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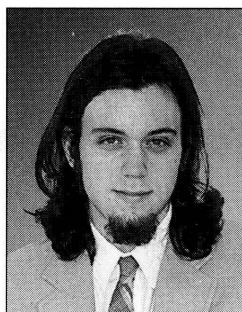
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TO FISH OR NOT TO FISH: PLAYING THE GAME OF INTERNATIONAL DEVELOPMENT¹

Kevin M. Kniffin



Introduction

American children raised in the cult of the individual are often posed the following question: If everyone else jumped off the Empire State building, would you? The trained response is “No.” In reality, however, most people would likely jump if “everyone else does.”

Although Argentina does not share America’s folklore, it is attempting to become a fellow member in the community of “developed countries.” Argentina’s assimilation into this group will likely pressure them to “play the game of development” with Western rules. In this game, participants are required to compete with each other, constantly trying to outdo their opponents. Unfortunately, the competitors are sometimes so preoccupied with their speeds that they fail to look down at the road beneath them. This paper will attempt to describe the potential pitfalls on the track of development, focusing on the Argentine fishing industry as a case study.

Argentina’s Role in International Markets

Although Argentina met with great success in the international trading arena in the 1800s (Rock), the country has been struggling with an unstable economy during the last few decades. In order to deal with this instability, there are generally two paths that a nation can follow. It can focus on becoming self-sufficient, without relying on imports; or it can open its markets in an attempt to grow in competition and cooperation with foreign investors.

In the 1970s, the Economic Commission on Latin America and the Caribbean (ECLAC) — a regional branch of the United Nations — recommended that Argentina engage in a protectionist, state-subsidized import-substitution policy. (Cohen) This policy, however, did not produce appreciable growth levels; rather, nationalized companies became inefficient drains on the national economy.

¹The author wishes to thank Professor John Gatewood and Professor Alvin Cohen of Lehigh University for helpful comments.

President Menem has been credited with rebuilding Argentina by privatizing industry and opening markets to the international community. The competition involved in international markets forces companies to become efficient or bankrupt. Growth becomes prompted by external pressures rather than independent goals. These pressures of growth, however, can have detrimental effects.

Argentine Fishing Industry

Common hake is the most abundant fish in the Argentine fishing industry, accounting for 45.9 percent of the total landed weight in 1993. Other popular species include blue whiting, squid, and shrimp. While hake catches have been consistently around 400,000 metric tons (mt) over the past three years, many of the other species are being fished at fast-growing rates. For example, between 1991 and 1993, squid catches increased 318 percent (from 46,313 to 193,690 mt) and blue whiting catches have increased 149 percent (from 44,142 to 109,829 mt). (Embassy of the United States, 1993, p. 2; NMFS, 1994, p. 35)

Until very recently most of Argentina's catch was landed in Mar Del Plata, a port city located 400 kilometers south of Buenos Aires. (Embassy of the United States, 1993, p. 1) Activity is growing in the southern regions, however, particularly for factory processing ships, which have been involved in the squid fishery.

In 1992, only 37 percent of the landed weight was processed on Argentine soil, meaning almost two-thirds of the country's fish processing was done offshore, primarily by foreign companies. Companies that process fish offshore are not legally mandated to use Argentine workers (Cortes); therefore, cheaper foreign labor is often used. Union pressures helped support Argentine laws prescribing that 75 percent of each crew must be national citizens; however, the government holds the right to grant exemptions. (CEI, p. 38)

The explosion in squid and pollack production has been partially responsible for great changes in the Argentine fishing industry's international relationships. In 1992, Spain imported 20.8 percent of the volume and Japan took 11.8 percent. (Embassy of the United

States, 1993, p. 4) In 1993, however, Japan imported almost 24 percent of the landed weight, while Spain accounted for 14 percent, and South Korea for 9.5 percent. (PROMSA)

The inception of Mercosur — a common market that includes Argentina, Brazil, Paraguay, and Uruguay — will benefit Argentina's fish production. Specifically, Mercosur's reduction of trade tariffs and other barriers at the end of 1994 will facilitate trade. Already, however, fish exports to Mercosur countries have increased greatly (77.5 percent) from 27.9 million US\$ in 1992 to 49.5 million US\$ in 1993. (Ministerio de Economía . . . , May 1994a, p. 74) Explanation for this trend lies in Argentina's ability to supply Brazil's unmet demand for fish. Brazil accounted for 85 percent (42.3 million US\$) of the total 1993 Mercosur imports. (Ministerio de Economía . . . , May 1994a, p. 74; NMFS, 1994, p. 38)

History of the Argentine Fishing Industry

Although the current market is experiencing great change and growth, it is necessary to recognize the historical context of the present-day situation. For example, Argentina is currently reaping record harvests. In order to further understand how Argentina should deal with the future, it behooves analysts to explore the history of national fishing regulations and international trade agreements.

