A Political Economy of International Organizations*

Matt Malis† B. Peter Rosendorff‡ Alastair Smith§

May 2021. Very Preliminary. Do not Circulate

Abstract

Powerful states exert influence over international organizations (IOs) in a manner that is at odds with the organizational mission and the interests of the broader membership. Yet other member states actively participate in these organizations despite this hegemonic influence. Under what conditions can such a system be sustained, and what are the implications for IO performance? To answer these questions, this paper examines the relationship between vote shares, cost shares, and agency expertise in a model of project finance within an IO. We develop a game-theoretic model of the strategic interaction between a membership who wants the IO to provide a global public good, a hegemon who wants to advance its private interests through the IO, and a secretariat who is accountable to both principals. In equilibrium, the secretariat biases its recommendations in favor of the hegemon's interests, even though their primitive preferences diverge. The members tolerate this influence to a limited degree, in exchange for the benefits they enjoy from the hegemon's financial contributions, and the project expertise that the IO provides. Increased IO expertise limits the degree to which the secretariat "shades" its recommendations, and reduces the value of larger vote shares for the hegemon. We show that IO expertise is bounded in equilibrium: participation is incentive-compatible for all members only if the secretariat is not "too good" at its job. Our model provides a unified theoretical framework to explain conditions of IO design, accession, exit, and reform.

*Thanks to workshop participants at New York University, ...
†New York University. malis@nyu.edu
‡New York University. peter.rosendorff@nyu.edu
§New York University. alastair.smith@nyu.edu

1 Introduction

Powerful states exercise significant influence within international organizations (IOs), exercising both formal and informal power. Other member states participate within these institutions, benefiting from the monitoring and expertise the IOs offer, as well as the collective benefits associated with sharing the burdens of global public goods production. Successful IO design (and survival) rests on a knife-edge: the benefits to member states of coordination, cooperation and information generation and dissemination must outweigh the costs these members face when the IO adopts biased policies or undertakes projects that bend to the preferences of the powerful. hegemonic states, cognizant of this fine balance, limit the influence they exert over IOs, in order to maintain other member states' participation. When this balance is threatened, the member states may seek to alter the formal rules – adjusting vote shares or financial contributions, for example – or may seek to exit the organization entirely.

We explore this fine balance, investigating the conditions for IO stability, and when they are violated, the conditions that lead to exit and collapse, or renegotiation of voting rules and financial contribution shares. We highlight the crucial role IO *expertise* plays in calibrating this system. Like Rodrik (1996) we identify a central role for the IO to collect and disseminate information which we summarize as the "expertise" of the IO or its staff.

We investigate the key relationships between voting shares or rules, cost sharing and agency expertise, consistent with some key stylized facts about IOs: powerful states influence IO behavior – sometimes the IO implements a policy biased towards the powerful state, while other times operates as if unbiased, serving the global public good. On occasion the IO adjusts its recommendations to conform with the interests of the powerful, and this is known and tolerated by the rest of the membership, in that there are no threats of exit. Overtime, as member states' fiscal capacity and relative power shift, there may be demands to adjust the voting rules or weights. For instance, a rising power might want to increase its influence (vote share) and take on a larger share of the costs. However, such a reform is less likely to emerge if the IO has substantially increased its expertise since relative to its inception.

Furthermore, while member states delegate authority to IOs to lever the expertise of IO staff in choosing among policies or projects, the stability of the cooperative regime requires that IO expertise be bounded. A novel (and policy relevant) finding is that high levels of agency expertise reduces the influence of a large voting share, so growth in expertise is likely to reduce a powerful state's satisfaction with the IO and diminish its willingness to participate. To keep powerful states engaged with the mission of the IO, secretariats cannot be too good at their jobs!

These results follow from a core intuition: If the IO can successfully distinguish between policies and projects that are of public value from those with private, perhaps domestic or geo-political benefit for the powerful states, then the ability of the hegemon to influence the IO is limited, and the utility of the IO to the hegemon is hampered. Of course if the quality of information the IO generates, and its ability to implement good policy is low, there are few gains to be had from delegation, and the states with developmental goals are unlikely to participate. IOs, we argue, produce information and implement policy with a degree of expertise enough to make the member states gain from participating, but not enough to frustrate a powerful state's desire to bend the IO in its direction.

There is a trade-off between a state's formal power – its vote share – and the expertise of the IO. Where the IO and its members operate in a low information environment, the power of a larger vote share in inducing IO policy is evident. But if the IO can inform the members more accurately, better separating biased from unbiased policies or projects, a larger vote share for a powerful state will not be enough to get its preferred projects approved. More expertise of the IO undermines the value of a larger vote share for a powerful state.

We note that none of these findings rely on standard stories regarding "agency slack" familiar from principal agent logics (Hawkins, Lake, Nielson and Tierney 2006). The behavior of IOs we model is not a result of the IO having its own preferences, or assuming it has the same preferences as any of the member states, powerful or otherwise. Our approach simply relies on a bureaucratic logic – the IO secretariat wants to maximize the number of projects but dislikes being overruled by its members in a formal vote. This alone is sufficient to induce the IO to shade its recommendations to the membership in order to keep the powerful states participating, the money flowing, and the system working.

2 Hegemonic Influence and States' Participation

International organizations are widely recognized to be influenced, even captured at times, by powerful states. Aid commitments and disbursements from the World Bank are larger and disbursed faster when the recipient country is aligned with the US (Andersen, Hansen and Markussen 2006, Kersting and Kilby 2016). IMF loans and World Bank commitments are larger when a developing country holds a temporary seat on the UNSC (Dreher, Sturm and Vreeland 2015, Dreher, Lang, Rosendorff and Vreeland 2021), and countries politically important to the US obtain IMF loan agreements (Dreher and Jensen 2007, Stone 2008, 2011) and World Bank loans (Clark and Dolan 2021), with fewer and less stringent conditions than others.[1] Allies of the US and other powerful states recognize this benefit, and may engage in riskier behavior – holding lower levels of international currency reserves and experience more frequent currency and banking crises (Lipscy and Lee 2019). Broz and Hawes (2006) offer evidence that the IMF is sensitive not just to US concerns, but specifically to the interests of US money-center banks.

This hegemonic influence extends beyond the World Bank and the IMF. The Dispute Settlement Body at the WTO, for instance, has on occasion, chosen not to rule against the

[1] Dreher, Sturm and Vreeland (2015) recount Zimbabwe's about face at the UNSC in 1992 when threatened with new loan conditions from the IMF when it voted against a US-sponsored resolution on Iraq.

US, citing judicial economy or other devices, in order to avoid risking the approbation of a powerful state (Steinberg 2004, Garrett and Smith 2002). The dispute settlement process permits a number of opportunities for the powerful to affect the outcome – whether it is simply a matter of legal and bureaucratic capacity (Busch and Reinhardt 2003) or selecting the members of appellate body (Steinberg 2004, Arias 2018). Of course, larger powerful states have less to risk from retaliation from poorer trading partners, and can more frequently abrogate their commitments (perhaps via escape clauses and the like) than can poorer states (Davis and Blodgett Bermeo 2009, Busch and Reinhardt 2003).

Further examples abound – the European Monetary System was essentially a delegation of monetary authority to the German Bundesbank by the other member states, privileging German and later France (in the EMU) over other member states. The European Court of Justice, Garrett and Weingast (1993, reprinted 2019) argue, adjusts its decisions to accommodate outcomes preferred by the more powerful states.

Yet other states persist in joining these international arrangements, and even contributing to the finances of the international organizations. The World Bank has 189 members, each with a voting share proportional to the fraction of the Bank's capital held by the member. While the US has close to 16% of the votes at The World Bank, Germany holds about 4.5% of the Bank's capital and has 4.26% of the votes. A similar structure is adopted at the Interamerican Development Bank, with 48 members, some with borrowing privileges and some not. Again the US holds the lion's share of the votes (30%), but Argentina, for example, owns 1,609,577 shares of the Bank's capital, entitling it to a 11.354% vote share.

Why then do the Germanys and the Argentinas of the world participate if these IOs are so heavily captured by the US? There are of course, other benefits to IOs that accrue to the less powerful states. IOs have been designed to achieve a multitude of objectives – they coordinate state behavior (Keohane 1984), they enhance the credibility of cooperative commitments (Abbott and Snidal 1998), they monitor compliance (Rosendorff 2005), they collect and disseminate relevant information to other states (Baccini 2010, Rodrik

1996) and domestic publics (Milner 2006, Rosendorff and Vreeland 2006), they resolve disputes (Rosendorff 2015) and they leverage expertise (Clemens and Kremer 2016) – with the goal of improving economic welfare across the globe. Presumably, the benefits of these for ordinary members are large enough to make tolerating major power influence over the IO tolerable, and in turn their particiaption puts a limit on the degree of influence a major power has over the IO.

This manipulation of IOs by the powerful is perhaps simply an expression of power in an anarchic system. It requires, however, to some degree, the consent of other member states. Absent that consent, states can, and sometimes do, choose not to join and certainly not to contribute to them, financially and otherwise. Sometimes states choose to exit existing IOs. The expression of powerful interests must be constrained to the degree that it does not violate the participation constraints of other member states, and a failure to do so may induce exit or collapse.

In the context of IOs dedicated to aid and development that we study below, both the hegemonic and other member states benefit from IO participation – a member state's development and economic goals are enhanced by the opportunity to use the funds and resources of the IO for those purposes. In the context of international development aid, for instance, by leveraging "other people's money", member states see projects that may have developmental and economic benefit (both locally and globally) more easily achieved. They also value the expertise that IO staff can provide in achieving those international objectives. These states trade these benefits in exchange for the costs of knowing that *sometimes* those IO resources and expertise are put to further the geopolitical and perhaps even private benefits of the powerful states.

This paper explores the conditions under which a system with these properties can be sustained: hegemonic influence combined with member state participation, in which an IO staff has access to information and expertise upon which the membership relies. The IO sometimes "shades" its recommendations towards the hegemon, and we observe projects with differing degrees of public (broad membership) vs. private (to the hegemon) benefit. Our explanations focus on the interactions of three exogenous design factors: the voting rules that govern IO actions, the financial contribution shares, and the degree of IO expertise, and we explore the key relationships among these exogenous variables that sustain international cooperation.

We study a generic IO in which the members make contributions and vote on IO actions ("projects") according to a pre-existing voting rule. An IO undertakes a project, which has both public goods characteristics (which we call "developmental") and private benefits to a powerful (hegemonic) state (which we call "political"), if the project receives sufficient support among the membership. We permit the IO to acquire information about the developmental and private benefits, and if the IO recommends to the membership to support a project, it also offers an opinion as to the developmental value of the project. The quality of this signal is a function of the expertise of the IO – the degree to which it can precisely estimate the developmental value of the project.

