

Measuring the economic impact of beneficial ownership transparency: a landscape study

Summary report

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Contributing authors:

Jasmine Kendall
Pawel Kornacki
Kate Iida
André Petheram
Thom Townsend
Tymon Kiepe
Nicholas Gruen
Reuben Finighan
Gene Tunny

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Cover design by [Convincible Media](#)

Front cover photo by [Rohan Reddy](#) on [Unsplash](#)

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Executive summary

Existing literature makes a strong case for beneficial ownership transparency (BOT), particularly when it comes to tackling issues such as money laundering and other illicit financial flows. To date, however, little research has sought to *quantify* the economic benefits of BOT reform. This is a potential obstacle for informed policy making.

Between January and March 2022, Oxford Insights and Lateral Economics conducted research for Open Ownership to help understand:

- What economic benefits can we expect from beneficial ownership transparency policies?
- How can we measure their extent?
- What has been done so far to measure the economic impact of BOT?
- How might quantitative evidence be used to advance BOT policymaking in the future?

This summary report provides high level insights into our full report, an exploratory study which tackles some of the conceptual questions around measuring impact in this policy area. It also presents potential options for quantifying future impact. Whilst this work is not exhaustive, we hope that it will be a useful starting resource for governments, international organisations and civil society stakeholders with an interest in assessing the economic case for BOT.

Headline findings

- 1. Quantifying the economic benefits of BOT are likely to be important to certain interest groups, particularly government treasuries as well as private sector businesses.**
- 2. Existing literature already builds a strong logical case for BOT, which, when combined with the economic evidence available, strongly implies that the economic benefits of effectively implemented BOT significantly outweigh its associated costs.**
- 3. Estimations of particular benefit types are likely to be more robust than large scale complex models at this stage. As such, any attempts to measure the economic benefits of BOT should focus on quantifying specific benefits, rather than the aggregate economic impact of BOT.**
- 4. There are a number of survey-based, correlational and causal approaches that could be used to track the economic benefits of BOT reform.**
- 5. Approaches to measurement, however, often involve trade-offs between how feasible it is to conduct an approach in the short-term, and its methodological robustness.**
- 6. Currently, the most readily feasible approaches for measuring the value of beneficial ownership transparency interventions are survey-based. These**

methods could be employed both in jurisdictions where BOT has been implemented, and jurisdictions without a BOT regime in place.

7. **Correlational and causal studies could also be possible in the longer term across countries with BOT regimes already in place. Findings generated by causal studies have the potential to be particularly robust, but these approaches would be both timely and costly to conduct and would only be possible where groundwork has been laid in terms of early data collection.**

Recommendations

In light of the research conducted in this report, we set forth the following key considerations for governments, international organisations and civil society stakeholders.

1. **Whilst for many jurisdictions the available economic evidence already justifies the associated costs of beneficial ownership transparency, some of the methodologies outlined in this report would strengthen the understanding of the economic impacts of BOT in the short-term. Governments in particular should consider strategically employing the most cost-effective of these approaches to fill in the gaps in the existing evidence base.**
2. **Focusing on particular benefit types in relation to specific policy goals is likely to be the most practical approach to studying the economic benefits of BOT.**
3. **Governments conducting quantitative impact assessments in this space should publish their findings to help build the evidence base for the economic impact of BOT across jurisdictions.**
4. **In order to support more robust research to quantify the impacts of BOT in the future, and for their own monitoring and evaluation purposes, governments need to start tracking baseline data points now.**
5. **As the BOT policy area matures, further work should consider how specific design elements may lead to specific economic benefits. Future research is needed to understand the evidence not just for BOT in its broadest sense, but for the specific aspects of BOT implementation which amount to effective disclosure.**
6. **The Financial Action Task Force should play a role in supporting countries seeking to track the impact of BOT reform by publishing guidance around collecting and analysing statistical evidence for BOT.**

Introduction

Beneficial ownership transparency (BOT) involves governments collecting beneficial ownership information¹ and making this information available to actors within and outside of government, such as law enforcement or the general public. Beneficial ownership data can be used to tackle issues around corporate accountability and illicit financial flows, and to enforce sanctions against corrupt officials, or actors accused of complicity in human rights abuses.²

The nature of BOT regimes varies significantly across jurisdictions. However, Open Ownership has started to identify emerging good practice in implementation in its Principles for effective disclosure.³ Broadly summarised, these principles state that data should be comprehensively collected and disclosed, freely available in a central register, and periodically verified, with sanctions enforced for non-compliance with disclosure obligations. Open and free-to-access BOT registers such as the UK's PSC (Person of Significant Control) register are examples of emerging best practice in this area, even though no register to date fully meets all of the requirements set out in the Open Ownership Principles.

Since the introduction of the first standards on beneficial ownership transparency published by the Financial Action Task Force (FATF) in 2003, BOT has gathered international momentum, with more than 113 countries having made commitments to collect more information about the individuals who own or control registered legal entities.⁴ A few dozen have also created centralised beneficial ownership registers to house this information, particularly after the European Union's 5th Anti Money Laundering Directive mandated EU states to do so in 2015.⁵

However, despite this surge in reforms intended to increase beneficial ownership transparency, there remains only a limited body of research which seeks to assess the impact of BOT interventions, and even less work that quantitatively measures the economic impacts of BOT.

Methodologically sound quantitative economic evidence for BOT could enable better informed discussions about the broader impacts and benefits of reform. As such, Open Ownership has identified a need to explore potential methods for measuring the economic impact of BOT, which forms the backdrop of this landscaping study.

¹ Open Ownership defines a beneficial owner as "a natural person who has the right to some share or enjoyment of a legal entity's income or assets (ownership) or the right to direct or influence the entity's activities (control)". See *Open Ownership*. (2020). Beneficial ownership in law: Definitions and thresholds. <https://www.openownership.org/uploads/oo-briefing-bo-in-law-definitions-and-thresholds-2020-10.pdf>

² *Open Ownership*. What is beneficial ownership transparency? Accessed March 2022. <https://www.openownership.org/en/about/what-is-beneficial-ownership-transparency/#:~:text=A%20beneficial%20owner%20is%20a,controlled%20by%20their%20beneficial%20owners>.

