

# Greening thy Neighbor: How the US Inflation Reduction Act Drives Climate Finance Globally\*

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## Abstract

Using granular data on global investment funds in difference-in-differences regressions around the announcement of the US Inflation Reduction Act (IRA), we identify a novel international spillover channel of green industrial policies. Sustainable global investment funds received more inflows upon the act announcement, in turn increasing their cross-border portfolio investments worldwide. Recipient economies better prepared to address climate change benefited most from sustainable global funds' additional investments. Our results are stronger for funds with a larger portfolio share invested in the US and in IRA-targeted industries. Yet, we see strong international spillovers even for non-US domiciled sustainable funds investing entirely outside the US. Thus, global investment funds have become an important conduit for the international spillover of climate policies.

**Keywords:** sustainable finance, climate policy, industrial policy, cross-border spillover, portfolio reallocation, portfolio capital flows, investment fund, Inflation Reduction Act  
**JEL Classifications:** F3, G1, G2, Q5

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# 1 Introduction

The US Inflation Reduction Act (IRA) is the most forceful climate policy action in US history, aiming to reduce US emissions by 40% by 2030 relative to 2005 levels. Given a 50% emission reduction pledged under the Paris Agreement, the IRA is a major building block in achieving US climate objectives. A combination of tax credits, grants, and loans worth at least \$370 billion promises to accelerate the transition to net-zero in the US by stimulating private sector investments in clean energy.<sup>1</sup> At the same time, vast climate financing needs remain unmet not only in the US but also globally. Annual global climate financing needs are estimated at \$10 trillion during the period 2030-2050, with only \$2 trillion made available currently (Buchner et al. 2023). Against the backdrop of record-high post-pandemic debt levels and elevated borrowing costs, we ask how the IRA can alleviate climate financing constraints worldwide. We ask how policy frameworks abroad can help harness any positive spillovers from the IRA.

We highlight a novel international spillover channel of green industrial policies and show that global investment fund flows are an important conduit for translating the IRA into an increased supply of climate finance globally. Specifically, we document that the IRA's announcement triggered a shift in investor portfolios towards assets labeled as sustainable, leading the assets under management (AUM) of sustainable-labeled investment funds to grow significantly. In contrast, conventional investment funds shrank (Figure 1a). International spillovers arise along two dimensions. First, we identify significant inflows into sustainable investment funds domiciled outside the US. Second, sustainable funds increased their cross-border portfolio investments, including to non-US recipient countries. Thus, the IRA has helped raise climate finance worldwide. Recipient countries better prepared to address climate change benefited most from the additional portfolio investment inflows.

Why does the IRA induce a shift in investor portfolios in favor of sustainable funds? We argue that the IRA sent a prominent signal to investors worldwide of heightened transition risk for conventional assets, in turn making sustainable assets more attractive. Following decades of legislative initiatives to address climate change, the IRA announcement signaled a credible US commitment to robust climate action and a faster transition to net-zero. The immediate decline in climate policy uncertainty upon announcement is testament to the policy's credibility as perceived by investors (Figure 1b). The ensuing rise in transition risk triggered a shift in investors' expectations of future sustainable vs. conventional investment funds' cash flows. This is what we refer to as IRA signaling channel. As highlighted by

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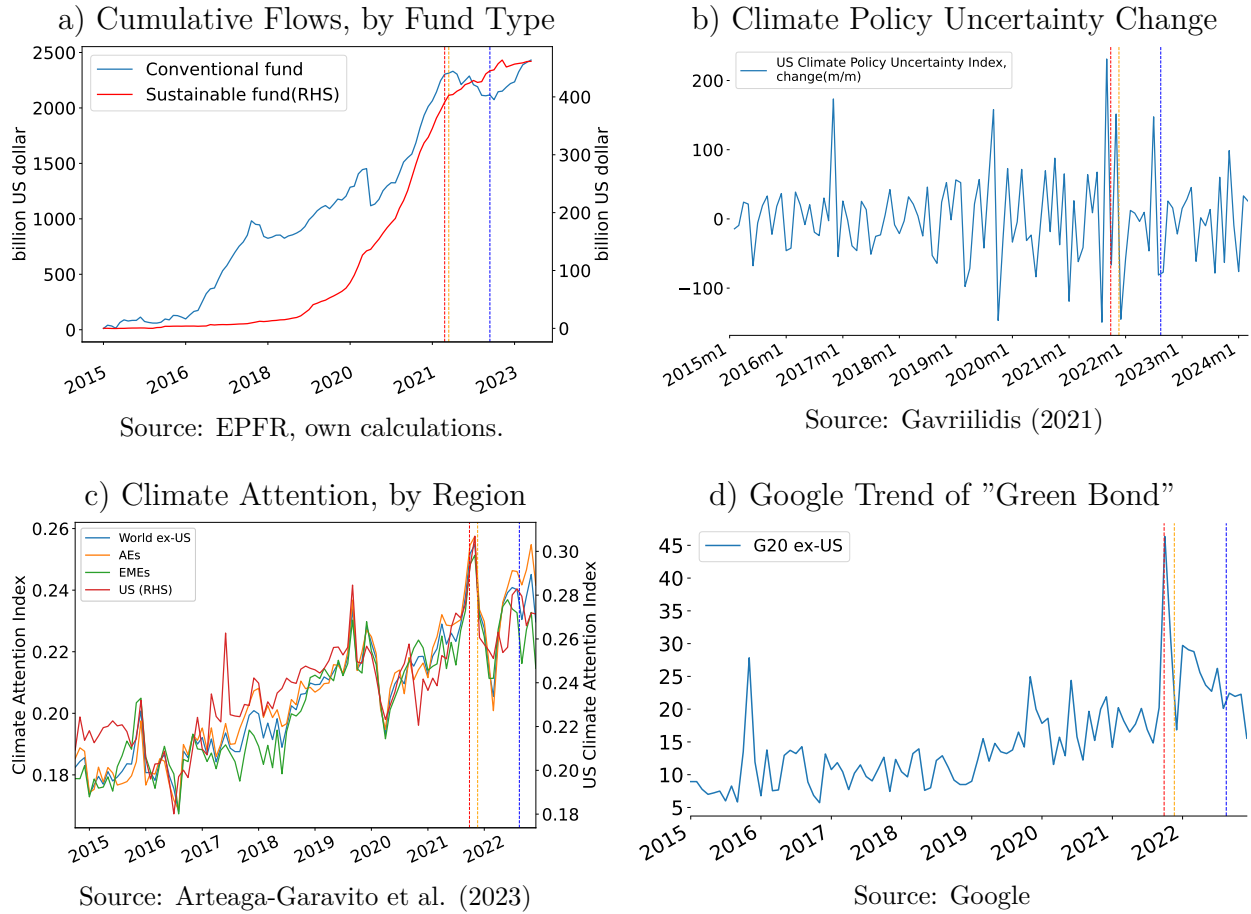
<sup>1</sup>Tax credits are uncapped, and depend on take-up by firms and consumers. Hence, the total green stimulus package may exceed \$370 billion (Bistline et al. 2023).

Pástor et al. (2021) and Ardia et al. (2023), cash flows from assets linked to conventional and carbon-intensive activities declined in expectation of tighter climate policies, which may strand these assets or see them contested in climate litigation. In contrast, cash flows from assets tied to activities associated with the green transition were expected to rise as they tend to benefit from targeted IRA support. As Section 4 shows, investors were keenly aware of these shifts in expected cash flows with preferences in favor of sustainable assets, as evidenced by an immediate increase in the relative valuation (realized return) of sustainable funds. This is consistent with the portfolio shift to low-carbon assets induced by other major climate policy deals like the Paris Agreement, as documented by Monasterolo and De Angelis (2020) and Alessi et al. (2023, 2024), as well as fund investors' pivot to sustainable funds in response to climate risk disclosures (Reboredo and Otero 2021).

A record increase in climate attention in the US upon IRA announcement confirms that investors paid close attention to the IRA as an important policy action mitigating climate change-related risks (Figure 1c). We use the Google Search Volume Index for the term "green bond" as an alternative measure of climate attention and its link to sustainable debt capital markets. The spike in searches just after the IRA announcement confirms investor awareness of the change in transition risk (Figure 1d). This spike in climate attention is most significant for the IRA's announcement in September 2021, with subsequent IRA-related news, such as the House's passing in November 2021 or the final signing in August 2022, having a significantly weaker effect on climate attention, if any. As we show below, we do not detect any statistically significant impact on investment behavior around events other than the IRA announcement in September 2021.

Importantly, the IRA's impact is not limited to US residents but ripples on beyond the US. We argue that investors globally perceived the IRA announcement as a signal of heightened transition risk for conventional assets. Given the weight of the US in global policy-making and financial markets, the US commitment to climate action improved the chances of progress on the global climate agenda and hence the probability of the launch of similar green industrial policies abroad, further raising transition risk. We see this reflected in climate attention peaking upon IRA announcement not only in the US but in all major non-US advanced and emerging economies (Figure 1c). Thus, the IRA abetted the portfolio reallocation into sustainable investment funds globally. We buttress this point in two ways: First, we show in Section 4 that international spillovers of the IRA are driven by non-US domiciled sustainable funds. The spillover manifests itself as sustainable funds experiencing increased inflows even when domiciled outside of the US. Second, Section 4 focuses on funds with a domestic investor base, i.e., funds with investors resident in the country of fund domicile. For this fund sample, the increase in sustainable fund inflows is more pronounced

**Figure 1: Stylized Facts**



Note: The upper left panel plots cumulative flows by fund type. The upper right panel shows US climate policy uncertainty changes based on Gavriilidis (2021). The lower left panel shows the climate attention index based on Arteaga-Garavito et al. (2023) for the US and aggregated for selected country groups. AEs = Advanced Economies; EMEs = Emerging Market Economies. The lower right panel shows the Google Search Volume Index in G20 economies excluding the US for the term "green bond". The vertical lines depict the announcement of the IRA in September 2021, the House's passing in November 2021, and its signing into law in August 2022.

when the climate attention specific to the respective non-US fund domicile rises upon IRA announcement. This evidence supports the IRA signaling channel we identify in this paper.

We conduct extensive empirical tests to rule out other mechanisms than the IRA signaling channel to account for our results. Alternative mechanisms comprise notably IRA-induced real effects in the US and globally upward trending interest in investing in Environment, Social and Governance (ESG) labeled assets. To rule out the former, we show that our results are amplified by—but not entirely driven by—funds’ US portfolio shares. In other words, the first-order effect of the IRA on investor flows is on sustainable funds with a greater US exposure. Yet, even sustainable funds without any US exposure benefit from higher inflows. We rule out the latter by establishing that our results are economically and statistically more significant for funds with a higher share of their AUM invested in IRA-targeted industries (utilities and manufacturing). Therefore, our results are unique to the IRA, and hence unlikely driven by global trends in ESG investing. Empirical tests at the daily frequency in a very narrow time window around the IRA corroborate this evidence.

To our knowledge, our paper is the first to study the international spillover of green industrial policies through global investment funds’ portfolios. We obtain granular data on these investment funds from EPFR Global. For this, we combine two datasets, one on investors’ flows into investment funds, and another on funds’ investment allocations across recipient countries.<sup>2</sup> The combination of both datasets entails two important advantages. First, we are able to control for a rich set of recipient country variables comprising various policy and macroeconomic characteristics. Second, using data at the fund-country level allows us to more accurately separate supply from demand effects, as we detail below. Recipient country-specific investment flows over the period 2015-2023 at daily and monthly frequencies by some 30,000 funds provide an ideal setup to control for confounding factors in an IRA-centered event study. Our fund-country-level panel data sample represents the near universe of worldwide AUM, with funds based in 72 domicile countries and investing in 133 recipient countries. We identify sustainable funds by (i) an EPFR-derived indicator measuring the sustainability of a fund’s investments, and (ii) the market value-weighted environmental performance of funds’ holdings, expressed as fund-level environmental scores from Bloomberg.

Difference-in-difference estimations in a narrow window of as little as 5 days around the IRA announcement on 27 September 2021 suggest an increase in flows into sustainable funds. As argued before, the narrow window ensures that other policy events or the general increase in sustainable investing throughout 2021 are unlikely to distort our estimations, allowing us to identify an effect unique to the IRA. Inflows into sustainable relative to conventional funds

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<sup>2</sup>Note that our dataset does not carry information about the residence of fund investors.

rise by 0.034-0.045 percentage points of funds' AUM upon IRA announcement. This differential between sustainable and conventional funds is economically significant and equivalent to more than a 100% increase relative to the mean of fund inflows over the sample period, or an additional \$1.4 billion each month. Given low and time-invariant cash shares in fund portfolios of about 2% on average, additional fund inflows are equivalent to higher fund investments in recipient countries. The additional inflows into sustainable funds are increasing in funds' environmental scores. The IRA-induced inflow into sustainable funds is thus chiefly related to their environmental performance instead of broader sustainability concepts.

Besides the announcement, the shift to sustainable funds is not detectable for other IRA-related events, such as the House's passing in November 2021, the negotiation breakthrough between US Senators Chuck Schumer and Joe Manchin in July 2022, or the final signing into law in August 2022. Similarly, the increased flows into sustainable funds are unique to the IRA. Other major climate policy events like the Paris Agreement, the US withdrawal from it, the European Union (EU) Green Deal, and the first global climate strike did not trigger a similar shift in investor behavior. The estimations control for various fund characteristics and for macroeconomic confounders, like recipient countries' trade linkages with the US. The latter is important to absorb US import demand for inputs relevant to IRA-targeted sustainable investments as an alternative spillover channel. This channel would entail that increased exports of IRA-related products to the US may raise the profitability of firms in recipient countries, thus attracting foreign portfolio investments. A rich set of fixed effects allows us to isolate the supply effect of the IRA by eliminating recipient country demand for foreign capital.

The results are robust to a battery of additional checks. We vary the time window around the IRA, both at monthly and daily frequencies, drop small funds, and scale fund flows by fund-country-specific AUM or recipient country gross domestic product (GDP). Moreover, as our preferred specification focuses on flows at the fund-country level, i.e., we cross investor flows into funds with fund managers' allocations of such funds across countries, the finding of increased flows into sustainable investment funds could be blurred by a contemporaneous shift in fund managers' country allocations. To isolate the effect on investor choices in favor of a higher allocation into sustainable funds, we keep the pre-treatment country shares in fund portfolios fixed in the post-treatment period. We also conduct the estimation at the fund level only, eliminating the possibility of contemporaneous changes in country allocations. Both leave the results virtually unchanged. We also note that the sustainability label is not distributed randomly across funds, but it correlates with other fund characteristics. In additional specifications, we hence apply propensity score matching to ensure comparing closely similar sustainable and conventional funds. Our main

results are unaffected. We comprehensively test for parallel pre-trends between the treatment and control group. Specifically, analyses tracing out the dynamic effect prior to and after treatment, as well as for placebo events, lend credence to parallel trends being present.

Given the significant international spillovers of the IRA and the key role of investment funds, we return to the question how policy frameworks in recipient countries can harness these spillovers. The spillovers are economically large, reaching 0.4-1.3% of the median country-level GDP cumulatively in the 3 months after the IRA announcement. Given large and unmet climate financing needs, it is important to efficiently allocate these scarce additional sustainable investments into recipient countries where funds are most productively channeled into climate action. We propose that this depends on countries' capacity to productively use inflows for climate change-related investments, and gauge this capacity by the Bloomberg Government Climate Score. This score measures countries' progress in emission reduction, power sector decarbonization, and the policy commitment to address climate change. We find that higher-scoring countries tend to attract more inflows from sustainable funds following the IRA announcement, suggesting that climate policy performance matters for raising private climate finance. The relatively higher flows into higher-scoring countries are not only driven by higher flows into sustainable funds post IRA. We additionally show that fund managers actively shift their portfolios in favor of higher-scoring countries. Importantly, even conventional funds exhibit this portfolio shift and thus deliver a major climate finance contribution as they represent 90% of all investment funds.

Our analysis ties in with several strands of the literature. First, we contribute to evidence on the effectiveness of the IRA in promoting climate action. [Bauer et al. \(2023\)](#) study the US stock market response to the IRA announcement and find negative abnormal returns for firms with higher emissions and lower environmental scores. The IRA also lowered the cost of green bonds in the US, as investors pay more attention to climate transition risks ([Jain 2023](#)). The literature further studies the IRA's effect on the US economy and competitiveness abroad ([Bistline et al. 2023](#), [Fournier et al. 2024](#)). Relative to these studies, we show the IRA's global impact through (sustainable) investment funds, leading to higher portfolio investment flows into countries with better climate policies.

Second, our work confirms that global investors react to important climate policy events. We focus on the transmission via international investment funds, and document their sensitivity to a major climate policy event (the IRA), beyond a general rise of popularity of sustainable funds documented by [Chen and Takahashi \(2024\)](#) and [Schmidt and Yesin \(2022\)](#). [Alessi et al. \(2024\)](#) and [Monasterolo and De Angelis \(2020\)](#) show that in response to the Paris Agreement investors reduced their exposure to high-emission firms and high-carbon assets, respectively, while also accepting lower returns after the first global climate strike and the EU

Green Deal (Alessi et al. 2023). Consequently, stock prices of green firms rise, while those of brown firms decline following unexpected shifts in climate concern (Diaz-Rainey et al. 2021; Ardia et al. 2023). A vast body of evidence confirms that investors seek compensation for higher exposure to physical and transition climate risk (see, e.g., Aswani et al. 2024; Bolton and Kacperczyk 2021; Faccini et al. 2023; Hsu et al. 2023; Krueger et al. 2020; Luo 2022; Seltzer et al. 2022; Pástor et al. 2022; Ardia et al. 2023).

