Tax havens, financial secrecy and intermediaries

Petr Janský¹, Miroslav Palanský¹

15 February 2019

Abstract

To show how financial secrecy developed over time on average, by type, and across countries, we construct and explore a panel data set from the five editions of the Financial Secrecy Index between 2009 and 2018. Our first of three main findings is that the intensity of financial secrecy has on average decreased – i.e. financial transparency has improved - by at least ten per cent between 2011 and 2018. Second, most of this decline comes from international standards and cooperation, one of four types of financial secrecy. Third, the United Arab Emirates, the Netherlands and Malta have become more important providers of financial secrecy, although they are still much less important than the currently leading Switzerland, United States or Cayman Islands. Having documented changes in financial secrecy over the past decade, we conclude with how the dataset and our related findings can be used as a tool for further studying and, perhaps, curbing financial secrecy – an objective pursued by global policy makers.

Keywords: offshore finance; financial transparency; financial secrecy; secrecy jurisdictions; tax havens; intermediaries

JEL classification: F36, F65, G28, H26, H87

1 Introduction

Tax havens provide financial secrecy, such as bank secrecy or anonymous ownership of companies, to firms and individuals resident elsewhere, often through the services of intermediaries such as banks or law firms. Tax havens differ in what financial secrecy they provide as well as in how they have been reacting to the recently increasing pressure to curb financial secrecy by other countries. When the financial crisis of 2008 brought home to policymakers in the OECD countries once again the potential costs of unchecked international financial secrecy, a refreshed rhetorical consensus emerged among policymakers of leading

¹ Institute of Economic Studies, Faculty of Social Sciences, Charles University, Prague, Czech Republic. Corresponding author: Petr Janský (petr.jansky@fsv.cuni.cz). This research has been supported by the European Union’s Horizon 2020 program through the COFFERS project (No. 727145) and the authors also acknowledge support from the Grant Agency of the Czech Republic (P403/18-21011S) and the Charles University Grant Agency (848517). The authors are grateful to Alex Cobham and Markus Meinzer for useful comments and discussions.
countries – not least the G20 summit in 2009 in London – in favour of greater international financial transparency. Renewed and extended at the G8 summit in 2013, world leaders have committed to end bank secrecy. To what extent the commitments translated into real policy and regulatory changes is clearly of interest, but difficult to learn about.

Until the launch of the Financial Secrecy Index (FSI) in 2009, there was no systematic cross-country analysis or data on financial secrecy which would cover bank secrecy as well as other types of financial secrecy. In this paper we build on the five already existing editions of the FSI and use them to construct a panel dataset of financial secrecy. We identify the pervasive methodological issues that arise when combining the subsequent editions and describe in detail how we deal with them. The resulting dataset sheds light on questions related to the development of financial secrecy over time: Has financial secrecy decreased over time? If so, which types of secrecy have diminished and which prevail? Which individual countries have become more secretive and which more transparent? How has secrecy developed in the major secrecy jurisdictions of the world?

By answering these questions, we arrive at multiple conclusions. Our first of three main findings is that the intensity of financial secrecy has on average decreased – i.e. financial transparency has improved - by at least ten per cent between 2011 and 2018, a period for which we have more reliable data. Second, most of this decline comes from international standards and cooperation, one of four main types of financial secrecy identified by the Financial Secrecy Index. Third, the United Arab Emirates, the Netherlands and Malta have become more important providers of financial secrecy, although they are still much less important than the currently leading Switzerland, United States or Cayman Islands.

Our additional findings include the fact that Bermuda, Cayman Islands, and Luxembourg are the tax havens with by far the highest ratio of big accountancy firms’ staff numbers to their population and they all display intermediate levels of financial secrecy. Also, we observe a convergence across countries between 2011 and 2018 – many of the most secretive countries have become less secretive, while some of the less secretive countries have become more secretive (e.g. Seychelles are now only slightly more secretive than the Netherlands).

In addition to these findings, our contribution lies in the construction of a panel data set on financial secrecy which is based on the five editions of the FSI that have been published between 2009 and 2018. The data set provides a detailed view of the development of secrecy
and can be used for further research. However, important caveats apply – changes in the FSI’s methodology and coverage pose an empirical challenge which we explore in this paper.

We assess the compatibility of individual indicators that form the secrecy scores of the FSI and use them to compile a panel data set of secrecy scores suitable for evaluating changes in financial secrecy over time. We argue that all changes to the methodology used to construct the secrecy scores pushed them towards stricter definitions as the international standards of transparency evolved over time. We compare how the countries’ secrecy evolved in the four categories set out by the FSI’s secrecy scores and identify countries that became relatively more secretive over time as well as those that, on the other hand, most improved their transparency. Furthermore, secrecy scores of jurisdictions can be compared over time relative to each other by expressing secrecy scores as relative to a mean of the sample.

In comparison to information from recent offshore leaks, which provide a partial glimpse of the real offshore world, this data set is more abstract, but systematically maps secrecy and its development. New data that should help analyse the role of financial secrecy have recently, or will soon, become available – such as country-by-country reporting data by large multinational enterprises (OECD 2018b) or bilateral data on the amount of bank deposits that foreigners own in banks (Alstadsaeter, Johannesen, and Zucman 2018) – and this dataset can be used in combination with these.

The rest of the paper is structured as follows. The second section reviews the existing efforts to quantify financial secrecy and its development. Section 3 explains the methodology and data used to construct a panel dataset of financial secrecy. Section 4 discusses the results and the main patterns of financial secrecy over time. The final section concludes with a discussion of implications for policy and further research.

2  Related literature

While debates around offshore finance and tax havens date back many decades in economics and international studies, scholarly interest in financial secrecy is relatively novel. For many decades, financial secrecy was rather an addendum to discussions of tax or money laundering issues (e.g. the Gordon report, 1981). More recently, in OECD's (1998, p. 23) harmful tax competition report, the “lack of effective exchange of information” was one of four key criteria to identify tax havens. In the same year, a report to UN’s Office for Drug Control and Crime
Prevention, emphasized the role played by financial and banking secrecy for the laundering of proceeds of crime and corruption (Blum et al. 1998).

The academic literature on financial secrecy and on policies to counter it has been growing in the last few years. There are examples from different academic fields, from economics (Johannesen and Zucman 2014) and economic geography (Wojcik 2012) to political science (Fichtner 2016). More specifically for the FSI that we employ here, Cobham, Janský, and Meinzer (2015) introduce it and discuss its role in the economics and economic geography literatures – a reason why we keep the discussion of literature relatively short. In turn, Seabrooke & Wigan (2015) consider non-governmental organisations’ benchmarks, including the Tax Justice Network’s FSI, a form of symbolic violence to place political pressure on firms, states, and international organisations. In this view, the FSI itself might have impacted the development of financial secrecy since its introduction in 2009. However, since we are not able to estimate the potential impact, we instead assume that the FSI is an unbiased indicator of financial secrecy on the basis of its methodology’s rigorousness and transparency (Cobham, Janský, and Meinzer, 2015).