Our essential findings are these. Firstly, funded projects include those with both high and low public or developmental value. That is, at times, political projects, of private benefit to the hegemon, are funded together with projects with broad developmental value. Intuitively, member states value the availability of the hegemon's financial contributions for sharing the costs of developmental projects, as well as the expertise of the IO secretariat in helping to choose good projects, and in return, they tolerate the occasional use of influence over the IO to fund projects with more (dubious) political value.

Secondly, the IO adjusts its recommendations strategically to accommodate powerful states' interests. We model the IO as a purely bureaucratic enterprise, eager to take on projects, but neutral with respect to which projects it funds. The IO recommends a mix of projects, some largely of public value, some of private benefit to the hegemon. Importantly, however, the IO sometimes adjusts its decision to recommend a project to further the hegemon's goals. If the developmental value of a project is high, the IO makes an unbiased recommendation, and the membership obtains a high value public goods project. Alternatively, a project may have only moderate public benefit, but is of high value to the hegemon for political reasons. The IO may recommend the project – one it would have rejected absent the political returns to the hegemon. The IO internalizes the interests of the hegemon, despite only caring about the size and number of projects approved by the membership at large. This is not a formal override of the IO by a hegemon with a large voting share; this is an exercise of informal influence over a bureaucrat inclined to adjust their recommendations and actions in order to please a large power even though the hegemon has made no request, explicit or implicit, to do so.

Thirdly, while the hegemon benefits from a larger share of the votes on the governing boards of IOs – effectively increasing its control over the choice of projects and the spending priorities, the benefit declines as the expertise of the IO bureaucrats increases. As the IO's expertise improves, and it becomes proficient at identifying high value, broad appeal projects, member states follow the IO's recommendations more frequently, which overwhelms the hegemon's ability to influence the outcomes. The hegemon is less able to get its pet projects approved by the membership. Increased expertise reduces the influence of the hegemon's vote share. While the agency and broad membership might be expected to embrace improved know-how, the hegemon may want to stifle too much expertise.

Fourthly, and perhaps counter-intuitively, IOs cannot have too much, or too little, expertise. If the IO's ability to discern the developmental value of projects is low, then the IO may recommend projects of little value to the broad membership. The members find the benefit of membership too low to warrant the financial contribution and may choose to exit or not participate. More interestingly, the level of the expertise of the IO cannot be too high. A recommendation from the IO when it has high expertise is likely to indicate that indeed the project has high public goods value. Frequent high public value projects limits the available funding for political projects of private value to the hegemon. A powerful state, bearing the largest financial burden, finds itself unable to influence the IO's allocations to more political projects, and may threaten to exit the IO.

We predict, therefore, that IOs display a moderate level of expertise – enough to keep the general membership participating, while permitting the IO on occasion to recommend projects to the membership that may have private political value to the hegemon. Members get enough to join, and the hegemon gets enough to continue to participate.

Our approach also yields some insights for the optimal design of IOs. Our fifth result explores the voting rules at IOs. One might imagine that each state would like to have as large a share of the votes as possible, and this might be particularly acute for the hegemonic power. While a larger vote share for the hegemon would indeed imply that more geo-political projects are funded (and fewer projects of broad public, developmental value are funded), there is an added risk that the other member states may consequently choose not to participate. This encourages the IO to recommend projects with weaker developmental value just to keep the other member states participating. Hence the optimal design of the voting rule is to permit the hegemon a large vote share, but not *too* large a vote share.

3 Empirical Referent: The World Bank

In what follows it may be useful to keep as an empirical referent the procedures and structures of The World Bank (or more precisely the International Bank for Reconstruction and Development, IBRD), and the mechanism it uses to choose and approve projects in developing countries for which the WB provides funds and expertise.

The WB offers Investment and Development Project Financing (IPF, DPF) among many types of financing instruments available to members that wish to borrow to finance projects that seek to promote growth and sustainable poverty reduction. IPF is used for specific development projects, such as infrastructure, other capital-intensive investments, agricultural development, etc. DPF may have a more policy and institutional focus, such as funding improvements to public financial management, improving the investment climate, addressing bottlenecks to improve service delivery, and diversifying the economy.

World Bank "project teams" and borrower governments identify projects; the Bank undertakes an assessment of the project's development objectives, its consistency with WB strategy, and it offers an analysis of the technical, economic, fiduciary, environmental, and social considerations, and related risks of any project.

After a project has been appraised, a proposal is submitted to the Board of Directors. This board has 25 Executive Directors, elected periodically from the 189 member countries. The board votes on whether or not to approve proposed projects for funding. Each director represents a subset of the member states and casts the votes of those states. While the US, Japan, China, Germany, France and the UK each have their own Executive Director that may cast the votes of the member states they represent, the Director for India also represents Bangladesh, Bhutan and Sri Lanka, for instance. The vote shares of each member track closely to the share of the Bank's capital that is held by those states. That is the cost share and the vote shares are closely aligned. As of March 2021, the US's subscription of Bank equity amounts to 41.1 trillion US 1944 dollars which is 16.78% of the total. This cost share entitles the US to 412,250 votes, which is 15.88% of the total number of votes. By comparison, Netherlands as almost 2% of the votes, and Sweden 0.88%.

Crucial to this process is the project evaluation by the WB staff. These experts accumulate and evaluate the relevant information regarding the importance and value of the project, its attendant risks, its environmental, social and developmental impact etc. These experts are highly trained and collect and analyze complex information flows, and use their expertise in order to monitor member behavior and make recommendations to the membership about goals and objectives. These detailed recommendations, together with the financial structure (concessional or non-concessional rates), terms and conditions are brought before the Board for a vote. (Fang and Stone 2012, Hawkins et al. 2006).

4 Model

Consider a game with $2+M$ players: the international organization, or agency A, a hegemonic state H, and M member states indexed $i = 1 \dots M$. A project is a pair $(\theta, \omega) \in \mathbb{R}^2$ where θ is a measure of the developmental or public quality of the project, of interest to the members, while ω captures the political value of private benefit to the hegemon. We let these be stochastic and independent: $\theta \sim N\left(\mu, \frac{1}{\delta}\right)$ and $\omega \sim W(\cdot)$, where N refers to the normal distribution with mean μ and precision δ; W is any well-behaved cumulative distribution function such that $Pr(\omega \leq x) = W(x)$.

We endow the agency with a measure of expertise δ_A, the precision with which it acquires information about θ, the developmental quality of any particular project. That is, the agency observes a noisy signal centered on the true developmental value $s_A \sim N\left(\theta, \frac{1}{\delta_A}\right)$. Likewise we allow the individual member states i to observe a noisy signal $s_i \sim N\left(\theta, \frac{1}{\delta_m}\right)$.[2] We assume $s_i \perp\!\!\!\perp s_A \,|\, \theta$ and $s_i, s_A \perp\!\!\!\perp \omega$ for all i. We make no assumption regarding the relative precision of δ_m versus δ_A.

The three sets of players—agency, hegemon, and members—are assumed to have orthogonal interests with respect to the IO's performance. We adopt this approach not because we believe it to be a strictly empirically accurate representation of the actors' incentives, but rather because it presents a hard case for the IO to function effectively and for participation to remain incentive-compatible among all stakeholders. With this setup, we can show how a confluence or divergence of interests among the players emerges not by assumption, but rather as an equilibrium phenomenon. In particular, we assume the agency to be purely "imperialist", in the tradition of (Niskanen 1971): it wishes to maximize its budget and scope of activity, with no intrinsic concern for the political or developmental value of the projects it undertakes. The members care only about the developmental value of a project θ. The hegemon, in contrast, has no interest in a project's developmental value, and is assumed to care only about its political value ω. For example, the US may have been concerned about whether a project advanced its

[2] As an alternative, s_i might be interpreted as member specific benefits that flow from the project.

Cold War ambitions to forestall the spread of communism.

The stylized process of project approval proceeds as follows. Nature draws a project (θ, ω). Immediately, H privately learns its political value ω for the project, and at the same time, each member i and the agency A receive private signals of the developmental value θ. H declares publicly[3] whether it intends to vote for or against the project, $v_H \in \{0, 1\}$, which we represent as a cheap-talk message $d \in \{0, 1\}$ (where $d = 1$ denotes intent to vote in favor).[4] Then A decides whether or not to recommend the project to the membership, $r \in \{0, 1\}$. If a recommendation is made, then A reveals its knowledge, s_A and the members vote whether to fund the project, $v_i \in \{0, 1\}$.

Voting follows the features of the institution – each member's vote share is weighted according to the exogenous weighting system: H's vote share is α, while the aggregate vote share of the membership is $1 - \alpha$. We assume that each member i has the same weight $\frac{1-\alpha}{M}$. A project wins the vote and is funded if it receives more than a threshold share of the votes, $1/\beta$, for $\beta > 1$:

$$\underbrace{\alpha v_H}_{H\text{'s vote}} + \underbrace{\frac{(1-\alpha)}{M} \sum_{i=1}^{M} v_i}_{i\text{'s votes}} \geq \frac{1}{\beta}. \tag{1}$$

If $\beta = 2$ for example, the institution operates on a simple (weighted) majority rule.We assume that the hegemon cannot pass any project unilaterally, so its vote share is less than the fraction of the votes needed to approve the project, which is an exogenous feature of the institution, i.e. $\alpha < \frac{1}{\beta}$.

Projects require funds. The share of the funds for any project contributed by H is $1 - \kappa$; the balance, κ is borne by the other member states, and divided evenly among them for simplicity. When deciding to vote for or against a project, the members and the hegemon evaluate the cost of funding a project against the respective benefits they

[3]Whether the message d is sent publicly to A and all members i, or privately to A, makes no difference for our results.

[4]H always promotes its interests by having the agency know its intent, so H has a dominant strategy to reveal her interests. Hence the model is robust to many interpretations of H's voting intention.

expect it to yield. Implicitly, each player is pre-committed to funding any projects that are approved, regardless of that player's individual preference over the particular project in question; the direct cost of approval can thus be thought of as a payment made from a collective pool of resources, which is replenished according to the contribution shares described above.

The hegemon's payoff is simply

$$U_H(v_H|\omega) = \begin{cases} \omega - (1-\kappa) & \text{if } \alpha v_H + \frac{(1-\alpha)}{M}\sum_{i=1}^{M} v_i \geq \frac{1}{\beta} \\ 0 & otherwise \end{cases}$$

The hegemon earns the political value less its financial contribution if the project is approved, and zero if the vote fails.

