Where in the World Does Partnership Income Go? Evidence of a Growing Use of Tax Havens

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December 14, 2021

Abstract

Partnerships are the fastest growing class of business entity in the United States and represent over one third of reported business income, but due to their legal complexity and opaque nature economists have not yet been able to identify where a sizeable portion of this income goes. In this paper, I use US federal tax records from 2005-2019 to compile a comprehensive analysis covering 99% of the income flowing to the owners of partnerships. I find that a much larger portion goes to foreign owners than previously thought, and that most of this amount goes to tax havens—over $1 trillion since 2011. The majority of these flows likely face zero tax in either the US or in the tax haven. Evidence suggests a prevalent use of entity arrangements by investment firms that shield investors from tax and reporting. Evidence also suggests a substantial increase in income reported after the enactment of FATCA.

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1 Introduction

Partnerships are the fastest growing class of business entity in the United States and represent over one third of all reported business income, yet a substantial portion of this income has remained untraceable by economists.[1] Even after pioneering work by Cooper et al. (2016), who study federal tax records in 2011, about 20% of income is flowing to unidentifiable owners and 15% is caught within unresolvably complex entity arrangements.[2] Such opaqueness is not surprising. In fact, partnerships are often used in sophisticated tax planning for the very reasons that make them difficult to study: they are highly flexible "passthrough" entities that are not subject to federal income tax, they are governed by arcane rules that are often difficult to enforce, and they can be used to create complex multi-tier entity arrangements spanning multiple jurisdictions where the owners may have little connection to the United States.

In this paper I address this missing information, using new approaches that allow me to describe the country, domestic or foreign status, and type of recipient for over 99% of partnership income from 2005 to 2019. This effort is made possible by both drawing upon a broader set of federal tax records than before and by applying new algorithms to available data. As a result, this paper offers (1) the first look at trends in partnership income flows over time with administrative data, (2) the first detailed description of previously "missing" partners, and (3) new insights about the scale of the use of partnerships in international tax planning.

This paper offers three primary contributions to our understanding of where partnership income goes and who receives it. First, the new data reveal that much more partnership income flows to foreign owners than was previously thought.[3] About 17% of partnership income since 2011 has flowed to a foreign owner—roughly double the share estimated in Cooper et al. (2016).[4] Second, both the type of recipient (e.g. individual, corporation, trust, estate, etc.) and the character of income (e.g. dividends, interest, capital gain, etc.) varies significantly by destination, a fact that reveals important insights about how partnerships are used in investment

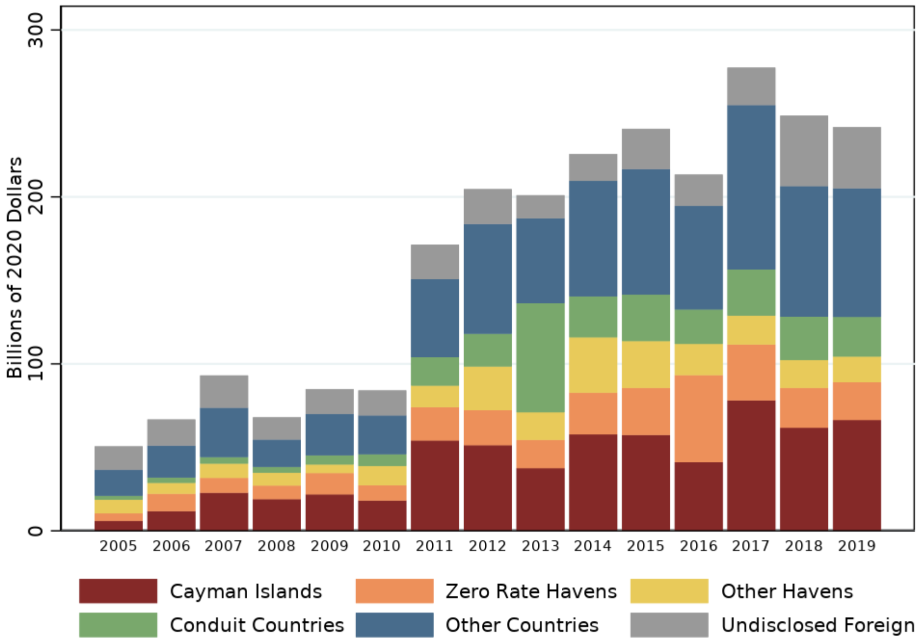
[1] Partnership income represented 38% of net business income in 2017 (including capital gains). Calculated from publicly available data from the IRS Statistics of Income. See Section 2 for details on the calculation. For a broader discussion of changes in business income over time, see Joint Committee on Taxation, Present Law and Data Related to the Taxation of Business Income, Hearing before the Senate Committee on Finance, September 19, 2017, JCX-42-17, available at https://www.jct.gov/publications/2017/jcx-42-17/.

[2] To be more precise, the work by Cooper et al. (2016) used 2011 tax data to describe the type of the partner (i.e. the entity type or individual) for 80% of partnership income, as well as the domestic or foreign status of the recipient for roughly 80% of partnership income. See Section 4 for additional details.

[3] I use "owner" throughout the paper to refer to the partners that are not themselves partnerships (e.g. individuals, corporations, trusts, estates, etc.). Partnerships can be (and are often) stacked into tiered structures, where partnerships are themselves partners in subsidiary partnerships. Because partnerships are passthrough entities, income flows up through these tiered structures, but it must "exit" the chain at some point by being allocated to a non-partnership "owner."

[4] Throughout the paper, I categorize individuals and entities as foreign or domestic for empirical analysis to align as closely as possible with their treatment under US federal tax rules. For example, business entities organized in the United States are domestic (even with a foreign address), while entities organized in foreign jurisdictions are foreign (even if they have a US address). See footnote 30 for a more detailed discussion.

Figure 1: Partnership Income Flowing to Foreign Owners, by Destination, 2005-2019



Notes: Amounts reflect the sum of net income flowing to each owner as reported on K-1s, by destination (i.e. excluding higher-tier partnerships, so the totals reflect only amounts received by non-partnership recipients). See Section 3 for a discussion of the measurement of net income. Countries in each category are listed in Table 1. The large jump between 2010 and 2011 is discussed in Section 6. "Undisclosed foreign" partners refer to individuals and entities that I can determine to be foreign, but for whom the country of residence for tax purposes cannot be determined from the information given, usually because they report a US address without identifying their country of tax residence.

structures and tax planning.

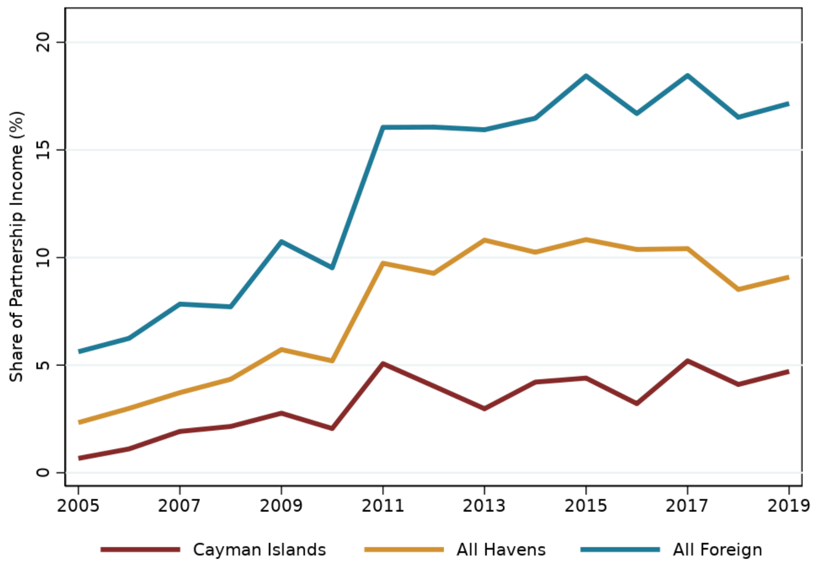
Third, and most importantly, I find that most of the income flowing to foreign owners flows to tax havens. Between 2011 and 2019, I estimate that roughly $1.2 trillion of income reported by partnerships flowed to owners in tax havens.[5] The largest portion of these flows—roughly $500 billion—went to the Cayman Islands, where zero tax is imposed on this income.

There are also large flows to other tax havens, each of which offers certain appealing attributes to attract wealth from abroad. Roughly $240 billion has flowed to owners in other "zero corporate tax" jurisdictions similar to the Cayman Islands, such as the British Virgin Islands or Channel Islands. Another $250 billion has flowed to owners in "conduit" countries that are not only low-tax countries but also often facilitate movement of profits from low- or zero-tax jurisdictions back to larger economies, such as the Netherlands or Switzerland. Roughly $180 billion has flowed to owners in other tax havens, many of which are known more for a lack of transparency than for low rates, such as Samoa, Fiji, or Trinidad and Tobago.[6] An additional

[5] Dollar values throughout the paper are presented in 2020 dollars, adjusted using the GDP implicit price deflator from the Bureau of Economic Analysis.

[6] See the EU list of non-cooperative jurisdictions, which has evolved over time as policies have changed. As of October 2021, nine jurisdictions remained on the list. See Council Conclusions, October 5, 2021, available at https://www.consilium.europa.eu/media/52208/st12519-en21.pdf.

Figure 2: Share of Partnership Income Flowing to Foreign Owners, 2005-2019



Notes: Point estimates reflect the share of net income reported on K-1s flowing to owners (i.e. excluding higher-tier partnerships) that flows to foreign owners in each respective destination. "All Havens" includes all countries listed in Table 1.

$210 billion has flowed to owners with undisclosed foreign residence (almost all of whom report a US address, but cannot be linked to an identifiable country of residence for tax purposes). A list of countries in each group of havens is available in Table 1.

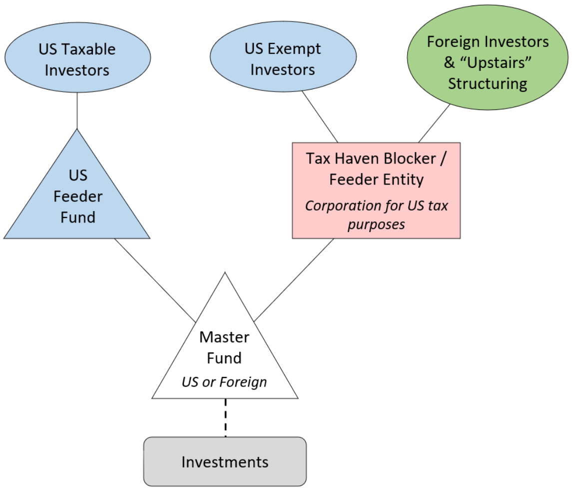
Very little US tax is collected on this income, despite the fact that the vast majority appears to arise from within the United States.[7] Although there are generally high withholding tax rates imposed on outbound flows to tax havens—30% or higher, depending on the destination, recipient, and type of income—only about $33 billion of US tax was withheld between 2011 and 2018, an amount commensurate with official IRS statistics documenting a very low effective tax rate (roughly 3%) on aggregate outbound flows to tax havens.[8]

What is going on? The data suggest that these flows to tax havens are mostly driven by financial investment firms using entity arrangements that take advantage of exemptions in US tax law and that shield both foreign and certain US investors (typically US tax-exempts) from reporting and taxation. In short, investment firms organize a "blocker" corporation in a tax haven, and have certain investors make investments through this entity rather than into the fund directly. By positioning the blocker between these investors and the fund, the investors are shielded from US tax obligations. In addition, if the investments are carefully managed

[7]By "arise from within the United States," I mean to capture not only the concept of US source income (see footnote 40), but also income effectively connected with US trades or businesses (see footnote 39), as well as gains from the disposition US assets (such as US stocks and securities). This concept is challenging to estimate because it is not directly reported. Depending on the measurement approach, I estimate that between 73-94% of reported income flowing to tax havens likely arises from within the United States. The share for the Cayman Islands may be as high as 98%. See Appendix B for discussion.

[8]See Luttrell (2018), as well as other years. For a discussion of the withholding calculation, see Appendix B.

Figure 3: A Simplified Investment Fund Structure with a Blocker Corporation



Notes: Boxes are entities taxed as corporations and triangles are entities taxed as partnerships for US federal tax purposes. Circles represent the owners of the entities, who may be individuals or other entities. The investments are made by the Master Fund, which may be either US or foreign. Foreign and US tax-exempt investors invest through the corporate blocker organized in a tax haven (e.g. a Cayman Islands entity), while US taxable investors invest through a US limited partnership. The general partner and investment manager are not pictured. See Section 5 for additional discussion.

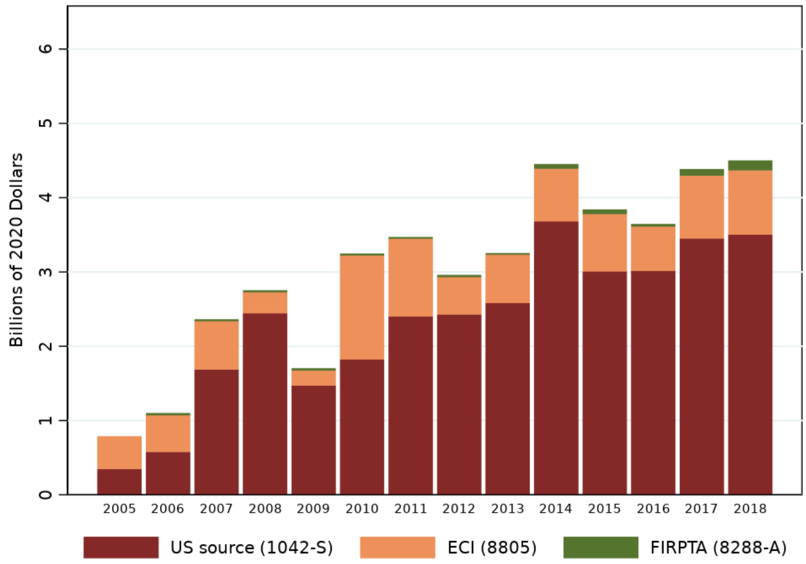
to generate certain types of passive income (namely capital gains and interest income), there should be zero US tax on outbound flows, while at the same time there is zero or little tax incurred by the blocker in the tax haven. A simplified structure is presented in Figure 3.

Three categories of investors benefit from this arrangement. First, foreign investors, who can avoid disclosures and filings to US tax authorities, and who may also be able to lower their overall tax liabilities. Second, US tax-exempt investors, who are able to avoid what would otherwise be "unrelated business taxable income." And third, investors engaged in evasive behavior, who may be US or foreign, and who benefit from the lack of disclosures beyond the blocker entity.[9] While these groups are distinct with unique motivations, it is not possible to empirically disentangle them using available federal income tax data, largely because the blocker entities conceal the identities of ultimate investors from US authorities.

While the arrangement is appealing for the investors described above, it is important to point out that it is generally *not* appealing for US taxable investors. It risks incurring unnecessary taxes, limits use of losses, and subjects the US investors to anti-abuse regimes.[10] Thus, it is likely that almost all of the flows to tax havens observed here ultimately go to one of the three groups listed above.

[9]Evasion by US investors has become much more difficult after the additional reporting requirements on foreign financial companies imposed by FATCA, discussed in more detail in Section 6.
[10]For a detailed discussion of the downsides for US taxable investors, see Section 5.

Figure 4: Estimated Tax Withheld on Flows to Owners in Tax Havens, 2005-2018



Notes: Amounts are tax withheld as reported on Form 8805 (effectively connected taxable income), Form 1042-S (US source income subject to withholding), and Form 8288-A (dispositions of US real property interests). Form 8805 data is from publicly available reports by the Statics of Income. Form 1042-S and 8288-A data is collected from federal tax records. The time series stops in 2018 because form 8805 statistics are not yet reported for 2019. The upward trend mostly reflects increasing amounts of dividends flowing to tax havens through partnerships, which are subject to high withholding rates (see Figure 17, showing an upward trend in dividend income). See Appendix B for additional details on withholding data and calculations.

How does the arrangement work and what does it accomplish, while also minimizing US taxes and avoiding anti-abuse rules? These points are discussed in detail in Section 5, but as a brief overview:

- US tax rules require extensive reporting by partnerships about their partners. In addition, because partnerships are passthrough entities, partners themselves usually face US tax and reporting obligations. But if investors instead invest through a blocker corporation, it is the blocker that faces these obligations, generally shielding the investors and any activities above the blocker from US authorities.[11]

- Income flowing abroad to tax havens is generally subject to high US withholding taxes, but by managing investments carefully these taxes can be avoided. Very generally, the United States imposes both (a) a withholding tax on income flowing to foreign partners if that income is effectively connected with a US trade or business, to be withheld at the highest marginal tax rate applicable to the recipient,[12] and (b) a 30% withholding tax on income from other US sources. However, a series of law changes has exempted certain passive investment income from withholding, even when flowing to tax havens: trading

[11] An important exception to this is reporting pursuant to FATCA, which requires annual reporting on US investors and other interests owned by US persons in foreign financial companies, discussed further in Section 6.

