

# Pledge and Prejudice: How International Organizations Make and Remake Climate Commitments\*

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November 2024

## Abstract

What prompts international organizations to soften their climate commitments? The World Bank pledged to increase climate finance and stop funding upstream oil and gas projects after 2019. However, high-profile instances of continued funding — in Guyana, Indonesia, and elsewhere — have cast doubt on this pledge. This study uses text analysis and statistics to examine the content of all World Bank projects approved between 2001 and 2022, finding that these projects indeed shifted away from the extractive sector and toward climate finance after 2019. Still, there is evidence of a strategic shift: instead of spreading resources across multiple smaller extractive projects, the Bank is concentrating its finance on a few, high-impact projects in the extractive sector. As a result, the average amount of funding per extractive project increased significantly after 2019. This study provides insights into the trade-offs faced by international actors in balancing developmental and environmental goals, highlighting the World Bank’s growing role in global climate finance, but also its choice to selectively engage with the extractive sector when there is a strong developmental rationale.

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\*Thanks to Daniel Weitzel, Paasha Mahdavi, and APSA 2024 participants for constructive feedback.

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# 1 Introduction

In 2016, the World Bank Group released its first Climate Change Action Plan. Recognizing that climate change posed a threat to its core mission of ending poverty and boosting prosperity, the entity promised to increase climate finance from 21 to 28 percent of its total budget by 2020. A second Climate Change Action Plan, released in 2020, set a more ambitious target of 35 percent, with a focus on adaptation. In parallel, during the 2017 One Planet Summit, the World Bank Group announced that it would no longer finance upstream oil and gas projects by 2019. In 2021, its two private sector institutions — the International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA) — vowed to stop indirectly supporting new coal-fired power projects. All this reflects the Bank’s stated desire to align 100 percent of its operations with the objectives of the Paris Agreement by 2025, providing support “consistent with low-carbon and climate-resilient development pathways” to help countries reach their Nationally Determined Contributions and Long-Term Strategies ([World Bank Group, 2021](#), 15).

The widespread consensus is that the Bank upheld its first promise: by COP28 in 2023, it had surpassed the 35 percent goal and was aiming for 45 percent of climate finance — about 40 billion dollars — in the following fiscal year.<sup>1</sup> As of 2023, it is the single largest provider of multilateral climate finance to low- and middle-income countries ([European Investment Bank, 2024](#)). There is less consensus about the second promise. Environmental groups have accused the Bank of deception, noting that Guyana received \$55 million to train oil and gas officials and revamp the banking and insurance sectors in 2020<sup>2</sup> and the IFC indirectly backed the construction of two Indonesian coal-fired power plants in 2023.<sup>3</sup> Yet these financing decisions do not involve *upstream* oil and gas projects or *new* coal-fired power plants.<sup>4</sup> Rather,

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<sup>1</sup>World Bank Group. 2023. *Press Release: World Bank Group Doubles Down on Financial Ambition to Drive Climate Action and Build Resilience*.

<sup>2</sup>Jasper Jolly. 2020. “Anger Over World Bank’s \$55M Pledge to Guyana’s Fossil Fuel Industry.” *The Guardian*.

<sup>3</sup>David Stanway and Fransiska Nangoy. 2023. “Green Groups Slam World Bank for Backing Indonesian Coal Plants.” *Reuters*.

<sup>4</sup>Indonesia’s Suralaya plant already had eight units in operation.

they fall under an exception the World Bank had made in its original 2017 announcement: “in exceptional circumstances” and “in the poorest countries,” it would continue to support initiatives that increased energy access and “strengthen[ed] the transparency, governance, institutional capacity and regulatory environment of their energy sectors — including in oil and gas.”<sup>5</sup> This reflects the complicated mission of international organizations (IOs), which must please multiple constituents by pursuing potentially conflicting goals, like decarbonization and development. As a result, IOs might embrace commitments that are lofty and ambitious, but also soft and flexible.

Are Guyana and Indonesia “exceptional circumstances?” To what extent has the World Bank increased climate finance and reduced oil and gas finance, especially after 2019? I answer this question using data on all projects funded by the World Bank Group’s two public sector institutions: the International Development Association (IDA), which provides concessional loans and grants, and the International Bank for Reconstruction and Development (IBRD), which provides non-concessional loans.<sup>6</sup> Topic models provide descriptive information about project content over time and linear regressions help identify the predictors of variation in topic proportions. As this empirical approach shows, the World Bank has indeed reduced extractive funding to the benefit of climate funding after 2019, though this change was not abrupt as much as a culmination of a decade-long trend.

Much has been written about why countries borrow from the International Monetary Fund (IMF): because they need emergency funding to prevent economic collapse, of course, but also because they want to use the IMF as a scapegoat to justify unpopular economic reforms (Vreeland, 2003; Moser and Sturm, 2011). Like the World Bank, the IMF conditions loan disbursement to a series of policy reforms that catalyze private borrowing (Chapman et al., 2017), foreign direct investment (Woo, 2013), and natural resource governance (Goes,

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<sup>5</sup>World Bank Group. 2017. *Q&A: The World Bank Group and Upstream Oil and Gas*. See also: World Bank Group. 2017. *Press Release: World Bank Group Announcements at One Planet Summit*.

<sup>6</sup>Ideally, IDA and IBRD data would be paired with IFC and MIGA data to see if the latter two eliminated support for new coal-fired power projects after 2021. Unfortunately, IFC and MIGA work with private actors and do not publish their data.

2023), but also reduce spending on education (Stubbs et al., 2020) and public sector wages (Rickard and Caraway, 2019), increase income inequality (Forster et al., 2019; Lang, 2021), and even magnify the risk of a coup (Casper, 2017). The IMF’s narrow focus on fiscal consolidation often comes at the expense of the environment, as loans are associated with a significant increase in deforestation (Forster, Bhandary and Gallagher, 2024). US preferences significantly influence the scope of IMF conditions, though local circumstances also matter (Stone, 2008; Dreher, Sturm and Vreeland, 2015, 2009b). And over two thirds of all IMF loans between 1980 and 2015 were interrupted due to non-compliance with conditions (Reinsberg, Stubbs and Kentikelenis, 2022).

Until recently, researchers knew comparatively little about World Bank lending, at least in quantitative terms, due to data limitations (but see Winters, 2010; Hernandez, 2017; Malik and Stone, 2018; Clark and Dolan, 2021; Cormier and Manger, 2022). Though the two Bretton Woods institutions have overlapping tasks (Marchesi and Sirtori, 2011), it is important to look at the World Bank as a standalone actor because its role in the global economy is entirely different: it is not a crisis lender, like the IMF, but a long-term development lender that almost never cancels its loans, even when borrowers fail to comply with conditions (Dreher, 2004). While not immune to political interference (Kersting and Kilby, 2016; Kilby, 2009), the World Bank is less reliant on the financial contributions of its member countries, as it can cover its entire operating budget by borrowing from financial markets (Nielson and Tierney, 2003). As a result, the Bank has more budgetary autonomy and tends to stipulate less pervasive — if more numerous — conditions than the IMF (Dreher, 2004). This means the Bank might have more discretion to provide climate finance, but also less leverage to push for climate policy.

First, this study connects multilateral lending to climate politics and extractive industries, explaining how IOs might have competing interests in these sectors. Despite its stated desire to combat climate change, the World Bank must please its principals (whose own climate commitments are often tenuous at best), compete with China (which offers fast,

generous infrastructure loans with lax environmental safeguards), promote development in resource-rich countries (where institutions are often too weak to manage windfalls transparently), and fend off accusations of hypocrisy (as it is difficult to demand that recipients downscale emissions when high-emitting donors are unwilling to do the same). Following this literature review, the study provides descriptive information about the content of World Bank projects, using keyword-assisted topic models ([Eshima, Imai and Sasaki, 2024](#)) to identify each project’s extractive and climate components. Linear regressions show a significant reduction in the extractive topic after 2019, paired with a relative (but not absolute) increase in the climate topic. This reflects a decline in oil and gas lending across the board, even where natural resources are highly salient. The conclusion outlines the next steps to deepen this research agenda.

## 2 Climate Policy and Multilateral Lending

Multilateral lending is a political affair. In the World Bank and IMF alike, loan approval falls under the purview of the respective Executive Boards, which are largely controlled by the US. Important US trade partners or bilateral aid recipients tend to receive larger World Bank loans ([Fleck and Kilby, 2006](#)), whereas temporary members of the UN Security Council attract more frequent funding from both institutions ([Dreher, Sturm and Vreeland, 2009a,b](#)) and receive IMF loans with fewer conditions ([Dreher, Sturm and Vreeland, 2015](#)). When countries’ voting behavior in the UN General Assembly aligns with that of the US, the Bank tends to disburse loans faster, especially ahead of competitive executive elections ([Kersting and Kilby, 2016](#)). While World Bank lending is ostensibly client-oriented and needs-based ([Cormier, 2016](#)), prioritizing well-governed borrowers ([Winters, 2010](#)), macroeconomic performance is a secondary consideration when lending to US allies ([Kilby, 2009](#)). The World Bank makes fewer demands when its borrowers simultaneously receive aid from new donors like China, India, Saudi Arabia, and the United Arab Emirates ([Hernandez, 2017](#)). Its staff

tends to design programs compatible with US preferences ([Clark and Dolan, 2021](#)) — and US preferences regarding climate policy can vary considerably from one administration to another. In fact, a considerable chunk of multilateral climate finance comes from multi-donor trust funds, made up of voluntary contributions that are kept separate from IO’s primary budgets ([Arias and Clark, 2024](#)). In earmarking their voluntary contributions, donors like the US tie the hands of international bureaucrats and ensure that their own climate preferences are met, even if this comes at the expense of recipients’ needs — at least in the case of the World Bank ([Reinsberg 2017](#); see also [Eichenauer and Reinsberg 2017](#)).

The most powerful members of the Bretton Woods institutions are responsible for the most carbon emissions. Those least responsible for such emissions and most vulnerable to climate change have the least decision-making power. For example, the US, responsible for a fifth of all cumulative carbon emissions since 1850, controls between 9.71 and 17.66 percent of the votes in the organizations composing the World Bank Group.<sup>7</sup> The 68 developing countries that self-identify as climate-vulnerable (V20) are responsible for 5 percent of global emissions and — as of 2024 — command an IMF vote share of just 6.7 percent, with similar figures for the World Bank ([Merling and Forster, 2024](#), 552).

Even as the World Bank claims to have “a significant track record of advancing climate action” ([World Bank Group, 2021](#), 5), promising to increase climate funding and mobilize additional private capital, skeptics point to the institution’s so-called organized hypocrisy: its rhetoric changes much faster than its reality ([Weaver, 2008](#)). This hypocrisy reflects not only the need for World Bank bureaucrats to please multiple political masters with heterogeneous and inconsistent preferences but also IO’s pathologies and dysfunctions more broadly. If the World Bank is so beholden to the wants of its important principals, selectively pursuing its mandate, only weakly complying with rules, and only half-heartedly attempting to implement new agendas ([Weaver, 2008](#), 21), why should it seriously pursue the most ambitious and expensive of all agendas — climate change mitigation? Given the pressure to compete

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<sup>7</sup>As of 2024, the specific US vote shares are 9.71 percent for IDA, 14.81 percent for MIGA, 15.49 for IBRD, and 17.66 percent for IFC.

against new donors with notoriously unambitious climate policies, like China ([Tørstad, Sælen and Bøyum, 2020](#)), why should the World Bank refrain from funding oil, gas, and coal projects that might get funded anyway — and by a US rival to boot? Indeed, [Zeitz \(2021\)](#) shows that competition can drive the World Bank to emulate China by funding projects in infrastructure-intensive sectors (including oil and gas) and possibly relaxing environmental safeguard requirements.

Still, IOs are arguably independent actors with their own agendas ([Barnett and Finnemore, 1999](#)). In particular, the World Bank has remarkable financial autonomy, raising enough money in capital markets to cover all of its operating budget ([Nielson and Tierney, 2003](#)). IMF staff care about the climate ([Clark and Zucker, 2023](#)), to the point of extending less stringent conditions to climate-vulnerable countries ([Arias and Clark, 2024](#)). Though there is no equivalent research on the climate preferences of World Bank staff, one can reasonably assume that these individuals agree with their IMF counterparts: not only do both IOs have common development priorities and overlapping operations ([Marchesi and Sirtori, 2011](#)), but they also recruit from a similar pool of neoliberal economists ([Nelson, 2014](#)).

In addition, IO staff care about their employer’s reputation. In the past, the World Bank has responded to civil society pressure by dropping large infrastructure projects associated with human rights violations and environmental damage ([Wade, 2009](#)). At a minimum, staff want to honor existing commitments to prevent reputational damage. [Cormier and Manger \(2022\)](#) show that shifts in the World Bank’s research program affect the content of loan conditionality; for instance, as staff research increasingly covers domestic ownership, more and more loan conditions reflect this concern. And even after the Executive Board approves investment project loans (tied to specific projects), World Bank staff with country experience and good supervisory ability play a key role in recipient performance ([Heinzel and Liese, 2021](#)).

In sum, World Bank staff care about the environment, want to uphold their reputation, have relative discretion over how to distribute loans, and directly influence loan implemen-

tation. Therefore, we should expect World Bank loans to take climate issues seriously.

At the leadership level, G-7 countries have become more environmentally concerned, pushing for reforms in 1993–1994 that increased the Executive Board’s involvement in the loan approval process, the reporting requirements for approved projects (with a section devoted to each project’s environmental impact), and the number of environmental personnel hired by the Bank (Nielson and Tierney, 2003). The World Bank’s most important principals might not be willing to reduce their own emissions, but may support such efforts elsewhere — a different type of hypocrisy, but one that would lead to more funding for climate projects in the developing world. Ultimately, even “weak” states can wield outsize influence in international climate negotiations, since their climate vulnerability legitimizes their salient positions (Genovese, 2020).

If there is an increase in environmental concerns among both leadership and rank-and-file staff, as previous research implies, there might be a corresponding increase in funding for, say, renewable energies and coastal zone management. It is possible that World Bank leadership supports mitigation finance more than adaptation finance; the former provides a global public good by reducing total emissions, whereas the latter only provides localized benefits to recipient countries (Pickering et al., 2015). Either way, there should be a gradual increase in aggregate climate finance. In parallel, the World Bank’s 2017 announcement should be more than cheap talk: after 2019, there should be an abrupt halt in financing for upstream oil and gas projects.

### 3 Extractive Industries and Multilateral Lending

Extractive industries move exponentially more money than multilateral lending. In 2023, the World Bank Executive Board approved 322 projects worth a modest \$72.8 *billion*, whereas mineral fuel and oil exports moved a total of \$1.89 *trillion*.<sup>8</sup> There is no shortage of ways nat-

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<sup>8</sup>World Bank data, reported by the 2023 Annual Report, correspond to fiscal year 2023 (from July 1, 2022 to June 30, 2023). Export data, reported by the UN Comtrade Database for calendar year 2023, correspond



ural resources can hurt institutional quality: they are associated with rent-seeking behavior (Andersen et al., 2017), reduced incentives to collect taxes (McGuirk, 2013), low democratic accountability (Paler, 2013), fewer women in the labor force (Ross, 2008), and a higher onset of civil war (Ross, 2004). While the direct effect of natural resources on long-run growth is positive, the indirect effect through price volatility is negative, reflecting the fact that oil, gas, and mineral prices are all but impossible to forecast (van der Ploeg and Poelhekke, 2009). Finally, resource wealth tends to hinder economic diversification by crowding out investment in other sectors of the economy and prompting a currency appreciation that makes non-resource exports less competitive on the global market.

But if, against all odds, resource-rich countries overcome these challenges, well-managed resource revenues can fund development projects, improve infrastructure, and reduce poverty (Venables, 2016). While windfalls cannot *replace* multilateral lending (which comes with technical assistance and policy expertise no amount of oil or gas money can buy), they can fill important financing gaps, in addition to increasing the odds of loan repayment and reducing the need for additional loans (Goes and Kaplan, 2024). Repayment concerns might be most pressing for the world’s lender of last resort, which tends to give larger loans to countries in the worst financial standing. Indeed, IMF loans with resource-rich countries pay close attention to the extractive sector, as does IMF surveillance (Goes, 2023; Goes and Chapman, 2024). But the IMF is not alone: this is one of the few sectors where all major IOs — the IMF, World Bank, UN, European Union, African Union, G8, G20, and others — provide consistent recommendations (Sovacool et al., 2016; David-Barrett and Okamura, 2016). The key recommendation is to join the Extractive Industries Transparency Initiative (EITI), established in 2002–2003. In fact, EITI adherence was initially an unspoken requirement to reach Heavily Indebted Poor Country (HIPC) status, which would make countries eligible for special assistance from the World Bank and the IMF (David-Barrett and Okamura, 2016). Put simply, transparency in the extractive sector is so important to

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to HS Code 27: “mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes.”

the international community that Bretton Woods institutions informally conditioned loan disbursement to such reforms, at least for a while.

