Tax Evasion and Information Production: Evidence from the FATCA

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Abstract

We examine how tax evasion affects offshore information production. Using the Foreign Account Tax Compliance Act (FATCA) as an exogenous shock, we document that affected offshore asset management companies significantly enhance their performance as a response. This improvement comes from better information processing and is more substantial for tax-sensitive companies. Other policies related to fees and portfolio-based tax management are less affected. Our results reveal a novel substitution effect between tax evasion and information production, suggesting that curbing offshore tax evasion can help improve competitiveness and efficiency in the global asset management industry and related markets.

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Introduction

Delegated asset management is at the core of the informational efficiency of the global market. Asset managers have incentives to produce information when the ensuing superior performance allows them to collect economic rents (Berk and Green 2004).[1] More information processed by asset managers subsequently enhances the competitiveness of asset management and the price efficiency of the securities market (Gârleanu and Pedersen 2018). However, being informed is an endogenous choice. Some attributes (e.g., tax exposure, checking facilities, family affiliation) may allow asset managers to attract capital and create economic rents via differentiation.[2] Since product differentiation may reduce competition and distort efficiency in the product market when coupled with frictions (e.g., in the spirit of Diamond 1971 and Spence 1975), a critical question about delegated asset management is whether a similar distortion may arise to jeopardize the incentive of information production.[3] If so, the very competitiveness and efficiency of global asset management and the securities market may be affected.

This paper aims to shed light on this fundamental issue by exploring how tax evasion—one of the most essential and controversial differentiation attributes of offshore asset management—affects information production. Offshore asset management is vital in the global market. Zucman (2013) estimates that global offshore wealth amounted to $5.9 trillion in 2008. Hanlon, Maydew, and Thornock (2015) suggest that foreign portfolio investment in U.S. equities and debt totaled approximately $3.4 trillion in the same year. Both studies further point out a prevailing tax motivation for offshore investments.[4] Such evidence hints at the relevance and importance of tax evasion in shaping offshore competition and efficiency.

To identify the potential impact of offshore tax evasion, we exploit a quasi-*regulatory shock* introduced by the Foreign Account Tax Compliance Act (FATCA). Before the FATCA, U.S. investors could benefit from investing in offshore investment companies, noticeably offshore funds, to evade U.S. taxes. Investors can also invest in domestic funds if they want to. With such product differentiation, we can view pre-FATCA asset management as a tax-based

[1] A large body of empirical literature documents that mutual fund investors tend to chase past winners (see, e.g., Chevalier and Ellison 1997; Sirri and Tufano 1998; Barber, Huang, and Odean 2016; Berk and van Binsbergen 2016; Choi and Robertson 2020; and Ben-David, Li, Rossi, and Song 2022), allowing managers to benefit from good performance.
[2] Product differentiation based on these attributes is common in the mutual fund industry (e.g., Hortaçsu and Syverson 2004).
[3] Diamond (1971) shows that even a small search friction may allow firms to enjoy monopoly power in setting the prices of their products. Wolinsky (1986) and Anderson and Renault (1999) further introduce product differentiation into the Diamond (1971) system, showing that high search frictions associated with heterogeneous attributes of products reduce competition. Spence (1975) points out that monopoly power may distort the product price (with respect to the quality provided) and thus give rise to potential market failures.
[4] Additionally, see Johannesen (2014), Omartian (2017), Belnap, Thornock, and Williams (2019), Menkhoff and Miethe (2019), Casi, Spengel, and Stage (2020), De Simone, Lester, and Markle (2020), and Johannesen et al. (2020).

duopoly competition between domestic and offshore funds, where the latter enjoy tax benefits. In this case, both types of funds deliver competitive after-tax returns to attract investors—and the offshore funds offer lower before-tax returns due to the attribute of offshore tax evasion.

By requiring foreign financial institutions (FFIs) to report directly to the Internal Revenue Service (IRS) after June 30, 2014, the FATCA withdrew the offshore tax benefits of U.S. investors and thus established a more competitive global market for delegated asset management. Indeed, if offshore funds keep their pre-FATCA returns unchanged, their existing tax-savvy U.S. investors will feel worse off and withdraw capital. Our later analysis suggests that affected funds could have suffered a *counterfactual* style-adjusted outflow of as high as 12.24% per year in a three-year window after the FATCA.[5]

From the standpoint of theory, the above discussion suggests that the FATCA may impose a *transition* from tax-based duopoly competition to a more competitive market—our later sections will sketch a simple framework to formulate this intuition based on Berk and Green (2004). If so, we should expect the affected funds to use enhanced performance (via better information processing) or other benefits (such as fee reduction and portfolio-based tax management) to compensate for the lost tax advantage—and thus avoid substantial outflows—after the transition. We are especially interested in the performance implication because the ability to improve performance via information processing (or the lack thereof) helps elucidate the competitiveness and efficiency of offshore asset management and the global securities market. Of course, to complete the economic picture, we also investigate alternative strategies that funds can use to substitute for the tax advantage.

To examine these implications, we exploit the complete sample of *actively* managed global open-end equity mutual funds for the 2011-2017 period. Using a standard difference-in-differences (DiD) setting around the FATCA, we examine *offshore funds sold to U.S. investors* (i.e., treated funds) and compare them to *offshore funds not sold to U.S. investors* (i.e., the control group unaffected by the FATCA). We first observe that offshore funds sold to U.S. investors display a 2.78% higher net-of-fee return and a 2.57% higher style-adjusted return for the three-year post-FATCA window than unaffected funds. This magnitude is reasonable to substitute for the lost tax benefits of treated funds.[6] The dollar value added of affected funds

[5] This magnitude is consistent with Hanlon, Maydew, and Thornock (2015) and De Simone, Lester, and Markle (2020). Both studies use the U.S. Treasury International Capital (TIC) system, which aggregates required securities holdings information from U.S. banks, financial institutions, broker/dealers, and custodians. They estimate tax-heaven-based foreign portfolio investment reduction to be 10.4%–46.7% and 10.9% to 21.2% after the implement of the FATCA.

[6] Although the offshore tax benefit is difficult to calculate due to the lack of information, we can make inferences based on the domestic tax burden, i.e., the tax cost of the distributions of a mutual fund relative to the net asset value of the fund. Sialm and Zhang (2020) report that the median and the third quartile tax burden of domestic U.S. investors in 2014 is 1.62% and 2.89%,

also increases by $9.72 million to $13.31 million per year. In addition, FATCA-induced performance improvement does not decay over our testing period. Our results are also robust to alternative performance measures based on gross-of-fee and risk-adjusted returns and analyses based on a sample of control funds with similar characteristics matched through propensity score matching (PSM).

We next investigate whether the affected funds play the price card—i.e., adjusting fees—to substitute for the attribute of tax evasion. In the model of Dharmapala (2016), FFIs increase the fees charged to their account holders in the FATCA-compliant equilibria. However, our framework suggests that affected funds should reduce fees, if anything, to keep their competitiveness upon the transition toward a more competitive market. Consistent with this notion, offshore funds sold to U.S. investors show 2.8 bp lower fees per year over the three-year post-FATCA window than unaffected funds, which translates into a 1.62% decline relative to the average expense ratio. This small economic magnitude suggests that affected funds prefer performance to fee adjustments, potentially due to the higher cost of fee adjustments. Nonetheless, the joint increase in fund returns and reduction in fees enhance the fund industry's competitiveness and efficiency (Pedersen 2015).

As a result, treated offshore funds receive 3.04% (2.18%) lower style-adjusted flows per year over the three-year post-FATCA window when compared to the control (PSM control) funds.[7] This magnitude is much smaller than the *counterfactual* outflows, suggesting that fund performance is at least partially successful in mitigating potential outflows. Figure 1 summarizes our baseline findings by plotting the year-by-year style-adjusted return spreads and flow differences between affected funds and PSM control funds. Although the plots are univariate (i.e., without any fund controls and fixed effects), they provide an intuitive illustration of the performance-offshore tax evasion tradeoff around the FATCA.

After obtaining the baseline results, we conduct a battery of analyses to scrutinize how affected funds produce information. We find little evidence that the enhanced performance could be due to the passive effect of the decreasing returns to scale or an increase in risk-taking behavior. Instead, affected funds manage their portfolios more actively, hold concentrated portfolios in specific industries, and engage in stock selection on firms with lower news coverage and more asymmetric information. In the literature, informed managers typically

respectively. By investing in offshore funds with similar trading and distribution strategies, investors can avoid such tax burdens. Since tax-savvy investors are likely to pursue high tax benefits in offshore funds, the latter number provides a reasonable benchmark to gauge the tax benefit they can reap from offshore funds.

[7] To maximize their tax benefits, investors do not have incentives to withdraw from offshore funds too early—the reallocation of capital is fast and easy in the offshore market. Our later section provides more institutional details of the FATCA and empirical observations consistent with this notion.

adopt these strategies to generate information-based performance (e.g., Kacperczyk, Sialm, and Zheng 2005; Kacperczyk, Sialm, and Zheng 2008; Amihud and Goyenko 2013). In addition, we also find that funds with more incentives (e.g., funds domiciled in tax havens and income funds) or more skills generate more substantial post-FATCA performance.[8]

As for the quest of what types of information are processed, we link fund ownership to stocks' price delay to market information, whereby a more extensive delay indicates lower price efficiency of the underlying securities. We find that stocks with higher ownership by affected funds exhibit a reduced price delay to *local* market information. In contrast, neither the ownership by unaffected funds nor the delay to *global* market information exhibit similar patterns. Hence, affected funds seem to collect more local information and help to disseminate it in the post-FATCA period.

A related question is whether the affected funds also use portfolio-based tax management to substitute for the lost offshore tax benefit. This question is challenging due to the lack of data on short-term and long-term capital gains among offshore funds. Nonetheless, looking at the investment in dividend-paying stocks may help us shed some initial light on this issue because divesting from high-dividend-yield stocks can help reduce the tax burden of investors (e.g., Bergstresser and Poterba 2002; Sialm and Zhang 2020). Interestingly, we find that affected funds do not change their holdings in high-dividend-yield stocks. In addition, the fund-level dividend-paying policy is unaffected. In other words, these funds do not seem to resort to dividend-related portfolio tax management as an immediate substitute for the loss of offshore tax evasion.[9]

Finally, we exploit fund heterogeneity to estimate the *counterfactual* flow impact of the FATCA if the affected funds failed to deliver performance. To achieve this goal, we examine offshore index funds. Since index funds do not aim to deliver superior performance, their flow patterns provide a reasonable benchmark to gauge the counterfactual flow impact of the FATCA in the absence of additional performance. We observe that index fund investors withdraw considerably more capital than active fund investors. For instance, the 12.24% style-adjusted yearly outflows for affected *index* funds are four times as large as those experienced

[8] Funds domiciled in tax havens and income funds are more likely to have stronger incentives to improve performance, as they attract tax evaders before the FATCA and are thus more sensitive to the change in tax regulation. We indeed find these funds to exhibit more enhanced performance. Meanwhile, more skilled funds, as measured by a lower pre-FATCA *R-square* value, exhibit greater improvements in performance, suggesting that existing research capacities help facilitate the timely adjustment of investment strategies after the FATCA.

[9] This result could be related to the fact that the pre-FATCA tax benefits come from the offshore status and are not necessarily related to portfolio-level tax management. Hence, offshore funds may not have the expertise or competitive advantage in conducting portfolio-level tax management.

by affected *active* funds in the post-FATCA period. This potential damage justifies the incentives of affected active funds to generate performance, which completes our analysis.

Collectively, our results suggest that offshore mutual funds can deliver better performance via better information processing *when they need to* as a substitute for the loss of tax benefits. This message sheds light on some of the most fundamental features of the global financial markets. On the one hand, it suggests that the FATCA improves the competitiveness of the global asset management industry and its information production in the securities market, consistent with a *transition* from a less efficient pre-FATCA market toward a more efficient post-FATCA market.[10] On the other hand, instead of skilled funds engaging in tax management, as empirically documented in Sialm and Zhang (2020) for onshore funds, our results imply a novel tax evasion-performance substitution effect in the offshore market.

In Sialm and Zhang's (2020) model, the distribution of investor tax clientele shapes the duopoly competition between funds. Their assumption of constant managerial efforts is reasonable for onshore funds facing similar tax treatment costs and return-generating technologies.[11] In contrast, offshore tax evasion resamples a *zero-cost tax arbitrage*. All else being equal, offshore funds would use more of the lower-cost attribute in tax arbitrage to attract the optimal amount of capital before the FATCA. When the FATCA removes the benefit of the tax attribute, the affected funds will need to increase the contribution of the other attribute (i.e., performance). In this regard, our results extend the tax framework of Sialm and Zhang (2020) and suggest that offshore tax evasion as an attribute of regulatory arbitrage may distort fund incentives and price informativeness.

Our findings speak to several strands of the literature. We first enrich the literature on cross-border tax evasion. Existing studies provide extensive evidence on tax evasion, showing that offshore tax regime shifts can result in vast capital flows between onshore and offshore markets (Johannesen 2014; Hanlon, Maydew, and Thornock 2015; Omartian 2017; Belnap, Thornock, and Williams 2019; Menkhoff and Miethe 2019; Casi, Spengel, and Stage 2020; De Simone, Lester, and Markle 2020; and Johannesen et al. 2020). Moreover, offshore tax evasion can reduce the tax revenues of sovereign countries (Hanlon, Maydew, and Thornock 2015; Johannesen et al. 2020), exacerbate income inequality (Zucman 2013; Alstadsæter,

[10] This transition also explains why offshore funds choose to increase performance after FATCA but not in the pre-FATCA period, which may appear puzzling at first glance. As explained in our later framework, this choice is nothing more than stating that optimal fund policies differ between the pre-FATCA tax-based *duopoly* equilibrium and the post-FATCA Berk and Green (2004) type of *competitive* equilibrium.

[11] Fund returns are determined by fund size via (similarly predetermined) decreasing returns to scale in their model. Indeed, the switch from their equilibrium with only tax-exempt investors to the one with only taxable investors illustrates the *counterfactual* consequence when managerial efforts remain unchanged. We can see a significant decline in the size of high tax-burden funds (offshore funds in our case), consistent with the substantial *counterfactual* outflows observed in our analysis.

Johannesen, and Zucman 2018, 2019), and even affect corporate policies (Bennedsen and Zeume 2018; O'Donovan, Wagner, and Zeume 2019). We build on and extend these studies by documenting that offshore tax evasion and its undoing may have broad impacts on the informational efficiency of global financial markets.

We are also related to the literature examining how product differentiation and frictions affect asset management and market efficiency. The traditional literature focuses on fund performance to infer market efficiency.[12] However, Berk and Green (2004) point out that equilibrium fund performance—far from indicating the price efficiency of assets—reflects how investors compete for managerial skills. Hortaçsu and Syverson (2004) document significant non-performance-related differentiation and frictions that affect the competition among S&P 500 index funds. Gârleanu and Pedersen (2018), in extending Grossman and Stiglitz (1980), demonstrate that the competitiveness of delegated asset management and the informativeness of asset prices may be subject to common economic frictions. Our novelty is to show that offshore tax evasion as an attribute of product differentiation may provide such a ground by jeopardizing the incentives and efficiency of information production.[13]

Our results have important normative implications. The interpretation and evidence of the FATCA facilitating a shift from less efficient (tax-based duopoly) competition to a more competitive equilibrium provides a new perspective to enrich policy discussions. Indeed, the FATCA is often criticized for enhancing administrative and compliance costs (Jolly and Knowlton 2011; Jacobs 2012) and overreaching US competences in foreign countries (Michel and Rosenbloom, 2011). Our results suggest that its "unintended" yet benevolent consequence for market efficiency must be considered when assessing the overall social value/cost.

The remainder of this paper is organized as follows. Section II provides background information on the FATCA regulation and sketches the framework on its potential implications. Section III describes the data and the main variables used. Sections IV and V examine how offshore funds react to the FATCA by changing their performance and fee policies. Section VI describes how investors respond in terms of flows. Next, Sections VII and VIII provide evidence on fund information processing and additional analysis. A brief conclusion follows.

[12] The main idea is that the inability of mutual funds to deliver persistent performance implies that asset prices are efficient in impounding all information. Accordingly, an extensive literature documents that average mutual funds underperform the respective benchmark and aims to infer the efficiency of the stock market or the competitiveness of the mutual fund industry from such evidence (see, e.g., Fama 1970; Malkiel 1995; Gruber 1996; Carhart 1997; Zheng 1999; Wermers 2000; Bollen and Busse 2001; Christoffersen and Musto 2002; Gil-Bazo and Ruiz-Verdú 2009; and Fama and French 2010).

[13] The empirical literature examining the information production of asset managers typically explores fund characteristics that help identify informed managers. See Jones and Mo (2021) for a summary of these characteristics. We differ by focusing on a selection mechanism in which being informed is an endogenous choice.

II. The FATCA Regulation and Implications

In this section, we first provide the institutional background of the FATCA regulation. We then sketch how we can apply the model of Berk and Green (2004) to understand the potential influence of this regulatory shock on fund incentives.

A. Institutional Background

U.S. individuals are taxed on their worldwide income, but some establish foreign accounts to evade U.S. taxes. For decades, offshore income was subject to self-reporting, and the banking secrecy of foreign tax havens shielded tax evaders from investigation by U.S. tax authorities (De Simone, Lester, and Markle 2020; Johannesen et al. 2020). Starting in 2008, the U.S. government initiated a series of attempts to curb offshore tax evasion. For instance, the U.S. government signed bilateral tax information exchange agreements (TIEAs) with a number of tax havens, took legal measures against individual banks to obtain information on their U.S. customers and implemented a series of programs providing incentives to voluntarily declare offshore accounts (De Simone, Lester, and Markle 2020; Johannesen et al. 2020). However, due to a lack of scope and enforcement mechanisms, the overall effect on tax compliance has been limited. In practice, information exchange rarely occurs, and tax evaders can relocate to other noncollaborative tax havens and use new means to hide their true income (e.g., Sheppard 2009; Johannesen and Zucman 2014; Menkhoff and Miethe 2019; Johannesen et al. 2020).

To further fight widespread offshore tax evasion by U.S. persons, Congress passed the FATCA in March 2010 as part of the Hiring Incentives to Restore Employment Act.[14] What makes the FATCA more powerful is the automatic nature of the exchange of information about the financial accounts held by U.S. taxpayers or foreign entities in which U.S. taxpayers hold a substantial ownership interest. FATCA requires local authorities to collect information from their domestic financial institutions and submit this information to the IRS, or it requires FFIs to register with the IRS and directly report to the IRS (Beer, Coelho, and Leduc 2019). Reporting institutions include not only banks but also other financial institutions, such as investment entities, brokers, and certain insurance companies as well as some nonfinancial foreign entities. The dramatic shift from self-reporting to automatic third-party reporting significantly increased detection risk, thereby making cross-border tax arbitrage less attractive (e.g., Dharmapala 2016; Omartian 2017; De Simone, Lester, and Markle 2020).

[14] The IRS website (https://www.irs.gov/businesses/corporations/foreign-account-tax-compliance-act-fatca) and Belnap, Thornock, and Williams (2019) Appendix 1 provide a detailed background on the FATCA.

Another important feature of the FATCA lies in its unprecedented scope and high participation rate. FFIs can either comply with the FATCA or incur a 30% withholding tax on any U.S.-sourced income, including interest, dividends, and gross proceeds from sales of securities (Parillo 2010; Sapirie 2014). The penalty-like withholding tax on nonparticipating FFIs, the willingness of the U.S. government to impose sanctions on FFIs that violate U.S. rules (e.g., sanctions vis-à-vis Iran), the size of such sanctions, and the extraterritorial power of U.S. authorities due to the dollar being the main currency combine to make the FATCA a very stringent and fierce regulation for any international financial institution. As documented by Belnap, Thornock, and Williams (2019), 97% of FFIs have registered under the FATCA, with 87,993 registered in July 2014 when it was first implemented and with that number growing to 314,026 FFIs by June 2018. As of January 2019, 113 foreign jurisdictions had signed intergovernmental agreements (IGAs) to comply with the FATCA.

The FATCA was signed into law on March 18, 2010, and became effective on January 1, 2013. For compliance, FFIs needed to enter an agreement with the IRS by June 30, 2014, and the 30% withholding tax has been imposed on nonparticipating FFIs since July 1, 2014. In short, mandated information sharing under the FATCA went into effect after June 30, 2014.

Our main analysis uses the effective date of IGAs (July 1, 2014) as the beginning of the post-FATCA period and limits our sample period to July 2011 to June 2017 (i.e., three years before to three years after FATCA implementation) for several reasons. First, while the FATCA was passed in 2010, it was unclear whether the U.S. would succeed in influencing foreign governments to enforce it given its conflicts with the domestic privacy laws and banking regulations of many countries (Belnap, Thornock, and Williams 2019). Later, the U.S. modified the FATCA regime and released proposed regulations detailing the implementation of the FATCA in February 2012. The IRS issued final regulations in January 2013, but by then, only five countries had signed IGAs. All 34 countries in our sample signed IGAs effective on June 30, 2014, and mandated information sharing went into effect thereafter.

Second, while investors anticipate the effective date given the extremely high level of initial participation, they can shift assets on short notice, as the offshore financial market is highly liquid. In this case, even when some tax-savvy investors want to withdraw capital from offshore funds after the FATCA, they may not have incentives to make very early withdrawals because such actions reduce the tax benefits that they care about. We explicitly test this behavior in our later analysis and find no pretrends prior to the effective date on July 1, 2014. In particular, we do not observe significant outflows after the enactment date on March 18, 2010 (and before July 1, 2014). In other words, because the 30% FATCA withholding tax only started on July

1, 2014, it provides an appropriate starting point for investors to make tax-based capital reallocation and for funds to take simultaneous actions in response to the loss of tax advantages.[15]

Finally, we focus on a three-year window before and after the FATCA to avoid confounding events, i.e., the U.S. signed bilateral agreements on information exchange on request with six tax havens between 2008 and 2010 (Johannesen et al. 2020), and the OECD's Mutual Competent Authority Agreement, which allows for the automatic exchange of information under its CRS starting in September 2017, went into effect (Casi, Spengel, and Stage 2020). As a robustness check, we also consider an extended sample period until June 2019.

B. A Simple Framework to Formulate the Impact of the FATCA

We now sketch a simple conceptual framework based on the theoretical insights of Berk and Green (2004 hereafter BG) to describe the potential influence of the FATCA on fund incentives. Our key intuition is that the FATCA induced a transition from pre-FATCA tax-based duopoly competition to a more efficient BG type of competitive equilibrium. Since both types of competition are standard in the literature, we rely on their known equilibrium conditions to formulate how this regulatory shock affects fund incentives and performance.

An extension of BG to duopoly competition on offshore tax can help explain the pre-FATCA conditions and the underlining frictions. Consider an economy with two funds (domestic and offshore). Both funds manage assets with diseconomies of scale and can generate performance based on two costly technologies: information-based *stock selection* and *tax management*. The two funds face identical information costs for stock selection. However, the cost of offshore tax management is much lower than domestic tax management in generating after-tax returns for investors. Following the BG, both funds maximize economic rents (i.e., fund size times fees). To do so, the two funds compete for investors' capital by setting up optimal fees, optimal selection, and optimal tax management.

Hence, pre-FATCA funds mostly follow the BG model except for the second technology of tax management, which affects fund incentives via capital competition. To see how the latter plays out, we can follow the tax clientele insight of Sialm and Zhang (2020) and the general

[15] Anecdotal evidence suggests that the FATCA imposed a significant and costly administrative burden on the asset management industry and only a third of fund managers expected to be ready in time for the initial effective date (Heaney 2011). To provide additional time to FFIs, the IRS later delayed the FATCA start date for withholding from January 1, 2014 to July 1, 2014 (Silver 2012; Simmons II et al. 2013). In addition, the FATCA implementation following the effective date represented a "tax milestone" for financial institutions and a "major step in cross-border information sharing between tax authorities and tightening the financial net on Americans living overseas" (Palin 2014).

setup of a Hotelling model to assume that investors have heterogeneous costs in participating in the offshore fund (to enjoy the offshore tax benefit).[16] An investor is willing to invest in the offshore fund when the after-tax fund performance she receives is more than enough to compensate for her offshore participation cost.