[12] The highest applicable rates are 37% for individuals and 21% for corporations, but prior to the Tax Cuts and Jobs Act of 2017 these rates were 39.6% and 35%, respectively.

in US securities has been exempted from treatment as a taxable US trade or business for foreigners, and most interest and capital gains are exempted from the scope of taxable US source income. Thus, by structuring investments in US securities to specifically generate interest and capital gains—a task made easier as US companies have shifted to share repurchases over dividends—funds can generally avoid US taxes.

- By organizing the blocker in a tax haven such as the Cayman Islands, the entity itself faces zero or little tax locally on the income it receives.

- US tax-exempt investors—such as universities, charitable organizations, foundations, and pension or retirement funds—are subject to "unrelated business income tax" on income derived either from business activities unrelated to the organization's exempt purpose or from debt-financed (leveraged) investments. However, if the income is first received by the blocker corporation, it can be transformed into exempt dividends or capital gains before reaching the investor.

- By investing through a blocker, foreign investors have some flexibility to choose how income returns to them, in some cases potentially reducing taxes beyond the United States. The blocker can be organized either as a corporation or as a tax-neutral "hybrid entity," i.e. a passthrough under local law but that elects to be treated as a corporation for US tax purposes (in which case, from a foreign perspective, the income would simply pass through the blocker without ever accumulating in the tax haven). The optimal arrangement will depend on the laws of the jurisdiction and the investor's circumstances. For instance, if the foreign investor is in a jurisdiction with especially lenient tax rules—such as another tax haven—a blocker organized as a corporation might be used to convert income into a tax-preferred type, such as dividends or capital gains.[13]

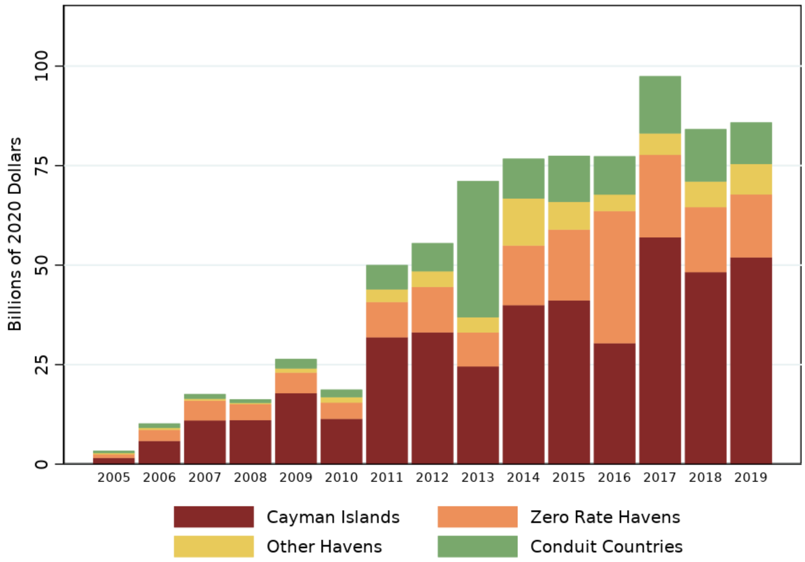
- Blocker corporations also shield foreign investors from US estate tax, since it is the blocker corporation (rather than the investor) that owns the US assets subject to tax.

- US anti-abuse rules designed to prevent accumulation of passive income in tax havens (i.e., rules for Controlled Foreign Corporations and Passive Foreign Investment Companies) are not triggered by this arrangement, so long as the investors owning the blocker are foreign or US tax-exempt investors.

The story above is confirmed in the data, as seen in Figure 5: most of the income flowing to tax havens is from the investment industry, goes to entities that are likely blockers, and is of a

[13]Most high-income economies have anti-abuse rules similar to the United States that tax passive income accumulating in low-tax jurisdictions. So for many foreign investors, there may be no options to legally avoid tax rates imposed by their home jurisdiction.

Figure 5: Withholding-Exempt Income from the Investment Industry Flowing to Likely Blockers in Tax Havens, 2005-2019



Notes: Amounts are net positive capital gains and interest income (which are generally not subject to withholding) flowing from partnerships in the investment industry (NAICS 5239) to likely blocker corporations.

type that is not subject to withholding. In addition, these flows appear to be growing over time. For the Cayman Islands, the destination of the largest portion of these flows, 98% of the income is flowing from finance and related industries (88% from the investment industry alone), 94% is received by entities that are corporations, hybrids, or other entities that could potentially be used as blockers, and 83% is passive investment income that is generally not subject to US withholding tax. The trends are similar for other havens, albeit slightly less stark.[14] These flows to tax havens are very different than the flows to US owners, which are much more likely to go to individuals (44%), come from industries other than financial investment (66%), and to be operating income (42%) rather than passive investment income.

The data also suggest that these arrangements are highly prevalent in the investment industry. I find that between 23-26% of reported partnership income in the investment industry either flows to or from a tax haven, and that 37% flows through partnerships with partners that are likely blockers in tax havens. This will not be surprising to those familiar with the industry: the entity arrangements described above are well-known, and setting up funds to take advantage of these rules is not uncommon.[15] But while there was awareness of these practices, little was

[14]For other havens, 90% of the income is from finance and related industries, 76% specifically from the investment industry, 73% is of a type generally not subject to US tax, and 89% is received by entities that potentially could be used as blockers.

[15]See publications by practitioners and commentators, including for example Lhabitant (2007); Sheppard and Sullivan (2008); Ng (2009); Taylor (2010); Miller and Bertrand (2011). The IRS also has published a technical guide describing this arrangement: IRS (2017), Hedge fund basics, LB&I International Practice Service, available at https://www.irs.gov/pub/int_practice_units/jti_c_05_01_04_01.pdf.

Table 1: List of Tax Havens by Category

Category of Haven	Countries
Cayman Islands	Cayman Islands
Zero-Rate Haven[1]	Anguilla, Bahamas, Bahrain, Bermuda, British Virgin Islands, Guernsey, Isle of Man, Jersey, Maldives, Pitcairn Islands, United Arab Emirates[2]
Other Haven	Andorra, Antigua & Barbuda, Belize, Cook Islands, Costa Rica, Curçao, Cyprus, Djibouti, Dominica, Gibraltar, Grenada, Hong Kong, Jordan, Lebanon, Liberia, Liechtenstein, Luxembourg, Macau, Malta, Marshall Islands, Mauritius, Micronesia, Monaco, Montserrat, Nauru, Niue, Panama, San Marino, Seychelles, Sint Maarten, St. Kitts & Nevis, St. Lucia, St. Vincent & the Grenadines, Taiwan, Tonga, Turks & Caicos, Vanuatu, Western Samoa
Conduit Country[3]	Ireland, Netherlands, Singapore, Switzerland

Sources: OECD (2000); Hines Jr (2010); Garcia-Bernardo et al. (2017).
1: Imposes zero corporate tax rate. Corporate rates are generally collected from the EY Worldwide Corporate Tax Guide, KPMG Corporate Tax Rate tables, and PWC Tax Summaries.
2: The United Arab Emirates imposes a corporate tax on certain oil companies and bank branches, but the effective rate for most corporations is 0%. See PWC Tax Summaries, available at https://taxsummaries.pwc.com/united-arab-emirates, accessed June 23, 2021.
3: The United Kingdom is often included as a conduit country, but I exclude them from this analysis because they also represent one of the United States' largest trade partners. The amounts flowing to the UK and to each conduit country independently can be observed in Figure 8.

known about their scale. What this paper offers, therefore, is the first empirical analysis to describe the magnitude of income involved in these arrangements.

Beyond describing these blocker arrangements, I also find evidence that two tax policies enacted in 2010 led to a substantial increase in reported income flowing to foreign owners, a jump clearly observable in Figure 1. The first is the Foreign Account Tax Compliance Act (FATCA). FATCA both (a) imposed new withholding taxes on a broader range of outbound payments than had previously been subject to tax or reporting, specifically including capital gains on financial assets, and (b) imposed new reporting requirements on a range of parties, making it more likely for authorities to spot underreporting by cross-referencing returns. Second, Congress also enacted new rules taxing "dividend equivalent" payments to foreigners, shutting down a practice where foreign investors facing high withholding rates could enter into swap agreements enabling them to receive the income from dividends without triggering withholding.

The findings in this paper contribute to important discussions about US tax policy in a world where large amounts of capital are invested through tax havens. For historical context, the US tax exclusions that make the arrangements described above possible were enacted with the explicit purpose to attract foreign capital to the United States. Indeed, the United States is by far the leading destination for international portfolio investment, and the country benefits greatly from this position by enjoying abundant capital to finance new businesses and investments as well as by lowering borrowing costs for households, businesses, and the government. But the new evidence presented here—of large amounts of passive investment income flowing tax-free from the United States to anonymous investors shielded by entities in tax havens—

brings to light more complex trade-offs, and highlights how the path that foreign investment takes matters as well. These tax haven arrangements shift tax burdens away from anonymous investors onto American taxpayers, they generate deadweight loss by expending resources on complex legal arrangements that cater to avoidance rather than bona fide business purposes, and they generate externalities that encourage a "race to the bottom" across nations to attract foreign capital. Although it is beyond the scope of this paper to evaluate the full policy implications of these issues, it is nevertheless important that future analysis weigh these trade-offs in support of a well-informed tax policy.

This paper contributes to several areas of ongoing academic research. First and foremost, the paper extends the initial groundbreaking work of Cooper et al. (2016) to paint a richer and more complete picture of who owns partnerships and receives partnership income. In particular, it is the first to provide detailed information about previously unidentified (especially foreign) recipients, and the first to describe trends over time. Second, the paper contributes to a burgeoning literature about the role of tax havens in facilitating tax avoidance or evasion. But while there has been excellent empirical research quantifying the use of tax havens by multinational corporations for profit-shifting and other forms of corporate tax avoidance (Huizinga and Laeven, 2008; Clausing, 2016; Dowd et al., 2017), as a sink for wealth (Tørsløv et al., 2018; Alstadsæter et al., 2018; Zucman, 2021), or for outright evasion (Gravelle, 2009; Johannesen and Zucman, 2014; Hanlon et al., 2015; De Simone et al., 2020), this paper is the first to empirically describe flows to tax havens through partnership structures. Third, the findings about the increased reporting after 2010 contribute to a growing literature on the importance of third-party reporting in deterring underreporting (Kleven et al., 2011; Pomeranz, 2015).

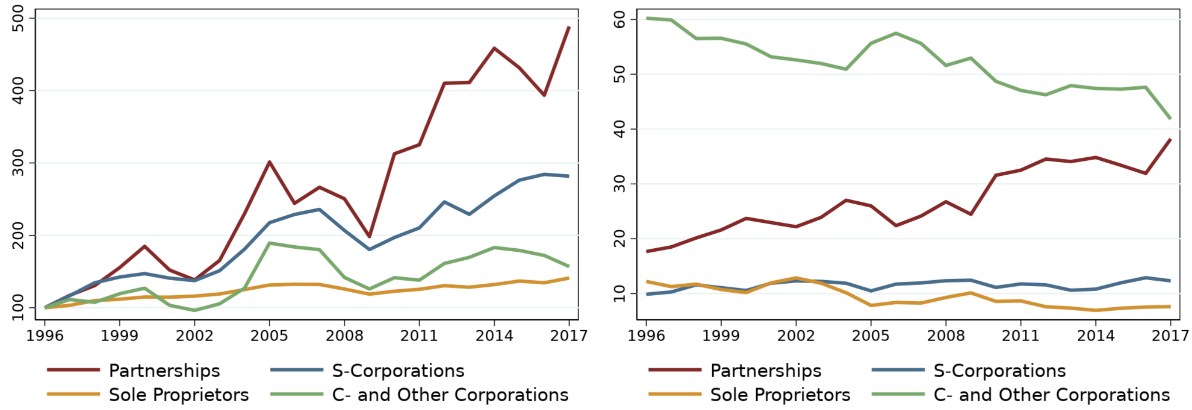
The remainder of the paper is organized as follows. Section 2 offers background on the tax characteristics of partnerships and their growing use over the past two decades. Section 3 discusses the data I use to conduct the investigation. Section 4 summarizes new descriptive statistics, patterns, and trends over time observable in the data. Section 5 explains the use of tax haven entities in tax planning for foreign investors, and how these arrangements are observable in the data. Section 6 discusses the jump in reported income after 2010, and the apparent relationship to policy changes that year.

2 Background on Partnerships

Partnerships, as the term is used throughout this paper, refers to businesses taxed as partnerships under US federal tax law. Although there are many different possible legal forms of business entities under state and local law, for US federal tax purposes all business entities

Figure 6: Growing Use of Partnerships

(a) Net Income Reported (1996=100) (b) Share of Business Net Income Reported



Notes: Net income includes capital gains. Calculated from publicly available data from IRS Statistics of Income. Data used are: Corporations: Table 1; Partnerships: Table 1; S-Corporations: Tables 1, 2.4, and 4.6; Sole-Proprietorships: Table 1. See https://www.irs.gov/statistics/soi-tax-stats-business-tax-statistics

with at least two owners are classified as either a corporation or a partnership.[16] For example, while an entity may be a limited liability company (LLC) organized in Massachusetts or a Gesellschaft mit beschränkter Haftung (GmbH) organized in Germany, each will be treated as either a partnership or a corporation under US federal tax law.

Since 1997, partnerships have rapidly grown in terms of both number of filers and income reported. In that year the IRS enacted new "check-the-box" rules permitting owners of most entities to elect classification as a partnership or corporation, simplifying what was previously a cumbersome multi-factor test.[17] By 2017, there were 3.9 million partnerships filing US tax returns, a 136% increase over the number in 1996, representing a much larger increase than S-corporations, C- and other corporations, or sole proprietorships. Partnerships reported $2.2 trillion in net income in 2017 (including capital gains), roughly quintupling the amounts from 1996. Partnerships represented 38% of all business net income reported on US tax returns in 2017, doubling their share from 1996.

This growth of partnerships has been concentrated in finance and related industries.[18] Net income in these industries increased over 800% between 1996 and 2017, rising to 73% of all reported partnership income. The growth is even larger when focusing solely on portfolio income in these industries, which grew over 1000%.

This dramatic rise of partnerships, especially for portfolio income in finance and related in-

[16] Treas. Reg. §301.7701-2(a).

[17] See Treas. Reg. §§301.7701-2 and -3. See also Simplification of Entity Classification Rules, 61 Fed. Reg. 66584 (Dec. 18, 1996). Under the prior rules, the IRS recognized "that there is considerable flexibility under the current rules to effectively change the classification of an organization at will." I.R.S. Notice 95-14, 1995-14 I.R.B. 7. See Field (2008) for discussion of this regulatory change.

[18] Defined as two-digit NAICS codes 52 (Finance and Insurance), 53 (Real Estate, Rental and Leasing, and 55 (Management of Companies and Enterprises).

dustries, is not surprising given how partnerships are taxed. Partnerships offer many advantages that are uniquely well-suited to minimize taxes on portfolio investments through investment fund structures. First and most importantly, partnerships are "passthrough" entities that are not subject to federal income tax. Instead, income and losses "pass through" the partnership and are included on the federal tax returns of the partners, as if earned by them directly.[19] Second, the character of income (i.e. whether the income is capital gain, ordinary income, etc.) is preserved for the partner as it passes through the partnership.[20] This is especially important when the income is a type of tax-preferred income that permits investors to pay taxes at reduced rates. Third, partnership tax rules offer unparalleled flexibility to divide up income among the owners of the entity.[21] And fourth, partnership tax rules permit investment managers to receive a portion of their compensation as tax-preferred capital gain, rather than ordinary income. Such compensation, often referred to as "carried interest," is used extensively throughout the investment fund industry.[22]

These tax advantages of partnerships have also made them very difficult for economists to study. First, the passthrough nature of partnerships and flexible allocation rules facilitate "stacking" partnerships in complex multi-tier entity structures. Put another way, partnerships can be partners in other partnerships, often leading to large interconnected webs, sometimes even creating infinite "loops." This problem is well discussed by Cooper et al. (2016), who note that over a quarter of partnership income flows to other partnerships, and that 9 million of the 25.5 million partners are part of arrangements that involve unresolvable infinite loops. Second, because partners can be in any jurisdiction, many have limited connection to the United States, and may not even file a tax return (either properly or improperly). Third, partnership tax rules are so arcane and the entity structures so complex that enforcement is exceedingly difficult, an issue exacerbated by the fact that partnership income goes overwhelmingly to very high income, sophisticated taxpayers. For example, an individual making less than $25,000 was 12 times more

[19]See IRC §§701, 702.