The payoff for any member i of an approved project is its value of the project θ less each member's share of the financial contribution $\frac{\kappa\gamma}{M}$, where γ captures the financial capacity of the hegemon relative to the members. If the project is voted down, then members receive the zero payoff.

$$U_i(v_i|s_i, s_A) = \begin{cases} \theta - \frac{\kappa\gamma}{M} & \text{if } \alpha v_H + \frac{(1-\alpha)}{M}\sum_{i=1}^{M} v_i \geq \frac{1}{\beta} \\ 0 & otherwise \end{cases}$$

The agency benefits by ψ if a recommended project is funded (regardless of the project's quality, θ or ω). Making a recommendation carries an expense c for the agency, representing the administrative and opportunity cost of developing a report and putting it forward for the members' consideration. If the project is recommended but fails to garner enough votes for approval, then on top of the administrative expense, the agency also incurs a reputational cost ρ; this can be thought of as a reduced-form representation of a long-term loss of trust or credibility in the eyes of the organization's stakeholders.

$$U_A(r|s_A) = \begin{cases} r(\psi - c) & \text{if } \alpha v_H + \frac{(1-\alpha)}{M}\sum_{i=1}^{M} v_i \geq \frac{1}{\beta} \\ r(-c-\rho) & otherwise \end{cases}$$

A (perfect bayesian) equilibrium is a set of strategies (d, v_H, r, v_i) for H, A, and $i = 1 \ldots M$ respectively, and posterior beliefs that satisfy Bayes' rule where possible, and such that each actor's strategy is a best response to the other strategies given their beliefs.

In summary, the sequence of the game is as follows. Nature chooses $(\theta, \omega) \in \mathbb{R}^2$. H observes ω and declares vote intention $d \in \{0, 1\}$. Then i and A receive private signals $s_A \sim N\left(\theta, \frac{1}{\delta_A}\right)$ and $s_i \sim N\left(\theta, \frac{1}{\delta_m}\right)$. Having seen its own signal s_A and H's announcement d, A chooses whether to recommend the project, $r(s_A, d) \in \{0, 1\}$. If A does not recommend, $r = 0$, the game ends. If A recommends, $r = 1$, it reports its observed s_A to the membership. Finally, having seen their own individual signal s_i the agent's report s_A, and H's declaration d, the members simultaneously choose $v_i(s_i, rs_A, d) \in \{0, 1\}$. At the same time, H chooses $v_H(\omega, d, rs_A) \in \{0, 1\}$.

The game tree is depicted in Figure 1, and the notation is summarised in Table 1 in the Appendix.

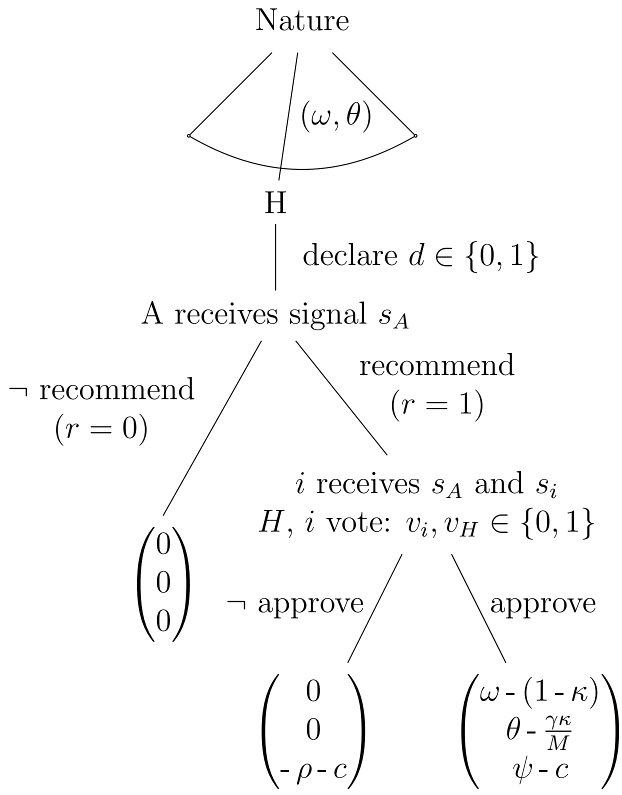
5 Analysis

Before proceeding to the analysis, we impose the following simplifying assumption:

Assumption 1 *M is large and the members vote sincerely.*

The assumption provides a clean characterization of the equilibrium and it permits a simple application of the Weak Law of Large Numbers. In the game the agency needs to estimate the number of members who will vote for a project, which is binomially distributed. As M gets large, the share of votes for a project is characterized by A's

Figure 1: Day-to-day operation of the IO



Note: Payoffs are listed, top to bottom, as (U_H, U_i, U_A). Signals ω, s_i, s_A are observed privately by H, i, A respectively, and θ is unobserved by all players. Project approval is determined by Equation (1).

beliefs about θ.[5]

With this assumption in place, we can provide a general characterization of the day-to-day functioning of the international organization, taking the institutional features $(\delta_A, \kappa, \alpha, \beta)$ as fixed and considering the game beginning with the stochastic emergence of a project.

Proposition 1 (Equilibrium) *There exist thresholds s_1^*, s_0^* and $\widehat{s_i(s_A)}$ such that the following set of strategies and beliefs is a Perfect Bayesian Equilibrium to the game under Assumption 1:*

- *H declares truthfully:*
  - $d = 1$ *if* $\omega \geq (1 - \kappa)$
  - $d = 0$ *otherwise*
- *H votes similarly*
  - $v_H = 1$ *if* $\omega \geq (1 - \kappa)$
  - $v_H = 0$ *otherwise.*
- *Given H's declaration d, A recommends the project $(r = 1)$ if $s_A \geq s_d^*$, and otherwise does not recommend $(r = 0)$. That is,*
  - *if* $d = 1$, *then* $r = 1$ *if* $s_A \geq s_1^*$
  - *if* $d = 0$, *then* $r = 1$ *if* $s_A \geq s_0^*$
  - *otherwise* $r = 0$.
- *Members vote*

[5] The assumption allows a simple characterization and we use it primarily for presentational purposes. For small M, the probability that at least n members vote yes is $\sum_{x=n}^{M} \binom{x}{m} p^x (1-p)^{m-x}$, where p is the probability that a member see a sufficiently high signal that they vote yes given θ. A's belief that there are sufficient votes requires integrating this binominal probability by A's belief about θ. Although conceptually straightforward, this quantity is messy and provides no additional insight. The assumption M large provides simple equilibrium conditions.

– $v_i = 1$ *if* $s_i \geq \widehat{s_i(s_A)}$

– $v_i = 0$ *otherwise.*

- *The agency's and members' beliefs are characterized by* $E[\theta|s_A] = \frac{\delta\mu+\delta_A s_A}{\delta+\delta_A}$ *for A, and by* $E[\theta|s_i, s_A] = \frac{\delta\mu+\delta_m s_i+\delta_A s_A}{\delta+\delta_m+\delta_A}$ *for all i.*

The proofs of the propositions are provided the Appendix. Below we develop the intuition behind this proposition, and then discuss its implications for observed patterns of IO operation.

5.1 Learning and voting

Since the hegemon cares only about a project's political value, H has a dominant strategy: H votes Yes (and declares support) when the political value of a project exceeds H's share of the cost: $\omega \geq 1 - \kappa$. The hegemon's interests are served by letting the agency know how it intends to vote so honest declaration is straightforward.

If the agency issues a recommendation to the membership (sets $r = 1$) and releases its information s_A, then by Bayes' rule, for all i, $E[\theta|s_i, s_A] = \frac{\delta\mu+\delta_m s_i+\delta_A s_A}{\delta+\delta_m+\delta_A}$. Each member's posterior expectation of the project's value is a precision-weighted average of her own signal, the agency's signal, and the common prior μ. Then i votes Yes ($v_i = 1$) if the expected developmental value exceeds her share of the cost of the project, $E[\theta|s_i, s_A] \geq \frac{\kappa\gamma}{M}$. Thus each member's voting decision reduces to a threshold strategy in her private signal: that is, vote yes if and only if

$$s_i \geq \frac{1}{\delta_m}\left[(\delta + \delta_m + \delta_A)\frac{\kappa\gamma}{M} - \delta\mu - \delta_A s_A\right] \equiv \widehat{s_i(s_A)} \tag{2}$$

Note that the members' voting strategy does not depend on the project's political value to the hegemon (or the members' beliefs thereof), which is orthogonal to their interest in the project's developmental value.

5.2 A's recommendation decision

When deciding whether or not to recommend a project, the agency is uncertain as to whether or not the project will secure enough votes for approval. Given Assumption 1, the empirical distribution of the members' signals converges on the true distribution (i.e. a normal distribution centered on θ with variance $\frac{1}{\delta_m}$); thus, in the limit, the members' voting behavior becomes perfectly predictable given θ. For A, however, the true value of θ is unknown.

Denote the equilibrium probability that a recommended project actually gets funded as $\Pr[funded|s_A]$. Then A will recommend a project for the members' consideration if and only if the value to A of the anticipated benefit outweighs the risk being voted down:

$$\Pr[funded|s_A] \geq \frac{c+\rho}{\psi+\rho}. \tag{3}$$

Now projects can be funded one of two ways – either with or without H's support. In the case where H supports the project, approval requires that the proportion of members who see a signal $s_i \geq \widehat{s(s_A)}$ and hence support the project is at least $\frac{1-\alpha\beta}{(1-\alpha)\beta}$.

Members' messages are (on average) increasing in θ and therefore we can find a minimum policy value θ_1 such that $\frac{1-\alpha\beta}{(1-\alpha)\beta}$ proportion of members get a sufficiently strong message that they vote Yes:

$$Pr(s_i \geq \widehat{s(s_A)}|\theta_1) = \Phi\left(\sqrt{\frac{1}{\delta_m}}\left(\widehat{s(s_A)} - \theta_1\right)\right) \geq \frac{1-\alpha\beta}{(1-\alpha)\beta} \tag{4}$$

Given its message, the agency believes that the

$$Pr(\theta \geq \theta_1|s_A) = \Phi\left(\sqrt{\frac{1}{\delta+\delta_A}}\left(\frac{\mu\delta + s_A\delta_A}{\delta+\delta_A} - \theta_1\right)\right) \tag{5}$$

Using equations 4 and 5, we can solve for s_1^*, the weakest signal that induces A to recommend a project that H supports.

Analogously, we can calculate the minimum signal that induces A to recommend a project that H has declared its opposition towards. In order for the vote to pass without H's support A requires more of the members to approve of the project; in fact at least the proportion of members $\frac{1}{(1-\alpha)\beta}$ must support the project if it is to be funded. Hence the threshold signal of the quality of the project must be higher. That is s_0^* will be larger than s_1.

5.3 Value of funded projects

Proposition 1 immediately gives rise to a number of insights regarding the types of projects that get recommended and funded on the equilibrium path of play. We state these results formally, and then discuss them in greater depth.

