

Chapter 1

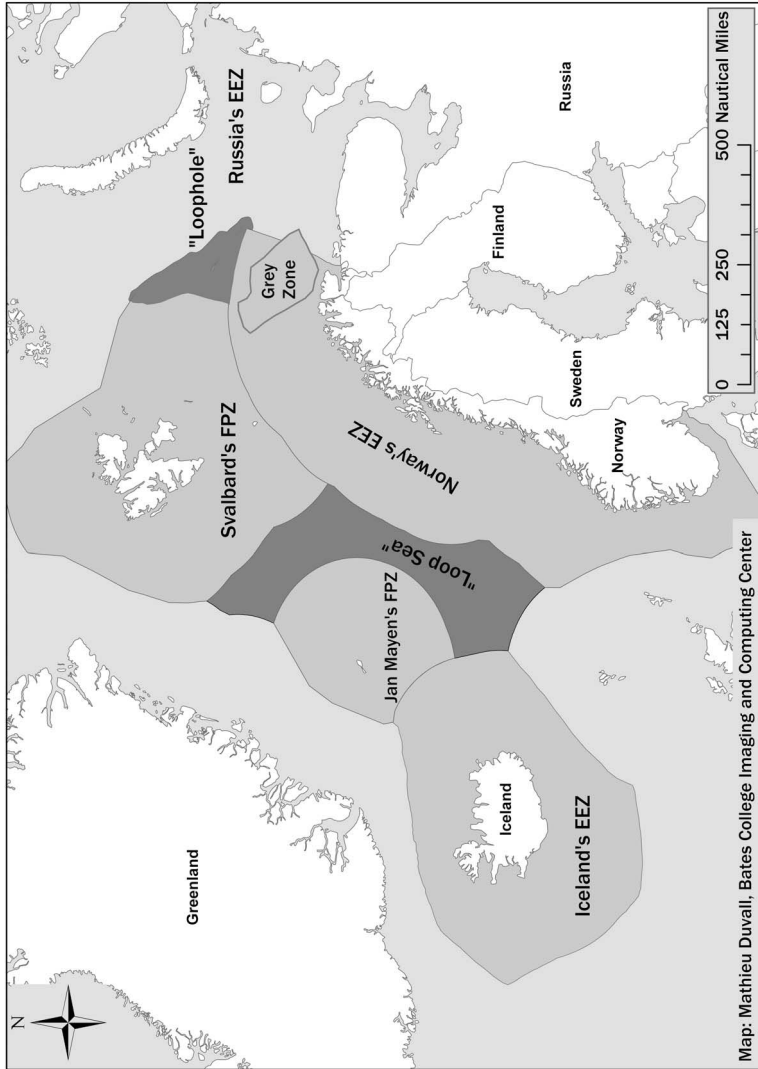
Explaining Distributional Outcomes

Distributional conflicts—where a better bargain for one party leads to another party or parties getting less¹—are at the heart of international cooperation. Solutions to these types of conflicts at the international level usually require domestic adjustment in order for a country to fulfill agreed upon obligations. Which sector of the state is asked to adjust their behavior depends on the issue being negotiated, with the key difference being whether private or public actors are the ones who have to bear the cost of the international agreement.

Commercial fish stocks that straddle political boundaries in the ocean present an important distributional challenge for international cooperation. While stocks found wholly within the boundaries of a state's 200-mile Exclusive Economic Zone (EEZ) are managed domestically, straddling fish stocks require cooperation among the states that harvest the stock to prevent their overutilization. For example, the highly migratory Norwegian spring-spawning herring stock is widely distributed in the area shown on the map, where it moves between the EEZs of five states in addition to being found in the "Loop Sea".

The stock hatches in the waters of Northern Norway. Its search for food drives it further north into Russian waters, where it stays for a couple of years before beginning a mad dash back through the Norwegian EEZ, into international waters labeled the "Loop Sea". Depending on where the stock is feeding, the stock can also be found partially in the Fisheries Protection Zone around Jan Mayen, as well as the EEZs of Iceland, Faroe Islands, and the European Union. Without any international management of the catch, this migration results in the transfer of the right to fish from the stock between Norway and Russia, as well as in the stock being a common pool resource in international waters. In addition, when parts of the stock are found within the EEZs of Iceland, the Faeroe Islands and the European Union, these countries also gain exclusive access to the stock inside their respective EEZs.

Map of the North Atlantic and the Barents Sea



This map shows the Exclusive Economic Zones (EEZs) of Norway, Iceland, and Russia as well as the location of international waters—the "Loop Sea" and "Loophole". Norway has 200-mile Fisheries Protection Zones (FPZs) around Jan Mayen and Svalbard.

In the absence of cooperative management among all the parties that claim rights to migratory stocks, they are likely to become depleted. But as is the case with the sharing of all valuable resources, the question of how to allocate fish stocks that travel between international and domestic waters is a contentious issue among states that share these stocks.² The decision of how to allocate the available resources among the participants presents an opportunity at looking at how states reach purely distributive outcomes, in this case a proportional share of an existing fish stock. This book focuses on the question of how nations reach distributive outcomes, and in the process discusses the role of international regimes as well as the role of domestic politics when explaining the final outcome as well as changes in the distribution over time.³

The question of how to allocate straddling fish stocks among states who participate in the fishery is especially prominent in the North Atlantic, where states lie close together, possess large and sophisticated fishing fleets, and are faced with resource depletion in domestic waters. Declining catches at home have led to an increased fishing effort outside the 200-mile Exclusive Economic Zone, with conflict ensuing over how best to prevent shared stocks from becoming depleted. Conflict has eventually given way to cooperation around shared fisheries in order to collectively manage these stocks. In the North Atlantic, Iceland, Norway, and other states signed seven agreements between 1980 and 1999, covering four different stocks.