[20]See IRC §702(b) clarifies that "character...shall be determined as if such item were realized directly from the source from which realized by the partnership, or incurred in the same manner as incurred by the partnership."

[21]"Flexibility" for partners was in fact an explicit goal of the US Congress in drafting the partnership rules, and is manifested in numerous important ways. S. Rep. No. 1622, 83d Cong., 2d Sess. 89 (1954); H.R. Rep. No. 1337, 83d Cong., 2d Sess. 65 (1954). For example, partners may choose how to allocate income and losses among themselves to achieve business and tax objectives, and are not required to follow partners' pro rata interests in the partnership. See Section 704(a), providing that "A partner's distributive share of income, gain, loss, deduction, or credit shall, except as otherwise provided in this chapter, be determined by the partnership agreement." Partners may choose their preferred accounting method, which can materially affect the allocation of income and tax liabilities of partners. See Treas. Reg. §1.704-3(a)(1). Appreciated assets can be distributed to partners tax-free. See §731(a) and (b). Partners may elect whether or not to adjust their tax basis in exchanges of partnership interests. See IRC §§734(a) and 743(a).

[22]Preqin estimates that essentially all private capital funds are compensated through a carried interest arrangement, with over 80% of funds charging 20% of profits (see Preqin (2017)). See also Joint Committee on Taxation, Present Law And Analysis Relating To Tax Treatment Of Partnership Carried Interests, July 10, 2007, and Congressional Research Service (2020), "Taxing Carried Interest," Report No. R46447, available at https://crsreports.congress.gov/product/pdf/R/R46447.

likely to be audited than a partnership in 2020,[23] and evidence suggests that when partnership audits are conducted they fail to detect a substantial amount of underreporting, largely due to a lack of resources to investigate and challenge the complex arrangements (Guyton et al., 2021).

3 Data

I use data from de-identified US federal tax records from 2005 through 2019 to describe the owners of partnerships as well as the flows of income through partnerships. I expand upon the approach of Cooper et al. (2016), who described the owners of partnerships by matching recipients to other tax returns in tax year 2011. I both draw upon a broader set of data and develop new algorithms to describe recipients who were previously unidentifiable. I discuss these new data and techniques used below. Additional details are available in Appendix A.

3.1 Schedule K-1 data

Because partnerships are passthrough entities, income and losses of the partnership flow through to the partners. These amounts must be reported separately for each partner on an information return (Schedule K-1) to be filed with the IRS. All US partnerships and (with only certain exceptions) all foreign partnerships with either US source income or income effectively connected with the conduct of a US trade or business must, at the conclusion of their taxable years, file both (1) a form 1065 partnership tax return, and (2) a Schedule K-1 return for every partner.[24]

The universe of Schedule K-1 filings constitutes the core data for this analysis. From these filings, data is available on the net income (or loss) allocated to each partner that is: ordinary business income, net rental real estate income, other net rental income, interest income, ordinary dividends, royalties, section 179 deductions, net short term capital gain, and net long term capital gain. Unless otherwise specified, my default measure of income throughout the paper is the net income to each partner from the sum of these available categories.[25] Other income, gain, loss, or deduction allocation data is not available.[26]

[23] See Internal Revenue Service Data Book, 2020, available at https://www.irs.gov/pub/irs-pdf/p55b.pdf. Note the Bipartisan Budget Act of 2015 changed partnership audit rules, effective for tax years beginning after 2018. For discussion, see https://www.irs.gov/businesses/partnerships/bba-centralized-partnership-audit-regime.

[24] See IRC §6031 and regulations thereunder, especially Treas. Reg. §1.6031(a)-1(a) and (b).

[25] This measure corresponds closely to what would be taxable income if the recipient is taxable on all categories of this income.

[26] Notable missing income categories thus include qualified dividends (i.e. dividends taxed at capital gains rates) and dividend equivalents. Data are available, however, for guaranteed payments, but since these are not allocated income I do not include them in partnership income flows.

3.2 Prior work: matching K-1 filings to other returns

The K-1s can be matched to other federal tax returns using masked (de-identified) Taxpayer Identification Numbers (TINs) of the recipient partner. Cooper et al. (2016) use this technique, matching the recipients to annual tax returns to describe the type of partner in tax year 2011. I replicate this effort for years 2005-2019, matching recipients to 29 different annual tax returns listed in Table 2. The type of recipient can generally be determined quickly by virtue of the match: for example, a partner that can be uniquely matched to a form 1120 is a corporation, while a partner uniquely matched to a form 1065 is a partnership, and so on. About 70% of income flowing to partners since 2011 can be matched to an annual return in this way, after making important accuracy adjustments discussed in Appendix A.

Cooper et al. (2016) additionally match partners to the masked TINs reported on withholding forms 8805, 1042-S, and 8288-A. These forms report withholding on payments to foreign persons, and thus can be used to identify the domestic or foreign status of the partner (albeit not the type of entity). I replicate this approach as well, which can account for about 4% of the income to K-1 recipients since 2011, again after making accuracy adjustments.

I thus estimate that matching K-1 recipients to the annual returns and withholding forms mentioned above can describe about 74% of the income flowing to partners. Many of the unmatched recipients receive a great deal of partnership income, notably many high-income partners, and are thus especially important in understanding flows. There are a myriad of possible reasons for this failure to match, ranging from benign to less benign. The most benign of these is that the partner is not required to file (for example, a foreign partner that has no reportable income). Other fairly benign reasons include either reporting or data errors. A less benign possibility is that these missing matches reflect underreporting, or at least behavior that obfuscates the partner's tax situation. Evidence suggests this last possibility is nontrivial, as discussed later in Section 5 and especially Section 6.

3.3 New approaches to describing the owners of partnerships

Since only about 74% of partnership income can be accounted for by matching to the returns described above, new approaches are needed to describe the unidentified partners. I thus apply several new techniques that, in combination, permit me to describe the recipients of over 99% of income flows in terms of type of recipient, domestic or foreign status, and country.

First, I match the K-1 recipients to a broader array of tax returns than prior work. These new returns do not provide income information that would be necessary to replicate the investigation by Cooper et al. (2016), but they do at least provide some insight about the type of partner, the partner's domestic or foreign status, or country more generally. These additional returns fall broadly into two categories. First, I attempt to match unresolved partners to annual returns filed in prior or future years, because TINs are unique and are not reused over time (thus a match using the masked TIN to a return in a different year should describe the same taxpayer).[27] Second, I attempt to match the K-1 recipients to other returns and tax records that report various non-income information to the IRS, such as applications for an Employer Identification Number (where the type of entity is reported) or reports from parent corporations about their consolidated groups (where subsidiaries are reported, who do not file returns themselves). Additional details and a list of returns matched are discussed in Appendix A.

In addition to broader matching efforts, I also develop algorithms that can infer the country of address, the type of partner, and the domestic or foreign status from other non-identifying information recorded on the K-1. Regarding the country of address, this information is not recorded directly as structured data, but in most cases the city or country of the address can be observed in unstructured text data on the K-1. I develop an algorithm that correctly identifies the foreign country from this information with $> 99.9\%$ accuracy.

The entity type of the partner can similarly be inferred from non-identifying information contained on the K-1. Legal abbreviations for entity types are often recorded. For example, a corporate partner will often be denoted with an "Inc." or "Corp." on the K-1, and a limited partnership will often be denoted with an "LLP" or "LP." These abbreviations vary distinctly by country jurisdiction. For example, "PLC" is used in commonwealth countries like the United Kingdom or Australia to denote public limited companies, while "AG" denotes the rough equivalent in Germany, an Aktiengesellschaft. I develop a database of over 800 common legal entity denotations across 72 jurisdictions as a reference,[28] which I then use as the basis for an algorithm that categorizes the partners.[29] I also supplement this approach with an iterative bag-of-words algorithm that uses common non-identifying words in the unstructured data to predict the entity type with high accuracy. Error testing with known entity types suggests that these inferences are accurate for $> 99\%$ of observations.

Finally, the foreign or domestic status of the partner can be inferred using a combination of the information collected above. I attempt, as best as possible, to categorize individuals

[27] It is possible that the status or classification of a taxpayer has changed over time. For example, an entity may change its tax classification or an individual who is an alien may become a US citizen. While these changes are of course possible, individuals nevertheless remain individuals, and entities remain entities. Moreover, these status changes are generally uncommon phenomena.

[28] I create this database of legal entity types and abbreviations using a combination of the Entity Legal Forms Code List compiled by the Global Legal Entity Identifier Foundation (GLEIF) (available at https://www.gleif.org/en/about-lei/code-lists/iso-20275-entity-legal-forms-code-list, accessed June 23, 2021) and the European Central Bank AnaCredit entity database (available at https://www.ecb.europa.eu/stats/money_credit_banking/anacredit/html/index.en.html, accessed June 23, 2021).

[29] This algorithm takes into account text position, spacing, rarity/commonness of the entity type, country of jurisdiction, and other features to minimize incorrect categorizations.

and entities as foreign or domestic to align with their treatment under US federal tax rules.[30] Most of this information is from matched filings. For example, taxpayers filing forms 1040 or 1120 are domestic, while taxpayers filing forms 1040-NR, 1120-F, or 1120-FSC are foreign. And while many forms are not determinative in this way, some filings like the form 1065 directly record domestic or foreign status, and other forms like the form 5471 record the country of incorporation or organization of foreign entities. When partners cannot be matched to returns that identify domestic or foreign status, I use the inference from the entity algorithm above. For example, a "GmbH" is a foreign entity, while a "PBC" (a public benefit corporation) is domestic. In cases where no inferences can be made, I use the address as the best approximation of foreign or domestic status.

3.4 Categorization of types of partners

For purposes of this paper I categorize all partners into one of seven broad types, listed in Table 2. To make these categorizations, I follow the approach described above in Section 3.3: when the partner can be uniquely matched to an annual return, the entity type is determined by that match; when a unique match is not possible, inference is drawn from other tax records and other non-identifying information available on the K-1, notably information about the form of legal entity as organized under its local law (e.g. whether it is an LLC, a PLC, or a GmbH, among many others). Thus, Table 2 documents three things: (1) the list of tax returns associated with each category of entity, (2) a small sample of common legal entity types (if any) that are associated with that category, and (3) whether this information alone (i.e. the matched return or legal entity) can be used to determine the domestic or foreign status of the partner.

As previously clarified in Section 2, for purposes of this paper the term "partnership" is used specifically to refer to an entity taxed as a partnership under US federal tax law. Thus, to be categorized as a partnership, the entity must actually file as a partnership for federal tax purposes.[31]

Similarly, for purposes of this paper I only categorize entities as corporations if they are classified as corporations under US tax law. I follow the rules under Treas. Reg. §301.7701-2 to make this determination, meaning that partners categorized as corporations include entities

[30] An individual is a US person if the individual is a citizen or a resident alien, while the individual is a foreign taxpayer if the individual is a nonresident alien. See IRC §§2(d), 871(a)(1), 7701(b), and note that resident and nonresident aliens have specific meanings for federal tax purposes (where a resident alien includes not only permanent residents but also other aliens with substantial presence or that make an election to be taxed as US persons). A corporation or partnership is domestic if it is created or organized in the United States, and otherwise is foreign. See IRC §7701(a)(4) and (5). Rules for the taxation and residency of trusts and estates are more complex. See IRC §7701(a)(30) and (31). Generally, a trust will be a US person if a US court has primary supervision authority and a US person has authority to control all substantial decisions. The domestic or foreign status of the estate depends on facts and circumstances, notably including the location of assets, the location of the administration, and the location of the representative. See Boyle (2007).

[31] Inferring that an entity is an LLP only reveals its status under local law, not under federal tax law.

Table 2: Describing Partners by Entity Type

Domestic in **bold**, foreign in *italics*, or entities that could be either are normal font

Type of Partner	**Matched Forms and Example Legal Entities (if applicable)**
Individual (incl. sole proprietors)	**1040**, 1040-C, -F, *-NR* Legal entities include: *S.P.*, *S.A.U.*, *e.c.*, ...
Partnership	1065, 1065-B Legal entities are not used to identify partnerships[1]
Corporation	**1120**, **1120-C**, **-H**, **-L**, **-ND**, **-PC**, **-REIT**, **-RIC**, **-S**, **-SF**, *-F*, *-FSC* Legal entities include: Corp., Inc., **PSC**, **PBC**, *PLC*, *S.A.*, *Bhd.*, ...
Hybrid/Other Company	**1066**[2] Legal entities include: LLC, LLP,[1] *Pty. Ltd.*, *BV*, *GmbH*, *SNC*, ...
Tax-Exempt/Governmental	990, 990-C, -PF, -R, -T, -ZR Legal entities include: *AISBL*, *MTU*, *SoR*, *sfs.*, ...
Trusts & Estates	**1041**, **706**, **5227**, *3520-A* Trusts are generally not created by registering an entity[3]
Entity	Identified as an entity, but not easily categorizable
Unknown	Insufficient information to categorize the partner

Notes: This table reports how each type of partner is categorized into entity types for purposes of this paper. Partners are categorized based upon the annual return to which they can be matched, or, if a match is not possible, based on ancillary information available. An inference can sometimes be made from the legal entity receiving the K-1, as it is organized under local law. Where applicable, a short list of some common legal abbreviations are given as examples of legal entities that would be assigned to that category. It may also be possible to infer whether the partner is domestic or foreign from the matched return or the legal entity type; these cases are denoted with bold and italics for domestic and foreign, respectively; where the information cannot be used to infer domestic or foreign status, the font is normal.

[1] Because my definition of a partnership is that the entity is taxed as a partnership for US tax purposes, it is not possible to know if an entity legally organized as a partnership is in fact a partnership for US tax purposes unless it can be matched to a filing. I thus categorize them by default as a hybrid/other company.

[2] I categorize REMICs as a hybrid/other company because corporations and partnerships may be REMICs.

[3] Trusts are generally not created by registration of an entity with local authorities, as you would create a corporation, a charitable organization, or a hybrid company like an LLC. Trusts are created by actors under local law generally by executing a trust agreement defining the terms of the trust.

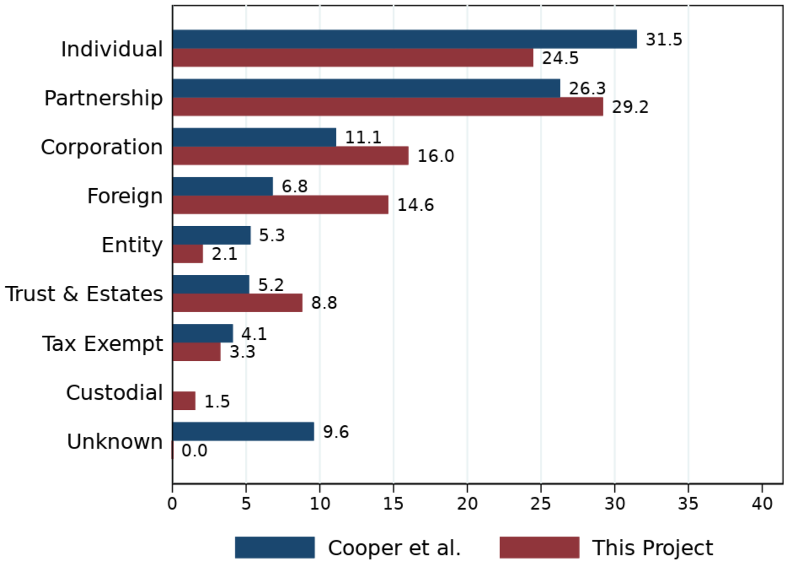
that either can be matched to a corporate return or that fall into one of the categories of entities taxed as corporations under the regulations (notably if the entity is on the list of *per se* corporations organized under foreign jurisdictions).[32]

Entities with at least two owners and that are not required to be classified as corporations (e.g. an LLC) may be classified as either a partnership or a corporation under the check-the-box rules, at their owners' election (as discussed in Section 2). In these cases, if the entity cannot be matched to the return of a partnership or a corporation, it is not possible to know the classification for federal tax purposes. I refer to these entities that could fall into either category as "hybrids/other companies."

Sometimes partnership income is received into an account held by a custodian on behalf of

[32] Entities that are classified as corporations are listed in Treas. Reg. §301.7701-2, but notably include: business entities organized as corporations under US federal or state law, joint-stock companies under US state law, state-owned business entities, and a list of specified entities organized under the laws of foreign jurisdictions, known as *per se* corporations. For example, a Sociedad Anomima organized in Argentina or an Aktiengesellschaft organized in Austria will be classified as corporations, and may not elect to be classified as partnerships.