Corollary 1 (Agency's induced preferences) *The projects that the agency recommends are of higher developmental value,* $E[\theta|r=1] > E[\theta|r=0]$*, and higher political value,* $E[\omega|r=1] > E[\omega|r=0]$*, than the projects it does not recommend.*

Corollary 2 (Agency "shades" its recommendations) *Compared to project the hegemon opposes, the agency is more likely to recommend a project that the hegemon supports but expected developmental value of these recommended projects is lower:* $Pr(r=1|v_H=1) > Pr(r=1|v_H=0)$ *and* $E[\theta|r=1, v_H=1] < E[\theta|r=1, v_H=0]$.

Corollary 3 (Development value of "political" projects) *Among projects that get funded, those which the hegemon supports will be of lower developmental value than those which the hegemon opposes:* $E[\theta|funded, v_H=1] < E[\theta|funded, v_H=0]$.

The first corollary speaks to the agency's induced preferences with regards to the projects it recommends for funding. The agency is assumed have no intrinsic interest in either the political or developmental value of the projects it undertakes. Yet in equilibrium, it acts as if it cares about both. The agency's incentive to maximize the number of funded projects, while avoiding the costs (administrative or reputational) of recommending projects that ultimately get voted down, leads it internalize both the political and developmental concerns of its principals. Thus the agency only recommends projects which it believes to be of sufficiently high developmental value (that is, when its private signal s_A is above a threshold s_d^*); and further, it is more likely to recommend projects that the hegemon supports than those that the hegemon opposes (that is, $s_1^* < s_0^*$).

Another way of interpreting this latter point is that the agency "shades" its recommendations according to the hegemon's political interests. Without the hegemon's support, the agency will be relying on favorable votes from a larger portion of member states for project approval; as such, it will impose a higher standard for such projects in terms of the anticipated developmental value needed for a recommendation. In contrast, when a project is of high political value to the hegemon, it can be passed with less support from the other member states. Consequently, the agency is willing to recommend hegemon-supported projects even when they appear to have fairly low developmental value. Projects of both high political and (anticipated) developmental value will of course be recommended, but on average, the pool of recommended projects that have the hegemon's backing will be developmentally inferior to those that the hegemon opposes.

Understanding these dynamics can inform our interpretation of the relationship between the developmental value of projects undertaken by international organizations in practice, and the political motives underlying them. An observed negative correlation between the political and developmental value of funded projects need not imply that the hegemon's political influence undermines a given project's developmental effectiveness, or that the hegemon prefers developmentally ineffective projects. Rather it can arise simply as an artifact of a selection mechanism which is designed to advance both objectives simultaneously. There may, however, be a "crowding out" effect (not shown explicitly here due to the single-shot nature of our model) whereby politically-motivated projects deplete a finite pool of IO resources, preventing other, more developmentally valuable projects from being undertaken.

6 Comparative Statics

There are three exogenous parameters of interest: the hegemon's vote share, α, the hegemon's cost share $1-\kappa$ and the expertise of the agency δ_A. We are interested in the effects of these parameters on equilibrium behavior, but most importantly, on the behavior of the agency. How do changes in vote and cost share, and expertise affect the willingness of the agency to recommend projects?

6.1 Cost- and vote-shares

We begin by considering κ and α.

Proposition 2 (Cost shares) *As H's cost share falls (i.e. as κ rises):*

- *members are less willing to vote in favor of projects:* $\frac{d\widehat{s_i(s_A)}}{d\kappa} > 0$
- *the agency is less willing to recommend projects:* $\frac{ds_0^*}{d\kappa} = \frac{ds_1^*}{d\kappa} > 0$, $\frac{dPr[r=1|v_H=1]}{d\kappa} < 0$, $\frac{d\Pr[r=1|v_H=0]}{d\kappa} < 0$.

As the members pay a larger share of the cost they become more reluctant to vote in favor of projects, and require a stronger signal of its quality to be convinced to support it: $\frac{d\widehat{s_i}}{d\kappa} > 0$. In response (and because they are averse to recommending projects that fail to get enough votes) the agency needs to see a higher signal before it recommends a project, $\frac{ds_1^*}{d\kappa} > 0$ and $\frac{ds_0^*}{d\kappa} > 0$. Shifting the costs to the members reduces the likelihood of recommending any project, irrespective of the hegemon's support. This captures the insight that the members value the opportunity to spend the hegemon's money, and when instead they bear a larger burden, they are more risk averse about how they spend their own contributions.

Proposition 3 (Vote shares) *As H's vote share α rises, A becomes more willing to recommend hegemon-supported projects, and less willing to recommend hegemon-opposed projects:* $\frac{ds_0^*}{d\alpha} > 0$, $\frac{ds_1^*}{d\alpha} < 0$, $\frac{d\Pr[r=1|v_H=1]}{d\alpha} > 0$, $\frac{d\Pr[r=1|v_H=0]}{d\alpha} < 0$.

Consider first any project that the hegemon approves of. As H's power within the agency increases (vote share α rises), fewer votes are needed from the general membership to approve any project the hegemon likes. This lowers the threshold for the quality of a project for the agency, and makes a recommendation more likely. So for projects the hegemon likes, the average developmental quality declines. The top panel of Figure 2 shows how the probabilities of recommendation vary with H's vote share across levels of expertise.[6] In both cases, the black curve ($\Pr[r = 1|v_H = 1]$) rises with α – making recommendation of projects the hegemon likes more likely, while their expected developmental quality declines (the blue curve, $E[\theta|r = 1, v_H = 1]$).

If the hegemon dislikes a project, then its larger vote share means that to get enough member votes the project has to be of even better quality. This is less likely, and hence the agency is less likely to recommend it. Figure 2 shows how the red curve ($\Pr[r = 1|v_H = 0]$) declines with α, while the average quality of projects that do get recommended rises (the brown curve, $E[\theta|r = 1, v_H = 0]$).

The bottom panel of Figure 2 also shows how the payoffs of the hegemon and the members vary with the hegemon's vote share, α. It is not surprising to note that the hegemon's payoff rises with its vote share, and the members' decline.

6.2 Expertise

Our comparative statics exercise of interest concerns the agency's expertise, δ_A. At low levels of expertise we cannot explicitly sign this comparative statics (this ambiguity can be seen in later in figures 3 and 4).[7] However, at high levels of expertise the comparative statics are clear.

Consider instead the case where the agency's expertise is perfect, $\delta_A \to \infty$. That

[6]The figures are all drawn for the case that $\beta = 2$, where voting follows a simple weighted majority rule, and hence we limit $\alpha < \frac{1}{2}$.

[7]The obvious direct effect of increased expertise is that A can better distinguish between good and bad projects and so A's signal in influencing members to vote Yes. There is also a secondary effect; given that A signal has greater influence on members' voting decision, A might chose to recommend a larger proportion of projects that H favors.

Figure 2: Probability A recommends, development value of projects and payoffs for H and i with vote share and expertise

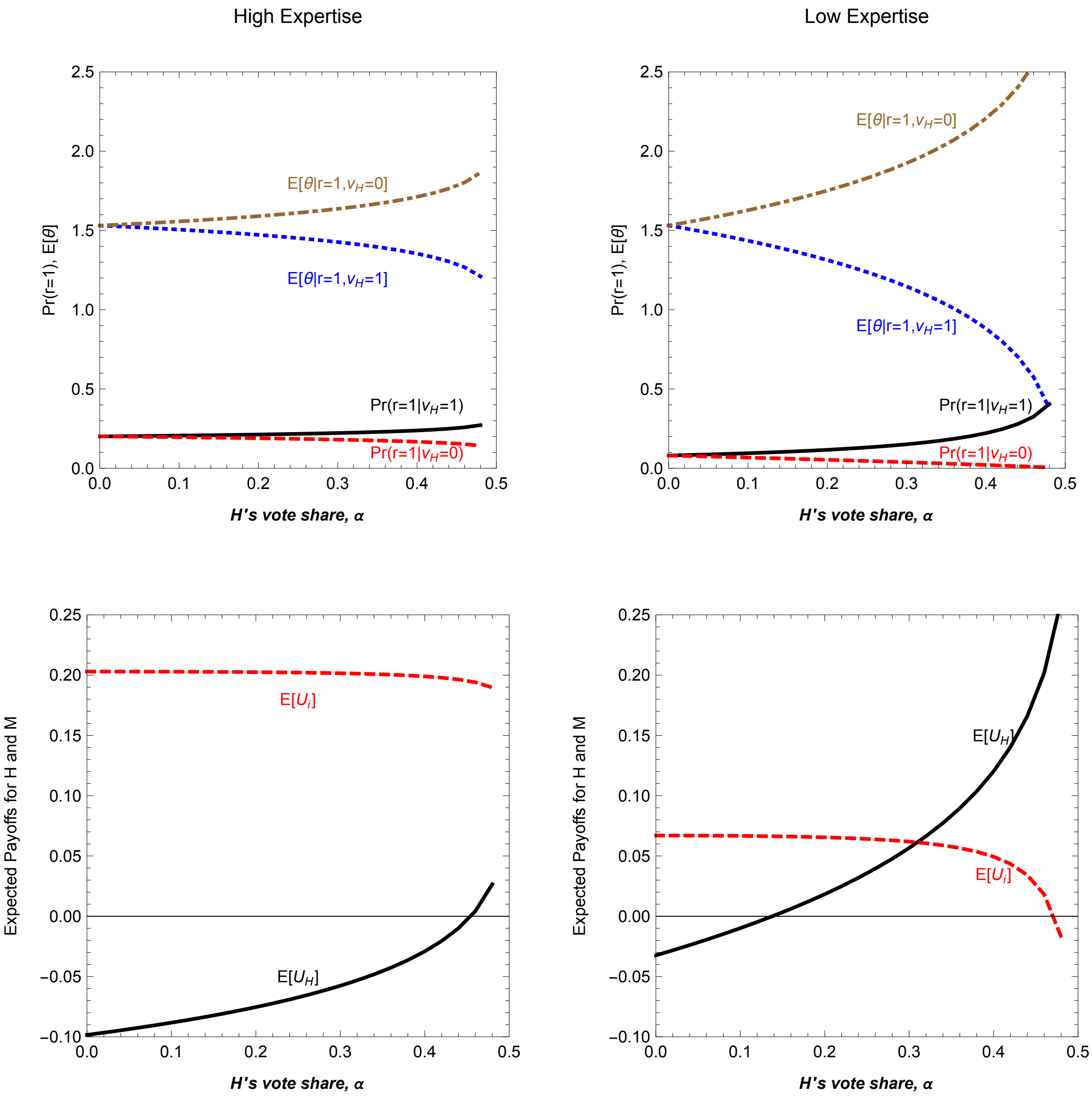
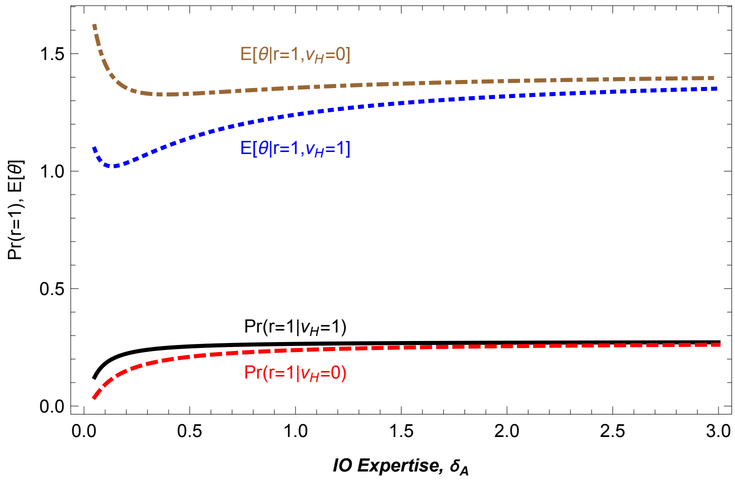