³ *Open Ownership*. (2021). The Open Ownership Principles. <https://www.openownership.org/uploads/oo-guidance-open-ownership-principles-2021-07.pdf>

⁴ *Open Ownership*. Worldwide commitments and action map. Accessed January 2022. <https://www.openownership.org/map/#map>

⁵ *Ibid.*

⁶ *Official Journal of the European Union*. (2015). Directive (EU) 2015/849 of the European Parliament and of the Council. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32015L0849&from=EN>

This summary report provides high level insights into our full report, which tackles a number of key research questions, including:

- What types of economic benefits can we expect from BOT policies?
- How can we measure the scale of the economic benefits of BOT?
- What has been done so far to measure the benefits of BOT?
- How might quantitative evidence be used to advance BOT policymaking in the future?

Measuring the economic impact of BOT is not straightforward. Neighbouring research teaches us that quantifying the impact of anti-corruption initiatives in general is challenging given the clandestine nature of criminal financial activities, the indirectness and diffuseness of the impacts, and the difficulties of attributing benefits to specific interventions.⁷ This report acknowledges the ambitious nature of this task, and is candid about the trade-offs involved in the various approaches to economic quantification.

Methodological note

This project's research methodology can be broadly divided into three phases:

- 1) **Definitions and logic modelling.** During the initial phase of the project, we worked to establish clear definitions of BOT, its specific policy objectives and implementation types, which could be used as a solid foundation for approaches to measurement. We also mapped out the kinds of benefits that can be logically derived from BOT using logic modelling, an approach explored in further detail in this summary report. This was supported by insights from desk research and expert interviews outlined below.
- 2) **Literature review.** We conducted a review of existing work exploring the economic impact of BOT (of which we found very limited examples) and material which is more sceptical about the potential for robust econometric analysis.

Given the limited literature specifically focussed on the economic impact of BOT, we also looked to analogous policy areas, including fiscal transparency and open contracting, which produce similar benefits through similar mechanisms. The literature review is detailed further in our main report.

- 3) **Interviews.** Finally, we also conducted semi-structured interviews with experts from beneficial ownership advocacy organisations, academia, and government. Some interviews were specifically tailored to participants' previous work, in order to deepen our understanding of the research landscape. We additionally returned to some of the experts to discuss the approaches and recommendations identified and to solicit feedback, which has since been incorporated into this report.

⁷ *Department for International Development.* (2015). Evidence Paper: Why Corruption Matters: understanding causes, effects and how to address them. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/406346/corruption-evidence-paper-why-corruption-matters.pdf

This summary outlines the headline findings of the report and sets out key recommendations for governments regarding measuring the economic benefits of beneficial ownership transparency.

Defining the expected benefits of a BOT intervention: a logic model approach

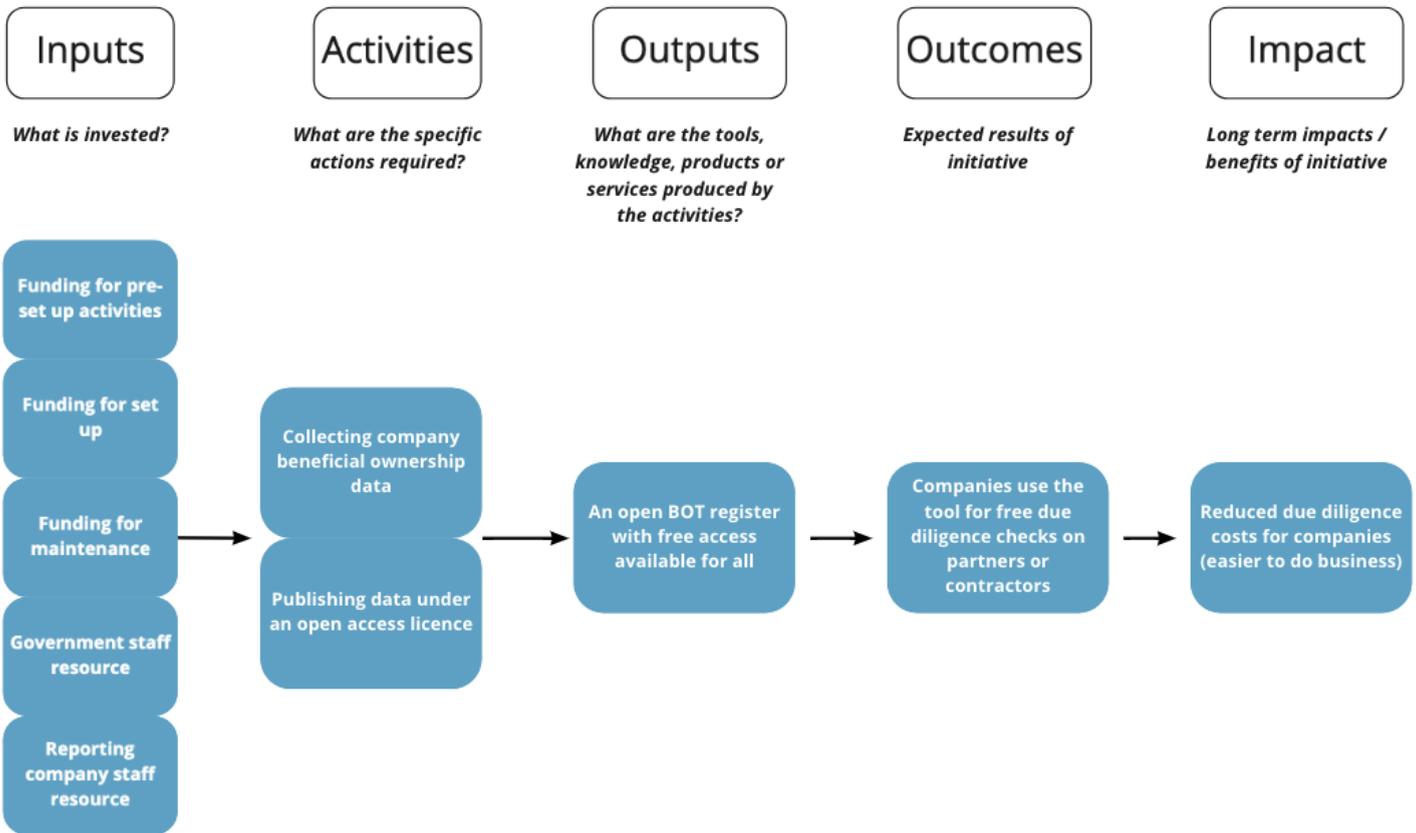
To anticipate the kinds of benefits which should arise from different BOT reforms, we used a logic modelling approach. Logic models are graphic representations of the ways an intervention creates impact through causal chains of inputs, activities, outputs and outcomes.⁸

