

Controlling coalitions: Social lending at the multilateral development banks

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Abstract Multilateral development banks (MDBs) dramatically increased social lending for health, education, and safety nets after 1985. Yet the great powers' social policy preferences remained relatively static from 1980 to 2000. This contradicts the conventional view that powerful states control IOs. We argue that highly institutionalized IOs like MDBs require a complete model of possible member-state coalitions encompassing the preferences of all member states—not just major powers. We develop multiple measures of state preferences and include all member states in our coalitional model. We evaluate our model and alternatives with an analysis of more than 10,000 MDB loans from 1980 to 2000. We find that when we include all member states weighted by their voting shares, principal preferences are significantly related to lending outcomes.

Keywords Multilateral development banks · World Bank · Principal-agent theory · Coalitions · Social lending · Foreign aid

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Total dollars lent for social development at the World Bank in 1998—in education, health, and safety nets—exceeded loans for the traditional sectors of energy, industry, mining, oil and gas, irrigation, transportation, and urban development *combined*. Given that such “traditional” sectors had dominated the Bank’s portfolio since 1945, this change marked a major shift in lending behavior. Echoed among the regional multilateral development banks (MDBs), this trend toward social projects signaled a wholesale change in the focus of multilateral development lending (Kapur et al. 1997; Upton 2000; Easterly 2001; Hicks et al. 2008).

Conventional international relations (IR) theory suggests that this shift in MDB behavior should follow from the interests of the great powers and particularly from the global hegemon. Yet the available data present an empirical puzzle. Preferences for lending to achieve social policy goals versus other policy goals in the advanced industrial democracies—and in the United States especially—have not changed significantly over the last 20 years. Some measures even suggest a decline in the relative preference for social protection since the mid-1990s. If we assume that MDBs are responsive to their most powerful members, then MDB social lending should not have increased over the past decade. But social lending rose dramatically. Why?

Some scholars suggest that such an outcome reveals that the MDBs are runaway agents—their actions do not conform to the interests of the states who created the banks and have formal authority over them (Sandholtz and Zysman 1989; Ascher 1992; Pierson 1996; Barnett and Finnemore 1999). We argue that extant analyses are based on an oversimplified model of state preferences and influence. These studies rarely employ generalizable and replicable measures of state preferences and typically treat the decision-making process as one of informal bargaining among only a handful of states, at best. Yet we know from studies of coalition behavior in domestic politics that ignoring the influence of small, yet often pivotal, players can be highly misleading. We propose a model of MDB governance that takes institutional decision rules seriously. These rules enable both the formation of international coalitions and the collective delegation of tasks in ways that resemble domestic politics much more than IR theory implies.

Conventional IR theory suggests that MDBs should respond chiefly—and perhaps exclusively—to the interests of the most powerful states in the system, or at least the most powerful states within the organization (Krasner 1976; Keohane 1984; Snidal 1985; Moravcsik 1991, 1998; Mearsheimer 1994; Thacker 1999). Alternatively, the concerns of the hegemon should largely dictate MDB actions (Krasner 1985; Gilpin 1987; Grieco 1988; Mearsheimer 1994; Thacker 1999; Gruber 2000; Nielson and Tierney 2003; Klepak 2003). These conclusions of IR scholars are often shared by economists who study IFIs using both formal models and sophisticated econometrics. While Fleck and Kilby (2006) conclude that American geopolitical and, especially, commercial interests shape the geographic distribution of loans from the World Bank, Kilby (2006) finds that the U.S. and Japan overwhelmingly dominate allocation by the Asian Development Bank. Similarly, Andersen et al. find even stronger influence of the U.S. at the IMF (2005) and at the World Bank (2006) when they proxy U.S. interests by voting similarity within the UN General Assembly. Received wisdom thus suggests that the preferences of small states will not have a significant impact on IO outcomes in general or MDB behavior

specifically. Hence, small states are typically ignored in both theoretical and in empirical work that attempts to explain IO behavior.¹

We argue that, in forming intergovernmental coalitions within IOs, the preferences and voting shares of *all* member states might matter and thus all states should be considered as potential coalition partners. If we omit some of the smaller states, a common practice in the study of IR and IO, then we may fail to account for some important observed outcomes. Our model takes the institutions and formal decision rules of MDBs seriously and suggests that even small states will matter for MDB governance, provided they can coalesce with others of like mind. The larger states typically included in analyses of IOs may not determine the overall coalition preference. Such states may be members of a variety of different coalitions whose changing members may shift the collective preference of the winning majority. If the coalition shifts, MDB agent behavior should also shift.

Explicit analysis of delegation to MDBs requires prior work on preference specification and aggregation. We thus develop multiple measures of individual state preferences, including revealed domestic preferences for social policy, foreign social policy preferences inferred from bilateral aid patterns, and a measure combining foreign social aid preferences for donor countries and domestic policy preferences for recipients. Using logit analysis, we analyze more than 10,000 loans issued by the World Bank (IBRD and IDA), the Inter-American Development Bank (IADB), the Asian Development Bank (ASDB), and the African Development Bank (AFDB) and Fund (AFDF) from 1980 to 2000 in order to evaluate three different models of delegation from states to MDBs. We compare our model to the two predominant alternatives in the literature: a hegemonic model and a great powers model.² We find that modeling choices lead to substantively and statistically significant differences in results, and these differences have implications for our conclusions about whether or not principals control agents. With our coalition model, we consistently find that changes in the preferences of the collective principal track changes in loan allocation patterns. The hegemonic and/or great powers models, however, do not show a consistent relationship between principal preferences and lending patterns at MDBs.

The paper proceeds as follows. The first section reviews and qualifies the dominant view that smaller states are irrelevant to understanding IO and MDB behavior. The second section derives individual member states' preferences for percentage of social loans distributed by MDBs. The third section develops the alternative models of the MDB decision-making process and also discusses controls, data, and the dependent variable. The fourth section presents methods and discusses our results, demonstrating a strong and consistent relationship between our coalition model for deriving preferences and lending outcomes. In the fifth section, we conclude that the strong and consistent relationship between the coalition model of preferences and lending outcomes follows from more complete modeling of decision-making processes within MDBs where all member states are included.

¹ Strand (2003a, b) offers a sophisticated and compelling exception.

² These conventional alternatives are rarely specified explicitly. We employ our preference specification and aggregate preference for the great powers model in a way that we believe best replicates the implicit model used by most analysts.

1 The Decisionmaking Process Within MDBS

The conventional wisdom holds that small states do not affect IO behavior in significant ways and thus many empirical studies explore the influence of great powers or the hegemon (Grieco 1990; Thacker 1999; Oatley and Yackee 2000, 2004; Nielson and Tierney 2003; Andersen et al. 2006a, b). Small states possess few attractive unilateral options for realizing the gains that IOs provide (Katzenstein 1985; Moravcsik 1998; Lake 1999; Gruber 2000). Moreover, because they are small, such states are susceptible to side-payments from larger states (Moravcsik 1998; Martin 1992; Klepak 2003).

One prominent approach examines the few leading states and links ultimate IO behavior to the jostling among great powers as they compete to issue marching orders. For example, Moravcsik offers numerous examples where individual leading member states or small groups of powerful states succeeded in pressuring the European Commission to change its behavior.³ Referring specifically to the World Bank, Easterly (2002: 225) asserts that “[e]ach principal will try to get the agent to pursue their objectives and neglect the other principals’ objectives; in the aggregate this weakens incentives on all objectives for the agent.” Wade (2001: 11) captures the great-powers logic with an evocative analogy, describing the World Bank as “a great ship of the seas being pushed and pulled by tugboats each trying to make it go in a different direction.”