Figure 3: How IO expertise affect the likelihood of recommendations, the expected development value of recommended programs

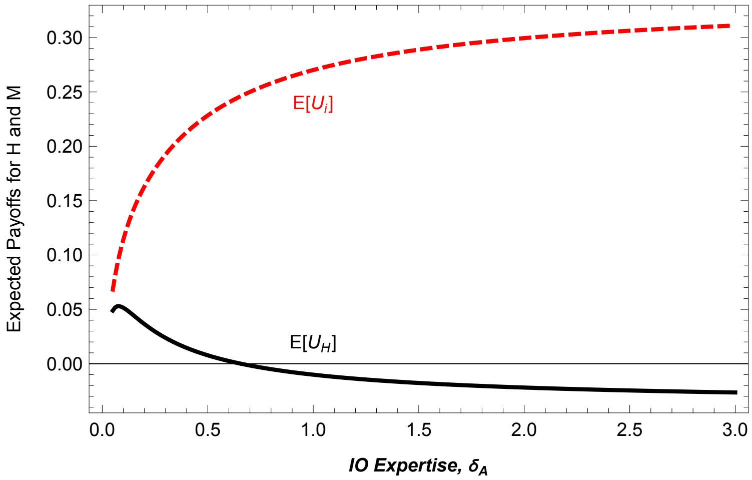


is, the agency knows exactly the developmental value of the project, and if the agency recommends the project, the members learn, with certainty, its value – because the recommendation comes with the agency's report of the value. Their private signal is of no importance and is ignored. Any member will vote in favor as long as the reported, true value of the project exceeds its share of the costs, and this is true irrespective of whether the hegemon has already agreed to vote in favor or against. The threshold values of the signal – actually the true value of the project – that determines whether the agency recommends ceases to differ across the hegemon's vote. That is $s_1^* \to s_0^*$ and both approach the member's share of the costs of the project, $\frac{\kappa\gamma}{M}$. In this case, A doesn't recommend anything below this value, and H's political concerns are ignored by A.

Figure 3 shows how as the expertise increases both the equilibrium expected value of the project and the equilibrium probabilities of the agency recommendation converge – the vote of the hegemon ceases to matter, and the agency ceases to take the hegemon's interests into account when choosing its recommendation. The agency no longer "shades" its recommendations when expertise is perfect.

The hegemon cannot like this situation. Indeed, in Figure 4 we see that as expertise gets very large, the expected utility of the hegemon shrinks, and may prefer if given the

Figure 4: How IO expertise affects the expected payoffs of H and members, i



chance to exit the institution, depending on its outside options.

The members, of course, value expertise very highly – in the limit, they receive a perfect signal of the developmental quality of the project, and can perfectly control the agency. The payoff to any member rises as $\delta_A \to \infty$ (see Figure 4).

When projects are ex ante valuable, and expertise is very high, the interests of the hegemon are ignored. In fact the influence that the hegemon's vote share has over the agency and its recommendations declines with expertise.

6.3 Importance of Vote Share declines with Expertise

Recall from Proposition 3 that as H's vote share increases, A's recommendations are more responsive to H's political interests. That is, the development quality threshold that a hegemon-supported project must overcome in order for A to recommend it declines with α (while the threshold for a hegemon-opposed project increases with α): $\frac{ds_1^*}{d\alpha} < 0$ and $\frac{ds_0^*}{d\alpha} > 0$. The next proposition tells us how this relationship depends on the agency's expertise, δ_A.

Proposition 4 (hegemonic influence declines with expertise) *A's responsiveness* *to H's political interests is moderated by the precision of A's private information:*

$$\frac{d^2 s_1^*}{d\alpha d\delta_A} > 0 \quad \text{and} \quad \frac{d^2 s_0^*}{d\alpha d\delta_A} < 0$$

Given the signs of the first derivatives as given in Proposition 3, the second derivatives in Proposition 4 indicate that the relationship between the hegemon's vote share and the agency's recommendation thresholds shrinks towards zero as the agency becomes better informed. In other words, the benefit of a larger vote share for the hegemon declines with agency expertise. IO expertise limits the bias of the recommendation towards the interests of the hegemon. The effect is seen by comparing the red and black lines in the upper panels of Figure 2. When the expertise is high, there is relatively little divergence in the probability the agency recommends the project between the cases where the hegemon approves or does not; in the low expertise case, the divergence is larger. The effect is also apparent in the lower panels of Figure 2: in the high expertise case, the payoff for the hegemon only reaches positive values when its vote share is very high; in the low expertise case, its payoff is everywhere higher and reaches positive values at relatively low vote share levels.

7 Institutional Design

Thus far we have treated the IO as a going concern and examined how its structure affects the projects it recommends and the welfare of the principals. We turn now to the choice of IO structure and the possibility of IO reform.

7.1 Moderate Expertise

Consider the decision to *ex ante* join the IO. Let η_i and η_H denote the exogenous reservation payoffs for the member states and the hegemon respectively (that is, their payoffs from not joining the institution). In the appendix we define two thresholds on the prior beliefs over the value of the project, $(\tilde{\mu}, \tilde{\omega}) \in \mathbb{R}^2$.

Proposition 5 (Moderate expertise) *If* $E[\theta] = \mu < \tilde{\mu}$ *and* $E[\omega] < \tilde{\omega}$ *and if the reservation utilities exceed some lower bounds,* $\eta_i > \widehat{\eta_i}$ *and* $\eta_H > \widehat{\eta_H}$*, then any incentive-compatible institutional design is characterized by an intermediate level of agency expertise,* $0 < \delta_A < \infty$*.*

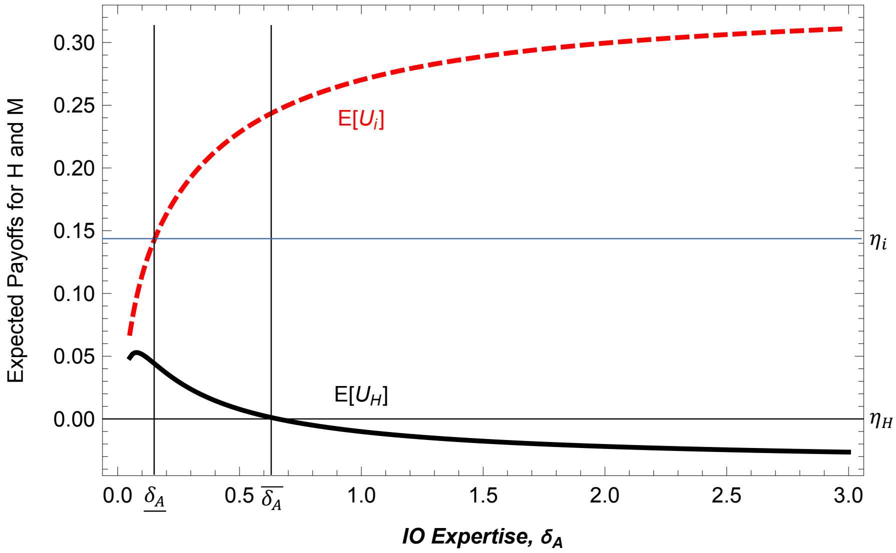
Consider the alternative case, where the hegemon's political value is expected to be "high" $(E[\omega] > \tilde{\omega})$, in that in expectation, the hegemon would want to fund any project. Then H has little need to influence the IO; anything it does is good for the hegemon, and A'a expertise is of no importance. This is the trivial case.

Similarly, consider the other alternative case, where the developmental value is expected to be "high", $(E[\theta] > \tilde{\mu})$. Then the members are likely to approve any project, independent of the recommendation of the IO. The IO's recommendation is largely of little consequence – and since this is the mechanism by which H can influence the member's votes, the hegemon is unable to "lean" on the IO and influence the outcome of the votes. The IO has little value for the hegemon.

The interesting case therefore is when both the political and developmental value of the project is *ex ante* not too high. Here, if the agency has perfect expertise $(\delta_A \to \infty)$, the effect of the hegemon's vote share on the outcome vanishes, the IO ceases to shade its recommendations in favor of the hegemon, and the payoff to the hegemon drops below zero. Of course, the members love an IO with perfect expertise – the IO only recommends projects that meet favor with the membership, and never promotes projects with lower developmental value in order to appease the hegemon. In Figure 4, the expected payoff of the members is shown to rise with expertise.

Consider now the opposite extreme, the case where $\delta_A \to 0$. Let's suppose to heighten intuition, that the costs to the IO of being overruled by a vote are small, so that the IO effectively recommends all projects. The report that the IO offers on recommendation is not informative – its expertise is minimal, and so the members rely entirely on their

Figure 5: Incentive compatible IOs have moderate expertise



own private signals as to whether to vote in favor. In this case, there is no informational gain from the IO, and since all projects are recommended, the members are at their most disadvantaged, and their expected payoff is smallest. For the hegemon, however, since all projects are recommended, the hegemon benefits from the political value of all projects, not just the ones with sufficient developmental value to receive a recommendation from the IO. The hegemon's utility is at its highest.

In summary, the members prefer high expertise, while the hegemon prefers low: $EU_i(\delta_A \to 0) < EU_i(\delta_A \to \infty)$ and $EU_H(\delta_A \to 0) > EU_H(\delta_A \to \infty)$.

Consider Figure 5, where we have taken the expected utilities of the players as in Figure 4, and included possible exogenous reservation utilities η_i and η_H, the minimum payoffs the players would require (in expectation) to join the IO. For clarity, we set $\eta_H = 0$.

Given the details in the figure, H is willing to participate in the IO as long as $\delta_A < \overline{\delta_A}$, while the members, i, require $\delta > \underline{\delta_A}$.

Clearly the set of feasible levels of expertise where both players' expected utility exceeds their reservation values lies in the interval $(\underline{\delta_A}, \overline{\delta_A})$. This interval has both an upper and lower bound, establishing the essential claim: incentive compatible IOs cannot have too much, or too little, expertise. If the IO's ability to discern the developmental value of projects is low, the members find the benefit of membership too low to warrant the financial contribution and may choose to exit or not participate. When the expertise of the IO is too high, only high developmental projects are approved, and this limits the available funding for political projects of private value to the hegemon. A powerful state, bearing the largest financial burden, finds itself unable to influence the IO's allocations to more political projects, and may choose to exit or not enter at all.

