

Secrecy Strategies:

Global Patterns in Elites' Quest for Confidentiality in Offshore Finance

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Abstract

Scholars and policy-makers know a lot about the ways offshore financial centers compete with one another to offer secrecy to elites, but still know too little about how and why elites take up these offerings to conceal their assets and identities offshore. This paper seeks to fill the gap in knowledge by examining the distinct patterns for achieving offshore secrecy among elites in 65 countries. We take a cross-national comparative perspective, showing that the patterns are contingent in part on political conditions in the elites' home countries. Using data from two publicly available sources—the Offshore Leaks Database and the World Justice Project Rule of Law Index—we advance knowledge for scholars and policy-makers with three main results. First, we find that elites from corrupt countries are more likely to spread their assets across multiple offshore financial centers: they diversify across the system, instead of putting all their eggs in one basket. Second, we show that in countries where the risk of government confiscation of private assets is high—either due to lack of civil rights or very effective law enforcement—elites make heavy use of identity-concealing offshore strategies such as bearer instruments and nominees to shield their names from discovery in public records. Third, we find that elites from countries where both corruption and confiscation pose significant risks make extensive use of blacklisted offshore financial centers, despite the reputational and practical risks that entails for them. All three patterns achieve secrecy, but through different means; our findings have implications for public policy, as well as scholarly models of inequality, elites and financial crime.

Introduction

Elites' usage of the offshore financial system appears to be highly patterned, shaped by the legacies of past political, economic and social structures (Haberly and Wójcik 2015). These include histories of colonialism and communism, as well as corruption and the rule of law (Ledyaeva et al. 2015; Ogle 2020). Recent research shows how valuable research on such patterns can be in analyzing and predicting financial crime: for example, Chang et al. (2023) pointed to previously unknown vulnerabilities in the offshore networks of Russian elites sanctioned following the 2022 invasion of Ukraine, with significant implications for scholarly models of inequality as well as for public policy. In particular, the findings underscored the need for additional scrutiny of professional intermediaries—wealth managers—in creating the patterns researchers observe (Harrington 2016; Hoang 2022).

Yet despite these advances, understanding of patterns in the transnational networks of offshore finance has been tightly limited by the secrecy surrounding the system and the scarcity of data available to analyze. At the same time, secrecy is the most important product of the offshore system and the phenomenon most urgently in need of analysis (Harrington in press). Better understanding of the ways secrecy is organized and patterned would contribute not only to better policy but to better theories of stratification, elites and financial crime. This paper extends the emergent line of inquiry on patterns in elites' use of offshore finance by focusing on their secrecy strategies.

Our analysis examines the institutional conditions that motivate elites' use of the offshore system, with emphasis on the roles of corruption and rule of law in their home countries. To conduct this investigation, we link two publicly-available datasets. For data on patterns in elites' use of offshore finance, we draw on the Offshore Leaks database from the International Consortium of Investigative Journalists, which contains over 2.5 million records derived from the 2016 Panama Papers, 2017 Paradise Papers and 2021 Pandora Papers, among other sources. For information on the institutional conditions in the elites' home countries, we use the World Justice Project Rule of Law Index, which compiles data for 142 countries on their levels of civil and criminal justice, corruption, government transparency and regulatory enforcement.

Our analysis yields three main results. First, we find that when elites come from countries high in institutional corruption, they are more likely to spread their assets across multiple offshore financial centers: they diversify, in what might be called a “don't put all your eggs in one basket” strategy. Second, we find that for countries where the risk of government confiscation of assets is high—either due to lack of civil rights or very effective law enforcement—elites make heavy use of secrecy strategies that conceal their identities as asset owners; this includes the use of bearer instruments as well as the employment of nominees to shield elites' names from discovery in public records. Third, we find that elites from both types of countries make frequent use of blacklisted

offshore financial centers. Blacklisted jurisdictions are countries sanctioned by international bodies like the OECD or European Union for their high levels of secrecy—refusing to share information—and for facilitating tax avoidance and evasion. Using them to hold assets entails considerable reputational risks and increased transaction costs for elites (Eggenberger 2018; Unger and Ferwerda 2008). Overall, our most counter-intuitive finding is that use of offshore finance by elites can be driven not only by poor governance in their home countries—like corruption and lack of civil liberties—but by good governance conditions, as well. Thus, our 65-country analysis offers useful implications for public policy, as well as scholarly models of inequality, elites and the geography of finance.

Methods

Data sources. Our analysis draws on the best available data on elites' use of offshore, in the form of the Offshore Leaks dataset, made public by the International Consortium of Investigative Journalists. This is the largest and most globally comprehensive database on offshore finance, containing records drawn from sources including: the 2016 Panama Papers, comprising 2.6 terabytes of data and 11.5 million documents from the Panamanian law firm Mossack Fonseca; the 2017 Paradise Papers, comprising 1.4 terabytes of data and 13.4 million documents from the Bermuda law firm Appleby and the Hong Kong corporate service firm Asiaciti Trust; and the Pandora Papers leak of 2021, comprising 2.9 terabytes of data and 11.9 million documents from 14 different organizations providing offshore financial services.

All of these data sources reveal what are otherwise highly secretive personal financial affairs of ultra-high-net-worth individuals from around the world. Since it is very costly to use the offshore financial system (Harrington 2016), the individuals named in the Offshore Leaks database—which include a wide range of heads of state, celebrities and corporate leaders—all have two things in common: they are extremely wealthy and have something to hide. This group includes, but is not limited to, most of the approximately 3,000 billionaires in the world. While some may turn to the offshore financial system to avoid taxes, their more general motive is to conceal their ownership of certain assets—in particular, how the assets were acquired and how they will be spent. In addition, elites from some countries have well-founded reasons to fear that their assets might make them targets of kidnapping or extortion, or even political reprisals from their own governments (Harrington 2016; Ledyeva et al. 2015). Whatever their motive, elites purchase offshore secrecy in order to break the chain of association in law and public records linking them to their wealth (Harrington in press).

To understand better the conditions motivating elites to use the offshore financial system, we turn to the World Justice Project Rule of Law Index. The Index is used as the basis for other metrics created by the World Bank, Transparency International and private sector organizations like financial ratings agencies. However, our work is the first to connect offshore finance data with Rule of Law indicators. These indicators are

included in the Appendix (Table A1).