Through a three-stage implementation process (commitment, candidacy, and compliance), EITI adherents are expected to disclose their payments and revenues, promote local economic development and diversification, foster gender equality in the extractive sector, and make oil and gas markets more competitive, all while reducing the environmental impact of extractive activities. To be fair, evidence of EITI’s effectiveness is mixed. It has not meaningfully increased accountability, political stability, or government effectiveness in compliant countries (Sovacool et al., 2016), though there are benefits at earlier stages of implementation (Papyrakis, Rieger and Gilberthorpe, 2017; Fenton Villar and Papyrakis, 2017). Self-selection plays a role, as more corrupt countries are less likely to join the initiative (David-Barrett and Okamura, 2016). Still, there are notable positive downstream effects. In boosting government revenues and improving environmental policies, EITI can reduce deforestation (Kinda and Thiombiano, 2024). In promoting data dissemination and stakeholder dialogue, EITI can increase trust in politicians (Fenton Villar, 2020). Even if this initiative is not a panacea, there are plenty of reasons why IOs might continue to support it.

Numerous World Bank projects since 2005, from Albania to Zambia, have funded EITI implementation and related initiatives to promote good governance within the extractive sector.<sup>9</sup> The choice to continuously support these projects, rather than advise borrowers to abandon their extractive industries altogether, might be rooted in pragmatism. Even IOs committed to climate action likely understand the realities faced by resource-rich emerging economies, which are not yet diversified enough to turn their backs to the extractive sector. In addition, withdrawing funding or conditioning it to environmental reforms is unlikely to deter resource-rich countries from prospecting; should the World Bank’s environmental demands prove too onerous, recipients can choose Chinese financing instead (Zeitz, 2021).

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<sup>9</sup>In addition to funding EITI implementation directly, the World Bank houses two multi-donor trust funds, the Extractive Industries Transparency Initiative (2004–2016) and the Extractives Global Programmatic Support (2015–2026), that pool resources from various sovereign development agencies to support EITI. See Reinsberg (2017) for more information about trust funds.

If oil and gas projects will be funded anyway, it might be in the World Bank’s best interest to do so directly, ensuring that such projects are managed with transparency. Given these priorities, it is unsurprising that the 2017 announcement to stop upstream oil and gas funding made exceptions for transparency initiatives in the energy sector.

Relatedly, the World Bank might continue to fund oil and gas projects if it considers that the developmental benefits outweigh the climate costs. For instance: in choosing to provide a grant to train Guyanese oil and gas sectors, as it did in 2020, the Bank likely considered Guyana’s minimal carbon footprint. As of 2024, 93 percent of Guyana is covered in forest, and it produces less than one percent of the world’s oil. Yet half of its 800,000 citizens live below the poverty line, and oil revenues can make a difference. Since oil production began, the Guyanese economy already grew a staggering 43.48 percent in 2020, 20.06 percent in 2021, and 63.37 percent in 2022.<sup>10</sup> In light of these projections, concerns about a poorly-managed natural resource sector might supersede climate concerns.

Besides, recipients are increasingly critical of the notion that they should scale back on resource production when donors are unwilling to do the same. If anything, Canada, Norway, the US, and others have increased hydrocarbon production in recent years, undermining the World Bank’s stated commitment to stop funding upstream oil and gas projects.<sup>11</sup> As an illustration, Guyana’s president Irfaan Ali declared in 2023: “53% of the world energy mix comes from oil and gas. Even if we end up in a situation in 2070 and beyond — where, let’s say, 40% of the energy mix comes from oil and gas — who determines who produces that 40%? These are questions that must be answered, because you can’t just decide, You are out, you are in.’ That is colonization in a different way.”<sup>12</sup> Elsewhere, public officials echo these thoughts — like Ana Toni, Brazil’s National Secretary for Climate Change, in 2024: “I wish countries richer than ours would have a real conversation about taking such steps, and

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<sup>10</sup>World Development Indicators 2024.

<sup>11</sup>Jillian Kestler-D’Amours. 2022. “Canada’s ‘Petro-Provinces’ See Opportunity in Russia-Ukraine War.” *Al Jazeera*. Sam Meredith. 2023. “Norway’s Fossil Fuel Bonanza Stokes Impassioned Debate About How Best to Spend Its ‘War Profits.’ ” *CNBC*. Clifford Krauss. 2023. “Surging U.S. Oil Production Brings Down Prices and Raises Climate Fears.” *The New York Times*.

<sup>12</sup>Gideon Long. 2023. “Guyana Scrambles to Make the Most of Oil Wealth.” *BBC*.

not leave it to us vulnerable ones.”<sup>13</sup> As these statements suggest, recipients would likely perceive a cut to oil and gas financing as hypocritical. IOs already face a legitimacy crisis as is. Across 121 countries, high-level civil servants perceive the World Bank and the IMF as biased and ineffective (Heinzel et al., 2020). Beyond eroding IO authority (Weaver, 2008), these perceptions can reduce compliance with conditionality and policy advice. Ultimately, the World Bank might not be in a position to make stringent demands, given that compliance with loan conditionality is low as is (Dreher, 2004). With these legitimacy concerns in mind, it is possible that the World Bank continues to support hydrocarbon projects after 2019, particularly in contexts where its authority is diminished.

In sum, even taking the Executive Board at its word and assuming the World Bank is sincerely committed to addressing climate change, there are multiple reasons why the organization might continue to finance extractive projects. Anticipating competition from China, India, Saudi Arabia, and others, the Bank might either fund upstream oil and gas projects on its own or provide a separate transparency component to projects already funded by new donors. The Bank may also consider that such projects bring more benefits than costs, at least “in exceptional circumstances” and “in the poorest countries.” And it might conclude that withholding extractive funding would undermine its legitimacy, as recipients would view this decision as yet another evidence of IO hypocrisy. If any of these mechanisms is true, then there should be no decline in oil and gas financing after 2019 — or, at most, a halt in financing for *upstream* oil and gas projects, but no decline for projects promoting good governance in the extractive sector.

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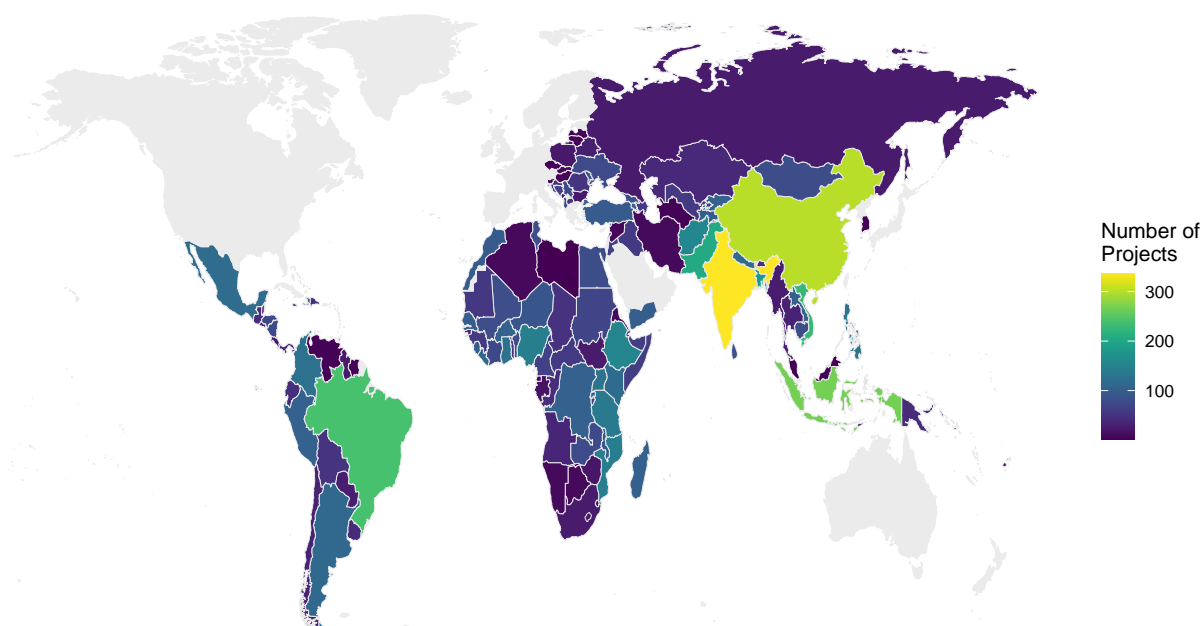
<sup>13</sup>Max Bearak. 2024. “Brazil’s Clashing Goals: Protect the Amazon and Pump Lots More Oil.” *The New York Times*.

## 4 Descriptive Analysis

### 4.1 World Bank Project Data

I use data on all projects approved by the World Bank Executive Board from January 2001 to December 2022,<sup>14</sup> excluding projects that were dropped, cannot be attributed to one single sovereign state, have no clear approval date, or consist of guarantees to mobilize private sector investment. Figure 1 shows the geographic distribution of all approved projects.

**Figure 1:** Number of Projects by Country, 2001–2022



This map shows the number of projects approved by the World Bank Executive Board, distributed across 150 countries, between 2001 and 2022. This excludes projects that were dropped, cannot be attributed to one single sovereign state, have no clear approval date, or consist of guarantees to mobilize private sector investment.

Some of the projects are grants — from multi-donor trust funds like the Global Environment Facility (GEF), but also from individual donor countries. Yet the majority of projects

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<sup>14</sup>World Bank project information is available since May 1947, but the independent variables (discussed in Section 5.2) are not. A total of 9,250 projects meet the selection criteria, but I exclude those for which any independent variable is missing. The analysis includes the remaining 9,157 projects.

are loans. The World Bank offers three lending instruments to governments ([Heinzel and Liese, 2021](#)). Investment Project Financing (IPF) has a narrow focus: the Bank commits money to a particular infrastructure project that will be implemented by the borrowing government. Development Policy Financing (DPF) has a broader focus on policy reforms and the overall institutional framework. Both IPF and DPF include conditionality, though the former is less specific.<sup>15</sup> To increase borrower ownership and donor coordination, a third instrument, Program-for-Results (P4R), is attached to country-specific outcomes and was rolled out in 2012 ([Cormier, 2016](#)). Across all multilateral development banks, IPF, DPF, and P4R accounted respectively for 63, 14, and 6 percent of all climate finance provided in 2023 ([European Investment Bank, 2024](#)).

Most of the projects included in the analysis have a clear title and development objective — for example, to “mobilize private investments through the piloting of a sustainable solar and battery energy storage system competitive bidding process” or “strengthen the capacity of the Federal Government of Somalia to manage its petroleum sector.”<sup>16</sup> I combine each project’s title and development objective into one single description, translating it into English and correcting typos if necessary. Then, I preprocess the text: I lowercase all letters, and remove punctuation, numbers, separators, and stopwords, but do not stem words to avoid combining words with substantively different meanings ([Denny and Spirling, 2018](#)). Finally, I use the preprocessed description to classify each project according to its content.

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<sup>15</sup>Several existing lending instruments were subsumed under the IPF umbrella around 2012: Adaptable Program Loan, Emergency Recovery Loan, Financial Intermediary Loan, Learning and Innovation Loan, Rehabilitation Loan, Sector Investment and Maintenance Loan, Specific Investment Loan, and Technical Assistance Loan ([World Bank Group, 2012](#)). Other instruments were subsumed under the DPF umbrella: Structural Adjustment Loans, Sector Adjustment Loans, Poverty Reduction Support Credit, and Debt and Debt Service Reduction.

<sup>16</sup>Though the World Bank consolidates information about all lending projects into one spreadsheet, sometimes the development objective and lending instrument are missing. In these cases, I scrape the corresponding Project Appraisal Document or Project Performance Assessment Report. When these documents are not available, I only work with the project title.

## 4.2 Classifying Projects

There are 11 official World Bank project sectors,<sup>17</sup> ranging from *Agriculture* (with subsectors like crops, irrigation, forestry, and livestock) to *Water/Sanitation/Waste* (with subsectors like waste management and water supply). Zeitz (2021) distinguishes between “hard” sectors (such as water supply, sanitation, transportation, agriculture, mining, and industry) and “soft” sectors (such as health and education). Yet it is difficult to disaggregate the “hard” and “soft” categories because projects do not always fit squarely into one single sector. For example, a project whose development objective is “to improve mental health and psychosocial wellbeing of children and adolescents in selected schools” is related to health, but also education. Another project’s subcomponents — “drainage, boreholes, road repair, essential drugs, malnutrition alleviation, essential school supplies, lines of credit for productive purposes” — cover infrastructure, transportation, health, education, and non-specified credit. There is no climate-related sector or subsector, and the *Energy and Extractives* sector does not distinguish between renewable and non-renewable energy sources (though its subsectors do).

In July 2016, the Bank introduced a new taxonomy that consists of eight themes, including a *Climate Change* subtheme.<sup>18</sup> When the Bank talks about increasing climate finance to 45 percent of its total budget, it is using this updated taxonomy. However, there is no theme for oil, gas, extractives, or non-renewable natural resources. Projects explicitly related to the extractive sector often have a missing theme or are listed under themes like *Other Public Sector Governance*, *Other Accountability/Anti-Corruption*, and *Other Environment and Natural Resources Management*, which might obscure the project’s actual nature. Projects that are seemingly unrelated to non-renewable natural resources and were not labeled as such could still “hide” a natural resource component, allowing the World Bank to support the

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<sup>17</sup><https://projects.worldbank.org/en/projects-operations/project-sector>

<sup>18</sup>Though pre-July 2016 data were retrofitted to this new taxonomy, the Bank warns that the two periods are not necessarily comparable, as “‘rules of thumb’ were applied to distribute the old data among the new categories (e.g. distributing commitments evenly across sub-themes)” (see <https://projects.worldbank.org/en/projects-operations/project-theme>).

extractive sector without violating its pledge to cease direct funding of oil and gas projects.

Since I am interested in one specific “hard” sector for which there might be an incentive to provide erroneous labels, I need more granular coding. Thus, I estimate a topic model, capturing the relative importance of different topics within one single project. Specifically, I use [Eshima, Imai and Sasaki’s \(2024\)](#) keyword assisted topic model (keyATM), which has previously been used to classify conditionality from the World Bank ([Cormier and Manger, 2022](#)) and the IMF ([Goes, 2023](#)). Topic models render this a particularly hard test: in rejecting a taxonomy that might align with the Bank’s own narrative, the analysis is deliberately biased against the Bank. This sets a higher bar for finding a meaningful result.

The goal of any topic model is to uncover a document’s latent themes, or topics, revealing patterns that might not be immediately apparent. To do so, the model assumes that each document is a mixture of multiple topics and that each topic is a distribution of words. First, humans pre-specify the number of desired topics. Second, the model assigns words to topics at random. Third, it iteratively refines these assignments based on how likely each word is to belong to a topic, given the word’s distribution across the entire body of text. Each word can belong to multiple topics. What matters is not just how frequently this word occurs, but how frequently it *co-occurs* with other words. This process continues until the model identifies a set of topics that best explains the word distributions. In identifying a set of topics, the model does not assign documents to topics; rather, it calculates the proportion of each document’s vocabulary corresponding to a specific topic.

The most widely used topic modeling framework is the Latent Dirichlet Allocation model, or LDA ([Blei, Ng and Jordan, 2003](#)). One challenge with traditional topic models like the LDA is that they depend heavily on human interpretation and can produce topics that are incoherent or difficult to interpret. The top words associated with each topic may not always clearly define a meaningful theme, especially when the documents are short or few — for example, when there are only a few thousand projects consisting of short summaries, as is the case here ([Syed and Spruit, 2017](#)). Researchers must interpret the model output



post hoc and manually connect the resulting topics to real-world concepts, a task often akin to “reading tea leaves” (Chang et al., 2009). As a result, topic models may struggle to provide direct answers to specific research questions, returning topics that are neither relevant nor interpretable. Eshima, Imai and Sasaki’s keyATM circumvents these issues by allowing researchers to specify topic labels and topic-specific keywords *before* model fitting. These pre-specified labels are ideal for researchers who want to measure specific topics, rather than perform an exploratory analysis. The resulting model yields distinct topics with vocabularies that do not overlap as much. I estimate a dynamic keyATM, an extension of the model that uses a Hidden Markov Model to incorporate time ordering. This allows researchers to investigate how the prevalence of each topic changes over time.

