Dental Hygiene and Nuclear War:
How International Relations Looks from Economics

Barry Eichengreen
University of California, Berkeley[1]

I. Introduction

Economists are notorious for their intellectual imperialism, feeling no compulsion about applying their kit of tools to everything from dental hygiene to nuclear war. It is hardly a stretch, therefore, to adopt economics as a perspective from which to view scholarship in international relations.

I may have been offered (and accepted) this commission because my fields of specialization are economic history and international economics. The second of these shares with its political-science counterpart an obvious preoccupation with international matters. Both international economics and international relations are concerned with such topics as international trade, the international monetary system, international financial markets, and the international debt crisis. The affinity between economic history and international relations is harder to define.[2] In part, it derives from a shared inclination to treat parameters as variables. Specialists in both fields are unwilling to take as exogenous a variety of factors that their

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[2]Although historically-oriented economists have regularly strayed into the field, starting with Charles Kindleberger's 1951 article on foreign trade and international politics.

disciplinary colleagues are prepared to treat as fixed. In economic history this reflects the long time frame over which the relevant processes unfold; variables that are realistically regarded as predetermined in the short run cannot reasonably be taken as invariant over longer intervals. While this long-run perspective is less central to international relations, there is a similarly a desire to relax the assumption that structure is impervious to change.[3] For example, international relations has in common with economic history a predilection to treat institutions as endogenous. Institutions being one source of positive feedback and lock in, it follows that the two subdisciplines share a fascination with path dependence.[4] At the same time, both subdisciplines pay a price from partaking of this unusually rich intellectual menu, namely, the difficulty of formalizing their models with the parsimony of other fields. That, of course, is what makes our chosen subjects so interesting and rewarding.

In organizing my discussion, I take as my starting point contributions to international relations which most closely parallel mainstream economics. I then describe other research in IR that bears less resemblance to conventional economics. But I do not provide a chronological account of the development of the literature. Nor do I attempt to identify geopolitical events that worked to discredit popular approaches and encourage new ones.[5]

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[3]There are exceptions, of course, to this generalization about lack of long-term perspective: Goldstein (1988) springs to mind.

[4]Other positive-feedback mechanisms include ideas and ideologies -- even today economic historians invoke the Protestant ethic and the spirit of capitalism when teaching their graduate students about the Industrial Revolution.

[5]Both of these tasks are discharged by Katzenstein, Keohane and Krasner in their chapter in this volume.

And I do not focus on the special role, if any, of economic issues in international security questions.[6]

The most telling difference between IR and economics, I argue, lies in the connection between theory and empirical work. The argument is not the common one that the strength of economics is the existence of a core of theoretical assumptions, most notably utility and profit maximization, which provide the basis for graduate instruction, serve as a common intellectual language and are the point of departure for even the most unconventional research programs. Rather, it is that the strength of economics is the complementary and mutually-supporting character of theoretical and empirical work. The core of commonly-accepted assumptions that unifies much research in modern economics did not descend like manna from heaven or spring full-blown from the brilliant minds of Marshalls and Samuelsons past. Rather, the assumptions and models that have survived and become part of this common theoretical core are those which deliver testable propositions that find systematic support in the data.

In IR, in contrast, the connections between theory and empirical work are relatively loose. Theory-based propositions do not lend themselves comfortably to empirical verification and refutation. Empirical techniques do not develop to the same extent to facilitate tests of theory-based propositions. As a consequence, research in international relations has not converged on a core of common theoretical assumptions and an arsenal of commonly-accepted empirical techniques. If this view is correct, then the task for international relations is to strengthen the connections between theory and empirics.

[6]A topic which is the subject of Mastanduno's chapter in this volume.

II. Theoretical Perspectives

To a surprising extent there are parallels in economics for even the most unconventional approaches in IR, and vice versa. I make this point through a review of the interest, institution, and idea-based theories of international relations.