As countries increase their fleet sizes, the production of fish no longer becomes the main problem; rather, the controlled production of fish becomes the main issue. Fisheries are limited, renewable resources that must be protected unless one wants to risk their irreversible destruction. As a result of the need to prevent overfishing, Argentina has policies that restrict fishing through temporal and territorial conditions, along with limits on gear technology. (CEI) These measures, which will be discussed in more detail later, help to prevent overfishing.

Since Argentina does not consume much fish (except during Lent), it is necessary for it to seek out markets. Initially, it may be difficult to find partners; however, in today's global market, it is more likely that a country like Argentina must "fend off" potential suitors. For example,

if Argentina allowed the Japanese to fish without restrictions in Argentine waters, Japan would likely decimate the Argentine fisheries. (Cortes)

In addition to a recent agreement with the European Union, which will be discussed later, Argentina has agreed to other international arrangements in the past. In December 1986 Argentina agreed to authorize fishing by ships from Bulgaria and the former Soviet Union. Although Argentina made sure that it retained strict control over the foreign fishing effort, this was the first time that Argentina allowed fishing by foreign-flagged vessels. (CEI, p. 5)

These two agreements also functioned as attempts to claim Argentine sovereignty over its sea rights. Although sea-neighboring countries were granted exclusive rights 200 miles out from their coasts by the Rights of the Sea Convention in 1982, many foreign fishing fleets would invade others' territories without legal permission. Although illegal fishing is still a problem, especially for countries like Argentina that have a long coast to monitor, it is becoming less troublesome. Argentina's ability to enforce its regulations draws in part on the cooperation of other countries to negotiate and sign legal agreements.

Accordingly, Argentina has been entering into more international agreements in recent years. For example, the government issued licenses to Japanese and Taiwanese squid fishers in 1992. The legalization of foreign fishing not only allows the host country to benefit financially from shared interests, but may also give the host nation a greater ability to enforce regulations.

Tragedy of the Commons

Applicable to a wide range of policies, Hardin's "tragedy of the commons" model offers warnings to development planners that "freedom in the commons brings ruin to all." (Hardin, p. 1244) Nevertheless, economic pressures often overwhelm more rational tendencies toward restraint.

Hardin's classic illustration involves a communal cow pasture. Each person in the community raises a given number of cows on the commons. In order to seek a greater profit, however, one of the commoners places another cow on the land. The addition of the cow takes

some of the finite resources of the commons away from all of the other cows (and their owners), but the owner does not need to care about the other people. The "invisible hands" eventually lead everyone into disaster, however.

While the losses incurred by the additional cow's consumption are shared among all of the commoners, the original owner makes all of the profit. Seeing the profit made by their neighbor, the other commoners have no reason not to seek the addition of more cows. Eventually, however, the strain of the additional cows becomes too great for the land. Not only does the land collapse, but the economic actors that use the land are left without a theater.

Unfortunately, the history of fisheries and other renewable natural resources offers an abundance of examples that fall victim to Hardin's scenario. (e.g., Smith, 1977) When given freedom to harvest the sea, fishers will try to catch as many fish as possible in as short a time as possible with ships as large as possible—a symptom of overcapitalization. In order to prevent other fishers from getting the finite number of fish available, they all rush to capture as much as possible in order to prevent others from landing big catches. (Gordon, p. 135)

In practice, human greed is often mitigated by cultural norms that prescribe some degree of cooperation (Acheson) or a practical inability to exploit resources beyond their sustainable yields. (McGoodwin) Nevertheless, in a country that stresses development there will be a focus on increased profit that must be countered by laws. Of course, the "need" for laws is apparent in the fisheries dilemma, but much more open to value judgments in other spheres, such as human resources. This paper adopts the view that there is at least a need to recognize other stresses of development, such as increased socioeconomic stratification, regardless of the value that people attribute to them.

