OPEN ECONOMIES AND REGULATIONS:

CONVERGENCE AND COMPETITION AMONG JURISDICTIONS

by

Dale Dennis Murphy

Submitted to the
Department of Political Science
in Partial Fulfillment of the
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ABSTRACT: As formal trade barriers fall, what were once domestic policy matters become issues of international concern. This dissertation identifies cases in interstate trade with the potential for competition among domestic regulatory jurisdictions. The outcome of this competition varies: one sees convergence toward a lower common denominator in some cases, convergence toward a higher common denominator in others, while in still other cases national differences persist. I propose three (related) causes of these divergent outcomes. First, regulations on production processes yield laxity. Conversely, regulations on the sale or distribution of products yield stringency; protectionist in the absence of convergence to a higher common denominator. Second, industrial structure affects the strength of the process-product distinction. Concentrated markets facilitate collective action and regulatory capture. Dominant producers push for product and process regulations that reflect their particular interests. Third, the asset specificity of firms' investments affects regulatory "convergence" on a given issue. Firms with low asset-specific investments facilitate a competition-in-laxity. Firms with high multinational asset specificity seek regulatory convergence to lower their transaction costs. Firms whose asset specific investments are domestic seek regulatory protection. The dissertation explains several cases in detail using this model. The case studies suggest the model is necessary to understand general outcomes, although not sufficient to explain individual cases.

Thesis Supervisor: Dr. Kenneth A. Oye

Title: Professor of Political Science
Acknowledgements

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CHAPTER ONE: INTRODUCTION

"The competition of nations in the trade of the world, and the community of interests proceeding therefrom, makes it impossible to create successful institutions for the benefit of working men of one country without entailing that country's power of competing with other countries. Such institutions can only be established on a basis adopted in common in all countries concerned."
-- Otto von Bismarck, 1 1890

As formal trade barriers fall, what were once domestic policy matters become issues of international concern. Modern critics of the World Trade Organization echo Bismarck's concern, that trade erodes domestic regulations. The historical record suggests a diverse picture. Nations differ in their assessments of the risks associated with economic activity, their assessments of the costs that would result from restrictions, and their tastes for levels of regulation. Economies which are open to foreign trade and investment create opportunities for producers to seek the most favorable regulatory climate, either by voicing their interests to regulators or by relocating production elsewhere. Open economies thus increase incentives for states to achieve a comparative regulatory advantage for their producers. In some cases,

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1 Thanks to David A. Moss for drawing my attention to this quote from Bismarck in his outstanding paper "Kindling a Flame Under Federalism: Progressive Reformers, Corporate Elites, and the Phosphorus Match Campaign of 1909-1912," drawn from his Ph.D. dissertation and presented at a Harvard University Seminar in Economic History April, 1993; published in the Business History Review v68 n2 Summer 1994. Bismarck's quote is from "Instructions of Prince Bismarck to the German Ambassadors and Ministers, February 8, 1890, Inviting the Powers to a Conference at Berlin, March 1890," reprinted in James T. Shotwell, ed., The Origins of the International Labor Organization, Vol. I, p.471. Students of German history and realpolitik will note that in 1890 Bismarck had additional concerns beyond the benefit of working men. He was struggling both to defeat the Socialist movement and to prevent his imminent ouster by the "Labor Emperor," Kaiser Wilhelm II. According to some sources, Bismarck privately opposed the labor conference as a weak concession to Socialists. He resigned under imperial command on March 18, 1890, the very month of the conference.
producers in states adopting the least stringent regulations may prosper at the expense of producers in states adopting more stringent regulations. In other cases, producers may benefit from discriminatory national regulations. As a consequence, one observes significant variation in nation-by-nation regulations, as well as some coordinated international regulations.

1. **THE PUZZLE**

   Over the long term, cross-national variations in initial sets of national regulations may generate any of the following three basic trajectories for a given issue:
   
   - convergence toward a lower common denominator (LCD)
   - convergence toward a higher common denominator (HCD)
   - persistence of national differences (heterogeneity)

   These trajectories constitute the "dependent variable" of this dissertation; that is, the puzzle to be explained. My research goal is to determine what causes each outcome.²

   These trajectories are mapped in Figure 1-1 (below). On the horizontal axis is the commonality of regulations among states: do states adopt homogenous regulations (common among some group of states with competing industries), or heterogenous regulations (in which national differences persist)?

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²An ancillary goal is to provide those concerned with regulations with a model on which to base their strategic decisions. I impute no normative content to "higher," "lower," "homogeneity" or "heterogeneity" here; simply movement toward laxity or stringency, or persistence of national differences. In certain instances lower common denominator (LCD) outcomes may be desirable, if the stringent regulations were protecting vested interests over the general welfare. In other instances, LCD regulations may result in negative externalities such as environmental damage, financial instability, or degradation of labor standards that outweigh gains from efficiency. Similarly, higher regulations may be protective, or protectionist. My analysis does not attempt to predict which normative outcome occurs when. However, by analyzing the systematic effects on trade of the likely evolution of regulations, I offer strategic insights for policy-makers and others who seek policies that are sustainable over the long term.
On the vertical axis is the stringency of regulations: most simply, do they become more stringent or lax?³

**Figure 1-1**

<table>
<thead>
<tr>
<th>REGULATORY MOVEMENT</th>
<th>The Dependent Variable:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Outcomes of Interjurisdictional Regulatory Competition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Among Competing States</td>
<td></td>
</tr>
</tbody>
</table>

| Stringency (higher) | Higher Common Denominator | ↑                  |
|                     |                          |                  |
| Laxity (lower)      | ↓  Lower Common Denominator |                  |

| Homogeneity (convergence) | COMMONALITY | Heterogeneity (divergence) |

Competition among jurisdictions may lead to increasing government intervention up to stringent outcomes, or to a "competition-in-laxity" down to

³The dichotomy is for conceptual clarity. Stringent is defined as: "marked by rigor, strictness or severity, with regard to a rule or standard," from the Latin *stringere*, to bind tight. I am interested in *de facto* regulations, not *de jure* laws. I prefer "commonality" or "homogeneity" to "harmonization" or "convergence." "Harmonization" has benign normative overtones (as opposed to "disharmony"), and "convergence" has teleological allusions and references to broader sociological studies on modernization.
lax outcomes. Competition-in-laxity implies a downward spiral, with one state lowering regulations first, and others following suit.⁴

Defenders and detractors can be found for each outcome. Recent critics of the World Trade Organization (WTO) claimed it would erode domestic regulations. Ralph Nader and others criticized multinational corporations for seeking regulatory laxity:

"They demanded... that environmental and safety standards be 'harmonized'... with the practical result that they would be pulled down toward a lowest common denominator... US corporations long ago learned how to pit states against each other in "a race to the bottom"--to profit from the lower wages, pollution standards, and taxes. Now, through the NAFTA and GATT campaigns, multinational corporations are directing their efforts to the international arena. ..."⁵

William Grieder similarly warned that the global economy "searches the world for the lowest common denominator in terms of national standards for wages, taxes and corporate obligations to health, the environment and stable communities."

Yet later in the same article, Grieder was critical of the Basle Accord to raise capital requirements worldwide, toward a higher common denominator. (Some international bankers also complained about the Basle Accord, for quite different reasons than those Grieder cites.) Vandana Shiva was critical of higher common standards on patent protection of seeds and

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⁴US Federal Reserve Board Chairman Arthur Burns described the US federalist financial system as a "competition in laxity," in his October 21, 1974 address to the American Bankers Association Convention in Honolulu, HI. (Thanks to Ethan Kapstein for this reference). Similar terms are "race of laxity," used by Supreme Court Justice Brandeis in Liggett Co. v. Lee (1933); "race to the bottom" picked up in the Cary v. Winter debate over Delaware (see below); "degenerative competition" used by David Moss in describing the phosy-jaw case; and the more neutral "interjurisdictional competition" and "competitive deregulation" preferred in law and policy journals. The general subject falls under legal "conflict of laws" studies.

natural resources under the GATT. Other observers praised successes in raising common standards, as in the Montreal Protocol on Chlorofluorocarbons, the Basle Accord, the Rio Convention on Global Warming, the Convention on International Trade in Endangered Species (CITES), and the Basel Convention on the Transboundary Movement of Hazardous Wastes. Meanwhile, World System theorists decried "green imperialism" and the industrialized world "pushing higher common environmental standards" onto developing countries with other priorities.

Finally, economists warned of the potential for heterogenous "green protectionist" regulations that protect inefficient domestic industries. How can one make sense of these conflicting views, and understand which outcome will occur when?

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6William Grieder, "The Global Marketplace: a Closet Dictator," in Nader (1993), p.195, and pp.204-5. Vandana Shiva pp.112-120. Similar language is used by others in the same volume: Lori Wallach, p.36, "the Uruguay Round text promotes downwards harmonization of environmental and consumer standards. . . . The mechanisms in the Uruguay Round and the NAFTA [which are] designed to promote harmonization ratchet standards only in the downwards direction." Edmund G. Brown, Jr.: "The truth is more like a race to the bottom in terms of wage levels and environmental standards." p.67. Wendell Berry, p.159: "[Harmony] would mean lowering all those standards regulating food safety, toxic residues, inspections, packaging and labeling, and so on. . . ."

7E.g., Peter M. Haas, Robert O. Keohane and Marc A. Levy, eds., Institutions for the Earth: Sources of Effective International Environmental Protection (MIT Press, 1993). The French spelling of "Basle" (Switzerland) is used in reference to the BIS Capital Accord; and the English/German spelling "Basel" is used reference to the convention on hazardous wastes, following the received literature.

8Ambassador Balrishnan Zutshi of India argues that "trade liberalization. . . is essential for promoting sustainable development," to overlook trade, and focus instead on the environment, is irrelevant for most contracting parties to the GATT, and would be viewed as "as serious protectionist threat to their trade interests." Political arguments in favor of environmental regulations are made by Thomas F. Homer-Dixon, Jeffrey H. Boutwell, and George W. Rathjens, "Environmental Change and Violent Conflict," Scientific American February 1993 pp.38-45. Thanks to Homer-Dixon for ongoing discussions of these issues and for encouragement of my own work.
2. PROPOSITIONS: THE EXPLANATORY VARIABLES

"As a rule, regulation is acquired by industry and is designed to operate primarily for its behalf." -- George Stigler, 9 1971

I advance three propositions to explain the observed outcomes. Following Stigler, I emphasize the regulatory incentives of firms and government responses to them. The first propositions two together explain movement toward stringency (or laxity): product versus process regulations, and industrial structure. The third, asset specificity, explains commonality among states. This model links private economic incentives to government decisions. Changes in regulations depend on the incentives and strategies of private sector firms and governments. Firms face three options: relocating production to a new location ("exit"); lobbying, educating, and litigating to shape regulations that reflect their interests ("voice"); or mutely accepting whatever regulations come their way ("loyalty").10 Firms seek a regulatory environment to maximize their value. Each firm calculates its interest, with bounded rationality and opportunistic behavior. Governments respond to firm behavior, as they balance the interests of their constituencies (and their own interests). Government regulatory options are also threefold: they may do away with unilateral regulations that increase production costs to domestic firms (deregulation), they may exert pressure on foreign countries to remove or erect regulations (influence), or they may erect regulations that protect

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10Albert O. Hirschman, Exit, Voice and Loyalty, 1970. Exit is a common economic means of expressing preferences: consumers and workers vote with their wallet or feet. Voice is the political process for influencing outcomes; it involves dialog, persuasion, and sustained organizational effort. "Loyalty" in this context might be in the expectation of future political "goods." p.257.
domestic firms (protection). Both influence abroad and protection may depend on governments’ ability to use access to their domestic markets as a "club" to bring about the desired regulatory outcome.

2.1 Proposition #1: Process versus Product Regulations

The first proposition concerns the locus of regulations. Nations may limit or prohibit manufacturing processes (process restrictions). Or, they may restrict the sale, distribution, or consumption of tradeable products (product restrictions). The process-product distinction emphasizes the different interests of export-oriented and import-competiting industries and the different political resources available to producers and consumers. (See Figure 1-2). Firms seek regulations that add to their value; they will seek to capitalize on the differential effect of a regulation on itself versus its competitors.

Figure 1-2

<table>
<thead>
<tr>
<th>Locus of Regulation:</th>
<th>Location of Producers:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic:</td>
</tr>
<tr>
<td>Product:</td>
<td>Restrictions on the sale or consumption of products</td>
</tr>
<tr>
<td>Process:</td>
<td>Restrictions on production or process methods (PPMs)</td>
</tr>
</tbody>
</table>
2.1.1. Heterogenous national restrictions on manufacturing processes may spawn competitions in laxity. Process restrictions increase the cost of manufacturing. Domestic business and labor in a nation with costly restrictions on manufacturing processes tend to operate at a disadvantage with respect to competitors in less-regulated nations. In the absence of common international action for a common higher standard, both export-oriented and import-competing sectoral interests will fight for lax national restrictions on manufacturing processes to improve their competitive position. In cases of costly regulation or inexpensive relocation, firms may move manufacturing to less-regulated states. The threat of industrial relocation and the resultant loss of jobs and tax revenues may convince governments to keep process standards lax.

2.1.2. Heterogenous national restrictions on the domestic sale, consumption or disposal of products may spawn protectionism. (Again see Figure 1-2). Domestic business and labor in a nation will push for a product restriction to the extent it reflects their parochial interests. Unilateral product regulations are likely to give them an advantage with respect to foreign competitors in less-regulated nations. In the absence of common international action against product restrictions as de facto trade barriers, sectoral interests may seek to impose domestic product regulations that improve their competitive position.\textsuperscript{11}

Governments of states with large internal markets may use product regulations not only to protect domestic industry, but also as a "club" to

\textsuperscript{11}N.B. this distinction is simpler than that embodied in the GATT. I include all restrictions on imports as product restrictions, regardless of the motivation or rationale. The GATT prohibits import restrictions which discriminate against foreign countries' manufacturing methods, but permits product restrictions are allowed if they are nondiscriminatory. The GATT thus emphasizes the motivation for the restriction. See discussion on theory, below.
influence regulations in other countries. If those foreign countries do not move toward a common (higher) process regulation, or toward fewer discriminatory product regulations, their exports may be denied access. *Ceteris paribus*, the outcome here is a pattern of product regulations moving toward higher (heterogenous) standards that reflect producer interests.

Process and product restrictions are likely to have markedly different international consequences and yield markedly different results. *Among open economies, this proposition predicts movement toward more lax regulations in the case of process restrictions, or toward more stringent regulations in the case of product restrictions.*

12

2.2 Proposition #2: Industrial Structure

The second proposition, industrial structure, affects the strength of the product-process distinction. *Regulatory movement is more likely to be achieved by dominant, established firms in concentrated markets.* In order to achieve regulations that reflect their particular interests, firms must significantly influence governments. That influence can be direct or implicit, or even imputed by governments. Concentrated markets facilitate collective action and the ability to shape regulations. Oligopolies have greater resources to absorb regulatory costs and to achieve their regulatory goals through lobbying, funding of research, litigation, and education or advertising. They also have asymmetrical access to information; indeed, they are often the only

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12 There is a subordinate exception to this rule. The key point is that firms see regulations that differentially improve their value over competitors. Heterogenous process restrictions are more likely to decrease competitiveness vis-a-vis foreign firms. Heterogenous product restrictions are more likely to increase competitiveness, to the extent they reflect domestic producers' interests.
source of information available to the regulatory agencies. They have incentives to erect barriers to entry, to maintain market share and prices, and to impede (or dominate) substitute goods. Governments are more likely to respond to dominant firms both as a result of lobbying pressures and to improve their own popularity by boosting employment and economic growth.\(^\text{13}\)

Industrial structure is dynamic, not deterministic (particularly at the product-line level), as firms make strategic production decisions. The decision by a dominant firm to invest in a new product (e.g., chlorofluorocarbon substitutes) or a new production technology (e.g., totally chlorine-free pulp) may alter the structure of a particular market. I expect those investment decisions to be reflected in regulatory preferences.

Firms may also form lobbying coalitions with each other or in alliance with public interest groups. One expects firms to take advantage of so-called "Baptists and bootleggers" coalitions in a synergistic alliance of "the good and the greedy." Regulations are legitimated in terms of the public interest.\(^\text{14}\) Public interest groups can play a valuable legitimizing role for firms, if common ground can be found between them. Likewise, politicians who

\(^{13}\)Industrial structure points to a possible exception to the product-product distinction during market shake-outs. This exception to the rule is subordinate to the larger pattern, but it is important: as firms compete for dominance, oligopolies may temporarily seek higher process regulations (in a "bleeding game"), so long as the gains from eliminating competitors exceeds the higher cost of production. Conversely, oligopolies may temporarily seek lower product regulations, to undermine a competitor's protected market. Again, the important aspect is the differential affect of the regulation on various firms, and the government's response to it.

\(^{14}\)It is precisely because legitimacy is open to differing interpretation that firms and interest groups can have an impact on regulations. I do not mean to imply that the regulations firms seek are not in fact "legitimate," nor that they do not (also) serve some public interest.
support regulations commonly favored by both firms and interest groups can expect support from them both.15

2.3 Proposition #3: Multinational Asset Specificity (MAS)

The third proposition is that the asset specificity of investments and transactions affects the degree of regulatory homogeneity across countries. Asset specificity means "durable investments that are undertaken in support of particular transactions, and that would lose considerable value if the transaction were prematurely terminated" (Williamson, 1985).16 The investments may include human, dedicated, physical, and site specificity.17 Readers unfamiliar with the term might think of "sunk costs" as an initial

15See Bruce Yandle, "Bootleggers and Baptists: the Education of a Regulatory Economist," Regulation, May-June 1983; and Yandle, "Intertwined Interests, Rent Seeking, and Regulation," Social Science Quarterly v65 n4 (December 1984), pp.1002-1012. The phrase refers to the American Prohibition on alcohol (1919-1933, Constitutional Amendment Eighteen), when product bans on alcohol led to windfall profits for illegal distributors ("bootleggers"). Those in the temperance movement ("Baptists") unwittingly found themselves in an "unholy" alliance with bootleggers: both wanted to keep stringent regulations on alcohol, albeit for different reasons. Politicians who voted for prohibition (or later bans on Sunday liquor sales) were supported by both groups. See also Peter H. Odegard, Pressure Politics: the Story of the Anti-Saloon League (NY: Columbia University Press, 1928/[1966]). I use the phrase metaphorically and intend no disrespect. It is interesting to note, in keeping with the model, that in 1982 the US alcoholic beverage industry still favored federal regulations. When President Reagan tried to deregulate it, he discovered that industry wanted federal regulation, instead of 50 sets of state regulations. A spokesman for the National Beer Wholesalers Association said that prior to regulation the industry was rife with monopolies, criminals and unethical promotions. "The industry has grown up with the [Federal Bureau of Alcohol, Tobacco, and Firearms] and feels very comfortable with it." New York Times, August 27, 1982.

16Oliver Williamson, Economic Institutions of Capitalism, 1985 (discussed more below).

17The four types of asset specificity are distinguished as follows. Site specific: the buyer and seller are located in a "cheek-by-jowl" relation to each other. Human asset specific: investments in relationship-specific human capital, such as skills that are imperfectly transferable across employers. These often arise in a learning-by-doing fashion, or from team configurations. Dedicated assets: involve expanding existing plant on behalf of a particular buyer. Physical asset specificity: when one or both parties to a transaction invest in specialized equipment designed specifically for that transaction; and the equipment would have lower value in alternative uses.
cognate. Following Williamson, I assume that uncertainty is present, that transactions are recurrent, and that parties to an agreement are opportunistic.

Assets are specific to the extent they cannot easily be deployed elsewhere (without losing considerable value). *Low* asset specificity means that assets can easily be re-deployed; they are not specific to their current use. *High* asset specificity means alternative asset uses are much less valuable to a firm. *Multinational* asset specificity (MAS) means that a firm's assets are specific to transactions in more than one country. MAS therefore means: durable investments that are undertaken in support of cross-border transactions, and that would lose considerable value if the cross-border transaction were prematurely terminated.\textsuperscript{18} *Domestic* asset specificity means that assets are specific to transactions in one country.

These different investment patterns affect firms' incentives to respond to regulations in the following ways:

- Firms with investments with *low* asset specificity, i.e., assets that are mobile or have valuable alternative uses, may relocate to less restrictive regulatory environments. The result is movement toward "self-help" governance structures and less regulation. *Low* asset specificity facilitates a *competition in laxity*, in which moves by one state to attract (or keep) industry through lax heterogenous regulations are matched by other states. Movement is toward more lax regulations, among competing states.

\textsuperscript{18}For simplicity, "higher" asset specificity here refers to investments that involve both qualitatively more specific transactions, and larger sums of money. "Lower" asset specificity similarly refers here to both qualitatively less-specific transactions, and smaller sums of money. Obviously, small investments that are very specific, or large investments that are not so specific, fall somewhere between these extremes. Both dimensions are important. Williamson (1985, pp.73ff) distinguishes between the two dimensions of "investment characteristics" (nonspecific to highly specific) and "frequency of transaction" (occasional or recurrent). For the purposes here, however, the single dimension is adequate inasmuch as I do not differentiate between Williamson's "bilateral-trilateral-unified governance." I simply note movement away from or toward "market governance."
• Investments with high multinational asset specificity create incentives for firms to push for common regulatory outcomes across borders. Firms with assets devoted to multinational transactions will seek regulatory homogeneity on issues that affect their asset-specific investments. They seek to reduce transaction costs.\textsuperscript{19} They will oppose divergent regulations that inhibit effective use of those assets, and that increase transaction costs.\textsuperscript{20} \textit{Ceteris paribus}, firms with high MAS therefore seek regulatory homogeneity for two reasons: a) most simply, to operate those assets under one set of rules worldwide reduces transaction costs; and, b) as asset specificity increases, "voice" becomes less costly to firms than "exit." The more a firm has invested in specific assets across borders, the more likely it is to support regulatory homogeneity across those borders. Firms seek credible commitments from governments in the form of regulations to uphold those rules.\textsuperscript{21}

\textsuperscript{19}Transaction costs are the "costs of running the economic system." They are the economic equivalent of friction. \textit{Ex ante} transaction costs are the costs of drafting, negotiating, and safeguarding an agreement. \textit{Ex post} transaction costs include maladaptation costs when transactions go awry; haggling costs if efforts are needed to correct misalignments; the setup and running costs associated with the governance structures to which disputes are referred; and the cost of effecting secure commitments. Williamson (1985) p.21.

\textsuperscript{20}\textsuperscript{20}Most American multinational companies adopt worldwide environmental standards at their facilities regardless of where they are located... It is simply more efficient to use the same environmental standards in Mexico as in the United States.* USTR interagency task force study, October 15, 1991. The UN Centre on Transnational Corporations similarly found that "although parent company policies and standards were not fully adopted by TNCs operating in host developing countries, their policies and practices were generally superior to standards contained in local environmental regulations. Standards of TNCs in pollution-intensive industries have exceeded local standards as indicated by all the country studies. . . [Eighty-three percent of all parent companies] directed subsidiaries to operate within the standards adopted in the home country of the parent company," (emphases added) \textit{Environmental Aspects of Transnational Corporation Activities in Pollution-Intensive Industries in Selected Asian and Pacific Developing Countries}, ESCAP/UNCTC Publication Series B, No.15 (New York, 1990), p.61; also pp.69-72. Thanks to co-author Tyn Myint-U for lending me this book and other discussions.

\textsuperscript{21}Of course there are exceptions, in which heterogenous rules discriminate in favor of a particular foreign firm, but they are not the rule. One example was Citicorp's protected status as the only foreign bank allowed to operate independently in Mexico, when others were nationalized in 1982. Citicorp was granted a grandfather status because it was the only bank pre-existing in Mexico before the Revolution. That unique status was to be changed when banks (continued...)
Firms with investments specific to transactions only in a given *domestic* market will fight against regulatory homogeneity that threatens their investment. They will support heterogenous regulations that protect the investment. When a firm has sunk assets into transactions particular to a given domestic regulatory environment, it cannot redeploys those assets elsewhere without losing considerable value.

These effects on regulations of the asset specificity of investments are summarized in Figure 1-3.

**Figure 1-3**

<table>
<thead>
<tr>
<th>Asset Specificity</th>
<th>Location of Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Homogenous Regulations</td>
<td>Domestic</td>
</tr>
<tr>
<td>Low Multinational</td>
<td>Competition in-Laxity</td>
</tr>
</tbody>
</table>

Asset specificity creates incentives and constraints for firms and governments, but it is not deterministic. Over the long term, asset specificity may change as firms change their investment strategies, or as demand for

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(continued)

were de-nationalized again in the early 1990s, and Citicorp argued strongly in favor of homogenous banking laws, as part of the North American Frec Trade Agreement (NAFTA).
products (and substitutes) changes. These firm-level decisions and others are noted in the case studies and the Conclusion.

3. **METHODOLOGY AND CASE SELECTION CRITERIA**

The research method of this dissertation is to search for a common thread of explanation across diverse cases of regulations that affect interstate commerce. I argue that an underlying logic of these cases is similar for a variety of regulatory issues including the environment, finance, and labor; and for domestic federalism as well as for international relations.\(^{22}\) My goal is a robust partial explanation of all cases fitting my case selection criteria, not a full explanation of any one case in particular. This research method goes beyond plausibility but does not offer proof.\(^{23}\)

My research concerns cases that meet three selection criteria:

1. **States are economically interdependent** in the given issue area (goods, services, externalities, or factors of production cross borders).  
2. Initially, **no central authority** has resolved regulatory differences between economically competing states.  
3. **Regulations significantly impact** firms.  

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\(^{22}\)See J.S. Mill, "method of agreement": cases with largely different characteristics but similar results are examined. Common characteristics are then nominated, but not proven, as causes of the results. John Stuart Mill, *A System of Logic* (1843). Thanks to Steven Van Evera for a concise statement and discussion of this methodology (unpublished mimeo, 1993).

\(^{23}\)As a *caveat*, I acknowledge that the wide diversity of cases which fit the case selection criteria cannot be fully explained by a few factors. It is helpful, however, to begin with these factors, as a first cut at understanding. Other factors, such as institutional arrangements not examined in detail here, might moderate these. Future research may help identify when that is the case. Future research priorities include: 1) Refine and operationalize variables for empirical testing, to allow for predictions and causal analysis. 2) Examine further the supply side of regulations: under what conditions do governments accept or seek each regulatory outcome? 3) Link demand and supply, in a more detailed model of business-government relations. 4) Model dynamic patterns and equilibria. 5) Examine additional cases, including "outliers" where the model does not fit, to determine what factors overwhelm those I identify here, and what flexibility is offered to individual actors.
criteria excludes cases where regulatory costs are insignificant. Other factors, not identified here, would then be necessary to understand outcomes.)

The empirical case studies and the logic of my model are based largely on industrial democracies during times of peace. The model's relevance to other conditions is beyond the present scope of this study.

A wide variety of cases fit these criteria. Some are global, some are regional, some are domestic (federal). They encompass financial, trade, environmental, and labor regulations, among others. An idiosyncratic list of examples follows, to illustrate the dimensions of the project. These are listed in order by geographic arena, and within that by issue area. This list is summarized in Figure 1-4. Any regulation affecting economic activity that is affected by trade is a potential case.

3.1 Global Examples. Globally, most broadly, one can examine the issues raised in disputes before the General Agreement on Trade and Tariffs (GATT), and the negotiations over revising it, including the Agreement on Technical Barriers to Trade and the Uruguay Round. Other global trade issues (and heterogenous responses to them) include: patent protection in general, and on particular goods such as seeds or bioengineered products.

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24 The examples are suggestive of possible case studies; I have not fully investigated most. Bibliographic citations to secondary sources are offered for each example as an aide to future researchers.

### EXAMPLES OF POTENTIAL CASES (by geographic and issue area)

<table>
<thead>
<tr>
<th>FINANCE/BUSINESS/TRADE</th>
<th>ENVIRONMENT &amp; CONSUMER</th>
<th>LABOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GLOBAL</strong> (incl. responses to global pressures)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• bank capital (BIS)</td>
<td>• infant formula advertising</td>
<td>• conditions at sea</td>
</tr>
<tr>
<td>• offshore banking centers</td>
<td>• US-Mexico tuna-dolphin</td>
<td>• child labor laws</td>
</tr>
<tr>
<td>• corporate disclosure, accounting &amp; taxation</td>
<td>• tobacco advertising</td>
<td>• restrictions on unions</td>
</tr>
<tr>
<td>• bank deregulation</td>
<td>• ship convenience-flags (FDCs)</td>
<td>• occupational safety</td>
</tr>
<tr>
<td>• securities (IOSCO)</td>
<td>• phytosanitary standards</td>
<td>• phossy jaw (phosphorus matches)</td>
</tr>
<tr>
<td>• European 2nd Banking Directive &amp; US Schumer Amendment</td>
<td>• toxic havens</td>
<td>• union agreements and corporate relocation</td>
</tr>
<tr>
<td>• GATT (tariffs, subsidies, NTBs, Technical Barriers, etc.)</td>
<td>• Codex standards</td>
<td>• prison labor</td>
</tr>
<tr>
<td>• patent protection (WIPO)</td>
<td>• global warming</td>
<td></td>
</tr>
<tr>
<td>• telecommunication standards</td>
<td>• env. deregulation</td>
<td></td>
</tr>
<tr>
<td>• CAFE standards</td>
<td>• fisheries</td>
<td></td>
</tr>
<tr>
<td>• anti-trust</td>
<td>• endangered species (CITES)</td>
<td></td>
</tr>
</tbody>
</table>

| **INTRA-REGIONAL** (EC, NAFTA, APEC) | | |
| • EC Directives on banking, investment services, capital adequacy | • German mandatory recycling | • maquiladora labor abuses |
| | • tax harmonization | • pharmaceutical laws | |
| | • business law standards | • chemical safety regulations | |
| | • securities | • animal rights | |
| | • construction codes | • acid rain | |
| | • electronics standards | • toxic dumping (Rhine; maquiladora) | |
| | • energy efficiency standards | • timber issues | |
| | • Crisis de Dijon; Danish bottling laws | • meat inspection (US-Canada) | |
| | | • UHP milk (Canada- Puerto Rico) | |
| | | • pesticide regulation | |

| **DOMESTIC** (federal) | | |
| • Delaware incorporation | • bovine hormone: WI/MN | • OSHA enforcement |
| • US S&L crisis (state competition: SD, TX) | • US state recycling | state labor laws |
| • bank branching | • CA auto standards | phossy jaw (domestic case) |
| • regulatory and tax "holidays" | • state pollution laws (e.g., LA vs. MA) | unemployment benefits |
| • US integration (Interstate Commerce Act) | • US, Australian state beer laws | |
| • CAB; trucking regulations | • Canadian province pulp bleaching | union agreements and corporate relocation |
| | • Saxony (Germany) PVC restrictions | |

products,\textsuperscript{26} deregulation and standard setting in telecommunications,\textsuperscript{27}

\textsuperscript{26}E.g., see discussions on the role of America's Cargill, Inc., and Indian responses to it. A critical view is Vandana Shiva, "Biodiversity and Intellectual Property Rights," in Nader (1993); see also Mark Ritchie, "Agricultural Trade Liberalization: Implications for Sustainable Agriculture." \textit{Ibid.}
US corporate average fuel economy (CAFE) standards, and other automobile regulatory issues; airlines; protracted negotiations on agricultural protectionism, including Japanese rice, apples and timber, European beef and oil, US wine and cheese; ongoing negotiations on textiles; phytosanitary and sanitary regulations; international antitrust cases; the role of

27(...)continued


32e.g., in mainframe computers in the 1970s, color TVs in the 1970s and 1990s, semiconductors in the late 1980s. Domestic import-competing firms lobby both for protection against "foreign monopolies" and for relaxed domestic antitrust laws. See Wernhard Moschel, "International Restraints of Competition: A Regulatory Outline, (Symposium in Honor of Professor James A. Rahl: an International Antitrust Challenge)," Northwestern Journal of International Law and Business v10 n1 (Spring 1989), pp.76-83.
government regulations in "dumping" of goods below cost;\textsuperscript{33} aggressive market access measures such as (Super) 301;\textsuperscript{34} and restrictions concerning malt, alcohol taxes, and micro-breweries.\textsuperscript{35}

Global financial examples include: the Basle Accord to raise capital requirements; the European Second Banking Directive and the US Schumer Amendment;\textsuperscript{36} corporate disclosure, accounting, and taxation laws,\textsuperscript{37} movements to revise the heterogenous US Glass-Steagall Banking Act of 1933

\textsuperscript{33}Malcolm D. Rowat, "Protectionist Tilts in Antidumping Legislation of Developed Countries and the LDC Response: Is the 'Race to the Bottom' Inevitable?," \textit{JWT} v26 n6 (1990).

\textsuperscript{34}See various works by Thomas O. Bayard and Kimberly A. Elliott, Institute for International Economics; and Michael Mastanduno; among many others.

\textsuperscript{35}GATT Panel Report on Malt.


in response to global competitive pressures;\textsuperscript{38} various global banking deregulations in the 1980s;\textsuperscript{39} and regulation of securities markets.\textsuperscript{40}

Global environmental, consumer and labor issues include: the US injunction against Mexican tuna, and the GATT panel ruling on it; heterogeneous US infant formula advertising; shipping flags-of-convenience (havens); US tobacco advertising in Asia, and related US threats of market


access; various examples of "environmental dumping" or "toxic havens"; pressures for "new" protectionism in response; the Rio Summit on the environment; Codex Alimentarius Commission standards for food and agriculture (including pesticides use); issues involving global warming; the

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43Tim Lang and Colin Hines, *The New Protectionism: Protecting the Future Against Free Trade* (London: Earthscan, 1993); "Our assertion is that protection is good."

44Much has been written about the Rio Summit, but few regulations were implemented as of 1994. President Clinton formed a 25-member council on sustainable development to mesh environmental and economic goals in accordance with the Rio summit; co-chaired by a senior officer of Dow Chemical and Jonathan Lash, president of the World Resources Institute.

45See *Policy Implications of Greenhouse Warming*, National Academy of Sciences, Committee on Science, Engineering, and Public Policy, 1991. Thanks to David Victor and NAS (continued...)
issues in the Law of the Sea negotiations; US deregulation under the Council on Competitiveness; US re-regulation in the Pesticide Export Reform Act of 1990; depletion of fisheries, including Pacific salmon and the Atlantic Georges Banks; use of child labor; restrictions on labor organization; labor demands; and other "social dumping" cases (lowering labor regulations to boost exports).  

(continued...)  

panel-member Eugene Skolnikoff for this reference, and valuable suggestions. Thanks also to Ronald Prinn and Henry Jacoby for a panel presentation at the World Economic Forum, 1994. Another concise source of data is the World Resources yearbook put out by the World Resources Institute, UNEP, and UNDP (e.g., 1990, pp.11-31). The difficulty of negotiations, and the need for coalitions in them, are discussed by James K. Sebenius, "Designing Negotiations Toward a New Regime: the Case of Global Warming," International Security v15 n4, pp.110-150.


49 See variety of news articles on Vice President Dan Quayle's Council on Competitiveness, e.g., Wall Street Journal August 6, 1992, "Risk Analysis Measures Need for Regulation, But It's No Science," by Bob Davis. Support of the Council is found in work by Aaron Wildavsky, John Morrall, Robert Hahn, and Richard Belzer.


(continued...)
3.2 Regional Examples. Regional integration examples are found in the issues involved in integrating Europe, the North American Free Trade Agreement (NAFTA), and the Asian-Pacific Economic Community (APEC). As discussed in the theory chapter (below), European integration offers both rich cases and some caveats for this research. Regional financial cases include various European Community Directives (Second Banking Directive, Investment Services, Capital Adequacy); tax harmonization; stock markets and securities dealing; and regulatory

\(\text{\footnotesize{(\ldots\.continued)\}}\)


On the general issue of regulatory harmonization in Europe, see Giandominico Majone, "Regulatory Federalism in the European Community," paper prepared for delivery at the 1991 Annual Meeting of the American Political Science Association, August 29-September 1, 1991. Majone's treatment is the best overview I have found.

Paulette Kurzer, Business and Banking: Political Change and Economic Integration in Western Europe (Cornell University Press, 1993).


issues relating to the European Monetary Union. See also regional financial cases in North America and Asia.

Regional trade issues include: various European Court of Justice rulings, such as the Cassis de Dijon case; and the myriad of cases on individual industries and products (e.g., pharmaceutical, chemicals, construction codes, electronics standards; even economically trivial cases like water-heater efficiency standards or livestock welfare regulations can yield insights into the logic of regulatory competition and convergence).

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59Trade journals, anecdotal evidence from public interest groups, and interviews may be the best source of information at this level of specificity.
Regional consumer, environmental, and labor issues include: consumer product safety regulations, such as restrictions on the artificial sweetener Cyclamate; Danish bottling laws; German mandatory recycling and "green" labelling laws; acid rain issues in North America and Europe; regulation of toxic dumping into European rivers; the relocation of *maquiladora* firms to the US-Mexican free-trade border, and charges of toxic dumping (xylene, methylene chloride, lead), resultant health effects (anencephalous babies, retarded children, cancers), and labor abuses; German, Dutch, and US

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states' recycling programs; US restrictions on asbestos; the US Delaney clause prohibiting any carcinogenic additives to food; labelling requirements; reforestation, timber and lumber issues in the US, Canada, Japan, the Netherlands, Brazil, Indonesia, and the Philippines; US-Canada meat inspection; and use and labelling of pesticides on agricultural products. Higher standards are not only found in wealthy countries. For example, in 1991 Puerto Rico's Pastuerized Milk Ordinance barred Canada's Ultra-High Temperature milk exports.

3.3 Domestic (Federal) Examples. The logic of this inquiry is found in domestic (federal) cases, as well as international ones. In America, the case of incorporation in the state of Delaware has become an exemplar. See also literature on the US savings and loan crisis of the 1980s; divergence

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among state and federal approaches to admission of foreign bank branches; the McFadden Act of 1927 (which prohibits interstate branching) and efforts to change it; and state tax and regulatory "holidays" to attract industry.

Domestic (federal) trade cases include: the historical integration of the US states into a federal economy, e.g., the Interstate Commerce Act of 1887, consumer and safety regulations; deregulation of various domestic

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70 See papers presented at a conference on "Interjurisdictional and Policy Competition," March 23-24, 1988, co-sponsored by the US Advisory Committee on Intergovernmental Relations and The Urban Institute, and funded by the J.Howard Pew Trust. Daphne A. Kenyon and John Kincaid, eds., Competition Among States and Local Governments: Efficiency and Equity in American Federalism, 1991.

industries;\textsuperscript{72} and harmonization of law in Canada, Australia, and other federal countries.\textsuperscript{73}

Domestic (federal) labor, environmental, and consumer cases include: collective bargaining agreements and corporate relocation;\textsuperscript{74} the ban on Bovine Growth Hormone (BGH) in Minnesota and Wisconsin, and labelling requirements on it;\textsuperscript{75} provincial regulations on chlorine pulp bleaching in

\textsuperscript{71}(...continued)


\textsuperscript{73}Ronald C.C. Cuming, ed., \textit{Perspectives on the Harmonization of Law in Canada} (University of Toronto Press, c1985).


\textsuperscript{75}BGH is a mild-production hormone. It was banned in response to consumer and dairy farmer demands. Mexico permits BGH.
Canada; automobile emission standards in California; acid rain; and pesticides.

The above list of potential issues is idiosyncratic; however, it illustrates the breadth of the problem under study. The "puzzle" (movement toward stringency or laxity, homogeneity or heterogeneity) emerged from the sources cited above, as did the cases I chose to examine in detail. To avoid "selection bias" (choosing only examples that prove a point), I initially selected cases with a range of values of this dependent variable. The cases were chosen without knowledge of the values of the explanatory variables. Indeed, these explanatory variables had not been fully identified before the research began. The model was formulated through examination of the BIS, US formula advertising, and flags-of-convenience cases. It then received some affirmation, though not proof, in the consequent examination of the CFC, tuna, off-shore


78See helpful discussion in Gary King, Robert O. Keohane, and Sidney Verba, Designing Social Inquiry, (Princeton, 1994) pp.128-149. This approach permits causal inferences, although not descriptive inferences such as the number of cases falling into each category. King et al. caution that "the increased possibility of other problems caused by possible nonlinearities or variable causal effects, means that this procedure will not generally yield valid causal inferences." However, they go on to argue that this research design "may help us to gain some valuable information about the empirical plausibility of a causal inference. . . . [I]f this design is to lead to meaningful--albeit necessarily limited--causal inferences, it is crucial to select observations without regard to values of the explanatory variables." (original emphasis) p.141. Thanks to Keohane for a discussion of these issues at an MIT-Harvard Seminar, December 2, 1993, and for furthering my understanding of international relations on too many other occasions to list. Thanks to Thomas Homer-Dixon for a discussion of his forthcoming paper on the value of intentional selection in a necessary but not sufficient theoretical argument. See also Giovanni Sartori, "Concept Misinformation in Comparative Politics," American Political Science Review 64 (1970) pp.1033-1053.
banking centers, certain European cases, and "other similar" cases noted throughout. This exploratory investigation generates precise hypotheses. Further researchers will want to reverse this research design by choosing observations on the basis of the explanatory variables, with the values of the dependent variables only discovered through research.79

Figure 1-5

<table>
<thead>
<tr>
<th>Higher Regulations</th>
<th>Lower Regulations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Common Denominator</td>
<td>Lower Common Denominator</td>
</tr>
<tr>
<td>Montreal Protocol on CFCs</td>
<td></td>
</tr>
<tr>
<td>BIS capital standards, 1988</td>
<td></td>
</tr>
<tr>
<td>Ship flags: (OECD)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Heterogeneity</th>
<th>Homogeneity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mexican tuna-dolphin</td>
<td>COMMONALITY</td>
</tr>
<tr>
<td>US formula advertising</td>
<td></td>
</tr>
<tr>
<td>EC green protectionism</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1-5 fills in Figure 1-1 with some examples in terms of movements toward or away from stringency and commonality. These cases, including shipping flags-of-convenience, chlorofluorocarbon (CFC) production, bank capital requirements, and Mexican tuna-dolphin are examined in detail in

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79For example, one might choose a set of firms with high, domestic, and low asset specificity and examine their impact on regulatory homogeneity-heterogeneity. Thanks to Robert Keohane and Eugene Skolnikoff for these and other suggestions, at my presentation to the MIT-Harvard Research Seminar on International Environmental Institutions.
the dissertation. The environmental cases are a good trial for my propositions, because they have been cited as "less likely" to reflect the explanatory variables I use.80 The financial and trade cases illustrate that the findings are not limited to environmental cases. Indeed, this research began with the case of bank capital. Regulatory outcomes are dynamic; cases are classified here at a time when they exhibited a certain equilibrium.

4. SUMMARY OF INITIAL FINDINGS

The three propositions were applied to a number of these baseline cases. The initial findings are summarized below in Figure 1-6.

The propositions fit these cases well, if not perfectly. Process regulations are associated with less stringent regulations.81 Product regulations are associated with more stringent outcomes. Concentrated markets affect the degree of the regulatory shift. Low asset specificity is associated with competition-in-laxity toward a lower common denominator; high multinational asset specificity is associated with homogeneity; domestic asset specificity is associated with heterogeneity.

Some of these theoretical findings open a "black box" in the international political economy literature and clarify a source of regulatory differences and similarities. Other empirical findings in the case material stand alone as valuable for their counter-intuitive results: what best explains why prominent US businessmen created havens overseas for ship registration, in which ships flying the flag of those havens tended to sink three times more


81The process-product distinction in the Basle Accord on capital standards is discussed in the case study. The distinction is applied to other cases listed in the Appendix, and holds up well.
Figure 1-6

<table>
<thead>
<tr>
<th>OUTCOME: Case</th>
<th>Locus of Regulation:</th>
<th>Market Structure:</th>
<th>Asset Specificity:</th>
<th>Regulatory Outcome:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOWER COMMON DENOMINATOR:</strong> Ship registration (flags-of-convenience)</td>
<td>process</td>
<td>fragmented (first-movers = large firms)</td>
<td>Low</td>
<td>Laxity; homogeneous to competing states (Liberia, Panama, Cyprus)</td>
</tr>
<tr>
<td><strong>HIGHER COMMON DENOMINATOR:</strong> CFC-ozone</td>
<td>product</td>
<td>concentrated</td>
<td>Multinational</td>
<td>Homogenous, stringent</td>
</tr>
<tr>
<td><em>BIS</em> Capital Adequacy</td>
<td>product and process</td>
<td>domestic; concentrated; international: fragmented (but unifying contracts)</td>
<td>Multinational</td>
<td>Homogenous, stringent</td>
</tr>
<tr>
<td><strong>HETEROGENEITY:</strong> Mexican tuna-dolphin</td>
<td>product</td>
<td>concentrated</td>
<td>Domestic</td>
<td>Heterogenous, stringent (US)</td>
</tr>
<tr>
<td>US infant formula advertising</td>
<td>product</td>
<td>concentrated</td>
<td>Domestic</td>
<td>Heterogenous, stringent (US)</td>
</tr>
</tbody>
</table>

often than others? Or, why did DuPont ultimately support a global ban on chlorofluorocarbons (CFCs), make windfall profits from their phaseout (until taxed), and voluntarily move so fast in phasing them out that the US Environmental Protection Agency requested DuPont to slow down? Or, why did major banks worldwide agree to raise their levels of prudential capital (which arguably raised their cost of doing business)? Or, why did StarKist ultimately support a US ban on the importation and sale of "dolphin-lethal" tunafish? Or, why did US infant formula makers support advertising restrictions in the US (even while they opposed it overseas)?
My model explains these counter-intuitive findings, and counsels a new "intuition." The dissertation proceeds by reviewing the theoretical literature relevant to my propositions and then explains a variety of cases in detail through the lens of these propositions.
CHAPTER TWO:
LITERATURE REVIEW AND THEORETICAL FOUNDATION

This chapter reviews the literature relevant to my research agenda, in two sections. The first section offers more theoretical detail on the puzzle and three propositions stated in the Introduction. The second section situates these in the broader context of international relations and political economy. All theories are "born wrong" because they abstract from reality (Kuhn 1962).\textsuperscript{82} They also have parents. The model proposed here draws on literature from political science, economics, and law, without bias.\textsuperscript{83}

1. THE PUZZLE: COMPETITION-IN-LAXITY, HOMOGENEITY, HETEROGENEITY?

This section reviews the literature which led me to frame the dependent variable in terms of three regulatory trajectories. As the frontispiece quote from Bismarck indicates, the potential for trade to undermine domestic regulations has been known for some time. However, no scholarly study that I am aware of offers a general model to explain why competition-in-laxity generally occurs in some cases, "harmonization" in others, and heterogeneity in

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still other cases. As such, one must look broadly for theoretical background.

1.1 International Interdependence

Richard Cooper's seminal work (1968, 1972, 1974) defines the problem in this area of international political economy. Cooper notes the conflict created by differing regulatory regimes as international trade increases. He identifies five policy outcomes of interdependence, related to my outcomes as follows: "Constructive" policies are homogenous ones (lower or higher common denominator) in which governments frame policies jointly so as to prevent "exit" by firms from governmental jurisdiction. "Passive" policies are a variant of homogeneity acceded to by small states; they involve the acceptance of a loss of policy autonomy. "Defensive" policies are heterogenous nontariff barriers (protection, as in dolphin-safe tuna) which reduce economic interdependence. "Aggressive" policies move from heterogeneity to homogeneity; they involve the extraterritorial extension of national control to factors of production abroad. "Exploitative" policies are the heterogenous use of regulatory laxity or subsidies to attract foreign industry (havens, as in flags-

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of-convenience). Cooper's prescience over twenty years ago is remarkable. His analysis did not attempt to explain which policies are adopted under which circumstances. On more general issues of interdependence, see Keohane and Nye (1977) and Alker, Bloomfield and Choucri (1974). Bennett (1991) offers an excellent overview on the causes of broader policy convergence. He suggests four processes through which convergence might arise: policy emulation, elite networking, international regimes, and penetration by external actors. My approach is most similar to penetration, defined as "a condition in which members of one polity serve as participants in the political process of another." Bennett addresses a wider range of "policy convergence" than I do here. He distinguishes five uses of "convergence": goals, content, instruments, outcome, and style. My concern is with outcomes.

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86 Cooper mentions flags of convenience, light disclosure requirements, foreign subsidies, and tax havens in this regard; citing Charles P. Kindleberger, American Business Abroad (New Haven, 1960). Another classic work from this period is Raymond Vernon, Sovereignty at Bay: the multinational spread of U. S. enterprises (1971). Updated in Vernon, "Multinationals are mushrooming. (expansion of multinational corporations create problems in foreign relations, legislation, taxation, and strategic interests)," Challenge May-June 1986, v29, p41(7). See also Benjamin Chinitz, Changing forces in industrial location. [1960]. The last five years has seen an explosion of literature on "trade and the environment." Beyond sources cited in the first chapter and elsewhere, see, for example, Peter Uimonen, "Trade policies and the environment. (The Global Environment)" Finance & Development June 1992, v29, n2, p26(2).


88 Colin J. Bennett, "Review Article: What is Policy Convergence and What Causes It?," British Journal of Political Science v21 n2 (April 1991) pp.215-234. Bennett does not address the direction of regulatory changes (stringent or lax), and discusses pressures for heterogeneity in passing.


90 On the diffusion of policy innovations, see inter alia Sharon M. Oster and John M. Quigley, "Regulatory Barriers to the Diffusion of Innovation: Some Evidence from Building (continued...)
1.2 European Integration

Another source for framing these issues was analyses of developments in Europe (and to a lesser extent, in North America). Here, however, one must tread lightly. Although the literature on regional integration helps frame this study, homogeneity of regulations need not imply movement toward political integration. Integration shapes much of the current political science analyses of Europe, but it is not my dependent variable. Aristotle made this distinction clear, long ago:

"Similarly, it is not the end [goal] of the state to... ease exchange and promote economic intercourse. If that had been the end, the Etruscans and the Carthaginians would be in the position of belonging to a single state; and the same would be true of all peoples who have commercial treaties with one another. It is true that such peoples have commercial treaties with one another. It is true that such peoples have agreements about imports and exports; treaties to ensure just conduct; and written terms of alliance for mutual defence. On the other hand they have no common offices of state to deal with these matters; each, on the contrary, has its own offices, confined to itself." "Nor would it make a polis if a number of persons... had a common system of laws to prevent their injuring one another in the course of exchange."  

What is necessary for a polis, according to Aristotle, is the spirit of that intercourse. That communitarian goal is beyond the scope of this study. However, I contend that the convergence/divergence of regulations in the modern global trading system is a subject worthy of study in itself. Thus, I draw on the European literature (discussed below under the broader theoretical context), but sparingly. David Vogel's pathbreaking work on

\*\*...continued\*\*

Codes,* Bell Journal of Economics v8, 361 (1977); and Nelson W. Polsby, Political Innovation in America: The Politics of Policy Initiation (Yale, 1984). Innovations generally follow an S-shaped (ogive) pattern: policy entrepreneurs lead the way, the majority follow later, and a few laggards remain behind.

regulatory convergence in Europe was particularly helpful here. My hope is that the propositions I develop here can be applied, refined, and further tested in light of European cases.

1.3 Domestic Federalism

Domestic federalism in the American context provided another source for framing this study. State-federal jurisdiction has been contentious since America's founding. In 1933, Supreme Court Justice Brandeis referred to competition between states to attract industry as a "race of laxity." The debate continued in the discussion over incorporation in the state of Delaware. Roughly sixty percent of all US corporations are incorporated in Delaware. The classic statement of that debate is in an exchange of articles between William Cary, the former Chairman of the US Securities and Exchange Commission (SEC) and Ralph Winter. Cary (1974) argued that Delaware was leading a "race to the bottom," in its lax provisions for corporate governance. Cary defended a stronger Federal role in regulating incorporation. In response, Winter (1977) agreed the Delaware system reflected a competition-in-laxity, but defended this on the grounds of efficiency, states' rights, and shareholder benefits. The debate has since become more refined (Romano 1985). It examines who benefits and who loses from particular aspects of Delaware incorporation laws and the response

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"David Vogel, "Environmental Protection and the Creation of a Single European Market," paper prepared for delivery at the 1992 Annual Meeting of the American Political Science Association, the Palmer House Hilton, September 3-6, 1992. Thanks to Vogel for a copy of this paper, and discussion of these issues.