Focusing on the hegemon as principal, Woods (2003) argues that the United States government successfully achieves its aims at the Bank through a range of avenues that often involve direct contact between Bank managers and members of the United States government. Similarly, Stone (2002) maintains that the United States government often prevails upon the management of the International Monetary Fund to water down its loan conditions or prematurely renew suspended loans when the recipient is a state that is important to the United States government.⁴

The many gripping anecdotes about the behavior of individual member states (especially the United States) often fail to consider that many IOs are truly international—they represent all of their member states, even if some of those members have much less weight in decision-making. Moreover, close scrutiny of MDB behavior suggests that individual states typically achieve their ends only if a sufficient number of other states join them in a majority coalition.⁵ Coalition

³ Moravcsik (1998) persuasively argues that “The Commission was successful only when it was pursuing the policies that were emerging from Franco-German discussions” (205). Moravcsik’s “intergovernmental” approach to understanding the EU is a conceptual predecessor to our focus on coalition politics within MDB executive boards. While Moravcsik focuses empirical attention on the power and preferences of the three largest member states of the EU, we demonstrate that accurate predictions of MDB agent behavior require analysis of the power and preferences of all member states.

⁴ See Stone’s (2002) explanation for changing Fund policy toward Russia during Clinton Administration. Other IO scholars use similar evidence to explain IO behavior or individual IO decisions. See for example Keohane (1984: chapters 8–10); Thacker (1999); or Barnett (2003).

⁵ The United States, which controls more than 15 percent of voting shares, can unilaterally block institutional change and thus provides the closest approximation to an independent principal of the World Bank. Although the United States can block major institutional changes, however, it does not have the authority to unilaterally bring them about. For any policy change or project approval, the United States requires coalition partners representing at least an additional 35 percent of the voting shares.

dynamics determine how these politics play out in and around MDB executive boards.

For example, after the Dayton Peace Accords were signed in 1995 the World Bank was asked by the United States government to assist Bosnia-Herzegovina in re-designing and building its education and healthcare system, providing micro-finance, and creating a social safety net. But massive reconstruction projects require comprehensive multi-sector country studies. Fortunately, the Bank had more capacity and experience than any other world actor to conduct such a study and coordinate donor rebuilding efforts. However, the Bank also had a long-standing policy (previously passed by the Board) that neither the study nor the resulting projects could be conducted until Bosnia-Herzegovina had paid down all its arrears, which were inherited from the former Yugoslav government. Given its balance of payments position, this task was impossible. Work was delayed.

Most of the European countries were upset at United States' attempts to begin work before formal approval was granted and were not interested in financing an "American" peace (Mallaby 2004). Eveline Herfkens from the Netherlands was the executive director (ED) representing her country plus other newly independent Balkan states on the Bank's Board. She realized that paying back arrears would take time—time that Bosnia-Herzegovina simply did not have. Herfkens started working on the other 23 EDs on the Board and in less than 2 weeks had corralled enough votes to change the policy. According to the United States ED at the time, "Eveline almost always punched above her weight, but this time she was really impressive. She led the charge to get this policy change and the subsequent projects passed by the Board in record time."⁶ In short, interview data suggest that the outcome preferred by the United States was achieved through coalition politics, not direct United States strong-arming of the Bank staff.

Just as small states may be more important than the literature suggests, the United States may be less powerful. While it is certainly true that (*ceteris paribus*) states with more votes are more likely to get their way within IOs, it is also true that once a project proposal reaches the executive board of an MDB that the most powerful state in the world, which also controls the most votes on the board, is basically powerless to block its approval. In fact, the U.S. Executive Director (ED) at the World Bank actually finds him/herself in the minority on project votes more often than any other member of the Board.⁷ From 2004–2008, the U.S. ED voted "no" 98 times, more than any other member of the Board. Despite these "no" votes, at least 92 of these 98 proposals received the required majority vote of the board, and thus were approved and funded.⁸ In most instances the U.S. ED is casting a no vote in order to abide by Congressional statutes requiring U.S. representatives to vote against loans destined for countries whose governments do not meet various human rights conditions. The take home message is that the

⁶ Interview with Jan Piercy, June 2005, Washington DC.

⁷ Interview with anonymous official, U.S. Department of State, March 2009, Washington DC; Interview with Cinnamon Dornsife, Former U.S. Executive Director as the ASDB, Washington DC June 2005.

⁸ We confirmed that at least 92 of the 98 projects were approved by searching the online database of the World Bank website. It is entirely possible that the other 6 were also approved, but the documentation for these 6 projects was missing or incomplete. All data on voting history of U.S. EDs from 2004 to the present is published by the US Department of the Treasury Office of International Affairs.

hegemon, in this case the United States, is not able to determine lending outcomes at MDBs in the absence of other coalition partners.

Hence, we argue that in many IOs the formal rules that specify functional roles and the distribution of authority may actually reflect the “real” influence of various members—much as they do in institutionalized domestic polities.⁹ Within such IOs, we expect that patterns of international politics will resemble domestic politics much more than conventional IR theory admits. As in domestic polities, it is possible that even small or weak actors will matter provided they can coalesce with like-minded allies.

There are numerous examples of small parties that make or break coalition governments in the comparative politics literature. Thus, if formal rules suggest that the preferences of any member state might be represented in the ultimate policy choice, then the preferences of all member states should be considered when predicting agent behavior.¹⁰ In most IOs, there are many more small states than there are small parties in domestic parliaments. This situation should make the collective-action problems of states more daunting than for small parties in legislatures. Yet it is also possible that the interests of small states may be quite similar in terms of what they want from IOs,¹¹ and the voting rules characteristic of some IOs may enable coordination among these small states.

For example, there are currently 179 member countries of the World Bank. If the interests of all states potentially matter, but we only analyze the interests of one or even ten of these—even if the states analyzed hold the largest voting shares—then we may very likely mis-specify the delegating coalition and its preferences.¹² The preferences of all member states certainly do not count equally in any decision of an MDB’s Executive Board and analysts should give attention to issues of weighting. But weighting a vast set of weak states at zero could produce nearly as much bias as weighting all states equally when they do not share equal power.

The voting power of member states and the project approval process within MDBs is formally articulated in their Articles of Agreement and is similar to the decision process within a joint stock company—with a few twists. Member governments negotiate shares and voting rights in MDBs upon entry, roughly proportional to the amount of capital that each has paid in. For example, in 2006 the

⁹ In this paper we assume that formal institutions are efficacious. In previous work one of the authors explains why this assumption is useful and under-utilized for analyzing the politics of IOs (Tierney 2008). However, specifying the general conditions under which this assumption is valid constitutes a critical future step in this research program. For an effort to specify these conditions and to reveal counter-intuitive formal results see Aghion and Tirole (1997) and Frieden (2004).

¹⁰ We realize that such formalism flies in the face of consensus among IO specialists and IR theorists who typically champion the role of norms and informal power within IOs; but the utility of any assumption should be judged by its explanatory power when it confronts actual empirical evidence.

¹¹ As the former United States ED to the Asian Development Bank, Cinnamon Dornsife, explains, “The borrowing countries always vote as a bloc. In fact, I can only remember a single instance of a borrowing country voting against a project. The Taiwanese ED voted against a project for China...and when this happened, the collective inhaling of breath was audible. It was a rare exception.” Dornsife Interview, Washington DC, June 2005.