The Rule of Law Index is an integrative statistic built from over 400 variables, measuring the ability of a country to deliver on the construct “rule of law.” The WJP defines the construct as follows: “a durable system of laws, institutions, norms, and community commitment that delivers four universal principles: accountability, just law, open government, and accessible and impartial justice.” The Index is built from two data sources: general population surveys designed by the WJP with at least 1,000 respondents; and qualified respondent questionnaires completed by in-country experts on civil, commercial, criminal, and labor law. It has been computed annually since 2008 and now covers 142 countries and jurisdictions. Our analysis uses the Index to construct regression models assessing how rule of law (or lack of it) shapes the offshore secrecy strategies of elites.

Lastly, to compute inclusion in blacklisted regions, we use the powerset of all current and previously sanctioned jurisdictions from the European Union (EU 2017 and 2020), Financial Action Task Force (FAFT 2016, 2017, 2020), along with the original OECD blacklist from 2000. The full list is included in Appendix Table A2.

Blacklisting a country means sanctioning it by cutting it off from certain types of financial and legal transactions, usually for one or both of the following reasons: 1) harmful tax practices (meaning low or nil tax regimes that undercut the revenues gathered by other countries); 2) excessive secrecy, meaning a pattern of refusing to share information about assets other countries’ nationals (and firms) might have in the blacklisted jurisdiction. Individual countries can blacklist other countries, but the most compelling sanctions are leveled by multi-national organizations, such as the 38-member Organization for Economic Cooperation and Development (OECD), the 27-nation European Union or the 39-member Financial Action Task Force. Those organizations sanction non-cooperative offshore jurisdictions as part of their mission. For example, blacklisting is described as “part of the EU’s work to fight tax evasion and avoidance” (Koutsouva 2020). The FATF pursues blacklisting as part of its foundational remit from the G7 to “develop policies to combat money laundering” (Chohan 2019).

When the EU blacklists a jurisdiction, that means no EU funding can be channeled through that country, and any financial schemes routed through the sanctioned country by an EU firm or national can be subjected to additional reporting requirements, monitoring and tax withholding rates; any transactions in a blacklisted jurisdiction are thus subject to significantly higher transaction costs, as well as reputational stigma (Collin 2020). Blacklisting efforts by other organizations and countries are similarly designed to reduce financial flows to listed jurisdictions by significantly raising the costs—in money, time and reputation—of holding assets there. It is therefore noteworthy and surprising when firms and elites, who are ordinarily very protective of their reputations, are willing to engage with blacklisted jurisdictions at all. Even when

blacklisted countries can get themselves removed from sanctions lists, the lingering reputational costs of doing business there can remain substantial (Eggenberger 2018).

Key metrics. We analyze three key metrics of secrecy: 1) diversification in the use of offshore financial centers; 2) use of identity concealment strategies; and 3) use of blacklisted offshore jurisdictions, including diversification in the use of blacklisted jurisdictions. To operationalize diversity, we use the Shannon entropy measure, developed in the biological sciences (Magurran 1988; Begon and Townsend 2021) but now commonly used in human behavioral science (Gallagher 2017; Chetty et al. 2022). Entropy is the sum of the log-probability of all locations. This is given in equation 1:

$$H = -\sum p(x) \log p(x) \quad (1)$$

where each $p(x)$ denotes the proportion of a certain offshore location x , over all clients of one country. Since $p(x)$ represents a proportion, the sum of all $p(x)$ is 1. We measure the use of offshore diversification strategies to achieve offshore secrecy by computing for every country of origin (x) for elites named in the Offshore Leaks database. This yields equation 2:

$$H_{offshore}(x) = -\sum_{p \in OFF} p \log p \quad (2)$$

where *OFF* is the proportion of entities—firms, trusts and foundations—that elites from country x allocate to each offshore jurisdiction

To operationalize the second main secrecy strategy, identity concealment, we combine two factors: the use of bearer shares and bonds, as well as of nominee shareholders and directors. Bearer shares and bonds are like regular stocks and bonds, except that they are not made out in the name of any particular owner; like a check made out to “cash” instead of to an individual, whoever holds the piece of paper is the legal owner of the asset (Parkinson 2006). This means that anyone wishing to conceal their ownership of assets in an offshore corporation can legally and truthfully deny any association with those assets, as long as they are not holding the bearer certificates at the time (de Willebois et al 2011). This is useful in judicial proceedings where a government or creditor might wish to tax or confiscate an asset belonging to a high-net-worth individual.

An even more common way of achieving the same result is through the use of nominee shareholders or directors. Nominees are people who “rent” their names to help elites avoid public disclosure requirements that would otherwise reveal the true names of the owners and managers of an offshore company (Parkinson 2006). As a practical matter, this involves inserting the equivalent of the name “John Doe” in all public-facing

documents where the names of the true shareholders and directors of a firm would otherwise be shown. The nominees themselves have no powers of ownership or control, serving only to preserve the anonymity of the elites who purchase the use of their names.

Thus, we operationalize identity concealment strategies as follows. First, for every client in the Offshore Leaks database, we count the number of nominees and bearer instruments their wealth manager employs, divided by the wealth managers' total number of clients. Then, for every client from country x , we take the average; this captures the propensity by elites from each country to choose wealth managers whose offshore finance strategies focus on identity concealment. This results in equation 3:

$$IC(x) = \frac{1}{|x|} \sum_{i \in x} \frac{|Anon(j) \forall j \in Man(i)|}{|Man(i)|} \quad (3)$$

where i is a client and x is the set of clients from a specific country. $Man(i)$ represents the total set of clients a wealth manager of i works with globally, while $Anon(j)$ represents the number of that wealth manager's clients whose offshore financial arrangements involve the use of nominees and/or bearer instruments.

Finally, we analyze in two ways elites' use of blacklisted jurisdictions as a means to conceal their ownership of offshore assets. First, we measure the percentage of each individual's total offshore structures (the number of firms, trusts and foundations associated with them) that are based in blacklisted jurisdictions. Second, we measure jurisdictional diversification in elites' use of blacklisted offshore centers.

Operationally, we measure the use of this strategy as the percentage of blacklisted jurisdictions (based on our aforementioned powerset of the FAFT, OECD, and EU) used by elites from a given country. This is aggregated at the country level, as shown in equation 4 below:

$$\%BL(x) = \frac{\# \text{ of blacklisted}}{\text{Total \# of offshore locations}} \quad (4)$$

calculated for every country x where elites in our data originate.

Finally, we use the entropy calculation to measure the extent of diversification in elites' use of blacklisted jurisdictions to preserve secrecy around their ownership of assets. For every country x where the elites in our dataset originate, we compute:

$$H_{blacklist}(x) = - \sum_{p \in BL} p \log p \quad (5)$$

where BL is the set of percentages for each blacklisted destination according to our composite blacklist.

