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Working Paper

The Political Economy of the International Tax Transparency Agenda in the G20/OECD Context

CESifo Working Paper, No. 8813

Provided in Cooperation with:
Ifo Institute – Leibniz Institute for Economic Research at the University of Munich

Suggested Citation: Schuknecht, Ludger; Siegerink, Vincent (2021) : The Political Economy of the International Tax Transparency Agenda in the G20/OECD Context, CESifo Working Paper, No. 8813, Center for Economic Studies and Ifo Institute (CESifo), Munich

This Version is available at:
https://hdl.handle.net/10419/232410

CESifo WORKING PAPERS

8813
2021

January 2021

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CESifo

Impressum:

CESifo Working Papers
ISSN 2364-1428 (electronic version)
Publisher and distributor: Munich Society for the Promotion of Economic Research - CESifo GmbH
The international platform of Ludwigs-Maximilians University's Center for Economic Studies and the ifo Institute
Poschingerstr. 5, 81679 Munich, Germany
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Editor: Clemens Fuest
https://www.cesifo.org/en/wp
An electronic version of the paper may be downloaded
· from the SSRN website: www.SSRN.com
· from the RePEc website: www.RePEc.org
· from the CESifo website: https://www.cesifo.org/en/wp

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Abstract

This paper empirically analyses the motives underlying progress in implementing multilateral tax transparency standards. The results point to the protection of domestic special interests as a potential motive behind slower and less rigorous implementation. In particular, jurisdictions with a significant share of global offshore wealth and to some extent those that host shell company activity, progress less in adopting and implementing the AEOI and EOIR standards. High tax jurisdictions seem to make more progress, while those with significant wealth held offshore seem to lag behind. These special interest considerations, however, may have declined over time as participation became more global and compliance improved. There is also evidence that reputational motives and preceding bilateral collaboration mattered for the speed and comprehensiveness of participation.

JEL-Codes: D700, F530, H260.

Keywords: policy coordination, international public goods, tax transparency and coordination, information exchange.

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We are grateful to Séverine Baranger, Paul Hondius, Jose Mejia, Artur Olszewski, Pierce O'Reilly at the OECD's Centre for Tax Policy and Administration, Kai Konrad and the participants of the Konstanz Conference on Political Economy of International Conflict and Cooperation for valuable comments and discussions. The views expressed in this paper do not necessarily reflect those of the OECD. All remaining errors are the authors'.

1. Introduction

In 2009, during the global financial crisis, G20 leaders met in London with the goal of improved global policy coordination. One of the key achievements of the London Summit was the declaration of the end of bank secrecy and the subsequent reorganisation of the Global Forum on Transparency and Exchange of Information for Tax Purposes (Global Forum) to address tax evasion and growing offshore wealth.

The Global Forum, with its Secretariat hosted by the OECD, set out to create international standards for exchanging information for tax purposes. Previously, a limited set of countries exchanged information on a bilateral basis or in regional contexts, but the lack of a comprehensive international network for exchange of information and bank secrecy provisions allowed for capital flight and tax evasion to a number of international financial centres. As from 2010, Global Forum members committed to implement a common standard for the exchange of information upon request (EOIR) and in 2014 endorsed the OECD/G20 Common Reporting Standard[1] (CRS) for the automatic exchange of financial account information (AEOI) between tax jurisdictions (OECD, 2014). It has been argued that only such a "big bang" multilateral agreement would offer a workable solution to combat tax avoidance and evasion (Elsayyad and Konrad, 2012). -

International tax coordination and transparency have an important public goods dimension. Non-reporting of capital income held abroad, be it the result of legal or illegal capital export, deprives countries of tax revenue that their tax residents should pay. Lack of transparency may also serve base erosion and profit shifting practices (BEPS), which have reduced the tax base (OECD, 2013). Preventing such practices also creates a positive externality by underpinning the perceived fairness of tax systems and thus political support for the market economy model.

This paper empirically investigates the adoption and implementation of the multilateral standards on exchange of tax information. Specifically, the paper considers which jurisdictions took a cooperative stance in implementing the multilateral instruments (e.g. to boost welfare, revenue or their reputation) and which ones trail behind (e.g. in order to protect and safeguard domestic interests). We also look at whether path dependence (past cooperation records) and compensation practices (in the form of ODA receipts) played a role in determining participation.

The results broadly point to the importance of protecting special interests in the compliance, comprehensiveness and timeliness of participation in the international information exchange for tax purposes. In particular, jurisdictions with a significant share of global offshore wealth, and to some extent those that facilitate tax avoidance and evasion by providing screening devices, progress less in implementing the exchange of information standards. As regards "onshore interests", high tax jurisdictions seem to participate more, while those with significant wealth held offshore seem to drag their feet in implementing the automatic exchange of information standard.

Motives to protect special interests, however, may have declined over time as compliance improved. There is also some evidence that reputational motives mattered for the speed and comprehensiveness of participation. Moreover, jurisdictions that already participated more extensively in bilateral exchanges made more progress in implementing the multilateral instruments (path dependence).

[1] The Standard consists of the following four key parts: a model Competent Authority Agreement (CAA), providing the international legal framework for the automatic exchange of CRS information; the Common Reporting Standard; the Commentaries on the CAA and the CRS; and the CRS XML Schema User Guide

Findings on the role of Official Development Assistance as a form of compensation for more information exchange are ambiguous.

2. Literature

2.1 The importance of tax coordination

This study is part of a broader literature on the political economy of international coordination and economic governance in the G20 context. The literature on international conflict and cooperation posits that selfish actors can coordinate behaviour in order to benefit all or members of a group (Axelrod, 1984; Schelling, 1980). In the international sphere, cooperation takes place with greater or lesser success in providing global public goods, for example in the case of nuclear non-proliferation, addressing climate change and setting standards for financial regulation (Barrett, 2007). It is frequently argued that international tax coordination also falls into this category as non-coordination may produce negative externalities from 'inadequate' revenue collection and revenue shifting.

International tax coordination has been a topic of interest in the theoretical and empirical literature for about one quarter century. The need for international coordination in the area of taxation from a growth and welfare perspective is typically motivated by two main strands of argumentation. The first argues that coordination on tax rates and bases is desirable because such coordination prevents evasive practices and a race to the bottom particularly for corporate tax rates. With coordination, higher government revenue in capital exporting countries, in particular, allows the provision of more public goods which, in turn, raises economic growth and welfare (Keen and Konrad, 2013).[2]

The argumentation, however, is not uncontested. It has been argued that tax competition keeps tax systems more efficient, rates lower and governments more lean and focussed (Keen and Konrad, 2013). Tax competition correlates with a smaller size of government e.g. in Switzerland (Feld et al, 2010). Whether the arguments favouring coordination or more competition are more relevant depends on the excess burden from the resulting higher taxes and the degree of productiveness of the additional spending (Edwards and Keen, 1996).

A second area of international tax coordination, which is the focus of this paper, refers to the exchange of information on income and wealth of non-resident taxpayers. This has the same objective of preventing beggar-thy-neighbour tax policies, notably by low transparency jurisdictions, as it allows governments to obtain information about previously unreported income and assets and collect appropriate taxes (Bacchetta and Espinoza, 1995; Keen and Konrad, 2013).

While international tax transparency can function as a global public good, such coordination can also have drawbacks. First, coordination is not always growth or welfare-enhancing as the effects on capital accumulation and investment can be ambiguous (Chu et al, 2014). The institutional set-up matters and so does whether countries are capital exporting or importing (Bacchetta and Espinoza, 1995).

Second, it is virtually impossible to fully eliminate tax avoidance and evasion. Less than (near) global participation may actually lead to more welfare losses from evasive action and higher gains for (the remaining) low transparency jurisdictions (Johannesen and Zucman, 2014 and Keen and Konrad,

[2] There seems to be much evidence on tax competition over rates within Europe and notably between its smaller countries (Devereux and Loretz, 2012, see also Eggert and Haufler, 2006). At the same time, there is also evidence of some "rate leadership", notably by the US 1986 corporate tax reform that was followed by significant rate cuts elsewhere (Altshuber and Goodspeed, 2015).

2013).[3] Even once exchange of information is ensured, residency and citizenship-by-investment programs provide an opportunity to avoid the tax burden of high tax countries (Langenmayr and Zyska, 2019). And of course, tax coordination benefits in particular the onshore countries whose capital flees abroad, at the cost of international financial centres (Slemrod and Wilson, 2009; Keen and Konrad, 2013; Braun and Ziegler, 2015).

2.2 The economic relevance of tax transparency

Tax transparency is particularly important to reduce international tax avoidance and evasion through the transfer to and non-reporting of capital income and offshore wealth with low transparency standards. High-net worth households as well as international companies with much intra-firm trade and high R&D spending shift wealth abroad to avoid taxes on capital income and wealth to such international financial centres (Desai et. al. 2006).

Tax evasion via non-reporting can work directly through international financial centres or indirectly through shell companies located in third countries. The magnitudes are estimated to be high and macro-economically very relevant. However, not all income and wealth held offshore is unreported, and estimates of non-compliance in the years leading up to the reorganisation of the Global Forum in 2009 range from 60 to 90% (European Commission, 2019).

Estimates of the stock of global offshore wealth held by individuals converge in the ballpark of around US$ 10 trillion in the past decade, which corresponds to around 15% of global GDP (Zucman, 2013; Pellegrini, Sanelli and Tosti, 2016).[4] Boston Consulting Group (2015) reports estimates of global offshore wealth held by individuals based on interviews with wealth managers, which in 2015 was estimated to have reached over US$11 trillion.[5]

2.3 Political economy of exchange of information

A key issue for successful international tax coordination is the participation and compliance of a broad range of players, notably “onshore” (source jurisdictions of tax avoidance and evasion) and “offshore” jurisdictions (destinations of tax avoidance or evasion). As is to be expected, incentives matter and financial and reputational implications of non-participation constitute an important incentive. Increased political pressure applied in the G20 context (see Konrad and Stolper, 2016, and Braun and Ziegler, 2015) and the US application of FATCA improved information exchange. The US FATCA regime, which allows sanctioning US taxpayers’ tax evasion abroad, has introduced a major stick into negotiations and reduced potential benefits of non-participation or non-implementation. Reputational risks have become more prominent in recent years and are referenced e.g. by Hauck (2018) or Johannesen and Zucman (2014) as a reason for growing participation in international information exchange.

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[3] Low transparency jurisdictions produce social waste from concealment costs and competition between such jurisdictions drives down these costs. Therefore, having fewer of such jurisdictions may be socially more costly (Keen and Konrad, 2013).

[4] Zucman (2013) estimates gaps in globally reported portfolio assets and liabilities, which excludes non-financial wealth, such as real estate. It is therefore likely to be a conservative estimate.