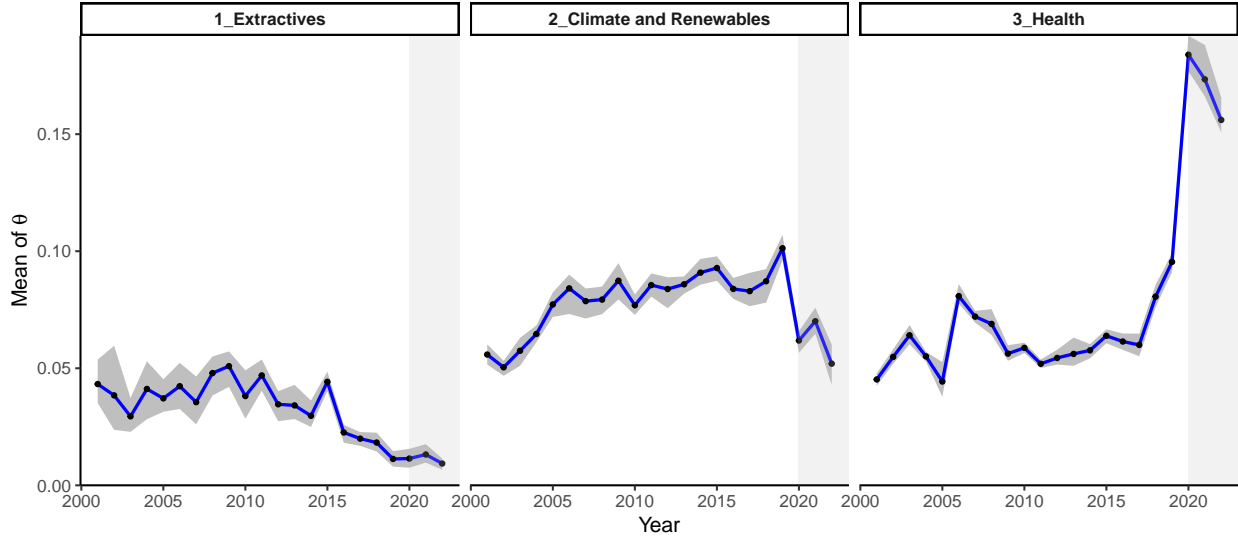
To estimate a dynamic keyATM, I use the 11 aforementioned project sectors as topics and their corresponding subsectors as keywords, with one difference. Given my research question, I divide the original *Energy and Extractives* sector into two separate topics: *Extractives* includes keywords like “oil,” “gas,” “petroleum,” and “eiti” (lowercased), whereas *Climate and Renewables* includes keywords like “renewable,” “solar,” “wind,” and “hydropower.” In addition, a residual topic with no keywords absorbs content that does not fall under any existing category (see Appendix D for list of all keywords, all topics, and most common words per topic).

**Table 1:** Most Common Words Per Topic

Extractives	Climate and Renewables	Health
<b>eiti</b>	energy	<b>health</b>
<b>mining</b>	electricity	response
environmental	development	services*
implementation	power	<b>covid-19</b>
management	efficiency	emergency
<b>gas</b>	<b>renewable</b>	financing
support	<b>carbon</b>	additional
national	increase	development
conservation	access	care
<b>extractive</b>	sector	support

Table 1 presents the top ten words for *Extractives* and *Climate and Renewables*. A

**Figure 2:** Topic Prevalence Over Time, 2001–2022



This plot displays the prevalence of each topic over time. The x-axis represents the year of project approval by the World Bank Executive Board. The y-axis represents  $\theta$ , the proportion of words in each project description that are associated with a topic, averaged for all projects approved each year, with 90 percent confidence intervals.

third topic, *Health*, serves as a placebo, confirming that the top words associated with each topic define a meaningful theme, even beyond the topics of interest. The pre-specified keywords correctly matched to the pre-specified topic are in bold; one keyword, “service,” is among the top ten words for *Health* despite having been originally assigned to the topic *Industry and Trade/Services*. The project with the highest prevalence for *Extractive* is titled “Mongolia EITI Post Compliance” (Mongolia, 2014). The project with the highest prevalence for *Climate and Renewables* is titled “Additional Financing: Rooftop Solar Program for Residential Sector” (India, 2022).

In Figure 2, each panel presents  $\theta$ , the relative prevalence of a topic, averaged for all projects approved by the Executive Board every year between 2001 and 2022. The post-2019 period is shaded in grey. For the average project approved in 2001, less than five percent of the vocabulary was related to *Extractives*; a similar percentage was related to *Climate and Renewables*. Over time, there has been a gradual, consistent decline in *Extractives*,

with no abrupt change after 2019 — only a continuation of already existing trends. The vocabulary related to *Climate and Renewables* increased considerably over time, especially in 2019, before reverting to prior levels in 2020. In contrast, the vocabulary associated with the health sector increased since the COVID-19 pandemic in 2020, indicating that World Bank project priorities respond quickly to current events and again confirming that the model is doing a good job of parsing out different topics. Of course, the model does not say whether the topic proportions in Figure 2 changed significantly or whether these changes are significantly related to specific external factors. This is what I explore in the next session: I seek to understand whether there was any meaningful change in the vocabulary of World Bank projects after 2019, even after accounting for other factors.

## 5 Predicting Variation in Topic Prevalence

### 5.1 Empirical Strategy

Rather than explain why a project is approved, I seek to explain variation from one project to another. Thus, like [Cormier and Manger \(2022\)](#), [Clark and Dolan \(2021\)](#), [Kersting and Kilby \(2016\)](#), and many others, my unit of analysis is a World Bank project. I estimate two linear regressions; the dependent variable is the topic proportion for either *Extractives* or *Climate and Renewables*, converted to a percentage for ease of interpretation. Following [Cormier and Manger \(2022\)](#), all models include standard errors clustered two ways, by country and year. Two-way clustering allows for within-country correlation (as multiple projects in one country are often complementary) and within-year correlation (as the World Bank often approves similar projects across different countries in the same year). Appendix E reports alternative specifications with country fixed effects and standard errors clustered by country.<sup>19</sup>

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<sup>19</sup>While a difference-in-differences would provide more causal leverage, its validity rests on the parallel trends assumption: the period until 2019 and the period after 2019 should be directly comparable in every meaningful way, *except for a shift in the World Bank's funding priorities*. This assumption is unlikely to hold; given all the global shifts from one period to another, a difference-in-differences would capture more than just a change in the World Bank's funding priorities, leading to confounding.

Still, topic proportions are compositional outcomes in a zero-sum, trade-off relationship: when one topic proportion increases, the total proportion of other topics necessarily declines. These proportions are inherently correlated: they must add up to one. Modeling them separately ignores this correlation, which can lead to biased or inefficient estimates (Philips, Rutherford and Whitten, 2016). To account for this compositional nature, I follow Tomz, Tucker and Wittenberg (2002) and estimate a second set of models: seemingly unrelated regressions (SUR) with a log-ratio transformation of the outcomes. Specifically, I calculate the log of each topic proportion relative to that of the baseline topic, *Extractive*. The logged ratio of *Climate and Renewables* to *Extractives* quantifies changes in the climate vocabulary *relative* to the extractive vocabulary. The resulting coefficients indicate how a one-unit change in each independent variable alters the log ratio for a particular topic. Since the topic model produces 13 topics, the SUR approach consists of 12 regressions. Though this approach is less straightforward to interpret, it works well in combination with the separate regressions. The empirical results highlight not only how the content of World Bank projects change over time, but also how some sectors gain more attention at the expense of others.

## 5.2 Independent Variables

Existing research tends to examine the number, size, and conditionality of World Bank projects, not their content. Yet the project content is plausibly explained by similar factors: a mix of recipient conditions and donor interests (Cormier and Manger, 2022), all lagged to avoid simultaneity bias.

My main goal is to understand whether the content of World Bank projects changed significantly after 2019, as indicated by the dichotomous variable *After 2019*. Beyond that, good governance affects the types of loans a country receives: poorly governed countries are less likely to receive DPF, which is broad, and more likely to receive IPF, which is narrow and project-specific (Winters, 2010). To measure the recipient’s quality of governance, I follow Winters (2010) and average all six World Governance Indicators, using linear interpo-

lation when they are unavailable (in 1997, 1999, and 2001). In light of evidence that World Bank lending responds to upcoming elections ([Kersting and Kilby, 2016](#)), the dichotomous indicator *Election Year* reflects the occurrence of a presidential or parliamentary election, using data from V-Dem and the Database of Political Institutions (with additional coding for microstates). Models also include dichotomous indicators for *EITI Membership* (from the EITI website), oil and gas *Field Discovery* (from the Global Energy Monitor), *SIDS* (Small Island Developing States, following the official UN classification), and the occurrence of a biological, climatological, meteorological, hydrological, or geophysical *Disaster* (from the International Disasters Database, EM-DAT). *Extractive* words might be more prevalent among EITI members; *Climate and Renewables* and *Environment* words might be more prevalent among SIDS (which tend to be more vulnerable to climate change) or in case of a recent drought, wildfire, flood, landslide, or earthquake, for example.

The recipient’s logged *GDP per Capita* (in constant 2015 US dollars) and *Resource Rents* (in percentage of the GDP), both from the World Development Indicators 2024, likely affect project content: poorer countries with large resource wealth may attract projects with a larger *Extractive* content, even after 2019. *DAC Aid* indicates the total official development assistance received from members of the Development Assistance Committee (disbursements in billions of constant 2022 US dollars, obtained from the OECD Data Explorer in 2024), whereas *Chinese Finance* ([Dreher et al., 2022](#)) indicates the equivalent received from China (new disbursements in billions of constant 2021 US dollars). Though both variables have a skewed distribution, I do not log them to prevent the loss of negative values (which are instances of loan repayment). Since World Bank lending responds to competition with China ([Zeitz, 2021](#)), *Chinese Finance* is crucial for the analysis. However, its coverage is comparatively modest (2000–2022), hence the focus on projects after 2000.

In terms of donor interests, one dichotomous indicator denotes *IMF Program Participation* ([Kentikelenis and Stubbs, 2023](#)) and another denotes *UN Security Council Membership* ([Dreher, Sturm and Vreeland, 2009a](#)); using the IMF and UN websites, respectively, I extend

the data coverage until 2022. Relatedly, Bailey, Strezhnev and Voeten’s (2015) measure of UN General Assembly voting indicates to what extent the recipient’s ideal point estimates overlap with those of the US. US allies receive more projects (Dreher, Sturm and Vreeland, 2009a) with fewer conditions (Clark and Dolan, 2021), and if the Bank coordinates its activities with the Fund (Marchesi and Sirtori, 2011). If the World Bank makes exceptions to its climate commitments, funding oil and gas projects “in exceptional circumstances” even after 2019, it is possible that US allies are more likely to fall under the “exceptional circumstance” category.

### 5.3 Results

To understand variation in the content of World Bank projects, Table 2 first examines the topic proportions separately, in absolute terms. Models 1 and 2 show that relative to a project approved between January 2001 and December 2019, a project approved after December 2019 used 2.32 percent fewer words related to the extractive sector and 2.56 fewer words related to climate and renewables, all else equal. These effects are statistically significant. EITI members, SIDS, and those with a large GDP share coming from resource rents tend to attract projects with a significantly larger *Extractive* vocabulary. In contexts of poor governance, the *Climate and Renewables* vocabulary decreases. Appendix G presents similar models for the remaining topics. Consistent with the COVID-19 pandemic and the resulting global recession, the only significant proportion increases after 2019 are for *Health*, *Social Protection*, and *Finance*.

Still, Models 1 and 2 say little about trade-off relationships. With separate regressions, the interpretation is restricted to the individual components rather than the compositional relationships: researchers can only say how an independent variable affects each component separately, not how changes in one component affect others. Separate regressions do not allow for a direct analysis of how changes in one topic relate to changes in another topic. For example, countries under an IMF program might have a higher topic proportion for

**Table 2:** Predictors of Topic Prevalence Over Time, 2001–2022

	Dependent Variable:		
	% Extractives	% Climate and Renewables	$Log \left( \frac{\% \text{ Climate and Renewables}}{\% \text{ Extractives}} \right)$
	(1)	(2)	(3)
After 2019	−2.32*** (0.33)	−2.56*** (0.71)	0.19** (0.10)
Governance	0.56 (0.44)	2.23** (0.91)	0.27*** (0.08)
Election Year	0.21 (0.29)	−0.10 (0.64)	−0.01 (0.08)
EITI Member	1.49** (0.59)	0.14 (0.80)	−0.22** (0.09)
Field Discovery	0.14 (0.50)	0.54 (1.32)	0.04 (0.10)
SIDS	1.02** (0.48)	−0.12 (1.54)	−0.15 (0.13)
Disaster	0.35 (0.35)	−0.44 (0.79)	−0.13 (0.09)
Log GDP per Capita	−0.25 (0.26)	0.58 (0.55)	0.11** (0.05)
Log Resource Rents	0.36*** (0.10)	−0.22 (0.31)	−0.08*** (0.02)
DAC Aid	−0.15 (0.09)	0.45* (0.25)	0.10*** (0.03)
Chinese Finance	−0.01 (0.03)	−0.03 (0.07)	−0.00 (0.01)
IMF Program	0.66** (0.32)	−1.76*** (0.45)	−0.35*** (0.07)
UNSC Member	−0.00 (0.30)	−0.62 (1.06)	−0.13 (0.13)
Voting with the US	−1.39 (2.30)	−1.74 (4.22)	−0.09 (0.40)
Intercept	4.13* (2.20)	6.21 (4.36)	0.06 (0.39)
R <sup>2</sup>	0.01	0.01	0.02
Observations	9157	9157	9157

All independent variables are lagged at  $t - 1$ . Models 1 and 2 are linear regressions with standard errors clustered by country and year. The dependent variable is the prevalence of the corresponding topic, converted to a percentage. Model 3 is a part of 12 seemingly unrelated regressions with correlated standard errors to allow for interdependencies (see Appendix G for remaining regressions). The dependent variable is the log of the *Climate and Renewables* topic proportion relative to the proportion of the baseline topic, *Extractive*. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

*Extractives* and a smaller proportion for *Climate and Renewables*, yet it is inaccurate to say that the climate sector is “losing” words to the extractive sector unless the relationship between topics is explicitly modeled using SUR.

In Table 2, Model 3 presents the change in *Climate and Renewables* relative to the baseline topic, *Extractives*. The coefficients represent the expected change in the log-ratio of each

topic relative to the baseline topic for a one-unit change in the independent variables. A positive coefficient denotes an increase in the *Climate and Renewables* topic proportion relative to *Extractives*, whereas a negative coefficient denotes a decrease relative to *Extractives*.

In absolute terms, World Bank projects might not have increased their focus on *Climate and Renewables* after 2019 (Model 2), but *relative to the extractive sector*, this focus increased about 20.9 percent (Model 4,  $e^{0.19} = 1.209$ ). World Bank projects are using fewer words like “oil,” “gas,” or “mining” and significantly replacing them with words like “climate,” “renewable,” and “resilience.” Consistent with previous results, EITI membership is associated with a significant relative increase in *Extractives*, as is IMF program participation. This aligns with the IMF’s focus on fiscal consolidation, which is tied to good natural resource management (Goes and Chapman, 2024; Goes, 2023) but might come at the expense of the environment (Forster, Bhandary and Gallagher, 2024). Appendix G presents the remaining regressions, which show that much of the focus after 2019 shifted to the health sector to fight the COVID-19 pandemic.

## 5.4 Robustness: Project Sectors and Themes

While the main models use topic prevalence as the outcome of interest, additional models using World Bank project classifications as the outcome lead to similar results. In Table 3, the dependent variable *Sector: Extractives* takes the value of one for projects belonging to the *Mining* or *Oil and Gas* subsectors. The dependent variable *Sector: Climate and Renewables* takes the value of one for the following subsectors: *Renewable Energy*, *Renewable Energy Biomass*, *Renewable Energy Geothermal*, *Renewable Energy Hydro*, *Renewable Energy Solar*, and *Renewable Energy Wind*. The dependent variable *Theme: Climate Change* follows the new taxonomy, which includes climate change as a subtheme of *Environment and Natural Resource Management*. There is no corresponding theme for the extractive sector.