After generating the country-level ICIJ dataset—based on the origin countries of elites—we then merged that information with the WJP Rule of Law Index from 2015 (the mean year of the leaks). For countries that were as yet unrated in the Rule of Law Index by that year, we chose the closest subsequent year. This yielded a total of 65 total countries for our analysis. The values for the 44 WJP indicators and 8 macro-categories were normalized between 0 and 1 for the regression.

Results

In this section, we first offer some illustrations of the varying patterns in use of offshore financial centers and strategies among elites from the 65 countries in our analysis. This analysis draws on the metrics we developed to measure diversification in the use of offshore financial centers, as well as the use of identity-concealment strategies (like bearer instruments and nominees), and the decision to place assets in blacklisted jurisdictions. Next, we examine some possible motivations driving these strategies, drawing from the World Justice Project Index measures of institutional governance conditions in elites' home countries.

Pattern variation in offshore secrecy strategies. We find significant diversity in patterns of offshore use based on elites' home countries. Figure 1 offers an initial look at these findings. Figure 1a) shows the relationship between strategies of diversification in the use of offshore financial centers (x-axis) and the use of identity-concealment strategies via nominees and bearer instruments (y-axis). The downward slope of this graph indicates a trade-off: as elites diversify in the number of offshore financial centers used to hold their assets, they become less likely to use identity concealment strategies.

Figure 1b) examines the relationship between elites' allocation of their assets to blacklisted jurisdictions (x-axis) and their use of offshore diversification strategies (y-axis). The data here show that elites from countries in Europe and the Middle East make little use of blacklisted offshore financial centers, except when their overall offshore diversification increases. In contrast, elites from the rest of the world (Americas, Asia, Eurasia, and Africa) show the opposite pattern: the more use they make of blacklisted jurisdictions, the lower their overall offshore diversification. This means elites from those four regions tend to concentrate their assets in just a small number of blacklisted offshore centers. Thus, the entropy measure of diversification in use of blacklisted jurisdictions is very low for China (0.13), Russia (0.23), and Brazil (0.14) compared to Great Britain (0.57) and the US (0.52).

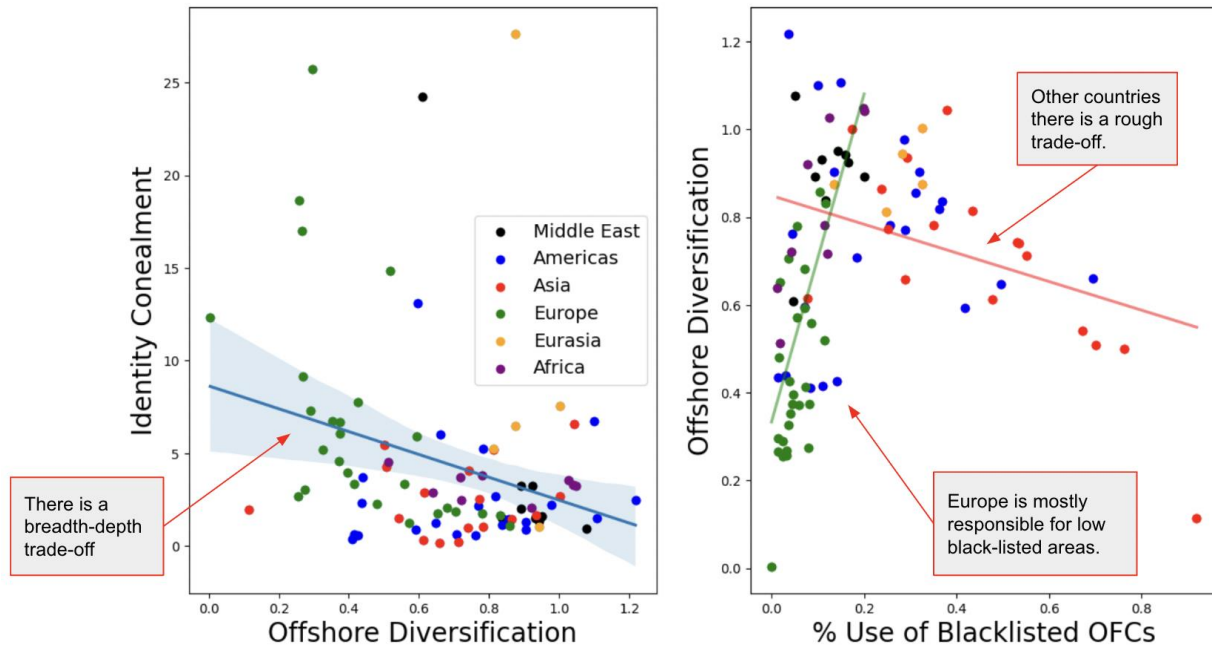


Figure 1: Trade-offs between offshore strategies.

Figure 2 offers another view of elites' patterns in the use of offshore finance by presenting a "heat map" comparing the intensity in uptake of two strategies: Figure 2a) shows the percentage of offshore assets allocated to blacklisted jurisdictions; Figure 2b) shows the mean frequency in the use of nominees and bearer instruments to conceal elites' identities. Countries not represented in the data are in gray.

We find a surprisingly high uptake in the use of blacklisted jurisdictions, given the additional costs imposed by that strategy. As Figure 2a) shows, elites from Peru, Thailand, Indonesia, and Malaysia allocate 70-90% of their offshore assets to blacklisted jurisdictions; elites from Mexico, Brazil, Russia, India and China allocate about 30% of their offshore assets to blacklisted offshore centers. Elites from Europe and Middle East rarely place their assets in those jurisdictions. Appendix A1 offers further detail on the allocation of assets to blacklisted countries, showing the dominance of the British Virgin Islands as an offshore destination.

The map of identity concealment strategies (Figure 2b) is equally surprising, in that we find the highest uptake among an unlikely assortment of countries: Sweden, Iran, Poland, Belarus, Kazakhstan, and Germany. This requires further analysis, leading us to the regressions in the next section, informed by the World Justice Project Index.