288 U.S. 517, 562-563 (1933); Liggett Co. v. Lee, Justice Brandeis (dissenting opinion).


of firms and other states to them. A similar view of the American system,
also voiced in 1974, was Arthur Burns critique of the American banking system
as a "competition in laxity." Other helpful sources on US federalism
include Tiebout (1956), Chubb (1985), Dye (1990), and Kenyon and Kincaid

2. THE EXPLANATION

The answer to the puzzle is the identification of incentives and options
of the private sector and government responses to them. My heuristic
emphasis on private sector interests as a determinant of regulations is most
clearly stated in George Stigler's (1971) work on the incentives for regulatory
capture by industry. Stigler concludes that industry tends to acquire
regulations for its own private interests. Over time, producer preferences
shape state regulations. Stigler identifies four types of policies that industry

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These are discussed briefly in Chapter Three. Roberta Romano's empirical work on
this is unparalleled. See inter alia her "Law as a Product: Some Pieces of the Incorporation
Puzzle," Journal of Law, Economics, and Organization, v1, n2 (Fall 1985), Yale University. See
also work on corporate governance by Frank H. Easterbrook and Daniel R. Fischel.

Arthur Burns, "Maintaining the Soundness of Our Banking System," address at the
1974 American Bankers Association Convention, Honolulu, HI October 21, 1974. See also
hearings before Congress, "Corporate Rights and Responsibilities: Hearings Before the Senate
Committee on Commerce," 94th Cong., 2d Sess., 241 (1976); including a statement by Harvey J.
Goldschmidt (pp.343-6), in which 80 law professors argue that US state law suffers from a race
for the bottom. See also citations to US savings and loan crisis.

Charles Tiebout, "A Pure Theory of Local Expenditures" (1956), concerns community-
based standards, not state-federalism. This classic article on local public goods argues against
harmonization of regulations on efficiency grounds, assuming human mobility. John Chubb,
"The Political Economy of Federalism" (1985). Thomas Dye, American Federalism:
Competition Among Governments, (1990). Daphne A. Kenyon and John Kincaid, eds.,
Competition Among States and Local Governments: Efficiency and Equity in American
Federalism (Washington, DC: Urban Institute Press, distributed by University Press of
America, c1991).

George Stigler, "The Theory of Economic Regulation," originally published in Bell
Journal of Economics and Management Science, Spring 1971, 114-141; and his Supplementary
Note, 1975.
seeks: (1) restriction of entry by new rivals; (2) restriction of substitute products (margarine instead of butter; highways instead of airports); (3) direct subsidies (money); (4) price fixing. Evidence for each of these exists in the case studies.

Stigler does *not* imply that the state government apparatus is irrelevant or merely an instrument of leading industry: "The state. . . is a potential resource or threat to every industry in the society. . . [It] can and does selectively help or hurt a vast number of industries." The state has the power to coerce, seize money via taxation, control the movement of resources, and constrain economic decisions. Nor does Stigler deny that "public interest" groups may influence regulations. Nonetheless, over the long run concentrated producer preferences are reflected in state regulations.

My approach follows Stigler's inductive method: "The truly intended effects should be deduced from the actual effects." This approach avoids problems of strategic misrepresentation and counterfactual projections (although it encounters others noted below). Whereas non-profit organizations often place issues on the public agenda via the mass media, and governments are must publicly legitimate their decisions, firms are more discreet in publicizing their regulatory agendas and successes (Bachrach and Baratz, 1962). \(^{102}\)

\(^{100}\)Stigler (1971), p.114-141.


3. PROPOSITION #1: PROCESS-PRODUCT DISTINCTIONS

The first proposition draws on the traditional distinction between product and process regulations. Process regulations restrict manufacturing processes. Product regulations restrict the sale or distribution of products. This distinction is clear within a domestic context (with no imports). Internationally, my usage differs from the legal distinction used by the GATT. The difference is important. I classify all restrictions on imports as product restrictions, inasmuch as they affect the sale or distribution of products. That is important because it distinguishes between the interests of different producers and it allows for prediction. I am interested in the origins of regulations. I am not concerned here with the justifications offered for them (e.g., "in order to preserve genetic diversity overseas"). The definition used here offers greater analytical clarity for the purposes of this research.

The GATT’s international legal definition reflects its interest in promoting trade and reducing protectionism, its raison d’etre. The legal definition is an outcome of the pressures I identify. Product restrictions are allowed under the GATT if they do not discriminate against imports. Hence, the narrower the definition of product restrictions, the fewer the constraints on trade. With rare exceptions (such as prison labor; Article XX), the GATT prohibits restrictions based on process or production methods (PPMs). The GATT limited its definition of product restrictions to include only those concerning the nature of the product itself, because of the likelihood that product restrictions would de facto be trade barriers.\textsuperscript{103}

Following the OECD, in recent years the GATT has used a more complicated distinction, within PPM regulations: some are "product-related PPM" requirements, which affect the final characteristics of the product. Others are purely "non-product-related PPMs," which affect the production or processing of the product.

The product-process distinction can be contentious. In the Mexican tuna-dolphin case it was at the center of debate. The GATT ruled that:

"[I]nternal regulation of imported products cannot extend to the method of production of the products but must relate to the products themselves... Environmental concerns about the method of production (as opposed to the product itself) are excluded from consideration under Article III [national treatment], as are, for example, concerns about the treatment or human rights of workers."

See Trachtman (1990, 1993) for the legal issues. The product-process distinction also emerged at the center of debates over regulation of biotechnology. Dominant American producers lobbied for product regulations, European and Indian governments favored process regulations.

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\(^{103}\) (continued)


\(^{104}\) Thanks to Joel Trachtman of Tufts University for a discussion of this distinction (and the infant formula advertising case); and for a copy of his articles, including "GATT Dispute Settlement Panel," American Journal of International Law, v86 n1, pp.142-151. And Trachtman, "International Regulatory Competition, Externalization, and Jurisdiction," Harvard International Law Journal, Winter 1993 v34 n1.

4. **PROPOSITION #2: INDUSTRIAL STRUCTURE AND ENDOGENOUS THEORIES OF TRADE POLICY**

Large firms in concentrated markets are most able to shape regulations to their liking. The analysis of collective action shows that small groups faced with concentrated benefits or costs are more likely to achieve results than large groups faced with diffuse benefits or costs (Olson, 1965). These findings are widely accepted.

More contentious is the application of collective action theory to regulatory policies that affect trade. I find significant support in both political science and "endogenous" economic theories of trade policy. In general, firms demand regulations that meet their particular interests. Politicians supply regulations that balance the demands of particular interests with their constituency as a whole and their own political survival. Politicians may therefore act to maximize employment and growth by enacting regulations that benefit industry, even in the absence of direct company lobbying or "regulatory capture."

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108This point is accepted by a wide variety of perspectives. See Chicago School economists such as Stigler, above; critical theorists such as Jeffrey A. Frieden, *Studies in International Finance: Private Interest and Public Policy in the International Political Economy*. Foreign economic policy of the United States. New York: Garland Pub., 1993; and consumer advocates. Among the latter, see Hilliard, "Trade Advisory Committee: Privileged Access for Polluters," *Public Citizen's Congress Watch*, (December 1991). Hilliard notes that dominant firms advise the US Trade Representative on trade issues through official trade advisory committees. The largest of these is the Advisory Committee for Trade Policy and Negotiations. Much of the business administration literature supports these conclusions. See, e.g., Larry W. Long, "Public relations: a theoretical and practical response," *Public Relations Review* Summ 1987, v13, n2, p3(11); Catherine B. Campbell, "Does public relations affect the bottom line?" (continued...)
Magee and Young (1987) apply Olson's logic of collective action to explain biases towards protection during economic downturns. Their study examines general levels of protection in the US. They find that "party and [business] lobby competition causes the role of policymakers to be small relative to the underlying [economic] power variables." And they specifically extend that analysis to nontariff barriers: "The replacement of tariffs with... nontariff barriers in the last two decades supports a view that special interests can counter Pareto moves by general interests in sophisticated ways."\(^{109}\)

A lobby's concentrated interest in a particular trade policy often outweighs the dispersed costs to a general public.

That conclusion is supported by many other studies.\(^{110}\) Pincus (1977)

\(^{106}\) (...continued)


(continued...)
links trade policies and economic interests.\textsuperscript{110} Cassing, McKeown and Ochs (1986) add geographic interests and business cycles to the study of rent-seeking behavior.\textsuperscript{112} On legislative voting behavior see Shepsle and Weingast (1987); on the influence of pressure groups on bureaucracies, see Banks and Weingast (1992).\textsuperscript{113} For a formal general model of business-government relations see Laffont and Tirole (1988, 1991).\textsuperscript{114} On the general influence of

\textsuperscript{110}(continued)


American business on politics, see Vogel (1989). Other studies relate oligopolies to the erection of barriers-to-entry.

Political scientists have long argued that trade policies reflect domestic economic interests. Schattschneider's (1935) classic study analyzes Congressional support for the Smoot-Hawley bill in those terms. Huntington (1950) studies regulatory capture of bureaucracies in the US federal context; in particular, the "sustained discretionary administrative behavior favorable to the interests of a private person or group," and "the repeated identification of the public interest with a particular private interest." Pool et al. (1963) examine the trade policy preferences of business executives. McKeown (1989) argues that domestic coalitional structures were a critical determinant in the repeal of Britain's protectionist

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116 For a discussion of theoretical developments in economics on oligopolies, barriers-to-entry, and antitrust see Williamson (1985) pp.365ff. Oligopoly conditions may also provoke calls for regulation from governments and smaller competitors. Classic research in this area includes Bain (1956), Modigliani (1958), Olson (1965), and Chandler (1988, McCraw ed.). See also Stigler's critique (1968), among others, on mechanisms to achieve collective action; Dixit (1979, 1982) on duopoly; McKeown (1984); and Aggarwal, Keohane and Yoffie (1987). P.G. Potter and Livesay (in McCraw, 1988) offer a useful working definition of oligopoly as a situation in which six or fewer firms manufacture 50 per cent or more of the total product value of an industry, or twelve or fewer firms manufacture 75 percent or more of total industry product, as defined by the US Census of Manufactures (p.270).


118 Samuel P. Huntington, "Clientalism: A Study in Administrative Politics," (Ph.D. diss., Harvard University, c1951), the quotes define "clientalism," pp.2, 3. Huntington notes a trend of liberals becoming disillusioned with the administrative branch and concludes: "Since the present author is a New Dealer this thesis may be cited as an example of this trend." p.404.

Corn Laws in 1846.\textsuperscript{120} Gourevitch's (1977) comparative political economy article likewise argues that the return to protectionism during the depression of the late 19th century was shaped by common domestic economic coalitions, not unique political structures.\textsuperscript{121} Conybeare (1991) affirms that connection, in his analysis of the McKinley Tariff of 1890.\textsuperscript{122}

In a useful micro-theoretic link between politics and economics, Irwin (1992) correlates voting behavior with attitudes toward British tariff reform in 1906.\textsuperscript{123} Voters followed their economic interests by favoring policies that increased the price of outputs produced by the sector in which they were employed. Export-dependent sectors voted for the free-trade Liberal party. Import-competing sectors voted for the protectionist Conservatives. Economic interests were reflected in trade policies, via democratic processes. A survey of related literature is in Marks and MacArthur (Odell, 1991).\textsuperscript{124}


\textsuperscript{121}Peter Gourevitch, "International Trade, Domestic Coalitions and Liberty: Comparative Responses to the Crisis of 1873-1896," Journal of Interdisciplinary History, Autumn 1977. His analysis draws on Alexander Gerschenkron, Bread and Democracy in Germany, (Cornell University Press [1989] 1943), in emphasizing the iron-and-rye coalition that favored high tariffs. "[H]eavy industrialists and landowners are stronger than peasants, workers, shopkeepers, and consumers. They have superior resources, access to power, and compactness." p.308. See also, Gourevitch, Politics in Hard Times (Ithaca: 1986).


Not everyone accepts these approaches, of course. For example, Wilson (1980) criticizes the "economic perspective" on regulation. His emphasis on the multiple sources of popular preferences is particularly useful.\textsuperscript{125} Wilson endorses "inelegant, disorderly, and changeable" analysis. Here, I prefer parsimony. Wilson asserts that "The laws administered by the [EPA] were enacted over the opposition of these segments of the economy to be regulated. . ."\textsuperscript{126} That is disputed by Pashigian (1984), who argues that small plants have been harmed relative to large plants by compliance with environmental regulations.\textsuperscript{127} Pashigian's later (1988) study shows that industrial urban areas of the US supported EPA policies that froze air quality standards at existing levels, effectively slowing the exodus of industry to rural areas.\textsuperscript{128} Similarly, Ackerman and Hassler (1981) show that the EPA's SO\textsubscript{2} standard was the product of an alliance between environmental groups and Eastern high sulfur coal producers. It forced the use of scrubbers and high sulfur content coal.\textsuperscript{129} My own environmental case studies below complement these.

Sutton (1990) notes that a weakness of oligopoly theory is the problem of multiple equilibria; but he argues that can be overcome:

"[by] looking to the theory in order to find whether there are any (relatively weak) results which might hold good across a very broad class of model specifications. While the detailed specification

\begin{footnotes}

\textsuperscript{126}Wilson, "Conclusion," \textit{The Politics of Regulation}, 1980.


\end{footnotes}
appropriate to each individual industry may differ, such 'robust' results--
where they are available --may provide a (game theoretic) basis for
certain cross-industry studies. . .n130

My dissertation uses this approach of cross-industry studies and a necessary-
but-not-sufficient explanation.

5. PROPOSITION #3: MULTINATIONAL ASSET SPECIFICITY (MAS)
AND REGULATORY HOMOGENEITY

The third proposition, asset specificity, draws on a literature less
familiar to many students of international political economy, hence I discuss it
in more detail here.

5.1 Regulations as Contract Structures

Williamson (1985) distinguishes four types of structures for
arranging contracts: unified, two-party, third-party, and market structures (in
rough declining order of hierarchy).131 For the purposes of this dissertation,

130 John Sutton, "Explaining Everything, Explaining Nothing? Game Theoretic Models in
Industrial Economics. Does Oligopoly Theory 'Explain' the Behavior of Industry?," European
wide range of multiple Nash equilibria" means that "given any form of behavior observed in the
market, we are not quite likely to have on hand at least one model which 'explains' it--in the
sense of deriving that form of behavior as the outcome of individually rational decisions." p.506.
See also Sutton, Sunk Costs and Market Structure (MIT Press, 1990), and Sutton, "Endogenous
Sunk Costs and the Structure of Advertising Intensive Industries. (Explaining Industrial

131 In the context of private sector contracts, Williamson uses the terms "bilateral" and
"trilateral" in place of two-party and third-party, respectively. Unified means "vertical
integration" within a firm. Williamson uses the terms "governance structure" and "contracting
structure" interchangeably. "Market governance" is most clear in spot-market purchases. In the
context of political science the diplomatic overtones of these terms can be confusing, hence I
"idiosyncracy," or highly specific investments. Williamson maps the governance structures onto a
two-by-three table, not a one-dimensional hierarchy. Thanks to Lael Brainard, MIT Sloan
School of Management, for a key discussion of this literature; this adaptation is not her fault.
Thanks also to James Rosberg for a discussion of this and other issues.
I am interested in the regulatory movement between [free-]market and more unified contracting, as affected by differences in asset specificity, investments, and industrial concentration. Movement away from lax heterogenous regulations and toward stringent homogenous regulations is a public sector analogy of movement away from free-market structures and toward unified structures. The underlying incentive structure is similar. In private sector unified structures, "the transaction is removed from the market and organized within the firm subject to an authority relation."\textsuperscript{132} In government product or process regulations, the authority relation is the coercive power of the state. Dominant private sector interests generally support that authority relation.

When asset specificity is high, firms need more complex contracting structures to ensure credible commitments and continuity. Otherwise, the parties are reluctant to sustain transactions involving assets that would lose considerable value if the transactions are prematurely terminated.

\textit{"The most critical dimension for describing transactions is the condition of asset specificity.} Parties engaged in a trade that is supported by nontrivial investments in transaction-specific assets are effectively operating in a bilateral trading relation with one another. \textit{Harmonizing the contractual interface} that joins the parties, thereby to effect adaptability and promote continuity, \textit{becomes the source of real economic value.}"\textsuperscript{133}

Higher homogenous regulations act to harmonize contracts. Firms with high multinational asset specificity support those regulations. Regulation "is relatively favored when one is dubious that incomplete contracting will yield desired results and when competitive processes are prone to break down."\textsuperscript{134}

\textsuperscript{132}Ibid, p.76. Our interest here is not to classify regulatory outcomes as one contracting structure or another, nor to evaluate the implications of the different non-market structures.

\textsuperscript{133}Ibid, p.30 (emphasis added).

\textsuperscript{134}Williamson refers to the regulation of monopolies. Ibid, p.328-9.
This situation is the norm for product and process regulations, which impose costs on producers.

Regulations are a form of contracting. The contract is both among firms, with the government acting as a third-party ("trilateral") enforcement mechanism, and between firms and governments ("bi:ateral"). In situations of stringent homogeneity, firms and governments make an implicit contract to behave in certain ways. In Williamson's terms, firms and governments move together toward unified governance. (They typically do not reach the level of vertical integration that Williamson addresses). My goal is not to transfer Williamson's theory writ large to another domain. His independent variable of "governance structures" is significantly different from regulatory outcomes, but the underlying logic is similar. As Williamson writes, "Although the particulars differ, vertical integration, nonstandard contracting for intermediate goods, the employment relation, corporate governance, and regulation are all, according to the argument developed in this and preceding chapters, variations on a theme."135 This dissertation pursues that regulatory theme.

5.2 High Multinational Asset Specificity Favors Regulatory Convergence

Large investments that are specific to cross-border transactions create incentives for firms to seek regulatory a common regulatory framework for their transactions. Bennett (1991), for example, notes that "Most evidence of convergence through penetration lies in the role of multinational business in successfully securing, for example, a common regulatory framework for its products."136 Brickman et al. (1985) conclude that: "the chemical industry's

135Ibid., p.348 (emphasis added). Williamson pursues regulation primarily in regard to monopoly, and labor.

desire to minimize differential treatment for products across national lines
provides a powerful economic impetus for the selection of common regulatory
targets.¹³⁷ This dissertation delineates conditions under which multinational
firms are more or less likely to see that regulatory convergence.

5.3 "Asset Specificity" is a Qualitative Variable: Measurement
Questions

Transaction costs and asset specificity are difficult to measure.
Efforts to quantify them are just beginning. For example, Masten (1984) used
a questionnaire to ask procurement managers whether components were
"specific," "somewhat specific," or "standard." Better analytical tools are
needed to enable such empirical work. Those who developed the concept of
"asset specificity" concede these challenges:

"[Both ex ante and ex post transaction costs are often difficult to
quantify. The difficulty, however, is mitigated by the fact that
transaction costs are always assessed in a comparative institutional way,
in which one mode of contracting is compared with another.
Accordingly, it is the difference between rather than the absolute
magnitude of transaction costs that matters. . . . Empirical research on
transaction cost matters almost never attempts to measure such costs
directly. Instead, the question is whether organizational relations
(contracting practices; governance structures) line up with the attributes
of transactions as predicted by transaction cost reasoning or not."
(Williamson, 1985)¹³⁸

"[M]easurement tasks [of asset specificity] are not trivial. . . . [D]ata can
be very difficult to obtain. . . . [W]e are certainly not going to find these
numbers written down neatly in a book of industry statistics. The best
that we can hope for is more qualitative information. . . . Schmalensee
and I would have been much happier with our analysis if there had
been more (any!) [sic] empirical support available for the transactions
cost perspective that we found so intuitively appealing and so consistent

¹³⁷Ronald Brickman, Sheila Jasanoff and Thomas Ilgen, Controlling Chemicals: The
Politics of Regulation in Europe and the United States (Ithaca, NY: Cornell University Press,

with the historical evolution of the electric power industry." (Joskow, 1988)\textsuperscript{139}

For this dissertation I rely on discrete comparative categories of "domestic or multinational," and "high or low." This qualitative approach follows the received literature.

6. **BROADER THEORETICAL CONTEXT**

The audience of this dissertation includes readers outside the fields of international relations (IR) and international political economy (IPE). This section situates the preceding discussion in the broader literature on IR and IPE. Readers familiar with this literature may wish to proceed directly to the case studies.

6.1 **International Relations and International Political Economy**

Theoretical research either tests existing theories or comes up with new ones. This study does the latter. However, the research was informed by theories of international relations and international political economy, as taught by Robert O. Keohane, Hayward R. Alker, jr., Nazli Choucri, Kenneth A. Oye, and others at MIT and Harvard University.\textsuperscript{140}


\textsuperscript{140}Keohane's work bridges the realist and liberal-institutional literature in international relations, from Thucydides, through Kant, E.H. Carr, Karl Deutsch, Hans Morgenthau, Kenneth Waltz, Robert Gilpin, and Stanley Hoffmann. His epistemology is largely behavioral and historical. Alker's work adds to this a diverse literature, which includes communitarian, Hegelian, Marxist, World Systems, dramaturgical, cybernetic, linguistic, feminist, emancipatory, interpretive, and post-modern perspectives. Alker's epistemology derives from the study of dialectics, logic, and rhetoric. On the value of cross-paradigmatic knowledge cumulation, see (continued...)
At the broadest level, international relations theories debate the nature of an anarchic world composed of states, the non-state sources of power and meaning, the causes of conflict and peace, and the conditions under which cooperation occurs across state borders.

The current study proceeds from that background. It does not pit the traditional shibboleths of classical realism against liberalism nor prolong "perennial debates." Instead, it begins by observing a pattern of behavior in international relations and then it offers a model to explain that pattern. That model and the case studies are "cross-paradigmatic"; they are compatible with serious versions of realism, liberalism, and Marxism, among other research traditions. At an abstract level, this study follows Gourevitch (1979) and others in examining the interaction of domestic politics and the international system.\(^{141}\)

6.2 Realism, Power, and the National Interest

Realist theories of international relations and political economy posit that the anarchic nature of international politics shapes state preferences,

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\(^{140}\) (...continued)

that states are the major actors in world politics, and that they are unitary-rational actors.\textsuperscript{142} The fundamental Hobbesian axiom of realism is that no over-arching international authority can prevent states from using violence against each other. At this level of abstraction, I agree. And for international cases those tenets shape my emphasis on US, European, and Japanese interests. (Domestic federal cases of competition-in-laxity, such as incorporation in Delaware, hold constant the question of anarchy.) However, in the study of political economy during times of peace the challenge to realism is to refine those tenets to a more fungible degree. Realists argue that logic applies even to economic relations and even when the likelihood is low that violence will be used (Grieco 1990).\textsuperscript{143}

Realism posits an over-arching "national interest" that guides state behavior. Beyond relative economic gains, and territorial and political integrity, however, defining that interest is problematic at the level of detail I


analyze here. Krasner (1975) argues that US foreign policy cannot be explained by business interests. However, the policies he addresses are broader than the regulations discussed here. He concedes that business does have a significant impact on policy (p.18-19) but it does not transcend security concerns. For the cases analyzed in this study, the question is moot; governments supported the interests of their major producers in international fora. Among states not at war, anyway, it is fruitful to examine those business interests as a source of "national interest."[44]

Realism is not alone in emphasizing states' projection of power abroad. Hegemonic stability theory offers a defense of the "benign" extension of power.[45] Neo-mercantilist theories examine strategic trade policies from


that perspective. Critical approaches to the extension of power stem from the Marxist tradition.

6.3 Liberalism and Institutions

Liberal theories of international cooperation, on the other hand, emphasize the possibilities for joint gains. Ruggie (1975) and Krasner et al. (1982) argue that "international regimes" can facilitate cooperation.

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147 Inter alia see Immanuel Wallerstein's edited series, including Peter Evans, Dietrich Rueschemeyer, and Evelyne Huber Stephens, States Versus Markets in the World-System (Sage, 1985). "Even multinational capitalists, who may at first glance appear to strive for the freedom of statelessness, construct strategies of accumulation that depend on strong interventionist states." pp.11-12. The fundamental framework of this approach is the division of the world economy into core, semi-periphery, and periphery countries. See Michael W. Doyle's chapter, "Metropole, Periphery, and System: Empire on the Niger and the Nile," idem. Also Wallerstein, The Capitalist World Economy (1979) and Anthony Brewer, Marxist Theories of Imperialism (1990). Early roots are in J.A. Hobson's Imperialism: A Study (1902) and V.I. Lenin's Imperialism: The Highest Stage of Capitalism.

148 These points are developed further in Robert O. Keohane, After Hegemony: Cooperation and Discord in the World Political Economy (Princeton, 1984); and Kenneth A. Oye, Cooperation Under Anarchy. (Princeton, 1986). See also Robert M. Axelrod, The evolution of cooperation (1990); Beth V. Yarbrough and Robert M. Yarbrough, "Cooperation in the liberalization of international trade: after hegemony, what?" International Organization Wntr 1987, v.41, n1, 1-26; and Marc L. Busch and Eric R. Reinhardt, "Nice strategies in a world of relative gains: the problem of cooperation under anarchy," Journal of Conflict Resolution Sept 1993, v37, n3, p427(19). The use of "regime" was developed by John G. Ruggie in "International Responses to Technology," International Organization, v29 n3 (Summer 1975) pp.557-583. Ruggie defined regimes as "a set of mutual expectations, rules and regulations, plans, organizational energies and financial commitments, which have been accepted by a group of states." As one example, Ruggie cites rules and regulations on exchange rates and reserves. Robert O. Keohane and Joseph Nye (1977, p.19) subsequently defined regimes as sets of governing arrangements that include "networks of rules, norms, and procedures that regularize behavior and control its effects." See also Oran R. Young, "International Regimes: Problems of Concept Formation," World Politics v32 n3 (April 1980, pp.331-356. In Stephen Krasner ed., International Regimes (1982), the contributing authors defined regimes as "principles, norms, rules, and decision-making procedures around which actors expectations converge in a given issue-area." (This definition emerged at a conference in October 1980 in Los Angeles). A

(continued...
Two useful applications of regime theory to the early GATT are Finlayson and Zacher (1981) and Lipson (1982). Haggard and Simmons (1987) suggest ways to strengthen that research, including an emphasis on the domestic economic determinants of international cooperation and on coalitions that span national boundaries. Although this dissertation is not based on regime theory, it does examine conditions under which enduring economic interests seek regulatory homogeneity. It may be useful to future regime theorists in that regard.

More recent work in the liberal tradition examines the importance of international institutions. One school emphasizes the importance of transnational networks of knowledge-experts with shared knowledge, causal

149(...continued)


and principled beliefs (Haas 1990). On international environmental institutions in particular, see Haas et al. (1993) and Choucri (1993). A second school develops insights into global cooperation problems by observing mechanisms by which local communities manage common pool resources (Keohane, McGinnis, and Ostrom, 1993). Oye (1992) critiques a common liberal emphasis on multilateralism. He offers a qualified defense of bilateral reciprocity and regional approaches to the management of market access.

As realist and liberal theories have become more sophisticated, the distinction between them has narrowed. Future debates need to determine under what conditions the "glass" of international relations is three-fourths full.

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151 Peter M. Haas, Saving the Mediterranean: The Politics of International Environmental Protection (Columbia University Press, 1990); Haas ed., "Knowledge, Power, and International Policy Coordination," International Organization v46 n1 (Winter 1992). More precisely, Haas defines an epistemic community as a "network of professionals with recognized expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge within that domain or issue-area." p.3. I found this approach useful in explaining parts of several of the cases I looked at (e.g., Montreal Protocol/CFCs, bank capital standards), but not all (e.g., in the Mexican tuna case, the relevant epistemic community [in NAS and IATTC] argued against a ban on tuna fishing in the ETP). Although I differ with Haas on interpreting certain aspects of the CFC case, clearly the role of the epistemic community he identifies there is an important part of that story. See Haas, idem, pp.187-224.


of anarchy or one-third full of cooperation. I sidestep that debate here and offer a model compatible with several traditions.

6.4 European Integration

Earlier political science studies of Europe emphasized movement toward (or away from) a unified political system. Three pillars in the study of economic and political integration are Mitrany (1943), Deutsch (1957), and Haas (1964). Virtually all theories of functionalism, supranationalism, and spillover build on these three. To the extent Europe moves toward a unified political structure, one can expect my propositions on government behavior to apply increasingly to the federated Europe as a whole. On the other hand, while Europe remains a system of sovereign states, the pressures for regulatory heterogeneity will remain, particularly in subtle forms of implementation and enforcement, and perhaps in voluntary agreements between dominant and suppliers.

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155 Lisa Martin's work is a good example of this more sophisticated approach. See her Coercive Cooperation: Explaining Multilateral Economic Sanctions (Princeton: 1992).


More specific to my study is Vogel's work (1992) on regulatory harmonization in Europe. Vogel includes a discussion of the role of product and process restrictions.\textsuperscript{158} The changes in European regulations and governance from 1984-1994 are well described by Majone.\textsuperscript{159} Numerous business studies have examined economic integration in Europe; Mennis and Sauvant (1976) extend this to regional integration.\textsuperscript{160} Sandholtz and Zysman (1989) argue that business exercised an "indispensable influence" on governments in shaping the unified European Community.\textsuperscript{161} Moravcsik (1991) acknowledges the influence of transnational business in creating the Single European Act (SEA), although he emphasizes governmental

\textsuperscript{157}(...continued)
\textsuperscript{158}David Vogel, "Environmental Protection and the Creation of a Single European Market," paper prepared for delivery at the 1992 Annual Meeting of the American Political Science Association, the Palmer House Hilton, September 3-6, 1992.

\textsuperscript{159}Giandomenico Majone, "The European Community Between Social Policy and Social Regulation," paper presented to the 1992 Annual Meeting of the American Political Science Association, September 3-6, 1992. Thanks to Majone for mailing this paper. See also his "Deregulation or Reregulation? Policymaking in the EC since the Single Act" (mimeo); "Environment and Trade in the EC" (mimeo April 1993); and "The Rise of the Regulatory State in Europe," West European Politics, July 1994, v17 n3, pp.77ff. Also, comparative chapters in Majone, ed., Deregulation or Reregulation: Regulatory Reform in Europe and the US (New York: St. Martins Press, 1990); particularly Charles B. Blankart, "Strategies of Regulatory Reform: An Economic Analysis with some Remarks on Germany." Blankart argues: "The gap between economic theory of regulation and the policy measures observed can only be overcome if the former is amended by a positive theory of regulation explaining political decisions." p.212-213. My explanation is compatible with his.


\textsuperscript{161}Wayne Sandholtz and John Zysman, "1992: Recasting the European Bargain," World Politics October 1989 vXLII n1, pp.95-128.
negotiations. The broader political context is reviewed by Ludlow (1989).

From the perspective of international political economy, one strength of many of these studies on Europe is also their weakness; with few exceptions, they do not examine cases of regional integration outside of Europe. This prevents one from "holding constant" factors unique to Europe (two world wars, proximity to the Soviet Union, culture, and so on). It adds to the problem of over-explanation. Because my goal is to discover more generalized models of behavior, I look outside the literature on European integration. To the extent my model is successful, it is relevant to Europe as well.

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162 Andrew Moravcsik, "Negotiating the Single European Act: national interests and conventional statecraft in the European Community" International Organization, Winter 1991 v45 n1, pp.22-23. Moravcsik moves away from the business perspective later in the same article (pp.45-46). He notes that industry's European Roundtable was based in Geneva, not Brussels, until 1988; and that some business was involved too early and most were involved too late to explain "why governments finally listened."

163 Peter Ludlow, Beyond 1992: Europe and Its Western Partners (Brussels: Center for European Policy Studies, 1989). On the political economy in Britain and France in particular, see Peter A. Hall, Governing the economy: the politics of state intervention in Britain and France (1986).

6.5 Legal Scholarship

"The realm of the conflict of laws is a dismal swamp filled with quaking quagmires, and inhabited by learned but eccentric professors who theorize about mysterious matters in a strange and incomprehensible jargon." – Dean Prosser, 1953

Legal scholars have long had difficulty in resolving "conflict of laws" questions, involving competing jurisdictions. After years of study, Brainerd Currie (1963) ultimately concluded:

"It would be constructive if legal scholars were to give up the attempt to construct systems for choice of law--an attempt that cannot result in satisfactory resolution of true conflicts of interest between states, and that is very likely to result in the creation of problems that do not otherwise exist. . . ."

Currie suggested that interstate conflicts should be resolved by Congress and not the courts.\(^{166}\)

Legal scholars' despair is social scientists' delight. Many legal studies are descriptive and prescriptive and do not attempt to model behavior. They provide a valuable source of data. See, for example, legal studies on European harmonization by Buxbaum \textit{et al.} (1988, 1991).\(^{167}\) Increasingly, legal studies have adopted social science methods (Romano, 1985). Social science explanations of legal harmonization in Europe are offered by

\footnotesize{\begin{itemize}
\item \textsuperscript{166}Brainerd Currie, \textit{Selected Essays on the Conflict of Laws} (1963), p.121; quoted in Trachtman (July 1993), \textit{ibid}.
\end{itemize}}
Nicolaidis (1989), Alter and Meunier-Aitsahalia (1992), and Burley and Mattli (1993).\textsuperscript{168}

6.6 Political Economy: Institutions and Domestic Political Structures as Moderating Variables

Domestic institutions, both large and local, can moderate market vagaries. Several such research programs complement mine in more fully explaining particular cases. Goldstein (1986, 1993) argues that domestic institutions can be altered to minimize the systematic over-representation of concentrated interests in trade policies.\textsuperscript{169} For examples of such international environmental institutions see Haas et al. (1993).\textsuperscript{170}


institutional perspectives on American foreign policy see Ikenberry (1988), and on changes in Europe see Keohane and Hoffmann (1991).

March and Olsen (1984) argue that "political institutions are more than simple mirrors of social forces." A similar conclusion of state autonomy, which stems from different intellectual roots, is reached by Evans et al. (1986). In their seminal comparative political economy work, Katzenstein et al. (1977) identify states' different domestic political structures as the source of differences in their foreign economic policies.

Locke (1989, 1993) argues that diverse industrial adjustments at the local level in Italy changed national regulatory institutions such as labor law, collective bargaining, and capital market regulations. Firm-level studies show that regulatory decisions are constrained by the factors I identify but are not immutably determined by them. In game-theoretic terms, there are

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multiple Nash equilibria. Particularly relevant to studies of regulation are the choices posed to managers by product life cycles, investments in substitutes, and the first-mover advantages (or disadvantages) accruing therein. See Vernon (c1971), Wells (1972), Porter (1980), Chandler (1990) and the chapter in Oster (1994) on firm regulatory strategies.\textsuperscript{176}

Piore and Sabel (1984) emphasize the flexibility of management and labor to specialize in market niches that shield them from low-cost competition.\textsuperscript{177} This flexible specialization might benefit from heterogenous regulations, but might also take place under homogenized regulations. Longterm contracts between suppliers and buyers may provide the functional equivalent of regulations. Sabel (1993) proposes ways to build labor-management trust. These might surmount otherwise conflicting labor-management regulatory incentives in certain areas.\textsuperscript{178}

The industry studies by Zysman \textit{et al.} (1983) emphasize the role of governments in shaping markets to benefit domestic producers, and the

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strategies open to individual firms.\textsuperscript{179} Dertouzos \textit{et al}. (1989) similarly emphasize ways in which the interaction of firms and states, and the choices they make, affect their international competitiveness.\textsuperscript{180}

### 6.7 Justifications for Regulations: Market Failures, and Externalities

Regulations are not simply a means of distributing resources to powerful firms. They also play a vital role in society and often attract public support for that reason. Polanyi (1944/1957) makes an impassioned defense of regulations as a social good:

"Regulation and markets, in effect, grew up together. . . . To allow the market mechanism to be the sole director of the fate of human beings and their natural environment, indeed, even of the amount and use of their purchasing power, would result in the demolition of society. . . . Robbed of the protective covering of cultural institutions, human beings would perish from the effects of social exposure; they would die as the victims of acute social dislocation through vice, perversion, crime, and starvation. Nature would be reduced to its elements, neighborhoods and landscapes defiled, rivers polluted, military safety jeopardized, the power to produce food and raw materials destroyed."\textsuperscript{181}

My study builds on this interplay of regulations and markets.

More dispassionate and comprehensive discussions of the reasons for regulations, including market failures and externalities, and their effects, are


\textsuperscript{181}Karl Polanyi, "The Self-Regulating Market," Ch.6 in \textit{The Great Transformation}, 1944/1957, pp.68, 73. Polanyi argues against certain regulations at the same time; e.g., the Speedhamland welfare laws. Thanks to Lucian Pye for first drawing my attention to Polanyi and other good counsel.
Spulber (1986), Joskow and Rose (1989), and Noll (1989). Much of the early economic work on regulations focussed on monopolies (Kahn, 1970). These discussions do not examine the political factors that led to the creation of regulations.

Social science calls for the dual goals of parsimony and good explanation. Here, I lean toward Occam's Razor to favor beginning with a parsimonious explanation and expanding that if needed to gain explanatory leverage. This research began with preliminary attempts to explain the cases under study with the above theories. Although they offered insights into particular cases, none explained the dynamic of the three different trajectories I observed across a variety of cases. This preliminary investigation was not a formal "test" of the existing theories mentioned above; hence the limitations of each theory are not discussed here. Instead, I pursue a strategy of theory construction. I find that my propositions on product-process regulations, industrial structure, and asset specificity explain a great deal of the variance across the cases observed.

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185Thanks to Kenneth Oye and Robert Keohane for encouragement to pursue this approach; the weaknesses in the model are of course my own responsibility.
I now turn to those cases. Each case chapter is organized as follows: an introduction, a brief description of the market structure and asset specificity in it, the case as seen through the lens of my propositions, and a brief conclusion. The first case is an example of a lower common denominator outcome: shipping flags-of-convenience. The second and third cases are examples of higher common denominator outcomes: the Montreal Protocol on CFCs and the Basle Accord on capital adequacy. The fourth and fifth cases are examples of heterogenous outcomes: US laws restricting the importation and sale of "dolphin-lethal" tuna and advertising restrictions on infant formula sales in the US. Other cases are mentioned throughout. The Conclusion assesses my propositions in light of these case studies and goes on to suggest aspects of the those cases not explained by the model.
PART II: LOWER COMMON DENOMINATOR

CHAPTER THREE: SHIPPING FLAGS-OF-CONVENIENCE

"The ability of shipowners to change the registration of their ship and the nationality of the seafarers on board whenever they wish makes it impossible for this exploitation to be ended by the efforts of any one national trade union." -- International Transport-workers Federation (ITF),\textsuperscript{186} 1992

Lower common denominator (LCD) outcomes exhibit movement downward, either as a result of coordinated action or a competition-in-laxity among competing states. Echoing Bismarck and the ITF, some modern observers criticize free trade and the new World Trade Organization (WTO), on the grounds that it will lead to such an undermining of domestic regulations. Herman Daly, for example, writes: "Free trade encourages standards-lowering competition [or: 'the failure to internalize social and environmental costs'], and shifts production to the countries with the lowest standards of cost internalization. . ."\textsuperscript{187} My empirical research suggests a more varied relationship between trade and the environment (among other regulations). Shipping is among the more clear examples of a lower common denominator outcome. Shipping registration (and certain financial services)

\textsuperscript{186}ITF brochure, \textit{ITF}, (undated, received July 1992).

\textsuperscript{187}Herman Daly, "Against Free Trade: Neoclassical and Steady-State Perspectives," paper presented to Working Conference on International Trade Agreements and the Environment, Kennedy School of Government, Harvard, April 29, 1994, p.8. Thanks to Daly for an informal discussion of these issues following his presentation. See also, \textit{inter alia}, testimony before Congress by Ralph Nader, February 2, March 16, April 26, and June 14, 1994, and his earlier testimony on NAFTA; and related testimony by Lori Wallach, also of Public Citizen. Thanks to Wallach for a discussion of these issues, and helpful WTO documentation.
may be particularly amenable to competition-in-laxity, because of the extreme ease and low cost of relocation.\textsuperscript{188}

There are elements of heterogeneity within the shipping case, as first one nation seeks to attract registration through lax regulations. As other nations join in that laxity, one sees a competition-in-laxity among states competing for the same industry. I treat shipping as one case study, here, for clarity.\textsuperscript{189} The important point here is not the arbitrary classification at a given time, as "heterogeneous" or "lower common denominator," but the dynamic movement downward. International shipping offers an archetypical case of competition-in-laxity thwarting national safety and environmental regulations, as a result of location decisions based on comparative regulatory advantage.

What difference does a ship's flag make? It determines most of the regulations that ship must abide by and it allies the ship with the diplomacy of its flag-country.\textsuperscript{190} Generally, only flag states may enforce compliance with

\textsuperscript{188}Less clear or mixed outcome cases will also be worth studying, in future research.


\textsuperscript{190}An international relations perspective on these issues is in Quincy Wright, "Etudes des mesures internationales les plus aptes à prévenir la pollution des milieux maritimes", Institut de Droit International, 53 Annaire 255 (1969 II). Wright affirmed the primary responsibility of the flag state: "Il admet que la responsabilité de l'Etat du pavillon [flag] droit être affirmée avant celle de l'Etat riverain [coastal]. Les dispositions stipulées... (construction des navires, instruments de navigation, etc.) doivent être appliquées par l'Etat du pavillon plus encore que par l'Etat riverain."
safety or pollution conventions by vessels of their flag (e.g., IMO conventions SOLAS, MARPOL and STCW).\textsuperscript{191} A ship operated with no flag could be confiscated on the high seas as a "ship without nationality"; in effect, a pirate.\textsuperscript{192}

"Flags-of-convenience" (FOCs) are ship registration systems outside the beneficial owners' country. The \textit{raisons d'être} of FOCs are low taxes, lax domestic regulations and little enforcement of international regulations. The term is often used derogatorily, although there are some "excellent flags-of-convenience and appalling national registers."\textsuperscript{193} FOCs save shipowners costs in the "process" of shipping, by reducing the number of regulations and taxes they must comply with. These conventions include various environmental conventions, safety and navigational standards, crew requirements, and labor standards. The FOC system is an example of conflicts that result from location decisions based on comparative regulatory advantage. Ships flying these flags (e.g., Panama, Cyprus) sink more often, pollute more, and lose more lives. The case offers a rich illustration of overall trends toward laxity, with some limited movement toward stringency in sub-sectors, in conformity with my propositions.


\textsuperscript{192}The "skull-and-crossbones" flag was originally a warning of plague aboard a ship. It was adopted by pirates for its isolating--as well as intimidating--effect.

\textsuperscript{193}Lloyd's \textit{Registry of Ships}, 1991. Liberia has the lowest accident rate of the FOCs, improving by 1980 to the same level as Japan, Norway and the U.S. Greece has the worst accident rate, often higher than the FOCs. Calculations by the authors, from Lloyd's \textit{Register of Ships}, various years.
This case study begins with a summary of the industrial structure and asset specificity of the shipping industry. The second section graphically demonstrates the "exit" of ships to convenience flag states. The third section illustrates the laxity of regulations in those states and—in this case—some negative externalities associated with them. The fourth section shows the role of US private sector actors in establishing the convenience flag system. The fifth section summarizes the supply of convenience flags. The sixth section discusses the emergence of new FOCs and the European response to them. The seventh section I call a "subcase": it discusses the oiltanker subsector in which some trends toward a higher common denominator are noted within the broader framework of competition-in-laxity in shipping.

1. INDUSTRIAL STRUCTURE & ASSET SPECIFICITY IN SHIPPING

I begin with an overview of industrial structure and asset specificity in the shipping industry.

1.1 Industrial Structure

The world shipping market consists both of pockets of oligopoly competition between cartels, and thousands of independent shipowners with only a few ships to their name. Regulatory movement in this case tended to be driven by the more powerful large owners. Within the shipping industry, a distinction is made between bulk (or tanker) and cargo (or liner) ships. The bulk sector transports grains, ores, raw materials, and, most importantly, oil. Shipping in this sector is dominated by multinational corporations. Within the oiltanker subsector, the "Seven Sister" oil companies controlled roughly twenty percent of world tanker tonnage. Exxon was the largest, with 168 tankers in 1977, Shell was the second largest with 163, followed by British Petroleum with
107. Other oil companies controlled another twenty percent of the oil subsector. Independent owners controlled sixty percent.\textsuperscript{194} Liner shipping carries manufactured goods. A number of shipping conferences or cartels were influential, particularly those from the US, Norway, Greece, and Japan, although the number of independents is also large.

1.2 Low (Multinational) Asset Specificity: "Assets that Float"

The transaction of re-registering a ship from one country to another has very low asset specificity.\textsuperscript{195} Consider an example. An extreme case of "convenience-flagging" occurred in 1989, when European officials caught an enterprising shipowner falsely "registering" his vessels in Belize, despite the fact that Belize had no registry. Paint, cloth and bogus certificates were the only costs. Ironically, the Belize government liked the idea. In August 1991 Belize opened an international ship registry. Within one year 40 ships signed up. The Belize registry offered one-year provisional trading papers "on-the-spot" upon presentation of "seaworthiness" papers from any one of 38 classification societies.

The transaction of registering a ship is highly non-specific. It involves discrete, autonomous, "market contracting" in Williamson's parlance. Shipowners have no compelling reason to embed contracts in a protective governance structures to promote continuity, ensure credible commitments, or compliance. They have no interest in the particular identity of registry agents. The fact that there are no durable, firm specific assets in ship-registration

\textsuperscript{194}Cafruny, \textit{op. cit.} Data are for 1977. See also Alan W. Cafruny, "The Political Economy of International Shipping: Europe versus America," \textit{International Organization} \textbf{v39} n1 (Winter 1985), pp.79-119, for a discussion of power and hegemony in the context of the shipping industry.

means that "hit-and-run entry and exit" is feasible. Williamson noted that in deregulation of the trucking and airlines industries "investments in question here really are 'assets on wheels,' hence lack specificity." Likewise, one can label ships 'assets that float.'

Registration of ships outside the beneficial owner's country inherently involve multinational transactions. In addition, operation of the vessel for trade between countries involves multinational transactions (and cross-border externalities). Hence the case involves low multinational asset specificity. As flag-of-convenience governments seek to attract ship registration, they compete with each other to offer the most flexible (lax) terms to shipowners.

As a result, for most shipowners there is little incentive to establish stringent homogenous regulatory structures across different countries. This is particularly true for the major segment of the market made up of small, fragmented, independent shipowners. The routes they ply involve much less specific investments than, say, the routes of oil tankers. The assets invested in registration of a ship at a particular registry can be redeployed easily and costlessly if the contract is prematurely terminated or if continuity of the exchange relation is otherwise upset. (A subsector of the shipping industry, oil tankers, is discussed separately, below).

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2. "EXIT": INDUSTRIAL FLIGHT TO FLAGS-OF-CONVENIENCE

Since World War II shipowners have steadily moved their registration to FOCs. The left to avoid taxes, regulations and union-wages.\(^{198}\) In 1990, the three largest FOCs were Panama, Liberia, and Cyprus (hereafter, PanLibCyp). Together, these three accounted for 25 percent of the entire world's registered tonnage, or 10 percent of the world's registered ships over 100 tons. Another 6 percent were registered in the Bahamas and Malta. By 1994, more of the world's shipping fleet flew a flag-of-convenience than a flag from the seven largest OECD fleets combined. (See Figure 3-1 and Figure 3-2, below: "Share of of World Tonnage" and "Major Merchant Fleets").\(^{199}\)

Figure 3-1 shows the spectacular growth of FOC fleets and the exodus from industrial countries, as a share of world totals, from 1945 onward. Figure 3-2 shows that data in absolute numbers of tonnage, by country (or group). It reveals more detail, notably the decline in European registries from 1980 to 1985, the decline in the Liberian registry from 1980 onward, and the growth in Panama. Further, from 1983 to 1991 it shows the rapid entry and rise of new FOCs in Cyprus, the Bahamas, and elsewhere.

In the early 1980s, shipowners in Norway and other European countries fled the high taxes and stringent regulations of their national countries, and

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\(^{198}\) Registration in a convenience flag pose some costs for shipowners. They may lose the diplomatic support of their own governments during a crisis. The temporary use of US flags and naval escorts in the Persian Gulf during the 1989 Iran-Iraq war is an exception that illustrates the point. It also illustrates the underlying support by the US government for the FOC system. The US Navy later invented a phony "Liberian-flagged" ship to draw out Iranian forces for combat, symbolic of the vulnerability of FOCs in times of crisis. *Newsweek,* "ABC-Nightline" investigation, June, 1992.

\(^{199}\) Calculations from registry and Lloyd's data, by the author. Additional time-series data on number of ships and gross weight tonnage are listed in the shipping appendix.
flagged overseas. European governments responded to the exodus in the late 1980s by establishing their own "international" registers with lower taxes and manning-requirements below national levels, to regain their fleets. These trends are discussed in more detail below, following evidence that not only taxes but regulatory standards in FOCs are indeed less stringent.
3. REGULATIONS IN FOCS ARE LAX

One indication of lax regulations is discrepancies in the capture of (negative) externalities. That need not be the case and the findings here

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See debates on capturing pollution costs, inspired by Ronald Coase, "The Problem of Social Cost," *The Journal of Law and Economics* viii (October 1960), pp.1-44. See also "Notes on the Problem of Social Cost," (pp.157-185) in which Coase writes: "I did not originate the phrase, the 'Coase Theorem' nor its precise formulation, both of which we owe to Stigler. (157) . . . The world of zero transaction costs has often been described as a Coasian world. Nothing could be further from the truth. It is the world of modern economic theory, one which I was hoping to persuade economists to leave. . . . Economists. . . have consequently been engaged in an attempt to explain why there were divergences between private and social costs. . . It is therefore hardly surprising that the conclusions reached were often incorrect. The reason why economists went wrong was that their theoretical system did not take into account a factor which is essential if one wishes to analyze the effect of a change in the law on the allocation of resources. This missing factor is the existence of transaction costs. . . . However, once

(continued...)
cannot be extrapolated to other LCD outcomes. In the shipping case, however, critics charge that ships flying flags-of-convenience sink more often, pollute more, are less safe, and violate more labor standards, international conventions, and disclosure laws than ships flying flags from "national registries." Regulatory concerns include accident rates, pollution and other environmental concerns, and labor conditions. I address these in turn. The data show a considerable divergence in performance between FOCs and national registries, corresponding to the divergence in regulatory stringency.

\[\begin{align*}
\text{200\textsuperscript{(continued)}}
\end{align*}\]

transaction costs are taken into account, many of these measures will not be undertaken because making the contractual arrangements necessary to bring them into existence would cost more than the gain they make possible. (174-175) \ldots The tax system which I discussed. \ldots was one in which the tax was equal to the damage caused \ldots. My point was simply that such tax proposals are the stuff that dreams are made of. In my youth it was said that what was too silly to be said may be sung. In modern economics it may be put into mathematics." (184-185)

\[\begin{align*}
\text{201A "national registry" refers to the registry in which the ship's beneficial owner resides. An identical term is "flag-of-origin" (FOO). Data on disclosures merit further study. Stanley Ruttenberg charged ESSO with pushing profits into its tax-free Liberian shipping subsidiary via artificially high transfer prices. Testimony, U.S. House Committee on Merchant Marine and Fisheries, SMM, Energy Transportation Security Act of 1974, HR-8193, 93d Congress, 1974 pp.630-80.}
\end{align*}\]
3.1 Accidents: Ships Totally Lost

Figure 3-3

Compare the three leading FOC fleets (Panama, Liberia and Cyprus), with the largest three national registry fleets (Japan, Norway and the US). In every single year from 1948 to 1990, the three largest FOCs lost more tonnage as a percentage of their combined fleets than the three leading national registries. On average, they lost nearly four times as much tonnage (0.59 percent compared to 0.15 percent). From 1985-1990, tonnage losses for Panama and Cyprus averaged five times as much. (See Figure 3-3 and Table III.1: "Tonnage Lost: percent of fleet").²⁰²

²⁰²Data calculated by the author, from Lloyd's and other sources. Leading FOCs were Liberia, Panama and Cyprus. Leading national registries (1990) were Japan, Norway and the US. There was variation within the two fleets. Liberia's record improved by 1980 to a level comparable with the US; while Greece's record was often worse than Panama's. See also earlier (continued...)
### Table III.1

<table>
<thead>
<tr>
<th>Period:</th>
<th>% of Tonnage Lost:</th>
<th>% of Ships Lost:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FOCs</td>
<td>NRs</td>
</tr>
<tr>
<td>1950-1955</td>
<td>na</td>
<td>na</td>
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<tr>
<td>1955-1960</td>
<td>na</td>
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<td>1960-1965</td>
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<td>1985-1990</td>
<td>na</td>
<td>na</td>
</tr>
<tr>
<td>1948-1990</td>
<td>0.59</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Source: calculated from Lloyd's *Register of Shipping*, various years. Leading three flags-of-convenience (FOCs) were Liberia, Panama, and Cyprus. Leading national registries were the US, Japan, and Norway.

FOCs also lost a greater number of ships every year as a percentage of

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(...continued)

their fleets as well as more tonnage.\textsuperscript{203} On average, they lost nearly three times as many ships annually from 1948-1990 as national registries (1.20 percent versus 0.45 percent). The losses resulted in greater pollution and loss of life.\textsuperscript{204} Equally important, they are a reflection of more general tendencies toward regulatory laxity in FOC registries.