The recent offshore leaks have provided further impetus for study of financial secrecy (Nerudova et al. 2018). For example, O’Donovan et al. (2017) showed that the Panama Papers erased $135 billion in market capitalization of around 400 companies that they trace as users of offshore vehicles exposed in the leak. In some cases the data from these leaks have been used in the research (Caruana-Galizia & Caruana-Galizia, 2016, Alstadsaeter, Johannesen, and Zucman, 2018). More generally, Cloke and Brown (2018) provide a brief, but sharp retrospection on the past decade between the global financial crisis and the Panama Papers mostly in the economic geography.

All of the existing contributions however share in that they are concerned with spot analyses, but dispense with observations over time. This is the gap that the current paper is addressing. Our main research question is how financial secrecy changed since the financial crisis and below we discuss the existing research that correspond to our more specific research questions.

We expect some countries to become more and some others less secretive and existing research provides some hypotheses. Johannesen & Zucman (2014) suggest that the least compliant secrecy jurisdictions rise in importance. Departing from this assumption, there may be an incentive for jurisdictions to withstand the pressure for more transparency, even though direct resistance may be too costly politically. The strategy of choice may consist in “mock
compliance” (Woodward 2016), whereby jurisdictions tick specific boxes of imposed requirements, but in effect avoid engaging in reform. For example, when the OECD demanded from all “white listings” in 2009 to sign at least twelve tax information exchange agreements, many small island ‘tax havens’ started signing such TIEAs among themselves (Shaxson and Christensen 2011). Therefore, one may expect that some jurisdictions even increased their secrecy, or at least stagnated. Evidence or predictions exist for some secrecy jurisdictions. Emmenegger (2015) explains how Swiss resistance to international cooperation in tax matters was overcome and this would point to a decrease in Swiss secrecy.

Also, some research provides guidance on which countries we should expect to increase or lose market share in offshore financial services. For example, Clark, Lai, & Wójcik (2015) hypothesise that the financial crisis might be bad news for the most obvious tax havens, like the Cayman Islands, but may be good news for countries and financial centres less associated with their functions as offshore jurisdictions such as the Netherlands, Ireland, the United Kingdom, Hong Kong, or Singapore. This would suggest that their share in the global offshore markets would decrease.

Whether and how much global economy and finance is getting more transparent since the financial crisis is one question, what caused is another. Emmenegger (2015) argues that the world overall is getting more transparent since the financial crisis because of a Swiss bank tax evasion scandal and subsequent Swiss concessions to the United States. He further argues that these have two important consequences for international tax cooperation. First, the scandal provided a focal point for collective action that allowed other countries to coordinate their strategies and direct them against the country that had been identified as uncooperative. Second, the scandal undermined Switzerland's ability to impede collective action because the bank's public admission of wrongdoing demonstrated the necessity of international tax cooperation.

One specific area of financial secrecy that has attracted attention of policymakers is exchange of information. The advent of the era of tax information exchange “upon request” was heralded to be the end of banking secrecy in 2009 (Johannesen and Zucman 2014). Johannesen & Zucman (2014) exploited a panel dataset to assess how the treaties for upon request information exchange affected bank deposits in tax havens. Their results suggest that tax evaders shifted deposits to havens not covered by a treaty with their home country, rather than repatriating funds. According to Johannesen & Zucman (2014), the crackdown caused a modest relocation of deposits at the benefit of the least compliant havens, which reflects that a regulatory arbitrage
takes place in the case of a limited number of bilateral treaties rather than a global treaty with all jurisdictions effectively on board. Flowing from these findings, the question emerges if the financial secrecy production is getting more or less concentrated in a few jurisdictions. Again, indicatively, the results of Johannesen & Zucman (2014) suggest that the secrecy might become more concentrated, whereas Clark, Lai, & Wójcik (2015) suggest that that a few selected jurisdictions might suffer from being obvious scapegoats. Later, the automatic information exchange has been introduced and recently evaluated using the latest editions FSI (Janský, Meinzer, and Palanský 2018), while more editions of FSI combined might provide even better tool for such evaluation – and we now turn to the task of combining and using the FSI over years.

3 Data: Constructing a panel dataset of secrecy

We would like to use a data set of indicators of financial secrecy to observe its changes over time. However, information on financial secrecy, or its flip side, financial transparency, is seldom systematically collected and hardly at all in a way that would enable to study its development across countries and over time. From the existing literature, the FSI emerges as the most comprehensive measure available. The FSI ranks jurisdictions according to their secrecy, so called secrecy scores collected on the basis of detailed qualitative research, and the scale of their offshore financial activities, approximated quantitatively by the so called global scale weights using the exports of financial services and other data. Conceptually, by combining and tracking its five editions it should be straightforward to track the development of financial secrecy. Doing so is possible, but, as we describe below, in practice it carries a few complications that are worth attending to and highlighting.

In this section we describe in detail the construction of a panel dataset of financial secrecy, which is based on the secrecy scores published in each of the five individual editions of the FSI. The Financial Secrecy Index was first published in 2009, with subsequent editions in 2011, 2013, 2015 and 2018. With each edition, the authors of the index, the Tax Justice Network, publish a detailed methodology describing the construction of each individual indicator, the so-called Key Financial Secrecy Indicators (KFSIs), which are then used to derive the overall secrecy score of each studied country (Tax Justice Network 2009, 2011, 2013, 2015, 2018). We consider the FSI and its secrecy scores as the best available data source for the research questions at hand due to their unprecedented coverage and scope. The transparent approach of
the creators of the FSI enables its detailed consideration for our purposes. However, there are two principal concerns when using the SS to construct a panel dataset of financial secrecy – country coverage and methodology changes – and we use this section to describe in detail how we deal with these two groups of issues.

3.1 Country coverage

The coverage of the FSI increased with each subsequent edition of the FSI from 60 jurisdictions in 2009, 73 in 2011, 87\(^2\) in 2013, 102 in 2015, to 112 jurisdictions included in the 2018 edition. Table 1 summarizes the country coverage of each edition, changes in coverage that each edition has made with respect to the previous one, and the overlap of each edition with the previous one. Naturally, while we would ideally like to compare all five editions of the FSI for all 112 countries considered in the 2018 edition, the overlap shrinks as we retrospectively add more editions to the comparison. In this paper we generally follow the rule that we make our comparisons using the largest possible set of all overlapping countries. We argue below that due to methodological reasons, secrecy scores are generally comparable in a more straightforward way if we disregard the 2009 edition and start only with the 2011 edition, which overlaps with the 2018 edition for 73 jurisdictions – and we thus often use this set of countries in our comparisons. We now turn to describing the second challenge of constructing a panel dataset of financial secrecy – methodology changes.