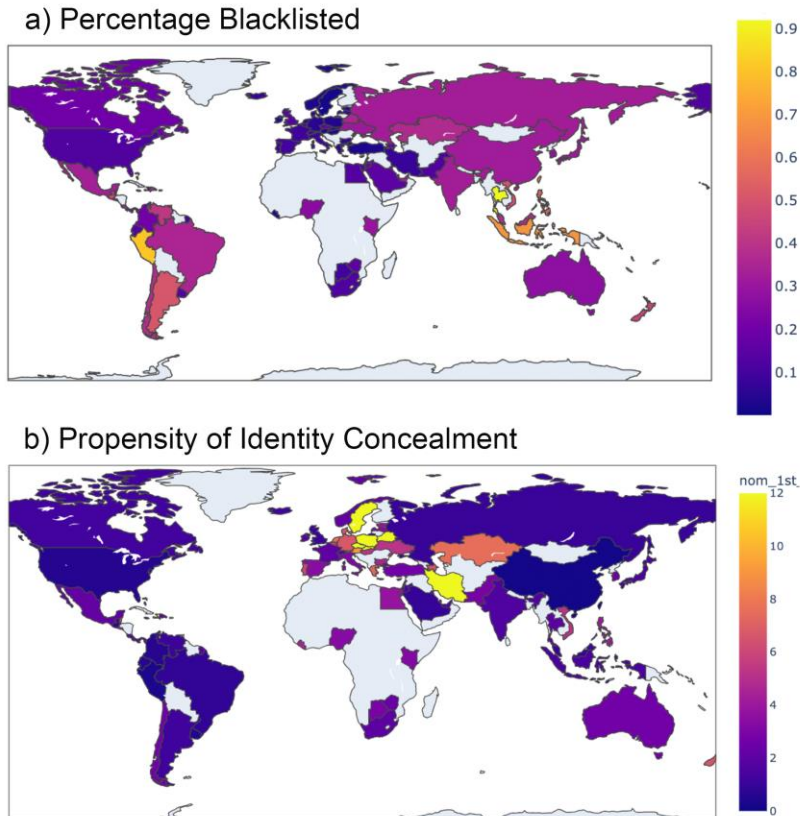


Figure 2: Percentage of blacklisted jurisdictions used (a) and propensity of identity concealment (b).

Regression results. To explain why elites from different countries exhibit such distinctive and sometimes surprising variations in their offshore secrecy strategies, we turn to regression models linking indices from the World Justice Project to four outcomes: identity concealment; use of blacklisted jurisdictions; general diversification in the US of offshore financial centers; and diversification in the use of blacklisted centers. Table 1 shows regression results based on the WJP macro-categories and unadjusted R2 values.

Table 1: Regression analysis on World Justice Index categories.

DV	IV (From WJP)	Coef	P-Value	R^2
Identity Concealment	Absence of Corruption	-0.8284	0.003	0.544
	Order and Security	0.2874	0.041	
	Civil Justice	0.9413	0.003	
Blacklist Use	Civil Justice	-0.9572	0.013	0.651
	Order and Security	0.5200	0.003	
Offshore Diversity	Order and Security	0.9353	0.019	0.781
	Absence of Corruption	-1.1133	0.019	
Blacklist Diversity	Absence of Corruption	-0.8194	0.021	0.789

The lack of civil justice in elites' home countries is the most important predictor in their use of identity concealment strategies and blacklisted jurisdictions. In the WJP Index, a lack of civil justice means that legal remedies for everyday problems—through courts or law enforcement—are inaccessible to most (see Table A1). This inaccessibility may be due to problems of cost, political bias, discrimination, unreasonable delays, or other factors. In such conditions, elites seem most concerned with disguising their connections to their own wealth, perhaps due to fears of confiscation (Ledyeva et al. 2015).

Our second main finding is that as corruption increases in elites' countries, they diversify in their allocation of assets to offshore jurisdictions overall, as well as to blacklisted jurisdictions. The WJP Index defines corruption to mean government officials' use of public office for private gain—for example, through bribery and kickbacks (see Table A1). Under those conditions, elites seem less concerned with being identified with their wealth than with the possibility of it all being discovered at once. Therefore, they spread their wealth over numerous offshore centers, so that an incursion on one asset does not affect the others. This confetti-like scattering is a common secrecy strategy for terrorist cells and financial fraudsters (Rilinger 2019).

Our third main finding is that as order and security increases in their home countries, elites make *more* use of blacklisted jurisdictions and diversify their use of offshore financial centers in general. The WJP Index defines order and security as effective control of crime and civil conflict. In other words, as a society becomes better at ensuring the security of persons and property, the more its wealthiest members turn to the offshore financial system. This is consistent with economic research showing that elites from Scandinavia and elsewhere in northern Europe make surprisingly common use of offshore to escape high tax rates and ruthlessly efficient regulatory enforcement (Alstadsæter et al. 2019).

This suggests a counterintuitive result: use of offshore finance is driven not only by negative political conditions such as corruption and lack of civil justice, but by positive conditions, such as order and security. These positive conditions have received very little attention, but are consistent with earlier sociological research on paradoxes in countries' development of informal economic sectors: parts of the economy that are unregulated, untaxed, and sometimes illegal, ranging from under the table payments to nannies and plumbers, to organized drug rings. Portes (1994) and subsequent researchers showed that the size of countries' informal economies could be represented as a U-shaped curve, because the informal sector was largest in both the worst- and best-governed nations. In the latter case, the motivation to use the informal sector for transactions was to avoid "too much" order and security in the form of taxes and regulations; similar motivations may drive elites in those countries to use the offshore financial system.

Next, we look deeper into the factors driving each of the four strategies by considering the sub-categories within the Rule of Law Index. Each of the horizontal bar graphs in Figure 3 represents the coefficient for statistically significant indicators, and can be interpreted as both the magnitude and direction of effect.

Figure 3(a) shows that countries where elites make most use of identity concealment strategies are those where citizens have strong legal rights to information, but at the same time experience very low levels of transparency in terms of government data and laws. While this may seem contradictory, it may reflect the same kind of bimodal relationship we found with the "order and security" variable. That is, elites from two very different kinds of countries may both turn to identity concealment strategies for opposing reasons. Nations where information is publicly available, accessible, and ready for audit—indicating good governance and transparency—may also impose high taxes and strict regulations, motivating wealthy citizens to seek identity concealment offshore. Denmark and Austria are good examples of this combination of good governance and high usage of identity concealment strategies.