By the 1980s Liberia became something of an exception to that rule, for reasons explained in the sub-case below. Liberia's total loss rate improved to a level comparable to OECD countries in part due to more stringent enforcement of navigational and safety standards. Liberia improved the average annual FOC rate to 0.59 percent from 1985-1990, compared to 0.23 percent for the leading national registries. Specific data on the compliance of Liberian-flagged ships on other measures is not available.

\textsuperscript{203}FOC fleets contain some very large tankers. Panamanian and Liberian ships average 8,000 and 32,000 gmt, respectively, whereas non-FOCs average only 4,000 gmt. The Liberian fleet averages tens times the tonnage per ship as the U.S. fleet. The loss of even one of these tankers (e.g., an Ultra Large or Very Large Crude Carrier) represents a significant percentage of a fleet. It also represents a potentially large oil spill and loss of life. Inertia and momentum could make bigger ships more difficult to navigate. However, size differentials do not explain the variation in accident rates between FOCs and non-FOCs. Size cannot explain why Norway's loss rate was almost four times \textsuperscript{\textdagger} better than Panama's given that Norway's average ship was larger than Panama's from 1970-1985. Size also cannot explain why Liberia, with an average ship size four times bigger than Panama, improved its loss rate to three times better than Panama's by the 1980s. While ship size may play a role in explaining the differential in accident rates, it does not tell the whole story. Registering overseas avoids law suits and more stringent occupational, safety, navigational, and environmental regulations at home. It is likely that older vessels which fail national registry requirements as well as larger vessels which face high costs will be the first to transfer registration offshore, to avoid costly repairs. (The latter was the case with Norway: larger vessels began flagging offshore in 1982 because of taxes and regulations).

\textsuperscript{204}Calculated by the author from Lloyd's (various years).
3.2 Environmental Concerns

Environmental concerns center on intentional dumping of oil (and other toxins), as well as the more publicized spills from ship accidents. FOC states have little incentive to enforce compliance with international agreements. They also frequently lack the legal and financial resources. Most prosecutions occur in industrial-country ports. FOC ships may rarely, if ever, stop in their port of registration. Violations conducted at sea are unlikely to be detected or prosecuted. Generally, only flag states may enforce compliance with safety or pollution conventions by vessels of their flag (e.g., IMO conventions SOLAS, MARPOL and STCW). Effective FOC enforcement is weak.205

While large oil spills capture the headlines and mobilize action, they accounted for only five percent of all petroleum products entering the oceans by 1989. Routine shipping activities accounted for another twenty percent.206 Much of this pollution enters the oceans when tankers rinse out tanks or discharge water ballast after return voyages. International conventions have

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addressed this type of discharge. But enforcement is difficult and weak. Crew members, environmental groups, and analysts agree that FOC ships are less likely than nationally-flagged ships to comply with international regulations on discharges. (Figure 3-4 shows total oil discharges into the sea, discharges from routine shipping operations, and discharges from accidents, from 1971-1989.)

Another measure of the responsibility of a fleet is its performance at port inspections, for environmental, structural, crew and navigational safety standards. In 1985, over one-third (37 percent) of inspected Maltese ships were detained under the European Port State Control regime. Honduras’ detention rate was 24 percent. St. Vincent and the Grenadines had the third worst record, at 22 percent. Lloyd’s noted that St. Vincent and the Grenadines had 698 ships in 1991, "much too large for the Vincentian
authorities to control.\textsuperscript{207} National registry detainees, by contrast, were typically well under five percent.\textsuperscript{208}

Other sources' support these concerns. Casualty statistics of the Institute of London Underwriters (ILU) show "Cyprus as one of the worst registers in the world", with 17 casualties of 229,800 gt. Panama was second, with 26 casualties of 238,500 gt. Malta had 12 casualties of 96,600 gt. The Bahamas had five casualties of 76,600 gt. FOCs accounted for 48 percent of the total tonnage lost in 1991 (1.7 m gt), despite having only 30 percent of the world's fleet tonnage. Thus, they lost 1.3% of their tonnage, versus 0.6% for national registries. Ships in FOCs face higher insurance charges as a reflection of these higher loss rates.\textsuperscript{209}

While the differential in accident rates between FOCs and nationally-registered ships is significant, the absolute level for both is relatively low: half a percent versus one-tenth of a percent. At some point, the cost of additional safety measures to owners will outweigh the risk of loss and lawsuits.\textsuperscript{210} However, such information is not available to all who need it, particularly poor seafarers, small merchants, and citizens of coastal states. A number of principal-subsidiary-agent relationships complicate matters. Insurance

\textsuperscript{207}Lloyd's List, June 9, 1992.

\textsuperscript{208}Specific ships conventions include: the IMO conventions for loadline, Convention for the Safety of Life at Sea (SOLAS), 1960 & 1974; Convention for the Prevention of Pollution from Ships (MARPOL), 1973 and amendments; STCW training convention, tonnage measurement, 1978; ILO convention 147. Further comparative data in this regard would be helpful, e.g., from the US Coast Guard.

\textsuperscript{209}Institute of London Underwriters, 1991. Discrepancies from Lloyds' data are due to the inclusion of different states as convenience flags, e.g., Hong Kong. The overall picture is very similar.

\textsuperscript{210}In the absence of regulations, shipowners presumably make a cost-benefit calculation: $\text{risk} \times (\text{s} \text{losses} + \text{s} \text{suits}) = \text{s} \text{(safety + navigation + labor + etc.)}$
premiums do not fully capture the externalities of accidents: e.g., loss of life and oil spills.

A study by the British House of Lords concluded: "The development of the flag of convenience system... permits a totally incompetent maritime administration to devolve its responsibility for the safety of millions of tons of shipping to a third party."\textsuperscript{211} England's "Red Ensign" lost a spectacular share of the world merchant fleet, dropping from 22 percent in 1948, to 1.5 percent in 1991.

3.3 Labor Standards

The International Transport Workers Federation (ITF) has protested against poor conditions aboard FOCs for half a century. In their words:

"Problems which have only recently begun to affect workers in other industries -- international companies moving production and facilities to thwart trade unionism, and pitting one nation's workers against another -- have been commonplace in world shipping for over forty years."\textsuperscript{212}

Forced conscription is now rare, according to Lloyd's of London, but some FOC ship captains are guilty of "genuine grievances of human rights abuses... so grotesque... that they scarcely permit belief." According to Lloyds, it is not


\textsuperscript{212} International Transport Workers Federation, ITF FOC Campaign History, undated mimeograph (received 1992), p.1-2. The ITF is a partisan player; its data must be treated with caution, but it is the only source available for some of these statistics.
"a few losers" who are abused as a routine practice, but a "sizeable number."²¹³

Overcapacity by the early 1980s led to a shipping industry recession and high unemployment, aggravating complaints of labor exploitation.²¹⁴ In 1990, 471 seafarers died in shipping accidents; 303 of those deaths (64 percent) were on ships flying FOCs. Sailors in general have a mortality rate 35 times that in other manufacturing jobs, and four times that in the notoriously dangerous coal mining industry. Most FOCs have an even higher mortality rate, commensurate with their higher "total loss" rate.²¹⁵

The ITF and other labor organizations argue that FOC practices violate basic human rights and frequently involve breach of contract, misrepresentation, and intimidation. They express concern about language problems between mixed crews, inadequate crew size, blacklisting of union members, sub-standard and aging vessels, falling standards of training and qualifications, poor safety measures, and poor living, sanitation, and eating conditions. Unions file frequent reports of sailors being kept at sea for up to two years with no contract, and left with almost nothing at the end, after fees and salary deductions. They also report cases in which contract terms, if they exist, were altered half-way through a voyage, wages were not paid, and complaints were met with termination in a foreign port without a ticket home. Crews from the Philippines, Taiwan, and other countries may be hired with

²¹³ Lloyd's List, 5/15/92. See also the "Annual Survey of Violations of Trade Union Rights", by the International Confederation of Free Trade Unions (ICFTU).


²¹⁵ The data are attributed to the IMO by British MP John Prescott, Labour Party transportation spokesman, in The Independent, January 30, 1993. Lloyds lists 389 total deaths in 1990; and 1,204 in 1991. Further reliable comparative data in this regard would be helpful.
little experience and few language skills. Labor argues it is easily "whipsawed" by owners using competing regulatory systems. Most courts have denied unions the power to boycott FOC vessels.

Shipowners, FOC governments, and some analysts debate these charges. They argue that they FOCs yield a Pareto-efficient use of labor, creating jobs where they are most needed in the global economy, increasing trade, reducing consumer prices, and cutting through inefficient and protectionist government restrictions. (Larger shipowners are more likely to hire unionized or well-paid and trained crews). They emphasize the distributional aspect of imposing more stringent labor regulations, arguing it would reduce the comparative advantage of seafarers in poor countries, while benefitting workers in wealthier countries. Anecdotal data from this perspective emphasizes the employment opportunities for those worse off in the global distribution of labor, and the benefits to their families.

For my research purposes the point is not to evaluate or resolve these labor-management debates, similar to those Bismarck identified a century ago. Rather, I emphasize the consensus that regulations in FOCs are less stringent.

4. **AMERICAN BUSINESS CREATED THE FOC SYSTEM**

The twentieth century flag-of-convenience system was created by a confluence of private and national interests, with the direct involvement of business leaders and high-ranking foreign policy officials. It is no accident that FOCs first arose in Panama and Liberia, two states virtually created by America, with dollar-based economies. Industry led the way in establishing these centers of laxity; the US central government supported those decisions.
(This section summarizes that history; for a more complete account see the appendix to this case.)

4.1 Panama: Circumvented Prohibition and Higher Costs

The Panamanian registry arose in the 1920s with the assistance of W. Averell Harriman, owner of United American Lines, and his attorney, John Foster Dulles. Conveniently, Dulles was also Panama’s chief legal counsel in the US. Prohibition banned alcohol on US-flagged ships. Cruise ships, it is said, run on a mixture of diesel and liquor, so Harriman and others circumvented Prohibition by moving cruise ships to Panama.\(^{216}\) United Fruit Co. also flagged in Panama (and Honduras), to serve its shipping routes through the region.

Registry in Panama also involved lower labor costs and fewer safety regulations. A freighter company officer clearly stated those reasons for reflagging in 1922:

"The chief advantage of Panamanian registry is that the owner is relieved of the continual but irregular boiler and hull inspections and the regulations as to crew’s quarters and subsistence. We are under absolutely no restrictions, so long as we pay the $1 a net ton registry fee and 10 cents yearly a net ton tax."\(^{217}\)

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The savings on manning costs alone for a 9,000 ton ship were over $500,000 per year (in 1992 dollars).\textsuperscript{218}

\section*{4.2 Liberia: Birth of an FOC Empire}

World War II left a surplus merchant fleet in US docks. It also left a surplus of manpower among US sailors, and led to increasing union demands.\textsuperscript{219} Following the war a second registry was created in Liberia by former US Secretary of State (and former Chairman of US Steel) Edward R. Stettinius, jr. Stettinius jointly owned several ships, with former Assistant Secretary of State General Julius Homs and Admiral William Halsey. American shipowners approached them in late 1947 to enquire about a new registry for ships, to cut costs.\textsuperscript{220} In March 1948, Stettinius met in Georgetown to explain his ambitious development plans to a high-level government group: the Secretaries of the Army and the Air Force, the Undersecretary of the Navy, an Assistant Secretary of State and the Deputy Director of the new C.I.A.. Six months later, the Joint Chiefs of Staff ordered the Chief of Naval Operations: "In the event the Maritime Commission invites your comments... [on a Liberia registry] you interpose no objections to the transfer." The US Navy supported the system, asserting a US doctrine of "effective control" over "PanLib" fleets. The creation of FOCs was seen by the military as an extension of the US presence abroad and a means to prevent

\footnotesize
\textsuperscript{218}Carlisle, \textit{op. cit.}, p.11; and my calculations. Costs were inflated with the producer price index.

\textsuperscript{219}See appendix on labor history.

\textsuperscript{220}Edward Stettinius was formerly chairman of the board of United States Steel in the late 1930s; and US Secretary of State in 1945, leading the US delegation to Yalta. Carlisle, \textit{op. cit.}, pp.112,120,236, n.24,130. Panama reportedly increased its registration fees after the war, leading to complaints by shipowners and the search for a new flag.
lower-cost competitors from underpricing the US fleet, so as to maintain US control over raw material supply routes.\textsuperscript{221}

Stettinius went beyond Averell Harriman and John Foster Dulles in Panama. He completely drafted the maritime code for Liberia, subject to approval by ESSO. Indeed, ESSO expected to be part owner of the ship registration company. One member of Stettinius' company was Sidney de la Rue, the former General Customs Receiver in Liberia. The Liberian legislature approved the code (although not ESSO ownership), and it became law on December 16, 1948.\textsuperscript{222} Within six years Liberia passed Panama as the world's leading flag of convenience. The role of private sector interests here is clear: quite simply, US industry with government support created the shipping registry in Liberia, as in Panama.

The final Liberian law provided for no inspection, no manning requirements, and no taxes on profits. Registry and administration was handled from then on in New York, by Stettinius' International Trust Company (ITC).

Liberian registrations levelled off from 1959-1963, as labor disputes arose, then grew again. (These legal disputes on labor issues are discussed in

\textsuperscript{221}Carlisle, op. cit., p.120-121. Stettinius' partner, and former US-Liberian Customs Receiver, De la Rue had recommended that America write Liberia's commercial law, in his book \textit{Land of the Pepperbird} (New York: G.P. Putnam's Sons), 1930. Joint Chiefs of Staff (JCS) quote, Carlisle, p.202, citing US Naval Archives, JCS to CNO, September 21, 1948, CCS 540 (8-9-45) Section 4, RG 218. A 1959 memorandum tartly noted: "these countries are not in a position... to dispute US assumption of control..." Carlisle, \textit{op. cit.}, p.199, citing JCS 1454/11, October 11, 1947, CCS 540 (8-9-45) Section 3, RG 218, US Naval Archives; and p.205, citing Assistant Secretary of Defense Perkins McGuire to Eisenhowe's assistant special counsel Phillip Arreda. See also Cafruny, \textit{op. cit.} European powers controlled those raw material routes prior to World War II.

\textsuperscript{222}Stettinius died in 1949; his aide, Lininger, continued to run the ITC registry for thirty years.
a second Appendix to this case). The National Federation of American Shipping (NFAS) argued in a report to the State Department in 1947 that shipowners "should not be singled out and barred from foreign investment. It is difficult as it is for our industry to meet foreign competition without accepting additional handicaps." International competition led to regulatory laxity in this case, as shipowners exited to FOCs. By 1967, Liberia's registered fleet was the largest in the world.

5. SUPPLY: WHO OFFERS "CONVENIENCE FLAGS" AND WHY?

The principal benefit to a country hosting a registry-of-convenience is foreign exchange. For example, the shipping registry in Monrovia is the principal dollar earner in Liberia. It produced roughly $20 million in 1991, two years into the civil war. Panama earned roughly $45 million per year in legitimate revenues from the operation of its foreign register (in fees, tonnage taxes, ship inspections, etc.). Other host country benefits include employment, training, and trade.

The International Transport Workers Federation (ITF) union classified countries in several "degrees" of compliance with labor standards.

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223 Key cases include: Lauritzen, Bobalakis, Rhoditis, Benz, Incres and Hondurena; these are discussed in the Appendix.

224 Carlisle, op. cit., p.137, citing U.S. Naval Archives, McCullogh to Longstreet, April 17, 1947, Decimal 819.85/5-1547 RG 59.

225 Other sources estimated the returns to Liberia were as high as $150 million per year. Liberian rebel leader Charles Taylor filed a suit in the US to stop the rival interim government from gaining access to the funds. Taylor claimed he wanted the money to finance elections.

226 In November 1989, a U.S. government fax to maritime administrations around the world reportedly noted that Panama's FOC earnings were $45 million, plus "millions more in graft and corruption." ITF "Seafarers' Bulletin" No.5, 1990, p.16.
Table III.2

International Transport Workers Federation (ITF)
Classification of Flags-of-Convenience 1992

**Flags-of-convenience (FOCs):**
Antigua & Barbuda, Bahamas, Bermuda (British), Cayman Islands (British), Cyprus, Gibraltar (British), Honduras, Lebanon, Liberia, Malta, Marshall Islands, Netherlands Antilles, Panama, St.Vincent, Sri Lanka, and Vanuatu. Possible additions: Mauritius, Belize, Cook Islands.

"Second register", or "on-shore register" FOCs: all ships not genuinely owned by the flagging country nor covered by union-approved agreements: Denmark DIS, Germany GIS, Norway NIS, French Kerguelen (S.Indian Ocean), Luxembourg (for Belgium ships only), UK Isle of Man. Possible additions: Finland, Sweden, Portugal, Turkey, Spain (Canary Islands), Brazil, Portugal (Madeira and the Azores).

**Ship-by-ship basis:**
Hong Kong, Philippines (foreign-owned ships bareboat chartered to Philippines), Singapore (foreign-owned ships without approved agreements).


(See Table III.2).

Not any country can create a successful a registry. The most important requirement is strong diplomatic ties to a major shipping power. Harbor facilities and a location on major ship routes are not necessary, but help establish international credibility. Some countries have tried and failed: e.g., Morocco, San Marino, Haiti, Sierra Leone, Costa Rica (closed due to smuggling), Somalia (war) and Lebanon (war).²²⁷

²²⁷Lloyd's List.
6. **EMERGENCE OF NEW FOCs IN 1984; AND EUROPE RESPONSES**

Until 1984, Panama and Liberia were the only two FOCs of note, with one-fourth of the world's merchant fleet. Other FOCs were marginal. By 1991, new competitors' share climbed to thirteen percent. Cyprus' fleet grew ten-fold from 1980, to become the sixth largest in the world by 1991, even surpassing the US. Its fleet was made up largely of Greek-owned ships, and those fleeing more stringent enforcement in Liberia.\textsuperscript{228} New registries were also established in several former British colonies. The Bahamas grew from virtually nothing in 1980, to four percent of the world's tonnage in 1991; Malta grew from nothing to over two percent over the same period. Registries also sprang up in the West Indies. The safety record of these new registries was poor, as noted above.\textsuperscript{229}

The European response to these new FOCs showed mixed outcomes. The first round of competition-in-laxity occurred from 1945 onward, as new registries opened, offering savings to shipowners via low taxes and regulations. A second round amongst European states may have begun in 1985. Norway, France, and the UK "lost" over half of their tonnage to FOCs in the 1980s. In response to the growth of new FOCs and fleet emigration, European national registers adopted a mix of policies to recapture ship registration: a competitive race of tax cuts and liberalized crew regulations; protectionism; and lobbying to strengthen FOC regulations.

\textsuperscript{228}Cyprus grew to 20 m gt, the Greek-registered fleet dropped 20 m gt over that same period.

\textsuperscript{229}Future research in this area will want to examine the causes behind the rise of specific FOCs. What was the connection, for example, between Greece and Cyprus, in establishing the Cypriot FOC registry? What were the connections between the UK (or others) in establishing the Maltese FOC? Cross-tabulated data would be helpful here, in establishing which national fleets tended to flag in which FOCs. See The Tanker Register (London: H. Clarkson); M'Gonigle and Zacher, p.373.
Consider the following piecemeal evidence of competition-in-laxity, primarily in manning requirements and taxation.\textsuperscript{230}

- Norway, Germany, Denmark, Portugal, France (Kerguelen), the UK and Finland all established "second registers" since 1985. These act like a free trade zone for shipowners, allowing them to circumvent manning requirements and taxes.
- Norway’s "NIS" offers "shipowners some of the world’s most flexible and liberal operating conditions." The share of Norwegian officers aboard fell from 60 percent in 1988, to 40 percent in March 1990.\textsuperscript{231}
- In 1992 the Dutch shipowners’ association KNRV demanded a $67 million tax incentive package to stop the exodus of Dutch-flagged vessels. The Ministry of Transport and Public Works backed the proposal. A Coopers and Lybrand study concluded that 60 percent of the Dutch merchant fleet was likely to turn to FOCs unless provisions were made. Differences in international subsidy systems were forcing local shipowners to relocate.\textsuperscript{232}
- In 1987 the Netherlands introduced "temporary" fiscal policies to stem the outflow of ships to FOCs.
- Greece reduced taxes by 50 to 75 percent on large tonnage vessels in 1990, to compete with FOC registers.\textsuperscript{233}
- In Britain, the Labour Party proposed tax breaks for owners and low income-tax rates and insurance contributions for seamen. It also threatened to deny port access to ships falling below British safety standards.
- In other countries registration fees were cut several times in the 1980s, and discounts offered.
- Poland and other former-communist countries rapidly turned to FOCs. Revenues from the Polish merchant navy nearly halved, from 301 billion zloty in 1990, to 167 billion zloty in 1991.\textsuperscript{234}

\textsuperscript{230} My purpose here is not to evaluate whether these changes are good or bad, but to explain how they come about. Many, but not all analysts argue that competitive tax reductions are good.


\textsuperscript{232} Financieele Dagblad, June 9, 1992.

\textsuperscript{233} Daily Telegraph (London), May 26, 1992.

• One of the latest FOCs, Mauritius, announced it would not employ any maritime inspectors at all.

• Liberia cut its initial registration fee in 1990 from $1.20 per net ton to a flat $2,500 per vessel. A "Very Large Crude Carrier" (VLCC) would save $100,000.

Interjurisdictional competition simultaneously led to some heterogenous protectionist pressures, notably in the European Community.

• Europe created a Port State Control system, to enforce European standards on all ships entering European ports, regardless of flag. Critics call it a nontariff barrier.

• Demands grew for the establishment of a "genuine link" between ownership and flagging.

• The European Commission proposed the "EUROS" shipping registry. It would impose European manning requirements, and restrict domestic trade (cabotage) to European flags.

• The European Community's Economic and Social Committee (ESC) have considered a Community flag and concessions to Community shipowners.\(^{235}\)

Some steps toward higher harmonization also occurred. Following the (coincidental) US invasion, Panama, the oldest FOC, changed policies as a result both of increased competition from new FOCs, and pressure by the US:

• Panama, the world's first FOC, has floated the idea of an "association of open registers" to raise standards (and perhaps rates).

• In 1990, "the spectacular growth of the Panamanian fleet came to an abrupt halt, due initially to US legislation, and latterly to stricter enforcement of regulations by the Panamanian registration authorities."\(^{236}\) The role of US-flagged shipowners in this regard merits further research.

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\(^{235}\)European Commission, "Communication on Maritime Industries: Industrial Policies in a Competitive Environment", 199x. See also discussion in the US on the Gibbons Bill.

\(^{236}\)Lloyd’s, 1990.
It is not clear how far this second round of competition-in-laxity may go. Trends to date suggest that FOCs will continue to attract itinerant ships.

7. **SUBCASE: HIGHER COMMON DENOMINATOR REGULATIONS SUPPORTED BY LARGE TANKER OWNERS**

Although the overall story of FOCs is one of laxity, there is some movement toward higher common standards within it (albeit not as high or fast as some environmentalists hoped). That movement was led by dominant shipowners, within the oil-tanker subsector. This section discusses that "subcase" within the shipping industry.\(^{237}\)

7.1 **Oil Industry Created the 1960s Load-on-Top System**

Although public awareness of oil pollution had grown rapidly by 1952, and a 1954 international convention addressed the issue, little action was taken until industry became active.\(^{238}\) "The entire 1954 regulatory system was a reflection of the fact that most governments were still not willing to accept any important control costs themselves or even to impose such costs on their industries." Process standards were kept lax, despite the environmental costs. A 1962 Convention similarly showed little movement toward greater stringency, despite proposals to require a 100ppm discharge limit and separation facilities.

\(^{237}\)On the value to research of increasing the number of observations under study by "making many observations from few," see King et al. (1994), pp.217-228.

\(^{238}\)This section is drawn from M'Gonigle and Zacher, pp.81-142. On British environmental concern, see "Report of the Committee on the Prevention of Pollution of the Sea by Oil," (London: Coordinating Advisory Committee on Oil Pollution of the Sea, 1954).
Industry had remained silent on the issues, until then. When major oil companies joined in, however, regulatory movement soon occurred.

"The history of the 1969 Amendments is quite different from that of the 1954 Convention and the 1962 Amendments. Private industries (especially the oil industry) were now important participants in the formal negotiation. . ."\textsuperscript{239}

Shell Oil, in particular, decided on the load-on-top (LOT) system as an alternative to the 100ppm and separation proposals. Shell had developed the LOT approach in 1953, but had shelved it because refineries objected to the costs of desalination. "After ten years of inaction, it took only a few months until it was 'discovered' in \textit{early 1963} that both the tanker and refinery operations could be successfully adjusted to utilize the LOT system."\textsuperscript{240}

British Petroleum and Exxon quickly joined Shell in supporting the system. On June 17, 1964, these three companies announced adoption of the LOT system of pollution prevention on tankers. Independent shipowners were slower to move:

"The task was now to market the system to . . . the independent shipowners. . . . European independent tanker owners [were] crucial to the success of the program. These operators accounted for two-thirds of the world tanker tonnage, and it was they who were most intransigent. Unlike the oil companies, competitive shipping was the entire business of these shipowners. . . . But the major oil companies had become convinced that it was in their long-run interest to adopt the system. . ."\textsuperscript{241}

The LOT system differentially hurt independent shipowners more than the oil companies. In fact, the benefits accruing to oil companies were enough that

\textsuperscript{239}M'Gonigle and Zacher, p.96.

\textsuperscript{240}M'Gonigle and Zacher, p.97. Original emphasis.

\textsuperscript{241}M'Gonigle and Zacher, pp.97-98. The authors suggest that the oil companies were reacting to fears of more costly proposals in the 1962 Amendments. That bears further investigation and analysis.
they agreed to reimburse the independents for any direct costs resulting from the LOT system.\textsuperscript{242}

By 1965, the oil companies LOT system was put in effect largely over the heads of government:

"At that time, the oil companies could already claim that 60 percent of all tanker tonnage was employing the system and another 18 percent was considering it. An important point about the development of LOT is that it was done completely independently of governments and in a very short time. In fact, the oil companies had adopted a system which by their own admission violated both the 1954 Convention (then in force) and the 1962 Amendments then being ratified by many governments. Thus, their actions... forced the hands of governments by presenting them with a \textit{fait accompli}. It was... because governmental enforcement of the existing regulations was so poor... that the industry was able to implement its own alternative. (Footnote:... The preemption by industry of government was so successful that [an expert] did not think that there was a tanker over 20,000dwt in the world complying with the 1962 Amendments despite the fact that they had been law for seven years.)\textsuperscript{243}

Oil companies initially circumvented governments, but later were supported by them:

"[T]he oil companies had, by now, firmly taken the initiative... With the greater interest of Britain's domestic oil industry, British environmental policy at IMCO became more sensitive to its views... [T]he British government now became a strong advocate of LOT and of a new regulatory scheme.\textsuperscript{244}

The oil companies "bombarded" governments with "intensive lobbying." Their efforts were rewarded with unanimous government acceptance of Amendments in October 1969 which reflected industry's position.

\textsuperscript{242} Further research might analyze how much of this compensation actually occurred.

\textsuperscript{243} M'Gonigle and Zacher, p.98-99, and footnote 57.

\textsuperscript{244} M'Gonigle and Zacher, p.99-100.
7.2 Supertanker Owner Support for Regulations Continued

This subcase study does not attempt a review of all major shipping regulations.\textsuperscript{245} Piecemeal evidence suggests, however, that large shipowners continued to support more stringent regulations than did their independent competitors, through 1993. That support came no matter where they flagged their ships. Even large shipowners continued to use FOCs, to escape other regulations and taxes. The "Committee for Flags of Necessity" (industry's term for FOCs) was created in 1972 by Standard Oil, Texaco, Gulf, ARCO, Mobil, Standard Oil of New Jersey, United Fruit, Alcoa, Bethlehem Steel, and others. They supported continuation of the FOC system.\textsuperscript{246}

By 1977, 60 percent of US oil imports arrived on ships flagged in Liberia and, to a lesser extent, Panama. Large owners contributed to the raising of standards in the Liberian registry. (This partially explains the exodus from Liberia in the 1980s: independent owners were differentially hurt by the higher standards, and left for new—and less stringent—FOCs.\textsuperscript{247})

The cut in oil consumption following the two OPEC oil embargoes had left a world tanker surplus. Owners of large fleets had several reasons to

\textsuperscript{245}Further research on the role of private sector interests would be welcomed here. Mitchel \textit{op. cit.}, analyzes several major regulations from an institutional perspective: 1973 International Convention for the Prevention of Pollution from Ships (known as MARPOL), 1978 amendments to MARPOL; requirements for double hulls, segregated ballast tanks (SBTs), or crude oil washing (COW); and various other IMCO/IMO regulations.

\textsuperscript{246}See Erling Naess, \textit{The Great PanLibHun Controversy}, 1972 p.50. "Convenience" not "necessity" is the more common usage. The phrase dates back to 1939, when it was used by the American \textit{chargé d'affaires} in Panama to describe the Panamanian system. See Carlisle, \textit{op. cit.}, p.69.

\textsuperscript{247}Other factors affecting the Liberian registry included changes in the Liberian government and policies. The civil war had less of an impact than one might expect, given that few transactions were conducted in Monrovia itself. The war did raise questions as to who was the legitimate government in Liberia, and hence who should receive registration fees.
support certain higher regulations: to reduce surplus capacity (and overcome collective action problems), to squeeze out small owners, to increase profit margins, to legislate modernization of the tanker fleet, and to obtain subsidies. Profit motives and environmental concerns worked together. Pollution and safety regulations effectively provided a barrier to entry. In this exceptional sub-case, given the notoriety caused by major oil spills and the backing of the US for higher common standards, the gains to major shipowners of decreased competition outweighed the cost of higher process regulations.

Erling Naess, head of the association for large independent tanker owners (Intertanko), supported certain more stringent environmental regulations. Naess welcomed public pressure following oil spills, inasmuch as Intertanko hoped to reduce surplus capacity:

Intertanko encountered a variety of legal and business obstacles to its various tanker-reduction schemes. . . . [M]easures of reduction meant that each individual owner would lose opportunities. . . . Cooperation was required, but difficult to arrange. [Intertanko proposed] to take advantage of world concern with tanker pollution incurred in tank cleaning and ballasting. . . . [T]he US Justice Department [previously] held such agreements . . . to be in restraint of trade and illegal. . . . Thus, in the name of a viable antipollution measure, tankers could be retired to serve as reception facilities in smaller ports. Intertanko lobbied for legislation that would require such facilities. . . . [and] admittedly planned to turn public antipollution concerns and political pressures to business advantage by securing laws that compelled owners to retrofit tankers with [double hull] measures.248

Intertanko capitalized on concern over tanker pollution to reduce surplus capacity and raise shipping profit margins. It lobbied in favor of government

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regulation, in part because such activity by the private sector alone would violate antitrust laws.

Intertanko was joined by the Federation of American-Controlled Shipping (FACS), dominated by multinational corporations, in supporting more stringent Liberian regulations. They recommended measures to improve environmental compliance, disclosure, safety records, and inspections. These were implemented from 1977-1979 under the Carter Administration and improved the Liberian safety record. Most requirements on construction of new ships (e.g., segregated ballast tanks, or crude-oil washing capabilities) were also enforced on Liberian tankers.

In a similar vein, Shell Oil in a 1992 report on the tanker industry warned that "80% of world shipping is administered under [governments] whose priority is to make money from shipping and shipping services, while making only a token investment in safety." Such concern over the safety of oil tankers might equally have come from Greenpeace.

7.3 Market Access Ensured Compliance

In various years the US threatened to act unilaterally against foreign (as well as domestic) oil tankers which did not meet the higher

\(^{249}\)FACS was the predecessor to the American Committee for Flags of Necessity (ACFN). Its members included shipping subsidiaries of Alcoa, Amoco, ARCO, Bethlehem Steel, Chevron, Sonoco, Dow Chemical, Exxon, Getty, Gulf, Marathon Oil, Phillips Petroleum, Reynolds Metals, Sun Transport, Texaco, and Union Oil.

\(^{250}\)Quoted in Joel Havemann, Los Angeles Times, March 26, 1993. The US 1990 Oil Pollution Act multiplied eightfold the liability faced by oil companies in the event of a spill. It also required double hulls on new ships. An excellent analysis of the politics of pollution control is in M' Gonzalez and Zacher, op. cit.
industry-supported standards. The US enforced certain of these requirements through the "law of the port." Threats of market closure helped ensure compliance on equipment and construction regulations. Market access, however, could not force changes in behavior on the high seas.\textsuperscript{251} The "product" of a shipping service is delivery to a port; US threats of restricting this "product" led to higher standards. (The "process" or production costs, on the other hand, showed more laxity).

7.4 Subcase: Conclusion

Within the larger framework of a competition-in-laxity in shipping, this subcase demonstrates that the logic of my propositions remains valid when applied to a subsector of the shipping industry. Larger tanker owners supported certain more stringent regulations, in part because they benefitted differentially from them.\textsuperscript{252} They agreed to the price of higher process standards, so long as these were enforced on others. That enforcement came about in part through threats of market closure. Governments were willing to enforce the regulations in part because of public pressure following large oil-spills. (Accidental spills accounted for only five percent of oil discharged into the sea, but the public pressure was less strong

\textsuperscript{251}Mitchel op. cit. notes continuing problems in enforcement. p.218.

\textsuperscript{252}Improved public relations was one source of value. Public pressures following oil spills played a large role in shaping corporate behavior. However, oil companies did not merely react to public opinion. Mobil Oil vice president Herb Schmertz used a $30 million annual public affairs budget (1988) to engage in "creative confrontation" on regulatory issues. Much of that budget was spent opposing regulations Mobil did not approve of. Schmertz was on the board of directors at both Mobil Oil and Mobil Corporation and\textsuperscript{d} had a staff of 85 people in New York and Washington. See his 1986 memoir, Good-Bye to the Low Profile (Boston: Little-Brown), with chapters such as "Confronting Someone Who's Out to Get You." The example in that case is The Wall Street Journal, which in 1983 editorialized against Mobil's "campaign of intimidation." From 1984 to 1986 Mobil withdrew advertising from the Journal and refused to answer its reporters questions or send routine press releases.
on other areas, such as municipal and industrial runoff, which accounted for fifty percent of oil discharges.) The confluence of interests between large shipowners and environmentalists allowed a coalition of "the good and the greedy."^{253}

8. SHIPPING FLAGS-OF-CONVENIENCE: CONCLUSION

The FOC case shows a pattern of domestic regulation, followed by major industrial-flight to lax countries, where regulations are often nonexistent or poorly enforced. The outcome shifts from lax heterogeneity, to lower common denominator (among competing states), in a classic competition-in-laxity. That trajectory is fairly constant over 40 years.

To review, shipowners relocated in droves to flags-of-convenience following World War II, seeking lower costs. By 1992, one fourth of the entire world’s major tonnage sailed under a convenience flag. On balance, ships in those convenience-flag states sank several times more often and violated more environmental and labor standards.

An exception to these general trends identified in the text was the "subcase" of oil tankers owned by major companies. Here, one saw industry support of more stringent regulations. Large shipowners supported these regulations not only from their love for pristine nature nor their fears of more costly regulations (although these may have played a role). Large shipowners also stood to gain from the reduction in surplus capacity, which antitrust laws prevented them from doing on their own. With their enormous investments

^{253}See Oye and Maxwell (1993) for a discussion of "green and greed" in the context of DuPont and the ban on CFCs.
and revenues elsewhere, the costs of regulation were relatively insignificant to them, compared to independent tankerowners. (The infant formula case, discussed later, illustrates the risks to industry when collusive behavior is not sanctioned by formal government regulation.)

Heterogeneity continues to exist in standards between industrialized countries and convenience flag states (the *status quo ante*), but there is movement toward a lower common denominator among the FOCs. Liberian and Panamanian standards converged through 1970, at which point Liberia's standards improved under the pressures from large tanker owners identified in the text. (Exit from Liberia is also noted at that point.) In the early 1980s, an even lower set of standards emerged in Cyprus, Malta, and other new registries. Simultaneously, in response to the exit of their fleets, European states deliberately created "international registries" with lower Manning requirements and taxation.

The driving force behind the creation of flag-of-convenience havens in Panama and Liberia was American shipowners, with the strong support of prominent government officials. Process regulations, a fragmented market, low asset specificity and competitive pressures combined to yield laxity. One sees the creation of new centers of laxity, and responses which combine protection with deregulation.

The shipping case is worth studying not only for its theoretical insights, but also for its policy insights. It offers some support to Bismarck's (and WTO critics') fears of regulatory collapse. The extreme ease of relocation facilitated that competitive deregulation. Similar cases of competition-in-laxity include offshore banking centers, US state regulations on savings and loan institutions, and incorporation in Delaware. These are briefly summarized in tables, below.
Other LCD Cases: Offshore Banking Centers (OSBCs)

The emergence of off-shore banking centers (OSBCs) parallels the shipping case. Indeed, some states are both OSBCs and FOCs, notably, Panama, Malta, and Cyprus. As with shipping, the case *writ large* is one of competitive deregulation, alternating from heterogeneous laxity, to lower common denominator. Offshore banking centers grew rapidly from the 1960s through 1994. They were encouraged by a wide variety of financial players, from individual "bootleggers" to the International Monetary Fund (IMF).

OSBCs offer a variety of incentives that shield participants from other states’ laws. They are a conduit for both legal and illegal funds. They may offer no taxes, no currency controls, no disclosure or reporting requirements, no audits, few regulations or diligence to international agreements, few licensing requirements or investigations, rapid processing, informal procedures that bypass formal laws, strict confidentiality, and no immigration checks or extradition treaties for business people.

These incentives generally involve lax process regulations on the "production" of financial services, although some also affect the sale of distribution of financial products. Large recurrent transactions that flow through OSBCs tend to be very low in asset specificity.

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254 Many other offshore banking centers were developed by their former colonizers: Cayman Islands, Bahamas, Bermuda, Hong Kong, Montserrat, Anguila, British Virgin Islands, Aruba, and Turks and Caicos. In Europe in the 1980s alone, offshore centers were created in: Andorra, Gibraltar, Isle of Man, Jersey and Guernsey, Madeira Islands, and Malta. Longstanding financial centers such as Liechtenstein, Luxembourg, and Monaco also expanded in the 1980s.

255 On regulatory asymmetries and the creation of OSBCs, see Richard Dale (1984, 1992); and the IMF, *Emerging Financial Centers* (January 1984). Many reasons have been cited for the growth of OSBCs: regulatory asymmetries, increased cross-border trade (licit and illicit), globally-linked financial markets, new communication and computing technologies, new financial products (Eurodollars in the 1960s), confidence in international financial institutions, higher domestic taxes and regulations, proliferation of new states, dollars accumulated overseas by U.S. trade deficits, Soviet bloc concern over asset freezing (as in the Suez Crisis), and the collapse of Bretton Woods fixed exchange rates, are just a few. See Blum (1984) and BIS (1987), op. cit. Regulation shopping is not new: in the European Renaissance, Mediterranean bankers similarly escaped Catholic usury restrictions by using the Jewish diaspora, and by lending abroad: Genoese bankers to Spain; Venetians to the Byzantine Empire; and Florentines to England and France. Braudel (1984), p.169. Braudel notes that "Genoa was the most extraordinary example of convergence and concentration the European world-economy had yet witnessed... Genoa's reign remained from beginning to end extremely discreet: comparable... with the Bank for International Settlements at Basle [today]." pp.157-164.
Financial transactions in OSBCs are different than those affecting the Basle Accord (discussed elsewhere). The Basle Accord affected financial transactions with high MAS. By contrast, low asset-specific transactions in banking are associated with regulatory laxity for those products. Most Euromoney transactions, in foreign exchange management, swaps, options and so on, are conducted anonymously across computer screens. They are low in asset-specificity, despite their high dollar volume. These Euromoney transactions were much more likely to involve offshore banking centers, and were instrumental in the creation of these centers of laxity.\footnote{256}

The Cayman Islands became the offshore banking center \textit{par excellence} in the 1980s. Over 24,000 international companies were registered there by 1993 (including 500 insurance companies and 500 banks), among a population of only 20,000 Caymanian people.

By 1991, 40 percent of all cross-border loans to US firms (excluding US banks) originated in "Caymanian" banks. The dollar amount was over $110 billion; up from $15 billion only eight years earlier in 1983.\footnote{257} In contrast, under 15 percent of cross-border loans to US firms originated directly in the second largest supplier, the UK.

A U.S. State Department report noted that "these banks and corporations were... established to serve... the armada of regional and international businesses who seek constant competitive economic advantage in an almost boundary-less financial world."\footnote{258} That boundary-less world attracted almost $400 billion in deposit banks' foreign assets by 1992. The Caymans earned $20 million a year from registration and license fees (about the same Liberia earned from shipping registration fees).

\footnote{256}Similarly, retail credit card operations, responsible for half of Citicorp's profits, are very low asset-specific transactions. Millions of consumers and thousands of bank employees engage in countless faceless transactions that require little governance. These transactions led the way in loosening McFadden Act regulations which prohibited inter-state banking in the US, from Citicorp offices in South Dakota.


Although major banks make use of OSBCs, contrary to popular opinion, they also have supported some more stringent supervisory practices therein.\textsuperscript{259} The major banks' comparative advantage is not to compete with fly-by-night money launderers. One might expect them to support certain barriers-to-entry in that regard in the future, to the extent the added costs of regulation do not outweigh the gains of decreased competition to them.

Other LCD Cases (continued): Delaware Incorporation

"Delaware is both the sponsor and the victim of a system contributing to the deterioration of corporation standards. This unhappy state of affairs [stems] in great part from the movement toward the least common denominator. . ." -- William L. Cary, former Chairman of the Securities and Exchange Commission (SEC)

"No one denies that Delaware’s open bidding for corporate charters has led to a steady lessening of the restrictiveness of state corporation law. . . The history of state corporation law is thus largely a history of drastic reduction of legal restrictions on management and of the legal rights of shareholders. This movement has not been at random but has rather occurred as corporations have sought charters in states with less restrictive codes. Other states have then adopted similar codes in response. . ." -- Ralph K. Winter, jr.

The incentives and pressures for a competition-in-laxity can occur domestically, as well as internationally. Within the US, states compete to influence decisions by managers as to where to charter their corporations. US state laws have jurisdiction over major corporate issues such as fiduciary responsibilities owed to stockholders, the distribution of power between managers and stockholders, and mergers and dissolutions.

There is an unambiguous pattern of migration of charters to states with regulations favoring corporations, in particular to Delaware. Over 50 percent of all publicly traded US corporations were chartered in Delaware by the 1970s. 80 to 90 percent of those firms which reincorporated between 1925 and 1983 relocated in Delaware.

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261Another possible domestic federal case is deregulation of the US savings and loan industry. The industry was highly fragmented, and occurred at a time of increasing activity across state lines. Parallels with global financial deregulation in the 1980s might be instructive.

262Roberta Romano, "Law as a Product: Some Pieces of the Incorporation Puzzle," Journal of Law, Economics, and Organization v1 n2 (Fall 1985) pp.225-283; and "The Political (continued...)"
Delaware attracted corporations with favorable corporate laws (not lower taxes). The general trend was toward deregulation. In return, 13 to 25 percent of Delaware’s total tax collection came from corporate franchise taxes; further revenues were generated from the well-paid legal industry in the state.

A similar trend occurred in Pennsylvania, which lost 18 firms between 1960 and 1968, then revised its code to reflect Delaware’s more firm-friendly provisions. Pennsylvania then gained 12 firms. Similarly, several firms left Michigan for Delaware, then returned to Michigan after Michigan revised its code to resemble Delaware’s.

As a specific example, in 1993 Washington State revised its business laws to bring back Microsoft Corporation’s charter. Microsoft left in 1986, because of concern over liability limits of directors in Washington. When Washington rewrote its law to let companies indemnify officers, Microsoft returned.

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262(continued)


Delaware also lead the way in a number of more stringent laws, which offered protection to corporate officers against liability suits and hostile takeovers. These may not pose significant costs to firms, hence may not fit my initial case-selection criteria. See Dosoung Choi, Sreenivas Kamma, and Joseph Weintrop, "The Delaware Courts, Poison Pills, and Shareholder Wealth," Journal of Law, Economics, and Organization v5 n2 (Fall 1989). Delaware's "poison pill" statutes were designed to thwart hostile takeover attempts: they could be adopted by firms without shareholders’ approval. Most studies conclude that these "poison pill" statutes have negative wealth effects on shareholders.

Delaware offered a credible commitment to maintain legal codes favorable to corporations: its human assets were specifically invested in corporate law, its state constitution required a two-thirds majority to change incorporation codes, and it stood to lose a major source of revenues.

With Microsoft, Lotus Development Corporation and Ashton-Tate relocated their incorporation to Delaware. These were the three largest software developers in the world. States which lost the largest number of incorporations included New York, Illinois, California, New Jersey, Michigan, and Texas.
Several other suggested cases of LCD turned out, on closer analysis, to be in fact cases of more stringent (or heterogeneous) outcomes. Frequently mentioned in this context are the global commons issues associated with global warming. Such cases often do not show a movement downward; rather they do not move upward as fast as some policy advocates would wish. A similar logic might apply, in retarding movement upward; the conceptual and empirical implications need to be analyzed carefully. On global warming issues, too, private interests are likely to influence the timing and shape of regulations. My model suggests it is the same large multinational corporations attacked by some critics whose support may be necessary to achieve the higher common regulations these critics seek.

Finally, the broad set of cases of coordinated action toward lower common tariffs such as those achieved through the GATT have received extensive attention elsewhere. Reviewing those macro-level cases and

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Thanks to members of a World Economic Forum panel for a discussion of greenhouse warming. The panel included Henry D. Jacoby, MIT Sloan School; Ronald G. Prinn, MIT Professor of Atmospheric Chemistry and Director of the Center for Global Change Science; Robert E. Wilhelm, Senior Vice-President, Exxon Corporation; and Kurt E. Yeager, Senior Vice-President, Technical Operations, Electric Power Research Institute, USA. Prinn notes that when oceanic models are combined with atmospheric models, it is difficult to replicate the current climate, let alone predict the future. Current models cannot agree on whether water will be more or less available in key regional agricultural areas, such as the US Midwest, or rice-growing areas in China and Japan. See also Policy Implications of Greenhouse Warming, National Academy of Sciences, Committee on Science, Engineering, and Public Policy, 1991. Thanks to David Victor and NAS panel-member Eugene Skolnikoff for this reference, and valuable suggestions. To date no regulations have been implemented to respond to extent greenhouse warming. Rio Convention goals are just beginning. Most proposed regulations have been on the process side, emphasizing energy-efficiency in manufacturing processes. It is not clear how to define asset specificity for an entire country; but most of a country's assets are in support of domestic transactions. My model suggests these would lead to low, divergent regulatory outcomes. Product regulations, conversely, might lead to higher divergent outcomes.

literature is beyond the scope of the present work. It is precisely because of the pressures identified here that trade liberalization may require coordinated action on a broad set of issues. This study began with the assumption of open economies as a criteria for case selection; future work may benefit from re-examining the sources of those coordinated agreements (and resistance to them) in light of my propositions.

Although I begin with a case of lower common denominator, the remainder of this dissertation demonstrates that LCD outcomes are by no means the necessary result of open economies. The next chapter discusses two cases with higher common denominator outcomes and the following chapter two cases of continued heterogeneity.

281(continued)
There is no text material missing here. Pages have been incorrectly numbered.
PART III: HIGHER COMMON DENOMINATOR

CHAPTER FOUR: MONTREAL PROTOCOL

"The Montreal Protocol has been widely heralded as a victory of international cooperation and good sense over powerful corporate interests that sought to block regulation. However, the perception that producer interests obstructed an international agreement—and that they had to be subdued to secure whatever environmental benefits the Protocol may generate—is seriously misleading. . . . In fact, at critical junctures, American CFC producers supported the Montreal Protocol."

-- Daniel F. McInnis, 268 1992

On September 16, 1987, delegates from 24 major countries to the Montreal convention reached agreement on the Protocol on Substances that Deplete the Ozone Layer. As revised, the Protocol phased out production of chlorofluorocarbons (CFCs) by 1995, and reduced production of

268 McInnis, in Environmental Politics: Public Goods, Private Rewards, ed. Michael S. Greve and Fred L. Smith, eds., 1992. Thanks to Nathan Foster for drawing my attention to this book. Thanks also to Judith A. Layzer for editing comments on this chapter and the tuna-dolphin chapter, and for discussions on environmental politics and policy, including Greve and Smith’s work.

halons, carbon tetrachloride, and methyl chloroform.\textsuperscript{270} The sale and
distribution of new CFCs would be foreclosed. Trade sanctions would be
imposed against countries not complying with the Protocol. The effect of the
Protocol was widespread: 70 percent of the US food supply depends on
refrigeration at some point, and CFCs were the best coolant available.\textsuperscript{271}
The global market for CFCs in 1990 totaled nearly two billion dollars.
However, far from fighting the restrictions tooth-and-nail, as one might expect
if one assumed industry opposed all regulations, dominant producers ended up
supporting the Protocol. Indeed, by 1994, DuPont was poised to phase out CFC
production early; and, in an ironic twist, the EPA requested DuPont to
continue production for another year.

In this chapter I first summarize the industrial structure and asset
specificity in the CFC industry, then review heterogenous regulations in the
1970s. I next discuss the steps leading toward the 1988 Protocol, and the
intimate role of industry in achieving that higher common denominator
outcome.

1. INDUSTRIAL STRUCTURE AND ASSET SPECIFICITY IN THE CFC INDUSTRY

It is necessary to understand the role of dominant multinational
producers in order to understand this movement toward homogenous, stringent
product restrictions. Just over a dozen firms worldwide produced CFCs. The
three largest were E.I. Du Pont de Nemours Company (DuPont) in the US,

\textsuperscript{270} The Montreal Protocol was made increasingly stringent in Helsinki in 1989, London in
1990, and Copenhagen in 1992. Unless otherwise specified, I refer to the entire set of
agreements as the "Montreal Protocol." The London revision included a non-binding resolution
to phase out HCFCs as well, by 2030.

\textsuperscript{271} John Holusha, "Ozone Issue: Economics of a Ban," \textit{New York Times}, January 11,
1990.
Imperial Chemicals Industries (ICI) in the UK, and Elf-Atochem in France. Each had large multinational investments. DuPont accounted for 25 percent of the world market. It had factories in the US, Canada, the Netherlands, Japan, and Latin America. In the US, DuPont controlled nearly 50 percent of the market.²⁷²

But the major producers' hold on the market was slipping. As CFCs became an undifferentiated commodity and new competitors entered the market, prices fell and alternative uses of industry assets became more valuable. Asset specificity for CFC transactions was declining. Even before the Montreal Protocol took effect, ICI and others sunk large specific investments into substitutes for CFCs (see below). Without government intervention to restrict CFCs, the value of these investments would be very low. In effect, ICI and DuPont et alia contracted with governments, to retire CFCs. The Montreal Protocol was a transaction-specific regime. It created a de facto cartel for CFC producers, giving them hope for windfall profits to fund continued investments in CFC substitutes.

2. CFCS 1974-1985: HETEROGENEOUS REGULATIONS ON AEROSOLS

From their invention in the 1930s through their widespread use by the 1960s, CFCs were hailed as a wonder. They replaced the more dangerous ammonia, sulphur dioxide, and ether vapor for many industrial uses, and offered many new uses. Concern about their environmental impact arose in 1970. DuPont and 20 other international CFC producers created the

Fluorocarbon Technical Panel (FTP). The FTP spent over one million dollars per year on independent research.

Concern over CFCs initially centered on supersonic transport (SST) jets, nuclear testing, and nitrogen-based fertilizers. Then, in 1974, Mario Molina and Sherwood Rowland demonstrated that CFCs could percolate into the upper atmosphere, release chlorine through decomposition, and catalytically destroy ozone.\textsuperscript{273} Popular debate in the US shifted to the use of CFCs in consumer aerosol sprays. Personal vanity, it seemed, might be destroying the earth.