A. Interest-Group Models

For an economist (see for example Baldwin 1985), the natural point of departure for thinking about a country's foreign policy is the interests of constituencies. Individuals will favor or oppose policies depending on how they perceive their welfare to be affected. The problem then becomes to identify interests. When the issue is foreign economic policy, the obvious basis is models of economic welfare in which interest groups are synonymous with factors of production (capital or labor) or with the sectors on which they depend for their livelihood (import-competing versus export-oriented, traded- or home-goods-producing). To explain a country's foreign trade policies, some political scientists have utilized the two-factor, two-sector Heckscher-Ohlin-Samuelson model, which predicts that a country's relatively abundant factor of production will favor a liberal trade policy (since that factor is used intensively in the export-oriented sector), while the scarce factor will favor a restrictive policy (since it is used intensively in the import-competing sector).[7] Others have used the three-factor, two-sector Jones-Mayer-Mussa model, which predicts that the factor used exclusively in the export-oriented (import-competing) sector will favor (oppose) free trade, while the attitude of the factor used in both sectors will depend on its consumption basket.[8] Other

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[7]See for example Rogowski (1989).

[8]See Frieden (1991).

models provide other predictions, but the general approach -- tracing policies to interest groups and interest groups to underlying structures -- is fundamentally the same.[9]

The strength of this approach is its precision and parsimony. It has been used to conceptualize the political economy of issues like trade and currency policies and has provided the basis for empirical work attempting to verify or reject the theory's core predictions.[10] A corresponding difficulty is that it becomes harder to map interests into policies and to test the corresponding propositions when noneconomic issues are involved. It may be that international diplomacy has only oblique and diffuse impacts on economic outcomes narrowly defined. If one assumes that individuals care only about economic welfare, then it is still possible to rely on off-the-shelf models of the factoral or sectoral distribution of income, however small the impact of policy on income distribution. But if one believes that individuals care about security policy because they value security, or that they care about power politics because they value power, then mapping from policy to interests, and conversely, is problematic.[11]

A further limitation of this approach is that it does not capture the nitty-gritty of politics. One simply counts the population in, say, the import-competing and export-oriented sectors without worrying about the incentive to organize and lobby.[12] Finally, there is the

[9]A recent synthesis of this work is Milner (1988).

[10]See Irwin (1995), Irwin and Krozner (1996), and Frieden (1997).

[11]A point recognized by Nagel (1975.

[12]Newer work, like the common agency models of Grossman and Helpman (1995), go some way toward capturing these considerations, but it is not yet clear that they can be insightfully applied to international relations. Nor can this approach easily explain why policies develop discontinuously. Take the case of European integration, which has proceeded in fits (continued...)

problem that the model is essentially static and ahistorical. It does not capture the element of time, which implies learning and path dependence, issues which many political scientists believe should be at the center of their discipline.

B. Institutional Approaches

A second approach emphasizes the role of institutions -- political, social, and economic. At one level these can be thought of as communication technologies transmitting the preferences of interest groups to the policy domain. Electoral institutions make it easier or harder for different interest groups to make their influence felt; for example, proportional representation with minimal thresholds for parliamentary representation tends to lead to party proliferation and to facilitate the representation of specialized interests. Political institutions like the committee system or the right of the lower house of the U.S. Congress to initiate budgetary legislation may allow those in a favorable institutional position to shape the policy agenda. Socio-economic institutions like trade unions and industry associations allow factoral- and sectoral-based groups to organize and represent themselves more effectively than atomistic agents.[13]

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[12](...continued)
and starts, with long periods of stasis punctuated by spurts of intense integrationist activity. Although the stance of policy has shifted dramatically, the sectoral composition and factor endowments of the European economy and the interest group pressures attributable to those structures have evolved only gradually. There was no obvious change in the balance of special-interest influence between 1985 and 1987, for example, when the Single Act was passed, or between 1990 and 1992, when the Maastricht Treaty was signed. It is hard to explain the pivotal events in the evolution of the European Union in terms of the interest group model strictly construed, in other words. I return to these issues below.

[13]See for example Garrett and Lange (1995).

One characterization of these institutions is that they aggregate preferences like an adding machine that makes due allowance for the concentration or dispersion of group interests and the intensity with which its policy preferences are held. The effect of institutions is then to amplify or mute the voices of different constituencies. It no longer suffices to simply count voters, but there remains a straightforward mapping from constituency preferences to public policies, except that the former must now be measured along several dimensions (quantity, concentration, intensity). In this spirit, Milner (this volume) defines institutions as "mechanisms of collective choice."

A very different characterization portrays institutions as a source of principal-agent problems. The fact that constituents elect politicians who appoint officials who make policy allows multiple slips betwixt cup and lip. If it is costly for constituents to monitor and sanction politicians who pursue personal agendas, then the preferences of elected leaders and appointed officials may affect outcomes. In this view, institutions are imperfect technologies for monitoring and sanctioning political agents. Indeed, they can serve as barriers to effective sanctioning and insulate policymakers from constituency pressures; central bank independence and lifetime appointment for judicial officials have been thought of in this way.