¹² In a recent paper Copelovitch (2009) improves upon existing studies by modeling the G-5 as the collective principal of the IMF since these states maintain “*de facto* control over the Executive Board.” While a focus on the top 5 is theoretically preferable to the hegemonic model so prevalent in the literature, a logical extension of Copelovitch’s approach would consider all member states rather than just five.

United States controlled 12.9 percent of the voting shares at the Asian Development Bank, China controlled 5.5 percent, and Laos controlled only 0.3 percent. Further, while the United States, Japan, and China have their own representatives on the Board of Directors, Laos shares a single director with five other governments.¹³ As we explain below, this means that the authority of the Laotian state is pooled with that of other states and they collectively designate a single agent (an Executive Director) whom they direct to represent the interests of every government within this “constituency.”¹⁴ Figure 1 below depicts some of the member states of the Asian Development Bank and illustrates both the single-country and joint delegations to EDs within the Bank.

The staff and management of an MDB typically develop projects in consultation with potential borrowing governments and then present individual projects to the Board for approval. If a majority of voting shares is cast in favor of a project, then Bank money is appropriated to cover agreed project costs. If a project fails to attract a majority of shares casting votes, then the loan request is rejected. Hence, the politics of loan approval at the MDBs requires the construction of voting majorities on the Board. Most participants in this process note that projects lacking majority support rarely reach the Board for a vote. “If lots of EDs have concerns, or if individual EDs have strong concerns, the project is not likely to come before the Board. Lots of projects get dumped early in the loan approval process.”¹⁵ Therefore, while formal roll-call votes are the exception, all actual and potential funding decisions within the Board take place in the shadow of the formal majority rule. In other words, the set of projects on which EDs vote is biased heavily in favor of those projects that will ultimately pass the majority threshold. Projects likely to prove unpopular with directors do not come before the board.

Hence, if it is efficacious, the formal rule’s effects should be observable in coalition building on the Board and in loan allocation patterns. Given these decision

¹³ The other governments in this shared constituency were Afghanistan, Bangladesh, Bhutan, India, and Tajikistan. Like Laos, 61 of the 64 member governments share a Director with other states. Hence, it is unwise to generalize from the United States case where the Director is responsible to only one government.

¹⁴ In most MDBs, including the World Bank, the EDs who represent plural constituencies must vote all their shares in one direction or the other. This leaves EDs in a quandary when their constituencies are split. One might assume that such ED agents simply vote their own preference or that of their home country in such a situation, and they certainly have the authority to do so. However, interviews with participants suggest that EDs from plural constituencies work hard to represent all their member governments. Former United States ED at the World Bank, Jan Piercy, explains why a Dutch national is often chosen to represent their constituency on the board. “They would say, ‘we are not instructed by the authorities at home. We represent all the countries in our constituency.’ And they did.” The point is made even clearer by a veteran ED from New Zealand who has served on both the ASDB and the World Bank Boards. At the ASDB, EDs are allowed to split their votes based on the expressed preferences of different member governments. As John Austin explains, “When I was at the ASDB it was a bit easier. I could play the role of budget hawk when voting the shares of New Zealand or Australia by voting “no,” then I’d turn around and cast “yes” votes for Tonga, Samoa and the rest of the borrowers that I represented. However, at the World Bank I either find a consensus among our members, or else I might have to abstain on the vote.” Interview with John Austin, ED at the World Bank from New Zealand. Washington DC, June 2005. Despite these assurances by participants in coalition politics of the Board, Kaja and Werker (2009) provide systematic evidence that individual EDs do, on average, bring home a “bonus” of loan dollars when they are selected to represent their constituency of governments on the Board.

¹⁵ Interview with former United States ED at a regional development bank. Washington, DC. June 2005.

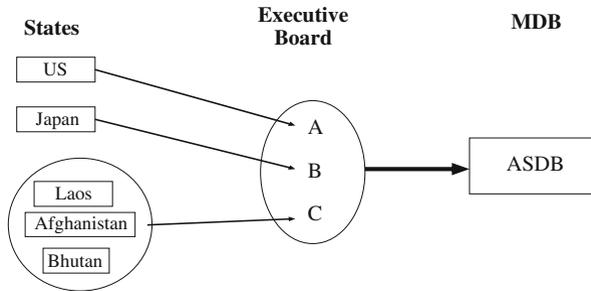


Fig. 1 Single and collective two-stage delegation

rules, we argue that the preferences of all member states within an MDB ought to be considered when attempting to explain or predict the behavior of IO agents.¹⁶

Our analysis suggests that the broad shift toward social lending that took place at the MDBs over the past 20 years depended upon the construction of new coalitions on the various MDB boards. During the 1980s and 1990s, the environmental movement had convinced the Organization of Economic Cooperation and Development (OECD) countries that the Bank should generally avoid big-ticket infrastructure projects (Mallaby 2004).

Bank staff, however, still wanted to sponsor large development projects, and developing countries still wanted access to large-scale development finance. While developing countries may still have preferred infrastructure loans, the social-sector loans were a second-best option.¹⁷ Moreover, unlike infrastructure projects, these large loans attracted the support of vote-rich Western members. Social projects thus increasingly became the vehicles for attracting majorities on the MDB Boards.

2 Deriving Member-state Preferences

We developed four proxy measures of member-state preferences for social development at the MDBs, which we argue ought to drive the percentage of the loan portfolio going to health, education, safety nets, and related projects. In order to develop these measures we constructed two new datasets, each reflecting government social policy behavior in realms other than multilateral finance. The first measure of preferences relies on examination of domestic social policy, the next two on preferences for bilateral foreign aid for social projects, and the fourth (and

¹⁶ Interviews with MDB staff, senior managers, and both current and former EDs suggest that coalitional politics on the Bank Boards are very important and can often be intense. The press coverage surrounding former World Bank President Paul Wolfowitz in the spring of 2007 reveals that authority ultimately resides with the Board and that coalition politics on the Board are consequential.

¹⁷ Many of these same recipients were also democratizing their political institutions during this period. Schools, hospitals, and social safety nets are tangible goods that can benefit large numbers of voters. To the extent that citizens are able to hold their leaders accountable, these leaders are likely to pursue goods that are widely available, rather than goods that are narrowly targetable. Interview with Senior World Bank economist, July 2005.

most appropriate) is a hybrid measure created by using domestic preferences for recipient countries and foreign aid preferences for donors.

Neither domestic social policy nor social foreign aid proportions are likely to track MDB member-country preferences for social loans exactly. Countries may want different policies abroad than at home. Likewise, countries may pursue different goals with bilateral foreign aid than with multilateral lending (Milner 2006; Hicks et al. 2008). Despite these limitations, we believe that the alternatives for measuring preferences are plagued by even more intractable problems. Voting on MDB executive boards was secret during the time period under study and, even if available, would suffer from significant endogeneity problems, since bank staffs likely anticipate donor preferences and propose loans accordingly. Roll call vote data would suffer from severe selection bias under these conditions.