In this unilateral US phase, new products emerged with the potential to replace CFCs as aerosol agents. The new business interests' investments were domestically specific. They used the aerosol debate to their advantage, promoting stick deodorants, mechanical pumps that were less expensive than aerosols, and other propellants such as butane.\textsuperscript{274} The US market leader in consumer products, Johnson Wax, saw a first-mover advantage and in 1975 announced it would phase out use of CFC propellants. Sales of nonaerosol deodorants jumped 800 percent from 1975 to 1976, and nonaerosol hairsprays captured nearly 25 percent of the market (compared to only four percent in 1973). Despite rising concern and movement among state legislatures, only

\textsuperscript{273}Mario J. Molina and F. Sherwood Rowland, "Stratospheric Sink for Chlorofluoromethanes: Chlorine Atomic Catalyzed Destruction of Ozone," \textit{Nature} 249 (1974), pp.810-812. Congressional hearings were soon held. R.L. McCarthy, of DuPont, testified that the chlorine-ozone hypothesis was at that time speculative, but "If credible scientific data...show that any chlorofluorocarbons cannot be used without a threat to health, DuPont will stop production of these compounds." US House of Representatives, Committee on Interstate and Foreign Commerce, December 11-12, 1974.

one state (Oregon) actually banned CFC propellants before the federal government stepped in.\textsuperscript{275}

CFC-competing industries actively supported proposed CFC aerosol bans, catching the major CFC producers off-guard. In 1976, the US Congress passed the Toxic Substance Control Act (TSCA), which gave the EPA discretionary powers to regulate all non-pharmaceutical and pesticide chemicals. In March 1978, the EPA and FDA issued regulations under TSCA and the Federal Food, Drug and Cosmetic Act, which prohibited virtually all uses of CFCs as propellants. The ban took effect December 1978. It destroyed 55 percent of the US domestic CFC market. DuPont, with 25 percent of world CFC production, saw its market plummet 50 percent. It was left with low profits and a CFC surplus.\textsuperscript{276}

In Europe and elsewhere, although consumer awareness reduced demand for CFC aerosols, no regulations were imposed. The British government opposed bans, in part to preserve domestic demand for Britain's largest manufacturer, ICI. Eighty percent of the UK's CFC consumption was for aerosols, and ICI was the world's second largest producer of CFCs (next to DuPont).

ICI's demand remained strong; DuPont's was cut in half. Between 1974 and 1985, US market share of world CFC production plummeted from 46

\textsuperscript{275}Lydia Dotto and Harold Schiff, \textit{The Ozone War}, (Garden City, NY: Doubleday, 1978). (New York imposed warning labels).

\textsuperscript{276}Benedick, \textit{op. cit.}, p.24; McInnis, \textit{op. cit.}, p.137. Data on market demand from Department of the Environment, Central Unit on Environmental Pollution, Pollution Paper #5, 1976; cited in Weiner and Maxwell, \textit{op. cit.}. US demand for CFCs continued abated, as a refrigerant, blowing agent, and cleanser in semiconductor production. The firm-level details of this failure on DuPont's part, and the success by others, are not yet available. Tracing the decision-process at DuPont reveals that the mid-1970s unilateral regulations came as a shock. DuPont learned from that, and applied those lessons in the 1980s.
percent to 28 percent. The 12 EEC countries' market share grew from 38 percent to 45 percent.\textsuperscript{277}

DuPont lobbied the US government to pressure European governments into banning aerosol sprays, with no success. (The US had delayed British and French landing rights for the Concorde, and Europe viewed US lobbying for CFC bans as "environmental neocolonialism," motivated by economic interests.\textsuperscript{278})

\section*{3. THE OZONE "HOLE" CREATES AN OPPORTUNITY: DUPONT MOVES TO SUPPORT REGULATIONS}

The US CFC industry learned from its mistakes in the unilateral US aerosol regulation. First, it created a unified front, the Alliance for Responsible CFC Policy. The Alliance lobbied to ensure that future CFC regulations would include major overseas competitors. Unilateral regulations were to be avoided. An Alliance brochure stated its goal was to ensure that regulation of CFCs "be pursued on an international basis and be based on sound scientific facts."\textsuperscript{279}

And second, industry increased funding for research on ozone and CFCs, to obtain more accurate evidence and to plan for longterm (20 year) investment decisions that involved billions of dollars. One industry-sponsored project conducted by a National Oceanic and Atmospheric Administration

\textsuperscript{277}Benedick, \emph{op. cit.}, p.26.

\textsuperscript{278}Peter M. Morrisette, "The Evolution of Policy Responses to Stratospheric Ozone Depletion," \textit{The University of New Mexico Natural Resources Journal} 29 (Summer 1989), p.803, cited in McInnis, \emph{op. cit.}, p.136.

\textsuperscript{279}Cited in McInnis, \emph{op. cit.} (Emphasis added.)
(NOAA) laboratory led to a doubling of estimates on CFC-related ozone depletion. Another project led to the discovery in 1985 of what came to be called the Antarctic "ozone hole."280

Initially, industry was united in calling for more scientific research before regulatory action was taken. In May 1986 the Natural Resources Defense Council sued the EPA to enforce even more stringent unilateral US controls. US industry strenuously and successfully resisted.281

Although scientific uncertainty remained (and continued through 1994), a consensus began to emerge that the ozone layer needed protection, based on some of industry's own studies, and those conducted by NOAA, NASA, the World Meteorological Organization (WMO) and the United Nations Environmental Program (UNEP). Pressures increased in the US for restriction of CFCs. International consideration of the issue was led by the UNEP, culminating in the Vienna Convention for the Protection of the Ozone Layer, March 1985.282 The Vienna Convention called for action, but implemented none.

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281 Richard Barnett before US Congress, Senate Committee on the Environment and Public Works, Subcommittees on Environmental Protection and Hazardous Wastes and Toxic Substances, 100th Congress 1st session 1987, Ozone Depletion, the Greenhouse Effect, and Climate Change. Firm-level decisions on how much to spend on legal proceedings, and when and how to engage in them, bear further research.

282 Benedick, op. cit., is the authoritative reference on the international negotiations. Many industry studies disputed the alleged connection of CFCs, ozone destruction, and lethal changes in ultra-violet radiation reaching the earth.
Allen Wallis, Under Secretary of State for Economic Affairs under the Reagan Administration, resisted the Vienna Convention negotiations in early 1985. Contrary to the view that business is antithetical to regulations, US industry lobbied the Reagan Administration to support the Convention. Industry officials were alerted by frantic phone calls from the US negotiating team in Vienna. The industry officials in turn lobbied in favor of the agreement. Writes Richard Benedick, the head negotiator for the US State Department:

"Eleventh-hour private-sector interventions with the administration thus enabled the United States to join in signing the Vienna Convention. The incident curiously [sic] foreshadowed the more protracted attempt two years later by antiregulatory forces within the Reagan administration to overturn the US position on the Montreal Protocol. In both cases, American industry ultimately backed the international agreement."  

US industry wanted to "level the playing field," and shape global regulations to its competitive advantage. It did so, while publicly protesting that an immediate ban on all CFCs would be economically catastrophic. Consistent with Stigler's dictum, industry supported regulations which worked to its favor, even to the extent of lobbying against the deregulation policy of Republican President Reagan.

In September 1986 DuPont and the US manufacturers’ Alliance for Responsible CFC Policy changed tactics, to support global restrictions on CFCs. Proof was lacking, nonetheless DuPont concluded "that it now would be prudent to limit worldwide emissions of CFCs while science continues to provide better guidance to policy makers." DuPont would support "a reasonable global limit on the future rate of growth of fully halogenated CFC

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283 Benedick, op. cit., pp.46-47 (emphasis added). The Vienna Convention was a precursor to the Montreal Protocol. It called for "harmonizing appropriate policies to control, limit, reduce or prevent human activities... should it be found that these activities have or are likely to have adverse effects..." II.2.b. The Vienna Convention entered into force September 1988, one year after the Montreal Protocol was signed and four months before it was ratified.
production capacity." A cap on production indicated a willingness to shift capacity to alternatives. DuPont advocated government incentives to develop substitutes, and sought homogenous product restrictions on CFCs.

*DuPont's change in tactics, to support higher standards worldwide, played a key role in bringing about the Montreal Protocol.* As Donella Meadows et al. remarked: "Something happened, between March 1985 in Vienna when there was no real action, and October 1987 in Montreal, when the first international ozone-protection protocol was signed." That "something" was the decision by DuPont.

4. **INDUSTRY ANTICIPATED MAS IN SUBSTITUTES?**

ICI, DuPont and Atochem had begun multi-million dollar research programs on CFC substitutes (including HFC134a) in the 1970s. Substitutes were technically feasible, but not justified economically. Substitutes would cost over four times more than CFCs, and could not compete with them in an open (unregulated) market. Research fell to nothing by the early 1980s (before the ozone issue arose).  

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285 Donella H. Meadows, Dennis L. Meadows, and Jorgen Randers, *Beyond the Limits*, (Post Mills, VT: Chelsea Green Publishing, 1992). The authors downplay the impact of the Antarctic ozone hole, and credit the UNEP for the change. The problem is that offers no explanation as to why UNEP's role would change then, when it had been active on the issue for over a decade. See also Weiner and Maxwell, op. cit.

286 Richard Hoppe, "Ozone: Is Industry Getting Its Head Out of the Clouds?" *Business Week*, October 13, 1986, pp.110-11. Ironically, another reason to terminate the program was the cost of testing for adverse health effects from substitutes.
News of the ozone hole prompted industry to re-consider substitutes. Existing CFC producers held patents on most CFC alternatives.\textsuperscript{287} And the billions of dollars in investments required for substitutes would effectively act as a barrier-to-entry for smaller firms. \textbf{If}, that is, CFCs were restricted.

ICI decided to re-invest in HFC-134a, calculating that first-mover advantages would give it a competitive edge. A team of eight scientists, headed by James Steven, began the secret effort. ICI ended up spending $500 million on HFC-134a research.\textsuperscript{288} Other producers followed suit. By mid-1987, ICI set 1995 as a target for commercial production of substitutes. It beat that target by five years. Its largest production plant was located in Louisiana, with other plants in Europe and Japan. Production was for both local markets and export, with capacity greatly exceeding demand in the UK alone. Given the high MAS of these investments, if a CFC ban was not enacted, ICI would have suffered.

Adding to the incentive to invest in substitutes was the rise of increased competition from new entrants in the CFC market. Production of CFCs had become relatively cheap and easy. CFCs had become an undifferentiated commodity, with competition based mainly on price (and added service). New facilities were planned in the Soviet Union, China, and developing countries. Combined with the American ban on aerosols, the industry faced excess capacity. Asset specificity fell, as alternative investments became more profitable. Despite rising demand from 1982 through 1987, real prices fell for CFC-11, CFC-12, and CFC-22 (see graph). Weiner and Maxwell (1993) conclude that profit motives spurred the drive for substitutes:

\footnotesize{\textsuperscript{287} A 1988 EPA review of patents concluded that existing CFC producers in the US were also the most likely producers of alternatives. \textit{Federal Register} 53, August 12, 1988, p.30606.}\\
\footnotesize{\textsuperscript{288} \textit{Wall Street Journal}, Aug 13, 1986 p.25. \textit{Business Week}, May 17, 1993. HFC-134a has its own risks: it may be a more potent source of "global warming" than some CFCs. See Jorn Siljeholm, [Ranking Chemical Risks], (forthcoming).}
By the mid-1980s, the production of CFC11 and 12 was no longer as profitable a business as it once was. . . International regulation mandating a switch to CFC substitutes offered major producers the possibility of new and more profitable markets in the long term. . . Much [national] attention was paid to insure that neither DuPont nor ICI gained a competitive advantage against each other. . . Indeed, as the largest producers, they will be joint winners, with small producers, which are unable to compete in the new [capital-intensive] markets, being the primary losers.289

By the early 1980s, DuPont's profit margins on CFCs were only four percent, versus six percent for other DuPont products.

**Figure 4-1**

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The *Wall Street Journal* observed: "If successful, the substitutes business stands to bring much higher profits. DuPont has referred to the current business as a 'cash trap,' the result of excess production and low prices."\(^{290}\) CFCs had become an undifferentiated commodity sold on world markets. ICI, DuPont and Atochem hoped to create patentable, profitable, and specialized substitutes.\(^{291}\) Asset specificity in substitutes was only beginning, but industry may have acted strategically in anticipation of it.

5. **1986-1993: HOMOGENEITY, STRINGENT PRODUCT REGULATIONS**

In December 1986, the first round of ozone protocol negotiations began in Geneva, three months after DuPont announced its change in position. The US supported a consumption phaseout on nonessential uses (aerosols); the UK, France, and Japan urged a production cap below current levels.\(^{292}\) Foreign industries favored production phaseouts. They feared unilateral US action that would limit access of their products containing CFCs to the US market. Foreign fears of US market closure may have hastened agreement.

Country's positions followed their industry's interests. DuPont initially favored controls on nonessential consumption, in order to bring prices up, hold European competitors to American standards, and allow US surplus


\(^{291}\) Not everything went according to plan: to industry's dismay, in 1990 Dr. Harry Rosin of the Dortmund Institute of Hygiene announced a non-patentable substitute coolant, blending propane and butane, using 1920's technology. East German producer FORON (née DKK) began production. In 1992, they sold over 100,000 of the "Greenfreeze" or "Clean Cooler" refrigerators in Germany alone. Industry responded swiftly, labelling the refrigerators dangerous, inefficient, energy-consuming, and global-warming.

\(^{292}\) Developing countries, including Argentina, Brazil, Egypt, Kenya, Mexico, Venezuela, and Yugoslavia demanded exemptions. South Korea and India boycotted the talks.
capacity to be exported overseas. ICI in Britain and Atochem in France initially favored a capacity freeze, in order to reach their full manufacturing potential (following new investments). Voluntary cutbacks in aerosol would be easily met in Europe, leaving open the possibility of exports to developing countries. Japanese semiconductor manufacturers supported the UK and France, because they used CFC-113 as a cleaning agent.

The parties eventually compromised on a phaseout on production and an unusual definition of consumption (production plus imports less exports). This ensured that industrialized countries would dominate exports to developing countries, as long as production was permitted.\textsuperscript{293} Both amount to a "product" restriction, under my definition. The sale and distribution of CFCs would be curtailed.

The Montreal Protocol was signed, in September 1987, over a year after ICI began to re-invest in substitutes and the year after the US Alliance changed tactics to support a phaseout. The Protocol called for a 50% phaseout by 1998, with exceptions for CFC-113 in Japan.\textsuperscript{294} The Protocol was to take effect in 1989, pending ratification. In response, ICI moved up its HFC-substitute deadline two years, to 1993. (In fact, ICI began UK commercial operation in 1990, and opened the world's largest plant in the US in December 1992. Atochem also began 134a production in 1992.)

\textsuperscript{290}The Protocol made special provisions for developing countries. These are specific to this case; hence are not pursued here.

\textsuperscript{294}The Protocol text and revisions are in Benedick, \textit{op. cit}. Originally, it combined staggered cuts in consumption of five CFCs and three halons (20% by 1994, 50% by 1999), with a 40% production cut (10% increase for LDCs). A 15% leeway in consumption was allowed to satisfy "basic domestic needs... and for the purposes of industrial rationalization." On ICI, see \textit{Business Week}, May 17, 1993, p.78ff.
On March 11, 1988, the NASA/WMO Ozone Trends Panel released new evidence that CFCs were the cause of global (mid-latitude) ozone depletion and the Antarctic ozone hole. Five days later, DuPont announced it would voluntarily phase out CFCs, and develop substitutes; ICI soon followed. The next month, the US ratified the Montreal Protocol. Within eight months, twenty-four countries and the European Economic Community (EEC) had ratified the Protocol, bringing it into effect on January 1, 1989. Subsequent revisions to the protocol (May 1989, June 1990, mid-1992) hastened scheduled phaseout of CFCs; but by this time leading manufacturers had made their peace with substitutes. (French Prime Minister Pierre Beregovoy blocked a similar accelerated phaseout of HCFCs and HFCs. Elf Atochem, partly government-owned, was the world's largest HCFC producer at the time.)

The production cap established a de facto cartel in CFCs for the US and Europe. The predictable result was to raise prices and profit margins. "From an economic standpoint, these limits on production are no different from the production targets set by OPEC in trying to enforce its cartel. Just as limits on oil production raise prices, so do limits on CFC and halon production." Existing CFC producers were guaranteed their status quo ante market share, under an EPA quota system which allocated production "rights" based on 1986 levels. New CFC competitors were not welcome.295

It did not take long for CFC prices to rise. By April 1989, Chemical Week reported that "Montreal Protocol provisions for CFCs have wrought a turnaround in the market. . . . CFC-11 and CFC-12 are in tight supply

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worldwide and prices are rising, up 30%-60% over the past year in the US and around 15% in Europe.\textsuperscript{296}

Industrial consumers of CFCs were hurt by the higher prices. They were caught off-guard by DuPont's sudden change of position. DuPont and the other producers benefitted. Their investments in substitutes were protected, because the production phaseout guaranteed them a market. Higher prices funded the development of substitutes--for firms already in the CFC business. (In 1988 the EPA estimated that the phaseout mandated by the Montreal Protocol would create from $1.8 to $7.2 billion in "windfall profits" for US industry by 2000.)\textsuperscript{297}

In 1993, DuPont announced a voluntary CFC phaseout within a year; two years ahead of the revised Montreal Protocol schedule. ICI, DuPont, and ElfAtotech were producing HFC-134a in large quantities by May 1994. ICI led the way, with its first-mover advantages, with a total capacity of 50,000 m.t./year at three plants.\textsuperscript{298}

Ironically, in December 1993, the EPA asked DuPont to continue producing its full 1995 allowance of 38,000 tons of CFC-12. The EPA wanted the coolant to be available for CFC "banks" for automotive air conditioning repairs after CFC production halts in 1996. The EPA feared a consumer


\textsuperscript{298}\textit{Chemical Week}, "ICI, ElfAtotech, DuPont, and Others Are Ready for HFC Growth," May 4, 1994, p.14. (No "other" companies are mentioned.)
backlash: the cost of retrofitting automotive air conditioning was over $300.²⁹⁹

In 1994, Europe also faced a CFC shortage, as a result of its accelerated phaseout. When European Union officials tried to ease off that schedule by tripling import quotas for used CFCs, European industry protested angrily. The EU backed off and tightened import controls on used CFCs (product regulations). Satisfied, the environmental advisor to ElfAtochem (and the chairman of the European Chemical Industry Council's CFC sector group) predicted "only hundreds of tons of CFCs rather than thousands of tons will [now] be imported this year."³⁰⁰

6. CONCLUSION OF CFC CASE

My model fits this case well. Two dominant firms had high market concentration. Asset specificity in CFCs was declining; as profit margins fell, investments in alternatives became more profitable. Initially, US heterogeneous product regulations on use of CFCs in aerosols hurt DuPont and Allied Signal. These US producers objected to the unilateral measures, and seized the opportunity presented by scientific evidence to help achieve homogenous restrictions which covered competitors worldwide. They devoted assets to the development of substitutes, and stringent product regulations were adopted in common with all major producing countries. Industry at first sought direct subsidy of research on substitutes. As CFCs production was squeezed, industry benefitted from oligopoly profits.³⁰¹ Later, industry


³⁰⁰Chemical Marketing Reporter, April 18, 1994, p.9.

³⁰¹If industry had created such a cartel arrangement on its own, it might well have been charged with Stiglerian "price-fixing"
pushed to have those profits guaranteed to existing producers, through the EPA quota system. When the market for alternatives to CFCs seemed certain, CFCs themselves became the restricted "substitute," in Stiglerian fashion.

A year before the Montreal Protocol was signed, DuPont changed its position and indicated its support for limits on worldwide emissions of CFCs. According to the chief US negotiator there, private sector interests backed the UNEP proposals, sometimes against the wishes of Reagan Administration officials. According to the Executive Director of UNEP himself, Mustafa Tolba, industry was vital in shaping the final Protocol:

"The difficulties in negotiating the Montreal Protocol had nothing to do with whether the environment was damaged or not. It was all who was going to gain an edge over who; whether DuPont would have an advantage over the European companies or not."302

That role is consistent with the propositions of this dissertation.

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A similar role for dominant firms is found in the next detailed case study on bank capital requirements. Before turning to that financial case, the brief notes below address the highly specific case of regulations on phosphorus matches and the broad case of European regional integration.

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Similar Case: Phosphorus Matches ("Phossy-Jaw")

A similar story of the interplay between corporate and public interests and government regulations is found in turn of the century regulations on phosphorus matches. The use of phosphorus in matches led to a disfiguring and sometimes fatal condition among workers called phosphorus necrosis or "phossy jaw." The case has both international and US federal aspects.

Internationally, the French match monopoly led the way in discovering a substitute product (sesquisulphide) and ended phosphorus-match production in 1897. Switzerland, the Netherlands, and Germany soon followed suit; followed by Luxembourg, Denmark and Italy. In 1906 these countries signed an international treaty severely restricting phosphorus match production.

However, the US, Britain, and other major exporters "continued to resist enacting such legislation for fear of damaging their match export trade. Unless virtually all nations agreed simultaneously to prohibit phosphorus match production and trade, those that refused would stand poised to dominate the remaining global market. Competition among nations thus posed a problem similar to that which competition among the various American states would later present. . ." Internationally, the fear of lost competitive advantage prevented movement toward stringent regulations among exporting countries.

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303 This section is drawn virtually entirely from David A. Moss, "Kindling a Flame Under Federalism: Progressive Reformers, Corporate Elites, and the Phosphorus Match Campaign of 1909-1912," presented at a seminar led by Claudia Goldin at Harvard University April 1993 and published in the Business History Review, v68 n2 (Summer 1994). Thanks to Moss for an advance copy of this paper and discussion of it. My summary extracts from his more complex portrayal as a reflection of my research methodology and goal. I have not yet had the opportunity to read Moss' dissertation nor his forthcoming book (Harvard University Press, c1985). An early critic of phosphorus match production was Karl Marx, who noted in Capital X.3 that a Vienna physician in 1845 discovered a form of "lockjaw" to be peculiar to "lucifer-matchingmakers" using phosphorus. Marx was highly critical of the phosphorus match factories. Abridged in Robert C. Tucker, ed., The Marx-Engels Reader, 2nd. ed. (Norton, 1978) pp.367-368.

304 Moss, pp.7-10. The French monopoly was concerned over liability for its workers. Finland and Denmark prohibited the use of phosphorus matches twenty years earlier; I have not examined that case. It is not clear to what extent France, Denmark and others who banned phosphorus matches domestically also imposed restrictions or tariffs on imports, either to protect domestic industry or as a market access "club" to shape regulations abroad.

305 Moss, Ibid., p.8.
Within the US, "[s]tate legislators feared that if they prohibited phosphorus without the cooperation of their neighbors, match producers in their states would choose to leave rather than begin to produce non-poisonous sesquisulphide matches."³⁰⁶ Domestically, the fear of industrial relocation within the US initially prevented movement toward stringent regulations.

The dominant match producer, Diamond Match Company, "regarded the prospect of uneven state regulation as highly unfavorable." Diamond and other companies opposed heterogenous state legislation which would "introduce chaotic conditions into the whole trade situation' and would put the match factory in a state that prohibited phosphorus 'at a most serious disadvantage as compared with its competitors in other States having no such prohibition."³⁰⁷

Diamond purchased the US patent on sesquisulphide matches, the substitute to phosphorus. The president of Diamond offered to sell access to its patent in 1909 if the federal government banned the use of phosphorus in match production. With assets invested across the US, Diamond was particularly opposed to heterogenous state laws.³⁰⁸ (Coincidentally, the president of Diamond in 1911 was none other than Edward R. Stettinius, Sr., evidently the father of the man who founded Liberia's flag-of-convenience, discussed above.)

In another example of public and private interests coinciding, Diamond worked with the head of the American Association for Labor Legislation (AALL), John B. Andrews, in promoting regulation. Diamond convinced other manufacturers to purchase sesquisulphide licences, and initially required them to pay a tax if they produced more than their existing market share.³⁰⁹ (The parallel to DuPont working with environmental negotiators and establishing a production quota is intriguing.)

³⁰⁶Moss, p.2.
³⁰⁷Moss, p.3, quoting letters from match manufacturers to the House Ways and Means Committee dated December 22, 1910 and January 11, 1911.
³⁰⁸Moss, pp.16-17.
³⁰⁹Moss, pp.18-19; 24. Diamond soon backed off from the tax, under pressure; and later conceded even its patent.
Consistent with my model, the US House initially resisted regulations. "Many members expressed either uncertainty or downright hostility toward the proposed legislation... Other Committee members remained suspicious about what Diamond Match stood to gain from such legislation and whether Congress would be handing Diamond a monopoly on a silver platter." Congressmen questioned the jurisdiction and role of federal labor regulations and the use of taxes to "destroy an industry or to regulate sanitary measures that belong entirely to a State." The Chairman of the Ways and Means Committee, among others, suspected that Diamond had a substitute product which it would unveil once phosphorus was banned, to undercut its competitors.\textsuperscript{310}

The AALL sided with Diamond, arguing before the House that state legislation would lack the homogeneity necessary for competitive fairness; that collective action problems in achieving comparable laws among competing states was perhaps impossible; and that local producers of phosphorus matches would find it profitable to sell matches within their own state even if prohibited from "exporting" across state borders.\textsuperscript{311} In short, statewide asset specificity would contribute to heterogenous regulations.

Diamond executives also testified in favor of a bill which prohibitively taxed the sale of phosphorus matches. Along with nine other major producers, Diamond also "petitioned the President for special tariff consideration should the legislation go through." A smaller producer, conversely, testified against the bill and accused Diamond of trying to force him out of business.\textsuperscript{312}

With support from both labor and major industry, and graphic evidence of the health problems created by phosphorus match production, the House soon passed the bill. In the Senate, Southern Democrats opposed the bill as an invasion of states' rights, and drew analogies to turn-of-the-century regulations against Southern oleomargarine in favor of dairies.\textsuperscript{313} But with support from Henry Cabot Lodge and others, the Senate, too, approved the bill, and President Taft signed it into law on April 9, 1912.

\textsuperscript{310}Moss, p.21, 25. Representative John Dalzell (R-PA), House Committee on Ways and Means, January 20, 1911, quoted in Moss, p.21.

\textsuperscript{311}Moss, pp.21-22.

\textsuperscript{312}Moss, p.23.

\textsuperscript{313}Moss, pp.30-31.
The bill banned the import of phosphorus matches within nine months and their export within 21 months. It imposed a domestic tax within 15 months, which effectively rendered the production of phosphorus matches unprofitable and effectively eliminated them.\textsuperscript{314}

In this case as in the others I examine, it is clear that dominate corporations played a necessary and important role in securing the passage of regulations.\textsuperscript{315} In both the international phossy-jaw case and even more clearly in the domestic case, the actors, the coalitions, the positions they take, and the final outcome are remarkably consistent with my propositions.

European Integration?

Analyzing the broader case of European integration is beyond the scope of this dissertation. The question mark in the subheading above is deliberate. However, there is evidence that the role of business in shaping the overall drive for harmonization of European regulations cannot be ignored. See, for example, Mennis and Sauvant (1976); and Milner (1988) on the politics of international free trade. Maria Green Cowles (1994) argues that the dominant European manufacturers group, the European Round Table of Industrialists (ERT) was instrumental in the move toward the Single European Act and regulatory homogeneity:

"More than any other business group, the ERT has played an important role in shaping the larger regulatory framework of the Community. . . . [M]ore than any Member State, the ERT has influenced the underlying ideology of that regulatory framework. . . . [T]he CEOs sought to develop a political organization to relaunch Europe, to create the regulatory framework for a European market."\textsuperscript{316}

\textsuperscript{314}Moss, p.33.

\textsuperscript{315}With Moss, I agree that this does not imply corporate control of the political process, nor that the "Baptists" in this case (the AALL) were unwitting dupes. Moss is careful to distinguish his views from those of James Weinstein, author of The Corporate Ideal in the Liberal State 1900-1918 (Boston: Beacon Press, 1968).

\textsuperscript{316}The original members of the ERT, meeting in April 1983, included the leading officers of Volvo, Renault, ICI, Unilever, Olivetti, Thyssen AG, Siemens, Philips, Shell Transport and Trading, Fiat, Nestlé, Ciba-Geigy, and others. See Maria Green Cowles, "The Politics of Big Business in the European Community. Setting the Agenda for a New Europe," pp.272-272, Ph.D. dissertation, American University, 1994. Thanks to Cowles for discussing this issue and others, and for a chapter from her dissertation. Wayne Sandholz and John Zysman similarly (continued...)
In terms of my model, powerful firms with high multinational asset specificity are engines of regulatory homogenization. This is consistent with the other cases I analyze.

In a June, 1983 memo to EC Commissioner Davignon, the ERT declared that "the creation of a unified European market is essential." The ERT laid out a number of specific measures to realize that goal. These included "integrating the European market by allowing for the development of common standards. . . ." and facilitating "transnational industrial structures by eliminating fiscal impediments to mergers and restructuring, and simplifying the transactions between parent companies and their subsidiaries." Consistent with my model, dominant multinational producers in concentrated industries favored regulatory homogeneity, to reduce transactions costs.

Domestic producers, conversely, tend to oppose standardization. They benefitted from the unique standards contained in 100,000s of pages of national standards. The Deutsches Institut für Normung (DIN), for example, had 5,000 employees and spent over $40 million per year for standardization. Similar institutes elsewhere include the British Standards Institution (BSI) and the Association Francaise de Normalisation (AFNOR). Their standards range from guidelines for material testing in nuclear reactors to the size of fountain pen refill cartridges and the width of the line such a cartridge must be able to draw.

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316 (...continued)


The movement toward unification in the 1980s was the latest in a series of steps toward integration following World War II. Analyzing this entire process is even further beyond my scope here. However, it is not surprising that coal and steel were the first European industries to move toward a common regulatory framework after 1945: they also had high multinational asset specificity in the scope and location of their operations.

Williamson (1985) offers tantalizing support here: "In particular, comprehensive integration . . . is widely believed to be the organizational means by which complex products and services are . . . efficiently brought to market. [. . .] The standard example is the integration of iron and steel making, where the realization of thermal economies is said to require integration." The asset specificity of investments in the "thermal economies" of coal and steel was high.

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319 The 1951 Treaty of Paris created the European Coal and Steel Community; a free trade area for coal and iron among Germany, France, Italy, and the Benelux countries. Jean Monnet (French visionary politician) and Robert Schumann (French foreign minister 1948-53) led the effort. Their goals were to legitimate Adenauer but contain Germany; Franco-German reconciliation; a vision of united Europe; stabilize Italy; and economic growth.

320 Williamson (1985) op. cit., p.86-87; citing Bain, 1958, p.381. Williamson is referring to vertical integration within a firm, but my argument is that the underlying logic has additional ramifications.
CHAPTER FIVE: BASLE ACCORD ON CAPITAL ADEQUACY


"The Basle Accord was motivated by several factors. First, bank regulators were interested in enhancing banks' capital position, in order to enhance banks' ability to absorb losses due to LDC debt and other exposures. Second, they saw a need to forestall a possible competition in regulatory laxity in bank capital adequacy standards. . ." --Cynthia Lichtenstein\textsuperscript{321}

In December 1987, central banks from the world's major industrial powers reached agreement to require private banks to raise capital (as a percentage of risk-weighted loans). Implementation of this Basle Accord showed some movement toward a higher common denominator outcome (hence its inclusion here) but also some continuing heterogeneity between countries.

I first provides an overview of the "puzzle" posed by the Basle Accord. As with the other case studies I then summarize the industrial structure and asset specificity of international finance (including contracting structures on sovereign lending). The case study proceeds to examine in section four heterogenous movements in the regulation of capital prior to the Basle Accord, and the impact of the 1980s debt crash on them. Section five discusses the largely failed multilateral efforts toward regulatory convergence through the Cooke Committee. The sixth section on bilateral US-UK agreement denotes the point at which real movement toward the Basle Accord occurred. That movement was cemented when the US persuaded Japan to join, as discussed in section seven. Sections eight discusses the final

negotiation and implementation of the Accord. Finally, the ninth section explains that considerable heterogeneity remained in the use of capital requirements worldwide and that new heterogenous measures were taken in the early 1990s. The concluding tenth section reviews the case. (Appendices summarize the basics of bank capital and discuss the role of public and private institutions in international finance.)

1. THE PUZZLE: COMMON REGULATORY MOVEMENT UPWARD, COUNTER TO SECULAR TRENDS

On July 15, 1988, the Standing Committee on Banking Regulations and Supervisory Practices (the Cooke Committee) at the Bank for International Settlements (BIS) announced that its members had reached agreement on a proposal for "international convergence of capital measurement and capital standards".\textsuperscript{322} Ironically, a leading economics textbook published that same year observed that "cooperation, technically complex and politically difficult, is unlikely to occur in the near future. In particular, international agreement on reserve requirements and other financial regulations would be required."\textsuperscript{323} Lower capital ratios reduce the cost of lending for banks, \textit{ceteris paribus}

\textsuperscript{322}Formally called the Standing Committee on Banking Regulations and Supervisory Practices, the "Cooke Committee" was popularly named after its long-standing chairman, W. Peter Cooke, who headed up banking supervision at the Bank of England. See appendix for an explanation of capital adequacy. The Committee consisted of central bank representatives from the Group of Ten (G-10): Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the United Kingdom, and the United States, plus Switzerland and Luxembourg. Each country had two representatives at the table. US representation was later expanded to four because of its fragmented regulatory structure: the Federal Reserve Bank of New York (FRBNY), Federal Reserve Board (FRB), Office of the Comptroller of the Currency (OCC), and Federal Deposit Insurance Corporation (FDIC). The FRBNY is ostensibly one of the regional banks created under the Federal Reserve Board; in practice it is a leader on regulatory issues.

\textsuperscript{323}Paul Krugman and Maurice Obstfeld, "Importance of Regulatory Asymmetries" and "Regulating Banking," in \textit{International Economics}, 1988, pp.636-646. Quote on p.639. Reserve requirements and capital requirements are not identical, but face similar coordination problems.
making them more price-competitive. This creates incentives for a
competition-in-laxity, which in fact occurred. The average capital for major
US banks dropped in half from 1960 to 1980. Those incentives were
enhanced by increased globalization of finance, new competitors (bank and
nonbank), new financial products including off-balance sheet risk-management
instruments, new technologies, and debt failures. The question then is
why did cooperation occur to the extent it did, when it did, after twelve years
of weak efforts toward convergence of bank regulations, and at a time of
stagnation in the Uruguay GATT Round; worldwide secular trends toward
banking deregulation; and Reagan Administration tendencies toward
unilateralism?

I argue that the timing and details of that agreement cannot be
explained without reference to dominant private sector interests and
government responses to them, unusual contracting arrangements among
banks, the extensive multinational investments of global finance, and subtle US
threats of market closure to banks which did not meet requirements approved
by the US.

324 See Edward J. Kane, "Competitive Financial Deregulation: An International
Perspective," in Richard Portes and Alexander K. Swoboda, eds., Threats to International

325 See BIS, Recent Innovations in International Banking, 1986; IMF, International
Capital Markets 1994; Ethan Kapstein, "Resolving the Regulator's Dilemma," World Politics,

326 The "Basle Accord" was first circulated by the Bank for International Settlements,
Committee on Banking Regulations and Supervisory Practices, in the "Consultative Paper on
December, 1987. The revised final accord was entitled "Report on International Convergence of
Capital Measurement and Capital Standards," July 1988, commonly called the "Basle Accord." It
was not a formal treaty, merely an expression of agreement between central bank governors.
Key political economy works on the Accord are Ethan Kapstein, "Resolving the Regulator's
of the Basle Accord," Princeton Essays in International Finance No.185, December 1991; Id.,
"Between Power & Purpose: Central Banks and the Politics of Regulatory Convergence"
(continued...
The Basle Accord had distributive aspects as well as the more-widely touted "public good" aspect of stabilizing the world banking system. To the extent it averted a financial crash nearly everyone realized absolute benefits. The relative winners, in distinction, were financial institutions in industrial countries who solidified their position in negotiations with developing countries on sovereign loans. (Within this group, nonbank financial service providers and well-capitalized banks benefitted most). The relative losers, arguably, were those developing countries whose negotiating position was weakened by the strengthened capital position of lenders. As the debt crisis eased in the early 1990s the differences among banks became more important and unified bank action became less important. By 1994, the

\[\text{...continued}\]


I emphasize here the relative distributive aspect of the Basle Accord. Debtor countries benefitted in absolute terms from the accord as well, to the extent it averted a global financial crash which would have cut foreign investment even further, and reduced demand for their exports. But other deals, more favorable to debtor countries, could also have averted a crash. See, inter alia, Rudiger Dornbusch, John Makin, and David Zlowe, Alternative Solutions to Developing-Country Debt Problems, 1989. Thanks to Dornbusch for discussions of debt issues and numerous other papers. Vinod K. Aggarwal, International Debt Threat: Bargaining Among Creditors and Debtors in the 1980s, 1987; Fred Bergsten, William Cline, and John Williamson, Bank Lending to Developing Countries: The Policy Alternatives, 1985; Raquel Fernandez, "The Scope for Collusive Behavior Among Debtor Countries," Journal of Development Economics, 1990 p.297-313; Jeffrey Sachs, "New Approaches to the Latin American Debt Crisis," 1989. N.B., the Basle accord was only one of many factors affecting developing country debt.

The impact of the 1988 Basle Accord on the entire LDC debt issue is difficult to evaluate in isolation and is well beyond the scope of this study. It is sufficient to note that fears of a systemic financial crisis eased by 1991. Critics argued that stabilizing the world financial system came at a considerable cost to developing countries. The global financial system remained intact, but debt problems continued to plague many developing countries. Bad loans were made to corrupt and undemocratic regimes. The resulting debt overhand scared away (continued...)
Accord and subsequent unilateral measures benefitted US and European banks against their Japanese competitors.

Thus, there are two phases in this case. The first phase involved the relationship among all lenders and their sovereign borrowers in the 1980s, and resulted in movement upward toward homogeneity. The later and more nationalist phase involved the relationship among individual banks and their regulators in different countries after the debt crisis had eased. This latter phase showed lingering heterogeneity in capital standards, despite the Basle Accord.

A chronology of key dates in the first phase is shown in Table V.1, below.

---

future investors, forcing countries to raise money domestically at very high interest rates. See, e.g., Jeffrey Sachs, ed., Developing Country Debt and Economic Performance, 1988-1989. Bankers countered that only private financial markets could provide the level of capital developing countries needed to finance investments. Governments and taxpayers in developed countries would not be willing to shoulder that burden. It was therefore essential to get borrowers back to the market and to prevent them from becoming dependent on government assistance. (Background interviews, Citicorp, 1990.)
Table V.1

<table>
<thead>
<tr>
<th>Chronology of Events in Basle Accord Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>July; August 1982 Bank Ambrosiano bailout. Mexico announces it can not meet its payments schedule.</td>
</tr>
<tr>
<td>1983 Revised Basle Concordat. (First Concordat in 1975). US Congress passes ILSA.</td>
</tr>
<tr>
<td>July 1985 FRB, FDIC, OCC propose unilateral 5.5% primary capital ratio. All 9 major banks already above 5.0%; 5 of them already above 5.5% 7 months earlier. By Dec. '84 all 9 were above 5.5%. Proposal adopted March 1985, after US banks in compliance.</td>
</tr>
<tr>
<td>July 1987 Volcker contacts Leigh-Pemberton (BoE) about convergence of capital standards.</td>
</tr>
<tr>
<td>September 1987 Cooke Committee report: &quot;It is not possible to recommend one single, generally-accepted definition of capital... Over time, it is hoped that the exercise will assist in determining the divergence between the capital position of different national banking systems.&quot;</td>
</tr>
<tr>
<td>May 1988 Citicorp announces $3 billion loan-loss reserve.</td>
</tr>
<tr>
<td>June 1988 IMC in Hamburg: Leading bankers discuss capital standards (and Brazilian debt) amongst selves; and with Volcker, Leigh-Pemberton, Pöhl, T.Öhta.</td>
</tr>
<tr>
<td>June 1988 Federal Reserve staff negotiates with Japanese MoF staff.</td>
</tr>
<tr>
<td>August 1988 Federal Reserve and Japan reach bilateral agreement, in NY, when Corrigan threatens to close market access to non-complying Japanese banks.</td>
</tr>
<tr>
<td>September 13 1988 US-UK-Japan non-public trilateral agreement; presented to BIS as fait accompli.</td>
</tr>
<tr>
<td>December 10 1988 BIS releases draft proposal for bank review.</td>
</tr>
<tr>
<td>July 1988 BIS publishes final capital agreement (&quot;Basle Accord&quot;).</td>
</tr>
</tbody>
</table>
2. INDUSTRIAL STRUCTURE AND "GOVERNANCE" OF INTERNATIONAL BANKING

Unlike other cases of movement toward stringent regulations (tuna-dolphin, formula advertising, CFCs), global banking is dominated by perhaps two dozen firms, not just a few.\textsuperscript{329} Within every country, a few banks do dominate major transactions. They act as an oligopoly on certain large-scale domestic financial transactions. In the 1980s in US these were the "nine money-center banks." (The local US banking system is unusually fragmented with 13,000 smaller banks outside of the money-center banks and several "super-regionals.") In the UK, it was the "big four"; in Japan the "top eleven commercial banks"; in Germany the "big three." These banks exert considerable sway with their domestic regulators in the establishment of supervisory practices. Worldwide, however, these banks face collective problems in organizing to stabilize financial markets. The biggest source of financial instability in the 1980s and the biggest collective action problem facing banks was developing country debt.\textsuperscript{330}

However, the fragmented nature of the market structure in sovereign-lending is somewhat illusory, for four reasons. First, most sovereign loans were syndicated widely among banks. Each major bank held "pieces" of many loans. Second, contractual cross-default arrangements forbade individual banks from re-negotiating debt alone. Third, banks joined together in Bank Advisory Committees (BACs), a governance structure which present a more unified negotiating position to each sovereign borrower. Citicorp chaired (or co-chaired) the BAC for seven of the 15 "Baker-15" countries, including three

\textsuperscript{329}The number depends on the region under consideration. American banks are present worldwide (and particularly dominant in the Americas), Asian banks are more prevalent in Asia, French banks in former French West Africa and so on.

\textsuperscript{330}Benjamin J. Cohen, \textit{In Whose Interest} (Yale University Press, 1986).
of the four largest debtors. Fourth, the coordinating body of central bank regulators, the Bank for International Settlements (BIS), had an intimate relationship with the financial community. The BIS was created as part of the Young Plan in 1929. O.D. Young was the Chairman of General Electric. The committee which drafted BIS' statutes included J.E. Reynolds, the President of First National Bank of the City of New York (later Citibank) and Mr. Traylor, President of First National Bank of Chicago. Also on the Young Committee was J.P. Morgan, President of J.P. Morgan, NY. When the American government refused to buy into the BIS in 1929, these three American banks jointly purchased shares on behalf of the United States and were the official US representatives at BIS for many years. After years of rubber-stamping BIS decisions, Citibank formally transferred its proxy vote to BIS management only in 1987.331

These factors contributed to a more unified governance structure than the number of banks involved might indicate. (These institutional arrangements are discussed in in an Appendix to this chapter). Nonetheless, the final outcome of the case shows lingering heterogeneity. I argue that is the result of dominant bank interests within major countries which shaped domestic regulations to their advantage.

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331 Background interviews at Citibank, July 1990; and Beth Simmons, "Why Innovate: Founding the Bank for International Settlements," *World Politics* v45 n3 (April 1993), Table 2, p.378.
3. **ASSET SPECIFICITY IN INTERNATIONAL BANKING**

Sovereign and corporate lending to developing countries were highly asset specific multinational investments. Loans were dedicated to transactions with particular sovereign or corporate borrowers. As the debt crisis deepened after 1982 banks the secondary market value of those loans declined. This gave banks further incentive to ensure that the transactions were not prematurely terminated. Sovereign lending also involved human assets dedicated to negotiating those loans. The reputation and identity of the negotiating parties in these relationships was significant. As the debt crisis deepened in the 1980s sovereign lending became even more human asset-specific. Members of the Bank Advisory Committees negotiated intensively with their counterparts from debtor countries both to reschedule payments and to compel new lending. The high asset-specificity of sovereign lending created incentives for a more unified governance structure among contracting parties. That structure reflected dominant bank interests.

4. **STATUS QUO ANTE: HETEROGENEITY, DEBT CRISIS**

Countries' accounting systems showed considerable heterogeneity in their definition and treatment of bank capital up through the mid-1980s. The Mexican and subsequent debt crises made financial markets jittery and increased scrutiny of banks' financial positions. This section describes the

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332 The asset-specificity of banking services varies greatly by product area. Other financial services, by contrast, were lower in asset specificity than sovereign lending. These included retail credit-card operations (responsible for up to half of American bank profits) and "blind" Euromoney transactions. Regulation of these products showed movement toward laxity. With lower asset specificity, producers were more able to relocate to states offering preferable regulations. Governments responded to these pressures by relaxing regulations.
initial heterogeneity, the debt crisis, and responses to it that affected bank capital.

4.1 Heterogenous Capital Standards in 1980s

Banks' capital-to-assets ratios declined since the early 1970s. This reflected competitive pressures for lower-cost lending. Foreign banks grew increasingly active in the US market, particularly Japanese banks. As the debt crisis grew in the early 1980s, US banks and the Federal Reserve Board wanted to improve world financial stability and also to improve US banks' position vis-a-vis Japan and a unified Europe.  

The status of capital adequacy requirements varied considerably among countries. Differences included the definition and valuation of capital, the formulas used to measure capital adequacy, the weighing of risk, and the minimum amount of capital required. (See Table V.2). Numbers were often incompatible between countries. Japanese regulators had only recently begun to examine capital/asset ratios, relying on other means to evaluate bank safety. European countries relied on an *ad hoc* approach, with close working relationships between domestic banks and their central bankers. In 1979, France introduced a risk-related capital standard (quite different from that eventually agreed on by the BIS). In 1980, the UK unilaterally adopted an informal risk-weighted, capital-asset measure.

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**Table V.2**

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital: equity, disclosed reserves</td>
<td>Yes (pc)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Tier 1</td>
</tr>
<tr>
<td>preferred shares</td>
<td>Yes (pc)</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Tier 1</td>
</tr>
<tr>
<td>undisclosed reserves</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Tier 2</td>
</tr>
<tr>
<td>undisclosed hidden values</td>
<td>No</td>
<td>No</td>
<td>Yes 70%</td>
<td>No</td>
<td>No</td>
<td>Tier 2</td>
</tr>
<tr>
<td>revaluation reserves</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Tier 2</td>
</tr>
<tr>
<td>perpetual, similar debt capital issues</td>
<td>Yes (pc)</td>
<td>Yes (pc)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Tier 2</td>
</tr>
<tr>
<td>general loan-loss provisions</td>
<td>Yes (pc)</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Tier 2</td>
</tr>
<tr>
<td>term subordinated debt</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Tier 2</td>
</tr>
<tr>
<td>other</td>
<td>minority holdings (pc)</td>
<td>-</td>
<td>pension reserve</td>
<td>Genusscheine</td>
<td>titres parti- patifs, subordonnes</td>
<td>-</td>
</tr>
<tr>
<td>Deductions from Capital: holdings in other banks</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>goodwill</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>other</td>
<td>-</td>
<td>-</td>
<td>bad loan reserve</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Limits on Subordinated and Perpetual Debt: term subordinated</td>
<td>Yes</td>
<td>Yes</td>
<td>na</td>
<td>na</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td>perpetual, etc.</td>
<td>Yes</td>
<td>Yes</td>
<td>na</td>
<td>Yes</td>
<td>No</td>
<td>-</td>
</tr>
<tr>
<td>Gearing Ratio: denominator</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>denominator</td>
<td>total assets</td>
<td>liability (capital)</td>
<td>total assets</td>
<td>na</td>
<td>na</td>
<td>risk- weight</td>
</tr>
</tbody>
</table>

Note that Tier 2 shows LCD agreement for most major countries' definitions. Underlining shows items which form a significant part of capital for a given country. (pc) = primary capital. Source: Glenn Tobin (1991), from BIS (1987)

In the US from the 1950s to the 1970s, the "Analysis of Bank Capital"
(ABC) system was risk-weighted. Banks were required to hold capital equal to 0.4 percent of face value on US Treasury-bills and 10 percent on business loans. With the rapid innovation of new financial instruments in the 1970s, the system became more complex and difficult to administer. Large banks began to fall behind the capital supposedly required by regulations. By the mid-1970s the system was phased out and replaced with other regulatory measures (including reserve requirements). By 1980, the average level of capital for US money-centered banks was roughly 6.3 percent of assets, half the amount of only two decades earlier. After 1981, the US ended its "case-by-case" approach which is common in European countries.

4.2 The 1980s’ Debt Crisis

In late August 1982, the Mexican government shocked the international financial community in by announcing it could not meet its payments schedule to private banks. This marked the beginning of the debt crisis of the 1980s. Brazil, Argentina, and other developing countries also faced payments problems. Bank failures in the US and Europe compounded the problem.

Worldwide, financiers held their breath to see whether the world’s financial system could withstand the shock. It did, at a cost to both borrowers

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334 This section is drawn from Tobin (1991), p.271.

335 Mexico did not "default" on its loans nor was it in arrears on them. It rescheduled loans through negotiations with banks. To bankers, the difference is crucial.

and lenders. Fears of a systemic crisis led to a drastic reduction in new lending to developing countries and protracted negotiations with major banks. The debt crisis focussed the attention of regulators on the adequacy of bank capital as a way to buffer G-10 countries against future worldwide shocks.

4.3 US Response to the Debt Crisis: Unilateral Moves Toward Capital Requirements Opposed by Banks

By 1981 regulators in the US began to move toward more stringent capital standards on their own: "In 1981, US authorities, alarmed by the slump in prudential ratios over the previous 20 years and the impact of the LDC debt crisis, decided that tougher capital requirements were needed to reinforce the financial system and protect the federal deposit insurance fund."337 Regulators began by increasing standards for highly localized banks. The debt crisis spurred on those measures.

In 1983 the US Congress passed the International Lending Supervision Act (ILSA). ILSA called for the Federal Reserve Board to raise levels of capital across the US banking system, increase regulation, and improve coordination between agencies within the US. ILSA also encouraged "major banking countries to work toward . . . strengthening the capital bases of banking institutions involved in international lending."338 Bankers objected to unilateral measures which would undermine their global competitive position, by raising costs.


Federal Reserve Chairman Paul Volcker supported the banks and argued to Congress and bank supervisors that regulatory convergence should occur gradually, and should be multilateral or the "functional equivalent" of it. In Volcker's view, competitive deregulation had already gone too far. Echoing American bankers' complaints about Japan, Volcker sought a "level playing field" where one bank could not underprice another because it had less capital. Volcker first presented the US Congressional request to the BIS in March 1984; the central bankers there thought policy convergence was too much to ask.

The failure of Continental Illinois Bank in May 1984 gave added urgency to calls for higher capital standards.\textsuperscript{339} Only two months later in July 1984 the Federal Reserve, FDIC and OCC proposed a unilateral 5.5 percent primary capital-to-assets minimum ratio. The proposal was not a big jump for US banks. At year-end 1983 five of the nine money-center banks already had capital ratios at or over 5.5 percent and none were under 5.0 percent. Even by December 1984 all nine money-center banks had raised their capital ratios to over 5.5 percent. The proposal was adopted in March 1985.\textsuperscript{340}

In July 1985, the Federal Reserve Board began to consider implementing risk-based capital standards. It was soon joined by the OCC and

\textsuperscript{339}Kapstein, p.336.

FDIC. Six months later, in January, 1986, the Federal Reserve Board circulated risk-weighted capital proposals for "public review."

US banks were not pleased with unilateral proposals, which they argued would hurt them vis-a-vis foreign competition. In May 1986, the American Bankers Association (ABA) in "formal comments to the [Federal Reserve] Board stated that the proposal would exacerbate the competitive inequities that existed between US commercial banks and their foreign peers and between commercial and investment banks," and would thereby undermine the ability of US banks to compete. 

Multilateral standards were a different issue. To restore capital levels, US banks "supported the concept of risk-based capital and had encouraged the regulatory authorities to develop an agreement at the international level." Banks' reaction was similar to that of DuPont on CFC restrictions: they were willing to go along with stringent capital regulations if they were homogenous worldwide, particularly including Japan. They did not like unilateral restrictions that raised their cost of doing business. US banks went along with the Federal Reserve's earlier 5.5 percent proposal for two reasons: concern over bank failures was real enough, and the proposal differentially hurt

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341 In 1986 the BIS published two widely-cited studies: *Recent Innovations in International Banking*; and *The Management of Banks' Off-Balance Sheet Exposures*. Both emphasized the necessity of risk-weighted adequacy requirements. Thanks to Stephan Haggard for first drawing my attention to these.


Japanese banks. At the same time on other regulatory issues banks launched major lobbying strategies for deregulation.344

4.4 Citicorp Loan-Loss Reserves, May 1987

On May 19, 1987 Citicorp Chairman John Reed announced an increase in Citicorp loan-loss reserves of three billion dollars. Analysts were stunned. Reed and Citicorp’s chief negotiator on sovereign debt, William Rhodes, were leading spokesmen on the issue. The announcement was widely interpreted as strengthening the bank’s hand in negotiating sovereign lending. By setting aside three billion dollars Reed indicated his resolve in continuing to push for repayment of those loans. Citicorp’s stock rose following the announcement and other major banks soon followed suit.