The Icelandic-Norwegian capelin stock has been collectively managed since 1980. In the 1990s, the countries reached agreements to manage Atlantic-Scandinavian herring (also known as Norwegian spring-spawning herring), oceanic redfish, and the Barents Sea cod stock. These agreements are purely distributive in nature, that is, they allocate a preset Total Allowable Catch (TAC) among states party to the negotiations. The TAC represents maximum amount of the stock the fishermen can fish annually. The TAC is usually lower than the Maximum Sustainable Yield (MSY), which is calculated by scientists as being the average highest yield that can be taken from a stock under existing environmental conditions without negatively affecting the stock. However, the allocation of these four stocks amongst the negotiating partners—that is, who gets what—varies across stocks and over time, as Table 1.1 shows.⁴

Two questions initially arise in looking at the outcome of negotiations between Norway and Iceland from 1980 to 1999. First, why does the allocation differ depending on which stock is being negotiated? For example, what accounts for Norway getting 62% of the herring stock in 1996, while getting only 4% of the oceanic redfish stock that same year? And why does Iceland get 1.8% of the cod stock in 1999, but a whopping 81% of the capelin stock in 1998? Second, why does the allocation within the same stock change over time? This is the case for both capelin and herring. Iceland's share of the capelin stock increased in 1989 and again in 1998, while the Norwegian share shrank. Likewise the allocation of the herring stock changed in 1997, one year after the first agreement.

Table 1.1. Allocation of fish stocks between Iceland and Norway between 1980 and 1999.

Stock Being Negotiated	Year of Agreement	Total Allowable Catch (TAC) (in tons)	Percentage of TAC to Iceland	Percentage of TAC to Norway	Percentage of TAC to Others
Capelin 1	1980	775,000	85	15	0
Capelin 2	1989	1,058,000	78	11	11
Capelin 3	1998	1,420,000	81	8	11
Herring 1	1996	1,107,000	17	62	21
Herring 2	1997	1,498,000	15	57	28
Oceanic Redfish	1996	158,000	29	4	67
Cod	1999	440,000	1.8	43	55.2

Source: Compiled by author.

The answer to these questions is found at two levels, the international and the domestic. First, the international institutional environment—or regime—embodied in the 1982 Law of the Sea Agreement and the 1995 Straddling Fish Stocks Agreement,⁵ emphasizes the rights of coastal states and duties of high seas fisheries states, and by extension determines who has the right to the largest share of the stock. A coastal state, defined as a state that has a share of the stock within its own EEZ, will get a larger share than a high-seas-fishing state, defined as a state that has no traces of the particular stock within its waters, but participates in the fishery nonetheless. However, the Law of the Sea regime does not specify how straddling stocks should be allocated among participating states beyond giving us a way to say who should get the largest share. Hence the states that are party to the Law of the Sea regime have great leeway in how they apply the law to solve distributive conflicts.

Since the Law of the Sea regime cannot explain the distributive outcome of the negotiations, it is important to analyze how the nations involved choose a baseline for the allocation of the common resource. Choosing the baseline is one of the most important tasks of the delegations during the negotiations. Before the negotiations start, each state determines through a domestic process which baseline will result in the largest share for them. There are basically two different solution concepts: historical rights and zonal attachment, which will be discussed in more detail in chapter 2. Historical rights allocate a resource on the basis of prior fishing experience, while zonal attachment allocates the resource based on where the fish stock is found. The solution

concepts provide a starting point for negotiations and the initial positions taken by each delegation. These initial positions are then modified as the negotiations proceed until one solution concept emerges as the dominating baseline through the give and take of the negotiations. Table 1.2 shows the baselines chosen for the seven agreements analyzed here.

It is clear from Table 1.2 that in most cases Iceland and Norway prefer different initial baselines, but, as the third column shows, the baseline chosen is usually Iceland's preference rather than Norway's. The question then arises as to why Iceland, which is the smaller and less powerful actor, has no military, is less populated and slightly less wealthy per capita than Norway, always manages to negotiate a baseline that gives Iceland a larger share compared to other options. The Law of the Sea regime cannot explain which baseline is chosen, which leads to the second question addressed by this research: What factors influence the selection of the baseline for allocation, and by extension why is the chosen baseline usually closer to Iceland's preference than Norway's preference?

The answer to this question lies at the domestic level, specifically in how domestic factors constrain the negotiators and how these constraints influence the final allocation. A domestic constraint on a negotiator influences her

Table 1.2. This table shows the initial preferences of Iceland and Norway at the outset of each negotiating round as well as the final baseline chosen in the negotiations.

Agreement	Year	Iceland's Preference	Norway's Preference	Baseline Chosen
Capelin 1	1980	Zonal Attachment and Historical Catches	Historical Catches	Mixture of of Both
Capelin 2	1989	Zonal Attachment	Historical Catches	Zonal Attachment
Capelin 3	1998	Zonal Attachment	Historical Catches	Zonal Attachment
Herring 1	1996	Historical Catches	Zonal Attachment	Historical Catches
Herring 2	1997	Historical Catches	Zonal Attachment	Historical Catches
Oceanic Redfish	1996	Zonal Attachment	Historical Catches	Zonal Attachment
Cod	1999	Mixed	Zonal Attachment	Mixed

ability to make and accept offers. A state with significant constraints on its negotiators will have a reduced ability to make and accept offers, hence narrowing that state's bargaining space. On the other hand, a state with little or no constraints on its negotiators will have a wider leeway in making and accepting offers, thus a wider bargaining space. This idea of how constraints influence the distributive outcome will be discussed in more detail in the "Theoretical Framework" section of this chapter.