Logic models have been used in the UK government's discussions of BOT benefits. A BEIS Post-implementation review of the UK PSC register from 2019 uses a basic descriptive logic model to highlight the relationship between context, inputs, outputs, outcomes and impacts associated with the implemented regulations.⁹ We chose to build upon this framework by expanding the model into a larger logic map which helped us identify the specific mechanisms by which various types of BOT interventions lead to economic benefits. The model was then updated iteratively over the course of research, with new benefits, or causal mechanisms identified in interviews with experts and desk research.

A further function of logic modelling was to demonstrate how particular implementation design choices, such as the decision to make a register free, or provide an API, can lead to specific benefits, which are excluded or weakened in the case of less effective implementation types. Below we have included an exemplary chain from the logic model which represents how a specific design choice, in this case making a register freely accessible, can lead to reduced due diligence costs for companies.

⁸ For a discussion of logic modelling and definitions of each stage in the process, see this [logic model template](#) published by the Open Data Institute.

⁹ *Department for Business, Energy and Industrial Strategy (BEIS)*. (2019). Post-Implementation Review of the People with Significant Control Register. https://www.legislation.gov.uk/ukxi/2017/694/pdfs/ukxi0d_20170694_en.pdf



In this example, “inputs” or resources invested, enable “activities” – collecting company and publishing data under an open access licence. This in turn creates an “output”, a BOT register with free access for all, which leads to the outcome of companies being able to use the register to perform elements of due diligence for free. Finally, the financial impact or benefit is that due diligence costs will be reduced for companies, who in this scenario, can turn to a BOT register as a free-to-access resource for helping research the financial backgrounds of prospective partners and contractors.

A full version of the logic model which supported this research is available [here](#). Note that the benefits outlined are not exhaustive; given that BOT is still a relatively nascent policy area, there may even be unexpected economic benefits of reform which are yet to be felt or documented. Nonetheless, the benefit categories outlined in the model were most commonly identified in literature and interviews and function as a good starting point for a discussion of potential approaches to impact quantification.

Where might a quantitative economic analysis of beneficial ownership transparency be relevant?

A number of experts we spoke with were sceptical about the need for detailed measurement of the economic benefits of BOT, because existing evidence suggests these benefits are large, or that BOT is implemented for non economic reasons.

Some experts we spoke to were sceptical about the need for quantitative evidence to support BOT reform at all. Economists, for example, drew attention to a large body of empirical evidence surrounding BOT's wider benefits, arguing that this existing research is likely sufficient when looking to make the economic case for reform.¹⁰

This existing evidence comes in three main forms, and is discussed in more detail in our main report. First, numerous studies point to the scale and importance of the problems that BOT can help address. These include the large costs of corruption, tax evasion, and money laundering with its associated contributions to organised crime and terrorism. Second, studies of related interventions in financial transparency indicate that past reforms have reduced the scale of these problems and realised economic benefits. Third, BOT is understood as one of the most important missing pieces – according to some authors, the "lynchpin" – in the institutional structure supporting financial transparency.¹¹ The logic of institutional design is frequently a key driver of policy change. In combination, these three types of evidence already allow economists to tell a coherent story about the benefits of reform.

Some interviewees also questioned whether quantifying economic benefits would be a major driver of reform in this policy area, pointing out that a number of governments have already been able to push forward BOT regimes without being able to place monetary values on projected benefits. One interviewee suggested that countries were much more likely to implement a BOT regime due to international pressure – such as the EU's 5th Anti Money Laundering Directive, or fear of FATF greylisting – than because of economic benefits specifically generated by BOT, and was doubtful that quantifying benefits would lead to further reform.¹²

Nonetheless, we heard that measuring the economic benefits of BOT is still likely to be important for some, particularly government treasuries looking to justify the costs of an intervention or to raise the priority of BOT with respect to other anti-corruption reforms.

¹⁰ Discussions with economist experts, February 2022.

¹¹ Sharman, J.C. (2011). Testing the Global Financial Transparency Regime, *International Studies Quarterly*. Volume 55, no. 4.

<https://doi.org/10.1111/j.1468-2478.2011.00693.x>

¹² Interview with academic expert, January 2022.

While some interviewees were more sceptical about the need for hard numbers to support BOT policies, others pointed to specific groups who would be receptive to further quantification of the benefits of reform in this area. Governments, and particularly government treasuries, were repeatedly identified as one such group, given their role justifying the economic spend needed for reforms by conducting cost benefit analyses.

It was also suggested that quantifying economic benefits of BOT might be particularly relevant to lower-income countries with scarce public resources, for whom implementation costs need more financial justification.¹³ One interview in particular highlighted the need for quantification amongst governments looking to finance BOT reforms through loans from international development banks.¹⁴ It was suggested that impact quantification would support ministries of finance, as it would demonstrate that an investment in BOT will not just have positive social impacts but also bring about economic benefits that facilitate the repayment of the loan.

We also heard that better means of measuring the impacts of BOT could help treasuries to justify pursuing BOT over other reforms in the wider financial transparency or anti corruption toolkit, where benefits are easier to quantify. For instance, at present, it might be easier to justify using the budget to increase the capacity of an anti-corruption unit (where calculating benefits could be as simple as multiplying existing detection rates by an increase in capacity), as opposed to a BOT reform. In this sense, one expert suggested that BOT was “fighting an uphill battle” in terms of the challenges associated with assessing impact in this area compared with other reforms.¹⁵

Quantitative estimates of economic benefits are also likely to be relevant to the private sector, given that businesses bear most of the regulatory burden of BOT reform.