[5] Revenue losses from base-erosion and profit-shifting (BEPS) are estimated to be significant. A 10% higher corporate tax rate in advanced countries is estimated to lead to a significant decline in the FDI stock, with a revenue semi-elasticity of about 0.8. This figure is even higher for developing countries where the total revenue loss from profit shifting is estimated to be about 1.3% of GDP compared to 1.0% in advanced countries (Crivelli et al, 2015).

Low fines and the prospect of tax amnesties in onshore countries reduce incentives of participation by international financial centres. Defensive lobbying by jurisdictions to preserve profit shifting opportunities arguably also works against participation and compliance (Hauck, 2018). Such lobbying may be motivated by protecting both the rents of tax evaders and direct or indirect gains to financial centre governments. Rent protection is also argued to determine the timing and synchronicity of compliance with information exchange (Pieretti et al. 2019).

International financial centres are often argued to be countries with good governance because only then do real and financial investors feel safe about their property rights and the stability of the tax regime (Dharmagala and Hines, 2009 and Elsayyad, 2012). In addition, pre-existing bilateral arrangements on information sharing have been found to correlate with (formerly) low transparency jurisdictions participating in more information sharing (Elsayyad, 2012). A degree of path dependence from pre-existing agreements to multilateral exchanges seems logical because such agreements may reduce negotiation and transaction costs of implementing more far-reaching accords when a compliance and trust base already exists. Finally, international financial centres appear to exchange information more easily with countries with which they already have closer economic links (Bilicka and Fuest, 2013).

Given overall revenue increases, there is also some potential for compensating low transparency jurisdictions and, thereby, introducing incentives for participation. Official development assistance (ODA) has been found to correlate with more participation in information exchange and can be seen as a compensatory payment to developing countries (Braun and Ziegler, 2015).

At the same time, there are strong incentives for delaying participation, notably for international financial centres. Bilateral treaties or more limited multilateral agreements have been found to lead to money being shifted to non-participating jurisdictions rather than to being repatriated (Johannessen and Zucman, 2014). Therefore, simultaneous and early participation is desirable in multilateral agreements (Pieretti et al, 2019).

There is a further consideration that is only little addressed in the literature on tax coordination as it is a relatively recent development. At the international level, the G20 in conjunction with international implementation and monitoring agencies—the OECD fora in the case of tax—ensure inclusive negotiations, monitoring and soft-law enforcement, e.g. via peer reviews and lists of uncooperative jurisdictions[6] (see also Stolper and Konrad, 2016).

2.4 The relative success of exchange of information instruments

An increasing body of evidence is emerging on the success of coordination and notably information exchange in reducing international capital flight and tax evasion. O'Reilly et al. (2019) show that the introduction of the Exchange of Information upon Request (EIOR) coincided with a decline in bank deposits by 9-10% between 2009 and 2014. Casi et al (2020) report that the introduction of the common reporting standard (CRS) on exchanging capital income information automatically correlated

[6] There are, hence, good reasons why the work on information exchange and BEPS remained with the Global Forum and the Inclusive Framework at the OECD, which had successfully hosted earlier, less ambitious processes. The consensus principle in G20 and in the OECD fora ensures that no jurisdiction is forced to participate. There may, however, be a trade-off between more selective membership which reduces negotiation cost and inclusive membership where the risk of free-riding is smaller (Buchanan and Tullock, 1962). In the area of taxes, small international financial centres may be the main culprits for externalities and many countries may have an incentive to follow their path. Therefore, (near) global participation is key and OECD fora had a comparative advantage, building on a very broad membership. See also Dreher and Lang (2016) for the political economy of international organisations.

with a decline in cross-border bank deposits by 11.9% between 2014Q4 and 2017Q3. The actual automatic exchange of information that started in 2017 went hand in hand with a bank deposit decline by 22% and, when taking into account of the simultaneous effect from FATCA, by about 17%. Ahrens and Bothner (2019) confirm a significant reduction in household tax evasion with the introduction of the CRS and FATCA and do not find new evasion via other channels.

In total, the OECD estimates a decline in foreign owned bank deposits by 24% (US$ 410 billion) between 2008 and 2019 (OECD, 2020). Moreover, the OECD estimates the additional revenue from improved transparency and less tax evasion at over US$ 100 billion for 2019 (OECD, 2020). These findings stand in contrast with studies that evaluated the effectiveness of earlier instruments, such as the EU's Savings Directive and bilateral information exchange agreements, which seemed to lead only to a relocation of offshore wealth (Johannessen and Zucman, 2014; Johannesen, 2014).

In this study, we will focus on the determinants of jurisdictions participating in and complying with international commitments to information exchange. In particular, we will focus on the protection of domestic interests by onshore and offshore jurisdictions, international cooperation motives, reputational incentives, the path dependence of previous commitments, and the role of compensatory payments for participation and compliance, as referenced in the literature above.

The study is novel in three ways: i) it investigates the motivation for participation and compliance in international tax coordination based on latest data as published by the OECD, ii) it discusses a broader set of hypotheses than earlier literature and iii) it applies a comprehensive, new database, that includes latest published OECD data and that builds on earlier studies, but goes well beyond them also in other aspects.

3. Empirical Strategy

3.1 The OECD standards on information exchange

We assess empirically jurisdictions' progress in implementing the OECD's two standards on exchange of information: the Exchange of Information on Request standard (henceforth: "EOIR standard") and the Common Reporting Standard (CRS) for Automatic Exchange of Information ("AEOI standard").

In 2009, the G20 tasked the Global Forum with the in-depth monitoring and peer review of the implementation of the EOIR standard. The standard is embedded in the 2002 OECD Model Agreement on Exchange of Information on Tax Matters ("the OECD Model TIEA"). All Global Forum members committed to implement the standard and to subject themselves to peer review. The purpose of the standard is to exchange on request "foreseeably relevant information for the administration or enforcement of the domestic tax laws of a requesting party" (OECD, 2016a). When a relevant request is made, all information must be provided, including bank and accounting information, the identity of legal and beneficial owners of companies and other legal entities, and information held by fiduciary actors. This makes the EOIR a powerful tool in combating tax crime and investigating wealth held offshore by large holders.

While the EOIR constitutes huge progress over earlier arrangements, it requires jurisdictions to make a specific request. In order to facilitate investigating tax evasion in a more systematic manner, the Global Forum agreed on an automatic exchange standard (the AEOI standard) in 2014. The AEOI requires financial institutions to share financial account information with tax authorities, which is then exchanged with foreign counterparts on an annual basis. As a result, tax administrations gain access to information on income and wealth held offshore by their residents in an "automatic" and systematic manner. The AEOI standard does not, however, render the EOIR standard irrelevant, as the

latter allows tax administrations to conduct more thorough investigations in specific cases, including those relating to financial accounts. Therefore, the two standards can be considered complementary.

The AEOI standard requires a network of exchanges with all "interested and appropriate" partners, which in practice usually involves the signing and ratification of the Convention on Mutual Administrative Assistance in Tax Matters (henceforth: "the multilateral Convention" or simply "the Convention"). Becoming a party to the Convention automatically allows a country to enter into exchange of information agreements with all other parties to the Convention. The multilateral Convention, which was amended in 2010, also provides a multilateral foundation for EOIR relationships and therefore provides an all-encompassing legal foundation for the exchange of information of financial information for tax purposes. In addition, jurisdictions engaging in automatic exchange pursuant to the CRS under the Convention need to activate such exchanges through an administrative arrangement, a so-called Competent Authority Agreement, (either at multilateral or bilateral level).

When the AEOI standard was agreed, Global Forum members that are either a developed country or a financial centre were asked to commit to commencing exchanges at the latest by 2018, in line with the call for a multilateral "big bang" agreement on exchange of information[7]. Developing countries were invited to implement the AEOI standard on a voluntary basis. As many of these are jurisdictions suffer from illicit financial flows which through which wealth leaves their jurisdictions they stand to benefit significantly from implementing the standard as well.

Before the introduction of these new standards, the work on the review of the EOIR standard, the amended multilateral Convention and the arrival of the AEOI standard, jurisdictions already entered into exchange of information agreements, either through existing bilateral tax treaties (often double taxation agreements) or through specific exchange of information agreements based on the OECD's model TIEA. In 2009, the G20 suggested that tax havens should sign a minimum of twelve agreements allowing EOIR pursuant to the standard in order to be deemed cooperative. In our analysis, we will also look at jurisdictions' progress in entering into bilateral agreements as a precursor to the EOIR and AEOI standards.

3.2 Dependent Variables

Effective information exchange across countries on the legal and beneficial owners of capital income requires three elements: comprehensive participation, timely implementation and adequate compliance (OECD, 2006). Published information on progress in implementing information exchange instruments in the form of bilateral agreements, the EOIR standard and the AEOI standard yields a number of dependent variables that correspond with the three dimensions (compliance, speed, comprehensiveness).

Compliance

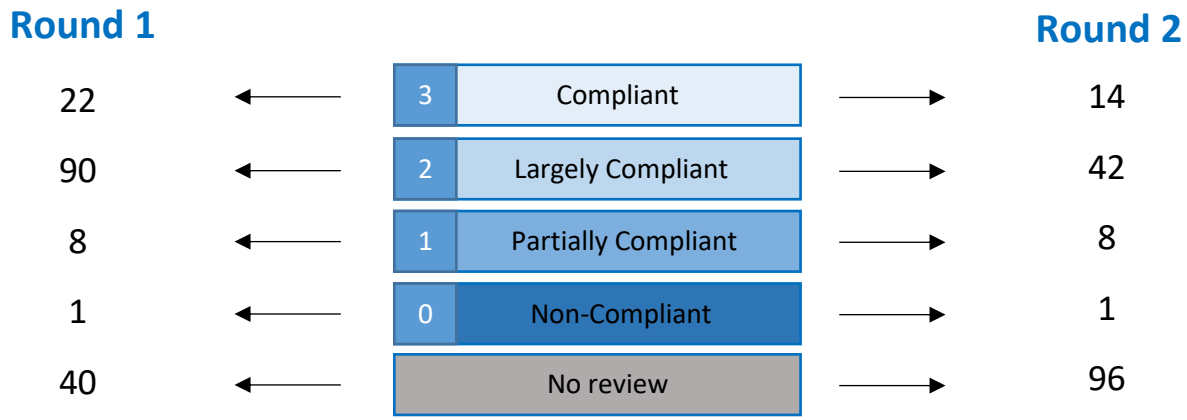
The degree of compliance with the EOIR standard is assessed in the framework of the Global Forum through a set of peer review assessments. The purpose of these peer reviews is to assess jurisdictions' legal and regulatory frameworks for EOIR as well as their practical implementation. A first cycle of these peer reviews took place from 2010 to 2016. A second round started in 2016 that was still ongoing

[7] An exception was made for the United States, whose automatic exchange instrument Foreign Account Tax Compliance Act (FATCA) in many ways laid the groundwork for the CRS. To implement FATCA, the US entered into a number of bilateral agreements, which established a degree of reciprocity, but not to the extent that the CRS does.

at the time of writing (summer 2020). This second round included a sharpened standard with an improved concept of beneficial ownership and a number of other changes (OECD, 2016a).