In (the duopoly) equilibrium, funds make optimal fund policies, and a marginal investor feels indifferent in investing in either fund based on the after-tax and participation cost-adjusted performance she receives.[17] All investors with lower participation costs invest in the offshore fund, as they will receive higher participation cost-adjusted returns. In contrast, investors with higher participation costs invest in the domestic fund. This type of investor allocation is a known equilibrium condition of duopoly competition (see, e.g., Sialm and Zhang 2020).[18]

Both funds provide competitive after-tax performance to the marginal investor in the duopoly equilibrium. Compared to the domestic fund, the competitive after-tax returns delivered by the offshore fund consist of more tax than selection due to its relative cost advantage in tax management. The offshore tax benefit also allows the offshore fund to deliver a relatively lower before-tax return. Therefore, in this duopoly equilibrium, the offshore fund uses less selection and delivers *lower* before-tax returns than the domestic fund from the marginal investor's perspective.

Now, consider the case when the FATCA eliminates the tax advantage of the offshore fund. In this case, the new equilibrium is competitive and close to the original BG model. The two funds now use more similar technologies to generate after-tax performance to compete for investors' capital. As a result, the offshore fund now adopts a more comparable level of selection as the domestic fund.[19] Moreover, since competitive after-tax returns now mean competitive before-tax returns, the offshore fund also delivers competitive before-tax returns in the new equilibrium. Hence, when the market switches from the duopoly to the competitive equilibrium due to the FATCA, the offshore fund should increase the *relative* selection-based performance and share more before-tax returns with investors.

[16] This assumption fits the broad picture of the offshore market very well and provides frictions to differentiate the duopoly and competitive equilibrium. For instance, the offshore fund market manages fewer assets than the domestic market ($745 billion offshore vs. $6 trillion domestic), suggesting that a large fraction of investors face very high costs to participate in the offshore market despite its tax advantage.

[17] This condition resembles the request of funds delivering competitive search-cost adjusted utility in investor-search models (e.g., Hortaçsu and Syverson 2004; Gârleanu and Pedersen 2018).

[18] The difference is that Sialm and Zhang (2020) do not examine the performance implication of BG in their tax framework. In contrast, we rely on BG to provide a unified conceptual framework to understand how fund performance may differ across different types of competition.

[19] The marginal investor and the market shares of funds may differ from the previous duopoly equilibrium, reflecting some offshore capital flowing into the domestic fund.

It is worth noting that since duopoly policies are optimal until the implementation date of the FATCA, offshore funds will increase performance only after the FATCA. In particular, optimal policies in the post-FATCA competitive equilibrium, including delivering better performance to investors, are not necessarily optimal in the pre-FATCA duopoly equilibrium.[20] This difference also implies that some economic friction exists in the pre-FATCA market. In our framework, friction arises when offshore funds offer tax evasion, but only a fraction of investors can invest in offshore funds due to participation costs. This structure resembles a market with search frictions to reduce fund competition and market efficiency (e.g., Hortaçsu and Syverson 2004; Gârleanu and Pedersen 2018). In the same spirit, while we describe a duopoly equilibrium in the pre-FATCA period for illustration purposes, our conceptual framework can be generalized to an economy with multiple competing funds as long as the competition is not perfect. These considerations suggest that the pre-FATCA market is not fully competitive and that the FATCA may have enhanced the efficiency of the offshore market. Given the importance of this normative implication, we now take on the task of empirically scrutinizing the performance and related policies of affected offshore funds.

III. Data and Main Variables

A. Data Sources

Our data are drawn from different sources. The main database on mutual funds is the Morningstar Direct mutual fund database, which reports the monthly total returns of global mutual funds. Morningstar Direct has complete coverage of open-end mutual funds worldwide beginning in the early 1990s. The database is survivorship-bias free, as it includes data on both active and defunct funds. From Morningstar, we obtain the fund domicile country, the region of sale, investment style, and additional control variables such as fund total net assets (TNA), the expense ratio, and fund turnover. We consolidate multiple share classes into portfolios by combining share class net assets and by value-weighting share class returns, expense ratios, and turnover ratios based on one-month lagged share class TNA. The mutual fund holdings data are from the Factset/Lionshares database. Stock-level data are drawn from the Center for Research in Security Prices (CRSP), COMPUSTAT North America, and COMPUSTAT Global. All prices have been converted to U.S. dollars.

We focus on actively managed equity funds. We require funds to have "Equity," as stated under the Morningstar "Broad Category Group." We also obtain information on index funds

[20] Although higher-than-optimal performance can help attract more flows pre-FATCA, it can incur unnecessarily more efforts and operating costs (due to diseconomies of scale) to reduce fund managers' utility.

from Morningstar (i.e., "Index Funds" from the "Open-End Funds Universe") to identify whether a fund is a pure index fund or an actively managed fund. We further restrict our sample to funds with a TNA of at least $10 million prior to the FATCA. The sample period ranges from July 2011 to June 2017, and the final sample includes 10,079 actively managed equity mutual funds domiciled in 34 countries.

B. Main Variables

The main variables are as follows: *U.S. Sale*, defined as a dummy variable that equals 1 for offshore funds (i.e., funds not domiciled in the U.S.) sold to U.S. investors (i.e., region of sale reported as the U.S., global cross-border, or pure offshore) and 0 for offshore funds not sold to U.S. investors; *Fund Flow*, computed as $Flow_{f,t} = \left[TNA_{f,t} - TNA_{f,t-1} \times \left(1 + r_{f,t}\right)\right] / TNA_{f,t-1}$, where $Flow_{f,t}$ is the fractional flow received by fund f in month t, $TNA_{f,t}$ is the TNA for the same month, and $r_{f,t}$ is the fund total return for the same month; and *Fund Return*, defined as the monthly net-of-fee return reported by Morningstar Direct.

Next, we define *Style-adjusted Return (STYRET)* as the fund return minus the value-weighted average return of all funds of the same investment style. We also consider risk-adjusted performance, labeled *Domestic Four-Factor-adjusted Return (FFC4)*, as Fama-French-Carhart (FFC) four-factor-adjusted fund performance. The risk adjustment is computed as realized fund returns minus the product of the fund's four-factor betas and the realized four-factor returns of a given month. The three Fama and French (1993) factors (market, size, and the book-to-market ratio) and Carhart's (1997) momentum factor are measured for the region in which a fund invests. The betas of a fund are estimated as the exposure of the fund to relevant risk factors over a five-year estimation period. We also apply an international eight-factor model that includes four domestic FFC factors and four international FFC factors to compute the *international eight-factor-adjusted return (FFC8)*. As a robustness check, we consider style and risk-adjusted performance based on the domestic four-factor model (*STYFFC4*) and international eight-factor model (*STYFFC8*). Furthermore, we consider the dollar value added as an alternative performance measure, labeled *Value Added*. Berk and van Binsbergen (2015) argue that the expected value that a fund adds is a better measure of skill than the fund's return or alpha. *Value Added* is defined as the product of fund style-adjusted gross returns (or gross alpha) and lagged TNA. The gross alpha is computed from the international eight-factor model over a five-year rolling window, as illustrated above.

We further control for fund characteristics that may affect fund performance and flows: *Log(Fund TNA)*, defined as the logarithm of fund TNA; *Log(Fund Age)*, defined as the

logarithm of the number of operational months from inception; *Expense Ratio*, defined as the annual expense ratio; and *Fund Turnover*, defined as the annualized turnover ratio. Internet Appendix A provides the detailed definitions of each variable.

We report the summary statistics in Internet Appendix Table IA1. Panel A reports the means, standard deviations, medians, and quantile distribution of monthly fund flows and performance. Panels B and C report similar statistics for other fund and stock characteristics, respectively.

IV. Fund Performance Around the FATCA

A. Baseline Analysis of Fund Performance

We start by testing how funds react to the FATCA and focus specifically on their performance. The key prediction of our conceptual framework is that affected funds are incentivized to improve performance to compensate for the lost tax advantage. To scrutinize this prediction and related information production, we employ a DiD approach to identify the causal effect of FATCA. Since the FATCA targets the offshore tax evasion of U.S. persons, our identification strategy involves examining offshore funds sold to U.S. investors (i.e., the treatment group, affected funds) and comparing them to offshore funds not sold to U.S. investors (i.e., the control group, unaffected funds).

Note that, although our conceptual framework compares offshore funds with domestic funds, offshore funds not sold to U.S. investors arguably provide a better empirical control group for two reasons. First, like domestic funds sold to U.S. investors, these offshore funds are not subject to the FATCA regulation and thus can be used to identify the treatment effects of the regulation (e.g., Hanlon, Maydew, and Thornock 2015; De Simone, Lester, and Markle 2020). Second, and more importantly, unaffected offshore funds can help better control non-tax-related common shocks in the offshore market. In this case, the dynamic treatment effects can be more precisely estimated using unaffected offshore funds, a benefit difficult to match by domestic US funds. Hence, we use unaffected offshore funds as the main control group for our baseline empirical estimation. In robustness checks, we also use U.S. domestic funds as the control group, and our findings remain intact.

In particular, we perform a DiD estimate of fund performance around the FATCA via monthly panel regression:

$$Perf_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}, \quad (1)$$

where $Perf_{f,t}$ is the performance of offshore fund f in month t and $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is a dummy variable (*Post FATCA 3Y*) that equals 1 for the three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for the three years preceding implementation (i.e., 2011:07-2014:06). Vector *N* stacks all other fund control variables, including *Log(Fund TNA)*, *Log(Fund Age)*, *Expense Ratio*, *Fund Turnover*, *Fund Return*, and *Fund Flow*. We provide the detailed definitions of all variables in Internet Appendix A. We include fund and month fixed effects in all specifications. Hence, Equation (1) does not explicitly include $US\ Sale_f$ or $Post_t$—parameter β_1 suffices to capture the impact of the FATCA on treatment funds relative to that on control funds. Finally, we cluster standard errors at the domicile country level.

We consider various definitions of performance, including net-of-fee and gross-of-fee returns, which are both considered before and after adjusting for investment style. Returns and style-adjusted returns are further adjusted by a domestic four-factor model (*FFC4* and *STYFFC4*) or an international eight-factor model (*FFC8* and *STYFFC8*), as illustrated above. We also estimate the productivity of fund managers by the total *value added* they create (e.g., Berk and van Binsbergen 2015; Berk, van Binsbergen, and Liu 2017) based on gross-of-fee style-adjusted or FFC8-adjusted returns.

More explicitly, *value added* captures the before-fee value creation generated by managerial skills (Berk and van Binsbergen 2015). However, investors receive the return on the assets they invest net of fees. In other words, *Value Added* represents the overall dollar value created by fund managers, while the net-of-fee percentage return represents what mutual fund investors actually receive (for each dollar they invest). From an overall "welfare" perspective, not only how much each fund delivers to its investors (i.e., fund return) but also how much investors invest with the fund (i.e., fund TNA) is important. Therefore, to present numbers that are comparable in terms of the value created by fund managers and the value appropriated by investors, we adopt weighted least squares regressions for return-based performance measures, where each fund is weighted based on its TNA for the end of the month before FATCA adoption. Weighting the percentage return by fund size better reflects the overall return for mutual fund investors by incorporating the amount they invest.

We report the results in Table 1. We focus on the β_1 coefficient in Equation (1), as it captures the average monthly performance change for the treatment group relative to the control group for the post-FATCA period (compared to the pre-FATCA period). The results

show a strong positive correlation between $US\ Sale_f \times Post_t$ and fund performance. In particular, offshore funds sold to U.S. investors display a 2.78% (2.57%) higher net-of-fee return (style-adjusted return) per year over the three-year window in Model 1 (Model 2).[21] Our findings on gross-of-fee returns are statistically and economically comparable (Models 3 and 4). Similar results hold when $Perf_{f,t}$ is measured by risk-adjusted returns. Specifically, for the affected funds, the domestic four-factor-adjusted (FFC4-adjusted) return increases by 1.28% per year (Model 5), and the international eight-factor-adjusted (FFC8-adjusted) return increases by 1% per year (Model 6). The style- and FFC4-adjusted return increases by 1.72% per year (Model 7), and the style- and FFC8-adjusted return increases by 0.95% per year (Model 8). In addition, the dollar value added increases by $13.31 ($9.72) million per year based on style-adjusted (FFC8-adjusted) returns in Model 9 (Model 10).[22]

Our main findings are robust to a list of alternative specifications. To save space, we tabulate the results in Internet Appendix Table IA2 and discuss only our main findings here. Panel A adopts ordinary least squares regression. Panel B considers U.S. domestic funds sold to U.S. investors as an alternative control group. Panel C uses methods of alternative clustering by time, fund, and region of sale. Panel D explores alternative fixed effects, in which we include domicile country-times-month fixed effects to control for time-varying country characteristics. Panel E further considers subsamples with common characteristics for both treatment and control funds, based on the domicile country, domicile country and primary prospectus benchmark, and domicile country and Morningstar category.[23] Our results remain highly significant across all these alternative specifications, confirming that offshore funds sold to U.S. investors respond to the FATCA regulation by enhancing their performance.

B. Time Trend and Dynamic Behavior

Our next question concerns the time trend before and after the FATCA. Our goal is twofold: on the one hand, we need to verify the parallel trend assumption of our DiD analysis by directly analyzing the pre-FATCA period; on the other hand, we also want to examine whether and how the positive effect on fund performance proceeds over time after FATCA implementation.

[21] In Model 1, the monthly net-of-fee return difference between the treatment and control funds is 0.232%, which translates into an annualized return of 0.232% × 12 = 2.78%.

[22] As a robustness check, we exclude all fund control variables (untabulated for brevity). For the affected funds, the style-adjusted return increases by 1.90% per year and the dollar value added increases by $13.03 million per year based on style-adjusted returns.

[23] While only affected funds are sold to U.S. investors, unreported results show that affected and unaffected funds have similar investment weight in North America, i.e., 33% for affected funds and 31% for unaffected funds. The affected (unaffected) funds invest 30% (45%) in Europe, 8% (6%) in Japan, 26% (15%) in Asia Pacific ex Japan, and 3% (3%) in other markets. In contrast, U.S. domestic funds sold to U.S. investors invest 78% in North America, 11% in Europe, 3% in Japan, 7% in Asia Pacific ex Japan, and 1% in other markets. The geographic similarity within offshore funds further justifies our choice of treatment and control groups.

In other words, we are interested in temporary versus more persistent effects. If tax advantages were used to substitute for performance to attract investors before the FATCA, the permanent loss of tax advantages after the FATCA should have a persistent impact on fund performance.

To address this question, we modify Equation (1) by interacting $US\ Sale_f$ with several time dummies. *Pre FATCA*$^{-1}$ is a dummy variable that equals 1 for the year before FATCA implementation (i.e., 2013:07-2014:06) and 0 otherwise. *Post FATCA*$^{+1}$ equals 1 for one year after FATCA implementation (i.e., 2014:07-2015:06) and 0 otherwise, and *Post FATCA*$^{+2:+3}$ equals 1 for the second and third years after FATCA implementation (i.e., 2015:07-2017:06) and 0 otherwise. All other variables are defined as in Equation (1). We include fund and month fixed effects in all specifications, and standard errors are clustered at the domicile country level.

Our results are reported in Table 2, Panel A. We focus on net-of-fee returns, style-adjusted returns, and value added in all subsequent analyses, and these results are robust to alternative performance measures. In Models 1-4, we first interact $US\ Sale_f$ with the two post-FATCA dummies. Our main finding is that the FATCA-induced performance improvement does not decay over time. In particular, offshore funds sold to U.S. investors display a 3.06% higher style-adjusted return in the first year after the FATCA, and the economic magnitude remains sizable at 2.3% per year for the following two years (Model 2). The dollar value added increases by \$14.46 (\$9.92) million for affected funds in the first year and by \$12.67 (\$9.61) million per year in the following two years if we use style-adjusted (FFC8-adjusted) returns, as reported in Model 3 (Model 4).

Models 5-8 further estimate the interaction between $US\ Sale_f$ and *Pre FATCA*$^{-1}$. This coefficient is insignificant. The economic interpretation is that the return spread between the treated and control funds in the year prior to the FATCA is similar to that in earlier years (i.e., Years −2 and −3 before the FATCA). In contrast, the interactions between $US\ Sale_f$ and the two post-FATCA dummies are all significant, confirming that the treatment funds generate more post-FATCA returns than the control funds compared to earlier years. In other words, we find no pretrends in fund performance across all specifications, and our findings for the post-FATCA period remain unchanged. Collectively, our results suggest that FATCA-induced performance persists over the three years following FATCA implementation.

C. Matching Sample Analysis

To address the potential concern that offshore funds sold to U.S. investors could be systematically different from those that do not target U.S. investors, we next conduct a PSM analysis. For each affected offshore fund sold to U.S. investors (a treatment fund), we use the

PSM approach to find an offshore fund that has similar characteristics but that is not sold to U.S. investors (the control group). We compute propensity scores using a logistic regression based on fund characteristics, including *Log(Fund TNA)*, *Log(Fund Age)*, *Expense Ratio*, *Fund Turnover*, *Fund Return*, and *Fund Flow*. We further require the treatment and control funds to have the same investment style and apply nearest-neighbor matching.

We conduct a similar DiD test of fund performance using the PSM sample. The results are reported in Table 2, Panel B. Our main findings are robust to the PSM approach. For affected funds, the style-adjusted return increases by 3.62% within one year and by 2.88% per year in the following two years (Model 2), and the dollar value added increases by $23.12 ($12.13) million in the first year and by $13 ($10.27) million per year in the following two years based on style-adjusted (FFC8-adjusted) returns in Model 3 (Model 4). Models 5-8 further control for the pre-FATCA period, and we find no pretrends in fund performance across all specifications. Most importantly, our results for the post-FATCA period remain statistically and economically significant.

Therefore, collectively, our results strongly suggest that the implementation of the FATCA has incentivized affected funds to enhance their performance. Figure 1 provides an intuitive demonstration. In Panel A, we plot the return spread—i.e., the difference in style-adjusted fund returns—between the treatment and control funds in the PSM sample from three years before to three years after FATCA implementation. We see that offshore funds sold to U.S. investors underperform the control funds during the pre-FATCA period (on average, 2.55% per year). After FATCA implementation, the treatment funds no longer exhibit any return disadvantage. Indeed, they even slightly outperform the control funds in the post-FATCA period (approximately 0.68% per year), although the outperformance is not stable in Figure 1. However, it is apparent from the plot that the treatment funds managed to catch up with their pre-FATCA performance gap, which is consistent with a transition from competing on after-tax returns to competing on before-tax returns in response to the loss of tax advantages.

A remaining question is whether FATCA-induced performance matches the evaporating tax benefits of the treatment funds in economic magnitude. Although it is difficult to explicitly estimate the tax benefits of offshore funds due to the lack of information, the tax burden of domestic funds provides a reasonable benchmark to assess the issue.[24] In particular, Sialm and Zhang (2020) report substantial cross-sectional variation in domestic tax burdens: the median

[24] Morningstar has very limited coverage of the short-term and long-term capital gains for offshore funds; hence, we are unable to compute the tax burden in our sample. However, the average dividend yield is 1.72% for affected funds, which is considerably higher than the 0.74% dividend yield reported in Sialm and Zhang (2020). Therefore, their tax burden estimate is likely to be a lower bound for our sample.

and the third quartile tax burden of domestic U.S. investors is 1.62% and 2.89% (1.53% and 2.57%) in 2014 (2015).[25] To the extent that many offshore funds want to attract tax-savvy U.S. investors, it is reasonable to conjecture that their benefits are comparable to the above-median domestic fund tax burdens. If so, the performance increase around the FATCA (e.g., in style-adjusted returns, between 2.57% in Table 1 and 3.23% as implied in Figure 1) appears sensible to compensate investors for their evaporating tax benefits.[26]

Overall, our findings suggest that mutual funds can deliver better performance when they need to—i.e., when the FATCA incentivizes affected funds to improve performance to offset the loss in their competitive advantage created by offshore tax evasion. Fund managers create more value in general (i.e., value added and gross-of-fee performance) and share the benefits with investors (i.e., higher net-of-fee performance) as a substitution for their original tax benefits. This economic pattern is consistent with a *transition* from the pre-FATCA tax-based duopoly equilibrium to the post-FATCA Berk and Green (2004) type of competitive equilibrium and suggests that tax evasion and its undoing may substantially affect performance.

V. Fund Fees Around the FATCA

Next, we examine whether mutual funds react to the FATCA by adjusting their fees. Intuitively, funds could react to the FATCA by playing the quality card (i.e., improving performance) and price card (i.e., reducing fees). Given that fund fees are available only with an annual frequency, we estimate the following DiD specification using annual panel regression:

$$Fee_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}, \quad (2)$$

where $Fee_{f,t}$ refers to the expense ratio or style-adjusted expense ratio of fund f in year t, and all other variables are defined as in Equation (1). We include fund and year fixed effects in all specifications, and standard errors are clustered at the domicile country level.

We report the results in Table 3, with Models 1-2 for fund fees and Models 3-4 for style-adjusted fees. In addition to improving performance, affected funds reduce fees to retain investors, although the economic magnitude is much smaller. In particular, offshore funds sold to U.S. investors display a 2.8 bp lower fee for the three years following the event (Model 1) than unaffected funds, which translates into a 1.62% decline relative to the average expense ratio of 1.725% for the sample. In addition, affected funds display, on average, a 2.3 bp lower fee for the first year and further reduce the fee by 3.1 bp per year in the following two years.

[25] We thank Clemens Sialm and Hanjiang Zhang for generously sharing their data.
[26] If we consider only the sample of domestic funds that have above-median tax burdens, the third quartile value becomes the median value of this subsample. In this regard, a reasonable benchmark of the offshore tax benefit in 2014 is 2.89%.

Models 5-8 further employ a PSM approach to match the sample of offshore funds sold to U.S. investors (treatment) and those not sold to U.S. investors (control) based on the procedures described in Section IV.C. We confirm that affected funds display a 2.2-3 bp lower fee for the three years following the event (Models 5-6). Our findings remain intact using style-adjusted fees, and unreported results are also robust to controlling for the pre-FATCA period. Since the economic magnitude is relatively small, affected funds appear to be more constrained in reducing fees, which is consistent with the empirical evidence of fees being highly persistent (e.g., Cooper, Halling, and Lemmon 2012).

Comparing our performance and fee results, we find that the main trade-off triggered by the FATCA occurs between tax evasion and performance. Nonetheless, since the affected funds both increase distributed returns and decrease fees, curbing offshore tax evasion eliminates tax evasion-based product differentiation and motivates performance-based competition, improving the efficiency of the mutual fund industry in the spirit of Pedersen (2015).

VI. Investor Reaction in Terms of Fund Flows

To complete the analysis, we explore whether the FATCA induces tax-savvy U.S. investors to withdraw from previously invested offshore funds. If affected funds can fully compensate for the loss of competitive advantage by maneuvering net-of-fee performance, we expect to find no effect on outflows. However, if the cost for funds to fully adjust is too high—especially in the presence of increasing marginal costs to improve performance due to more competition and higher price efficiency—we should see a negative impact on flows. Since our flow analysis jointly examines the reactions of investors and managers, we focus on how the FATCA affects fund flows *conditioning on adjusted net-of-fee performance*. Hence, the null hypothesis of zero outflows indicates a sufficient adjustment in net-of-fee performance to fully absorb the shock. Of course, one can also interpret a zero flow as a lack of investor reaction to the FATCA in general. However, a later section rejects this alternative interpretation based on the findings with regard to offshore index funds.