Figure 7: Cooper et al. (2016) vs. This Project, Share of Income Received



Notes: Blue bars reflect the distribution of net income flows to different types of partners as described by Cooper et al. (2016). The red bars reflect new estimates for flows between 2011 and 2019. The changes are driven by (1) identifying the roughly 20% of income flowing to previously unidentified partners, (2) trends with more income going to foreign owners since 2011, and (3) adjustments to data that improve accuracy when describing partners, discussed in Appendix A.

the ultimate beneficiary. These may include bank accounts, investment accounts, or retirement fund accounts. I categorize these recipients as custodial accounts for purposes of this paper.

The remaining categories are relatively straightforward, including individuals (which include sole propreitorships), trusts and estates, and tax-exempt/government entities. Where I can infer that the payee is an entity and not an individual, but where the entity type is difficult to determine from information available, I categorize the payee simply as an "entity." Finally, when the information available yields no insight about the type of partner, I register the partner as being of unknown type.

4 A New Comprehensive Picture of Income Flows

The new data offer numerous findings and stylized facts about partnerships and income flows. Three of these stand out as especially changing our previous understanding. First, a much larger portion of reported income is flowing to foreign persons than previously thought. Second, the nature of these flows varies significantly by destination in terms of the character of income, industry, and type of recipient. And third, a growing majority of these flows go to tax havens: roughly \$1.2 trillion flowed to owners in tax havens between 2011 and 2019.

4.1 A look at previously unidentified partners

The data work discussed in the previous section permits a more comprehensive picture of income flowing to the owners of partnerships than what was previously possible. Prior research by Cooper et al. (2016) was able to describe the type of owner (i.e. entity type or individual) for 80% of partnership income, as well as the domestic or foreign status of owners for 80% of partnership income, but did not describe the country of foreign persons.[33] By comparison, the data work in this paper permits a description of the owner for over 99% of income in terms of all three dimensions: the type of recipient, the likely domestic or foreign status, and the country of foreign persons.

So who were these previously missing partners? Figure 7 compares the partners as described in Cooper et al. (2016) against the partners as I describe them in this paper using the new data. The largest portion are foreign: more than double the share previously estimated is going to foreign partners. I also find substantially larger shares going to corporations and to trusts and estates. I find additional income going to higher tier partnerships as well. But I also see some groups receiving a smaller share than previously estimated, notably US individuals, dropping from roughly one third to one quarter of reported income.

What's driving these differences? Most of the changes come from being able to describe the previously unidentified partners, where the majority of that income was going to foreign partners and corporations. These findings confirm the suspicion of Cooper et al. (2016) who predicted this to be the case.[34] The previously unidentified corporations appear to be non-filing subsidiaries in larger consolidated groups, meaning that they could not be matched to an annual return directly. The previously unidentified foreign partners are also unable to be matched to annual returns, but for unclear reasons.

There are two other reasons for the differences observed in Figure 7. There is also a trend, as observed in Figure 1 and Figure 2, where more income is flowing to foreign partners. Cooper et al. (2016) focused exclusively on 2011, whereas the new data incorporates these more recent years. Finally, I use new methods to improve accuracy of matches between K-1s and annual returns, which I estimate affects as much as 21% of the flows. These methods are discussed in Appendix A.

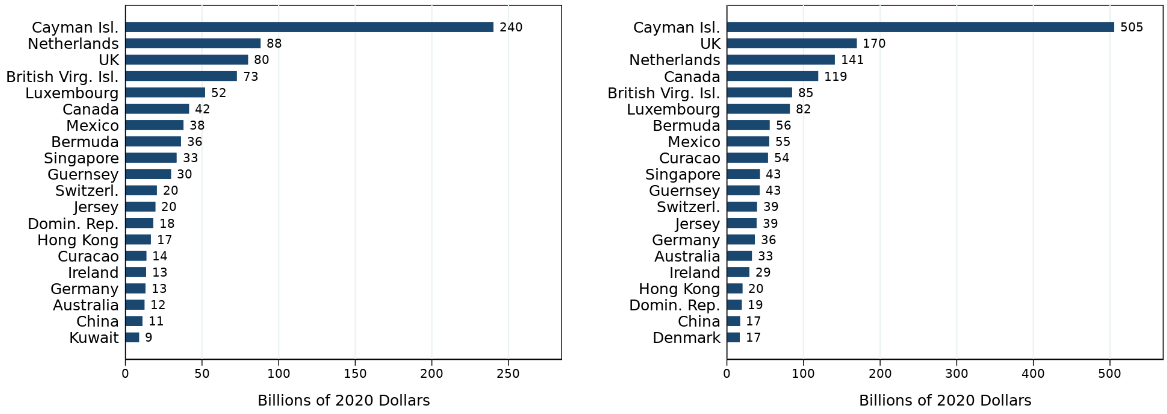
Where in the world was this missing income going? Largely to tax havens. Figure 8 presents the top 20 identified countries of the foreign persons that are among the newly identified part-

[33] I arrive at these numbers by the following deduction. First, the type of entity was not known for the 13% of income received by partners that remained totally unidentified, and for the approximately 7% of income received by foreign persons that were not matched to a form 1120-F or 1120-FSC. The domestic or foreign status cannot be identified for the 13% of income flowing to unidentified recipients and the 7% flowing to partners with an unidentified EIN. The status may also not be knowable for tax-exempts (reflecting up to another 6% of income).

[34] See pg. 117 of Cooper et al. (2016): "Note that the income shares for the unidentified partner types most closely resemble a mix between the foreign entity and C- corporation income shares."

Figure 8: Where is Partnership Income Going? Top Foreign Countries, 2011-2019

(a) Previuosly Missing Partners (b) All Partners



Notes: Previously missing partners refers to the partners unidentified by previous techniques, but that can now be described in this paper. The values reflect net income flowing to owners of partnerships (i.e. excluding higher-tier partnerships). Undisclosed or unknown destinations are excluded. See Appendix A for discussion of how destination is determined.

ners. A full 13 of the 20 are tax havens, with well over $200 billion flowing to partners in the Cayman Islands alone.

4.2 Where in the world is partnership income going?

Combining the newly identified partners discussed above with a richer description of previously identified partners, a new comprehensive picture of the flows of partnership income emerges. First and foremost, the share of income flowing to foreign persons is much higher than previously thought. As seen in Figure 2, a large and rising portion of partnership income flows to foreign owners, representing 17% of partnership income between 2011-2019, roughly double previous estimates.

Where is this income going? Most of it to tax havens, as seen in Figure 1 and Figure 2. Roughly $1.2 trillion has flowed to owners in tax havens since 2011, representing about 10% of income flowing to owners of partnerships.

The largest portion of this income goes to the Cayman Islands, where about $500 billion has flowed to owners since 2011. The Cayman Islands has established itself as a leading offshore financial center that caters to the asset management industry and that offers: zero taxes on business and investment income, a well developed financial services industry, and investor-friendly laws and regulations (Fichtner, 2016). It is the domicile of more than half of the world's hedge funds, and as of 2020 is reported to have more than $5.5 trillion in portfolio investment from abroad.[35]

But other tax havens receive large partnership income flows as well. I break tax havens

[35] See IMF, Coordinated Portfolio Investment Survey, Table 8: Derived Portfolio Investment.

down into four categories for this analysis, presented in Table 1. Given the scale of flows, I treat the Cayman Islands as a unique category itself. Second, the "Zero Rate" havens are tax havens with a zero corporate tax rate, like the Cayman Islands. These havens fulfill a similar role in international finance, offering a zero-tax jurisdiction to establish a corporation that can receive income flows that would be taxed in other jurisdictions. I estimate that about $240 billion flowed to zero-rate havens other than the Cayman Islands, notably including the British Virgin Islands (about $85 billion), Bermuda (about $56 billion), as well as Jersey and Guernsey (about $40 billion each).

Third, "Other Haven" countries have been classified as havens often for reasons besides low tax rates. These countries often lack transparency about the details of the tax regime or enforcement, have limited or inadequate regulatory supervision of offshore financial services, have ring-fenced the offshore financial services sector from the rest of the domestic economy, or have little effective information exchange with international tax authorities (see OECD, 2000). I estimate that about $250 billion flowed to these havens, notably including Luxembourg (about $82 billion) and Curaçao (about $54 billion).

Finally, "Conduit" countries are countries that have low corporate tax rates, but also are more well connected to larger economies through treaties, trade, and law and culture more generally. These countries, in addition to their low rates and legal integration with advanced economies, often stand out as facilitating flows of income from low-tax (or zero-tax) jurisdictions back to larger higher-tax economies where ultimate owners may reside. A succinct description is available in Garcia-Bernardo et al. (2017):

> [Conduit countries] typically have low or zero taxes imposed on the transfer of capital to other countries, either via interest payments, royalties, dividends or profit repatriation. In addition, such jurisdictions have highly developed legal systems that are able to cater to the needs of multinational corporations. Conduits play a key role in the global corporate ownership network by allowing the transfer of capital without taxation. In this way, profit from one country can be re-invested in another part of the world paying no or little taxes. Countries such as the Netherlands and Ireland have been criticized for these types of activities.

There are four conduit countries I flag in this study, each of which is among the top 20 jurisdictions. These include the Netherlands (about $141 billion), Singapore (about $43 billion), Switzerland (about $39 billion), and Ireland (about $29 billion). The United Kingdom is often included in this list as well, which I estimate received about $170 billion.[36]

[36] I exclude the UK from my list as a conservative measure, because it is also one of the United States' largest trading partners.

I also find a substantial amount flowing to owners I refer to as being resident in "undisclosed" foreign jurisdictions. In other words, I have evidence that they are indeed foreign individuals or entities, but do not have sufficient information to assign a specific foreign jurisdiction for tax residence purposes. In most of these cases, the owner reports a US address on the K-1 (e.g. a GmbH with a New York address). Out of the roughly $210 billion I estimate flowing to these owners, about 99% appears to flow to US addresses, with individuals constituting roughly 60% of these flows. Another 10% appear to flow to custodial accounts of foreigners located in the US, and about 20% flow to business entities.

4.3 Variation by destination, and trends over time

The income flowing to US owners is very different than income flowing to foreign owners in terms of industry composition, character of income, and the type of entity receiving the income. These differences are highlighted in Figure 9 and later in Figure 12.

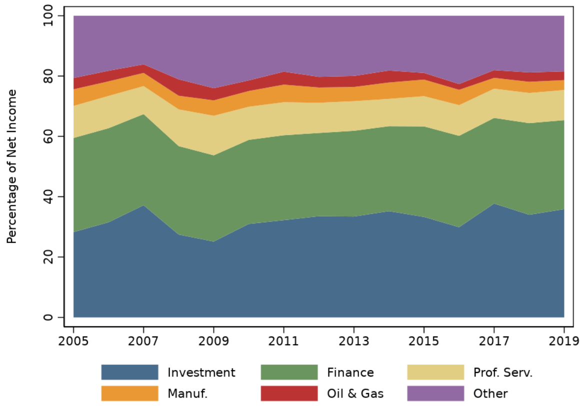
First, it is well known that finance and related industries constitute the majority of partnership income flows, but I find that this share varies substantially by the destination of the income. Flows to US owners between 2011-2019 are 63% from the finance industry and about 34% from the investment industry specifically, whereas the shares are much higher for flows to foreign owners at 87% and 70%, respectively. The share of finance is more extreme in flows to Cayman Islands partners, constituting 98%, with 88% from the investment industry. The main industry driving the distinction is professional services (e.g. law or consulting), which represents 10% of flows to US partners but only about 2% to foreign owners. In the US there is also a scattering of industries that have small but notable share—such as information (4%), health (3%), wholesale trade (2%), and construction (2%)—which add up when aggregated.

The trends over time for the industry composition are very stable for the US and Cayman Islands partners, but for other foreign partners the share of finance has grown notably. Part of this is likely due to a jump in reported income in portfolio income after 2010 (perhaps attributable to FATCA, discussed in detail in Section 6). But even after 2011, the share of finance is growing. The industries with previously large but falling shares are mostly pharmaceuticals and petroleum-related industries, which are components of manufacturing.

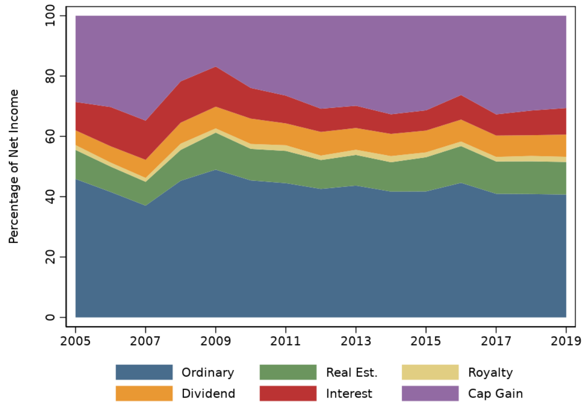
Second, the type and character of income flowing to US partners is substantially different than flows to foreign partners. Ordinary business income constitutes 42% of the income flows to US partners 2011-2019, and real estate income constitutes another 11%. For foreign partners these two types of income represent only 14% and 2% respectively. Similarly, whereas portfolio income comprises a large share of the income to foreign partners—notably capital gains (52%), interest (16%), and dividends (14%)—US partners have a much smaller share represented by

Figure 9: Variation by destination over time

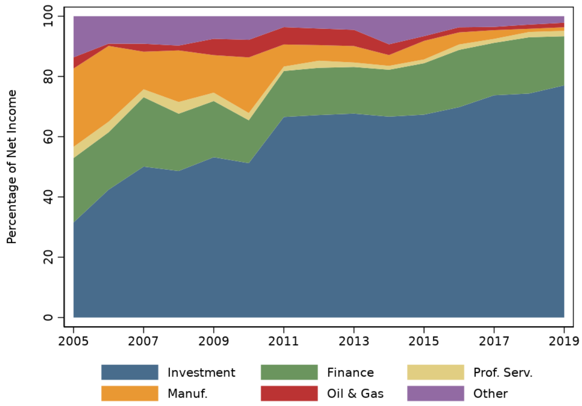
(a) Income to US Owners, by Industry



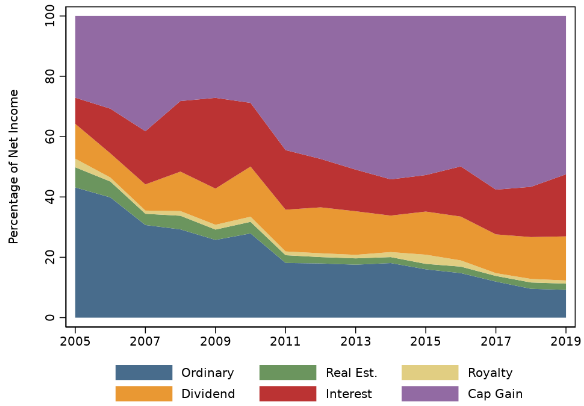
(b) Income to US Owners, by Character



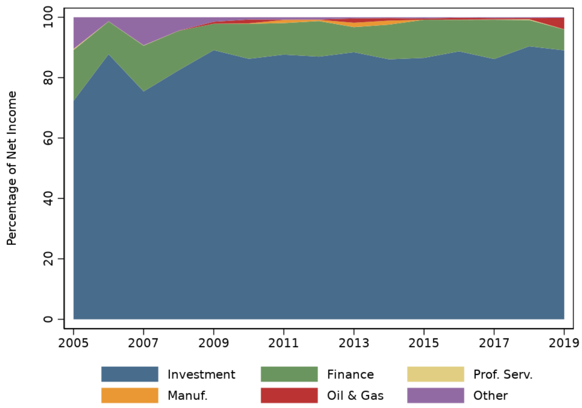
(c) Income to Foreign Owners, by Industry



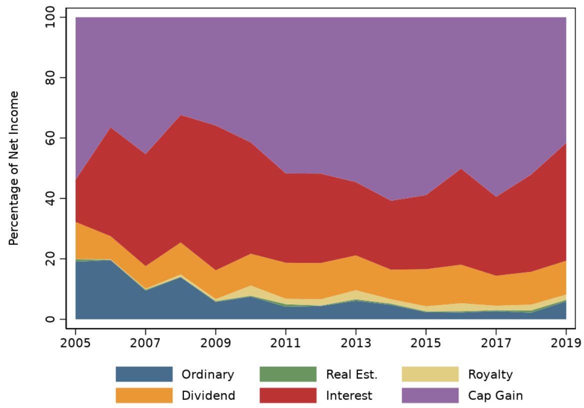
(d) Income to Foreign Owners, by Character



(e) Income to Cayman Owners, by Industry

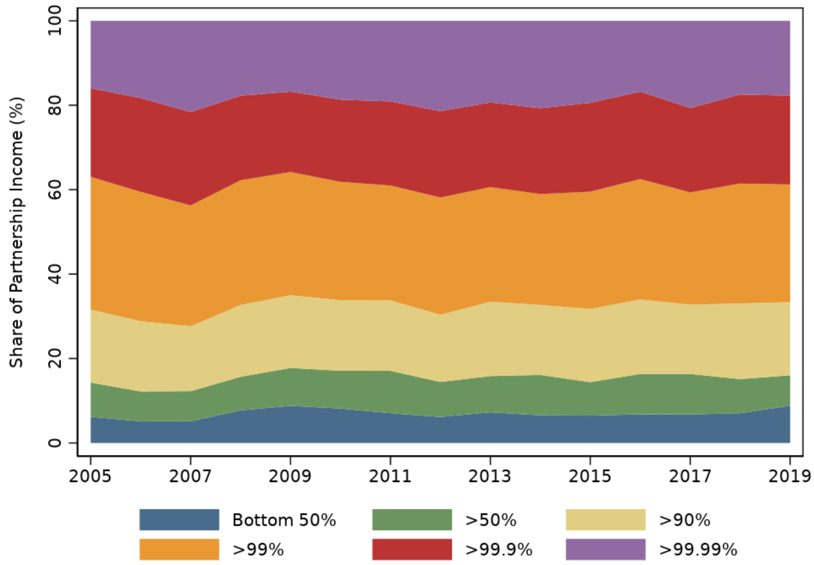


(f) Income to Cayman Owners, by Character



Notes: Income is net income received by owners (i.e. excluding higher-tier partnerships). Industries are grouped using NAICS codes. Investment is 5239. The rest are organized by 2-digit NAICS codes. Finance is 52 (finance and insurance, excluding investment), 53 (real estate and leasing) and 55 (management of companies and enterprises). Professional services is 54. Manufacturing is 31, 32, and 33. A substantial portion of the manufacturing income is attributable to pharmaceutical and petroleum production. Countries are grouped according to Table 1.

