Dynamics of Change in International Organizations

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Abstract

States face several options when intent on changing an international organization: they can either reform it or create a successor that assumes all or part of the prior organization's functions– a practice known as institutional succession. Reform and succession are equally efficient mechanisms of institutional change, yet addressing different negotiating hurdles. While succession allows reformers to sidestep veto players on whom reform often trips, unlike reform, succession suffers from scale suboptimality since not every existing member may join the successor institution. Contingent on which negotiation obstacle prevails, reform is preferred to succession or vice versa. We provide a game-theoretic foundation to this proposition, advance a computational solution, and illustrate it with empirical examples.

1 Introduction

In 1944 the United Nations replaced the League of Nations. In 1961, the Organization for Economic Cooperation and Development (OECD) supplanted the Organization for European Economic Cooperation (OEEC). On 1 January 1995, the General Agreement on Tariffs and Trade (GATT) was replaced by the World Trade Organization (WTO). These are just a few prominent examples among many similar cases of institutional replacement. In total, 61 intergovernmental organizations created during the last century have been directly replaced by new organizational successors which have taken over their mandates, members, and core functions (Eilstrup-Sangiovanni, 2020).

Why would states dissolve an existing international organization (IO) only to replace it with a new one that assumes all (or the major part) of the prior organization's mandate, functions, and assets– a practice referred to by institutional lawyers as "institutional succession" (Schermers and Blokker 2003). Specifically, why, and when, would states replace an existing IO rather than reform it? After all, the 1947 GATT was revised through eight rounds of multilateral trade negotiations before being replaced by the WTO.

Rational choice approaches have so far not recognized succession as a distinct pathway of institutional change but have tended to fit instances of succession into Hirschman's (1970) classic dichotomy between "voice" and "exit". Consider again the WTO case. For some, the creation of the WTO was a case of sweeping institutional reform negotiated during a regularly scheduled round of negotiations—a result of voice (McKibben, 2015; Ostry 2020). For others, it was a case of institutional 'exit' by an aggrieved minority of powerful states who created a new alternative to the deadlocked GATT (Jupille et al., 2013:89; Steinberg, 2002). Yet, technically, the birth of the WTO was neither an instance of institutional reform (which would have required widespread support), nor a standard exit tactic—pursued either by less powerful members lacking voice, or by powerful states that use their "go-it-alone" power to bypass a deadlocked organization and create a rival institution to push for change (Gruber, 2000; Morse & Keohane, 2014). Instead, it was a move led by the most powerful GATT members to reconstitute the existing institution on different terms—a result achieved by simultaneously withdrawing from the 1947 GATT and constituting the new WTO as a "single undertaking."

Given that it involves the creation of new institutions, existing literature on institutional choice suggests that succession is inherently more difficult and costly (in terms of negotiation costs and uncertainty) to implement than reform (Cottrell, 2009, 2016; Jupille et al., 2013). We offer a correction to this view by showing that reform and succession may present equally efficient mechanisms of institutional change but under different circumstances. On the one hand, reform is vulnerable to veto, whereas succession, by moving negotiations outside an existing institution and establishing a new decision forum, is not. On the other hand, succession may suffer from scale suboptimality (since not every member of an existing IO may choose to join the successor absent an incentive), whereas reform typically involves all existing parties to an agreement. Therefore, depending on which drawback presents the greater hurdle, we find that reform will be preferred to succession or vice versa.

We derive our findings from a bargaining game that covers almost every type of strategic interaction conceivable in a regime complex, ranging from informal "reneging tactics" such as "footdragging" (a way to reduce the benefits from cooperation through partial defaulting on promises or by delaying the implementation of agreed measures), regime shifting (whereby a state may weaken the authority of one decision forum by invoking the authority of another forum), the formal use of built-in flexibility mechanisms, and formal institutional change through either reform or succession.

The game formalizes these alternative options by combining three different logics: the "inside option"—a staple of bargaining theory—sums up the effects of all reneging tactics; a "veto game" encapsulates the essence of reform processes; and a "tipping game" captures the logic of succession. We offer a closed-form solution, from which we derive the comparative statics, which we then simulate

by means of a computational simulation. We further present empirical cases of institutional change focused on the GATT/ WTO to illustrate our main findings.

Our goal is neither to introduce new substantive propositions that are alien to existing rational institutionalist literature, nor to offer novel interpretations of known historical events. Our contribution instead is twofold. First, we theorize a distinct mechanism of institutional change–succession– that has not been recognized as a separate pathway in IO literature. Second, we offer a formal analysis of the process of succession alongside other forms of institutional change that have so far been studied in a piecemeal or informal way and derive both analytical and computational solutions to questions related to institutional change in general.

Our discussion proceeds as follows. Following the literature review in section 2, section 3 provides a definition of institutional succession and outlines our argument regarding the conditions in which either reform or succession occur. Section 4 introduces a formal bargaining game and section 5 derives the main claims. Section 6 offers an empirical illustration—the succession of the GATT by the WTO—selected to illustrate our main analytical findings.

2 Existing Literature

Why do states sometimes dispose of existing international institutions only to replace them with new ones that fulfil a similar function? Existing IO literature offers limited insights on this question. Instead, institutionalist scholars have cited high costs of institution building, self-reinforcing "lock-in" mechanisms, path dependency, learning and legitimation processes, uncertainty, and cognitive biases to ground the broad expectation that states prefer to "stick with the institutional devil they know" rather than embark on new and uncertain cooperative ventures (Jupille et al., 2013:8; see also Keohane, 1984; Strange, 1998; Pierson, 2000). Indeed, recent literature on institutional choice portrays both institutional reform but especially the creation of new institutions as a costly, risky, and lengthy endeavour which states will attempt only in dire circumstances and as a last resort (Jupille et al. 2013:8).

The notion that institutional creation, and thus replacement/succession, is a last resource subject to high costs and long delays is echoed by institutional lawyers and historians (see, e.g., Klabbers, 2002; Myers, 1993; Wessels, 2011), and sometimes by international negotiators themselves. For example, representatives of European copyright producing states, when deliberating in 1970 whether to reform the existing International Bureaux for the Protection of Intellectual Property (BIRPI) or replace it with the new World Intellectual Property Organization (WIPO), described succession as a "radical solution [which] could take many years to bring about."[1] In fact, BIRPI's replacement by WIPO was achieved in less than a year, whereas reform would almost certainly have taken longer and delivered less sweeping change.

Recently, scholars have begun to theorize the institutional choices confronting states when deciding how to govern their interactions. Studies have focused on when states shop between different institutional venues or transfer activities from one existing institution to another (Helfer, 2004, 2009; Urpelainen and van de Graaf, 2014), or when they create de novo institutions to challenge the status quo (Morse and Keohane 2014:387; Vabulas and Snidal, 2017; Lipscy, 2017; Pratt, 2019). However, most studies of institutional choice have focused on a single bargaining strategy—say, regime shifting—in isolation from others such as reform, rival regime creation, or institutional replacement.