We estimate the following DiD specification using monthly panel regression:

$$Flow_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \beta_2 US\ Sale_f \times Post_t \times \Delta STYRET_f + \beta_3 Post_t \times \Delta STYRET_f + \gamma N_{f,t-1} + e_{f,t}, \quad (3)$$

where $Flow_{f,t}$ is the monthly flow or style-adjusted flow of fund f in month t, and $\Delta STYRET_f$ is the change in average monthly style-adjusted return from three years before to three years after FATCA implementation. All other variables are defined as in Equation (1). We include

fund and month fixed effects in all specifications, and standard errors are clustered at the domicile country level.

In Table 4, we report the results for fund flows (Models 1-3) and style-adjusted flows (Models 4-6). As shown in Panel A, affected funds display 3.12% lower flows (Model 1) and 3.04% lower style-adjusted flows (Model 4) per year over three years (compared to those not sold to U.S. investors). Panel B further matches the sample of offshore funds sold to U.S. investors (treatment) and those not sold to U.S. investors (control) based on the previous PSM procedure. In the matched sample, although affected funds are still associated with an average outflow over the three-year window (i.e., 2.18% in Model 4), the effect is no longer statistically significant.

Given the mixed evidence on the average effect, it is important to examine the dynamic pattern of outflows in different years following the FATCA. In this case, we find that both samples report a consistent time pattern. Fund outflows are nonsignificant in the first year after the FATCA, but thereafter, we still observe significant outflows. For instance, Model 5 of Panel B reports an annual style-adjusted outflow of 3.2% in the second and third years following the FATCA. In addition, we confirm that in both samples, affected funds experience fewer outflows if they manage to improve their performance after the FATCA (Models 3 and 6).

Figure 1, Panel B visualizes the time trend by plotting the year-by-year difference in style-adjusted fund flows between the treatment and control funds in the PSM sample from three years before to three years after FATCA implementation. Prior to the FATCA, offshore funds sold to U.S. investors attract marginally more flows, although the difference is insignificant. Interestingly, the treatment funds do not experience any flow disadvantage *regardless* of their lower returns, confirming that they offer tax and associated advantages to investors. After the FATCA, the treatment funds start to experience outflows, although the flow difference is statistically insignificant. However, the change from the pre-FATCA flow advantage to the post-FATCA flow disadvantage is significant, as captured by the DiD analysis.

The time series patterns in fund flows above have important implications for our analysis. First, investors do not withdraw capital from affected funds prior to the FATCA. This observation is reasonable because, as explained, investors should rationally maximize tax benefits and reallocate capital until the implementation year of the FATCA. The empirical observation is consistent with this incentive. Second, affected funds suffer from outflows, particularly in the second and third years following the FATCA. However, the magnitude is moderate and much smaller than the *counterfactual* outflows that they could have suffered (detailed in later sections). Hence, fund performance at least partly offsets the incentives of

tax-savvy U.S. investors to withdraw from offshore funds. Of course, the substitution is not perfect. These flow patterns also suggest that offshore fund investors are indeed sensitive to tax benefits, which justifies the choice of affected funds to deliver better performance to retain them.

Another important implication concerns the economic source of fund performance. The mutual fund industry exhibits decreasing returns to scale (e.g., Berk and Green 2004; Chen, Hong, Huang, and Kubik 2004; Pástor, Stambaugh, and Taylor 2020). Hence, substantial outflows induced by the FATCA could mechanically reduce the operating size of affected funds and lead to higher fund performance. In this case, affected funds may benefit from decreasing returns to scale even when fund managers do not resort to their skills and effort to generate additional performance.

However, this alternative performance channel is unlikely to be the driving force based on the flow patterns. Indeed, we can infer the evolution of fund TNA from fund returns and flows. Since affected funds deliver higher returns without suffering from significant outflows in the first year of the post-FATCA period, fund size should increase in Year 1. This conjecture is confirmed by Internet Appendix Figure IA1, in which we plot the average style-adjusted size of the treatment funds over time. Next, we see that affected funds are indeed associated with a reduction in TNA in the next two years due to continuous outflows. Nonetheless, their fund size in Years 2 and 3 is larger than that in Years −2 and −3. Hence, decreasing returns to scale are unlikely to be the economic grounds on which affected funds deliver better performance in the post-FATCA period (compared to the pre-FATCA period).

VII. Information Production as the Mechanism to Improve Performance

Thus far, we have documented that affected funds deliver better performance to offset the loss of tax benefits after the FATCA. We conjecture that the outperformance is due to enhanced efforts in information acquisition and processing. This section examines the economic mechanisms behind our results. We first analyze the investment strategies of mutual funds around the FATCA and then move on to the stock market implications.

An extensive body of literature has documented that active management enhances fund performance. If the FATCA incentivizes fund managers to increase their efforts and deliver better performance, we expect affected funds to be more actively managed to exhibit enhanced managerial skills. First, Amihud and Goyenko (2013) find that greater selectivity in mutual fund investment, proxied by greater deviations in the returns from a multifactor benchmark model and a lower R-square value (TR^2), is associated with better performance. Second,

unobserved actions of mutual funds (e.g., interim trades within a quarter), proxied by the difference between the reported fund return and the return on previously disclosed fund holdings (*Return Gap*), predict higher fund performance (Kacperczyk, Sialm, and Zheng 2008). Third, mutual funds can concentrate their holdings in industries in which they have informational advantages, proxied by the industry concentration index (*ICI*) (Kacperczyk, Sialm, and Zheng 2005). Finally, funds with more active shares, proxied by the share of portfolio holdings that differ from the benchmark index holdings, outperform the benchmark (Cremers and Petajisto 2009). In addition, funds seeking alphas should allocate their research efforts to stocks that are more likely to be mispriced, i.e., stocks with low transparency and/or low information quality and hence high information asymmetry. Therefore, we focus on the active share on a subset of stocks with low news coverage and low liquidity.

In addition to information acquisition, fund managers may engage in excessive risk-taking to boost performance. While our earlier analyses consider a comprehensive set of risk-adjusted performance measures, some managers may load on idiosyncratic risk. Hence, we examine the riskiness of the stocks held by mutual funds. If affected funds adopt a risk-shifting strategy to improve performance, we expect them to tilt toward more risky assets, such as stocks with high return volatility and idiosyncratic volatility.

Finally, we consider an alternative tax management strategy that fund managers can adopt in response to the loss of tax benefits. Due to the lack of data on short-term and long-term capital gains for offshore funds, we only provide suggestive evidence using dividend yields. To reduce the tax burden, affected funds should divest from high-dividend-yield stocks (e.g., Bergstresser and Poterba 2002; Sialm and Zhang 2020).

We estimate the following DiD specification using monthly panel regression:

$$Action_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}, \quad (4)$$

where $Action_{f,t}$ refers to a list of investment strategies of offshore fund f in month t, including TR^2, *Return Gap*, *ICI*, active share on stocks with low news coverage (*AS_Low News Coverage*), high Amihud illiquidity (*AS_High Amihud*) and low turnover (*AS_Low Turnover*), total return volatility (*Total Volatility*) and idiosyncratic volatility (*Idiosyncratic Volatility*) constructed from portfolio holdings, dividend yield constructed from portfolio holdings (*Stock Dividend Yield*) and obtained from Morningstar (*Fund Dividend Yield*). All other variables are defined as in Equation (1). We include fund and month fixed effects in all specifications, and standard errors are clustered at the domicile country level.

We tabulate the results in Table 5. First, affected funds are more active in their investments and employ more idiosyncratic investment strategies. As shown in Model 1, the affected funds display a lower TR^2 for the three years after the FATCA, indicating higher activity or selectivity and accounting for a 4.54% decline relative to the sample average. Furthermore, the enhanced activeness is not attributed to unobserved actions, as we do not observe a similar increase in *Return Gap* (Model 2). This implies that affected funds are more active in their portfolio holdings and deviate more from the underlying benchmark. Consistent with this prediction, we find that affected funds hold concentrated portfolios in specific industries (Model 3) and actively engage in stock selection on firms with less news coverage (Model 4) and more asymmetric information (Models 5-6). The effect is also economically sizable, e.g., the active share on stocks with low news coverage (high Amihud illiquidity, low turnover) increases by 11.63% (23.17%, 26.39%) compared to the sample average.

On the other hand, affected funds do not increase their exposure to total risk or idiosyncratic risk (Models 7-8); therefore, the improved performance and more active portfolio management are not likely driven by risk-taking behavior. In addition, we do not find a significant change in the dividend yield (Models 9-10), suggesting that affected funds are unlikely to adopt more sophisticated tax management strategies and improve tax efficiency after the FATCA. Collectively, affected funds engage in more active management when they can no longer offer tax advantages to investors, suggesting that curbing offshore tax evasion also improves competition in the mutual fund industry.

Enhanced fund management efforts can also spill over to the stock market. More active investment and informed trading after the FATCA can improve the informational efficiency of individual stocks in which funds invest. To complement the fund-level analyses, we investigate whether the stocks held by affected funds display higher price efficiency after the FATCA. More specifically, we define market efficiency from the delay in the stock price to market returns. Following Bae, Ozoguz, Tan, and Wirjanto (2012), we consider two measures of efficiency: the price delay to local market information *(Delay_Local)* and global market information (*Delay_Global*). Doing so further allows us to investigate the type of information used by affected funds. Price delay measures the fraction of variation in the contemporaneous individual stock returns that is explained by the lagged (local or global) market returns. By construction, less market delay indicates higher price efficiency in terms of the timely processing of information.

Since the price delay measures are constructed using weekly returns in each year, we estimate the following annual panel regression:

$$Delay_{i,t} = \alpha + \beta_1 IO\_Affected_{i,t} \times Post_t + \beta_2 IO\_Unaffected_{i,t} \times Post_t + \gamma C_{i,t-1} + e_{i,t}, \quad (5)$$

where $Delay_{i,t}$ refers to the market delay proxies of stock i in year t, including the delay to local market information ($Delay\_Local_{i,t}$) and global market information ($Delay\_Global_{i,t}$). $IO\_Affected_{i,t}$ denotes the percentage of ownership held by offshore funds sold to U.S. investors, and $IO\_Unaffected_{i,t}$ denotes the percentage ownership held by funds not affected by the FATCA (i.e., funds domiciled in the U.S. and offshore funds not sold to U.S. investors). Vector *C* stacks all other stock control variables, including *IO_Affected*, *IO_Unaffected*, *Log(Stock Size)*, *Book-to-Market*, and *Stock Return*. All other variables are defined as in Equation (1). We include stock and country-times-year (or country-times-industry-times-year) fixed effects, and standard errors are clustered at the firm and year levels.

We report the results in Table 6, Panel A. As shown in Models 1-4, higher ownership by affected funds is negatively associated with the delay to local market information for the three years after the FATCA, indicating higher informational efficiency. This result holds across different specifications both statistically and economically. In particular, a one-standard-deviation increase in the ownership of affected funds is related to a 4.84% higher efficiency in the delay to local market information in Model 4 (scaled by the standard deviation of the delay measures). A placebo test using the ownership of unaffected funds does not show similar patterns, and its impact on price efficiency does not vary around the time of FATCA implementation.[27]

As shown in Models 5-8, there is almost no change in the delay to global market information among both affected and unaffected funds. Bae, Ozoguz, Tan, and Wirjanto (2012) document that global market information is relatively easy for foreign funds to obtain, and foreign capital can improve informational efficiency by better processing global information. As a result, all funds might have already incorporated global information into their investments prior to the FATCA, and thus, the FATCA has very limited impacts. When affected funds increase their efforts to collect information, they are likely to focus on local information. Acquiring local information can be more costly and becomes valuable only when better performance is required to compensate for the loss of tax benefits.

[27] The placebo test highlights the role of affected funds in enhancing price efficiency. Note that such a price efficiency enhancement does not necessarily involve tremendous capital flows. For instance, Novy-Marx and Velikov (2016) estimate that the amount of capital to repel the profitability of high-turnover anomalies (e.g., reversals) and mid-turnover anomalies (e.g., momentum) ranges from $100 million to $5 billion. Since their analysis of mid- to high-turnover anomalies may apply to a large class of inefficiency related to the timely propagation of information, it is reasonable that affected funds, with approximately $745 billion TNA around the FATCA, can improve the price efficiency of their invested stocks.

Next, we explore whether the effect is time varying in Table 6, Panel B, where $Post_t$ denotes the year-by-year change. We find that the delay to local market information declines with ownership by affected funds across all three years, confirming that funds try to improve their performance by collecting information that they were not collecting before and that this information is mostly local information. As shown in Model 4, a one-standard-deviation increase in the ownership of affected funds is related to 3.97% higher efficiency in the first year and 5.43% higher efficiency in the following two years (scaled by the standard deviation of the delay measures), and efficiency is measured by less delay to local market information.

Overall, we find consistent evidence that the improvement in fund performance and market efficiency is not temporary. Our findings suggest that more transparency in tax reporting not only allows the government to better fight tax evasion but also incentivizes offshore funds to expend more effort on information acquisition, thereby improving the efficiency of both the global mutual fund industry and stock markets.

VIII. Additional Analysis of Fund Heterogeneity

We finally conduct a list of additional analyses to extend our economic intuition. First, we examine the economic grounds of performance improvements based on fund heterogeneity. We then exploit the heterogeneity provided by index funds to design a counterfactual analysis of how investors could have responded to the FATCA when there is no additional performance to substitute for the evaporating tax benefits. Finally, we extend the sample period to 2019 and examine the long-term implications up to five years after the FATCA.

A. Fund Incentives

This subsection explores the cross-sectional variation in fund characteristics related to the incentive and ability to deliver better performance after the FATCA.

First, U.S. persons might invest in offshore assets for many legitimate reasons, but tax evaders are more likely to hold assets in tax havens.[28] Consequently, affected funds domiciled in tax havens should suffer a greater loss in their competitive advantage. In a similar vein, the effect of the FATCA could vary with the distribution type of funds. Income funds distribute any interest or dividend income from the investment, and such payments are taxable, while accumulation funds reinvest the income within the fund. Hence, funds domiciled in tax havens and income funds are more sensitive to the change in tax regulation and are subject to higher

[28] Tax havens refer to jurisdictions with low effective tax rates and a sufficient commitment to financial secrecy to be attractive to foreigners wishing to shield income from home-country taxation (Johannesen et al. 2020). Zucman (2013) estimates that approximately 8% of the global financial wealth of households is held in tax havens, which translates into approximately 10% of global GDP. In addition, three-fourths of household assets held in tax havens are unrecorded.

losses of tax benefits after the FATCA. Following our main hypotheses, we should expect these funds to have greater incentives to improve performance and mitigate capital outflows.

Second, the higher performance of affected funds after the FATCA could be partially due to the decreasing returns to scale in the mutual fund industry. Although our previous tests suggest that this is not the case for an *average* affected fund, we want to provide an additional analysis of *larger* funds to better understand the role of fund size and decreasing returns to scale.

Finally, the incremental cost required to improve performance could be lower for skilled funds. Given the fixed cost of setting up support teams to conduct investment research, better equipped and more skilled funds could be more capable of adapting to regulatory change and improving performance over the short term by devoting more effort. Hence, although affected funds have the general incentives to improve performance, we want to examine the extent to which skilled funds have the capacity to deliver higher performance after the FATCA.

To test the economic mechanisms above, we expand our baseline DiD analysis, as described in Equation (1), to the following monthly panel specification:

$$Perf_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \beta_2 US\ Sale_f \times Post_t \times Char_f + \beta_3 Post_t \times Char_f + \gamma N_{f,t-1} + e_{f,t}, \quad (6)$$

where $Char_f$ refers to a list of fund characteristics, including *Haven*, defined as a dummy variable that equals 1 if a fund's domicile country is identified as a tax haven and 0 otherwise; *TIEA Haven*, defined as a dummy variable that equals 1 if a fund's domicile country is identified as a tax haven and signed a bilateral TIEA with the U.S. prior to the FATCA and 0 otherwise; *Non-TIEA Haven*, defined as a dummy variable that equals 1 if a fund's domicile country is identified as a tax haven and did not sign a bilateral TIEA with the U.S. prior to the FATCA and 0 otherwise; *Income Fund*, defined as a dummy variable that equals 1 for income funds and 0 for accumulation funds; *Large Fund*, defined as a dummy variable that equals 1 if a fund's TNA at the end of the month before the FATCA is above the median across all funds and 0 otherwise; and *Low* TR^2, defined as a dummy variable that equals 1 if a fund's average TR^2 over the three-year period before the FATCA is below the median across all funds and 0 otherwise. All other variables are defined as in Equation (1). We include fund and month fixed effects in all specifications, and standard errors are clustered at the domicile country level.

We report the results in Internet Appendix Table IA3, with Panel A for net-of-fee returns (Models 1-5) and style-adjusted returns (Models 6-10) and Panel B for value added based on style-adjusted returns (Models 1-5) and FFC8-adjusted returns (Models 6-10). Focusing on

triple interactions, we find that funds domiciled in tax havens, income funds, and funds with a lower TR^2 show greater improvements in performance. The results are largely robust to various performance measures—both the return and value added, both raw and style adjusted.

Intuitively, funds domiciled in tax havens are more sensitive to the change in tax regulation and are thus more incentivized to enhance performance and regain their competitive advantage. As shown in Panel A, affected funds domiciled in tax havens display 1.97% higher style-adjusted returns per year over the three-year event window (Model 6). In addition, funds domiciled in all tax havens improve their performance regardless of whether they signed bilateral TIEAs with the U.S. prior to the FATCA (Models 2 and 7). Consistent with the literature (e.g., Beer, Coelho, and Leduc 2019; Menkhoff and Miethe 2019; Casi, Spengel, and Stage 2020), this result implies that the automatic exchange of information under the FATCA overcomes the main limitations of existing TIEAs, e.g., information exchange is not automatic but upon request, and tax authorities must possess sufficient evidence of tax evasion to request information, thus inducing additional responses from fund managers. Regarding economic magnitude, affected funds domiciled in tax havens with (without) TIEAs before the FATCA show a 1.84% (2.47%) higher style-adjusted return per year (Model 7).[29]

From Models 3 and 8, we find that income funds—funds that are likely to generate larger tax burdens—are more responsive to the FATCA. Indeed, affected income funds show a 2.78% higher style-adjusted return per year (Model 8). In contrast, large funds do not seem to generate significantly higher or lower performance (insignificant in Model 4 and marginally significant at the 10% level in Model 9). This result reinforces our previous observation that decreasing returns to scale, whether linked to the level or changes in fund size, are unlikely to be the main driving force of FATCA-induced performance.[30]

Finally, more skilled funds (measured by a low TR^2 in Models 5 and 10) can mobilize their existing research capacities to achieve stronger performance at a relatively low cost and are therefore more likely to choose to do so. From Model 10, we observe that these funds exhibit a marginally significant 1.04% higher annualized style-adjusted return (t-statistics = 2.03), in addition to the 1.21% return generated by all affected funds, which is highly significant (t-statistics = 2.97). These observations confirm that, on the one hand, all funds have strong

[29] The higher style-adjusted return corresponds to an additional \$13.14 (\$14.77, \$6.78) million in value added per year for affected funds domiciled in tax havens (tax havens with TIEAs, tax havens without TIEAs), as shown in Internet Appendix Table IA3, Panel B (Models 1-2).

[30] Unreported results replace *Large Fund* with Δ*Fund Size*, defined as the percentage change in fund TNA from three years before FATCA implementation to three years after implementation, and we do not find significant coefficients for *US Sale* × *Post FATCA 3Y* × Δ*Fund Size*.

incentives to catch up on performance and that, on the other hand, existing research capacities have some benefits for generating performance.

Overall, in line with the endogenous choice of fund managers to deliver performance, affected funds choose to deliver higher performance after the FATCA when they are more incentivized to do so and/or are more capable of doing so.

B. Flow Heterogeneity and Counterfactual Analysis

In our main tests, we have focused on actively managed equity mutual funds. We now expand our analysis to equity index funds as a counterfactual analysis. Unlike active funds, index funds do not aim to outperform the benchmark and do not actively collect and trade on information; therefore, the FATCA regulation should only affect fund flows, not performance. In this regard, affected index funds provide a benchmark to gauge the impact of the FATCA in the absence of additional fund performance as a substitution for the evaporating tax advantage.

However, it is also important to note that index funds are less tax sensitive. For instance, Sialm and Zhang (2020) document that the tax burden of domestic index funds is significantly smaller than that of active funds. The difference arises because index funds typically have longer investment horizons, allowing their long-term capital gains distributions to be taxed at lower rates than the short-term capital gains distributed by active funds. Since similar operations apply to offshore funds, the value of the pre-FATCA tax advantages of index funds is plausibly smaller than that of active funds. Hence, index funds allow us to provide a conservative (i.e., lower-bound) estimation of the counterfactual flow impact of the FATCA on affected funds without performance substitution.

To conduct this counterfactual analysis, we compare the flow impact of the FATCA on active funds and index funds. We analyze the entire sample of offshore index funds and, given the importance of tax havens, pay special attention to funds domiciled in tax havens. More explicitly, we compare the flow impacts of the FATCA on active funds (as reported in Table 4) and on the whole sample of offshore index funds. We then compare active and index funds domiciled in tax havens. Since the conclusions are very similar, we tabulate the head-to-head comparison of tax-haven funds in Internet Appendix Table IA4 and provide the full sample index fund analysis in Internet Appendix Table IA5. The flow patterns of tax-haven active funds also help to better interpret our previous return analysis.

Internet Appendix Table IA4 estimates the DiD specification of Equation (3) using the subset of funds domiciled in tax havens, with Models 1-4 for active funds and Models 5-8 for

index funds.[31] Affected index funds domiciled in tax havens show 13.44% lower flows (Model 5) and 13.5% lower style-adjusted flows (Model 7) per year over the three-year post-FATCA window. In contrast, we do not find a significant outflow among active funds over the three-year window (Models 1 and 3).

Proceeding to examine the dynamic pattern of outflows in different years following the FATCA, we find that for both active funds and index funds, outflows are insignificant in the first year after the FATCA but become significant and more sizable in the second and third years following the FATCA. The overall pattern is consistent with our findings in Table 4. However, the economic magnitude of first-year index fund outflows is sizable (i.e., 9.73% in Model 8). More importantly, index fund investors withdraw considerably more than active fund investors in the second and third years, e.g., 15.78% style-adjusted outflows per year for index funds (Model 8) compared to 2.46% for active funds (Model 4).

From Panel A of Internet Appendix Table IA5, we see that the FATCA exerts a similar flow impact on the entire sample of offshore index funds. Affected index funds show 12.24% style-adjusted outflows (Model 7) per year over the three-year window and, in particular, 15.13% style-adjusted outflows in the second and third years following the FATCA (Model 8). The economic magnitude of FATCA-induced outflows, compared to the flow influence of active funds (e.g., 3.04% over the three years in Table 4), is substantially larger, with a difference of 9.2%. In addition to flows, we also report the performance analysis results of index funds (Models 1-4). As expected, we find no significant post-FATCA difference in performance between affected and unaffected index funds.

As a robustness check, we further employ a difference-in-difference-in-differences (DDD) setting to quantify the performance and flow gap between active funds and index funds around the implementation of the FATCA. To ensure a fair comparison, we only include domicile countries with both active funds and index funds and benchmarks tracked by both types. The DDD setting further controls for the aggregate demand shocks following the FATCA, if any, from U.S. investors. The results are tabulated in Panel B of Internet Appendix Table IA5, with Models 1-2 for net-of-fee returns, Models 3-4 for style-adjusted returns, Models 5-6 for fund flows, and Models 7-8 for style-adjusted flows. The triple difference estimate, i.e., *Active*×*US Sale*×*Post*, is positive and significant across all performance measures, indicating enhanced performance among affected active funds after the implementation of the FATCA. Conditioning on the index fund performance, the style-adjusted return for affected active funds

[31] Given the small number of tax havens, standard errors are clustered at the fund level instead of the domicile country level.

increases by 3.13% per year over the three-year post-FATCA window (Model 3). In addition, the style-adjusted return increases by 4% within one year and by 2.7% per year in the following two years (Model 4).