International Development

The problem that countries like Argentina face lies in the deregulation of other nations' environmental policies. In a global economy, each nation's actions have varying effects on other nations. If there is simply one country willing to let a country like Spain or Japan

exploit all of the country's fisheries, then a country with regulations will likely lose in the initial bargaining arrangement. The willingness of countries to offer lax regulations weakens the ability of other countries to draw long-term commitments, or capital investments. For example, if underdeveloped countries cooperated to set a standard for trade relations, it is likely they would gain much more power in negotiations. On a more regional scale, if a company looking to relocate had the options of moving to a place with strict environmental regulations or to a place with lax regulations, the pressures of the marketplace will point towards the host with lax regulations. In fact, much of the debate over NAFTA concerned this very point. Many Americans feared that Mexico's relative lack of restrictions would "suck" jobs from the United States.

On the other hand, if countries agreed to a standard set of regulations, then companies would not be able to play countries against one another. While it is unreasonable to expect developing countries to accept strict limits from developed countries that can afford such restrictions, it is worth noting that there are some incentives, less tangible than increased growth rates, that support a move toward uniform regulations. The uniformity of policies regarding taxes and environmental regulations, for instance, would tend to create a more stable environment in which companies would not always be looking for the lowest bidder. Cooperation, rather than competition, between countries would allow them to retain capital within their countries over long periods of time. While it would also retard the movement of capital to less restrictive countries, the eventual movement would be more in accordance with the ideal terms of the developing countries' contracts. Corporations would not be able to ignore the demands of developing countries that ask for strong commitments in the form of capital investment. This type of policy might also attach the owners to the homes of their businesses, perhaps inducing greater care for the nations' land, sea, and people — care that might otherwise be missing among absentee capitalists with no long-term commitment to local concerns.

Another model that would seem applica-

ble to modern nation-states in their development schemata is that of the "prisoner's dilemma." In the prisoner's dilemma, two people are accused of a crime. If they cooperate with each other in silence, they will both avoid a guilty sentence. If one defects and reports on the other, then the "sneak" will get less of a sentence and the resistant suspect will be punished without compassion. If both defect, then they will both be punished by the law.

In a multi-player game, only one defector is required to ruin the game for everyone else. (Axelrod; Orbell) If one person defects, then everyone except the defector loses. In the world of industrializing countries, if Argentina and every other country were to regulate strictly their fisheries and other natural and human resources, in theory it would still only require one nation to undercut the agreements made by everyone else. In practice, issues such as transportation costs and entry capital investments would dampen the effects. Nevertheless, the prisoner's dilemma proposes that as soon as one nation becomes indiscriminant about selling its resources, then the other countries will be hard pressed not to follow. Thus arises the tragedy of the commons on an international scale.²

Only in the first iteration of the game would the defector reap profits. After several iterations, it is likely that not only will there be other defectors, but also that the original defector will have likely exploited its resources beyond sustainable yields. If it is possible to resist the temptation to defect immediately, then as defectors drop out of the game over time the patient countries become more powerful because there will be fewer competitors. Underdeveloped countries, however, are often marked by greater turmoil in internal politics than industrialized countries. This creates a great temptation for those in power to "sell out" a sustainable future for the sake of immediate

²Again, the NAFTA debate is applicable; however, one must be aware of the hegemonic dynamics of this game. Given the considerable difference in the standards of living of the United States and Mexico, it is difficult to expect Mexico not to be willing to relax certain regulations in order to raise its own standard of living. Essentially, some would argue that the United States and other more developed countries can "afford" to pay more attention to environmental management than lesser-developed countries.

gains and a preserved political career. In theory, the growing tradition of the Argentine democracy should allow for more altruistic decisions whose visions are broader than those made by leaders in unstable countries.

Nevertheless, without a worldwide governing agency of natural resources, it is likely that there will always be at least one country willing to take the "easy money" and give in to outsiders' pressure to exploit resources. The "easy money," however, is not based on a sustainable resource. Once the outsiders exploit the land and sea beyond efficiency, there is no commitment to stay there. On they will go to the next country.