Third, our study is closely related to the literature on investors' preferences for sustainable relative to conventional funds. Ceccarelli et al. (2024) discuss how mutual funds with a low-carbon portfolio experienced significant inflows upon the 2018 release of a carbon risk classification of funds. Investment funds assessed as more sustainable are known to achieve higher performance (Soler-Domínguez et al. 2021). Conversely, funds with a higher carbon risk exposure are likely to experience future outflows (Kuang and Liang 2022; Cao et al. 2023). We emphasize that major green industrial policies also affect investors' choice of a fund's sustainability profile, consistent with Bialkowski and Starks (2015) and Cornelli et al. (2025).

Finally, global investment funds have been shown to be important conduits for the international spillover of shocks in general, in line with the rise of market-based finance (Carney 2019). We demonstrate that global investment funds also facilitate the spillover of climate transition risk shocks, as revealed by green industrial policies like the IRA. Using granular data on global investment fund flows, Dahlhaus and Vasishtha (2014) discusses the link between the effect of US monetary policy shocks on portfolio flows to Emerging Markets, and subsequent financial turmoil in recipient countries. Drawing on the same data, Ciminelli et al. (2022) show that an increase in US interest rates precipitates large and persistent portfolio outflows from recipient countries. Spillovers to Emerging Markets directly result from the portfolio reallocation of global investment funds in response to funding shocks (Jotikasthira et al. 2012). Global investment fund flows amplify capital flow and exchange rate volatility in response to the Global Financial Cycle (Davis and Zlate 2023). The sensitivity of international capital flows to global financial conditions can be attributed to the rise of exchange traded funds (Converse et al. 2023).

Our paper is structured as follows. Section 2 provides background on the IRA, introduces the data set, and presents summary statistics. Section 3 explains the regression framework, identification strategy, and main results. In Section 4, we show that a signaling channel rationalizes our results and we eliminate confounders, such as an IRA-induced improvement in US growth prospects or shifts in ESG preferences. Section 5 studies how climate policies in recipient countries amplify the IRA-induced international spillovers, including by rebalancing conventional funds' portfolios towards countries with more ambitious climate policies.

Section 6 concludes. Online appendices provide further details on the data, and provide additional results, including a battery of robustness checks.

## 2 Data and the IRA

In this paper, we investigate how global investment fund flows facilitate an international spillover of the IRA into an increased supply of climate finance globally. This section reviews the institutional background of the IRA, and presents the dataset and summary statistics, with details available in Online Appendix A.

### 2.1 The IRA and Climate Attention

The IRA is the most ambitious climate policy action in US history, and the single most important policy to act on the US pledge under the Paris Agreement to reduce emissions by 50% until 2030 relative to 2005 levels, with an estimated emission reduction of 710 million metric tons by 2030 (Voigts and Paret 2024). The IRA comprises a targeted stimulus package worth \$370 billion composed of supply and demand side measures (The White House 2023). On the supply side, the package includes a blend of tax incentives, grants, and loans, with corporate tax incentives constituting the primary source of funding. On the demand side, consumers stand to benefit from subsidies for energy-efficient appliances, electric vehicles, rooftop solar panels, geothermal heating systems, and home batteries (IEA and IFC 2023).

Following decades of initiatives in the US to address climate change, the passage of the IRA is widely seen as a major achievement after a long legislative process (Table 1). Core elements of the IRA were announced on 27 September, 2021, as part of the Build Back Better Act. In addition to climate change, this broader legislative proposal also included changes to healthcare, social safety, and a tax reform. The Build Back Better Act passed the House on November 19, 2021, but faced an evenly divided Senate. There, Senator J. Manchin became the key holdout among the Democratic votes needed for passage. He declined to support the bill and announced his decision to vote against the Build Back Better Act on December 19, 2021, leading to months of negotiations. Following what seemed a final rejection of further attempts to pass the Build Back Better Act due to Senator Manchin’s objections to climate legislation elements, a breakthrough of negotiations came to surprise markets on July 27, 2022. That day, Senators Manchin and Schumer unveiled an agreement that would become the IRA. Senator Schumer proposed an amendment to substitute the text of the previously passed Build Back Better bill with the Inflation Reduction Act of 2022 on August 6, 2022, finally passed by the House and Senate within days and signed into law on August 16, 2022.

**Table 1: Inflation Reduction Act - Timeline**

Date	Event Description
<b>27-Sep-2021</b>	<b>Introduced in the House as the Build Back Better Act by Congressman John Yarmuth.</b>
<b>19-Nov-2021</b>	<b>Build Back Better Act passed by the House.</b>
19-Dec-2021	Senator Joe Manchin opposes the Build Back Better legislation.
<b>27-Jul-2022</b>	<b>Senators Joe Manchin and Chuck Schumer reached an agreement, introducing a new climate legislation called Inflation Reduction Act (IRA).</b>
3-Aug-2022	Congressional Budget Office and the Joint Committee on Taxation announced the estimated cost of the IRA.
6-Aug-2022	Senator Chuck Schumer proposed an amendment to substitute the text of the previously passed bill with the IRA of 2022.
7-Aug-2022	Passed by the Senate
12-Aug-2022	Passed by the House
<b>16-Aug-2022</b>	<b>Signed into law by President Joe Biden</b>

The IRA’s legislative history illustrates several key dates. Any of these—notably the announcement, the passing by the House, the negotiation breakthrough between Senators Manchin and Schumer, and the signing into law—could have made investors aware of the change in transition risk and triggered a shift into sustainable investments. However, as we will show in Section 3.2, and in line with the efficient-market hypothesis, investors’ pivot towards sustainable funds can only be detected for the announcement on 27 September, 2021.

Stylized facts of shifts in investors’ climate attention lend further support to centering our event study on the announcement date. That date saw a record increase in climate attention as measured by [Arteaga-Garavito et al. \(2023\)](#), both in the US and globally (Figure 1c). The index draws on almost 24 million Twitter messages posted by newspapers in 25 countries to measure country-specific attention to climate change. The US index spiked after the Paris Agreement in December 2015, the Trump administration’s withdrawal from the Paris Agreement in June 2017, and the first global climate strike in September 2019, but the index movement around the IRA remains unique in magnitude. Importantly, climate attention peaked around the world shortly after the IRA announcement, with the rapid increase not observed for any other climate-related policy. Figure 2 underlines that climate attention in most countries that the index is available for increases substantially between August 2021 (pre-IRA) and November 2021 (post-IRA), with the increase being more pronounced in the US than in most other countries. Few countries like Japan and Canada saw a stronger rise in climate attention due to country-specific sensitivities to climate change related events. We remain agnostic about the drivers for this cross-country heterogeneity, and rely on this

heterogeneity in Section 4 to highlight the role of climate attention for the international spillover of the IRA.

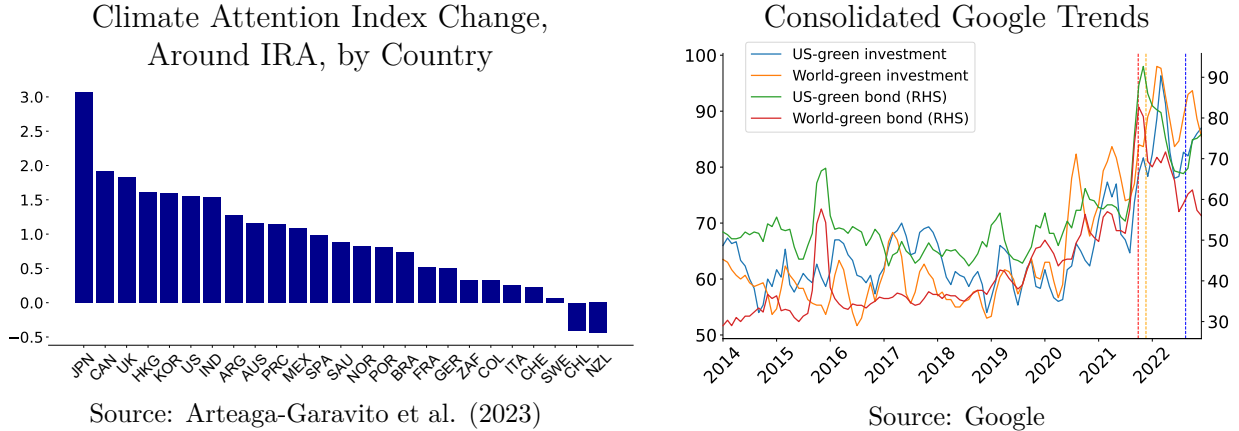
We inspect the climate attention as specifically relevant to investors, as measured by changes in the Google Search Volume Index for terms associated with investor preference shifts in reaction to climate risks. In the tradition of [Fahmy \(2022\)](#), we focus on the terms "green bond" and "green investment". Figure 2 suggests that, at the time of the IRA announcement, the frequency of searches for the former reached an unprecedented peak both in the US and globally. Besides the Paris Agreement, other climate policy-related events seem not to have exerted a similarly pronounced effect on search behavior. Searches for "green investment" are more volatile but without a clear trend between 2014 and 2020. In April 2021, however, searches increased markedly as President Biden announced the ambition for the US to lead global efforts in emission reduction. This increase, however, was only transitory. Only the IRA announcement in September 2021 permanently raised the searches for "green investment", with some further increase following the House's passing in November 2021. As before, this increase is mirrored by the world as a whole, underlining the IRA's global reach.

Overall, the IRA announcement stands out as the day of maximum climate attention for investors globally. Neither the House's passing in November 2021, nor the news on the negotiation breakthrough between Senators Manchin and Schumer in July 2022, nor the signing into law in August 2022 yielded a similar effect on investors' climate attention. Thus, we expect the impact on sustainable fund flows to materialize around the IRA announcement, and center our difference-in-differences regression on a time window around this event. As we show below, specifications estimated around other IRA-related events do not lead to any statistically significant results.

## 2.2 Fund-Level Dataset

Our evidence is based on data from EPFR Global at the daily and monthly frequency, which contains flows into the near universe of equity and bond investment funds domiciled in a diverse set of countries. We start our empirical analysis at the fund level before proceeding to our benchmark results at the fund-country level, as further explained below. The funds hold \$50 trillion AUM in the aggregate, representing 96% of the total worldwide AUM ([Koepeke and Paetzold 2024](#)). Several other studies rely on these data ([Jotikasthira et al. 2012](#), [Forbes et al. 2016](#), [Chari et al. 2022](#), [Converse and Mallucci 2023](#), [Converse et al. 2023](#), [Davis and Zlate 2023](#) or [Bettendorf and Karadimitropoulou 2023](#)), and [Koepeke and Paetzold \(2024\)](#) conclude that EPFR data are best-suited to study research questions requiring micro-level

**Figure 2: The IRA and Climate Attention Worldwide**



Note: The left panel shows the change in the climate attention index for all countries that the data are available for from August (pre-IRA) to November 2021 (post-IRA), scaled by the country-specific standard deviation of the index during 2014:M10-2022:M12. The right panel shows the Google Search Volume Index of US residents and the world as a whole for the term "green investment" and the corresponding search behavior for "green bond". Both series are computed as 3-month moving averages. The vertical lines depict the announcement of the IRA in September 2021, the House's passing in November 2021, and its signing in August 2022.

(i.e., fund-level) data. The data on cross-border flows of investment funds contained in our dataset captures a subset of portfolio investment flows reported in the country's balance of payments. For instance, cross-border flows by institutional investors purchasing foreign assets directly are not captured.

We scale the valuation-corrected fund flows by fund-level one-period lagged AUM in line with the literature (e.g., [Converse et al. 2023](#)), and trim this variable at the 1% and 99% levels to reduce the potential impact of outliers.<sup>3</sup> Our fund-level dataset for daily data covers 20 trading days before and 20 days after the IRA announcement. The dataset for monthly data includes 3 months before and after the IRA announcement. The monthly dataset comprises, depending on the specification, up to 30,000 funds, while the daily analysis contains about 25,000 funds. As the EPFR database contains newly created and closed funds, our analysis does not suffer from survivorship bias.

Our analysis controls for funds' one-month lagged performance following [Converse et al. \(2023\)](#), and a funds' lagged AUM, in line with [Chari et al. \(2022\)](#). We also control for funds' domiciles by means of fixed effects, and use the information about domiciles to buttress our evidence on international spillovers, showing that non-US domiciled funds are key for the mechanism we document. We exploit information on whether a fund is actively or passively managed (ETF), its asset class (bonds vs. equities), as well as its geographic investment

<sup>3</sup>EPFR constructs the numerator as the change in funds' total assets net of changes in net asset values.

mandate. For equity funds, we also know a fund’s industry allocations into 25 different sub-industries, which we aggregate into five broader industry groups in line with the ISIC Rev. 4 industry classification: manufacturing, utilities, finance, communication and information, and retail trade and transport.

Importantly, a variable indicating a fund’s sustainability serves as our treatment variable in the difference-in-differences specifications. This dummy measures whether a fund adheres to a sustainable investment mandate as determined by EPFR, based on a set of ESG-related keywords appearing in funds’ prospectuses. Table A2 in the Online Appendix provides the full list of the ESG-related terms screened by EPFR. As an alternative to this treatment definition, we use the market value-weighted environmental performance of funds’ holdings, available as fund-level environmental scores from Bloomberg.<sup>4</sup> They allow for a more granular assessment of a fund’s sustainability, but the sample coverage is more restricted relative to the EPFR sustainability indicator leading to a loss of 42% of observations.

## 2.3 Fund-Country-Level Dataset

Why do we work with fund-country-level data for our main specification? First, our analysis seeks to shed light on recipient country policies helping to attract sustainable fund flows from abroad in the wake of the IRA enactment. Data at the fund-country level allow us to consider a rich set of country characteristics comprising policies and macroeconomic control variables as further specified below. Second, changes in (sustainable) fund flows may be driven by both the demand for foreign funding in recipient countries as well as its supply. Fund-country-level data enable us to apply country-time fixed effects to absorb any country-level, time-varying confounders, and thus to isolate the supply effect of the IRA on funds’ flows to recipient countries.

To construct the fund-country-level panel, we combine the fund-level data presented in the previous sub-section with EPFR’s data on funds’ country allocations in terms of AUM.<sup>5</sup> As the country allocation data are only available at monthly frequency, our final dataset is at the monthly frequency. Crossing both datasets allows us to track investors’ flows into various countries as channeled through individual funds. As before, we scale these fund-country level flows by a fund’s one-month lagged AUM. For robustness, we also present specifications scaling by fund-country-level AUM or recipient countries’ annual nominal GDP. The final dataset covers the period 2015:M1-2023:M6, with the start in 2015 as sustainable

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<sup>4</sup>Bloomberg provides these data at the share class level and we aggregate them at the fund level by computing a simple average.

<sup>5</sup>EPFR only provides country allocation data for multi-region funds and not for single-country funds. For the latter, we hence assume a country allocation share of 100%.

investment funds only started to receive meaningful inflows at that time (Schmidt and Yesin 2022). We estimate the difference-in-differences specification detailed below over the period of 2021:M6-2021:M12, i.e., a relatively short period covering 7 months around the IRA announcement, thereby limiting the possibility that other events that may affect investors’ choice of sustainable vs. conventional funds distort our estimations.

In addition to the fund-level covariates introduced in Section 2.2, we also match a rich set of recipient country characteristics to the dataset.<sup>6</sup> Importantly, this includes Bloomberg Government Climate Scores (henceforth referred to as ‘climate policy score’), which measure a country’s climate transition performance as a weighted average of three metrics: a country’s emission performance, power transition performance, and climate policies performance. These metrics rate countries according to the extent to which they (i) reduce carbon emissions, (ii) decarbonize the power sector, and (iii) commit to addressing climate change. Countries with a higher score are more likely to meet their Nationally Determined Contributions pledged to reduce emissions in line with the goals of the Paris Agreement.

To control for alternative spillover channels, our dataset includes recipient countries’ trade linkages with the US and with funds’ domicile countries, as well as capital account openness. Unless absorbed by the appropriate fixed effects, We control for recipient countries’ income level with quarterly GDP per capita, monetary policy rate differentials with the US, Moody’s sovereign credit rating, bilateral FDI, and the rule of law.

We clean these data as follows. First, we drop from the sample all fund-country-level flows exceeding the 1% and 99% levels. Second, we drop fund-country pairs that are always equal to zero, in line with Converse and Mallucci (2023). This second step is important to distinguish true zero flows from those that arise because a particular country is *excluded* from the geographic scope of a fund’s investment mandate. Third, we exclude fund-country pairs with a country allocation share of less than 0% or more than 100%.<sup>7</sup> Finally, the EPFR country allocation data do not only include single countries, but also geographical areas, such as the euro area, as well as a fund’s portfolio share invested in cash. As we cannot match those to the aforementioned country characteristics, we exclude the corresponding fund-country and fund-cash pairs (about 8% of the initial sample). Note that, in one specification of Table 10, we explicitly focus on funds’ cash shares and examine to what extent they change around the IRA. As becomes apparent, they remain constant around the IRA announcement.

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<sup>6</sup>We match variables at the annual (quarterly) frequency to all months in the respective year (quarter).

<sup>7</sup>In this step of the data cleaning process, we lose less than 0.1% of observations.

## 2.4 Summary Statistics

Table 2 shows the summary statistics for our benchmark specification 2 at the fund-country level estimated over the period 2021:M6-2021:M12. The average country-specific flows into funds are positive with a mean of 0.03% of fund-level AUM, with the average fund reaching one-month lagged AUM of \$2.8 billion, with a minimum of 0 and a maximum of about \$1,059 billion. The average share of AUM invested in the manufacturing industry is equal to 48%, finance accounts for 19%, utilities for 7%, information and communication for 14%, and retail trade and transport for 9%. Sustainable funds account for 10% of all funds in our sample, a fund’s average Bloomberg environmental score is 79%, and the average US country share in fund portfolios equals 25%. The change in country allocation shares over our sample period is virtually zero. The average fund achieved a monthly return (performance) of 0.16%, mirroring the general asset price increase in 2021. About 21% of funds in our matched sample invest in a single country, two-thirds are equity funds, and one-third are ETFs, with these categories overlapping.