Alternatively, preferences could be measured by conducting surveys with EDs and bank staff. But, in addition to being subject to self-reporting errors, a systematic analysis of this type accounting for all 170-plus member countries of these six banks covering the full 20 years would be impossible. However, our qualitative interviews with bank officials suggest evidence consistent with the quantitative results presented below: the increase in social loans resulted from a two-step process. First, environmental concerns made traditional infrastructure projects less available. Second, recipient countries' increasing interest in social projects meant they became a leading substitute for traditional projects.¹⁸

2.1 Measures of Social Preferences

We construct a Social Policy Index (SPI), which uses principal components factor analysis to aggregate fourteen measures of domestic social policy and social outcomes, including life expectancy, immunizations, child mortality, primary school enrollment, and literacy, among several others. We employed data from the World Development Indicators to build the index. As is typical with international data, there were many missing values across the sample. Rather than deleting the observations with missing data in a case-wise fashion,¹⁹ we multiply imputed the missing data using the procedures suggested by King et al. (2001) employing the program Amelia. The routine generated five different datasets with imputed missing data, and all subsequent statistical analysis (including factor analysis and regression) was performed using all five imputed data sets as King et al. suggest. King et al.'s method retains all cases yet builds in greater uncertainty in the estimated standard errors.

Using 1996 as a baseline year, the index varies over time and cross-nationally. A given country's SPI changes according to the degree its government pursues social policy for its citizens compared to all countries in 1996. This measure assumes foreign policy decisions are informed by domestic policy preferences. Donor governments with redistributive welfare states at home ought to be interested in seeing similar policies and institutions take hold in developing countries. Indeed, a

¹⁸ Interviews with senior World Bank staff members, July 2004 and July 2005, Washington, D.C.

¹⁹ We did use this more primitive procedure in an early version of the paper and our statistical results were substantively similar as—though slightly weaker than—those reported below.

growing body of literature presents evidence that domestic social policy preferences map very well into foreign policy behavior in the social policy issue area specifically.²⁰ Likewise, and perhaps especially, recipient governments that place relatively higher emphasis on social policy goals should pursue social projects more intensely in their planning and negotiations with MDBs than other recipient governments that are less motivated to pursue social policy goals. For details on the factor analysis and construction of this index, see [Appendix B](#).²¹

Since a reasonable objection might be raised as to how well domestic preferences map into foreign policy behavior, we developed two additional proxy measures based on *foreign* social policy to complement the domestic measure. These social foreign aid (SFA) proxy measures of preferences use statistics on bilateral foreign aid compiled from the OECD Creditor Reporting System database. We coded each bilateral grant from all OECD governments into social and non-social categories according to the system found in [Appendix A](#). Generally, projects for health, education, safety nets, women's status, and food aid were coded as social; all other projects were coded as not social. The percentage of social grants was then computed as a proportion of total grants given by donor governments or obtained by recipients. We did this two ways: (1) as a count, with each social project counting equally to derive a percentage of the total project counts; and (2) as a percentage of dollar amounts, with the amounts granted or received for social projects as a percentage of total dollars granted or received. This allowed us to derive two overall measures of social foreign aid behavior for each country by year from 1980 to 2000.

Recipient governments most interested in receiving social aid from bilateral donors ought to also push for social projects from MDBs. Of course, it is likely that recipients have less influence over the type of foreign aid received than donor governments have over the type of aid given. Still, regression analysis employing the two measures shows that the SPI is significantly related to SFA. After excluding wealthy countries (per capita GDP > \$10,000), the SPI and SFA measures for the remaining countries are positively and significantly related (at the .001 level), though the goodness of fit between them is low ($R^2 = .04$).²² This suggests that the two social policy measures are largely independent, though still significantly related to one another statistically. Given this independence, if the results are consistent across the two measures, confidence in the models' robustness ought to increase.

The SFA measure, along with per capita GDP, the natural log of GDP, and the natural log of population, together explain more than forty-seven percent of the variance in the SPI. This suggests that countries with greater preferences for domestic social policy also receive a greater share of bilateral foreign aid for social projects. These results imply that recipient governments with stronger domestic social policy preferences will seek and receive more social foreign aid. Alternatively, donor governments may judge which recipients are better able to administer social projects based on recipients' past domestic social policies and then may give more social aid to countries with better social policies. Either way, this result suggests that

²⁰ See, in particular, Noel and Therien (1995); also, Imbeau (1988); Stokke (1989); Lumsdaine (1993).

²¹ Online appendices are available as electronic supplementary material to the online version of this article.

²² In pooled time-series-cross-sectional regressions using panel-corrected standard errors.

bilateral social foreign aid received provides a reasonable proxy for the loan portfolios governments will prefer to see implemented by MDBs.

Perhaps the most serious objection to these measures of preferences is that they do not work equally well for donor and recipient countries. The domestic Social Policy Index seems a more accurate proxy measure for the loan preferences of project recipients, while the percentage of social foreign aid seems a better proxy for donor preferences. We thus created a third proxy that is a hybrid measure employing both, using the SPI values for recipients and the SFA values for donors. On conceptual grounds, this hybrid measure best captures the likely preferences of donors and recipients, so we use it in the reported regression results below. However, we estimated alternative models using both the SPI and SFA alone as the proxy measures for principal preferences, and these alternative specifications produced qualitatively similar results as those reported. The results are robust to all four different specifications of member-state preferences.

In order to construct our hybrid measure, we separated donors from recipients and calculated the mean and standard deviations of the donors' SFA values over time. To standardize this variance in social foreign aid, we converted these values into z scores by subtracting the yearly mean (baseline) from each observation and then dividing the difference by the standard deviation.²³ We took the same steps for donors' SPI scores. We then used the means and standard deviations for the SPI values to convert the SFA z scores into SPI values. Finally, we substituted these new, standardized and converted SFA values for the old SPI scores for all of the donor (OECD) countries.

For example, in 2000 Austria ranked 15th (SPI=1.21) and Sweden ranked 2nd (SPI = 1.37) on the SPI among the 20 donors tracked by the OECD. However, the two countries ranked 5th and 18th, respectively, in the proportion of foreign aid they gave for social projects (Austria SFA=.46; Sweden SFA=.23). In the combined (COMB) social policy preference measure, Austria shifts from the prior domestic SPI value of 1.21 to the new COMB value of 1.33 and Sweden goes from 1.37 to 1.09. The conversion from SFA to SPI scores was performed for all OECD countries from 1980 to 2000. The SPI scores for recipient countries were retained; only the scores for the donor countries changed.

Since our theory suggests that different compositions of voting shares on executive boards should lead to different outcomes, we considered a bank separately if a different set of voting shares was used for executive directors at different institutions within a banking group. At the World Bank group, the same country has different capital subscriptions and contributions in the IBRD and the IDA, leading to different voting shares. The same is true for the AFDF, which has a different executive board—with very different voting shares—than the AFDB.

Table 1 shows basic descriptive statistics for the six banks. The AFDF, the IADB, and the IDA approved the highest share of social loans; the AFDB approved the lowest percentage of social projects. These six banks have quite different executive board compositions, providing considerable cross-sectional variance in the identity of the major shareholders, improving the likelihood that

²³ Recall that the SPI was already set with 1996 as a baseline year allowing time-series variance. This temporal variance was preserved in the combined social index.

Table 1 Descriptive statistics by bank, 1980–2000

Bank	Total number of loans	Total number of social loans	Average social proportion of loans	All members principal social preferences (Weighted)	Top-10 members' social preferences (Weighted)	USA social preferences (Weighted)
AFDB	550	51	9.3%	-8.18	6.03	4.18
AFDF	1217	275	22.6%	55.07	8.19	46.61
ASDB	1734	264	15.2%	65.85	16.62	51.79
IBRD	3120	579	18.6%	73.63	22.83	55.25
IDA	2395	560	23.4%	67.42	21.31	57.65
IADB	1852	356	19.2%	88.29	42.17	78.41

our results are not simply an artifact of a given combination of preferences and voting shares at one or two banks.