The only analytical study we are aware of that integrates into a unified theoretical framework otherwise disparate accounts of institutional choice, by Jupille, Mattli, and Snidal (2013), invokes bounded rationality and risk-aversion to explain why sticking with an existing institution is the default choice. However, the assumption that states are satisficers rather than optimizers places undue

[1] BIRPI Memo, clause 54. 1969. See also Bradermann 1970; Hadl 1971:186.

preference on the status quo because it makes the creation of new IOs an excessively risky and costly outcome (Jupille et al., 2013: 33, 39). Adopting standard decision-theoretic analysis not only helps de-emphasize the role of risk and uncertainty as direct causal factors driving institutional choice, but it also forces us to unpack these two concepts and identify the relative costs and opportunities behind alternative strategies of institutional choice. Our contribution, therefore, is to supplement existing work on institutional choice by formalizing a series of strategic institutional choices that have so far been studied in a purely historical, or piecemeal, or informal way and derive comprehensive and systematic answers to questions about the determinants of institutional change.

3 Institutional Change: Definition and Argument

3.1 Definitions and scope conditions

Although institutional change occurs in both formal and informal institutions, our focus is on formal change. We focus on international institutions that are constituted by treaty or other legal instruments, that are coordinated through a permanent organizational apparatus, and that can only be replaced through a legal act by their members.[2]

Formal institutional change in our model can take two forms: reform or succession. Reform refers to revision of an IO's founding treaty which changes higher-order rules specifying institutional mandate or members' rights and obligations. Minor rule adaptations aimed to adjust institutional procedures and practices to meet changing practical needs thus do not qualify as reform on our account. Succession refers to a formal act whereby a new treaty is negotiated to replace an existing founding treaty along with the organization created to implement it (Schermers & Blokker, 2003:145).

Reform is provided for by most IO founding treaties, and usually involves all member states. Article 40(2) of the 1969 Vienna Convention on the Law of Treaties provides that

> "any proposal to amend a multilateral treaty [. . .] must be notified to all the contracting states, each one of which shall have the right to take part in (a) the decision as to the action to be taken [. . .] (b) the negotiation and conclusion of any agreement on amendment"(UN 2005).

Succession, in contrast, is an extra-institutional strategy, usually initiated by a subgroup of members who, by moving the decision outside an existing institution, can present a new agreement as a "take-it-or-leave-it" deal to other members.

In principle, all formal IOs may be subject to succession (just as they are to reform). However, in practice, we believe only institutions subject to scale economies are liable to succession, since, in the absence of scale economies there would be no compelling reason why dissatisfied states would not simply leave an unsatisfactory institution and create a rival parallel institution. This assumption—that the efficiency gains that come with having a wide membership outweigh any benefit that a more exclusive competing arrangement might confer on participants—imposes a scope condition on our study of succession: the presence of scale economies.

The presence of scale economies is a realistic assumption for most, though not all, IOs. Commodity agreements are perfect examples, for there is room for only one effective cartel at a time. The task of mitigating financial crises through short-term lending to economies in distress and restoring investors' trust is also best assumed by one centralized organization—at present the IMF. Scale economies are also present in most regulatory regimes, such as the various Basel committees. In areas such as human rights, refugee protection, or peacekeeping, the need for legitimacy often, though not

[2] On normative de-legitimation, see Cottrell 2009, 2016.

always, militates against competition between rival organizations. In contrast, the scale-economies scope condition excludes regional organizations and, more generally, all organizations subject to the broader-versus-deeper-cooperation trade-off (Downs et al, 1996).

Our theory presents the choice between reform and succession as stark alternatives. However, as we explain next, the difference lies less in the substantive changes introduced than in the way institutional change is effectuated; through either a (super)majoritarian decision of all parties or an extra-institutional negotiation led by a sub-set of members. Reform and succession represent different mechanisms of institutional change, not different directions or degrees of departure from the status quo ante.

3.2 The causes of institutional change

We assume that formal institutional change—whether it happens through reform or succession—usually reflects an unexpected change in existing payoffs (typically triggered by some form of exogenous shock) that leads one side in an institutional bargain to threaten to withhold cooperation lest the agreement is modified to increase their share of benefits. That side usually is the weaker side, to whom we refer as institutional "followers", in contrast to institutional "leaders". While leaders typically set the agenda, followers are agenda -takers: they can reject but not propose. Initial payoffs from cooperation tend to reflect this power discrepancy in that leaders offer terms of cooperation that yield low payoffs to followers, roughly equal to the latter's reservation value–what whatever benefits they would receive absent an agreement. The leaders appropriate the residual benefits from cooperation, the lion's share, which we refer to as the "residual value."The deal is unequal yet initially stable, for, holding everything else constant, there is nothing that followers can do to improve upon it.

The notion that institutional leaders are agenda-setters while followers are agenda-takers requires brief unpacking. In IOs with consensus decision-making rules, weaker countries often enjoy formal procedural powers to both propose and block new legislation. Yet, as Steinberg's (2002) distinction between "law-based" and "power-based" bargaining highlights, in reality, states often bring to bear instruments of power that are extrinsic to procedural rules (e.g., based on military strength or market size) which they use to define and limit choices regarding what decisions can be taken (see also Bachrach & Baratz, 1970).

The institution negotiated between leaders and followers is stable until an unexpected change in circumstances undermines the initial deal. It is easy to imagine why, in response to unexpected adverse circumstances, followers would desire institutional change. Earning the expected equivalent of their reservation value, even the slightest ripple may spoil their disposition to continue to cooperate under the existing agreement. The case of leaders is very different. Even if their payoffs are reduced by an unpredictable change of circumstances, they will typically prefer to stick to the initial deal, because it provides them with sufficient benefits above their reservation value to absorb the current loss and still gain from cooperation. The main reason why leaders would pursue either reform or succession would therefore be in response to followers suspending cooperation.[3]

Suspending cooperation is a move known in the bargaining literature as exercising one's "inside option", what the parties can do to improve their final payoffs while they *temporarily* disagree (Muthoo, 1999:137). The textbook illustration is the option for a union to go on strike during a wage negotiation with a firm; each new day spent striking reduces each sides' value for the game and increases pressure to come to an agreement. Inside options in the context of IOs involve reneging on cooperation. In contrast, exercising one' "outside option" means choosing to *permanently* stop bargaining to pursue either unilateral action or an alternative form of multilateral action instead (see

[3]This said, it is true in theory that a very large negative shock could lead the agenda setters to abandon the current organization. In such a case, the outcome would be death. We left this possible, though rare, outcome out of the model.

Urpelainen and Van de Graaf, 2014; Lipscy, 2017).

Inside options can take several forms. "Footdragging" is an artless yet effective way of reducing joint benefits from cooperation by only partially implementing agreed-upon cooperative measures. For example, states may delay bringing into force agreed protocols intended to update or expand existing international agreements as has been the case with the Additional Protocol to the NPT's safeguards agreement. Another way to renege on one's obligations is to apply a safeguard measure, whether formally provided for, such as antidumping or countervailing duties in international trade law, or informally available, such as Voluntary Export Restraints. When implemented, such measures have the effect of weakening the strength of a member state's commitment to an agreement (Downs and Rocke, 1995; Rosendorf and Milner, 2001; Johns, 2014). Regime-shifting can also be thought of as an inside option because shifting deliberations on a given issue from one venue to another can serve, in Helfer's (2009: 42) words, to "decrease the clarity of international law" and introduce "strategic inconsistencies", effects which, although legal, may imply the de facto suspension, in whole or in part, of an initial agreement.