Moving to the fund flows, despite the average outflows among affected funds during the post-FATCA period as captured by the *US Sale*×*Post*, affected active funds manage to retain more fund flows than index funds. Consistent with the previous DiD analyses in subsamples, the triple difference estimate is always positive, while it becomes statistically significant and economically sizable, especially after the first year. For instance, affected active funds show 6.46% (8.53%) higher style-adjusted flows per year than index funds over the three-year window (in the second and third years) in Model 7 (Model 8). Collectively, the subsample and triple difference analyses suggest that affected funds could suffer an additional style-adjusted outflow of 6.46% to 9.2% per year in a three-year window after the FATCA if their performance was not improved.

The magnitude of post-FATCA index fund outflows provides a reasonable (and likely conservative) estimation of the counterfactual flows that active funds could have experienced without performance substitution. The potential flow damage is substantial, which confirms that fund investors are aware of the benefits of tax efficiency and justifies the choice by active fund managers to generate additional performance to substitute for the lost tax benefits. In this regard, the (counterfactual) flow analysis and the previous return analysis jointly complete the economic picture of how the FATCA affects active funds domiciled in tax havens. Indeed, these funds show reasonable (albeit imperfect) success in curbing potential outflows, although the additional performance may not fully substitute for the benefit of offshore tax evasion.

In addition to the flow heterogeneity related to index funds and funds domiciled in tax havens, we explore the cross-sectional variation in fund flows after FATCA implementation for the remaining fund characteristics analyzed in Internet Appendix Table IA3. As shown in Internet Appendix Table IA6, the effect of the FATCA does not vary with the distribution status (proxied by *Income Fund*) and fund size (proxied by *Large Fund*). Although income funds are sensitive to the FATCA, our results suggest that the additional performance generated by income funds (2.78% in Internet Appendix Table IA3) appears sufficient to offset their relative disadvantages due to the FATCA.[32]

[32] Since investor flows could be significantly influenced by star ratings (e.g., Ben-David, Li, Rossi, and Song 2022), we further interact the star rating with FATCA adoption to control for time-varying investor demand due to the adjustment of fund performance. Despite the generally positive flow-performance relationship found (as shown by the star rating coefficient across all specifications), flow-performance sensitivity does not vary across fund types around the time of FATCA implementation (as indicated by the insignificant triple interaction of *US Sale* × *Post FATCA 3Y* × *Star*). This insignificant result suggests that tax evasion and star-related considerations are very different from the investor perspective.

Overall, our additional flow analysis, particularly the index fund results, completes our analysis from several perspectives. First, the negative flow response to the FATCA confirms that offshore fund investors benefited from the attribute of tax evasion before the policy shock. Second, these results validate our economic interpretation of zero post-FATCA outflows, which indicates that additional fund performance sufficiently compensates for the evaporated tax benefits (instead of investor inattention to the FATCA). Finally, and perhaps most importantly, index funds provide a reasonable benchmark for us to assess the counterfactual flow impact of the FATCA when active fund managers fail to deliver performance. The significant difference between FATCA-induced performance and outflows across active and index funds strongly suggests that funds improve performance when they have the incentive to do so.

C. Alternative Event Window

Our main analyses focus on the sample period from July 2011 to June 2017 (i.e., three years before to three years after the implementation of the FATCA) to avoid confounding events, as previously explained. However, a natural question to ask is whether the previously observed patterns persist in the long term. The implementation of the FATCA imposes a permanent loss of tax advantages for offshore funds sold to U.S. investors. As a result, the incentive to deliver better performance should be persistent.

We extend the sample period to June 2019 and repeat the DiD analysis described in Equation (1). We further test the pretrend before the FATCA and examine the time dynamics after the FATCA. We report the results in Internet Appendix Table IA7, with Models 1-2 for net-of-fee returns and Models 3-4 for style-adjusted returns. We find no pretrends in fund performance and confirm that the FATCA-induced performance improvement does not decay over time across all specifications. In particular, affected funds display a 1.98% higher style-adjusted return in the first three years after the FATCA, and the economic magnitude remains sizable at 2.44% per year for the following two years (Model 4). Unreported results are robust to alternative performance measures. For instance, the dollar value added increases by $14.35 million for affected funds in the first three years and by $12.48 million per year in the following two years with the use of style-adjusted returns. Collectively, our results suggest that FATCA-induced performance persists in the long term.[33]

[33] Notably, mutual fund families do not respond to FATCA by closing down affected funds. Among the 1,239 affected funds at the time of FATCA implementation, 90% and 80% remain in our sample after three years and five years, respectively. The corresponding survival rate is 89% and 80% for unaffected funds. This supports the notion that affected funds manage to retain investors by delivering better performance, and is consistent with a transition from the pre-FATCA tax-based duopoly equilibrium to the post-FATCA competitive equilibrium.

As a robustness check, we also repeat the DiD analysis around the FATCA enactment date (March 2010) instead of the effective date. We focus on an event window from three years before to three years after the enactment of the FATCA and examine the time dynamics as in the main analyses. We tabulate the results in Internet Appendix Table IA7, with Models 5-6 for net-of-fee returns and Models 7-8 for style-adjusted returns. As expected, we do not find any change in fund performance around the enactment date. Unreported results further confirm that investors do not withdraw from the offshore funds around the FATCA enactment, consistent with the lack of incentives for fund managers to improve performance. Our findings justify the choice of effective date as the appropriate starting point for investors to make tax-based capital reallocation and for funds to take simultaneous actions in response to the loss of tax advantages.

Conclusion

We explore a novel setting to study the endogenous choice of fund managers to acquire information and deliver performance. We analyze the implementation of the FATCA regulation, which targets the offshore tax evasion of U.S. persons. The FATCA has exogenously reduced the attractiveness of offshore funds to U.S. investors, changing the incentives of fund managers to deliver performance.

We rely on a complete sample of actively managed equity mutual funds worldwide covering the 2011-2017 period. Applying a standard DiD approach to study the period around FATCA implementation, we examine offshore funds sold to U.S. investors (i.e., the treatment group) and compare them to offshore funds not sold to U.S. investors (i.e., the control group). We document that offshore funds sold to U.S. investors significantly improve their performance and that the effect is stronger among tax-sensitive funds and skilled funds. Moreover, affected funds manage their portfolios more actively to improve performance, especially via better-selected stock holdings. The enhanced performance cannot be explained by the decreasing returns to scale, more risk taking, and more sophisticated tax management. In generating additional performance, affected funds enhance the price efficiency of their invested stocks, especially in terms of more timely responses to local market information. Finally, the FATCA nevertheless induces outflows for affected funds, confirming a negative impact of the regulation on the demands of tax-savvy investors, which also justifies the choice of affected funds to use improved performance to offset this effect.

Our findings imply that although mutual funds do not seem to beat the market on average, the reason may be not that the market is efficient but that mutual funds optimally choose not to

do so. However, when some of the attributes they use to attract investors change (i.e., offshore tax evasion), funds are willing and, more importantly, able to deliver better performance. Our results have important normative implications. We document that more transparency in tax reporting not only allows the government to better fight tax evasion but also has broader implications for financial markets. Indeed, this increased transparency affects the behaviors of both investors (i.e., targeted taxpayers) and their fund managers as well as the efficiency of both the global mutual fund industry and stock markets.

References

Alstadsæter, A., N. Johannesen, and G. Zucman. 2018. Who Owns the Wealth in Tax Havens? Macro Evidence and Implications for Global Inequality. *Journal of Public Economics* 162:89−100.

Alstadsæter, A., N. Johannesen, and G. Zucman. 2019. Tax Evasion and Inequality. *American Economic Review* 109:2073−2103.

Amihud, Y. 2002. Illiquidity and Stock Returns: Cross-Section and Time-Series Effects. *Journal of Financial Markets* 5:31–56.

Amihud, Y., and R. Goyenko. 2013. Mutual Fund's R^2 as Predictor of Performance. *Review of Financial Studies* 26:667−694.

Anderson, S. P., and R. Renault. 1999. Pricing, Product Diversity, and Search Costs: A Bertrand-Chamberlin-Diamond Model. *The RAND Journal of Economics* 30:719−735.

Bae, K.-H., A. Ozoguz, H. Tan, and T. S. Wirjanto. 2012. Do Foreigners Facilitate Information Transmission In Emerging Markets? *Journal of Financial Economics* 105:209−227.

Barber, B. M., X. Huang, and T. Odean. 2016. Which Factors Matter to Investors? Evidence from Mutual Fund Flows. *Review of Financial Studies* 29:2600−2642.

Beer, S., M. Coelho, and S. Leduc. 2019. Hidden Treasures: The Impact of Automatic Exchange of Information on Cross-Border Tax Evasion. Working Paper.

Belnap, A., J. Thornock, and B. Williams. 2019. The Long Arm of the U.S. Tax Law: Participation Rates and Costs related to Mandated Information Sharing. Working Paper.

Ben-David, I., J. Li, A. Rossi, and Y. Song. 2022. What Do Mutual Fund Investors Really Care About? *Review of Financial Studies* 35:1723−1774.

Bennedsen, M., and S. Zeume. 2018. Corporate Tax Havens and Transparency. *Review of Financial Studies* 31:1221−1264.

Bergstresser, D., and J. Poterba. 2002. Do After-Tax Returns Affect Mutual Fund Inflows? *Journal of Financial Economics* 63:381–414.

Berk, J. B., and R. C. Green. 2004. Mutual Fund Flows and Performance in Rational Markets. *Journal of Political Economy* 112:1269–1295.

Berk, J. B., and J. H. van Binsbergen. 2015. Measuring Skill in the Mutual Fund Industry. *Journal of Financial Economics* 118:1–20.

Berk, J. B., and J. H. van Binsbergen. 2016. Assessing Asset Pricing Models Using Revealed Preference. *Journal of Financial Economics* 119:1–23.

Berk, J. B., J. H. van Binsbergen, and B. Liu. 2017. Matching Capital and Labor. *Journal of Finance* 72:2467–2504.

Bollen, N. P. B., and J. A. Busse. 2001. On the Timing Ability of Mutual Fund Managers. *Journal of Finance* 56:1075–1094.

Carhart, M. M. 1997. On Persistence in Mutual Fund Performance. *Journal of Finance* 52:57–82.

Casi, E., C. Spengel, and B. M. B. Stage. 2020. Cross-Border Tax Evasion After the Common Reporting Standard: Game Over? *Journal of Public Economics* 190, 104240.

Chen, J., H. Hong, M. Huang, and J. D. Kubik. 2004. Does Fund Size Erode Mutual Fund Performance? The Role of Liquidity and Organization. *American Economic Review* 94:1276–1302.

Chevalier, J., and G. Ellison. 1997. Risk Taking by Mutual Funds as a Response to Incentives. *Journal of Political Economy* 105:1167–1200.

Choi, J. J., and A. Z. Robertson. 2020. What Matters to Individual Investors? Evidence from the Horse's Mouth. *Journal of Finance* 75:1965–2020.

Christoffersen, S. E. K., and D. K. Musto. 2002. Demand Curves and the Pricing of Money Management. *Review of Financial Studies* 15:1499–1524.

Cooper, M., M. Halling, and M. Lemmon. 2012. Violations of the Law of One Fee in the Mutual Fund Industry. Working Paper.

Cremers, K. J. M., and A. Petajisto. 2009. How Active Is Your Fund Manager? A New Measure That Predicts Performance. *Review of Financial Studies* 22:3329–3365.

De Simone, L., R. Lester, and K. Markle. 2020. Transparency and Tax Evasion: Evidence from the Foreign Account Tax Compliance Act (FATCA). *Journal of Accounting Research* 58:105–153.

Dharmapala, D. 2016. Cross-border Tax Evasion under a Unilateral FATCA Regime. *Journal of Public Economics* 141:29–37.

Diamond, P. A. 1971. A Model of Price Adjustment. *Journal of Economic Theory* 3:156–168.

Dyreng, S. D., and B. P. Lindsey. 2009. Using Financial Accounting Data to Examine the Effect of Foreign Operations Located in Tax Havens and Other Countries on U. S. Multinational Firms' Tax Rates. *Journal of Accounting Research* 47:1283–1316.

Fama, E. F. 1970. Efficient Capital Markets: A Review of Theory and Empirical Work. *Journal of Finance* 25:383–417.

Fama, E. F., and K. R. French. 1993. Common Risk Factors in the Returns on Stocks and Bonds. *Journal of Financial Economics* 33:3–56.

Fama, E. F., and K. R. French. 2010. Luck versus Skill in the Cross-Section of Mutual Fund Returns. *Journal of Finance* 65:1915–1947.

Gârleanu, N., and L. H. Pedersen. 2018. Efficiently Inefficient Markets for Assets and Asset Management. *Journal of Finance* 73:1663–1712.

Gil-Bazo, J., and P. Ruiz-Verdú. 2009. The Relation between Price and Performance in the Mutual Fund Industry. *Journal of Finance* 64:2153–2183.

Grossman, S. J., and J. E. Stiglitz. 1980. On the Impossibility of Informationally Efficient Markets. *American Economic Review* 70:393–408.

Gruber, M. J. 1996. Another Puzzle: The Growth in Actively Managed Mutual Funds. *Journal of Finance* 51:783–810.

Hanlon, M., E. L. Maydew, and J. R. Thornock. 2015. Taking the Long Way Home: U.S. Tax Evasion and Offshore Investments in U.S. Equity and Debt Markets. *Journal of Finance* 70:257–287.

Heaney, V. 2011. Few Managers Ready to Comply With FATCA. *Financial Times*.

Hortaçsu, A., and C. Syverson. 2004. Product Differentiation, Search Costs, and Competition in the Mutual Fund Industry: A Case Study of S&P 500 Index Funds. *Quarterly Journal of Economics* 119:403–456.

Hou, K., and T. J. Moskowitz. 2005. Market Frictions, Price Delay, and the Cross-Section of Expected Returns. *Review of Financial Studies* 18:981–1020.

Jacobs, D. L. 2012. Most Foreign Banks Don't Want U.S. Clients; How To Find One That Does. *Forbes*.

Johannesen, N. 2014. Tax Evasion and Swiss Bank Deposits. *Journal of Public Economics* 111:46–62.

Johannesen, N., P. Langetieg, D. Reck, M. Risch, and J. Slemrod. 2020. Taxing Hidden Wealth: The Consequences of U.S. Enforcement Initiatives on Evasive Foreign Accounts. *American Economic Journal: Economic Policy* 12:312−346.

Johannesen, N., and G. Zucman. 2014. The End of Bank Secrecy? An Evaluation of the G20 Tax Haven Crackdown. *American Economic Journal: Economic Policy* 6:65–91.

Jolly, D., and B. Knowlton. 2011. Law to Find Tax Evaders Denounced. *New York Times*.

Jones, C. S., and H. Mo. 2021. Out-of-Sample Performance of Mutual Fund Predictors. *Review of Financial Studies* 34:149–193.

Kacperczyk, M., C. Sialm, and L. Zheng. 2005. On The Industry Concentration of Actively Managed Equity Mutual Funds. *Journal of Finance* 60:1983–2012.

Kacperczyk, M., C. Sialm, and L. Zheng. 2008. Unobserved Actions of Mutual Funds. *Review of Financial Studies* 21:2379–2416.

Malkiel, B. G. 1995. Returns from Investing in Equity Mutual Funds 1971 to 1991. *Journal of Finance* 50:549–572.

Menkhoff, L., and J. Miethe. 2019. Tax Evasion in New Disguise? Examining Tax Havens' International Bank Deposits. *Journal of Public Economics* 176:53–78.

Michel, S.D., Rosenbloom, H.D., 2011. FATCA and Foreign Bank Accounts: Has the U.S. Overreached? *Tax Notes International*, May 30, 2011, 709–713.

Novy-Marx, R., and M. Velikov. 2016. A Taxonomy of Anomalies and Their Trading Costs. *Review of Financial Studies* 29:104–147.

O'Donovan, J., H. F. Wagner, and S. Zeume. 2019. The Value of Offshore Secrets: Evidence from the Panama Papers. *Review of Financial Studies* 32:4117–4155.

Omartian, J. 2017. Do Banks Aid and Abet Asset Concealment: Evidence from the Panama Papers. Working Paper.

Palin, A. 2014. Tax Milestone as FATCA Reporting Requirement Takes Effect. *Financial Times*.

Parillo, K. 2010. IRS, Treasury Aim for Release of FATCA Guidance in Stages, Official Says. *Tax Notes*.

Pástor, L., R. F. Stambaugh, and L. A. Taylor. 2020. Fund Tradeoffs. *Journal of Financial Economics* 138:614–634.

Pedersen, L. H. 2015. Efficiently Inefficient: How Smart Money Invests and Market Prices Are Determined. Princeton University Press, Princeton, NJ.

Sapirie, M. 2014. Year in Review: Steady Progress in OVDP and FATCA. *Tax Notes*.

Sheppard, L. 2009. Don't Ask, Don't Tell, Part 4: Ineffectual Information Sharing. *Tax Notes*.

Sialm, C., and H. Zhang. 2020. Tax-Efficient Asset Management: Evidence from Equity Mutual Funds. *Journal of Finance* 75:735–777.

Silver, S. 2012. Industry Calls for Extra Time on FATCA. *Financial Times*.

Simmons II, S. P., J. E. Gopman, B. E. Ruiz-Gonzalez, and E. R. Merlin. 2013. Treasury Delays FATCA Deadlines by Six Months. *Akerman Practice Update*.

Sirri, E. R., and P. Tufano. 1998. Costly Search and Mutual Fund Flows. *Journal of Finance* 53:1589–1622.

Spence, A. M. 1975. Monopoly, Quality, and Regulation. *Bell Journal of Economics* 6:417–429.

Wermers, R. 2000. Mutual Fund Performance: An Empirical Decomposition into Stock-Picking Talent, Style, Transactions Costs, and Expenses. *Journal of Finance* 55:1655–1695.

Wolinsky, A. 1986. True Monopolistic Competition as a Result of Imperfect Information. *Quarterly Journal of Economics* 101:493–512.

Zheng, L. 1999. Is Money Smart? A Study of Mutual Fund Investors' Fund Selection Ability. *Journal of Finance* 54:901–933.

Zucman, G. 2013. The Missing Wealth of Nations: Are Europe and the U.S. Net Debtors or Net Creditors? *Quarterly Journal of Economics* 128:1321–1364.

Table 1: Fund Performance Around the FATCA

This table presents DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):

$Perf_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}$,

where $Perf_{f,t}$ is the monthly performance of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is a dummy variable, i.e., *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06). Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow*. $Perf_{f,t}$ is measured by the net-of-fee return and style-adjusted return (Models 1 and 2), the gross-of-fee return and style-adjusted return (Models 3 and 4), the risk-adjusted return based on a domestic four-factor model (market, size, the book-to-market ratio, and momentum) (Model 5) and the international eight-factor model including four domestic factors and four international factors (Model 6), style and the domestic four-factor-adjusted return (Model 7), style and the international eight-factor-adjusted return (Model 8), and value added based on the style-adjusted return (Model 9) and the international eight-factor model (Model 10). Internet Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

DiD Estimates of Fund Returns (in %) and Value Added (in Millions) Around the FATCA										
	Return		Gross-of-Fee Return		Risk-adjusted Return				Value Added	
	Return	STYRET	Return	STYRET	FFC4	FFC8	STYFFC4	STYFFC8	STYRET	FFC8
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
US Sale × Post FATCA 3Y	0.232***	0.214***	0.231***	0.212***	0.107**	0.083*	0.143**	0.079**	1.109***	0.810***
	(5.17)	(5.25)	(5.20)	(5.29)	(2.13)	(1.91)	(2.32)	(2.60)	(7.56)	(4.95)
Log(Fund TNA)	-0.338***	-0.333***	-0.340***	-0.335***	-0.288***	-0.278***	-0.306***	-0.264***	-0.879***	-0.892***
	(-14.31)	(-14.81)	(-14.30)	(-14.77)	(-9.83)	(-9.74)	(-12.03)	(-13.96)	(-7.78)	(-7.36)
Log(Fund Age)	0.177**	0.179**	0.178**	0.180**	0.151	0.133	0.110	0.126**	0.039	0.323
	(2.45)	(2.57)	(2.49)	(2.61)	(1.32)	(1.18)	(0.92)	(2.63)	(0.15)	(0.66)
Expense Ratio	-0.081**	-0.079*	-0.068	-0.065	-0.056	-0.056	-0.069*	-0.058*	-0.210***	-0.056
	(-2.04)	(-1.94)	(-1.69)	(-1.60)	(-1.36)	(-1.51)	(-1.90)	(-1.84)	(-2.97)	(-0.70)
Fund Turnover	0.000	0.000	0.000	0.000	0.000*	0.000**	0.001	0.000***	0.000	0.001*
	(1.05)	(1.31)	(1.11)	(1.36)	(2.02)	(2.15)	(1.64)	(3.37)	(0.74)	(1.85)
Fund Return	-0.313***	-0.301***	-0.313***	-0.301***	-0.051*	-0.100***	-0.192***	-0.076***	-0.574***	-0.180***
	(-10.00)	(-9.70)	(-9.99)	(-9.72)	(-2.00)	(-5.72)	(-18.26)	(-9.52)	(-5.44)	(-3.56)
Fund Flow	0.016***	0.019***	0.016***	0.019***	0.019***	0.022***	0.027***	0.024***	-0.030	0.037**
	(4.99)	(5.59)	(5.01)	(5.64)	(4.75)	(4.98)	(6.11)	(5.84)	(-0.82)	(2.46)
Obs	574,418	574,418	574,418	574,418	502,880	502,880	502,880	502,880	574,418	502,880
R-squared	0.744	0.113	0.744	0.113	0.090	0.094	0.189	0.113	0.051	0.053
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 2: Time Trend and Matching Sample Analysis

Panel A presents DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):

$Perf_{f,t} = \alpha + \beta_1 US\ Sale_f \times Pre_t + \beta_2 USSale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}$,

where $Perf_{f,t}$ is the monthly performance of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. Pre_t is a dummy variable that equals 1 for one year before FATCA implementation (i.e., 2013:07-2014:06) and 0 otherwise. $Post_t$ is several dummy variables: *Post FATCA*$^{+1}$ equals 1 for one year after FATCA implementation (i.e., 2014:07-2015:06) and 0 otherwise; and *Post FATCA*$^{+2:+3}$ equals 1 for the second and third years after FATCA implementation (i.e., 2015:07-2017:06) and 0 otherwise. Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* $Perf_{f,t}$ is measured by the net-of-fee return (Models 1 and 5) and style-adjusted return (Models 2 and 6) and by value added based on the style-adjusted return (Models 3 and 7) and an international eight-factor model (Models 4 and 8). Panel B further employs a PSM approach to match the sample of offshore funds sold to U.S. investors (treatment) and those not sold to U.S. investors (control). In particular, we compute propensity scores based on a logistic regression using *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* Internet Appendix A provides the detailed definitions of each variable. Only the main variables in Panel B are tabulated for brevity. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