According to the logistic regressions in Table 3, the absolute number of projects belonging to *Sector: Extractives* and *Sector: Climate and Renewables* decreased by 49 and 18 percent



**Table 3:** Predictors of Project Sector and Theme Over Time, 2001–2022

	Dependent Variable:		
	Sector:	Sector:	Theme:
	Extractives (1)	Climate and Renewables (2)	Climate Change (3)
After 2019	−0.67*** (0.11)	−0.20** (0.09)	−3.83*** (0.41)
Governance	−0.13 (0.14)	0.43** (0.17)	0.49*** (0.18)
Election Year	0.36*** (0.12)	−0.14 (0.09)	0.02 (0.12)
EITI Member	0.85*** (0.17)	−0.07 (0.19)	−0.34 (0.21)
Field Discovery	0.01 (0.20)	−0.14 (0.22)	0.30* (0.17)
SIDS	0.47* (0.27)	−0.06 (0.27)	−0.20 (0.35)
Disaster	0.03 (0.13)	−0.06 (0.11)	0.06 (0.15)
Log GDP per Capita	0.01 (0.06)	−0.17** (0.08)	0.23** (0.10)
Log Resource Rents	0.18*** (0.06)	0.03 (0.05)	0.07 (0.06)
DAC Aid	0.00 (0.04)	0.04 (0.04)	0.03 (0.05)
Chinese Finance	0.00 (0.01)	−0.00 (0.01)	−0.01 (0.02)
IMF Program	0.16 (0.11)	−0.19* (0.11)	−0.45*** (0.12)
UNSC Member	−0.34 (0.26)	0.23 (0.19)	0.02 (0.11)
Voting with the US	0.94 (1.05)	−0.72 (1.04)	−1.09 (0.88)
Log Likelihood	−1509.45	−1821.75	−1920.00
Observations	9157	9157	9157

All independent variables are lagged at  $t - 1$ . Models 1, 2, and 3 are logistic regressions with standard errors clustered by country and year. The dependent variable indicates whether a project was coded by the World Bank as belonging to the corresponding sector or theme. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

after 2019, respectively (Model 1,  $e^{-0.67} = 0.51$ ; Model 2,  $e^{-0.20} = 0.82$ ). Using the new classification, Model 3 confirms a significant reduction in the number of projects belonging to *Theme: Climate Change*. As before, EITI members, SIDS, and countries with a large GDP share coming from resource rents tend to attract more extractive projects. The similarities between Table 2 and 3 suggest that the World Bank codes its projects accurately: despite incentives to downplay its extractive finance and exaggerate its climate finance, the

official sector labels appear to accurately reflect each project’s content. In sum, the Bank is funding fewer extractive and climate projects overall, but relatively more climate projects than extractive ones, consistent with its stated commitment to prioritize climate finance.

## 6 Predicting Variation in Commitments

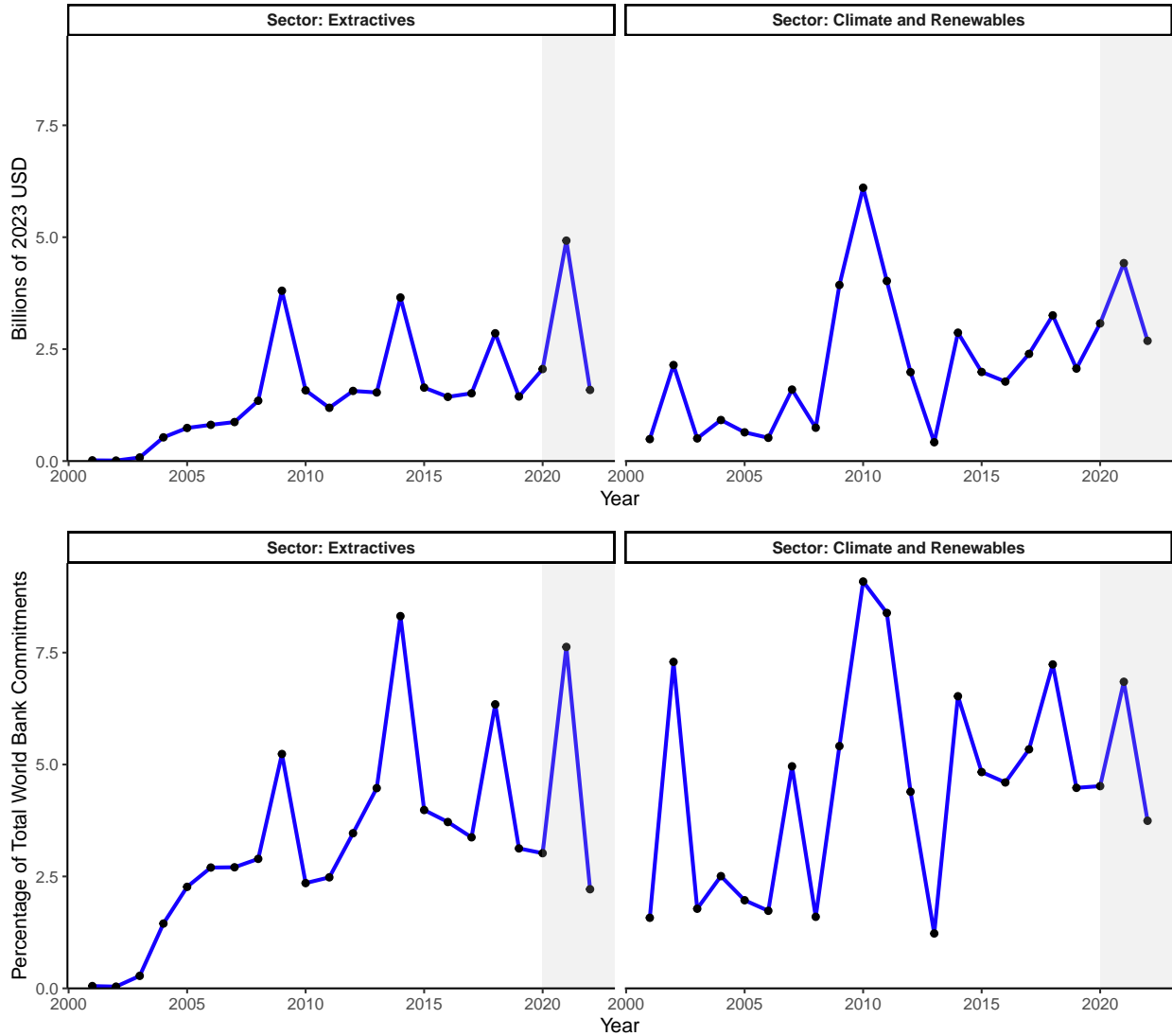
Tables 2 and 3 suggest that the World Bank reduced the number and proportion of projects devoted to the extractive sector after 2019. While the number of extractive projects decreased, the remaining projects could be more impactful in scale: the World Bank could be consolidating resources into larger initiatives rather than dispersing smaller projects across the sector. To test for this possibility, I examine variation in logged new IDA and IBRD commitments, deflated to billions of constant 2023 US dollars using the World Development Indicators’ GDP deflator. This excludes grants managed by the World Bank on behalf of other financiers like multi-donor trust funds (though the results are robust to the inclusion of these grants, as Appendix H shows). Between 2001 and 2022, 233 projects belonged to *Extractives* and 245 belonged to *Climate and Renewables*. In Figure 3, the top panels aggregate the commitments of all projects by year and sector. The bottom panels weigh each project size against the total annual commitments, accounting for the fact that the World Bank’s overall lending capacity changes over time.<sup>20</sup>

In Table 4, Model 1 shows that projects in the extractive sector tend to be significantly larger in absolute terms after 2019. The World Bank is still investing substantial resources in the extractive sector, despite a publicly stated shift towards climate and renewable projects. When commitments in this sector are weighted against total commitments, Model 3 identifies no significant change. There might be fewer projects in the extractive sector after 2019, but the absolute amounts are higher, indicating that each project is larger than before. This

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<sup>20</sup>The IMF has a formal quota system that determines how much member countries can borrow, so IMF studies tend to examine the total amount committed to each loan divided by the corresponding country’s borrowing quota (Copelovitch, 2010; Nelson, 2014; Chwieroth, 2013). This strategy is not feasible in the context of the World Bank, which does not have formal quotas.

**Figure 3:** Commitments by Sector, 2001–2022



This plot displays the amount of IDA and IBRD funds committed to the two sectors of interest — *Extractives* and *Climate and Renewables* — in absolute terms (in billions of 2023 US dollars, top) as well as relative terms (as a proportion of total commitments, bottom), combining all projects approved each year.

confirms a strategic choice to fund only high-impact extractive projects, rather than a broad array of smaller ones. At the same time, the proportion of funding to the extractive sector remains the same, indicating that projects in this sector are not being deprioritized relative to other sectors.

The results for *Climate and Renewables* are fairly similar: while the absolute amount of

**Table 4:** Predictors of World Bank Commitments Over Time, 2001–2022

	Dependent Variable:			
	Log USD, Sector:	Log USD, Sector:	% Total, Sector:	% Total, Sector:
	Extractives (1)	Climate and Renewables (2)	Extractives (3)	Climate and Renewables (4)
After 2019	0.83*** (0.17)	0.44** (0.17)	0.10 (0.10)	−0.05 (0.05)
Governance	−0.08 (0.22)	0.17 (0.26)	−0.12 (0.08)	0.13 (0.15)
Election Year	−0.00 (0.15)	−0.10 (0.23)	−0.04 (0.07)	0.09 (0.16)
EITI Member	−0.03 (0.21)	−0.22 (0.15)	−0.03 (0.05)	−0.09 (0.07)
Field Discovery	0.48*** (0.15)	0.57** (0.25)	0.08 (0.05)	0.26 (0.18)
SIDS	−1.63*** (0.43)	−1.70*** (0.32)	−0.26*** (0.09)	−0.29*** (0.08)
Disaster	0.33 (0.27)	0.49* (0.25)	0.07 (0.10)	0.19* (0.10)
Log GDP per Capita	0.36*** (0.12)	0.14 (0.10)	0.14** (0.05)	0.07 (0.08)
Log Resource Rents	−0.02 (0.09)	0.01 (0.05)	−0.01 (0.03)	0.02 (0.03)
DAC Aid	0.23** (0.10)	0.06 (0.04)	0.04 (0.03)	0.02 (0.02)
Chinese Finance	0.02 (0.02)	0.07*** (0.02)	0.00 (0.01)	0.03*** (0.01)
IMF Program	−0.49*** (0.17)	−0.11 (0.17)	−0.09** (0.04)	−0.05 (0.07)
UNSC Member	−0.28 (0.32)	0.76** (0.31)	−0.16* (0.09)	0.23 (0.15)
Voting with the US	1.31 (1.30)	0.52 (0.80)	0.49 (0.45)	−0.21 (0.41)
Intercept	14.90*** (0.97)	16.78*** (0.99)	−0.88** (0.40)	−0.25 (0.57)
R <sup>2</sup>	0.33	0.34	0.19	0.15
Observations	233	245	233	245

All independent variables are lagged at  $t - 1$ . Models 1 to 4 are linear regressions with standard errors clustered by country and year. When a project was coded by the World Bank as belonging to the corresponding sector, the dependent variable indicates the amount of IDA and IBRD commitments to said project. In Models 1 and 2, this is reported in billions of 2023 US dollars, logged; in Models 3 and 4, this is reported as a percentage of total IDA and IBRD commitments. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

climate finance increased, its share relative to total funding did not change significantly after 2019. In other words, climate issues may not actually be taking priority over other issues, as promised. Rather than a strategic shift in the Bank’s funding focus, these results show that climate finance is expanding only as a function of total budget increases. An increase in the *number* of climate projects without a corresponding increase in the *share* of climate

funding indicates that, on average, each individual climate project is receiving less funding than before. The Bank might be attempting to meet its climate goals through smaller-scale, targeted investments with limited depth, a decision bound to attract considerable criticism from environmental groups.

## 7 Conclusion

This study shows that the World Bank reduced financing to projects in the oil and gas sectors after 2019. As expected, much of this finance went to the health sector to combat the COVID-19 pandemic, but at least some of it was divested to projects related to renewable energy and climate mitigation. Of course, linear regressions alone cannot say if this change was a direct consequence of the World Bank’s climate pledge or if it just reflects a much longer fossil fuel divestment trend. Additional qualitative evidence will probe whether the pledge to cease oil and gas funding after 2019 implied a hard cutoff or was just a culmination of existing funding priorities. To be clear, extractive finance did not stop altogether after 2019. True to its word, the World Bank continued to fund such projects in exceptional circumstances. Expert interviews will provide further insights into the Bank’s decision-making process.

In quantitative terms, I aim to explore other outcomes — not just the proportion of extractive projects approved by the World Bank each year but also their duration and funding amount. ...for shorter periods, which would still signal a growing commitment to climate policy. Additionally, the regional distribution of projects might shed light on potential geographical priority shifts that align with the World Bank’s stated goals.

I also plan to pursue other empirical strategies, like a regression discontinuity design (RDD) with December 2019 as a cutoff. The control group would consist of projects approved until this date (pre-policy change), whereas the treatment group would consist of projects approved after this date (post-policy change). One potential challenge is that an RDD assumes there was no manipulation of the assignment variable around the cutoff —

for example, it assumes that the World Bank did not strategically accelerate the approval of extractive projects to meet the cutoff. I plan to interview World Bank experts about the timing of project approval, but it is unlikely that they would admit to such project manipulation, even if it did occur.

Multilateral funding represents a series of trade-offs — in a world of limited budgets, the choice for one sector or country is necessarily the choice against another. Future research will benefit from a mixed-methods approach that combines quantitative analysis with case studies of specific projects, like Guyana’s, to better understand IOs’ climate norms as well as instances of norm deviation. This approach will allow for a more nuanced interpretation of the World Bank’s evolving climate policies and their implications for global energy transitions. Ultimately, IOs are prone to policy inertia and status quo bias, so even gradual change can represent significant progress.

## References

- Andersen, Jørgen Juel, Niels Johannesen, David Dreyer Lassen and Elena Paltseva. 2017. “Petro Rents, Political Institutions, and Hidden Wealth: Evidence from Offshore Bank Accounts.” *Journal of the European Economic Association* 15(4):818–860.
- Arias, Sabrina B. and Richard Clark. 2024. “Risk and Responsibility: Climate Vulnerability and IMF Conditionality.” *Working Paper* .
- Bailey, Michael A., Anton Strezhnev and Erik Voeten. 2015. “Estimating Dynamic State Preferences from United Nations Voting Data.” *Journal of Conflict Resolution* 61(2):1–27.
- Barnett, Michael N. and Martha Finnemore. 1999. “The Politics, Power, and Pathologies of International Organizations.” *International Organization* 53(4):699–732.
- Blei, David M., Andrew Y. Ng and Michael I. Jordan. 2003. “Latent Dirichlet Allocation.” *Journal of Machine Learning Research* 3:993–1022.

- Casper, Brett A. 2017. “IMF Programs and the Risk of a Coup d’état.” *Journal of Conflict Resolution* 61(5):964–996.
- Chang, Jonathan, Jordan Boyd-Graber, Sean Gerrish, Chong Wang and David M. Blei. 2009. “Reading Tea Leaves: How Humans Interpret Topic Models.” *Proceedings of the 22nd International Conference on Neural Information Processing Systems* pp. 288–296.
- Chapman, Terrence, Songying Fang, Xin Li and Randall W. Stone. 2017. “Mixed Signals: IMF Lending and Capital Markets.” *British Journal of Political Science* 47(2):329–349.
- Chwieroth, Jeffrey M. 2013. “‘The Silent Revolution:’ How the Staff Exercise Informal Governance over IMF Lending.” *Review of International Organizations* 8(2):265–290.
- Clark, Richard and Lindsay R. Dolan. 2021. “Pleasing the Principal: U.S. Influence in World Bank Policymaking.” *American Journal of Political Science* 65(1):36–51.
- Clark, Richard and Noah Zucker. 2023. “Climate Cascades: IOs and the Prioritization of Climate Action.” *American Journal of Political Science* (Forthcoming).
- Copelovitch, Mark S. 2010. “Master or Servant? Agency Slack and the Politics of IMF Lending.” *International Studies Quarterly* 54:49–77.
- Cormier, Ben. 2016. “Empowered Borrowers? Tracking the World Bank’s Program-for-Results.” *Third World Quarterly* 37(2):209–226.
- Cormier, Ben and Mark S. Manger. 2022. “Power, Ideas, and World Bank Conditionality.” *Review of International Organizations* 17(3):397–425.
- David-Barrett, Elizabeth and Ken Okamura. 2016. “Norm Diffusion and Reputation: The Rise of the Extractive Industries Transparency Initiative.” *Governance* 29(2):227–246.
- Denny, Matthew J. and Arthur Spirling. 2018. “Text Preprocessing for Unsupervised Learning: Why It Matters, When It Misleads, and What to Do About It.” *Political Analysis* 26(2):168–189.