The treatment of Citicorp’s loan-loss reserves became a central issue in the capital discussions. Citicorp’s announcement came soon after completion of a confidential US-UK agreement on capital and in the middle of confidential US-Japan negotiations on capital. (These are discussed below.) The next month, June 1987, top bank CEOs met at the annual International Monetary Conference (IMC) in Hamburg, Germany. They discussed general principles for the forthcoming renegotiation of debt for Brazil, the country

344 Namely, market access overseas under the Uruguay Round, concern over Europe’s Second Banking Directive, securities settlement issues in the G-30, and removal of the US Glass-Steagall and McFadden Acts, which prohibited banks from selling securities and from operating across state lines. Regulatory officers at Citicorp noted that they did not take a formal, consistent position on the Basle Accord because they needed to “pick and choose” which issues were most important. Interviews at Citicorp, March 23 and 27, 1991.
with the largest outstanding debt. They also engaged in discussion with central bank governors about proposals to raise capital standards.

There was also debate within the US regulatory system on how to treat loan-loss reserves. The Federal Reserve Bank wanted them counted as part of capital, arguing that they were set aside to cover general losses. This was consistent with Fed support for the Baker Plan. The Office of the Comptroller of the Currency (OCC) argued that loan-loss reserves simply reflected the real market value of existing loans, and should not be counted as capital. England (and later Germany) supported the OCC. By 1987 Volcker and US banks won out. Volcker informed the June 1987 International Monetary Conference (IMC) that general loan-loss reserves would be counted as capital, albeit not pure (Tier 1) capital.

5. MULTILATERAL EFFORTS THROUGH BIS: 1983-1986

Much attention has been given to the role of the BIS Supervisory Committee in multilateral efforts to raise capital. While the Committee made progress in defining and measuring capital, ultimately it was not able to secure regulatory change. This section summarizes that multilateral effort.

5.1 The Cooke Committee

Multilateral efforts to harmonize bank regulations began as early as 1974 with the Group of Ten's Basle Standing Committee on Banking

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Regulations and Supervisory Practices (hereafter, the "Cooke Committee") at the Bank for International Settlements (BIS).[^346] Through protracted discussions, the Committee laid much of the technical groundwork for the Basle Accord in defining capital and risks.

The Cooke Committee's first Basle Concordat (1975) laid out general principles for host and parent countries' division of responsibilities and for home-country consolidation of regulation.[^347] In June 1982 the Cooke Committee issued a paper "calling for supervisors to resist any further erosion in capital ratios," and to raise capital levels. The 1983 Revised Basle Concordat refined the measurement and definitions of risks and capital adequacy. No specific proposals were agreed on.

In early 1984, Paul Volcker persuaded the Group of Ten central bank governors on the BIS Board to again discuss capital standards. Over some objections from the German and French delegates, the BIS Board instructed Peter Cooke to investigate cooperation on capital standards. By September 1984, Cooke had made recommendations for the creation of an "Observation Ratio" framework, using six tiers of risk.[^348] No movement toward convergence of standards occurred.

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[^346]: Formally called the Standing Committee on Banking Regulations and Supervisory Practices, the "Cooke Committee" was popularly named after its long-standing chairman, W. Peter Cooke, who headed up banking supervision at the Bank of England. See appendices for an explanation of capital adequacy. The Committee consisted of members from the Group of Ten (Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the United Kingdom, and the United States), plus Switzerland and Luxembourg.

[^347]: The principles included: support by central bankers for private banks with liquidity problems within their borders; parent banks to be held responsible for the losses of their overseas branches or subsidiaries, supported by their central bank; consortium banks to be supported on a pro rated basis by the parent banks. Kapstein, op. cit., p.329.

5.2 Cooke Committee Languished by 1986

Tobin (1991) concludes that despite the work of the Cooke Committee no regulatory homogeneity was seen or likely:

"It is likely that situation would have continued without the development of a separate negotiation. The truly multilateral effort in the Basle Committee had failed to reach convergence. . . . [C]onvergence did not occur gradually through a consensual process, because fundamental political [economy] issues were involved. . . . It is doubtful whether any concrete results would have emerged from the Basle Committee process." 349

Although the Cooke Committee played an important role in clarifying the analytical issues involved it was not responsible for agreement on the Basle Accord.

Indeed, as late as September 1986 the Cooke Committee circulated a paper to central bank supervisors worldwide which stated that it was not possible to recommend a single definition of capital worldwide:

"It is not possible to recommend one single, generally-accepted definition of capital. . . Over time, it is hoped that the exercise will assist in determining the divergence between the capital position of different national banking systems." 350

The paper merely expressed hope that the "divergence" between heterogenous standards could be determined.

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349 Tobin, op. cit., pp.210-211.

350 This paper was circulated to bank supervisors worldwide. Quoted in Tobin, op. cit., p.208.

Yet behind the scenes the US and UK had already begun agreement on a bilateral agreement on capital standards. In four months the US and UK were able to reach agreement. This bilateral agreement paved the way for the Basle Accord.

6.1 **US-UK Bilateral Accord: 1986-87**

In February, 1986, the Bank of England and the US Federal Reserve Bank began private bilateral talks on capital adequacy. To the US, the talks "required a fundamental rethinking of the appropriate definition of capital, since each country brought its own definition to the negotiations."\(^{351}\)

In July, Volcker and Bank of England Governor Leigh-Pemberton met to discuss a common approach. That July meeting marked the beginning of real movement. Pemberton advocated stronger international coordination among securities regulators. But there was no international consensus on capital standards. The EC was looking into the issue but had taken no action. England was dissatisfied with the EC approach, which reflected Germany's mandate on the definition of capital. "[C]ountries continued to defend their own capital standards. Germany, saw no need of standardization among G-10 countries, given its own rigorous capital requirements."\(^{352}\) Capital in Germany was defined by law; and regulators claimed they could not alter it. England was also dissatisfied with European movement toward a European Monetary System and was eager to sidestep the EC initiative.

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\(^{351}\)FRBNY Quarterly Review, Winter 1987-88 p.27. The UK had moved to its own use of capital requirements earlier.

\(^{352}\)Kapstein, op. cit., p.339. US, UK, and German banks were well-capitalized; less so were Japanese, French, and Belgian banks. Financial Times, December 11, 1987.
Federal Reserve and Bank of England staff met in September and October of 1986. They quickly resolved major issues. The meetings were kept confidential until final agreement was reached. On January 8, 1987, the Federal Reserve Board and the Bank of England announced agreement on common standards for bank capital adequacy. This was only four months after the pessimistic Cooke Committee paper stated "it is not possible to recommend one single, generally-accepted definition of capital." The US-UK agreement would later provide the basis for the Basle Accord.

The American Bankers Association expressed concern about several details of the bilateral agreement. In particular, it noted the unfair advantage of banks operating in countries where the more stringent standard did not apply. It also worried that the government would use it to allocate credit, rather than relying on private market decisions.

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353 Tobin (1991) suggests the major issues were resolved by October. Also in late October 1986 the UK began its so-called "Big Bang" of financial deregulation.


6.2 US-UK Agreement Preempted European Initiatives; Cooke Committee Resuscitated

The US-UK bilateral accord preempted European negotiations, which might have created a different standard in which the United States had no part in negotiating. The EC was taken by surprise: the Commission was "outraged" when it was informed of the US-UK agreement just the day before it was made public. The EC suggested that Britain might be in violation of the Treaty of Rome. The US-UK agreement also shocked the Cooke Committee. One member described it as a "bombshell."356

Facing pressure from the EC, British authorities immediately revived the languishing Cooke Committee. The Basle Accord would ultimately be announced by the Cooke Committee as the result of multilateral efforts. While true in part, the driving force was the US-UK agreement (and subsequent US-Japan agreement, discussed next). All parties benefitted from presenting the agreement through the auspices of the Cooke Committee: the US and UK avoided alienating other members, the other members saved face, and the Cooke Committee avoided being left behind.

The Cooke Committee met in January, March, April, and June of 1987 to try to reconcile the US-UK agreement to the goals of other BIS member countries. It encountered resistance from the Japanese and German delegations on the definition of capital. In Brussels, preliminary agreement was reached on a formula using two tiers of capital. The first tier of "pure" capital (Tier 1) was to consist primarily of shareholders' equity. The second tier (Tier 2) included elements such as hidden assets, loan reserves and subordinated capital, to be regulated at the discretion of national regulators.

356Tobin, (May 1990) p.34; and discussion.
Other difficulties remained. Despite the US-UK agreement and Cooke Committee efforts at negotiations, multilateral agreement had not yet occurred.

6.3 June 1987 International Monetary Conference

The month after Citicorp's loan-loss reserve was announced top bank CEOs met at the annual June 1987 International Monetary Conference (IMC) in Hamburg, Germany. (See Appendix for details on the IMC). Citicorp's reserves and the US-UK capital adequacy proposal were discussed. Besides bankers, also present at the Conference were Paul Volcker of the Federal Reserve; Robin Leigh-Pemberton of the Bank of England; Karl Otto Pöhl, President of the Bundesbank; Takeshi Ohta, Deputy Governor of the Bank of Japan; Robin Leigh-Pemberton, Governor of the Bank of England; and Jacques de Larosière, Governor of the Bank of France and former Director of the IMF.³⁵⁷

Volcker assured Citicorp that provisions against Third World loans would be allowed as Tier 2 capital. He accepted that these loan-loss reserves did not fit the definition of Tier 1 pure capital, on the grounds that they were a cost of doing business, not a cushion against loss.³⁵⁸ John Reed said he

³⁵⁷According to the ABA, German protesters marred the IMC meeting, demanding the forgiveness of Third World debt and blocking traffic. They were removed by police. "Protesters Mar IMC Meeting," American Banker, June 24, 1987; p.3; Vol. 152, No. 122 Dateline: HAMBURG, West Germany. Compiled by Philip T. Sudo.

³⁵⁸Previously, US banks had been allowed to count reserves as "primary" capital. Bank regulators made a judgment between "general provisions," which are available to meet any losses, and count as capital; and "specific provisions," which cover an identified credit risk and do not count as capital.
was "greatly encouraged" by Volcker's comments.\(^{359}\) (The final Basle Accord would allow loan-loss reserves to count up to two percent of assets for Tier 2 capital, phased down over three years to 1.25 percent.)


"The 1988 capital-adequacy accord, signed in Basle by regulators from a dozen rich countries, had two purposes: to make banks stronger and to undercut the competitive advantage enjoyed by Japanese banks." -- *Economist*\(^{360}\)

The US then used off-the-record threats of market closure against Japanese banking products, to pressure it into joining the US-UK agreement. These market access threats constituted product restrictions: restrictions on the sale of services which did not meet risk-based capital standards. This section describes the use of market access by the US to raise capital standards in Japan in part to strengthen the world's financial system and in part to improve the competitive position of US banks. Success in bringing Japan on board to the US-UK agreement was ultimately what clinched agreement on the Basle Accord.

Earlier in the 1980s Japanese banks began to undercut US banks with low lending rates. Japanese banks profited from high domestic savings, a large capital account surplus, ceilings on deposit interest rates, and a mushrooming

\(^{359}\)Reed quoted in *Financial Times* (London), June 25, 1987 p.35. Tax relief on loan loss reserves were also affected.

Japanese stock market that inflated banks' unrealized gains. By 1989, nine of the world's largest ten banks ranked by assets were Japanese.361

In 1985 the Federal Reserve Bank subtly began to tighten entry requirements for foreign banks, particularly Japanese. US banks had complained that Japanese regulations gave Japanese banks an unfair competitive advantage. The Federal Reserve indicated that because Japanese banks were perceived to be undercapitalized they might be prevented from buying out US banks or setting up new financial establishments in the US.362

The US-Japanese informal discussions on capital adequacy began while the US-UK deal was being negotiated. When the US-UK agreement was announced the US brought increased pressure on Japan. New York Federal Reserve Bank President Gerald Corrigan, meeting with Ministry of Finance officials in Tokyo, urged Japan to participate. Several Japanese banks had only recently filed applications with the Federal Reserve Bank for primary dealer status. Newspapers reported veiled protectionist threats of a "zone of cooperation," that could restrict foreign bank activity unless the Japanese government adopted the new risk-based standard. The Bank of England's Brian Quinn remarked that "If I were a Japanese bank or a Japanese supervisor, I would be a little worried." The Japanese press reported that the US Congress was prepared to block further entry of Japanese banks into the American market.363

361 This also reflects currency valuations and the fact that US banks had moved into non-asset based financial products.


Japanese regulators emphasized their "hidden reserves" (then-undervalued real estate and corporate equities), and argued that US/UK weights were too high. Without the hidden reserves Japanese banks had lower capital/asset ratios than US banks. With the reserves included Japanese ratios were higher than those of US banks. The difference is crucial. "Fed officials... said the primary push for the standardization of regulations came from people [US bankers] complaining that the Japanese banks were operating at much lower capital levels than other world-class banks and thus had a competitive advantage."

Japanese banks held a far greater percentage of assets in equity securities than their American or European competitors. Although hidden, these were believed to be larger than all other forms of capital for Japanese banks. Japanese banks would sell securities to cover losses. Until then securities were "unrealized gains." Japanese regulators identified these potential gains as a "revaluation reserve," and counted 70 percent of that reserve as capital. Other OECD countries refused to allow banks to mark equity portfolios to market value, because of the volatility of equities markets.

By May 1987, Paul Volcker pushed the UK-US accord heavily, at the BIS, in the US and in Japan. That month, Gerald Corrigan again visited Tokyo and he was quoted by the Japanese press as saying that "the most important reform" Japan could make would be "a better alignment of Japanese capital requirements with those of other leading countries." Ultimately, Japan agreed.

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364 New York Times, July 12, 1988. The context makes clear that US bankers are the "people" referred to.

Two months later, in August 1987, US Federal Reserve Bank and Japanese regulators met in NY to discuss their bilateral agreement. Tension was high at that meeting. Gerald Corrigan, head of the Federal Reserve Bank of New York, reportedly banged his fist on the table and demanded that the Japanese delegation sign the agreement by the next day or face restrictions on market access. The Japanese delegation reportedly stayed up all night on the phone to Tokyo, and the next morning signed the agreement.\textsuperscript{366}

8. REALIZATION OF THE BASLE ACCORD

With the three largest financial centers in the world near agreement on capital standards and at least one of them (the US) willing to withhold access to its markets in order to achieve multilateral agreement, it was not long before the Basle Accord was signed. This section discusses the trilateral agreement between the US, UK and Japan; their presentation of a united front before the Cooke Committee; acceptance of the Basle Accord by private bankers; and the impact of the Accord in implementing higher common capital standards. (The penultimate section nine discusses lingering heterogeneity in those standards).

\textsuperscript{366}Anonymous sources, interviews October 1990. \textit{Euromoney} later reported a different story (July 1988, p.40), that the Japanese Ministry of Finance "believes it got off lightly. . . . It was surprised that its proposal to include 45% of hidden assets in Tier Two capital got through. Two compromise back-up plans had been prepared in case it didn't."
8.1 Trilateral (US-UK-Japan) Agreement and Presentation to BIS, 1987

Nine months after the US-UK bilateral agreement, US, UK, and Japanese regulators reached a trilateral agreement in London, on September 13, 1987. They used the Brussels formula of two tiers of capital. A total capital-to-assets ratio of eight percent was required, of which at least half had to come from Tier 1 capital. The UK wanted a three-year phase-in for the Accord, Japan wanted five years. Compromise was reached on five years with interim goals. In addition, the three agreed that Japanese banks could count 45 percent of unrealized capital gains as part of their Tier 2 capital. Japan had wanted 70 percent; the US and UK had sought less.

Four days after US-UK-Japan agreement, Federal Reserve representative William Taylor presented the substance of the proposal to the Cooke Committee meeting in Basle. The trilateral agreement was not made public but at the conference table the British and Japanese representatives took the same position as the US. (The British more actively; the Japanese in acquiescence.) The other G-10 representatives present at the meeting recognized the agreement as a fait accompli and accepted it to avoid being upstaged.

The trilateral agreement formed the basis for the Basle Accord, although the details for the multilateral accord took three months to work out. US and British regulators lobbied their counterparts in Japan, as well as

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367 Eight percent was also the amount used in the final Basle Accord. The choice of eight percent was "seat-of-the-pants stuff," admitted Peter Cooke later, "Seven and a half percent was what we felt comfortable with, and we added a half a percent cushion for good measure and said eight." Quoted in Institutional Investor, August 1994, p.40.

France and Germany. Japanese regulators expressed concern over the valuation of hidden assets. French regulators argued there was no objective measure of "enough capital"; they stated that rather bank safety depended on bank activities and the quality of management. The definition of supplementary capital was expanded for the French, to include unrealized gains on physical assets. German regulators wanted corporate equities treated as capital. German representatives were divided. The Bundesbank supported the agreement; the German Government representative resisted the two-tier arrangement, preferring a more strict definition of core capital as mandated by German law. The final Accord recognized the hesitation of "one participant" (Germany). German negotiators held out until the last minute but ultimately signed.

The definition of capital and the risk-weights assigned to assets were at the core of the agreement. In both cases, the Basle Accord tended to allow national regulators greater discretion than in the US-UK agreement. Capital measures are compared above in Table V.2 on Page -157-. Risk weights are compared below in Table V.3. Tier 2 capital included virtually all capital definitions in use. Risk weights were lowered below the US-UK accord for virtually all asset categories. Nonetheless, the agreement on Tier 1 capital did show some movement toward more stringent common standards. It is for this reason I classify it as a higher common denominator outcome.

Finally, on December 10, 1987, it was announced that Committee members had reached agreement on a draft proposal for "international

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369 Other issues included: treatment of interest rate risk for holdings of government securities; treatment of credit risk exposure associated with interest rate and foreign exchange contracts; treatment of transfer/country risk distinctions; types of recognized collateral; treatment of loan commitments; the weighting system to permit some national discretion in assigning weights to asset categories. Tobin, (May 1990) p.37.
Table V.3

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<th>Basle Accord</th>
<th>Change:</th>
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<td>lower</td>
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<tr>
<td></td>
<td>30 &gt; 1 yr</td>
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<td>0</td>
<td>lower</td>
</tr>
<tr>
<td>Guaranteed by domestic government</td>
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<td>25</td>
<td>0</td>
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<tr>
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<tr>
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</tr>
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<td>same</td>
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<td>lower</td>
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<td>100</td>
<td>100</td>
<td>same</td>
</tr>
</tbody>
</table>


The agreement was presented as the result of efforts by the Cooke Committee. After agreement was reached by the central bank governors the proposal was circulated to private bankers for comments.

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8.2 Acceptance by Private Bankers, 1987-1988

The Basle Accord in part reflected the general interests of American and European banks, but their regulators were still concerned that private banks could obstruct the agreement by lobbying their domestic governments. By March 1988, regulators of G-10 countries were engaged in selling the accord to their banks. That behavior is consistent with my model; it is not behavior consistent with models in which governments thrust regulations onto the private sector.

At the June 1988 International Monetary Conference (IMC) in Chicago, Peter Cooke addressed bankers' concerns. Certain aspects of the new capital rules might need review, Cooke said, such as treatment of sovereign risk, core capital definitions, and treatment of mortgage-backed securities. However, the overall structure of the rules could not be changed without jeopardizing the whole initiative. Recognizing the danger of heterogeneous regulations, Cooke appealed to bankers and national regulators: "Do not press so hard on the detail to justify the present status quo [sic] in your country that you compromise the wider goal." To allay concerns, Cooke stressed that the Basle rules were only intended to be a "broad brush framework" for individual countries to implement.

The draft Basle Accord received strong support from American Express CEO, James D. Robinson, III, speaking at the June 1988 IMC:

"We have a collective interest in a stable and sound international monetary system. . . Internationally, both the competitive and the

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372 Cooke quoted in "Proposed Capital Rules 'Need To Be Reviewed'," Financial Times (London), June 8, 1988, p.32:S40. David Lascelles, Banking Editor: Chicago. Cooke's title was listed as "assistant director, Bank of England."
regulatory framework for financial services need to be enhanced. All of
our institutions are affected by the health of the world financial and
trading systems. . . . On the regulatory front, greater convergence of
regulations between countries is needed. . . Banking regulators and
supervisors have increased their joint efforts over the past few years to
improve their understanding of international banking markets, to share
information, and to develop compatible standards and procedures. The
Cooke Committee of the Bank for International Settlements has paved
the way for several initiatives, including the recent international
agreement to increase bank capital adequacy requirements for the
world’s major financial countries and to address the new areas of risk
management. That progress should continue."\(^{373}\)

American Express as a nonbank not subject to the capital requirements
undoubtedly found them easier to support than banks did.

US banks nonetheless accepted the agreement with some
revisions. One Senate staffer noted: "It just never became an issue around
here. . . . nor were there any banks calling up to get us to do anything."\(^{374}\)
One exception was that US banks did protest the inclusion of a form of
preferred stock in Tier 2. Congressional representatives voiced that concern.
In the final Basle Accord, US bank demands were met and Tier 1 included
preferred stock. This was the only dilution of the "pure" capital Tier.

The final 1988 Accord reflected US bank interests in another way: it
avoided distinguishing between foreign and domestic banks, and did not assign
the former a higher risk-weighting. US banks had complained they would be
disadvantaged by rules that allowed EC banks to treat other EC banks as
domestic. Instead, the final July 1988 Accord distinguished between OECD

\(^{373}\) *American Banker*, July 13, 1988; p.18; Vol. 153, No. 135. Robinson was head of the
American Express Corporation, a nonbank; and also head of the Financial Services Council (a
lobbying group of banks, securities firms, thrifts, insurance companies, and finance companies,
spun off from the ABA).

countries (low-risk) and non-OECD countries (higher-risk).\textsuperscript{375} Most bankers accepted the key elements of the draft Basle Accord. On July 15, 1988, the final Basle Accord was released.\textsuperscript{376}

One must be clear here: there is no evidence that most bankers worldwide lobbied strongly for increased capital standards and in fact many were not enthusiastic about them. Some bankers expressed reservations to central bank regulators about the Accord. For example, Chemical Bank Chairman, Walter Shipley, said he "broadly supports the Cooke initiative but is a harsh critic of the way the Basle Accord treats 'goodwill'"\textsuperscript{377} (Other financial institutions, including nonbanks, were more enthusiastic about the Accord.)

However, bankers worked \textit{vehemently against} other proposed strategies for managing developing country debt, such as non-voluntary debt rescheduling. They saw capital standards as the lesser of two evils and had an interest in accepting it. Further, US banks lobbied strongly against unilateral measures to increase capital requirements.\textsuperscript{378}

\begin{flushright} 
\textsuperscript{375} The only exception was Saudi Arabia, which protested its exclusion, and was ultimately included in the low-risk category. 
\textsuperscript{376} Later that year W. Peter Cooke retired after 33 years of service to with the Bank of England, and joined a private sector firm. 
\textsuperscript{377} \textit{Euromoney}, July 1988, p.48. Under the regulations, goodwill is assigned no value; the goodwill in a cash acquisition is wiped off a bank's equity, a reversal of previous US practice. Shipley lamented it "throws a road-block in the consolidation of America's fractionated banking system." Shipley was known for his anti-regulatory stances. 
\textsuperscript{378} Several years later, when the developing country debt crisis eased and credit was tight, bankers would become more vocal in their criticism of the Basle Accord. They complained about the artificial allocation of capital and risk. Continued heterogeneity in implementing the capital accord reflected their interests. \textit{Economist} Financial Survey, September 9, 1992, "Nightmare in Basle"; and "Who's Who on BIS," \textit{International Economy} September/October 1992. 
\end{flushright}
European banks also generally accepted the agreement. Some complained about currency problems such as foreign exchange risk; others were reluctant to reveal certain previously secret details of their balance sheets.

Top bankers' support continued the following year. Bankers speaking at the June 1989 IMC meeting in Madrid again supported regulatory convergence. David Scholey, chairman of S.G. Warburg Group PLC, warned that capital and investment banking markets around the world could be threatened by "competitive deregulation" between the various leading financial centers. Given that a centralized structure was absent to coordinate the relaxation of barriers in capital markets, Scholey said, the leading central banks had created rules to ensure the stability of the commercial banking system. Scholey proudly noted that "such a process in the securities markets [by contrast] is in its stumbling infancy." By 1993, the BIS countries would add additional capital requirements on financial derivatives.379


The Basle Accord had a significant impact on banks, beginning with the agreement in 1988. Many banks shifted their asset bases and capital to comply with the new regulations. They divested subsidiaries, securitized and sold

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assets (loans), retained more earnings, lowered dividends, and cut operating costs.

The Accord forced Japanese banks to retreat. As the *Economist* noted, undercutting the competitive advantage enjoyed by Japanese banks was one of two goals of the Accord (the other was to strengthen all banks): "The accord is working. . . . Japanese banks, once the scourge of better capitalised rivals, have retreated from international markets."\(^{380}\)

A joint US Treasury Department-Federal Reserve report on capital equivalency, mandated under the Foreign Bank Supervision Enhancement Act of 1991 (FBSEA), asserted that 20 of the 22 countries surveyed "are implementing uniformly the Basle minimum capital ratios."\(^{381}\) The 22 countries surveyed accounted for 97 percent of the total US assets of foreign banks operating in the US.

However, the report conceded that some differences between countries remained:

"[N]ational discretion is provided regarding whether to allow banks to include certain of the components in tier 2 Capital and, to a lesser degree, in Tier 1 capital. The discretion exercised by national authorities with regard to the capital components results in definitions of qualifying capital that are equivalent, although not identical, among countries subscribing to the Accord."\(^{382}\)

The Fed-Treasury report went on to argue unconvincingly that "A fundamental premise of the Basle Accord is the acceptance of [differences in capital instruments and accounting practices in other countries] in order to advance

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\(^{382}\) *Ibid*, Executive Summary.
the international convergence [sic] of capital standards." The problem
was, as the next three years demonstrated, that acceptance of differences does
not advance convergence.


Up to this point this case study has emphasized the movement toward a
higher common denominator. That is only part of the story. The second part
is lingering heterogeneity in implementing the Accord and heterogenous
regulatory movements after it. These are discussed in turn.

9.1 **Definitions, Data, and Heterogeneity**

Banks have considerable leeway in reporting their accounts. The
timing of tax realizations, "hidden values" of realizable amounts in excess of
recorded asset values, and a variety of other recognized accounting techniques
give banks the financial flexibility to "raise" capital. Regulators also have
considerable leeway in their calculation of capital adequacy. Tier 1 capital
remained fairly rigid in definition. But tinkering with asset-risk weightings,
and the definition of Tier 2 and assets (such as nonperforming loans)
continued to allow regulators considerable heterogeneity in implementing the
Accord.

The lack of agreement on definitions and data confidentiality make it
difficult to reach firm conclusions on the Accord's effect. Indeed, reliable
comparative time series data are simply not publicly available on most banks'

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383Ibid. Executive summary.
capital ratios. A member of the BIS Basle Committee on Banking Supervision secretariat writes:

"Unfortunately, the BIS does not publish the data you are looking for, nor are 'official' statistics which compare capital ratios for banks from different countries available from any other institutions to my knowledge. Some time back [annually 1989-91] the IMF . . . made an attempt to estimate capital ratios for a sample of banks from various countries. 'Euromoney' and the 'Institutional Investor' occasionally provide capital numbers for the largest world banks. One must be careful in interpreting that data, however, given different accounting and reporting conventions."\(^{384}\)

These data incommensurabilities are an indication of continued heterogeneity in bank capital standards, despite the movement toward homogeneity in the late 1980s.

It is clear that the Basle Accord had less impact on reducing cross-national heterogeneity than was first hoped. As one example, the Institutional Investor (referred to above by the BIS secretariat) noted critically that Japan's banks would be below the minimum eight percent level if not for liberal interpretation of the Accord:

"The seemingly robust ratios shown in [Japan's] rankings . . . also have to be viewed skeptically. Japanese institutions actually have little regulatory capital left. If it weren't for Japan's liberal interpretation of the Basel rules, these banks would fall well below 8 percent . . . In fact, despite talk of capital 'standards,' the rules are not as easily applicable across national boundaries as supervisors first hoped. Different countries still have different rules for provisioning, marking to market, disclosure and accountancy that distort the way that capital and risk are measured and ratios calculated. According to Japanese accounting standards, for instance, the nonperforming loans of Japan's Mitsubishi Bank are ¥572 billion; according to US rules, ¥1.150 trillion."\(^{385}\)

\(^{384}\)Personal fax to the author, from a member of the Basle Committee on Banking Supervision secretariat, Bank for International Settlements, December 5, 1994. The Committee presumably uses its own non-published data to evaluate compliance with the Accord.

\(^{385}\)Institutional Investor, August, 1994, p.40ff.
The article went on to emphasize the considerable heterogeneity in capital standards and the flexibility used by national regulators to bend interpretations of the rules to the advantage of their producers.

Care must be taken in comparing capital ratios between countries. Consider two sets of data published by the IMF (also referred to by the BIS secretariat). Early IMF data, published from 1989-1991, is shown in Figure 5-1 and Table V.4. The data is from "official sources; and Fund staff estimates." Beginning in 1992, the IMF switched to OECD data for capital-asset ratios. This later data is shown following, in Figure 5-2 and Table V.5. The later data show considerably lower estimates for Japan and France and higher estimates for Germany.

The IMF is cautious about heterogeneous definitions in both its early and later estimates: "Owing to differences in national accounting practices, the figures in this table must be interpreted with caution. In particular, provisioning practices vary considerably across countries, as do the definitions of capital." No firm conclusions can be drawn from the data. Data from other commercial sources such as the Economist list higher capital ratios for German banks than all others, but no methodology is offered.

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IMF, *International Capital Markets*, various years 1989-1993, table entitled "Capital/Asset Ratios of Banks in Selected Industrial Countries." Sources listed as Bank of England, and OECD. The Fund suggests that "cross-country comparisons may be less appropriate than developments over time within a given country."

For example, the Economist, October 26, 1991, p.20 shows German "big banks' capital ratios" to be the highest of the five countries shown. The capital ratio in Germany is listed at 10.0 percent, in Britain 9.2 percent, France 8.7 percent, Japan 8.5 percent, and the US 8.3 percent. Yet the article notes that German banks want to include unrealized gains on hidden securities holdings as Tier 2 capital because "Only then, they claim, can German banks keep pace with other European banks, which can raise tier-2 capital by issuing subordinated debt."
Despite the problems in data commensurability, the IMF data (though not commercial data) suggest that capital ratios in the US and UK were generally higher than in other countries. That these two countries were the major movers behind global capital standards and are the two leading financial centers in the world is consistent with my model's emphasis that regulations reflect dominant producer preferences.\footnote{Until more reliable data is available this point must remain tentative.}
Figure 5-1

![Graph showing Capital/Asset Ratios 1982-89](image)

Source: IMF "Official Sources" Not BIS

Table V.4

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Largest nine US banks and largest four UK banks.
Table V.5

Capital/Asset Ratios 1982-1992: *later* IMF estimates
(Large Commercial banks)

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9.2 Heterogenous Implementation

Fears of financial collapse from the LDC "debt crisis" eased by 1990, when the first "Brady Plan" deal was completed with Mexico to restructure its debt.\footnote{The Brady Plan was named after Secretary of Treasury Nicholas Brady. Officers from the lead US banks were in close contact with Brady and his aides on the plan, including David Muford, by February 1989. Although the banks and Brady often clashed, they also worked closely together. The Brady Plan pressured banks to offer some concessions on principal and interest payments, in addition to new lending (20-60-20, respectively); and backed them with zero-coupon US Treasury bonds. The details of the negotiations were left up to the private Bank Advisory Committees and debtor countries.} Concomitantly, it became clear that differences would remain between countries with respect to their treatment of capital.

Enforcement of the Basle Accord remained national, not international, and the regulators' main threat was a cease and desist order. This threat lacked credibility for domestic banks, since "it is unlikely that a bank will be closed [by domestic regulators] solely because it is under the prescribed capital levels."\footnote{On credibility of regulators' threats, see Kapstein, op. cit., p.346.} A more credible threat was posed to foreign banks: restricted access to domestic markets by host-country regulators. Heterogenous protectionism had not disappeared.

Considerable national differences remained in the definition of Tier 1 and Tier 2 capital. For example, the US, France, and others allowed loan-loss reserves to count as capital. Canada did not, although the Canadian Superintendent of Financial Institutions, Michael McKenzie, was quite revealing in his comment: "We have some distance to go in resolving with the..."
[financial] industry what our real position on this subject is."³⁹¹ Those differences in national accounting continued through 1994.

9.3 Impact and Heterogenous Response in Japan

Japanese banks were restricted by the crash in Tokyo stock and real estate markets, which brought down their unrealized gains with it. The Far Eastern Economic Review observed in 1993 that Japanese banks were forced out of certain markets:

"Japanese banks are in a crisis, resulting in a withdrawal from European and US activities. . . Loans to the US have declined from 38% of the [Japanese] foreign loan total in 1989 to 27% of the total in 1992. Asset trimming has resulted from higher capital adequacy rules of the Bank for International Settlements. . ."³⁹²

One effect of the Basle Accord was to reduce the inroads Japanese banks had made in the US and Europe over the previous 15 years. That is one sign that the Basle Accord did in fact have an impact. However, the Japanese government also responded to the interests of Japanese banks with more lenient interpretations of capital. By contrast, other countries imposed even more stringent restrictions on capital in the next few years.


9.4 \textit{Unilateral} Measures to \textit{Raise} Capital Requirements, Post-1991

Thus, by 1991 a number of countries (including the UK, US, Switzerland, and Singapore) unilaterally raised their capital requirements above the Basle Accord standards. For example, the Bank of England varied the rule according to the individual bank and could demand ratios of 15 percent or more.

As US bank capital levels rose, the US led the way in implementing even more stringent unilateral measures than called for in the Basle Accord. US actions followed the BCCI scandal and the savings and loan crisis. The US Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) established five levels of compliance with US regulations. The top level, "well capitalized," required a Tier I ratio of at least 6 percent and a Tiers I+2 ratio of at least 10 percent. (The next level, "adequately capitalized," corresponded to the Basle Accord: 4 percent and 8 percent, respectively).\textsuperscript{393} US regulators also examined leverage ratios and sought "tangible common equity" levels of at least four percent of assets.

Simultaneously, the US Foreign Bank Supervision Enhancement Act of 1991 (FBSEA; embedded within the FDICIA) moved supervision of foreign banks from the state-level to the Federal Reserve Board. It imposed "national treatment" on foreign banks. The FBSEA required Federal Reserve Board approval before a foreign bank can set up offices in the US, established mandatory standards for entry, and allowed termination of a foreign bank's offices for "unsound practices." Most foreign banks operate their subsidiaries according to home-country guidelines. The Bank Acts imposed a long

\textsuperscript{393}See also developments in Europe, notably the European Community's Capital Adequacy Directive (CAD) and Investment Services Directive (ISD). The CAD takes effect at the end of 1995.
examination process on foreign banks, who in effect had to meet guidelines of two sets of regulators.

The FDICIA and FBSEA had the *de facto* effect of protectionist measures. (They were justified with the noblest of reasons, namely to prevent future BCCI crises, and with popular support for a "level playing field.") Analysts at Ernst & Young highlighted that heterogeneity:

"US guidelines requiring banks to have capital above the levels set by the Bank for International Settlements is making it more difficult for foreign banks to enter or expand in the United States. . . . 'The US first sought an international benchmark [the Basle Accord] and then turned around and added higher capital standards in the 1991 banking act.' . . . [R]egulators have in practice declined to approve an application from a foreign bank if it fails to meet US standards."\(^{394}\)

The head of the Federal Reserve Bank of Atlanta, Robert P. Forrestal, conceded: "I recognize that this new law may do more than protect the US banking system from unsafe banks"; but Forrestal expressed hope that, by using access to US markets as leverage, "The effects of the new law will probably spill over into other countries that may then be influenced toward supervising their own banks on a consolidated basis."\(^{395}\) The US Federal Reserve was again using market access for products as a bargaining chip to affect process regulations in foreign countries.

The new, higher US regulations became effective June 16, 1992. Even Citicorp, with its huge loan-loss reserves, was able to exceed the more stringent US guidelines, meeting the "adequate" level in 1992, and the highest "well capitalized" level by 1993. By 1994, the average total capital ratio for US

\(^{394}\) *American Banker*, October 19, 1993, p.8

banks was 13 percent, fully 8 percent of which was Tier 1 capital. (Japanese banks, by contrast, averaged only 9.25 percent by March 1993.\textsuperscript{396})

The Basle Accord was not a pure public good. Unlike a true public good, dominant countries could in fact exclude other countries from benefitting by closing access to their markets.\textsuperscript{397} Further, there were some advantages to banks of raising capital requirements as long as it was done gradually. Higher capital ratios are not always a competitive disadvantage, they can also build a comparative advantage by keeping competitors out and enhancing reputation. As the executive managing director of Standard & Poor's Ratings Group noted in 1994, "The experience of the past five years shows that being well-capitalized is a tremendous competitive advantage."\textsuperscript{398} Well-capitalized banks are rewarded by the market with higher credit ratings, cheaper funds, and larger business volumes. They are also rewarded by national regulators, who are more likely to approve acquisitions, new ventures, and other "judgment calls" to well-capitalized banks.

10. SUMMARY AND CONCLUSION

The Basle Accord case began with heterogenous definitions and requirements for bank capital in 1980. Following crises in sovereign lending and private banking, US regulators began to explore ways to reverse a


\textsuperscript{397}Samuelson (1954) shows that the key elements of a public good are non-rivalry and non-excludibility in consumption.

\textsuperscript{398}Clifford Griep, quoted in the \textit{Institutional Investor}, August, 1994.

Volcker approached Leigh-Pemberton and initiated a US-UK bilateral agreement. The Cooke Committee reported back in September 1986 that it was not possible to recommend one definition of capital. Yet the Federal Reserve and Bank of England staff worked out just such an agreement three months later and announced it in January 1987. That bilateral agreement provided the basis for the Basle Accord. In May 1987 Citicorp set aside three billion dollars in provisions. At the bankers’ CEO annual conference in June, Volcker indicated to Citicorp Chairman John Reed that the reserve would not be counted as specific provisions, hence it would be eligible as Tier 2 capital (though not Tier 1 capital). The US brought Japan into the US-UK agreement by quietly threatening to close market access further. The trilateral agreement was presented to the Cooke Committee as a *fait accompli.* Following some adjustments by national regulators and further adjustments in response to their banks, the Basle Accord was announced in July 1988 under the auspices of the Bank for International Settlements’ Standing Committee on Banking Regulations and Supervisory Practices. Although weakened some by those national adjustments, the Basle Accord did raise Tier 1 capital standards worldwide. Nonetheless, as Section 9 demonstrated, considerable heterogeneity remained in world capital standards.
The Financial Times noted with foreboding in October 1994: "If, as seems probable, the Japanese banks start to recover their market share in overseas lending, US and European banks may yet persuade the regulators to take a closer look at one aspect of their business--their treatment of bad debts." Trade-generated conflicts over heterogenous domestic regulatory structures were not over.

The final outcome of this case (HCD) is less clear than the other cases. Capital standards were raised, although not uniformly, and banks which later raised their capital above levels set by the Basle Accord were rewarded by the market with higher credit ratings. Gradually increasing capital regulations may thus not have imposed as high a cost on banks as some feared. More important than the level of capital required at any given time may be the rate of change in capital requirements and their timing in regard to other competitive conditions.

My model can be evaluated with respect to this case on two levels: first and most broadly in terms of the relationship between all lenders and sovereign borrowers; second and more narrowly in terms of the choices made by individual banks and their national regulators.

On the broadest level dominant banks fought hard to strengthen their negotiating position vis-a-vis sovereign borrowers and to stabilize world financial markets. Higher capital standards were not banks’ first choice to that end but they were much preferred to many other choices on the public agenda.

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399 Financial Times, October 25, 1994; citing David Marshall, IBCA (bank credit rating agency).

400 Domestic interests may thus be protected by regulators by the timing and rate of regulatory change. In addition, credit ratings inherently involve questions of perception. The Accord may have changed those perceptions.
Despite competition in the global financial market, banks cooperated through *ex ante* contractual arrangements on syndicated loans and through *ex post* governance structures in their Bank Advisory Committees. Banks and central bank regulators also worked together in this regard through the auspices of the Bank for International Settlements. The BIS was the brainchild of leading financiers in 1929 and for many years the US and Japanese shares in BIS were held and represented by the leading private banks in those countries. The working relationship between banks and regulators was close. BIS' original mandate under the Young Plan was to raise Germany's cost of defecting on reparations by reorganizing its official creditors. Although catastrophic events in Germany blocked that mandate, to the extent the BIS facilitated agreement on the Basle Accord it may have played a similar role in stabilizing financial markets and organizing private creditors in the 1980s.

The sub-cases of narrow choices made by banks and their national regulators also reveal the pressures and outcomes identified in my model. Pressures for competition-in-laxity led to lowering capital standards by 1981. Limited efforts were made by the Federal Reserve to raise standards to stabilize the domestic market, but US banks resisted more stringent unilateral standards that would impede their competitive position. Ultimately, the Basle Accord was achieved through the threat of US market closure to foreign banks which did not meet the higher standards. Certain details of the Accord, such as the inclusion of preferred stock as Tier 1 capital at the behest of US banks, reflected the specific interests of money-center banks in different countries. Those diverse interests were also reflected in lingering heterogeneity. As the

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401 See Williamson (1985) p.21 on *ex ante* and *ex post* transaction costs.

debt crisis eased in the early 1990s the differences among banks became more important than unified action among them. The US continued to raise capital standards above the Accord’s level after 1991, at which time those standards differentially impeded the expansion of Japanese banks into US markets. US banks did not protest those later unilateral measures nor their *de facto* protectionist effect.
PART IV: HETEROGENEITY

CHAPTER SIX: MEXICAN TUNA-DOLPHIN

"What was once a fitful, competitive struggle for the canned tuna market has burst into full transnational battle. Sales campaigns and marketing counteroffensives are being plotted by field generals with the same kind of care that strategists deploy in a hot war." -- Starkist,\textsuperscript{463} 1987

To the extent market concentration and dedication of assets to multinational transactions increase, my propositions suggest a longterm trend toward higher convergence. However, regulations can also be imposed as a protectionist barrier-to-entry against foreign firms. Interdependence does not guarantee cooperation; it may even provoke conflict. Movement toward regulatory homogeneity is not a given, nor is continued economic integration, liberalization, or openness. I next examine two cases of heterogeneity. The first is US regulations banning imports of tuna from Mexico (and others). The second is guidelines on advertising the sale of infant formula within the US.

This Mexican tuna-dolphin case examines the imposition of a stringent product restriction on the importation and sale of tunafish caught with methods lethal to dolphins. In brief, the leading American tuna processor capitalized on consumer sympathy for dolphins to boost its market share. It was assisted by Federal legislation, which a GATT panel later ruled to be inconsistent with international law.

As with the other case studies, after a brief introduction I discuss the industrial structure and asset specificity in the tuna industry. I next discuss the role of private sector decisions, including America's leading tuna canner, in effecting the heterogenous outcome. The fourth section discusses the impact of the US policy on the industry and ecology of the ETP. The GATT ruling on that policy has become widely cited and is discussed in the fifth section. The sixth section summarizes the US legislative history of dolphin protection (with some evidence of lobbying interests), followed by a conclusion.

1. THE INTERNATIONAL POLITICAL ECONOMY OF TUNA

The US embargoed foreign tuna imports on 23 different occasions between 1975 and 1990. In retaliation for the seizure of American tuna-boats fishing within Mexico's 200-mile coastline the US banned Mexican tuna imports from 1980 to 1986. After that ban was lifted in 1986, Mexican tuna exports tripled in three years, despite a long-standing US tariff of 12 to 35 percent.\(^{464}\)


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\(^{464}\)In the three years after the "tuna-war" ban was lifted, Mexico's tuna exports rose from 32,000 tons to 96,000 tons. Two-thirds of Mexico's tuna harvest was exported; the US accounted for 15% of those exports in 1990. Tuna was declared a sensitive product and excluded from the Uruguay Round fisheries products initiatives. The US tuna fleet had repeatedly applied for protection. Since 1972 the US tariff on imported tuna was 35% \textit{ad valorem} on canned tuna packed in oil and 12.5% on canned tuna packed in water. A reduced rate of 6% on water-packed tuna was allowed, up to a quota of 20% of the domestic sales. "Tuna: Competitive Conditions Affecting the U.S. and European Tuna Industries in the Domestic and Foreign Markets," Report to the Committee on Finance, US Senate, and the Committee on Ways and Means, US House of Representatives, (International Trade Commission, Washington, DC, December 1990), pp.5-20.
The standards were based on the US Marine Mammal Protection Act (MMPA). The MMPA was enacted on aesthetic and moral grounds. Dolphins were never an endangered species, and by 1989 their population was growing between two and six percent annually. Mexican tuna posed no human health threat.

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*Tuna* here refers to yellowfin tuna caught in the Eastern Tropical Pacific (ETP), if not otherwise specified. The ETP lies off the coast of California, Mexico, Central America, Colombia, Ecuador, Peru, and Chile. It was of particular economic interest to Mexico and other Latin Pacific countries; and to small US canners. Only 14 percent of the world’s tuna was caught there. A purse seine is a mile-long, weighted net wall set around a school of fish. After the ends are brought together the lower edge of the net wall is winched closed and the catch brought on board the vessel. The technique was developed by the US fleet in the early 1960s, giving it a significant advantage over competitors. Thanks to Peggy Duxbury for a valuable discussion of this case and Harvard Business School case materials prepared under the supervision of Professors Richard H.K. Victor and Forest Reinhardt. Thanks to Judith Layzer for editing comments.

The August 28, 1990 embargo against Mexico, Venezuela, Vanuatu, Panama, and Ecuador was a preliminary court injunction; see Earth Island Institute v. Mosbacher, 929 F.2d 1449 (9th Cir. 1991), aff’reg 746 F.Supp.964 (1990). The embargo was temporarily lifted September 7 for Mexico and Venezuela, reimposed October 10 for Mexico, stayed on appeal on November 14, then the stay lifted on February 22, 1991, when it took permanent effect. A further embargo was imposed by court order March 26, 1991, on Mexico, Venezuela, and Vanuatu. On none of these occasions did Starkist or the other leading brands oppose the injunctions. On March 15, 1991, the National Marine Fisheries Service (NMFS) announced an embargo on intermediary nations, effective May 24, 1991.


The National Research Council, Committee on Reducing Porpoise Mortality from Tuna Fishing, *Dolphins and the Tuna Industry*. (National Academy Press, Washington, DC 1992) p.70. Also, "The Tuna-Dolphin Controversy in the Eastern Pacific Ocean: Biological, Economic, and Political Impacts," *Ocean Development and International Law*, V.25, 1994, pp.1-30. Some dolphin "stocks" were "depleted." A stock is a "biological subdivision of a particular species that occupies a discrete range and is different genetically from other subspecies of the same species." Depleted stocks were those that had fallen 40% below the estimated level prior to dolphin setting. Duxbury, Reinhardt and Victor, *op.cit.* p.5, fn.15; p.7. None of the dolphin species in the ETP are listed by the Convention on International Trade in Endangered Species (CITES) as being in danger of extinction. According to CITES, the only dolphins in such danger were *Platanista Gangetica*, *Platanista Minor*, *Lipotes Vexillifer*, *Sousa Chinensis*, *Sousa Teuszii*, and *Sotalia Fluviatilis*. These endangered species were not protected by specific US legislation, even though purse-seining was carried out near them in other waters. The main (continued...
Rather than reach a multilateral agreement on dolphin protection or let consumer preferences determine the demand for "dolphin-safe" tuna or set quotas based on scientific evidence, the US Congress and courts unilaterally and completely banned the sale of tuna that was not caught using dolphin-safe methods. The legal moves followed shifts in consumer demand, a retail price-war, and the voluntary end of dolphin-lethal tuna purchases by market-leader Starkist and the other two dominant firms. The regulations met with Starkist's enthusiastic support. As discussed below, on January 25, 1991, Mexico and others requested a dispute settlement panel of the GATT, which ruled in Mexico's favor.

2. INDUSTRIAL STRUCTURE AND ASSET SPECIFICITY OF THE TUNA INDUSTRY

2.1 Industrial Structure

The US tuna processing industry was an oligopoly. Three large companies dominated 71 percent of the US canned tuna market in 1989. Heinz (StarKist) had a 36 percent market share, Van Camp (Chicken of the Sea) had 21 percent, and Unicord (Bumble Bee) had 14 percent. Other companies combined had 29 percent. Of these, private label firms had 17 percent (the largest, Pan Pacific, had roughly 5 percent) and Japanese firms had 6 percent. The parent companies of the big three tuna labels were major

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407(...continued)
species in the MMPA are Delphinus Delphis (common dolphin), Stenella Attenuata (spotted dolphin), and Stenella Longirostris (spinner dolphin).

408Labelling requirements were also imposed, under the 1990 Dolphin Protection Consumer Information Act (DPCIA). The National Research Council of the National Academy of Sciences released a book-length study concluding that improved fishing techniques would allow for acceptable levels of dolphin-mortality. Dolphins and the Tuna Industry (National Academy Press, 1992).
producers of packaged foods: H.J. Heinz, Inc., for example, had assets of $4.9 billion, annual net sales of $6.6 billion, and an annual gross profit of $2.5 billion in 1991. (Pan Pacific, by contrast, ultimately sold its tuna business for under $10 million.) The "big three" were American-owned in 1988. By 1989 only StarKist remained American-owned, as Chicken of the Sea and Bumble Bee were sold to Indonesian and Thai interests.409

Only 14% of the world's tuna catch came from the ETP. The largest fishery was the Asian (Western) Pacific Ocean with 50%, followed by the Indian Ocean (17% and growing), and the Atlantic Ocean (15%). The ETP was of particular economic interest to Mexico and other Latin Pacific countries and to small US canners.410 For reasons unknown to science only in the ETP do dolphins school with tuna.

2.2 Asset Specificity

Most of StarKist's tuna-related assets were deployed *domestically* in the US (and US territories) for marketing and canning. Its multinational asset specificity (MAS) was low. Most of its tuna sales were in the US. StarKist's market share in the US was over thirty-five percent; overseas in the

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UK, for example, its market share was only five percent.\footnote{Key Notes, Ltd, 1991. One analyst familiar with StarKist estimated that 75% of its tuna sales were domestic; Heinz would not confirm that figure. StarKist's parent company, Heinz, was active overseas with other bottled, canned, and frozen food products. 43% of Heinz' overall sales came from overseas.} Earlier, the major tuna canners owned fishing vessels, but StarKist and the others sold their fishing vessels in the early 1980s.

StarKist's assets devoted to the purchase of raw tuna were non-specific. It was able to redeploy those to spot markets in Asia. As many Asian and Latin countries invested in their fishing sectors the US canning industry dissolved its ties to the tuna fishing fleet by 1979.\footnote{Dolphins and the Tuna Industry, p.30. Until 1975, the harvesting and processing sectors were closely integrated. After the canners dissolved these ties, supplier conflicts arose in the US. 21 tuna-boat owners sued Heinz, Inc., Ralston-Purina, Inc. (Chicken of the Sea) and Castle & Cooke (Bumble Bee), Inc. on anti-trust grounds in February 1985. The complaint alleged that the defendants engaged in price fixing and other violations of federal antitrust laws in connection with the purchase of raw tuna from the plaintiffs. The boat owners also asserted state contract, tort and punitive damage claims. Star-Kist Foods filed its own antitrust and state law counterclaims against the plaintiffs in November, 1985. StarKist paid a settlement out-of-court. The suit was originally filed in the United States District Court for the Southern District of California in San Diego.} California had been the principal processing center for the US industry for decades. By the late 1970s, the major US processors moved operations to the US territories of American Samoa and Puerto Rico, taking advantage of special tax provisions there. After 1980, canners turned increasingly to the international spot market and imports. StarKist closed its last California cannery in 1984 "in response to high costs and the Government's failure to provide relief from low-priced canned tuna imports."\footnote{H.J. Heinz, 1985 Annual Report, p.17. (Note the explicit demand for government regulation of market access.)} StarKist boosted capacity in American Samoa and Puerto Rico to make them the largest two facilities in the world. By 1989, 39% of US tuna was processed in American Samoa, 55% in Puerto Rico.
Despite Chicken of the Sea's and Bumble Bee's transfer to Asian ownership in 1989, their tuna sales were also largely specific to the US. Like StarKist, they relied on brand-name recognition to boost sales and retail prices ("Sorry Charlie," "Ask any mermaid," and "Yum yum Bumble Bee" were familiar advertising refrains to most Americans). Like StarKist, their asset specificity to fishing in the Eastern Tropical Pacific was low. The cost of switching to raw tuna suppliers in the Asian Pacific was relatively small.

Although StarKist had few assets dedicated to harvesting from the Eastern Tropical Pacific, the cost of abandoning the ETP was even cheaper for StarKist's Asian competitors. Ironically, this encouraged StarKist to act first, to avoid being "trumped" and miss out on the first-mover advantage of increased brand recognition.