8 Conclusion

We have presented a formal model of IO design consistent with several stylized facts. member states benefit from delegation of authority to an international organization to investigate and recommend projects to the membership, and both powerful and less powerful states benefit from this institutional structure. Powerful states can influence the recommendations that the IO makes to the membership, shading its recommendations in favor of hegemonic interests. It does so, not because the IO shares the hegemon's preferences, but instead it internalizes the preferences of the powerful state out of bureaucratic concerns. The rest of the membership are aware that this influence is going on, and tolerates the bias; in return the membership benefits both from the expertise of the IO in identifying valuable projects, and the opportunity to make use of the powerful state's relatively larger contributions for funding the IO's activities.

This pattern of shading its advice in favor of the powerful, and tolerated by the membership depends on the key relationship between the hegemon's vote share and the expertise of the IO. While a powerful state may value a large vote share, giving it significant formal influence over the IO, its vote share cannot be too large – the IO would simply follow the bidding of the powerful and the rest of the members would prefer not to participate. In general the powerful state's formal influence is limited.

Instead, the powerful state can exert informal influence. Eager to get sufficient support among the membership for any project the hegemon may like, the IO adjusts its recommendation. This adjustment is understood by the membership to be happening on occasion; this cannot happen too much before the members object. There are, therefore limits on the degree to which the IO leans in favor of the hegemon.

The limits on the hegemon's informal influence are conditioned by the expertise of the IO. IOs are staffed by well trained, highly educated people tasked with collecting detailed information about any potential project, subjecting it to scrutiny, and making a recommendation to the membership. It is this expertise that is highly valued by the member states, and is the reason the members tolerate the informal influence of the hegemon in the first place. As expertise improves, the IO becomes better at identifying *ex ante* the good projects, and the flexibility of the IO to adjust its recommendation towards the interest of the hegemon declines. More expertise undermines the informal power and influence of the powerful states. The value of the hegemon's larger vote share in the IO is eroded by improved expertise.

IO expertise, therefore, can not be too large or too small. It must be large enough for the membership to value its advice; it must be small enough so that the influence of the powerful states at the IO is not undermined. IO expertise must be moderate in any incentive compatible institutional arrangement.

The model offers some quick insight to the formation and evolution of IOs. Consider the postwar negotiations that formed the WB (among other IOs). Vote shares were apportioned across the founding members, and staff appointed to the secretariat. Over time the expertise of the agency improved and the bank and its professionals learned from experience, and became more adept at project evaluation. The effect was to undermine the benefits of larger vote shares for powerful states. Increasing dissatisfaction within the those countries over IO membership emerges, where threats of exit are associated with revisions in the vote shares across countries (as well as demands by the powerful for adjustments to the internal procedures of the IO). In the recent period we have heard more about exit from IOs by the US and other states than has been usual.

The rise of a more powerful China has emerged as a challenge for several of the international development institutions. China's demand for greater vote shares comes as the IOs expertise advances – only moderate adjustments to vote shares can be tolerated by the US and other traditional major powers. China itself also sees that the degree of influence it might have within a mature and experienced institution like the WB is bounded; instead it seeks to design alternative structures, such as the Asian Development Bank, where it has both a dominant vote share, and perhaps where the expertise of the IO has yet to mature, effectuating a larger informal influence.

International organizations bend to the will of the powerful; but they cannot bend too much. Professionalization of the bureaucratic class undermines the informal influence of the powerful states while IOs still manage to perform their core mission – to advance international cooperation in an anarchic world.

A Appendix

A.1 Notation

Table 1: Notation

Variable	Interpretation	Detail
Key State Variables		
α	Vote share in IO for hegemon	$\alpha \in (0,1)$
β	Inverse of vote share needed to pass	$1 < \beta < \frac{1}{\alpha}$
κ	Share of cost paid by members	$\kappa \in (0,1)$
θ	Development value of the project	$\theta \sim N\left(\mu, \frac{1}{\delta}\right)$
ω	Political value of the project to H	$Pr(\omega \leq z) = W(z)$
Strategies		
r	A's recommendation	$r \in \{0,1\}$
v_i	Vote to fund by member i	$v_i \in \{0,1\}$
v_H	Vote to fund by H	$h \in \{0,1\}$
Signals and Prior		
s_i	member i's signal of development value	$s_i \sim \left(\theta, \frac{1}{\delta_m}\right)$
s_A	A's signal of development value	$s_A \sim \left(\theta, \frac{1}{\delta_A}\right)$
μ	Prior on development value	$\theta \sim N\left(\mu, \frac{1}{\delta}\right)$
Payoffs		
ψ	Bureaucratic value of project	$\psi > 0$
ρ	Reputational cost to A	$\rho > 0$
c	Operating cost to A	$c > 0$
Parameters		
M	Number of members	$M > 1$
γ	Financial capacity of H relative to M	$\gamma > 0$
μ, δ	Prior mean and precision on θ	$\mu \in \mathbb{R}, \delta \in \mathbb{R}_+$
δ_m	Precision of member i's signal	$\delta \in \mathbb{R}_+$
δ_A	Precision of A's signal	$\delta_A \in \mathbb{R}_+$

A.2 Some Definitions and an Assumption

Definition 1 *Define* $\bar{\theta} = \frac{\kappa\gamma}{M}$, $\Delta = (\delta + \delta_m + \delta_A)$ *and* $\widehat{s_i(s_A)} = \frac{1}{\delta_m}\left[\Delta\bar{\theta} - \delta\mu - \delta_A s_A\right]$.

A.3 Proofs

Proof of Proposition 1:

The members' and hegemon's best-response voting strategies were derived in the main text, and restated here:

$$v_H = \mathbb{1}[\omega \geq 1 - \kappa]$$
$$v_i = \mathbb{1}[s_i \geq \widehat{s_i(s_A)}], \qquad \text{where } \widehat{s_i(s_A)} = \frac{1}{\delta_m}\left[(\delta + \delta_m + \delta_A)\frac{\kappa\gamma}{M} - \delta\mu - \delta_A s_A\right]$$

For notational convenience, let $\tau \in \{0, 1\}$ denote whether a project is funded. Aggregating the members' and the hegemon's votes, we have that

$$\tau = \mathbb{1}\left[v_H\alpha + \frac{(1-\alpha)}{M}\sum_{i=1}^{M} v_i \geq \frac{1}{\beta}\right]$$

as per Equation (1). Also for notational convenience, let $\widehat{s_i} = \widehat{s_i(s_A)}$ Applying Assumption 1, and considering a large M, we can apply the Weak Law of Large Numbers to show that empirical distribution of the members' signals converges to the population distribution, and thus that the fraction of members that vote yes converges to $Pr(s_i > \widehat{s_i}|\theta)$, which is equal to $\Phi\left(\sqrt{\delta_M}(\theta - \widehat{s_i}\right)$ Thus we can rewrite the vote aggregation and project approval decision as follows:

$$\tau = 1 \iff \alpha v_H + (1-\alpha)Pr(s_i > \widehat{s_i}|\theta) > \frac{1}{\beta}$$

Given $Pr(s_i > \widehat{s_i}|\theta) = \Phi\left(\sqrt{\delta_m}(\theta - \widehat{s_i})\right)$, and substituting for $\widehat{s_i}$ and rearranging, we have that $\tau = 1$ if and only if

$$\theta > \frac{1}{\delta_m}\left[\Delta\bar{\theta} - \delta\mu - \delta_A s_A\right] + \frac{1}{\sqrt{\delta_m}}\Phi^{-1}\left(\frac{1 - \beta\alpha v_H}{(1-\alpha)\beta}\right) \equiv \theta_{v_H} \tag{A.1}$$

Given this voting behavior, we now consider the decision of the IO to recommend the project or not.

To begin, recall that A's recommendation decision is made before H's vote is cast, but after H has declared its vote intention. Let $\widehat{v_H} \in \{0, 1\}$ denote a conjecture by A as to whether or not H will vote yes. A's conjecture implies that, given θ, a recommended project will be approved iff

$$\theta > \theta_{\widehat{v_H}} = \frac{1}{\delta_m}\left[\Delta\bar{\theta} - \delta\mu - \delta_A s_A\right] + \frac{1}{\sqrt{\delta_m}}\Phi^{-1}\left(\frac{1 - \beta\alpha\widehat{v_H}}{(1-\alpha)\beta}\right)$$

Of course A also does not know θ when she makes her recommendation decision. Rather, she has a posterior belief of θ given her private signal and the common prior, which is distributed

$$\theta|s_A \sim N\left(\frac{\delta\mu + \delta_A s_A}{\delta + \delta_A}, \frac{1}{\delta + \delta_A}\right)$$

Thus given conjecture $\widehat{v_H}$, she believes that the probability that the project will be funded, if recommended, is

$$Pr(\tau = 1|r = 1, s_A, \widehat{v_H}) = Pr(\theta > \theta_{\widehat{v_H}}|s_A) = \Phi\left(\sqrt{\delta + \delta_A}\left(\frac{\delta\mu + \delta_A s_A}{\delta + \delta_A} - \theta_{\widehat{v_H}}\right)\right) \equiv \Phi(y_{\widehat{v_H}})$$

Restating Equation (3) in terms of A's conjecture $\widehat{v_H}$, we can express A's decision to recommend a project as:

$$r = 1 \iff Pr(\tau = 1|r = 1, s_A, \widehat{v_H}) > \frac{c + \rho}{\psi + \rho}$$

Substituting, we have $\sqrt{\delta + \delta_A}\left(\frac{\delta\mu+\delta_A s_A}{\delta+\delta_A} - \theta_{\widehat{v_H}}\right) > \Phi^{-1}\left(\frac{c+\rho}{\psi+\rho}\right)$, and with some simplification this reduces to

$$s_A > -\frac{\delta\mu}{\delta_A} + \frac{\delta + \delta_A}{\delta_A}\bar{\theta} + \frac{\delta_m(\delta + \delta_A)}{\Delta\delta_A}\left[\frac{1}{\sqrt{\delta + \delta_A}}\Phi^{-1}\left(\frac{c + \rho}{\psi + \rho}\right) + \frac{1}{\sqrt{\delta_m}}\Phi^{-1}\left(\frac{1 - \beta\alpha\widehat{v_H}}{(1 - \alpha)\beta}\right)\right] \equiv s^*_{\widehat{v_H}}$$

So altogether, given conjecture $\widehat{v_H}$, A's recommendation strategy is given by

$$r = 1 \iff s_A > s^*_{\widehat{v_H}} \tag{A.2}$$

Noting that

$$s^*_0 = -\frac{\delta\mu}{\delta_A} + \frac{\delta + \delta_A}{\delta_A}\bar{\theta} + \frac{\delta_m(\delta + \delta_A)}{\Delta\delta_A}\left[\frac{1}{\sqrt{\delta + \delta_A}}\Phi^{-1}\left(\frac{c + \rho}{\psi + \rho}\right) + \frac{1}{\sqrt{\delta_m}}\Phi^{-1}\left(\frac{1}{(1 - \alpha)\beta}\right)\right] \tag{A.3}$$

$$s^*_1 = -\frac{\delta\mu}{\delta_A} + \frac{\delta + \delta_A}{\delta_A}\bar{\theta} + \frac{\delta_m(\delta + \delta_A)}{\Delta\delta_A}\left[\frac{1}{\sqrt{\delta + \delta_A}}\Phi^{-1}\left(\frac{c + \rho}{\psi + \rho}\right) + \frac{1}{\sqrt{\delta_m}}\Phi^{-1}\left(\frac{1 - \beta\alpha}{(1 - \alpha)\beta}\right)\right] \tag{A.4}$$

we can see that

$$s^*_1 < s^*_0 \tag{A.5}$$

meaning that $Pr(r = 1|\widehat{v_H} = 1) > Pr(r = 1|\widehat{v_H} = 0)$.