Figure 10: Share of Partnership Income to US Households by AGI Percentile, 2011-2019



Notes: To calculate these trends, I match the K-1 payees to form 1040 individual returns, and determine where each individual recipient falls within the US income distribution by comparing adjusted gross income reported on the form 1040 to the distribution calculated using data from the IRS Statistics of Income.

portfolio income: 31% capital gains, 8% interest, and 7% dividends. The Cayman Islands are even more pronounced in their divergence from the flows to US owners, with portfolio income constituting 96% of partnership income flows, and an especially large share (29%) represented by interest. In terms of trends over time, while the US shares have remained relatively stable aside from the financial crisis (where portfolio income dropped in share), the share of portfolio income to foreign persons has been increasing over time.

Third, the type of recipient is also distinctly different by destination, as observed below in Figure 12, which presents the owners by type. A large portion of income flowing to US partners flows to individuals (44%) and trusts and estates (16%). By comparison, only 14% of income to foreign persons goes to individuals, and only 3% to trusts and estates. The majority instead goes to business entities, mostly corporations (38%) and hybrid/other private companies (19%). A decent portion as well goes to entities where the types could not be categorized based on the information available (19%). Again, the Cayman Islands represents a more pronounced departure from the US, with 55% flowing to corporations and 23% to hybrid/other companies, and only 1% going to individuals. These shares have remained fairly stable since 2011.

4.4 Income distribution over time

Consistent with prior studies, I confirm that partnership income is highly concentrated among top earners. Of the partnership income flowing to households, roughly two-thirds (60-70%, depending on the year) flows to the top 1%. Very little flows to the bottom 90% of earners (i.e. only 12-18%). In fact, a larger portion of partnership income goes to the top 0.01% of earners (i.e. 17-21%) than to the bottom 90%. The top 0.1% of earners receive 37-44% of partnership income. I also find that this pattern has been largely consistent over time, as seen in Figure 10.[37]

5 What's going on? Evidence of blocker arrangements

The new data suggest that these flows of partnership income to tax havens are largely driven by financial investment firms using entity arrangements that shield both foreign and US investors from reporting and taxes. By setting up a "blocker" corporation in a zero- or low-tax jurisdiction, and having foreign and certain US investors invest through this entity rather than directly into the fund, the investors can be shielded from certain tax obligations. Most of the income flowing to the blocker is not taxed by the United States, and the blocker typically faces zero tax in the tax haven. Once the income is in the blocker entity, it can be retained there or distributed either back to the United States or to a foreign jurisdiction in a tax efficient manner.

5.1 The role of a blocker entity in a fund structure

a. Tax and reporting issues arising from the use of partnerships

Although partnerships offer many advantages that make them appealing to investment funds (discussed in detail in Section 2), the passthrough nature of partnerships also creates certain reporting and tax obligations for recipient partners. These obligations may be undesirable for investors who hope to avoid interactions with tax authorities, for either benign or less benign reasons. Blocker corporations organized in tax havens can be used to shield investors from these obligations.

First, all US partnerships and (with few exceptions) all foreign partnerships with income that is either effectively connected with a US trade or business or that is US source income must file a partnership return, as well as a schedule K-1 for each partner, thus disclosing information about the partners and the income they receive.[38] Second, if the income is effectively connected with a US trade or business, the partnership must also withhold on this income at the highest applicable rate and report this information to the IRS.[39] Third, if the income is US source income, the partnership must withhold at a 30% rate (unless a lower rate can be claimed under

[37] To calculate these trends, I match the K-1 payees to form 1040 individual returns, and determine where each individual recipient falls within the US income distribution by comparing adjusted gross income reported on the form 1040 to the distribution calculated using data from the IRS Statistics of Income.

[38] See footnote 24 and accompanying text.

[39] See IRC §§871(b), 882, 875(1), 1446, and forms 8804 and 8805. The highest applicable rates are 37% for individuals and 21% for corporations, but prior to the Tax Cuts and Jobs Act of 2017 these rates were 39.6% and 35%, respectively. This income is taxed on a net basis, meaning that deductions may be applied.

a treaty) and report this information to the IRS.[40] Fourth, a special problem arises for US tax-exempt investors: unrelated business taxable income (UBTI). The rules are complex, but if the partner is a tax-exempt investor (such as a university, charitable organization, foundation, or pension or retirement fund) and the income received is either derived from a business activity unrelated to the organization's exempt purpose or from a debt-financed (leveraged) investment, then the income received by the tax-exempt organization will be taxable at corporate rates.[41]

b. Basics of the blocker structure

An investment fund can avoid these issues for both its foreign and US tax-exempt investors by adding a "blocker" corporation organized in a low- or zero-rate tax haven into its fund structure. This entity serves as a partner in the investment fund, and the foreign or US tax-exempt investors invest in this blocker corporation rather than in the fund directly. As a result, all the reporting and tax obligations are incurred by the blocker rather than by the ultimate investors. And because the blocker is organized in a tax haven, little or zero tax is owed on the income it receives from the partnership.

A very simple example fund arrangement that utilizes a tax haven blocker corporation is portrayed in Figure 3, known as a "Master Feeder" structure. This structure is designed to accommodate the different tax needs of investors by letting them invest into separate "Feeder" funds, rather than investing into the "Master" fund directly. The Master Fund is the main investment entity that owns the portfolio of investments, and may either be a US partnership or foreign partnership organized in a tax haven like the Cayman Islands.[42] The Master Fund

[40]US source income is income that is not effectively connected with a US trade or business but that arises from US sources and is "fixed, determinable, annual or periodical" income, which generally includes all income other than capital gains. See §§871(a) and 881. Partnerships must withhold on payments of US source income to foreign partners (except in the case of a nonwithholding foreign partnership as described in Treas. Reg. §1.1441-5(c)(3)(v)) on a gross basis (meaning deductions do not apply) at a 30% rate, unless an exemption applies or a reduced rate is available under a treaty. See §§1441 and 1442. A foreign payee can claim a reduced rate of withholding or an exemption if such benefit is available under a bilateral treaty between the United States and the foreign person's country of residence. In such cases, the final tax rate depends on the type of income: it is often reduced to 15% for dividend income, and 10% (or sometimes 0%) for interest and royalty income. The payee may file a W-8BEN or W-8BEN-E with the withholding agent to claim such exemption or reduced rate. For a list of rates under bilateral tax treaties, see IRS Tax Treaty Table 1: Tax Rates on Income Other Than Personal Service Income Under Chapter 3, Internal Revenue Code, and Income Tax Treaties, available at https://www.irs.gov/pub/irs-utl/Tax_Treaty_Table_1_2019_Feb.pdf.

[41]Income is generally UBTI if it is from a trade or business regularly carried on by the organization that is unrelated to its exempt purpose. See IRC §§511 and 512. Likewise, if the organization is a partner in a partnership engaged in such unrelated activities, the income flowing to the organization attributable to these activities is UBTI for the tax-exempt organization. See IRC §512(c). An important exclusion, however, is that most passive investment income is not UBTI, notably dividends, interest, and gains or losses on the disposition of securities. See IRC §512(b). But there is also an important exception to this exclusion: the income generated by any asset acquired using debt *is* taxable as UBTI. See IRC §512(b)(4). Note as well that fees paid to the fund would likely generate UBTI for tax-exempt investors. The amount that is UBTI is determined by the amount of indebtedness relative to the adjusted basis of the income-producing asset. See IRC §514.

[42]Using a foreign partnership makes it easier to avoid any foreign portfolio companies qualifying as a controlled foreign corporation, and also permits the master fund to avoid assuming withholding responsibility on US source income. See Treas. Reg. §1.1441-5(c), explaining that for payments to a nonwithholding foreign partnership, the payer treats the partners as the payees and must withhold appropriately.

has two limited partners that serve as Feeders: a US limited partnership through which US taxable investors invest, and a blocker entity organized in a tax haven, through which foreign and US tax-exempt investors invest.[43] This blocker entity may be a corporation or any other business entity that elects to be classified as a corporation under the check-the-box rules.

By "checking the box" to classify the tax haven entity as a corporation for US tax purposes, all of the US reporting and tax obligations incurred on account of being a partner in the fund are borne by the blocker rather than by the investors. Similarly, any information reported by the partnership about its partners will be about the blocker entity, not the investors.[44] Note that this benefit is especially appealing if the investor is not an individual or corporation, but is a foreign partnership that itself may have many foreign partners.

c. Withholding taxes

By carefully managing investments to ensure they generate only certain types of income (namely interest and capital gains), funds can avoid US withholding tax by ensuring that the blocker does not receive either effectively connected income or taxable US source income. As a result, even though the United States has few tax treaties with tax haven countries (where treaties are used by foreign persons to reduce withholding rates), the absence of a treaty is not a concern because there is no withholding on this income.

This result is attributable to the confluence of three separate tax rules. First, foreigners who trade in securities and commodities are exempted from being treated as engaged in a taxable trade or business in the United States—thus the blocker will generally not be treated as receiving effectively connected income by virtue of the trading activities of the investment fund.[45] Second, most interest payments received by the blockers are covered by the "portfolio interest exemption," a rule that broadly exempts interest payments on most debt instruments to foreign persons from the withholding tax on US source income.[46] Finally, capital gain on the sale of US financial assets by a foreign person is generally not subject to US tax.[47] Thus, a fund

[43] Limited partners do not engage in management of the fund, and enjoy limited liability. This is in contrast with a general partner, which has management power but also faces unlimited liability. In the structure described here, Feeders are limited partners, while typically two more entities are created to represent the investment professionals: an investment manager (also a limited partner) that receives a management fee, and the general partner, which receives a performance allocation (carried interest). The general partner is organized as an LLC, which protects investment professionals with limited liability. For more discussion about hedge fund structures, see Freeman and Nitschke (2003); Lhabitant (2007); Miller and Bertrand (2011).

[44] For example, information included on a schedule K-1, form 8805 or form 1042-S will be about the blocker.

[45] See IRC §864(b)(2). The exemption applies to both trading through an independent agent or broker or trading on the taxpayer's own account. Treasury clarified through regulations that partners in investment partnerships were covered by the exemption. See Treas. Reg. §1.864-2(c)(2)(ii). The exemption does not apply to dealers.

[46] See IRC §871(h) and §881(c). The exemption is generally not available for interest on foreign bank loans, 10-percent shareholders of the debtor, or to CFCs when the interest is received by a related person.

[47] US source income excludes almost all gains from sales of property. See IRC §871(a) and Treas. Reg. §§1.871-7(a)(1) and 1.1441-2(b)(2)(i). In addition, source rules define income from the sale of personal property as foreign source if the seller is a foreign person. See §865(a). Capital gains of foreign persons are generally only subject to US tax when they are effectively connected with a US trade or business, arise from a US real property interest

can structure its investments for foreign and tax-exempt investors so that the blocker receives income mostly (or entirely) as capital gains and interest, minimizing US tax. This practice has become much easier as US companies have shifted toward share repurchases over dividends as a preferred way to return capital (Grullon and Michaely, 2002; Zeng and Luk, 2020).

d. US tax-exempt investors

The blocker enables US tax-exempt investors to avoid receiving UBTI. Any income that would have been UBTI from the fund in the hands of the tax-exempt organization is absorbed by the blocker corporation. The tax-exempt investor can then receive this income as dividends or capital gains (by either selling or liquidating the investment). Both dividends and capital gains are excluded from UBTI.[48] In addition, anti-abuse provisions penalizing US taxpayers for accumulating assets in low-tax jurisdictions do not capture this arrangement.[49]

e. Foreign investors

For foreign investors, the blocker entity offers some flexibility to choose how income ultimately flows back to the investor. In particular, the blocker can be organized as a corporation under local law, or the blocker can be designed to be tax neutral as a "hybrid entity"—i.e., organized as a partnership for purposes of local and foreign law while checking the box under US tax law so that it is treated as a corporation for US tax purposes. In this case, from the perspective of the investor's jurisdiction, the income simply flows through the blocker.

The optimal arrangement, and any further entity arrangements above the blocker, will depend entirely on the investor's idiosyncratic circumstances and the laws of the investor's jurisdiction. For instance, if the foreign investor is in a jurisdiction with especially lenient tax rules—such as another tax haven—a blocker organized as a corporation might be used to receive ordinary income (e.g. interest income), which could then be extracted by the investor from the corporation as tax-preferred dividends or capital gains. On the other hand, strong anti-abuse rules in the investor's jurisdiction may make the hybrid approach more appealing. In addition, there may be important non-tax considerations that factor into the decision, such as industry-specific regulations.

The challenge for most foreign investors in high-income countries is that most of these jurisdictions have anti-abuse rules preventing deferral or otherwise taxing passive investment

(see IRC §§897 and 1445), fall into specific categories in IRC §§871(a) or 881(a), or when an individual caught in the unlikely case of IRC §871(a)(2).

[48]For additional analysis, see Joint Committee on Taxation, Present Law And Analysis Relating To Tax Treatment Of Partnership Carried Interests II, September 6, 2007. See also Brunson (2012).

[49]The PFIC rules do not apply unless the income would be "taxable to the organization under Subpart F" (Treas. Reg. §1.1291-1(e)(1)), but Subpart F rules usually do not apply because the ownership of the blocker can be organized to ensure that the entity is not a Controlled Foreign Corporation (e.g. the US owners can make sure to own less than 10% each — see generally IRC §§951 and 957). Even if Subpart F did apply, the income included would typically be passive investment income and thus would not constitute UBTI, and thus would not be taxable, so that the PFIC rules are not triggered.

income in low-tax jurisdictions.[50] Thus, for many foreign investors there may be no additional tax reductions through creative structuring, at least without engaging in evasive activity.

In addition to the above points, a blocker entity may protect the foreign investor from the application of the US estate tax. Foreign investors are subject to the estate tax to the extent of their property "situated within the United States."[51] The rules are complex, but without the blocker, the investor could face tax on either the interest in the partnership or its US assets.[52]

f. US taxable investors

Blocker arrangements in tax havens are generally not appealing for US taxable investors, for several reasons. First, unlike foreign investors, the blocker does not shield the US taxable investor from IRS reporting: as a US person, the investor must file US tax returns. Second, the US taxable investor does not benefit from potential tax reduction in the same ways that US tax-exempt investors or foreign investors do. To the contrary, using the blocker entity will potentially incur unnecessary withholding taxes on US source income (notably on dividends) and also risks incurring tax on effectively connected income if the blocker is deemed to be carrying on a US trade or business. The US taxable investor could avoid these taxes by simply investing through a partnership. Third, if the fund's investments generate net losses, the blocker will prevent these losses from passing through to the investor to offset other gains or income.