Most of the regulatory burden of BOT registers falls on the private sector in the form of costs of compliance. Businesses need to commit time and resources to familiarising themselves with regulation, and to reporting their information to a register. In the UK context, a Post Implementation Review of the UK’s PSC register estimates these costs at £649m of one-off costs for UK businesses to familiarise themselves with regulation, collect and submit information, and £87.2 million in annual costs for companies to maintain records and report updates to Companies House.¹⁶

In light of these costs, it is perhaps unsurprising that business communities in particular have called for more economic evidence in favour of BOT. One expert we interviewed alluded to difficulties advocating for BOT amongst industry specialists without being able to quantify

¹³ Interview with academic subject matter expert, January 2022; Interview with BOT advocacy organisation, January 2022.

¹⁴ Interview with subject matter experts, March 2022.

¹⁵ *Ibid.*

¹⁶ BEIS. (2019). Post-Implementation Review of the People with Significant Control Register. https://www.legislation.gov.uk/ukxi/2017/694/pdfs/ukxi0d_20170694_en.pdf

economic gains.¹⁷ They claimed that the broader social value arguments, which posit that BOT is crucial to public integrity, preventing corruption and reducing financial crime, were readily dismissed in the private sector, and that being able to point to robust estimates of the benefits of BOT would be a “game changer” for advocacy organisations working in this context.¹⁸

What has already been done to measure the economic impacts of beneficial ownership transparency?

The benefits of any policy reform can be classed according to four categories: qualifiable, quantifiable, monetisable, and cash releasing benefits. To date, most work discussing the economic impact of BOT refers to benefits only qualitatively, without seeking to measure them.

In the UK, HM Treasury provides four definitions of benefit types which can arise from government reforms.¹⁹

Benefit type

Cash releasing benefit (CRB) – a monetisable benefit which is cashable for a particular stakeholder group, releasing additional funding for a government, business, individual etc.

Non cash releasing benefit (Non CRB) – a monetisable but not cash releasing benefit.

Quantifiable benefit – a quantifiable but not readily monetisable benefit.

Qualitative benefit – a benefit which can be qualitatively identified, but not readily quantified.

With notable exceptions discussed below, most sources we consulted describe the benefits logically expected to arise from BOT, or which can be observed through case studies. But they do so only qualitatively. Even benefits that are *in principle* cash releasing, monetisable and quantifiable – such as reduced due diligence costs, increased law enforcement efficiency or increased criminal convictions – are often only qualitatively identified in the literature.

Similarly, whilst all the interviewees consulted over the course of this research identified a number of benefits associated with BOT, subject matter experts rarely point to potential methodological approaches for quantification, or previous work to measure benefits. This echoes findings from a 2021 European Commission report on high value datasets which found

¹⁷ Interview with BOT advocacy organisation, January 2022.

¹⁸ Interview with BOT advocacy organisation, January 2022.

¹⁹ HM Treasury. (2018). *Guide to Developing the Programme Business Case*.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/749085/Programme_Business_Case_2018.pdf

that whilst experts were able to speak to case study examples demonstrating company data value, they usually could not refer to robust figures or means of quantification.²⁰

Previous work on BOT often explicitly refrains from measuring benefits arguing that it is too early to quantify economic impact, or that it is too difficult to confidently attribute a benefit to BOT.

A number of studies and interviewees have suggested the economic impact of beneficial ownership transparency is too difficult to measure, as a nascent policy field with inadequate empirical data. In 2019, an Adam Smith International report on beneficial ownership stated that it was “largely too early” to measure benefits of BOT on a systematic basis,²¹ whilst a 2020 Transparency International paper outlines how the supporting evidence for BOT reform remained “anecdotal”.²²

Even within the UK government, often regarded as a leader of BOT reform, some implementers have expressed doubt about being able to quantify impact due to a lack of policy maturity. For instance, the BEIS Post-Implementation Review of the UK PSC register from 2019 agrees that it is “too early to evaluate its wider economic effects”.²³

Elsewhere, experts highlighted that attributing economic impact to BOT is likely to be extremely difficult. As one of our interviewees for this project pointed out, whilst beneficial ownership has been referred to as the “lynchpin” of financial transparency,²⁴ BOT is still “just one piece of the puzzle”, and is usually implemented as part of a broader package of transparency reforms, making it particularly difficult to measure its benefits in isolation.²⁵ Similarly, the UK government’s 2014 impact assessment of its Transparency and Trust programme of reforms found that, in the case of reducing law enforcement costs, there is no “reliable or systematic way” to attribute benefits “directly and exclusively” to BOT.²⁶

²⁰ *European Commission*. (2020). Impact Assessment study on the list of High Value Datasets to be made available by the Member States under the Open Data Directive.

<https://www.access-info.org/wp-content/uploads/Deloitte-Study-2020.pdf>

²¹ Davila, J., et. al. (2019). Towards a Global Norm of Beneficial Ownership Transparency. *Adam Smith International*.

<https://adamsmithinternational.com/app/uploads/2019/07/Towards-a-Global-Norm-of-Beneficial-Ownership-Transparency-Phase-2-Paper-March-2019.pdf>, p. 34.

²² The Transparency International paper also refers to “a dearth of empirical evidence” and the current impossibility of identifying the causal effects of implementation. See, Van der Merwe, T. (2020). U4 Helpdesk Answer, Beneficial ownership registers: progress to date. *Transparency International*.

https://knowledgehub.transparency.org/assets/uploads/kproducts/beneficial-ownership-registers-progress-to-date_U4-revised_PR.pdf, p. 16.

²³ *Department for Business, Energy and Industrial Strategy (BEIS)*. (2019). Post-Implementation Review of the People with Significant Control Register.

https://www.legislation.gov.uk/ukxi/2017/694/pdfs/ukxi0d_20170694_en.pdf, p. 40

²⁴ Sharman, J.C. (2011). Testing the Global Financial Transparency Regime, *International Studies Quarterly*. Volume 55, no. 4.