There is an obvious analogy here with the literature on corporate control. Many economists (e.g. Jensen and Meckling, 1976) have analyzed the problem investors face in directing the actions of managers to whom they delegate corporate control. This problem is not easily solved in the presence of asymmetric information and costly monitoring; the same would seem to be true of domestic and international politics. At the same time, theorists of corporate control have shown how financial institutions (universal banks, for example) can act as delegated monitors to attenuate principal-agent problems, and how financial engineering (the use of debt and equity in the firm's capital structure) can mitigate the incentive for managers to pursue personal agendas. Conversely, institutions like universal banks are sometimes seen as mechanisms for insulating managers from pressure to shorten their horizons, in that way enhancing efficiency (akin to the horizon-lengthening effect of central bank and judicial independence). Work in political science on recall elections, federalism and divided government can be seen in this light.[14]

The notion that institutions attenuate incentive problems associated with delegation encourages a functionalist perspective on their evolution (see e.g. Keohane, 1984). Institutions, in this view, exist to play an efficiency-enhancing role. For those schooled in economic theory, this conjures up the image of competition among rival political arrangements. Inefficient institutions that allow excessive principal-agent slack will be amended by dissatisfied publics. Those which allow inefficient outcomes to persist will be competed away by better systems, in the same way that inefficient firms will be competed out of business. However crude this formulation, a considerable literature on, inter alia, the end of the Cold War and the collapse of the Soviet Union embraces this perspective.

It is easy to be sympathetic to functionalist interpretations, which provide a straightforward explanation for the evolution of political institutions. At the same time, there is reason to think that many social arrangements were created for reasons only remotely related to their current function. Once the die is cast, arrangements became locked in. Because they are resistant to change, they lend policy a strongly path-dependent cast. Even if there

[14] Again, see Garrett and Lange (1995) and the references cited therein.

exist strong functionalist pressures for the emergence of efficient institutions, it is still possible for there to exist more than one uniquely efficient institutional solution to a coordination problem, creating a role for ideology and history to select among them.

Arthur (1988) identifies several circumstances under which market arrangements become locked in. One is large setup costs, which agents must sink when altering exiting arrangements. Another is learning: society has learned how to work with existing institutions to the point where it becomes reluctant to abandon them. Most important in the present context may be that a core function of institutions is to coordinate the activities of agents. Because institutions, like any coordinating technology, are a source of network externalities, modifying their structure involves coordinating the wishes of a large number of different individuals, which can pose a formidable obstacle to change.[15]

Yet another possibility is that institutions are purposely structured to resist change. Their role is to serve as commitment technologies that prevent opportunistic behavior by those in power. Were it easy to modify a rule that certain policies could be adopted only by unanimity or supermajority, for example, that rule would lose its force. Institutions are structured so to make overturning such rules difficult, which works to lock them in. In turn, this increases the tendency for institutional arrangements that might have had efficiency-enhancing effects under the conditions that characterized their creation to outlive their usefulness.

Given the existence of so many competing interpretations of the role of institutions, it is not surprising that there exists wide disagreement on their characterization. At a more

[15]See David (1993).

fundamental level, the problem is the difficulty of deriving testable propositions from these alternative characterizations and confronting them with data. For all the above-mentioned reasons, institutional structures tend to evolve only slowly over time. A time-series investigation, even one with a considerable historical time frame, is unlikely to uncover sufficient variation along the relevant dimensions to yield robust correlations between institutional inputs and policy outputs. There may be more identifying variation across countries, but cross-country analysis requires a standardized measurement of institutional attributes as well as adequate controls for other characteristics of countries, no mean task. Thus, work along these lines has mostly been limited to issues like the political-economy effects of central bank independence, corporatist bargaining, and delegation in the formulation of trade policy, where relevant ground work has already been done by economists.[16]

It is revealing in this connection to recall how the notion of institutions giving rise to path-dependence became an accepted concept in economics. Arthur and others had for some years undertaken analytical work on the subject but with little impact on the profession as a whole. Significant impact resulted only when David (1985) used the model to study a particular empirical problem, namely, the design of the mechanical typewriter. In painstaking detail he showed how the connections between a variety of institutions -- secretarial schools, all of which had the incentive to teach the same typing skills as their competitors so as to maximize their market share; law and accountancy firms, all of which hired from a common pool of secretaries and none of which had an incentive to invest in their acquisition of firm-specific typing techniques; and manufacturers, who were forced to hire salesmen similarly