The Global Forum publishes compliance ratings on its website.[8] The rating system has four levels, ranging from "Non-Compliant" (which receives a score of 0) to "Compliant" (which receives a score of 3). During Round 1, 22 jurisdictions received a "Compliant" rating, 90 had received a "Largely Compliant" rating (of which 2 provisionally through a fast-track procedure), 8 were rated "Partially Compliant" and 1, Trinidad and Tobago was rated "Non-Compliant" (Figure 1). We use this rating as a dependent variable measuring compliance, both for the first round of EOIR reviews and for the second round of reviews. There are no assessments of compliance with implementation of the AEOI standard as of yet.

Figure 1. Compliance ratings following peer reviews against the EOIR standard



Note: Figures include jurisdictions that obtained a provisional rating under the fast track procedure
Source: OECD. 2020. Compliance ratings following peer reviews against the standard of EOIR. https://www.oecd.org/tax/transparency/exchange-of-information-on-request/ratings/

Speed

As regards the speed of implementation, two measures lend themselves as proxies for willingness of early participation in multilateral information exchange. The multilateral Convention is a crucial building block for the implementation of the multilateral exchange of information instruments (see above).[9] The time it took jurisdictions to sign, ratify and facilitate the entry into force of the Convention can be used as a marker of countries' willingness to cooperate speedily or hesitantly.

The first jurisdictions to fully implement the amended Convention on June 1st, 2011 were Denmark (and Greenland and the Faroe Islands by extension), Finland, Norway and Slovenia. We use the number of months as of this date as a dependent variable, so this first set of six jurisdictions receives a score of 1 and the following jurisdictions receive a score of 1 + X, where X is the number of months from June 2011. 37 of the 161 Global Forum members have not yet implemented the multilateral Convention, although this includes only one financial centre, namely Trinidad and Tobago. The United States has signed but not yet ratified the amended Convention and is Party to the original Convention.

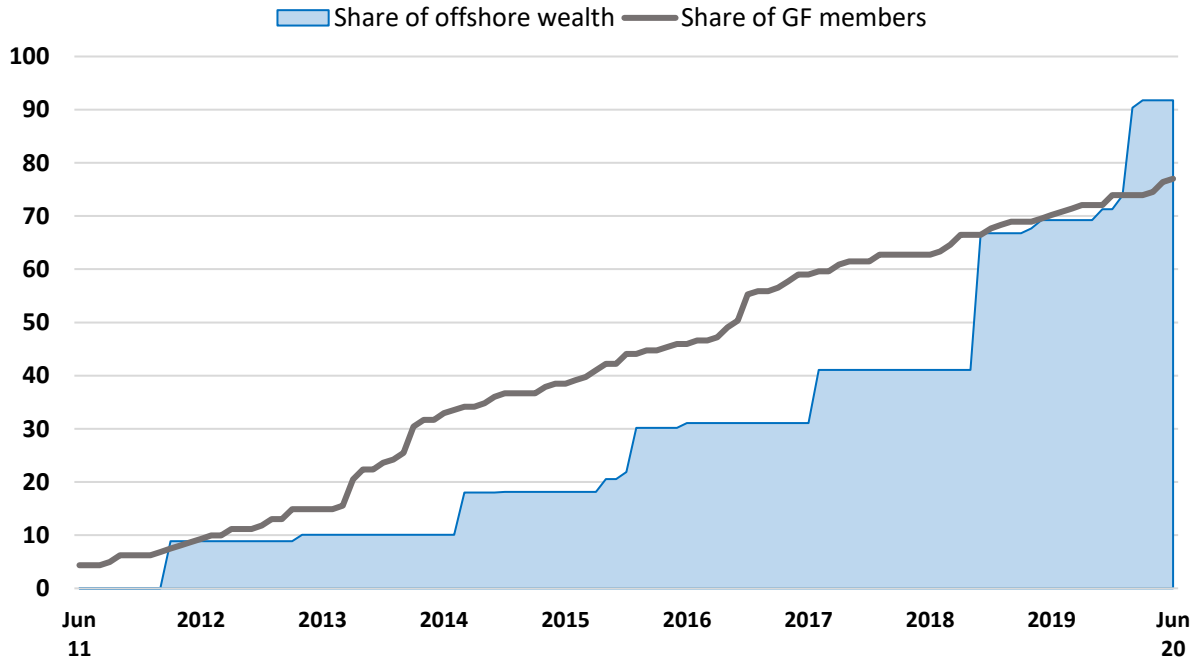
[8] OECD. 2020. *Compliance ratings following peer reviews against the standard of EOIR*. https://www.oecd.org/tax/transparency/exchange-of-information-on-request/ratings/

[9] The original Convention on Mutual Administrative Assistance in Tax Matters which originally was created by the OECD and the Council of Europe in 1988. It was amended in 2010 to align it with the international EOIR standard and to open it to all countries.

Figure 2 illustrates that the share of Global Forum members that implemented the multilateral Convention and the related coverage of offshore wealth increased steadily over time and was already very comprehensive by June 2020.

As a second indicator of speed of implementation, we look at the timing of jurisdictions' commitment to implement the AEOI standard and start exchanges.[10] We construct a dummy variable with a score of 1 if the jurisdiction started exchanging in 2017, and a 0 score for remaining jurisdictions that committed to implementing the standard by 2018. A one-year delay may not appear to make a big difference in a decade long fight against tax evasion, but for individual taxpayers it may allow time to make contingency financial plans and a delay could thus point to a special interest motive. About half of jurisdictions actually started exchanging in 2017 and the majority of the remaining jurisdictions commenced in 2018. Nine jurisdictions did not manage to start exchanging by 2018.

Figure 2. Implementation of the multilateral Convention
By share of GF members and by share of offshore wealth located in jurisdictions where the Convention is in force



Source: OECD. 2020. Jurisdictions participating in the Convention on Mutual Administrative Assistance in Tax Matters. Status – June 2019. http://www.oecd.org/tax/exchange-of-tax-information/Status_of_convention.pdf and Alstadsæter, Johannesen, and Zucman (2017) for offshore wealth shares.

Comprehensiveness

Finally, we look at the comprehensiveness of participation in international information exchange. The Global Forum in its annual AEOI implementation reports tracks the number of partners to which information was sent by each participating jurisdiction. We consider the number of exchange partners that jurisdictions had in 2017, the first year, in 2018, and how many exchange partners they had in 2020. Twelve jurisdictions categorically indicated not to wish to receive information as they do not

[10] For countries to exchange information, they need to have a domestic legal framework in place to require financial institutions to collect information, to have signed the international agreements (the multilateral Convention and the CRS Multilateral CAA) and they need to have implemented the Common Transmission System (CTS) developed by the Global Forum, which is the actual platform where exchanges take place.

have direct taxation systems in place. On average, at the time of writing, OECD members exchanged with 68 jurisdictions, versus 67 for developing and emerging economies and 61 for a group of low-transparency jurisdictions identified by Johanessen and Zucman (2014)[11].

In addition to considering the number of automatic exchange partners, following Elsayyad (2012), we also make use of the availability of data on bilateral EOIR agreements in order to compare whether earlier participation in bilateral agreements up to 2012 is followed by similar dynamics in the participation in automatic exchange later on.

In total, this yields two dependent variables on compliance, two on speed and four on comprehensiveness of participation, covering the three different dimensions of progress in implementing the multilateral information exchange instruments (though not for all instruments).

Table 1 provides an overview of the progress of different country groups (see Annex Table 1 for full summary statistics). This already reveals a degree of divergence: OECD members lead when it comes to compliance with implementing the EOIR standard. On average, OECD members also implemented the multilateral Convention significantly faster than key international financial centres (which we define in Section 3.4), and were ahead in implementing the AEOI standard, albeit only slightly, in comparison to key international financial centres. In 2018, when all jurisdictions were supposed to have implemented the AEOI, the group of low-transparency jurisdictions as identified by Johannesen and Zucman (2014) exchanged with fewer partners than the average developing or emerging economy, with key international financial centres performing slightly better, but not on par with OECD members. Of course, various factors, including implementation capacity and governance may play a role in explaining the divergence, and we set out in our empirical strategy to disentangle these effects.

Table 1. Average progress in dependent variables by country groups

	Low transparency jurisdictions (52)	Key international financial centres (17)	Non-key international financial centres (35)	Remaining OECD countries (29)	Remaining developing and emerging economies (80)
Compliance rating					
EOIR Round 1	1.9	2.1	1.8	2.5	2.1
EOIR Round 2	2.1	2.3	1.9	2.3	1.9
Speed					
AEOI early implementation	1.3	1.5	1.2	1.7	0.4
MC months	56.8	58.5	56.0	25.5	62.3
Comprehensiveness					
No. of AEOI partners 2017	40.1	47.7	36.9	56.7	46.8
No. of AEOI partners 2018	50.4	59.4	46.6	61.6	56.7
No. of AEOI partners 2020	60.6	65.5	58.4	67.6	66.7
No. of bilateral partners 2012	14.9	15.0	14.9	17.9	14.8

Note: Low transparency jurisdictions and international financial centres are defined as presented in the data section (3.4). Remaining jurisdictions are divided into remaining OECD members and developing and emerging economies. A full list of

[11] The number of AEOI partners is based on the number of receiving partners a jurisdiction has (i.e. the number of partners that receive a given jurisdiction's information). There are currently 12 jurisdictions that choose not to receive information themselves because they do not collect direct tax revenues, reducing the number of possible receiving partners by 12 for most jurisdictions, except for these 12 jurisdictions themselves, where the possible number of receiving partners is reduced by 11.

low-transparency jurisdictions and international financial centres is presented in Annex Table 4. The number of AEOI exchange partners refers to the number of recipient partners that a jurisdiction sends information to.

3.3 Hypotheses

Our principle interest is in the motivation for the implementation of tax-related information exchange across jurisdictions. The main question is whether countries cooperate to enhance global welfare, to boost the reputation of their country or to "drag their feet" because they want to protect the rents that result from the previous non-cooperative regime. In this regard, we look at five hypotheses (see Table 2 for all variables, hypotheses and expected signs).

The first hypothesis reflects the economic interests of international financial centres and proxies the financial gains associated with hosting offshore wealth, for example from providing financial services and associated economic activity (e.g. high-end tourism) or by collecting low taxes on a larger base. If countries were motivated by global welfare, those that host significant offshore wealth or facilitate tax evasion through shell companies would be more likely to participate early and fully in international information exchange. Under this hypothesis, we would expect a positive sign for the coefficients of the respective variables or to see no effect, which would indicate that these countries do not make any less progress than other countries. Motives related to protecting special interests and related counter-lobbying to information exchange (Hauck, 2018) would support the opposite hypothesis and yield a negative sign.