<https://doi.org/10.1111/j.1468-2478.2011.00693.x>

²⁵ Interview with an academic subject matter expert, January 2022.

²⁶ *Department for Business, Innovation and Skills (BIS)*. (2014). Final Stage Impact Assessments to Part A of the Transparency and Trust Proposals (Companies Transparency).

Nonetheless, there are a very limited number of studies that *have* sought to quantify and even monetise the benefits of beneficial ownership transparency.

Most work we encountered to quantify the economic benefits of BOT has been undertaken by the UK government. This dates back to 2002, when a Regulatory Impact Assessment sought to place value on the benefits of hypothetical BOT implementation options for law enforcement purposes using expert estimates from police and salary data.²⁷ This included the creation of a “modern database” of BOT information searchable by name (an early ideation of the UK PSC register). The study found that, even using conservative estimates, the economic benefits of a BOT register for government far outweigh any additional costs.

Following the implementation of the PSC register, there has been one effort to quantify its costs and benefits for end-users. The analysis was presented in a joint Companies House and BEIS report in 2019.²⁸ The report used a willingness to pay (WTP) survey-based approach to measure the value of all Companies House data, including BOT data on the PSC register, for different user groups, including businesses and providers of public goods such as governments and transparency advocacy groups. The report concluded that;

- Based on WTP survey responses, beneficial ownership data was estimated to account for 4% of the total value of all Companies House data – or approximately £40 million to £120 million of aggregate benefit per year.
- This compares to ongoing annual costs of compliance of £78 million.
- For “high use” users – who are characterised as “public good” users working in transparency organisations, government departments or law enforcement entities – the value of PSC data rises to 13% of the total value.
- Introducing a subscription-based model for Companies House data would lead to a net economic welfare loss, despite revenue generated from fees. Publishing the data in a freely accessible format leads to further economic benefits.²⁹

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/324712/bis-14-908a-final-impact-assessments-part-a-companies-transparency-and-trust.pdf

²⁷ *HM Treasury / Department of Trade and Industry (DTI)*. (2002). Regulatory Impact Analysis: Disclosure of Beneficial Ownership of Unlisted Companies.

https://webarchive.nationalarchives.gov.uk/ukgwa/+/http://www.hm-treasury.gov.uk/media/9/9/ownership_long.pdf

²⁸ *Department for Business, Energy and Industrial Strategy (BEIS)*. (2019). Post-Implementation Review of the People with Significant Control Register.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833782/valuing-benefits-companies-house-data-report-4-providers-public-goods.pdf

²⁹ *Department for Business, Energy and Industrial Strategy (BEIS), Companies House*. (2019). Valuing the User Benefits of Companies House Data: Policy Summary.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833764/valuing-benefits-companies-house-data-policy-summary.pdf

In summary, the report suggests that the value of freely accessible BOT information for end-users is likely sufficient to cover the costs of compliance.³⁰

Outside of the UK context, we only found limited examples of work that explicitly quantifies the monetisable economic benefits of BOT. The first, a study conducted by PwC, focused on BOT in Italy with a similar focus on the value of the data for business. It identified a value of €60 million in 2019. However, the report is not publicly available and only referenced in a European Commission report on high value datasets, which provides no insight into its methodology, the types of benefits measured or the specific types of business information considered.³¹

Secondly, the European Commission itself conducted a macro-economic impact assessment of the market value of company and company ownership data. To achieve this, the report looks back to a study conducted by Graham Vickery in 2011³² to estimate the market size of public sector information (PSI) in its broadest sense and applies forecasts from the European data market monitoring tool to predict a baseline scenario for growth up to 2025.³³ Company and company ownership data is estimated to represent 6% of total PSI market size, giving it a representative value of €3 billion euros in 2020 across all EU member states.³⁴ Note, however, that the report refers to “company and company ownership data” only, so that no specific estimations are attributed to BOT data. There is also no clear methodological rationale provided for the 6% market size figure, other than that this was established using “existing literature” and the study’s own research.³⁵

In short, BOT-specific studies are limited and focus on only a narrow subset of the anticipated benefits. They are nonetheless encouraging.

Whilst evidence tracking the specific impacts of BOT is scarce, much more has been done to demonstrate the general economic benefits of financial transparency.

Despite limited evidence specifically concerning the economic impact of BOT, several studies have found that financial transparency produces net economic benefits. Even at the broadest level, mainstream economic logic supports the argument that BOT, as a step towards greater information transparency, will ultimately lead to better market performance. The economic theories advanced by Nobel Prize winners James Mirrlees and William Vickrey,³⁶ and George

³⁰ Note that some of the main benefits of BOT are expected to arise through its effects on money laundering and corruption, which are excluded from this study.

³¹ *European Commission*. (2020). Impact Assessment study on the list of High Value Datasets to be made available by the Member States under the Open Data Directive.

<https://www.access-info.org/wp-content/uploads/Deloitte-Study-2020.pdf>

³² Vickery, G. (2011). Review of Recent Studies on PSI Re-Use and Related Market Developments.

European Commission. https://digitaliser.dk/resource/1867487/artefact/final_version_study_psi.docx

³³ *Data landscape*. Data Landscape: The European Data Market Monitoring Tool. Accessed February 2022. <http://datalandscape.eu/european-data-marketmonitoring-tool-2018>

³⁴ *European Commission*. (2020). Impact Assessment study on the list of High Value Datasets to be made available by the Member States under the Open Data Directive.

<https://www.access-info.org/wp-content/uploads/Deloitte-Study-2020.pdf>, p.390.

³⁵ *Ibid*.

³⁶ *Nobel Prize*. The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 1996.

Accessed Monday 7 Mar 2022. <https://www.nobelprize.org/prizes/economic-sciences/1996/summary/>

Akerlof, A. Michael Spence, and Joseph Stiglitz³⁷ draw a tight connection between market efficiency and other forms of transparency. Perfect information is a key precondition for idealised efficient markets. Asymmetric information, on the other hand, produces a variety of market failures.