	Return		Value Added		Return		Value Added	
	Return	STYRET	STYRET	FFC8	Return	STYRET	STYRET	FFC8
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Panel A: DiD Estimates of Fund Returns (in %) and Value Added (in Millions) Around the FATCA								
US Sale × Pre FATCA^{-1}					-0.109	-0.100	0.251	0.322
					(-1.28)	(-1.18)	(0.96)	(1.12)
US Sale × Post FATCA^{+1}	0.299***	0.255***	1.205***	0.827***	0.261***	0.220***	1.296***	0.949***
	(3.82)	(3.22)	(4.99)	(5.11)	(3.51)	(2.97)	(5.01)	(4.71)
US Sale × Post FATCA$^{+2:+3}$	0.197***	0.192**	1.056***	0.801***	0.158*	0.157*	1.147***	0.922***
	(2.84)	(2.71)	(4.51)	(3.67)	(1.76)	(1.72)	(3.85)	(3.56)
Log(Fund TNA)	-0.338***	-0.333***	-0.880***	-0.892***	-0.337***	-0.332***	-0.880***	-0.893***
	(-14.25)	(-14.75)	(-7.80)	(-7.36)	(-14.30)	(-14.79)	(-7.77)	(-7.32)
Log(Fund Age)	0.178**	0.179**	0.039	0.324	0.176**	0.178**	0.040	0.325
	(2.45)	(2.57)	(0.15)	(0.67)	(2.40)	(2.53)	(0.15)	(0.67)
Expense Ratio	-0.081**	-0.079*	-0.210***	-0.056	-0.082**	-0.080*	-0.209***	-0.055
	(-2.05)	(-1.96)	(-2.98)	(-0.70)	(-2.09)	(-2.00)	(-2.95)	(-0.69)
Fund Turnover	0.000	0.000	0.000	0.001*	0.000	0.000	0.000	0.001*
	(1.07)	(1.32)	(0.74)	(1.82)	(1.09)	(1.33)	(0.73)	(1.79)
Fund Return	-0.313***	-0.300***	-0.574***	-0.180***	-0.313***	-0.301***	-0.574***	-0.179***
	(-9.99)	(-9.67)	(-5.43)	(-3.56)	(-10.16)	(-9.83)	(-5.42)	(-3.56)
Fund Flow	0.016***	0.019***	-0.031	0.037**	0.016***	0.019***	-0.031	0.036**
	(4.86)	(5.37)	(-0.82)	(2.41)	(4.82)	(5.32)	(-0.82)	(2.39)
Obs	574,418	574,418	574,418	502,880	574,418	574,418	574,418	502,880
R-squared	0.744	0.113	0.051	0.053	0.744	0.113	0.051	0.053
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y
Panel B: DiD Estimates of Fund Returns (in %) and Value Added (in Millions) Around the FATCA (Matched Sample)								
US Sale × Pre FATCA^{-1}					-0.021	-0.008	-0.002	0.582
					(-0.23)	(-0.09)	(-0.01)	(1.27)
US Sale × Post FATCA^{+1}	0.337***	0.302***	1.927***	1.011***	0.330***	0.299***	1.926***	1.233***
	(4.85)	(4.25)	(5.74)	(4.27)	(5.42)	(5.03)	(5.89)	(4.88)
US Sale × Post FATCA$^{+2:+3}$	0.232***	0.240***	1.083***	0.856***	0.225***	0.237***	1.083**	1.075***
	(4.78)	(5.00)	(3.35)	(2.83)	(3.53)	(3.73)	(2.66)	(2.86)
Obs	137,060	137,060	137,060	121,650	137,060	137,060	137,060	121,650
R-squared	0.739	0.113	0.064	0.067	0.739	0.113	0.064	0.067
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y

Table 3: Fund Fees Around the FATCA

This table presents DiD estimates for the following annual panel regressions (with fund and year fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):

$Fee_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}$,

where $Fee_{f,t}$ is the expense ratio (Models 1-2 and 5-6) or style-adjusted expense ratio (Models 3-4 and 7-8) of offshore fund f in year t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is several dummy variables: *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2015-2017) and 0 for three years before implementation (i.e., 2011-2013); *Post FATCA*$^{+1}$ equals 1 for one year after FATCA implementation (i.e., 2014:07-2015:06) and 0 otherwise; and *Post FATCA*$^{+2;+3}$ equals 1 for the second and third years after FATCA implementation (i.e., 2015:07-2017:06) and 0 otherwise. Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow*. Models 1-4 focus on the full sample, while Models 5-8 further employ a PSM approach to match the sample of offshore funds sold to U.S. investors (treatment) and those not sold to U.S. investors (control). In particular, we compute propensity scores based on a logistic regression using *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow*. Internet Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

DiD Estimates of Fund Fees (in %) Around the FATCA								
	Full Sample				Matched Sample			
	Fee		Style-adjusted Fee		Fee		Style-adjusted Fee	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
US Sale × Post FATCA 3Y	-0.028***		-0.029***		-0.022**		-0.021*	
	(-3.40)		(-3.39)		(-2.06)		(-1.97)	
US Sale × Post FATCA^{+1}		-0.023**		-0.023**		-0.007		-0.007
		(-2.41)		(-2.52)		(-0.62)		(-0.62)
US Sale × Post FATCA$^{+2;+3}$		-0.031***		-0.032***		-0.030**		-0.029**
		(-3.30)		(-3.20)		(-2.60)		(-2.47)
Log(Fund TNA)	-0.036***	-0.036***	-0.039***	-0.039***	-0.042***	-0.042***	-0.045***	-0.045***
	(-5.18)	(-5.19)	(-5.74)	(-5.75)	(-9.12)	(-9.10)	(-9.67)	(-9.65)
Log(Fund Age)	0.018*	0.018*	0.021**	0.021**	0.029**	0.029**	0.033***	0.033***
	(1.83)	(1.83)	(2.13)	(2.13)	(2.62)	(2.61)	(2.81)	(2.80)
Expense Ratio	0.198***	0.198***	0.199***	0.199***	0.239***	0.239***	0.241***	0.241***
	(5.05)	(5.05)	(5.08)	(5.08)	(7.13)	(7.15)	(7.29)	(7.31)
Fund Turnover	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000*	-0.000*
	(-0.63)	(-0.58)	(-0.92)	(-0.86)	(-1.56)	(-1.38)	(-2.02)	(-1.86)
Fund Return	-0.003	-0.003	-0.004*	-0.004*	-0.007***	-0.007***	-0.007***	-0.008***
	(-1.57)	(-1.60)	(-1.77)	(-1.80)	(-3.01)	(-3.08)	(-3.14)	(-3.21)
Fund Flow	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
	(-1.29)	(-1.30)	(-0.76)	(-0.76)	(-0.93)	(-0.95)	(-0.62)	(-0.64)
Obs	36,785	36,785	36,785	36,785	9,653	9,653	9,653	9,653
R-squared	0.935	0.935	0.934	0.934	0.927	0.927	0.925	0.925
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y
Year FE	Y	Y	Y	Y	Y	Y	Y	Y

Table 4: Fund Flows Around the FATCA

Panel A presents DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):
$Flow_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \beta_2 US\ Sale_f \times Post_t \times \Delta STYRET_f + \beta_3 Post_t \times \Delta STYRET_f + \gamma N_{f,t-1} + e_{f,t}$,
where $Flow_{f,t}$ is the monthly flow (Models 1-3) or style-adjusted flow (Models 4-6) of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is several dummy variables: *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06); *Post FATCA*$^{+1}$ equals 1 for one year after FATCA implementation (i.e., 2014:07-2015:06) and 0 otherwise; and *Post FATCA*$^{+2:+3}$ equals 1 for the second and third years after FATCA implementation (i.e., 2015:07-2017:06) and 0 otherwise. $\Delta STYRET_f$ is the change in average monthly style-adjusted return from three years before FATCA implementation to three years after FATCA implementation. Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* Panel B further employs a PSM approach to match the sample of offshore funds sold to U.S. investors (treatment) and those not sold to U.S. investors (control). In particular, we compute propensity scores based on a logistic regression using *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow*. Internet Appendix A provides the detailed definitions of each variable. Only the main variables in Panel B are tabulated for brevity. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

	Flow			Style-adjusted Flow		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Panel A: DiD Estimates of Fund Flows (in %) Around the FATCA						
US Sale × Post FATCA 3Y	-0.260***		-0.336***	-0.253***		-0.327***
	(-2.78)		(-3.58)	(-2.77)		(-3.57)
US Sale × Post FATCA^{+1}		-0.066			-0.079	
		(-0.69)			(-0.86)	
US Sale × Post FATCA$^{+2:+3}$		-0.368***			-0.350***	
		(-3.62)			(-3.47)	
US Sale × Post FATCA 3Y × ΔSTYRET			0.250**			0.247**
			(2.32)			(2.29)
Post FATCA 3Y × ΔSTYRET			0.375***			0.367***
			(3.39)			(3.31)
Log(Fund TNA)	-1.502***	-1.502***	-1.465***	-1.503***	-1.503***	-1.467***
	(-15.92)	(-15.90)	(-16.81)	(-15.86)	(-15.84)	(-16.71)
Log(Fund Age)	-0.493***	-0.492***	-0.513***	-0.487***	-0.487***	-0.507***
	(-5.54)	(-5.54)	(-5.86)	(-5.53)	(-5.52)	(-5.84)
Expense Ratio	0.062	0.061	0.070	0.067	0.066	0.075
	(0.76)	(0.74)	(0.84)	(0.83)	(0.81)	(0.90)
Fund Turnover	0.000	0.000	0.000	0.000	0.000	0.000
	(0.13)	(0.18)	(0.12)	(0.09)	(0.13)	(0.08)
Fund Return	0.145***	0.146***	0.126***	0.146***	0.146***	0.127***
	(4.41)	(4.43)	(3.52)	(4.35)	(4.36)	(3.48)
Fund Flow	0.169***	0.168***	0.169***	0.170***	0.170***	0.170***
	(8.10)	(8.06)	(8.03)	(8.29)	(8.25)	(8.22)
Obs	572,004	572,004	570,559	572,004	572,004	570,559
R-squared	0.104	0.104	0.104	0.100	0.100	0.100
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y
Panel B: DiD Estimates of Fund Flows (in %) Around the FATCA (Matched Sample)						
US Sale × Post FATCA 3Y	-0.186		-0.257*	-0.182		-0.252**
	(-1.50)		(-2.05)	(-1.52)		(-2.06)
US Sale × Post FATCA^{+1}		-0.036			-0.035	
		(-0.26)			(-0.26)	
US Sale × Post FATCA$^{+2:+3}$		-0.272**			-0.267**	
		(-2.25)			(-2.30)	
US Sale × Post FATCA 3Y × ΔSTYRET			0.405***			0.403***
			(2.96)			(2.95)
Post FATCA 3Y × ΔSTYRET			0.224*			0.213*
			(1.94)			(1.82)
Obs	136,547	136,547	136,427	136,547	136,547	136,427
R-squared	0.101	0.101	0.101	0.097	0.097	0.097
Controls	Y	Y	Y	Y	Y	Y
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y

Table 5: Fund Investment Strategies Around the FATCA

This table presents DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):

$Action_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}$,

where $Action_{f,t}$ refers to a list of investment strategies of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is a dummy variable, i.e., *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06). Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* $Action_{f,t}$ is measured by the R-square value (Model 1), return gap (Model 2), industry concentration index (Model 3), active share on stocks with low news coverage (Model 4), high Amihud illiquidity (Model 5) and low turnover (Model 6), total return volatility (Model 7) and idiosyncratic volatility (Model 8) constructed from portfolio holdings, and dividend yield constructed from portfolio holdings (Model 9) and obtained from Morningstar (Model 10). Internet Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

DiD Estimates of Fund Investment Strategies Around the FATCA										
	TR^2	Return Gap	ICI	AS_Low News Coverage	AS_High Amihud	AS_Low Turnover	Total Volatility	Idiosyncratic Volatility	Stock Dividend Yield	Fund Dividend Yield
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
US Sale × Post FATCA 3Y	-0.133***	0.042	0.370***	0.132**	0.231**	0.580***	0.019	0.004	0.027	-0.193
	(-2.92)	(1.31)	(2.96)	(2.55)	(2.51)	(5.30)	(1.09)	(1.14)	(1.02)	(-0.60)
Log(Fund TNA)	0.000	-0.027***	-0.233***	0.084***	-0.075	-0.198***	0.008	0.001	-0.011	0.193**
	(0.01)	(-3.20)	(-2.77)	(4.22)	(-1.43)	(-2.83)	(1.33)	(0.34)	(-1.00)	(2.57)
Log(Fund Age)	-0.055	0.060	0.076	-0.100	-0.074	-0.116	0.006	0.005	-0.001	-0.011
	(-0.96)	(0.87)	(0.46)	(-1.17)	(-0.91)	(-0.48)	(0.24)	(0.78)	(-0.04)	(-0.07)
Expense Ratio	0.135***	0.119**	0.067	-0.227	-0.098	-0.214	0.001	0.008	-0.011	-0.232
	(3.37)	(2.62)	(0.93)	(-0.74)	(-1.04)	(-1.49)	(0.06)	(1.54)	(-0.58)	(-0.76)
Fund Turnover	0.000	-0.000	-0.001**	0.000	0.000	0.000	0.000	0.000	-0.000*	0.000
	(1.68)	(-0.69)	(-2.21)	(0.55)	(0.89)	(0.17)	(1.13)	(0.01)	(-1.74)	(0.26)
Fund Return	-0.000	-0.016	0.014	0.015	-0.035**	-0.046**	-0.009	-0.003	-0.017***	0.024
	(-0.01)	(-1.41)	(0.52)	(0.44)	(-2.39)	(-2.55)	(-1.63)	(-1.47)	(-2.88)	(0.77)
Fund Flow	-0.013***	0.002	0.040**	-0.030	0.002	-0.014	-0.003	0.001	-0.003	-0.024
	(-3.59)	(0.38)	(2.09)	(-0.91)	(0.11)	(-0.73)	(-1.63)	(1.39)	(-1.49)	(-1.12)
Obs	497,759	382,477	394,687	122,885	122,885	122,885	389,378	389,378	394,687	582,504
R-squared	0.790	0.072	0.952	0.694	0.744	0.841	0.831	0.826	0.852	0.641
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 6: Market Delays Around the FATCA

Panel A presents the results of the following annual panel regressions (with stock and country-year or country-industry-year fixed effects and their corresponding t-statistics with standard errors clustered at the stock and year level):

$$Delay_{i,t} = \alpha + \beta_1 IO\_Affected_{i,t} \times Post_t + \beta_2 IO\_Unaffected_{i,t} \times Post_t + \gamma C_{i,t-1} + e_{i,t},$$

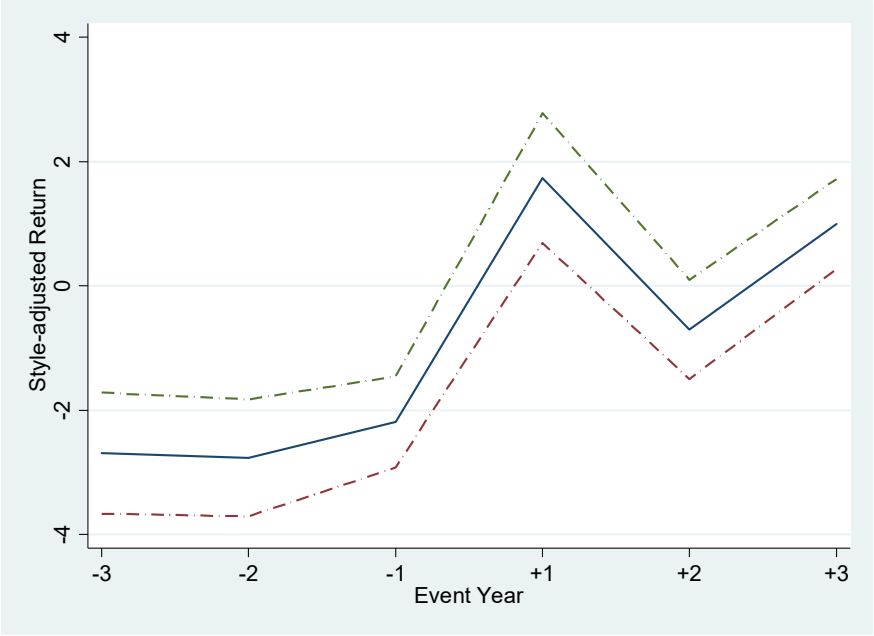
where $Delay_{i,t}$ is several market delay proxies of stock i in year t, including the delay in local market information ($Delay\_Local_{i,t}$) and the delay in global market information ($Delay\_Global_{i,t}$). $IO\_Affected_{i,t}$ is the percentage ownership held by offshore funds sold to U.S. investors, and $IO\_Unaffected_{i,t}$ is the percentage ownership held by funds that are not affected by the FATCA. $Post_t$ is a dummy variable, i.e., *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06). Vector *C* stacks all other stock control variables, including *IO_Affected*, *IO_Unaffected*, *Log(Stock Size), Book-to-Market,* and *Stock Return.* Panel B presents similar statistics, where $Post_t$ is several dummy variables: *Post FATCA*$^{+1}$ equals 1 for one year after FATCA implementation (i.e., 2014:07-2015:06) and 0 otherwise; and *Post FATCA*$^{+2:+3}$ equals 1 for the second and third years after FATCA implementation (i.e., 2015:07-2017:06) and 0 otherwise. Internet Appendix A provides the detailed definitions of each variable. Only the main variables are tabulated for brevity. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

	Delay_Local				Delay_Global			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Panel A: Market Delays (in %) Around the FATCA								
IO_Affected × Post FATCA 3Y	-0.266**	-0.331**	-0.335**	-0.397**	-0.016	-0.054	-0.042	-0.057
	(-2.92)	(-2.71)	(-2.99)	(-2.76)	(-0.24)	(-0.74)	(-0.75)	(-0.86)
IO_Unaffected × Post FATCA 3Y		0.087		0.086		0.050		0.020
		(1.43)		(1.35)		(1.62)		(0.70)
Obs	62,001	62,001	58,092	58,092	62,001	62,001	58,092	58,092
R-squared	0.402	0.402	0.476	0.476	0.420	0.420	0.493	0.493
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Stock FE	Y	Y	Y	Y	Y	Y	Y	Y
Country-Year FE	Y	Y	N	N	Y	Y	N	N
Country-Industry-Year FE	N	N	Y	Y	N	N	Y	Y
Panel B: Market Delays (in %) Around the FATCA (Time Trend)								
IO_Affected × Post FATCA^{+1}	-0.178*	-0.243**	-0.262**	-0.325**	-0.085	-0.123	-0.104	-0.119
	(-2.44)	(-2.98)	(-3.04)	(-3.27)	(-1.31)	(-1.91)	(-1.91)	(-1.93)
IO_Affected × Post FATCA$^{+2:+3}$	-0.326**	-0.391**	-0.384**	-0.445**	0.030	-0.007	-0.001	-0.015
	(-3.01)	(-2.99)	(-2.67)	(-2.65)	(0.43)	(-0.06)	(-0.01)	(-0.21)
IO_Unaffected × Post FATCA 3Y		0.087		0.085		0.050		0.020
		(1.43)		(1.35)		(1.67)		(0.70)
Obs	62,001	62,001	58,092	58,092	62,001	62,001	58,092	58,092
R-squared	0.402	0.402	0.476	0.476	0.420	0.420	0.493	0.493
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Stock FE	Y	Y	Y	Y	Y	Y	Y	Y
Country-Year FE	Y	Y	N	N	Y	Y	N	N
Country-Industry-Year FE	N	N	Y	Y	N	N	Y	Y

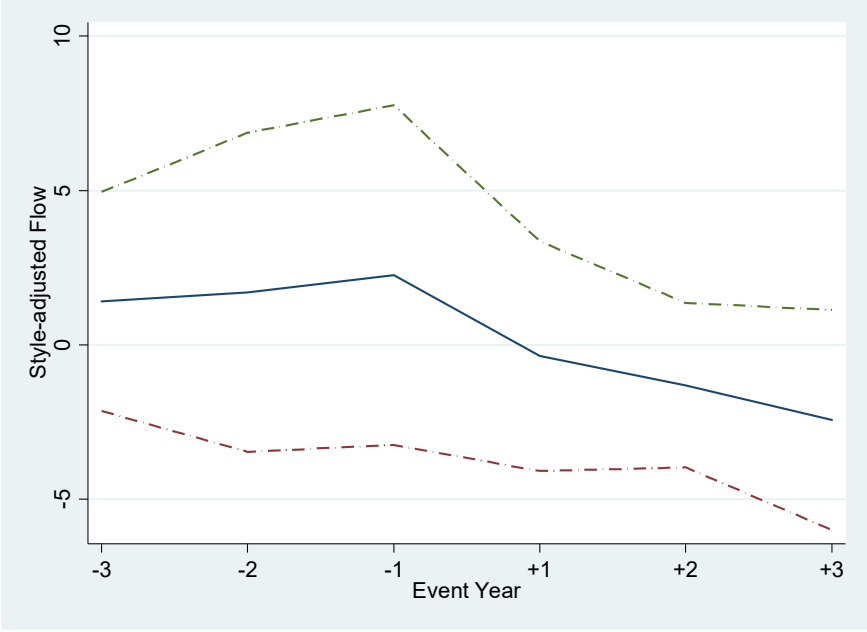
Figure 1: Fund Performance and the Flow Spread Around the FATCA

Panel A plots the style-adjusted return spread between the treatment and control funds from three years before FATCA implementation (i.e., 2011:07-2014:06) to three years after implementation (i.e., 2014:07-2017:06). We employ a PSM approach to match the sample of offshore funds sold to U.S. investors (treatment) and those not sold to U.S. investors (control). The return spread plotted for year t ($-t$) denotes the difference between the average style-adjusted after-fee return of treatment funds and that of control funds realized in the t-th year after (prior to) FATCA implementation. The dotted lines depict the corresponding 95% confidence intervals. Panel B plots similar statistics for the style-adjusted flow difference between the treatment and control funds.

Panel A. Style-adjusted Return Spread (Treatment-minus-Control, in %) Around the FATCA



Panel B. Style-adjusted Flow Spread (Treatment-minus-Control, in %) Around the FATCA



For Online Publication: Internet Appendix

Tax Evasion and Information Production:

Evidence from the FATCA

This Online Appendix presents the supplementary empirical results. Most of the results presented here are discussed in the paper.