The second hypothesis considers the motives of "onshore countries": those that are primarily source countries of fleeing wealth. These countries have an opportunity to repatriate tax revenues and should be eager to implement exchange of information instruments. More wealth abroad and revenue leakage from higher income tax rates would suggest that governments have a strong interest in participating in information exchange so that the incentive for capital flight and revenue loss declines (positive sign). On the other hand, if a lot of wealth is held abroad, the underlying group of wealth owners would lobby against information exchange, especially when local tax rates are high (negative sign).

Third, we expect that political pressure and reputational concerns may influence the degree of countries' cooperation. Following the OECD's report on harmful tax competition (OECD, 1998), a number of list were published that publicly reported uncooperative financial centres. These included a list of uncooperative jurisdictions by the OECD and a list published by the Financial Stability Forum of uncooperative, semi-cooperative and non-cooperative offshore wealth centres. If reputation motivates countries' participation in information exchange, we would expect more cooperation from jurisdictions that were at the time listed as un/semi-cooperative (positive sign, see Konrad and Streper, 2016; Hauck, 2018). If such tools for applying pressure did not matter, these countries would not be more likely to exchange information along the three dimensions of participation, speed and compliance (no significance or negative sign).

At the same time and as mentioned, there may be a degree of path dependency to international cooperation (Elsayyad, 2012). When exchange channels are already in place via bilateral exchange agreements, negotiation costs of further cooperation would be lower, anti-exchange lobbies may be weaker, and potential gains may be smaller. To test this, we use participation in bilateral exchange agreements in the early 2010s as a predictor of later participation. A positive sign would reflect a weakening effect of bilateral agreements on non-cooperative lobbying and non-participation.

Finally, international financial centres may be more susceptible to political pressure if they have less financial autonomy aside from their financial sector associated revenues (Elsayyad, 2012). In addition,

poor countries that host international financial centres and participate in tax transparency initiatives may be compensated for (at least some) of their losses (Braun and Ziegler, 2015). These authors proxy countries' susceptibility to international "compensation payments" with their reliance on Official Development Assistance (ODA). Therefore, we test the relevance of ODA in participating in information exchange, expecting that higher receipts are associated with more progress.

In addition, in our empirical analysis, we employ a number of control variables. Sound governance should be indicative of jurisdictions' capacities to participate and comply with information exchange requirements. In addition, the prevalence of corruption may be associated with greater special interest capture. Both these explanations would suggest a positive sign of the governance variable on control of corruption. Further controls include the country size and per capita GDP. We expect that larger and richer jurisdictions are more likely to have the capacity for speedy, comprehensive implementation and compliance. In addition, when it comes to the number of exchange partners, jurisdictions with a larger economic weight may also have more partners than smaller ones.

Table 2: International Tax Coordination and Information Exchange: Hypotheses and Variables

Model variables				
Dependent variables	**Compliance**	**Speed**	**Comprehensiveness**	
	▪ EOIR round 1 rating ▪ EOIR round 2 rating	▪ Months to implement multilateral Convention ▪ AEOI early implementation	▪ Bilateral EOIR partners in 2012 ▪ AEOI partners in 2017 ▪ AEOI partners in 2018 ▪ AEOI partners in 2020	
Hypotheses	**Independent variables**	**Expected sign:**		
		Cooperation	**Special interests**	
Offshore interests	▪ Global offshore wealth share ▪ J&Z Low-transparency jurisdiction (Johannesen & Zucman, 2014) ▪ Shell company activity	(+)	(-)	
Onshore interests	▪ Wealth held offshore ▪ Top income tax rate	(0)	(-) if lobbying by domestic offshore wealth owners (+) for revenue maximising gov.	
		Reputation		
Reputation	▪ OECD list (2000) ▪ FSF list (cooperative, semi-cooperative, non-cooperative)	(+)		
		Path dependence		
Path dependence	▪ Bilateral EOIR partners (for non-EOIR estimations, Elsayyad, 2012)	(+)		
		Compensation/ODA dependence		
Compensation hypothesis	▪ ODA receipts (Braun & Ziegler, 2015) ▪ ODA*J&Z Low-transparency jurisdiction	(+)		
Controls				
		Capacity/special interests		
Governance	▪ Control of corruption (high=less corruption)	(+)		

		Capacity/economic linkages
Country size	▪ Population size	(+)
Prosperity	▪ Per capita GDP	

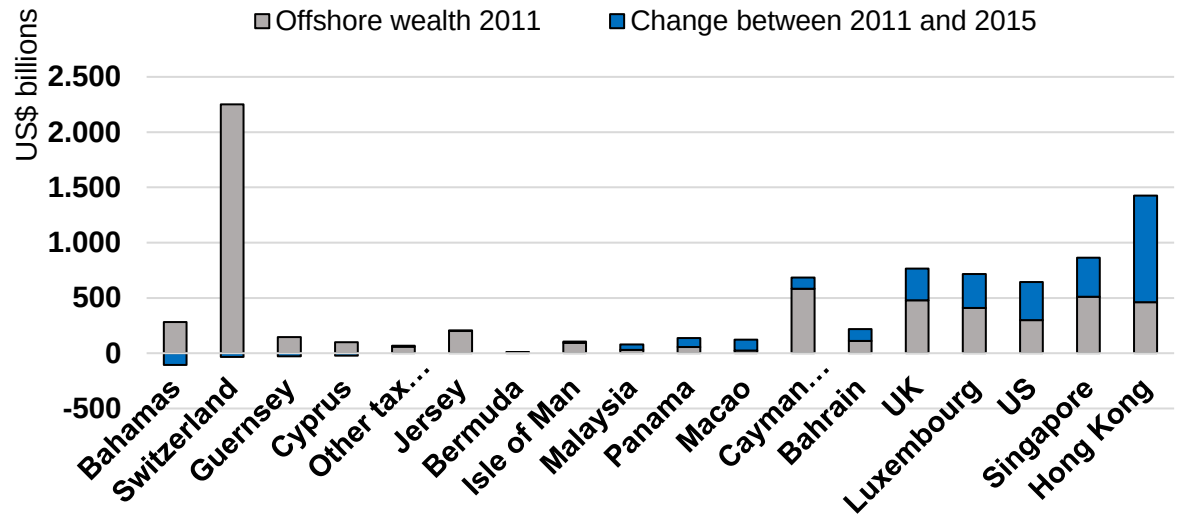
3.4 Data and data sources

Offshore interest variables

As regards offshore interests, we look at three variables that could proxy special interests of international financial centres. First, we consider the actual non-reported wealth held by non-residents ("offshore wealth") in a given jurisdiction. Alstadsæter, Johannesen, and Zucman (2017) compute the total amount of global offshore wealth by looking at the gap between globally reported portfolio assets and portfolio liabilities. They then allocate this global offshore wealth stock to tax havens based on the global distribution of deposit flows, which they argue must be roughly proportional to wealth stocks. This provides data on the share of global offshore wealth stored in offshore financial centres and yields a shorter list of 17 jurisdictions which we will refer to as "key international financial centres". Figure 3 depicts the distribution of global offshore wealth in 2011 and the change between 2011 and 2015.[12]

Second, we look at whether jurisdictions previously had mechanisms in place that limited the exchange of information for tax purposes. Johannesen and Zucman (2014) identify a list of 52 "tax havens" that failed to satisfy the three pre-conditions for exchange of information to be effective: availability, access and exchange (OECD, 2006). We refer to these jurisdictions as "J&Z Low-transparency jurisdictions". It is important to note that this list is used for analytical purposes and does not reflect jurisdictions' current exchange of information legislation. The 35 jurisdictions on the J&Z list that do not host a significant share of offshore wealth are referred to as "non-key international financial centres".

Figure 3. Distribution of global offshore wealth, 2011 and the change between 2011 and 2015



Note: Estimated offshore wealth held in the 17 key international financial centres.
Source: Alstadsæter, Johannesen, and Zucman (2017)

[12] A less direct method of proxying for incoming offshore flows is by considering countries total stock of portfolio assets and incoming deposit flows. In the robustness section, we test for these variables as well.

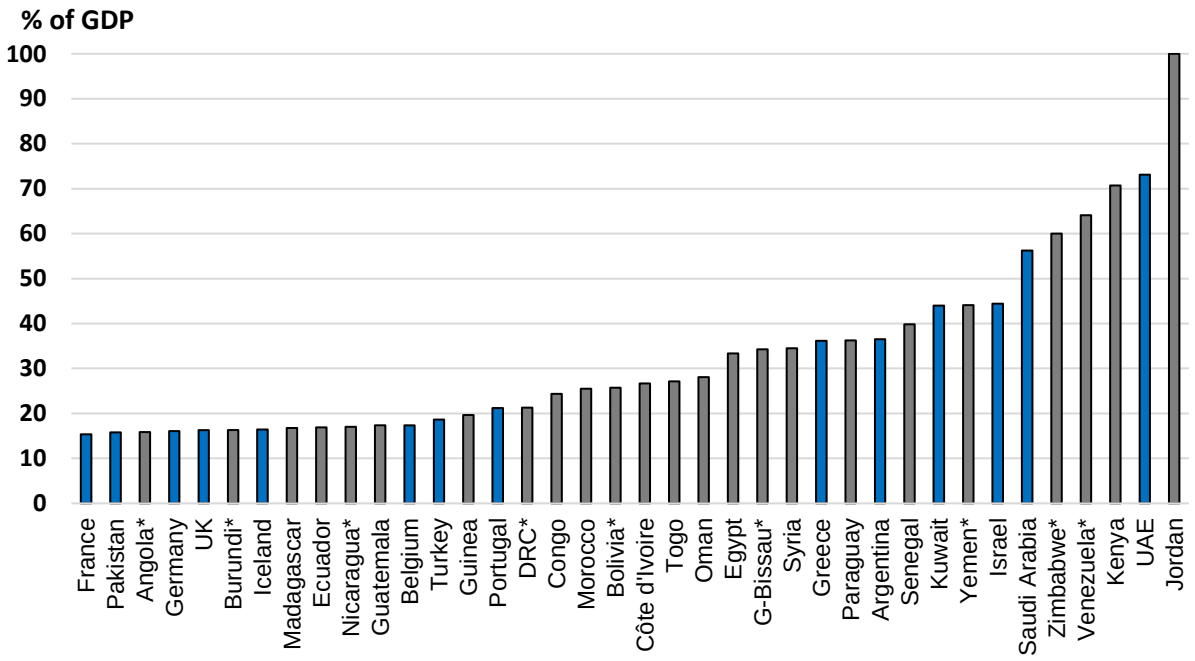
Third, there is a group of jurisdictions that "facilitate" tax avoidance and evasion, and which can be referred to as "screening device-providing" financial centres (European Commission, 2019). Such financial centres often have weak regulations on disclosing the identities of company owners and are therefore used by companies and individuals to host shell companies that can be used to purchase fictitious services in an effort to channel funds and avoid paying tax. A 2019 EU study on estimating tax evasion makes an attempt at proxying shell company activity by the "excess of outgoing deposits that cannot be explained by standard economic activity" (European Commission, 2019). This is expressed in the form of weights that are a function of the global share of outgoing deposits of a country and its share in global GDP, such that any disproportionate share in outgoing deposits is associated with a higher weight. While necessarily imperfect, this provides a proxy variable for potential shell company activity across jurisdictions.