Figure 2 shows that, while there is a generally upward trend in the proportion of social projects at the banks, there was considerable variation in the degree to which social projects were emphasized, and the proportions changed over time.

3 Modeling MDB Principals and Deriving an Aggregate Preference

We specify three different models of the principal delegating to MDBs: a hegemonic model; a great powers model, specified four different ways as the Group of Seven states, and the group of countries with the top three, top five, and top ten largest vote shares at each of the banks; and our coalition model, where all countries' preferences are included and weighted according to MDB vote shares on the executive board where voting rules and coalition building in decision-making bodies is critical.²⁴

3.1 A Single, Hegemonic Principal

During the period under study, the United States led the Western and non-aligned worlds in security and economic affairs, and hegemonic models generally argue that American preferences drove IO outcomes. To test the hypothesis that the hegemon's preference directed MDB behavior, we operationalize the hegemon's preference as the United States' preference for social policy lending as measured by the hybrid index,²⁵ weighted according to the United States' voting shares in the various MDBs. However, leaving the United States' social preferences unweighted produced qualitatively similar results to those reported here. The weighted measure depicts hegemonic influence that varies from bank to bank depending on the hegemon's

²⁴ As discussed above, we developed four measures of states' preferences for multilateral social lending and for each principal structure (hegemonic, great powers and all member states) we estimated models with each of the four proxy measures of preferences. For reasons of clarity and space, we report the results only for the hybrid measure of preferences. As explained in the previous section, this measure most accurately captures the preferences of both donor and recipient member states.

²⁵ Both the SPI and combined measures are relative measures, which compare the USA to other countries in 1996. The relative index scores allow the USA's position to vary over time.

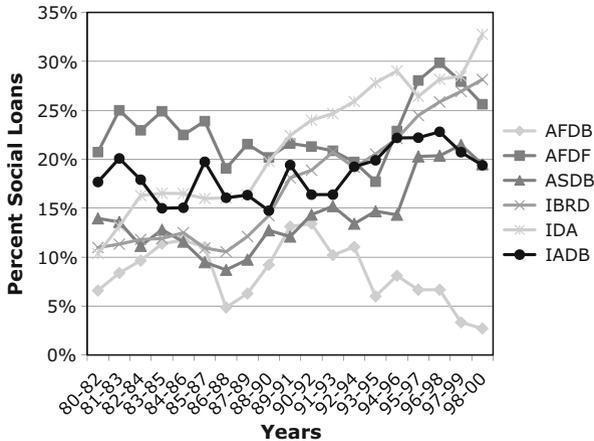


Fig. 2 Social percent of MDB projects, 1980–2000 (Three-year rolling average)

formal authority (one type of power resource) based on the United States' voting shares at the various banks.

3.2 Great Powers Models

As noted earlier, analysts who consider more than one great power typically employ some type of pluralist model to aggregate preferences across member-states. We therefore constructed an aggregate preference for the great powers for each bank year as a weighted average of the preference of the member states considered (G7, top three, top five, etc.), weighting the individual country preferences according to their capital subscription shares.

3.3 The Coalition Model

Arguably, the most faithful and accurate analysis of coalition formation on executive boards at the MDBs requires modeling the two-stage delegation and coalition-formation process at the MDBs. We performed this analysis, where we projected voting coalitions by arraying member states in each executive director's constituency from most to least "social," then weighting each member countries' voting influence by its "pivotalness," or the number of potential voting coalitions its possible defection could collapse. This allowed us to aggregate to a single pivotal-weighted preference for each ED. Retaining these values for each multi-member executive directorate, we repeated this process for the second stage of delegation. We thus modeled preferences for the executive board when all executive directors meet in board meetings, generating a single pivotal-weighted social preference for each bank for each year.

This approach lets us model not only the *voting weights* of each bank member but also proxy for the *voting power* of each constituency member in the first stage and for each ED in the second stage. We consider not only the vote shares of constituency members and their EDs, but we also consider all possible coalitions that

might form and where each member at stage one and ED at stage two are situated in issue space. This process allows us to project both the number of potential coalitions and also the number of said coalitions that any given member or ED might be able to collapse by defecting. Constituency members and EDs that are nearer the center of the issue spectrum and also possess larger voting weights generally have greater voting power. We describe these procedures and report them online in [Appendix C](#). This process proved exceedingly complicated and required hundreds of lines of computer code and more than a million calculations.

Fortunately for the sake of exposition, the results produced by this complicated process are qualitatively similar to those produced with a simple average of all member countries' social preferences weighted by voting share. The simpler model omits the pre-Board coalitional stage represented in Fig. 1 above, but it maintains the coalitional politics that take place at the level of the Executive Board (step #2 in Fig. 1). We report the results using the simple weighted average below, but the qualitatively similar results produced by the more complicated, pivotal-weighted two-stage analysis increase our confidence in the results' robustness.

Figure 3 displays the aggregate preference for the IBRD from 1980 to 2000 produced by employing each of these three distinct models of the decision-making process using the hybrid measure of preferences. As noted previously, it is the marked tendency in IR scholarship to analyze only the most powerful players in assessing IO behavior. While this tendency is often convenient analytically, it is equivalent to setting the weights for all of the neglected actors at zero. This trend may not be a problem provided that the powerful set of actors examined is a representative sample of the preference distribution of all of the players.²⁶ As Fig. 3 indicates, this is not true for the cases under study here.

As illustrated in Fig. 3, the hegemonic model (United States) and the great powers model using the top ten member countries are relatively flat, beginning and ending the 21-year period in roughly the same position. However, the preferences of the United States and the top ten voting members of the Bank do not tend to reflect the social policy preference distribution of the other 169 member countries. With all member countries included, the upward trend in preferences for social projects is more pronounced, as seen in the growing gap between the lines for the top-10 countries and all countries.

3.4 Controls

In addition to the independent variables that are central to our argument, we include a number of control variables. We include dummy variables for each bank, given that there ought to be differences across the banks not captured by our proxy variables for social preferences. We also include a total count of all of the projects that a given bank approves in a year to further control for bank-to-bank effects as well as year-to-year effects. As banks approve more projects overall, they should also produce a higher number of social projects.

²⁶ Or if the powerful actors can and do completely ignore the demands of the smaller states.

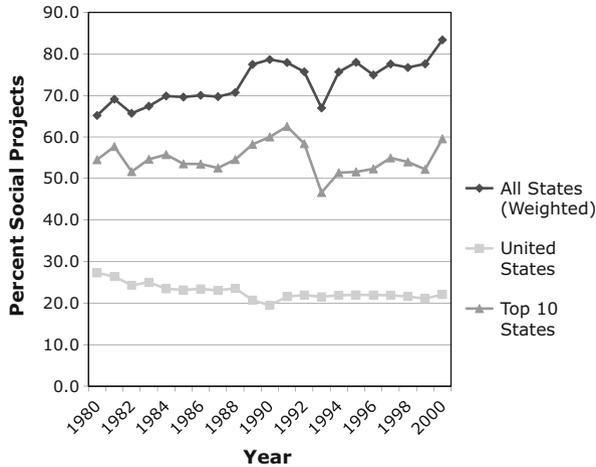


Fig. 3 Aggregate social preference for the International Bank for Reconstruction and Development (World Bank), 1980–2000 with alternative models of the principal

The natural log of GDP and GDP growth are standard comparative measures and control for the size of a given country's economy and year to year changes in the overall economy, respectively. Of course, as country size increases, the probability of receiving a social loan—or any loan, for that matter—might well also increase up to some threshold of socioeconomic development since MDBs do more business with larger developing countries.