Irrespective of what form an inside option takes, by resorting to it, followers—the agenda takers—can cut their own losses from an exogenous shock. But because they also inflict losses on leaders, followers will often resort to reneging strategies, not only to reduce their immediate losses, but also with the intent to pressure leaders to renegotiate an agreement and redistribute benefits in followers' favor. This pressure is the main reason why leaders, as the chief beneficiaries and defenders of an incumbent organization, would ever consent to followers' demands for institutional change.

3.3 The forms of institutional change: Reform v. Succession

As already discussed, a crucial distinction between reform and succession relates to the process through which agreement is reached. Reform typically requires some form of supermajority or even unanimous agreement among members of an existing IO. By contrast, succession can be initiated by a sub-group who present other members with a new IO constitution for ratification; if enough others accept the deal, the new IO replaces the old. From a game-theoretic perspective, the difference between the two strategies is best captured as a contrast between two games: the "veto game" and the "tipping-point game".

Let's now consider the dynamics of each process. Reform requires the two sides to an institutional bargain to come to a new agreement on how to divide the gains from cooperation. This new agreement will typically be reached by leaders offering followers the equivalent of the latter's new reservation value (which was reset by the exogenous shock) while pocketing the residual as before. Given the need for a broad consensus to accomplish institutional reform, agreement is dependent on each side acting as a single player—agreeing on what to offer and what to accept—much like the case of collective bargaining between a firm and a labor union. Yet, frequently, the coalition of leaders will be divided between a core group of "proposers" who see eye to eye on desired reforms and a larger group who share the broad interests of the core group of leaders but also have specific interests of their own, which clash with those of the core group. Among this larger group a few may enjoy veto power, meaning they are able to block any reform proposed by the core group unless granted special concessions, which will come at the core group's expense. This veto power may be written into the institution's founding treaty, or it may reflect veto holders' capacity to play the two sides against each other and consequently improve their own payoffs (Tsebelis, 2003).

The coalition of followers may similarly be plagued by internal divisions, when one or several outliers condition their accord on the satisfaction of an extreme demand. Requiring super-majority or unanimity, IO reform demands that both followers and leaders be relative united. In sum, institutional reform displays the properties of a "veto game" (Murnighan and Swajkowski 1979, Noë 1990),

in which a handful of players on either side have the capacity to derail a deal unless paid a rent, thereby reducing the payoffs from reform to the core group of agenda-setters. It is not uncommon for reform processes to be held up for many years due to the resistance of a few dogged naysayers.

The alternative to reform is succession. Succession demands that a core group of either leaders or followers–once again defined as the smallest subset of states that is capable of spontaneously organizing outside a pre-existing organization–proposes a successor organization for individual ratification by other states. Succession has one major advantage over reform: it is not hostage to any veto players since it does not require collective acceptance by either side. Instead, a core group proposes a new organization and other countries individually decide whether to join or not. Joining the new organization and leaving the old is a single undertaking. If enough states decide to join the new organization and sink the old, succession is accomplished.

Whilst is bypasses veto players by moving negotiations outside an existing IO, succession has a limitation of its own: it only works if enough members are willing to sink the old organization and join the new. This is because, as we posited earlier, institutions liable to succession are subject to scale economies: the more members, the more efficient the institution. As a result, only one IO of a given kind is viable at any one time–there can realistically be only one OPEC or one UN. The new successor organization thus either draws a majority of relevant stakeholders to itself, or it does not materialize at all. This is the institutional equivalent of what is called in game theory a "tipping game" (Schelling, 1978).

The tipping-point property of institutional creation in the context of scale-economies means that promoters of new IOs often seek to impose some form of coordination by stipulating a minimum size of membership that must be reached before the institution comes into existence. For example, the 1945 United Nation's Charter stipulated that it would come into force only after being ratified by the P5 and a majority of other signatory states (UN Charter, Article 110). The Comprehensive Test Ban Treaty (CTBT) signed in 1996 will enter into force only once the 44 states listed in Annex 2 of the treaty have ratified it. Threshold restrictions do not, however, guarantee that the minimum required size will be reached as the CTBT example illustrates. Thus, with or without threshold restrictions, the promoters of a successor IO may find they have to buy off other individual parties to reach critical mass, increasing their cost for succession.

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It is important to note that succession can be pursued by any side to an institutional bargain, leaders or followers, as long as that side features a subset of countries that are capable of organizing outside the existing organization (what we label a core group). Depending on who initiates the move to form a new organization, we will refer to succession as "controlled" if in the hands of the original agenda setters (leaders) who remain in control of the new organization, or "rival" if driven by the agenda-takers (followers) that seize the agenda and become leaders of the new organization. The latter are rarer than the former; a rare example of rival succession was the founding in 1968 of the International Sugar Organization to replace the existing International Sugar Council (Viton 2004).

Summarizing what has been argued so far, whenever an unexpected shock disrupts a distribu-

tional equilibrium between members of an IO, the agenda-takers (followers) may exercise their inside option by reneging on some of their obligations. In this case, the agenda-setters (leaders) may either tolerate reneging or offer institutional reform. Reform, however, may be blocked by veto players, tempting agenda-setters to bypass unanimity requirements and propose a successor organization instead ("controlled succession"). The agenda-takers can also exercise their outside option and offer a successor of their own ("rival succession"). What remains to specify are the causes of institutional change and its format: whether reform or succession, and, in cases of succession, whether controlled or rival. To that effect, we create a formal game of the bargaining process.

4 The Reform, Respect, and Succession Game

The following bargaining game models the choice between the status quo in the wake of an exogenous shock (we call this the "respect equilibrium"), a degraded version of the status quo in which followers engage in widespread reneging which is tolerated by leaders ("tolerate equilibrium"), and one of three forms of formal institutional change ("reform", "controlled succession", or "rival succession" equilibria).

n countries are divided into two groups, T leaders and $n-T$ followers, with T an integer such that $0 < T < n$. The game starts with the leaders collectively offering an agreement to each individual follower.

The tree is drawn in Figure 1. Terms and payoffs are defined in Tables 1 and 2 respectively.