Now we turn to H's declaration strategy. Let $\chi(d)$ denote the probability that A assigns to H playing $v_H = 1$ given H's announcement $d \in \{0, 1\}$. Given belief χ, A will play a threshold strategy of $r = 1 \iff s_A > s^*_\chi$, where s^*_χ is a convex combination of s^*_0 and s^*_1 when $\chi \in (0, 1)$. If $s^*_{\chi(d')} = s^*_{\chi(d'')}$ for $d' \neq d''$, then A is ignoring H's message, and H can do no better than to randomize his messages independently of ω (i.e. babbling). If on the other hand $s^*_{\chi(d')} > s^*_{\chi(d'')}$, then we have that $Pr(r = 1|d'') > Pr(r = 1|d')$. Since H unambiguously prefers to encourage A's recommendations when $\omega > 1 - \kappa$ and to discourage otherwise, it follows that H will send message d'' if $\omega > 1 - \kappa$, and send message d' otherwise. This is of course the same rule governing H's voting decision given a recommendation. The meaning of the messages is arbitrary, so we can assign $d = 0$ to the message that decreases the probability of recommendation, and $d = 1$ to the message that increases it. In equilibrium, H's vote matches his announcement and A's conjecture is always correct: $\chi(d) = \widehat{v_H} = v_H = d$ for $d = 0, 1$. ■

Proof of Corollary 1, : For the first inequality: by A's recommendation strategy, $E[\theta|r = 1] = E[\theta|s_A > s^*_{v_H}]$ and $E[\theta|r = 0] = E[\theta|s_A < s^*_{v_H}]$. Given that $E[\theta|s_A]$ is increasing in s_A it follows immediately from standard properties of truncated distributions that $E[\theta|r = 1] > E[\theta|r = 0]$.

For the second inequality: Denote $\hat{\omega} = 1 - \kappa$, so that $v_H = \mathbb{1}[\omega > \hat{\omega}]$. From A's recommendation strategy and H's declaration strategy as given in Proposition 1, we have:

$$r = \begin{cases} 1, & s_A > s_0^* \\ 1, & s_A \in (s_1^*, s_0^*) \text{ and } \omega > \hat{\omega} \\ 0 & otw \end{cases}$$

By the law of total expectation we have that

$$E[\omega|r=1] = (1-\pi_1)E[\omega|s_A > s_0^*] + \pi_1 E[\omega|s_A \in (s_1^*, s_0^*), \omega > \hat{\omega}] = (1-\pi_1)E[\omega] + \pi_1 E[\omega|\omega > \hat{\omega}]$$

and

$$E[\omega|r=0] = (1-\pi_2)E[\omega|s_A < s_0^*] + \pi_2 E[\omega|s_A \in (s_1^*, s_0^*), \omega < \hat{\omega}] = (1-\pi_2)E[\omega] + \pi_2 E[\omega|\omega < \hat{\omega}]$$

for some $\pi_1, \pi_2 \in (0,1)$. It follows that

$$E[\omega|r=1] - E[\omega|r=0] = \pi_1(E[\omega|\omega > \hat{\omega}] - E[\omega]) + \pi_2(E[\omega] - E[\omega|\omega < \hat{\omega}])$$

From standard properties of truncated distributions, we know that this quantity is strictly positive. ■

Proof of Corollary 2 : By A's recommendation strategy, and by independence of s_A and ω, we have $E[\theta|r=1, v_H=1] = E[\theta|s_A > s_1^*]$ and $E[\theta|r=1, v_H=0] = E[\theta|s_A > s_0^*]$. Given that $E[\theta|s_A]$ is increasing in s_A, and given that $s_1^* < s_0^*$, it follows from standard properties of truncated distributions that $E[\theta|s_A > s_1^*] < E[\theta|s_A > s_0^*]$. ■

Proof of Corollary 3: By Equation (A.1), and by independence of ω and θ, we have that $E[\theta|funded, v_H] = E[\theta|\theta > \theta_{v_H}]$, and that $\theta_1 < \theta_0$. Again by standard properties of truncated distributions it follows immediately that $E[\theta|\theta > \theta_1] < E[\theta|\theta > \theta_0]$. ■

Proof of Proposition 2: $\frac{d\widehat{s_i(s_A)}}{d\kappa} > 0$ follows directly from differentiation of (2). $\frac{ds_0^*}{d\kappa} = \frac{ds_1^*}{d\kappa} > 0$ follows directly from differentiation of (A.3) and (A.4), which in turn implies $\frac{dPr[r=1|v_H=1]}{d\kappa} < 0$ and $\frac{d\Pr[r=1|v_H=0]}{d\kappa} < 0$, because $Pr[r=1|v_H] = Pr(s_A > s_{v_H}^*)$. ■

Proof of Proposition 3: Differentiating equations (A.3) and (A.4) with respect to α gives

$$\frac{ds_{v_H}^*}{d\alpha} = \frac{\sqrt{\delta_m}(\delta + \delta_A)}{\Delta\delta_A} \frac{1}{\phi\left(\Phi^{-1}\left(\frac{1-\beta\alpha v_H}{(1-\alpha)\beta}\right)\right)} \frac{(1-\beta v_H}{(1-\alpha)^2\beta)} \tag{A.6}$$

Since $1 < \beta < \frac{1}{\alpha}$, we have that $\frac{ds_0^*}{d\alpha} > 0$ and $\frac{ds_1^*}{d\alpha} < 0$. The derivatives $\frac{d\Pr[r=1|v_H=1]}{d\alpha} > 0$, $\frac{d\Pr[r=1|v_H=0]}{d\alpha} < 0$ follow immediately from the fact that $Pr(r=1|v_H) = Pr(s_A > s_{v_H}^*)$. ■

Proof of Proposition 4: Follows directly from differentiation of Equation (A.6). ■

Proof of Proposition 5: We first introduce some notation:

- Let $\tilde{\omega} = (1-\kappa)$ and $\lambda = Pr(\omega > \tilde{\omega})$. Recall that (in equilibrium) H plays a threshold strategy, in both his announcement and his voting, of $d = 1 \iff v_H = 1 \iff \omega > \tilde{\omega}$.

- Let $\bar{\theta} = \frac{\kappa\gamma}{M}$. Recall that member i's payoff from a project being funded is $\theta - \bar{\theta}$.
- Let $X_{v_H} = \Phi^{-1}\left(\frac{1-\beta\alpha v_H}{(1-\alpha)\beta}\right)$, and let $Z = \Phi^{-1}\left(\frac{c+\rho}{\psi+\rho}\right)$.
- Let $F_\theta(\cdot) = N(\mu, \frac{1}{\delta})$ denote CDF of the prior distribution of θ, with PDF $f_\theta(\cdot)$.

Define

$$\tilde{\mu} = \max\left\{\bar{\theta} + \frac{\sqrt{\delta_M}}{\delta}X_0, \bar{\theta} + \left(\frac{\delta_M}{\delta_M + \delta}\right)\left(\frac{1}{\sqrt{\delta}}Z + \frac{1}{\sqrt{\delta_M}}X_0\right)\right\} \tag{A.7}$$

and recall that the proposition stipulates that $\mu < \tilde{\mu}$ and that $E[\omega] < \tilde{\omega}$.

The structure of the proof is as follows: We will show, across cases of μ, that the members' expected payoff under perfect agency expertise ($\delta_A \to \infty$) is strictly better than their expected payoff under zero expertise ($\delta_A \to 0$), and conversely, that the hegemon's expected payoff is strictly better under no expertise than under full expertise. We then assume that the players' reservation utilities, η_m and η_H, are at least $\widehat{\eta_m}$ and $\widehat{\eta_H}$ respectively, with $EU_i(\delta_A \to 0) < \widehat{\eta_m} < EU_i(\delta_A \to \infty)$ and $EU_H(\delta_A \to \infty) < \widehat{\eta_H} < EU_H(\delta_A \to 0)$. It follows that any incentive-compatible institutional design will be characterized by an intermediate level of expertise, $0 < \delta_A < \infty$. Thus to prove the proposition it will suffice to show that $EU_i(\delta_A \to 0) < EU_i(\delta_A \to \infty)$ and $EU_H(\delta_A \to \infty) < EU_H(\delta_A \to 0)$, under the stipulated conditions on μ and ω.

First, consider the agency's reporting strategy given perfect information, $\delta_A \to \infty$. In this case, if the agency recommends a project and reports its private signal s_A, all member states' individual beliefs converge on s_A. Given this consensus among the member states, and given that the hegemon can neither unilaterally block nor unilaterally force through a project (since $\alpha < \frac{1}{\beta}$), the project is approved iff $s_A > \bar{\theta}$. Thus the agency recommends a project iff $s_A > \bar{\theta}$ and disregards H's declaration.

The principals' ex-ante expected payoffs in this scenario are straightforward to calculate. For the hegemon:

$$EU_H(\delta_A \to \infty) = \int_{t=\bar{\theta}}^{t=\infty} (E[\omega] - \tilde{\omega}) f_\theta(t)dt = (E[\omega] - \tilde{\omega})(1 - F_\theta(\bar{\theta})) \tag{A.8}$$

which is negative given $E[\omega] < \tilde{\omega}$. For the members:

$$EU_i(\delta_A \to \infty) = \int_{t=\bar{\theta}}^{t=\infty} (t - \bar{\theta}) f_\theta(t)dt = (E[\theta|\theta > \bar{\theta}] - \bar{\theta})(1 - F_\theta(\bar{\theta})) \tag{A.9}$$

which is clearly positive. In fact, we can state the following:

Remark 1 *The best possible institutional design for the member states is characterized by $\delta_A \to \infty$.*

An agency endowed with perfect expertise gives the members their highest possible payoff: such an agency will only recommend those projects that bring members a positive net payoff ($\theta > \bar{\theta}$), and all such recommended projects will be approved; and further, all projects with a net positive payoff for the members will be recommended, and approved. Any institutional arrangement that deviates from this outcome—by either passing up some good projects, or leading to the approval of some bad projects—is strictly worse for the member states.