The key constraints for both Iceland and Norway are the domestic interest groups who are active participants in the international negotiating process, both before the negotiations start and as members of the delegation. However, the ability of these groups to constrain the negotiators differs and changes over time. The power of the Icelandic interest groups has remained strong throughout the twenty years examined here, which has given them an ability to constrain negotiators during the negotiations. Norway's key interest group *Norges Fiskarlag* (the Norwegian Fishermen's Association), on the other hand has lost a significant amount of power vis-à-vis the government, and hence its ability to constrain negotiators has been diminished. As a result, Iceland usually has an upper hand in these distributive negotiations.

The Importance of Distributional Conflicts

As mentioned above distributional conflicts lie at the heart of international cooperation. In addition to the allocation of shared fish stocks, where private actors are usually required to diminish their fishing effort as a result of international agreements around management measures, there are other examples of distributive conflicts in the international arena that share the characteristics of conflicts allocating straddling fish stocks. For example, the implementation of successful international negotiations to lower tariff barriers and negotiations to reduce emissions of greenhouse gases both require private actors at the domestic level to adjust their behavior in order for the state to comply with the international agreement reached. Hence, these private actors who have to bear the cost of policy change have an incentive to try to influence the negotiations by constraining the alternatives available for negotiators. To what extent interest groups can constrain negotiators depends on the permeability of domestic institutions and actors to interest group demands as well as the power configuration of the groups domestically.

Tariffs on manufactured goods have declined significantly since the end of World War II, mostly through multilateral negotiations. These reductions, which were negotiated in the General Agreement on Tariff and Trade and then continued in the World Trade Organization, have resulted in costs and benefits for different domestic groups. Import-competing industries have faced stiffer competition at home as they are no longer protected by tariffs from competition against cheaper manufactured goods from abroad. At the same time, exporting

industries have gained as they have more markets for their goods. Hence these actors have incentives to try to influence to what extent tariffs are cut. The negotiations over reduction in tariff levels are essentially distributive conflicts, as countries have to agree on who should lower their trade barriers and by how much. This conflict is currently being fought within the Doha Round of WTO negotiations that partially focuses on the reduction on barriers to trade in agricultural goods. The sticking point in these negotiations has been to what extent developed countries need to cut subsidies for agriculture in exchange for lower tariffs on agricultural goods in developing countries. Lower subsidies in developed countries would mean higher agricultural prices at home and abroad, resulting in these goods being less competitive at the international level. Lower tariffs in developing countries would mean increasing competition for domestic farmers, some of whom would go out of business. Hence the cost of adjustment is borne by domestic farmers, who are well organized and thus a formidable lobby group, especially in the European Union and in the United States.

Similarly, the Kyoto Protocol has stalled as there is considerable difference between nations as to who should be responsible for reducing emissions of greenhouse gases. Developed countries, especially the United States, have been pressured to proportionally reduce carbon emissions to a greater extent than the developing world, which has argued it should not have to reduce emissions as that would slow development. But at the same time some of the emerging developing countries are increasingly responsible for increasing greenhouse gas emissions. Reducing greenhouse gas emissions is costly and the cost is born differently by different economic actors. Hence these domestic actors, who are faced with the greatest cost to change their practices to reduce pollution, will seek to pressure their governments not to accept a large cut in greenhouse gases in international negotiations.

Theoretical Framework

In explaining how nations reach an agreement to distribute a shared resource, this research argues that the final allocation can be explained by looking first at the international level and the role regimes play, and then, secondly, at the domestic level to explain the choices negotiators can make based on the constraints they have from domestic factors. Hence the explanation proceeds on two fronts. At the international level, the Law of the Sea regime explains who will get the largest share in the allocation. At the domestic level, constraints on negotiators—in this case powerful interest groups—put limits on negotiators and thus influence the selection of the final baseline of the allocation. In doing so, this research adds to the almost purely theoretical literature on two-level bargaining models by providing a rich empirical study of seven negotiations between Iceland and Norway.⁶ I will first discuss the international level, before proceeding to elaborate on the theoretical framework provided by the two-level-games literature.

The International Level

The explanation over the variation in distributive outcomes evident in Table 1.1 lies partially at the international level. Scholars studying international cooperation have argued that the existence of international regimes—defined as “sets of implicit or explicit principles, norms, rules and decision-making procedures around which actors’ expectations converge in a given area of international relations”⁷—fosters cooperation.⁸ The Law of the Sea regime governs agreements around straddling fish stocks. The regime is based on two key international agreements: the 1982 United Nations Law of the Sea Convention and the 1995 Straddling Fish Stocks Agreement.⁹ Iceland and Norway were important actors during the Law of the Sea and the Straddling Stock Agreement negotiations. Both have signed and ratified the two conventions, and are thus bound by them.

The Law of the Sea regime gives states guidelines as to what they should consider when reaching an agreement over a straddling stock. For example, the 1982 Convention and the subsequent Straddling Stocks Agreement lay out broad ideas that states can use to solve conflicts over common resources. However, while the Law of the Sea mandates cooperation, it does not dictate which solution concept should be adopted, and therefore the Law of the Sea regime cannot explain the variance in the choice of a baseline and the change in distribution of two of the stocks over time. Participating states have absolute power to decide how they apply the guidelines found in the Law of the Sea during negotiations. The only outcome the Law of the Sea can explain is the determination of which nation gets the largest share of the straddling stocks given the designation of states as either coastal or high-seas fishing states. States therefore use the law in an instrumental fashion, focusing on the solution concepts that will give each state the largest share of the resource being divided amongst them.

