register**
  - Zero-Knowledge proof
  - Query: "Hans declared all this data. Does it match your records?"

- **Company to create "Company 2" (UK)**
  - "Company 2" form has all required data, which looks valid and consistent with current government data

- **Query:** "Kathy declared this tax id. Does it match your records?"
- **Query:** "Kathy declared this address. Does it match your records?"
Year 2: Company update

Kathy Smith (UK) 50%
John White (UK) 50%

Company 1 (Denmark) 100%

“Company 2” (UK)

“I want to open a bank account”

UK Companies House verification system on profiling and red-flagging (based on big data analysis of millions of UK companies)

Is Company 2 “active”? They want to open a bank account

UK Companies House

Company 2 filed its annual return and everything looks fine

UK Companies House verification system on data validation

Check: is John White the new legal and beneficial owner of Company 1?

Denmark’s Commercial Register

“Nothing suspicious”

Public Register of “Active” entities:
- Company 2 (legal owner: Company 1; beneficial owners: Kathy and John)

UK government databases

“Does the data declared by John and Kathy (still) match government records?”

“John White, you appear as the new beneficial owner of Company 2, please confirm that this is correct”
Year 3: Company update

Paul Fake (UK) 50%  
John White (UK) 50%

Company 1 (Denmark) 100%

“There is a data discrepancy. Company 2 told us that now Paul Fake is the new beneficial owner. Besides, there have been many bank deposits that were withdrawn in cash, so we issued a Suspicious Transaction Report”

UK Companies House verification system on data validation

“I want to buy a house”

Real Estate Broker

“Is Paul Fake the new legal and beneficial owner?”

No!!

“Is Company 2 “active”? They want to buy a house

No!! Don’t engage in business with Company 2 yet!

Company 2 is no longer in compliance. Remove it from the list of “active” entities

UK Financial Intelligence Unit

Denmark’s Commercial Register

Public Register of “Active” entities:
- Company 2

66
List of data and indicators for finding patterns and redflagging

Provided below is a list of proposed indicators or fields that the verification system should crosscheck. Additional indicators were identified by the Financial Action Task Force "Concealment of beneficial ownership" report and by the Egmont Group.

### On the legal vehicle

<table>
<thead>
<tr>
<th>Checks</th>
<th>On the legal vehicle itself (company, partnership, trust, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upon registration or filing of new information (eg update in annual returns)</strong></td>
<td>Have suspicious transaction reports or criminal proceedings been filed against the legal vehicle?</td>
</tr>
<tr>
<td><strong>Critical data</strong></td>
<td>Identify patterns or characteristics of legitimate versus illegitimate legal vehicles by collecting all registered information about them. <em>(hypothetical example: companies that aren't suspected of any wrongdoing usually have up to 2 shareholders who are also the only beneficial owners, while companies involved in money laundering involve at least 4 shareholders who are companies from tax havens, etc)</em></td>
</tr>
<tr>
<td><strong>General characteristics of legitimate versus illegitimate legal vehicles, also based on national risk assessment for money laundering</strong></td>
<td>How many other legal vehicles does the vehicle share the same address, directors, legal owners, beneficial owners, suppliers, etc with?</td>
</tr>
<tr>
<td></td>
<td>Number and residency (locals/non-residents + from which countries) of legal owners</td>
</tr>
<tr>
<td></td>
<td>Number and residency (locals/non-residents + from which countries) of beneficial owners</td>
</tr>
<tr>
<td></td>
<td>Are legal owners all legal vehicles, all individuals or both?</td>
</tr>
<tr>
<td></td>
<td>Are officers all legal vehicles, all individuals or both?</td>
</tr>
<tr>
<td></td>
<td>How are shareholdings distributed among all legal owners/beneficial owner? Equally, eg 50%-50%, or closer to 99%-1%?</td>
</tr>
<tr>
<td></td>
<td>Are legal owners or beneficial owners also officers (eg director) in the legal vehicle?</td>
</tr>
<tr>
<td></td>
<td>Does it have/share any officer, service provider, lawyer, accountant or notary that was related to an entity involved in corruption, money laundering or fake invoicing?</td>
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<tr>
<td></td>
<td>Does it have people with power of attorney for general administration?</td>
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<td></td>
<td>Does it appear on social media, eg LinkedIn?</td>
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<td></td>
<td>Does its statute include high risk activity, eg consulting, services?</td>
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<tr>
<td></td>
<td>Does it have a high risk address, eg same address as a vehicle involved in illegal activity, low income neighbourhood, or near a country’s borders?</td>
</tr>
</tbody>
</table>