**Table 2: Summary Statistics**

Variable	Obs.	Mean	Std. dev.	Min	Median	Max	Unit
Flows <sub><i>i,c,j,t</i></sub>	454,031	0.033	1.385	-10.075	0.000	12.339	%
$\Delta$ Share <sub><i>i,c,j,t</i></sub>	454,031	0.000	0.517	-31.350	0.000	23.632	%
Sustainable <sub><i>i,j</i></sub>	454,031	0.103	0.304	0.000	0.000	1.000	0/1
Env. Score <sub><i>i,j</i></sub>	269,078	78.535	13.351	6.506	81.670	99.400	0-100
Performance <sub><i>i,j,t-1</i></sub>	454,031	0.158	2.843	-57.946	0.263	116.279	%
AUM <sub><i>i,j,t-1</i></sub>	454,031	2.828	15.652	0.000	0.479	1059.022	\$ billion
US Share <sub><i>i,j</i></sub>	453,963	25.286	35.092	0.000	0.155	100.000	%
ETF <sub><i>i,j</i></sub>	454,031	0.344	0.475	0.000	0.000	1.000	0/1
Equity Fund <sub><i>i,j</i></sub>	454,031	0.651	0.477	0.000	1.000	1.000	0/1
Single-Country Fund <sub><i>i,j</i></sub>	454,031	0.207	0.405	0.000	0.000	1.000	0/1
Finance Industry Share <sub><i>i,j</i></sub>	178,414	19.225	8.483	-24.244	18.175	72.451	%
Manufacturing Industry Share <sub><i>i,j</i></sub>	178,414	47.737	10.848	0.000	47.310	94.226	%
Utility Industry Share <sub><i>i,j</i></sub>	178,414	6.613	5.533	0.000	5.873	52.346	%
Trade/Transport Industry Share <sub><i>i,j</i></sub>	178,414	9.076	4.271	0.000	9.118	46.982	%
Information/ Communication Industry Share <sub><i>i,j</i></sub>	178,414	14.401	6.890	0.000	12.914	99.999	%
Post <sub><i>t</i></sub>	454,031	0.427	0.495	0.000	0.000	1.000	0/1
Climate Policy Score <sub><i>c</i></sub>	391,888	4.793	1.161	1.801	4.529	6.922	-
Trade-US <sub><i>c</i></sub>	394,761	0.379	0.588	0.000	0.149	2.679	%
Capital Account Openness <sub><i>c</i></sub>	444,079	0.789	0.330	0.000	1.000	1.000	[0,1]
GDP p.c. <sub><i>c</i></sub>	398,478	10528.280	7126.734	263.689	11759.040	26916.210	\$
Rule of Law <sub><i>c</i></sub>	451,376	0.859	0.874	-2.296	1.289	2.058	-
Trade-fund domicile <sub><i>c</i></sub>	374,223	0.003	0.007	0.000	0.001	0.120	%
Bilateral FDI <sub><i>c</i></sub>	423,729	0.040	0.125	-0.016	0.002	1.095	%
Interest Rate Differential <sub><i>c</i></sub>	275,274	2.999	5.810	-0.190	1.035	37.910	%
Rating <sub><i>c</i></sub>	453,491	5.745	4.844	1.000	4.000	21.000	-

Note: This table reports summary statistics for the main regression sample of column (5) in Table 4. We provide data definitions and sources in Table A1. Variables that do not contain the subscript t are fixed in the pre-IRA month 2021:M8.

As for country-level covariates, Table 2 shows that the average climate policy score is 4.8, with strong cross-country heterogeneity given by a range of 1.8-6.9. We exploit this heterogeneity in an analysis of how climate policy frameworks can help harness positive spillovers from the IRA.

### 3 Do Sustainable Funds Receive More Inflows After the IRA?

In Section 3, we examine the effect of the IRA on investors’ flows into sustainable funds. We first present the regression framework and identifying assumptions, followed by the results.

#### 3.1 Econometric Approach

We estimate difference-in-differences regressions both at the fund and fund-country level around the announcement date of the IRA on 27 September, 2021. At the fund level, our estimation is given by:

$$Flows_{i,j,t} = \alpha_{jt} + \alpha_{ij} + \nu \cdot (\text{Post}_t \times \text{Sustainable}_{i,j,pre}) + \epsilon_{i,j,t}, \quad (1)$$

where Flows are investors’ flows into fund  $i$ , domiciled in country  $j$ , in the 4 months before (June-September 2021) and 3 months after (October-December 2021) the IRA announcement, scaled by a fund’s one-month lagged AUM.

The main variable of interest is the interaction between a Post-dummy that is equal to one after the IRA announcement, i.e., after 2021:M9, and zero before, and a dummy that takes a value of one if a fund is labeled as sustainable in 2021:M8, the month before the IRA announcement. We expect the coefficient  $\nu$  to be positive, as this would indicate a shift of investor portfolios towards sustainable investments after the IRA.  $\alpha_{jt}$  are domicile-time fixed effects, and  $\alpha_{ij}$  are fund-level fixed effects, which absorb time-varying, fund domicile-specific heterogeneity as well as time-invariant, fund-specific heterogeneity, including investors’ general preferences for certain funds.<sup>8</sup> Standard errors are clustered at the fund level.

We estimate Equation 1 not only with data at monthly but also daily frequency, using only 5 or 20 trading days before and after the IRA announcement, respectively. This is to reduce the possibility that our results might be driven by events other than the IRA occurring during our regression window. For instance, the 2021 United Nations Climate Change

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<sup>8</sup>Adding manager-time fixed effects leaves the main results unchanged.

Conference (COP 26) of November 2021 could have changed the way investors reallocate across sustainable and conventional funds. As we show below, however, our results survive in a tight window of few days around the IRA announcement.<sup>9</sup>

In a next important step, we carefully isolate the supply effect of the IRA. This is crucial as results for Equation 1 could be driven by countries’ demand for additional funds, whereas we seek to identify how investors reallocate their supply of funding to sustainable funds relative to conventional ones in response to the IRA. To cleanly identify this supply effect, we run our benchmark regression at the fund-country level as follows:

$$Flows_{i,c,j,t} = \alpha_{ct} + \alpha_{jt} + \alpha_{ijc} + \alpha_{mct} + \beta \cdot (\text{Post}_t \times \text{Sustainable}_{i,j,pre}) + \epsilon_{i,c,j,t}, \quad (2)$$

where Flows are now the recipient country-specific investor flows into fund  $i$  in the months before (June-September 2021) and after (October-December 2021) the IRA announcement, scaled by a fund’s one-month lagged AUM. Note that, as in Equation 1, we treat fund flows in September 2021 as being pre-IRA because the IRA was announced at the end of that month on 27 September, 2021, but we show below that the results are similar if we drop the announcement month from the sample. As before,  $j$  denotes a fund’s domicile and the main variable of interest is the double interaction between the Post-dummy and the sustainable fund indicator. We also present the results using a fund’s environmental score instead of the sustainability dummy.

The fund-country-level specification allows us to introduce recipient country-time fixed effects  $\alpha_{ct}$  to control for time-varying, recipient country-specific changes in the demand for funding, including from foreign investment channeled through investment funds. Thanks to these fixed effects, we examine whether the *same* country receives higher inflows from sustainable than from conventional investment funds after the IRA, thus eliminating demand.

We saturate the equation with domicile-time fixed effects,  $\alpha_{jt}$ , fund-country fixed effects,  $\alpha_{ijc}$ , as well as—in most specifications—manager-country-time fixed effects,  $\alpha_{mct}$ . Managers  $m$  represent the investment management companies running a fund, also known as fund families, henceforth abbreviated fund manager.<sup>10</sup> As these fixed effects control for fund families’ policies in the fund-country level specification 2, manager-country-time fixed effects help distinguish between the effect of the IRA on investors’ flows into funds and fund managers’ allocations of these flows across countries. Both could affect our outcome variable, as it is

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<sup>9</sup>To ensure comparability of results derived from data at the monthly frequency between fund-level and fund-country-level analysis, the analysis at the fund level is only based on those funds that form part of the fund-country-level analysis. The dataset for the latter is derived as described in Section 2.3. In contrast, results based on daily data are based on all funds available from EPFR at the daily frequency.

<sup>10</sup>As country-time fixed effects are spanned by manager-country-time fixed effects, the former are not included separately when we add the latter.

computed as the product of investor-specific flows and funds’ country allocations. By controlling for manager-country-time fixed effects, we account for changes in fund managers’ shifts in country allocations and hence focus on the IRA’s impact on investors’ flows into funds. In the same vein, for robustness, we fix managers’ country allocation shares in the pre-IRA period and all of our results are qualitatively unchanged, providing further evidence for significant shifts in investor behavior as a response to the IRA.

For robustness, we estimate a version of Equation 2 with data averaged in pre- and post-treatment periods, respectively, with the dependent variable computed as the difference between these two averages, to be then regressed on the sustainable fund dummy. This strategy mitigates any serial correlation of the standard errors, as argued by [Bertrand et al. \(2004\)](#) and [Bottero et al. \(2020\)](#).

For our difference-in-differences analysis to be valid, flows into sustainable and conventional funds need to exhibit parallel trends in the absence of treatment. We demonstrate this by running placebo regressions estimating Equation 2 for a period without announcements of US (or any other countries’) climate policies. In this case, the double interaction coefficient  $\beta$  is statistically insignificant. In addition, we show the results for the interaction of monthly dummies with the sustainable fund indicator, setting the reference month equal to the IRA’s announcement month (September 2021). The corresponding interaction coefficients are statistically insignificant before the announcement, and turn statistically significant afterwards. This buttresses that parallel pre-trends hold.

## 3.2 Benchmark Results

In this section, we present the results on the effect of the IRA on investors’ flows into sustainable funds. We start with the regressions at the fund level, as in Equation 1, and then show the results at the fund-country level, as in Equation 2.

Table 3 shows that after the IRA announcement in September 2021, sustainable funds received higher inflows. In column (1), we start estimating the regression at the monthly frequency. The positive interaction coefficient implies that after the announcement, sustainable funds saw 0.14 percentage points higher inflows than conventional ones. However, the result is based on a relatively long time window of 7 months around the IRA announcement, leaving room for other events or the general upward-trend in sustainable investing throughout the year 2021 to potentially confound the IRA effect. To alleviate this concern, we estimate Equation 1 on daily data and a shorter window around the announcement. In column (2), we focus on the 5 trading days before and after IRA announcement; in column (3), we take 20 pre- and post-IRA trading days.

**Table 3: The Impact of the IRA on Fund Flows: Fund-Level Evidence**

	Sep. 2021, 3 months	Sep. 2021, 5 days	Sep. 2021, 20 days	Nov. 2021, 5 days	Nov. 2021, 20 days	July 2022, 5 days	July 2022, 20 days	Aug. 2022, 5 days	Aug. 2022, 20 days
VARIABLES	(1) Flows <sub>i,j,t</sub>	(2) Flows <sub>i,j,t</sub>	(3) Flows <sub>i,j,t</sub>	(4) Flows <sub>i,j,t</sub>	(5) Flows <sub>i,j,t</sub>	(6) Flows <sub>i,j,t</sub>	(7) Flows <sub>i,j,t</sub>	(8) Flows <sub>i,j,t</sub>	(9) Flows <sub>i,j,t</sub>
<i>Post<sub>t</sub> × Sustainable<sub>i,j</sub></i>	0.141* (0.082)	0.006* (0.004)	0.005** (0.002)	-0.002 (0.004)	0.001 (0.003)	0.002 (0.003)	-0.003 (0.002)	-0.001 (0.003)	-0.003 (0.002)
Domicile-Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fund FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	117,840	246,505	985,557	276,528	998,042	261,594	1,041,894	261,027	1,044,882
R-squared	0.386	0.198	0.115	0.197	0.109	0.185	0.092	0.176	0.091

Note: This table is based on daily and monthly EPFR fund-level data covering the years 2021 and 2022. Column (1) focuses on the 3 pre- and 3 post-IRA announcement months, with the announcement month being September 2021. Columns (2)-(3) focus on the 5 and 20 pre- and post-announcement trading days, respectively. In columns (4)-(5), we restrict the sample to the 5 and 20 days before and after the House's passing on November 19, 2021. Columns (6)-(7) consider the 5 and 20 days around the agreement between Joe Manchin and Chuck Schumer on July 27, 2022, and columns (8)-(9) consider the 5 and 20 days before and after President Biden's signing of the IRA on August 16, 2022. The dependent variable is the fund-level inflow scaled by fund-level AUM lagged by one period. The key regressor is the interaction between a post-dummy equal to one after each of these events and a dummy indicating a fund labeled as sustainable. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions also include domicile-time and fund-level fixed effects. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

In both cases, the double interaction estimate remains positive and statistically significant at least at the 10% level.

In columns (4)-(9), we examine the impact of other legislative milestones of the IRA, notably the Houses's passing in November 2021, the agreement between Manchin and Schumer in July 2022, and President Biden's signing of the IRA in August 2022. In all three cases, the double interaction coefficient is not statistically different from zero. That is, only the IRA announcement led to differential investor flows into sustainable vs. conventional funds, consistent with Figure 1 showing that it was mainly the IRA announcement that raised investors' climate attention substantially.

The above results may be driven by country-specific demand for funds. As discussed in more detail above, we effectively isolate the supply effect of the IRA by estimating the relationship at the fund-country level as per Equation 2. Here, country-time fixed effects absorb any changes in country-specific demand for financing from abroad. Results are shown in Table 4.

Column (1) is free of fixed effects. Column (2) adds recipient country-time fixed effects, column (3) further adds domicile-time fixed effects, column (4) introduces fund-country fixed effects, and the most saturated model specification in column (5) includes manager-country-time fixed effects. As explained above, the latter is important to help distinguish between the effect of the IRA on investors' flows into funds and fund managers' allocations across countries.

In all of these specifications, the double interaction coefficient of interest is positive and statistically significant at least at the 5% level. This positive coefficient implies that sustainable funds, relative to conventional ones, see higher investor inflows after the IRA. This effect is not only statistically significant but also economically meaningful. The IRA implies additional flows into sustainable funds relative to conventional funds of 0.033-0.045 percentage points. This is non-negligible given a mean of the dependent variable of 0.033% and a 90th percentile of 0.30%. The total AUM in our sample is about \$30 trillion and 10% of the funds are classified as sustainable. This implies that our results correspond to an additional \$1.4 billion flows into sustainable funds each month ( $=30 \text{ trillion} * 0.045 / 100 * 0.1$ ). As we show below, this additional inflow is statistically significant for the 3 post-IRA months. When we assume that this inflow is allocated uniformly across countries, the cumulative effect reaches almost 0.4% of the median country GDP.

In all of the regressions in columns (1)-(5), the dependent variable is the product of fund-level inflows and a fund's time-varying country allocation shares. In column (6), we fix such country shares in the last month before IRA announcement (August 2021), so as to obtain time variation in the dependent variable only driven by investors' flows into funds.

**Table 4: The Impact of IRA on Fund Flows**

VARIABLES	(1) Flows <sub><i>i,c,j,t</i></sub>	(2) Flows <sub><i>i,c,j,t</i></sub>	(3) Flows <sub><i>i,c,j,t</i></sub>	(4) Flows <sub><i>i,c,j,t</i></sub>	(5) Flows <sub><i>i,c,j,t</i></sub>	(6) Flows <sub><i>i,c,j,t</i></sub>
<i>Post<sub>t</sub> × Sustainable<sub><i>i,j</i></sub></i>	0.038*** (0.015)	0.035** (0.015)	0.038** (0.015)	0.033** (0.015)	0.045** (0.018)	0.044** (0.018)
<i>Post<sub>t</sub></i>	-0.024*** (0.005)					
<i>Sustainable<sub><i>i,j</i></sub></i>	0.138*** (0.014)	0.149*** (0.014)	0.148*** (0.014)			
<i>LaggedPerformance<sub><i>i,j,t-1</i></sub></i>	0.010*** (0.001)	0.012*** (0.002)	0.011*** (0.002)	0.009*** (0.002)	0.009*** (0.002)	0.009*** (0.002)
<i>LaggedAUM<sub><i>i,j,t-1</i></sub></i>	0.000 (0.000)	0.000* (0.000)	0.000* (0.000)	-0.000*** (0.000)	-0.000*** (0.000)	-0.000*** (0.000)
Country×Time FE	No	Yes	Yes	Yes	No	No
Domicile×Time FE	No	No	Yes	Yes	Yes	Yes
Fund×Country FE	No	No	No	Yes	Yes	Yes
Manager×Country× Time FE	No	No	No	No	Yes	Yes
Observations	495,233	495,221	495,151	494,998	454,031	453,350
R-squared	0.002	0.006	0.015	0.389	0.452	0.465

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. Column (1) adds no fixed effects at all. Column (2) adds recipient country-time fixed effects, column (3) further adds domicile-time fixed effects, column (4) introduces fund-country fixed effects, and the most saturated model specification in column (5) includes manager-country-time fixed effects. In column (6), the dependent variable is obtained by multiplying fund-level inflows with country allocation shares fixed in 2021:M8. The key regressor is the interaction between a post-IRA dummy equal to one after 2021:M9 and a dummy indicating a sustainable fund. We control for fund performance and AUM each lagged by one period. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

The coefficient estimate is virtually identical to the one in column (5), suggesting that the manager-country-time fixed effects applied in column (5) are effective in abstracting from interference by fund management companies.