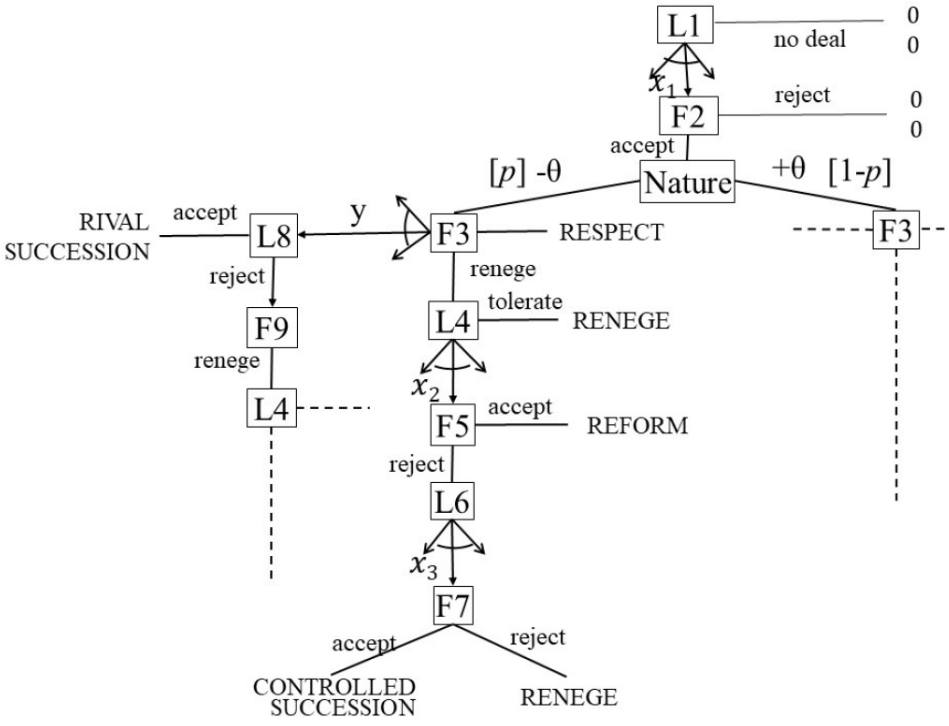

Figure 1: Sketch of the Reform, Respect, and Succession Game Tree

TABLE 1: Glossary of terms	
x_1	percentage of the pie initially offered to followers $(0 \leq x_1 \leq 1)$
x_2	percentage of the pie offered to followers in a reform $(0 \leq x_2 \leq 1)$
x_3	percentage of the pie offered to followers in a controlled succession $(0 \leq x_3 \leq 1)$
y	percentage of the pie offered to leaders in a rival succession $(0 \leq y \leq 1)$
$\alpha:$	inefficiency factor in the rival succession equil. $(\frac{1}{2} \leq \alpha < 1)$
$\delta:$	reneging factor $(0 \leq \delta \leq 1)$
$\theta:$	intensity of Nature's shock $(0 \leq \theta \leq 1)$
$p:$	probability of negative circumstances for followers (positive for leaders) $(0 \leq p \leq 1)$
$n:$	number of states
$T:$	number of leaders $(1 \leq T < n)$
$N:$	size of leaders' core group $(1 \leq N \leq T)$
$S:$	size of followers' core group $(0 \leq S \leq n - T)$

TABLE 2: INDIVIDUAL PAYOFFS*		
	Leader	Follower
pre-deal reservation value	0	0
LEFT BRANCH $(-\theta)$		
respect	$1 - x_1 + \theta$	$x_1 - \theta$
renege	$(1 - x_1 + \theta)(1 - \delta)$	$(x_1 - \theta)(1 - \delta)$
reform	$(1 - x_2)\left(\frac{N}{T}\frac{S}{n-T}\right) + \theta$	$x_2\left(\frac{N}{T}\frac{S}{n-T}\right) - \theta$
controlled succession	$(1 - x_3)\frac{N+1}{n} + \theta$	$x_3\frac{N+1}{n} - \theta$
rival succession	$y\alpha\frac{S+1}{n} + \theta$	$(1 - y)\alpha\frac{S+1}{n} - \theta$
RIGHT BRANCH $(+\theta)$		
respect	$1 - x_1 - \theta$	$x_1 + \theta$
renege	$(1 - x_1 - \theta)(1 - \delta)$	$(x_1 + \theta)(1 - \delta)$
reform	$(1 - x_2)\left(\frac{N}{T}\frac{S}{n-T}\right) - \theta$	$x_2\left(\frac{N}{T}\frac{S}{n-T}\right) + \theta$
controlled succession	$(1 - x_3)\frac{N+1}{n} - \theta$	$x_3\frac{N+1}{n} + \theta$
rival succession	$y\alpha\frac{S+1}{n} - \theta$	$(1 - y)\alpha\frac{S+1}{n} + \theta$

* For a member of core group N for leaders and S for followers.

4.1 The founding agreement

The first round of negotiations establishes the institution. The founding agreement consists of the division of a pie of size one into two shares, with x_1 percent going to followers and the residual, $1-x_1$, going to leaders $(0 \leq x_1 \leq 1)$. The individual payoff for a follower is equal to x_1.

The choice of the take-it-or-leave-it bargaining protocol at the founding stage reflects the power disparity that characterizes IOs between agenda setters ("leaders") and agenda takers ("followers").

A follower accepts an agreement that delivers a payoff that is superior or equal to its initial reservation value—the opportunity cost of not joining the organization. Every follower's initial reservation value, like every leader's, is normalized to zero.[4]

[4]Normalizing reservation values to zero, done to simplify the analysis, is of no substantive consequence.

4.2 Nature's shock

Nature then modifies the payoffs through an unanticipated shock. Examples of shocks include, for the trade regime, export surges or the emergence of new competitors, and for monetary regimes like the IMF, global financial crises or changes in GDP distribution.

Each follower still enjoys x_1 of the available pie and each leader $1 - x_1$, but Nature adds (or subtracts) an increment from these payoffs depending on circumstances, which can be negative or positive. We assume that the shock merely redistributes value between the two sides without changing the aggregate size of the pie: a negative shock for followers is also a positive one for leaders and vice versa. [5] Hence, if Nature draws negative circumstances for followers (and thus positive for leaders) and the outcome is respected, a follower receives $x_1 - \theta$ while a leader gets $1 - x_1 + \theta$, with $0 \leq \theta \leq 1$. Conversely, if Nature draws positive circumstances for followers, each follower receives $x_1 + \theta$ while each leader gets $1 - x_1 - \theta$. Nature draws negative circumstances for followers with probability p and positive ones with probability $1 - p$. The value of this probability is common knowledge.

Nature's draw bifurcates the path of play into a left and a right branch. We first develop the left branch.

4.3 The Left branch (bad circumstances for followers, good for leaders)

Following Nature's draw, followers may choose to respect the new payoff distribution, or they may challenge it by exercising either their outside option (rival succession) or their inside option (reneging, which, in turn, may be tolerated or may invite reform or controlled succession).

4.3.1 Respect

After the shock, the initial payoffs become $1 - x_1 + \theta$ for leaders and $x_1 - \theta$ for followers.

4.3.2 Rival succession (followers' outside option)

Faced with an adverse change in circumstances, an organized subset of followers may offer an alternative organization to all other members, leaders and followers alike, who individually decide whether to abandon the existing organization and join this new one, or whether to stay with the old organization, banking on its survival. A follower's payoff for the rival succession is equal to

$$u_{i \in n-T}\left(rival\right) = \left(1 - y\right)\alpha \frac{S+1}{n} - \theta$$

while a leader's payoff is equal to $y\alpha\frac{S+1}{n} + \theta$. Besides the intensity of the shock θ, there are two components to each payoff. The first is $1 - y$, the percentage of the new pie that is appropriated by followers, who are now the agenda setters of the successor organization, and y, the percentage that is offered to the ex-leaders. The second component is the size of the new pie. It varies with S, the size of the followers' organized subgroup, but is assumed to be less efficient than the existing IO: $\frac{1}{2} \leq \alpha < 1$.[6] To understand the construction of the payoff, assume a country i trying to decide whether to join or not. If S includes everybody else ($S = n - 1$), then i joining makes the pie equal to α. But if S includes no one else, i ends up joining a pie that has shriveled to a paltry $\frac{\alpha}{n}$.