This argument is supported by interviews with bureaucrats and interest group leaders in Norway and Iceland. The interviews indicate that the role of international law emerges as providing solution concepts for cooperation and thus narrowing the number of possible outcomes.¹⁰ That is, the states act instrumentally to maximize their share of the predetermined total allowable catch. The interviews reveal three primary solution concepts that have reference in the 1982 United Nations Law of the Sea and the recent Straddling Stocks Agreement signed in 1995.

First, Article 63 of the Law of the Sea calls for cooperation among coastal states and high-seas fishing states in managing straddling fish stocks. This duty to cooperate is reinforced in Article 5(a) of the Straddling Stocks Agreement. Taken together, these two agreements provide for the rights and responsibilities of coastal states and high-seas fishing states in managing straddling stocks. If a fish stock is found partially within the waters of a coun-

try, that country is a coastal state. If a country has no traces of a stock in its waters, but its ships partake in the fishery in international waters, it is labeled a high-seas fishing state. The overarching principle of these two agreements is that coastal states are responsible for the maintenance of stocks, while high-seas fishing states have an obligation not to deplete a particular stock. Interviews reveal that in practice this principle means that in most agreements, coastal states have the right to a larger share of the stock than a high-seas fishing state. But neither agreement dictates how the states should reach a distributive solution. Instead, the agreements provide a framework for the negotiations by giving states solution concepts, such as consideration of fishing history and science, that can serve as baselines for the negotiations.

In addition, Article 5 of the Straddling Stock agreements argues that management measures should be based on the best scientific evidence available. In the North Atlantic, the concept of zonal attachment has been used on occasion by states to allocate common resources. The calculation of zonal attachment is a scientific construct which estimates how much of the stock is found within a particular economic zone at any given time. Ideally, using zonal attachment to divide a stock reduces the politics involved in the allocation if everyone party to the negotiations agrees with the calculations. That is, if governments accepted scientific calculations where stocks reside as basis for distribution, there would really be no need for negotiations. However, zonal attachment often complements the coastal state provision, that is, who should get the largest share, but is rarely strictly applied, because governments like to have the flexibility to negotiate a different allocation.

Finally, provision 62(3) of the 1982 Law of the Sea suggests that states have to respect historical rights to fisheries. This provision is the most politically malleable provision in the negotiations being studied here, and as such enjoys vast popularity. The ability to rely on the provision that allows for more negotiations, allows negotiators to bargain harder and try to get more of the resource than strict zonal attachment would dictate. 'Historical rights' is an elastic concept, as there are often heated discussions about when history should begin and to what extent such right should matter in the final allocation. Hence, historical rights have emerged as a key concept in almost all of the negotiations in this study. The role of the Law of the Sea and its specific provisions will be discussed in more detail in chapter 2.

The Constraints of Domestic Politics

The explanation for the initial choice of a baseline for allocation—either historical rights or zonal attachment—for each country prior to the negotiations lies at the domestic level, specifically in the constraints interest groups put on negotiators' ability to make and accept offers. Negotiated solutions to distributional conflicts which result in private actors—such as firms or labor

unions—bearing the cost of these international agreements give such organizations an incentive to influence the negotiating process. These organizations' success in influencing the distributive outcome depends on the ability of the affected parties to influence the process. Hence, in explaining the final allocation of a stock, it is imperative to look at the relevant actors, be they political parties, labor unions, individual companies, and so forth, and the domestic institutional structure that determines how these actors can influence what the delegation can offer and accept in international negotiations. For example, in negotiations seeking to reduce trade barriers, required Senate ratification of international agreements in the United States can be used to get a better deal in the negotiations. The chief negotiator can use the required ratification as a threat in the negotiations to argue that certain bargains would never be approved by the Senate, and hence get a better bargain for the United States.

The idea of constraints on negotiators is not new and increasingly scholars have been showing that domestic institutions can constrain negotiators, and under certain conditions provide a bargaining advantage for the country, that is more constrained by domestic factors than its opponent. In 1960, Schelling observed that “the power to constrain an adversary may depend on the power to bind oneself.”¹¹ For example, if the United States was negotiating a trade agreement where its negotiators had no constraints and were free to take any negotiating position to get an agreement, the negotiators might have a difficult time in making any position stick. If, on the other hand, the United States executive was negotiating under legislative authority, this constraint would be visible to the adversaries, and the executive branch would have a firm position that was accepted by the adversaries.¹² In this way, the legislative constraint would lend credibility to the US position.

Putnam expanded this notion by arguing that international negotiations are essentially a two-level game.¹³ The ‘two-level’ game refers to the fact that as the chief negotiator is negotiating an international agreement, she is simultaneously negotiating with domestic actors to make sure any agreement will be accepted at home. According to Putnam, every country has a domestic win-set, which consists of all bargaining outcomes which would “win” approval of the majority of the constituency at home.