Table 1: Comparison of country coverage by different editions of the FSI

<table>
<thead>
<tr>
<th></th>
<th>FSI 2009</th>
<th>FSI 2011</th>
<th>FSI 2013</th>
<th>FSI 2015</th>
<th>FSI 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country coverage</td>
<td>60</td>
<td>73</td>
<td>87</td>
<td>92</td>
<td>112</td>
</tr>
<tr>
<td>Change over previous edition</td>
<td>---</td>
<td>+13</td>
<td>+14</td>
<td>+13</td>
<td>+20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-0</td>
<td>-0(^3)</td>
<td>-3(^4)</td>
<td>-0</td>
</tr>
<tr>
<td>Overlap with previous edition</td>
<td>---</td>
<td>60</td>
<td>73</td>
<td>79</td>
<td>92</td>
</tr>
</tbody>
</table>

\(^2\) The original FSI 2013 edition has only included 82 jurisdictions, but FSI scores were produced in 2014 for 5 additional jurisdictions for the purposes of the FSI’s inclusion in the Center for Global Development’s Commitment to Development Index (Janský 2015). We include these 5 jurisdictions in our analysis along with the original 82 jurisdictions.

\(^3\) The 2013 edition dropped the Netherlands Antilles which were included in both the 2009 and the 2011 versions, but were dissolved on 10 October 2010 and are thus excluded since then. As a result of the dissolution of the five islands that formed the Netherlands Antilles, Curacao and Sint Maarten became distinct constituent countries, whereas Bonaire, Sint Eustatius, and Saba (the "BES Islands") became special municipalities within the Netherlands proper. Curacao is included in FSI since 2013, and because it has been by far the most important offshore hub of the former Netherlands Antilles (for example, according to data from the IMF’s Balance of Payments Statistics, in 2012, the value of exports of financial services of Sint Maarten amounted to less than 0.5% of that of Curacao), we consider it in the time series as a direct successor of the Netherlands Antilles.

\(^4\) Nauru, Dominican Republic and Maldives were dropped in the 2015 edition of the FSI due to unavailability of data, and consequently added back in the 2018 edition.
3.2 Methodology changes

The methodology of the FSI consists of two main parts – global scale weights (GSW) and secrecy scores (SS) – which are then combined to form the final FSI value. Our main focus in this paper is on the secrecy scores and their comparability over time, however, in some comparisons we also use the final FSI values. These are a straightforward extension of the panel data set of secrecy scores, because the GSW, i.e. the quantitative part of the FSI, have not changed their methodology over the years and are thus fully comparable without any adjustments. Similarly, the cubic formula used to combine the SS and the GSW has been in place since the first edition of the FSI.

The qualitative part of the FSI, the secrecy scores, on the other hand, have seen significant changes in their methodology over the five editions. The SS are constructed as arithmetic averages of a number of the so-called key financial secrecy indicators (KFSIs). Two main challenges arise when comparing the individual KFSIs over time. First, the actual number of KFSIs used to construct the secrecy scores increased from 12 in 2009, to 15 in 2011-2015, to 20 in the 2018 edition. Over time, some KFSIs were dropped and new ones were added to increase the scope of the dataset and to reflect the evolving standard of financial transparency. The second challenge is that in some cases, the definitions of the KFSIs themselves changed, again with the intention to increase sophistication and detail as well as adequately reflect the evolving standards of what is considered transparent.

In Table 2 we summarize the development of the number of KFSIs in each edition of the FSI. In constructing the panel data set, we take the 2018 edition of the secrecy scores as a base and then match the individual KFSIs backwards. In principle, at least for some of the KFSIs it could be possible to make them comparable across all five editions by using the 2018 methodology and tracing the necessary information and data retrospectively for the previous periods, however, there are three main issues that prevent this approach. First, for a number of KFSIs, the data is not traceable retrospectively since their sources have not existed before or are not available anymore. Second, it would be very time-consuming to trace the data even for a subsample of KFSIs and countries. Third, over time, the standards of transparency have improved and it would not make sense to retrospectively subject jurisdictions to an evaluation based on the standards of the present. Empirically, this would lead to most jurisdictions showing
very high secrecy scores with limited variability over time. For these reasons, we proceed by analysing the development of the methodology of each KFSI individually.

Table 2: Comparison of methodologies of the secrecy scores in each edition of the FSI

<table>
<thead>
<tr>
<th></th>
<th>FSI 2009</th>
<th>FSI 2011</th>
<th>FSI 2013</th>
<th>FSI 2015</th>
<th>FSI 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Secrecy Score</td>
<td>12</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td>indicators (KFSIs)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated compatibility of SS</td>
<td>---</td>
<td>20%</td>
<td>90%</td>
<td>90%</td>
<td>70%</td>
</tr>
<tr>
<td>with previous edition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimated compatibility of SS</td>
<td>20%</td>
<td>60%</td>
<td>70%</td>
<td>70%</td>
<td>100%</td>
</tr>
<tr>
<td>with the 2018 edition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors based on FSI results.

Before considering each KFSI individually, however, in the last two rows of Table 2 we summarize the comparability of the different editions of the SS as we estimate it based on the analysis presented in detail below. The methodology has undergone major changes primarily between the 2009 and 2011 editions, making the 2009 set of SS hardly comparable with the following editions. Only minor changes have been done to the KFSIs between the 2011, 2013 and 2015 editions, ensuring relatively straightforward comparability. In the 2018 edition, 7 entirely new indicators have been added and some of the existing ones were transformed or dropped, increasing the number of indicators to 20, and some changes have been made to the definitions of individual variables, and we discuss these changes and their implications below. In the end, we prefer to consider the 2018 edition as the base as it is the most sophisticated and updated methodology, and in this paper, we analyse the compatibility of the previous editions of SS with the 2018 edition.

Table 3 describes the comparability of SS in some detail, suggesting which of the 20 indicators of the secrecy score are compatible retrospectively. For each indicator and each of its edition, we provide our estimate of the extent of direct comparability of the indicator with its 2018 version. Naturally, for the indicators that are newly added, there are no compatible indicators in the older editions, and these instances are marked as “n/a”. An estimate of 0% of compatibility implies that there was no comparable information in the respective edition of the SS, while an estimate of 100% implies that the indicator remained the same.

Table 3. Compatibility of KFSIs with the 2018 edition

<table>
<thead>
<tr>
<th>Name of area (KFSI)</th>
<th>2009</th>
<th>2011</th>
<th>2013</th>
<th>2015</th>
<th>2018 = base</th>
</tr>
</thead>
</table>