One of the other results of being heavily involved in export markets is the emergence of dependency. Although market fluctuations can benefit Argentina, they can also make business difficult. For example, although Argentine hake prices have increased in the last few years due to shortages in the North Atlantic cod fishery (NMFS, 1994, p. 6), a recession in Europe, an improvement in European catches, and greater Russian groundfish exports have detrimentally affected other Argentine exports. (NMFS, 1994, p. 7) This instability created by the variety of links across the globe makes it very difficult for local producers to prepare for problems; for countries are dependent not only on other countries' management of resources, but also on chance events such as climatic changes.

Social, Political, and Economic Implications of Regulations

One of the underlying features of development plans is the target schedule of progress. For example, will growth be appreciated immediately or will patience become a valuable virtue? Generally, if one is seeking any long-term consistent economic return, some restraint must be exercised in development. Fast, unregulated development plans run the risks of creating a "mob mentality," pushing speculators over the edge of reason (e.g., the U.S. savings and loan crisis). Although there is a relation between economics and biology, one need not be a "tree-hugger" to realize that it is economically wise to conserve resources. Developers should also tip their hats to social

scientists who tend to focus more on issues of social equity, since inequitable arrangements tend to produce unhappy, uncooperative workers. Fricke (1985) notes that comprehensive policies require the input of economists, biologists, and social scientists. Accordingly, Gatewood adds that it is important that "each fishery management plan reflects locally appropriate compromises among conservation, efficiency, and equity concerns." (1993, p. 137) Although "equity" can be ambiguous, it is still necessary to recognize social, biological, and economic elements in development plans.

Neither must the role of international political relationships be ignored. Argentina's tenuous political relationship with Britain could potentially cause harm to the fisheries and the fishers. Arguments over a relatively small area of sea between Argentina and Las Malvinas that is "politically important" to each country could lead to a disproportionate investment of time and energy deciding which country has the right to protect (and fish) that small area, leaving the rest of Argentina's fisheries less protected against eager poachers. An editorial from *The Buenos Aires Herald* claims that "we can rest assured that [foreign fishing fleets] would have a field day if the 99.83 percent of the Argentine and British zones go neglected by this nonsensical approach to the problem." ("Missing What's Essential," p. 12)

Agreement with the European Union

Of course, contact with "neighboring countries" in today's shrinking world need not always be confrontational. On May 24, 1994, Argentina signed a fisheries agreement with the EU — one of the more recent attempts to link Argentina more closely with the industrialized West. The agreement allows EU vessels to fish in Argentine waters, although the foreign ships must be transferred to an Argentine company within three years if they wish to stay. (NMFS, 1994, p. 9) Although opinions regarding the value of the agreement to Argentina vary, it is basically an attempt to gain capital investment in exchange for limited fishing rights. The agreement lasts for five years and will be renewed automatically for two-year intervals, unless one of the parties wishes to leave the

relationship. A Mixed Commission, which has yet to meet as of the time of this writing, will be responsible for the practical establishment and maintenance of the agreement.

The impetus behind this new agreement lies partially in the failure of the Spanish fishing fleet to successfully manage its own fisheries. As a result of overcapitalization in the Spanish fleet, many vessels needed to be idled. Although Namibia became a destination for some Spanish fishers, Argentina seemed a worthwhile location since Spain previously had imported Argentine fish.

The Spanish had been pushing for the EU to reach an agreement with Argentina for several years. The agreement had actually been initialled by EU Fisheries Commissioner Manuel Marin and Argentine President Carlos Saul Menem on November 30, 1992. The delay, caused by the Argentine Congress, had become a cause of concern for some of the Spanish fishers that were desperate to find fishing grounds. The Congress, however, was preoccupied with constitutional reforms. (NMFS, 1994, p. 18)

Within the EU, the Spanish were caught in a bind since their involvement off the Namibia coast did not last long due to Namibia's newfound sovereignty over its fishing grounds (NMFS, 1994, p. 16); therefore, one of the other options outside Spain had been eliminated. Although some Spanish are reluctant to enter into the Argentine pact, they have few other options except for leaving the industry. As McGoodwin notes, however, fishers are often not in a socio-economic position to change occupations easily. Interestingly, Argentina's fishers unions are also concerned about the agreement. More specifically, they fear that they will be forced to compete with the "foreigners." Additionally, they argue that the agreement's catch-limit quotas may be too ambitious for certain species, placing the fisheries and their jobs in jeopardy. (NMFS, 1994, p. 13)