We also include variables to control for borrower countries' objective need for social loans. Data for all of these controls were drawn from the World Bank's *World Development Indicators* (World Bank 2001). As Infant Mortality decreases, we expect that the demand for social projects should likewise diminish. Increasing Measles Immunizations, Health Expenditures, and Paved Roads ought to signal rising social development, and we would expect demand for social projects to decrease as these measures increase. The same inverse relationship should hold for Public Education Expenditures and Literacy Rate. Finally, rising Unemployment should be positively related to social protection, as projects should help boost the employment rate. Finally, the end of the Cold War likely brought with it a change in the priorities of international organizations including, potentially, a shift toward social protection.

Given the long list of potentially related variables, we performed diagnostics for multicollinearity that led us to remove life expectancy, DPT immunizations, and GDP per capita as controls. Each was highly collinear with Infant Mortality, Measles Immunizations, and the combination of GDP and population, respectively.

Collinearity also remained a serious problem for two of the three specifications of our coalition preference—for SFA and the combined measure of social preferences. Dropping the control variables with p values less than .2 reduced the problem of collinearity to below serious levels, but the results did not change qualitatively. We

opted here to include the fully specified model, given that our n is large ($>10,000$) and the “efficient” specification did not qualitatively alter results.

Since multicollinearity only reduces the efficiency of the estimators, and since the control variables with collinearity problems are not the variables of primary interest here, but are important theoretically, we opted to include them in the reported models. Dropping Infant Mortality and Illiteracy did not alter the results qualitatively and, of course, our coalition preference variable cannot be dropped.

3.5 Data & Dependent Variable

Our MDB project dataset consists of more than 10,000 loans issued from 1980 to 2000 by the World Bank (both IBRD and IDA), the African Development Bank (AFDB) and Fund (AFDF), the Asian Development Bank (ASDB), and the Inter-American Development Bank (IADB). The dependent variable is a dummy variable—it takes the value of 1 when the MDB project in question is intended for social development; otherwise the value is 0. We have defined social loans as MDB projects whose *primary* intent is to address the following issues: education, health, social safety nets, women’s status, and food aid. All other projects were coded as not social. Our data come from the banks’ annual reports, which are generally sufficiently detailed on these “stand-alone” social projects to facilitate coding. See [Appendix A](#) for the Creditor Reporting System categories of loans coded as “social.” Inter-coder reliability was 92 percent in the initial coding; conflicts were resolved by a third coder.

3.6 Methods and Results

We estimated logit models and clustered by country to control for the likely dependence of loans within a given country. We lagged all of our independent variables by 2 years to account for the fact that there is a two-year project cycle on average at the development banks, and this cycle is reflected in all the results reported in [Table 2](#). To make the lags consistent, we obtained data on the independent variables for 1978 and 1979.

We tested the three different models of decision-making in predicting the probability that a given loan will be social: a model with all member states of the MDBs included, with their social preferences weighted by their vote shares; a hegemonic model (United States, weighted by voting shares); and the great powers model including the G7 and top three, five, and ten countries for each bank, also weighted by vote shares. For the results reported in [Table 2](#) we used the hybrid measure of preferences since this best captures the preferences of both donors and recipients. However, we also estimated identical models using the other three measures of social preferences: the SPI alone and SFA measured as proportion of counts and dollar amounts. The results were qualitatively similar to those reported in [Table 2](#).

We expect that the more accurately we model the relationships between member states and their IO agent, the more likely we are to find that principal preferences are significant predictors of agent behavior. Thus, we expect that the coalition model will more consistently show a relationship between principal preferences and loan patterns than will the hegemonic or great powers models.

Table 2 Logistic regression results with social loan as dependent variable using the combined social index to generate principal preferences

Model:	All Member Countries (Weighted by Vote-Share)	United States (Weighted by Vote-Share)	Group of 7 (Weighted by Vote-Share)	Top Three Member Countries (Weighted by Vote-Share)	Top Five Member Countries (Weighted by Vote-Share)	Top Ten Member Countries (Weighted by Vote-Share)
Social Preferences (lagged 2 periods)	0.022** (0.01)	-0.031* (0.02)	-0.021* (0.01)	0.00 (0.01)	0.009 (0.01)	-0.001 (0.01)
AFDB dummy	0.273 (0.59)	-1.257*** (0.25)	-1.426*** (0.28)	-1.182*** (0.43)	-0.860* (0.46)	-1.222** (0.48)
ASDB dummy	-0.770*** (0.18)	-0.3 (0.20)	-0.319 (0.20)	-0.561*** (0.20)	-0.603*** (0.16)	-0.559*** (0.16)
IADB dummy	-1.138*** (0.33)	0.64 (0.65)	-0.082 (0.24)	-0.426 (0.48)	-0.736* (0.42)	-0.405 (0.33)
IBRD dummy	-0.775*** (0.23)	0.058 (0.28)	-0.056 (0.25)	-0.392* (0.22)	-0.527** (0.23)	-0.388** (0.18)
IDA dummy	-0.313** (0.13)	0.369 (0.27)	0.343 (0.25)	-0.047 (0.24)	-0.209 (0.23)	-0.041 (0.14)
Project count	0.00 (0.00)	0.00 (0.00)	0.001 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Health expenditures (lagged 2 periods)	-0.005 (0.02)	-0.005 (0.02)	-0.004 (0.02)	-0.005 (0.02)	-0.004 (0.02)	-0.004 (0.02)
Measles immunizations (lagged 2 periods)	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)	0.001 (0.00)
Infant mortality (lagged 2 periods)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)
Education expenditures (lagged 2 periods)	-0.005 (0.01)	-0.005 (0.01)	-0.006 (0.01)	-0.005 (0.01)	-0.005 (0.01)	-0.005 (0.01)
Literacy rate (lagged 2 periods)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)	-0.001 (0.00)
Unemployment (lagged 2 periods)	0.013*** (0.01)	0.013** (0.01)	0.013** (0.01)	0.013*** (0.01)	0.013** (0.01)	0.013** (0.01)
Paved roads (lagged 2 periods)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
<i>ln</i> (GDP) (lagged 2 periods)	0.029 (0.03)	0.03 (0.03)	0.03 (0.03)	0.029 (0.03)	0.029 (0.03)	0.029 (0.03)
Population (lagged 2 periods)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
GDP growth (lagged 2 periods)	0.002 (0.01)	0.002 (0.01)	0.003 (0.01)	0.003 (0.01)	0.003 (0.01)	0.003 (0.01)
Post Cold War	0.357*** (0.11)	0.408*** (0.10)	0.508*** (0.10)	0.461*** (0.09)	0.452*** (0.09)	0.462*** (0.09)
Intercept	-3.168*** (0.88)	-1.788** (0.79)	-1.331 (0.84)	-2.066*** (0.76)	-2.360*** (0.81)	-2.025** (0.81)

As seen in Table 2, the coefficient for the coalition model is positive and significant with a p value of .015. We can also use predicted probabilities to assess the substantive significance of the independent variable. The change in the probabilities of social loans for the hybrid measure of preferences suggests substantive importance. A shift upward of one from the 25th to the 75th percentile in the measure of the coalition's social preference was associated with an increase in the probability of a social project of .05. Given that the overall proportion of social loans compared to all loans was .19, a .05 increase in the probability of a social project suggests substantive as well as statistical significance.