This data WILL NOT BE PUBLIC, it’s only for the algorithm to find patterns

<table>
<thead>
<tr>
<th>During the life of the legal vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assets / Income / (brackets of assets/income, if info is confidential)</td>
</tr>
<tr>
<td>Related (eg supplier or provider) to a company issuing fake invoicing (for non-existent services)</td>
</tr>
<tr>
<td>How many procurement contracts have they won?</td>
</tr>
<tr>
<td>How long has the legal vehicle existed for?</td>
</tr>
<tr>
<td>Has it complied with annual filings, eg financial statements to commercial register, tax returns, etc?</td>
</tr>
<tr>
<td>Does it own real estate, cars, yachts, planes, horses, or farmland?</td>
</tr>
<tr>
<td>Checks</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>Does it own local bank accounts? If so, how many and in how many banks? What bracket does its bank account balance fall in? (eg below US$100,000, US$1 million to US$10 million, US$10 million to US$100 million, above US$100 million)</td>
</tr>
<tr>
<td>Does it own foreign bank accounts? If so, how many and in how many banks? What bracket does its bank account balance fall in? (eg below US$100,000, US$1 million to US$10 million, US$10 million to US$100 million, above US$100 million)</td>
</tr>
<tr>
<td>Does it have branches, subsidiaries, offices elsewhere in the country or abroad?</td>
</tr>
<tr>
<td>How many employees does it employ?</td>
</tr>
<tr>
<td>How many other legal vehicles does the vehicle share the same address, directors, legal owners, beneficial owners, suppliers, etc with?</td>
</tr>
<tr>
<td>Does it have any officer, service provider, lawyer, accountant or notary that was related to an entity involved in corruption, money laundering or fake invoicing?</td>
</tr>
<tr>
<td>Does it own safe deposit boxes?</td>
</tr>
<tr>
<td>Are bank transfers received automatically transferred or withdrawn? Is the account balance close to zero despite receiving many transfers?</td>
</tr>
<tr>
<td>Does it operate with bitcoins or other cryptocurrencies?</td>
</tr>
<tr>
<td>Has it frequently changed its address? (eg trying to make it harder to get notified by authorities)</td>
</tr>
<tr>
<td>Is its VAT debit/credit consistent with that of the industry and sector?</td>
</tr>
<tr>
<td>Is its commercial purpose involved in too many disparate activities (eg involved in banking, agriculture, investment, agribusiness and IT)</td>
</tr>
<tr>
<td>Ratios for the algorithm to find patterns</td>
</tr>
<tr>
<td>Income vs number of employees</td>
</tr>
<tr>
<td>Income vs bank deposits (eg a lot of billing but then no money gets deposited in the bank)</td>
</tr>
<tr>
<td>Income vs consumption (eg a lot of billing made to an office where little consumption of gas or electricity happens, indicating no real activity at the premise)</td>
</tr>
<tr>
<td>Income vs time since incorporation (high billing as soon as the legal vehicle is incorporated)</td>
</tr>
</tbody>
</table>
## On the legal vehicle’s parties

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<tr>
<th>Checks</th>
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</table>
| Upon registration or filing of new information (eg update in annual returns) | Is anyone a politically exposed person (PEP) or a family member of one? 
Are there suspicions of being a front nominee? (eg the director is also a director for a hundred other legal vehicles) 
Identify patterns or characteristics of parties of legitimate versus illegitimate legal vehicles by collecting all registered information about them. (hypothetical example: most companies that aren’t suspected of any wrongdoing usually have as directors individuals who are university level educated and aged between 21 and 50, while companies involved in money laundering usually involve individuals older than 75 and with little education and no declared income) 
Which neighbourhood is their address located in? (upper, middle, lower class)? 
Are they a recipient of pension (eg for individuals on low income) 
What is their income level (eg taxpayer category) and education level? 
How old are they or what age bracket do they fall in? 
Are they a local resident? If not, what is their country of residence? 
Do they own local bank accounts? If so, how many and in how many banks? What bracket does their bank account balance fall in? (eg below US$100,000, US$1 million to US$10 million, US$10 million to US$100 million, above US$100 million) 
Do they own foreign bank accounts? If so, how many and in how many banks? What bracket does their bank account balance fall in? (eg below US$100,000, US$1 million to US$10 million, US$10 million to US$100 million, above US$100 million) 
Have they been or are they currently employed by the government? 
Do they own real estate, yachts, cars, planes, horses or, farmland? If so, what is their combined gross value of these assets? 
What education level do they have? 
What is their monthly credit card consumption (in brackets)? 
How frequently do they take trips abroad and to where? 
Are they a beneficiary of any insurance contracts (on a car, house, etc)? 
Do they own safe deposit boxes? 
Have they made any foreign currency purchases and do these match their reported income? 
Are they a member of any exclusive clubs, eg the “Jockey Club” in Argentina? 
Do they own or trade any bitcoins and other cryptocurrencies? 
What is their real address (by utility bills, credit card or cell phone under their name)? 
Are they shareholders or directors over the age of 75? 
Are they shareholders or directors and highly indebted? |

### Critical data

- Is anyone a politically exposed person (PEP) or a family member of one?
- Are there suspicions of being a front nominee? (eg the director is also a director for a hundred other legal vehicles)
- Identify patterns or characteristics of parties of legitimate versus illegitimate legal vehicles by collecting all registered information about them. (hypothetical example: most companies that aren’t suspected of any wrongdoing usually have as directors individuals who are university level educated and aged between 21 and 50, while companies involved in money laundering usually involve individuals older than 75 and with little education and no declared income)

### General characteristics of legitimate versus illegitimate legal vehicles, also based on national risk assessment for money laundering

- Which neighbourhood is their address located in? (upper, middle, lower class)?
- Are they a recipient of pension (eg for individuals on low income)
- What is their income level (eg taxpayer category) and education level?
- How old are they or what age bracket do they fall in?
- Are they a local resident? If not, what is their country of residence?
- Do they own local bank accounts? If so, how many and in how many banks? What bracket does their bank account balance fall in? (eg below US$100,000, US$1 million to US$10 million, US$10 million to US$100 million, above US$100 million)
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- What is their real address (by utility bills, credit card or cell phone under their name)?
- Are they shareholders or directors over the age of 75?
- Are they shareholders or directors and highly indebted?

### Fields the algorithm should collect from existing databases (held by the Central Bank, tax authorities, Financial Intelligence Unit, etc.) to establish patterns of "legitimate" legal vehicles and their legal owners and beneficial owners, compared to "illegitimate" ones.

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