Section 1. Data Description

- Appendix A: Variable Definitions
- Table IA1: Summary Statistics

Section 2. Additional Analyses

- Table IA2: Fund Performance Around the FATCA (Robustness of Table 1)
- Table IA3: Fund Performance Around the FATCA by Fund Characteristics
- Table IA4: Fund Flows Around the FATCA: Active Funds vs. Index Funds in Tax Havens
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Section 3. Full Version of Reported Tables (With All Control Variables Tabulated)

- Table 2: Time Trend and Matching Sample Analysis (Panel B)
- Table 4: Fund Flows Around the FATCA (Panel B)
- Table 6: Market Delays Around the FATCA

Appendix A: Variable Definitions

Variables	Definitions
A. Fund Performance and Flow Measures (in %)	
Fund Return	The monthly return reported by the Center for Research in Security Prices (CRSP) survivorship bias-free mutual fund database. When a portfolio has multiple share classes, its total return is computed as the share class total net assets (TNA)-weighted return of all share classes, where the TNA values are one-month lagged.
Style-adjusted Return (STYRET)	Fund returns minus the TNA-weighted average return of funds in the same style, and the TNA values are one-month lagged.
Domestic Four-Factor-adjusted Return (FFC4)	Realized fund returns minus the product of a fund's four-factor betas and the realized four-factor returns in a given month. The four-factor model consists of domestic Fama and French (1993) and Carhart (1997) factors (FFC; market, size, the book-to-market ratio, and momentum) for the region in which a fund invests. We use country and continent names to identify regions from the Morningstar global category, including North America, Europe, Japan, and Asia Pacific excluding Japan (due to the availability of regional FFC factors). For those holding globally diversified portfolios, we use international FFC factors. The betas of the fund are estimated as the exposures of the fund to the relevant risk factors in a five-year rolling window.
International Eight-Factor-adjusted Return (FFC8)	Realized fund returns minus the product of a fund's eight-factor betas and the realized eight-factor returns in a given month. The eight-factor model consists of four domestic FFC factors and four international FFC factors. The betas of the fund are estimated as the exposures of the fund to the relevant risk factors in a five-year rolling window.
Gross-of-Fee Fund Return	Fund total returns plus one-twelfth the annualized expense ratio.
Value Added	The monthly value added of the fund is computed as the style-adjusted gross return (or gross alpha) multiplied by the one-month lagged TNA, following Berk and van Binsbergen (2015). The style-adjusted gross return is computed as the gross-of-fee fund returns minus the TNA-weighted average gross-of-fee return of the funds in the same style, and the TNA values are one-month lagged. The gross alpha is computed as the realized fund gross return minus the productions between a fund's eight-factor betas multiplied by the realized factor returns in a given month. The factor model estimation is the same as in *International Eight-Factor-adjusted Return*.
Fund Flow	The fund flow in a given month t is computed as follows: $Flow_{f,t} = \left[TNA_{f,t} - TNA_{f,t-1} \times \left(1 + r_{f,t}\right)\right]/TNA_{f,t-1}$, where $TNA_{f,t}$ is the total net assets of fund f in month t and $r_{f,t}$ is the fund total return in the same month, following the majority of previous studies on fund flows (e.g., Chevalier and Ellison 1997; Sirri and Tufano 1998; Barber, Huang, and Odean 2016).
B. Other Fund Characteristics	
US Sale	A dummy variable that equals 1 for offshore funds (i.e., funds not domiciled in the U.S.) sold to U.S. investors (i.e., region of sale reported as the U.S., global cross-border, or pure offshore) and 0 for offshore funds not sold to U.S. investors. Both the domicile country and region of sale are obtained from Morningstar Direct.
Offshore	A dummy variable that equals 1 for offshore funds (i.e., funds not domiciled in the U.S.) sold to U.S. investors (i.e., region of sale reported as the U.S., global cross-border, or pure offshore) and 0 for U.S. domestic funds (i.e., funds domiciled in the U.S.) sold to U.S. investors. Both the domicile country and region of sale are obtained from Morningstar Direct.
TR^2	The R-square of fund f in a given month t, $R^2_{f,t}$, is obtained from the international eight-factor model with a two-year estimation period. More specifically, we regress monthly fund excess returns on the four domestic FFC factor returns and four international FFC factor returns. The logistic transformation of the R-square in a given month t is then computed as follows: $TR^2_{f,t} = \log\left[\sqrt{R^2_{f,t} + c}/\left(1 - \sqrt{R^2_{f,t} + c}\right)\right]$, where $c = 0.5/n$ and n is the sample size ($n = 24$), following Amihud and Goyenko (2013).
Return Gap	The return gap is computed as the difference between the fund gross-of-fee return and the holding-based return, where the gross-of-fee return is the fund total return plus one-twelfth of the annualized expense ratio, and the holding-based return is the investment value-

	weighted average of stock returns of a fund's most recently reported holding portfolio, following Kacperczyk, Sialm, and Zheng (2008).
ICI	The industry concentration index in a given quarter q is computed as follows: $ICI_{f,q} = \sum_{j=1}^{10}(\omega_{j,f,q} - \bar{\omega}_{j,q})^2 \times 10^2$, where $\omega_{j,f,q}$ is the investment weight of industry j in fund f in quarter q, and $\bar{\omega}_{j,q}$ is the investment weight of industry j in the market portfolio in the same quarter, following Kacperczyk, Sialm, and Zheng (2005).
AS_Low News Coverage	The active share on stocks with low news coverage in a given quarter q is computed as follows: $AS\_Low\ News\ Coverage_{f,q} = \frac{1}{2}\sum_i \lvert w_{i,f,q} - w^b_{i,f,q}\rvert \times Low\ News\ Coverage_{i,q} \times 10^2$, where $w_{i,f,q}$ is the investment weight of stock i by fund f in quarter q, $w^b_{i,f,q}$ is the investment weight of stock i in fund f's benchmark portfolio in the same quarter, and $Low\ News\ Coverage_{i,q}$ is a dummy variable that equals 1 if the aggregate event volume of stock i is in the bottom quintile in the same quarter and 0 otherwise. The aggregate event volume refers to the count of events (excluding neutral ones) measured over a rolling 91-day window in RavenPack.
AS_High Amihud	The active share on stocks with high Amihud illiquidity in a given quarter q is computed as follows: $AS\_High\ Amihud_{f,q} = \frac{1}{2}\sum_i \lvert w_{i,f,q} - w^b_{i,f,q}\rvert \times High\ Amihud_{i,q} \times 10^2$, where $High\ Amihud_{i,q}$ is a dummy variable that equals 1 if the Amihud illiquidity of stock i is in the top quintile in quarter q and 0 otherwise, and all other variables are defined as in *AS_Low News Coverage* above. The stock Amihud illiquidity in a given month t is computed as follows: $ILLIQ_{i,t} = \left(\sum_{d\in t}\lvert R_{i,d,t}\rvert / VOLD_{i,d,t}\right)/D_{i,t} \times 10^6$, where $R_{i,d,t}$ refers to the return of stock i in day d of month t, $VOLD_{i,d,t}$ refers to the dollar trading volume at the same time, and $D_{i,t}$ is the number of trading days for stock i in month t, following Amihud (2002). The quarterly stock illiquidity is the average of the monthly stock illiquidity within a quarter.
AS_Low Turnover	The active share on stocks with low turnover in a given quarter q is computed as follows: $AS\_Low\ Turnover_{f,q} = \frac{1}{2}\sum_i \lvert w_{i,f,q} - w^b_{i,f,q}\rvert \times Low\ Turnover_{i,q} \times 10^2$, where $Low\ Turnover_{i,q}$ is a dummy variable that equals 1 if the turnover of stock i is in the bottom quintile in quarter q and 0 otherwise, and all other variables are defined as in *AS_Low News Coverage* above. The monthly stock turnover is computed as the monthly trading volume divided by the number of shares outstanding, and the quarterly stock turnover is the average of the monthly stock turnover within a quarter.
Total Volatility	The investment value-weighted average of stock return volatility in a fund's most recently reported holding portfolio, in percentage. The stock return volatility is computed as the standard deviation of daily stock returns in each month, then average within a quarter.
Idiosyncratic Volatility	The investment value-weighted average of stock idiosyncratic return volatility in a fund's most recently reported holding portfolio, in percentage. The idiosyncratic return volatility of a stock is computed as the standard deviation of residuals estimated from a market model using daily returns in each month, then average within a quarter.
Stock Dividend Yield	The investment value-weighted average of stock dividend yield in a fund's most recently reported holding portfolio, in percentage. The dividend yield is computed as the annual dividend divided by the market capitalization of a stock.
Fund Dividend Yield	The annualized dividend yield, as reported in Morningstar Direct, in percentage.
Haven	A dummy variable that equals 1 if a fund's domicile country is identified as a tax haven and 0 otherwise. In our sample, tax havens include the British Virgin Islands, the Cayman Islands, Guernsey, Ireland, Liechtenstein, Luxembourg, Singapore, and Switzerland, following Dyreng and Lindsey (2009).
TIEA Haven	A dummy variable that equals 1 if a fund's domicile country is identified as a tax haven and signed a bilateral tax information exchange agreement (TIEA) with the U.S. prior to the FATCA and 0 otherwise. In our sample, tax havens with TIEAs include the British Virgin Islands, the Cayman Islands, Guernsey, Liechtenstein, Luxembourg, and Switzerland, following De Simone, Lester, and Markle (2020), Johannesen et al. (2020), and the OECD website (https://www.oecd.org/ctp/exchange-of-tax-information/taxinformationexchangeagreementstieas.htm).
Non-TIEA Haven	A dummy variable that equals 1 if a fund's domicile country is identified as a tax haven and did not sign a bilateral TIEA with the U.S. prior to the FATCA and 0 otherwise.

Income Fund	A dummy variable that equals 1 for income funds (i.e., distribution status as "Inc") and 0 for accumulation funds (i.e., distribution status as "Acc"). The distribution status is obtained from Morningstar Direct.
Low TR^2	A dummy variable that equals 1 if a fund's average TR^2 over the three-year period before the FATCA is below the median across all funds and 0 otherwise. TR^2 is defined above.
Log(Fund TNA)	The logarithm of TNA, as reported in Morningstar Direct, in millions.
Log(Fund Age)	The logarithm of the number of operational months since inception.
Expense Ratio	The annualized expense ratio, as reported in Morningstar Direct, in percentage.
Fund Turnover	The annualized turnover ratio, as reported in Morningstar Direct, in percentage.
Star	The star rating, ranging from 1 to 5 stars, as reported in Morningstar Direct.
C. Market Delay Measures (in %)	
Delay_Local	The price delay in local market information for stock i in year t is computed as follows: $Delay\_Local_{i,t} = 1 - \frac{R^2_{restricted,i,t}}{R^2_{unrestricted,i,t}}$, where $R^2_{restricted,i,t}$ and $R^2_{unrestricted,i,t}$ are the R-square from restricted and unrestricted market models estimated using weekly returns in each year t. The restricted model (RM) and unrestricted model (UM) are defined as follows: RM: $R_{i,w,t} = \alpha_{i,t} + \sum_{k=0}^{3} \delta_{i,k,t} R_{g,w-k,t} + \gamma_{i,0,t} R_{l,w,t} + e_{i,w,t}$; UM : $R_{i,w,t} = \alpha_{i,t} + \sum_{k=0}^{3} \delta_{i,k,t} R_{g,w-k,t} + \sum_{k=0}^{3} \gamma_{i,k,t} R_{l,w-k,t} + e_{i,w,t}$, where $R_{i,w,t}$ is the accumulated return of stock i in week w of year t and $R_{g,w-k,t}$ and $R_{l,w-k,t}$ are the contemporaneous and lagged returns on the value-weighted world market portfolio and the local market portfolio, following Hou and Moskowitz (2005) and Bae, Ozoguz, Tan, and Wirjanto (2012).
Delay_Global	The price delay in global market information for stock i in year t is computed as follows: $Delay\_Global_{i,t} = 1 - \frac{R^2_{restricted,i,t}}{R^2_{unrestricted,i,t}}$, where $R^2_{restricted,i,t}$ and $R^2_{unrestricted,i,t}$ are the R-square from an RM and UM estimated using weekly returns in each year t. The RM and UM are defined as follows: RM: $R_{i,w,t} = \alpha_{i,t} + \delta_{i,0,t} R_{g,w,t} + \sum_{k=0}^{3} \gamma_{i,k,t} R_{l,w-k,t} + e_{i,w,t}$; UM: $R_{i,w,t} = \alpha_{i,t} + \sum_{k=0}^{3} \delta_{i,k,t} R_{g,w-k,t} + \sum_{k=0}^{3} \gamma_{i,k,t} R_{l,w-k,t} + e_{i,w,t}$, where all variables are defined as in *Delay_Local*.
D. Other Stock Characteristics	
IO_Affected	The number of shares held by offshore funds that are sold to U.S. investors divided by the number of shares outstanding, in percentage.
IO_Unaffected	The number of shares held by all funds minus the number of shares held by affected funds (i.e., offshore funds that are sold to U.S. investors), divided by the number of shares outstanding, in percentage.
Log(Stock Size)	The logarithm of the market capitalization of stocks, in millions.
Book-to-Market	The book-to-market ratio for stock i in year t is computed as follows: $BM_{i,t} = BE_{i,t}/ME_{i,t}$, where $BE_{i,t}$ is the book value of equity of stock i in year t, computed as the summation of stockholders' equity and deferred taxes minus the preferred stock, and $ME_{i,t}$ is its market value at the end of the year.
Stock Return	The cumulative stock returns of the past 12 months.

Table IA1: Summary Statistics

This table presents the summary statistics for the data used in the paper during the period from July 2011 to June 2017. Panel A reports the means, standard deviations, medians, and quantile distribution of monthly fund flows and performance. Panels B and C report similar statistics for other fund and stock characteristics, respectively. Appendix A provides the detailed definitions of each variable.

Quantile Distribution of Mutual Fund and Stock Characteristics							
	Mean	Std.Dev.	Quantile Distribution				
			10%	25%	Median	75%	90%
Panel A: Fund Performance and Flow							
Fund Return	0.404	5.052	-5.793	-2.280	0.660	3.344	6.146
Style-adjusted	-0.242	3.175	-3.781	-1.757	-0.144	1.378	3.126
FFC4-adjusted	-0.267	2.674	-3.055	-1.384	-0.200	0.933	2.411
FFC8-adjusted	-0.278	2.619	-2.975	-1.349	-0.209	0.885	2.306
Style and FFC4-adjusted	-0.454	3.013	-3.797	-1.925	-0.344	1.097	2.745
Style and FFC8-adjusted	-0.262	2.746	-3.163	-1.452	-0.170	1.043	2.529
Gross-of-Fee Fund Return	0.497	5.053	-5.700	-2.190	0.755	3.439	6.245
Style-adjusted	-0.229	3.176	-3.768	-1.743	-0.131	1.396	3.143
Value Added							
Style-adjusted	-0.420	9.070	-4.877	-1.186	-0.045	0.874	3.922
FFC8-adjusted	-0.307	7.391	-3.812	-0.914	-0.037	0.692	3.122
Fund Flow	-0.246	4.837	-3.929	-1.713	-0.421	0.621	3.434
Style-adjusted	-0.039	4.824	-3.743	-1.533	-0.218	0.887	3.614
Panel B: Other Fund Characteristics							
Log(Fund TNA)	18.153	1.399	16.411	17.099	18.054	19.115	20.073
Log(Fund Age)	4.533	0.811	3.434	4.082	4.654	5.125	5.429
Expense Ratio	1.725	0.712	0.940	1.350	1.687	2.015	2.490
Fund Turnover	80.448	74.887	12.212	45.528	70.005	101.262	141.843
TR^2	2.931	1.414	1.137	1.881	2.881	3.820	4.783
Return Gap	0.262	1.361	-0.853	-0.248	0.193	0.730	1.466
ICI	10.721	15.748	1.416	2.664	4.969	9.882	27.720
AS_Low News Coverage	1.135	2.324	0.000	0.004	0.205	1.261	3.188
AS_High Amihud	0.997	1.597	0.000	0.174	0.513	1.265	2.300
AS_Low Turnover	2.198	2.732	0.014	0.616	1.386	2.717	5.127
Total Volatility	1.752	0.489	1.227	1.409	1.655	1.989	2.417
Idiosyncratic Volatility	1.286	0.344	0.923	1.044	1.221	1.455	1.724
Stock Dividend Yield	2.320	0.832	1.294	1.759	2.299	2.839	3.387
Fund Dividend Yield	1.044	6.132	0.000	0.000	0.000	0.057	1.000
Panel C: Stock Characteristics							
Delay_Local	17.869	16.672	2.369	5.455	12.421	25.123	41.983
Delay_Global	17.960	16.974	2.210	5.245	12.303	25.602	42.805
IO_Affected	0.969	2.034	0.000	0.000	0.217	1.016	2.710
IO_Non-Affected	9.139	9.824	0.437	1.590	5.137	14.130	24.298
Log(Stock Size)	6.874	1.627	4.893	5.699	6.771	7.963	9.080
Book-to-Market	0.917	1.260	0.203	0.368	0.672	1.120	1.765
Stock Return	0.107	0.488	-0.359	-0.165	0.036	0.276	0.597

Table IA2: Fund Performance Around the FATCA

Panel A presents DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level): $Perf_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}$,
where $Perf_{f,t}$ is the monthly performance of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is a dummy variable, i.e., *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06). Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* $Perf_{f,t}$ is measured by the net-of-fee return and style-adjusted return (Models 1-2), the gross-of-fee return and style-adjusted return (Models 3-4), the risk-adjusted return based on a domestic four-factor model (market, size, the book-to-market ratio, and momentum) (Model 5) and the international eight-factor model including four domestic factors and four international factors (Model 6). All specifications employ ordinary least squares regression. Panel B presents similar statistics, where we replace $US\ Sale_f$ with $Offshore_f$, a dummy variable that equals 1 for offshore funds sold to U.S. investors and 0 for U.S. domestic funds sold to U.S. investors. $Perf_{f,t}$ is measured by the net-of-fee return and style-adjusted return (Models 1-2, weighted least squares), the gross-of-fee return and style-adjusted return (Models 3-4, weighted least squares), and value added based on the style-adjusted return and the international eight-factor model (Models 5-6, ordinary least squares). Panels C to E are similar to Panel A, where $Perf_{f,t}$ is measured by the net-of-fee style-adjusted return (Models 1-3, weighted least squares) and value added based on the style-adjusted return (Models 4-6, ordinary least squares). In Panels C and D, standard errors are clustered by domicile country and month (Models 1 and 4), fund (Models 2 and 5), and region of sale (Models 3 and 6). Panel C controls for fund and month fixed effects, while Panel D controls for fund and domicile country × month fixed effects. In Panel E, we consider subsamples with common characteristics for both treatment and control funds based on the domicile country (Models 1 and 4), domicile country and primary prospectus benchmark (Models 2 and 5), and domicile country and Morningstar category (Models 3 and 6). Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

Panel A: DiD Estimates of Fund Returns (in %) Around the FATCA

	Return		Gross-of-Fee Return		Risk-adjusted Return	
	Return	STYRET	Return	STYRET	FFC4	FFC8
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
US Sale × Post FATCA 3Y	0.157***	0.143***	0.156***	0.142***	0.060***	0.048***
	(4.26)	(4.24)	(4.25)	(4.24)	(3.25)	(2.71)
Log(Fund TNA)	-0.331***	-0.327***	-0.331***	-0.328***	-0.310***	-0.302***
	(-14.04)	(-14.29)	(-14.13)	(-14.39)	(-25.93)	(-25.40)
Log(Fund Age)	0.094**	0.098**	0.093**	0.098**	0.030	0.025
	(2.07)	(2.18)	(2.07)	(2.18)	(1.19)	(1.01)
Expense Ratio	-0.094***	-0.090***	-0.082**	-0.078**	-0.065***	-0.069***
	(-3.15)	(-2.94)	(-2.70)	(-2.51)	(-3.81)	(-3.52)
Fund Turnover	0.000	0.000	0.000	0.000	0.000***	0.000***
	(0.79)	(1.05)	(0.80)	(1.05)	(4.90)	(4.91)
Fund Return	-0.250***	-0.238***	-0.250***	-0.238***	-0.062***	-0.091***
	(-8.73)	(-8.73)	(-8.74)	(-8.75)	(-11.96)	(-18.51)
Fund Flow	0.012***	0.015***	0.012***	0.015***	0.022***	0.023***
	(3.17)	(3.83)	(3.13)	(3.80)	(8.29)	(8.79)
Obs	574,418	574,418	574,418	574,418	502,880	502,880
R-squared	0.700	0.121	0.700	0.122	0.095	0.100
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y
Cluster	Domicile	Domicile	Domicile	Domicile	Domicile	Domicile

Table IA2—Continued

Panel B: DiD Estimates of Fund Returns (in %) and Value Added (in Millions) Around the FATCA						
	Return		Gross-of-Fee Return		Value Added	
	Return	STYRET	Return	STYRET	STYRET	FFC8
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Offshore × Post FATCA 3Y	0.109***	0.102***	0.108***	0.101***	0.674***	0.902***
	(4.17)	(4.36)	(4.10)	(4.29)	(3.12)	(4.93)
Log(Fund TNA)	-0.366***	-0.350***	-0.368***	-0.352***	-1.801***	-1.912***
	(-28.98)	(-17.78)	(-28.25)	(-17.55)	(-15.49)	(-8.10)
Log(Fund Age)	0.105	0.128*	0.104	0.128*	1.126*	-0.566***
	(1.53)	(2.12)	(1.50)	(2.10)	(2.12)	(-7.20)
Expense Ratio	-0.076***	-0.068***	-0.045***	-0.036***	-0.443***	-0.506***
	(-7.04)	(-7.90)	(-4.33)	(-3.83)	(-10.40)	(-3.64)
Fund Turnover	0.000	0.000	0.000	0.000	0.001	-0.000
	(0.69)	(1.12)	(0.74)	(1.17)	(0.44)	(-0.18)
Fund Return	-0.432***	-0.330***	-0.432***	-0.331***	-1.958***	-1.435**
	(-13.44)	(-57.92)	(-13.48)	(-58.04)	(-4.73)	(-2.51)
Fund Flow	-0.005	-0.007	-0.005	-0.007	-0.061	0.071***
	(-1.04)	(-1.41)	(-1.10)	(-1.45)	(-1.51)	(6.58)
Obs	299,909	299,909	299,909	299,909	299,909	274,480
R-squared	0.778	0.087	0.777	0.085	0.057	0.049
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y
Cluster	Domicile	Domicile	Domicile	Domicile	Domicile	Domicile

Panel C: DiD Estimates of Fund Returns (in %) and Value Added (in Millions) Around the FATCA						
		STYRET		Value Added (STYRET)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
US Sale × Post FATCA 3Y	0.214**	0.214***	0.214***	1.109**	1.109***	1.109***
	(2.69)	(6.23)	(4.39)	(2.57)	(8.30)	(4.86)
Log(Fund TNA)	-0.333***	-0.333***	-0.333***	-0.879***	-0.879***	-0.879***
	(-4.42)	(-18.64)	(-11.48)	(-3.76)	(-21.56)	(-6.05)
Log(Fund Age)	0.179*	0.179***	0.179***	0.039	0.039	0.039
	(1.74)	(5.17)	(3.89)	(0.09)	(0.54)	(0.20)
Expense Ratio	-0.079*	-0.079**	-0.079***	-0.210***	-0.210***	-0.210***
	(-1.73)	(-2.15)	(-3.13)	(-2.85)	(-3.10)	(-3.51)
Fund Turnover	0.000	0.000**	0.000	0.000	0.000*	0.000
	(1.01)	(2.02)	(1.37)	(0.63)	(1.69)	(0.86)
Fund Return	-0.301***	-0.301***	-0.301***	-0.574**	-0.574***	-0.574***
	(-3.03)	(-30.34)	(-9.52)	(-2.58)	(-26.01)	(-5.12)
Fund Flow	0.019*	0.019***	0.019***	-0.030	-0.030**	-0.030
	(1.94)	(4.02)	(5.31)	(-0.74)	(-2.42)	(-0.86)
Obs	574,418	574,418	574,418	574,418	574,418	574,418
R-squared	0.113	0.113	0.113	0.051	0.051	0.051
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y
Cluster	Domicile, Month	Fund	Region of Sale	Domicile, Month	Fund	Region of Sale

Table IA2—Continued

Panel D: DiD Estimates of Fund Returns (in %) and Value Added (in Millions) Around the FATCA						
	STYRET			Value Added (STYRET)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
US Sale × Post FATCA 3Y	0.091**	0.091***	0.091***	0.871**	0.871***	0.871***
	(2.04)	(4.09)	(10.43)	(2.38)	(6.34)	(4.48)
Log(Fund TNA)	-0.294***	-0.294***	-0.294***	-0.823***	-0.823***	-0.823***
	(-3.70)	(-29.91)	(-17.78)	(-3.43)	(-20.25)	(-5.57)
Log(Fund Age)	0.109**	0.109***	0.109***	-0.010	-0.010	-0.010
	(2.10)	(6.63)	(5.06)	(-0.03)	(-0.15)	(-0.08)
Expense Ratio	-0.040	-0.040**	-0.040**	-0.112	-0.112	-0.112*
	(-1.60)	(-2.14)	(-2.50)	(-1.60)	(-1.42)	(-1.86)
Fund Turnover	-0.000	-0.000	-0.000	0.000	0.000	0.000
	(-0.64)	(-1.03)	(-0.86)	(0.76)	(1.38)	(1.20)
Fund Return	-0.219***	-0.219***	-0.219***	-0.520**	-0.520***	-0.520***
	(-2.80)	(-37.26)	(-16.95)	(-2.59)	(-23.36)	(-5.18)
Fund Flow	0.012	0.012***	0.012***	-0.040	-0.040***	-0.040
	(1.43)	(4.98)	(4.10)	(-1.14)	(-3.24)	(-1.45)
Obs	574,344	574,344	574,344	574,344	574,344	574,344
R-squared	0.277	0.277	0.277	0.102	0.102	0.102
Fund FE	Y	Y	Y	Y	Y	Y
Domicile × Month FE	Y	Y	Y	Y	Y	Y
Cluster	Domicile, Month	Fund	Region of Sale	Domicile, Month	Fund	Region of Sale