In contrast, countries characterized by poor governance measures, such as obscuring their citizens' legal rights and data, produce elites who use nominees and

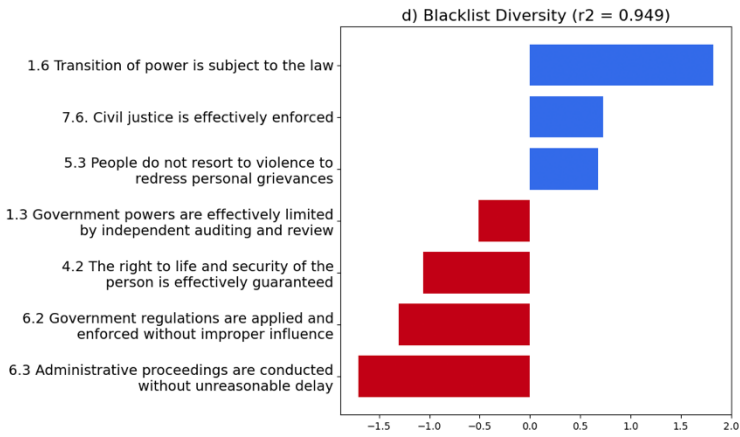
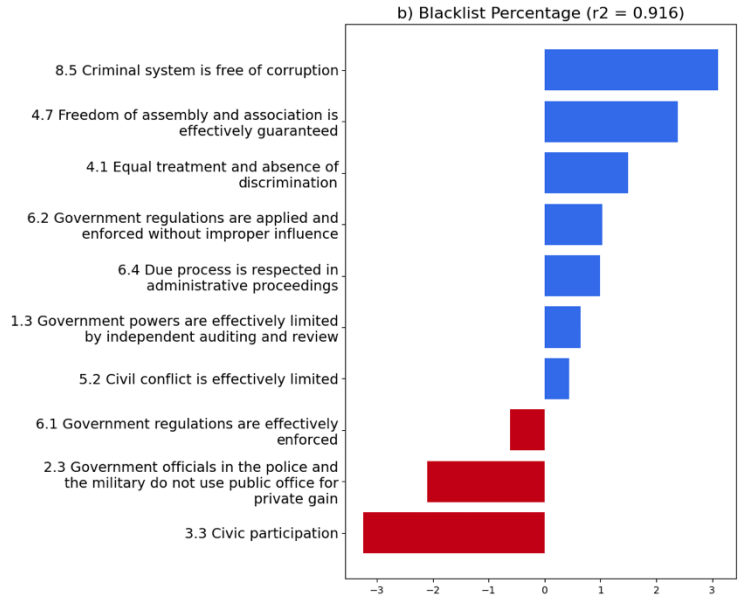
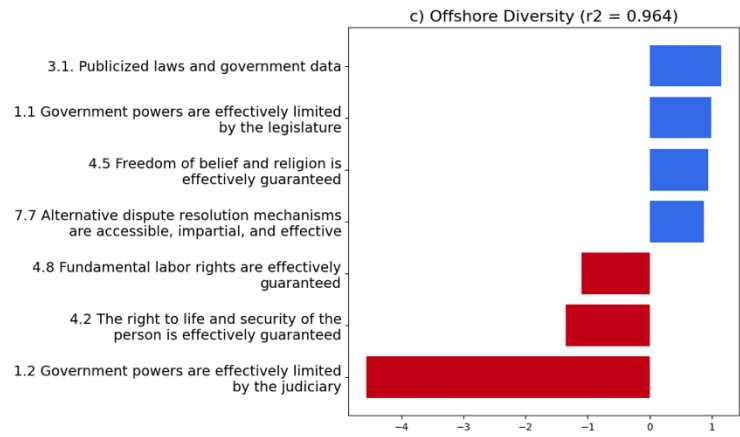
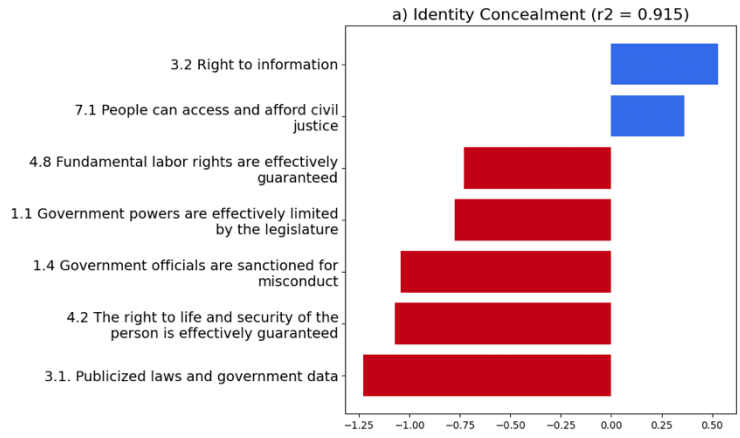
bearers to disguise their ownership of offshore assets. One example is Iran, which ranks low on the WJP Index in terms of legal transparency (3.1) and the second-lowest in guaranteeing citizens' right to life and security (4.2). Unsurprising then that Iranian elites make frequent use of identity concealment strategies like nominees to disguise their ownership of offshore assets. This again points to the thesis that both positive and negative institutional conditions drive the use of offshore finance.

Figure 3(b) suggests a similar bimodal pattern, in that the use of blacklisted jurisdictions is catalyzed both by good governance and bad. Countries where civic participation is low due to fear of retribution from the government produce elites who use blacklisted locations to disguise their ownership of offshore assets. This is likely the case for China, which has the lowest level of civic participation in the WJP Index, and where protestors in civil demonstrations have shown particular care in disguising their identities (Purbrick 2019). In other words, low levels of civic participation have the biggest impact on elites' allocation of their assets to blacklisted countries.

But several measures of good government—such as lack of corruption in the criminal justice system, freedom of assembly and fair application of the law to everyone—have an equal or greater influence in driving the use of blacklisted offshore centers. Some countries, such as Singapore, embody the full paradox in that their governments are fair and largely free of corruption, but civic participation nonetheless remains low and there are strong social and political motivations to remain anonymous about wealth ownership (Mahtani 2013; Pow 2011).

Figure 3(c) offers a somewhat more one-sided story, showing that diversification in the use of offshore financial centers is driven mostly by government dysfunction—particularly in countries where the judiciary has little power to constrain other branches of government. Per the WJP Index data, countries such as Ukraine and Vietnam fall into this category; while their laws may be well-publicized and protect freedom of religion, there are few judicial checks on government power to confiscate assets or exact retribution against political enemies. This appears to drive a strategy in which elites scatter their assets across a variety of offshore financial centers.

Lastly, Figure 3(d) offers a story about corruption and bad governance. Elites use of a diverse range of blacklisted offshore jurisdictions is highest in countries where government is not subject to effective oversight and does not guarantee the right to life or security of citizens, and in which application of the law is unfair and proceedings are unreasonably slow. Examples include Liberia, Belize, and to a lesser extent, South Africa. This finding corresponds to the results in Table 1.