Win-sets are important for two reasons. First, countries will only reach an agreement if their win-sets overlap. Hence large, overlapping win-sets facilitate cooperation. Second, the size of the win-set will influence the distributive outcome of the negotiations in such a way that a country with a large win-set (that is, with fewer constraints in what it can demand and offer) can be pushed around by a country with a narrower and more constrained win-set.¹⁴

This idea of win-sets guides this research. The explanation for the choice of a baseline for allocation—either historical rights or zonal attachment—which significantly influences the distributive outcomes lies at the domestic level. In discussing possible reasons for a large or small win-set, Putnam men-

tions the distribution of power and preferences domestically, domestic political institutions, and the strategies of the chief negotiator.¹⁵ Broadly speaking, constraints can be any institutional feature or domestic agent that can tie the hands of negotiators and give him a bargaining advantage. In the context of this work, the key argument is that corporatism—or systematic domestic policy coordination involving key interest groups—as the chief institutional arrangement in Iceland and Norway, allows interest groups direct access to international negotiations, both through pre-negotiation meetings as well as including interest group representatives as members of the delegation. Specifically, domestic interest groups put constraints on negotiators' ability to make and accept offers, and hence influence the size of the win-set. But the ability to influence the negotiations varies over time and influences the choice of the baseline for resource allocation.

Scholars such as Iida, Mo, and Tarar¹⁶ have used game theory to build on Putnam's work to further refine how domestic constraints matter in international negotiations. While this work has provided important theoretical insights, it lacks empirical support. Iida shows that when one state has some domestic constraints and is negotiating with a state that is assumed to have no constraints, the constrained state has a bargaining advantage that results in a more favorable distributive outcome.¹⁷ Tarar builds on Schelling's and Iida's work and shows how domestic constraints influence the distributive outcome of international agreements when both states are assumed to have different levels of constraints.¹⁸

Tarar's model is directly applicable to explaining the distributive outcomes reached between Iceland and Norway. His predictions for the impact of bargaining constraints on the negotiating outcome, relative to the case where neither side is constrained, show that a highly constrained state usually has a bargaining advantage over a state that is less constrained. This results in a more favorable outcome for the state with the greater constraints, that is, it gets a bigger share of the pie. Tarar does not specify what the constraints on negotiators are, but notes his model can be applied to any situation where a domestic group can block an agreement, such as the legislature through formal ratification, the military, powerful domestic interest groups, or an important business.¹⁹ Essentially, we can think of the domestic constraints on negotiators as a variety of veto players, defined as individual or collective actors whose agreement is required for a change of the status quo.²⁰ If a veto player refuses to accept an agreement, the status quo is not going to change. In the case of straddling stocks, no agreement means there will not be collective management of these stocks.

The strength of domestic level explanations is that they incorporate the private sector, domestic political processes, and institutions at work in policy formation. They add an entirely new set of dimensions to our understanding of the forces at work when states cooperate, as well as the terms of their

cooperative agreement. So what are the possible constraints on negotiators in international negotiations?

Recent years have seen the proliferation of theories of what domestic factors influence the likelihood of cooperation.²¹ But a generalizable theory has not emerged as to who and what helps or hinders states in the bargaining process. Scholars have pointed to an electoral connection,²² ratification procedures,²³ and the role of domestic constraints, specifically veto players,²⁴ as influencing the outcome.

In the case of Iceland and Norway, electoral considerations have not influenced the distributive outcome of the negotiations. Elections in Iceland seem to have made an agreement in the conflict over cod fishing possible in 1999. Just prior to the election there was a push to end the conflict so as to not have to deal with a different government afterward. However, the elections did not influence the actual distributive outcome, only the timing of the agreement.

Formal ratification by the legislature cannot explain the variance in the distributive outcomes of the negotiations between Iceland and Norway either. Formal ratification procedures are thought to constrain the bargaining space, as the negotiator has to make sure the agreements she reaches will be ratified by the legislatures.²⁵ Hence, ratification procedures narrow the bargaining space the negotiator has to reach an agreement. As a result, if two states are negotiating and only one of them has formal domestic ratification procedures, the state that must have the agreement ratified domestically by the legislature will have a leg up in the negotiations.

In the case of Iceland and Norway there is no evidence that legislative ratification influences the distributive outcomes of agreements. In Iceland, international agreements are presented to the parliament as resolutions for the legislature to vote up and down. Given that Iceland is usually governed by a majority coalition, it is inconceivable for the members of the legislative majority to vote against the government on international agreements. In Norway, most international agreements do not have to go through the legislature. Of the seven agreements explored here, only two were voted on by the legislature: the 1980 Capelin Agreement and the 1999 Cod Agreement. There is no evidence that ratification helped the Norwegians at all during the negotiations. For example, the 1999 cod agreement can be said to be the worst agreement the Norwegians reached with Iceland.

If neither electoral considerations nor ratification issues constrain negotiators, what constraints do they face? The empirical study shows that in Iceland and Norway the most important constraints are the interest groups representing the fisheries.²⁶ Their relationship with the government across stocks and over time plays an integral role in explaining the choice of a baseline in the negotiations, and their high level of involvement in the negotiating process makes the interest groups the key domestic veto player.

Role of Interest Groups

Economically, interest representation in Iceland and Norway is decidedly corporatist.²⁷ The corporatist nature of these countries means that the state essentially functions as a mediator between opposing interests within the state. The classic example is the role of the state in wage negotiations between employer organizations and labor unions. The rich literature on corporatism has focused almost exclusively on negotiated settlements between labor, business, and the government, but this way of policy making is visible throughout other sectors of the economy, including the fishing sector. Owners of fishing boats and ships, fishermen, producers, and exporters are all highly organized and represented by powerful interest groups. In both Iceland and Norway, domestic interest groups negotiate policy outcomes with the government with regard to domestic fisheries management. These similarities between Iceland and Norway make them ideal to study the process of negotiating agreements over shared resources.