[5] The constant-pie assumption has no substantive consequences.

[6] We make this assumption out of the belief that if rival institutions were as efficient as existing ones, they might already exist. Dropping α would increase the frequency of rival creation, but not alter any of the analytical propositions articulated below.

4.3.3 Reneging (followers' inside option)

In response to Nature's shock, the followers may seek to cut their own losses while simultaneously reducing payoffs to leaders by partially reneging on the initial agreement. More specifically, reneging implies that δ percentage of the initial agreement is made unenforceable for both sides, with $0 \leq \delta \leq 1$. The decision to renege is made by the followers acting as one. The reneging payoffs are thus, for each follower,

$$u_{i \in n-T}(reneging) = (x_1 - \theta)(1 - \delta)$$

and for each leader, $u_{i \in T}(reneging) = (1 - x_1 + \theta)(1 - \delta)$.

The reneging factor, δ, is set exogenously, reflecting formal legal, organizational, and normative constraints. It indirectly measures the degree of institutional informality, with $\delta = 1$ equivalent to a case where no decision is ever binding.

Upon observing reneging, the leaders (again acting collectively) have two options: the first is to *tolerate* the fait accompli, turning the above-mentioned reneging payoffs into final payoffs. A second option is to offer a renegotiation through a reform.

4.3.4 Reform

The renegotiation of an IO's founding treaty takes a form identical to the initial negotiation, with leaders proposing x_2 and $1 - x_2$ fractions of the pie to go to followers and leaders respectively, with $0 \leq x_2 \leq 1$. The difference in our model between founding a new institution and reforming an existing one is that reform may be vetoed by individual members eager to capture a larger fraction of the pie. Cohesion, both of the group of followers demanding reform and of the group of leaders who must consent to it, is key to reform.

On the leaders' side, cohesion is measured as the number of leaders N, who together form a united core in control of the agenda, relative to the residual number $T - N$ of leaders who do not control the agenda but share the substantive interests of their core group. If the two numbers fully overlap, that is, if $T = N$, the probability of a veto within leaders' ranks is nil by definition. If, however, the two subgroups are of different size, that is, if $N < T$, we conjecture that the risk of a veto is greater than zero and increases with the difference between T and N. Specifically, we set the risk of veto to be $\frac{T-N}{T}$. We similarly subdivide the followers' coalition into a core group of S members and a non-core group of $n - T - S$ members, yielding a risk of veto equal to $\frac{n-T-S}{n-T}$. Since it takes only one side to cast a veto, the probability of a non-veto is equal to joint probability $\left(1 - \frac{T-N}{T}\right)\left(1 - \frac{n-T-S}{n-T}\right) = \frac{N}{T}\frac{S}{n-T}$. As a result, with residual probability $1 - \frac{N}{T}\frac{S}{n-T}$, a veto is exercised, allowing the veto player to appropriate the residual value $1 - x_2$ while leaving *nothing* to the leader's core group.

Furthermore, veto or not, Nature's shock θ is added to the leaders' payoffs. The expected utility for reform for a member of the leaders' core group N thus is:

$$U_{i \in N}(reform) = \frac{N}{T}\frac{S}{n-T}(1 - x_2) + \theta.$$

The equivalent utility of reform for a follower of core group S is $U_{i \in S}(reform) = \frac{N}{T}\frac{S}{n-T}x_2 - \theta$.

4.3.5 Controlled Succession

If the leaders see their reform offer rebuked, the organized subgroup among them (the core group) may still attempt institutional change with the purpose of ending followers' harmful reneging by proposing a replacement organization. They offer x_3 percent of what is left of the pie to followers

while keeping $1 - x_3$ percent to themselves. A follower that takes the deal thus receives

$$u_{i \in n-T}\left(cont.succession\right) = x_3 \frac{N+1}{n} - \theta,$$

with N the number of leaders who, forming a core group, are all prepared to join the new organization. A leader receives $u_{i \in T}\left(cont.succession\right) = \left(1 - x_3\right) \frac{N+1}{n} + \theta$. Like reform, controlled succession inherits Nature's choice of circumstances θ.

Note that the leaders' payoff mirrors the cold hard fact of succession: the smaller the core group, the less likely they are to pull off the succession, the more they need to offer to attract potential followers, and thus the smaller their own payoffs.

In sum, the difference between reform and controlled succession boils down to this: unlike reform, controlled succession is not vulnerable to a formal veto. However, succession may sometimes be more costly than reform due to the need to reach a critical size to tip the balance in favor of a new organization.

4.4 The Right Branch (good circumstances for followers, bad for leaders)

We have so far described the left branch of the tree, the one in which Nature chooses negative circumstances for followers (positive for leaders). If instead Nature chooses positive circumstances for followers (negative for leaders)—right branch of the tree—the payoffs and sequence of moves are identical to those in the left branch apart from the sign on circumstance θ, which is reversed in every payoff.

5 Analysis and Claims

The above game is a finite game of complete information with a unique subgame perfect Nash equilibrium. It has a closed-form solution, which we spell out in the mathematical appendix along with comparative statics. The closed-form solution holds in propositions 9, 10, and 11 of the Math Appendix.

The right branch of the tree has a unique and immediate solution: followers respect Nature's choice of circumstances, for these circumstances work in their favor (see lemma 1 in the math appendix). Leaders likewise respect the existing arrangement since the institution, being initially designed to handsomely reward its main creators, continues to provide positive (albeit reduced) benefits for them.

Given that the right branch yields the respect equilibrium, all the action in the game is located on the left branch—after Nature chooses negative circumstances for followers. There are five possible outcomes, each featuring respect on the right branch and differing only depending on what goes on on the left branch: respect, rival succession, tolerate, reform, or controlled succession. We refer to each possible equilibrium by their left-branch component. For instance, a reform equilibrium involves reform on the left branch and respect on the right branch whereas a respect equilibrium involves respect on both branches.

The left branch of the game boils down to two rounds of negotiations: (1) a last round starting at node L4, where leaders choose between reform, succession, and toleration of followers' reneging, and (2) a next-to-last round, starting at node F3, where followers choose between respecting the shocked initial deal, creating a rival institution, or merely reneging, with reneging opening the door to the last round.

To help with the presentation of the comparative statics, we supplement it with a computational simulation. We assume each parameter is drawn from a uniform distribution with realistic domains:

$\frac{1}{2} \leq \alpha < 1; 0 \leq \{p, \delta, \theta\} \leq 1,$. We then randomly draw thousands of parametric configurations from these domains.

The simulation was achieved first by coding the game in R (see the Computational Appendix), breaking it into its multiple bargaining subgames and using backward induction to determine the subgame perfect Nash equilibrium for the vector of randomly-chosen parametric values described above. These tools provide us with a computational supplement of the analytical comparative statics.

In what follows, we focus on the most interesting aspects of the solution, dividing the exposition into four themes: efficiency, determinants of change, followers' leverage, and paths to institutional change, while generating distinct claims for each.

5.1 Respect is common and efficient

The first claim is that institutional change is not a predetermined outcome. Even in response to a negative shock, about 71 percent of the time followers respect the new status quo and continue to honor an agreement that now yields lower benefits (see Table 3). In other words, exogenous shocks do not automatically lead to institutional contestation. Although these proportions reflect our assumptions regarding the respective parametric domains, the lopsidedness of the distribution is striking.