9
<table>
<thead>
<tr>
<th>Ownership Registration</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Bank Secrecy</td>
<td>20%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>Yes</td>
</tr>
<tr>
<td>2 Trust and Foundations Register</td>
<td>20%</td>
<td>20%</td>
<td>90%</td>
<td>90%</td>
<td>Yes</td>
</tr>
<tr>
<td>3 Recorded Company Ownership</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>Yes</td>
</tr>
<tr>
<td>4 Other Wealth Ownership</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>Yes</td>
</tr>
<tr>
<td>5 Limited Partnership Transparency</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>Yes</td>
</tr>
<tr>
<td>Overall</td>
<td>5%</td>
<td>40%</td>
<td>60%</td>
<td>60%</td>
<td></td>
</tr>
<tr>
<td>Legal Entity Transparency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Public Company Ownership</td>
<td>60%</td>
<td>80%</td>
<td>80%</td>
<td>90%</td>
<td>Yes</td>
</tr>
<tr>
<td>7 Public Company Accounts</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>90%</td>
<td>Yes</td>
</tr>
<tr>
<td>8 Country-by-Country Reporting</td>
<td>n/a</td>
<td>90%</td>
<td>100%</td>
<td>100%</td>
<td>Yes</td>
</tr>
<tr>
<td>9 Corporate Tax Disclosure</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>Yes</td>
</tr>
<tr>
<td>10 Legal Entity Identifier</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>Yes</td>
</tr>
<tr>
<td>Overall</td>
<td>30%</td>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td></td>
</tr>
<tr>
<td>Integrity of Tax and Financial Regulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 Tax Administration Capacity</td>
<td>n/a</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>Yes</td>
</tr>
<tr>
<td>12 Consistent Personal Income Tax</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>Yes</td>
</tr>
<tr>
<td>13 Avoids Promoting Tax Evasion</td>
<td>n/a</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Yes</td>
</tr>
<tr>
<td>14 Tax Court Secrecy</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>Yes</td>
</tr>
<tr>
<td>15 Harmful Structures</td>
<td>25%</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>Yes</td>
</tr>
<tr>
<td>16 Public Statistics</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>Yes</td>
</tr>
<tr>
<td>Overall</td>
<td>5%</td>
<td>40%</td>
<td>40%</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>International Standards and Cooperation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 Anti-Money Laundering</td>
<td>5%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Yes</td>
</tr>
<tr>
<td>18 Automatic Information Exchange</td>
<td>60%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>Yes</td>
</tr>
<tr>
<td>19 Bilateral Treaties</td>
<td>60%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td>Yes</td>
</tr>
<tr>
<td>20 International Legal Cooperation</td>
<td>n/a</td>
<td>95%</td>
<td>95%</td>
<td>95%</td>
<td>Yes</td>
</tr>
<tr>
<td>Overall</td>
<td>20%</td>
<td>90%</td>
<td>90%</td>
<td>90%</td>
<td></td>
</tr>
</tbody>
</table>

Source: Authors on the basis of the FSI methodology and Cobham, Janský, & Meinzer (2015)

We now proceed by considering each indicator within the four categories of indicators separately and describe how they developed over time. Importantly, what we argue below for each indicator in detail is that all changes to the methodology of indicators that were made between the consecutive editions of the FSI pushed the assessment of the indicator in question towards a stricter one. This makes sense – the standards of what the terms “transparent” and “secretive” mean evolve over time and the methodology of the FSI has reflected this trend in the the definitions of the indicators. While the standards of transparency may be thought of as improving continually over time, the FSI naturally incorporates these developments in a discrete manner by adjusting the definitions of the indicators or adding new relevant indicators and dropping old obsolete indicators. Therefore, it may be the case that new definitions inflate or deflate the secrecy score deliberately, without any real development in the level of secrecy.
in a given country. We take care of this issue by considering measures of secrecy that are relative to other countries’ secrecy scores rather than considering absolute measures.

There is one important concern that pertains to the evolving definitions of the secrecy scores, particularly between the 2015 and 2018 editions. Because some entirely new indicators have been added to the secrecy scores, it not only may be the case that this new information deflates or inflates the secrecy score without any real development in the level of secrecy taking place, but it can do so heterogeneously across countries. For example, consider the first category of indicators, Bank Secrecy. Two new indicators, the third and the fourth, were added for the 2018 edition, and they focused on areas of secrecy that had not been covered by the 2015 secrecy scores. If a country is secretive in the first three indicators of the Bank Secrecy category but transparent in the other two, its 2018 secrecy score will decrease even if no development has taken place. To deal with this issue, we construct a second set of adjusted secrecy scores for 2018 which only take into account the indicators that have been included in the FSI since 2011. We can thus easily test whether the scores on new indicators inflate or deflate the overall secrecy scores. To summarize, there are three forces that influence the levels of secrecy supplied by each jurisdiction as measured by the secrecy scores. First, as we describe below, the methodological changes to the existing indicators push the scores upwards, so that the secrecy scores of jurisdictions are higher even in the case that they have not changed any of their laws whatsoever. We use relative measures of secrecy to deal with this issue. Second, the addition of new indicators could bias our secrecy scores either upward or downward if the scores on these indicators systematically differ from the existing ones. We construct an alternative, reduced version of the adjusted secrecy scores and test them against the full adjusted secrecy scores to determine whether this issue is present in the data. Third, the legislation of countries has evolved over time – either towards more secrecy or towards less secrecy – and these changes directly affect the secrecy scores. These effects are what we would like to observe. We do not see a straightforward way to systematically distinguish between the three effects, and we thus argue that an analysis of the development of secrecy scores of individual countries over time is limited usefulness. What is useful, however, and we therefore rely on it in this paper, is a difference-in-difference analysis of the development of secrecy scores of countries as compared to the development of secrecy scores of other countries.

We also argue that a useful level at which to carry out the comparisons are the four categories of indicators outlined below. This is due to several reasons. First, as compared to using secrecy scores in general, there is a reasonable level of granularity involved in the analysis of the four
categories. This allows to capture the heterogeneity in the forms of secrecy that jurisdictions
provide – while some secrecy jurisdictions, such as Switzerland or Malta, focus primarily on
bank secrecy, others, such as the Cook Islands or Trinidad and Tobago, are more secretive in
the area of legal entity identification. On the other hand, as compared to using individual KFSIs
to make comparisons, the averaging at the category level smooths over the spikes that are
caused by discrete developments in legislation as well as the definitions of the individual
indicators.

A word on notation is in order before we consider each indicator separately. We will refer to
the individual indicators using the notation KFSI-year-number of indicator, where year is the
edition of FSI from which the indicator comes, and number of indicator is the number that was
assigned to the indicator within the edition of FSI published in year. Beware that sometimes,
the numbers assigned to the same indicator have changed over time.

3.2.1 Ownership Registration

The first category of indicators, Ownership Registration, is composed of five KFSIs – Bank
Secrecy, Trust and Foundations Register, Recorded Company Ownership, Other Wealth
Ownership, and Limited Partnership Transparency.

The first indicator, Bank Secrecy, or KFSI-2018-1, has been present in the SS from the
beginning, although originally in a much simpler form. In the 2009 edition, the indicator was
composed of a simple binary question asking whether a jurisdiction has formal, legally enforced
banking secrecy. In 2011, the indicator was newly constructed as a combination of 6 different
questions in order to allow for a more gradual assessment. In 2013, the components of KFSI-1
remained the same with the exception of one question which was rephrased to ask specifically
about a new and improved source data. In 2015, there was no change to KFSI-1, and in 2018,
small changes were made to two of the six questions, making it harder for jurisdictions to obtain
a full transparency score. Overall, we consider KFSI-2018-1 mostly compatible with KFSI-
2015-1, KFSI-2013-1, and KFSI-2011-1, but significantly less compatible with KFSI-2009-1.