In Iceland and Norway, negotiators consider the will of the fishing interests when negotiating an international allocation agreement. In both countries interest groups are consulted before each negotiating round, and they have a representative on the actual delegation. Hence interest groups are integral in forming the negotiating strategy, and are able to veto and amend proposals as they are presented during each negotiating round. By involving interest groups in the negotiating committee, both Iceland and Norway restrict their alternatives. But the constraints the two states face from their domestic constituents differ among stocks and change over time.

The ability of the fishing industry in Iceland and Norway to influence policy outcomes is quite different and has changed over time. In Iceland, fishing provides about 75% of export earnings, giving interest groups representing the industry a disproportionate voice in the policy process. This is evident in the government's willingness to cater to the fishing industry during the period studied here, especially by adopting the system of individually transferable quotas to manage the domestic fisheries and the willingness of the government to devalue the Icelandic currency to help fisheries exporters. The evidence shows that at minimum, Icelandic interest groups have retained their power over time.

The Norwegian fishing industry derives its power from the regional importance of the fishery to Norway's peripheral regions, and from being one of Norway's largest industries, where 90% of the production is exported. In Norway, three factors have influenced declining willingness of the government to cater to Norges Fiskarlag, the key interest group in Norway. First, the rise of the oil industry to Norway's most important export industry over the past thirty-five years has shifted the focus away from fisheries. In addition, the end of the Cold War and the declining number of fishermen has

further marginalized the industry, and allowed the government to increasingly ignore Norges Fiskarlag's preferences. These processes will be detailed in chapters 3 (Norway) and 4 (Iceland).

Who Matters, How, and When

The actors involved in the negotiations are government representatives and sometimes cabinet ministers, scientists, and members of various interest groups representing the fisheries. While negotiating fishing rights, the governments entering into agreements must consider the will of its fishermen who, by and large, are private actors. If the government fails to accommodate the fishing industry, fishermen have an incentive to cheat, and they have great opportunities to do so. Cheating in this case can, for example, include fishing over the preset limit, or discarding fish that is considered less valuable. Because of the low marginal costs of fishing, the high costs of monitoring and enforcing, and the lack of information about the resource, cheating is always going to be a threat to any negotiated agreement. Therefore, any agreement that fails to consider the will of the domestic interest groups will be rendered useless.

Because public officials are in charge of negotiating the allocation of straddling stocks conducted by private operators, the preferences of both groups are important to the strategies pursued. Both the government and the fishermen are trying to maximize their utility. Having to fight with the fishermen at home over international agreements is time-consuming and can have adverse political effects. Hence, the government has to balance the twin objectives of reaching an agreement and getting a share of the fishery the domestic fishermen will accept. This motivation of maximizing fishing and minimizing domestic political conflict at home provides the basis for any interaction between a government and interest groups involved and constrain the government in its range of choices of management regimes negotiated with other states. Specifically, fishermen want to catch as many fish as possible, while the government wants to ensure re-election and peace around international and domestic resource allocation. Given the preferences of the actors, these factors create different incentives among the players to cooperate around international management of fisheries resources.

Marginal, Monitoring, and Information Costs

The likelihood of cooperation among states around migrating fish stocks is diminished by the unique structural costs of ocean fishing. The low marginal cost of fishing, coupled with high monitoring, enforcement and information costs, make cooperation unlikely. These structural conditions reduce the

incentive for fishermen to bear the cost of rebuilding a depleted stock, and thus make cooperation at any level difficult. Because monitoring, enforcement, and information costs are higher in international waters than in domestic waters, it reduces the likelihood of cooperation around straddling fish stocks. These costs also mean that fishermen have a vested interest in the outcome of international negotiations aimed at distributing a straddling stock amongst states participating in these fisheries.

Low Marginal Costs

Once the initial investment in vessel, gear, and fixed costs are met, the cost of catching each additional fish is minimal. The more you fish, the better off you will be. Vessel owners have to pay for wages, fuel, and supplies, and these costs are high and largely inelastic. The low marginal cost of fishing makes it highly unlikely that fishermen are going to cull fishing on their own accord in the face of resource depletion. Instead, they are more likely to travel farther in the search for a good catch, thus compounding the problem of overfishing.

High Monitoring and Enforcement Costs

High monitoring and enforcement costs increase the likelihood of cheating once a cooperative agreement is reached. There are essentially two ways to monitor ocean fishing. The primary way of monitoring fishing is to weigh and observe what is brought to harbor. While this is the most efficient way of monitoring the total catch, there are ways around it. For example, a ship can choose to sell the catch abroad, which makes monitoring harder for local authorities. Another well-known practice is the throwing away of fish. In an ideal world fishermen would increase the value of their catch by trying to increase the value of the fish that happens to be caught in their nets. Reality is often much different. There is an incentive to bring back the most valuable size of fish, thus the practice of throwing away less valuable catch increases the value of the catch. Fishermen often discard smaller, less valuable fish; the very same fish that a few years later will be spawning and contributing to the increasing fish stocks. The vastness of the high seas makes monitoring costs prohibitively high. It is therefore hard to prove wrongdoing and prevent this practice.

Secondly, the coast guard can observe fishing by air or at sea. Most coastal states with extensive EEZs have an official coast guard that monitors the domestic fishing banks and makes sure that local fishermen follow allocation rules. But, given the vastness of most EEZs combined with constrained budgets, active monitoring of fishing is often minimal. Active monitoring also becomes less and less effective the further you go from the shore, because of the vastness of the space which increases the distance between individual trawlers. Outside the EEZ, governments lack authority and legitimacy to

monitor fishing directly. For example, if a state decides to monitor fishing in international waters, it could be interpreted by other states as claiming ownership of the resource, which would increase the potential for conflict.