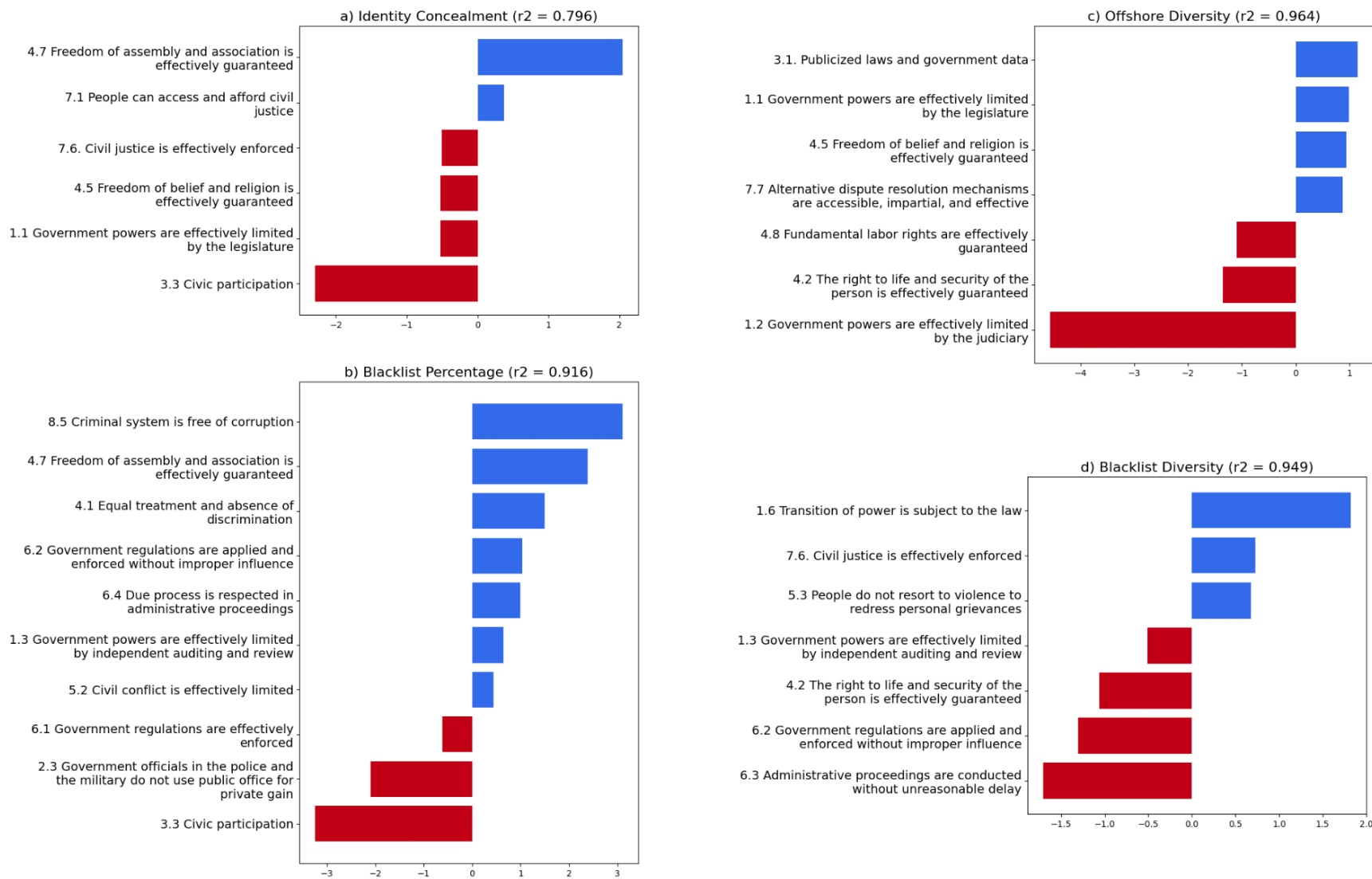


Figure 3: Statistically significant indicators for the four offshore metrics: (a) identity concealment, (b) blacklist percentage, (c) offshore diversity, and (d) blacklisted diversity

Discussion

This study contributes novel insights to the emerging line of research on the patterned uses of offshore finance by high-net-worth individuals. We first document new patterns in offshore activity among elites from 65 countries, using data from the Offshore Leaks Database of the ICIJ. Our analysis shows most elites employ three main secrecy strategies, alone or in combination: diversification, or spreading their assets among a variety of offshore financial centers; identity concealment, which involves disguising their ownership of offshore assets through the use of bearer instruments or nominees; and placing assets in jurisdictions that have been blacklisted for failure to share information about foreign elites' assets—in other words, for ultra-secrecy.

The concepts of jurisdictional diversification and identity concealment as distinct secrecy strategies are new contribution to the scholarly debates; though the two strategies may be combined, our analysis indicates that they are more usually used separately. Similarly, we find a surprisingly high allocation of assets to blacklisted jurisdictions by elites from countries that would otherwise seem to have little in common. This finding suggests a need for further research on the global linkages among elites across nationalities and cultures (Harrington in press).

Regression analysis against covariates from the World Justice Project Index allow us to examine the drivers of these patterns in offshore secrecy strategies, linking them to institutional conditions in elites' home countries. In general, we find that elites' offshore diversification strategies are driven by corruption in their home countries' governments. In contrast, identity-concealment strategies are preferred by elites from countries where governments know “too much” about their citizens—either because the governments are autocracies or because the governments are rigorously fair and strict in their applications of the law. This suggests that patterns in the use of offshore finance stem not only from negative political conditions in elites' home countries, but positive ones normally associated with good governance.

These results will be of interest for research on elites, inequality, and the geography of finance—particularly our findings on counter-intuitive patterns in the use of offshore by elites from countries characterized by good governance. Many such countries, in their efforts to stem rising inequality through strict taxation and regulation, may also be motivating some of their wealthiest citizens to develop offshore secrecy strategies. This would be consistent with recent economic research on Scandinavians' use of offshore (Alstadsæter et al. 2019), as well as sociological research on the paradoxes of the information economy (Portes 1994). For policy-makers, our findings may be useful in predicting problematic offshore activity by elites based on changing governance conditions in their home countries. Simulations based on our model could generate the kind of information that until now has mainly been accessible only through leaks like the Panama Papers. We offer our results as a platform for further investigation.