Finally, the US taxable investor is also subject to anti-abuse rules that are designed to discourage accumulation of passive income in tax havens: the Controlled Foreign Corporation (CFC) rules and Passive Foreign Investment Company (PFIC) rules. The CFC rules prevent deferral of US taxation on income received by foreign corporations substantially owned by US persons. If the CFC rules are triggered, the US investor is taxed on the investment income received by the blocker, even if none of that income is distributed to the investor.[53] If the CFC rules are not triggered, the blocker will instead be subject to the PFIC rules, whereby the investor must either choose to currently pay taxes on undistributed income of the blocker or face high tax rates later upon disposition of her interest in the blocker.[54] In most cases,

[50] See EY (2019) Worldwide Corporate Tax Guide, and prior years.

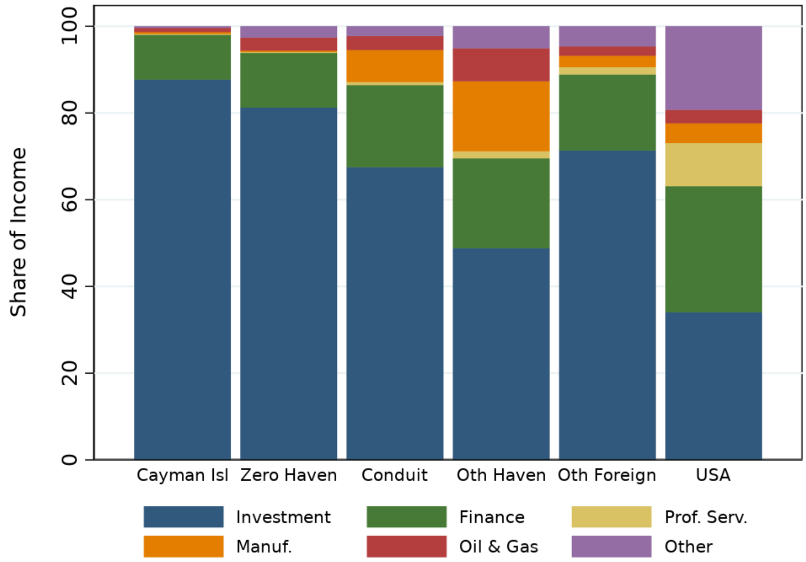
[51] IRC §2106.

[52] See Cassell et al. (2003) for detailed coverage of this issue.

[53] Very generally, a foreign corporation is a CFC if more than 50% of the stock of that corporation (by vote or value) is owned by "US shareholders." US shareholders are US persons who each own (directly, indirectly, or constructively) at least 10% of the stock of the corporation. See IRC §§951, 957, 958. If the corporation is a CFC, US shareholders must include in their current gross income their pro rata shares of certain income of the CFC, even if it is not distributed to the shareholder (generally passive investment income, earnings invested in US property, and other income that is easy to shift between entities). See IRC §§951, 952.

[54] A foreign corporation is a PFIC if at least 75% of its income is passive or at least 50% of its assets generate passive income. See IRC §1297. Unlike CFCs, no minimum ownership is required—the rules apply to any US shareholder owning any portion of the corporation. The rules are complex, but very generally, the investor has three options. The investor may elect to be taxed on her share of income received by the PFIC (i.e., the Qualified Electing Fund option) or to be taxed annually at ordinary rates on the increase in the value of the stock of the PFIC (i.e., the mark-to-market option). See IRC §§1293-1296. If no election is made, the investor is subject to

Figure 11: Share of Partnership Income by Industry, by Destination, 2011-2019



Notes: Income is net income received by owners (i.e. excluding higher-tier partnerships). Industries are grouped using NAICS codes. Investment is 5239. The rest are organized by 2-digit NAICS codes. Finance is 52 (finance and insurance, excluding investment), 53 (real estate and leasing) and 55 (management of companies and enterprises). Professional services is 54. Manufacturing is 31, 32, and 33. A substantial portion of the manufacturing income is attributable to pharmaceutical and petroleum production. Countries are grouped according to Table 1.

these anti-abuse rules leave the investor in at best a comparable position to what would have been the case if she instead invested through a partnership, and at worst in a position with a substantially higher tax liability.

But while US taxable investors do not generally benefit from a blocker arrangement, investors engaged in evasive behavior may still benefit, as the blocker makes it difficult for US tax authorities to ascertain where the income goes beyond the blocker. Although empirical research suggests such evasive behavior may have been nontrivial in previous decades (Hanlon et al., 2015), the passage of FACTA in 2010—which requires additional reporting by foreign financial entities about US owners, including by investment funds—has made evasion through such arrangements more difficult.[55] Likewise, recent research suggests that although US persons account for some of the world's offshore hidden wealth, it is small share relative to the size of US wealth overall (Alstadsæter et al., 2018). Unfortunately, however, it is likely impossible with available data to ascertain whether, or to what extent, arrangements like these facilitate evasion as opposed to avoidance, since the presence of a foreign blocker conceals the investors above that blocker.

the default option: tax imposed upon the disposition of the interest in the PFIC at ordinary rates, plus imputed interest accrued over time. See IRC §1291. For most investors, the Qualified Electing Fund option is preferable.

[55] See Section 6 for a more detailed discussion of FATCA.

5.2 Evidence of these arrangements in the data

The new data strongly suggest that these income flows to tax havens are driven by entity arrangements like those described above. In short, I find that the vast majority of the partnership income flowing to tax havens is in the finance industry (specifically in the investment industry), is received by entities that can serve as blockers (corporations or hybrids eligible to check the box as corporations), and is mostly of a character that is exempt from US tax.

First, as discussed previously in Section 4, income flowing to tax havens is overwhelmingly in the finance industry, especially in the investment industry. Breaking down the flows further by type of haven destination, as shown in Figure 11, reveals that the tax havens most amenable to this type of arrangement (i.e. the Cayman Islands and other zero-rate jurisdictions) exhibit the highest concentration of income in finance and portfolio investment. I estimate that 88% of income flowing to owners in the Cayman Islands between 2011 and 2019 arises from the portfolio investment industry, as does 81% of the income to owners in other zero-rate havens.

Relatedly, I find that tax havens represent a substantial portion of the investment industry's total flows. I estimate that 23-26% of all partnership income in the investment industry flows either to or from a tax haven.[56] I also estimate that roughly 37% of all partnership income in the investment industry flows through partnerships that have at least one partner that is likely a blocker in tax havens.

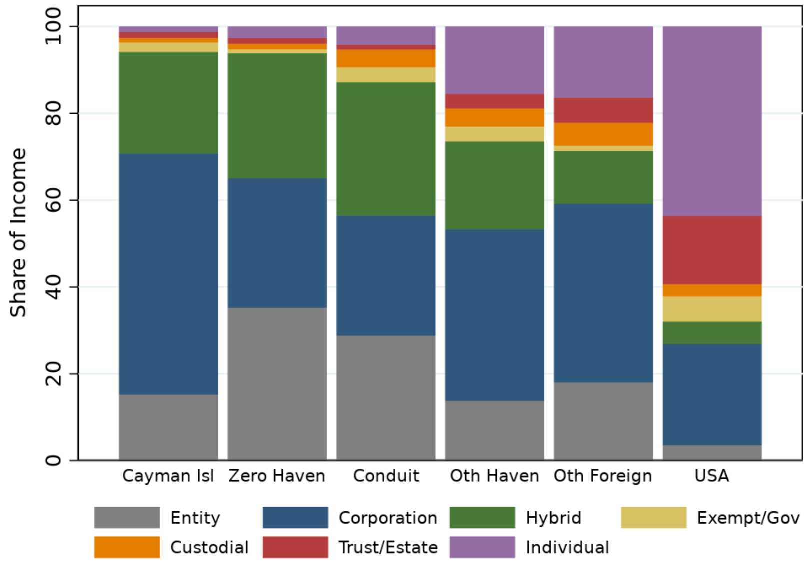
Second, most of the income flowing to tax havens is received by entities rather than individuals—specifically by corporations or hybrid entities that are able to check the box to be classified as corporations for US tax purposes. As shown in Figure 12, this pattern is most apparent for the Cayman Islands and for other zero-rate tax havens, where this arrangement makes the most sense. In the Cayman Islands in particular, 77% of the income received is by either corporations or hybrid entities, and another 16% is received by entities where the type cannot be determined but which could also be entities eligible for this arrangement. Honing in on these undetermined entities, I find that 99% of the income flowing to them in the Cayman Islands and 98% flowing to them in the other zero-rate havens is in the finance industry, further suggesting that many of these entities are functioning as blockers as well.

Third, the income flowing to tax havens is substantially of a character that is not subject to US tax. As discussed previously, capital gains to foreign persons are generally not taxed by the US, and interest income is generally exempt through the portfolio interest exemption.[57] The overwhelming majority (83%) of income flowing to the Cayman Islands falls into these exempt

[56] I calculate the range as follows. For the low end, I look only at income flowing to owners, and identify the country of the owner and the country of the partnership from which the income flows. For the high end, I include income flowing to higher-tier partnerships as well, but exclude flows to partnerships in the same country as the lower-tier partnership to minimize double-counting.

[57] See footnote 47 and footnote 46.

Figure 12: Share of Partnership Income by Type of Partner, by Destination, 2011-2019



Notes: Income is net income received by owners (i.e. excluding higher-tier partnerships). Types of partners are categorized as in Table 2. Countries are grouped according to Table 1.

categories, and 75% of income flowing to other zero-rate havens does as well. In addition, the trading safe harbor likely covers almost all of the income flowing to these havens, given the predominance of passive income and that these flows are largely in the finance industry.[58]

These inferences are confirmed by withholding data reported on Forms 8805 (income effectively connected to a US trade or business) and 1042-S (US source income). As shown in Figure 4, little of this income is effectively connected to a US trade or business, likely on account of the trading safe harbor. As well, little tax is collected on US source income, as most of the income flowing to havens falls into an exempt category, as confirmed by Figure 14. In particular, much of the income flowing to tax havens is capital gains and portfolio interest.

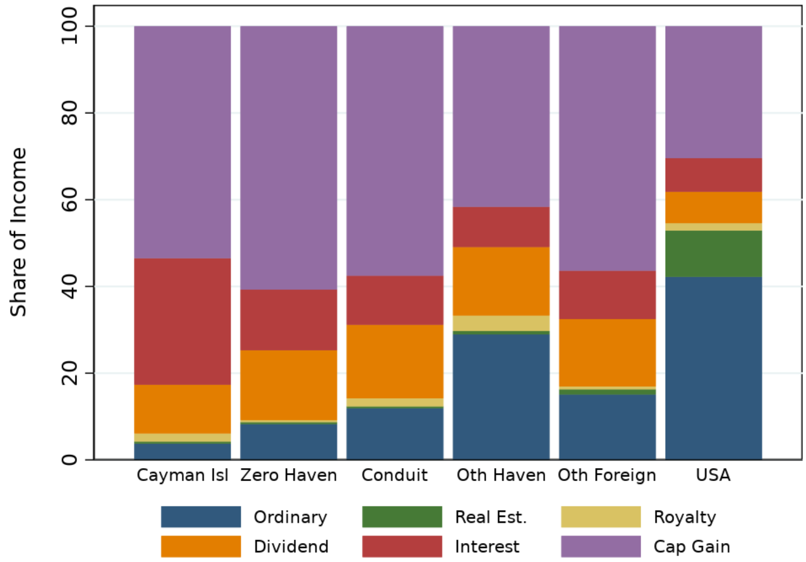
I also find evidence that partnerships are frequently set up in the Cayman Islands as "Master Funds" in a structure similar to the one depicted in Figure 3. In this case, the income flows up from a Cayman Islands partnership (rather than from a US partnership) to the "Feeder" entities that separately serve US taxable investors and other investors. I estimate that at least $340 billion between 2011 and 2019 flowed through such Cayman Islands Master Funds.[59] I also estimate that about $210 billion flowed through partnerships with similar ownership structures in other zero-tax havens. In total, I estimate that roughly $320 billion of the net income reported on the K-1s of tax haven partnerships flowed back to the US, as seen in Figure 15.[60]

[58]See footnote 45.

[59]I identify Cayman Islands Master Funds by finding partnerships organized in the Cayman Islands that have at least one partner that is a US partnership and at least one partner that is an entity in a tax haven. This is likely a lower bound, because it does not capture more complex arrangements.

[60]It's important to note that some, likely small, portion of this income may be double-counted. For example, income could flow through a Cayman Partnership, back to a US partnership, back to a tax haven partnership,

Figure 13: Share of Partnership Income by Character, by Destination, 2011-2019



Notes: Income is net income received by owners (i.e. excluding higher-tier partnerships). Countries are grouped according to Table 1.

It is important to note that other tax havens are much less amenable to this type of tax planning structure, namely because of the non-zero corporate tax. If the investors are indifferent between jurisdictions on other respects, there is no reason to incur unnecessary taxes by incorporating a blocker entity in a higher-tax jurisdiction. As a result, the large amount of income flows to other jurisdictions likely reflect different motivations and structures. This is especially the case for the "other haven" countries. The decomposition of income suggests that there are more individual, custodial, and trust recipients in these jurisdictions, and less income originates in finance. Some may largely be legacies of a previous era of planning, such as Curaçao.[61] But many others specialize in secrecy, raising concerns about their prominence.

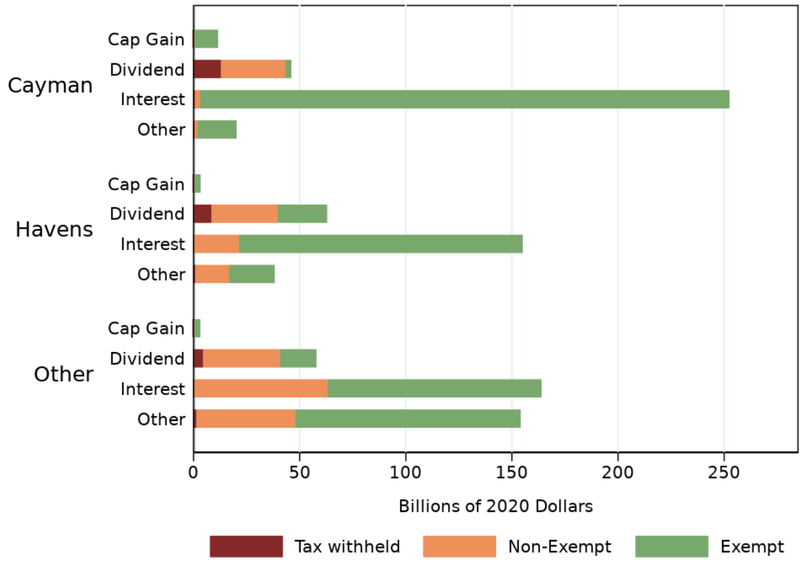
5.3 Issues for US tax policy

These findings offer new evidence that contributes to ongoing discussions about US tax policy. In particular, the large flows to tax havens highlight complex policy trade-offs. On the one hand, there is value to attracting foreign investment. The US tax exclusions that make these tax haven arrangements possible—namely the trading safe harbor and the portfolio interest exemption, each described above—were enacted with the explicit purpose to attract foreign

and back to a US partnership. But the transaction costs of these additional layers, with no tax benefit, suggest any such double-counting is minimal.

[61] Curaçao was a more prominent offshore financial center prior to the 1980s. See van Beurden and Jonker (2021) for a discussion of the history.

Figure 14: Withholding Reported on Forms 1042-S, by Destination, 2011-2018



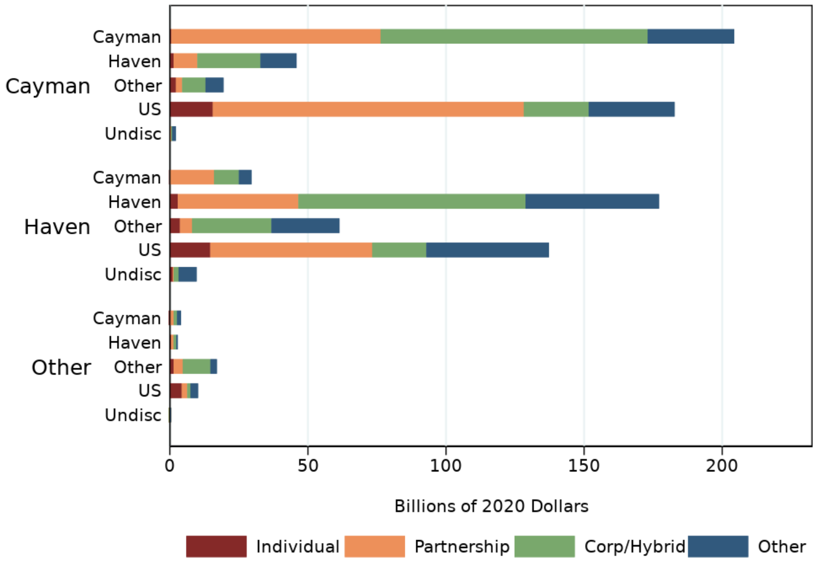
Notes: Data collected from Forms 1042-S, aggregated across years 2011-2018. Cayman refers to income reported to Cayman Islands recipients. Havens refers to other havens. Other refers to non-haven foreign recipients. Each bar presents amounts reported by type of income. "Other" income is largely royalties and notional principal contracts (swaps), which comprise a substantial portion of income flowing to non-haven jurisdictions. Note that this income includes payments to non-partners as well as to partners (e.g. interest payments to foreign lenders). The green portion of each bar is the amount reported as covered by some exemption, under US tax law or a treaty. The orange portion is the amount which is not exempt, but may be subject to reduced rate under a treaty. Orange also includes income that may be withheld by a different agent or that may be subject to taxation under the effectively connected income rules. Finally, the red is the actual amount of tax collected, as reported on the forms. See Appendix B for discussion of data from Form 1042-S.

capital to the United States.[62] Indeed, the US economy benefits greatly from abundant foreign portfolio investment, which finances new businesses and investments and lowers borrowing costs for households, businesses, and the government.