[16] See Simmons (1994) and Garrett (1998) for examples.

lacking specialized skills and therefore incapable of demonstrating the effectiveness of anything but a standardized keyboard -- caused one of many viable keyboard configurations to become locked in.[17] He did so by taking a standard problem in economics, the choice of technology, and modifying the canonical model in small but far-reaching ways. In doing so he demonstrated that institutions, time, learning, and lock-in could in fact be built onto an existing analytical infrastructure without forcing scholars to choose between pursuing these ideas and tossing out the entire corpus of accumulated knowledge. The key to the advance was that it was empirical and incremental -- in other words, it was normal science. Abstract theorizing was progressive because it was linked to normal empirical work.

C. Endogenous Preferences and the Role of Ideas

The interest-group and institutional approaches, as I have sketched them, assume that agents know their preferences and know the strategies that are appropriate for advancing them. For an economist, a striking feature of the international-relations literature is the existence of a strand of work which rejects this fundamental assumption.

Contributions to this literature reject the notion that constituencies and their political agents know their self-interest. Self-interest is more difficult to define when the issue is power, security and a country's place in the world rather than money in the bank; it is a socially-

[17]It is further revealing that David had been asked to demonstrate to the economics profession, in the meeting at the Allied Social Sciences Association Meetings that was the basis for his article, the uses of history in economic analysis. Rather than giving an abstract talk he chose to focus on a specific bit of empirical work. Liebowitz and Margolis (1990) have subsequently challenged the generality of the notion of path dependence by -- revealingly -- disputing David's empirical work. This too illustrates the point: analytic concepts rise and fall not on the basis of the elegance of the underlying model but largely as a result of the normal scientific process of marshalling empirical evidence, which includes attempts to replicate the results of prior investigators.

constructed concept that has no existence outside its specific context. And even when individuals, interest-groups and institutionally-empowered lobbies have a clear sense of their objectives, they may lack an understanding of mechanisms for achieving them in a complex world. Thus, simple economic models of utility maximization in the presence of perfect information may not plausibly carry over to issues of international security and diplomacy.

If preferences are incompletely formed or means of achieving objectives are incompletely understood, there is scope for mechanisms to formulate social priorities and identify strategies for pursuing them. Simplifying strategies (Tetlock and McGuire 1986), historical analogies (Jervis 1976), cultural predispositions (Kier 1995), epistemic communities (Haas 1992), and policy elites (Ikenberry 1993) have been offered to fill this void. Tetlock and McGuire characterize policymakers as “limited capacity information processors” who use rules of thumb in lieu of full optimization. Haas similarly questions whether state actors understand the system in which they operate and whether rational choice is therefore the most appropriate framework for studying their actions, and highlights the role in policy making of networks of professionals with recognized expertise and competence, who provide depictions of social processes and the likely consequences of actions. Those who constitute these networks instruct officials about how to conceptualize their self-interest and how to enhance their welfare through strategy. Ikenberry argues that, on technical issues in particular, experts can contribute to the development of a consensus about feasible and desirable social goals. The contributors to Hall (1996) show how policy outcomes are shaped by the interaction of ideas, on the one hand, with the orientation of the governing party, the structure of the state and state-society relations, and the nature of political discourse, on the other. McNamara

(1996) describes how an alliance of technical experts and policy entrepreneurs can create a policy consensus when inherited conceptions are ripe for rejection as a result of poor policy performance. Goldstein and Keohane (1996) similarly argue that ideas shape outcomes when they take the form of world views (“principled or causal beliefs") that clarify actors' visions of goals and means-end relationships.

Ideas, ideology, and elite consensus, are not alternatives to the institutional approach, of course. They must be formulated, transmitted, received and amplified by a socially-constructed conveyance mechanism -- an “institution” in the words of Jepperson, Wendt and Kazenstein (1996). As Garrett and Weingast (1993, p. 176) put it, “Shared belief systems and focal points...do not always emerge without conscious efforts on the part of interested actors. Rather, they must often be constructed.”[18] To exercise influence, policy elites must be brought together and vested with authority. Institutions like the International Monetary Fund, the Group of Seven, and the Bank for International Settlements help those elites communicate their views and give those ideas their Good Housekeeping Seal of Approval. Institutions provide a venue for the ongoing, systematic exchange of information and ideas. They have an agenda-setting function that gives precedence to some conceptualizations above others. Background papers by in-house analysts inform their proceedings, defining the parameters of discourse and decision making. The written record and recollections of permanent staff allow these processes to endure beyond the terms in office of any particular set of elected officials.[19]

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[18]"Ideas do not float freely,” in the words of Risse-Kappen (1994). For a particularly clear statement of this view, see the introduction to Goldstein and Keohane (1993).