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Appendix

Figure A1 shows the exact distribution of where clients hold their assets in blacklisted regions. Brazil, Russia, India, and China rely almost exclusively on the British Virgin Islands. In contrast, South African clients tend to rely on the Jersey islands. We also quantify the diversity using Shannon Entropy, a common measure of how varied a distribution is. We find the blacklisted entropy of China (0.13), Russia (0.23), and Brazil (0.14) are the lowest; Great Britain (0.57), the USA (0.52), and South Africa (0.47) are much higher.

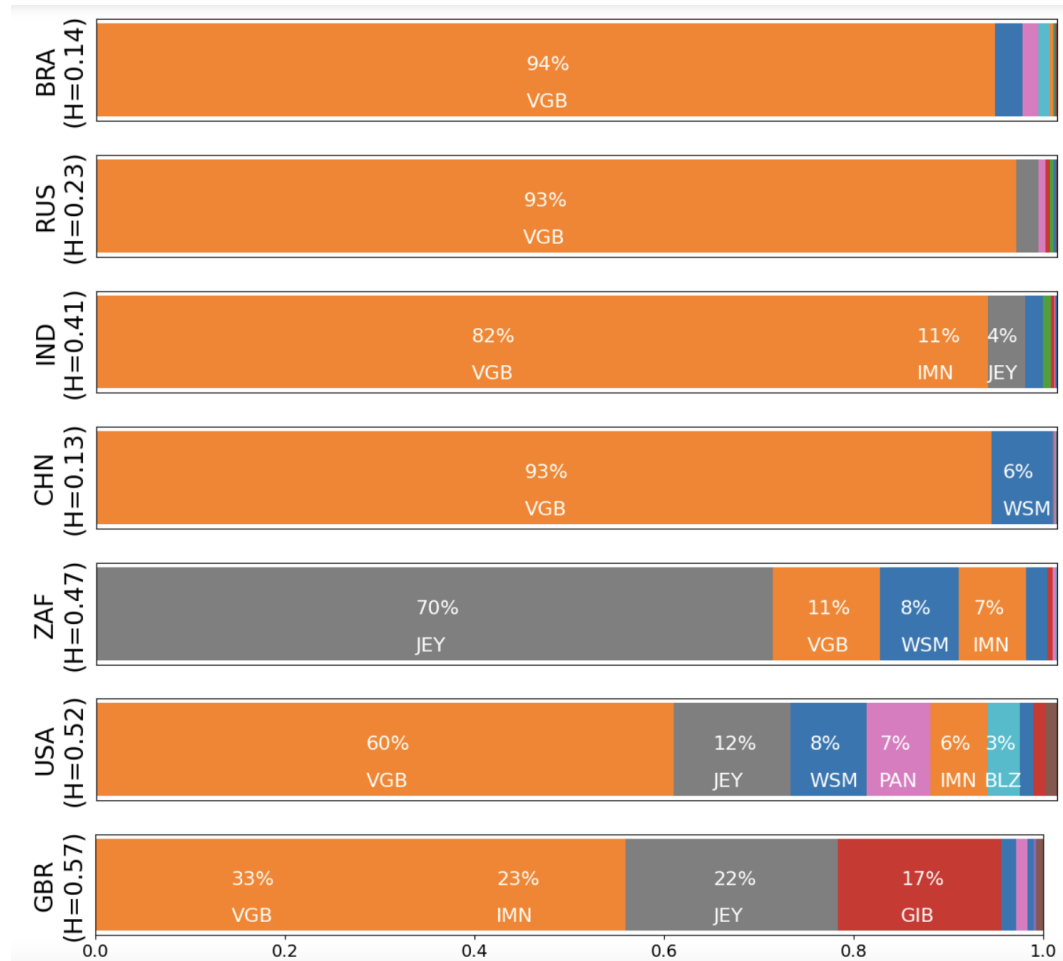


Figure A1: Distribution of offshore assets by client country. BRICS countries rely dominantly on the British Virgin Islands (VGB).

We also observe a divergence based on the historicity of colonialism. Figure A2 shows the average strategy propensity based on whether a country was a colony of Spain (red), the UK (blue), or Portugal (green). Colonies of the United Kingdom take on more identity-concealment strategies and more offshore diversity than colonies of Spain, and utilize a much lower proportion of blacklisted havens compared to colonies of Spain and Portugal.

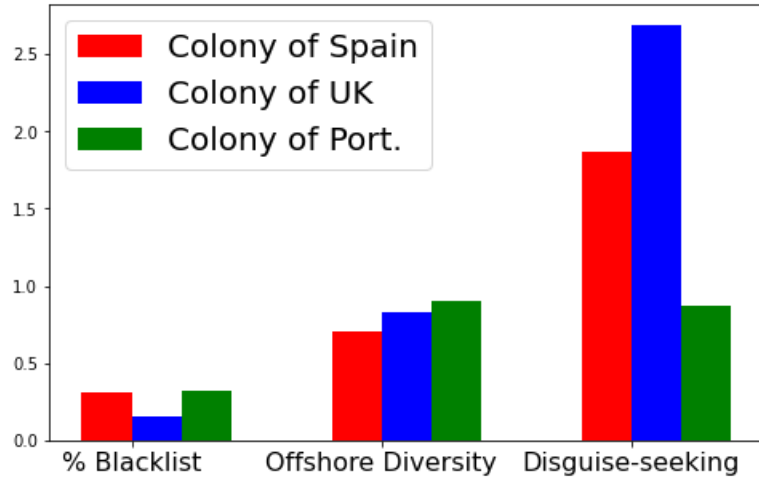


Figure A2: Strategy propensity based past colonization.