On the other hand, the new evidence presented here—revealing large amounts of passive investment income flowing tax-free from the United States to anonymous investors shielded by entities in tax havens—raises issues that highlight how the path that foreign investment takes

[62]For a discussion of the trading safe harbor and portfolio interest exemption, see footnote 45 and footnote 46, and accompanying text, respectively. The trading safe harbor was enacted as one of many provisions in the Foreign Investors Tax Act of 1966 to promote foreign investment, with the particular goal being to reduce uncertainty over the tax treatment of foreign persons investing and trading through domestic agents See Sen. Rep. 1707, 89th Cong., 2d Sess. 9 (1966), and Tillinghast (1967). The portfolio interest exemption was enacted as part of the Deficit Reduction Act of 1984, and was intended specifically to support debt-issuing US companies competing for foreign capital in the Eurobond market. Prior to the enactment of the portfolio interest exemption in 1984, US companies faced additional costs competing for capital in the Eurobond market, typically having to gross up lenders for any withholding tax to remain competitive with foreign companies in jurisdictions where withholding was not imposed on outbound interest payments. To avoid the tax, US companies typically issued debt through a shell company subsidiary organized in the Netherlands Antilles. An exemption for US source interest payments was claimed under the US-Netherlands bilateral tax treaty. See Staff of Joint Committee on Taxation, 9th Cong., 2d Sess., General Explanation of the Revenue Provisions of the Deficit Reduction Act of 1984, at 391 (1984). Although the exclusion of capital gains from US source income is also relevant, in that much of the income flowing to tax havens is capital gains, the historical context is different in that the exclusion was driven mostly by concerns of administrability. The concern was that it would be difficult for the payor to ascertain the foreign seller's adjusted basis in the asset to withhold on the net amount, and withholding on the gross amount appeared draconian. See Veliotis (2019) for a discussion of the history and this topic generally.

Figure 15: Income From Foreign Partnerships, by Origin and Recipient, 2011-2019



Notes: This chart presents the flows of net income from partnerships organized in foreign jurisdictions, broken down by jurisdiction of origin, jurisdiction of destination, and type of partner receiving the income. Large font categories on the left refer to the origin, where the partnerships are organized. Smaller font subcategories refer to the destination jurisdiction of the partner. "Haven" refers to non-Cayman havens. "Undisc" refers to foreign undisclosed jurisdiction. The income is further broken down by the type of recipient in each jurisdiction: individuals, partnerships, corporations/hybrids, and other (e.g. tax-exempts, trusts and estates, etc.). The categories correspond to those in Table 2.

is important as well. First, under the current framework a tax burden is shifted onto American taxpayers: in addition to any foregone revenue on these flows, blockers in tax havens shield tax-exempts from UBTI and foreigners from estate tax, but most importantly the blockers make it more difficult for US authorities to detect evasion or underreporting of other US tax liabilities.[63] Second, there is deadweight loss: capital and labor are expended to create and maintain the offshore arrangements for investors, valuable resources that could be devoted to more productive bona fide business activities. Third, there are externalities: condoning activities in tax havens to attract capital encourages a "race to the bottom" across nations.[64]

In light of these trade-offs, empirical research is needed to assess the likely net effects of policy counterfactuals. The economic incidence of a tax policy depends on the elasticities of the market participants. Some existing research suggests that cross-border portfolio investment is sensitive to taxes (Desai and Dharmapala, 2011; Jacob and Todtenhaupt, 2020), but these studies do not focus on investment flowing into the United States, which is in a league of its own

[63] The shifted tax burden is exacerbated by the strong trend of US companies opting for share repurchases over dividends as a preferred way to return capital to shareholders. The repurchases, unlike dividends, are not caught by withholding on US source income.

[64] To clarify the point on externalities: by enacting a policy that attracts highly mobile capital, other nations are encouraged to enact equally or more lenient policies to attract the capital back, constraining public revenue and further incentivizing investment in the havens. See Wilson (1999); Slemrod and Wilson (2009); Keen and Konrad (2013). For a discussion of the international responses in the years after the United States' enactment of the portfolio interest exemption, see Avi-Yonah (2000).

when it comes to attracting foreign portfolio investment.[65] For many reasons, demand for access to US capital markets is likely much more inelastic than for any other country, which would offer more space to adopt tax policies addressing these issues.[66] That said, unilateral action is not the only alternative—in fact, in dealing with tax havens a coordinated policy is theoretically optimal to minimize externalities incurred by an otherwise unilateral actor (Slemrod and Wilson, 2009; Keen and Konrad, 2013).[67]

In addition to this general discussion regarding outbound flows to tax havens, there is also a more specific question about whether the treatment of US tax-exempt investors is appropriate. US tax-exempt investors use tax haven blockers to avoid UBTI, primarily by shielding them from a fund's debt financing. Evidence suggests this practice is prevalent.[68] But the anti-leverage rules were originally enacted to prevent abusive sale-leasebacks, rather than bona fide investment (see Brunson, 2012). Thus, current rules are a strange middle-ground that neither allows nor blocks leveraged investments: US tax exempts still invest with leverage tax-free, but must re-route their investments through a tax haven to do so. Is this a loophole that should be closed, or an inefficiency that should be eliminated?

It is beyond the scope of this paper to answer all of the policy questions posed here. As noted in the introduction, the focus of this paper is to empirically describe the income flows to the owners of partnerships, and to shed light on arrangements never before quantified. But one point is clear: given the magnitude of the flows presented here, policy choices in this space are likely highly consequential.

6 Additional income reporting after 2010

I find a large jump in income reported to foreign partners on K-1s between 2010 and 2011, which can be clearly seen in Figure 1 and Figure 2. After decomposition analysis, the pattern of the increase suggests that it was prompted in large part by a combination of (a) additional reporting requirements under the Foreign Account Tax Compliance Act (FATCA) and (b) new

[65] From IMF data, the United States not only is the leading destination for international investment, but boasts four times the amount of the next non-haven country, the United Kingdom. See IMF, Coordinated Portfolio Investment Survey, Table 8: Derived Portfolio Investment.

[66] The United States is the largest economy in the world by nominal GDP, has by far the largest consumer market, is the world's largest importer and second largest exporter, boasts the world's largest stock market, issues government debt that is considered a world safe haven asset, is defended by the world's largest military, controls the world's reserve currency, and is by any measure consistently among the most resilient, dynamic, and innovative economies.

[67] Notable efforts have been made toward international tax cooperation in recent years to address avoidance and evasion. See Mason (2020) for a general overview. For an overview of recent OECD and G20 initiatives, see OECD/G20 Inclusive Framework on BEPS Progress: Progress Report, September 2021, available at https://www.oecd.org/tax/beps/oecd-g20-inclusive-framework-on-beps-progress-report-july-2020-september-2021.pdf.

[68] See Preqin (2014), suggesting a majority of US-based investors in US hedge funds (by count) are tax-exempt. See also Silber and Wei (2015).

rules about the taxation of dividend equivalent payments to foreign persons.

a. FATCA

Enacted in March 2010 as a measure to reduce evasion by US taxpayers, FATCA imposes a new 30% withholding tax on a broad range of payments to foreign entities, a tax which can only be avoided if the foreign entity is in compliance with new reporting requirements regarding any accounts or interests held by US persons.[69] In particular, the act imposes new filing requirements for "foreign financial institutions," which include banks, broker-dealers, custodians of retirement funds, and notably investment funds like hedge funds, private equity funds, and venture capital funds.[70] The new withholding tax applies to payments that are not otherwise subject to withholding, including portfolio interest and capital gains on financial assets.[71]

The imposition of a new withholding tax broadly covering capital gains on portfolio investment is notable, because these capital gains are generally not otherwise taxed when received by foreigners.[72] In fact, because such capital gains are not US source income, they were not even reported on form 1042-S. Thus, prior to FATCA, capital gains received by foreigners that were not reported on a K-1 were generally not required to be reported elsewhere. But FATCA changed this. Figure 16a shows an enormous jump of nearly $50 billion annually in reporting of long term capital gains to foreign owners on K-1s after 2010.[73] By comparison, no jump occurs for capital gains reported to US owners on K-1s as seen in Figure 16b.

This sudden increase in reported income extends beyond capital gains, notably to other decompositions where one would expect an effect from FATCA. Figure 16c shows ordinary income flowing to owners that could not be matched to an annual return, but that I infer to be custodial accounts (such as bank accounts) or trusts (which are often held by banks or other financial institutions). These types of accounts are squarely within the space covered by extra FATCA reporting, and so we see a jump even in ordinary income. Finally, by comparison, I plot ordinary income reported to foreign owners for whom an annual return could be matched, in Figure 16d. For these owners, there is no jump in reported income.

These findings align with recent research on the importance of third party reporting (Kleven et al., 2011; Pomeranz, 2015). In short, I find that the extra reported income is concentrated in

[69] See IRC §§1471-74. For a discussion of the provisions, see Joint Committee on Taxation (2011) General Explanation Of Tax Legislation Enacted In The 111th Congress. For discussion of motivation, see US Dept. of the Treasury, General Explanations of the Administration's Fiscal Year 2010 Revenue Proposals, p.43.

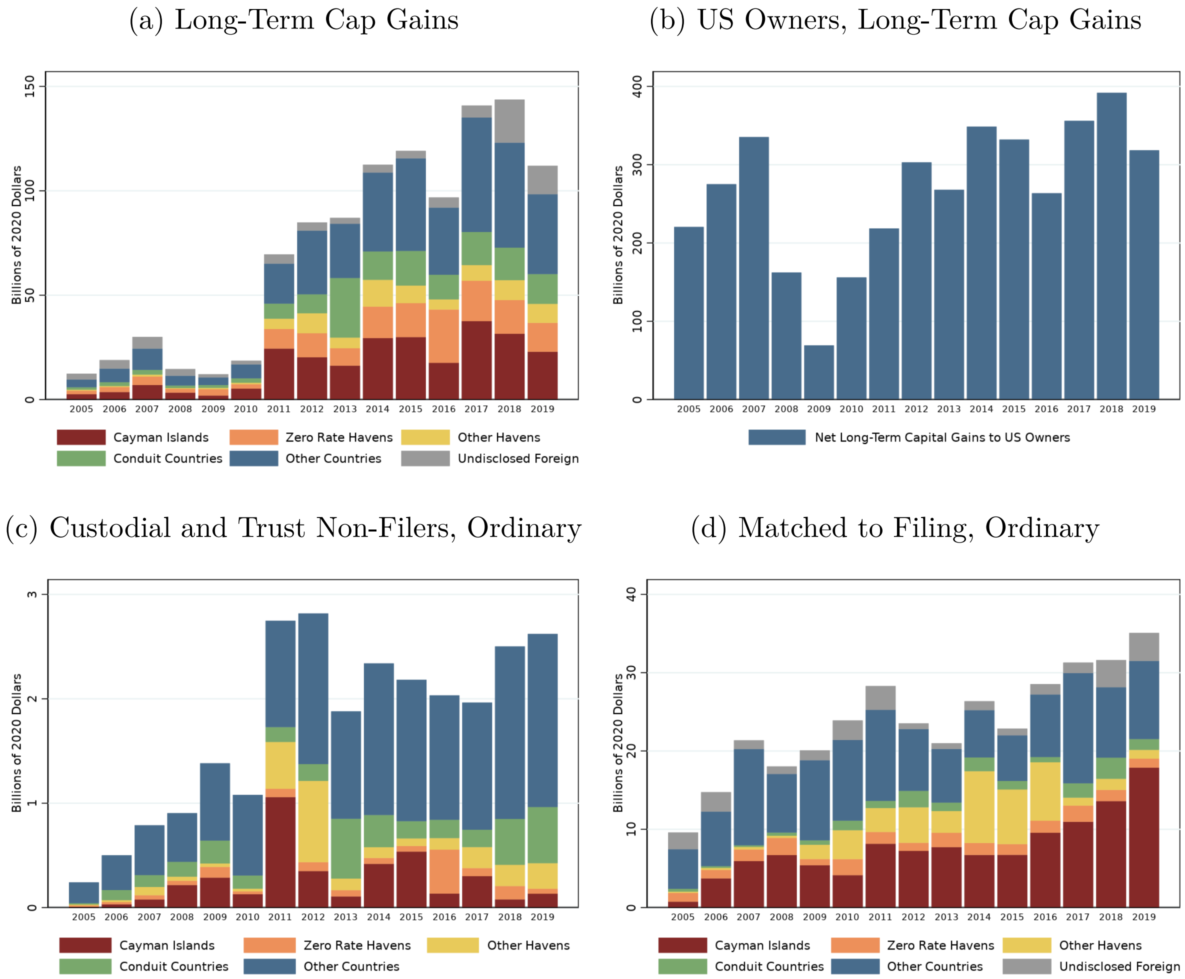
[70] See IRC §1471(d)(5).

[71] See IRC §1473(1)(A).

[72] See footnote 47.

[73] Note that although we see a jump in 2011, FATCA did not take effect in 2011. The law, by its own terms, did not apply to payments prior to 2013. See section 501(d) of the act (Pub. L. No. 111-147, § 501(d)). Why do we see a jump in 2011 and not 2013? Two reasons. First, the law grandfathered in payments on obligations made in the two years prior to the effective date, creating an incentive to establish clear documentation of payments in 2011. Second, waiting until the effective date to fully report income risks a retroactive challenge by tax authorities for underreporting on prior payments.

Figure 16: More Income Reported After FATCA in 2010?



Notes: Panel (a) shows the net positive long term capital gains reported on K-1s to all foreign owners. Panel (b) reports the sum of net positive ordinary business income, real estate income, royalties, and interest income to foreign owners who cannot be matched with an annual tax return. Panel (c) reports the same income to owners that are custodial accounts and trusts. Finally, panel (d) reports the same income to foreign owners that can be matched with an annual tax return. Undisclosed foreign jurisdictions are excluded from panel (c) due to a small number of large flows in certain years creating volatility.

flows to owners who were either not filing returns (especially owners who are custodial accounts or trusts) or who are receiving long term capital gains, which was not reported elsewhere. By imposing new reporting requirements on (1) payors making payments to foreign entities, (2) foreign entities (notably foreign financial institutions), and (3) US persons with foreign financial assets, FATCA not only gathered additional information on outbound flows and foreign financial assets, but also diversified reporting across multiple parties, all serving to increase the chance of tax authorities identifying underreporting on K-1s.

b. Dividends

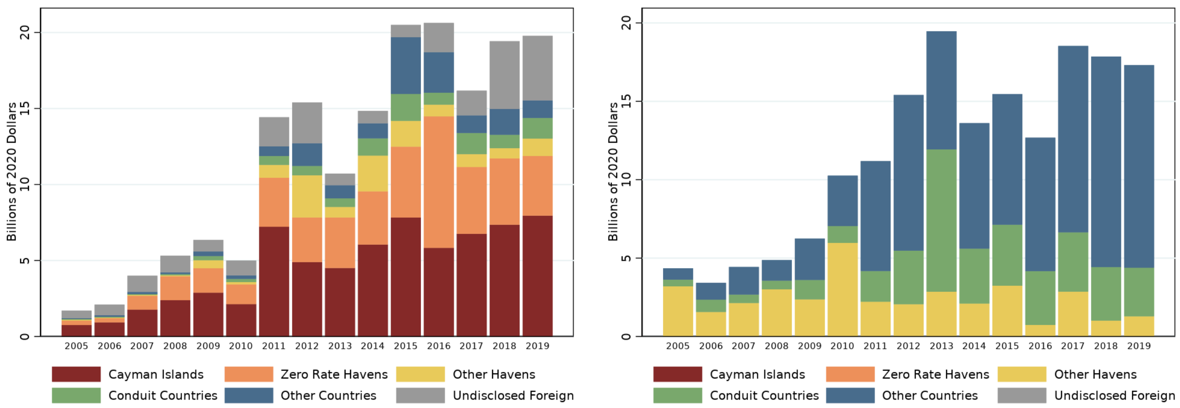
In the same law in which FATCA was enacted, Congress also created new rules for the taxation of "dividend equivalent" payments to foreign persons.[74] Prior to this law, foreign investors had

[74]Pub. L. No. 111-147, §§ 541. The rule is currently codified at IRC §871(m).