- Dreher, Axel. 2004. "A Public Choice Perspective of IMF and World Bank Lending and Conditionality." *Public Choice* 119(3-4):445–464.
- Dreher, Axel, Andreas Fuchs, Bradley Parks, Austin Strange and Michael J. Tierney. 2022. *Banking on Beijing: The Aims and Impacts of China's Overseas Development Program*. Cambridge: Cambridge University Press.
- Dreher, Axel, Jan Egbert Sturm and James Raymond Vreeland. 2009a. "Development Aid and International Politics: Does Membership on the UN Security Council Influence World Bank Decisions?" *Journal of Development Economics* 88(1):1–18.
- Dreher, Axel, Jan Egbert Sturm and James Raymond Vreeland. 2009b. "Global Horse Trading: IMF Loans for Votes in the United Nations Security Council." *European Economic Review* 53(7):742–757.
- Dreher, Axel, Jan-Egbert Sturm and James Raymond Vreeland. 2015. "Politics and IMF Conditionality." *Journal of Conflict Resolution* 59(1):120–148.
- Eichenauer, Vera Z. and Bernhard Reinsberg. 2017. "What Determines Earmarked Funding to International Development Organizations? Evidence From the New Multi-Bi Aid Data." *Review of International Organizations* 12(2):171–197.
- Eshima, Shusei, Kosuke Imai and Tomoya Sasaki. 2024. "Keyword-Assisted Topic Models." *American Journal of Political Science* 68(2):730–750.
- European Investment Bank. 2024. *2023 Joint Report on Multilateral Development Banks' Climate Finance*. Luxembourg: European Investment Bank.
- Fenton Villar, Paul. 2020. "The Extractive Industries Transparency Initiative (EITI) and Trust in Politicians." *Resources Policy* 68:101713.
- Fenton Villar, Paul and Elissaios Papyrakis. 2017. "Evaluating the Impact of the Extractive



- Industries Transparency Initiative (EITI) on Corruption in Zambia.” *Extractive Industries and Society* 4(4):795–805.
- Fleck, Robert K. and Christopher Kilby. 2006. “World Bank Independence: A Model and Statistical Analysis of US Influence.” *Review of Development Economics* 10(2):224–240.
- Forster, Timon, Alexander E. Kentikelenis, Bernhard Reinsberg, Thomas H. Stubbs and Lawrence P. King. 2019. “How Structural Adjustment Programs Affect Inequality: A Disaggregated Analysis of IMF Conditionality, 1980-2014.” *Social Science Research* 80:83–113.
- Forster, Timon, Rishikesh Ram Bhandary and Kevin P. Gallagher. 2024. “The International Monetary Fund and Deforestation: Analyzing the Environmental Consequences of Conditional Lending.” *Working Paper* .
- Genovese, Federica. 2020. *Weak States at Global Climate Negotiations*. Cambridge: Cambridge University Press.
- Goes, Iasmin. 2023. “Examining the Effect of IMF Conditionality on Natural Resource Policy.” *Economics & Politics* 35(1):227–285.
- Goes, Iasmin and Stephen B. Kaplan. 2024. “Crude Credit: The Political Economy of Natural Resource Booms and Sovereign Debt Management.” *World Development* 180(106645):1–14.
- Goes, Iasmin and Terrence L. Chapman. 2024. “Can ‘Soft’ Advice From International Organizations Catalyze Natural Resource Sector Reform?” *International Studies Quarterly* 68(2):sqae048.
- Heinzel, Mirko and Andrea Liese. 2021. “Managing Performance and Winning Trust: How World Bank Staff Shapes Recipient Performance.” *Review of International Organizations* 16(3):625–653.

- Heinzel, Mirko, Jonas Richter, Per Olof Busch, Hauke Feil, Jana Herold and Andrea Liese. 2020. “Birds of a Feather? The Determinants of Impartiality Perceptions of the IMF and the World Bank.” *Review of International Political Economy* 28:1249–1273.
- Hernandez, Diego. 2017. “Are “New” Donors Challenging World Bank Conditionality?” *World Development* 96(2007):529–549.
- Kentikelenis, Alexandros and Thomas Stubbs. 2023. *A Thousand Cuts: Social Protection in the Age of Austerity*. Oxford: Oxford University Press.
- Kersting, Erasmus K. and Christopher Kilby. 2016. “With a Little Help From My Friends: Global Electioneering and World Bank Lending.” *Journal of Development Economics* 121:153–165.
- Kilby, Christopher. 2009. “The Political Economy of Conditionality: An Empirical Analysis of World Bank Loan Disbursements.” *Journal of Development Economics* 89(1):51–61.
- Kinda, Harouna and Noël Thiombiano. 2024. “Does Transparency Matter? Evaluating the Impacts of the Extractive Industries Transparency Initiative (EITI) on Deforestation in Resource-Rich Developing Countries.” *World Development* 173:106431.
- Lang, Valentin. 2021. “The Economics of the Democratic Deficit: The Effect of IMF Programs on Inequality.” *Review of International Organizations* 16:599–623.
- Malik, Rabia and Randall W Stone. 2018. “Corporate Influence in World Bank Lending.” *Journal of Politics* 80(1):103–118.
- Marchesi, Silvia and Emanuela Sirtori. 2011. “Is Two Better Than One? The Effects of IMF and World Bank Interaction on Growth.” *Review of International Organizations* 6(3):287–306.
- McGuirk, Eoin F. 2013. “The Illusory Leader: Natural Resources, Taxation and Accountability.” *Public Choice* 154:285–313.

- Merling, Lara and Timon Forster. 2024. "Climate Policy at the International Monetary Fund: No Voice for the Vulnerable?" *Global Policy* 15(3):539–553.
- Moser, Christoph and Jan Egbert Sturm. 2011. "Explaining IMF Lending Decisions After the Cold War." *Review of International Organizations* 6(3):307–340.
- Nelson, Stephen C. 2014. "Playing Favorites: How Shared Beliefs Shape the IMF's Lending Decisions." *International Organization* 68(2):297–328.
- Nielson, Daniel L. and Michael J. Tierney. 2003. "Delegation to International Organizations: Agency Theory and World Bank Environmental Reform." *International Organization* 57(2):241–276.
- Paler, Laura. 2013. "Keeping the Public Purse: An Experiment in Windfalls, Taxes, and the Incentives to Restrain Government." *American Political Science Review* 107(4):706–725.
- Papyrakis, Elissaios, Matthias Rieger and Emma Gilberthorpe. 2017. "Corruption and the Extractive Industries Transparency Initiative." *Journal of Development Studies* 53(2):295–309.
- Philips, Andrew Q., Amanda Rutherford and Guy D. Whitten. 2016. "Dynamic Pie: A Strategy for Modeling Trade-Offs in Compositional Variables over Time." *American Journal of Political Science* 60(1):268–283.
- Pickering, Jonathan, Jakob Skovgaard, Soyeun Kim, J. Timmons Roberts, David Rossati, Martin Stadelmann and Hendrikje Reich. 2015. "Acting on Climate Finance Pledges: Inter-Agency Dynamics and Relationships With Aid in Contributor States." *World Development* 68(1):149–162.
- Reinsberg, Bernhard. 2017. "Organizational Reform and the Rise of Trust Funds: Lessons From the World Bank." *Review of International Organizations* 12(2):199–226.

- Reinsberg, Bernhard, Thomas Stubbs and Alexander Kentikelenis. 2022. “Compliance, Defiance, and the Dependency Trap: International Monetary Fund Program Interruptions and Their Impact on Capital Markets.” *Regulation and Governance* 16(4):1022–1041.
- Rickard, Stephanie J. and Teri L. Caraway. 2019. “International Demands for Austerity: Examining the Impact of the IMF on the Public Sector.” *Review of International Organizations* 14(1):1–23.
- Ross, Michael L. 2004. “How Do Natural Resources Influence Civil War? Evidence from Thirteen Cases.” *International Organization* 58(1):35–67.
- Ross, Michael L. 2008. “Oil, Islam, and Women.” *American Political Science Review* 102(1):107–123.
- Sovacool, Benjamin K., Götz Walter, Thijs Van de Graaf and Nathan Andrews. 2016. “Energy Governance, Transnational Rules, and the Resource Curse: Exploring the Effectiveness of the Extractive Industries Transparency Initiative (EITI).” *World Development* 83:179–192.
- Stone, Randall W. 2008. “The Scope of IMF Conditionality.” *International Organization* 62(4):589–620.
- Stubbs, Thomas, Bernhard Reinsberg, Alexander Kentikelenis and Lawrence King. 2020. “How to Evaluate the Effects of IMF Conditionality: An Extension of Quantitative Approaches and an Empirical Application to Public Education Spending.” *Review of International Organizations* 15(1):29–73.
- Syed, Shaheen and Marco Spruit. 2017. “Full-Text or Abstract? Examining Topic Coherence Scores Using Latent Dirichlet Allocation.” *Proceedings of the 2017 International Conference on Data Science and Advanced Analytics* pp. 165–174.

- Tomz, Michael, Joshua A. Tucker and Jason Wittenberg. 2002. “An Easy and Accurate Regression Model for Multiparty Electoral Data.” *Political Analysis* 10(1):66–83.
- Tørstad, Vegard, Håkon Sælen and Live Standal Bøyum. 2020. “The Domestic Politics of International Climate Commitments: Which Factors Explain Cross-Country Variation in NDC Ambition?” *Environmental Research Letters* 15(2).
- van der Ploeg, Frederick and Steven Poelhekke. 2009. “Volatility and the Natural Resource Curse.” *Oxford Economic Papers* 61(4):727–760.
- Venables, Anthony J. 2016. “Using Natural Resources for Development: Why Has It Proven So Difficult?” *Journal of Economic Perspectives* 30(1):161–184.
- Vreeland, James Raymond. 2003. “Why Do Governments and the IMF Enter into Agreements? Statistically Selected Cases.” *International Political Science Review* 24(3):321–343.
- Wade, Robert H. 2009. “Accountability Gone Wrong: The World Bank, Non-governmental Organisations and the US Government in a Fight over China.” *New Political Economy* 14(1):25–48.
- Weaver, Catherine. 2008. *Hypocrisy Trap: The World Bank and the Poverty of Reform*. Princeton: Princeton University Press.
- Winters, Matthew S. 2010. “Choosing to Target: What Types of Countries Get Different Types of World Bank Projects.” *World Politics* 62(3):422–458.
- Woo, Byungwon. 2013. “Conditional on Conditionality: IMF Program Design and Foreign Direct Investment.” *International Interactions* 39(3):292–315.
- World Bank Group. 2012. *Investment Lending Reform: Modernizing and Consolidating Operational Policies and Procedures*. Washington, D.C.: World Bank Group.
- World Bank Group. 2021. *Climate Action Plan 2021-2025*. Washington, D.C.: World Bank Group.

Zeitz, Alexandra O. 2021. “Emulate or Differentiate? Chinese Development Finance, Competition, and World Bank Infrastructure Funding.” *The Review of International Organizations* 16(2):265–292.

# Appendix for Pledge and Prejudice: The Reality of International Climate Commitments

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November 2024

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## A Countries Included in the Analysis

Afghanistan, Albania, Algeria, Angola, Antigua & Barbuda, Argentina, Armenia, Azerbaijan, Bahamas, Bangladesh, Barbados, Belarus, Belize, Benin, Bhutan, Bolivia, Bosnia & Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Comoros, Costa Rica, Côte d'Ivoire, Croatia, Czechia, Democratic Republic of the Congo, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Federated States of Micronesia, Fiji, Gabon, Gambia, Georgia, Ghana, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hungary, India, Indonesia, Iran, Iraq, Jamaica, Jordan, Kazakhstan, Kenya, Kiribati, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Lithuania, Madagascar, Malawi, Maldives, Mali, Marshall Islands, Mauritania, Mauritius, Mexico, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, North Macedonia, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Republic of the Congo, Romania, Russia, Rwanda, Samoa, São Tomé & Príncipe, Senegal, Serbia, Seychelles, Sierra Leone, Slovakia, Slovenia, Solomon Islands, Somalia, South Africa, South Korea, South Sudan, Sri Lanka, St. Kitts & Nevis, St. Lucia, St. Vincent & Grenadines, Sudan, Suriname, Syria, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Trinidad & Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, Ukraine, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe.

## B World Bank Projects

I use data on all projects approved by the World Bank Executive Board from January 2001 to December 2022, excluding the following:

1. Projects that were dropped.
2. Projects attributed to multiple states (e.g. EU Accession Countries or Andean Countries) or non-sovereign states (e.g. the Republic of Kosovo or the West Bank and Gaza).
3. Projects with no Executive Board approval date.
4. Projects whose description says “DON’T PUB.”
5. Guarantees.



## C Topic Model Description

To classify the content of World Bank projects, I use the keyword assisted topic model (keyATM) developed by [Eshima, Imai and Sasaki \(2024\)](#). Like other topic models, the keyATM assumes that each document  $d$  (out of a total of  $D$  documents) contains  $N_d$  words, out of a total of  $V$  unique words, which in turn belong to  $K$  topics. We can observe the words, but not the topics: they are latent, and the goal of the model is to identify the distribution of the latent topics underlying each document.

Unlike other topic models, the keyATM allows us to distinguish between keyword topics,  $\tilde{K}$ , and no-keyword topics,  $K - \tilde{K}$ . For each keyword topic  $k$ , I provide  $L_k$  keywords; the remaining  $K - \tilde{K}$  no-keywords topics are “residual” topics that the model identifies on its own. For each word  $i$  in document  $d$ , each topic  $z_{di} \in \{1, 2, \dots, K\}$  follows a categorical distribution

$$z_{di} \sim \text{Categorical}(\theta_d), \quad (1)$$

where  $\theta_d$  is a  $K$ -dimensional vector, following a Dirichlet distribution with parameter  $\alpha$  (discussed below),  $\sum_{k=1}^K \theta_{dk} = 1$ . The value of  $\theta_d$  is the main outcome of interest: it is a document-topic distribution that represents the relative proportion of each topic for document  $d$ . If the sampled topic  $z_{di}$  is a no-keyword topic, each word  $w_{di}$  is distributed as follows:

$$w_{di}|z_{di} = k \sim \text{Categorical}(\phi_k) \text{ for } k \in \{\tilde{K} + 1, \tilde{K} + 2, \dots, K\}, \quad (2)$$

where  $\phi_k$  is a  $V$ -dimensional vector representing the relative frequency of each word within topic  $z_{di}$  ([Eshima, Imai and Sasaki, 2024, 4](#)). If, however, the sampled topic  $z_{di}$  is a keyword topic, the distribution of each word  $w_{di}$  follows two steps. First, we draw the random variable

$$s_{di}|z_{di} = k \sim \text{Bernoulli}(\pi_k) \text{ for } k \in \{1, 2, \dots, \tilde{K}\}, \quad (3)$$

where  $\pi_k$  is the success probability for word  $w_{di}$  (that is, the probability that this word will be sampled). Second, if  $s_{di}$  equals 0, the word  $w_{di}$  is distributed as follows:

$$w_{di}|s_{di}, z_{di} = k \sim \text{Categorical}(\phi_k) \text{ for } k \in \{1, 2, \dots, \tilde{K}\}. \quad (4)$$

If  $s_{di}$  equals 1,  $w_{di}$  is distributed as follows:

$$w_{di}|s_{di}, z_{di} = k \sim \text{Categorical}(\tilde{\phi}_k) \text{ for } k \in \{1, 2, \dots, \tilde{K}\}. \quad (5)$$

where  $\tilde{\phi}_{z_n}$  is a  $V$ -dimensional vector of probabilities for the keyword list  $V_k$ . This means that  $L_k$  elements (the keywords) have positive values, and the remaining elements in  $V$  are 0. A single word  $w_{di}$  can belong to multiple topics, since topics are not strictly independent from one another.