Now consider the agency's reporting strategy given no private information, $\delta_A \to 0$. The agency's signal is uninformative and her recommendation strategy is solely a function of the hegemon's declaration. There are three cases of the agency's equilibrium recommendation strategy to consider:

1. the agency never recommends a project, $r(d) = 0$
2. the agency recommends all projects, $r(d) = 1$
3. the agency recommends only hegemon-supported projects, $r(d) = d$

In all cases, the agency's strategy is given by Equation (3): she recommends iff $Pr(funded) > \frac{c+\rho}{\psi+\rho}$. Her belief of $Pr(funded)$ is given by $Pr(\theta > \theta_{v_H}) = \Phi(\delta_M(\mu - \theta_{v_H}))$, with θ_{v_H} defined in (A.1).

Case 1. A's equilibrium strategy is as described in Case 1 if and only if $\Phi(\delta_M(\mu - \theta_1)) < Z$. Substituting for θ_1 and rearranging gives

$$\mu < \bar{\theta} + \left(\frac{\delta_m}{\delta_M + \delta}\right)\left(\frac{1}{\sqrt{\delta}}Z + \frac{1}{\sqrt{\delta_M}}X_1\right) \equiv \underline{\mu} \tag{A.10}$$

For $\mu < \underline{\mu}$ and $\delta_A \to 0$, A never recommends a project, and the hegemon's and members' participation payoffs are zero. We will see below that $\underline{\mu} < \bar{\mu}$. Given that $E[\omega] < \tilde{\omega}$, and given Remark 1, we have that $EU_H(\delta_A \to \infty | \mu < \underline{\mu}) < 0 = EU_H(\delta_A \to 0 | \mu < \underline{\mu})$, and that $EU_i(\delta_A \to \infty | \mu < \underline{\mu}) > 0 = EU_i(\delta_A \to 0 | \mu < \underline{\mu})$.

Case 2. A's equilibrium strategy is as described in Case 2 if and only if $\Phi(\delta_M(\mu - \theta_0)) > Z$. Substituting for θ_1 and rearranging gives

$$\mu > \bar{\theta} + \left(\frac{\delta_m}{\delta_M + \delta}\right)\left(\frac{1}{\sqrt{\delta}}Z + \frac{1}{\sqrt{\delta_M}}X_0\right) \equiv \bar{\mu} \tag{A.11}$$

For $\mu > \bar{\mu}$ and $\delta_A \to 0$, A recommends all projects, regardless of H's declaration. Observe that $\bar{\mu}$ is the second term in the curly brackets in (A.7), so this case requires that $\mu < \bar{\theta} + \frac{\delta_M}{\delta}X_0$. By Remark 1, the member states are strictly worse off in this scenario than with a perfectly-informed agency. The hegemon's payoffs in this scenario are given by:

$$\begin{aligned} EU_H(\delta_A \to 0 | \mu > \bar{\mu}) &= \int_{t=\theta_0}^{t=\theta_1} \lambda(\bar{\omega} - \tilde{\omega}) f_\theta(t) dt + \int_{t=\theta_1}^{t=\infty} (E[\omega] - \tilde{\omega}) f_\theta(t) dt \\ &= \lambda(\bar{\omega} - \tilde{\omega})(F_\theta(\theta_0) - F_\theta(\theta_1)) + (E[\omega] - \tilde{\omega})(1 - F_\theta(\theta_0)) \end{aligned}$$

Given that $\mu < \bar{\theta} + \frac{\delta_M}{\delta}X_0$, it follows that $\theta_0 > \bar{\theta}$, and consequently that $EU_H(\delta_A \to 0 | \mu > \bar{\mu}) > EU_H(\delta_A \to \infty | \mu > \bar{\mu})$.

Case 3. A's equilibrium strategy is as described in Case 3 if and only if $\Phi(\delta_M(\mu - \theta_0)) < Z < \Phi(\delta_M(\mu - \theta_0))$. Substituting for θ_0 and θ_1 and rearranging gives

$$\underline{\mu} = \bar{\theta} + \left(\frac{\delta_m}{\delta_M + \delta}\right)\left(\frac{1}{\sqrt{\delta}}Z + \frac{1}{\sqrt{\delta_M}}X_1\right) < \mu < \bar{\theta} + \left(\frac{\delta_m}{\delta_M + \delta}\right)\left(\frac{1}{\sqrt{\delta}}Z + \frac{1}{\sqrt{\delta_M}}X_0\right) = \bar{\mu}$$

For $\underline{\mu} < \mu < \bar{\mu}$ and $\delta_A \to 0$, A recommends a project if and only if it has support from the hegemon. Of these recommended projects, those with $\theta > \theta_1$ are funded, yielding an expected payoff for the hegemon of:

$$EU_H(\delta_A \to 0|\underline{\mu} < \mu < \bar{\mu}) = \int_{t=\theta_1}^{t=\infty} \lambda(\bar{\omega} - \tilde{\omega}) f_\theta(t) dt = (1 - F_\theta(\theta_1))\lambda(\bar{\omega} - \tilde{\omega})$$

which we can see is strictly positive, and thus strictly greater than H's expected payoff from a perfectly-informed agency as given in (A.8). Conversely, by Remark 1, the member states' payoff in this scenario, $EU_i(\delta_A \to 0|\underline{\mu} < \mu < \bar{\mu})$, is strictly worse than it is under a perfectly uninformed agent. ■

References

Abbott, Kenneth W and Duncan Snidal. 1998. "Why States Act Through Formal International Organizations." *Journal of Conflict Resolution* 42(1):3–32.

Andersen, Thomas Barnebeck, Henrik Hansen and Thomas Markussen. 2006. "US politics and World Bank IDA-lending." *The Journal of Development Studies* 42(5):772–794.

Arias, Eric. 2018. "Impartiality In International Courts: Evidence from a Natural Experiment at the WTO." IPES Conference Paper.

Baccini, Leonardo. 2010. "Explaining formation and design of EU trade agreements: The role of transparency and flexibility." *European Union Politics* 11(2):195–217.
URL: *http://eup.sagepub.com/content/11/2/195.abstract*

Broz, J. Lawrence and Michael Brewster Hawes. 2006. "Congressional Politics of Financing the International Monetary Fund." *International Organization* 60(2):367–399.

Busch, Marc L. and Eric Reinhardt. 2003. "Developing Countries and GATT/WTO Dispute Settlement." *Journal of World Trade* 37(4):719–35.

Clark, Richard and Lindsay R Dolan. 2021. "Pleasing the principal: US influence in World Bank policymaking." *American Journal of Political Science* 65(1):36–51.

Clemens, Michael A. and Michael Kremer. 2016. "The New Role for the World Bank." *Journal of Economic Perspectives* 30(1):53–76.
URL: *https://www.aeaweb.org/articles?id=10.1257/jep.30.1.53*

Davis, Christina L. and Sarah Blodgett Bermeo. 2009. "Who Files? Developing Country Participation in WTO Adjudication." *Journal of Politics* 71(3):1033–1049.

Dreher, Axel, Jan-Egbert Sturm and James Raymond Vreeland. 2015. "Politics and IMF conditionality." *Journal of Conflict Resolution* 59(1):120–148.

Dreher, Axel and Nathan M Jensen. 2007. "Independent actor or agent? An empirical analysis of the impact of US interests on International Monetary Fund conditions." *The Journal of Law and Economics* 50(1):105–124.

Dreher, Axel, Valentin Lang, B. Peter Rosendorff and James Raymond Vreeland. 2021. "Bilateral or Multilateral? International Financial Flows and the Dirty-Work Hypothesis." Working Paper, Heidelberg.

Fang, Songying and Randall W Stone. 2012. "International Organizations as Policy Advisors." *International Organization* 66(4):537–569.

Garrett, G. and J. M. Smith. 2002. "The Politics of WTO Dispute Settlement." UCLA: International Institute.

Garrett, Geoffrey and Barry R. Weingast. 1993, reprinted 2019. *Ideas, Interests, and Institutions: Constructing the European Community's Internal Market.* Cornell University Press pp. 173–206.
URL: *https://doi.org/10.7591/9781501724992-009*

Hawkins, Darren, David A. Lake, Daniel L. Nielson and Michael J. Tierney. 2006. Delegation under anarchy: states, international organizations, and principal-agent theory. In *Delegation and Agency in International Organizations*, ed. Darren G. Hawkins, David A. Lake, Daniel L. Nielson and Michael J.Editors Tierney. Political Economy of Institutions and Decisions Cambridge University Press pp. 3–38.

Keohane, Robert O. 1984. *After Hegemony: Cooperation and Discord in the World Political Economy.* Princeton, NJ: Princeton 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.

Lipscy, Phillip Y. and Haillie Na-Kyung Lee. 2019. "The IMF As a Biased Global Insurance Mechanism: Asymmetrical Moral Hazard, Reserve Accumulation, and Financial Crises." *International Organization* 73(1):35–64.

Milner, Helen V. 2006. Why multilateralism? Foreign aid and domestic principal-agent problems. In *Delegation and Agency in International Organizations*, ed. Darren G. Hawkins, David A. Lake, Daniel L. Nielson and Michael J.Editors Tierney. Political Economy of Institutions and Decisions Cambridge University Press pp. 107–139.

Niskanen, Jr. 1971. *Bureaucracy and representative government.* Routledge.

Rodrik, Dani. 1996. Why is there International Lending? In *Annual World Bank Conference on Development Economics, 1995*, ed. M. Bruno and B. Pleskovic. Washington DC: IMF.

Rosendorff, B. Peter. 2005. "Stability and Rigidity: Politics and the Design of the WTO's Dispute Resolution Procedure." *The American Political Science Review* 99(3):389–400.

Rosendorff, B. Peter. 2015. Domestic Politics and International Trade Disputes. In *Oxford Handbook of the Politics of International Trade*, ed. Lisa L. Martin. Oxford University Press chapter 8.

Rosendorff, B. Peter and James Raymond Vreeland. 2006. "Democracy and Data Dissemination: The Effect of Political Regime on Transparency.".

Steinberg, Richard H. 2004. "Judicial Lawmaking at the WTO: Discursive, Constitutional, and Political Constraints." *American Journal of International Law* 98(2):247–275.

Stone, Randall W. 2008. "The scope of IMF conditionality." *International Organization* pp. 589–620.

Stone, Randall W. 2011. *Controlling institutions: International organizations and the global economy.* Cambridge University Press.