The alternative models do not fare well. The great powers models using the top three, top five, and top ten member states were not related to social loans in either a substantively or statistically significant way. The United States' (hegemon's) preferences and the Group of 7's preferences were significantly (at the .1 level) related to social projects, but in a negative direction—the *opposite* of what should be expected. The result for the U.S. model suggests that hegemonic influence may not be determinant of social lending at the MDBs in the expected direction, and these results are contrary to prior findings for different issue areas at other international financial institutions (McKeown and Yackee 2000; Oatley and Yackee 2000, 2004; Thacker 1999).

Interestingly, relatively few of the control variables performed as expected. Among the controls, only Unemployment and the period after the Cold War were significantly related to the probability of social loans. In sum, the coefficient for principal preference for the coalition model was consistently positive and significant, whereas the coefficients for principal preference for the hegemonic and great powers models were not.

4 Conclusion

Researchers commonly model decision-making within IOs in ways that approximate the alternative specifications we employed here, and our results suggest that such modeling choices may lead to conclusions of delegation failure. Scholars often examine only the hegemon or a few powerful states in studying IO behavior, but we have shown that varying the number of states included alters the results. We argue on theoretical grounds that the coalition model is superior to a hegemonic or a great powers model when studying MDBs (and arguably, most other IOs), because it more accurately reflects the strategic interaction taking place within the institution. If rules governing interaction between member-states delegating to IOs are efficacious, then small states will also—at times—influence IO behavior. Moreover, the fact that the model that most closely approximates actual delegation relationships within MDBs consistently demonstrated a substantively and statistically significant relationship between principal preferences and loan patterns at the development banks suggests that MDB agents set policy that reflects the preferences of their principals. The insignificant and/or negative findings from the less descriptively accurate models of decision-making within MDBs suggest that analytic shortcuts that do not take decision rules seriously may well generate false negative (or positive) findings.

We conclude that when testing hypotheses and drawing conclusions about IO responsiveness member state preferences, the number of states analyzed and the model of the decision-making process matters. Models that fail to capture key aspects of strategic interaction within IOs may lead to the inference that agents flout principal preferences with impunity, when a more accurate model would demonstrate that principals assert effective control over their IO agents. We believe that further development and systematic testing of more accurate models of decision-making in other issue areas promises to enhance our understanding of IO behavior.

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Appendix A: OECD Creditor Reporting System Categories Coded as “Social”

- 110 **EDUCATION**
- 111 Education, level unspecified
- 11110 Education policy and administrative management
- 11120 Education facilities and training
- 11130 Teacher training Teacher education
- 11181 Educational research
- 112 Basic education
- 11220 Primary education
- 11230 Basic life skills for youth and adults
- 11240 Early childhood education
- 113 Secondary education
- 11320 Secondary education
- 11330 Vocational training
- 114 Post-secondary education
- 11420 Higher education
- 11430 Advanced technical and managerial training

- 120 **HEALTH**
- 121 Health, general
- 12110 Health policy and administrative management
- 12181 Medical education/training
- 12182 Medical research
- 12191 Medical services
- 122 Basic health
- 12220 Basic health care
- 12230 Basic health infrastructure
- 12240 Basic nutrition

- 12250 Infectious disease control
- 12281 Health education
- 12282 Health personnel development

- 130 **POPULATION POLICIES/PROGRAMMES AND REPRODUCTIVE HEALTH**
- 13010 Population policy and administrative management
- 13020 Reproductive health care
- 13030 Family planning
- 13040 STD control including HIV/AIDS
- 13081 Personnel development for population and reproductive health

- 160 **OTHER SOCIAL INFRASTRUCTURE AND SERVICES**
- 161 Employment
- 16110 Employment policy and administrative management
- 162 Housing
- 16210 Housing policy and administrative management
- 16220 Low-cost housing
- 163 Other social services
- 16310 Social/welfare services
- 16320 General government services
- 16330 Settlement
- 16340 Reconstruction relief
- 16350 Culture and recreation
- 16361 Narcotics control
- 16362 Statistical capacity building
- 16381 Research/scientific institutions

- 420 **WOMEN IN DEVELOPMENT**
- 42010 Women in development

- 430 **OTHER MULTISECTOR**
- 43010 Multisector aid
- 43020 Multisector aid for basic social services
- 43030 Urban development and management
- 43040 Rural development
- 43050 Non-agricultural alternative development
- 43081 Multisector education/training

- 520 **DEVELOPMENT FOOD AID/FOOD SECURITY ASSISTANCE**
- 52010 Food aid/Food security programmes

Appendix B: Constructing a Time-Series Index of Social Policy

To construct a social policy index (SPI), we used factor analysis to extract the common factor in our fourteen social variables. We first standardized these variables

to the 1996 mean and standard deviations to preserve variation over time (i.e. we subtract the 1996 mean from all observations' values for the social variables for all years and divide by the 1996 standard deviations). We then performed factor analysis to isolate the variable indicating social policy performance. The first factor has an eigenvalue above eight across all five datasets, while none of the remaining factors have eigenvalues above one. This strongly suggests a single key factor, which we have labeled "social policy" and use as our index values. The loadings are summarized below (see Table 3).

As noted, we are primarily concerned with policy preferences, not simply social outcomes. Since social outcomes are a result of both government policy and other factors exogenous to policy, we focused on those variables for which a compelling argument could be made that they were the product, at least to a significant degree, of government policies. Time series data on fourteen underlying variables exist in large sets for the 211 countries included in this study.

To deal with missing data, we employ multiple imputation as recommended by Gary King and collaborators (King et al. 2001). To impute the missing values, we used the program Amelia II, as it takes into account the unique nature of time-series cross-sectional data (King et al. 2001). For the imputation, we constrained all imputed values to fall within the 97.5th percentile and 2.5th percentile of the pre-imputed dataset. For the variables used to impute the missing data, see Table 4. We set the number of imputations at five.

The factor analysis was then performed on each of the five imputed datasets (as were the later logistic regressions). The social policy factor was generated in each case, and then the datasets were combined as per the usual multiple imputation rules.

Table 3 Results from factor analysis (averaged across the five imputed datasets)

Variable	Loadings	Uniqueness
Primary School Enrollment	0.630	0.502
Diphtheria immunizations	0.775	0.333
Measles immunizations	0.695	0.431
Child labor	-0.858	0.219
Female life expectancy	0.953	0.077
Life expectancy	0.942	0.094
Literacy rate	0.916	0.134
Birth rate	-0.903	0.153
Expenditure per student	0.165	0.810
Health expenditures (%GDP)	0.467	0.650
Female literacy rate	0.906	0.149
Physicians per 1000 population	0.738	0.379
Infant mortality	-0.715	0.404
Under 5 mortality	-0.707	0.410

Table 4 List of variables used for multiple imputation

Paved roads	Livestock index
Rural population (%)	Merchandise exports
Rural population growth	Merchandise imports
Primary school enrollment	Infant mortality
Surface area	Under five mortality
Unemployment	Net capital accounts
Urban population	Exchange rate
Urban population (%)	Physicians per 1000 pop.
Urban population growth	Population < 15
Diphtheria immunizations	Population 15–64
Measles immunizations	Population ≥ 65
Child labor	Population density
Female labor force	Population
Labor force	Age dependency rate
Land area (hectares)	Birth rate
Land area (sq km)	Crop production index
Arable land (%)	DEC alternative conversion factor
Arable hectares	Education expenditures
Female life expectancy	Food production index
Male life expectancy	GDP (current \$US)
Life expectancy	GDP growth
Female literacy rate	Health expenditures
Literacy rate	