The influx of capital for port and fleet improvements mandated by the agreement should benefit the aging Argentine fleet. Fifty-six percent of the fleet's vessels are between 20-30 years old. (CEI, p. 41) One of the reasons for the advanced age is found in the economic crisis of the late 1980s, which was marked by hyperinflation, hindering Argentine infrastruc-

tural investments. (NMFS, 1994, p. 6) Nevertheless, skeptics of the EU agreement point to the failure of the earlier Soviet agreement to import capital and technology successfully. These people contend that the benefits from the EU will also never really be actualized. (NMFS, 1994, p. 13)

The actual fishing rights of the accord allow EU vessels to land as much as 250,000 mt during the first five years. Broken down by species, almost half of the EU fish allocation is for hake (120,000 mt). Although the other stocks allocated to the EU are surplus fisheries, the hake fishery has reached its maximum sustainable yield. Argentine government officials, however, state there will be little competition for the hake fishery since there are plans to transfer the allocations to the EU from Argentine ships that have been inactive over the past year. (NMFS, 1994, p. 11) The Mixed Commission will be responsible for distributing the allocations to specific fishers.

Argentina holds the ultimate right to cancel licenses at any time if there are concerns about overfishing. In fact, the government canceled many licenses to fish squid in late 1994. (Embassy of the United States, 1994) Although it is wise to stop fishing if the resources are in jeopardy, the strength of agreements will be weakened if Argentina is found guilty of overextending itself. If Argentina cannot uphold its end of the agreement, it is doubtful that the agreement will last.

In a capital-driven global economy, it is important for countries rich in natural resources to attract capital investments from partners to help ensure long-term commitments. Without this sharing of capital, the more powerful party can simply leave the arrangement without having much difficulty finding another partner. Metaphorically, the less powerful member should attempt to force partners to "buy its cows before giving them milk." Argentina's attempt to draw commitment is found in the requirement that EU ships must become registered under the Argentine flag within three years and that joint ventures be set up between national and foreign investors. This prevents the participation of absentee capitalists, who would have few incentives to leave any profits in Argentina.

The implementation of this new agreement should prove interesting since there are many unanswered questions that only time and action will answer. (NMFS, 1994, p. 20) The remainder of this article will attempt to delineate these questions and offer some potential solutions.

Is There a Tragedy in the Argentine Fisheries?

To be successful, any plan for conserving fisheries must contain three vital points. First, biologists must calculate the proper maximum sustainable yield (MSY). Secondly, a suitable management plan must be chosen that attempts to distribute limited fishing rights among fishers (see Gatewood, 1993; McGoodwin, 1990). Thirdly, the enforcement of laws must be great enough to allow the plans to work within their parameters. As mentioned previously, if the second point is met successfully and resources are distributed with an acceptable degree of equity, then the third point becomes less cumbersome. The first obstacle — determining the MSY — however, can cause real problems.

Ideally, the estimation of the MSY can be regarded as a scientifically determined constant since the second and third points are challenging enough. Unfortunately, there has been debate even over the MSYs in Argentina. Given that fish are fugitive, invisible resources, however, it is not surprising that the estimation of fish stocks is not perfect. Problems are already being encountered in the squid and blue whiting fisheries (NMFS, 1994, p. 5), but some developers remain undaunted by signs that certain fisheries are in danger of ruin. Some people have claimed that Argentina can land 5,000,000 mt per year (PROMSA) since some species such as anchovy are underexploited. Though this claim may seem ridiculous considering that there already seem to be problems when the catch has yet to reach 1,000,000 mt, it is indicative of the pressure to fish more.