Onshore interest variables

As regards on-shore interests in raising revenue versus protecting individuals that engaged in capital flight, there are two main variables we apply. Alstadsæter et al. (2017) report the amount of wealth held offshore by citizens of jurisdictions worldwide, which we refer to as "wealth held offshore" as a percentage of GDP. Figure 4 reports the jurisdictions where citizens held wealth in excess of 15% of GDP offshore.

Onshore countries' interest in protecting and repatriating revenue can also be proxied by using top marginal tax rates. Harmonising data on top marginal tax rates is challenging, especially for capital gains tax rates. We use summaries from KPMG for individual income tax rates, complemented with data from national sources in order to construct a dataset on top marginal tax rates (KPMG, 2020).

Figure 4. Wealth held offshore as a percentage of GDP, 2007



Note: Jurisdictions marked in blue have exchanged information using the OECD's AEOI standard as of June 2020. Jurisdictions marked with an asterisk * are not currently members of the Global Forum. These estimates date back to 2007; thereafter offshore wealth data is obscured by the growing presence of shell companies. The value for Jordan falls outside the range of the figure and is equal to 211% of GDP.
Source: Alstadsaeter, Johannesen and Zucman, 2017

Reputation variables

For data on the reputation incentive hypothesis we create a set of dummy variables of jurisdictions that were on the respective OECD and FSF lists of cooperative/uncooperative jurisdictions. The OECD list constituted a set of 35 jurisdictions that were presented to OECD Ministers in 2000 as facilitating harmful tax practices. This list was presented as a warning rather than a formal blacklist, but Sharman (2006) argues that it essentially functioned as a black-list that 'encouraged' cooperation.

The Working Group on Offshore Financial Centres commissioned by the FSF identified 42 offshore centres in groups depending on their perceived quality of supervision and degree of cooperation. While the working group was primarily preoccupied with regulation to ensure financial stability, we expect such a list to also create potential reputation effects beyond financial stability. The FSF grouping lends itself well to investigate whether cooperative and non-cooperative jurisdictions have set a more cooperative course since being listed.

Other variables

We already described the use of EOIR agreements as a proxy for path dependence in international tax cooperation. The list of such agreements stems from OECD (2012). To test the compensation hypothesis, we use 2015 data on official development assistance (ODA) from the Development Assistance Committee members from the OECD's International Development Statistics Database. For the variable on the change in ODA, we focus on the period between 2009 and 2015, which is the period when the fight against tax evasion really took off.

As regards the control variables, governance quality is proxied by a measure of control of corruption from the World Bank Worldwide Governance Indicators (Kaufmann et al., 2010)[13]. Population, GDP and GDP per capita are from the World Bank Databank.

The data set is compiled for the 161 members of the Global Forum which have subscribed to tax coordination. The Global Forum includes all G20 and OECD member countries, all international financial centres and a number of emerging and developing economies. Concerns about a selection bias should be mitigated by the fact that all offshore centres of interest by any measure are now part of the Global Forum. Therefore, the sample of Global Forum members seems to be a reasonable country sample for our analysis of progress with tax transparency[14]. Table 3 provides the average value for each of the independent variables by country group, and Annex Table 2 provides full summary statistics.

Table 3. Summary of independent variables by group

[13] For a few countries we had to impute values for corruption from comparable countries. Curacao and Sint Maarten were imputed with the value from Aruba; Guernsey, Gibraltar and Isle of Man take on the value of the UK; San Marino=Italy; Monaco and Andorra=France; for British Virgin Islands, Montserrat and Turks and Caicos obtain the average value of Anguilla, Bermuda, Cayman Islands and US Virgin Islands; Cook Islands and Niue=New Zealand; Faroe Islands=Denmark.

[14] However, some of these countries have significant shares of wealth held offshore, and their exclusion from our analysis implies a degree of selection bias in empirical analysis of the onshore hypothesis.

	J&Z Low transparency jurisdictions	Key international financial centres	Non-key international financial centres	Remaining OECD countries	Remaining developing and emerging economies
Global offshore wealth share 2007	1.7	5.8	0.0	0.3	0.0
Global offshore wealth share 2015	1.7	5.5	0.0	0.6	0.0
Proxy weight for shell company	66.9	71.9	64.7	9.3	18.1
Wealth held offshore, % of GDP	n/a	n/a	n/a	10.6	15.8
Top individual income tax rate	23.2	18.4	26.0	41.0	23.3
Official development assistance	7.7	0.0	11.1	0.0	1.1
Change in ODA	3.0	0.0	4.3	0.0	-0.2
Corruption score	0.9	1.1	0.8	1.1	-0.3
Population	9.7	4.1	12.0	43.1	62.7
GDP	72.0	140.4	42.6	1695.4	363.1
GDP per capita	35,361	53,233	27,702	36,402	8,432

3.4 Estimation strategy

As our baseline estimation strategy, we test a simple linear probability model where the outcome of progress in implementing multilateral tax transparency instruments is dependent on the five distinct factors flowing from our hypothesis as well as a set of country characteristics:

$$y_i^* = \beta_1\, offshore\ interests + \beta_2\, onshore\ interests + \beta_3\, reputation + \beta_4\, compensation + \beta_5\, path\ dependence + u_i + \epsilon_i$$

In this equation, y_i^* represents the set of dependent variables that measure progress along the three dimensions of compliance, speed and comprehensiveness set out before. Because the dependent variables include both binary and continuous variables, we employ a simple linear regression model for our main regressions. This consistency will allow for greater ease of interpretation. While non-linear models such as probit or logit are often used to estimate binary dependent variables (in some cases rightly so), they, too have potential limitations (Gibson, 2019). A linear probability model may provide an equally good fit and may in some cases even be less biased (Angrist and Pischke, 2010; Gibson, 2019). We will compare our main results with alternative approaches in the robustness section. One other concern about linear probability models is that standard errors inherently contain heteroskedastic residuals, which we correct for by using Huber-White standard errors.

Further, β_1- β_5 represent a vector of coefficients associated with the sets of independent variables that correspond with the five hypotheses, with different proxy variables possible for each hypotheses, as described in the preceding section. Finally, $u_i$is a set of country-specific variables and ϵ_i an error term, both of which we assume to have normal distributions.

We present two sets of results. First, we present results separately for each of the five hypotheses, that is, for the various possible terms corresponding to β_1- β_5 in the equation above. This allows us to test each hypothesis separately. Subsequently, we will conduct regressions with a full set of independent terms. The challenge that we intend to address with this estimation strategy lies in a degree of multi-collinearity between some of the terms in our equation. Annex Table 3 shows bivariate correlations for the main independent variables. The OECD and FSF list variables, for example, are highly correlated with each other and with the J&Z tax haven list and other measures of offshore interests such as the shell company weights.

4. Results

Overall, the results broadly support most of our hypotheses. First, they confirm the importance of special interests in determining compliance, comprehensiveness and timeliness of participation in the international information exchange for tax purposes. In particular, jurisdictions with a large share of global offshore wealth, and to some extent those that host shell company activity, progress less in implementing the exchange of information standards. Special interests seem to be particularly dominant in jurisdictions that are large global players in providing offshore services.

Second, as regards onshore interests, high tax jurisdictions have higher participation, while those with significant wealth held offshore make less progress on the implementation of the automatic exchange of information standard. These special interest considerations, however, seem to have declined over time as participation became more global and compliance improved.

There is also some evidence that reputational motives may have mattered for the speed and comprehensiveness of participation. Moreover, jurisdictions that already participated more extensively in bilateral exchanges made more progress in implementing the multilateral instruments (path dependence). Finally, findings on the role of Official Development Assistance as a compensation for more information exchange are ambiguous.

4.1 Detailed estimations

Compliance

In a first set of tables, we report on the detailed estimation results for different proxy variables for each hypothesis, while controlling for country characteristics. Starting with compliance, there is a significantly negative correlation between the interests of international financial centres and compliance in the first round of EOIR assessments (Table 4, Column 1-5). The share of global offshore wealth, being identified as a low transparency jurisdictions, as well as the proxy variable for shell company activity are all negatively associated with compliance. This is supportive of the hypothesis of the protection of special interests in offshore jurisdictions. Offshore wealth as a share of GDP is, however, not significant.

Variables representing onshore interests (the size of flight capital and tax rates) are not significant (Columns 6-7). A listing by the OECD or an FSF classification, which are indicative of reputation considerations, do not matter for explaining the first round compliance rating (columns 8-9). By contrast, the number of pre-existing bilateral exchange partners comes out significant, providing support for the path dependence hypothesis (Column 9).

As regards ODA receipts and the compensation hypothesis, we looked at its general relevance as well as the relevance for the J&Z group of low transparency jurisdictions in particular, through an interaction term. Both variables do not contribute significantly to explaining compliance. All this points to the strong relevance of political economy considerations in explaining the first round EOIR ratings.

As regards the control variables, we find robust and significantly more compliance by larger jurisdictions and those with lower corruption, as suggested by the competence/capacity hypothesis. Jurisdictions with less corruption may also be less vulnerable to special interest capture. Per capita GDP, by contrast, was not significant.[15]

[15] We also examined whether an interaction variable of corruption and tax haven might be positively correlated with compliance (cooperation/reputation) and an interaction variable between per-capita GDP and wealth abroad as well (revenue maximisation) but both variables did not show significant results.

The picture changed somewhat with the second evaluation (EOIR Round 2) and special interest motives seemed to matter somewhat less (see the final column in Table 4, which provides a synthesis of estimation results). The share of global offshore wealth loses some significance. This is consistent with the fact that a number of key international financial centres have already conducted a second round review, and a number of these (including Jersey, Guernsey and Singapore) received a higher rating than in Round 1. However, given that Round 2 has not yet been completed, it is too early to draw conclusions on how the dynamics have changed.

Global offshore wealth share, other offshore interest variables and shell company activity still seems to matter, though coefficients are often smaller. In addition, the OECD list variable now has a slightly significant negative sign, suggesting that jurisdictions that were called out 20 years ago may still lag behind others.

While participation in earlier bilateral exchange agreements is not significant, ODA receipts are positively associated with compliance in Round 2. This, however, does not hold for the J&Z group of low-transparency jurisdictions, as the coefficient of the ODA term and the interaction term with these jurisdictions broadly cancel out. It thus seems that the compensation effect of official development assistance indeed makes a difference, but not for those jurisdictions where it would matter most.