**Table 5: The Impact of the IRA on Fund Flows:  
Using Fund-Level Environmental Scores**

VARIABLES	(1) Flows <sub><i>i,c,j,t</i></sub>	(2) Flows <sub><i>i,c,j,t</i></sub>	(3) Flows <sub><i>i,c,j,t</i></sub>	(4) Flows <sub><i>i,c,j,t</i></sub>
$Post_t \times Env.Score_{i,j}$	-0.000 (0.000)			-0.001 (0.000)
$Post_t \times HighScore_{i,j}$		0.035** (0.014)	0.031** (0.014)	
$Post_t \times Sustainable_{i,j}$			0.047** (0.021)	0.038* (0.023)
$Post_t \times Sustainable_{i,j} \times Env.Score_{i,j}$				0.004* (0.002)
Domicile×Time FE	Yes	Yes	Yes	Yes
Fund×Country FE	Yes	Yes	Yes	Yes
Manager×Country×Time FE	Yes	Yes	Yes	Yes
Observations	262,516	262,516	262,516	262,516
R-squared	0.444	0.444	0.444	0.444

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressor in column (1) is the interaction between a post-IRA dummy equal to one after 2021:M9 and a fund’s environmental score from Bloomberg. In column (2), we replace this continuous score with a dummy (HighScore) equal to one when the environmental score exceeds the 67th percentile of the in-sample distribution. In column (3), we horserace this double interaction with our benchmark post-sustainable double interaction and in column (4), we include a triple interaction between the post-IRA dummy, a dummy for the EPFR-based sustainability label, and the continuous environmental score. All regressions control for fund performance and AUM each lagged by one period, as well as domicile-time, fund-country, and manager-country-time fixed effects. The regressions also incorporate all lower-order interactions, with coefficients not shown for brevity. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

In Table 5, we show that the previous results are robust to using the fund-level environmental score from Bloomberg as treatment variable instead of the EPFR-based sustainability indicator. Both variables correlate positively, but weakly. For instance, the average environmental score in the sub-sample of funds labeled as sustainable by EPFR equals 83%, compared to 78% in sub-sample of funds labeled as conventional (not sustainable). That is, the two treatment variables measure similar, but not identical sustainability concepts. In column (1), we replace the sustainability dummy with the continuous version of the score. The interaction with the post-IRA dummy does not enter statistically significantly. How-

ever, investors are likely to perceive only highly-scoring funds as sustainable. Thus, we next define a dummy equal to one when the score exceeds the 67th percentile of the in-sample distribution. As per column (2), using this dummy turns the interaction positive and statistically significant at the 5% level. This result is unchanged when we include the interaction of the IRA-dummy and EPFR-based sustainability indicator in column (3). Thus, after the IRA, investors pour more money into funds regarded as sustainable regardless of the sustainability concept, with funds identified as sustainable either by related key words in a fund’s prospectus, as measured by EPFR, or by a fund’s environmental performance index. Results in column (4) suggest that post-IRA funds labeled as sustainable by EPFR experienced higher inflows if also performing highly on the environmental score, as evidenced by a statistically significant triple interaction between the post-IRA dummy, the EPFR-based sustainability indicator, and the environmental score.<sup>11</sup> The double interaction between the post-IRA dummy and the environmental score by itself is not statistically significant. Overall, the results using the environmental score highlight that inflows into sustainable funds triggered by the IRA announcement are linked to funds’ environmental performance, and not to broader sustainability concepts like social and governance dimensions of common ESG labels, which are partly covered by EPFR-selected keywords and thus also determine the EPFR-based sustainability indicator.

### 3.3 Robustness

As we show in the Online Appendix, Section B, our main results are largely unchanged when we control for various dimensions of fund heterogeneity, which is key as funds’ sustainability status is not allocated randomly but correlates with other fund-level characteristics. In Section C of the Online Appendix, We gauge that our main results survive an extensive set of additional robustness checks. In particular, they are robust to (i) adjusting the window considered around the IRA, for instance by dropping the announcement month from the analysis; (ii) scaling the fund-country-level flows by fund-country-specific AUM or by nominal GDP; (iii) dropping small funds with less than \$10 million AUM from the analysis; and (iv) estimating a difference-in-differences version that collapses the data into a single pre- and post-IRA period with the dependent variable computed as the difference between both periods. In unreported specifications, we drop specific domiciles (e.g., Luxembourg as an international financial center) and/or recipient countries (e.g., the US) from the sample, and our results remain significant. This provides evidence that the IRA’s effect on fund flows is not limited to specific domiciles and recipient countries. We corroborate the IRA’s global

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<sup>11</sup>We subtract the mean of environmental scores before including it in the interactions in order to make the attendant results more comparable to the benchmark results.

impact in Section 4.

In Online Appendix D, we show that other major political agreements tackling climate change did not yield an investor pivot towards sustainable funds. The same appendix also shows that our results disappear during placebo events such as around the announcement of the Infrastructure Investment and Jobs Act on June 4, 2021. In contrast to the IRA, this act did not put special emphasis on tackling climate change. These results speak to the validity of the parallel trend assumption underlying our difference-in-differences analysis.

To corroborate this evidence on parallel trends, Figure 3 shows the dynamic coefficient plot of a version of the regression in column (5) of Table 4, where the main coefficient of interest now is the interaction between the sustainable fund indicator and month dummies. Before the IRA announcement, sustainable and conventional funds experienced statistically indistinguishable inflows, suggesting parallel trends. The inflow differential between both fund types becomes statistically significant upon IRA announcement only. The effect lasts for 3 months, in line with a one-off reallocation of investors' funds into a new post-IRA equilibrium.

## 4 Dissecting the Mechanisms

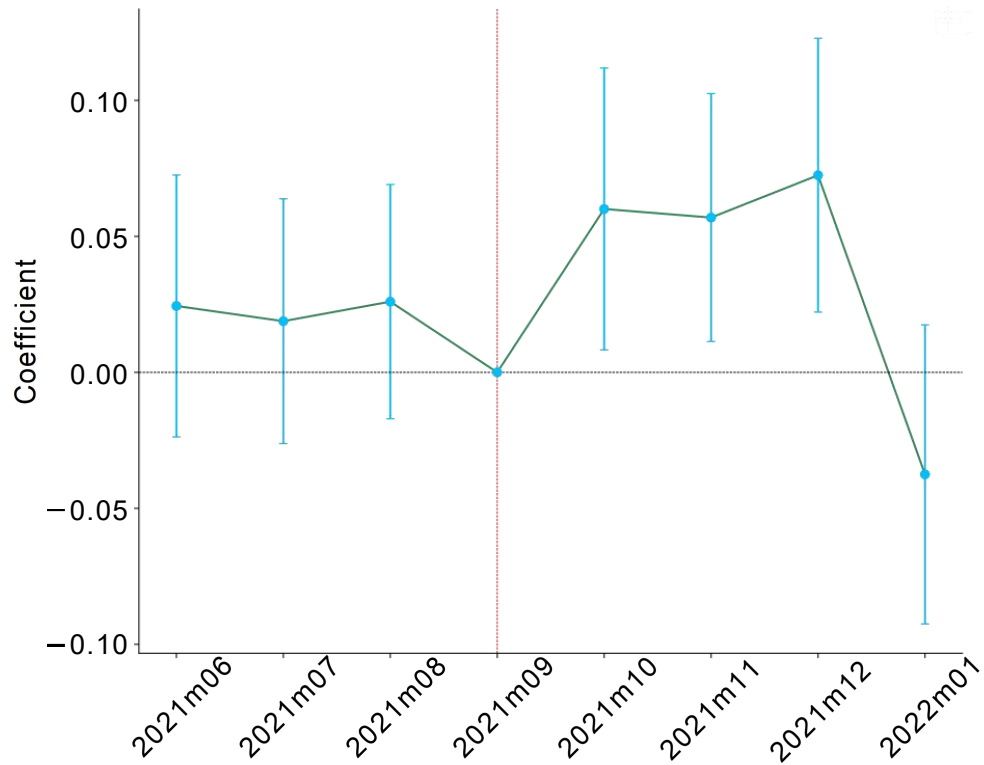
In this section, we dissect the mechanisms explaining our benchmark results. We first show that the IRA announcement sent a strong signal inducing investors worldwide to pivot towards sustainable funds. Neither IRA-induced higher economic growth in the US nor global shifts in ESG preferences account for the IRA's signaling effect on investors worldwide.

### 4.1 IRA Signaling Channel

Our benchmark results establish that global investors pivot towards sustainable funds after the IRA. This sub-section shows that the IRA affects the investment decisions of investors through a signaling channel.

As we argue above, the IRA announcement signaled an immediate increase in the transition risk of conventional assets, lowering expectations of future cash flows. Investors worldwide take note of this shift in transition risk, as evidenced by a significant increase not only in US but also in non-US climate attention indexes immediately after the IRA (Arteaga-Garavito et al. 2023). As highlighted in Pástor et al. (2021) and Ardia et al. (2023), conventional assets' cash flows subsequently decline in expectation of tighter climate policies that may lead these assets to strand or to be contested in climate litigation. Moreover, consumer

**Figure 3: The Dynamic Effects of the IRA on Fund Flows**



Note: This figure is based on our monthly fund-level sample from 2021:M6-2022:M1. It plots the coefficients from a regression of fund-country-level inflows on the interaction between time dummies and the sustainable fund indicator, after controlling for manager-country-time, domicile-time, and fund-country fixed effects, as well as fund performance and AUM each lagged by one period.

preferences likely shift towards sustainable products, further increasing sustainable funds' expected future cash flows.

To identify this signaling channel, we pursue the following strategy. In a first step, we show that after the IRA announcement, the relative valuation (realized return) of sustainable funds increased, consistent with investors expecting higher future cash flows for sustainable than for conventional funds. More importantly, in a second step, we identify the signaling channel by focusing on non-US domiciled "funds relying on a domestic investor base" ("domestic" funds in short), and test whether—upon IRA announcement—the relative returns of such non-US domiciled domestic sustainable funds are increasing in the climate attention of the domestic investor base, i.e., climate attention specific to investors resident in the fund domicile. Finally, we test whether non-US domiciled domestic sustainable funds experience higher inflows as the fund-domicile-specific climate attention increases.

We select non-US domiciled domestic funds as those with fund names spelled in the foreign language of the fund domicile. The rationale is that investors foreign to a fund domicile are unlikely to invest in funds in an unfamiliar language. For instance, a French-spelled fund domiciled in France is likely not marketed to US or Japanese investors, and any inflows are most likely stemming from French residents. We select funds domiciled in eleven countries excluding the US due to the focus on non-US domiciles, and excluding fund domiciles with a small domestic investor base like Luxembourg.<sup>12</sup> Importantly, we exclude all English-speaking domiciles, as English as a global language does not allow for establishing a direct link between fund names and the domestic investor base. The link may also be tenuous for Spanish as another globally dominant language, and results are robust to excluding Spanish-spelled domiciles (not reported). This language-based approach is necessary to associate ultimate investors with funds as EPFR data only reveal funds' legal domiciles, not ultimate beneficiaries and thus investors' country of origin.<sup>13</sup>

To provide evidence for the increase in relative returns of sustainable funds upon IRA announcement, we run a fund-level regression akin to Equation 1 with monthly fund returns as the dependent variable.<sup>14</sup> The result of column (1) in Table 6 shows that the return of sustainable funds relative to conventional funds immediately increases upon IRA announce-

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<sup>12</sup>These countries are People's Republic of China, Colombia, France, Germany, Italy, Japan, Mexico, Norway, Republic of Korea, Spain, and Sweden.

<sup>13</sup>We note that our approach to match funds with their domestic investor base is not watertight, as, for instance, a German-speaking US resident might invest into a Germany-domiciled fund named in German. This possibility, however, is limited by the small number of US residents speaking German. The leakage would attenuate the impact of climate attention in Germany on flows into the Germany-domiciled funds, and thus introduce a downward bias, making our results more conservative.

<sup>14</sup>The outcome variable (fund returns) is trimmed at the 1% and 99% levels to reduce the impact of outliers.

ment. While this specification includes the entire sample of funds, in column (2), we drop funds domiciled in the US and obtain a similar result. This implies that investors, also outside of the US, took note of the increase in transition risk for conventional assets and the associated shift in expected future cash flows away from such assets. The estimates in columns (1)-(2) are statistically significant at the 1% level and economically meaningful: sustainable funds have a relative return advantage of 0.28-0.52 percentage points each month after the IRA announcement. We show in Online Appendix E that this relative return increase is not endogenously driven by higher inflows into sustainable funds.

**Table 6: IRA Effect on Fund Returns**

	All Funds	All Funds (ex-US)	All Funds (ex-US)	Funds with Domestic Investor Base
	2021:M6-2021:M12	2021:M6-2021:M12	2015:M1-2023:M6	2015:M1-2023:M6
VARIABLES	(1)	(2)	(3)	(4)
	Performance <sub><i>i,j,t</i></sub>	Performance <sub><i>i,j,t</i></sub>	Performance <sub><i>i,j,t</i></sub>	Performance <sub><i>i,j,t</i></sub>
$Post_t \times Sustainable_{i,j}$	0.275*** (0.060)	0.517*** (0.072)		
$Sustainable_{i,j,t} \times ClimateAttention_{j,t}$			1.415** (0.609)	2.469* (1.285)
Time FE	Yes	Yes	Yes	Yes
Fund FE	Yes	Yes	Yes	Yes
Observations	117,166	70,758	493,794	79,351
R-squared	0.421	0.362	0.327	0.396

Note: This table is based on our monthly fund-level data. Columns (1)-(2) use a sample from 2021:M6-2021:M12, and columns (3)-(4) a sample from 2015:M1-2023:M6. The dependent variable is fund-level monthly return. The key regressor is the interaction between the post-IRA dummy and a fund's sustainability indicator (columns 1 and 2), as well as the interaction between the domicile-level climate attention index of [Arteaga-Garavito et al. \(2023\)](#) and a sustainable fund indicator (columns 3 and 4). Column (4) focuses on domestic funds as defined in the main text. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions also include time and fund-fixed effects. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

With the link between the IRA and fund returns established, we move on to the role of climate attention in the signaling channel. We know from stylized facts of Figure 1 that climate attention in the US as well as non-US domiciles increased upon the IRA announcement. Therefore, we examine whether the relative return of sustainable funds rises as the domicile-specific climate attention increases, with the sample period extended to 2015:M1-2023:M6. Column (3) shows that the coefficient for the interaction between the sustainability label and climate attention enters positively and significantly for all funds (ex-US). One issue in this specification is that it includes funds with mostly foreign investor bases influenced by climate attention not specific to the fund domicile (e.g., funds in Luxembourg that usually have a global investor base). Thus, there is no direct link between the climate attention in the fund domicile and the funds' investor base. We establish this direct link in column (4) by

focusing on domestic funds as defined above, noticing the interaction coefficient to increase in size with statistical significance unharmed. Thus, the increased climate attention upon IRA announcement is positively associated with higher realized returns of sustainable funds relative to conventional ones. The above provides evidence for a relative realized return advantage of sustainable funds through the signaling effect of the IRA announcement.

After demonstrating the IRA signaling channel for sustainable fund returns, we next focus on inflows as outcome variable, and investigate whether sustainable funds experienced higher inflows as the fund domicile-specific climate attention increases upon IRA announcement.

We start with our benchmark sample at the fund-country level that contains the few months around the IRA announcement and investigate whether the inflows into sustainable relative to conventional funds are higher in fund domiciles where the IRA implied a larger increase in climate attention. This latter is computed as the change in the domicile-specific climate attention index between the 3 post-IRA months and the 3 pre-IRA months. Column (1) of Table 7 shows that the inflows into sustainable funds are indeed larger for funds domiciled in countries where climate attention increased more with the IRA. This result is largely unaffected in column (2) which drops all funds domiciled in the US. As column (3) demonstrates, the coefficient estimate increases further in the sub-sample of domestic funds, using the same definition as before. This provides strong evidence that the IRA's effect on sustainable fund flows works via heightened climate awareness in line with a signaling channel.

To strengthen this evidence, we broaden the sample period to 2015:M1-2023:M6 and gauge how a general (non-IRA-specific) increase in the domicile-specific climate attention index raises the inflows into domestic sustainable funds, relative to conventional ones. These regressions are estimated at the fund level. Column (4) shows that an increase in the climate attention index is associated with higher inflows into sustainable funds. The corresponding interaction coefficient is positive and highly statistically significant. As column (5) shows, the tight link between climate attention and sustainable fund flows is economically larger after the IRA, as evidenced by a positive coefficient on the triple interaction between the climate attention index, the sustainable fund indicator, and a post-IRA dummy. This coefficient, however, has a statistical significance just below conventional levels.

Overall, the results of this sub-section are consistent with the IRA affecting investment decisions of investors through a signaling channel. The IRA signaled heightened transition risk of conventional assets, reducing their expected future cash flows relative to sustainable ones. As we show in this section, investors were aware of this relative shift in expected future cash flows—as evidenced by an immediate increase in the relative valuations (realized returns) of sustainable funds—and thus reallocated investments from conventional to

**Table 7: IRA Effects Via Changes in Climate Attention**

	All Funds	All Funds (ex-US)	Funds with Domestic Investor Base	Funds with Domestic Investor Base	Funds with Domestic Investor Base
	2021:M6-2021:M12	2021:M6-2021:M12	2021:M6-2021:M12	2015:M1-2023:M6	2015:M1-2023:M6
VARIABLES	(1) Flows <sub><i>i,c,j,t</i></sub>	(2) Flows <sub><i>i,c,j,t</i></sub>	(3) Flows <sub><i>i,c,j,t</i></sub>	(4) Flows <sub><i>i,j,t</i></sub>	(5) Flows <sub><i>i,j,t</i></sub>
$Sustainable_{i,j} \times \Delta ClimateAttention_j$	9.352** (4.191)	8.500** (4.073)	45.953* (27.288)		
$Sustainable_{i,j,t} \times ClimateAttention_{j,t}$				5.243*** (1.884)	5.530** (2.335)
$Post_t \times Sustainable_{i,j,t} \times ClimateAttention_{j,t}$					3.264 (2.128)
Domicile×Time FE	Yes	Yes	Yes	No	No
Manager×Country×Time FE	Yes	Yes	Yes	No	No
Time FE	No	No	No	Yes	Yes
Fund FE	No	No	No	Yes	Yes
Observations	253,493	107,595	18,041	81,579	81,579
R-squared	0.142	0.157	0.213	0.128	0.129

Note: This table is based on our monthly EPFR data, with columns (1)-(3) using the fund-country-level data from 2021:M6-2021:M12 and columns (4)-(5) the fund-level data from 2015:M1-2023:M6. For the former, the dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period, and the key regressor is the interaction between the domicile-specific change in the climate attention index of [Arteaga-Garavito et al. \(2023\)](#) around the IRA and a dummy indicating a fund’s sustainability. For the latter, the dependent variable is fund-level inflows scaled by lagged AUM, and the key regressor is the interaction between the climate attention index in levels and the sustainable fund indicator (column 4) or the triple interaction between the climate attention index in levels, the sustainable fund indicator, and a dummy equal to one after the IRA announcement in 2021:M9 (column 5). Columns (3)-(5) further focus on domestic funds only as defined in the main text. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions also include manager-country-time and domicile-time fixed effects (columns 1, 2 and 3) or fund and time fixed effects (columns 4 and 5). Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

sustainable funds.