The R package **keyATM**, developed by [Eshima, Imai and Sasaki \(2024\)](#), uses the following default values:

$$\pi_k \sim \text{Beta}(1, 1) \text{ for } z_n = \{1, 2, \dots, \tilde{K}\} \quad (6)$$

$$\phi_k \sim \text{Dirichlet}(0.01) \text{ for } z_n = \{1, 2, \dots, \tilde{K}\} \quad (7)$$

$$\tilde{\phi}_k \sim \text{Dirichlet}(0.1) \text{ for } z_n = \{1, 2, \dots, \tilde{K}\} \quad (8)$$

$$\theta_d \sim \text{Dirichlet}(\alpha) \text{ for } d = \{1, 2, \dots, D\} \quad (9)$$

$$\alpha_k \sim \begin{cases} \text{Gamma}(1, 1) & \text{for } k = \{1, 2, \dots, \tilde{K}\} \\ \text{Gamma}(1, 2) & \text{for } k = \{\tilde{K} + 1, \tilde{K} + 2, \dots, K\} \end{cases} \quad (10)$$

As long as sample size is large, the choice of hyper parameters is not important — with the exception of  $\pi_{z_n}$ , which controls the weight of keywords and has a non-informative prior,  $\text{Beta}(1, 1)$ .

Compared to the base keyATM described above, the extension I use — the dynamic keyATM — replaces Equation 10 with the following:

$$\alpha_{rk} \sim \text{Gamma}(1, 1) \text{ for } r = \{1, 2, \dots, \tilde{R}\} \text{ and } k = \{1, 2, \dots, \tilde{K}\}, \quad (11)$$

where  $R$  are total latent discrete states to which each time period belongs. This allows  $\alpha$  to vary across states, and thus the topic proportion to vary over time.

## D Keywords

I use the following keywords to generate the  $\tilde{K} = 12$  topics of interest, derived from the official World Bank subsectors:

**Extractives:** oil, gas, petroleum, eiti, coal, charcoal, gasoline, extractive, extractives, diesel, fuel, hydrocarbon, lpg, mining, mine, mineral, minerals

**Climate and Renewables:** renewable, renewables, solar, wind, hydropower, hydroelectric, photovoltaics, biomass, geothermal, climate, ghg, hcfc, hydrochlorofluorocarbons, methane, carbon, sequestration, atmosphere, greenhouse, unfccc

**Health:** health, healthy, healthcare, hiv, hospital, hospitals, influenza, malaria, vaccine, vaccination, maternal, flu, hiv aids, covid-19, polio

**Transportation:** road, roads, highway, railway, rail, port, airline, transport, transportation, waterway, waterways

**Agriculture:** agro, agri, agriculture, irrigation, rural, soil, fertilizer, livestock, farm, farming, land, smallholder, crop, crops, drainage, fishery, fisheries, forestry

**Education:** education, school, schools, student, students, learn, learning, vocational, teaching, teacher, teachers, university, universities, workforce

**Financial Sector:** banking, banks, insurance, pension, pensions, finance, financial, securities, sme, smes, msme, msme, fiscal

**Industry and Trade** housing, construction, manufacturing, service, services, infrastructure, trade, tourism, industry, industries

**Water, Sanitation, and Waste:** water, sanitation, sanitary, waste, wastewater, watershed, sewerage, sewer, drainage

**Information and Communication:** communication, communications, telecommunications, telecom, ict, digital

**Public Administration:** law, justice, administration, government, subnational, data, statistics, statistical, capacity, database

**Social Protection:** social, protection

## E Additional Topics: Prevalence

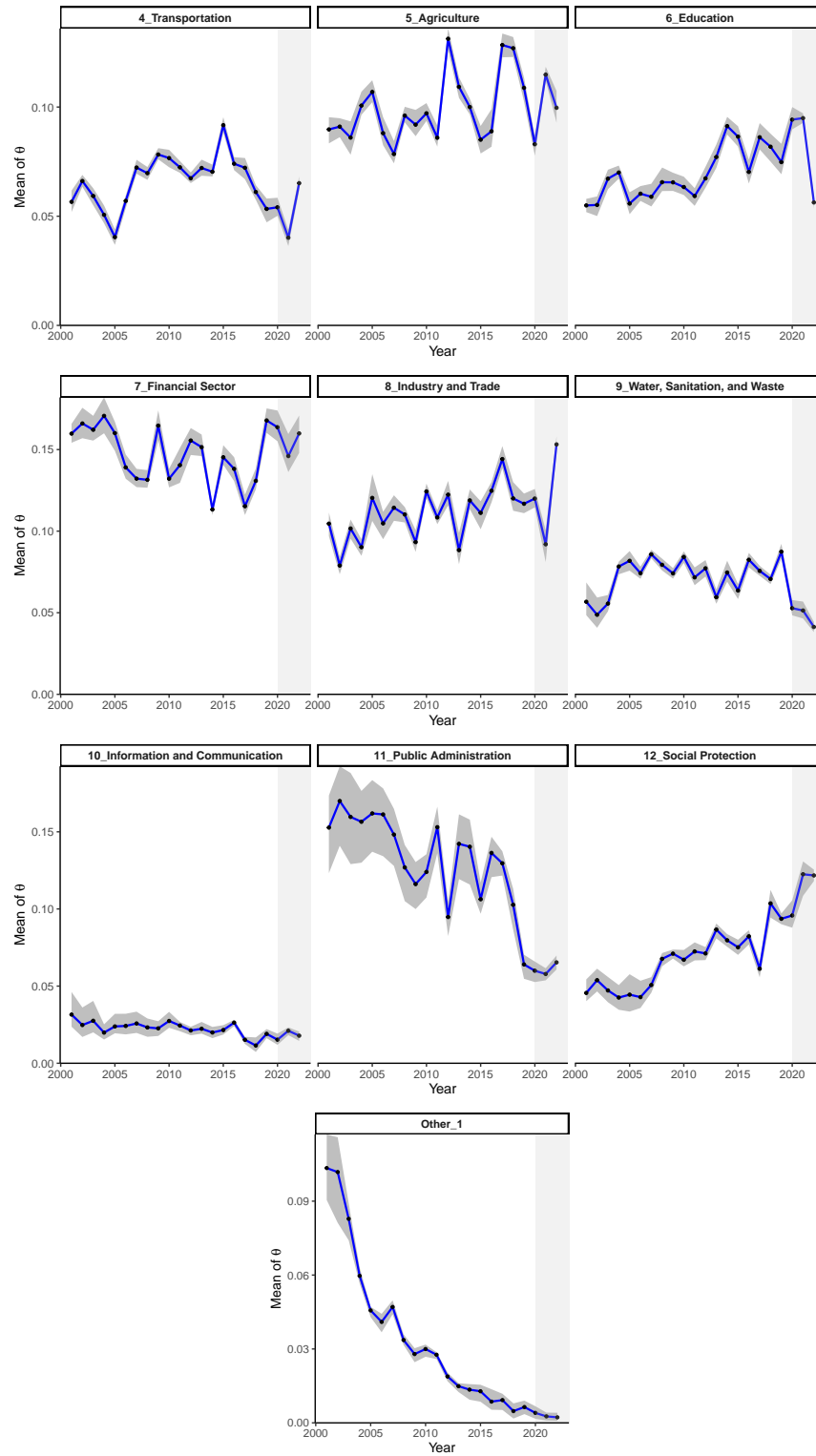
Table E.1 presents the ten most frequent words for all topics other than the four main ones. In Figure E.1, each panel presents  $\theta$ , the relative prevalence of these topics. The values of  $\theta$  are averaged for all projects approved by the Executive Board every year between 2001 and 2022. The post-2019 period is shaded in grey.

Table E.1: Most Common Words Per Topic

Transportation	Agriculture	Education	Financial Sector	Industry and Trade
<b>transport</b>	development	<b>education</b>	development	development
<b>road</b>	management	quality	sector	<b>infrastructure</b>
development	agricultural	development	policy	<b>services</b>
improve	<b>rural</b>	improve	support	urban
<b>roads</b>	sustainable	<b>learning</b>	<b>financial</b>	access
urban	<b>agriculture</b>	basic	public	local
additional	<b>land</b>	access	growth	improve
finance	areas	support	management	financing
safety	conservation	<b>school</b>	reform	<b>service</b>
sector	improve	secondary	<b>fiscal</b>	rural*

Water, Sanitation, and Waste	Information and Communication	Public Administration	Social Protection	Other
<b>water</b>	<b>digital</b>	<b>capacity</b>	<b>social</b>	satisfactory
<b>sanitation</b>	innovation	development	development	performance
supply	<b>ict</b>	public	poor	outcome
management	development	management	support	credit
services*	technology	support	safety	loan
development	<b>communication</b>	sector	<b>protection</b>	borrower
urban	redd	national	vulnerable	government*
improve	information	system	additional	adjustment
sustainable	apl	building	financing	ratings
access	regional	strengthening	youth	risk

Figure E.1: Topic Prevalence Over Time, 2001–2022



This plot displays the prevalence of each topic over time. The x-axis represents the year of project approval by the World Bank Executive Board. The y-axis represents  $\theta$ , the proportion of words in each project description that are associated with a topic, averaged for all projects approved each year, with 90 percent confidence intervals.

## F Additional Topics: Predictors

Table F.1: Predictors of Topic Prevalence Over Time, 2001–2022

	Dependent Variable: %										
	Health	Transportation	Agriculture	Education	Finance	Industry and Trade	Water, Sanitation, and Waste	Information and Communication	Public Administration	Social Protection	Other
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
After 2019	10.51*** (1.10)	−0.76 (0.61)	0.49 (0.96)	1.62 (1.04)	1.84** (0.78)	0.51 (1.81)	−1.99*** (0.18)	−0.49*** (0.15)	−8.29*** (0.90)	4.04*** (0.72)	−2.63*** (0.51)
Governance	−2.42*** (0.83)	1.77* (1.06)	1.54** (0.69)	−0.06 (0.67)	5.55*** (1.45)	−3.59*** (1.00)	0.03 (0.95)	0.07 (0.41)	−3.11*** (0.91)	−3.57*** (1.02)	1.01** (0.40)
Election Year	−0.82* (0.48)	0.22 (0.63)	−0.77 (0.60)	0.46 (0.32)	0.56 (0.83)	−0.00 (0.63)	−0.72 (0.56)	0.20 (0.22)	1.11 (0.84)	−0.39 (0.50)	0.03 (0.37)
EITI Member	−0.12 (0.70)	−1.47** (0.63)	0.09 (0.53)	0.65 (0.52)	−1.70 (1.21)	−0.68 (1.12)	0.63 (0.69)	−0.31 (0.27)	−0.29 (1.15)	3.69*** (1.05)	−2.12*** (0.64)
Field Discovery	−2.23*** (0.83)	2.02 (1.77)	0.84 (0.85)	−0.22 (0.70)	−1.09 (1.52)	−0.69 (1.12)	4.08** (1.76)	−0.11 (0.32)	−2.26 (1.41)	−0.99 (0.99)	−0.04 (0.30)
SIDS	1.15 (1.02)	2.49 (1.85)	−5.15*** (1.08)	0.08 (1.58)	1.12 (2.46)	4.62* (2.48)	−4.01*** (1.00)	0.69 (0.65)	−1.77 (1.45)	0.78 (1.81)	−0.91** (0.42)
Disaster	0.88 (0.64)	0.95 (0.62)	1.50* (0.78)	−0.51 (0.67)	−2.17* (1.13)	1.27 (0.92)	0.24 (0.78)	0.15 (0.30)	−0.83 (0.88)	−1.38 (1.06)	−0.00 (0.38)
Log GDP per Capita	−0.98** (0.49)	0.53 (0.73)	−0.98* (0.52)	−0.77** (0.35)	0.19 (0.92)	−1.40*** (0.51)	0.93 (0.59)	0.08 (0.21)	1.53** (0.60)	0.78 (0.52)	−0.23 (0.28)
Log Resource Rents	0.12 (0.18)	0.16 (0.20)	0.15 (0.24)	−0.16 (0.22)	0.25 (0.41)	−0.22 (0.43)	−0.02 (0.18)	−0.06 (0.11)	0.18 (0.27)	−0.57* (0.32)	0.02 (0.09)
DAC Aid	−0.59* (0.32)	0.45 (0.28)	−0.18 (0.21)	0.43 (0.30)	−0.58 (0.38)	0.10 (0.23)	0.01 (0.24)	0.10 (0.12)	0.01 (0.42)	−0.11 (0.33)	0.03 (0.23)
Chinese Finance	0.01 (0.05)	0.09 (0.09)	0.01 (0.06)	−0.04 (0.02)	−0.11 (0.14)	0.13 (0.08)	0.06 (0.08)	−0.02 (0.02)	−0.00 (0.08)	−0.03 (0.06)	−0.06 (0.04)
IMF Program	−0.33 (0.58)	−1.71** (0.78)	−1.20*** (0.38)	−0.01 (0.51)	4.21*** (0.95)	−1.31 (0.84)	−1.81*** (0.63)	−0.47* (0.27)	1.71* (0.91)	0.96 (0.77)	1.05** (0.44)
UNSC Member	0.36 (0.87)	−1.10 (1.31)	−0.87 (1.00)	−0.22 (0.75)	0.84 (1.38)	−1.07 (1.36)	−0.25 (1.24)	0.24 (0.35)	−0.00 (1.31)	1.17 (0.87)	1.52** (0.76)
Voting with the US	−4.87* (2.95)	2.68 (3.73)	3.10 (4.62)	−7.11*** (2.71)	13.94** (5.83)	−3.03 (5.58)	−6.77* (3.70)	3.27* (1.68)	2.87 (5.31)	−0.42 (3.45)	−0.52 (3.16)
R <sup>2</sup>	0.04	0.01	0.01	0.00	0.03	0.01	0.02	0.00	0.02	0.02	0.03
Observations	9157	9157	9157	9157	9157	9157	9157	9157	9157	9157	9157

All independent variables are lagged at  $t - 1$ . Models 1 to 11 are linear regressions with standard errors clustered by country and year. The dependent variable is the prevalence of the corresponding topic, converted to a percentage. Standard errors clustered by country and year. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table F.2: Predictors of Topic Prevalence Over Time, 2001–2022