Speed of participation

Looking at the speed of participation, our hypothesis of offshore rent protection continues to hold (Table 5). A larger share of global offshore wealth, in particular, is strongly associated with a slower implementation of the multilateral Convention. This is not the case for non-key international financial centres or offshore wealth as a share of GDP, suggesting that it is really the major offshore wealth holders that may have resisted the implementation of the Convention; a strong sign of rent protection motives at play. The J&Z low-transparency variable and shell company activity are also associated with a slower implementation of the Convention.

As regards the other hypotheses, onshore interests also played a role: jurisdictions with higher individual income tax rates took less time to implement the Convention. Pre-existing bilateral collaboration is correlated with shorter implementation lags. By contrast, reputation motives and ODA are not significantly associated with faster or slower implementation.

As for the other measure of speed, a dummy variable for early implementation of the AEOI standard, special interest motives also matter. Jurisdictions with more offshore wealth are less likely to be part of the group of early implementers, whereas those with higher income tax rates are (slightly) more likely to be so. Reputation considerations did not seem to matter for an early AEOI commitment while the path-dependence hypothesis is confirmed. Finally, the ODA variables are not significant.

As regards the control variables, less corrupt and bigger jurisdictions took less time to implement the multilateral Convention, in line with the governance and capacity hypotheses. For early implementation of the AEOI standard, GDP per capita shows up positively significant.

Comprehensiveness

Finally, as regards the comprehensiveness of agreements for information exchange, where more comprehensiveness implies a more global reach and, thus, less scope for leakages in the system, the overall pattern is similar, although slightly more nuanced.

First, going back 10 years and estimating the determinants of extent of bilateral exchange agreements, the findings of Elsayyad (2012) are broadly confirmed (Table 6, Column 1). A larger share of global

offshore wealth in 2007 was correlated with fewer bilateral partners, whereas higher top income tax rates was associated with more partners. Moreover, reputational considerations resulting from OECD listing seems to have had a positive effect on cooperation, in addition to lower corruption.

Of greater interest are the findings on the comprehensiveness of participation in the AEOI. Three vintages allow the analysis of the motives underlying (an increasing) participation in automatic exchange between 2017 and 2020 (Columns 2-4). Higher shares of offshore wealth are associated with fewer automatic exchange partners, but offshore wealth as a share of GDP is not. The coefficient for global offshore wealth share in 2017 is stronger than in later years, which confirms that major offshore wealth centres did improve their exchange network over time.

In the last two vintages, international financial centres without major offshore wealth shares showed to be positively significant while having a larger share of global offshore wealth was associated with less exchange partners. This suggests a divergence between key and non-key international financial centres, where the larger group of low-transparency jurisdictions seem to take a cooperative stance and bolster their exchange network, as opposed to the 17 major international financial centres. In addition, jurisdictions with shell company activity seem to have become more cooperative over time. All this points to a significant (but declining) role of special interest protection among key international financial centres in terms of the comprehensiveness of their AEOI participation. It also suggests an increasingly cooperative stance among other low-transparency jurisdictions and international financial centres.

At the same time, jurisdictions with more offshore wealth held abroad also had fewer exchange partners, potentially to protect the domestic wealth owners in line with the onshore rent protection hypothesis. This did not change over the three vintages. The (weak) significance of the top marginal income tax rate variable disappeared as of 2018.

These findings do confirm the relevance of reputational motives for the number of exchange partners in AEOI. The jurisdictions on the OECD list and the non-cooperative FSF jurisdictions were likely to have more exchange partners. Findings also confirm the path dependence hypothesis for all three vintages.

By contrast, the results for the ODA variable are peculiar: jurisdictions with more ODA were likely to have fewer exchange partners while this negative effect was offset completely for J&Z low-transparency jurisdictions. This could be due to the fact that ODA receiving developing countries simply have relations with fewer countries—except when they are financial centres. As regards control variables, less corruption, a larger population and more prosperity are all correlated with more exchanges, as expected.

Table 4. Regression results for Compliance dimension

	Exchange of Information on Request Assessment Round 1												Round 2
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		(1) - (11)
Offshore interests													
Global offshore wealth share	-0.031***											(1)	-0.016*
Log Offshore wealth as a % of GDP		-0.016										(2)	n.s.
Low-transparency jurisdiction (J&Z list)			-0.369***									(3)	-0.369***
Key international financial centres				-0.373***								(4)	n.s.
Non-key international financial centres				-0.439***								(4)	-0.528***
Proxy weight for shell company activity					-0.003**							(5)	-0.004**
Onshore interests													
Wealth held offshore as a share of GDP						-0.004						(6)	n.s.
Top individual income tax rate							0.005					(7)	n.s.
Reputation incentives													
OECD blacklist (2000)								-0.020				(8)	-0.384*
FSF Group 1 (Cooperative)									-0.067			(9)	n.s.
FSF Group 2 (Semi cooperative)									-0.076			(9)	n.s.
FSF Group 3 (Non-cooperative)									-0.068			(9)	n.s.
Path dependence													
Bilateral exchange partners (2012)										0.017***		(10)	n.s.
Compensation													
Low-transparency jurisdiction (J&Z list)											-0.350***	(11)	-0.342**
ODA % of GDP											0.050	(11)	0.169**
J&Z list * ODA % of GDP											-0.051	(11)	-0.167**
Control variables													
Corruption score (higher = less corruption)	0.160**	0.139*	0.168**	0.183**	0.135*	0.135*	0.147	0.145*	0.144*	0.066	0.165**		n.s.
Log Population	0.080***	0.074***	0.032	0.029	0.042*	0.080***	0.069***	0.073***	0.068***	0.089***	0.035		pos-**
Log GDP per capita	0.087*	0.081	0.070	0.067	0.072	0.073	0.063	0.067	0.072	0.058	0.086		pos*-***
Constant	1.103**	1.168**	1.442***	1.497***	1.405***	1.253***	1.189*	1.289***	1.270***	1.282***	1.273**		n.s.
N	119.000	119.000	119.000	119.000	118.000	119.000	104.000	119.000	119.000	119.000	119.000		107-123
R2	0.250	0.220	0.276	0.298	0.249	0.223	0.241	0.216	0.219	0.271	0.278		0.135-0.212
Adjusted R2	0.223	0.192	0.250	0.267	0.223	0.196	0.211	0.189	0.177	0.246	0.239		0.091-0.178

Note: Regressions for Round 2 use the Round 1 score for jurisdictions that have not yet undergone a Round 1 review. Standard errors available on request. Significance reported as follows: *=p<0.10, **=p<0.05, ***=p<0.0; in the summary for EOIR Round 2 equations (1-10), for control variables and the constant, significance ranges are provided, with a range starting with "-" denoting that at least one coefficient was not significant.

Table 5. Regression results for Speed dimension

		Months to implement multilateral Convention (1) - (11)	Automatic exchange early commitment (1) - (11)
Offshore interests			
Global offshore wealth share	(1)	1.872***	-0.027***
Log Offshore wealth as a % of GDP	(2)	n.s.	n.s.
Low transparency jurisdiction (J&Z list)	(3)	14.987**	-0.196**
Key international financial centres	(4)	17.842**	n.s.
Non-key international financial centres	(4)	n.s.	-0.206**
Proxy weight for shell company activity	(5)	0.157*	n.s.
Onshore interests			
Wealth held offshore as a share of GDP	(6)	n.s.	n.s.
Top individual income tax rate	(7)	-0.723***	0.006*
Reputation incentives			
OECD blacklist (2000)	(8)	n.s.	n.s.
FSF Group 1 (Cooperative)	(9)	n.s.	n.s.
FSF Group 2 (Semi cooperative)	(9)	n.s.	n.s.
FSF Group 3 (Non-cooperative)	(9)	n.s.	n.s.
Path dependence			
Bilateral exchange partners (2012)	(10)	-1.275***	0.010**
Compensation			
Low transparency jurisdiction (J&Z list)	(11)	17.055**	-0.207**
ODA % of GDP	(11)	n.s.	n.s.
J&Z list * ODA & of GDP	(11)	n.s.	n.s.
Control variables			
Corruption score (higher = less corruption)	(1) - (11)	neg-***	n.s.
Log Population	(1) - (11)	neg-***	n.s.
Log GDP per capita	(1) - (11)	n.s.	pos**-***
Constant		pos-**	neg*-***
N		112-124	129-161
R2		0.161-0.252	0.220-0.268
Adjusted R2		0.133-0.238	0.195-0.249

Note: Early commitment in the automatic exchange represents a value of 1 for jurisdictions that implemented the AEOI in 2017 and a value of 0 for all other jurisdictions. Standard errors available on request. Significance reported as follows: *=p<0.10, **=p<0.05, ***=p<0.0; for control variables and the constant significance ranges are provided, with a range starting with "-" denoting that at least one coefficient was not significant.

Table 6. Regression results for Comprehensiveness dimension

		Bilateral exchange partners (1) - (11)	Automatic exchange partners 2018 (1) - (11)	Automatic exchange partners 2019 (1) - (11)	Automatic exchange partners 2020 (1) - (11)
Offshore interests					
Global offshore wealth share	(1)	-0.335***	-1.260***	-0.882**	-0.936**
Log Offshore wealth as a % of GDP	(2)	n.s.	n.s.	n.s.	n.s.
Low-transparency jurisdiction (J&Z list)	(3)	n.a.	n.s.	n.s.	18.629***
Key international financial centres	(4)	n.s.	n.s.	n.s.	n.s.
Non-key international financial centres	(4)	n.s.	n.s.	14.396**	21.034***
Proxy weight for shell company activity	(5)	n.s.	n.s.	0.122**	0.131**
Onshore interests					
Wealth held offshore as a share of GDP	(6)	n.s.	-0.137***	-0.139***	-0.153***
Top individual income tax rate	(7)	0.108**	0.242*	n.s.	n.s.
Reputation incentives					
OECD blacklist (2000)	(8)	4.028*	n.s.	11.188*	19.184***
FSF Group 1 (Cooperative)	(9)	-7.646**	n.s.	n.s.	n.s.
FSF Group 2 (Semi cooperative)	(9)	n.s.	n.s.	n.s.	n.s.
FSF Group 3 (Non-cooperative)	(9)	n.s.	12.044*	23.204***	23.532***
Path dependence					
Bilateral exchange partners (2012)	(10)	n.a.	0.396*	0.407*	n.s.
Compensation					
Low-transparency jurisdiction (J&Z list)	(11)	n.s.	9.298**	15.972***	17.735***
ODA % of GDP	(11)	n.s.	-3.091**	-3.043*	-4.261**
J&Z list * ODA % of GDP	(11)	n.s.	2.798*	2.750*	4.123**
Control variables					
Corruption score (higher = less corruption)	(1) - (11)	pos***	pos-***	pos-**	pos-*
Log Population	(1) - (11)	neg-***	pos-***	pos-***	pos-**
Log GDP per capita	(1) - (11)	n.s.	pos***	pos***	pos***
Constant		n.s.	neg***	neg***	neg***
N		129-161	129-161	129-161	129-161
R2		0.445-0.496	0.426-0.526	0.399-0.525	0.416-0.559
Adjusted R2		0.430-0.477	0.407-0.507	0.350-0.487	0.397-0.542

Note: Significance reported as follows: *=p<0.10, **=p<0.05, ***=p<0.0; for control variables and the constant significance ranges are provided, with a range starting with "-" denoting that at least one coefficient was not significant.