Several studies have identified causal connections between other forms of financial transparency. In one investigation, researchers found evidence of increased investment and wage payments after improving country-by-country reporting to European tax authorities.³⁸ Another study found that increasing fiscal transparency in middle and low-income countries boosts FDI,³⁹ while other researchers calculated that an increase of one point in a country's transparency rankings leads to an increase of 40% in FDI.⁴⁰

Options for future econometric analyses

Estimates of particular benefit types are likely to be more robust than large scale complex models at this stage. As such, any attempts to measure the economic benefits of BOT should focus on quantifying specific benefits, rather than the aggregate economic impact of BOT.

A number of experts we spoke to over the course of this project were sceptical about the potential for macroeconomic approaches to measure the aggregate impact of BOT in a given jurisdiction, or the total value of BOT data. In the words of one interviewee, “the inclination is to want to come up with a nice econometric model with lots of variables. I would argue for simplicity.”⁴¹ We heard that challenges surrounding data availability and attribution were likely to be easier to control for in simpler models, which look to measure one benefit area.

Whilst our full report goes into more detail, the benefits of BOT outlined in the literature and interviews and represented in the project's logic model can be broadly classified into the following categories:

- **Benefits relating to crime and national security**
 - Improving the efficiency and success of law enforcement
 - Reducing the incidence of illicit financial flows, and the consequent profitability of organised crime

³⁷ Nobel Prize. The Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2001.

Accessed Monday 7 Mar 2022. <https://www.nobelprize.org/prizes/economic-sciences/2001/summary/>

³⁸ De Simone, L and Olbert, M. (2021). Real effects of private country-by-country disclosure. *The Accounting Review* (forthcoming). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3398116

³⁹ Cicatiello, L., et. al. (2021). Assessing the impact of fiscal transparency on FDI inflows. *Socio-Economic Planning Sciences*. Volume 73, no. 100892.

<https://www.sciencedirect.com/science/article/abs/pii/S0038012119305142>

⁴⁰ Drabek, Z. and Pane, W. (2002). The impact of transparency on foreign direct investment. *Journal of Economic Integration*. Volume 17, no. 4. <https://www.jstor.org/stable/23000835>

⁴¹ Interview with academic subject matter expert, February 2022.

- Increasing asset seizures
 - Strengthening national security by facilitating sanctions on individuals with ties to hostile states, and reducing terrorism funding
- **Benefits relating to markets and investment environments**
 - Reducing due diligence costs for businesses
 - Reducing “Know Your Customer” compliance costs for regulated financial entities
 - Improving investor confidence and increasing Foreign Direct Investment
- **Benefits related to public procurement and corruption**
 - Improving procurement outcomes by fostering competition and improving value for money
 - Reducing corruption in procurement
- **Benefits related to tax evasion**
 - Reducing tax evasion and increasing tax revenue
- **Benefits related to democracy and trust**
 - Reducing political corruption
 - Reducing perceived corruption and increasing citizen trust in government

There are a number of approaches to measurement, however, they often involve trade-offs between how feasible it is to conduct an approach in the short-term, and its methodological robustness.

The table below summarises the methods that could be used to estimate the economic value of BOT data. It examines their main advantages and drawbacks, and provides an illustrative feasibility score, running from 1 (unfeasible to conduct in the short term given data availability and resource intensity) to 3 (could be conducted in the short term). Our main report provides a significantly more detailed breakdown of the ways in which these broad methodologies might be applied to the measurement of particular benefit types, and how this impacts feasibility.

Method and example	Feasibility	Main advantages	Main drawbacks
Expert estimation surveys: e.g. asking law enforcement to estimate their time savings due to BOT data	3 – Could be carried out in the short term in jurisdictions both with and without a BOT regime already in place, but	The method tackles the data availability problem often associated with BOT impact assessment, by replacing the need for	Estimates rely upon subjective estimates. There is also some risk that experts will be unwilling to estimate, or

requires careful design and pre-survey consultation.

data points which may not be accessible with expert estimates.

may challenge assumptions

Willingness-to-pay studies: e.g. asking businesses how much they would be willing to pay for access to BOT data to support activities such as due diligence checks

3 – Could be carried out in the short term in jurisdictions both with and without a BOT regime already in place, but requires careful design and pre-survey consultation.

This method can be employed across different user groups, not just expert users. WTP approaches also address data availability issues, and have already been conducted in the context of the UK PSC register.

WTP estimates require a sufficient sample size. For example, the 2019 Companies House valuation was unable to generate WTP estimates for ‘public good providers’ due to a small sample size.

Public polls and surveys: e.g. asking the public whether or not freely accessible BOT data would increase their trust in government and generating a % estimate

3 – could be carried out in the short term without detailed design required for WTP or expert estimations studies.

A quick way of generating descriptive statistics about the value of BOT, which would not require econometric expertise to conduct.

Results generated would not be methodologically robust and the approach would generate descriptive statistics about perceptions of BOT’s economic attributes rather than monetary estimates of the value of BOT.

Correlational studies: e.g. comparing data on variables such as asset seizures before and after a BOT intervention or multiple interventions across jurisdictions.

2 – a simple approach for economists which could be conducted in the short term, but completely dependent on data availability across jurisdictions (which varies depending on the variable in question).

This approach would produce a more direct estimate of benefits in contrast to survey based approaches, and is in principle simple to carry out with the right pre and post implementation data.

Correlational studies illuminate changes in variables which occur after an intervention, but do not interrogate the cause of a change. They are unlikely to be robust in this context, since changes in variables are likely to be influenced by a number of factors extraneous to BOT.

Causal studies: e.g. conducting a difference-in-differences⁴² or regression to analyse the average changes in a given variable across a number of jurisdictions with and

1 – could be carried out in the long term, but is time consuming and difficult to conduct. More feasible where data happens to be available, and where research questions relate

Conducted well, this approach is the most academically respectable method set forth.

It would be likely very challenging to assemble comparable data across jurisdictions (collected in the same way, at similar intervals).
The approach would be

⁴² Difference-in-differences methodologies involve plotting out changes in a given variable over time for countries that have implemented a BOT regime and countries that have not, and then comparing the averages.

without BOT regimes in place. A causal analysis might use index data to track benefits such as increased FDI or better confidence in business.

to simple, easily quantified variables.

time consuming, potentially taking years to conduct, without the guarantee of persuasive results.