	Dependent Variable: Logged...										
	Health	Transportation	Agriculture	Education	Finance	Industry	Water	ICT	Public Admin.	Soc. Protection.	Other
	Extractives (1)	Extractives (2)	Extractives (3)	Extractives (4)	Extractives (5)	Extractives (6)	Extractives (7)	Extractives (8)	Extractives (9)	Extractives (10)	Extractives (11)
After 2019	1.61*** (0.10)	0.44*** (0.10)	0.41*** (0.10)	0.55*** (0.10)	0.45*** (0.12)	0.45*** (0.11)	0.16* (0.10)	0.37*** (0.08)	−1.10*** (0.12)	0.96*** (0.10)	−0.32*** (0.09)
Governance	−0.34*** (0.08)	0.14* (0.08)	0.20** (0.09)	−0.03 (0.08)	0.54*** (0.10)	−0.35*** (0.10)	−0.10 (0.08)	−0.09 (0.07)	−0.28*** (0.10)	−0.51*** (0.09)	0.15** (0.07)
Election Year	−0.05 (0.08)	−0.05 (0.07)	−0.10 (0.08)	0.05 (0.08)	0.06 (0.09)	−0.04 (0.09)	−0.12 (0.08)	0.02 (0.06)	0.16* (0.09)	0.00 (0.08)	−0.01 (0.07)
EITI Member	−0.20** (0.09)	−0.37*** (0.09)	−0.37*** (0.10)	−0.11 (0.09)	−0.56*** (0.11)	−0.35*** (0.11)	−0.25*** (0.09)	−0.24*** (0.07)	−0.53*** (0.11)	0.17* (0.09)	−0.67*** (0.08)
Field Discovery	−0.37*** (0.11)	0.23** (0.10)	0.14 (0.11)	−0.10 (0.10)	−0.12 (0.13)	−0.11 (0.12)	0.40*** (0.10)	−0.08 (0.08)	−0.12 (0.12)	−0.21** (0.11)	−0.06 (0.09)
SIDS	−0.10 (0.13)	0.09 (0.13)	−0.81*** (0.14)	−0.22* (0.13)	−0.26* (0.16)	0.31** (0.15)	−0.73*** (0.13)	−0.12 (0.11)	−0.40*** (0.15)	−0.17 (0.13)	−0.49*** (0.12)
Disaster	−0.03 (0.09)	0.06 (0.09)	0.12 (0.09)	−0.11 (0.09)	−0.18* (0.11)	0.08 (0.10)	−0.02 (0.09)	−0.02 (0.07)	−0.04 (0.10)	−0.21** (0.09)	−0.02 (0.08)
Log GDP per Capita	−0.06 (0.05)	0.11** (0.05)	−0.09* (0.05)	−0.06 (0.05)	0.09 (0.06)	−0.15*** (0.06)	0.18*** (0.05)	0.05 (0.04)	0.26*** (0.06)	0.17*** (0.05)	−0.01 (0.04)
Log Resource Rents	−0.07*** (0.03)	−0.05** (0.02)	−0.03 (0.03)	−0.08*** (0.02)	−0.04 (0.03)	−0.10*** (0.03)	−0.06** (0.02)	−0.09*** (0.02)	−0.03 (0.03)	−0.14*** (0.03)	−0.06*** (0.02)
DAC Aid	−0.01 (0.03)	0.10*** (0.03)	0.03 (0.03)	0.09*** (0.03)	0.02 (0.04)	0.10*** (0.04)	0.05 (0.03)	0.07*** (0.03)	0.02 (0.04)	0.04 (0.03)	0.05* (0.03)
Chinese Finance	0.01 (0.01)	0.02*** (0.01)	0.01 (0.01)	0.00 (0.01)	−0.01 (0.01)	0.02** (0.01)	0.02* (0.01)	0.01 (0.01)	0.00 (0.01)	0.00 (0.01)	−0.00 (0.01)
IMF Program	−0.17** (0.07)	−0.33*** (0.07)	−0.26*** (0.08)	−0.16** (0.07)	0.41*** (0.09)	−0.27*** (0.08)	−0.30*** (0.07)	−0.19*** (0.06)	0.24*** (0.08)	0.01 (0.07)	0.05 (0.06)
UNSC Member	−0.18 (0.13)	−0.23* (0.13)	−0.22 (0.14)	−0.05 (0.13)	0.10 (0.16)	−0.24 (0.15)	−0.14 (0.13)	−0.03 (0.11)	0.05 (0.15)	0.02 (0.14)	0.20* (0.12)
Voting with the US	0.09 (0.42)	0.33 (0.40)	0.49 (0.44)	−0.44 (0.41)	1.96*** (0.50)	−0.43 (0.48)	−0.71* (0.41)	0.89*** (0.34)	0.33 (0.49)	0.49 (0.43)	0.18 (0.37)
Intercept	0.72* (0.41)	−0.49 (0.39)	1.60*** (0.43)	0.95** (0.39)	0.92* (0.49)	2.39*** (0.46)	−0.71* (0.39)	−0.46 (0.33)	−0.05 (0.47)	−1.02** (0.41)	0.71** (0.35)
R <sup>2</sup>	0.04	0.02	0.01	0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.02
Observations	9157	9157	9157	9157	9157	9157	9157	9157	9157	9157	9157

All independent variables are lagged at  $t - 1$ . Models 1 to 11 are a part of 12 seemingly unrelated regressions with correlated standard errors to allow for interdependencies. The dependent variable is the log of a topic proportion relative to the proportion of the baseline topic, *Extractive*. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

## G Models With Country-Year Data

The main models use a World Bank project as the unit of analysis. Yet it is also possible to aggregate the data by country and year, shifting the focus from individual projects to country-level patterns to understand policy shifts over time. Still, these two analyses are not directly comparable, as they capture distinct aspects of the data and answer different research questions.

Table G.1 presents the results of three Poisson models; in each model, the outcome is the *count* of projects belonging to the corresponding sector or theme. The number of projects belonging to *Sector: Extractives* and *Theme: Climate Change* declined significantly after 2019, though the number of projects belonging to *Sector: Climate and Renewables* did not change significantly.

Table G.1: Predictors of Project Sector and Theme Over Time, 2001–2022

	Dependent Variable:		
	Sector: Extractives (1)	Sector: Climate and Renewables (2)	Theme: Climate Change (3)
After 2019	−0.46*** (0.07)	0.00 (0.08)	−3.60*** (0.40)
Governance	−0.03 (0.14)	0.35** (0.15)	0.24 (0.23)
Election Year	0.20* (0.11)	−0.27*** (0.10)	−0.11 (0.15)
EITI Member	1.03*** (0.16)	0.09 (0.19)	−0.21 (0.22)
Field Discovery	0.50*** (0.19)	0.49* (0.28)	0.99*** (0.30)
SIDS	−0.17 (0.24)	−0.56* (0.30)	−0.74** (0.36)
Disaster	0.34*** (0.12)	0.30** (0.13)	0.54*** (0.21)
Log GDP per Capita	−0.41*** (0.06)	−0.60*** (0.11)	−0.28* (0.15)
Log Resource Rents	0.07 (0.05)	−0.05 (0.05)	−0.03 (0.05)
DAC Aid	0.10*** (0.02)	0.14*** (0.03)	0.12*** (0.04)
Chinese Finance	0.03*** (0.01)	0.03*** (0.01)	0.02 (0.02)
IMF Program	0.21 (0.13)	−0.14 (0.13)	−0.34* (0.20)
UNSC Member	−0.05 (0.26)	0.56*** (0.21)	0.41** (0.19)
Voting with the US	−0.24 (0.90)	−2.16* (1.21)	−3.50*** (1.30)
Log Likelihood	−1073.82	−1322.32	−1502.27
Observations	3699	3699	3699

All independent variables are lagged at  $t - 1$ . Models 1, 2, and 3 are Poisson regressions with standard errors clustered by country and year. The dependent variable indicates the number of projects coded by the World Bank as belonging to the corresponding sector or theme each country and year. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Turning to the total commitments, Table G.2 presents the results of linear regressions using the total commitments to *Extractives* and *Climate and Renewables* for each country and year. From a country-level perspective, the World Bank has committed a significantly larger portion of its resources to climate-related



initiatives after 2019, both in absolute and in relative terms. This implies that more resources are going into climate projects (even if the number of projects remains constant, as Table G.1 shows). This mirrors the project-level analysis: climate projects received more funding after 2019, whether it is because fewer projects share the same resources (project-level analysis) or because a larger share of the overall budget went to the same number of projects (country-year analysis).

Table G.2: Predictors of World Bank Commitments Over Time, 2001–2022

	Dependent Variable:			
	Log USD, Sector: Extractives	% Total, Sector: Extractives	Log USD, Sector: Climate and Renewables	% Total, Sector: Climate and Renewables
	(1)	(2)	(3)	(4)
After 2019	−0.12 (0.21)	−1.52 (1.15)	0.70*** (0.12)	1.06** (0.53)
Governance	0.24 (0.18)	−0.92 (0.85)	0.42** (0.21)	0.32 (0.85)
Election Year	0.20 (0.15)	1.61 (1.01)	−0.29** (0.13)	0.01 (0.68)
EITI Member	1.45*** (0.42)	3.26** (1.29)	0.09 (0.38)	−0.87 (0.99)
Field Discovery	0.51 (0.35)	0.16 (1.26)	0.48 (0.33)	0.79 (0.65)
SIDS	−0.51*** (0.17)	0.54 (1.13)	−0.55*** (0.19)	−0.04 (1.20)
Disaster	0.17 (0.14)	−0.39 (0.76)	−0.05 (0.15)	−1.33* (0.75)
Log GDP per Capita	−0.53*** (0.13)	−0.56 (0.68)	−0.77*** (0.14)	−1.39*** (0.38)
Log Resource Rents	0.00 (0.03)	0.48*** (0.16)	−0.05 (0.04)	−0.01 (0.23)
DAC Aid	0.25** (0.10)	0.00 (0.51)	0.57*** (0.19)	0.28 (0.31)
Chinese Finance	0.04 (0.04)	−0.03 (0.06)	0.09** (0.04)	0.06 (0.06)
IMF Program	0.25 (0.22)	0.35 (0.86)	−0.30 (0.26)	−1.23* (0.73)
UNSC Member	−0.47** (0.24)	−3.24*** (0.82)	0.63* (0.36)	1.63 (1.48)
Voting with the US	−0.32 (0.62)	1.57 (3.80)	−0.18 (0.59)	0.79 (4.53)
R <sup>2</sup>	0.07	0.02	0.06	0.01
Observations	3699	1965	3699	1965

All independent variables are lagged at  $t - 1$ . Models 1 to 4 are linear regressions with standard errors clustered by country and year. When a project was coded by the World Bank as belonging to the corresponding sector, the dependent variable indicates the amount of IDA and IBRD commitments to each country and year. In Models 1 and 2, this is reported in billions of 2023 US dollars, logged; in Models 3 and 4, this is reported as a percentage of total IDA and IBRD commitments.

\*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Finally, Table G.3 reinforces the main finding that the average climate project approved by the Executive Board after 2019 lasts for significantly fewer years than until 2019, and that this effect is not observed for projects belonging to the extractive sector.

Table G.3: Predictors of Project Duration Over Time, 2001–2022

	Dependent Variable:	
	Sector:	Sector:
	Extractives (1)	Climate and Renewables (2)
After 2019	−0.11 (0.33)	−1.99*** (0.48)
Governance	−0.95* (0.51)	−0.81* (0.44)
Election Year	−0.02 (0.29)	−0.53 (0.35)
EITI Member	−1.63*** (0.44)	−0.90** (0.46)
Field Discovery	0.60 (0.60)	0.20 (0.73)
SIDS	−1.04** (0.46)	−0.47 (0.62)
Disaster	0.35 (0.39)	0.55 (0.58)
Log GDP per Capita	0.13 (0.17)	0.41 (0.38)
Log Resource Rents	−0.08 (0.11)	−0.13 (0.15)
DAC Aid	−0.14 (0.15)	0.08 (0.07)
Chinese Finance	−0.02 (0.02)	0.01 (0.06)
IMF Program	−0.33 (0.44)	0.34 (0.53)
UNSC Member	−0.80 (0.52)	0.25 (0.58)
Voting with the US	3.62** (1.56)	1.37 (1.22)
Intercept	3.23* (1.70)	2.62 (3.00)
R <sup>2</sup>	0.13	0.09
Observations	293	318

All independent variables are lagged at  $t - 1$ . Models 1 and 2 are linear regressions with standard errors clustered by country and year. When a project was coded by the World Bank as belonging to the corresponding sector, the dependent variable indicates the average duration of each project, in years, for each country and year. \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$

## H Models With Country Fixed Effects

Tables H.1, H.2, and H.3 reproduce the main models, replacing standard errors clustered by country and year with country fixed effects and standard errors clustered by country. These alternative models exclude the dichotomous indicator *SIDS*, which is perfectly collinear with the country fixed effects. Other than that, the results are nearly identical.

Table H.1: Predictors of Project Sector, Project Theme, and Topic Prevalence Over Time, 2001–2022

	Dependent Variable:				
	Sector:	Sector:	Theme:	% Extractives	% Climate
	Extractives (1)	Climate and Renewables (2)	Climate Change (3)	(4)	(5)
After 2019	−0.84*** (0.19)	−0.23 (0.19)	−3.75*** (0.71)	−1.73*** (0.29)	−2.63*** (0.80)
Governance	0.38 (0.42)	0.53 (0.37)	0.07 (0.41)	1.36 (1.04)	0.00 (1.57)
Election Year	0.29** (0.14)	−0.13 (0.12)	0.15 (0.14)	0.24 (0.29)	0.45 (0.61)
EITI Member	0.30 (0.23)	−0.12 (0.19)	−0.30 (0.24)	0.10 (0.55)	0.40 (0.90)
Field Discovery	0.33 (0.24)	−0.30 (0.19)	0.07 (0.21)	0.08 (0.61)	−1.18* (0.70)
Disaster	0.28* (0.16)	−0.32** (0.16)	−0.27 (0.18)	0.70 (0.45)	−1.67** (0.73)
Log GDP per Capita	1.57*** (0.34)	0.15 (0.30)	0.51*** (0.19)	−1.23* (0.70)	3.80*** (1.07)
Log Resource Rents	0.33** (0.16)	0.06 (0.14)	0.47*** (0.14)	0.31* (0.18)	0.82 (0.53)
DAC Aid	−0.00 (0.02)	0.06* (0.03)	0.12*** (0.04)	−0.06 (0.10)	0.10 (0.15)
Chinese Finance	0.01 (0.01)	0.00 (0.01)	0.01 (0.01)	0.01 (0.02)	0.00 (0.06)
IMF Program	0.11 (0.14)	−0.06 (0.13)	−0.09 (0.15)	0.28 (0.32)	0.32 (0.55)
UNSC Member	−0.25 (0.20)	0.30 (0.20)	0.07 (0.15)	0.23 (0.40)	−0.45 (0.93)
Voting with the US	0.08 (1.03)	−2.48** (1.06)	−1.36 (1.38)	−3.92** (1.94)	−5.45 (4.02)
Intercept	−11.82*** (2.40)	−4.49** (2.10)	−22.24*** (1.87)	11.87** (5.17)	−17.13** (7.79)
Log Likelihood	−1388.94	−1689.33	−1744.64		
R <sup>2</sup>				0.05	0.06
Observations	9157	9157	9157	9157	9157

All independent variables are lagged at  $t - 1$ . Models 1, 2, and 3 are logistic regressions with country fixed effects and standard errors clustered by country. The dependent variable indicates whether a project was coded by the World Bank as belonging to the corresponding sector or theme. Models 4 and 5 are linear regressions with country fixed effects and standard errors clustered by country. The dependent variable is the prevalence of the corresponding topic, converted to a percentage. \*\*\*  $p < 0.01$ ; \*\*  $p < 0.05$ ; \*  $p < 0.1$

Table H.2: Predictors of World Bank Commitments Over Time, 2001–2022

	Dependent Variable:			
	Log USD, Sector:	% Total, Sector:	Log USD, Sector:	% Total, Sector:
	Extractives (1)	Extractives (2)	Climate and Renewables (3)	Climate and Renewables (4)
After 2019	0.41* (0.22)	−0.02 (0.06)	0.70*** (0.25)	−0.12 (0.25)
Governance	0.04 (0.46)	−0.12 (0.14)	−0.13 (0.71)	0.01 (0.36)
Election Year	0.16 (0.22)	0.03 (0.05)	0.15 (0.20)	0.13 (0.16)
EITI Member	0.15 (0.22)	0.04 (0.08)	−0.02 (0.31)	0.01 (0.14)
Field Discovery	0.13 (0.39)	0.03 (0.22)	−0.10 (0.40)	0.09 (0.18)
Disaster	0.10 (0.23)	0.05 (0.06)	0.14 (0.32)	0.06 (0.07)
Log GDP per Capita	0.96* (0.52)	0.25 (0.16)	0.04 (0.45)	−0.14 (0.20)
Log Resource Rents	0.07 (0.26)	−0.07* (0.04)	0.31 (0.24)	−0.08 (0.13)
DAC Aid	0.07 (0.06)	0.02 (0.04)	−0.11*** (0.03)	−0.04** (0.02)
Chinese Finance	−0.00 (0.03)	−0.00 (0.01)	0.03 (0.02)	0.02 (0.01)
IMF Program	−0.14 (0.21)	0.01 (0.05)	0.30 (0.22)	−0.01 (0.08)
UNSC Member	−0.56 (0.45)	−0.38* (0.20)	0.15 (0.36)	0.18 (0.17)
Voting with the US	0.77 (1.80)	0.12 (0.54)	−0.56 (2.83)	−1.22 (1.14)
Intercept	11.16*** (3.40)	−1.83* (1.01)	17.81*** (3.58)	2.34 (1.45)
R <sup>2</sup>	0.77	0.75	0.73	0.57
Observations	233	233	245	245

All independent variables are lagged at  $t - 1$ . Models 1 to 4 are linear regressions with standard errors clustered by country and year. When a project was coded by the World Bank as belonging to the corresponding sector, the dependent variable indicates the amount of IDA and IBRD commitments to said project. In Models 1 and 2, this is reported in billions of 2023 US dollars, logged; in Models 3 and 4, this is reported as a percentage of total IDA and IBRD commitments. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table H.3: Predictors of Project Duration Over Time, 2001–2022

	Dependent Variable:	
	Sector:	Sector:
	Extractives (1)	Climate and Renewables (2)
After 2019	−0.09 (0.45)	−1.83*** (0.49)
Governance	−1.03** (0.43)	−0.93* (0.52)
Election Year	−0.11 (0.32)	−0.48 (0.37)
EITI Member	−1.25*** (0.37)	−0.97*** (0.34)
Field Discovery	0.49 (0.45)	0.50 (0.78)
Disaster	0.62 (0.44)	0.34 (0.43)
Log GDP per Capita	0.12 (0.20)	0.36 (0.28)
Log Resource Rents	−0.06 (0.14)	−0.13 (0.13)
DAC Aid	−0.13 (0.14)	0.06 (0.07)
Chinese Finance	−0.02 (0.02)	0.04 (0.03)
IMF Program	−0.51 (0.39)	0.37 (0.42)
UNSC Member	−0.76 (0.54)	0.03 (0.78)
Voting with the US	3.25* (1.88)	0.09 (1.59)
Intercept	2.90 (1.82)	3.17 (2.35)
R <sup>2</sup>	0.09	0.07
Observations	325	391

All independent variables are lagged at  $t - 1$ . Models 1 and 2 are linear regressions with standard errors clustered by country and year. When a project was coded by the World Bank as belonging to the corresponding sector, the dependent variable indicates the duration of each project, in years. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

## I Placebo Tests

As a placebo test, I replace *After 2019* with *After 2016* (Table I.1), *After 2017* (Table I.2), *After 2018* (Table I.3), and *After 2020* (Table I.4). These models suggest that the significant decline in extractive projects already began after 2018, though it was largest after 2019. In contrast, the significant decline in climate and renewables was driven exclusively by 2020: it was short-lived and did not register in any other model. Using the new taxonomy, all placebo variables have a negative and significant effect on *Theme: Climate Change*, though these results should be viewed with caution, as the new taxonomy is not comparable for the pre-2016 and post-2016 periods.