The second indicator, Trust and Foundations Register, or KFSI-2018-2, has changed
dramatically between the editions 2011 and 2013. While KFSI-2009-2 and KFSI-2011-2 are
identical, asking a binary question on whether all trusts and foundations formed in a jurisdiction
are required to register with a central agency in order to become legally effective, starting in
2013, a significantly more complex methodology was implemented, bringing more detail and
precision to the indicator by splitting it in half (separately for trusts and private foundations)
and allowing for a partial score within these halves based on additional details regarding matter
such as public online disclosure of the data and so on. KFSI-2015-2 remained identical to KFSI-2013-2, and KFSI-2018-2 introduced only minor changes towards a slightly stricter methodology. We thus consider KFSI-2018-2 well compatible with KFSI-2015-2 and KFSI-2013-2, and significantly less so with KFSI-2011-2 and KFSI-2009-2.

The third indicator, Recorded Company Ownership, or KFSI-2018-3, has been part of the SS since 2009 and has remained broadly the same until 2015, with the only improvements being done to the data sources used to answer the two questions that formed this indicator: whether registration of a company requires the disclosure of the owner's identity information, and whether updates of this information is mandatory. KFSI-2018-3, however, has brought significant changes towards stricter methodology, since the vast majority of jurisdictions have scored 0 on this indicator since 2011. In particular, full beneficial ownership disclosure is now, along with legal ownership disclosure, among the criteria required to be awarded a zero-secrecy score on this indicator. As a result, the value of this indicator has increased significantly for most of the assessed jurisdictions.

The last two indicators, or KFSI-2018-4 and KFSI-2018-5, have only been introduced in the 2018 edition. While this change does bring some entirely new information into the category, it can be considered as a more detailed view of the rules implemented by countries in the area of bank secrecy. Given that most of the assessed jurisdictions have not scored, on average, better than in the first three indicators, the two new ones generally increase the secrecy scores and may thus be also regarded as a move towards stricter methodology.

Overall, in the Bank Secrecy category of indicators, we assess the comparability across the editions as is indicated in Table 2. While recognising that the individual indicators in this category have been modified over time to become stricter as the accepted standard of transparency improved, we argue that the editions 2011-2018 are relatively comparable and can be used to analyse the development of bank secrecy.

### 3.2.2 Legal Entity Transparency

The second category of indicators is called Legal Entity Transparency and is composed of five indicators – Public Company Ownership, Public Company Accounts, Country by Country Reporting, Corporate Tax Disclosure, and Legal Entity Identifier. In previous versions of the SS, this category was called Key Aspects of Corporate Transparency Regulation.

The indicator Public Company Ownership, or KFSI-2018-6, considers whether a jurisdiction requires that all available limited liability companies publish updated beneficial ownership
and/or legal ownership information and whether the jurisdiction makes this information accessible online for free in the open data format (Tax Justice Network 2018, p. 55). This indicator is thus a sort of extension to KFSI-2018-3 in the sense that it asks similar questions, but to obtain a low secrecy score in this indicator, KFSI-2018-3 only requires that the information about company owners be collected by the relevant government agency, whereas KFSI-2018-6 requires this information to be publicly available. This indicator has been present in the FSI since 2009, but under different numbers: in 2009, the indicator was numbered as fifth, and in 2011-2015, it was numbered as fourth. Regarding the methodology, the only changes made were to the granularity of the questions at hand. In 2009, the indicator simply asked a binary question whether or not access to beneficial ownership information is possible at a fixed cost below 10US$ and does not require the establishment of complex payment arrangements; out of the 61 assessed jurisdictions, only Monaco had a score of 0.5, and all the other jurisdictions had a score of 1. In 2011, the methodology newly allowed to score 0.8 on the indicator in case legal ownership information was published (but not beneficial ownership), and 6 jurisdictions consequently scored 0.8. The next change to the definition of this indicator came in 2015 and it introduced further granularity: a score of 0.5 was now newly awarded to jurisdictions providing the information on beneficial owners for a fee smaller than 10$ rather than for free (however, no jurisdictions scored 0.5 on KFSI-2015-4), and a score of 0.9 went to jurisdictions that provided information on legal ownership for a small fee rather than for free (5 jurisdictions score 0.9 on KFSI-2015-4). In 2018, even further granularity was introduced, allowing for even more distinct values of the indicator. However, most jurisdictions still score a full score of 1 on this indicator in FSI 2018. While the increased granularity may have brought slight external variation over time, overall, we assess the indicator as relatively well usable for the averaged values of the Legal Entity Transparency category of indicators.

The seventh indicator, Public Company Accounts, or KFSI-2018-7, asks whether a jurisdiction publishes information from firms’ annual accounts online for free. The indicator was included already in 2009 as KFSI-2009-4 in the form of a binary question, and has not undergone any changes other than in numbering before becoming KFSI-2011-5 and then KFSI-2013-5. For KFSI-2015-5, a new score of 0.5 was awarded to jurisdictions that have provided the information for a small fee (less than 10$) rather than for free, and 11 out of the 92 assessed jurisdictions achieved this score. In 2018, a zero-secrecy score can newly be obtained only by jurisdictions that not only provide the data for free, but they do so in open data format – any

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5 However, Monaco had a score of 1 on this indicator in all subsequent editions of the FSI.
other format published for free newly results in a score of 0.25. Conditions for obtaining a score of 0.5 or 1 have not changed. Most of the assessed jurisdictions do not fare well on this indicator, with only three scoring 0, three scoring 0.25, eleven scoring 0.5, and the remaining ninety-five scoring 1. Overall, we assess the indicator as well comparable across all the editions of the FSI.

The indicator Country-by-Country Reporting, or KFSI-2018-8, measures whether the companies listed on the stock exchanges or incorporated in a given jurisdiction are required to publish publicly worldwide financial reporting data on a country-by-country reporting basis (Tax Justice Network 2018, p. 66). The indicator was first introduced in the 2011 edition as KFSI-2011-6, and awarded a score of 0.5 to jurisdictions that required a limited version of CbCR along the lines of the principles elaborated by the Extractive Industries Transparency Initiative (Tax Justice Network 2011, p. 23). This concerned only two jurisdictions, with the remaining seventy-two scoring a full secrecy score of 1. In 2013, the indicator was split into a more granular definition: a score of 0.9 was newly assigned to jurisdictions that required some one-off CbCR for corporations active in the extractive industries, a score of 0.75 was assigned if some annual CbCR was required at least for corporations active in banking or the extractive industries, and a score of 0.5 when both these sectors were covered by the requirement. The indicator has not changed between 2013 and 2018, however, the majority of jurisdictions still fare badly on this indicator – in 2018, no jurisdiction scores 0, thirty score between 0.5 and 0.9, and eighty-two have a full secrecy score of 1. Overall, we assess the indicator as well comparable across the editions 2011-2018.

The remaining two indicators in this category, Corporate Tax Disclosure and Legal Entity Identifier, or KFSI-2018-9 and KFSI-2018-10, have only been introduced in 2018. The Corporate Tax Disclosure indicator is split into two parts each of which contributes to one half of the indicator. The first half assesses whether a jurisdiction has gone beyond the legal framework proposed by the OECD and requires local filing of CbCR in cases when it cannot obtain such information via automatic exchange with other countries. The second half concerns tax rulings, and awards a zero-secrecy score (for this half) if all cross-border tax rulings are made available online for free, with a partial score of 0.25 in case they are available only partially or for a fee. Only one jurisdiction, Belgium, achieved a zero-secrecy score on this indicator. Further forty-five jurisdictions scored either 0.25 (three), 0.5 (thirty-six) or 0.75 (six), with the remaining sixty-six jurisdictions scoring a full secrecy score of 1.