For the smaller private label firms, assets were more specifically invested in the ETP. They depended on low-costs and narrow profit margins and relied on fishermen and canneries near the ETP to reduce transportation costs. Competition from overseas drove down net income from 1987-1990 for the major three labels advertising in the US. Overall, US tuna processors' net income dropped each year from a high of $111 billion in 1986 to a net loss of -$49 billion in 1990, the year the embargo was enforced.\footnote{US ITC, August 1992, p.D-20. Raw tuna prices rose steadily as a percentage of the cost of goods sold from 1986-1990, from 60.8% in 1986 to 69.9% in 1990. Direct labor costs actually fell over that same period, despite complaints about cheap labor overseas, from 8.4% in 1986 to 6.4% in 1990; p.D-23.} (See Figure 6-1 below). It rose the following year, 1991.
3. PRIVATE SECTOR DECISIONS AND RESULTS

3.1 Heinz-StarKist's Green Marketing Strategy

In earlier years, tuna canners opposed stringent restrictions on ETP tuna. By 1990, StarKist's owner, the H.J. Heinz Company, not only did not fight the US ban, it voluntarily pre-empted it by four months.\textsuperscript{415} On April 12, 1990, one week before Earth Day (and two days before "International Dolphin Week" began), Heinz announced a unilateral suspension of tuna purchases that were not dolphin-safe. Heinz' decision to

\textsuperscript{415}Thanks to Peggy Duxbury of the Harvard Business School for discussions of this case. Her HBS case study on "Starkist" prepared under the supervision of Professors Richard H.K. Victor and Forest Reinhardt was a valuable source of background information and data.
buy "dolphin-safe" tuna, and to support injunctions on "dolphin-lethal" tuna, is essential to understanding the outcome of this case.\textsuperscript{416}

Heinz deliberately adopted a strategy of green marketing. Its announcement came after years of attention to the dolphin problem and months of internal review and discussion. Since 1970, StarKist had funded training programs for skippers and given money for research on dolphin-safe fishing techniques. Well over half the tuna StarKist bought was already dolphin-safe by April 1990.\textsuperscript{417} But changes in consumer preferences and media attention to the issue caught StarKist's attention.

In October 1989 (six months before Heinz' April announcement and nearly one year before US injunctions against Mexico), the president of Heinz-USA, J.W. Connolly, wrote to top management to encourage a dolphin-safe strategy:

[I] am interested in the possibility of seizing the environmental high ground by offering the only tuna guaranteed not caught off dolphins. . . I know about the potential cost impact on the procurement of raw tuna, . . . However, . . . If I am right in this, and we can solve the procurement problems, we could have a very substantial volume opportunity.\textsuperscript{418}

\textsuperscript{416}Heinz had a history of support for public regulation; in 1906, founder Henry J. Heinz sent his son to Washington to lobby in favor of the Pure Food Act of 1906. Coincidental to this case study, the founder's grandson, H.J. (John) Heinz, III, was a popular US Senator (R-PA) until his untimely death in a plane crash in 1991.

\textsuperscript{417}Keith A. Hauge, president of StarKist, suggested a figure as high as 90% dolphin-safe; the American Tuna Boat Association disputed that figure. \textit{New York Times}, April 16, 1990.

\textsuperscript{418}H.J. Heinz, internal company memo; cited in Duxbury, Reinhardt, and Victor \textit{op. cit.}, p.11. This October 1989 memo came two months before a much more glamorous meeting, circulated in the popular press. That interpretation begins with Sam LaBudde's clandestine video taken aboard a Panamanian ship (September 1987-February 1988), which he showed to a Hollywood crowd which included former Ford Agency model Ani Moss. Ani Moss arranged a "Dolphin Awareness Evening" for the Hollywood film industry at a stage owned by her husband, Jerry Moss, co-founder of A&M Records. A&M had produced an album with Bobby Shriver, III, for the Special Olympics charity founded by his mother, Eunice Kennedy Shriver. Robert (continued...)
Connolly expected the other major producers to follow StarKist, but hoped it would take them a few months, thereby increasing StarKist’s name-recognition as the leading 'green' tuna product.\footnote{419}

A dolphin-safe policy involved significant costs, as Connolly noted. The average cost of raw tuna for the big three canners was $905/ton in January 1990. Heinz estimated that a dolphin-safe policy would raise its fish costs by roughly 30%, raising the big three average cost to $1,153/ton.\footnote{420}

Market surveys showed consumer awareness of the issue growing: 63% of consumers were aware of the issue in 1990, compared to only 50% in 1988. Three-fourths of those surveyed said they would switch to a dolphin-safe brand. Eighty-six percent of these said they would be willing to pay a higher price; 50% said they would pay 21 cents or more. Industry-wide sales of tuna began to slip, as sales of the nearest substitute good, chicken, climbed.\footnote{421}


\footnote{418}{...continued}


\footnote{419}{The strategic competitive elements of Heinz’ move were recognized by August Felando, in "Harmony Between Tuna Fishing and the Environment of the Eastern Pacific Ocean," paper presented to the World Conference of Tuna Fishing Countries, Tokyo, December 3-6, 1991, pp.34-35.}

\footnote{420}{Calculated from figures in Duxbury, Reinhardt and Victor, \op.cit., provided by Heinz.}

\footnote{421}{Bruskin Research, for H.J. Heinz, "Tuna and the Environment" fact sheet for retailers, April 1990, reprinted in Duxbury, Reinhardt and Victor, \op.cit. Major chicken producers, such as Tyson Foods, were active on their own regulatory fronts.}
Similarly, the Earth Island Institute's two-year boycott campaign did not hurt StarKist's sales, which actually grew during that period as did consumption per capita. Non-profit group's efforts did not yield implemented regulations for 18 years; whereas four months after Heinz' decision, the US implemented stringent product regulations.

Both Heinz and StarKist worked to make sure the announcement attracted attention. Heinz' chairman, Anthony O'Reilly, was media savvy. The *New York Times* described him as "Ireland's leading press baron". Management met with lobbyists, public relations firms, and consultants. Heinz' Executive Committee approved the plan and appropriated $9.2 million to implement it. Their public affairs departments arranged meetings with Members of Congress, Commerce Department officials, and environmental groups. At the press conference, Heinz' Chairman Anthony J.F. O'Reilly was flanked by Senator Joseph Biden and David Phillips, head of the Earth Island Institute. ABC News gave the story top billing, as well as a favorable spin:

"Peter Jennings: We begin tonight with the story that's going to be regarded as good news by people of all ages in America, from the corporate boardroom to the school lunchroom. The world's largest tuna canning company StarKist has said today it will no longer buy tuna caught in the kind of fishing nets which also trap and kill dolphins. It is

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422 *New York Times*, May 21, 1990, p.D4; US ITC Tuna: Current Issues Affecting the US Industry (August 1992) p.3.10. The Earth Island Institute (EEI) was founded by David Brower, after his falling out with the Friends of the Earth (FOE), which he had founded in 1969. Former FOE staffer David Phillips became Director of EEI's Marine Mammal Project (and later Executive Director of EEI), and played an important role in this case.


424 Phillips is reportedly a self-described "no-holds-barred dolphin protection fanatic," (US News & World Report, June 13, 1994); who "believed even a single [dolphin] mortality was too much." (Duxbury, Reinhardt and Viotor, op. cit., *idem* for marketing campaign expenditures).
another sign that environmental forces in America are having an effect on big business.\footnote{World News Tonight with Peter Jennings, April 12, 1990; transcript from Nexis. The broadcast featured clips of Heinz CEO Anthony O'Reilly's press conference; and briefly mentioned that Chicken of the Sea made a similar announcement, and that Bumble Bee was expected to follow suit.}

An estimated 80 million television viewers saw StarKist's dolphin-safe tuna message.

StarKist worked in advance to benefit from its decision in other ways beyond publicity. To gain a procurement advantage from its surprise announcement it stockpiled contracts on dolphin-safe tuna from the western Pacific. It devised a marketing campaign, launched on April 12, featuring a bottle-nosed dolphin logo.\footnote{Bottle-nosed dolphins, as shown in the "Flipper" television series, do not live in the ETP. By 1994, 'Natural Sea' tuna (distributed to health-food stores by Natural Food Systems of Dayville, CT) advertised on its cans: "Flipper Seal of Approval," shown next to a smiling dolphin cartoon. In an acerbic counter to anthropomorphism, newspaper columnist Jimmy Breslin reported a series of incidents in which male dolphins engaged in sexually hostile behavior against women tourists swimming with them. (Newsday, April 17, 1990).} To gain brand loyalty it emphasized its collaboration with environmental groups. Heinz Chairman Anthony O'Reilly did not disguise Heinz' business interests: "This is one situation where virtue may have its own reward. We are hoping that this initiative has commercial impact." In October 1990, Senator Biden lauded StarKist's efforts from the Senate floor:

Two years earlier, network news shows had broadcast gruesome video footage of dolphins dying in tuna sets. Sam LaBudde gained access to the Panamanian-registered tuna boat \textit{Maria Luisa} by signing on as a crew member in September 1987, then clandestinely videotaped the sets over five months. LaBudde was quite conscious of his goal: "I began to hope that we would make a dolphin set and that the animals would be killed, just so I could record it... I needed some to die so I could document it." (Quoted in Brower, 1989). He chose a good boat: its captain (Joseba) was Basque, and had never skippered a boat in the ETP before. The \textit{Maria Luisa}'s sets killed thousands of dolphin but only a very few tuna, sometimes only a dozen fish at a time when the average catch in the US fleet was over 18 tons of tuna per set. LaBudde's film received widespread attention and was screened before a Congressional committee on April 13, 1988. See Kenneth Brower, \textit{The Atlantic}, "The Destruction of Dolphins: in spite of laws intended to protect them, federal indifference and cruel fishing methods once again endanger dolphins," July 1989 pp.35ff for a sympathetic account of LaBudde's story and a graphic description of dolphin-setting in the ETP.
"StarKist said we will not buy tuna caught on dolphin any longer and on our cans we are going to say 'dolphin safe.' But, Mr. President, very quickly this standard began to be abused and weakened, not by StarKist but by others. That is why we need a standard for what 'dolphin safe' means and an enforcement mechanism so consumers can be sure. . . When StarKist made its announcement in April, some saw it as a way to take advantage of the upcoming Earth Day celebration, but is that not exactly what Earth Day is supposed to be about. . ."\textsuperscript{427}

As in the CFC case, "virtue's reward" is necessary to understand the timing and shape of tuna regulations.\textsuperscript{428}

### 3.2 Green Strategy Boosted Heinz' Market Share

The dolphin-safe policy was ultimately favorable to Heinz, although less so than some at StarKist had hoped. StarKist was able to boost its market by six percent, from 36 percent in 1989, to 40 percent in 1990, to 42 percent in 1992. Heinz annual reports succinctly trace those developments:

**1989:** "StarKist Seafood's powerhouse, the 6.5-ounce can of tuna, continued its leadership in the market. Within this key segment, StarKist sales have been exceptional and market share has reached 36%. StarKist produced advertising campaigns to stress its dolphin-safe fishing policies. . ."

**1990:** "StarKist Seafood's dolphin-safe tuna policy earned the brand an even more dominant market position. The company's environmental leadership raised consumer approval of the StarKist label and helped its market share exceed 40%, a historic high."

**1992:** "Tuna volume soared 13%. StarKist market share hit 42%, with total tuna product [including frozen foods, etc.] share near 50%."\textsuperscript{429}

In just three years, StarKist's market share grew from 36 percent to 42 percent.

\textsuperscript{427}Senator Joseph Biden (D-DE), 136 Cong Rec S 14953, *S14973, October 2, 1990.


The disappointment to Heinz was that prices continued to fall as did overall tuna sales. As ETP catches were unloaded raw tuna prices fell temporarily. Since StarKist had mistakenly stockpiled contracts in anticipation of higher prices it could not take advantage of the lower prices. Canned tuna sales in March 1993 were down about 5% over the previous year. Lamented J.W. Connolly, president of Heinz, USA:

"Consumers wanted a dolphin-safe product, but they were not willing to pay more for it. If there was a dolphin safe can of tuna next to a regular can, people chose the cheaper product. Even if the difference was one penny. It was disappointing that the environmentalists were not able to come through for us at the cash register."\(^{30}\)

Despite widespread awareness of the issue, consumers did not "vote" for dolphin-safe tuna with their wallets. But the product ban on dolphin-lethal tuna precluded Connolly's disappointment from being translated into loss of market-share: consumers had no choice (unlike in Europe). Instead, that decision was made for them by the US government, with the enthusiastic support of the largest tuna canner.

3.3 **Heinz Supported Dolphin-Safe Legislation by 1990**

The record suggests that, rather than fighting dolphin-safe legislation, by 1990 Heinz actively supported it. Details on its lobbying activities are scarce (see next section), but an October 8, 1992, letter from StarKist's CEO, Richard Wamhoff, to Senator Kerry, indicates StarKist's past and ongoing support:

\[^{30}\text{Quoted in Duxbury, Reinhardt and Victor, } \text{op. cit., p.B3. Forbes magazine, December 9, 1991 opined: "Nader is not the only hypocrite. Many business people are just as bad. The U.S. tuna fishing industry, for example, helped persuade Washington to block imports of Mexican-caught tuna, on the grounds that Mexicans were not as careful as U.S. tuna fishermen to avoid snaring dolphins in their nets. As soon as Mexican tuna was embargoed in February, U.S. tuna fishermen moved to hike their prices 10%."} \]
Dear Senator Kerry:

This letter is on behalf of StarKist Seafood Company and its parent, H.J. Heinz Company. . . . StarKist enthusiastically supported the enactment of the Dolphin Protection Consumer Information Act in 1990 and, despite considerable economic costs, continues its firm commitment to its dolphin safe policy. With respect to the International Dolphin Conservation Act [1992], we would like to make clear that StarKist generally supports the Bill and the policy set forth in the Bill. . . We have one concern regarding a provision of the Bill. . . [Namely, that the Inter-American Tropical Tuna Commission should be consulted in the determination of risks outside the ETP.]431 The above concern has been raised with many of the interested parties and suggested language to address this has been shared with appropriate staff. Again, we want to make clear that StarKist and Heinz support the aims of the International Dolphin Conservation Act and remain firmly committed to a dolphin-safe policy. . .

We stand ready to assist you and members of your staff to address in detail means to provide solid legislation which meets the cause of marine mammal protection.

Very truly yours,

Richard H. Wamhoff,
President and Chief Operating Officer, StarKist432

StarKist supported the 1992 legislation and registered concern only about restrictions outside the ETP.

In response, Senator Kerry stated his support for StarKist's concerns:

". . . I would like to assure Mr. Wamhoff that it is my expectation that the Secretary of Commerce will only exercise his or her authority . . . after consulting with the appropriate segments of the tuna industry, with

431The exact wording is: "Empowering the U.S. Secretary of Commerce to determine unilaterally that there exists a regular and significant association between marine mammals and tuna in an area of an ocean outside the eastern tropical Pacific could lead to significant unwarranted disruptions in tuna fishing. . . . [T]he determination of those areas. . . should be made not just by the Secretary of Commerce, but . . . after consultation with competent regional organizations. . . The Inter-American Tropical Tuna Commission is an example. We believe this suggested change would have the effect of limiting the possibility of overbroad application of this provision. . ." (emphasis added).

scientific and regional fishery management organizations, and with conservation or environmental organizations. . .\textsuperscript{433}

The record here suggests cooperation between industry and politicians, both sensitive to consumer preferences.

The Congress was aware that a unilateral US process regulation alone would have created pressures for laxity. As Congressman Pete Stark (CA) stated:

"Recognizing that the United States fishing industry would be at a disadvantage relative to foreign competitors if tuna caught by foreign competitors using cheaper methods could be imported, Congress imposed an import ban on tuna from countries such as Mexico that did not enact similar protections for dolphins."\textsuperscript{434}

The stringent product restrictions that the US imposed obviated any potential comparative disadvantage that unilateral process restrictions would have posed.

4. DIFFERENTIAL IMPACT OF THE DOLPHIN-SAFE POLICY

Heinz gained from its dolphin-safe policy. Others lost out. These include small canners, fishermen in the ETP, and non-dolphin marine life.

4.1 Small (Private Label) Canners

The dolphin-safe policy hurt smaller, private label canners more than it did the big three, who could absorb the costs. Even one of the largest private-label canners, Pan Pacific, suffered heavy losses and ultimately was

\textsuperscript{433}Ibid. (emphasis added.)

\textsuperscript{434}Congressional Record, October 23, 1991, 102nd Cong. 1st Sess., "Environmental Protections Threatened by GATT."
sold at a loss.\textsuperscript{435} The annual reports of Pan Pacific's parent (Marifarm) company summarize the impact very clearly:

The effect of the 'dolphin-safe' policy was to substantially reduce the harvesting of large yellowfin tuna from the [ETP]. . . .[M]any of Pan Pacific's suppliers moved their vessels out of the fishing areas nearest Pan Pacific's California cannery, making it more costly for Pan Pacific to obtain tuna. . . As a result, a portion of the price advantage that Pan Pacific enjoyed due to its geographic proximity to the ETP has been diminished. The effect of substituting such smaller tuna for the larger, more mature yellowfin tuna is a lower case yield per ton of round fish and higher labor cost per case. Moreover, the greater distance to the Western Pacific fishing grounds increases transportation costs for fish deliveries to Pan Pacific and the likelihood that the vessels will deliver fish to canners in the Western Pacific. \textit{The 'dolphin-safe' policy caused a disruption of the United States tuna industry and had an adverse effect upon the operations of the Company}. . . .

As a result, in 1990, Pan Pacific experienced a substantial decrease in its earnings from 1989 levels and provided a restructuring charge totaling $15,286,000 reflecting a reduction in value due to an economic impairment of its tuna business assets. The restructuring charge included a write-down of goodwill, a write-down of the long-term productive assets to their estimated net realizable value and a provision for certain obligations which Pan Pacific substantially incurred in connection with the reorganization of its tuna procurement and production processes. In addition, the tuna business has been experiencing significant competition from foreign canneries which are frequently able to sell their products in the United States market at prices lower than those charged by Pan Pacific.

. . . \textit{Net sales decreased 11.8\% to $73 million in 1990 from $83 million in the prior year. This reflected a decrease in net sales in the tuna operations which was primarily due to the April 1990 adoption by the domestic tuna industry of the 'dolphin-safe' tuna policy and the Company's decision to sell its inventory then on hand at a substantial discount to previous market prices.}

. . . \textit{Gross margins as a percentage of sales. . . in the tuna business were negative approximately 1.9\% in 1990 as compared to positive margins of approximately 8.8\% in 1989.}

\textsuperscript{435}Pan Pacific held almost one-third of the private-label market, prior to the dolphin-safe policy. In the private-label market, competitive pricing is the most significant factor. By avoiding the additional expense associated with brand-name promotion, Pan Pacific had been able to keep prices low.
During 1990 and 1991, the changing supply patterns caused by the 'dolphin-safe' tuna policy and the labor cost advantage enjoyed by certain foreign producers created considerable uncertainty as to whether the processing and canning of tuna in the United States could remain a viable business.\textsuperscript{436}

The Annual Reports are clear that the dolphin-safe policy eliminated Pan Pacific's price advantage. Pan Pacific was also getting squeezed by lower-priced imports but with fewer resources it was unable to take advantage of spot-market purchases in Asia as StarKist did. Ultimately, Marifarms decided tuna canning was not a viable business. It sold Pan Pacific on December 18, 1992 for $8.3 million (less than Heinz budgeted for its dolphin-safe policy alone), recording a loss of $9.6 million.

\section*{4.2 ETP Fishermen}

Both Mexican and the few US tuna boat owners and crews still fishing in the ETP bitterly opposed StarKist's decision and the follow-up government regulations. However, they lacked the power to oppose the big three tuna canners. The US fishing industry brought its dolphin mortality down to well under the level prescribed by the Marine Mammal Protection Act: 12,600 dolphins were killed by US boats in 1989; 20,500 was the level set under the MMPA. By 1993, total ETP dolphin mortality was down to 4,000 for all countries, including those that allowed dolphin-setting. (See Figure 6-2, below). Nonetheless, the US embargo continued and the ETP fishing industry was devastated.

Teresa Platt, a San Diego boat owner, reflected on Heinz' decision: "It was a bleak day for most of us... [T]o keep us from fishing responsibly..."

\textsuperscript{436}Marifarms Annual Reports.
is crazy.\textsuperscript{437} By 1991, the US tuna fishing fleet had reduced its dolphin mortality rate down to 0.2% of the total dolphin population. Like many others, Platt sold her tuna boat. Others relocated, either by registering their boats under another flag (see flags-of-convenience case study) or by spending the million dollars or so required to retrofit for fishing elsewhere. Over two-thirds of the US fleet had left the ETP by 1990.\textsuperscript{438} To owners who retrofit, of course, the embargo on ETP purse-seined tuna was advantageous because it effectively reduced the supply of raw tuna competing on the market and protected their investment.\textsuperscript{439}

The Mexican fishing industry was hurt even worse. They lost access to both the US market, and to markets in "intermediary" countries that exported tuna to the US. ETP yellowfin tuna was banned in France, Italy, and Costa Rica beginning June 25, 1991. Those countries feared losing access to the US market if they bought Mexican tuna. Felipe Charat, a Mexican boat owner, called the announcement by Heinz and the Earth Island Institute "a Faustian alliance with the devil."\textsuperscript{440} One report estimated that over 15,000

\textsuperscript{437}Quoted in Duxbury, Reinhardt and Victor, \textit{op. cit.}, p. B1.

\textsuperscript{438}In 1979, 98 US tuna Class 6 seiners worked the ETP, by 1989, only 30 did. (Atlantic June 1989). According to Mexico, only four US vessels regularly fished in the ETP by 1991. (GATT Panel Report, 1991.) According to Cong. Randy Cunningham of California, the economic impact to the US of this relocation between 1980 and 1984 included a loss of 12,500 jobs, $294,000,000 in household income, and $1,320,000,000 in United States sales. The federal government lost $58,800,000 in income tax, and the state of California lost $7,370,000 in taxes. (Congressional Record, June 12, 1991.). As expected, Cong. Cunningham represented the interests of his constituency, although nationally this was a minority view.

\textsuperscript{439}Mexico argued before the GATT panel that "Only after the United States fleet moved to other waters were more restrictive requirements imposed in 1988 for the protection of dolphin in the ETP -- but not for the new fishing grounds of the United States fleet."; a fact the US contested. Paras.3.14-15; 3.22.

Mexican fishing-related jobs were threatened as a result of the compromise.\textsuperscript{441}

4.3 Marine Life in the ETP

For as yet unknown reasons, yellowfin tuna and dolphins school together only in the ETP. They do not school together in the western Pacific, Indian, or Atlantic Oceans. By the 1940s fishermen began to use the surface-breathing dolphins as beacons for tuna. US boats developed purse-seining in the 1960s, encircling schools of dolphins (and the tuna below) with "seal bombs" and mile-long drop nets, then pulling the bottoms of the net together together. These techniques gave US boats a comparative advantage for 10 years or so, before other nations’ fleets began to do the same.

Hundreds of thousands of dolphins were killed annually in the process, most initially by US vessels.\textsuperscript{442} (See Figure 6-2). Concern from marine biologists and fishermen alike (who relied on the dolphin to find tuna) led to techniques less lethal to dolphins, including backdropping and fine-webbed nets.

The total dolphin population in the ETP was estimated at 9.5 million in 1989. Some species, such as the northeastern spotted dolphin, had been reduced to 33 percent of their natural population. There was legitimate concern over them, although no species was ever threatened with extinction.

\textsuperscript{441}William Lash, III, \textit{Society}, May 1994. Lash suggests 30,000 jobs were threatened; no source or methodology was offered.

\textsuperscript{442}William Perry, \textit{Sea Frontiers}, 1968 article was among the first to call public attention to the issue.
By 1989, dolphin populations were growing from two to six percent per year.\textsuperscript{443}

Ironically, the "dolphin-safe" policies led to "shark and swordfish hell." Dolphin-safe fishing is not necessarily environmentally sound. A report from the Inter-American Tropical Tuna Commission, seconded by Greenpeace, suggested the tradeoff from saving 29 dolphins would be to kill over 2,000 sharks, 38-75 swordfish, and five sea turtles, while greatly increasing mortality among juvenile tuna (thereby threatening longterm tuna stocks). Even Greenpeace conceded that "dolphin safe labels resulted in spilling the negative impact of commercial tuna fishing into waters outside the ETP, onto species

\textsuperscript{443}NAS, Dolphins and the Tuna Industry, op. cit., p.70.
Environmental Tradeoffs in ETP Fishing Practices

For every 1,000 tons of adult tuna caught, the "incidental catch" also includes:

<table>
<thead>
<tr>
<th></th>
<th>Log-Setting (Dolphin-Safe)</th>
<th>Dolphin-Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>juvenile tuna:</td>
<td>754,464</td>
<td>406</td>
</tr>
<tr>
<td>(tons)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>sharks (#)</td>
<td>2,980</td>
<td>2</td>
</tr>
<tr>
<td>swordfish</td>
<td>38</td>
<td>5</td>
</tr>
<tr>
<td>sea turtles</td>
<td>6</td>
<td>&lt;1</td>
</tr>
<tr>
<td>dolphins</td>
<td>&lt;1</td>
<td>29</td>
</tr>
</tbody>
</table>

Source: Inter-American Tropical Tuna Commission, 1994

other than dolphins. Removing US purse-seiners from the ETP also left the fishery open to foreign vessels, which might not face the same consumer pressures to use more responsible fishing practices.

5. GATT AND THE PRODUCT-PROCESS DISTINCTION

The GATT panel hearings and rulings support my emphasis on the product versus product distinction. Mexico protested to the GATT panel that "a measure regulating a product could not legally discriminate between

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domestic and imported products based solely on the production process; to do so would violate Article III. 446 Mexico argued, *inter alia*, that the MMPA was discriminatory, noting it was only imposed after most of the US fleet had left the ETP, and that "off the Alaskan coast [i.e., in US waters] more than 15,000 dolphins were killed each year with drift-nets in squid fishing, with no special provisions to protect them... remotely... [like] those on which the embargo to Mexico was based." 447 Indonesia suggested that "The MMPA had been used as a means to... shield United States producers from import competition by exploiting public sympathy for dolphins..." 448 The GATT Panel did not impute protectionist motives to the US, but it noted that was the *de facto* result.

On September 3, 1991, the GATT dispute settlement panel ruled in Mexico's favor on both the direct and intermediary embargoes, concluding they were contrary to the General Agreement. 449 The US appealed the first panel decision. A second GATT panel report (June 1994) confirmed the findings of the first.

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446 Panel report I, para.3.16. Indeed, to Mexico, the embargo under the MMPA was not even a tuna PPM regulation; rather it was an environmental policy instrument. As discussed earlier, the GATT's legal definition of "product regulations" is more complex than ours; an outcome of its efforts to halt protectionism. Given that the motivation for the US embargo was to change Mexican production techniques, that no health threat was posed by Mexican tuna, and that the impact was to discriminate against Mexican tuna (no matter if this was intentional or not), the GATT panel interpreted the embargo as a process regulation; impermissible under the General Agreement. Mexico noted that, under the GATT's legal definition, "It was not clear that there was in every case a meaningful distinction between regulations affecting the sale and purchase of a product and those affecting the production of the product." para. 3.18.

447 Para. 3.38

448 First GATT panel report, para. 4.15.

The key findings of the panel were that US actions were inconsistent with the general prohibition of quantitative restrictions under Article XI, violated and/or were not covered by the "like product" and "national treatment" provisions of Article III; and they were an inappropriate unilateral approach to trade and the environment, that discriminated against foreign nations, imposed arbitrary, retroactive, and unpredictable restrictions on foreign firms; they went beyond US jurisdiction and violated foreign sovereignty.

In its analysis, the Panel recognized the protectionist risks of heterogenous import restrictions. The first GATT tuna panel concluded:

"The text of Article III:1 refers to the application to imported or domestic products of 'laws, regulations and requirements affecting the internal sale. . . of products'. . .; it sets forth the principle that such regulations on products not be applied so as to afford protection to domestic production. Article III:4 refers solely to laws, regulations and requirements affecting the internal sale, etc. of products. This suggests that Article III covers only measures affecting products as such."

"[E]ven if the provisions. . . enforcing the tuna harvesting regulations. . . were regarded as regulating the sale of tuna as a product, the United States import prohibition would not meet the requirements of Article III. . . Article III:4 calls for a comparison of the treatment of imported tuna as a product with that of domestic tuna as a product. Regulations governing the taking of dolphins incidental to the taking of tuna could not possibly affect tuna as a product." 450

In effect, the Panel recognized the protectionist risks of heterogenous product regulations.

Exceptions to GATT's general principles are provided in Article XX. 451 The panel noted that the burden of justification was on the party

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450Para.5.11, 5.15. (Emphases in the original).

451Article XX: "Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between (continued...)
invoking Article XX, as established in earlier precedents. The Panel ruled that the US failed to do so. Even ignoring questions of sovereign jurisdiction, the Panel held:

"that if the broad interpretation of Article XX(b) suggested by the United States were accepted, each contracting party could unilaterally determine the... [environmental] policies from which other contracting parties could not deviate without jeopardizing their rights under the General Agreement. The General Agreement would then no longer constitute a multilateral framework for trade among all contracting parties." [Furthermore, the US had not] "exhausted all options reasonably available to it... in particular through the negotiation of international cooperative arrangements, which would seem to be desirable..." [Moreover, because kill-ceilings depended on US performance,] "the Mexican authorities could not know whether, at a given point of time, their policies conformed to the United States' dolphin protection standards... [S]uch unpredictable conditions could not be regarded as necessary to protect the health or life of dolphins."[452]

The Panel concluded that the US embargo could not be justified under Article XX.

In favor of the US, the GATT panel affirmed labelling requirements as an acceptable trade practice. "Any advantage which might possibly result from access to this label depends on the free choice by consumers to give preference to tuna carrying the 'Dolphin Safe' label."[453] These advantages were not conditional on government-conferred privilege.

[451](...continued)
countries... or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent... measures... (b) necessary to protect human, animal or plant life or health," or "(g) relating to the conservation of exhaustible natural resources..." (General Agreement).


[453]Para. 5.42.
The result of its deliberations was that "The Panel recommends that the contracting parties request the United States to bring the above measures into conformity with its obligations under the General Agreement." The US appealed the first panel decision. A second panel report (June 1994) confirmed the findings of the first.

6. **US LEGISLATURE AND DOLPHIN PROTECTION**

Two phases can be seen in this case: lax enforcement of process standards prior to Heinz' shift to a dolphin-safe policy, and stringent enforcement of product standards after. A brief synopsis of the legislative role follows.

6.1 **The Marine Mammal Protection Act (MMPA), 1972**

The Marine Mammal Protection Act (MMPA) was passed in 1972, following protests by animal rights activists over the clubbing of baby seals and killing of whales and dolphins. The MMPA was not limited to species facing extinction, unlike the Endangered Species Act passed the following year. The MMPA called for a phaseout on the taking of all marine mammals. In particular:

"[the] immediate goal [is] that the incidental kill of marine mammals permitted in the course of commercial fishing operations be reduced to insignificant levels approaching zero mortality; provided that this goal shall be satisfied by a continuation of the application of the best marine mammal safety techniques and equipment that are economically and technologically practicable."\(^{454}\)

\(^{454}\)Emphases added, highlighting key terms in future litigation.
The ambiguity of the wording "best economically practicable" created much debate in the scientific community, bureaucracy, and courts. Commerce Department regulations to implement the MMPA came out in 1975. They set a ceiling of 78,000 dolphins killed per year by US-flagged vessels. The quotas commenced in 1976, to give industry time to develop new gear and techniques and to give the National Marine Fisheries Services (NMSF) time to implement an observer program to monitor ships. The US fleet easily met the MMPA ceiling. (See graph above. US unilateral process standards in this period were always well within reach of industry performance, if not actually less stringent.) Of importance to the GATT ruling, the MMPA set restrictions on other countries based on the results of the US fleet, not based on scientific or absolute standards.455

6.2  The GATT Panel and Congressional Lobbying

The GATT ruling became an issue in the U.S. Congress. Piecemeal evidence of campaign contributions suggest that the pressures identified in theories of endogenous trade policy played a role in this case. These sums of money are not large and are not likely to have changed Congressional votes, but given their timing and their geographic and party variance, one can assume they had a purpose beyond individual support. I impute no wrongdoing to these on-the-record contributions; they are simply evidence of economic pressures.

455The MMPA ordered the ban "of commercial fish or products from fish which have been caught with commercial fishing technology which results in the incidental kill or incidental serious injury of ocean mammals in excess of United States standards." Section 101(a)(2), MMPA.
Mexico requested a dispute settlement panel under Article XXIII (2) of the GATT on January 25, 1991. The issue arose in the US Congress in the context of debates over the impact of NAFTA and the GATT on trade and the environment. It was not clear how strongly the US Trade Representative (USTR) would defend the US position before the GATT. The GATT panel findings were released on September 3, 1991, eight months after Mexico's request.

In the meantime, in March 1991, Senator La Breaux of Louisiana received $16,000 in individual campaign contributions from 16 individuals with economic interests in the tuna debate. These included tunaboat owners and one member of StarKist who opposed dolphin-legislation. Joseph Bogdanovich of StarKist contributed $1,000 to Breaux in March 1991, as did Martin Bogdanovich (also of StarKist), David Lawson (of StarKist, and "US Tuna Foundation"), David Burney ("US Tuna Foundation," with Lawson), and Geraldine Bogdanovich ("Tuna Boat Owner").456

At various other times from 1989-1991, Joseph Bogdanovich (StarKist) contributed $1,000 to other Congressmen, including: Don Young (R-AK), Peter Dawkins, Robert J. Dole (R-DC), Peter Wilson (R-CA), John Barbieri (R-CA), Eni Faleomavaega (D-AS), and William Lowery (R-CA). Geraldine and Martin Bogdanovich also contributed $1,000 to Fritz Hollings (D-CA), who introduced tuna-dolphin legislation, in January 1992. Gerry Studds and John Kerry (D-MA), who sponsored the 1992 bill, received contributions from Northeast Atlantic tuna fishermen. (Kerry was the Senator to whom StarKist President Wamhoff wrote offering continued assistance "to address in detail

456Campaign contributions in this section are all from the Campaign Finance file, Lexis.
means to provide solid legislation which meets the cause of marine mammal protection.\footnote{\textsuperscript{457}})

The American Tunaboat Association (ATA) also supported La Breaux, also in March 1991. Eleven "Tuna Boat Owners," all of whom resided in California, also contributed $1,000 each to La Breaux (D-LA): Cosimo Cutri, Joseph De Silva, John Freitas, Edmund Gann, Avelino Gonsalves, Manuel Silva, George Sousa, Robert Virissimo, Roland Virissimo, and Julius Zolezzi (ATA Treasurer). It is not known whether or not these owners had already retro-fitted their boats for operation outside the ETP. Breaux later introduced a bill to provide for the transfer of US-flagged tuna vessels to foreign registry (S1721-103rd Cong 1st Session).

The Congressional legislation was not the only proposal on the public agenda to save dolphins. A US National Academy of Sciences study concluded that a ban on dolphin-lethal fishing was not necessary. Other countries proposed international cooperation on the setting of scientific standards as opposed to unilateral US action. Senator John La Breaux initially sponsored bills that would set quotas on dolphin mortality or impose labelling requirements. Later, La Breaux supported the 1992 Dolphin Conservation Act. (Press releases from StarKist quote approval for StarKist's policy from Senators La Breaux and Joseph Biden, along with Greenpeace and the Earth Island Institute.)\footnote{\textsuperscript{458}}

\footnote{\textsuperscript{457}}Wamhoff to Kerry, letter in \textit{The Congressional Register}, October 8, 1992; quoted at length above.

\footnote{\textsuperscript{458}}"StarKist Dolphin Safe," brochure from StarKist, Inc., received December 1994.
Labelling requirements which left the environmental choice up to individual consumers were was opposed by some Congressmen, including Jim Bates (CA), who argued:

"With labeling [alone], we can assume every consumer... [could] pay more for a 'dolphin safe' product and less for a 'dolphin-unsafe' product. Regardless of their choice, without a U.S. fleet leading the industry in dolphin-safe methods and developing promising new equipment, many will choose to save money and more dolphins will die."\footnote{Congressional Record, May 8, 1990, 101st Cong. 2nd Sess, in discussion of The Dolphin Preservation Act of 1990.}

The US embargo took that decision out of individual consumers' hands.

7. CONCLUSION

The unintended killing of dolphins which school with tuna off the Mexican coast had been documented since 1968, when US boats were killing hundreds of thousands of dolphin every year. The Human Society filed lawsuits against US industry beginning in 1972. It supported a boycott on tuna since 1976. But that boycott did not catch on (although the number of dolphin killed was reduced as fishing techniques improved). Even when presented with graphic evidence of the killings in Sam Labudde's video in 1988, a renewed boycott campaign led by the Earth Island Institute had little effect on tuna sales. By that time, the US tuna canning industry had severed its ties to the ETP and dolphin deaths had dropped considerably as US fishermen (and increasingly others) improved their techniques. By 1990, however, both StarKist and several members of Congress sensed they could capitalize on changing consumer preferences.
The importance of the product versus process distinction is evident in the tuna-dolphin case. Congress considered, but did not impose, unilateral process restrictions on US industry. The initial MMPA process restrictions on the US tuna fleet were fairly lax, never cutting below the existing US kill-rate, and loosely enforced by the courts through 1988.\textsuperscript{460} Even by 1990, Congress did not legislate more than labelling requirements. However, when a product ban was supported by the leading tuna canner US laws were enforced severely. Mexican exports of tuna were barred not only from the US but also from France, Italy and Costa Rica because of the US-imposed "intermediary boycott." As exporters of tuna to the US themselves, those countries feared losing access to the US market if they bought Mexican tuna. Nonetheless, Mexican tunaboats continued to purse-seine in the ETP.

This heterogenous outcome is explained by the interests and strategy of the leading tuna canner. StarKist's market dominance and investments specific to the US market gave it the wherewithal and incentives to support heterogenous regulations. Heinz-StarKist correctly determined by October 1989 that consumers and politicians alike would support such a move. StarKist began to develop a "green-marketing" strategy to offer "dolphin-safe" tuna. It was a first-mover when it launched the policy in April 1990, with the support of the Earth Island Institute and Senator Biden. A cartel was effectively created when the two other largest tuna producers joined StarKist. Jointly, they controlled over 70 percent of the market. Enforcement for that cartel came in August 1990, nearly a year after StarKist began to develop its dolphin-safe strategy. The Earth Island Institute (v. Mosbacher) won an injunction in Federal Court against the importation of yellowfin tuna from Mexico.

\textsuperscript{460}A Commerce Department inspector general investigated the NMFS Tuna Porpoise Management Branch in San Diego, which placed observers on tunaboats. He concluded: "Since passage of the MMPA in 1972, enforcement appears to have been lenient. Prosecution has been selective, settlements have been characterized by protracted negotiations to accommodate the tuna industry. . . .," \textit{The Atlantic} (op. cit.) July 1989.
When the MMPA, supporting legislation, and court order were applied to foreign products entering the US, they were rigorously implemented and had a significant impact. The dominant producer benefitted from stringent product regulations. These product regulations limited access to the US market by those foreign and smaller firms which relied on the ETP. That denial of market access pressured Mexico and others to improve their production methods, but it did not stop them from dolphin-setting in the ETP. The US embargo was ruled contrary to the GATT. However, given the size of the US market, Mexico and others did not risk broadening the trade battle into a war.

The ecological impact was less clear. While between 4,000 and 20,000 dolphin were saved per year, the commercially viable alternatives to dolphin-setting depleted younger stocks of tuna, and killed billfish, sharks, and sea turtles. US squid-boats continued to kill dolphin elsewhere with no special restrictions, despite environmental protests.

* * * *

The validity of my model is much reinforced by the findings in this tuna case. Different values of the same explantory variables I identified in the cases of lower and higher common denominator outcomes led here to a case of heterogeneity. The next and last case is also a heterogenous outcome; followed by the Conclusion.
Table VI.2

<table>
<thead>
<tr>
<th>Year</th>
<th>Regulatory action:</th>
<th>Description:</th>
<th>Industry Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1971</td>
<td>Cong. Hearings on proposed International Moratorium of 10 Years on the Killing of All Species of Whales</td>
<td>&quot;Immediate goal that the incidental kill of marine mammals permitted in the course of commercial fishing operations be reduced to insignificant levels approaching zero mortality; provided that this goal shall be satisfied by a continuation of the application of the best marine mammal safety techniques and equipment that are economically and technologically practicable.&quot;</td>
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<tr>
<td>1972</td>
<td>Marine Mammal Protection Act (MMPA)</td>
<td></td>
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<tr>
<td>1975</td>
<td>Commerce Department regulations to implement the MMPA</td>
<td>Dolphin mortality quota of 78,000/year for US fleet in the ETP.</td>
<td>US fleet reduced its dolphin kills to below the quota.</td>
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<tr>
<td>1976</td>
<td></td>
<td>Voids Commerce Department rulings, as contrary to MMPA.</td>
<td></td>
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<tr>
<td>May</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>Amendments to MMPA</td>
<td>Annual dolphin quota reduced to 20,500.</td>
<td></td>
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<tr>
<td>late 1970s</td>
<td></td>
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<tr>
<td>July -</td>
<td></td>
<td>[&quot;Tuna war&quot;: US bans imports of Mexican tuna, in retaliation for seizure and fine of US boats caught fishing in Mexican waters. Similar measures against Ecuador, Peru, Costa Rica. Based on 1976 Fisheries and Conservation and Management Act on territoriality, unrelated to dolphins.]</td>
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<tr>
<td>1986</td>
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<td>Year</td>
<td>Event</td>
<td>Details</td>
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<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>MMPA amended to extend indefinitely the US annual kill quota of 20,500. Enforcement relaxed. Information requirements.</td>
<td></td>
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<tr>
<td>1987 Sept. - 1988 (Feb)</td>
<td>MMPA reauthorized</td>
<td>Foreign fleets must reduce their dolphin mortalities to rates no more than twice the US fleet; or face tuna embargo. Also required US boats in the ETP to carry an independent observer. Placed restrictions on dolphins species that were &quot;depleted&quot; (&lt;40% of population). Set 1989 deadline. Brief embargos imposed under MMPA on tuna from Spain, Venezuela, Vanuatu, Panama, and Ecuador.</td>
<td></td>
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<tr>
<td>July 1989</td>
<td>US Congress, HR2926</td>
<td>Sam Labudde video of dolphins killed by Panamanian boat.</td>
<td></td>
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<tr>
<td></td>
<td>Dolphin Protection Consumer Information Act bills (DPCIA) to require</td>
<td>By 1989, ETP dolphin populations grew by 2-6%/year.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a label stating whether or not the tuna was caught with dolphins.</td>
<td>By 1989, ETP dolphin populations grew by 2-6%/year.</td>
<td></td>
</tr>
<tr>
<td>1990 Apr</td>
<td>9th Circuit Court</td>
<td>Jeremy Ross meets with Heinz' O'Reilly, on behalf of pro-dolphin activists.</td>
<td></td>
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<tr>
<td>1990</td>
<td>Earth Island Institute v. Mosbacher. EEI brings suit to embargo</td>
<td>Heinz (StarKist) voluntarily ends dolphin-lethal tuna purchases; Chicken of the Sea and Bumble Bee follow.</td>
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<tr>
<td></td>
<td>tuna, under MMPA.</td>
<td>Heinz (StarKist) voluntarily ends dolphin-lethal tuna purchases; Chicken of the Sea and Bumble Bee follow.</td>
<td></td>
</tr>
<tr>
<td>1990 June</td>
<td>US Congress</td>
<td>Heinz (StarKist) voluntarily ends dolphin-lethal tuna purchases; Chicken of the Sea and Bumble Bee follow.</td>
<td></td>
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<tr>
<td></td>
<td>Dolphin Protection Consumer Information Act passed, requires labelling</td>
<td>Heinz (StarKist) voluntarily ends dolphin-lethal tuna purchases; Chicken of the Sea and Bumble Bee follow.</td>
<td></td>
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<td></td>
<td>requirements. ETP tuna cannot be labelled &quot;Dolphin-Safe.&quot;</td>
<td>Heinz (StarKist) voluntarily ends dolphin-lethal tuna purchases; Chicken of the Sea and Bumble Bee follow.</td>
<td></td>
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<tr>
<td>1990 Aug 28</td>
<td>9th Circuit Court</td>
<td>StarKist &quot;enthusiastically supports.&quot;</td>
<td></td>
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<tr>
<td></td>
<td>Earth Island Institute v. Mosbacher; temporary injunction, against</td>
<td>StarKist &quot;enthusiastically supports.&quot;</td>
<td></td>
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<td></td>
<td>Mosbacher, enjoining the importation of yellowfin tuna from Mexico and all other countries fishing in the ETP. Briefly lifted in September.</td>
<td>StarKist &quot;enthusiastically supports.&quot;</td>
<td></td>
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<tr>
<td>Date</td>
<td>Authority</td>
<td>Event Description</td>
<td></td>
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<tr>
<td>1990 Nov. 14</td>
<td>Ninth Circuit Court of Appeals</td>
<td>Temporary stay on tuna embargo.</td>
<td></td>
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<tr>
<td>1991 Jan. 25</td>
<td>GATT</td>
<td>Mexico requests dispute settlement panel under Article XXIII(2) of the GATT.</td>
<td></td>
</tr>
<tr>
<td>1991 Apr.</td>
<td>US House</td>
<td>Cong. Rangel: legislation and regulations to end the slaughter of dolphins by the tuna industry; and to urge the public not to purchase tuna products derived from fishing practices that results in the death of dolphins.</td>
<td></td>
</tr>
<tr>
<td>1992 Jan/Feb</td>
<td>US District Court for Northern California, 785 F.Supp.826; Judge Thelton Henderson</td>
<td>Secondary embargo on countries which import dolphin-lethal tuna (France, Italy, Costa Rica, Venezuela, etc.)</td>
<td></td>
</tr>
<tr>
<td>1992 Mar.</td>
<td></td>
<td>President Bush proposed to lift the ban on imported Mexican and Venezuelan tuna, in exchange for continued reductions in dolphin kills by their tuna fleets, and a five-year moratorium on purse-seine nets. The Departments of State and Commerce, and the USTR, all supported lifting the ban.</td>
<td></td>
</tr>
<tr>
<td>1992 June</td>
<td>IATTC</td>
<td>IATTC member governments sign Agreement to take effect January 1993, aimed at progressively reducing dolphin mortality in the ETP. 19,300 for 1993, falling to &gt;5,000 in 1999. (Colombia, Costa Rica, Ecuador, Mexico, Nicaragua, Panama, the US, Vanuatu, and Venezuela).</td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Action</td>
<td>Description</td>
<td>Notes</td>
</tr>
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<td>------</td>
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</tr>
<tr>
<td>1992 Sept/Oct</td>
<td>International Dolphin Conservation Act (IDCA), HR5419 Studds/Boxer, S1704 Kerry [S3003]</td>
<td>US House voted 389 to 15 to ban the sale or purchase of tuna caught in nets that kill dolphins. Sponsored by Studds (D-MA) and Porter Goss (R-FL). (A competing law sponsored by Sen. John Breaux (D-LA) that would not have required a complete ban on dolphin kills. It failed. Breaux later introduced a bill to provide for the transfer of US-flagged tuna vessels to foreign registry. [S1721-103rd Cong 1st Session]). [S2995: adopt IATTC plan, reduce to under 5,000/year.] Seeks 5-year global moratorium on intentional encirclement of dolphins. Provides for an embargo of 40% of all fish exports from errant countries. Sponsored by Rep. Gerry Studds (D-MA), Barbara Boxer (D-CA), Sen. John Kerry (D-MA).</td>
<td>Starkist supports IDCA (provided IATTC is involved in assessment of areas beyond the ETP). Kerry assures.</td>
</tr>
<tr>
<td>1993</td>
<td>IATTC international accord</td>
<td>New mortality quota by vessel for boats still operating in the ETP.</td>
<td></td>
</tr>
<tr>
<td>1994 May/June</td>
<td>Second GATT council report.</td>
<td>Confirms findings of first Panel Report.</td>
<td>Dolphin deaths in the ETP reduced to 10% of 1986 levels. 99.5% of netted dolphins are released unharmed. Dr. Perrin: not a question of conservation.</td>
</tr>
</tbody>
</table>
CHAPTER SEVEN: US INFANT FORMULA MARKETING

At first glance the US infant formula case seemed to defy my proposed model. I chose to examine it in detail precisely for that reason, to test the model. According to conventional wisdom, the WHO/UNICEF "code of conduct" brought to heel a multinational corporation, led by non-governmental organizations (NGOs) and medical science. Subsequent developments in the US, however, reveal a picture marked by special interests and more compatible with my model, if not a perfect fit. My revised interpretation is that Nestlé only agreed to abide by the WHO/UNICEF marketing code in 1984, more than a year after the two dominant US producers began a strategy to ban advertising as a barrier to Nestlé's entry into the US market. The US firms lobbied against the broader international WHO/UNICEF code at the same time they opposed advertising in the US. I therefore categorize the US industry restrictions as a heterogeneous case of product restrictions.

The US advertising "code" was not a formal law. Neither was the WHO code in most countries. Both codes fit a broader definition of regulation: direction from a competent authority, guiding action or conduct. As will be seen, this lack of a formal law in the US led to cracks in the


462 Advertising restrictions restrict the sale or distribution of products, post-manufacturing, hence they are a product restriction. It will be worthwhile for further investigations to examine in more detail the international case of Nestlé and the WHO/UNICEF code. The US case ended in an out-of-court settlement; the reader is again reminded that I make no evaluation as to whether the behavior I examine was morally good or bad. Nor do I imply any normative connotation (moral or strategic) between cases (e.g., tuna and infant formula) within each outcome. For the record, my unstudied inclination is to support breast-feeding and oppose the killing of dolphins.
voluntary code against advertising. Nonetheless, advertising "restrictions" in the US were widely-known and respected. They were supported by the American Academy of Pediatrics (AAP). The "clout" for enforcement came from the professional opinion of the AAP, support by US industry itself, NGOs and the media.

1. CONCENTRATED INDUSTRIAL STRUCTURE; DOMESTIC HUMAN ASSET-SPECIFICITY

In the US, Abbott-Ross and Bristol-Myers (Mead Johnson) held 80% of the highly concentrated market. Less than 10% of Abbott's and Bristol-Myers' sales were in developing countries. Seventy percent of Abbott's physical assets were in the US. Overseas, Nestlé dominated developing country markets with a 50% market share outside the US. One-fourth of its 303 factories were located in developing countries, and they contributed twenty percent of Nestlé's total production. Nestlé sought since 1978 to enter the US infant formula market, without success: by 1993, Nestlé was able to gain only six percent of that market.

Abbott and Bristol-Myers controlled the US market with their name-brand recognition, long-standing exclusive contracts with doctors and hospitals, loans and grants to medical students and pediatricians, conference subsidies, and free samples to newborns. Those transactions were highly relation-specific. Brand loyalty among consumers was high, because parents tended to stick with whatever brand they received from the hospital. The dominant two US firms did not need to advertise and their relationships with doctors and hospitals were difficult for late-comers like Nestlé to duplicate. Their human
asset specificity was high in marketing relationships specific to domestic US transactions; overseas it was low.\textsuperscript{463}

2. **BACKGROUND: NESTLÉ-WHO/UNICEF CODE**

Higher morbidity rates among bottle-fed versus breast-fed infants were documented by health workers in developing countries by 1972. Infant formula marketing practices (including advertising, free clinical samples, saleswomen in nurse uniforms, and misleading literature) allegedly discouraged mothers from breast-feeding their infants. The result was higher morbidity from contaminated water and unsanitary containers, lowered infant immunity (transmitted through breast-milk), higher birth rates (breast-feeding decreases fertility), and weakening of the mother-infant bond. Scientific articles pre-dated publicity by NGOs.\textsuperscript{464} A UN advisory group and the World Health Assembly passed resolutions in 1974 urging appropriate regulation of advertisement. No such regulation occurred for ten years, until Nestlé agreed to it.


Activist NGOs picked up the issue. The UK's "War on Want" publicized it widely in 1974.\textsuperscript{465} In 1975, international industry formed the International Council of the Infant Food Industry (ICIFI) in 1975. Its members included Nestlé, England's Cow and Gate, five Dutch firms, four Japanese firms, US Wyeth, and a Danish and French firm. Abbott-Ross never joined ICIFI, on the grounds that it had higher internal standards. A US-based NGO, INFACT, was formed in 1977 and began a consumer boycott of Nestlé in the US and nine other industrial countries. Industry's ICIFI was headed by a former WHO official, Stanislaus Flache. ICIFI helped establish voluntary codes in several developing countries, including Peru, Kenya, Nigeria, Malaysia, and South Africa.\textsuperscript{466} In 1978, Senator Edward Kennedy held hearings on the issue, and chaired a meeting with industry representatives. Joint WHO/UNICEF meetings in 1979 were attended by industry, government, doctors, and activists.