## 4.2 Alternative Mechanisms

In this sub-section, we eliminate two sets of potential confounders. First, we rule out that IRA-induced real effects in the US drive our results by attracting flows into US-domiciled funds which—given their more domestically-oriented portfolios—are more likely to benefit from IRA-related subsidies to investee firms. Second, we show that a broader and global trend of rising ESG preferences throughout 2021 does not explain our results.

### 4.2.1 Real Effects in the US

We distilled the IRA signaling channel as the key driver of our benchmark results. However, higher post-IRA US growth prospects could also affect investors’ reallocations across funds, in particular because sustainable funds have a higher US portfolio share than conventional funds (28.1% vs. 24.6%) and the IRA-linked subsidies could have made the US a more attractive investment destination. If investors were to increase flows into funds with greater US exposure, sustainable funds might benefit indirectly and independently of the signaling

channel proposed above. To rule this out, column (1) of Table 8 controls for the interaction between the post-IRA dummy and a fund’s pre-IRA US portfolio share. Our benchmark coefficient of interest hardly changes in magnitude and is still statistically significant at the 5% level. We note that the interaction between the post-IRA dummy and a fund’s US portfolio share also enters positively and statistically significantly. Taken together, the results suggest that the IRA may have attracted flows into more US-exposed funds, but the US becoming a more attractive investment destination does not invalidate the shift into sustainable funds due to the IRA’s global signaling effect.

Next, we examine whether the reallocation towards sustainable funds not only coexists with US-exposed funds becoming more attractive after the IRA, but also whether a fund’s US exposure amplifies the documented shift into sustainable funds. To this end, we saturate Equation 2 with the triple interaction between the post-IRA dummy, the fund-level sustainability indicator, and a fund’s US portfolio share, with Figure 4 displaying the margin plots. Figure 4a) employs the entire fund sample and shows that the shift towards sustainable funds is increasing in the US share. In other words, the first-order effect of the IRA on flows into sustainable funds applies to funds with greater US exposure, although the coefficients for funds with US shares of 80% or higher are estimated imprecisely. The results become statistically more significant for funds domiciled outside of the US (Figure 4b). For US-domiciled funds, we do not detect any pivot towards sustainable funds (Figure 4c), i.e., the double interaction between the post-IRA dummy and a fund’s sustainability label is statistically insignificant irrespective of the US exposure.

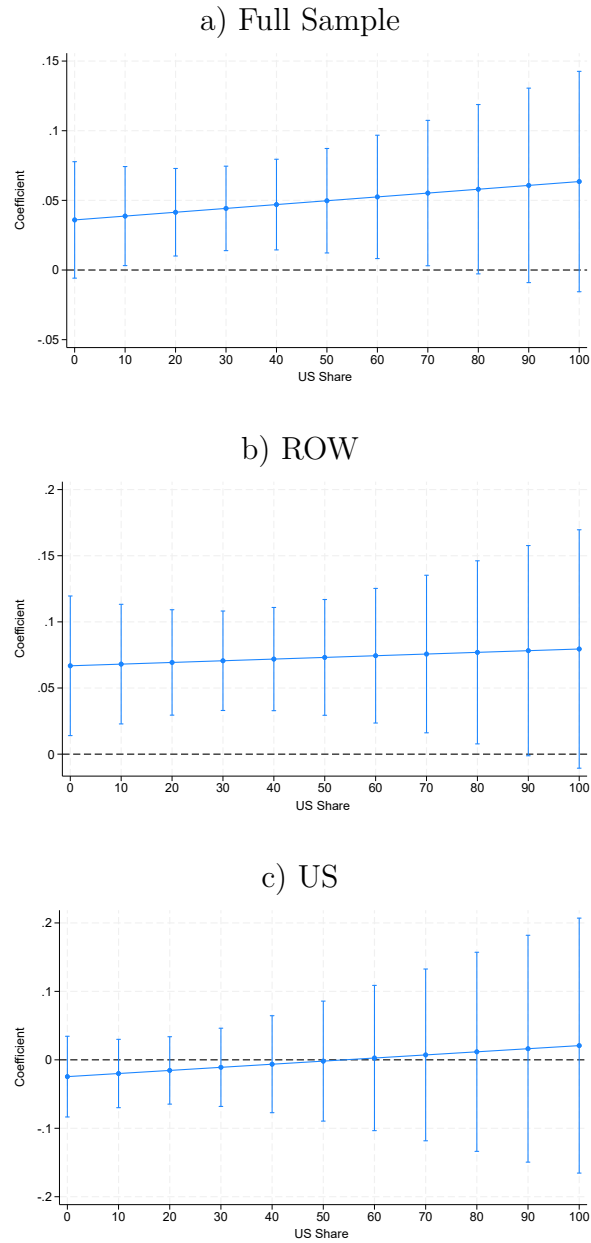
Importantly, Figure 4 shows that sustainable non-US domiciled funds see higher inflows after the IRA even at zero exposure to the US, emphasizing the IRA’s global reach. We corroborate this result in column (2) of Table 8. Here, we estimate our benchmark specification on a sub-sample containing only funds domiciled in ROW and their flows into ROW recipient countries. The double interaction between the post-IRA dummy and a fund’s sustainability label remains statistically significant at the 1% level. Its magnitude exceeds our benchmark coefficient of 0.045. Column (3) additionally drops funds for which the recipient country of investments coincides with the fund domicile, or lies within the fund’s geographic mandate.<sup>15</sup> This allows us to focus on cross-border flows. The coefficient of interest remains positive and significant at the 1% level.

Therefore, the key take-away of this sub-section is (i) that the post-IRA shift towards sustainable funds is amplified—but not entirely driven by—funds’ US exposure, and (ii) that the IRA’s announcement drives investor flows worldwide.

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<sup>15</sup>For instance, we define a Luxembourg-based fund investing in "Europe" as domestic, but a Luxembourg-based fund investing in "Asia ex-Japan" as cross-border.

**Figure 4: The IRA and Fund Flows: Marginal Effects of Post-Sustainable Double Interaction by Funds' US Portfolio Share**



Note: The chart plots marginal effects of the post-sustainable double interaction as a function of funds' US portfolio shares. Panel a) includes all funds; Panels b) and c) include only those domiciled outside the US (ROW) and in the US, respectively. Sources: EPFR, own calculations.

Finally, it may seem puzzling that the IRA did not attract flows into US-domiciled sustainable funds. One potential reason is that the domestic effect in the US is likely dominated by *direct* sustainable investments of US residents, who benefit from IRA-related subsidies when they, for instance, equip their roofs with solar panels. The study of such direct investments in sustainable assets in the US—i.e., not via investment funds—lies beyond the scope of this paper. One sub-set of funds, however, that may benefit from such direct sustainable investments are funds focusing on the energy sector. To study whether the IRA indeed induced a change in inflows into funds specialized in the energy sector, we define a fund as an ‘energy fund’ based on relevant key words in the fund name,<sup>16</sup> and interact the post-IRA dummy in an empirical setting equal to Equation 2 with this energy fund dummy.<sup>17</sup>

Using the entire fund sample, column (9) of Table 8 shows that investors reallocate flows towards both sustainable and energy funds. In columns (10)-(11), we then split the sample into funds domiciled in the US and ROW, respectively. For ROW, we continue to find that investors pivot towards both fund types, but the coefficient estimate is statistically more significant for the sustainability interaction. The sustainability interaction coefficient is also larger in magnitude when we compare the coefficients to the variables’ respective means.<sup>18</sup> For US funds, while the sustainability interaction remains statistically insignificant, as before, the energy fund interaction turns out as positive and statistically significant, indicating that US investors indeed reallocate towards funds specialized in an industry significantly benefiting from direct IRA subsidies. We finally note that all of these results are robust to dropping funds that are both sustainable and energy-oriented, so as to have a clean separation of concepts (unreported).

#### 4.2.2 ESG Preference Shifts and Industry Heterogeneity

Figure 1 suggests that investments into sustainable funds have been on a steep upward-trend at least since the year 2020, reflecting the broader rise in sustainable investing. Thus, we acknowledge that a general shift in preferences in favor of sustainable consumption and thus investment patterns may account for the accelerated flows into sustainable funds documented in this paper. Note, however, that even in the narrow window of just 5 trading days before and after the IRA, we detect a statistically significant shift towards sustainable funds, as

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<sup>16</sup>Keywords to identify ‘energy funds’ are: energy, energ, clean energy, power, transmission, generation, alternative, wind, solar, hydro, fossil, oil, gas, coal, nuclear.

<sup>17</sup>We note that the US portfolio share of such energy funds lies around 50% and is hence much higher than that of other funds in our sample.

<sup>18</sup>Specifically, the sustainability indicator has a mean that is 20 times larger than the one of the energy fund dummy. As the energy fund interaction has a coefficient size that is ‘only’ 9 times larger, the comparison implies that the pivot towards sustainable funds is economically more meaningful.

displayed in Table 3. Such a narrow window leaves little room for a general trend or in fact any other event to confound our IRA effects.

Still, we go beyond the reassurance taken from a narrow event window, and provide further evidence for our results to be driven uniquely by the IRA. We do so by conditioning our benchmark results on a fund's exposure to the utility and/or manufacturing industries as these benefited most from the IRA (McKinsey 2024). We hence expect sustainable funds with a larger pre-IRA share of AUM invested in these industries to experience even higher inflows after the IRA. Evidence in support of this conjecture would conclusively eliminate alternative explanations for increased investments into sustainable funds after the IRA.

In columns (4)-(5) of Table 8, we restrict the analysis to funds with a below-median share of AUM invested in the utility or manufacturing industry, respectively. In both cases, the double interaction coefficient of interest is statistically insignificant and small in size.

**Table 8: Underlying Mechanisms: Additional Evidence**

	Full Sample	ROW-ROW	Cross-Border	Small Ut. Share	Small Man. Share	Large Ut. Share	Large Man. Share	Large Ut./Man. Share	Full Sample	ROW	US
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>
$Post_t \times Sustainable_{i,j}$	0.0436** (0.0184)	0.0611*** (0.0218)	0.0531*** (0.0201)	0.0065 (0.0266)	0.0247 (0.0295)	0.0695* (0.0364)	0.0736** (0.0290)	0.1257*** (0.0452)	0.0378** (0.0188)	0.0726*** (0.0230)	-0.0430 (0.0383)
$Post_t \times USShare_{i,j}$	0.0003** (0.0002)										
$Post_t \times EnergyFund_{i,j}$									0.5106*** (0.1941)	0.6612*** (0.2533)	0.4306* (0.2414)
Domicile $\times$ Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fund $\times$ Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Manager $\times$ Country $\times$ Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	453,963	286,187	254,812	83,729	81,434	82,674	84,105	40,169	454,031	304,603	143,408
R-squared	0.452	0.440	0.396	0.472	0.474	0.435	0.433	0.445	0.452	0.445	0.479

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressor is the interaction between a post-IRA dummy equal to one after 2021:M9 and a dummy indicating a sustainable fund. In columns (9)-(11), we add the interaction between the post-IRA dummy and a dummy indicating energy funds. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions include manager-country-time, domicile-time, and fund-country fixed effects. In column (1), we control for the interaction between the post-IRA dummy and a fund's US exposure fixed in the pre-IRA month. Column (2) studies flows of non-US-domiciled funds to ROW. Column (3) is based on the sub-sample of column (2) for cross-border funds only. Columns (4)-(7) restrict the sample to funds with a below or above-median, respectively, share of AUM invested in the utility or manufacturing sector. Column (8) restricts the sample to funds with an above median share of AUM invested in the manufacturing *and* utility sector. Columns (10)-(11) limit the sample to funds domiciled in ROW and the US, respectively. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

In columns (6)-(7), we then focus on funds with an above-median utility or manufacturing share. Here, we obtain a positive and statistically significant coefficient in both specifications. This coefficient is larger than our benchmark effect identified in Section 3.2. In column (8), we restrict the sample to funds with *both* an above-median share invested in utilities and an above-median share invested in the manufacturing industry prior to the IRA. The coefficient is not only highly statistically significant, but also about three times as large as our benchmark effects, implying that these are unique to the IRA.

The results lead to an additional concern, namely that our results are driven merely by different post-IRA industry growth prospects instead of the IRA signaling channel highlighted before. In Online Appendix F, we rule out this concern by exploiting within-industry variation in our data.

## 5 Do More Effective Climate Policies Amplify Spillovers from the IRA?

Previous results show that greater flows into sustainable funds are *not* confined to funds domiciled or investing only in the US, but instead spill over to other countries. In this section, we examine how the spillovers depend on recipient country characteristics, and particularly investigate the role of climate policies. We expect countries with more effective climate policies to attract more sustainable fund flows, amplifying the IRA-induced spillovers.

### 5.1 Econometric Approach

To identify the country characteristics relevant for countries to attract global climate finance, we estimate a regression of the following form:

$$\begin{aligned} Flows_{i,c,j,t} = & \alpha_{ijc} + \alpha_{mct} + \alpha_{jt} + \gamma \cdot (\text{Post}_t \times \text{Sustainable}_{i,j,pre} \times \text{Country}_{c,pre}) \\ & + \theta \cdot (\text{Post}_t \times \text{Sustainable}_{i,j,pre}) + \sigma \cdot (\text{Sustainable}_{i,j,pre} \times \text{Country}_{c,pre}) + \epsilon_{i,c,j,t} \end{aligned} \quad (3)$$

where the main variable of interest now is the interaction between the Post-dummy, the sustainable fund indicator, and a measure of the effectiveness of a country’s climate policies, fixed shortly before the IRA announcement in 2021:M8. To measure this effectiveness, we use the Bloomberg Government Climate Scores, henceforth climate policy scores in short.

In addition to a country’s climate policy score, we also include in the matrix  $Country_{c,pre}$  a country’s trade linkage with the US and its capital account openness. The former accounts for the possibility that funds may invest more in countries with stronger trade ties with the US,

and thus more likely to benefit from increased US import demand for products and resources relevant for IRA-related investments in the US. Capital account openness is important to control for, as more open economies are likely to experience stronger IRA-induced spillovers.

Finally, we also provide the outcomes of several robustness checks, in which we also add to Equation 3 the corresponding triple interactions of other relevant macroeconomic controls. These include GDP per capita, the rule of law, bilateral trade between recipient countries and fund domiciles, a country’s interest rate differential vis-a-vis the US, Moody’s sovereign credit ratings, and bilateral foreign direct investment (FDI). We report the corresponding results in Online Appendix G.

## 5.2 Results

Table 9 contains the results corresponding to Equation 3. In column (1), we only include a country’s climate score. As expected, sustainable fund flows are larger for countries with more effective climate scores. The triple interaction is positive and statistically significant at the 1% level. In columns (2) and (3), we only add the triple interactions that include a country’s trade linkage with the US and capital account openness, respectively. While trade with the US does not play any role, countries with a more open capital account also attract more sustainable fund flows after the IRA announcement. When combining all 3 interactions in column (4), however, only the climate score triple interaction retains its statistical significance. This is evidence that only a country’s climate score robustly affects its sensitivity to sustainable fund flows upon IRA announcement.

In Figure A2 of the Online Appendix, we plot the marginal effect of our benchmark coefficient of interest on the double interaction between the post-IRA dummy and the sustainability indicator as a function of country-level climate scores. The marginal effect is negative (and estimated less precisely) for countries with lower climate scores, and turns positive and statistically significant only for countries with a climate score equal to or above 4.5. This applies to 38 countries in our regression sample. This subset of countries experiences a post-IRA inflow from sustainable funds equivalent to 1.3% of GDP.

As we show in the Online Appendix G, previous results are robust to controlling for the triple interactions between the post-IRA dummy, funds’ sustainability label, and various other macroeconomic characteristics. Taken together, the results thus suggest that more effective climate policies are decisive for recipient countries to benefit more from the IRA-induced spillovers. Being financially more integrated or having tighter trade linkages with the US does not play an important role. The same is true for other controls added in Table A11 of the Online Appendix, with the exception of the rule of law, which also helps to

**Table 9: Country Characteristics and Fund Flows: Benchmark Results**

VARIABLES	(1) Flows <sub><i>i,c,j,t</i></sub>	(2) Flows <sub><i>i,c,j,t</i></sub>	(3) Flows <sub><i>i,c,j,t</i></sub>	(4) Flows <sub><i>i,c,j,t</i></sub>
$Post_t \times Sustainable_{i,j} \times ClimatePolicyScore_c$	0.041*** (0.012)			0.039*** (0.013)
$Post_t \times Sustainable_{i,j} \times Trade - US_c$		-0.006 (0.026)		0.004 (0.026)
$Post_t \times Sustainable_{i,j} \times CapitalAccountOpenness_c$			0.132*** (0.050)	0.035 (0.046)
Domicile×Time FE	Yes	Yes	Yes	Yes
Fund×Country FE	Yes	Yes	Yes	Yes
Manager×Country×Time FE	Yes	Yes	Yes	Yes
Observations	391,875	394,759	444,079	328,430
R-squared	0.456	0.433	0.451	0.435

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressors are the triple interactions between a post-IRA dummy equal to one after 2021:M9, a dummy indicating a fund's sustainability, and the following country characteristics fixed in 2021:M8 (pre-IRA): Bloomberg Government Climate Score, a country's trade linkage with the US, and a country's Chinn-Ito index. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions also include domicile-time, fund-country, and manager-country-time fixed effects. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

increase a country’s sensitivity to IRA-induced sustainable fund flows.