The indicator Legal Entity Identifier, or KFSI-2018-10, reviews the extent to which a jurisdiction requires domestic legal entities to use the Legal Entity Identifier, a framework for
global identification of companies that was developed under the guidance of the Financial Stability Board (Tax Justice Network 2018, p. 85) allows a granular examination of the current state of implementation of the framework with four possible values (0, 0.25, 0.5, 0.75, and 1).

3.2.3 Integrity of tax and financial regulation

There are six indicators in the category Integrity of tax and financial regulation: Tax Administration Capacity, Consistent Personal Income Tax, Avoids Promoting Tax Evasion, Tax Court Secrecy, Harmful Structures, Public Statistics. Between 2011 and 2015, the category was called Efficiency of Tax and Financial Regulation and was composed of four indicators which remained similar in these three editions. In 2018, however, one of these indicators was dropped entirely (KFSI-2015-7), two were adjusted (KFSI-2018-11 and KFSI-2018-15), one remained the same (KFSI-2018-13), and three new were added (KFSI-2018-12, KFSI-2018-14, and KFSI-2018-16).

The indicator Tax Administration Capacity, or KFSI-2018-11, assesses the capacity of a jurisdiction’s tax administration to collect and process data for investigating and ultimately taxing wealthy people and companies who are likely to have the means, motivation and opportunities to escape their tax obligations (Tax Justice Network 2018). The indicator has five components each of which focuses on a specific anti-tax avoidance feature of the tax system. It was first introduced in the 2011 edition under the name Efficiency of Tax Administration (KFSI-2011-8), when it asked whether the tax authority of a jurisdiction makes use of taxpayer identifiers for financial institutions and companies and whether it has a dedicated large taxpayer unit within the tax administration. No changes to the indicator were made until the 2018 edition which made it harder to score a low secrecy score on this indicator: a zero-secrecy score now requires having a high net worth individual unit in addition to a large taxpayer unit, using taxpayer identification numbers for both natural persons and legal entities, and obliging taxpayers to report on tax avoidance schemes and uncertain tax positions. We assess the comparability of the 2018 version of the indicator with the 2011-2015 version at 60%.

Consistent Personal Income Tax, or KFSI-2018-12, is an indicator that has been introduced in 2018. It assesses a jurisdiction’s personal income tax regime, with a zero-secrecy score assigned to regimes that use one single uniform personal income tax that taxes worldwide income and with an increasing secrecy score for less transparent regimes.

The thirteenth indicator in the FSI 2018, called Avoids Promoting Tax Evasion, has been introduced in 2011 and has not changed since. It assesses whether a jurisdiction includes
worldwide capital income in its income tax base and if it grants unilateral tax credits for foreign tax paid on certain foreign capital income (Tax Justice Network 2018).

The indicator Tax Court Secrecy, or KFSI-2018-14, has been introduced in 2018. It evaluates the openness of a jurisdiction’s judicial system in tax matters by analyzing two relevant aspects: (i) openness of court proceedings, lawsuits, and trials, and (ii) public online availability of verdicts, judgements, and sentences. In both these areas, the methodology allows for further granularity (Tax Justice Network 2018).

The indicator Harmful Structures, or KFSI-2018-15, has been present in the FSI since 2009 but new features have been added to the indicator over time. Initially, the KFSI-2009-12 asked a binary question whether a jurisdiction allows the existence of the so-called protective cell companies (PCCs), which are corporate entities that contain within themselves a number of cells which behave as if they were companies in their own right, but are not (Tax Justice Network 2018, p. 123). To construct KFSI-2011-10, called Harmful Legal Devices, the indicator was split in half to account in a similar fashion also for trusts with flee clauses. In 2015, series limited liability companies (LLCs) were added along with protected cell companies, and in 2018, the indicator was split further into 4 parts: large bank notes, bearer shares, series LLCs/PCCs, and trust with flee clauses. The availability of each of these tools in a jurisdiction results in a 0.25 increase of the secrecy score from this indicator. Overall, we assess the indicator as relatively comparable, with increasing precision and detail over time.

The last indicator in the category Integrity of tax and financial regulation is called Public Statistics (KFSI-2018-16) and has been introduced only in 2018. It is split into ten equally weighed subcomponents, each of which asks whether a jurisdiction makes publicly available a relevant statistical dataset related to its international financial, trade, investment and tax positions.

3.2.4 International Standards and Cooperation

The fourth category of indicators is called International Standards and Cooperation and comprises four indicators: Anti-Money Laundering, Automatic Information Exchange, Bilateral Treaties, and International Legal Cooperation.

The indicator Anti-Money Laundering, or KFSI-2018-17, has been present in the secrecy scores since 2009 and it focuses on compliance with the anti-money laundering recommendations issued by the Financial Action Task Force (FATF). Initially, it was defined as a binary indicator equal to 0 in case at least 90% of the 49 FATF recommendations of a jurisdiction’s anti-money
laundering regime were rated either as “compliant” or as “largely compliant” and no recommendation were rated as “non-compliant”, and 1 otherwise. However, all of the assessed jurisdictions scored a full secrecy score of 1 on KFSI-2009-3. In 2011, the indicator was transformed to a continuous measure of compliance with the recommendations (KFSI-2011-11). The indicator has since changed only slightly in that it updated the list of recommendations that it considered correspondingly to the changes in the FATF methodology. An important caveat related to this indicator is that its comparability over time is limited because of the long intervals in which the compliance with the recommendations is assessed by FATF (whose reports are the source for this indicator). Therefore, in the majority of cases, that there was no new assessment of the actual state of compliance with the recommendations carried out between consecutive versions of the secrecy scores.