Panel E: DiD Estimates of Fund Returns (in %) and Value Added (in Millions) Around the FATCA						
	STYRET			Value Added (STYRET)		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
US Sale × Post FATCA 3Y	0.226***	0.233***	0.186***	1.226***	1.501***	1.126***
	(4.40)	(3.34)	(5.16)	(7.40)	(5.85)	(9.00)
Log(Fund TNA)	-0.332***	-0.334***	-0.340***	-0.931***	-1.121***	-0.900***
	(-15.58)	(-17.90)	(-14.87)	(-7.28)	(-6.64)	(-6.34)
Log(Fund Age)	0.234***	0.286***	0.209***	0.146	0.303	0.038
	(3.67)	(4.41)	(4.17)	(0.45)	(0.69)	(0.15)
Expense Ratio	-0.070	-0.096	-0.051	-0.176**	-0.324***	-0.117**
	(-1.50)	(-1.66)	(-1.12)	(-2.54)	(-3.45)	(-2.48)
Fund Turnover	0.000	0.000	0.000	0.001*	0.000	0.001**
	(1.08)	(0.31)	(1.14)	(1.97)	(0.59)	(2.32)
Fund Return	-0.310***	-0.308***	-0.279***	-0.645***	-0.787***	-0.566***
	(-8.87)	(-11.03)	(-12.66)	(-4.72)	(-5.35)	(-4.69)
Fund Flow	0.020***	0.017***	0.018***	-0.036	-0.078*	-0.066**
	(5.21)	(5.77)	(5.06)	(-0.80)	(-2.15)	(-2.21)
Obs	434,880	223,240	359,421	434,880	223,240	359,421
R-squared	0.104	0.107	0.115	0.049	0.054	0.054
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y
Common Characteristics	Domicile	Domicile, Benchmark	Domicile, Category	Domicile	Domicile, Benchmark	Domicile, Category

Table IA3: Fund Performance Around the FATCA by Fund Characteristics

Panel A presents DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level): $Perf_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \beta_2 US\ Sale_f \times Post_t \times Char_f + \beta_3 Post_t \times Char_f + \gamma N_{f,t-1} + e_{f,t}$,
where $Perf_{f,t}$ is the monthly net-of-fee return (Models 1-5) or style-adjusted return (Models 6-10) of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is a dummy variable: *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06). $Char_f$ refers to a list of fund characteristics: *Haven* is a dummy variable that equals 1 if a fund's domicile country is identified as a tax haven and 0 otherwise; *TIEA Haven* is a dummy variable that equals 1 if a fund's domicile country is identified as a tax haven and signed a bilateral TIEA with the U.S. prior to the FATCA and 0 otherwise; *Non-TIEA Haven* is a dummy variable that equals 1 if a fund's domicile country is identified as a tax haven and did not sign a bilateral TIEA with the U.S. prior to the FATCA and 0 otherwise; *Income Fund* is a dummy variable that equals 1 for income funds and 0 for accumulation funds; *Large Fund* is a dummy variable that equals 1 if a fund's TNA at the end of the month before the FATCA is above the median across all funds and 0 otherwise; and *Low* TR^2 is a dummy variable that equals 1 if a fund's average R-square over the three-year period before the FATCA is below the median across all funds and 0 otherwise. Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* Panel B presents similar statistics, where $Perf_{f,t}$ is the value added of offshore fund f in month t, with Models 1-5 based on the style-adjusted return and Models 6-10 based on an international eight-factor model. Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

Table IA3—Continued

Panel A: DiD Estimates of Fund Returns (in %) Around the FATCA										
	Return					STYRET				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
US Sale × Post FATCA 3Y	-0.035	-0.035	0.097***	0.122***	0.118***	-0.077*	-0.077*	0.082**	0.107***	0.101***
	(-0.85)	(-0.85)	(2.76)	(2.92)	(3.07)	(-1.86)	(-1.86)	(2.62)	(2.81)	(2.97)
US Sale × Post FATCA 3Y × Haven	0.127***					0.164***				
	(2.95)					(3.84)				
US Sale × Post FATCA 3Y × TIEA Haven		0.113**					0.153***			
		(2.65)					(3.55)			
US Sale × Post FATCA 3Y × Non-TIEA Haven		0.182***					0.206***			
		(4.72)					(5.42)			
US Sale × Post FATCA 3Y × Income Fund			0.224***					0.232***		
			(3.54)					(3.76)		
US Sale × Post FATCA 3Y × Large Fund				0.059					0.063*	
				(1.49)					(1.76)	
US Sale × Post FATCA 3Y × Low TR^2					0.083*					0.087*
					(1.70)					(2.03)
Post FATCA 3Y × Haven	0.112**					0.101**				
	(2.24)					(2.13)				
Post FATCA 3Y × TIEA Haven		0.112**					0.099**			
		(2.22)					(2.07)			
Post FATCA 3Y × Non-TIEA Haven		0.111**					0.109**			
		(2.29)					(2.40)			
Post FATCA 3Y × Income Fund			-0.150***					-0.148***		
			(-2.99)					(-3.14)		
Post FATCA 3Y × Large Fund				-0.042					-0.052	
				(-0.97)					(-1.34)	
Post FATCA 3Y × Low TR^2					0.016					0.040
					(0.27)					(0.75)
Log(Fund TNA)	-0.331***	-0.330***	-0.331***	-0.329***	-0.336***	-0.327***	-0.327***	-0.327***	-0.324***	-0.331***
	(-14.11)	(-14.09)	(-13.91)	(-13.80)	(-12.70)	(-14.36)	(-14.38)	(-14.21)	(-14.08)	(-12.94)
Log(Fund Age)	0.082*	0.082*	0.093**	0.089*	0.109**	0.088*	0.088*	0.098**	0.093**	0.113**
	(1.90)	(1.90)	(2.06)	(2.01)	(2.18)	(2.03)	(2.02)	(2.17)	(2.09)	(2.24)
Expense Ratio	-0.092***	-0.092***	-0.090***	-0.094***	-0.100***	-0.088***	-0.088***	-0.085***	-0.090***	-0.097***
	(-3.06)	(-3.05)	(-3.09)	(-3.15)	(-3.14)	(-2.86)	(-2.86)	(-2.89)	(-2.95)	(-3.02)
Fund Turnover	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	(0.86)	(0.87)	(0.84)	(0.81)	(0.80)	(1.11)	(1.12)	(1.10)	(1.07)	(1.03)
Fund Return	-0.251***	-0.251***	-0.251***	-0.250***	-0.239***	-0.238***	-0.238***	-0.239***	-0.238***	-0.227***
	(-8.71)	(-8.72)	(-8.77)	(-8.72)	(-8.35)	(-8.71)	(-8.71)	(-8.75)	(-8.73)	(-8.26)
Fund Flow	0.012***	0.012***	0.012***	0.012***	0.014***	0.015***	0.015***	0.014***	0.014***	0.017***
	(3.26)	(3.24)	(3.12)	(3.09)	(3.36)	(3.91)	(3.91)	(3.78)	(3.72)	(4.10)
Obs	574,418	574,418	574,418	574,418	520,521	574,418	574,418	574,418	574,418	520,521
R-squared	0.700	0.700	0.700	0.700	0.700	0.121	0.121	0.122	0.121	0.123
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table IA3—Continued

Panel B: DiD Estimates of Value Added (in Millions) Around the FATCA										
			STYRET					FFC8		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
US Sale × Post FATCA 3Y	-0.185	-0.185	1.022***	0.007	0.398**	-0.023	-0.023	0.759***	-0.040	0.166
	(-0.93)	(-0.93)	(6.18)	(0.08)	(2.63)	(-0.04)	(-0.04)	(3.90)	(-0.75)	(0.84)
US Sale × Post FATCA 3Y × Haven	1.095***					0.789				
	(4.26)					(1.40)				
US Sale × Post FATCA 3Y × TIEA Haven		1.231***					0.894			
		(5.67)					(1.63)			
US Sale × Post FATCA 3Y × Non-TIEA Haven		0.565**					0.329			
		(2.50)					(0.60)			
US Sale × Post FATCA 3Y × Income Fund			0.012					-0.144		
			(0.04)					(-0.37)		
US Sale × Post FATCA 3Y × Large Fund				1.628***					1.113***	
				(8.35)					(5.10)	
US Sale × Post FATCA 3Y × Low TR^2					1.500***					1.415***
					(5.73)					(5.63)
Post FATCA 3Y × Haven	0.402**					0.128				
	(2.12)					(0.71)				
Post FATCA 3Y × TIEA Haven		0.348*					0.103			
		(1.90)					(0.57)			
Post FATCA 3Y × Non-TIEA Haven		0.619***					0.245			
		(3.23)					(1.24)			
Post FATCA 3Y × Income Fund			-0.416**					-0.331***		
			(-2.56)					(-3.18)		
Post FATCA 3Y × Large Fund				-0.308					0.131	
				(-1.30)					(0.69)	
Post FATCA 3Y × Low TR^2					0.345**					-0.143
					(2.61)					(-1.09)
Log(Fund TNA)	-0.877***	-0.879***	-0.877***	-0.877***	-0.863***	-0.891***	-0.892***	-0.892***	-0.913***	-0.902***
	(-7.87)	(-7.96)	(-7.82)	(-7.94)	(-7.71)	(-7.42)	(-7.45)	(-7.43)	(-7.50)	(-8.33)
Log(Fund Age)	-0.005	-0.005	0.037	0.040	-0.009	0.303	0.300	0.328	0.374	0.315
	(-0.02)	(-0.02)	(0.14)	(0.17)	(-0.03)	(0.64)	(0.64)	(0.67)	(0.81)	(0.61)
Expense Ratio	-0.204***	-0.204***	-0.197***	-0.204***	-0.216**	-0.054	-0.054	-0.046	-0.049	-0.061
	(-2.94)	(-2.94)	(-2.91)	(-2.89)	(-2.67)	(-0.68)	(-0.68)	(-0.58)	(-0.61)	(-0.74)
Fund Turnover	0.000	0.000	0.000	0.000	0.000	0.001*	0.001*	0.001*	0.001*	0.001*
	(0.86)	(0.85)	(0.80)	(0.77)	(0.82)	(1.94)	(1.91)	(1.89)	(1.70)	(1.72)
Fund Return	-0.576***	-0.576***	-0.578***	-0.575***	-0.580***	-0.181***	-0.181***	-0.183***	-0.179***	-0.185***
	(-5.39)	(-5.39)	(-5.48)	(-5.41)	(-5.31)	(-3.53)	(-3.53)	(-3.65)	(-3.54)	(-3.66)
Fund Flow	-0.030	-0.030	-0.031	-0.030	-0.036	0.037**	0.037**	0.037**	0.041***	0.039**
	(-0.82)	(-0.82)	(-0.85)	(-0.89)	(-0.89)	(2.46)	(2.47)	(2.44)	(2.97)	(2.59)
Obs	574,418	574,418	574,418	574,418	520,521	502,880	502,880	502,880	502,880	475,399
R-squared	0.051	0.051	0.051	0.051	0.051	0.053	0.053	0.053	0.053	0.054
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table IA4: Fund Flows Around the FATCA: Active Funds vs. Index Funds in Tax Havens

This table presents DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the fund level):

$Flow_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}$,

where $Flow_{f,t}$ is the monthly flow (Models 1-2 and 5-6) or style-adjusted flow (Models 3-4 and 7-8) of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is several dummy variables: *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06); *Post FATCA*$^{+1}$ equals 1 for one year after FATCA implementation (i.e., 2014:07-2015:06) and 0 otherwise; and *Post FATCA*$^{+2:+3}$ equals 1 for the second and third years after FATCA implementation (i.e., 2015:07-2017:06) and 0 otherwise. Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* Models 1-4 and 5-8 focus on the active funds and index funds domiciled in tax havens, respectively. Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

DiD Estimates of Fund Flows (in %) Around the FATCA								
	Active Funds				Index Funds			
	Flow		Style-adjusted Flow		Flow		Style-adjusted Flow	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
US Sale × Post FATCA 3Y	-0.100		-0.102		-1.120**		-1.125**	
	(-1.13)		(-1.15)		(-2.22)		(-2.22)	
US Sale × Post FATCA^{+1}		0.102		0.083		-0.790		-0.811
		(0.92)		(0.75)		(-1.26)		(-1.29)
US Sale × Post FATCA$^{+2:+3}$		-0.213**		-0.205**		-1.318**		-1.315**
		(-2.24)		(-2.16)		(-2.00)		(-2.01)
Log(Fund TNA)	-1.621***	-1.622***	-1.621***	-1.621***	-1.518***	-1.520***	-1.533***	-1.535***
	(-28.50)	(-28.50)	(-28.53)	(-28.54)	(-6.17)	(-6.16)	(-6.25)	(-6.23)
Log(Fund Age)	-0.531***	-0.536***	-0.529***	-0.533***	-0.314	-0.315	-0.306	-0.306
	(-6.12)	(-6.16)	(-6.09)	(-6.13)	(-1.24)	(-1.23)	(-1.20)	(-1.20)
Expense Ratio	0.179**	0.179**	0.184**	0.184**	0.984	0.984	0.942	0.943
	(2.02)	(2.01)	(2.08)	(2.07)	(1.36)	(1.35)	(1.31)	(1.31)
Fund Turnover	0.000	0.000	0.000	0.000	-0.000	-0.000	-0.000	-0.000
	(1.16)	(1.20)	(1.17)	(1.21)	(-0.14)	(-0.11)	(-0.04)	(-0.01)
Fund Return	0.112***	0.112***	0.112***	0.112***	-0.026	-0.026	-0.028	-0.028
	(5.07)	(5.09)	(5.07)	(5.08)	(-0.24)	(-0.25)	(-0.26)	(-0.26)
Fund Flow	0.189***	0.189***	0.192***	0.191***	0.164***	0.164***	0.169***	0.170***
	(13.98)	(13.97)	(14.18)	(14.17)	(2.83)	(2.81)	(2.95)	(2.93)
Obs	223,643	223,643	223,643	223,643	12,904	12,904	12,904	12,904
R-squared	0.105	0.106	0.101	0.101	0.068	0.068	0.071	0.071
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y

Table IA5: Fund Performance and Flows Around the FATCA: Index Funds

In Panel A, Models 1-4 present DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):
$Perf_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}$,
where $Perf_{f,t}$ is the monthly net-of-fee return (Models 1-2) or style-adjusted return (Models 3-4) of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is several dummy variables: *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06); *Post FATCA*$^{+1}$ equals 1 for one year after FATCA implementation (i.e., 2014:07-2015:06) and 0 otherwise; and *Post FATCA*$^{+2:+3}$ equals 1 for the second and third years after FATCA implementation (i.e., 2015:07-2017:06) and 0 otherwise. Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* Models 5-8 present similar statistics, where $Perf_{f,t}$ is replaced with $Flow_{f,t}$, defined as the monthly flow (Models 5-6) or style-adjusted flow (Models 7-8) of offshore fund f in month t. In Panel B, Models 1-4 present DDD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):
$Perf_{f,t} = \alpha + \beta_1 Active_f \times US\ Sale_f \times Post_t + \beta_2 US\ Sale_f \times Post_t + \beta_3 Active_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}$,
where $Active_f$ is a dummy variable that equals 1 if offshore fund f is an active fund and 0 if it is an index fund. Models 5-8 present similar statistics, where $Perf_{f,t}$ is replaced with $Flow_{f,t}$. All other variables are defined as above. Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

Panel A: DiD Estimates of Fund Returns and Flows (in %) Around the FATCA

	Return		STYRET		Flow		Style-adjusted Flow	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
US Sale × Post FATCA 3Y	-0.004		0.013		-1.034**		-1.020**	
	(-0.08)		(0.24)		(-2.50)		(-2.40)	
US Sale × Post FATCA^{+1}		-0.074		0.019		-0.599		-0.610
		(-0.95)		(0.36)		(-1.22)		(-1.23)
US Sale × Post FATCA$^{+2:+3}$		0.031		0.009		-1.290**		-1.261*
		(0.39)		(0.12)		(-2.14)		(-2.08)
Log(Fund TNA)	-0.146***	-0.145***	-0.148***	-0.148***	-1.409***	-1.411***	-1.431***	-1.433***
	(-3.49)	(-3.47)	(-3.49)	(-3.47)	(-5.12)	(-5.11)	(-5.16)	(-5.15)
Log(Fund Age)	0.147***	0.146***	0.153***	0.153***	-0.252*	-0.256*	-0.253*	-0.257*
	(3.42)	(3.39)	(3.17)	(3.18)	(-1.86)	(-1.89)	(-1.90)	(-1.91)
Expense Ratio	-0.687***	-0.687***	-0.741***	-0.741***	0.657	0.658	0.657	0.657
	(-3.44)	(-3.44)	(-3.73)	(-3.73)	(1.32)	(1.32)	(1.34)	(1.34)
Fund Turnover	0.000***	0.000***	0.000***	0.000***	-0.000	-0.000	-0.000	-0.000
	(3.36)	(3.34)	(3.52)	(3.52)	(-1.57)	(-1.57)	(-1.56)	(-1.57)
Fund Return	-0.242***	-0.242***	-0.243***	-0.243***	-0.034	-0.034	-0.033	-0.033
	(-5.49)	(-5.49)	(-5.66)	(-5.66)	(-0.56)	(-0.56)	(-0.54)	(-0.54)
Fund Flow	-0.013	-0.013	-0.013	-0.013	0.065	0.066	0.067	0.068
	(-1.33)	(-1.32)	(-1.36)	(-1.36)	(1.71)	(1.71)	(1.72)	(1.72)
Obs	25,703	25,703	25,703	25,703	25,622	25,622	25,622	25,622
R-squared	0.825	0.825	0.212	0.212	0.072	0.072	0.074	0.074
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y

Table IA5—Continued

Panel B: DDD Estimates of Fund Returns and Flows (in %) Around the FATCA

	Return		STYRET		Flow		Style-adjusted Flow	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Active × US Sale × Post FATCA 3Y	0.299***		0.261***		0.538*		0.538	
	(3.48)		(3.60)		(1.81)		(1.65)	
Active × US Sale × Post FATCA^{+1}		0.378***		0.333***		0.323		0.230
		(3.64)		(4.70)		(0.53)		(0.37)
Active × US Sale × Post FATCA$^{+2:+3}$		0.259***		0.225***		0.660*		0.711*
		(3.22)		(3.05)		(1.91)		(2.02)
US Sale × Post FATCA 3Y	-0.051		-0.032		-0.645**		-0.654**	
	(-0.83)		(-0.53)		(-2.66)		(-2.35)	
US Sale × Post FATCA^{+1}		-0.086		-0.075		-0.178		-0.112
		(-1.02)		(-1.11)		(-0.28)		(-0.17)
US Sale × Post FATCA$^{+2:+3}$		-0.034		-0.011		-0.907***		-0.957***
		(-0.33)		(-0.11)		(-3.11)		(-3.20)
Active × Post FATCA 3Y	-0.131**	-0.131**	-0.107**	-0.107**	-0.463***	-0.464***	-0.233**	-0.233**
	(-2.42)	(-2.42)	(-2.12)	(-2.12)	(-3.88)	(-3.91)	(-2.11)	(-2.12)
Log(Fund TNA)	-0.284***	-0.283***	-0.277***	-0.277***	-1.517***	-1.516***	-1.514***	-1.513***
	(-11.57)	(-11.53)	(-11.98)	(-11.93)	(-17.43)	(-17.44)	(-17.23)	(-17.23)
Log(Fund Age)	0.202***	0.202**	0.212***	0.212***	-0.337**	-0.338**	-0.340**	-0.341**
	(2.84)	(2.81)	(3.05)	(3.02)	(-2.36)	(-2.36)	(-2.41)	(-2.41)
Expense Ratio	-0.160**	-0.160**	-0.150**	-0.150**	0.166	0.165	0.168	0.167
	(-2.80)	(-2.81)	(-2.53)	(-2.55)	(1.38)	(1.35)	(1.40)	(1.38)
Fund Turnover	0.000***	0.000***	0.000***	0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(4.17)	(4.16)	(4.10)	(4.09)	(-4.73)	(-4.52)	(-5.50)	(-5.29)
Fund Return	-0.318***	-0.317***	-0.306***	-0.306***	0.178***	0.178***	0.182***	0.182***
	(-7.90)	(-7.93)	(-7.55)	(-7.56)	(4.10)	(4.09)	(4.13)	(4.12)
Fund Flow	0.010*	0.009*	0.013***	0.013**	0.169***	0.169***	0.170***	0.170***
	(2.05)	(2.01)	(2.89)	(2.80)	(7.10)	(7.09)	(7.09)	(7.08)
Obs	272,836	272,836	272,836	272,836	271,844	271,844	271,844	271,844
R-squared	0.774	0.774	0.114	0.114	0.097	0.097	0.094	0.094
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y

Table IA6: Fund Flows Around the FATCA by Fund Characteristics

This table presents DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):

$$Flow_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \beta_2 US\ Sale_f \times Post_t \times Char_f + \beta_3 Post_t \times Char_f + \gamma N_{f,t-1} + e_{f,t},$$

where $Flow_{f,t}$ is the monthly flow (Models 1-6) or style-adjusted flow (Models 7-12) of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is a dummy variable: *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06). $Char_f$ refers to a list of fund characteristics: *Income Fund* is a dummy variable that equals 1 for income funds and 0 for accumulation funds; *Large Fund* is a dummy variable that equals 1 if a fund's TNA at the end of the month before the FATCA is above the median across all funds and 0 otherwise; *Low* TR^2 is a dummy variable that equals 1 if a fund's average R-square over the three-year period before the FATCA is below the median across all funds and 0 otherwise; and *Star* is the one-year lagged star rating from Morningstar. Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