Table I.1: Predictors of Project Sector and Theme Over Time, 2001–2022

	Dependent Variable:		
	Sector:	Sector:	Theme:
	Extractives (1)	Climate and Renewables (2)	Climate Change (3)
After 2016 (Placebo)	−0.27 (0.20)	0.10 (0.11)	−1.48*** (0.51)
Governance	−0.12 (0.14)	0.44*** (0.17)	0.47*** (0.18)
Election Year	0.34*** (0.12)	−0.14 (0.09)	0.00 (0.12)
EITI Member	0.81*** (0.19)	−0.15 (0.18)	−0.25 (0.20)
Field Discovery	0.02 (0.21)	−0.12 (0.22)	0.30 (0.19)
SIDS	0.45* (0.27)	−0.09 (0.27)	−0.19 (0.34)
Disaster	0.01 (0.13)	−0.07 (0.11)	0.05 (0.15)
Log GDP per Capita	−0.00 (0.06)	−0.17** (0.08)	0.23** (0.11)
Log Resource Rents	0.19*** (0.06)	0.03 (0.05)	0.05 (0.06)
DAC Aid	0.00 (0.04)	0.04 (0.04)	0.03 (0.05)
Chinese Finance	0.01 (0.01)	0.00 (0.01)	−0.00 (0.02)
IMF Program	0.16 (0.12)	−0.17 (0.11)	−0.48*** (0.13)
UNSC Member	−0.35 (0.26)	0.23 (0.19)	−0.03 (0.12)
Voting with the US	0.96 (1.09)	−0.87 (1.05)	−0.68 (1.00)
Log Likelihood	−1515.32	−1822.31	−1934.73
Observations	9157	9157	9157

All independent variables are lagged at  $t - 1$ . Models 1, 2, and 3 are logistic regressions with standard errors clustered by country and year. The dependent variable indicates whether a project was coded by the World Bank as belonging to the corresponding sector or theme. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Table I.2: Predictors of Project Sector and Theme Over Time, 2001–2022

	Dependent Variable:		
	Sector: Extractives	Sector: Climate and Renewables	Theme: Climate Change
	(1)	(2)	(3)
After 2017 (Placebo)	−0.32 (0.23)	0.01 (0.12)	−2.16*** (0.51)
Governance	−0.12 (0.14)	0.43*** (0.17)	0.47*** (0.18)
Election Year	0.34*** (0.12)	−0.14 (0.09)	0.00 (0.12)
EITI Member	0.81*** (0.19)	−0.11 (0.19)	−0.23 (0.21)
Field Discovery	0.01 (0.21)	−0.13 (0.22)	0.28 (0.17)
SIDS	0.45* (0.27)	−0.08 (0.27)	−0.16 (0.34)
Disaster	0.02 (0.13)	−0.07 (0.11)	0.08 (0.15)
Log GDP per Capita	0.00 (0.06)	−0.17** (0.08)	0.25** (0.10)
Log Resource Rents	0.19*** (0.06)	0.03 (0.05)	0.05 (0.06)
DAC Aid	0.00 (0.04)	0.04 (0.04)	0.03 (0.05)
Chinese Finance	0.01 (0.01)	0.00 (0.01)	−0.01 (0.02)
IMF Program	0.17 (0.12)	−0.18 (0.11)	−0.46*** (0.12)
UNSC Member	−0.34 (0.27)	0.23 (0.19)	−0.02 (0.12)
Voting with the US	0.81 (1.08)	−0.78 (1.05)	−1.09 (0.85)
Log Likelihood	−1514.68	−1822.66	−1916.04
Observations	9157	9157	9157

All independent variables are lagged at  $t - 1$ . Models 1, 2, and 3 are logistic regressions with standard errors clustered by country and year. The dependent variable indicates whether a project was coded by the World Bank as belonging to the corresponding sector or theme. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

## J Predicting Variation in Commitments, Including Grants

Table I.3: Predictors of Project Sector and Theme Over Time, 2001–2022

	Dependent Variable:		
	Sector: Extractives (1)	Sector: Climate and Renewables (2)	Theme: Climate Change (3)
After 2018 (Placebo)	−0.54*** (0.15)	−0.07 (0.13)	−2.62*** (0.68)
Governance	−0.13 (0.14)	0.43** (0.17)	0.48*** (0.18)
Election Year	0.36*** (0.12)	−0.14 (0.09)	0.03 (0.12)
EITI Member	0.85*** (0.17)	−0.09 (0.19)	−0.28 (0.21)
Field Discovery	0.01 (0.21)	−0.14 (0.22)	0.29* (0.17)
SIDS	0.47* (0.27)	−0.07 (0.27)	−0.19 (0.35)
Disaster	0.02 (0.13)	−0.06 (0.11)	0.07 (0.15)
Log GDP per Capita	0.01 (0.07)	−0.17** (0.08)	0.25** (0.10)
Log Resource Rents	0.18*** (0.06)	0.03 (0.05)	0.06 (0.06)
DAC Aid	0.00 (0.04)	0.04 (0.04)	0.03 (0.05)
Chinese Finance	0.01 (0.01)	−0.00 (0.01)	−0.01 (0.02)
IMF Program	0.16 (0.11)	−0.18* (0.11)	−0.45*** (0.12)
UNSC Member	−0.35 (0.27)	0.23 (0.19)	−0.01 (0.11)
Voting with the US	0.84 (1.06)	−0.76 (1.05)	−1.14 (0.87)
Log Likelihood	−1511.04	−1822.51	−1917.86
Observations	9157	9157	9157

All independent variables are lagged at  $t - 1$ . Models 1, 2, and 3 are logistic regressions with standard errors clustered by country and year. The dependent variable indicates whether a project was coded by the World Bank as belonging to the corresponding sector or theme. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

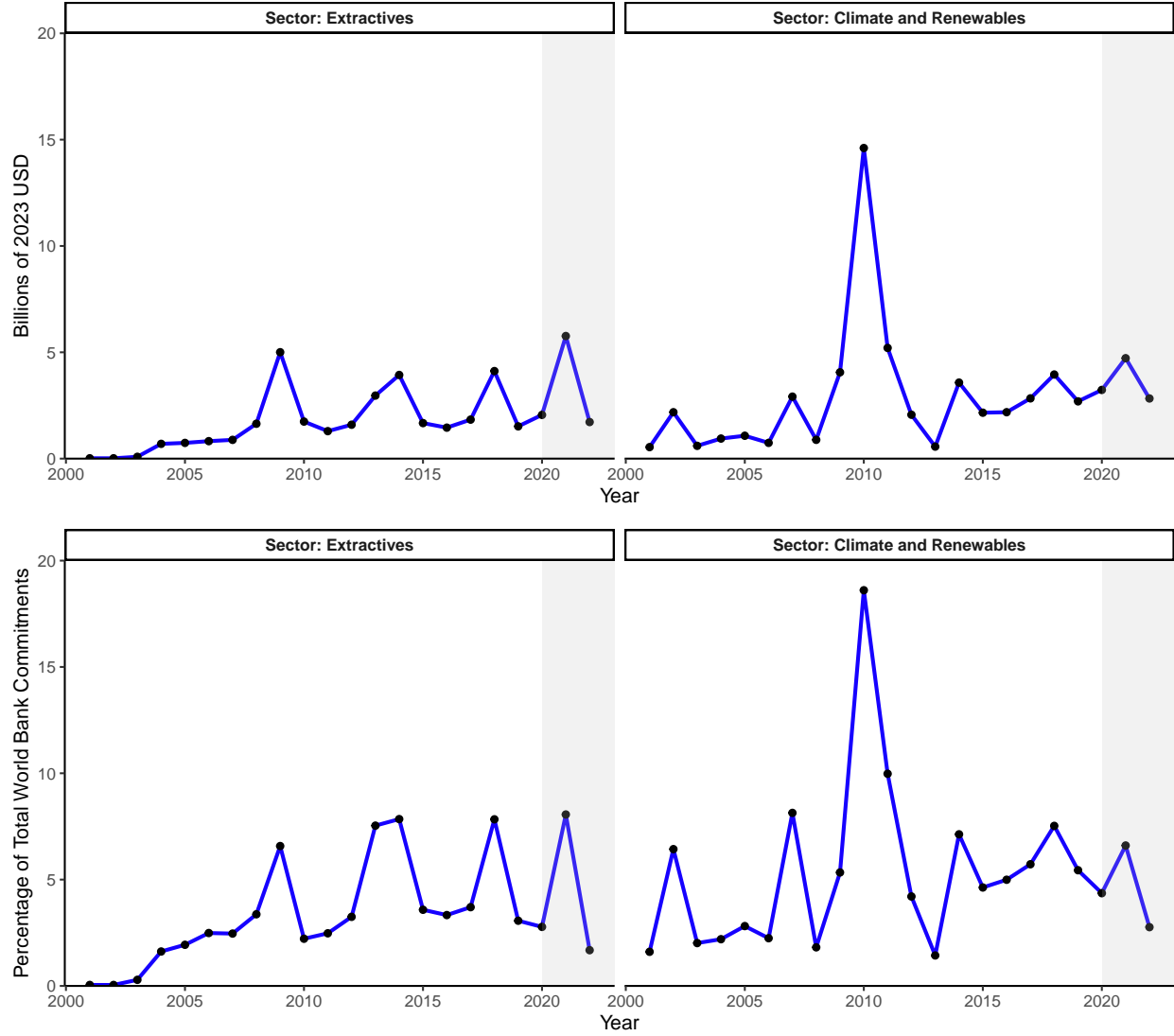


Table I.4: Predictors of Project Sector and Theme Over Time, 2001–2022

	Dependent Variable:		
	Sector: Extractives (1)	Sector: Climate and Renewables (2)	Theme: Climate Change (3)
After 2020 (Placebo)	−0.66*** (0.13)	−0.14 (0.09)	−3.95*** (0.75)
Governance	−0.12 (0.14)	0.43** (0.17)	0.51*** (0.18)
Election Year	0.35*** (0.12)	−0.14 (0.09)	0.01 (0.12)
EITI Member	0.80*** (0.18)	−0.09 (0.19)	−0.46** (0.23)
Field Discovery	−0.00 (0.21)	−0.14 (0.22)	0.31* (0.17)
SIDS	0.45* (0.27)	−0.07 (0.27)	−0.24 (0.36)
Disaster	0.03 (0.13)	−0.06 (0.11)	0.04 (0.15)
Log GDP per Capita	0.00 (0.07)	−0.17** (0.08)	0.23** (0.10)
Log Resource Rents	0.20*** (0.06)	0.03 (0.05)	0.09 (0.06)
DAC Aid	0.00 (0.04)	0.04 (0.04)	0.03 (0.05)
Chinese Finance	0.01 (0.01)	−0.00 (0.01)	−0.01 (0.02)
IMF Program	0.17 (0.11)	−0.18* (0.11)	−0.42*** (0.12)
UNSC Member	−0.33 (0.27)	0.23 (0.19)	0.04 (0.11)
Voting with the US	0.99 (1.06)	−0.74 (1.05)	−1.13 (0.92)
Log Likelihood	−1512.00	−1822.35	−1947.39
Observations	9157	9157	9157

All independent variables are lagged at  $t - 1$ . Models 1, 2, and 3 are logistic regressions with standard errors clustered by country and year. The dependent variable indicates whether a project was coded by the World Bank as belonging to the corresponding sector or theme. \*\*\* $p < 0.01$ ; \*\* $p < 0.05$ ; \* $p < 0.1$

Figure J.1: Commitments by Sector, Including Grants, 2001–2022



This plot displays the amount of money committed to the two sectors of interest — *Extractives* and *Climate and Renewables* — in absolute terms (in billions of US dollars, top) as well as relative terms (as a proportion of total commitments, bottom), combining all projects approved each year. This includes IDA and IBRD commitments, but also grants from other financiers (especially multi-donor trust funds) that are managed by the World Bank.

Table J.1: Predictors of World Bank Commitments Over Time, Including Grants, 2001–2022

	Dependent Variable:			
	Log USD, Sector:	% Total, Sector:	Log USD, Sector:	% Total, Sector:
	Extractives	Extractives	Climate and Renewables	Climate and Renewables
	(1)	(2)	(3)	(4)
After 2019	1.13** (0.52)	0.10 (0.13)	1.43*** (0.24)	0.02 (0.05)
Governance	−0.23 (0.29)	−0.11* (0.06)	−0.50* (0.29)	0.04 (0.10)
Election Year	0.01 (0.25)	−0.02 (0.06)	−0.32 (0.23)	0.08 (0.14)
EITI Member	−0.55* (0.29)	−0.07 (0.06)	−0.35 (0.30)	−0.06 (0.06)
Field Discovery	0.74* (0.39)	0.07 (0.07)	0.47 (0.30)	0.05 (0.13)
SIDS	−1.56*** (0.35)	−0.22*** (0.08)	−1.65*** (0.36)	−0.23*** (0.06)
Disaster	0.28 (0.36)	0.02 (0.10)	−0.29 (0.32)	0.08 (0.08)
Log GDP per Capita	−0.06 (0.17)	0.08* (0.04)	−0.03 (0.28)	0.06 (0.06)
Log Resource Rents	−0.13 (0.13)	−0.01 (0.03)	−0.17* (0.10)	−0.00 (0.02)
DAC Aid	0.05 (0.09)	0.01 (0.02)	0.13** (0.05)	0.03 (0.02)
Chinese Finance	−0.01 (0.03)	−0.00 (0.00)	0.07* (0.04)	0.02** (0.01)
IMF Program	−0.31 (0.26)	−0.07** (0.03)	−0.43 (0.31)	−0.05 (0.05)
UNSC Member	−1.07** (0.43)	−0.20*** (0.05)	−0.26 (0.32)	0.01 (0.13)
Voting with the US	2.41 (1.59)	0.38 (0.28)	3.18*** (1.06)	−0.18 (0.40)
Intercept	16.73*** (1.32)	−0.42 (0.32)	16.84*** (2.39)	−0.22 (0.48)
R <sup>2</sup>	0.10	0.09	0.14	0.03
Observations	373	373	450	450

All independent variables are lagged at  $t - 1$ . Models 1 to 4 are linear regressions with standard errors clustered by country and year. When a project was coded by the World Bank as belonging to the corresponding sector, the dependent variable indicates the amount of grants, IDA, and IBRD commitments to said project. In Models 1 and 2, this is reported in billions of 2023 US dollars, logged; in Models 3 and 4, this is reported as a percentage of total grants, IDA, and IBRD commitments.

## References

Eshima, Shusei, Kosuke Imai and Tomoya Sasaki. 2024. “Keyword-Assisted Topic Models.” *American Journal of Political Science* 68(2):730–750.