### **5.3 Do Funds Actively Reallocate Investments Towards Countries With More Effective Climate Policies?**

We showed above that sustainable global investment funds received relatively more inflows upon IRA announcement, even more so when these funds invest larger portions of their AUM in countries with higher climate policy scores. The number of sustainable funds, however, is small, with only about 10% of all funds classified as sustainable. Thus, the additional climate finance through sustainable fund flows induced by the IRA is relatively limited as well. This is why we dedicate this sub-section to examining whether fund managers actively reallocate their investments towards countries with higher climate policy scores and whether this effect is limited to sustainable funds or also applies to conventional ones. If conventional funds were to reallocate investments in favor of countries with more effective climate policies upon IRA announcement, the IRA announcement may have unleashed significantly more climate finance.

We employ the monthly change in fund-level country portfolio shares as the dependent variable, regressed on the interaction between the post-IRA dummy and a country’s climate policy score. To determine any difference in the sensitivity of sustainable and conventional funds, we employ the right-hand side setup as in Equation 3. That is, we incorporate a triple interaction between the post-IRA dummy, the sustainable fund indicator, and country-specific climate policy scores.

As per columns (1) and (2) of Table 10, both sustainable and conventional funds reallocate their AUM towards countries with higher climate policy scores after the IRA announcement. The magnitude is slightly larger for sustainable funds. In economic terms, the estimates imply that funds increase the country shares for a country at the 75th percentile of the climate score distribution, relative to one at the 25th percentile, by 0.03 percentage points in each month after the IRA. Previously, we showed that countries with higher climate policy scores receive a boost in climate finance supply because investors increase their flows into sustainable relative to conventional funds. This sub-section gauges that such an increase also occurs because all funds—sustainable and conventional ones—reallocate their investments in favor of countries with higher climate policy scores. That is, both investors’ inflows and fund managers’ reallocations matter.

To determine whether sustainable and conventional funds adjust their country portfolio shares differently, we next turn to the triple interaction specification. Column (3) shows that the triple interaction is not statistically significant. In column (4), we include fund-time fixed

effects and drop all single-country funds, which by definition cannot change their country allocation share (it is always 100%). As before, the estimate is not statistically different from zero, meaning that the behavior of sustainable and conventional funds does not differ.

Finally, we test whether funds reduce their cash shares to invest in countries with higher climate policy scores. This possibility, however, is limited by the small average cash share of approximately 2% in our sample. This is confirmed by column (5). We replace the dependent variable with a fund's change in the cash share, and the corresponding coefficient remains statistically insignificant.<sup>19</sup>

**Table 10: Results on Funds' Country Allocations**

	Conventional	Sustainable	Full sample	Full sample	Full sample
VARIABLES	(1)	(2)	(3)	(4)	(5)
	$\Delta Share_{i,c,j,t}$	$\Delta Share_{i,c,j,t}$	$\Delta Share_{i,c,j,t}$	$\Delta Share_{i,c,j,t}$	$\Delta CashShare_{i,j,t}$
$Post_t \times Sustainable_{i,j}$			-0.016 (0.019)		-0.027 (0.064)
$Post_t \times Sustainable_{i,j} \times ClimatePolicyScore_c$			0.003 (0.004)	0.004 (0.005)	
$Post_t \times ClimatePolicyScore_c$	0.015*** (0.001)	0.020*** (0.004)			
Country×Time FE	No	No	Yes	Yes	Yes
Domicile×Time FE	Yes	Yes	Yes	Yes	Yes
Fund×Country FE	Yes	Yes	Yes	Yes	Yes
Fund×Time FE	No	No	No	Yes	No
Observations	382,668	43,939	426,630	330,449	14,193
R-squared	0.139	0.150	0.155	0.190	0.118

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The dependent variable in columns (1)-(4) is the fund-country level change in country portfolio shares. In column (5), we use the change in a fund's cash share as the dependent variable. The key regressor in columns (1)-(2) is the double interaction between the post-IRA dummy equal to one after 2021:M9 and a country's climate policy score. In columns (3)-(4), it is the triple interaction between a post-dummy, a dummy indicating a fund's sustainability, and the climate policy score. In column (5), it is the sustainable fund-post-IRA double interaction only. Columns (1)-(2) restrict the sample to sustainable or conventional funds, respectively. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions also include country-time (in columns 3-5), domicile-time, fund-time (only in column 4), and fund-country fixed effects. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

<sup>19</sup>This regression excludes the small number of observations with negative cash shares, i.e., cases where fund managers borrow in order to invest. Results are largely unchanged when we include these observations (not reported).

## 6 Conclusion

This paper studies international spillovers of the IRA announcement in September 2021 through investment fund flows based on granular data from EPFR Global. The IRA is the most forceful climate policy action in US history, combining tax credits, grants, and loans worth at least \$370 billion to accelerate the transition to net-zero in the US by stimulating private sector investments in clean energy. We document in a difference-in-differences setting that the IRA triggered significantly increased investor flows into sustainable investment funds worldwide. In turn, these funds increased their global cross-border portfolio investments.

Detailed evidence on the IRA’s signaling channel shows that the IRA implied an immediate increase in global investors’ climate attention and improved the realized returns of sustainable funds in expectation of higher future cash flows of sustainable relative to conventional assets. We eliminate confounders including an IRA-induced improvement in post-IRA US growth prospects and broader shifts in ESG preferences during the sample period.

Moreover, we show that countries with more effective climate policies are better positioned to harness the spillovers in terms of access to foreign climate finance. Such countries not only attract higher inflows from sustainable funds, but also from conventional funds as fund managers of both sustainable and conventional funds shift investments to countries with more effective climate policies. Thus, the combination of higher sustainable fund inflows and all funds’ portfolio shifts towards countries with more effective climate policies leads to a significant increase in the supply of climate finance globally.

These results are of first order importance for policymakers. First, recipient countries’ access to financing their green transition is subject to spillovers from foreign green industrial policies like the IRA. However, it is important for recipient countries to attract and retain climate finance from abroad by taking policy measures to tackle climate change effectively. That is, domestic policies can promote the transition to net-zero by attracting international climate finance. Second, the results have important implications for the regulation of investment funds in dominant fund domiciles like Ireland and Luxembourg. These jurisdictions provide a legal base for the majority of non-US domiciled investment funds, which in turn act as important conduits for the spillovers of green industrial policies benefiting developed and developing economies in need of foreign climate finance.

## References

- Alessi, Lucia, Stefano Battiston, and Virmantas Kvedaras, 2024, Over with carbon? Investors' reaction to the Paris Agreement and the US withdrawal, *Journal of Financial Stability* 71, 101232.
- Alessi, Lucia, Elisa Ossola, and Roberto Panzica, 2023, When do investors go green? Evidence from a time-varying asset-pricing model, *International Review of Financial Analysis* 90, 102898.
- Ardia, David, Keven Bluteau, Kris Boudt, and Koen Inghelbrecht, 2023, Climate change concerns and the performance of green vs. brown stocks, *Management Science* 69, 7607–7632.
- Arteaga-Garavito, Maria Jose, Ric Colacito, Mariano Max Massimiliano Croce, and Biao Yang, 2023, International climate news, Working Paper 4713016, SSRN.
- Aswani, Jitendra, Aneesh Raghunandan, and Shiva Rajgopal, 2024, Are carbon emissions associated with stock returns?, *Review of Finance* 28, 75–106.
- Bauer, Michael, Eric Offner, and Glenn D Rudebusch, 2023, The effect of US climate policy on financial markets: An event study of the Inflation Reduction Act, Working Paper 10739, CESifo.
- Bertrand, Marianne, Esther Duflo, and Sendhil Mullainathan, 2004, How much should we trust differences-in-differences estimates?, *The Quarterly journal of economics* 119, 249–275.
- Bettendorf, Timo, and Aikaterini Karadimitropoulou, 2023, Time-variation in the effects of push and pull factors on portfolio flows: Evidence from a Bayesian dynamic factor model, *Journal of Economic Dynamics and Control* 156, 104756.
- Bialkowski, J, and LT Starks, 2015, Sri funds: Investor demand, exogenous shocks and esg profiles, *University of Texas* .
- Bistline, John ET, Neil R Mehrotra, and Catherine Wolfram, 2023, Economic implications of the climate provisions of the Inflation Reduction Act, *Brookings Papers on Economic Activity* 2023, 77–182.
- Bolton, Patrick, and Marcin Kacperczyk, 2021, Do investors care about carbon risk?, *Journal of financial economics* 142, 517–549.

- Bottero, Margherita, Simone Lenzu, and Filippo Mezzanotti, 2020, Sovereign debt exposure and the bank lending channel: Impact on credit supply and the real economy, *Journal of International Economics* 126, 103328.
- Buchner, Barbara, Baysa Naran, Rajashree Padmanabhi, Sean Stout, Costanza Strinati, Dharshan Wignarajah, Gaoyi Miao, Jake Connolly, and Nikita Marini, 2023, Global landscape of climate finance 2023, Technical report, Climate Policy Initiative.
- Cao, Jie, Yi Li, Xintong Zhan, Weiming Elaine Zhang, and Linyu Lucy Zhou, 2023, Carbon emissions, mutual fund trading, and the liquidity of corporate bonds, *Mutual Fund Trading, and the Liquidity of Corporate Bonds* .
- Carney, Mark, 2019, Pull, push, pipes: Sustainable capital flows for a new world order, Speech, Bank of England.
- Ceccarelli, Marco, Stefano Ramelli, and Alexander F Wagner, 2024, Low carbon mutual funds, *Review of Finance* 28, 45–74.
- Chari, Anusha, Karlye Dilts-Stedman, and Kristin Forbes, 2022, Spillovers at the extremes: The macroprudential stance and vulnerability to the global financial cycle, *Journal of International Economics* 136, 103582.
- Chen, Louisa, and Koji Takahashi, 2024, The road to net zero: a fund flow investigation, Working Papers 1220, Bank for International Settlements.
- Chinn, Menzie D, and Hiro Ito, 2006, What matters for financial development? Capital controls, institutions, and interactions, *Journal of development economics* 81, 163–192.
- Ciminelli, Gabriele, John Rogers, and Wenbin Wu, 2022, The effects of US monetary policy on international mutual fund investment, *Journal of International Money and Finance* 127, 102676.
- Converse, Nathan, Eduardo Levy-Yeyati, and Tomas Williams, 2023, How etfs amplify the global financial cycle in emerging markets, *The Review of Financial Studies* 36, 3423–3462.
- Converse, Nathan, and Enrico Mallucci, 2023, Differential treatment in the bond market: Sovereign risk and mutual fund portfolios, *Journal of International Economics* 145, 103823.
- Cornelli, Giulio, Leonardo Gambacorta, Tommaso Oliviero, and Koji Takahashi, 2025, Mutual funds and climate news, Technical report, Bank for International Settlements.

- Dahlhaus, Tatjana, and Garima Vasishtha, 2014, The impact of US monetary policy normalization on capital flows to emerging-market economies, Working Paper 2014-53, Bank of Canada.
- Davis, J Scott, and Andrei Zlate, 2023, The global financial cycle and capital flows during the COVID-19 pandemic, *European Economic Review* 156, 104477.
- Diaz-Rainey, Ivan, Sebastian A Gehricke, Helen Roberts, and Renzhu Zhang, 2021, Trump vs. Paris: The impact of climate policy on US listed oil and gas firm returns and volatility, *International Review of Financial Analysis* 76, 101746.
- Faccini, Renato, Rastin Matin, and George Skiadopoulos, 2023, Dissecting climate risks: Are they reflected in stock prices?, *Journal of Banking & Finance* 155, 106948.
- Fahmy, Hany, 2022, The rise in investors' awareness of climate risks after the Paris Agreement and the clean energy-oil-technology prices nexus, *Energy Economics* 106, 105738.
- Forbes, Kristin, Marcel Fratzscher, Thomas Kostka, and Roland Straub, 2016, Bubble thy neighbour: Portfolio effects and externalities from capital controls, *Journal of International Economics* 99, 85–104.
- Fournier, Jean-Marc, Tannous Kass-Hanna, Liam Masterson, Anne-Charlotte Paret, and Sneha Thube, 2024, Cross-border impacts of climate policy packages in North America, Working Paper 2024/068, IMF.
- Gavriilidis, Konstantinos, 2021, Measuring climate policy uncertainty, Working Paper 3847388, SSRN.
- Hsu, Po-Hsuan, Kai Li, and Chi-Yang Tsou, 2023, The pollution premium, *The Journal of Finance* 78, 1343–1392.
- IEA, and IFC, 2023, Scaling up private finance for clean energy in emerging and developing economies, Technical report.
- Jain, Sanjay Kumar, 2023, Green bonds and the Inflation Reduction Act (IRA), IIMA Working Papers 2023-04-03, Indian Institute of Management Ahmedabad, Research and Publication Department.
- Jotikasthira, Chotibhak, Christian Lundblad, and Tarun Ramadorai, 2012, Asset fire sales and purchases and the international transmission of funding shocks, *The Journal of Finance* 67, 2015–2050.

- Koepke, Robin, and Simon Paetzold, 2024, Capital flow data—A guide for empirical analysis and real-time tracking, *International Journal of Finance & Economics* 29, 311–331.
- Krueger, Philipp, Zacharias Sautner, and Laura T Starks, 2020, The importance of climate risks for institutional investors, *The Review of Financial Studies* 33, 1067–1111.
- Kuang, Huan, and Bing Liang, 2022, Carbon risk exposure in the mutual fund industry, Working Paper 3750244, SSRN.
- Luo, Di, 2022, Esg, liquidity, and stock returns, *Journal of International Financial Markets, Institutions and Money* 78, 101526.
- McKinsey, 2024, The inflation reduction act: Here’s what’s in it, Accessed: July 24, 2025.
- Monasterolo, Irene, and Luca De Angelis, 2020, Blind to carbon risk? An analysis of stock market reaction to the Paris Agreement, *Ecological Economics* 170, 106571.
- Pástor, L’uboš, Robert F Stambaugh, and Lucian A Taylor, 2021, Sustainable investing in equilibrium, *Journal of financial economics* 142, 550–571.
- Pástor, L’uboš, Robert F Stambaugh, and Lucian A Taylor, 2022, Dissecting green returns, *Journal of financial economics* 146, 403–424.
- Reboredo, Juan C, and Luis A Otero, 2021, Are investors aware of climate-related transition risks? Evidence from mutual fund flows, *Ecological Economics* 189, 107148.
- Schmidt, Richard, and Pinar Yesin, 2022, The growing importance of investment funds in capital flows, Working Paper No. 13/22, Swiss National Bank.
- Seltzer, Lee H, Laura Starks, and Qifei Zhu, 2022, Climate regulatory risk and corporate bonds, Working Paper 29994, National Bureau of Economic Research.
- Soler-Domínguez, Amparo, Juan Carlos Matallín-Sáez, Diego Víctor de Mingo-López, and Emili Tortosa-Ausina, 2021, Looking for sustainable development: Socially responsible mutual funds and the low-carbon economy, *Business strategy and the environment* 30, 1751–1766.
- The White House, 2023, Building a clean energy economy: A guidebook to the Inflation Reduction Act’s investments in clean energy and climate action, Technical report.
- Voigts, Simon, and Anne-Charlotte Paret, 2024, Emissions reduction, fiscal costs, and macro effects: A model-based assessment of IRA climate measures and complementary policies, Working Paper 2024/024, IMF.

## Online Appendix

# A Data Appendix

**Table A1: Variable Definitions and Sources**

Variable	Definition	Unit	Source
$Flows_{i,c,j,t}$	Monthly flows into fund i-recipient country c pair, scaled by one-month lagged fund-level AUM	%	EPFR
$\Delta Share_{i,c,j,t}$	Monthly change in portfolio share of fund i allocated to recipient country c	%	EPFR
$Sustainable_{i,j}$	=1 when a fund is classified as sustainable	0/1	EPFR
$Env. Score_{i,j}$	Environmental score based on a fund's market value-weighted holdings	0-100	Bloomberg
$Energy Fund_{i,j}$	=1 when a fund is classified as an energy fund based on relevant key words in its name	0/1	EPFR, own calculations
$Return_{i,j,t}$	The one-month lagged performance of fund i	%	EPFR
$AUM_{i,j,t}$	The one-month lagged AUM of fund i	billion \$	EPFR
$US Share_{i,j}$	The portfolio share of fund i invested in the US	%	EPFR
$ETF_{i,j}$	=1 if a fund is an ETF	0/1	EPFR
$Equity Fund_{i,j}$	=1 if a fund is an equity fund	0/1	EPFR
$Single-Country Fund_{i,j}$	=1 if a fund's geographic investment scope is restricted to one country	%	EPFR
$Manufacturing Industry Share_{i,j}$	The share of a fund's AUM invested in the manufacturing industry	%	EPFR
$Finance Industry Share_{i,j}$	The share of a fund's AUM invested in the finance industry	%	EPFR
$Utility Industry Share_{i,j}$	The share of a fund's AUM invested in the utilities industry	%	EPFR
$Trade/Transport Share_{i,j}$	The share of a fund's AUM invested in the retail trade and transport industry	%	EPFR
$Information/Communication Share_{i,j}$	The share of a fund's AUM invested in the information/communication industry	%	EPFR
$Post_t$	=1 after 2021:M9	0/1	author calculated
$Climate Policy Score_c$	Bloomberg Government Climate Score	-	Bloomberg
$Trade-US_c$	A country's imports and exports vis-a-vis the US, scaled by the sum of a country's and US nominal GDP	%	IMF, author calculation
$Capital Account Openness_c$	A country's Chinn-Ito index	[0,1]	<a href="#">Chinn and Ito (2006)</a>
$GDP p.c._c$	A country's quarterly PPP-adjusted GDP per capita in nominal USD	\$	IMF
$Rule of Law_c$	A country's rule of law	-	World Bank
$Trade-fund domicile_c$	A country's sum of exports and imports vis-a-vis a fund's domicile, over both countries' GDP	%	IMF, author calculation
$Bilateral FDI_c$	A country's sum of inward and outward direct investment position vis-a-vis a fund's domicile, over both countries' nominal GDP	%	IMF, author calculation
$Interest Rate Differential_c$	A country's short-term interest rate differential vis-a-vis US	%	Haver, author calculation
$Rating_c$	A country's credit rating	1-21	Moody's

**Table A2: EPFR's Key Words for Sustainable Fund Classification**

Key Word	Frequency	Key Word	Frequency
esg	1320	csi	46
sustainable	1220	zero	44
climate	297	net	43
sri	254	candriam	43
responsible	252	environmental	43
green	178	change	42
impact	172	sdg	36
carbon	135	aware	36
isr	135	ethical	34
future	103	agif	33
transition	102	water	33
sustainability	82	ctb	32
pab	69	fossil	31
social	58	socially	26
clean	58	systematic	26
solutions	51	ecofi	23
nachhaltigkeit	51	neutral	20
emu	49	impax	19
hydrogen	18	action	18

Note: This table shows the keywords used by EPFR to determine whether a fund is sustainable. The numbers indicate the frequency of key words in the prospectus of all funds in the data set.