High Information Costs

The final structural factor affecting the incentive to cooperate around ocean fishing is the lack of scientific information about the fisheries. Limited information affects cooperation through disputes over the abundance or scarcity of the resource. While both Iceland and Norway have fisheries research institutes that gather information about the fishing banks, this information is shrouded in uncertainty. For example, one fisheries scientist told me that fisheries researchers report their estimates with a least $\pm 15\%$ margin of error. Therefore, there is a great deal of room for the fishermen to challenge research findings, and they repeatedly do.

The incentive to gather information and do research outside the 200-mile EEZ is none. Limited resources to investigate what the ocean holds are almost exclusively spent researching what the 200-mile EEZ contains. Thus, the knowledge about straddling stocks is very limited. In addition, scientific research is disproportionately focused on the most valuable stocks and the most established fisheries. Existing knowledge about levels for straddling stocks are often based on observations taken when the stock is within one state's EEZ. While the aforementioned factors hinder cooperation, existing cases of cooperation demonstrate that they can be overcome.

Norway and Iceland and the Global Capture Industry

The global capture-fisheries industry is a large and often a troubled one. The worldwide capture-fishing industry is enormous and provides a significant portion of food to the world's population. According to the Food and Agriculture Organization (FAO), the global catch reached about ninety million metric tons in 2003. The organization estimates that the percentage of overexploited and depleted stocks has risen from about 10% in the mid 1970s to about 25% in 2000. Hence, the problem of declining fish stocks is by no means insignificant.²⁸ Declining yields usually indicate overexploitation of the resource, while fully exploited fisheries cannot bear more fishing effort without showing signs of decline. In addition, landings of demersal species,²⁹ such as cod and ocean perch, have remained constant since the 1970s. This is especially true of the Northeast Atlantic, where catches have been stagnant for the past three decades. Landings of the two main pelagic species in the Northeast Atlantic, capelin and herring, have fluctuated greatly since the 1950s.³⁰

Globally, the capture industry employs nearly thirty million fishermen, the bulk of them living in Asia and Africa. About 700,000 fishermen are found in Europe, including 18,000 in Norway and 6,000 in Iceland. The fishing industry utilizes about 1.3 million decked vessels and 2.3 million open vessels (not decked) to capture about 90 million tons of fish. A significant portion of the catch goes to human consumption, which averages about 16 pounds a person a year worldwide.³¹ This industry is by no means insignificant.

At the global level, Iceland's and Norway's size and population belies their impact on global fisheries politics, where both countries are significant players. According to the Food and Agricultural Organization, in 2002 Norway ranked 11th while Iceland ranked 12th of all capture-fisheries states, with the catch reaching 2.7 million tons and 2.1 million tons respectively. They are the biggest capture-fisheries states in Europe, with the exception of Russia, which ranks 9th (however, geographically, Russia only partially belongs to Europe). In addition, most of Russia's fishery takes place on the country's east coast. In terms of exporting, Norway is the third biggest fisheries exporter in the world, while Iceland ranks 13th, no small feat for states that have populations of about four million in Norway and about three hundred thousand in Iceland. Given Iceland's and Norway's importance at the global level, their regional importance in the Northeast Atlantic is also large. As the two biggest capture-fisheries states in the Northeast Atlantic, their cooperation is key to any successful negotiation on the allocation of straddling fish stocks in the area. Hence, their cooperation warrants close scrutiny and it provides a stepping stone to explore the other conflicts over allocation of straddling stocks in other parts of the world, for example, between the United States and Canada.

Conflict over Common Fish Stocks

The political problem of allocating fish stocks involves solving three different but closely related collective action problems. These problems are differentiated by the location of the stocks being allocated. Fish stocks can be found exclusively in international waters, exclusively within the 200-mile EEZ, and can straddle international waters and EEZs. The location of the stocks determines the actors involved. Stocks found exclusively inside the 200-mile EEZ do not require international negotiations to manage the stocks. The need for cooperation arises around so-called straddling fish stocks, which migrate between international waters and EEZs, or between different EEZs, and around highly migratory species that are found exclusively in international waters. Stocks classified as straddling include some of the most valuable fish species in the world, such as cod, herring, capelin, and ocean perch. This section gives an overview of the global capture fishery, the inherent conflicts over cooperation around common pool resources, setting the stage for the final section of this

chapter, which discusses the four fisheries Iceland and Norway have cooperated on: capelin, herring, cod, and oceanic redfish.

To insure the sustainability of the resource over the long run, straddling stocks can only be successfully managed through international cooperation. If there is no international cooperation around the management of straddling stocks, distant-water trawlers and factory ships can scoop up the fish and leave nothing for the domestic fishing sector of the nearby coastal state. Alternatively, the domestic fleet can deplete the stock within its own EEZ, leaving nothing for those fishing in international waters or adjacent EEZs. International management agreements limit fishing amongst the participating states and hence limit the quantity domestic fishermen can catch. Reduction in the share a state's fishing fleet is allowed to catch has both economic and political consequences, providing governments with the incentive to try to prevent stock depletion. In reaching allocation agreements the amount each state gets to catch is invariably less than what their fishermen were able to do before the agreement. Hence, successful negotiations have direct negative consequences for the fishermen involved, who are usually private actors.

Following the extension of the Exclusive Economic Zone (EEZ) to 200 miles in the late 1970s, the salience of high-seas fishing—defined here as fishing outside the EEZ—declined in the 1980s. Fishing states focused their efforts on fishing within their own newly created and seemingly abundant EEZs. However, with the decline of fish stocks within EEZs, high-seas fishing efforts increased again in the 1990s as fishermen tried to make up for declining catches at home.