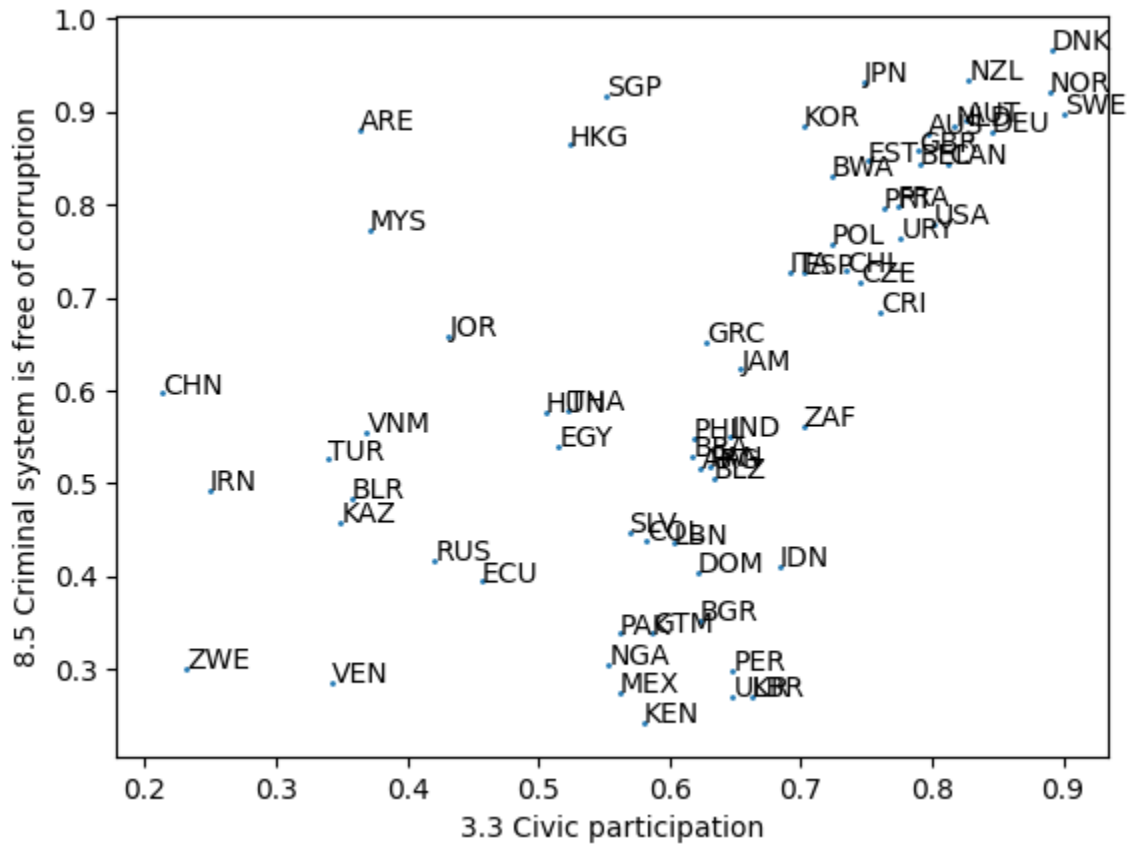


Figure A3: Civic participation against criminal systems free of corruption. Authoritarian regions with low corruption score high, such as the United Arab Emirates (ARE), Singapore (SGP), and Hong Kong (HKG).

Table A1: Eight rule of law categories and 44 sub-indicators used in regression models.

Rule of Law Category	Descriptions
Constraints on Government Powers	1.1 Government powers are effectively limited by the legislature 1.2 Government powers are effectively limited by the judiciary 1.3 Government powers are effectively limited by independent auditing and review 1.4 Government officials are sanctioned for misconduct 1.5 Government powers are subject to non-governmental checks 1.6 Transition of power is subject to the law
Absence of Corruption	2.1 Government officials in the executive branch do not use public office for private gain 2.2 Government officials in the judicial branch do not use public office for private gain. 2.3 Government officials in the police and the military do not use public office for private gain. 2.4 Government officials in the legislative branch do not use public office for private gain.
Open Government	3.1 Publicized laws and government data. 3.2 Right to information. 3.3 Civic participation. 3.4 Complaint mechanism.
Fundamental Rights	4.1 Equal treatment and absence of discrimination 4.2 The right to life and security of the person is effectively guaranteed. 4.3 Due process of the law and rights of the accused 4.4 Freedom of opinion and expression is effectively guaranteed. 4.5 Freedom of belief and religion is effectively guaranteed. 4.6 Freedom from arbitrary interference with privacy is effectively guaranteed. 4.7 Freedom of assembly and association is effectively guaranteed. 4.8 Fundamental labor rights are effectively guaranteed.
Order and Security	5.1 Crime is effectively controlled. 5.2 Civil conflict is effectively limited. 5.3 People do not resort to violence to redress personal grievances.
Regulatory Enforcement	6.1 Government regulations are effectively enforced. 6.2 Government regulations are applied and enforced without improper influence. 6.3 Administrative proceedings are conducted without unreasonable delay. 6.4 Due process is respected in administrative proceedings. 6.5 The government does not expropriate without lawful process and adequate compensation.
Civil Justice	7.1 People can access and afford civil justice. 7.2 Civil justice is free of discrimination.

	<p>7.3 Civil justice is free of corruption.</p> <p>7.4 Civil justice is free of improper government influence.</p> <p>7.5 Civil justice is not subject to unreasonable delay.</p> <p>7.6 Civil justice is effectively enforced.</p> <p>7.7 Alternative dispute resolution mechanisms are accessible, impartial, and effective.</p>
Criminal Justice	<p>8.1 Criminal investigation system is effective.</p> <p>8.2 Criminal adjudication system is timely and effective.</p> <p>8.3 Correctional system is effective in reducing criminal behavior.</p> <p>8.4 Criminal system is impartial.</p> <p>8.5 Criminal system is free of corruption.</p> <p>8.6 Criminal system is free of improper government influence.</p> <p>8.7 Due process of the law and rights of the accused.</p>

Table A2: Full list of sanctioned jurisdictions

List Name	Sanctioned Jurisdictions
FAFT_2016	"AFG", "BIH", "GUY", "IRQ", "Lao", "MMR", "PNG", "SYR", "UGA", "VUT", "YEM"
FAFT_2017	"BIH", "ETH", "IRQ", "LKA", "SYR", "TTO", "TUN", "VUT", "YEM"
FAFT_2020	"ALB", "BHS", "BRB", "BWA", "KHM", "GHA", "JAM", "MUS", "MMR", "NIC", "Pak", "Pan", "SYR", "UGA", "YEM", "ZWE"
EU_2017	"ASM", "BHR", "BRB", "GRD", "GUM", "KOR", "MAC", "MHL", "MNG", "NAM", "PLW", "PAN", "LCA", "WSM", "TTO", "TUN", "ARE"
EU_2020	"ASM", "CYM", "FJI", "GUM", "OMN", "PLW", "PAN", "WSM", "SYC", "TTO", "VIR", "VUT"
OECD_2000	"AND", "AIA", "ATG", "ABW", "BHR", "BRB", "BLZ", "VGB", "COK", "DMA", "GIB", "GRD", "IMN", "JEY", "LBR", "LIE", "MDV", "MHL", "MCO", "MSR", "NRU", "ANT", "NIU", "PAN", "WSM", "SEY", "LCA", "KNA", "VCT", "TON", "VIR", "VUT"