TABLE 3: Types of Equilibria generated by the simulation

Respect	Tolerate	Reform	Cont. success.	Rival success.
70.98%	21%	2.72%	2.74%	2.56%

Number of replications: 5000

The respect equilibrium owes much of its popularity to its singular efficiency. An equilibrium is efficient if it does not generate deadweight losses or, in other words, if the players' utilities add up to the size of the original pie (unity in this game). By this measure, the respect equilibrium consistently scores the maximum, whereas other equilibria on average do not. This is seen in Figure 2, which, for each equilibrium, displays the distribution of the players' aggregated utilities. All four non-respect equilibria score below unity, reflecting sundry construction defects: the pie in the tolerate equilibrium is discounted by δ reflecting the cost of reneging by followers; some of the pie in the reform equilibrium is lost through side-payments to deflect the risk of a veto, while some of the aggregate utility from succession is reduced through a less than optimal size of the new institution.

Hence our first claim:

Claim 1 *Respect is the most efficient equilibrium.*

5.2 The Determinants of Change: p and θ

The most important determinant of the respect equilibrium—the opposite of institutional change—is a high probability of bad circumstances for followers, p. We derived the positive impact of p on the respect equilibrium analytically first by showing that the respect equilibrium is bounded above by four cutpoints which, as they move up—and they do so when p increases—open more parametric space for that equilibrium (see section 5.1 in the math appendix).

This means that the more likely an exogenous shock is, the less likely the institution is to undergo formal change. The substantive rationale for this seemingly counterintuitive claim runs as follows: if there is a high probability that followers will endure a negative shock, there is a correspondingly high probability that they will renege on their obligations under the current institution. Because the leaders have a vested interest in the current institution, they will try to deter reneging by offering

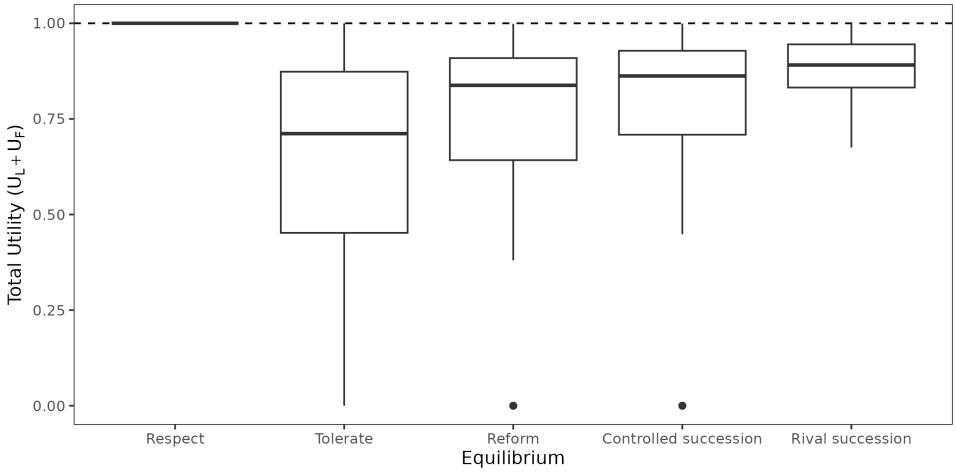

Figure 2: Simulated total pie size per equilbrium

followers a good initial deal. A high p in other words, directs leaders to insure followers against bad circumstances. Inversely, as the p value decreases (meaning followers are less likely to suffer from a negative shock), leaders can afford to make a less generous initial offer, with the knowledge that, if a negative shock does occur and prompts followers to renege on their obligations, leaders can still rescue the institution by resorting to either reform or succession, though at a cost.

We illustrate this analytical result with a multinomial logit which we run on the simulated dataset. Table 4 reports the estimates for the effects of a one unit increase in any of the listed parameters on the log-odds of the corresponding row equilibrium, holding constant the other parameters in the model. The respect equilibrium serves as baseline and is thus omitted from the table. As shown in Table 4, the coefficient for variable p (the probability of a negative shock) is negative and relatively high across the four featured equilibria.

TABLE 4: Multinomial Logistics Regression (baseline = Respect Equil.)				
	Tolerate	Reform	Controlled Succession	Rival Succession
α	-0.97	-1.04	-1.15	16.83*
θ	20.08*	17.19*	16.96*	4.01*
δ	1.21*	4.98*	6.11*	6.34*
p	-44.45*	-44.72*	-48.18*	-17.18*
N	-0.03*	0.10*	0.10*	-0.21*
S	-0.02*	0.10*	-0.12*	0.14*
T	0.002	0.004	-0.03*	0.03*
Constant	2.98*	-7.61*	-1.59	-21.54*
Note:	Prediction rate = 93.08%,*$p < 0.01$			

Table 4 points to a second requirement for the respect equilibrium: the exogenous shock inflicted, θ, must be small. An increase in parameter θ causes a rise in the log odds of all equilibria other than respect (Table 4). To see why, consider the case of a large shock. The followers would automatically renege unless offered a compensation at least equal to the losses they suffer as a result of the shock ($x_1 \geq \theta$), thereby making the respect strategy unduly costly. The respect equilibrium is only likely in the wake of a small shock.

This simulated result is backed up by the comparative statics. A lower θ creates more parametric space for the respect equilibrium (see section 5.1 in the math appendix).

We combine these two results in the following claim:

Claim 2 *A shock that is expected (high p) but small (low θ) is likely to be respected, whereas a shock that is large (high θ) but unexpected (low p) is likely to lead the followers to renege on their initial obligations and initiate a process of institutional change.*

5.3 Followers' leverage: δ

The ability to exercise their inside option and renege on part of their initial obligations empowers followers with leverage to improve their utility. The best way to illustrate this claim is to simulate the following experiment: for each possible observation, we ask what the followers' utility is in the presence of an inside option $(\delta > 0)$, and compare it with the utility that the same follower would have received absent the outside option $(\delta = 0)$ while holding everything else constant. We expect that introducing the inside option raises the followers' utility and such is exactly what we observe.

Consider Figure 3, in which we plot two followers' expected utilities: one that derives from a game that includes the inside option (y-axis) against a counterfactual game that does not (x-axis). We observe that most of the plotted observations fall above the 45-degree line, reflecting the fact that the utility for a follower that enjoys the option of reneging is systematically greater than that same followers' utility absent that option.

However, Figure 3 shows a significant exception, represented by the dots forming a horizontal line with a y-value of zero. This is because in some cases when δ is positive (followers dispose of an inside option), leaders would rather avoid creating an IO in the first place.

The presence of an inside option, therefore, either deters leaders from creating the IO or, if the IO is created, enables followers to bootstrap their expected payoffs from zero up to the whole pie. This is a remarkable outcome, for as the followers' share of the pie grows from zero to one, the leaders' share correspondingly drops from one to naught. This is true whether the outcome is institutional change (via reform, controlled, or rival succession) or stasis (the respect and tolerate equilibria).