The government relies on statistics from the Instituto Nacional de Investigaciones y Desarrollo Pesquero (INIDEP) for calculations of the MSY, but these reports are not available to the public. Interpretation of INIDEP biologists' reports, which are likely to offer ranges of

acceptable landings, may lead to politically-influenced decisions. For example, squid catches were considered to be sustainable between 250,000-300,000 mt per year, depending on the source. (Ministerio de Economía . . . , 1994b, p. 88; CEI, p. 29) The whole of the range of MSYs for squid, however, has been shown to be overly optimistic. Specifically, 1993's official catch of only 193,690 (PROMSA) seems to have led to difficulties in 1994, which forced the government to cancel licenses for squid fishing before the season would normally end. (Embassy of the United States, 1994)

Whether 1994's difficulties arose from miscalculated MSYs or from illegal fishing is impossible to conclude.³ Regardless of the source of the problem, the cancellation of squid licenses in 1994 is an indication that the exploding growth rates of some of the Argentine fisheries may well be unsustainable. Fish stocks must be recalculated each year; therefore, a commitment to a given number of fish for an extended period of time is inadvisable. Although Argentina has reserved the right to cancel licenses, it has already been mentioned that contracts are likely to dissolve if one of the partners cannot meet its promise. For example, since Argentina was forced to cancel squid licenses, it is natural to suspect that there will be some reluctance within the EU to fulfill its side of the agreement. As mentioned above, management must successfully meet all three points to insure long-term success.

Aquaculture — A Solution?

Efforts to increase fish production have recently focused on aquaculture, or fish farming. Without placing a strain on the natural fish reserves, artificially created lakes can produce a great amount of fish, given the proper environments.

In the case of Argentina, however, aquaculture has been moving slowly for two reasons. (NMFS, 1991) Tropical shrimp aquaculture, which has been successful in other parts of South America, is the most appealing cultur-

³According to Cortes (1994), the Argentine Coast Guard arrests between 20 and 25 boats fishing without permission each year. He says fines total about 6 million dollars.

able species; yet, the temperate climate prevents Argentina from becoming competitive with other countries that have more suitable, tropical climates.

While climate precludes the development of a competitive shrimp industry, the inability to discover a stable, indigenous, marketable species for aquaculture is also limiting development. Since Argentina will likely need to find a new species for aquaculture to be efficient and competitive in the global markets, it will also be necessary to revolutionize the field. This not only requires financial investment, but knowledge about new species must be gained as well. This accumulation of knowledge, however, requires time.

The production of fish via aquaculture is not expected to be substantial in the next decade at least. A report from the National Marine Fisheries Service of the United States concludes that "based upon the experiences of other Latin American countries, any rapid expansion of the industry in Argentina appears unlikely." (NMFS, 1991, p. 4)

Conclusion

The ability of Argentina to effectively manage its fisheries without falling to the pressures elicited by short-term gains is partially contingent on the actions of its neighbors. While the overfishing of the Spanish fisheries inevitably led to the arguably favorable position of Argentina in the bargaining process, Argentina's position is weakened by the presence of other competing countries that do not strictly regulate fishing, or other natural renewable resources.

The emergence of larger international trade groups such as Mercosur, the EU, and the NAFTA is part of a move towards a global mar-

ket that could be regulated without concern for single country's actions; however, that time has not yet arrived. Although the lack of competition does not necessarily mean that countries, or groups of countries, will not overfish, it would be easier for people to resist the temptation of short-term gains. The international regulation of natural resources can be just as difficult as internal regulation, if not more so.

Ironically, the relationship between Argentina and Great Britain demonstrates many of the dynamics that need to be recognized. Great Britain, a member of the group partially responsible for the overexploitation of Argentina's fisheries — the EU — has expressed concern that too much fishing by the EU in Argentina will hurt Great Britain's fisheries development in the Falklands. Although Great Britain's concerns are motivated by selfish interests, it is effective at proving the idea that the world's fisheries belong to everyone.

Fighting to grab "pieces of the pie" often results in a mess rather than a table surrounded by satisfied individuals. Without regulation, the incessant quest for profits would likely turn the sea and land into a mess. Regulation can not only prevent environmental destruction, but social destruction as well. It is in the mutual interests of all countries to prevent the abuse of natural and human resources. Returning to our question about following others ready to jump off a skyscraper, if one wants to imagine a group of developers meeting on top of the Empire State building, it would seem necessary to erect fences around the roof to keep people from jumping. Even better than fences as self-protective barriers, however, would be self-control taught to the developers by the "tragedies" of history — lessons that allow them to recognize the height of the building before perching themselves on the ledge.

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