The starting point of this research is the expansion of the EEZ to 200 miles in the late 1970s. This expansion fundamentally altered the institutional structure of the fishing industry by putting about 90% of the most valuable fish stocks under domestic management. Heralded as a solution of the uncontrollable fishing on the high seas, the change was thought to solve all problems of overfishing. A few years later it became clear that individual governments were having problems with depletion of stocks within their boundaries. In fact, the problem of overfishing had not been solved in the late 1970s, only transferred to a different domain.

The push into the high seas led to increasing conflict among fishing states, evident in 1995 when the Canadian Coast Guard seized the 210-foot Spanish trawler "Estai" about twenty miles outside the Canadian EEZ and charged the crew with illegal fishing.³² The Falkland Islands' Coast Guard chased Taiwanese ships, Scottish fishermen attacked and destroyed the catch of a Russian trawler,³³ and relations within the European Union are notoriously conflicted regarding the common management of the European EEZ.³⁴ In addition, Iceland and Norway fought bitterly over Icelandic trawlers fishing in the Barents Sea during the 1990s.

Tragedy of the Commons

Within the broader field of cooperation, the problem of managing global commons has emerged in recent years as one of the most perplexing problems facing states in the international arena.³⁵ The problem traps governments and societies in a social dilemma of how to allocate scarce resources, both globally and locally. Here, 'global allocation' refers to stocks found in international waters as well as stocks that straddle international boundaries. Any management of straddling stocks involves negotiations among states to properly manage the stock and prevent overutilization. 'Local allocation' refers to the domestic management of stocks within the 200-mile EEZ, which is the exclusive jurisdiction of individual governments.

This social dilemma of managing the global commons has its roots in the "tragedy of the commons,"³⁶ with the solution resting on overcoming the problem of collective action.³⁷ Individuals utilizing common pool resources cause degradation, because no one has an incentive to protect the resource for future use, which ultimately hurts the users' long-term interests. Overcoming this problem requires collective action on behalf of the participants. If only one fisherman decides to protect the resource, by either limiting his own catch or by protecting young fish, others will catch what he left behind and reap the profit. Solving this problem is the central issue in domestic and international management of fisheries within the 200-mile EEZ.

Theoretically, the tragedy of the commons should be avoidable within the EEZ because governments can determine national fisheries policy and enforce agreements, but empirically this has not been the case. Mismanagement of stocks within the EEZ has been pervasive, and during the 1980s both Iceland and Norway were faced with a collapse of the cod and capelin fisheries. Domestic management is complicated by the fact that some stocks straddle across boundaries. That is, they travel between nationally managed local commons and global commons, where anyone is allowed to catch the fish. Hence, complete management of straddling fish stocks requires international cooperation.

The Fisheries and the Quest for International Cooperation

The problem of management of straddling fish stocks has been pervasive in the North Atlantic since the early 1980s, where Iceland and Norway are key players. This section reviews the fisheries around which Iceland and Norway cooperate. It details the history of these fisheries as well as discusses the need for international cooperation. It thus provides the necessary background for the rest of the book.

The Capelin Fishery

Capelin is a relatively small, pelagic species found in the North-East Atlantic, the Barents Sea, Southwest of Greenland, off the coast of Labrador, and around Newfoundland. It is also found in the Northern Pacific, along the entire Alaskan coastline, across the Bering Sea to the coast of Russia. While the distribution is great, individual capelin stocks are quite different. The focus here is on the allocation of the Icelandic stock. It spawns along the south coast of Iceland and in its second year it travels west and north between Iceland and Greenland, later entering the fisheries zone around Jan Mayen before entering the Icelandic EEZ in January. Iceland has been harvesting Icelandic capelin since the mid-1960s and Norway's fishery around Jan Mayen began in the late 1970s. Apart from fishing from the Icelandic stock, Norway has a substantial fishery in the capelin stock in the Barents Sea—the world largest capelin stock—since 1960s.

Capelin is an important stock for two related reasons. First, it is valuable when processed into fishmeal, oil, and roe (caviar). The first two products are mainly sold as low-priced animal feed, while the roe is the most valuable product because it is sold for human consumption. Second, capelin is the dietary staple for Atlantic cod, the most valuable fishing resource for the states in and around the North Atlantic. About a third of the cod's food intake is capelin. Therefore, during times when the capelin stock is low, cod is only partially able to compensate for the loss of capelin by feeding on other prey.³⁸ Fluctuations in the capelin stock will therefore later be reflected in the cod stock, which has profound economic consequences for the communities dependent on cod.

As a result, any agreement to preserve capelin has to balance two objectives: to maintain the level of the stock so it can be safely harvested while leaving enough behind for other fish to feed on. This task is compounded by the stock's extremely short life span, a peculiar biological feature of Icelandic capelin. In its third year, capelin spawn and then suffer mass mortality. Spawning mortality is virtually complete, which results in a highly volatile stock that has been difficult for scientists to predict. Through twenty-five years of research and trial and error, fishery scientists have converged on allocating about 400,000 tons for spawning each year and allowing fishermen to catch the rest.³⁹

In 1958 the Technical Laboratory of the Icelandic Fisheries Association initiated an experimental capelin fishery for the production of meal and oil. Even though the results were promising, the Icelandic capelin fishery did not begin until 1964. Initially, the fishery took place in February and was confined to the southwestern part of the Icelandic coast. Then in the late 1960s, the Norwegian spring-spawning herring stock collapsed and the capelin fishery gained importance. By 1969, most of the Icelandic herring fleet had become involved in the winter fishery for capelin.