4.2 Full estimations

The detailed estimations gave us a good overview of the relevance of variables and variable groups with respect to our hypotheses. We now present findings from a number of combined models with a selection of variables for each hypothesis in order to monitor the consistency of our findings (Table 7). On the whole, the findings are consistent across the two approaches. However, the risk of multicollinearity across variables (e.g. high tax rates and offshore wealth) and variable groups (e.g. correlation between the OECD 2000 list and the J&Z group of low transparency jurisdictions) warrants care when interpreting findings. We report results on compliance (EOIR Round 1 in columns 1-4), speed (multilateral convention in conventions 5-8) and comprehensiveness (AEOI partners in 2018 in columns 9-12).

In broad terms, our main results from the individual regressions continue to hold. In all regressions, a higher share of global offshore wealth is significantly associated with less progress, be it in terms of compliance, speed, or comprehensiveness. The picture is less clear when it comes to the J&Z low-transparency variable. While the coefficient for this variable is (mildly) significant in some, this does not count for all regressions. This supports earlier findings that while the major offshore centres seem to have made less progress, other jurisdictions that have also been considered low-transparency jurisdictions due to their previous exchange of information record seem to have taken a more cooperative stance. The shell company variable is significant only in the EOIR compliance estimations.

As for onshore interests, the dual pattern we witnessed earlier also persists. On one hand, jurisdictions with higher income tax rates achieve significantly more progress in the case of the speed of implementation of the multilateral Convention and to some extent also the comprehensiveness of AEOI implementation. On the other hand, those jurisdictions with the most wealth held offshore, and therefore with most to gain from implementation, appear to have significantly fewer automatic exchange partners.

As regards reputation considerations, we found the FSF listings to be quite relevant for compliance and comprehensiveness. We also find continued strong evidence for the path dependence hypothesis. By contrast, we do not find the official development assistance variables to be significant, except as regards automatic exchange partners where the level of ODA has a significant negative coefficient. This may again be due to the smaller number of exchange partners and the lack of progress among very poor countries.

We find moderately supportive results for the set of country controls. For speed and comprehensiveness, less corruption is correlated with more progress. Population size is positively correlated with speed and comprehensiveness while prosperity correlates positively and significantly with comprehensiveness. This is broadly in line with our capacity and governance hypotheses, though not for all estimations.

Table 7. Full regression results

	Compliance: Exchange of Information on Request Assessment Round 1				Speed: Months to implement multilateral Convention				Comprehensiveness: Automatic exchange partners 2018			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(13)	(14)	(15)	(16)
Offshore interests vs. cooperation												
Global offshore wealth share	-0.045***	-0.049***			1.922**	1.669*			-2.255***	-2.656***		
Low-transparency jurisdiction (J&Z list)			-0.415**	-0.403**			8.039	11.198			9.268*	7.909
Proxy weight for shell company activity	-0.007***	-0.007***	-0.005**	-0.005**	0.281*	0.274**	0.226	0.253*	-0.104	-0.162*	-0.106	-0.113
Onshore interests vs. welfare gains												
Wealth held offshore as a share of GDP	-0.002		-0.004	-0.004	0.245		0.284	0.256	-0.121***		-0.095**	-0.080*
Top individual income tax rate		0.001				-0.505***				0.260*		
Cooperation and reputation incentives												
FSF Group 1 (Cooperative)	0.744***	0.801***	0.514**	0.495**	-20.746	-20.801	-7.315	-11.024	24.799**	32.865***	2.865	4.543
FSF Group 2 (Semi cooperative)	0.252	0.360*	0.368*	0.350	-0.546	-6.568	-1.399	-4.982	13.308	23.774**	5.822	7.514
FSF Group 3 (Non-cooperative)	0.333*	0.432**	0.363*	0.361*	-16.834	-21.357**	-14.737	-16.232	24.898***	37.387***	16.818**	17.186**
Path dependence vs. new commitments												
Bilateral exchange partners (2012)	0.016***	0.014***	0.016***	0.016***	-0.914***	-0.802**	-1.004***	-0.960***	0.074	-0.323	0.211	0.203
Compensation vs. autonomy												
ODA % of GDP	-0.004**	0.003	-0.001	0.039	0.193	-0.121	0.133	6.503	-0.348***	-0.030	-0.346***	-2.430
J&Z list * ODA % of GDP				-0.040				-6.337				2.072
Control variables												
Corruption score (higher = less corruption)	0.082	0.110	0.075	0.068	-7.627	-6.099	-7.137	-9.324**	7.536**	7.875**	5.847*	6.892**
Log Population	0.069**	0.082*	0.036	0.037	-2.543*	-0.849	-1.881	-1.275	3.656***	4.164***	3.620***	3.389***
Log GDP per capita	0.041	0.050	0.037	0.055	-1.996	-1.262	-1.593	1.932	9.835***	11.922***	9.469***	7.710***
Constant	1.624***	1.418**	1.781***	1.599**	75.477**	81.024*	70.105*	33.581	-67.685***	-96.135***	-66.267***	-48.597**
N	118.000	103.000	118.000	118.000	121.000	109.000	121.000	121.000	158.000	126.000	158.000	158.000
R2	0.379	0.386	0.382	0.383	0.305	0.376	0.288	0.302	0.573	0.531	0.551	0.555
Adjusted R2	0.315	0.311	0.318	0.312	0.235	0.305	0.216	0.225	0.541	0.486	0.517	0.518

Note: Significance reported as follows: *=p<0.10, **=p<0.05, ***=p<0.0.

5. Robustness

The findings we present in this paper are subject to a number of assumptions. First, as addressed in the empirical strategy section, a linear model may not provide the best fit for a categorical variable like the EOIR score or the early implementation of the AEOI. For this reason, we apply an ordered logistic model to the EOIR regressions and a logit model to the early implementation of the AEOI. The ordered logistic model for the EOIR score, both for the individual regressions (reported in Tables 4-6) and for the combined regressions (reported in Table 7), produces virtually identical results in terms of the sign and significance of the coefficient terms. This suggests that the linear model indeed does an adequate job of approximating the function and that the results hold. As for the early implementation of the AEOI, results are broadly similar but we lose a degree of significance on the share of global offshore wealth.

The second assumption we make in our regressions pertains to the reference group used. Deciding which jurisdictions to include may influence results and is not necessarily obvious. For example, in our main regressions on the implementation time of the multilateral convention, we exclude jurisdictions that have not yet implemented the multilateral Convention, as amended (which amounts to roughly 25% of Global Forum members, as reported in Figure 2). This means we focus primarily on developed and emerging economies and the vast majority of offshore wealth centres, i.e. those jurisdictions that have committed to implement the AEOI standard.

As an alternative, we assign all Global Forum members who have not implemented the multilateral Convention, as amended, a value of 109 months, which is equivalent to the latest implementing country. Doing so yields roughly consistent results: the share of global offshore wealth remains positive, but the weak significance of shell company activity disappears. The broader J&Z low-transparency dummy also loses significance. At the same time, the coefficient on the wealth held offshore becomes significant and positive. This may be testimony to the claim that developing countries in particular have significant wealth held offshore, yet have often not taken the steps to implement the instruments that would allow for raising taxes on this wealth (which can be explained by both the capacity but also the rent protection hypotheses).

Conversely, in the main regression results on AEOI partners we assigned jurisdictions that have not implemented the AEOI a score of 0, as they have no exchange partners. While this is formally correct, just over 100 of the 161 Global Forum members were asked to commit to implementation or did so voluntarily. Alternatively, we can look at the number of partners of the jurisdictions that did commit to implementation. Doing so reveals that our main results on the significance of the share of global offshore wealth holds, but only in the year 2017. After the year 2017, offshore wealth is no longer significant, as opposed to what we found in the headline regression. This is reflective of the idea that ultimately, key international financial centres indeed participated, but perhaps mainly "dragged their feet" in increasing their exchange networks.

A number of dependent territories in our sample implemented the Multilateral Convention by extension of the jurisdiction that carries responsibility for its international treaty obligations[16]. In these jurisdictions, special interest motives may have played a more limited role in the decision to adhere to the Convention as the benefits from facilitating tax avoidance and evasion affect more strongly the dependent territory itself than the jurisdiction with the competence of signing the Convention. We

[16] These include the British Overseas Territories and Crown Dependencies, the autonomous countries within the Kingdom of the Netherlands, as well as Greenland and the Faroe Islands and Hong Kong (China) and Macao (China).

examine whether our results on the speed of implementation hold with the exclusion of these 17 dependent territories. These findings show that indeed, key variables on offshore wealth and shell companies remain significant drivers of the months taken to implement the multilateral Convention.

Finally, we test a number of alternative variables in order to assess whether they shed any more light on our findings. We find that using the capital gains tax rate yields similar findings to using the individual income tax rate, which is notably significant in the speed of implementation of the multilateral Convention, as amended.

6. Conclusions and Outlook

The paper examines empirically the dynamics underlying the implementation of the multilateral standards for international exchange of information for tax purposes. This agenda has developed significantly over the past decade since the creation of the OECD/Global Forum standard for the Exchange of Information upon Request (EOIR), to which over 160 jurisdictions are now committed. This was complemented by the standard for the automatic exchange of financial account information (AEOI) in 2014, which over 100 jurisdictions have now implemented, starting exchanges as from 2017.

Overall, the results broadly support our hypotheses. First, they confirm the importance of special interests in determining compliance, comprehensiveness and timeliness of participation in the international information exchange for tax purposes. In particular, jurisdictions with a significant share of global offshore wealth, and to some extent those that host shell company activity, make less progress in implementing the exchange of information standards along the three dimensions. At the same time, we also find some evidence that the group of J&Z low-transparency jurisdictions that do not own a significant share of global offshore wealth have taken a cooperative stance, at least in terms of the comprehensiveness of their AEOI implementation.

Second, as regards onshore interests, high tax jurisdictions seem to participate more, while those with significant wealth held offshore seem to lag behind in implementing the automatic exchange of information standard. This partly reflects the fact that a number of developing and emerging economies whose residents hold significant wealth held offshore have not yet implemented the standard (and could benefit significantly from its adoption).

Third, there is some evidence that reputational motives may have mattered for the speed and comprehensiveness of participation. Fourth, jurisdictions that already participated more extensively in bilateral exchanges made more progress in implementing the multilateral instruments (path dependence). Fifth, findings on the role of Official Development Assistance as a compensation for more information exchange are ambiguous.