Figure 17: More Reported Dividends After Taxing Dividend Equivalents in 2010

(a) Dividends to High-Tax/Non-Treaty

(b) Dividends to Low-Tax Treaty



Notes: Panel (a) shows dividends reported on K-1s to owners in countries that are either non-treaty countries (subject to 30% reporting) or are treaty countries but with high tax rates (greater than 15%). Panel (b) shows dividends to owners in low-tax treaty countries (at most 15%).

developed a way to avoid high withholding tax rates on US source dividends by engaging in swap agreements (i.e. notional principal contracts).[75] The new law taxed these payments as if they were dividends, thus removing the incentive to circumvent outbound dividend payments.[76]

Figure 17 shows these incentives manifested in the data. Prior to 2011, investors in jurisdictions without bilateral treaties with the United States, or where the treaty withholding rate on dividends was high, (i.e. the left panel) had a strong incentive to engage in these swap contracts rather than receiving dividends directly. After the new law, this incentive was eliminated. A substantial jump is observed at this time in dividends reported on K-1s to such jurisdictions. By comparison, the right panel represents owners in countries with low withholding rates, where the incentive to engage in such contracts was much smaller. Likewise, there is little change in dividends reported around the time of the new law.

7 Conclusion

Partnerships, despite their rapid growth over the past two decades, have remained by far the most opaque class of business entity for economists. A combination of legal complexity, large interconnected entity structures, and data issues have prevented economists from being able to

[75]A foreign investor will engage in such a swap if the investor is in a country to which a high withholding rate on dividends applies (such as the Cayman Islands, which has no bilateral treaty with the United States, meaning dividends will be subject to a full 30% withholding tax). The foreign investor engages in a swap agreement whereby the investor, for a fee, pays another party to hold the dividend-paying stock and receive the dividends at a low tax rate, and then pay the investor the amount received. The payment on the swap agreement is sourced by reference to the residence of the payee. See Treas. Reg. 1.863-7(b)(1). Thus the payment is not treated as US source income subject to withholding.

[76]See IRC §871(m). The authority is broad, giving the Treasury the power to tax any other payment "substantially similar" to this swap arrangement as well. See IRC §871(m)(1)(C).

describe the destination or type of owner for roughly 20% of partnership income.

In this paper I use a broader set of federal tax records and new techniques to describe the type of partner, the partner's domestic or foreign status, and country for over 99% of partnership income reported on K-1s. Numerous findings update our understanding of partnership income flows and who receives this income, but three stand out in particular. First, I estimate that the amount of income flowing to foreign owners between 2011-2019 (17%) is roughly double previous estimates. Second, I find that the nature of these flows differs greatly between US and international owners: compared to the United States, income flowing abroad is almost entirely from finance and related industries, is received by entities rather than individuals, and is portfolio investment income. Third, and most importantly, I find that most of the income flowing abroad flows to tax havens—over $1 trillion since 2011. The Cayman Islands is by far the most popular destination, receiving roughly $500 billion.

But despite the scale of these flows to tax havens, the majority are subject to zero US tax. Evidence suggests a prevalent use of entity arrangements by investment firms that take advantage of exemptions in US tax laws and that shield both foreign and certain US investors (typically US tax-exempts) from reporting and taxation. More precisely, by organizing a "blocker" corporation in a tax haven, anonymous investors are able to avoid US reporting and tax obligations, and certain investors are able to lower their overall tax liabilities. Meanwhile, investments can be structured to generate certain types of passive income (namely capital gains and interest income) to avoid US withholding on outbound flows to the tax haven.

I also find a large jump in reported income flowing abroad after the imposition of two policies in 2010. First, FATCA subjected a broader range of outbound income to reporting and possible withholding, in addition to imposing new multi-party reporting, making it easier to catch underreporting. Second, I also see a jump in reported dividends, apparently in response to a policy that shut down arrangements intended to avoid US withholding tax on dividends.

These findings contribute to our understanding of partnerships and international income flows in several ways. First, they expand upon previous work attempting to understand where partnership income goes, providing the first look at previously missing recipients and offering the first view of trends over time. Second, they offer the first description of the magnitude of flows from partnerships to tax havens, in particular those using prevalent entity arrangements to shield investors from tax and reporting. Finally, they contribute to literature about tax reporting, underlining the importance of third-party reporting in discouraging underreporting.

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A Measures to ensure data accuracy

A.1 Matching K-1s to additional tax records

As discussed in Section 3, I match partners receiving K-1s to additional records beyond those matched by Cooper et al. (2016). For payees that are not matched to an annual return from Table 2 in the same tax year, I attempt to match these payees to annual returns in other years since 2000. After that, I attempt to match to other tax records: filed forms SS-4 (applications by entities for EINs), W-2 (reporting wages paid by employers to employees), W-7 (application for Individual Taxpayer Identification Number), 5471 (return of US citizens and residents regarding foreign corporations), 1041-A (return regarding trust charitable accumulation amounts), and 851 (corporate affiliations schedule). Although these forms do not provide the same detailed information available on the annual returns listed in Table 2, they do provide at least some insight about the type of payee, the payee's domestic or foreign status, and country. Finally, for payees not otherwise matched, I attempt to match the masked TINs to a database of citizens and aliens from the Social Security Administration to determine whether the payee is an individual as opposed to an entity, and to give insight as to whether that individual is US or foreign.

A.2 Accuracy control in matching returns

There are two important data issues unique to partnerships that are not discussed in Cooper et al. (2016). First, it is frequently the case that a single masked TIN of a K-1 recipient will match to many different types of annual tax returns. For example, a single masked TIN on a K-1 might match to a form 1040, 990, and 1041. This may be a data error, or it may be the case that a single taxpayer filed an individual tax return, set up a nonprofit, and established a trust without accurately reporting the TIN on at least one of these forms. How can the researcher know which of these entities is the actual recipient of the K-1?

Second, it is often the case that many different K-1 recipients are represented by the same masked TIN. For example, there may be thousands of distinct payees within the same partnership with the same reported masked TIN. Thus, if this single masked TIN were matched to a form 1040, but these payees are all different individuals, then the income flowing to this single matched 1040 is vastly overstated. Worse yet, if the distinct payees actually include entities as well as individuals, then the income categorized as flowing to individuals will be overstated, and the income flowing to entities understated. Given that the masked TIN is the key identifier used to match the partner to other information, can we glean anything about this large set of mis-identified partners?

In both of these cases, I rely on the algorithm discussed in Section 3.3 to offer some additional insight about the type of partner, drawing upon ancillary non-identifying information reported on the K-1. In the first case described above, I match the K-1 to the return that aligns with the inference from the algorithm. So, in the example given, if the algorithm suggests the recipient is a trust, I match the K-1 to the 1041 rather than the 1040 or the 990.

In the second case, the masked TIN is simply not reliable for matching these K-1 recipients to returns. Any match, therefore, is likely spurious. In light of this, in cases where there are many distinct partners recorded with the same masked TIN, I rely solely on the algorithm to infer the type of entity.

Were it not for these adjustments, I estimate that as much as 21% of income could be inaccurately matched (i.e. about 18% of income flows to partners can be matched to multiple annual returns, and about 6% of income flows to masked TINs can be matched to many distinct taxpayers, with about 3% overlap in these groups).

A.3 Procedure for describing partners

There are often conflicting sources of information about the type of entity, domestic or foreign status, and country of the payee. To resolve these conflicts, I follow basic guidelines described below.

For determining entity types:

- If it is possible to match a K-1 recipient to an annual return in the same year using the payee's masked TIN, that match takes precedence over other sources of information. If the recipient is matched to only one annual return in the same tax year, the K-1 is deemed to be resolved. If the recipient is matched to multiple returns in the same tax year, I use the inference from the algorithm (as described in Section 3.3) to guide which match is best. If the recipient shares the same masked TIN as other distinct recipients in the same partnership, I do not match the payee to any return, and rely instead on the inference from the algorithm to categorize the entity type.

- If the payee is still not resolved, I attempt to match the payee to annual returns filed in different years. I follow the same rules as above: if the payee matches to only one type of return, the payee is deemed to be resolved. If the payee matches to multiple returns, I use the inferential algorithm to guide the best match.

- If the payee is still unresolved, I attempt to match the payee to the additional tax records described above in Appendix A.1. If the payee matches to conflicting tax records, I use the inferential algorithm to guide the best match.

- If the payee is still unresolved, I rely on the categorization from the inferential algorithm.

For determining country of address:

- I rely on the country of address inferred from the algorithm described in Section 3.3.
- If the payee is still unresolved, I rely on the country reported on any returns to which it is matched, following the order of precedence above for determining entity types.

For determining the domestic or foreign status:

- I first rely on matches to annual returns. If the payee is matched to an annual return that can only be filed by a US taxpayer, or only by a foreign person, the status is resolved. Partnership returns (form 1065) include an indicator of domestic or foreign status. I use the country reported on the return of the foreign person as the best approximation of the country of citizenship or organization.
- If the payee cannot be matched to an annual return, I use the information reported in the additional tax records.
- If the payee is still unresolved, I use the country of address as the best approximation of domestic or foreign status.

A.4 Procedure for attributing flows to countries

There is sometimes conflicting information reported about the country of a foreign entity. For example, one country may be reported on the tax return to which the partner can be matched, while another country is reported on the K-1 received by that partner. To which country should this income be allocated?

I use the following method for prioritizing the attribution of flows to each country once the partner is determined to be a foreign (and not a US) person:

- For foreign corporations, I give first priority to the country reported on form 5471, if applicable, as this reflects the country of organization.
- If the payee is unresolved, I use the country reported on the annual return to which the payee is matched (e.g. form 1120-F or 1065).
- If the payee is still unresolved, I use the country reported on other returns (such as forms 8805, 1042-S, or W-7).
- If the payee is still unresolved, I use the country country of address, as determined above in Appendix A.3.

A.5 Extreme values

Because the data for this paper are unedited tax returns, occasionally there are extreme values that may not be accurate. Cooper et al. (2016) address this problem by dropping any return that reports in excess of $1 billion gain or loss in any field. Upon reviewing the data, it appears this practice drops many accurate returns that provide meaningful information. As a result, I adopt the following procedure, which still aims to be conservative in the manner of Cooper et al. (2016), but yet keeps many more returns when the information available is more complete.

I divide all K-1s into two categories: those for whom the recipient type can be clearly identified (e.g. corporation, trust, estate, individual), and those that cannot (i.e. unspecified "entity" or unknown). In the first group I drop any K-1 reporting in excess of $10 billion gain or loss in any field. In the second group, I drop any K-1 reporting in excess of $1 billion gain or loss in any field.

B Withholding Data, and Income from the United States

B.1 Withholding data

Withholding data is collected from forms 8805 (reporting income effectively connected with a US trade or business), 1042-S (reporting US source income) and 8288-A (reporting income from dispositions of US real property interests).

Form 8805 – Effectively Connected Income. A partner will be treated as engaged in a US trade or business by virtue of the partnership being engaged in a US trade or business, and thus a partnership must withhold on any income effectively connected with such trade or business allocated to foreign partners, reported on form 8805. IRS official statistics provide an annual decomposition by country of effectively connected income and tax withheld as reported on form 8805, so I use this data.[77]

Form 1042-S – US Source Income. Form 1042-S is used to report the US source income subject to withholding paid to foreign persons. Unfortunately, the official publicly available IRS statistics do not isolate payments by partnerships, and so cannot be used. I thus use data reported on the filed form 1042-S that can be matched to partnerships. Unfortunately, many forms do not report the (masked) TINs of the payee, and thus a perfect match to K-1 recipients is not possible. To arrive at the estimates reported in Figure 4 and Figure 14, I aggregate all unique 1042-S forms that either (a) report a partnership as a payer or (b) are filed by another payer reporting a partnership as a "nonqualified intermediary" (meaning that the withholding is completed by this payer rather than by the partnership). Unfortunately, this measure is

[77]See Table 1: U.S. Income and Tax Withheld as Reported on Form 8805, by Country of Residence, available at https://www.irs.gov/statistics/soi-tax-stats-foreign-recipients-of-us-partnership-income-statistics.

conservative because it will overstate the income and withholding to partners, as these forms will also capture payments to third parties. As a result, the reported amounts can be taken as a conservatively high measure of the withholding reported on income to foreign partners.

Form 8288-A. Form 8288-A is used to report payments to foreign persons selling US real property interests. Similar to form 1042-S, I aggregate amounts reported to foreign partnerships or partners. Although this likely overstates the withholding on partnership income (because the foreign partner may sell the property directly, rather than through the partnership), the form 8288-A withholding constitutes such a small portion of the total amounts withheld to partners that any such overstatement is not particularly consequential.

B.2 Identifying income arising from the United States

An important economic question (as opposed to a legal question) is what portion of the income reported on K-1s flowing to tax havens arises from economic sources within the United States, as opposed to a foreign country. For example, is the reported income generated by investment in a US company or in assets in the United States? Or in a foreign country? Although largely an academic exercise for reasons described below, the answer is perhaps relevant for both interpretation of the findings in this paper and policy considerations—after all, if the vast majority of the flows to tax havens turned out to be income from investments in foreign countries with little connection to the United States, the implications of this paper for any policy discussion may take on a different tone.

A primary challenge in even approaching this question, however, is that the law does not align with an economic intuition for source, and therefore the information actually reported on tax returns cannot answer the economic question.[78]

In an effort to roughly approximate this concept of economic source, I attempt to measure US source income, plus effectively connected income, plus capital gains attributable to assets generating US source income. I do this in three steps. First, I estimate the share of K-1 dividend income that is US source income. I can use this as a proxy for the shares of other income from US sources.[79] Second, I add in income reported on forms 8805 and 8288-A. Third, I compute a broad range estimating the portion of income from interest and capital gains that arise economically from US sources, since these are largely exempted from taxation.

For the first step (dividends), I use the data from filed forms 1042-S to estimate the share

[78]For example, gain on the sale of stock of a US company on a US exchange is still legally foreign source income if it is received by a nonresident alien. See IRC §865(a).

[79]I use dividends as a proxy for several reasons. First, they are subject to withholding and do not benefit from exclusions or exceptions from tax as do capital gains or interest income, meaning they are less likely to be mistakenly underreported. Second, while payments of interest or royalties may go to non-partners, payments of dividends should be allocations to partners. Third, dividends also constitute a sizeable share of the income flowing to havens, much larger than royalties or real estate income.

of dividend income that is reported on K-1s flowing to tax havens that is actually US source income. Although this varies by destination, I estimate that about 71% of the dividend income reported on K-1s is likely US source income. The Cayman Islands appears to have a particularly high share, at 86%.

Second, I add in the estimated income that is effectively connected with US trade or businesses as reported on forms 8805 and income reported from US real property interests on form 8288-A. These amounts are much smaller, roughly 3% of all K-1 income.

To estimate a likely lower bound on the share of income arising from US economic sources, I apply the dividend shares calculated above to all remaining income. This measure provides a lower bound because dividends should have a lower share of US source income than other types of income such as capital gains or interest, as investors have a strong incentive to avoid US source dividends but less reason to avoid interest or capital gains arising from within the United States. To get a likely upper bound, I instead assume capital gains and interest are 100% arising economically from sources within the United States. It is unlikely that all interest and capital gains are from US sources, but it is also unlikely that other income has as low a US source rate as dividends, due to the high withholding rates. As a result, this should produce a reasonable range.

Using this methodology, I estimate that between 73% and 94% of the K-1 income flowing to tax havens arises from economic sources within the United States. The estimates vary by destination, where the share for the Cayman Islands may be as high as 98%.

I do a robustness check by performing an alternative calculation using officially reported aggregate statistics from the IRS Statistics of Income. Using the data published from forms 1042-S between 2011 and 2018, I calculate the ratio of tax withheld to reported US source income by destination. I then apply this ratio to my own calculations for taxes withheld. This allows me to deduce the approximate share of US source income out of reported K-1 income. (For example, if the official statistics 1042-S statistics suggest that tax is withheld at a 3% effective rate on US source income, and I observe from my compiled 1042-S data that about $25 billion is withheld, I can deduce that about $830 billion is US source income). After adding in income on forms 8805 and 8288-A, this method suggests that about 82% of the income flowing to tax havens arises from sources within the United States, squarely within the range above.