Automatic Exchange of Information, or KFSI-2018-18, considers the extent to which a jurisdiction is committed to automatically exchanging information with other countries’ tax authorities. The indicator has been present since 2009 but it has undergone major changes over time as the standards of cooperation regarding automatic information exchange (AIE) improved. The initial indicator (KFSI-2009-10) asked whether a jurisdiction’s authorities have effective access to bank information for the purposes of information exchange for both criminal and civil tax matters. In 2011, this question was amended to the indicator Bank Secrecy and KFSI-2011-12 newly assessed whether a jurisdiction participates in multilateral automatic information exchange on tax matters (Tax Justice Network 2011, p. 35). In 2011 and 2013, the assessment was carried out using the European Savings Tax Directive as a proxy for this indicator, because there had not yet been any global mechanism implementing AIE. In 2015, the indicator changed to reflect the gradual implementation of the OECD’s Common Reporting Standard. KFSI-2015-12 thus newly asked whether a jurisdiction signed the Multilateral Competent Authority Agreement (MCAA) which provides the legal framework to engage in AIE (Tax Justice Network 2015, p. 48). Some granularity was introduced by assessing also a less formal commitment to start exchanging information, and the year in which the AIE was to start was also taken into account. The 2018 edition further improved the methodology and now uses detailed data on which countries engage in AIE and under which conditions, as published by the OECD. Overall, we find that the changes to the definition of this indicator that were made over time have appropriately reacted to the development of AIE standards, and we thus assess the indicator as relatively well comparable across all editions of FSI.
KFSI-2018-19, Bilateral Treaties, examines the extent to which a jurisdiction participates in effective information exchange relationships. The secrecy indicator is defined as one minus the share of active relationships on 98, which is the number of countries that have adhered to the multilateral Amended Council of Europe/OECD Convention on Mutual Administrative Assistance in Tax Matters (Tax Justice Network 2018, p. 141). Therefore, the more relationships a country has activated, the lower its secrecy score in this indicator, with a zero-secrecy score given to countries that have activated at least the 98 relationships in question. The indicator has been present in the secrecy scores since 2009. Initially, however, KFSI-2009-9 was a binary variable indicating whether a jurisdiction has activated at least 60 bilateral treaties with broad tax information exchange clauses for both civil and criminal tax matters. In 2011, an innovation was made to the newly numbered KFSI-2011-13 in that it newly took the average number of information exchange relationships of G20-countries as the baseline number of treaties and evaluated other jurisdictions relative to this number. Therefore, KFSI-2011-13 was defined as one minus the share of active relationships out of 60. The baseline number of treaties (i.e. the average of the number of relationships of G20-countries) was then recalculated for KFSI-2013-13, when it was 46, and again for KFSI-2015-13, when it was 53.

The last indicator (KFSI-2018-20) is called International Legal Cooperation and measures the extent to which a jurisdiction participates in international transparency commitments and engages in international judicial cooperation on money laundering and other criminal matters (Tax Justice Network 2018, p. 146). A total of 9 sub-indicators are part of this KFSI and each of them asks about a specific commitment of a jurisdiction to internationally cooperate in legal matters. Similar questions were first introduced to the methodology of secrecy scores in 2011, when they formed two indicators: KFSI-2011-14 on International Transparency Commitments and KFSI-2011-15 on International Judicial Cooperation. These indicators then remained unchanged until 2015. We thus compute a simple average of indicators 14 and 15 from the 2011-2015 editions of the secrecy scores and consider the resulting values as largely compatible with KFSI-2018-20.

4 Results

In this section we explore the panel dataset of financial secrecy constructed based on the discussion in the previous section. We make the comparisons of secrecy scores over time while
keeping in mind the limitations posed by the issues of coverage and methodological changes, as outlined above.

We start by comparing the average secrecy scores of all assessed jurisdictions over time. Figure 1: Average secrecy scores over time, 71 countries for which SS are available across all four editions shows the average secrecy scores for all 71 jurisdictions that were included in the last four editions of the FSI. During the editions 2011-2015, when the methodology remained largely stable, we observe a decrease in the average secrecy score. All changes to the methodology made in between these three editions were focused on making the assessment stricter; we can thus confidently infer that the overall level of secrecy globally has decreased during this time period. As described in detail above, the 2018 edition introduced a considerable amount of changes to the methodology that pushed the assessment of the existing indicators towards a stricter one, and it is thus not clear whether overall secrecy decreased or increased. For the 2018 edition, we provide also a reduced form of the adjusted secrecy scores which only takes into account the 15 indicators that have been present in the secrecy scores since 2011. We observe that, in line with the objective of the FSI to highlight harmful secrecy regulations (Tax Justice Network 2018), the five newly added indicators focus on areas in which the studied countries do not fare very well relative to other areas – the inclusion of the five new indicators increases the average secrecy score across the 71 jurisdictions by 4.6 points to 68.05.

In Figure 2 we decompose the average secrecy scores into their four categories: Ownership Registration, Legal Entity Transparency, Integrity of Tax and Financial Regulation, and International Standards and Cooperation. We observe a significant decrease in the International Standards and Cooperation, a category that has remained the most stable over time in terms of the definitions of its indicators. Particularly the indicators that focus on automatic exchange of information, bilateral treaties and international legal cooperation have contributed to this increase in transparency. This positive development is at least in part attributable to the OECD’s efforts in this area – for example, following the 2014 adoption of the AEOI Standard, as of November 2018, around 4,500 bilateral exchanges have been completed (OECD 2018a).
Figure 1: Average secrecy scores over time, 71 countries for which SS are available across all four editions

Source: Authors.

Figure 2: Average secrecy scores for categories of secrecy, 71 countries for which SS are available across all four editions

Source: Authors.
Figure 3 details which countries increased and decreased their secrecy scores between 2011 and 2018. In general, we observe that most countries have converged towards the mean of the sample – most countries with the highest secrecy scores have improved, with the notable exceptions of Vanuatu, Brunei and the Bahamas. On the other hand, there are several countries which were among the most transparent in 2011, but have since been surpassed by others – most notably the Netherlands, Malta and Denmark. The country that has moved down the ranking by the most places is the United Arab Emirates – from a decent 28th place in 2011 down to 66th in 2018, with one of the highest increases in secrecy scores among all countries.

Figure A1 in the Appendix ranks individual countries according to the change in their secrecy scores between 2018 and 2011. The Netherlands, Malta, and Denmark top the list of contributors to an increase global secrecy over time – they have become relatively more secretive. On the other side of the spectrum, Ghana, San Marino, and Uruguay are the countries that have reduced their secrecy scores the most over this time period. In Figure A2 in the Appendix we take a closer look at which categories most contributed to these changes. This view thus also expands that of Figure 2 and confirms that most countries have improved significantly in the fourth category, International Standards and Cooperation, some became more transparent and some more secretive in the categories Ownership Registration and Integrity of Tax and Financial Regulation, while there has not been much development in the category Legal Entity Transparency.

Figure 4 looks at the development of secrecy scores for the ten top ranked countries in the FSI 2011. We observe that some of these jurisdictions remained at high secrecy levels, most notably Switzerland, Hong Kong, and Bahrain, while other improved substantially, such as Luxembourg, Jersey, and Japan.
Figure 3: Secrecy scores in 2018 and 2011, by country

Source: Authors.
We now turn to analysing the effects that these developments in the level of secrecy have had on the importance of jurisdictions in the global provision of secrecy. The Financial Secrecy Index has been constructed to measure precisely that: it combines secrecy scores with global scale weights, or the share of each jurisdiction in the global total value of exports of financial services, to arrive at the so-called FSI value, a quantitative measure of the harmfulness of the secrecy supplied by each jurisdiction.

Figure 5 shows the relationship between the change in secrecy scores and global scale weights. We present the change in secrecy scores as a share of the country’s secrecy score in 2011 and highlight in red those countries whose secrecy score in 2018 exceeded 60. We find that several countries that increased their secrecy scores, such as the Netherlands, Malta or United Arab Emirates, also increased their share in the global market for cross-border financial services. On
the other hand, some countries that became relatively less secretive, such as Luxembourg, have lost a significant portion of their exports of financial services.