## B Controlling for Fund Heterogeneity

In an ideal empirical setting, the sustainability status of a fund would be allocated randomly. Such ideal conditions do not apply in our setting as the sustainability label may correlate with other fund characteristics. In this appendix, we present different specifications to control for such heterogeneity. The goal is to make the treatment group (sustainable funds) as similar as possible to the control group (conventional funds) for them to differ only in their sustainability status.

First, we sequentially control for the interactions between the post-IRA dummy and several observable fund characteristics, notably whether a fund is an ETF or actively managed, its asset class (equity vs. bond fund), single vs. multi-region funds, as well as fund-level one-month lagged performance, and AUM. Table A3 shows that none of the additional controls renders the double interaction term of interest statistically insignificant. In contrast, the post-sustainable interaction coefficient is robustly estimated and lies in the range of 0.032-0.044, compared to the benchmark estimate from Table 4 ranging from 0.033-0.045. Table A3 further shows that investors increase their flows into ETFs, equity and multi-region funds post-IRA. A fund's past performance or fund size do not play a significant role.

Next, we control for funds' industry exposures. As EPFR only provides the breakdown by industry for equity funds, the exercise focuses on this fund type. Specifically, in column (6) of Table A3, we add as controls the interactions between the post-IRA dummy and the share of a fund's AUM invested in the finance, manufacturing, utilities, communication/information, and trade/transport industries, respectively. Again, the benchmark estimates are robust, with our post-sustainable interaction of interest being statistically significant at the 10% level. That is, heterogeneity in industry exposure does not affect our benchmark results either.

Furthermore, we apply propensity score matching to narrow down the difference between sustainable and conventional funds to their sustainability labeling. To this end, we match both fund types on the ETF dummy, the equity fund dummy, and the funds' geographical focus. For this matched sample, we then estimate our benchmark Equation 2. Results in column (1) of Table A4 show that the double interaction of interest is still positive and statistically significant at the 5% level. It increases in magnitude relative to our benchmark regressions.

Finally, we match sustainable and conventional funds based on average monthly returns. The idea is that funds with a similar performance track record are closer substitutes, and hence likely to differ only in their sustainability label, diminishing the role of any unobservable confounders. For this, we compute the correlation between the monthly average aggregate performance of sustainable funds in our sample and each of the conventional funds. We then exclude conventional funds with a correlation of less than 60% (column 2), less than 70% (column 3) or less than 80% (column 4), respectively. Results in Table A4 show that our estimate of the interaction term remains positive and statistically significant. The coefficient magnitude remains comparable to that of all previous specifications.

Taken together, this appendix shows that the IRA leads to higher flows into sustainable funds relative to conventional ones after controlling for multiple dimensions of fund heterogeneity.

**Table A3: Controlling for Fund Heterogeneity**

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)
	Flows <sub>i,c,j,t</sub>	Flows <sub>i,c,j,t</sub>	Flows <sub>i,c,j,t</sub>	Flows <sub>i,c,j,t</sub>	Flows <sub>i,c,j,t</sub>	Flows <sub>i,c,j,t</sub>
<i>Post<sub>t</sub> × Sustainable<sub>i,j</sub></i>	0.044** (0.018)	0.032* (0.018)	0.041** (0.018)	0.041** (0.018)	0.044** (0.018)	0.036* (0.021)
<i>Post<sub>t</sub> × ETF<sub>i,j</sub></i>	0.039** (0.020)					
<i>Post<sub>t</sub> × EquityFund<sub>i,j</sub></i>		0.099*** (0.014)				
<i>Post<sub>t</sub> × SingleCountryFund<sub>i,j</sub></i>			-0.169*** (0.043)			
<i>Post<sub>t</sub> × LaggedPerformance<sub>i,j,t-1</sub></i>				0.002 (0.003)		
<i>Post<sub>t</sub> × LaggedAUM<sub>i,j,t-1</sub></i>					0.000 (0.000)	
<i>Post<sub>t</sub> × FinanceShare<sub>i,j</sub></i>						-0.000 (0.002)
<i>Post<sub>t</sub> × ManufacturingShare<sub>i,j</sub></i>						-0.002 (0.002)
<i>Post<sub>t</sub> × Communication/InformationShare<sub>i,j</sub></i>						-0.003 (0.003)
<i>Post<sub>t</sub> × UtilitiesShare<sub>i,j</sub></i>						-0.005 (0.003)
<i>Post<sub>t</sub> × Trade/TransportShare<sub>i,j</sub></i>						-0.002 (0.003)
Domicile × Time FE	Yes	Yes	Yes	Yes	Yes	Yes
Fund × Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Manager × Country × Time FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	454,031	454,031	454,031	454,031	454,031	175,083
R-squared	0.452	0.452	0.452	0.452	0.452	0.429

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressor is the interaction between a post-IRA dummy equal to one after 2021:M9 and a dummy indicating a fund's sustainability. In each of the columns, we control for one additional interaction between the post-dummy and the following fund characteristics: ETF vs. actively managed, bond vs. equity fund, single-country vs. multi-region fund, one-month lagged fund performance, one-month lagged AUM as a measure for fund size, and funds' industry shares. The regressions also include manager-country-time, domicile-time, and fund-country fixed effects. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

**Table A4: PSM and Funds with Strong Correlation**

	PSM	<i>Corr</i> $\geq$ 0.6	<i>Corr</i> $\geq$ 0.7	<i>Corr</i> $\geq$ 0.8
VARIABLES	(1)	(2)	(3)	(4)
	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>	Flows <sub><i>i,c,j,t</i></sub>
<i>Post</i> <sub><i>t</i></sub> $\times$ <i>Sustainable</i> <sub><i>i,j</i></sub>	0.052** (0.023)	0.040** (0.019)	0.039** (0.019)	0.038* (0.020)
Domicile $\times$ Time FE	Yes	Yes	Yes	Yes
Fund $\times$ Country FE	Yes	Yes	Yes	Yes
Manager $\times$ Country $\times$ Time FE	Yes	Yes	Yes	Yes
Observations	433,406	266,295	214,418	169,394
R-squared	0.704	0.483	0.490	0.500

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressor is the interaction between a post-IRA dummy equal to one after 2021:M9 and a dummy indicating a fund's sustainability. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions also include manager-country-time, domicile-time, and fund-country fixed effects. In column (1), we perform a propensity score matching between sustainable and conventional funds, using the ETF indicator, the equity fund dummy, and the geographical focus of a fund as matching variables. In columns (2)-(4), the regressions include all sustainable funds, as well as conventional funds with a correlation with the aggregate performance of all sustainable funds in our sample of at least 60%, 70%, or 80%, respectively. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

## C Additional Robustness Checks

In this section, we present the results of various additional robustness checks. We start in Table A5 with four regressions that adjust the sample period coverage. In column (1), we drop 2021:M6, so as to have a symmetric window around the announcement with 3 pre-IRA months and 3 post-IRA months. In column (2), we drop the announcement month from the sample, which we treated as pre-announcement in our benchmark analysis because the IRA was only announced at the very end of the month (September 27, 2021). In columns (3) and (4), we shorten the time window around the announcement to 1 and 2 months, respectively. Our coefficient of interest remains positive and statistically significant in all four regressions.

**Table A5: Robustness Checks (1)**

Months before/after IRA	3/3 (without 2021:M6)	3/3 (without 2021:M9)	1/1	2/2
VARIABLES	(1) Flows <sub><i>i,c,j,t</i></sub>	(2) Flows <sub><i>i,c,j,t</i></sub>	(3) Flows <sub><i>i,c,j,t</i></sub>	(4) Flows <sub><i>i,c,j,t</i></sub>
$Post_t \times Sustainable_{i,j}$	0.047** (0.019)	0.040** (0.020)	0.049* (0.029)	0.042** (0.021)
Domicile×Time FE	Yes	Yes	Yes	Yes
Fund×Country FE	Yes	Yes	Yes	Yes
Manager×Country×Time FE	Yes	Yes	Yes	Yes
Observations	390,344	387,613	196,530	326,023
R-squared	0.470	0.470	0.591	0.500

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The regression in column (1) drops 2021:M6, the one in column (2) drops the announcement month 2021:M9, column (3) is restricted to 2021:M8-2021:M10, and column (4) to 2021:M7-2021:M11. The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressor is the interaction between a post-IRA dummy equal to one after 2021:M9 and a dummy indicating a fund’s sustainability. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions also include domicile-time, fund-country and manager-country-time fixed effects. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

In Table A6, we first control for a fund’s 24-month lagged performance, similar to Ciminelli et al. (2022). Our coefficient of interest becomes larger and more precisely estimated, but the sample size shrinks by more than 100,000 observations as we lose funds that do not exist for at least 24 months. Columns (2)-(3) scale fund flows differently, namely by fund-country-specific AUM (in the baseline analysis it was fund-specific AUM) and a recipient country’s nominal GDP. In both specifications, our coefficient of interest retains its statistical significance. In column (4), we drop small funds with less than \$10 million AUM from the sample, as suggested by Converse et al. (2023). The coefficient estimate hardly changes, which is not very surprising because only a small number of funds (17,000 observations or 4% of the sample) is that small and thus gets dropped.

Finally, in column (5), we estimate a collapsed difference-in-differences version, with the data first collapsed into one single pre-IRA and one single post-IRA observation. Based on the collapsed data, we then compute the outcome as the difference between both, which we regress on the sustainable fund indicator. This approach has been advocated by Bertrand

[et al. \(2004\)](#) and [Bottero et al. \(2020\)](#) to reduce the serial correlation of standard errors. Our finding of higher flows into sustainable funds after the IRA is announced still survives.

**Table A6: Robustness Checks (2)**

VARIABLES	(1) Flows <sub><i>i,c,j,t</i></sub>	(2) Flows <sub><i>i,c,j,t</i></sub>	(3) Flows <sub><i>i,c,j,t</i></sub>	(4) Flows <sub><i>i,c,j,t</i></sub>	(5) $\Delta Flows_{i,c,j}$
$Post_t \times Sustainable_{i,j}$	0.077*** (0.023)	0.345* (0.205)	0.00003*** (0.000)	0.043* (0.019)	
$24MonthsLaggedPerformance_{i,j,t}$	0.000 (0.002)				
$Sustainable_{i,j}$					0.055*** (0.018)
Domicile×Time FE	Yes	Yes	Yes	Yes	No
Fund×Country FE	Yes	Yes	Yes	Yes	No
Manager×Country×Time FE	Yes	Yes	Yes	Yes	No
Manager FE	No	No	No	No	Yes
Country FE	No	No	No	No	Yes
Domicile FE	No	No	No	No	Yes
Observations	342,573	446,345	445,785	437,942	70,675
R-squared	0.442	0.443	0.494	0.456	0.076

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The dependent variable (apart from columns 2, 3, and 5) is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressor in columns (1)-(4) is the interaction between a post-IRA dummy equal to one after 2021:M9 and a dummy indicating a fund's sustainability. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions also include manager-country-time, domicile-time, and fund-country fixed effects in columns (1)-(4) and manager, country, and domicile fixed effects in column (5). Column (1) controls for the 24-month lagged performance of a fund. In Columns (2)-(3), we scale flows by fund-country-specific AUM and GDP, respectively. Column (4) drops small funds with less than \$10 million AUM. Column (5) presents a collapsed difference-in-differences specification that collapses the data into one single pre- and one single post-announcement observation and computes the dependent variable as the difference between both, then regressed on the sustainable fund indicator. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

## D Studying Sustainable Fund Flows Around Other Events

In Section 2, we show that the IRA raised climate attention worldwide. In this sub-section, we study whether other key climate change-related events similarly changed investors' flows into sustainable funds. To this end, we estimate versions of Equation 2 centered on the months around the respective event. Table A7 displays the results.

In column (1), we start with the European Union (EU) Green Deal. The double interaction estimate is positive, but not statistically significant. It thus appears that EU policies do not have the same impact on investor behavior as US climate actions. Column (2) studies investor behavior around the announcement of the Paris Agreement, but again we do not find any significant effect. Columns (3) and (4) use the first global climate strike of March 2019 and Trump's announcement to abandon the Paris Agreement in June 2017 as events. In both cases, the coefficient estimates are not significant at conventional significance levels.

In column (5), we look at flows around President Biden's earlier announced Infrastructure Investment and Jobs Act. While containing some elements related to climate action, the act did not put special emphasis on the green transition. Thus, a signaling effect to global investors similar to the IRA is missing, and we do not expect the act to have a disproportionate effect on sustainable flows. This specification hence serves as a placebo test to our benchmark results and the validity of the parallel trend assumption underlying our analysis. The results confirm this conjecture as the coefficient of interest remains statistically insignificant.

Overall, the tests on other and placebo events emphasize the unique signaling effect of the IRA on global investors, inducing additional flows into sustainable funds with global spillovers, notably to countries with more effective climate policies.

**Table A7: Results for Other Events**

	Green Deal	Paris	Climate Strike	US Withdrawal	US Infrastructure Investment and Jobs Act
VARIABLES	(1) Flows <sub>i,c,j,t</sub>	(2) Flows <sub>i,c,j,t</sub>	(3) Flows <sub>i,c,j,t</sub>	(4) Flows <sub>i,c,j,t</sub>	(5) Flows <sub>i,c,j,t</sub>
$Post_t \times Sustainable_{i,j}$	0.038 (0.031)	-0.033 (0.101)	0.025 (0.040)	0.025 (0.052)	-0.013 (0.019)
Domicile×Time FE	Yes	Yes	Yes	Yes	Yes
Fund×Country FE	Yes	Yes	Yes	Yes	Yes
Manager×Country×Time FE	Yes	Yes	Yes	Yes	Yes
Observations	420,376	273,175	401,686	318,523	442,448
R-squared	0.446	0.452	0.451	0.475	0.456

Note: This table is based on our monthly fund-level sample and each regression includes the 3 pre-event months, the event month itself, and the 3 post-event months. The events considered are: the European Green Deal of 2019:M12 (column 1), the Paris Agreement of 2015:M12 (column 2), the first global climate strike of 2019:M3 (column 3), the announcement of the US withdrawal from the Paris Agreement of 2017:M6 (column 4), and the US Infrastructure Investment and Jobs Act of 2021:M6 (column 5). The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressor is a dummy equal to one in the 3 months after the respective event, zero otherwise, interacted with a sustainable fund indicator fixed in the pre-event period. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions also include manager-country-time, domicile-time, and fund-country fixed effects. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

## E The IRA and Fund Returns: Additional Evidence

In Section 4, we document the relative increase in realized returns of sustainable funds post-IRA. In this appendix, we show that this result does not emerge endogenously through higher inflows.

To this end, in column (1) of Table A8, we control for current fund-level inflows over lagged assets under management. The coefficient of interest increases in size relative to the ones in columns (1)-(2) of Table 6. In columns (2) and (3), we split the sample into funds with inflows in the lower 25% of the distribution and those in the upper 75%. The post-sustainable double interaction coefficient is statistically significant in both sub-samples, and slightly larger in the low-inflow sub-sample. This implies that the relative increase in realized returns of sustainable funds upon IRA announcement is unrelated to higher asset valuations due to these funds experiencing increased inflows post-IRA. Instead, the pivot in realized returns shown in Section 4 seems driven by an immediate increase in transition risk of conventional assets upon IRA announcement.

**Table A8: The IRA’s Effect on Fund Returns: Additional Evidence**

	full sample	low inflows	high inflows
	(1)	(2)	(3)
VARIABLES	Performance <sub><i>i,j,t</i></sub>	Performance <sub><i>i,j,t</i></sub>	Performance <sub><i>i,j,t</i></sub>
$Post_t \times Sustainable_{i,j}$	0.519*** (0.073)	0.569** (0.271)	0.528*** (0.078)
$Flow_{i,j,t}$	-0.021*** (0.003)		
Time FE	Yes	Yes	Yes
Fund FE	Yes	Yes	Yes
Observations	70,783	13,984	53,793
R-squared	0.362	0.464	0.414

Note: This table is based on our monthly fund-level data from 2021:M6-2021:M12. The dependent variable is the fund-level monthly return. The key regressor is the interaction between the post-IRA dummy and a fund’s sustainability indicator. Column (1) controls for fund-level inflows over lagged assets under management. In columns (2) and (3), we split the sample into funds with inflows in the lower 25% of the distribution and those in the upper 75%. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. The regressions also include time and fund fixed effects. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

## F Exploiting Within-Industry Variation

Next, we exploit the within-industry variation of our data. In Section 4.2.2, we report that the pivot towards sustainable funds is driven by funds with a greater share of AUM invested in IRA-targeted industries, notably utilities and manufacturing. However, this points at a potential confounder: All of our results could be merely driven by higher post-IRA growth prospects of these industries instead of the IRA signaling channel.