Currently, the most near-term feasible approaches for measuring the value of beneficial ownership transparency interventions are survey-based. These methods could be employed both in jurisdictions where BOT has been implemented, and jurisdictions without a BOT regime in place.

Experts surveys, willingness to pay and novel surveys all could be carried out in jurisdictions either with or without a BOT regime in place. For instance, a 2002 Regulatory Impact Assessment conducted by the UK government asked officials to indicate the police time that would be saved by a hypothetical BOT register, 14 years before the PSC Register was operationalised.⁴³ They are a useful, if imperfect, method for coping with extreme data limitations on BOT. Public polls may be helpful for indicating community sentiment and political support, but cannot produce robust estimates of benefits. Willingness-to-pay and expert estimation studies come with many caveats, but are flexible and could be harnessed to provide broadly indicative estimates of economic impacts in a number of benefit areas, including, but not limited to:

- impact upon law enforcement investigation times;
- impact upon money laundering activity;
- impact upon perceptions of corruption and trust;
- percentage of asset seizures facilitated by BOT information;
- value of data for businesses; and
- value of data in a national security context.

Correlational and causal studies could also be possible in the longer term across countries with BOT regimes already in place. Findings generated by causal studies have the potential to be particularly robust, but these approaches would be both time-consuming and costly.

Unlike subjective survey-based estimations, correlational and causal studies have the potential to make more direct observations regarding the economic impacts of BOT for jurisdictions with BOT regimes already in place.

⁴³ *HM Treasury / Department of Trade and Industry (DTI)*. (2002). Regulatory Impact Analysis: Disclosure of Beneficial Ownership of Unlisted Companies. https://webarchive.nationalarchives.gov.uk/ukgwa/+http://www.hm-treasury.gov.uk/media/9/9/ownershi_p_long.pdf

A typical correlational study would simply compare a variable (e.g. money laundering flows) before and after BOT policy implementation. Such analyses are generally regarded as low-quality, given variables may change due to factors other than the policy change. In the right context, however, they are useful and potentially influential. Causal studies, in contrast, attempt to control for extraneous factors and so isolate the effect of the policy change. A classic example of a causal study is a randomised control trial – but, of course, it is not possible to randomly assign nations to different BOT regimes. Instead, social scientists use various methods to control for the influence of extraneous variables, though this is more demanding in its data and analytic requirements.

Both these approaches are likely to be more difficult and costly to conduct than survey-based approaches. Unlike survey-based methods, they depend on data availability and require baseline data points from which to measure impact, which are unlikely to be readily available in a number of benefit areas. For example, data on financial crime, corruption and tax evasion is generally of a very low quality, due to the illicit nature of these activities, meaning that robust causal or correlational research into BOT's impact on those variables is unlikely to ever be feasible.

Even in the case of other variables that are theoretically easier to measure, such as asset seizure rates or investigation times, causal or correlational studies would require jurisdictions to collect and store this data over time. Multiple experts we spoke to cited data availability as a challenge when looking to measure the economic impact of BOT.⁴⁴ Correlational and causal studies will become more important in the future, as BOT regimes are implemented, although currently insufficient baseline data is being collected to enable this.

Conclusion

Over the course of this research, we found a very limited body of existing work that specifically quantifies the economic value of BOT. BOT is widely understood to be an economically beneficial reform, and its benefits are well-documented in a qualitative sense, but research largely refrains from quantifying economic impacts in this area due to limitations regarding attribution and data availability.

These challenges to measurement are not insignificant, yet nor do they render measuring the economic impacts of BOT impossible. As this report has outlined, there are a range of potential approaches that could be used to quantify benefits in this space, all of which are accompanied by trade-offs in terms of feasibility and robustness of findings.

In light of the methodologies identified and insights from subject matter experts and economists, we set forth a number of key considerations for governments, international organisations and civil society. Whilst some of the recommendations outlined below can be

⁴⁴ Interview with subject matter expert, February 2022; Interview with academic subject matter expert, January 2022.

broadly applied to all of these groups, we recognise that governments in particular have a key role to play in any efforts to measure the economic impact of BOT, as the stewards of the public datasets needed to assess impact in a number of benefit areas.

Recommendations

- 1. Whilst for many jurisdictions the available economic evidence already justifies the associated costs of beneficial ownership transparency, some of the methodologies outlined in this report would strengthen the understanding of the economic impacts of BOT in the short-term. Governments in particular should consider strategically employing the most cost-effective of these approaches to fill in the gaps in the existing evidence base.**

Economic evidence that is already available justifies government spending on effectively implemented BOT, and its associated costs for the private sector. This research points to strong evidence of large economic costs that BOT is expected to directly or indirectly ameliorate. There is broad agreement that BOT is a missing piece in the existing institutional structure, and would bring significant benefits for the operation of markets and democracies. Case studies of analogous reforms, and a handful of studies of the value of BOT for end-users, suggest that these benefits can be realised. It appears resoundingly clear that the benefits outweigh the costs of reform, even if benefits cannot be precisely quantified at present; indeed, this is why we see broad support for BOT among economists and international institutions.

Given this existing evidence base, to commit funding to complex causal studies which measure the economic impact of BOT, would not be “practical” nor “proportionate”, to quote UK government guidance on preparing a business case, which warns against costly impact assessment where evidence is already available.⁴⁵ Indeed, such approaches are unlikely to ever be considered by analysts either in government or international organisations, given the intensive resources needed to conduct them.

Nonetheless, survey based approaches have the potential to supplement the existing economic argument in favour of BOT. For instance, data which is currently available provides little insight into how BOT may impact investigation times for enforcement agencies, the prevalence and profitability of organised crime, the robustness of procurement processes, or due diligence costs within the private sector. Survey-based estimates in these kinds of benefit areas would be an efficient means of contributing to the economic case for BOT.

- 2. Focusing on particular benefit types in relation to specific policy goals is likely to be the most practical approach to studying the economic benefits of BOT.**

⁴⁵ *HM Treasury*. (2018). Guide to Developing the Programme Business Case. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/749085/Programme_Business_Case_2018.pdf, p. 20.