WHO completed a suggested code of conduct on infant formula marketing in 1981. It was adopted in May 1981, with 118 nations voting in favor (including the Swiss), three abstaining, and the US opposed. Initially, ICIFI opposed the 1981 WHO code, and its implementation remained voluntary and sporadic. (US industry, meanwhile, met by August 1983 to discuss a voluntary code against advertising, to exclude Nestlé from the US market). By 1984, Nestlé changed its strategy, and stated its commitment to see the International Code of marketing for Breast-milk Substitutes implemented by governments. Boycott activists in fifteen countries confirmed

\textsuperscript{465}Mike Muller, \textit{War on Want} March 1974, "The Baby Killers." It was translated by a Swiss group into German as \textit{Nestlé Kills Babies}. Nestlé sued the Swiss group for defamation and libel. See case materials prepared by Professor James E. Post of Boston University, "Nestlé Boycott (A)," Graduate School of Business, Stanford University, 1981, cited in Sikkink, \textit{op. cit.}, p.821.

a significant change in Nestlé's marketing practices.\textsuperscript{467} INFANT and the INBC called off their boycott. Implementation of the code was left up to individual countries.

Reliable data on the gross cost of the boycott to Nestlé is not available. One source estimated it as high as $40 million.\textsuperscript{468} In the meantime, annual developing country purchases of infant formula jumped from $600 million in 1978, to $2 billion in 1983. In 1988, the boycott against Nestlé was called on again for a while. Critics argued that Nestlé routinely violated several provisions of the WHO codes. Nestlé denied the charges.\textsuperscript{469}

3. **US INDUSTRY OPPOSED WHO CODE OVERSEAS; SUPPORTED ADVERTISING RESTRICTIONS AT HOME**

Over State Department protests, three US firms successfully lobbied the Reagan administration to oppose the WHO code on the grounds that it restricted free speech and was not warranted by scientific evidence. Yet the same firms supported a different marketing code in the US, one that helped secure their domestic market share. Not only did they not oppose a US code against advertising; they actively sought it. Their first movements toward a self-imposed advertising ban were scared away in the face of a possible Justice


\textsuperscript{468}Sikkink, op. cit., citing Post, "Assessing the Nestlé Boycott," p.121.

\textsuperscript{469}"Monitoring Report: Infant Foods Industry," INFECT, July-August 1984. Sikkink, op. cit., p.833. The campaign was also a success for INFECT as an organization: it developed a permanent staff and went on to mount boycott campaigns against General Electric (nuclear weapons) and, on May 1, 1993, tobacco companies. *Infact Update,* Summer 1993.
Department antitrust inquiry. Soon after, they gained support from a prominent medical association. Their industry group (the Infant Formula Council) coordinated a strategy to condemn consumer advertising. They simultaneously raised prices, supported by William Smart, Abbott-Ross' president in the early 1980s. A subsequent president of Abbott-Ross, Jack W. Schuler, opposed the price hikes, arguing "You're going to get caught." Schuler was fired by then-Chairman Robert A. Schoellhorn.470

Extensive negotiations ensued among the big three US producers. The first industry meeting took place in New York, the second at Chicago's O'Hare Hilton Hotel. The meetings continued for eighteen months, going through seven draft codes. By August 16, 1983 (one year before Nestlé settled with INBC), Lael F. Johnson, Abbott's general counsel and senior vice president, urged other members of the Council to adopt the US no-advertising clause. Johnson sought wording that did "not present intolerable antitrust problems." If federal antitrust enforcers objected, Johnson proposed, companies "would then unilaterally address these areas in unilaterally adopting their own code." At the same time industry raised prices and increased funding to the American Academy of Pediatrics (AAP), which opposed formula advertising.471


4. SUPPORT TO AND FROM THE AMERICAN ACADEMY OF PEDIATRICS (AAP)

The AAP received a total of $1 million annually from the top three US formula makers for almost a decade. Manufacturers also spent millions designing hospital pediatric clinics. The AAP had long issued proclamations opposing formula advertising. Not all physicians groups did. The AAP was aware of industry support, and its relation to infant formula advertising. An AAP executive committee internal memo from 1986 states:

"[T]here is a need to make this statement reaffirming the AAP’s position on marketing, breast milk, lay advertising, etc. If there is a marketing war, there may be a shift in industry's distribution of funds and the AAP may have to cut back on anticipated income from industry."

This is strong evidence that the AAP was aware of the connection between its position on marketing and its receipt of funds from industry.

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472 Los Angeles Times, August 16, 1993, p.D:2. As of November 1993, the AAP was in litigation in California, and could not publicly discuss the case on the advice of its counsel (to the immense frustration of AAP officials and this scholar). Court records were not yet available at that time. The contributions were for a variety of small projects; not a lump-sum donation. The formula industry's direct donations to the AAP accounted for three percent of the medical group's $35 million annual budget, much of that in foundation supports and grants, which were not part of the academy's operating budget. For a critical discussion of the AAP and its relationship to industry, see Barry Meier, The New York Times, June 15, 1993, p.D1.

473 The AAP and like-minded organizations have no hard evidence to support the claim that direct marketing will reduce breast-feeding, the AAP conceded in a 1989 report, in part because there had been no formula advertised in the US. The AMA also opposed advertising. But the 75,000-member American Academy of Family Physicians (AAFP) refused to adopt a stance against formula advertising. It argued in a 1991 report: "A prohibition against any advertising of infant formula -- a food and nonprescription product -- might easily be seen by critics and patients as onerously paternalistic and perhaps self-serving." Cited in The New York Times, June 15, 1993. The AAP formally opposed hospital giveaways without a physician's approval, but critics contend that the group did little, if anything, to enforce that position. Giveaways were not banned by the US Council code, yet a McGill University study concluded they discourage breastfeeding. New York Times, November 4, 1984.
The AAP director from 1979 to 1986, Dr. M. Harry Jennison, acknowledged the influence of industry funding:

"The academy got caught up in greed. Manufacturers started giving money and it was so easy that people's eyes got big. The main thought was 'How can we get more?' . . .I think it's pretty clear now that we were used." "I did not realize at the time how much we were being bought off. Now that I know the formula companies were trying to manipulate the academy, I feel absolutely duped."^74

The AAP had long opposed advertising; I do not suggest that industry support altered the AAP's research findings or principles. Rather, I suggest that industry effectively used the AAP to further its commercial goals.

In possible parallel to the US case, in 1980 Nestlé gave large grants to the President of India's Academy of Pediatricians, while he was on India's committee to draft a domestic code on infant formula advertising. Publicity scuttled the proposal. India went on to develop even more stringent restrictions than called for in the WHO code; its domestic industry also acquired a significant market share. These and other aspects of the international case merit further research.

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^74Quoted by Barry Meier in The New York Times, June 15, 1993, p.D1, and by Burton, Wall Street Journal, op. cit. A high-level confidential source favorable to the AAP challenged Jennison's credibility, reported that he was "terminated for cause," and alleged that Jennison since received support from Nestlé. I have not yet discussed this with Dr. Jennison or Nestlé. The subsequent AAP Director, James E. Strain, denied any conflict of interest. He noted that the baby-formula industry's direct donations accounted for only three percent of the medical group's annual budget, much of that in foundation supports and grants, which were not part of the academy's operating budget. He also noted that it forced Bristol-Myers to drop an infant formula advertising campaign in baby care magazines in the 1970s, and that it stopped taking money from Bristol-Myers in June 1989 when Bristol-Myers produced a product advertised by Gerber under Gerber's name.
5. **US INDUSTRY DESIGNS ITS OWN CODE**

US industry executives reached final agreement to restrict advertising in January 1985, three months after Nestlé agreed to implement the WHO code. The US industry Infant Formula Council approved and implemented the anti-advertising code in February.\(^{475}\) The US code did not ban hospital giveaways nor did it ban subsidies to hospitals and pediatricians. Those practices played to US industry's competitive strengths.

The US industry's self-imposed ban on advertising remained effective, from 1985 through 1989 and beyond. Previously, US industry had advertised domestically. Bristol-Myers, for example, had advertised in the 1970s, before Nestlé threatened to enter the US market. Internal documents unearthed in the Florida lawsuits are refreshingly candid. A 1988 Bristol-Myers memo clearly states: "[I]t is probably in our best interests to forestall any form of consumer advertising. The inability to advertise presents a significant entry barrier to new competitors."\(^{476}\) US industry consciously and explicitly used opposition to domestic advertising as a barrier-to-entry.

6. **ENTRY BARRIER PERMITTED PRICE COLLUSION**

According to federal prosecutors, Abbott-Ross Laboratories and Bristol-Myers (Mead Johnson), engaged in "facilitating devices" or signals leading to price collusion, bid rigging, and conspiracy to prevent advertising. Abbott-

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Ross and Bristol-Myers denied the charges.\textsuperscript{477} From 1980 to 1990, Abbott raised its Similac prices by 207\%, roughly six times the increase in the consumer price of milk. By 1987, it sold over one billion dollars worth of formula, accounting for 25\% of its earnings. Bristol-Myers and American Home Products, the next largest US manufacturers, allegedly engaged in lock-step pricing. Industry officials were aware of a need for confidentiality. Prosecutors alleged that internal memos on these issues included phrases such as: "Be sensitive to what you put in writing," "protect confidential information," "get rid of unnecessary records," "clean out your files before year end," "clean files reflect a clean operation," and "if only Mr. Nixon had paid attention.\textsuperscript{478}

Industry's concern with confidentiality ultimately failed.

Among the consumer's hit hardest by the high prices were the poor in the federal government's Special Supplemental Food Program for Women, Infants and Children (WIC), according to prosecutors. WIC accounted for 40\% of the formula market in 1991 (serving 4.4 million babies a month, over one-fourth of all babies born in the US). Higher prices cut into WIC funds. A lack of funds prevented the WIC program from serving half of the eligible mothers in some areas. When WIC programs in Oregon, Tennessee and Texas turned to competitive bidding, over the adamant objections of the US formula industry, the price they paid per can of formula dropped 80\%.\textsuperscript{479}

\textsuperscript{477}Neither Abbott-Ross and Bristol-Myers responded to requests for information or drafts of this case study, faxed to them on November 4, 1993.


\textsuperscript{479}\textit{Sacramento Bee}, August 19, 1993; \textit{New York Times} December 31, 1990; and \textit{Chicago Tribune} June 5, 1988. Mike Hudson, executive director of Texas' Children's Defense Fund, called Abbott-Ross' effort to prevent competitive bidding "one of the most intense lobbying campaigns I've ever seen."
7. CRACKS IN THE US ADVERTISING BAN

The absence of a legal ban on advertising led to inroads by Nestlé. Nestlé was the world's largest food conglomerate by the 1970s. It purchased Carnation in 1985 and used that brand name to finally enter the US formula market in 1988. Facing increased competition from Nestlé-Carnation, Bristol-Myers stretched the voluntary code in June 1989, with limited advertising under the Gerber brand name. Continued collusion among Abbott, Bristol-Myers, and American Home Products was allegedly one reason Nestlé held only a six percent market share by 1993. The big three US firms still controlled 90 percent.480

Even more significant, the voluntary code led to federal charges of collusion and price-fixing. Ironically, if Abbott-Ross and Bristol-Myer had supported the WHO code earlier, they might have accomplished some of their goals without facing legal charges.

8. FEDERAL LITIGATION: INDUSTRY SETTLES FOR $230 MILLION

The FTC announced its investigation of Abbott and others in 1991. Soon the big three US makers faced over 30 law suits from across the country. In May the industry settled consolidated federal antitrust litigation in Tallahassee, Florida, by agreeing to pay a total of more than $230 million to drugstores, supermarkets and the state of Florida.481 It was one of the

480 Information Resources, for the year ending April 25, 1993. Note that the AAP refused funding from Bristol-Myers after 1989, consistent with its principles. Nestlé agreed not to advertise its new-born formula, but began direct consumer advertising for its older-baby formula. Facing protests, Nestlé quickly dropped its advertisements in early 1989, but resumed some in 1991 as the FTC began its investigation of Abbott.

largest antitrust settlements in the country. In early September 1993, Abbott settled charges of collusion by agreeing not to exchange marketing information with other baby-formula companies or to lobby them in efforts to prohibit consumer advertising. Abbott still faced antitrust litigation, including charges of price-fixing on bids to provide formula to a federal nutrition program for poor families in Puerto Rico.

The US industry and the AAP suggested that the federal investigation was spurred by Nestlé. Nestlé in turn sued Abbott, Bristol-Myers, and the AAP in May 1993 for allegedly "conspiring to keep Nestlé out of the baby-formula market by preventing consumer advertising of formula." This latest turn marks an attempt to reduce de facto protectionism. Whether the US became a "haven" for formula advertising (compared to the nations implementing the WHO/UNICEF code) or implements a stringent code was not yet determined.

9. **US INFANT FORMULA CONCLUSION**

The US infant formula case has (limited) parallels to the tuna-dolphin case. Another US food conglomerate used research from a respected non-governmental organization to exclude competitors and raise prices. The oligopoly of US infant formula makers kept out Nestlé by using advertising restrictions as a barrier-to-entry against a foreign competitor.

The US infant formula case fits my model of higher heterogenous restrictions resulting from product restrictions, high market concentration and domestic asset specificity. In response to lobbying by industry, the US government was the only government to vote against the WHO ban on

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advertising overseas. The US government was not willing to push the issue further against these odds abroad nor was it willing to buck domestic opposition (including the Department of State). Therefore, it did not use market access as a threat. Those overseas codes were only implemented when Nestlé agreed to them, in 1984. Even as US industry failed to prevent stringent marketing codes in overseas markets dominated by Nestlé, it succeeded in erecting marketing guidelines as a barrier-to-entry in the US. The industry drew support from a respectable professional association.

However, that barrier-to-entry was vulnerable, because US industry did not seek (nor find) a formal US regulation against advertising; instead it relied on a voluntary code. This aspect of the case neither confirms nor disconfirms the influence of industry on formal regulations. (It invites further research on the choices open to and made by US industry and by Nestlé, and their decision-making under constraints).

Other aspects of the case confirm the role of particular private sector interests in regulating economic behavior. The US industry supported protectionist codes that advanced its differentiated private interests, while defending them in terms of the public interest.

An interesting juxtaposition to the infant formula case is the case of tobacco advertising in Asia. That case is briefly summarized below; followed by mention of heterogenous cases which run against the trend toward homogeneity in Europe.
Similar Case of Heterogeneity:
Tobacco Advertising in Asia

US tobacco companies' marketing investments in the US declined in value in the 1980s, as demand decreased. They sought markets overseas, particularly in Asia. Asian cigarette markets were typically dominated by national brands, often monopolies protected by restrictions on advertising. Those restrictions were supported by medical groups; and also supported by the local industry (as my model predicts). US tobacco companies, as powerful newcomers, sought to penetrate those markets via lower restrictions on advertising. They found partial success. Product regulations supported by Asian firms with domestic asset specific investments were partly overwhelmed by leading American tobacco firms with increasing multinational asset specificity.

The US tobacco firms launched a lobbying campaign through the US Trade Representative (USTR) to lower advertising restrictions overseas. Sesser (1993) asserts that the Tobacco Heritage Committee (composed of seven American tobacco manufacturers) paid $1.4 million to redecorate the elegant Treaty Room in the US Department of State in 1986, while tobacco negotiations were underway with Asian countries. RJ Reynolds hired President Reagan's former National Security Adviser Richard Allen to lobby on its behalf; Phillip Morris paid Reagan's former aide Michael Deaver $250,000 in 1987, to help open South Korea's tobacco market. Sesser alleges that Philip Morris also hired former British Prime Minister Margaret Thatcher for one million dollars per year, to help open China's market.483

US tobacco companies argued they faced unfair trade practices in Asian countries, where they competed against national monopolies which controlled markets through name-brand recognition and advertising bans. (Note the mirror-image parallels to the US tuna-dolphin and infant formula cases). The USTR heeded these arguments. The USTR allegedly pushed even for advertising minutiae, such as limiting health warnings on cigarette packages in Taiwan to small print on the side of the pack (instead of large print on the front, as Taiwanese officials had preferred).

483 Sesser imputes no illegality, but implies a "chummy" relationship between government and industry.
In the late 1980s the US pressured China, Taiwan, Japan, South Korea and Malaysia to permit cigarette advertising. Press reports suggested that Section 301 trade sanctions might be used to force market access. Those sanctions could include 100 percent countervailing duties on exports to the US from countries which did not meet US demands. Initially, Taiwan, South Korea, Japan, Malaysia, and China all conceded to US firms in various ways. The lobbying and threats of market closure had mixed success. By the 1990s, the USTR faced a "united front" of Asian tobacco firms and health experts in Asia and the US (including a "smoke-free" White House), all opposed to lax regulations on tobacco. The USTR backed off from enforcing the 1986 agreements, and eased up in its opposition to countries' restrictions on tobacco advertising.

Thailand resisted US pressures by appealing to the GATT. The GATT ruled that Thailand could keep in place nondiscriminatory advertising restrictions, although it had to open its market to foreign cigarettes. US companies quickly gained significant market shares elsewhere (and the incidence of smoking rose), but in Thailand their market share remained small.

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484 Critical interpretations are offered by Stan Sesser, "Opium War Redux (A Reporter At Large)," *The New Yorker* (September 13, 1993) pp.78-89.

485 The tobacco issue was taken up by various public interest groups. See the Council on Scientific Affairs, "The Worldwide Smoking Epidemic: Tobacco Trade, Use and Control," 263 *Journal of the American Medical Association* 3312 (June 27, 1990). Also reports by the Advocacy Institute and INFACT (the Infant Formula Action Committee). See *Infact Update* (Summer 1993).

Other Cases of Heterogeneity: European "Green Protection"

In the EC, despite overall trends toward harmonization, one finds protectionist "cracks" supporting particular interests and justified as public goods. "Green protectionism" is the use of environmental regulations to support a particular domestic industry. A leading observer concludes: "If [EC] nations were allowed to adopt their own product standards, . . . nations with stricter environmental standards would then likely attempt to 'protect' both their citizens and their industries by excluding goods produced in member states with weaker regulatory requirements. In the case of [process] standards, nations that had adopted more stringent pollution controls than other member states would find the goods produced by their industries placed at a competitive disadvantage."487 In short, nations would face a choice between protection, economic hardship, or laxity.

Specific examples include:

- German recyclers: Germany recycles 53% of its glass; Britain recycles only 17%. In April 1991, Germany approved laws that ultimately required companies to retrieve and recycle all product packaging, and many durable goods. The response exceeded even Germany's extensive recycling capacity: 80 million tons of recycled material were collected the first year of German legislation, and 400 million tons were expected in 1994. Foreign firms protested on a variety of grounds, e.g., that the mandatory take-back policy discouraged retailers from carrying imported goods, and created hurdles for small foreign firms.488

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• Danish bottlers: Danish consumption of beer per capita is the highest in Europe (after Germany), but Denmark imports very little beer. Danish regulations protect that bottling industry. A 1984 Danish law imposed recycling restrictions on imported beverage containers. The European Court of Justice upheld most of the law, ruling that it was not in restraint of trade but served a legitimate purpose under the Treaty of Rome.\footnote{Environmental Protection and Free Movement of Goods: the Danish Bottles Case, Journal of Environmental Law, 2:1, 1990; and Vogel, \textit{op. cit.}, pp. 48ff. Vogel cites other EC cases in chemical safety, hazardous waste disposal, and eco-labelling. On the earlier Cassis de Dijon case, see Karen Alter and Sophie Meunier (1992).}

• Many long-standing national regulations in Europe benefitted local producers, over consumers. France restricted artificial sweeteners to protect the domestic sugar-beet industry; Germany regulated the contents of beer; Italy regulated pasta.\footnote{David Vogel, "The European Community and the Harmonization of Regulatory Policy: Implications for Sustainable Development Under NAFTA," mimeograph, 1993. German beer laws extend back to the Renaissance; in part, they ensured that feudal rulers would receive taxes on locally-produced ingredients. On European integration, including the 1979 \textit{Cassis de Dijon case}, see below.}
PART V: CONCLUSION

CHAPTER EIGHT: CONCLUSION

"Economic regulation is as much a tool of statecraft as military defenses ever were. Hence, insofar as external repercussions are considered, the logic of state regulation is in part the logic of conflict."
-- Edward Luttwak, 1990

Luttwak may exaggerate the role of conflict in international trade but his words are a useful reminder of that potential. Virtually every organization in modern society is subject to some form of economic regulation. This leaves a wide variety of cases subject to competitive pressures from interstate trade, in which no central authority has resolved relevant regulatory differences.

This research set out to answer a puzzle. I observed that initial cross-national variations in national regulations may lead to any of the following three basic trajectories for a given issue:

- convergence toward a lower common denominator
- convergence toward a higher common denominator
- persistence of national differences (heterogeneity)

These trajectories constituted my "dependent variable." My goal was to find a common thread of explanation across diverse cases (without attempting a complete explanation of any one case).

I offered three propositions to explain these trajectories. Each proposition emphasized the incentives and options facing private sector interests and government responses to them.

(1) The locus of regulations affects the direction of regulatory change, toward laxity or stringency. Restrictions on manufacturing processes may spawn competitions-in-laxity. Producers seek lower costs of production, either through voice or exit. Restrictions on the domestic sale, consumption, or disposal of products may spawn more stringent regulations. Domestic producers shape regulations to their advantage, as a barrier-to-entry.

(2) Industrial structure affects the strength of the product-process distinction. Governments are more likely to respond to dominant, established firms in concentrated markets with regulatory changes.

(3) The asset specificity of firms' investments shapes the commonality of regulations between states. Investments with low asset specificity facilitate a competition-in-laxity because firms may relocate to a more lenient regulatory climate. States react to attract these firms or to prevent their relocation. Investments with high multinational asset specificity encourage homogeneity because firms seek one set of rules to reduce transaction costs within the states in which they are active. Investments with domestic asset specificity encourage protectionist heterogeneity because firms with no "exit" option use regulations strategically as a barrier-to-entry against foreign competitors.

As revealed in the case studies, these propositions stand up well. Rather than repeat the conclusion of each case study separately here I note the elements in each case which support the propositions, followed by a discussion of unexplained variance.
1. PROCESS-PRODUCT DISTINCTION

The first proposition emphasizes the importance of the locus of regulations: on production processes, or on the sale or distribution of products.

1.1 Process: Laxity

Process restrictions are faced by private sector incentives for laxity. The relocation of ships to "flags-of-convenience" (FOC) countries clearly demonstrated the potential of process restrictions to lead to a competition-in-laxity. Following World War II, shipowners increasingly registered their ships in Panama, Liberia, Cyprus, and so on to avoid taxes, and labor, environmental, and navigational regulations. Relocation was cheap and easy. By 1994, more of the world's shipping flew a flag-of-convenience than a flag from the seven largest OECD fleets combined. Those FOC fleets were more prone to labor abuses, pollution, and inspection violations. They also sank three times as often. (See Figure 8-1 and Figure 8-2, below).
Similar patterns of process-laxity were noted in the relocation of certain financial services to offshore banking centers (Cayman Islands, Bahamas) and within the US in the relocation of incorporation to the state of Delaware. In each of these cases, when one state offers lax process restrictions, firms in competing states also push for deregulation: international ship registries in Europe, deregulation of certain banking products worldwide, and convergence toward Delaware’s code within the US. (Laxity in these cases is enhanced by low asset specific investments, discussed below).

Enforcement of process provisions in the 1974 Marine Mammal Protection Act was similarly lax through 1989. Ceilings set under the MMPA were above the actual levels achieved by the fishing industry as it improved dolphin-safer techniques such as net-backing. And enforcement aboard US ships with observers was lax, to the frustration of the observers and environmental groups.  

1.2 **Product: Stringency**

Product regulations, on the other hand, are associated with movements toward greater stringency. Consider summary evidence from the following case studies:

- The US threat of using product restrictions to close markets to products of foreign firms also resulted in movement toward regulatory stringency. This was seen in the Montreal Protocol, the Basle Accord (initially pressuring Japan to sign onto the US-UK accord and later pressuring others to sign; after the Accord the FBSEA/FDICIA put pressure on countries to meet US "national treatment"), and the oil-tanker subsector of the shipping industry

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492 *Atlantic*, July 1989 v263 n1 p.35.
(where safety and construction standards were enforced). This threat also contributed to more dolphin-safe purse-seining in the ETP by foreign firms (although they still continued to dolphin-set there contrary to heterogenous US regulations).

- Most countries in the world banned the production of ozone-depleting CFCs by year-end 1988, foreclosing the sale and distribution of new CFCs. US CFC producers were guaranteed their earlier (1986) market share of production. (Prices rose 50 percent within a year.)

- Movement toward more stringent regulations of phosphorus matches occurred among major exporters only when a substitute product (sesquisulphide) was found and the leading producer could profit from a product ban on phosphorus matches.

- The US Congress and courts imposed a ban on the importation of tuna products which endangered dolphins. The ban was supported by the dominant tuna canners and environmental groups. A US National Academy of Sciences study concluded that a ban on dolphin-setting was not necessary. Greenpeace noted that dolphin-safe fishing was not necessarily more ecologically sound. Those conclusions were largely ignored. Individual consumers were not willing to spend more for dolphin-safe tunafish but they seemed willing to support the government ban. Mexico alleged in its GATT panel hearing that US squid-boats continued to kill dolphins elsewhere with no special restrictions and despite environmental protests.

- US infant formula makers acted together with medical authorities to restrict the selling of infant formula in the US to certain channels.

- Similarly, local tobacco companies in Asia acted together with medical authorities to restrict the selling of cigarettes to certain channels. (They were challenged, with mixed success, by powerful "foreign" [US] firms).
A similar logic is seen in Danish bottle laws, German recycling laws, and Italian laws on pasta.\textsuperscript{493}

In all these cases, movement toward stringent product standards reflected a strategic private sector interest, as well as public interest concerns.

2. INDUSTRIAL STRUCTURE: DEGREE OF REGULATORY CHANGE

Industrial structure affected the degree to which process and product restrictions took effect. Large firms in concentrated industries were able to exert more influence (voice) on the regulatory process. Consider summary evidence from the following case studies:

- The creation of the flag-of-convenience system was a product of high-level American businessmen who gained support from government officials. While they were not shipping ologopolists they had unparalleled access to top government officials. For Panama the business leaders included W. Averell Harriman and John Foster Dulles. Even more clearly in Liberia it included former Secretary of State (and former Chairman of US Steel) Edward Stettinius, jr. Stettinius jointly owned several ships with Admiral William Halsey; in their creation of the Liberian registry they received personal support from the Secretaries of the Army, Air Force, and others.
- Dominant multinational corporations and the larger independent shipowners in the oil-tanker subsector supported more stringent regulatory action than did smaller independent owners.
- The two largest producers of CFCs, DuPont and ICI, were intimately involved in the restrictions on CFCs. In the early 1980s, they slowed down

\textsuperscript{493}See Vogel (1992), \textit{op. cit.}
heterogenous regulatory movements. In the mid- to late-1980s, when support for homogenous regulations grew, they invested in substitutes and facilitated regulatory stringency (even lobbying to support the Vienna Convention and Montreal Protocol against the Reagan administration.) France, as the largest HCFC producer, was particularly adamant in opposing restrictions on HCFCs or HFCs, for which industry had no good substitute. UNEP’s Executive Director, Mustafa Tolba, confirmed that the negotiations were more about differential gains between DuPont and its competitors than about the environment.

- Despite the large number of players in global finance, the Basle Accord raised capital standards worldwide. However, here one finds unusual contracting arrangements between banks to resolve the debt crisis (syndication of products, cross-default clauses, bank advisory committees) and close ties with a coordinating institution that somewhat unified bank interests (the Bank for International Settlements).
- The US and UK initiated the push for implementation of a higher capital standard; their banks had among the higher capital ratios worldwide.
- Despite the Basle Accord considerable heterogeneity in capital standards remained through 1994 as the debt crisis eased. This heterogeneity in implementation reflected the interests of dominant banks within each country. Following the crash in stock and real estate markets Japanese interpretations of the Basle Accord were less stringent than in other countries. In contrast, the US Federal Reserve raised standards above the Basle Accord levels, reflecting the stronger capital position of US banks.
- In the US phossy-jaw case, regulations came about at the insistence of Diamond Match Company, which held a US patent on the substitute good sesquisulphide. Diamond worked in conjunction with a worker-safety union.
- The largest US tuna canner, Heinz, supported stringent enforcement of a ban on dolphin-lethal tuna. It announced its own dolphin-safe policy four months before required by law; the other two leading canners immediately
followed suit, thereby squeezing out smaller players. Rather than wait for multilateral agreement on dolphin protection or let consumers decide whether or not to buy tuna labelled "dolphin-safe," the US Congress and courts acted unilaterally. Heinz' gamble in the dolphin-safe policy paid off: its market share rose from 36 percent to 42 percent in three years.

- When the US heterogenous ban on ETP tuna was threatened by Mexico taking the matter to a GATT dispute panel in January 1991, StarKist and others lobbied Congressmen who were active on the tuna-dolphin issue. These included Congressmen Kerry (who sponsored the 1992 bill), La Breaux (who supported the bill), and Hollings (who also introduced tuna-dolphin legislation).
- The two largest US manufacturers of infant formula (with an 80 percent market share) cooperated to keep Nestlé out of the US market by restricting the marketing of infant formula domestically to medical channels they dominated. In so doing, they were able to raise prices (until sued on antitrust grounds by the federal government, and Nestlé).
- National monopolies on tobacco in Asia also supported stringent domestic restrictions on marketing; they were partially overwhelmed by even more powerful US tobacco interests.

The logic of industrial capitalism arguably may lead to the continued growth of large corporations which seek to capture economies of scale and scope. To the extent that is true and to the extent my propositions are true one can expect an increasing reflection of corporate interests in regulations.

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3. **ASSET SPECIFICITY**

Asset specificity (low, multinational, and domestic) was also shown to be a useful explanatory variable. Summary evidence on these is presented in turn.

3.1 **Low Asset Specificity: Competition-in-laxity**

Transactions involving investments with low asset specificity allowed firms to search for less restrictive (market governance) regulatory environments or to leave the industry. Low asset specificity increased the exit option of firms, thereby reducing the corresponding options of governments. It facilitated a competition-in-laxity of process regulations as governments sought to attract (or maintain) these firms. Consider summary evidence from the following case studies:

- Ship-flagging presented an extreme case of low asset specificity, in which shipowners could shop among registries with ease. In response, convenience flag states maintained lax domestic process regulations and weak enforcement of international agreements.
- Competitive deregulation was felt even in much stronger European countries in order to bring their ship fleets back under their national flags. (They removed manning requirements and lowered taxes; there is no evidence of lowered safety or pollution standards.)
- As Liberian regulations were strengthened with the support of multinational oil corporations, other owners exited from Liberia to Cyprus and Malta.
- As global capital became increasingly mobile in the 1960s and 1970s a creeping competition-in-laxity occurred in the regulation of bank capital.
• The ease of relocation within the US stalled efforts toward higher common denominator regulation of phosphorus matches.
• Certain parallels are evident in the cases of offshore banking centers and incorporation in Delaware, in which firms' relocation decisions are based on the comparative regulatory advantage offered by states.
• Declining asset specificity in US tobacco marketing (as well declining revenues) led US firms to seek reductions in tobacco restrictions in Asia.

3.2 Multinational Asset Specificity: Homogeneity

Transactions involving investments with high multinational asset specificity (MAS) led firms to search for a common set of rules to operate under (unified governance), within their market area. Exit options were considerably more expensive to these firms. Consider summary evidence from the following case studies:

• DuPont, as a global supplier of CFCs with asset specific production facilities and marketing channels throughout the world, voiced support for common standards on CFCs, anticipated high MAS in substitutes, and strongly opposed unilateral (US) standards.
• With the growth of sovereign lending in the late 1970s bank asset specificity increased. The debt crisis gave leading banks worldwide an incentive to strengthen capital ratios in order to strengthen their hand vis-a-vis sovereign borrowers. Particularly in comparison to other proposals to resolve the debt issue banks supported a higher "level playing field" in capital standards worldwide. They, too, opposed unilateral standards.
• In the federal phosny-jaw case, competition-in-laxity among the American states was overcome only with the leadership of a firm with multi-state asset-specific investments and sales.
• Within the ship registration case it was noted that oil supertankers are considerably more asset specific than cargo vessels. Further, oil tanker construction and operation involve transactions more specific than the "hit and run" transaction of flagging. Here, one sees some movement toward higher common standards as supported by the large oil companies. (The standards were not as high as environmentalists hoped, although studies suggest that oil spills are not the most pressing environmental concern from shipping. Those other concerns were not addressed). These companies maintained similar standards for their vessels no matter where they were flagged.

• Whereas the 1954 and 1962 conventions on pollution at sea failed to yield enforceable discharge and operational standards, Shell Oil and other oil companies were able to establish load-on-top (LOT) as the legal standard worldwide. In so doing they ignored earlier laws and presented their system as a near fait accompli. Governments responded by supporting the system.

3.3 Domestic Asset Specificity: Heterogeneity

Transactions involving investments with domestic asset specificity led firms to search for particular domestic regulations that reflected their interests. When domestic asset specificity was low, firms relocated overseas. When domestic asset specificity was high, exit options became reduced and "voice" options became relatively more attractive. Governments were more likely to "listen" to their own producers than to foreign firms, even when not threatened by an exodus of firms. (The "mirror image" of asset specificity applies to foreign firms.) Consider summary evidence from the following case studies.

• Lingering heterogeneity in the implementation of the Basle Accord and unilateral measures after 1991 to raise capital above the levels in the Accord
are in large part the result of banks having enough domestic assets to merit their "voicing" concerns to their domestic regulators. In the US, this included concerns over competition from Japanese banks. As concerns over developing country debt waned the domestic interests of banks reemerged.

- The three leading US tuna canners invested heavily in marketing within the US. They relied on brand-name recognition to charge price premiums. Heinz-StarKist began its dolphin-safe strategy one year before a US court injunction required it, and announced the policy four months before the injunction. Heinz supported the plaintiff in that injunction, the Earth Island Institute. The US injunction aided Heinz in cutting out smaller low-cost competitors which had been cutting into Heinz' brand-name price premium. Environmentalist groups had protested the killing of dolphins since 1972 with little effect.

- US infant formula makers Abbott-Ross and Bristol-Myers dominated US hospital marketing channels. They controlled 80 percent of the US market through these asset specific relations with medical personnel. They also funded medical authorities who opposed domestic commercial advertising. At the same time, the industry opposed such restrictions in overseas markets dominated by their Swiss competitor, Nestlé. The US government supported them in opposing the WHO/UNICEF code of conduct. The domestic restrictions on advertising were not a formal law, rather they were a conscious and effective barrier-to-entry supported by an industry council. Industry was able to raise prices six-fold above inflation. (US government support eroded domestically when federal prosecutors determined that industry had engaged in collusion which weakened the Women, Infants and Children program. US industry settled out of court for a total of $230 million.\footnote{By comparison, Abbott alone sold one billion dollars of infant formula in 1987, accounting for 25 percent of its profits.} Had advertising
restrictions been embedded in a formal law their behavior might have been legal."

- Asian tobacco monopolies, as import-competitors, supported restrictions on advertising that acted as a barrier-to-entry to foreign competitors.

4. MARKET ACCESS AND THE PROCESS-PRODUCT DISTINCTION

As noted in the Introduction, there is a possible exception to the process-laxity connection: dominant firms in dominant states may support more stringent process restrictions (in a "bleeding game"), if those restrictions differentially improve their market position against competitors.

- Such was the case in the subsector of shipping devoted to large tankers. Here, Shell Oil, Exxon and other multinational corporations in the Federation of American Controlled Shipping supported certain more stringent regulations (albeit not as stringent as many labor unions and environmentalists wanted).

- This was also the case in the Basle Accord to raise capital requirements, where the US Federal Reserve heeded US bank complaints about the ability of Japanese banks to underprice them due to less stringent regulations in Japan. The Federal Reserve tightened access of Japanese banks to US markets and used this quiet threat of market closure to bring Japan in on the US-UK bilateral agreement on capital. Similar market closure veiled threats were used in 1991 after the Accord was signed to push for even higher capital standards.

- In the international aspects of the phosdy-jaw case, imports were banned as part of the US legislation which taxed the sale of phosphorus matches. This piece-meal denial of market access by various countries eventually contributed to the elimination of phosphorus matches.
• Some similar movement (although not to homogeneity) occurred in the tuna-dolphin case. Pressure from the US via its primary boycott of Mexican and its secondary boycott of tuna products from other countries which imported Mexican tuna (France, Italy, Costa Rica) encouraged Mexico to continue to improve—though not abandon—its dolphin-setting techniques. Despite two GATT panel rulings against the US, Mexico decided it was not in its interest to pursue the issue. It did, however, continue to fish in the ETP.

In these cases the implicit threat of market-restricting product standards was used to force compliance among competing states. Both shipping and banking involve services. Delivery of that service is the "product." Market closure would effectively be a ban on the sale of the product. Note that this market access exception requires two conditions. First, that powerful firms benefit differentially from the regulation. Second, that their government has enough market power to make a credible threat. Even in these cases, the exception was often weak: the US could not control the behavior of ships at sea (such behavior as the cleansing of fuel tanks which discharge four times as much pollution as oil spills) and it could not enforce uniformity in the definition of capital (where estimates varied widely on the amount of capital held by Japanese banks in particular).

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The supporting evidence above are highlights from the case studies. The details therein offer considerable further support for the propositions I began with. It is striking that these propositions fit so well across such a diverse set of cases, in different economic sectors, geographic areas, and
regulatory issues. Further research on other cases will help determine the causal validity of the propositions.

The exact (proximate) timing and shape of individual decisions rests in the hands of decision-makers, not in the logic of abstract propositions. The art of management and statesmanship are part of the more complete picture. Within the constraints of my propositions one finds firm-level and government-level decisions that offer individual managers and politicians leeway to succeed or fail in shaping enduring regulations and to succeed or fail in the marketplace. The remainder of this conclusion leaves the robust constraints of my model to consider these individual choices and to remind the reader of idiosyncratic forces exogenous to the model.

5. DECISION-MAKING WITHIN CONSTRAINTS

A key element of choice that emerges in the case studies is the decision by "regulatory entrepreneurs" to lead or to lag in inducing regulatory change. Firms’ timing of investments in substitutes, lobbying, legal action or inaction, marketing campaigns, and public affairs sometimes led to first-mover advantages, but other times to first-mover failures. Politicians and regulators had to balance these pressures from competing firms, gauge the shape and timing of regulatory changes, and assess the legitimacy and legitimation of possible changes. Successful first-mover firms worked closely with regulators and were able to judge when they might achieve regulations to their advantage. They also monitored product life cycles and used regulations strategically as low-cost competitors gained market share through underpricing (CFCs, tuna, banking).

\footnote{Recall Sutton’s (1990) argument for cross-industry studies.}
They were able to develop technologies early (and gain patents on them, such as CFC substitutes or sesquisulphide), build economies of scope (such as the HFC-134a plant built by ICI, which scooped even DuPont), choose their suppliers and marketing channels (non-ETP tuna for StarKist), establish a reputation as market leaders (Heinz' dolphin-safe tuna), and gain loyalty with buyers (Johnson-Wax's unilateral move on aerosols in 1975). Earlier, in the 1960s, StarKist benefitted from other first-mover advantages when US boats pioneered the use of purse-seining. By the 1980s, that technology was in widespread use. Late-comer firms were unable to achieve these investments in production, distribution, and management, and remained behind on the learning curve (HFC latecomers; Pan-Pacific tuna cannery).\(^{497}\)

First-movers choose when and how to act against regulations and when and how to support them. DuPont learned that lesson in the 1970s when it was caught off-guard by the US unilateral ban on CFCs in aerosols. In response, DuPont formed a united front of US CFC producers to prevent further heterogenous action. Initially, DuPont opposed CFC restrictions. It successfully defended itself against heterogenous restrictions on CFCs in 1986 in a suit filed by the National Resources Defense Council. Later, DuPont announced support for limits on CFCs one year before the Montreal Protocol was first signed. It announced a more rapid voluntary phaseout one month before US ratification. It beat even that accelerated deadline until requested to slow down by the EPA.

Heinz-StarKist equally successfully took no legal action against unilateral injunctions on dolphin-lethal tuna imports (when it might have). Indeed, outside the courtroom Heinz sided with the Earth Island Institute.

plaintiff against the US Commerce Department, and spent millions of dollars promoting its dolphin-safe product. It succeeded in placing its policy in the opening story of ABC News. Diamond Match Company similarly exhibited leadership in purchasing the patent for sesquisulphide and vigorously pursuing taxation of phosphorus matches, in conjunction with a worker-safety group. These decisions were not determined by the variables I identify but they were facilitated by them.

Even successful first-movers experienced setbacks. For example, StarKist stockpiled non-ETP tuna contracts prior to cutting ties with the ETP in anticipation of rising prices. Instead, prices fell as ETP tuna was unloaded on the market and StarKist was stuck with higher-priced contracts. And Diamond Match Company was forced to forego its licensing arrangements for the use of sesquisulphide, as a concession to achieve taxation on phosphorus matches.

Regulations do not determine firms’ success. Competitive advantage comes largely through a panoply of business strategies. Even when regulations are costly, within their constraints on exit or voice individual firms can continue to compete through innovations in sourcing, production, distributing, marketing and so on. Even though many shipowners fled to convenience flag states to lower costs, many others remained to compete under national flags and more stringent regulations. Even though Pan Pacific failed to survive the dolphin-safe policy, some other small canners remained. Even though powerful US tobacco companies were marketing aggressively in Asia, Thai cigarette makers were able to compete under nondiscriminatory restrictions.
In each of these cases it will be helpful to understand the strategies firms used to compete successfully despite regulatory constraints. 498

6. FORTUNA: UNEXPLAINED VARIANCE

Despite the significance of their role, neither powerful states nor firms are omniscient nor omnipotent. This research emphasizes the extent to which regulations reflect producer interests, but this obviously does not mean every firm can write its own legal code. To the contrary, firms compete with each other and other groups in the regulatory arena as well as in the market. Regulatory strategies carry a significant cost to firms. Smaller firms may simply not be able to afford to play that game or may do so only as one member of a trade association that seeks to overcome collective action problems for its members. Even powerful firms willing to devote resources to regulatory strategies can not dictate the terms of regulations. Firms are a necessary part of those outcomes but they do not create regulations just as they please.

Fate (or behavior beyond my explanation) plays a significant role in every case. The more complete picture must examine many factors: science (e.g., the "ozone hole"), epistemic communities (scientists in the CFC case), medicine (research on the health effects of phosphorus and chlorinated

498 See Piore and Sabel (1984), Richard Locke (1993) and others building on their research as noted in Chapter Two. See esp. pp. 205-220 and 265-277 on the ways by which makers of specialty steel and mini-mill products, non-commodified chemicals, textiles in Italy, special-purpose machine tools in West Germany and flexible-purpose machine tools in Japan were all able to survive against the "bleak backdrop" of exiting production in advanced industrial economies. The authors argue that successes came with the reemergence of a craft floor paradigm of industrial relations which emphasizes well educated craftsmen, profit sharing, sophisticated flexible production technologies, rapid changes in product design, networks between small firms that act as a barrier-to-entry, and labor-management cooperation.
compounds), economic crises (developing country debt), international conflict (alliances in Europe), technology (improved dioxin-detection or information technology in offshore banking), institutions (noteworthy in the Basle Accord), media coverage (Sam LaBudde's dolphin slaughter video or the Torrey Canyon oil spill), high-level personal connections in government (Panama and Liberia registries), domestic politics (Thatcher and Reagan elections, although these may be collinear: with preferences for regulations *writ large*), and exogenous changes in consumer preferences (from any number of factors, such as changes in disposable income, demographic shifts, new information, media campaigns, or shifts in the zeitgeist). \(^{499}\)

Acting under these conditions of uncertainty, it is not surprising that firms and governments both made mistakes. DuPont failed to anticipate the 1977 unilateral US ban on CFCs in aerosols; it was unsuccessful in lobbying the US government to pressure European bans on CFCs in aerosols; it did not move as fast as ICI to reinvest in substitutes; and later it did not anticipate taxes on "windfall" profits when CFCs were phased out. When John Reed decided to set aside three billion dollars in a loan-loss reserve at Citicorp, he most likely did not anticipate that regulators would change the rules the next year and no longer count those reserves as primary capital. (The reserves were included by Volcker as Tier 2 capital). Heinz did anticipate both higher tuna prices and a longer lead time over its rivals when it announced a dolphin-safe policy; it got neither. US infant formula makers were aware that their collusion in opposing domestic advertising and raising prices flirted with antitrust laws; they did not expect federal prosecution. The US tobacco lobby

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did not expect a smoke-free White House in 1992, which weakened USTR pressures for deregulation of cigarette advertising in Asia.

Liberian government officials could not have expected that a chance visit by a liberal US Secretary of State would lead to Liberia’s flag and concomitant regulations flying over the largest fleet of civilian ships in history. US regulators did not dictate agreement in Basle; indeed, a US proposal to increase reserve requirements on Eurocurrency deposits was voted down by central bank governors in April 1980. The Mexican government did not anticipate that a clandestine video by an environmental activist would undermine its investments in fishing the ETP. Nor did Mexico anticipate that the US would continue to act in violation of a GATT panel ruling.

In short, outcomes are shaped by the factors I identify but they are not determined them. This dissertation paints a general backdrop against which individual decisions are made. This brief section on *fortuna* points out elements of the even broader picture. Historians are best-equipped to offer full accounts of each case. Nonetheless, it is striking that across such a diverse set of cases, one finds a pattern of behavior that can be reasonably well explained by a few simple propositions.

7. **NORMATIVE QUESTIONS**

I have tried to be as objective as possible in order to understand the behavior I observe without introducing personal biases. Trying to change the world without understanding it can lead to wasted effort. Nonetheless, social scientists choose questions in part because of their normative content. We
want to make the world a better place, however that may be defined or achieved.\textsuperscript{500}

Various readers of this dissertation have commented on the normative implications of the research. Often their views were diametrically opposed. For different reasons, some political conservatives and liberals alike saw the research as an affirmation of the need to take private sector interests into account in the design of reasonable and efficient regulations. Others saw it as a critique of the pervasive influence of corporations on government. One scholar was offended by the "Machiavellian" detachment from moral values; another was pleased by the emancipatory sharing of knowledge. One business manager was put off by the notion that firms seek anything but deregulation; another was interested in learning more about strategic investments in regulation. Finally, one reader was distressed that I did not answer under what circumstances I favored higher or lower regulations, in common among countries or heterogenous. My answer to the latter question is idiosyncratic. The other normative questions should be sharpened by knowing which options and choices of various players made or could have made a difference. A general answer to those questions was not my goal.

8. POLICY AND STRATEGIC IMPLICATIONS

My research conclusions suggest several policy and strategic implications for governments, firms, and policy activists alike:

(1) Regulations that affect interstate trade will reflect private sector interests. Those interests must be taken into account to design enduring regulations.

(2) Regulations are not born of scientific parents in sterile legislatures nor nurtured in public bureaucracies insulated from the commercial world nor thrust with equal effect on unwitting industries.

(3) Producers are likely to support stringent regulations on the sale or distribution of products to the extent they improve their competitive position. Regulations may serve as a barrier-to-entry to competitors, protect firms' investments, restrict or promote investments in substitutes, raise prices, or enhance first-mover opportunities.

(4) Producers are likely to support deregulation on manufacturing process regulations, to reduce their production costs. If their asset specificity is low they may relocate or threaten to do so, resulting in a race to laxity among states competing for the same industry.

(5) Market access offers a possible exception to the process-laxity connection. If a major economic power seeks higher homogenous process regulations, it may use access to its market as a lever to force those standards abroad. Internationally, that behavior is extra-juridical to the GATT and risks retaliation. Domestically, it challenges federal jurisdiction.

(6) Competition-in-laxity is most likely for those transactions involving investments with low asset specificity. Governments respond to firms' easy exit by deregulating.

(7) If producers' asset specificity is high and multinational they will seek common standards that reflect their interests. To the extent harmonized
regulations are sought (in common among competing states) firms with large asset specific investments across borders will be important actors in creating enduring regulations.

(8) Conversely, if heterogenous regulations are sought, firms with assets specific to a given country will be important political actors.

(9) Although tarrif barriers have fallen over the last forty years the pressures that led to their erection in the first place have not all disappeared. The use of regulations as nontariff barriers-to-entry is a likely outlet for domestic private sector interests who's voice for tariffs is no longer heeded. Multinational interests are likely to oppose those heterogenous measures.

(10) Regulations can create markets for substitute goods and force technological change. Firms which invest in those substitutes early may reap first-mover rewards. They have strong incentives to support regulatory change.

(11) One can derive certain predictions from my propositions. To the extent industrial concentration increases and investments are dedicated to cross-border transactions, one can expect increased regulatory homogeneity. Conversely, if the global trading system should suffer a deep and sustained economic depression that resulted in firms reducing their asset specific investments across borders, my analysis suggests that heterogenous regulations would follow.

(12) Coalitions between "Baptists and Bootleggers" offer a powerful source of regulatory change. In Europe, for example, environmental groups worked jointly with domestic producers and governments to create an "eco-label" that is seen by many consumers as testifying to the "environmental soundness" of the product and its production. One can imagine, a similar
"green seal of approval" being developed elsewhere. To the extent consumers recognize, trust and value such a label it could act as a barrier-to-entry to firms (including foreign exporters) who do not comply.\textsuperscript{501}

(13) Firms are institutions, too. To the extent they affect "who gets what, when, and how" their behavior and their impact is worth studying by political scientists as well as by economists and business scholars.\textsuperscript{502} Governmental institutions that are created to achieve policy goals are likely to be more effective and enduring if they can identify and build on the incentives of various market institutions. Considerable choice for coalition-building exists within the broader constraints suggested by my propositions. However, as Polanyi cautioned and as was seen in the shipping case, market mechanisms may also work against certain policy goals.

The conclusion of this dissertation is in one sense modest: understanding different business investments and interests is a necessary though not sufficient step toward understanding regulatory outcomes. My model delineates three specific propositions toward that end. I did not attempt a complete explanation of any one case under study. In another sense, however, the conclusion is more ambitious: I argue that the model presented here is necessary to understand all regulations that involve the potential for interjurisdictional competition. This encompasses a wide variety of geographic and issue areas. To the extent the argument here is successful, future "sufficient" explanations will need to include it.

\textsuperscript{501}See EEC Council Regulation 880/92 and details negotiations over standards therein. See also US debates over the labelling of bovine growth hormone in milk.

The essence of politics is strategic interaction between players. This will always involve the art of judgment as well as the science of understanding. Knowing when to push or pull whom, for what, cannot be read from a formula. For individual managers, politicians, or policy advocates, the propositions of this dissertation must be seen as a framework for understanding large-scale pressures that they can work with or attempt to surmount. It is important to understand these pressures in order to devise effective strategies for both private and public interests.
APPENDICES

Note: the following appendices are included for the sake of those interested in more detail on the shipping and banking cases. They are extraneous to the main argument of the dissertation.
APPENDICES TO SHIPPING CASE

Shipping Appendix A:
Data on Size of Fleets

By 1991, one-third of the world's merchant fleet tonnage flew just six flags-of-convenience: Liberia, Panama, Cyprus, the Bahamas, Malta, and Vanuatu. Liberia and Panama were the world's biggest fleets, followed by Japan, Norway, the US, Greece, and Cyprus. The leading three FOCs together accounted for 27 percent of the 1991 world tonnage: Liberia had 12 percent, Panama had 10 percent, and Cyprus had 5 percent. By comparison, the three largest national registry fleets combined made up only 16 percent of the world's fleet: Japan had six percent, Norway and the US each had five percent.

Table A.1

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Source: Lloyd's Register of Shipping
Table A.2

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Source: Lloyd's Register of Shipping
Shipping Appendix B:

History of the US-Created Flag-of-Convenience System

The shipping case study described the analytical reasons for FOCs, criticisms, and European responses in terms of my propositions. This appendix offers more historical detail for the interested reader on how the system evolved, including the role of the US Navy. Carlisle (1981) concludes that flags-of-convenience were created by a confluence of private and national interests, with the direct involvement of high-ranking foreign policy officials, at the juncture in history when America rose to prominence. It is clearly no coincidence that FOCs first arose in Panama and Liberia, two countries virtually created by America.

The American chargé d'affaires in Panama is credited with inventing the phrase "convenience flag," in 1939. Panama's Labor Ministry proposed to require Panamanians as crew. The chargé argued that foreign shipowners had registered there "for reasons of convenience and economy which are well known", and owners would move on to "other convenient flags" if the proposal did pass. Another State Department official called the manning requirement proposal "so manifestly ridiculous as to make it appear . . . 'eye wash' for local consumption." No requirements were imposed.