The findings of this study are quite encouraging and would not have been thought possible a decade ago. The adoption of the AEOI standard seems to be as close as what is possible to the “big bang” agreement and in conjunction with the EOIR, a system has emerged that allows to combat tax evasion successfully. The fact that participation is becoming more and more “global” and compliance improves is a strong sign of success.

Still, special interest motives continue to play a role in the three dimensions of participation. A small number of uncooperative players may continue to jeopardise the global effort, as is evidenced by studies documenting a relocation of offshore wealth. International financial centres can cooperate with the multilateral standards while providing other avenues for tax evasion. For example, there are signs of “new types” of evasion such as “residency or citizenship-by-investment” arrangements, which

fall outside the parameters of this cooperation. Since this a rather far-reaching and costly step, it can still be hoped that it remains the exception and international tax evasion continues to decline.

Overall, the tax transparency agenda is a testimony to the idea that countries can address the shortcomings of the global international economic architecture in a multilateral context, as called for by G20 leaders in 2009. In a time when trust in governments is fragile, the continued willingness of governments to cooperate will be an important factor for the continued support of our democratic market economy model. For those that are sceptical about tax coordination, one can argue that information exchange rightly undermines the kind of tax competition that is based on predatory behaviour and introduces an international level playing field in line with market-oriented economic thinking.

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Annex Table 1. Summary statistics for dependent variables

Variable name	Obs	Mean	Median	Std. Dev.	Min	Max
EOIR Round 1 assessment	119	2.1	2.0	0.5	0.0	3.0
EOIR Round 2 assessment	67	2.1	2.0	0.6	0.0	3.0
AEOI early implemntation	172	0.3	0.0	0.5	0.0	1.0
Months to implement multilateral Convention	124	50.9	49.0	30.4	1.0	109.0
AEOI partners 2017	161	29.7	36.0	27.5	0.0	67.0
AEOI partners 2018	161	35.6	53.0	31.0	0.0	69.0
AEOI partners current	161	41.3	63.0	32.8	0.0	72.0
TIEA partners 2012	172	5.6	0.0	9.1	0.0	32.0
Bilateral exchange partners 2010	161	15.8	0.0	26.6	0.0	98.0

Annex Table 2. Summary statistics for independent variables

Variable name	Variable description	Obs	Mean	Median	Std. Dev.	Min	Max
Global offshore wealth share 2007	Estimate of 2007 share of global offshore wealth held by each jurisdiction	161	0.60	0.00	3.80	0.00	45.96
Global offshore wealth share 2015	Estimate of 2015 share of global offshore wealth held by each jurisdiction	161	0.62	0.00	2.81	0.00	25.67
Offshore wealth as % of GDP 2007	Estimate of 2007 offshore wealth in jurisdiction as a share of GDP	161	174.31	0.00	1264.74	0.00	13221.89
Offshore wealth as % of GDP 2015	Estimate of 2015 offshore wealth in jurisdiction as a share of GDP	161	187.50	0.00	1552.33	0.00	19179.62
Low-transparency jurisdictions (J&Z list)	List of 52 jurisdictions that failed to satisfy exchange of information conditions, 2014	161	0.31	0.00	0.46	0.00	1.00
Key international financial centres	List of 17 international financial centres that hold a significant share of offshore wealth	161	0.11	0.00	0.31	0.00	1.00
Non-key international financial centres	List of 35 low-transparency jurisdictions (J&Z list) that do not hold a significant share of global offshore wealth	161	0.22	0.00	0.41	0.00	1.00
Proxy weight for shell company activity	Excess outgoing deposits that could not be explained by standard economic activity	158	31.42	16.40	36.01	0.00	99.80
Portfolio assets	Portfolio equity assets as a share of GDP, 2010	154	186.63	3.09	1003.91	0.00	11162.03
Financial system deposits	Financial system deposits as a share of GDP, 5-year average, 2012-2016	136	65.19	53.85	52.70	2.53	385.75
Wealth held offshore as a share of GDP	Total amount held offshore as a share of GDP, 2015	161	9.00	3.44	20.27	0.00	211.01
Top individual income tax rate	Top marginal individual income tax rate	129	27.36	27.50	15.81	0.00	58.95
Capital gains tax rate	Top individual capital gains tax rate	143	14.59	15.00	12.08	0.00	55.00
OECD public list	List of 33 jurisdictions with harmful tax practices identified by OECD in 2000	161	0.20	0.00	0.40	0.00	1.00
FSF Group I	List of 8 offshore financial centres identified by the FSF as generally cooperative	161	0.05	0.00	0.22	0.00	1.00
FSF Group II	List of 8 offshore financial centres identified by the FSF as generally semi-cooperative	161	0.05	0.00	0.22	0.00	1.00
FSF Group III	List of 25 offshore financial centres identified by the FSF as generally uncooperative	161	0.16	0.00	0.36	0.00	1.00
Official development assistance	Official development assistance by DAC members as a share of GDP, 2015	161	2.96	0.01	17.37	-0.01	203.90
Change in ODA	Change in ODA share of GDP, 2009-2015	161	0.84	0.00	9.27	-5.02	115.90
Corruption score	Control of corruption, World Governance Indicator, 2017	161	0.33	0.19	0.98	-1.43	2.24
Population	Size of population, in millions, 2017	161	42.48	5.64	159.52	0.01	1392.73
GDP	Aggregate GDP, in US$ billion, 2017	161	510.82	37.75	2025.71	0.01	20494.10
GDP per capita	Current US$, 2017	161	21779.28	10749.06	27220.52	378.06	168010.90

Annex Table 3. Correlation matrix independent variables

	Offshore wealth	J&Z list	Shell company weight	Wealth held onshore	Indiv. Income tax rate	OECD list	FSF Group 1	FSF Group 2	FSF Group 3	ODA	TIEA partners	Corr. score	Pop.	GDP
J&Z list	0.25													
Shell company weight	0.11	**0.66**												
Wealth held onshore	-0.08	-0.27	-0.13											
Individual income tax rate	0.00	-0.18	-0.28	-0.06										
OECD list	-0.05	**0.72**	**0.62**	-0.21	-0.25									
FSF Group 1	**0.62**	0.28	0.26	-0.09	0.02	0.10								
FSF Group 2	-0.01	0.34	0.22	-0.10	-0.15	0.24	-0.05							
FSF Group 3	-0.02	**0.56**	**0.60**	-0.18	-0.26	**0.63**	-0.10	-0.10						
ODA	-0.04	0.19	-0.05	-0.05	-0.03	0.26	-0.04	-0.04	0.22					
TIEA partners	0.14	0.32	0.32	-0.16	0.25	0.39	0.06	0.12	0.27	-0.04				
Corruption score	0.28	0.40	0.21	-0.12	0.30	0.25	0.34	0.16	0.14	0.12	**0.64**			
Population	-0.01	-0.14	-0.20	-0.02	0.14	-0.10	-0.06	-0.06	-0.07	0.13	-0.07	-0.09		
GDP	0.17	-0.15	-0.18	-0.01	0.21	-0.13	-0.03	-0.06	-0.11	-0.04	0.07	0.11	**0.56**	
GDP per capita	0.32	0.34	0.21	-0.11	0.06	0.15	0.38	0.35	0.02	-0.10	0.55	**0.69**	-0.10	0.11

Note: Correlation coefficients >0.5 are marked in bold.

Annex Table 4. Classifications of low-transparency jurisdictions and international financial centres

	Low-transparency jurisdictions (J&Z list)	Share of global offshore wealth	Share of offshore wealth as % of GDP	OECD 2000 blacklist	FSF Group 1	FSF Group 2	FSF Group 3
	List of 52 jurisdictions that failed to satisfy one of the basic principles one of the enabling conditions for exchange of information (Johannesen and Zucman, 2014)	Based on estimates from Alstadsaeter, Johannesen and Zucman (2017)	Based on estimates from Alstadsaeter, Johannesen and Zucman (2017)	List of financial centres with harmful tax practices from 2000 OECD report to the Ministerial Council Meeting	Offshore financial centers generally viewed as cooperative, with a high quality of supervision, which largely adhere to international standards	Offshore financial centers generally seen as having procedures for supervision and cooperation in place, but where actual performance falls below international standards	Offshore financial centers generally seen as having a low quality of supervision, and/or being non-cooperative with onshore supervisors
Andorra	(x)			(x)		(x)	
Anguilla	(x)			(x)			(x)
Antigua and Barbuda	(x)			(x)			(x)
Aruba	(x)			(x)			(x)
Austria	(x)						
Bahamas	(x)	2.06%	1461.23%	(x)			(x)
Bahrain	(x)	2.54%	581.31%	(x)		(x)	
Barbados	(x)			(x)		(x)	
Belgium	(x)						
Belize	(x)			(x)			(x)
Bermuda	(x)	0.11%	171.37%			(x)	
British Virgin Islands	(x)			(x)			(x)
Cayman Islands	(x)	7.93%	19179.62%				(x)
Chile	(x)						
Cook Islands	(x)			(x)			(x)
Costa Rica	(x)						(x)
Curacao	(x)						
Cyprus	(x)	0.90%	319.21%				(x)
Dominica	(x)			(x)			
Gibraltar	(x)			(x)		(x)	
Grenada	(x)			(x)			
Guernsey	(x)	1.35%	337.61%	(x)	(x)		
Hong Kong	(x)	16.51%	392.65%		(x)		
Ireland					(x)		
Isle of Man	(x)	1.22%	1602.27%	(x)	(x)		
Jersey	(x)	2.41%	4075.05%	(x)	(x)		
Lebanon							(x)
Liberia	(x)			(x)			
Liechtenstein	(x)			(x)			(x)
Luxembourg	(x)	8.29%	1029.59%		(x)		
Macau	(x)	1.41%	222.71%			(x)	
Malaysia	(x)	0.92%	22.35%				
Maldives				(x)			
Malta	(x)					(x)	
Marshall Islands	(x)			(x)			(x)
Mauritius							(x)
Monaco	(x)			(x)		(x)	
Montserrat	(x)			(x)			
Nauru	(x)			(x)			(x)
Niue	(x)			(x)			(x)
Panama	(x)	1.59%	210.87%	(x)			(x)
Samoa	(x)			(x)			(x)
San Marino	(x)						
Seychelles	(x)			(x)			(x)
Singapore	(x)	10.00%	237.09%		(x)		
Sint Maarten (Dutch part)	(x)			(x)			(x)
St. Kitts and Nevis	(x)			(x)			(x)
St. Lucia	(x)			(x)			(x)
St. Vincent and the Grenadines	(x)			(x)			(x)
Switzerland	(x)	25.67%	314.23%		(x)		
Tonga*				(x)			
Trinidad and Tobago	(x)						
Turks and Caicos	(x)			(x)			(x)
United Arab Emirates							
United Kingdom		8.86%	27.07%				
United States		7.46%	3.14%				
US Virgin Islands*	(x)			(x)			
Uruguay	(x)						
Vanuatu	(x)			(x)			(x)