Figure 3 color-coding further differentiates the plotted observations by equilibrium type. The V-shape reflects the distinction between the respect and non-respect equilibria already encountered in the prior section. The positive impact of reneging is felt with greater intensity by the respect equilibria (forming a plume pattern on the left side of the plot) than by the non-respect equilibria (lined up above the 45-degree line).

In sum, given the right combination of circumstances, followers can upend the inferior position that being agenda takers originally placed them in. As we discuss in the conclusion, this finding provides an important insight about the power of 'weak states' in institutional bargaining situations.

This leads to our third claim:

Claim 3 *The followers' capacity to leverage a new deal is a function of their capacity to renege on their existing obligations (δ) without exiting the organization.*

5.4 The path of change: Reform, Controlled Succession, or Rival Succession: N and S

Collective action determines which of the four non-respect equilibria obtains. This result is extracted from the comparative statics (see the last four entries of the comparative statics section in the math appendix). It is also derived from the simulation. In Table 5, we compute for each type of equilibrium

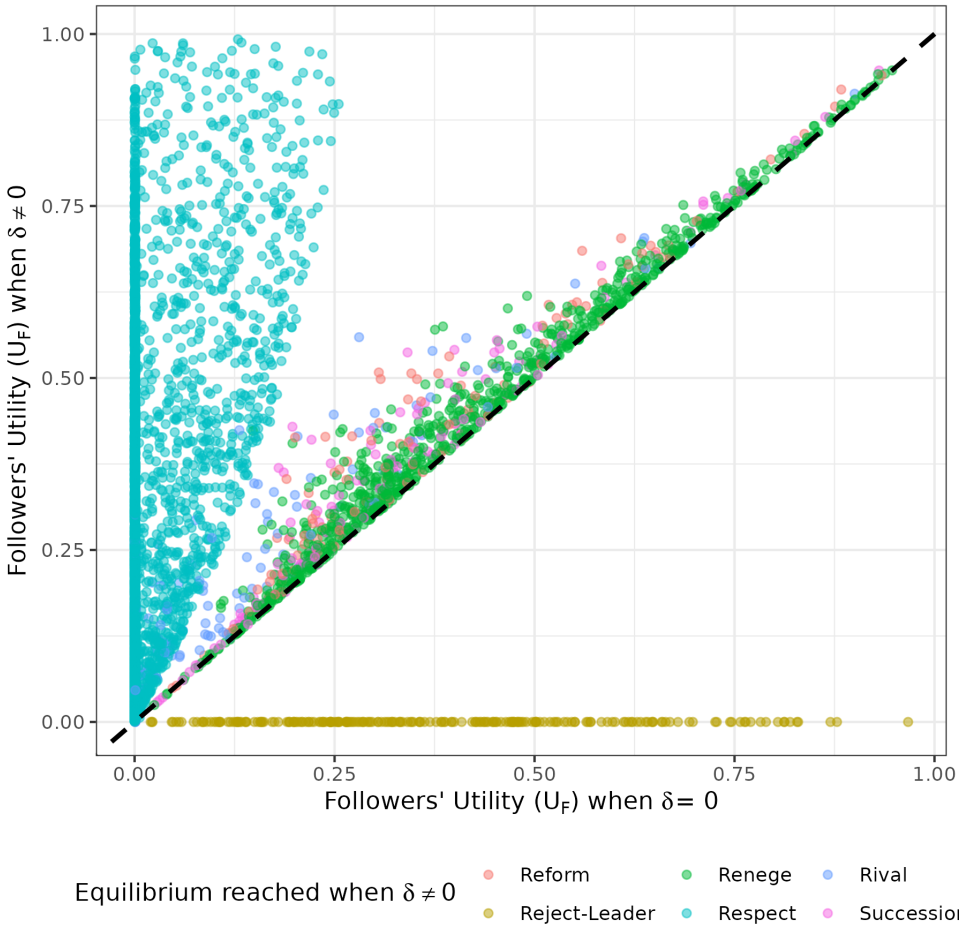

Figure 3: Followers' utility as a function of δ for each equilibrium

the average value taken by variables N and S—the size of the leaders' and followers' core groups respectively. For instance, in the observations that yield the tolerate equilibrium, both N and S show an average level of 47% of their possible maximum value (N/T and $S/(n-T)$ respectively). In contrast, in the case of the reform equilibrium, the values shoot up to the 80-percent range. The substantive inference is that it takes more organization from both leaders and followers to reform an institution than to live with reneging.

In the two cases of succession, the percentages are asymmetric within each equilibrium and reversed across equilibria: controlled succession exhibits a high N and a low S, while rival succession shows a low N and a high S.

TABLE 5: Non-respect equilibria as a function of N and S

equilibrium	N	S
Tolerate	0.47	0.48
Reform	0.81	0.84
Cont. Succession	0.79	0.42
Rival Succ.	0.34	0.81

Note: both normalized as % of the maximum value they could have taken, respectively: N/T and $S/(n-T)$

Table 5 provides the basis for four clean-cut claims about which equilibrium is more likely to obtain:

Claim 4 *To succeed, reform requires that both sides, leaders and followers, be organized enough to deter veto threats.*

Claim 5 *To succeed, controlled succession requires a large core group of leaders but a small core group of followers.*

Claim 6 *To succeed, rival succession requires a large core group of followers but a small core group of leaders.*

Claim 7 *Tolerate, which embeds the reneging payoffs, ensues if neither core group is sufficiently large.*

The rationale for the rival and controlled succession equilibria (claims 5 and 6) is straightforward: it takes a well-organized core group from either coalition to pursue succession. The less organized the other side is, the easier for the better organized side to impose its preferred version of change. In contrast, the reform equilibrium requires organization all around (claim 4) due to the unanimity or quasi-unanimity rules that govern amendment procedures in most IO charters. Last, absent sufficient organization on either side, change fails to materialize (claim 7). The tolerate equilibrium is the outcome by default.

6 The GATT/WTO

In the absence of a workable dataset on IO change, we provide a brief empirical sketch of the above-described dynamics at work in a well-known case: the GATT. The GATT went through 9 completed rounds of trade negotiation, the first eight resulted in reform, the last in controlled succession (see Table 6). For both cases, we provide a quick historical context, justify our coding of the parameters, and then derive the equilibrium outcome. Our goal in this section is to illustrate some of the comparative statics derived from the model; it is not to come up with new interpretations of these historical events.

TABLE 6: Observed parameter values and equilibria for GATT case

	p	θ	δ	N	S	equilibrium
GATT pre-1990s	$-/+$	$+$	$+$	$+$	$+$	reform
GATT 1990s	$-/+$	$+$	$+$	$+$	$-$	controlled succession

Note: $-$ stands for low, $-/+$ for median, $+$ for high.

The GATT was reformed through eight rounds of multilateral trade negotiations between 1947 and 1979. Part of the reason, we argue, is that there were hardly any veto players in the early GATT (both N and S were high). The fact that trade rounds fundamentally are package deals eased the transacting; negotiators can more easily make necessary, yet difficult, concessions by linking them to tangible benefits across issues, thereby reducing the risk of veto and deadlock. Two other defining parameters were the severity of eventual shocks (high θ), reflecting the vagaries of the weather and the greater competition generated by opening borders to trade, and the unpredictability of their victims (median p)—a combination which, according to claim 2, is conducive to institutional change. Last, the GATT followers' reneging capacity, δ, was high given the two-way nature of trade, making reneging a serious threat to the institution.