1. Panama, America and the Canal: 1903-1947

While the Panamanian fleet remained tiny before the Second World War, it is important to begin by examining that inter-war period to understand the roots of the present system. Many issues are still salient seventy years later.

Panama revolted from Colombia in 1903, with US support, and became an independent republic. The US quickly began the Panama Canal (1904-1914). The canal made it a natural site for a registry. Transactions regularly were conducted in English, and the balboa was matched to the dollar. Many Americans believed that Panama was "theirs." The US asserted much control over Panama, and any ship registered in Panama would be subject to US military protection in times of war.

A longstanding Fiscal Code allowed ship owners to register through Panamanian consuls, and in 1916 Panama opened its registry to ships ultimately owned by foreigners but

503 Two authoritative sources are Adam Boczek, Flags of Convenience: An International Legal Study (Harvard University Press, 1962); and Rodney Carlisle, Sovereignty for Sale: The Origins and Evolution of the Panamanian and Liberian Flags of Convenience, (Annapolis, MD: Naval Institute Press, 1981). This history is drawn from Carlisle.

504 Carlisle, op. cit., p.69.

505 Carlisle, op. cit., pp.2-3, 6-9. The Belen Quezada case demonstrated that the US government would defend the interests of American owners, even if a ship was registered in Panama.
incorporated in Panama. Few took up the offer, until Prohibition and the rise of Nazism stimulated demand.

Panama operated consuls in a major ports around the world. In smaller ports, the American consul acted to represent Panama. This added to the perception that Panama was a territory of the US, its registry sanctioned by the US government. Indeed, later Panamanians would argue that: "For all practical purposes, the Panamanian merchant marine must be considered as an adjunct to the United States merchant marine, inasmuch as the majority of Panamanian-registered vessels are American-owned."

2. **Be American, Sail American: 1915-1939**

During the Spanish-American war (1898) the US had been forced to purchase a "mongrel fleet" of merchant vessels previously owned and registered under foreign flags. Anxious to avoid that mistake, the US strengthened its navy and merchant fleet from 1915-1925.

The Jones Act of 1920 prohibited the transfer of profitable ships, increased the powers of the US Shipping Board, and strengthened an inspection agency, the American Bureau of Shipping. A longstanding tariff of 50 percent on repairs conducted in foreign yards was toughened by the 1922 Fordney-McCumber tariff, to build up American shipyards.

The US Shipping Board "was empowered specifically to build up a strong merchant fleet as a necessary supply and backup force to the military." A strong merchant fleet also empowered US trade in peacetime, following the classic doctrine of Alfred Thayer Mahan. The independent Shipping Board combined regulatory functions with services to the maritime community. It was later divided by President Hoover, then reunited during the New Deal as the Maritime Commission under Joseph Kennedy (1936-1937).

The 1936 Merchant Marine Act provided for "construction differential subsidies" of up 50 percent, to match prices in foreign shipyards (provided ships met certain "defense features").

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507 Carlisle, op. cit., p.139, citing Guerra in 1949.
508 Arthur E. Cook, A History of the United States Shipping Board and Merchant Fleet Corporation (Baltimore: Day), 1927; Edward Nash Hurley, New Merchant Marine, p.223; 42 Stat.957 (Tariff Act of 1922); cited in Carlisle, op. cit., p.3, 42. The Tariff Act contained the highest rates in US history. Its explicit principle was to lower domestic production costs to match foreign costs. Britain, Italy, Germany, France, Japan, and the Netherlands also subsidized shipping, based on explicit concern for military potential.
510 Joseph Kennedy was involved in banking and shipbuilding before serving as chairman of the SEC, 1934-1935.
It also subsidized "operating differentials," to make US ships competitive on foreign trade routes.\textsuperscript{511}

While the Navy supported expansion of the merchant fleet, Progressive era pressures supported the La Follette Seamen's Act of 1915, which set guidelines for crew space, English fluency, hours worked, training, and diet aboard ship. That tension between security, competitiveness, and progressive legislation was reflected in US shipping policies:

"The reforms were intended to strengthen the merchant marine and to extend to seamen some of the benefits of social justice. . . But when American ships competed against those of other nations that were not subject to those laws and reforms, American shipowners operated at a competitive disadvantage. . . The classic conservative arguments against governmental regulation of business could be put to work; the 'do-gooder' meddling of reformers once again had been proven wrong."\textsuperscript{512}

In response, President Harding proposed subsidies for shipowners, to keep them afloat while meeting American working conditions. While Congress would not pass that "special-interest" legislation, some protectionist measures were taken. Alien flags were excluded from American (domestic) coastal routes, enforcing the "cabotage" first established in the US in 1789.

The chairman of the Shipping Board from 1920-21, Admiral William S. Benson, explicitly recognized the challenge posed by Panama:

"[He] saw that American shipowners might try to evade the effect of the laws by registering ships under flags with little or no restrictive legislation. . . [F]oreign flag registry, he believed, also would undermine the American merchant marine. . ."\textsuperscript{513}

Benson also supported government subsidies, to keep American ships at home.

The inter-war period thus saw a strong emphasis on building up the American merchant fleet, while preserving international competitiveness and labor standards through government subsidies.

3. Cracks in American Registration: 1922-1945

Although transfers of American ships overseas were generally banned, a few slipped through loopholes. These would provide the basis for the creation of the first registry, in Panama.

\textsuperscript{511}Carlisle, \textit{op. cit.}, p.43.

\textsuperscript{512}cited in Carlisle, \textit{op. cit.}, p.4.

3.1 World War I Surplus: German ships to US, to Panama, to Shanghai

The close of the First World War left a glut of ships on the market. The Shipping Board was responsible for disposing of seven cargo ships and two passenger liners confiscated from Germany under the Versailles Treaty. Re-sale prices were low, and the Board feared undermining existing US owners. It granted an exception to the Jones Act, and sold the ships with one stipulation: they must be transferred to a foreign flag and work in a new trade route.

American-owned "Admiral-Orient Lines" bought six of the ships in 1922, for use from Seattle to Shanghai. It registered them in Panama. The ships' German officers remained on board, but paid on a Japanese scale, and Japanese and Chinese crews were hired. "This is our main competition on the Pacific and we cannot meet it under the American flag," explained an officer of the company.\(^{514}\)

3.2 Prohibition Spurred Demand for Panama: 1920-1933

The Kaiser's two passenger liners were bought by W. Averell Harriman, owner of the United American Lines, and later Undersecretary of State. His attorney on international legal matters was none other than John Foster Dulles, who was also Panama's chief legal counsel in America.\(^{515}\) The Shipping Board gave Harriman the right to transfer registry if suitable profit could not be made under the US flag.

The Eighteenth Amendment and the Volstead Act of 1919 prohibited the sale of alcohol. But cruise ships run on a mixture of diesel and liquor. When US Attorney General Harry Daugherty prohibited the sale of alcohol on American-flagged ships anywhere in the world, the Shipping Board approved Harriman's request to transfer the two liners to Panama.\(^{516}\) Harriman thus evaded Prohibition and the 50 percent tariff on overseas repairs, while saving on taxes, food and wage costs.

Other, less respectable, shipowners also used Panama to evade Prohibition. The US Coast Guard confiscated several rum-running ships flying the Panamanian flag. The Federal District Court in San Francisco ruled that some seizures were illegal under the international

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\(^{514}\)Carlisle, op. cit., p.11.

\(^{515}\)Averell Harriman was later ambassador to the USSR (1943-46), Secretary of Commerce (1946-1948), Governor of New York state (1955-1959), Undersecretary of State (1963-1965), and chief US negotiator at the 1968 Paris peace talks on Vietnam. (His father, Edward Henry Harriman, was a railroad magnate who formed a holding company with J.J. Hill and J.P. Morgan to prevent railroad competition; in 1904 their trust was ordered dissolved by the US Supreme Court). John Foster: Dulles was Secretary of State from 1953-1959; he was Ambassador to the UN 1945-1-49, and negotiated the Japanese peace treaty formally ending World War II in 1951. Dulles' predecessor in the firm of Sullivan and Cromwell was William Nelson Cromwell, who had helped arrange the legal details of early Panamanian independence, and also served as Panama's legal counsel. Carlisle, op. cit., pp.16-17.

convention between the US and Panama, and that such treaties were the "supreme law of the land." However, Panama forced known smuggling ships to cancel their flag, and by 1927 most known smugglers (112 ships) used the British flag, sailing from Canada. Only 3 were registered in Panama.  

Panama recognized the advantages it offered, and in 1925 enacted a new law to facilitate foreign registry. A few European owners transferred flags. The registry remained small, however, and through the 1920s the few Americans that transferred registry to Panama operated in that area.

4. Labor Resistance Begins: 1923

Labor resistance to off-shore flagging flared up within a year, a herald of later conflict. In both Shanghai and Egypt, American crews on Panamanian-flagged ships refused to sail further until they were paid and guaranteed passage home. They claimed their captains had hired some sailors without contracts, altered other contracts _en route_, and planned to leave them in foreign ports. The American consul in Port Said reported "a recent scheme adopted by unscrupulous operators, who purposely design in this way to take advantage of the alleged absence of Panamanian navigation laws for the protection of seamen shipped on such vessels." Similar complaints would be repeated in the 1990s.

Meanwhile, shipowners complained that "progressive" regulations were driving them out of business. Some regulations were clearly over-restrictive, and stifled efficiency. Regulatory competition gave owners an option to transfer flags to Panama, and gave them leverage in negotiating with their own government. [**Stigler**] As an example, in the 1930s, Greek law required all officers and 75 percent of the crew to be Greek citizens. Manuel Kulukundis recounts that in 1932 one of his ships was delayed in a foreign port when the radio operator fell ill. The local Greek consul would not issue clearance papers until a Greek replacement could be found, and none were at hand. Kulukundis instead registered the ship in Panama, and ordered the consul ashore. Later, Greece followed America's example and exempted ships in foreign ports from manning requirements. Faced with regulatory competition, Greek laws became more efficient.

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518 Carlisle, _op. cit._, pp. 31, 61. Panama also yielded to US pressure in 1933. The ship _Playa_ began operating a radio station off Los Angeles to evade FCC regulations. Panama revoked its flag.

519 Carlisle, _op. cit._, p. 13. Cites US Naval Archives, Geist to State, 10 December 1923, Decimal 819.863/2, RG 59.

520 Aristotle Onassis told a similar story about a Greek cook, occurring several years later. Nicholas Fraser, _et al._, _Aristotle Onassis_, pp.50-51. Cited in Carlisle, _op. cit._, p.59.

The rise of Naziism furthered the growth of Panama's registry. In 1920, ESSO had avoided confiscation of its German fleet by selling them to a subsidiary in the new city-state of Danzig. By 1935, 25 ESSO tankers registered there. When the Polish government imposed tariff surcharges of 26 percent on imported lubricating oils, ESSO transferred all 25 vessels to Panamanian registry, doubling Panama's tonnage.\textsuperscript{521}

The Neutrality Acts of 1935 and 1937 and the Pittman amendment of 1939 prohibited American vessels from entering war zones. President Roosevelt sought to keep Britain supplied, and used the Maritime Commission to facilitate the transfer of ships to Panama. ESSO again led the way, transferring fifteen tankers in five months in late 1939.\textsuperscript{522} By 1941, 63 ships, totalling 358,500 tons, were transferred to Panama. \textsuperscript{523}

(Panamanian flags were also used by European owners to supply arms to Loyalists during the Spanish Civil War (1936-1939), and to transfer Jewish refugees to Palestine. But the US pressured Greece to bar some ships from registering in Panama, to halt stop Jewish emigrés.)

But Panama was not fully supportive of the US neutrality position. On October 6, 1941, President Arnulfo Arias announced that Panamanian-flagged ships could not be armed. Three days later opposition leaders and the national guard asked US Ambassador Edwin Wilson if the US would "abstain benignly" in the event of a coup. He agreed. That same day Arias was overthrown, and October 10 the new government rescinded the ban on armed ships.\textsuperscript{524}

The flexibility and conveniences built into Panama's registry system were "liberal to the extent of being lax", griped a State Department official.\textsuperscript{525} There was concern the Axis powers might use ships flagged in Panama. Instead, the US occupied the Canal Zone during World War II, and set rules and procedures for Panama's shipping. (US merchant shipping also came under Washington's control during the war). The US Navy charted or leased 61 American-


\textsuperscript{522}Carlisle, op. cit., pp.74-75.

\textsuperscript{523}Carlisle, op. cit., p.83.

\textsuperscript{524}Carlisle, op. cit., p.94-95, citing Wilson to State, US Naval Archives, October 11, 1941, Decimal 819.8595/20A; State to Wilson October 13, 1941, Decimal 819.8595/20A, RG 59. Long to Welles, October 9, 1941, File 197; and pencilled memorandum October 13, 1941, File 197, Library of Congress. Carlisle accepts that the US did not "engineer" the coup, but stood by knowing it was in progress.

\textsuperscript{525}Cited in Carlisle, op. cit., p.87. From US Naval Archives, Decimal 819.852/10; Dawson to State, 7 February 1941, Decimal 819.852/14, Record Group 59.
owned vessels flagged in Panama, and registered 66 confiscated vessels there.\textsuperscript{526} The war claimed 158 Panamanian-flagged ships, 736,000 tons, sunk or taken by the Axis powers.\textsuperscript{527}

6. World War II Catapults US Fleets

The market structure of world shipping was dramatically changed by the Second World War. Prior to the war, America's share of the world market fleet had steadily declined, from 24 percent in 1924, to 17 percent in 1939. Greece, Japan, Norway and the USSR accounted for most of the competition. Panama's registry had increased, with Harriman, rum-runners, ESSO, and others; but still only amounted to one percent of the world market by 1939.

By 1947, the US fleet had more than doubled (from 17 percent to 36 percent, 11.4 m gt to 29.1 m gt). The US temporarily became the world's largest merchant fleet, until the mid-1960s. Panama's share tripled, to 3.4 percent (0.7 m gt to 2.7 m gt). Japan's fleet was reduced to one-fifth of its pre-war size, and did not regain its market share (8.2 percent) for twenty years.

But what goes up often comes down. The end of the War left a surplus merchant fleet in US docks. The Ship Sales Act restricted ownership of this fleet to American-controlled firms, and much of that surplus went to Panama. European owners also moved their fleets to FOCs, to escape nationalization, voyage licensing, currency controls and other restrictions.\textsuperscript{528}

In the post-World War II era, American elites proclaimed "the American century", and defended FOCs as a way to expand US trade, keep an American presence in the competitive shipping market, and, secondarily, assist American-allied countries.\textsuperscript{529}

Labor unions countered that the strategic loss of trained American crews was greater than the gain of foreign-registered ships. They claimed that the economic benefits of a merchant fleet were being lost, and that owners exploited foreign labor, weakening the "American way of life." The US Congress followed up with a decade of inquiries, none of which legislated change.\textsuperscript{530}

The American century would be marked by the rapid expansion of US multinational corporations, often flying foreign flags.

\textsuperscript{526}Carlisle, \textit{op. cit.}, p.197, from US Naval Operational Archives, CNO Files, "Vessels Under the Control of the War Shipping Administration", May 15, 1944.

\textsuperscript{527}Carlisle, \textit{op. cit.}, p.101.

\textsuperscript{528}Carlisle, \textit{op. cit.}, p.112. Greek shipping magnates Stavros Niarchos, Aristotle Onassis and Manuel Kulukundis all circumvented the Act by creating nominally-American companies in which they owned 49 percent, and trusted American-citizen relatives another 10 to 20 percent. Together, they transferred over 35 American ships to Panama. Carlisle, pp.146-147.


\textsuperscript{530}Carlisle, \textit{op. cit.}, p.141.
7. Shipowner Doubts about Panama: 1947

Following the war, US officials discussed restricting US access to the Panamanian registry. Labor disputes, political instability, and increased corruption began to tarnish Panama’s flag. No government action was taken but, as is often the case, the private sector led the way.

An advisor to President Truman, Irving Ladimer, argued that “fly-by-night” operators would register in Panama as would Greek shipowners evading taxes, indirectly placing a burden on US aid to Greece. Ladimer advised eliminating the US tax relief to ships registered in Panama, limiting sales of ships to Panamanian shell companies, and subsidizing wages. Opposition also grew in the Bureau of Internal Revenue, the Treasury Department, and several congressional committees, although no action was taken.\(^{531}\)

Labor disputes continued. The ITF debated a boycott of Panamanian ships, but agreed to hold off until the ILO issued a report. The ILO responded to pressures from European governments and shipping interests, trying to recover from the war, who opposed Panamanian shipping and international labor movements. [**not clear why some Euro-owners fought FOCs, rather than switching flags. Smaller?**]. CIO President Phillip Murray complained to President Truman that the Panamanian flag had contributed to the loss of 16,000 maritime jobs from 1945-1947.\(^{532}\) Sporadic local boycotts occurred in the US, the first against the Don Anselmo in April 1949.

Panama became increasingly unstable after World War II. The National Guard refused to accept the election of Arnulfo Arias in 1948; but in 1949 a quick succession of president's led again to Arias. Arias' pre-war opposition to armed merchant vessels made the US military to question Panama's reliability as a register.\(^{533}\)

Panamanian consuls overseas also began to charge higher fees after the War, and US shipowner dissatisfaction with Panama increased. For these varied reasons, registration in Panama levelled off until the mid-1970s, as the tax haven faced new competition in Liberia.


Faced with potential boycotts, higher fees, and less friendly relations, American shipowners began to look for an alternate flag to Panama. That flag would be provided in Liberia, the product of a company created by former US Secretary of State Edward R. Stettinius, Jr.


\(^{532}\)Carlisle, op. cit., p.112. Murray conceded that much of the loss was due to European shipping.

\(^{533}\)Carlisle, op. cit., p.114.
As with Panama, Liberia had been created with American help, and was viewed as a "special relationship" by many Americans. A Joint Chiefs of Staff report on shipping frankly noted that: "In a sense, the Republic of Liberia is a ward of the United States."  

The American Colonization Society supported the emigration of 15,000 freed slaves in the 1820s, and in 1847 Liberia became the first African republic to declare independence since the colonial occupations. Americo-Liberians ruled for over 100 years, including a scandalous period in the 1920s when the government became involved in a slave trade. From 1947-1971, President William Tubman opened Liberia to international investment. Like Panama in the 1920s, it had several attractions to shipowners: a good port, a stable (albeit repressive) government, the official Liberian currency was the American dollar, and laws were written in English.

The Liberian shipping registry was created by Americans with a combination of idealistic, profit, and strategic interests. Edward Stettinius was an idealist business executive before the War. He had debated joining the ministry, but instead became head of welfare activities at General Motors in 1926. In 1931 was promoted to handle labor and public relations. He moved to United States Steel in 1934, where he became Chairman of the Board in 1938. President Roosevelt appointed him chairman of the War Resources Board in 1939, and head of the Lend-Lease program in 1941. Cordell Hull made him Under-secretary of State in 1943. In November 1944, at age 40, he became Secretary of State, leading its delegation to Yalta.

On Stettinius' return from Yalta, he made a ceremonial stopover in Monrovia, to mark the opening of a US-financed naval port. (The US was concerned that Axis powers might use Liberia as a base to invade Brazil). With his US Steel background, Stettinius enthused about the high-grade iron deposits so rich they had deflected American pilots' compasses.

When Stettinius was replaced by President Truman six months later, after Roosevelt's death, he formed Stettinius Associates. He and four associates (including General Julius Hines and Admiral William Halsey) also part-owned several ships, through the American Overseas

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537Carlisle, _op. cit._, p.116, 118.
Tanker Corporation (AOTC).\footnote{In 1947 AOTC bought eight surplus oil tankers, and soon sold them to Chinese and Greek (Niarchos) shipowners, later sparking a Congressional investigation. Stettinius Associates was charged with violating the Maritime Commission prohibition on the sale of tankers to foreign interests. Carlisle, \textit{op. cit.}, p.120.} Stettinius Associates established a joint-venture with the Liberian government to export iron ore, diamonds and agricultural crops, and import oil (underpricing a Shell-Texaco cartel). 65 percent of any profits were to go to the parent company, 25 percent to the Liberian government, and 10 percent to a nonprofit Liberia Foundation to promote social development. Stettinius envisioned a rapid modernization of Liberia.\footnote{Carlisle, \textit{op. cit.}, pp.118-119, drawing on the Edward R. Stettinius, Jr. Papers, Manuscript Department, University of Virginia Library, Charlottesville, VA. Stettinius' idealism is reflected in a statement to his board: "There is no reason why a billion and a half people out of the two billion on earth should be suffering for want of food, clothing, or shelter. The [Europeans] can't do anything about this so it is a moral obligation for us to do something to help..."}

Plans to develop infrastructure received little capital, and later the Foundation was cut out. But American shipowners approached Stettinius in late 1947 to enquire about a registry of ships.\footnote{Carlisle, \textit{op. cit.}, p.120, 236 n.24, 130. Carlisle interviewed Stettinius close aide, FT. Lininger; and found supporting reference in Stettinius' memos that shipowners first approached him. He rejects Aristotle Onassis' claim of suggesting the registry to Stettinius, p.122.} The idea grew.

Stettinius sought high-level government support for his plans, as described in the case. He brought to the company his Undersecretary (Joseph Grew) and an Assistant Secretary of State (General Holmes), along with Sidney de la Rue, the former General Customs Receiver in Liberia. In March 1948 Stettinius met at Grew's home to explain the strategic importance of his plans to a high-level group: the Secretaries of the Army and the Air Force, the Undersecretary of the Navy, an Assistant Secretary of State, and the Deputy Director of the new C.I.A., Brigadier General Edwin Siebert. Stettinius' plan was approved by the Joint Chiefs of Staff and the Liberian legislature.

Despite Stettinius' efforts to solicit approval from Washington, some mid-level State Department officials balked at his "writing his own ticket" in Liberia. But as Stettinius' former assistant secretary, Dean Acheson became Secretary in 1949, a final State Department report made few changes in the Liberian code.\footnote{Carlisle, \textit{op. cit.}, pp.121, 122, 124, 126. Carlisle notes in fairness that Stettinius had been friends with Acheson's predecessor, George Marshall, but was not close to Acheson. However, State worked closely with the company in going over the code, and Joseph Grew twice asked Acheson to help overcome resistance by mid-level State Department officials.}

The final Liberian law provided for no inspection, no manning requirements, and no taxes on profits. Registry and administration would be handled by Stettinius' International Trust Company (ITC) office in New York. The ITC was soon spun off as a separate company, and the name Stettinius Associates was changed to Liberia Development Corporation. Stettinius
died the same year (1949), and his dreams to modernize Liberia died with him. The ship registry lived on.\footnote{Stettinius' aide, Liningen, continued to administer the ITC for thirty years.}

With a commercial enterprise developed specifically to run the registry system along business lines, Liberia achieved greater legitimacy than Panama. Its fleet rose quickly through the late 1950s. Within six years it passed Panama as the world's leading flag of convenience. Registrations leavelled off from 1959-1963, as labor disputes arose, then grew again. By 1967 Liberia's registered fleet was the largest in the world. It retained that position through 1991, although its fleet declined since 1980 with competition from Panama, Cyprus, Malta, the Bahamas, and others.\footnote{Lloyd's \textit{Register of Shipping}, various years.}


During the 1950s the Defense Department endorsed the idea of "strategic convenience", arguing that American vessels transferred to Panama, Honduras, Liberia and the Philippines should be regarded as "available" if needed in a crisis. Major General Phillip Fleming of the Maritime Commission concurred, noting that the transfer of US-owned ships to Panama constitutes "effective United States control", a phrase that summarized US policy.\footnote{\textit{The Influence of Seapower on History}, 1890; reprinted 1957, (New York: Sangamon Press).}

Following the 19th century advice of Alfred Thayer Mahan,\footnote{\textit{Carlisle, op. cit.}, p.199, citing JCS 1454/11, October 11, 1947, CCS 540 (8-9-45) Section 3., RG 218, US Naval Archives.} the Navy argued that a large merchant marine provided for a strong commercial network, as well as a backup military fleet.

The Joint Chiefs of Staff acknowledged there was no legal basis for assuming control: "[There] are no legal means by which the United States can regain control of a [US vessel] which has been transferred to another country. From a legal standpoint, therefore, it can be considered that the only time a vessel is under absolute 'effective United States control' is when it flies the United States flag."\footnote{\textit{Carlisle, op. cit.}, p.199, citing JCS 1454/11, October 11, 1947, CCS 540 (8-9-45) Section 3., RG 218, US Naval Archives.}

No treaties were signed with Liberia or Panama regarding the return of vessels. A later (1959) memorandum noted:
*From a purely military point of view, it would be preferable that all American-owned shipping be documented under US flag. . . [However], these countries are not in a position. . . to dispute US assumption of control. . .*547

In the event of war the bottom line was US power.

With pro-US governments in both Panama and Liberia through 1971, the assumption that US control would work as well as in World War II went largely unquestioned. Effective control depended on diplomatic relations with the US, relations with America's enemies, political stability and, ultimately, US force.


Renewed challenges to the FOC system were launched in America in the late 1970s, in response to oil spills, the oil crises, and the Carter Administration. The FOC share of the world fleet remained constant at 25 percent from 1975-1983 (only to climb thereafter). Three factors account for the hiatus in FOC growth: energy, pollution, and changes in the defense community.

Amidst the 1970s oil crises, demands arose for "self-sufficiency" in US oil shipping. Various quotas were proposed to boost oil imported on American-flagged ships: 50 percent (1974), 30 percent (1977), and 5-10 percent (1977). All were defeated. By 1977, only 3.5 percent of oil imports arrived on American-flagged ships; almost 60 percent was on PanLib ships. Opposed to the bills were the American Petroleum Institute (API), the shipowners (FACS), and the Independent Tanker Owners' Association (Intertanko, in Oslo). Allied in favor were unions, American-flag shipowners, the American Legion, small refining companies, environmentalists, shipbuilders and, in a 180° change in policy, the Navy and Maritime Administration.548

Some doubt emerged in the US defense community about its "effective control" over FOCs. Their doubt increased with talk of a "New International Economic Order" which granted more independence to countries in the "South". In the 1970s Panama began to assert its sovereignty over the Canal. At the same time, Liberia's new leader, William Tolbert, edged toward the non-aligned movement, barring Liberian-flagged ships from supplying arms to Israel during the Yom Kippur War.

In fact, little changed: Tolbert soon exempted vessels under commitment to the US, and the war ended before his Executive Order IV had any impact. No changes were made in the FOC system. The US Navy and shipowners had mutual interests in the FOC system. Shipowners depended on the Navy to maintain freedom of the seas. The Navy relied on the merchant fleet to extend US power to ports around the world and as a resource in times of war.


548Carlisle, op. cit., p.187.
Shipping Appendix C:

FOCs and US Labor Law

This appendix describes in more detail the US legal and labor-management disputes over shipping flags-of-convenience.

1. Labor Struggle, Courts Uphold FOCs: 1950-1963

By the early nineteenth century, many nations had bilateral treaties of "friendship, commerce, and navigation" (FCN) that recognized each other's ships and admitted them to ports. "By the twentieth century, the principles that each state could set [its own] rules and regulations. . . and that these rules would be widely accepted were implemented and recognized through dozens of such bilateral FCN treaties." Bilateral treaties thus built up to a relatively open regime of shipping.540

Under this regime, flags of convenience were initially regarded as any other flag, and their nationality went unquestioned. After World War II, the migration of ships to FOCs meant the loss of jobs in the maritime states. Workers began to mobilize, led by the International Transportworkers Federation.

Unions in America tried to require all American-owned ships to adopt US labor laws, while European unions tried to ban FOCs outright. Not until the 1950s did they coordinate tactics.

Labor's power had declined since the 1930s, with the Taft-Hartley Labor-Management Relations Act of 1947, passed over Truman's veto, and the anti-Communist drives of the 1950s. Nonetheless, unions launched an assault against FOCs. They won key battles before the US National Labor Relations Board (NLRB), and a few early battles in the courts. Mostly, however, the courts referred cases involving international relations back to the Congress. Congress debated the issue, but took no action. When the disputes came before international fora, the US, led by strategic arguments from the Departments of State and Defense, argued on behalf of Panama and Liberia. In the end, the executive branch and Supreme Court prevailed. This section describes the key organizations involved, and details the key legal battles.

2. International Transport Workers Federation (ITF)

The ITF is a loose organization of over 400 unions in 100 countries, with 5 million members in a variety of transportation industries. It was founded in 1896 in London. It claims as a fundamental goal: "securing respect for the rights of freedom of association laid down in Conventions 87 and 98 of the International Labor Organization (ILO)." These include the right to freely establish unions, free from government or employer interference.550


550 ITF brochure, ITF, (undated).
The ITF has campaigned against FOCs for fifty years. It aims to eliminate FOCs by demanding a genuine link between ownership and flag, and, in the interim, to secure minimum labor standards by organizing unions. The ITF itself admits that efforts to establish minimum labor standards have not met with success. However, it argues that and affiliated unions "are the only international body to have managed to enforce any standards on board so called 'free flag ships'."

The ITF has had some success, relying on strikes and boycotts as its ultimate weapon. The number of FOC and non-domiciled-crew ships covered by acceptable agreements grew from 95 in 1970, to 2,000 in 1985. It slipped to 1,500 by 1989, coincident with the rise of new FOCs.

The ITF "Standard Collective Agreement" spells out minimum standards, including working conditions, hours, injury liability, and wages. (The wage scale ranges from $360 per month for Deck Hand, to $821 per month for Able Seamen, to $2,766 per month for ship's Master. Minimum wages are set with ILO mediation. In reality, actual wages paid may be less than $50 per month.). ITF legal actions from 1974-1991 resulted in over $140 million of back pay awarded to crews, typically in amounts of a few thousand dollars per crew member.

3. **Key Legal Decisions: 1953-1963**

Many cases concerning FOCs have gone to court. Six stand out: *Lauritzen, Bobalakis, Rhoditis, Benz, Incres* and *Hondurena*. These are discussed in turn.

3.1 **The Long Arm of American Law. . .**

When a ship enters a foreign port, it becomes subject to the host's laws. A famous US Supreme Court ruling in *Lauritzen v. Larsen* (1953) held that Congress may condition access to US ports "by foreign-owned vessels upon submission to any liabilities it may consider good American policy to exact."

The Court determined liability jurisdiction by weighing seven factors: the law of the flag, the allegiance of the shipowners, the allegiance of the injured party, the place of contract, the place of the wrongful act, the inconvenience to the seaman in returning to a foreign forum, and the law of the forum. *Lauritzen* recognized the historical primacy of the flag:

"the most venerable and universal rule of maritime law relevant to our problem [is the] cardinal importance [given] to the law of the flag. . . [The] weight given to the ensign overbears most other connecting events in determining applicable law."

However, it also recognized that the courts are not bound by flags of convenience:

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"[In] recent years a practice has grown... to avoid stringent shipping laws by seeking foreign registration eagerly offered by some countries... [Our] courts on occasion have pressed beyond the formalities of more or less nominal foreign registration to enforce against American shipowners the obligations which our law places upon them."^{553}

Later cases in liability law supported that decision. Bobalakis (1958) asserted jurisdiction even to an American owner incorporated in Panama:

"An American owner might escape his statutory liability merely by interposing a foreign corporation between himself and the vessel, both of which, for all practical purposes, he owns. I do not believe that the law can be so easily baffled."

Rhoditis (1969) confirmed that the law of the flag is less persuasive when the vessel is flagged for convenience.^{564} These decisions generally supported US jurisdiction over US shipowners operating in American ports or hiring American crews. However, they did not cover American-owned ships operating elsewhere.

3.2 American Law... Stops at the Water's Edge

In cases involving international relations, however, the Supreme Court deferred to Congress. For example, in the 1957 Benz case, the Court concluded:

"For us to run interference in such a delicate field of international relations, there must be present the affirmative intention of the Congress clearly expressed. It alone has the facilities necessary to make fairly such an important policy decision where the possibilities of international discord are so evident and retaliative action so certain."^{555}

Congress held many hearings on the flagging issue, but took no action. As just one example, Senator Warren Magnuson, representing the port city (and union stronghold) of Seattle claimed the whole system of FOCs was a tax evasion scheme. In 1957 he introduced S.1488, which would have prohibited the ownership of foreign-registered ships. A Mobil Oil spokesman explained that the US taxation rate would consume nearly 40 percent of each ship's earnings,

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and that operating costs per tanker were half a million dollars less per year in Panama. The bill failed.506

3.3 Washington Supports PanLib

The US government generally supported Panama and Liberia in international fora. European governments often opposed them, recognizing they were effectively under US control. In 1956-1958 the British and Dutch attempted to have the Law of the Sea Conference require a "genuine link" between flag and ship "for purposes of recognition of the national character." The US sided with Panama and Liberia to have the clause removed. The US Secretary of State? John Foster Dulles, Averell Harriman's legal advisor when Harriman evaded Prohibition by flying Panamanian flags. Dulles' former law firm Sullivan and Cromwell still represented Panama in the US.

The European maritime powers again aligned against the US, Panama and Liberia in a case involving the U.N.'s Intergovernmental Maritime Consultative Organization (IMCO) in 1959. The IMCO's convention called for a safety committee to include the "eight largest shipowning nations." The International Court of Justice ruled in favor of the US and FOCs, that the convention included convenience flags. Actual ownership was not the relevant criteria.507


Domestic politics in the US pitted shipowners with the Departments of Defense and State (supported by President Eisenhower)506 against the unions and NLRB. The NLRB tried to extend the Court's liability decisions to labor organization cases, with some success.506


506 Carlisle, op. cit., p.165, citing letters from Eisenhower's assistant counsel Phillip Arecd to Assistant Attorney General George Doub, December 4, 1959, Arecd Papers, Dwight D. Eisenhower Presidential Library.

506 E.g., West India Fruit (1960), or Pennsular and Occidental (1961).
In early December of 1958, the ITF held a worldwide boycott against FOC shippers that had not signed contracts with ITF-affiliated unions. Between 160 and 200 ships were affected.

Shipowners countered with legal actions to stop the boycott. Their legal efforts were successful in Germany, and partly so in the Netherlands. But in the US, the Federal District Court of New York held that the boycott was a legal labor dispute that should be handled by the National Labor Relations Board (NLRB).

The battle escalated. Shipowners created the American Committee for Flags of Necessity (ACFN), later re-named the Federation of American-Controlled Shipping (FACS). Two major US unions joined forces when the National Maritime Union (NMU) and the Seafarers’ International Union (SIU) created the umbrella International Maritime Workers Union (IMWU).

The American unions’ position was to organize crews by nationality of owner. The ITF came to support this position. The unions launched a four-year campaign from 1959-1962, involving pickets, boycotts, organizing, and direct action. The struggle went to the NLRB, and then the Supreme Court, under the pivotal 1963 cases *Ingres* and *Hondurena*.

Solicitor General Archibald Cox walked a fine line for President Kennedy. He argued that the US should not have jurisdiction when both ownership and crew were foreign to the US, or when there was a genuine link between the ship and its flag, as with United Fruit in Honduras.

In a stunning defeat to labor, the Supreme Court went further than Cox asked, declining NLRB jurisdiction even when the ships were American-owned, but employed foreign crews. Justice Clark argued for the majority that Congress’ Wagner Act (1935 NLRA) did not specifically intend US jurisdiction over foreign-flagged vessels, hence US law could not be applied.501

Justice Douglas reluctantly agreed that the 1957 Benz case deferring international cases to Congress applied to *Ingres* and *Hondurena* in 1963. He acerbically noted the security aspect:

"The practical effect of our decision is to shift from all the taxpayers to seamen alone the main burden of financing an executive policy of assuring the availability of an adequate American-owned merchant fleet for federal use during national emergencies."502

The 1963 cases ended major US legal challenges to the flag-of-convenience system.

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500 Large shipowners tended to dominate FACS. Carlisle, *op. cit.*, p.185.


APPENDICES TO BASLE ACCORD CASE

Basle Accord Appendix A:

Explanation of Capital Adequacy

Bank capital consists largely of equity, reserves, and retained earnings. Capital adequacy regulations require banks to maintain capital equal to a certain percentage of their assets, which consist largely of loans (in traditional banking). A bank may raise its capital-to-asset ratio, for example, by retaining profits, issuing debt or equity to investors (for strong banks); or selling off assets and restricting new loans.

Bank capital is one measure of banks' stability. Raising capital relative to loans strengthens banks' financial position (and can improve their credit ratings) but it also increases the cost of lending. Banks therefore need to balance their incentives to reduce capital, so as to reduce their cost of lending and underprice competitors, with their incentives for prudential lending and credit ratings.

A stylized balance sheet of a commercial bank is as follows. By definition, assets equal liabilities plus capital.

The Basle Accord capital requirements divide capital into two categories. Tier 1 is core or "pure" capital. It consists of resources such as common stock and retained earnings which are freely available to meet losses. Tier 2 is less available capital, including preferred stocks, undisclosed reserves, general loan loss reserves (up to 1.25 percent of total capital), hybrid debt-capital instruments. Total capital adequacy must be over eight percent, of which first tier capital must be at least four percent.

The Basle Accord also divides assets into four categories of risk, with (somewhat arbitrary) assigned risk weights of zero percent, 20 percent, 50 percent, and 100 percent. The lower the risk weighting, the less capital required. Extremely secure assets such as OECD government bills carried a risk weight of zero percent, meaning they do not need to be reserved against. This creates a regulatory incentive for banks to hold OECD government bills. Claims on other CECD banks (including multilateral development agencies such as the World Bank) carried a risk weight of 20 percent. Collateralized home loans carried a risk weight of 50 percent. All other private sector loans, including those to blue chip corporations and non-OECD banks, carried a risk weight of 100 percent, meaning the entire value of the asset must be reserved against.

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563 By contrast, reserve requirements are the percentage of customer deposits that banks must set aside in the form of reserves. Raising reserve requirements allows less lending, because the ratio determines the expansion of deposits that can be supported by each additional dollar of reserves. Capital and reserve requirements are two mainstays of banking regulations.
Table A.1

Simplified consolidated balance sheet

<table>
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<tr>
<th>Assets</th>
<th>Liabilities</th>
<th>Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td>Deposits (time, savings, demand)</td>
<td>First Tier: Equity (stocks, less goodwill)</td>
</tr>
<tr>
<td>Federal securities</td>
<td>Short-term borrowings</td>
<td>Disclosed reserves</td>
</tr>
<tr>
<td>Investment securities</td>
<td>Long-term debt</td>
<td>Retained earnings</td>
</tr>
<tr>
<td>Cash</td>
<td></td>
<td>Second Tier: Longterm preferred stock</td>
</tr>
<tr>
<td>Fixed assets</td>
<td></td>
<td>Capital surplus</td>
</tr>
<tr>
<td>(Less: specific loan-loss reserves)</td>
<td></td>
<td>General loan loss reserves</td>
</tr>
<tr>
<td>(max. 1.25%)</td>
<td></td>
<td>Hybrid debt-capital instruments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(mandatory convertible debt, subordinated debt)</td>
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<tr>
<td></td>
<td>$150 billion</td>
<td>Undisclosed reserves</td>
</tr>
<tr>
<td>$135 billion</td>
<td></td>
<td>$15 billion</td>
</tr>
</tbody>
</table>
Basle Accord Appendix B:

Financial Institutions and Unified Governance Structures

Dominant bank interests alone explain much of the shape and timing of the Basle Accord. Given the large number of firms involved in this case my model suggests that additional governance structures might exist to coordinate agreement and compliance on capital standards. Several unusual contracting arrangements are indeed found: they offer a supporting explanation. A somewhat surprising outcome (high homogeneity with "many" actors) turns out to involve a unique set of governance structures.

1. EXTRAORDINARY GOVERNANCE STRUCTURES

The first unusual governance structure (compared to market governance in, say, the CFC industry) is contractual arrangements directly between banks in their sovereign lending. As noted above, sovereign lending was widely syndicated across many participating banks, which both shared the risk of lending and solidified banks. Second, those loans included cross-default clauses which required banks to act jointly. These contracts moved banks toward a more unified governance structure. The contracts involved ex ante transaction costs, in Williamson's terms, in drafting, negotiating and safeguarding the initial contract. They also involved ex post contractual costs in the unifying governance structure of the Bank Advisory Committees, and effecting secure commitments.564

The third contracting arrangement was the bankers' use of Bank Advisory Committees (BACs) to negotiate on behalf of all bank creditors simultaneously. These were dominated by the five largest US banks.565 US banks held the largest share of debt to the so-called "Baker-15" countries, with 25 percent of total medium- and long-term private bank claims.566 Citicorp led all other banks in lending to developing countries. The 25 major holders of sovereign debt held, on average, 45 percent of each country's outstanding loans. Of these 25, typically under a dozen were formal BAC members for any given country. In consultation with its members, the chair of each BAC conducted negotiations on behalf of all major banks with loans to that debtor country. BAC members also acted in unison in the provision of new lending. Compliance was


565UN Centre on Transnational Corporations, Transnational Banks and the International Debt Crisis (UN, 1991). The study notes that 25 banks were most active in developing country debt. Five were large US banks, which dominated the process of syndicating sovereign loans; ten large non-US banks were less active; and 10 smaller mostly non-US banks played little active role.

566FFIEC, IMF International Capital Markets, and other publicly available sources. The "Baker 15" were countries mentioned by Secretary of the Treasury James Baker in 1985. They are (in declining order of outstanding loans, c. 1989): Brazil, Mexico, Argentina, Venezuela, the Philippines, Yugoslavia, Nigeria, Morocco, Colombia, Peru, Ecuador, Cote d'Ivoire, and Bolivia. Chile was also a Baker-15 country, although not considered a problem country by private bankers.
achieved primarily through *ad hoc* bargaining. If that failed, unwilling bank participants might have their interest reduced to a nominal amount, say one percent, or capitalized.

Financial markets are interlocked. A failure in one bank can trigger failures in others who hold claims on the first. As such, the financial sector is structured differently than, for example, the manufacturing industry. If the above three contracting arrangements on sales, contractual obligations, and negotiations existed in another sector, for example in consumer goods, one might wonder about antitrust implications. (In the infant formula case analyzed in a later chapter such charges of collusion were in fact levelled).

The fourth contracting arrangement was between private banks and central bank regulators worldwide. That governance structure existed in the Bank for International Settlements. The BIS was created with the intimate participation of private banks. It was removed from the fray of both democratic politics and non-specific retail banking.

The network of *hautes financiers* pursued common goals with the assistance of the BIS. Bankers also cooperated on debt issues, both individually and collectively through their annual "CEO's only" conference, the International Monetary Conference (IMC). Because of the opacity of BIS and *haute finance*, the remainder of this Appendix describes these two institutions for readers unfamiliar with them.567

2. THE BANK FOR INTERNATIONAL SETTLEMENTS

The Bank for International Settlements is a unique international institution.568 It is a formal organization, with a permanent bureaucracy in Basle, Switzerland. Among the relevant actors in this case, the BIS is widely respected, and has remained outside the fray of mass politics. Private banks (including Citicorp's forebear) helped capitalize the BIS and formally represented the US and Japan there for many years. It was created in 1929 as part of the Young Plan for managing German World War I reparations and preserving financial order.568 The BIS came to act as a central bank for central banks, offering short-term bridge loans to governments, collecting data, publishing reports, and performing other measures to stabilize

567 On BIS see Beth Simmons, "The Private Side of Hegemony: Founding the Bank for International Settlements," (mimeo c1990), pp.1, 27, 29. (A revised version is "Why Innovate? Founding the Bank for International Settlements," *World Politics* v45 n3, April 1993 pp.361-405.) Thanks to Simmons for sharing this paper, which forms the basis of this section, and for stimulating discussions with her, Stephan Haggard, Laura Hastings, Leslie Armijo, Jennifer Holt-Dwyer, Glen Tobin, Pam Metz, Ben Cohen, John Goodman, Joel Trachtman, Cynthia Lichtenstein, and others in and outside of a discussion group on the politics of international finance. Stephan Haggard organized and provided collective action leadership for the group.  


568 The "Young Plan" was formally called the "Report of the Committee of Experts on Reparations," June 1929.
world financial markets. Its assets are almost as large as those of the International Monetary Fund (IMF), and it holds over ten percent of world monetary reserves.\textsuperscript{570}

The BIS is one of few international organizations to survive World War II--during which time it held gold from both Axis and Allied powers. Stability of financial markets took primacy over politics at the BIS. The BIS Annual Report from 1944 duly notes that in the fifth year of World War II:

"It has become possible to speak of a normal form of war economy in the sense that expedient -- but certainly not ideal -- methods have been worked out for the direction of production, . . . trade, and the supervision of exchange, . . . with a view to financing the military effort at low interest rates."

The report describes problems in the Balkans and Far East, where inflation was "violent." It continues to note that neither Britain nor Germany introduced new taxes in 1944.\textsuperscript{571} This, while the Holocaust was in full operation, and war waged across Europe. The point here is the strength of BIS as an institution and its removal from politics. That insulation was deliberate. O.D. Young predicted that private individuals or central banks as stockholders would provide a "buffer against political influence."\textsuperscript{572} BIS kept a low profile in order to avoid being dragged into political disputes.

Beth Simmons argues that the BIS was founded despite the nationalism prevalent in the late 1920s because of the close relationship between private and central banks.

"By looking not only at interstate bargaining, but also public/private bargaining, it is possible to understand the paradox of cooperative international institutional development in an otherwise conflictual time period." "If the private side of hegemony is deleted from the analysis, we risk seriously misunderstanding the sources for change." "It is difficult to conceive how such a set of innovations could have been implemented were the system as state-centered as many theorists of international political economy have suggested."\textsuperscript{573}

This private [sector] side of hegemony facilitated collective again in the late 1980s in the movement toward common capital standards.

The BIS grew out of German repayments plans promoted by Charles Dawes, President and Chairman of Central Trust Company of Illinois; and O.B. Young, Chairman of General Electric. The statutes of BIS were drafted by a committee headed by private sector bankers and industrialists. They included the committee Chairman J.E. Reynolds, President of First National Bank of the City of New York (later Citicorp); Mr. Traylor, President of First National Bank of Chicago; and W.T. Layton, Director of the British National Federation of Iron and Steel

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\textsuperscript{570}BIS, Annual Report 1992.

\textsuperscript{571}BIS, Annual Report, 1944.

\textsuperscript{572}Simmons (c1990), p.17, citing a cable from Young to Hoover, Mellon, and Stimson, March 2 and 19, 1929. The BIS included most of the central banks of Eastern and Western Europe, except Albania and the USSR.

\textsuperscript{573}Simmons (c1990) pp.i, 27, and 29.
Manufacturers (and editor of The Economist). The statues were adopted at the Second Hague Conference in January 1930.  

Simmons argues that international institutional innovation occurred in the late 1920s in part because state-powers were not involved:

"...innovation did take place, and its impulse came from private and central bankers. Indeed, politicians were shocked at what these bankers proposed. Government officials ultimately bought into the BIS only because they needed the financiers' cooperation in reorganizing Germany's debt."  

In the 1988 capital agreement, governments again "bought into the BIS" because they needed financiers' cooperation, to stabilize world financial markets.

Then as now, the BIS had no power of enforcement but used a variety of procedures to reorganize creditors in the case of default, thereby reducing uncertainty. In the 1920s, as now, market access was the primary 'stick': "[BIS was] in a position to reward German compliance with favorable access to international trade, and to punish defection by coordinating economic sanctions." A similar linkage of markets access was used by England and the US to gain Japanese support for capital standards; for all Basle Accord signatories to uphold the Accord; and for the US, England and others to raise capital requirements even further.

The US government was a reluctant participant in the negotiations that created the BIS in the late 1920s. For domestic political reasons no US Federal Reserve Bank officials were allowed to work for the BIS. (It was agreed behind the scenes that only those acceptable to the New York Federal Reserve Bank would be appointed.) US Secretary of State Henry L. Stimson kept the Federal Reserve Bank officially detached, to keep "friends on the Hill from running amuck." When the US government failed or declined to participate in the BIS, US shares were purchased by three private banks: First National City Bank (later renamed Citibank), J.P. Morgan, and First Chicago. For many years those banks acted as the official representative of the United States at the BIS. US representation eventually fell to Citibank alone. Japan was similarly represented by a coalition of private banks. After years of rubber-stamping BIS decisions, Citibank formally transferred its proxy vote to BIS management in 1987. In practice, a US Federal Reserve Bank representative now attends meetings as an observer. The lack of emphasis placed on formal voting arrangements is symptomatic of the consensual nature of the BIS's decision-making process.

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574 Simmons (1993), Table 2, p.378. Also on the Young Committee was J.P. Morgan, President of J.P. Morgan, NY.

575 Simmons, p.25.

576 Simmons, p.22-24.

577 Simmons, p.21.

578 Thanks to Peter Sullivan and others at Citibank-New York, for helping track down this history.
3. **HAUTE FINANCE AND THE INTERNATIONAL MONETARY CONFERENCE (IMC)**

"People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices." -- Adam Smith, *The Wealth of Nations*.

Internationally, major banks compete fiercely, but they share certain common interests. Financial markets are interdependent and bankers need to protect the stability of the international financial system. The annual International Monetary Conference (IMC) is one means by which they attempt to overcome collective action problems.

Unlike the BIS, the IMC is *not* a formal organization. It has no decision-making authority, let alone any powers of enforcement. It is simply an annual conference of top bankers. If leading members of the IMC declined to participate its importance would decline. What is important is the balance of cooperative and competing interests of the bankers who make up the Conference. The IMC provides a useful focal point for discussing this looser network of international banking. The IMC is akin to an international, financial version of the US Business Roundtable.

The IMC was founded by (and for) US bankers in 1954, as an annual event at which they could discuss and learn about international financial and economic issues. Meetings until the 1970s were largely US affairs. Since then, foreign bankers have increased their roles and shared the position of IMC president, and the IMC has cultivated an internationalist orientation.

The IMC is composed of the heads of the world's largest 115 banks, including roughly 50 US banks and 65 banks from other major economies. The fifteen IMC Board Members decide who is admitted to the Conference. Eight of the fifteen are American. As secretariat for the conference, the American Bankers Association is charged with organizing the annual meeting. Presidents are elected for a one-year term, succeeded the following year by the vice president. Voting procedures are not public.

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579 Adam Smith, *The Wealth of Nations*, 1776/[1976], (Chicago: University of Chicago Press, forward by George Stigler) p.144. Smith referred in particular to labor unions. Smith argued against union health benefits or widows' pensions, even if those benefits were paid for by the workers themselves. His choice of the word "conspiracy" has unintended and unfortunate connotations to wild-eyed "conspiracy theories" which I do not share. Of interest here is Smith's and Stigler's recognition that corporations may at times seek regulations to overcome collective action problems.

560 The "rules" in private banking culture are implicit, not specific. Bankers' expectations about appropriate behavior are commonly shared, although occasionally violated. They have a great deal of autonomy in changing their implicit rules. Most IMC "rules" are based on interpersonal relationships, reputation, and an unspoken etiquette and pecking order. Archival research on historic private correspondence between top bankers would be more revealing than proceedings from the three-day annual IMC itself.

581 Don Ogilvie, IMC executive vice-president.
Table A.2

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<thead>
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<th>International Monetary Conference, Past Presidents 1980-1994:</th>
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<tr>
<td>CEO:</td>
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<td>Richard Hill</td>
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<td>Walter Wriston</td>
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</table>

Only the chairman or chief executive of a bank may attend IMC meetings, by invitation, unprotected by the hordes of aides who gather at, e.g., the annual meeting of the IMF. A select few journalists are also invited, although they are not allowed into the conference's closed-door sessions. They are briefed separately by the speakers afterwards. All meetings are closed to the public, and no formal records are available. Although some mention has been made of opening up the meetings, to assuage populist critics, little action has been taken. There are five business sessions, each devoted to discussion of a major banking theme. Speakers typically include the top figures in international finance, such as Paul Volcker, Alan Greenspan, Otto Pöhl, Alexandre Lamfalussy, Jacques de LaRosiere, Lloyd Bentsen, James Baker, Leon Brittan, and Toyoo Gyohten. The off-record Conference permits central bankers, government officials, and private bankers to engage in a free-ranging discussion.

The Conference atmosphere is "clubby." Members are well-known to each other, and address each other (and their regulators) on a first-name basis. They are long-acclimated to the interplay between intense competition and cooperation to achieve mutual goals. There is tension between the bankers, but also an understanding that "things have to be done."³⁶²

³⁶² Raymond Dempsey, chairman Fidelity Bank, PA, 1983. The annual IMC meetings are extravagant. On arrival, visitors are whisked straight from their jet to their hotel room, dispensing with formalities. Daily gifts are lavish, and entertainment might be a private screening by a prominent symphony orchestra.

It is difficult to evaluate IMC proceedings, without a full public record. Decisions are made through private meetings, off-the-record consensus, confidential communication and support-gathering "road trips". There are no votes or study papers to be analyzed. The lack of data limits a more conclusive analysis of the coordination of private sector interests. Although such a conference aims (in part) to protect the interests of its members, as Adam Smith suggested, it also plays a role in protecting the public interest.
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