**Figure 5: Change in secrecy scores between 2018 and 2011 vs. change in global scale weights between 2018 and 2011**

![Graph showing the change in secrecy scores between 2018 and 2011 vs. change in global scale weights between 2018 and 2011. The graph includes points for various countries, with some showing an increase in secrecy scores despite a decrease in global scale weights, and vice versa.](image)

*Source: Authors.*

In Figure 6 we compare the change in secrecy scores with the change of FSI value of jurisdictions. Naturally, as the secrecy score makes up one part of the FSI, there is a positive correlation between the SS and the FSI. However, the figure, together with Figure 5 hints at some interesting developments in the world of secrecy. For example, Lebanon has increased its FSI despite lowering its secrecy score – this is due to its increase in the exports of financial services which caused a thirteen-fold increase in its global scale weight. Malta, the Netherlands and the United Arab Emirates have achieved dramatic increases in their FSI values by both increasing their global scale weights and increasing their secrecy score. On the other side of the spectrum, it seems that Luxembourg has been losing its attractiveness as a tax haven – both its secrecy score and its global scale weight decreased significantly. The same can be said about the Cayman Islands, Bermuda, and Switzerland. The large decrease in Jersey’s FSI value, on
the other hand, can be fully attributable to its reduction of secrecy which, as documented in
Figure A2, has taken place in all four categories of secrecy. Singapore has boosted its share in
the global market for cross-border financial services by 46% between 2011 and 2018, but also
reduced its secrecy score markedly, especially in the third and fourth category.

**Figure 6: Change in secrecy scores between 2018 and 2011 vs. change in the value of the FSI**

![Graph showing the change in secrecy scores between 2018 and 2011 vs. change in the value of the FSI.]

*Source: Authors.*

Apart from the exports of financial services, another important and innovative proxy measure
of the extent to which the secrecy of a jurisdiction is used is the presence and activity of the
Big Four accountancy firms – KPMG, Deloitte, EY and PwC. As documented by Murphy and
Stausholm (2016) and in Figure A3, these firms are heavily overrepresented in high-secrecy
jurisdictions and tax havens, as measured by the number of their offices relative to population
and GDP. In Figure A3 we show the top 50 countries in terms of the Big Fours staff per capita
and find some of the most prominent tax havens in the lead of this ranking. Figure 7 shows
the relationship of the Big Four staff per capita and the change in secrecy scores between
2011 and 2018. We observe that most of the tax havens with unusually heavy Big Four presence have decreased their secrecy scores between 2011 and 2018, with the exception of three European ones – Malta, Ireland, and Cyprus, which have increased their secrecy particularly in the category Integrity of Tax and Financial Regulation, as presented in Figure 8.

Figure 7: Change in secrecy scores between 2018 and 2011 and the number of Big Four staff per capita

Source: Authors, data on Big Four staff from Murphy and Stausholm (2016).

Figure 8 also unveils an important insight – that most of the decrease in the secrecy scores of these top tax havens in terms of the Big Four staff presence per capita came from the category International Standards and Cooperation. Our data allows to go into greater detail still – Figure A4 shows the change in the four indicators that make up the category. We observe that the bulk of the decrease was caused by two indicators – Automatic Exchange of Information and Bilateral Treaties. Indeed, the spread of these policy tools following the OECD initiative has been wide and well-aimed, as argued by Janský, Meinzer, and Palanský (2018).
5 Conclusion

Financial secrecy continues to play a major role in the tax haven problem. In this paper we used the most comprehensive effort yet to systematically map the world of financial secrecy, the Financial Secrecy Index, to construct a panel dataset of secrecy for the period 2009 – 2018. It allows to track the development of secrecy over time, by country, and by type. We argue that all changes to the methodology used to construct the secrecy scores pushed them towards stricter definitions as the international standards of transparency evolved over time. We devote the first part of this paper to describing in detail the empirical challenges that arise when combining the five editions of the FSI and to explaining the caveats that are necessary to keep in mind when working with the panel dataset. We encourage other researchers to use the dataset and make it available as part of an online appendix to this paper.
We find that the intensity of financial secrecy has on average decreased – i.e. financial transparency has improved – by at least ten per cent between 2011 and 2018. While there is substantial heterogeneity in the development of secrecy in each country, in general, we observe that over time there has been some convergence towards the mean of the sample – many of the most secretive countries have become less secretive, while some of the less secretive countries have become more secretive (e.g. Seychelles are now only slightly more secretive than the Netherlands). We identify the fourth category, International Standards and Cooperation, as the main driver of this improvement, with the spread of automatic exchange of information and bilateral treaties as the primary contributors. On the other hand, we observe little progress in the area of Legal Entity Transparency and limited and heterogenous progress in the other two categories, Ownership Registration and Integrity of Tax and Financial Regulation.

We find that countries that climbed up the FSI ranking the most, the Netherlands and Malta, have done so through both increased secrecy and an increase in the value of financial services they provide to non-residents. Our additional findings include the fact that Bermuda, Cayman Islands, and Luxembourg are the tax havens with by far the highest ratio of big accountancy firms’ staff numbers to their population and they all display intermediate levels of financial secrecy with some improvement over time – the top ten countries ranked by Big Four staff per capita on average decreased their secrecy scores (with the exceptions of Malta, Cyprus, and Ireland), and achieved so primarily through increased cooperation in automatic exchange of information and bilateral treaties.

We see the contribution of this paper as threefold. First, we construct and make available for further use a panel dataset that systematically tracks the development of financial secrecy between 2009 and 2018. Second, we explore the dataset and for the first time identify the main patterns of how secrecy has evolved over time. Third, we discuss the effects of changes in the level of secrecy on the exports of financial services and the activity of big accountancy firms.

A number of challenges remain for future research to solve. The drawbacks of our methodology of constructing the panel dataset of secrecy based on the five editions of the FSI are clear: changes in coverage, methodology and scope of the secrecy scores make direct comparisons difficult. It would be valuable to collect data retrospectively for a wider range of countries and using consistent methodology to directly assess development in specific areas of secrecy. This would also allow to better measure the effects of changes in secrecy on other economic variables such as bank deposits, foreign direct investment, portfolio investment etc. There are promising
areas where new data has recently been or is planned to soon be made available, such as country-by-country reporting data by large multinational enterprises (OECD, 2018) or the Corporate Tax Haven Index by the Tax Justice Network, which can be used in combination with the dataset presented in this paper to improve our understanding of the world of financial secrecy and tax havens.
6 References


7 Appendix

Figure A1: Change in secrecy scores, 2018 vs. 2011, by country

Source: Authors.
Figure A2: Change in categories of secrecy, 2018 vs. 2011, by country

Source: Authors.
Figure A3: Big Four staff per capita, by country

Source: Authors, data on Big Four staff from Murphy and Stausholm (2016).
Figure A4: Change in 4 secrecy indicators from the International Standards and Cooperation category, top ten countries by Big Four staff per capita

Source: Authors, data on Big Four staff from Murphy and Stausholm (2016).