As outlined above, it will not always be financially viable to commit resources to the approaches identified in this report. In addition to justifying whether it is proportionate to carry out an approach, governments, organisations or researchers looking to carry out novel research should avoid measurement for measurement's sake and instead focus on measuring particular benefit types, where a need for additional evidence to support the case for BOT has been identified.

When looking to prioritise benefit types, researchers and governments need to consider which benefits are likely to be relevant to specific groups. For instance, we heard repeatedly throughout interviews that industry leaders were particularly likely to be interested in the benefits of BOT for businesses, given that the private sector shoulders most of the regulatory burden of BOT. Where this is the case, methods which look to gauge the benefits of reform for businesses should be prioritised in the short term, with a view to providing better evidence to support ongoing discussions around the costs and benefits of BOT for the private sector.

For governments more specifically, measuring via benefit type will also be crucial when looking to confirm the extent to which a BOT regime is able to meet its intended policy goals. Whilst the potential benefits of BOT are myriad, governments will often implement BOT reforms having identified key policy goals, such as reducing illicit financial flows and the time taken by law enforcement to investigate them. In addition to being more methodologically feasible and “proportionate” than attempting to measure aggregate economic impact, measuring by benefit type will allow governments to prioritise these policy outcomes in their impact assessments, and even to chart progress in key impact areas over time.

3. Governments implementing BOT reforms should conduct impact assessments and publish their findings to help understand the economic case for BOT across jurisdictions.

Most of the evidence collected during this project is UK-centric, given that almost all of the resources encountered in the literature review which actively seek to measure the impact of existing BOT reforms were published by the UK government. This is perhaps unsurprising, given the UK is one of the forerunners in terms of BOT implementation. However, now that more than 30 registers have been implemented worldwide, the economic case for BOT could be strengthened by other jurisdictions dedicating resources to conducting their own impact assessments.

Crucially, if governments are to commit resources to evaluating the costs and benefits of a BOT intervention, they should also publish their methodologies and findings publicly, to add to the growing evidence base in this area. The work carried out by BEIS and Companies House in 2019 is available in full online, and was published alongside a methodological paper, which provides a useful starting point for other jurisdictions looking to conduct similar work, in a way that is sensitive to their specific country context.⁴⁶

⁴⁶ *Department for Business, Energy and Industrial Strategy (BEIS), Companies House. (2019). Valuing the User Benefits of Companies House Data: Policy Summary.*

4. In order to support more robust research to quantify the impacts of BOT in the future, and for their own monitoring and evaluation purposes, governments need to start tracking baseline data points now.

In the future, there is scope for a range of correlational and causal studies to be conducted in this area, mostly by economists and other social scientists. Correlational studies would simply demonstrate a before and after change in an indicator following reform, whereas causal studies could go further, in an attempt to prove whether, and to what extent, BOT was the determinant of change.

To facilitate this kind of research, and for the purposes of their own monitoring and evaluation activities, governments need to work to establish the baseline data from which impact can be measured as soon as possible. This might include data on asset seizures, investigation times, and financial crime detection rates, although the types of data collected will depend on the benefits a government has prioritised for measurement. Consultation with economists and social scientists about data requirements is advised.

5. As the BOT policy area matures, further work should consider how specific design elements may lead to specific economic benefits. Future research is needed to understand the evidence not just for BOT in its broadest sense, but for the specific aspects of BOT implementation which contribute to an effective disclosure system.

As a preliminary landscaping study, this report has focussed primarily on how methodological approaches might measure specific classes of benefit relating to BOT. However, future work may be able to isolate particular BOT design features, assess their value, and in doing so guide continued improvements. Important dimensions include data quality, coverage, verification mechanisms, cross-border data sharing and processes of review to close emerging loopholes. Some work has already been done by the UK government in this regard; the 2019 valuation of Companies House data illustrates how making company data (including the PSC register) *freely accessible* is economically advantageous. The report outlines how switching to a fee-based model would generate welfare losses.⁴⁷

As more and more governments move from the initial step of implementing a BOT register, to iterating and improving the way that data is collected, structured and verified, there is increasing scope to assess which design features constitute *effectively implemented* BOT – that is, emerging good practice that meets the criteria outlined in Open Ownership’s principles for effective disclosure.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833764/valuing-benefits-companies-house-data-policy-summary.pdf

⁴⁷ Department for Business, Energy and Industrial Strategy (BEIS), Companies House. (2019). Valuing the User Benefits of Companies House Data: Policy Summary.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/833764/valuing-benefits-companies-house-data-policy-summary.pdf

6. The Financial Action Task Force could play a role in supporting countries seeking to track the impact of BOT reform by publishing guidance around collecting and analysing statistical evidence for BOT.

As a leading standard setting body on BOT, the Financial Action Task Force (FATF) has the potential to be instrumental in encouraging governments to implement monitoring, evaluation and learning practices around reforms in this area.

FATF already advocates for the quantitative impact evaluation of anti money laundering reforms. Recommendation 33 states that “Countries should maintain comprehensive statistics on matters relevant to the effectiveness and efficiency of their AML/CFT systems”.⁴⁸

Acknowledging the challenges around assessing effectiveness, FATF has also published guidance which sets out options for collecting, maintaining and analysing anti-money laundering (AML) and countering the financing of terrorism (CFT) data.⁴⁹ In addition, guidance provides concrete examples of the kind of statistics that could be useful to collect.

Particularly as FATF revises Recommendation 24 on beneficial ownership, the organisation should consider developing further non-binding guidance, specifically focussed on measuring the impact of BOT. Designing and implementing impact evaluations for BOT policies is not straightforward, and more practical guidance for countries in terms of data collection, in line with existing resources in the broader anti corruption space, would be a useful resource for governments.

⁴⁸ *Financial Action Task Force (FATF)*. (2015). Guidance on AML/CFT related data and statistics. <https://www.fatf-gafi.org/media/fatf/documents/reports/AML-CFT-related-data-and-statistics.pdf>

⁴⁹ *Ibid.*