To rule out the possibility that our results are driven by higher IRA-induced industry growth prospects, we first compute the average environmental scores for four distinct types of investment funds that have a high vs. low share of AUM invested in IRA-targeted industries:<sup>A1</sup> i) those with both a manufacturing and utility share below the in-sample median, ii) those with above-median shares in manufacturing but below-median shares in utility, iii) those with above-median shares in utility but below-median shares in manufacturing, and iv) those with shares in both industries above the median. Afterwards, we compute a fund's industry-adjusted environmental score as its actual score net of these group averages. Should results using these industry-adjusted environmental scores be in line with results reported in Table 5, we would gain evidence that our results are indeed driven by IRA-induced shifts in investors' sustainability preferences instead of revised industry-specific growth expectations.

Table A9 supports the notion of shifts in sustainability preferences. As in the main text, the continuous (industry-adjusted) environmental score yields a statistically insignificant result (column 1). Once we move to a dummy version of the (industry-adjusted) environmental score (columns 2-3),<sup>A2</sup> the corresponding double interaction coefficient becomes positive and statistically significant, as in Table 5. The industry adjustment of environmental scores also leaves another previous result unchanged: The post-IRA shift towards sustainable funds is amplified for funds with a high environmental score, as evidenced by a significant triple interaction coefficient in column (4).

As an alternative approach to account for within-industry variation, we re-run our baseline analysis reported in Table 4 and apply (i) industry specialization or (ii) industry specialization-time fixed effects, grouping funds into the same four categories used in the above exercise. As Table A10 shows, this has no material effect on our baseline effects either. This makes us confident that our benchmark results are indeed driven by the IRA motivating investors to pursue more sustainable investments, and not by a change in industry growth prospects.

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<sup>A1</sup>As a dummy indicator variable the sustainability label does not lend itself to the analysis here. Hence, we employ the environmental scores.

<sup>A2</sup>In Table 5, we define this dummy as equal to one when a fund's environmental score exceeds the 67th percentile of the distribution. This enables us to focus on funds with very high environmental values but without the analysis being affected by the extremes of the distribution. In this appendix, we define the dummy at the median as the industry adjustments already reduce the variation in environmental scores. Using the 67th percentile as cutoff point leads to similar, but more imprecisely estimated results.

**Table A9: Exploiting Within-Industry Environmental Scores**

VARIABLES	(1) Flows <sub><i>i,c,j,t</i></sub>	(2) Flows <sub><i>i,c,j,t</i></sub>	(3) Flows <sub><i>i,c,j,t</i></sub>	(4) Flows <sub><i>i,c,j,t</i></sub>
$Post_t \times Sustainable_{i,j} \times Env.Score(adjusted)_{i,j}$	-0.000 (0.001)			-0.001 (0.002)
$Post_t \times Sustainable_{i,j} \times HighScore(adjusted)_{i,j}$		0.030* (0.016)	0.028* (0.016)	
$Post_t \times Sustainable_{i,j}$			0.031 (0.021)	0.008 (0.024)
$Post_t \times Sustainable_{i,j} \times Env.Score(adjusted)_{i,j}$				0.008* (0.004)
Domicile×Time FE	Yes	Yes	Yes	Yes
Fund×Country FE	Yes	Yes	Yes	Yes
Manager×Country×Time FE	Yes	Yes	Yes	Yes
Observations	119,130	119,130	119,130	119,130
R-squared	0.430	0.430	0.430	0.430

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressor in column (1) is the interaction between a post-IRA dummy equal to one after 2021:M9 and a fund's environmental score obtained from Bloomberg. The latter is adjusted for the group average of four distinct types of funds: i) those with both a manufacturing and utility share below the in-sample median, ii) those with above-median shares in manufacturing but below-median shares in utility, iii) those with above-median shares in utility but below-median shares in manufacturing, iv) and those with shares in both industries above the median. In column (2), we replace this continuous score with a dummy (HighScore) equal to one when the industry-adjusted environmental score exceeds the median of the in-sample distribution. In column (3), we horserace this double interaction with our benchmark post-sustainable double interaction and in column (4), we include a triple interaction between the post-IRA dummy, a dummy for the EPFR-based sustainability label, and the continuous industry-adjusted environmental score. All regressions control for fund performance and AUM, each lagged by one period, as well as domicile-time, fund-country, and manager-country-time fixed effects. The regressions also incorporate all lower-order interactions, with coefficients not shown for brevity. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively..

**Table A10: Including Industry Specialization Fixed Effects**

VARIABLES	(1) Flows <sub><i>i,c,j,t</i></sub>	(2) Flows <sub><i>i,c,j,t</i></sub>
<i>Post<sub>t</sub> × Sustainable<sub>i,j</sub></i>	0.039* (0.021)	0.040* (0.021)
Fund FE	Yes	Yes
Domicile×Time FE	Yes	Yes
Manager×Country×Time FE	Yes	Yes
Industry FE	Yes	No
Industry×Time FE	No	Yes
Observations	175,083	175,083
R-squared	0.429	0.429

Note: This table is based on the monthly fund-level sample from 2021:M6-2021:M12. The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressor is the interaction between a post-IRA dummy equal to one after 2021:M9 and a dummy indicating a sustainable fund. The regressions control for fund, domicile-time, and manager-country-time fixed effects, as well as industry specialization (column 1) or industry specialization-time fixed effects (column 2). We control for fund performance and AUM, each lagged by one period. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

## G The Relevance of Climate Policies: Robustness Checks

In this appendix, we show that the results of Section 5.2 are robust to controlling for the triple interactions with other macroeconomic covariates, which may correlate with climate policies and thus introduce bias if omitted. Column (1) of Table A11 controls for a recipient country's trade linkages with a fund's domicile. This control does not affect our benchmark results. Similarly, column (2) adds bilateral FDI vis-à-vis fund domicile, as a proxy for bilateral financial integration, and our results survive. In column (3), we add GDP per capita, as higher-income countries typically score higher on climate policy. Adding this control indeed reduces the point estimate of the post-sustainable-climate score triple interactions, but it remains statistically significant at the 5% level. The GDP triple interaction itself is not significant at conventional levels. In column (4), we add a country's rule of law. Whereas the additional triple interaction is only weakly significant, the climate policy score triple interaction is again significant at the 5% level. In column (5), we control for a country's interest rate spread to the US, typically an important driver of capital flows. Again, our main results are unaffected. Finally, in column (6), we add a country's sovereign credit rating. This has no material effect on the benchmark results of Table 9 either.

**Table A11: Country Characteristics and Fund Flows: Robustness Checks**

VARIABLES	(1) Flows <sub>i,c,j,t</sub>	(2) Flows <sub>i,c,j,t</sub>	(3) Flows <sub>i,c,j,t</sub>	(4) Flows <sub>i,c,j,t</sub>	(5) Flows <sub>i,c,j,t</sub>	(6) Flows <sub>i,c,j,t</sub>
$Post_t \times Sustainable_{i,j} \times ClimatePolicyScore_c$	0.018** (0.009)	0.040*** (0.013)	0.025** (0.012)	0.033** (0.014)	0.016* (0.010)	0.037*** (0.012)
$Post_t \times Sustainable_{i,j} \times CapitalAccountOpenness_c$	0.021 (0.037)	0.041 (0.046)	0.028 (0.057)	-0.021 (0.052)	0.031 (0.064)	-0.001 (0.055)
$Post_t \times Sustainable_{i,j} \times Trade - US_c$	0.024 (0.015)	0.005 (0.021)	0.008 (0.026)	0.007 (0.026)	-0.022 (0.037)	0.000 (0.026)
$Post_t \times Sustainable_{i,j} \times Trade - fund - domicile_{cj}$	2.340 (2.697)					
$Post_t \times Sustainable_{i,j} \times BilateralFDI_{cj}$		-0.067 (0.071)				
$Post_t \times Sustainable_{i,j} \times GDPp.c.c$			0.000 (0.000)			
$Post_t \times Sustainable_{i,j} \times RuleofLaw_c$				0.032* (0.019)		
$Post_t \times Sustainable_{i,j} \times InterestRateDifferential_c$					-0.000 (0.001)	
$Post_t \times Sustainable_{i,j} \times Rating_c$						-0.004 (0.002)
Domicile×Time FE	Yes	Yes	Yes	Yes	Yes	Yes
Fund×Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Manager×Country×Time FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	292,591	305,180	284,014	328,430	154,323	328,038
R-squared	0.374	0.420	0.450	0.435	0.442	0.435

Note: This table is based on our monthly fund-level sample from 2021:M6-2021:M12. The dependent variable is the fund-country level inflow scaled by fund-level AUM lagged by one period. The key regressors are the triple interactions between a post-IRA dummy equal to one after 2021:M9, a dummy indicating a fund's sustainability, and the following country characteristics fixed in 2021:M8 (pre-IRA): Bloomberg Government Climate Scores, a country's trade linkage with the US, and a country's Chinn-Ito index. This table additionally adds the corresponding triple interactions with bilateral trade vis-a-vis a fund's domicile (column 1), bilateral investment linkages as measured by bilateral FDI vis-à-vis a fund's domicile (column 2), a country's GDP per capita (column 3), rule of law (column 4) a country's interest rate differential vis-a-vis US (column 5), and Moody's sovereign credit rating (column 6). The regressions also include domicile-time, fund-country and manager-country-time fixed effects. We control for fund performance and AUM each lagged by one period, with coefficients omitted for brevity. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

## H Replicating Key Results with Daily Data

In Section 3.2, we show that the benchmark results displayed in Table 4 are robust to estimations on daily data and short windows around the IRA announcement. In this appendix, we report selected results for other specifications from the main body of the paper, now estimated on daily fund-level data instead of monthly fund-country-level data. While the shorter window around the IRA associated with daily data has the advantage of reducing the probability for confounding events, several disadvantages emerge: First, the fund-level data do not allow us to separate supply from demand effects. Second, daily data are noisier than monthly data. Third, the number of funds reporting monthly data is about 20% larger than the number of funds reporting at a daily frequency. Finally, Figure 3 gauges that the IRA’s effect is not limited to the time shortly after its announcement, but peaks three months after the IRA. Thus, the daily data allow us to capture only a mere fraction of the overall effect.

As Table A12 shows, the results based on the daily data set align well with those based on the monthly fund-country panel. In particular, as shown in column (1), we still find that the pivot towards sustainable funds following the IRA is stronger for funds with higher environmental scores, in line with column (4) of Table 5. Columns (2) and (3) gauge that a higher domicile-specific climate attention index still corresponds to higher valuations of and inflows into sustainable funds, in line with the evidence at monthly frequency of Table 6, column (1), and Table 7, column (1), although the effect in column (3) has a statistical significance just below conventional levels. In column (4), we show that, similar to column (1) of Table 8, our results are robust to controlling for a fund’s pre-IRA US portfolio share. In column (5), we uncover a post-IRA shift towards both sustainable and energy funds as already detected in Table 8, column (9).

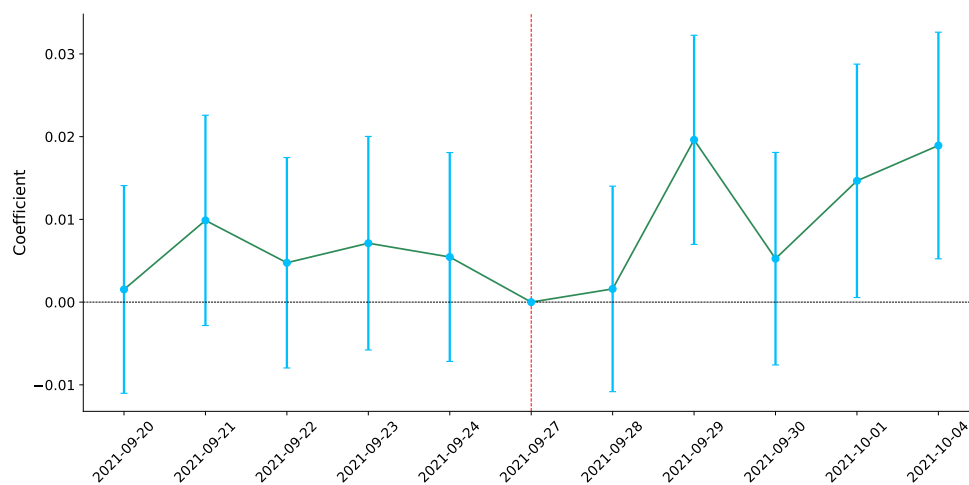
In Figure A1, we plot a daily version of our event-study plot for the five pre- and post-IRA trading days. The chart shows that before the IRA’s announcement, sustainable and conventional funds see inflows that are not statistically different from each other, in line with our benchmark evidence on parallel pre-trends. Afterwards, however, sustainable funds see higher inflows than conventional funds, with three of the five point estimates being statistically significant.

**Table A12: Additional Daily-Frequency Evidence**

VARIABLES	(1) Flows <sub><i>i,j,t</i></sub>	(2) Performance <sub><i>i,j,t</i></sub>	(3) Flows <sub><i>i,j,t</i></sub>	(4) Flows <sub><i>i,j,t</i></sub>	(5) Flows <sub><i>i,j,t</i></sub>
<i>Post</i> <sub><i>t</i></sub> × <i>Sustainable</i> <sub><i>i,j</i></sub>	0.001 (0.004)			0.005** (0.002)	0.004* (0.002)
<i>Post</i> <sub><i>t</i></sub> × <i>Env.Score</i> <sub><i>i,j</i></sub>	-0.001*** (0.000)				
<i>Post</i> <sub><i>t</i></sub> × <i>Sustainable</i> <sub><i>i,j</i></sub> × <i>Env.Score</i> <sub><i>i,j</i></sub>	0.001* (0.000)				
<i>Sustainable</i> <sub><i>i,j</i></sub> × <i>ClimateAttention</i> <sub><i>j,t</i></sub>		2.512** (0.997)			
<i>Sustainable</i> <sub><i>i,j</i></sub> × Δ <i>Climate Attention</i> <sub><i>j</i></sub>			0.781 (0.512)		
<i>Post</i> <sub><i>t</i></sub> × <i>USShare</i> <sub><i>i,j</i></sub>				-0.0001*** (0.0000)	
<i>Post</i> <sub><i>t</i></sub> × <i>EnergyFund</i> <sub><i>i,j</i></sub>					0.043*** (0.010)
Fund FE	Yes	Yes	No	Yes	Yes
Time FE	No	Yes	No	No	No
Domicile×Time FE	Yes	No	Yes	Yes	Yes
Observations	247,259	14,857	593,594	985,557	985,557
R-squared	0.104	0.015	0.013	0.115	0.115

Note: This table is based on daily and monthly EPFR fund-level data covering the 20 pre- and 20 post-IRA announcement trading days. The dependent variables are the fund-level inflows scaled by fund-level lagged AUM or a fund's performance. In most regressions, the key regressor is the interaction between a post-IRA dummy equal to one after the IRA announcement on September 27, 2021, and a dummy indicating a sustainable fund. In column (1), we also include the triple interaction between the post-IRA dummy, a fund's sustainability label, and its environmental score. In columns (2)-(3), the main regressor is the interaction between domicile-specific levels and changes in climate attention, respectively. Columns (4)-(5) control for the interactions between the post-IRA dummy and a fund's US portfolio share or an energy fund indicator, respectively. All regressions control for lagged fund performance and AUM, with coefficients omitted for brevity. The regressions also include domicile-time, time, and fund-level fixed effects as indicated. Standard errors clustered at the fund level are shown in parentheses. \*, \*\* and \*\*\* indicate statistical significance at the 10%, 5%, and 1% level, respectively.

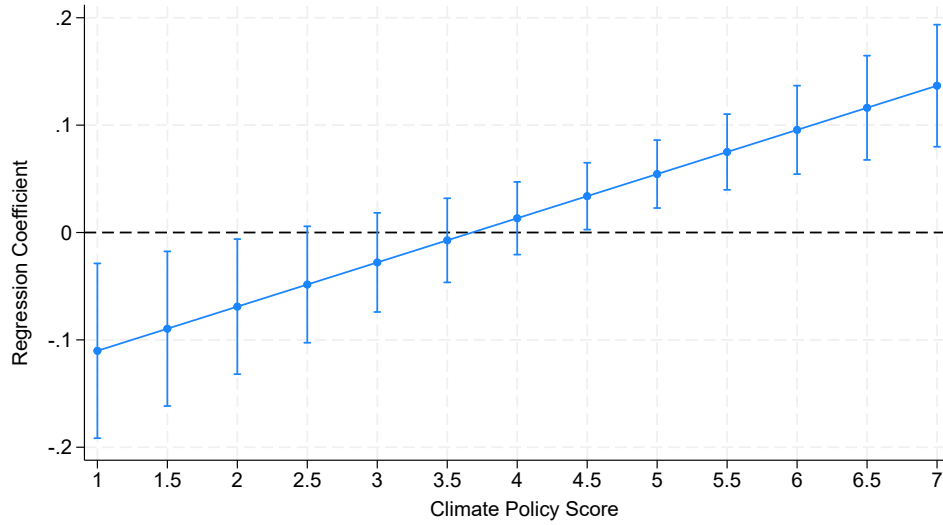
**Figure A1: The Dynamic Effects of the IRA on Fund Flows: Daily Frequency**



Note: This figure is based on our daily fund-level sample and the five trading days before and after the IRA announcement on September 27, 2021. It plots the coefficients from a regression of fund-level inflows on the interaction between daily time dummies and the sustainable fund indicator, after controlling for fund and domicile-time fixed effects, as well as fund performance and AUM, each lagged by one period.

# I Additional Figures

**Figure A2: Marginal Effects of Post-Sustainable Double Interaction by Countries' Climate Policy Score**



Note: The chart plots marginal effects of the post-sustainable double interaction by countries' climate policy score. Sources: EPFR, Bloomberg, own calculations.