The mode of institutional change in the GATT transitioned in 1990 from reform to controlled succession. The main cause, we argue, was a drop in parameter S (the followers' relative degree of organization) while the other parameters remained constant. The weakening of the followers coalition reflected several historical developments, among which, the shift from tariffs to non-tariff barriers (NTBs). Trade negotiations ran smoothly in the GATT as long as negotiations bore on easily quantifiable tariffs. However, negotiations got trickier when members turned to liberalizing NTBs. During the Tokyo Round (1973-1979), this meant harmonizing domestic regulations in areas as diverse as customs procedures, import licensing procedures, rules of origin, packaging and labelling, and public procurements, among others. During the Uruguay Round (1986-1993), it also meant liberalizing domestic regulations on patents and FDI.

The growing importance of NTBs redrew the various lines of debate along the ever-present North-South divide, with the North seeking deeper access to Southern markets and the respect of intellectual property and FDI, and the South seeking to get broader access to Northern markets by having textiles and farm goods placed on the negotiating agenda.

North-South polarization per se was not an obstacle to reform as long as both sides—the South especially—were equally well organized. Such was the case throughout the 70s, when the dollar crisis of 1971 along with the US defeat in Vietnam and the weaponizing of oil sales by OPEC shook the foundations of the postwar governance system and gave a boost to the G77's proclamation of the establishment of a "New International Economic Order" (NIEO) at successive Special Sessions of the UN General Assembly (Buzdugan and Payne 2016).

But a series of events in the 1980s weakened the South coalition. The fiasco of the Cancun summit of 1982 de facto buried the G77's project of a NIEO (Buzdugan and Payne, 2016). Instead, a dozen of emerging markets (the Cairns Group) started in 1986 to push for a new round of trade negotiations with the much narrower goal of focusing on liberalization of agricultural trade. The Latin American debt crisis and the end of the Cold War along with the attendant non-aligned movement further weakened Third World solidarity. In terms of our model, the GATT experienced a drop in S while N remained high. The new parametric configuration made reform impractical and set the stage for pursuing change through controlled succession (claim 5).

Anticipating that many countries would opt out of what they considered to be key agreements, the Quad abandoned the stand-alone agreements format of the Tokyo Round and opted instead for the succession route. They included all agreements presently on the table–the GATT 1994, the GATS, the Trade-Related Intellectual Property (TRIPs) and Trade-Related Investment Measures (TRIMs) agreements, and every other Uruguay Round multilateral agreement–in one single package deal that would be "binding on all members" and which, for countries that accepted it, would terminate all extant obligations under the GATT 1947. The move enacted a successful succession through which the new agreement, appropriately named the "single undertaking", displaced the old one lock, stock, and barrel. As a result of the all-or-nothing format, many follower countries ended up signing on to measures such as the TRIPs and TRIMs, which they would have blocked if debated on the plenary floor or merely refused to ratify if written as stand-alone agreements (Steinberg, 2002). Succession thus allowed GATT leaders to recreate the original coherence that had been lost in the Tokyo Round, while pushing the content of the trade agreement far beyond its former limits (Steinberg, 2002, McKibben, 2015, Johnson, 1997).

What does the notion of succession add to our common understanding of the outcome of the Uruguay Round? The standard account attributes the birth of the WTO to the Quad imposing a linkage between the trade issues (textiles and agricultural goods) and the trade-related issues (patents, FDI) as well as services, along with the threat of no longer honoring past GATT agreements (Steinberg 2002, McKibben 2015, Barton et al., 2006). We endorse the standard account, but ask: why was there a need for a new organization? Our answer is that reform was less desirable than succession

because the South was less organized than the North. Rather than negotiating each one of the trade-related agreements as a united front, Southern members banked on their individual right to veto these agreements in due time. As McKibben writes (2015: 157),

> By arguing that they would not even be willing to discuss these issues [TRIPs, TRIMs], they in essence "vetoed" any potential agreement on them.

The eventual switch in 1991 from issue-by-issue negotiations to the package deal approach upended the developing states' line veto strategy but could not bring unity among them. Their weakness offered the Quad the opportunity to safely play the succession card. Facing a weak opponent, the latter could easily tip the balance in favor of the new organization. Had Southern GATT members been more organized instead, they could have credibly threatened the North with not joining the new organization, leaving the North with no other option than to keep trying to reform the GATT.

Reform was not an option as long as followers were less organized than leaders. With China a member of the WTO since 2001 and de facto leader of the developing world in matters of trade, the only available path of change may once again be through reform. But the focus of the Doha agenda on agriculture further split the South between the Cairnes Group (exporters of agricultural products) and LDCs who, like India, seek to protect their disadvantaged farmers.

7 Conclusion

Institutional succession—the replacement of an incumbent IO by a new formal successor—is a recurrent feature of international cooperation. Nevertheless, it has attracted little scholarly attention, being generally subsumed under others forms of institutional change, such as reform or rival regime creation.

This article offers the first formal treatment of the notion of succession as applied to IO. Working from the legal definition of succession as the creation of a new institution that assumes all or part of an existing institution's mandate, assets, and functions, we articulated the pros and cons of succession in relation to other forms of institutional change. We proceeded by setting up and solving a bargaining game that covers almost every type of institutional choice, ranging from absorbing the cost of exogenous shocks to the exercise of "inside options" such as footdragging, regime shifting, or the use of built-in flexibility mechanisms (safeguards), all the way to formal institutional change through reform or succession.

The game formalized these alternative options by modelling three different bargaining dynamics: "reneging" was used to capture the effect of various inside options, the "veto game" to capture the inherent logic of reform, and the "tipping game" to explain the logic behind succession in the presence of scale economies to cooperation. By resorting to a comprehensive game and positing full rationality, our methodology allowed us to check the consistency of each strategic choice in relation to alternatives without placing any unnecessary constraint on the occurrence of any outcome.

Contrary to the assumption in extent literature that succession is a costly move of last resort, our model suggests that reform and succession may equally easily deliver institutional change but under different circumstances. On the one hand, reform requires that both negotiating sides be sufficiently cohesive to overcome veto players or preference outliers, whereas succession only requires a subset of members from either side to propose a successor institution, which a minimum threshold of other parties can be persuaded to join. On the other hand, succession suffers from scale suboptimality—not every party to the incumbent IO is likely to join the successor, thus reducing overall efficiency gains compared to reform which typically involves all existing parties. Therefore, depending on which shortcoming prevails, we find that reform will be preferred to succession or vice versa.

By formalizing these various dynamics of change and by anchoring our model within existing literature on institutional choice we seek to open new avenues for research on competing strategies of institutional change. An important avenue for future research emerging from our analysis regards the circumstances in which 'weak states' (or institutional followers) may succeed in dictating institutional change through systematic reneging instead of being forced to accept an inferior position.

While we have only been able to provide one illustrative example in this short article–featuring an IO focused on international trade–our theory is in principle applicable to a wide range of domain, including global development, health, human rights, and environmental protection. Future research should apply our model to further empirical cases to probe its ability to account for variation in institutional change and stasis across institutions and across time.

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