Table IA6—Continued

DiD Estimates of Fund Flows (in %) Around the FATCA												
	Flow						Style-adjusted Fund Flow					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
US Sale × Post FATCA 3Y	-0.378***	-0.441***	-0.452***	-0.198	-0.184	-0.260	-0.369***	-0.442***	-0.448***	-0.183	-0.175	-0.248
	(-4.21)	(-6.89)	(-3.92)	(-0.53)	(-0.48)	(-0.86)	(-4.22)	(-6.71)	(-3.94)	(-0.48)	(-0.45)	(-0.80)
US Sale × Post FATCA 3Y × Income Fund	0.113			0.101			0.117			0.105		
	(0.67)			(0.61)			(0.69)			(0.63)		
US Sale × Post FATCA 3Y × Large Fund		0.234			0.290**			0.246			0.304***	
		(1.55)			(2.60)			(1.63)			(2.74)	
US Sale × Post FATCA 3Y × Low TR^2			0.193**			0.184**			0.204**			0.194**
			(2.50)			(2.37)			(2.61)			(2.51)
US Sale × Post FATCA 3Y × Star				-0.065	-0.103	-0.067				-0.067	-0.106	-0.070
				(-0.51)	(-0.86)	(-0.59)				(-0.52)	(-0.88)	(-0.60)
Post FATCA 3Y × Income Fund	-0.058			-0.061			-0.055			-0.059		
	(-0.69)			(-0.70)			(-0.65)			(-0.65)		
Post FATCA 3Y × Large Fund		-0.451***			-0.476***			-0.449***			-0.475***	
		(-5.35)			(-5.93)			(-5.28)			(-5.86)	
Post FATCA 3Y × Low TR^2			-0.059			-0.066			-0.048			-0.056
			(-1.09)			(-1.27)			(-0.84)			(-1.00)
Post FATCA 3Y × Star				0.025	0.071**	0.028				0.027	0.073**	0.030
				(0.67)	(2.14)	(0.74)				(0.72)	(2.16)	(0.79)
US Sale × Star				0.149*	0.165**	0.138*				0.147*	0.164**	0.136*
				(1.88)	(2.20)	(1.99)				(1.83)	(2.16)	(1.92)
Log(Fund TNA)	-1.543***	-1.515***	-1.546***	-1.600***	-1.578***	-1.603***	-1.545***	-1.517***	-1.545***	-1.601***	-1.580***	-1.604***
	(-15.99)	(-16.09)	(-15.67)	(-17.08)	(-17.14)	(-16.87)	(-16.02)	(-16.14)	(-15.75)	(-17.15)	(-17.23)	(-17.00)
Log(Fund Age)	-0.294***	-0.354***	-0.346***	-0.264***	-0.325***	-0.312***	-0.288***	-0.347***	-0.340***	-0.258***	-0.318***	-0.306***
	(-4.36)	(-5.26)	(-4.04)	(-4.16)	(-5.07)	(-3.79)	(-4.43)	(-5.33)	(-4.08)	(-4.22)	(-5.14)	(-3.81)
Expense Ratio	0.039	0.031	0.025	0.046	0.039	0.031	0.042	0.035	0.028	0.049	0.042	0.035
	(0.29)	(0.24)	(0.19)	(0.32)	(0.27)	(0.22)	(0.32)	(0.27)	(0.22)	(0.34)	(0.29)	(0.25)
Fund Turnover	0.000	0.000	-0.000	0.000	0.000	0.000	-0.000	0.000	-0.000	0.000	0.000	0.000
	(0.00)	(0.18)	(-0.08)	(0.18)	(0.34)	(0.09)	(-0.04)	(0.13)	(-0.13)	(0.13)	(0.28)	(0.04)
Fund Return	0.147***	0.146***	0.150***	0.131***	0.130***	0.134***	0.148***	0.146***	0.151***	0.132***	0.131***	0.136***
	(4.47)	(4.38)	(4.45)	(3.93)	(3.85)	(3.94)	(4.38)	(4.30)	(4.37)	(3.86)	(3.79)	(3.88)
Fund Flow	0.156***	0.150***	0.157***	0.141***	0.136***	0.142***	0.159***	0.153***	0.160***	0.143***	0.139***	0.145***
	(7.87)	(7.66)	(7.64)	(7.51)	(7.28)	(7.23)	(8.07)	(7.86)	(7.85)	(7.73)	(7.51)	(7.47)
Star				0.314***	0.291***	0.312***				0.313***	0.291***	0.312***
				(7.43)	(7.07)	(7.34)				(7.34)	(6.99)	(7.27)
Obs	488,753	488,753	457,055	488,753	488,753	457,055	488,753	488,753	457,055	488,753	488,753	457,055
R-squared	0.091	0.091	0.089	0.092	0.093	0.09	0.088	0.088	0.086	0.089	0.09	0.087
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table IA7: Fund Performance Around the FATCA: Alternative Event Window

Models 1-4 present DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):

$Perf_{f,t} = \alpha + \beta_1 US\ Sale_f \times Pre_t + \beta_2 USSale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}$,

where $Perf_{f,t}$ is the monthly net-of-fee return (Models 1-2) or style-adjusted return (Models 3-4) of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. Pre_t is a dummy variable that equals 1 for one year before FATCA implementation (i.e., 2013:07-2014:06) and 0 otherwise. $Post_t$ is several dummy variables: *Post FATCA 5Y* equals 1 for five years after FATCA implementation (i.e., 2014:07-2019:06) and 0 for three years before implementation (i.e., 2011:07-2014:06); *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06); and *Post FATCA*$^{+4:+5}$ equals 1 for the fourth and fifth years after FATCA implementation (i.e., 2017:07-2019:06) and 0 otherwise. Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* Models 5-8 present similar statistics for the following monthly panel regressions:

$Perf_{f,t} = \alpha + \beta_1 US\ Sale_f \times Pre\ Enactment_t + \beta_2 USSale_f \times Post\ Enactment_t + \gamma N_{f,t-1} + e_{f,t}$,

where $Pre\ Enactment_t$ is a dummy variable that equals 1 for one year before the FATCA enactment (i.e., 2009:04-2010:03) and 0 otherwise. $Post\ Enactment_t$ is several dummy variables: *Post Enactment 3Y* equals 1 for three years after FATCA enactment (i.e., 2010:04-2013:03) and 0 for three years before enactment (i.e., 2007:04-2010:03); *Post Enactment*$^{+1}$ equals 1 for one year after FATCA enactment (i.e., 2010:04-2011:03) and 0 otherwise; and *Post Enactment*$^{+2:+3}$ equals 1 for the second and third years after FATCA enactment (i.e., 2011:04-2013:03) and 0 otherwise. All other variables are defined as above. Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

DiD Estimates of Fund Returns (in %) Around the FATCA								
	Return		STYRET		Return		STYRET	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
US Sale × Pre FATCA^{-1}		-0.107		-0.096				
		(-1.29)		(-1.18)				
US Sale × Post FATCA 5Y	0.238***		0.214***					
	(7.17)		(7.91)					
US Sale × Post FATCA 3Y		0.178***		0.165***				
		(3.08)		(3.05)				
US Sale × Post FATCA$^{+4:+5}$		0.237***		0.203***				
		(4.17)		(3.81)				
US Sale × Pre Enactment^{-1}						-0.084		-0.010
						(-0.54)		(-0.06)
US Sale × Post Enactment 3Y					0.039		0.052	
					(0.35)		(0.47)	
US Sale × Post Enactment^{+1}						-0.091		-0.019
						(-0.95)		(-0.19)
US Sale × Post Enactment$^{+2:+3}$						0.049		0.082
						(0.39)		(0.63)
Log(Fund TNA)	-0.293***	-0.292***	-0.291***	-0.291***	-0.357***	-0.358***	-0.346***	-0.346***
	(-12.02)	(-12.09)	(-12.95)	(-13.04)	(-7.83)	(-7.80)	(-7.33)	(-7.30)
Log(Fund Age)	0.152***	0.151**	0.160***	0.159***	0.033	0.032	0.024	0.024
	(2.75)	(2.71)	(3.09)	(3.04)	(0.55)	(0.54)	(0.41)	(0.41)
Expense Ratio	-0.066**	-0.065**	-0.062**	-0.062**	-0.090**	-0.090**	-0.092***	-0.091***
	(-2.36)	(-2.36)	(-2.25)	(-2.24)	(-2.60)	(-2.60)	(-2.80)	(-2.77)
Fund Turnover	0.000	0.000	0.000	0.000	-0.000	-0.000	-0.000	-0.000
	(1.11)	(1.12)	(1.42)	(1.43)	(-1.34)	(-1.32)	(-1.32)	(-1.30)
Fund Return	-0.229***	-0.230***	-0.220***	-0.220***	-0.176***	-0.176***	-0.180***	-0.180***
	(-9.98)	(-10.49)	(-9.18)	(-9.58)	(-11.20)	(-11.21)	(-11.57)	(-11.56)
Fund Flow	0.013***	0.013***	0.015***	0.015***	-0.006	-0.006	-0.006	-0.005
	(4.37)	(4.30)	(4.59)	(4.50)	(-0.99)	(-0.99)	(-0.90)	(-0.89)
Obs	737,805	737,805	737,805	737,805	458,633	458,633	458,633	458,633
R-squared	0.746	0.746	0.103	0.103	0.801	0.801	0.129	0.129
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y

Figure IA1: Fund Size Around the FATCA

This figure shows the style-adjusted (the logarithm of) fund TNA of the treatment funds from three years before FATCA implementation (i.e., 2011:07-2014:06) to three years after implementation (i.e., 2014:07-2017:06). We employ a PSM approach to match the sample of offshore funds sold to U.S. investors (treatment) and those not sold to U.S. investors (control). Year t ($-t$) denotes the t-th year after (prior to) FATCA implementation.

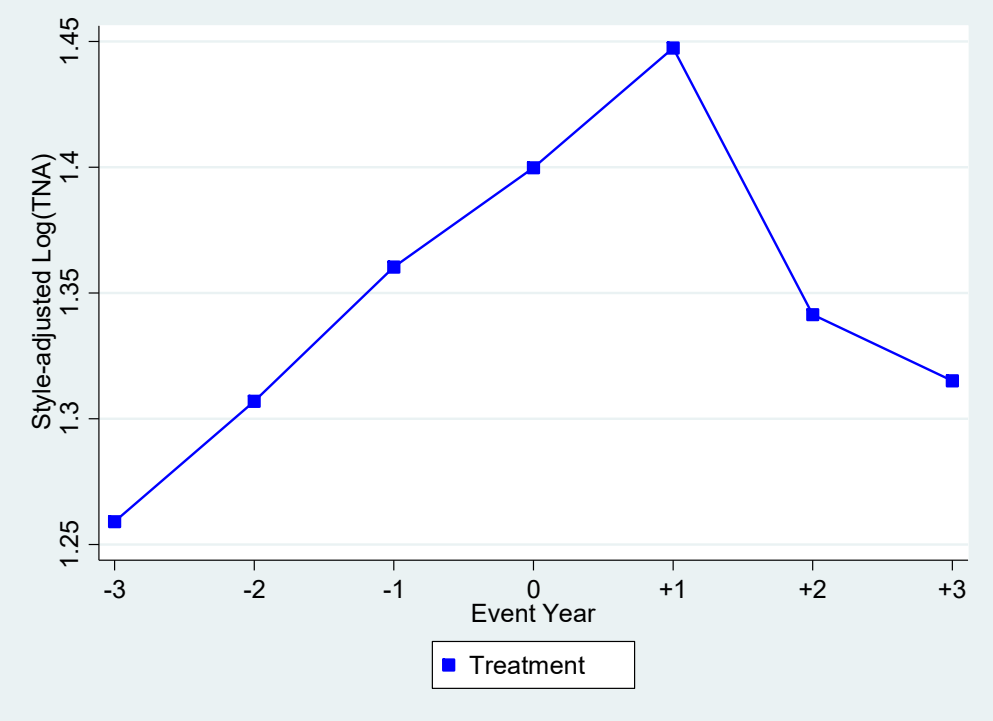

Table 2: Time Trend and Matching Sample Analysis

Panel A presents DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):

$Perf_{f,t} = \alpha + \beta_1 US\ Sale_f \times Pre_t + \beta_2 USSale_f \times Post_t + \gamma N_{f,t-1} + e_{f,t}$,

where $Perf_{f,t}$ is the monthly performance of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. Pre_t is a dummy variable that equals 1 for one year before FATCA implementation (i.e., 2013:07-2014:06) and 0 otherwise. $Post_t$ is several dummy variables: *Post FATCA*$^{+1}$ equals 1 for one year after FATCA implementation (i.e., 2014:07-2015:06) and 0 otherwise; and *Post FATCA*$^{+2:+3}$ equals 1 for the second and third years after FATCA implementation (i.e., 2015:07-2017:06) and 0 otherwise. Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* $Perf_{f,t}$ is measured by the net-of-fee return (Models 1 and 5) and style-adjusted return (Models 2 and 6) and by value added based on the style-adjusted return (Models 3 and 7) and an international eight-factor model (Models 4 and 8). Panel B further employs a PSM approach to match the sample of offshore funds sold to U.S. investors (treatment) and those not sold to U.S. investors (control). In particular, we compute propensity scores based on a logistic regression using *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

Panel B: DiD Estimates of Fund Returns (in %) and Value Added (in Millions) Around the FATCA (Matched Sample)

	Return		Value Added		Return		Value Added	
	Return	STYRET	STYRET	FFC8	Return	STYRET	STYRET	FFC8
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
US Sale × Pre FATCA^{-1}					-0.021	-0.008	-0.002	0.582
					(-0.23)	(-0.09)	(-0.01)	(1.27)
US Sale × Post FATCA^{+1}	0.337***	0.302***	1.927***	1.011***	0.330***	0.299***	1.926***	1.233***
	(4.85)	(4.25)	(5.74)	(4.27)	(5.42)	(5.03)	(5.89)	(4.88)
US Sale × Post FATCA$^{+2:+3}$	0.232***	0.240***	1.083***	0.856***	0.225***	0.237***	1.083**	1.075***
	(4.78)	(5.00)	(3.35)	(2.83)	(3.53)	(3.73)	(2.66)	(2.86)
Log(Fund TNA)	-0.355***	-0.354***	-1.273***	-1.327***	-0.355***	-0.354***	-1.273***	-1.329***
	(-13.74)	(-13.42)	(-6.20)	(-6.55)	(-13.64)	(-13.31)	(-6.19)	(-6.49)
Log(Fund Age)	0.116*	0.123*	-0.387*	-0.311	0.115	0.123*	-0.387*	-0.313
	(1.72)	(1.87)	(-1.96)	(-1.64)	(1.68)	(1.84)	(-1.96)	(-1.65)
Expense Ratio	-0.056	-0.060	-0.202	0.081	-0.056	-0.060	-0.202	0.085
	(-0.69)	(-0.87)	(-1.66)	(0.86)	(-0.69)	(-0.87)	(-1.66)	(0.88)
Fund Turnover	0.000	0.000	0.002***	0.001***	0.000	0.000	0.002***	0.001***
	(1.00)	(1.38)	(3.48)	(3.26)	(0.99)	(1.36)	(3.47)	(3.09)
Fund Return	-0.330***	-0.310***	-0.926***	-0.386***	-0.330***	-0.310***	-0.926***	-0.385***
	(-18.17)	(-16.94)	(-8.65)	(-7.95)	(-18.37)	(-17.10)	(-8.65)	(-7.80)
Fund Flow	0.009	0.013*	-0.140***	0.055**	0.009	0.013*	-0.140***	0.053**
	(1.38)	(1.95)	(-6.74)	(2.11)	(1.39)	(1.95)	(-6.64)	(2.10)
Obs	137,060	137,060	137,060	121,650	137,060	137,060	137,060	121,650
R-squared	0.739	0.113	0.064	0.067	0.739	0.113	0.064	0.067
Fund FE	Y	Y	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y	Y	Y

Table 4: Fund Flows Around the FATCA

Panel A presents DiD estimates for the following monthly panel regressions (with fund and month fixed effects and their corresponding t-statistics with standard errors clustered at the domicile country level):
$Flow_{f,t} = \alpha + \beta_1 US\ Sale_f \times Post_t + \beta_2 US\ Sale_f \times Post_t \times \Delta STYRET_f + \beta_3 Post_t \times \Delta STYRET_f + \gamma N_{f,t-1} + e_{f,t}$,
where $Flow_{f,t}$ is the monthly flow (Models 1-3) or style-adjusted flow (Models 4-6) of offshore fund f in month t. $US\ Sale_f$ is a dummy variable that equals 1 if offshore fund f is sold to U.S. investors and 0 if it is not. $Post_t$ is several dummy variables: *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06); *Post FATCA*$^{+1}$ equals 1 for one year after FATCA implementation (i.e., 2014:07-2015:06) and 0 otherwise; and *Post FATCA*$^{+2:+3}$ equals 1 for the second and third years after FATCA implementation (i.e., 2015:07-2017:06) and 0 otherwise. $\Delta STYRET_f$ is the change in average monthly style-adjusted return from three years before FATCA implementation to three years after FATCA implementation. Vector *N* stacks all other fund control variables, including *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow.* Panel B further employs a PSM approach to match the sample of offshore funds sold to U.S. investors (treatment) and those not sold to U.S. investors (control). In particular, we compute propensity scores based on a logistic regression using *Log(Fund TNA), Log(Fund Age), Expense Ratio, Fund Turnover, Fund Return,* and *Fund Flow*. Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

Panel B: DiD Estimates of Fund Flows (in %) Around the FATCA (Matched Sample)

	Flow			Style-adjusted Flow		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
US Sale × Post FATCA 3Y	-0.186		-0.257*	-0.182		-0.252**
	(-1.50)		(-2.05)	(-1.52)		(-2.06)
US Sale × Post FATCA^{+1}		-0.036			-0.035	
		(-0.26)			(-0.26)	
US Sale × Post FATCA$^{+2:+3}$		-0.272**			-0.267**	
		(-2.25)			(-2.30)	
US Sale × Post FATCA 3Y × ΔSTYRET			0.405***			0.403***
			(2.96)			(2.95)
Post FATCA 3Y × ΔSTYRET			0.224*			0.213*
			(1.94)			(1.82)
Log(Fund TNA)	-1.566***	-1.565***	-1.518***	-1.565***	-1.564***	-1.517***
	(-11.64)	(-11.63)	(-12.21)	(-11.74)	(-11.73)	(-12.31)
Log(Fund Age)	-0.488**	-0.490**	-0.511***	-0.484**	-0.485**	-0.505***
	(-2.58)	(-2.59)	(-2.91)	(-2.55)	(-2.56)	(-2.88)
Expense Ratio	0.050	0.048	0.067	0.058	0.057	0.074
	(0.63)	(0.61)	(0.84)	(0.75)	(0.73)	(0.96)
Fund Turnover	-0.001	-0.001	-0.001	-0.001	-0.000	-0.001
	(-1.24)	(-1.21)	(-1.25)	(-1.20)	(-1.17)	(-1.21)
Fund Return	0.101	0.101	0.079	0.102	0.102	0.081
	(1.54)	(1.54)	(1.13)	(1.55)	(1.56)	(1.15)
Fund Flow	0.176***	0.176***	0.175***	0.179***	0.178***	0.178***
	(9.85)	(9.83)	(10.06)	(9.78)	(9.77)	(9.99)
Obs	136,547	136,547	136,427	136,547	136,547	136,427
R-squared	0.101	0.101	0.101	0.097	0.097	0.097
Fund FE	Y	Y	Y	Y	Y	Y
Month FE	Y	Y	Y	Y	Y	Y

Table 6: Market Delays Around the FATCA

Panel A presents the results of the following annual panel regressions (with stock and country-year or country-industry-year fixed effects and their corresponding t-statistics with standard errors clustered at the stock and year level):

$Delay_{i,t} = \alpha + \beta_1 IO\_Affected_{i,t} \times Post_t + \beta_2 IO\_Unaffected_{i,t} \times Post_t + \gamma C_{i,t-1} + e_{i,t}$,

where $Delay_{i,t}$ is several market delay proxies of stock i in year t, including the delay in local market information ($Delay\_Local_{i,t}$) and the delay in global market information ($Delay\_Global_{i,t}$). $IO\_Affected_{i,t}$ is the percentage ownership held by offshore funds sold to U.S. investors, and $IO\_Unaffected_{i,t}$ is the percentage ownership held by funds that are not affected by the FATCA. $Post_t$ is a dummy variable, i.e., *Post FATCA 3Y* equals 1 for three years after FATCA implementation (i.e., 2014:07-2017:06) and 0 for three years before implementation (i.e., 2011:07-2014:06). Vector *C* stacks all other stock control variables, including *IO_Affected*, *IO_Unaffected*, *Log(Stock Size), Book-to-Market,* and *Stock Return.* Panel B presents similar statistics, where $Post_t$ is several dummy variables: *Post FATCA*$^{+1}$ equals 1 for one year after FATCA implementation (i.e., 2014:07-2015:06) and 0 otherwise; and *Post FATCA*$^{+2;+3}$ equals 1 for the second and third years after FATCA implementation (i.e., 2015:07-2017:06) and 0 otherwise. Appendix A provides the detailed definitions of each variable. Numbers with *, **, and *** are significant at the 10%, 5%, and 1% levels, respectively.

Panel A: Market Delays (in %) Around the FATCA

	Delay_Local				Delay_Global			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
IO_Affected × Post FATCA 3Y	-0.266**	-0.331**	-0.335**	-0.397**	-0.016	-0.054	-0.042	-0.057
	(-2.92)	(-2.71)	(-2.99)	(-2.76)	(-0.24)	(-0.74)	(-0.75)	(-0.86)
IO_Unaffected × Post FATCA 3Y		0.087		0.086		0.050		0.020
		(1.43)		(1.35)		(1.62)		(0.70)
IO_Affected	0.087	0.113	0.097	0.123*	0.213**	0.228*	0.222**	0.228**
	(1.13)	(1.70)	(1.44)	(2.18)	(2.57)	(2.36)	(3.10)	(3.33)
IO_Unaffected	-0.005	-0.040*	0.003	-0.032	-0.065	-0.085*	-0.052	-0.060
	(-0.17)	(-2.08)	(0.10)	(-1.62)	(-1.66)	(-2.33)	(-1.33)	(-1.62)
Log(Stock Size)	-2.285***	-2.328***	-2.262***	-2.299***	-1.644***	-1.668***	-1.355***	-1.364***
	(-10.79)	(-10.64)	(-10.52)	(-11.40)	(-5.57)	(-5.10)	(-6.20)	(-6.11)
Book-to-Market	0.117	0.111	0.148	0.138	0.033	0.029	-0.177	-0.180
	(1.14)	(1.09)	(1.13)	(1.07)	(0.19)	(0.20)	(-1.38)	(-1.38)
Stock Return	0.718	0.733	0.808*	0.811*	0.254	0.263	0.277	0.278
	(1.72)	(1.76)	(2.08)	(2.07)	(0.62)	(0.68)	(0.81)	(0.81)
Obs	62,001	62,001	58,092	58,092	62,001	62,001	58,092	58,092
R-squared	0.402	0.402	0.476	0.476	0.420	0.420	0.493	0.493
Stock FE	Y	Y	Y	Y	Y	Y	Y	Y
Country-Year FE	Y	Y	N	N	Y	Y	N	N
Country-Industry-Year FE	N	N	Y	Y	N	N	Y	Y

Table 6—Continued

Panel B: Market Delays (in %) Around the FATCA

	Delay_Local				Delay_Global			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
IO_Affected × Post FATCA^{+1}	-0.178*	-0.243**	-0.262**	-0.325**	-0.085	-0.123	-0.104	-0.119
	(-2.44)	(-2.98)	(-3.04)	(-3.27)	(-1.31)	(-1.91)	(-1.91)	(-1.93)
IO_Affected × Post FATCA$^{+2:+3}$	-0.326**	-0.391**	-0.384**	-0.445**	0.030	-0.007	-0.001	-0.015
	(-3.01)	(-2.99)	(-2.67)	(-2.65)	(0.43)	(-0.06)	(-0.01)	(-0.21)
IO_Unaffected × Post FATCA 3Y		0.087		0.085		0.050		0.020
		(1.43)		(1.35)		(1.67)		(0.70)
IO_Affected	0.089	0.115	0.099	0.125*	0.211**	0.226*	0.221**	0.227**
	(1.17)	(1.77)	(1.48)	(2.25)	(2.55)	(2.42)	(3.07)	(3.30)
IO_Unaffected	-0.005	-0.040*	0.003	-0.032	-0.065	-0.085*	-0.051	-0.060
	(-0.18)	(-2.09)	(0.10)	(-1.63)	(-1.65)	(-2.34)	(-1.33)	(-1.62)
Log(Stock Size)	-2.285***	-2.327***	-2.262***	-2.298***	-1.644***	-1.669***	-1.356***	-1.365***
	(-10.81)	(-10.66)	(-10.49)	(-11.37)	(-5.58)	(-5.09)	(-6.21)	(-6.12)
Book-to-Market	0.117	0.111	0.149	0.139	0.032	0.029	-0.178	-0.180
	(1.14)	(1.09)	(1.13)	(1.07)	(0.19)	(0.19)	(-1.39)	(-1.39)
Stock Return	0.718	0.733	0.807*	0.810*	0.255	0.263	0.278	0.279
	(1.72)	(1.76)	(2.08)	(2.07)	(0.62)	(0.68)	(0.81)	(0.81)
Obs	62,001	62,001	58,092	58,092	62,001	62,001	58,092	58,092
R-squared	0.402	0.402	0.476	0.476	0.420	0.420	0.493	0.493
Stock FE	Y	Y	Y	Y	Y	Y	Y	Y
Country-Year FE	Y	Y	N	N	Y	Y	N	N
Country-Industry-Year FE	N	N	Y	Y	N	N	Y	Y