Appendix C: Pivotal-Weighted Preferences

A more faithful modeling of coalition formation draws on coalition theory in comparative politics in order to specify which coalitions *can* be built given majority voting rules. We employ the pivotal player model in order to predict *which* coalitions among the possibilities are most likely to form. We assume a one-dimensional policy space, where actor preferences can be arrayed along a single policy continuum. This assumption is defensible given our consideration of the single policy dimension of social protection.²⁷

Second, we assume that our actors form voting coalitions, not governing coalitions. Because voting takes place on discrete policy questions that can be arrayed in unidimensional space, and the votes do not affect executive tenure (as in confidence votes), little incentive exists for the formation of voting coalitions that

²⁷ Unidimensionality assumptions are more problematic if there is extensive trading or logrolling of policies between issue areas, but in the case of MDBs, voting in the Executive Board occurs on discrete loans, so omnibus packages do not occur. While trading may take place at the margins, formal institutions mitigate against it.

are non-contiguous.²⁸ For example, if a given measure is closer to the ideal point of actor A than actor B, and B votes in favor of the measure, then A should also vote in favor. Coalitions thus will not drop “dummies” or potential members that are not necessary to reach the majority threshold but that nevertheless are aligned in issue space.²⁹ While voting coalitions are arguably less stable than governing coalitions, they likely violate the assumptions of preference-aggregation models less than governing coalitions, where office holding is a key consideration.

The pivotal-players model emphasizes the role of strategically well-positioned actors in the coalition-formation process. Within the many possible connected majority coalitions that might form, some potential members might be “pivotal” in the sense that the combination of their centrist position and their size makes them very attractive coalition partners, and it will prove difficult to form connected coalitions without them. Thus, pivotal players can veto a large set of the possible coalitions that might form and can extract policy concessions from their coalition partners that their size alone would not necessarily predict. Large centrist players thus have a strong advantage over similarly large extremist players. We use a weighting formula to capture states’ centrality to coalition formation based on their pivotalness.

Specifically, for each bank year we arrayed all countries in each executive director’s constituency from highest to lowest based on the hybrid proxy measure of preferences for social loans. We then summed all possible values of the voting shares of countries adjoining one another, creating a matrix of all potential coalitions. For all of the coalitions where the sum of voting shares was greater than .50 of the constituency’s total vote, we computed the consequence to the potential coalition of the defection of the partner at each of the two extreme ends of the coalition. If the defection of a partner on one of the ends of the potential coalition would cause the coalition’s collapse (vote shares fell below a majority plus one), we counted this as an instance where the defecting country would prove pivotal.

We summed all such instances where the given country proved pivotal to a potential coalition and gave each country a “pivotalness” score within the constituency. In general, this design meant that countries proved more pivotal where they had large vote shares and/or where their scores were near the center of the constituency’s continua for the social indices. We then weighted all countries’ social preference by the pivotalness score. Finally, we summed the products of all of the countries’ social index values multiplied by their pivotalness scores to produce an aggregate preference for social lending for each constituency by bank year. Using these values for each constituency, we then repeated this process for each executive board for each bank year.³⁰

In Table 5 we provide a simple example of this technique for the 2000 constituency at the African Development Bank that included Belgium, Italy, France, Spain, and Switzerland. First, the members of the constituency are arrayed according to their preferred outcome along the SPI scale from 1.08 to 1.46.³¹ Next, we count

²⁸ For discussion of the analytic point see Laver and Schofield (1990). The literature contains numerous illustrations of the shifting nature of voting coalitions on MDB executive boards. See Rich (1994); Udall (1998); and Upton (2000).

²⁹ See Laver and Schofield (1990: 98–101).

³⁰ We developed a program to perform these calculations, written for SAS, which is available online.

³¹ These values have been modified slightly and rounded to the nearest one hundredth for presentational purposes.

Table 5 Pivotal players for France-Germany-UK-USA constituency at the African Development Bank, 2000

Actors' Ideal Points and Vote Shares:					
SPI	1.079	1.296	1.402	1.456	1.462
Country	Switzerland	Belgium	Italy	Spain	France
Vote Share	0.13	0.10	0.30	0.10	0.37
Collapsible Coalitions:					
Switzerland	Belgium	Italy			
Switzerland	Belgium	Italy	Spain		
Belgium	Italy	Spain	France		
Italy	Spain	France			
Pivotal Players in Bold					
Country	SPI	Vote Share	Pivotal Share	Ideal*Pivotal	
Switzerland	1.079	0.13	0.33	0.35607	
Belgium	1.296	0.10	0	0	
Italy	1.402	0.30	0.33	0.46266	
Spain	1.456	0.10	0	0	
France	1.462	0.37	0.33	0.48246	
			Sum:	1.30119	

all possible contiguous coalitions, where the combined voting shares are at least fifty percent plus one. Next, we counted all “critical coalitions” where, if one of the members on either end of the coalition defects, the coalition collapses. In this example there are four such potential critical coalitions: Switzerland-Belgium-Italy, Switzerland-Belgium-Italy-Spain, Belgium-Italy-Spain-France, and Italy-Spain-France. By dropping off of the end of the first two coalitions, Switzerland could prove pivotal in two instances. Switzerland’s vote share and position situates it strategically, providing advantages in coalition formation. Likewise, Italy and France could prove pivotal in two instances. Belgium and Spain are not pivotal in any instance. Thus, the total number of potential critical defections—instances of pivotal players—is six.

We then weight each country’s ideal point by the “pivotalness” share. For example, Italy’s ideal point of 1.402 is multiplied by its pivotalness share of .33 (2 of 6 pivotal instances), producing a product of .36. Finally, we sum each of these products to produce an overall preference for the constituency, which in this example is 1.30.

Critically, coalition formation at the development banks occurs in two stages. First, most member governments have formed semi-permanent coalitions with a few to several other governments, usually in the same region, and they jointly delegate voting authority to a single ED charged to represent their collective interests on the executive board. At any given bank, all but a few countries share executive directorates with multiple other countries in this fashion. The member governments delegating to a common ED (henceforth, constituency), can meet and vote on lending policies prior to executive board meetings. In this way countries in a constituency can instruct their shared ED, who usually comes from the largest member country in the constituency. In the second stage, the EDs, with marching

orders in hand from their constituencies, then all meet together on the executive board to make policy decisions for the bank as a whole.

This two-stage process requires that we model both stages of coalition formation. First, we model the coalition formation process that consists of the member states delegating to their ED. In this case, the potential coalition partners are the member-states of each constituency. We calculate the pivotal players for each constituency at each bank for each year. We then derive a unique preference for each constituency by constructing a weighted average based on the degree to which each member country could prove pivotal in constituency voting, as discussed above.

In step two, we follow this same procedure, this time using the EDs (each of whose preferences for percentage of social loans we derived in the previous step) as the potential coalition partners. We calculate the pivotalness score for each of these EDs with the same procedure used when analyzing individual member states in each constituency as discussed above. Finally, as above, we weight each ED's derived preference by their pivotalness shares and sum the weighted values to produce a single predicted social policy preference for each bank for each year.

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