[19]There is an analogy with the way “cheap talk” (communication without commitment)
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There are obvious parallels between this literature and work in economics on bounded rationality.[20] It is revealing that the latter has never really taken off in the sense of being widely applied to concrete questions. In part the problem is that the conclusions derived from theoretical models are sensitive to small variations in specification, making it difficult to derive robust implications. A more fundamental problem is that work on bounded rationality has not generated testable, refutable propositions that can be systematically confronted with data.[21]

Similar criticisms can be levied against the international relations literature on "endogenous preferences." The "idea of ideas" is intriguing, but it is not clear how to formulate it in a testable way. Is it rejectable? Can its explanatory power be systematically compared with that of alternative hypotheses? Can it be modeled formally with the goal of determining its internal consistency and drawing out its less obvious implications? Can it be synthesized with other literatures, like that on game theory, for example, so that not only can preferences be endogenized but their implications for strategic interaction can be systematically pursued?

D. Implications of the International Dimension

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[19](...continued)
can facilitate cooperation among firms in an imperfectly competitive market (Farrell and Rabin 1996).

[20]See e.g. Simon (1986).

[21]For further discussion, see Kahler (this volume), who concludes, “what is most striking is not only the absence of a single psychological alternative to rational choice, but also the absence of a clear set of theories or hypotheses about the importance of psychological distortions of rational decisionmaking or the conditions under which those distortions are likely to be found.” A partial exception to this generalization is work that has sought to contrast the predictions of utility theory with those of prospect theory. But, by my reading, this attempt to formulate a coherent, refutable alternative hypothesis has been less than convincing.

By definition, international relations differs from the rest of political science by its concern with the interaction of sovereign states. Even those scholars who are most heavily committed to the view that foreign policy outcomes are driven by domestic interests would admit a role for those same factors in foreign countries and therefore for interactions between them. The positions taken by governments in international negotiations depend in part on the positions of their foreign counterparts. How hard governments push for a particular objective will depend on how hard their foreign counterparts push back. Bargaining among nation states may be critically important for outcomes, in other words. For self-evident reasons, the literature in which these issues are emphasized is known as "intergovernmentalism."

Analyses of bargaining between governments typically use game theoretic tools to model the choice of strategies. Modeling this interaction forces the analyst to think systematically about incentives and tactics and about the likely reaction of other states. The problem with game-theoretic models is that they generally admit of a multiplicity of solutions, requiring further assumptions to select an equilibrium. In addition, the institutions which aggregate interest-group pressures at the national level drops from sight when attention turns to the strategic interaction of governments. The literature on two-level games (Putnam 1988, Evans, Jacobsen and Putnam, 1991) seeks to combine the game between governments and their constituents with the game between countries, but the caveat in the preceding sentence continues to apply.

In this view, interest groups and institutions matter mainly insofar as they find reflection in the strategies pursued by national governments in international fora.[22] Sometimes this strong assumption is relaxed by positing a role for transnational interests and institutions. Keohane and Nye (1972), Putnam (1988), and Sandholz and Zysman (1992) all have highlighted the ability of transnational interest groups and coalitions to influence national policy. There has been increasing interest, particularly in the literature on the European Union, in the influence of transnational institutions.[23]

The weakness of transnational analysis lies in measurement: analysts appear to be particularly unable to agree on the political influence of transnational, as opposed to nation-bound, interests and institutions. The impression is that political scientists know a transnational interest when they see one but cannot identify it in a way that allows other investigators to independently verify their conclusions.[24] Once again, theorizing does not lend

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[22]I say "mainly" rather than "solely" because there have been some attempts to extend the intergovernmental model to allow for international interactions through other channels, as I describe momentarily.

[23]To pursue this example, it is widely argued that the institutions of the EU possess sufficient autonomy to shape European policy outcomes; this is nothing more than a scholarly statement of popular complaints about the EU's "democracy deficit." And in the same way that principal-agent slack allows national politicians to do more than merely reflect the preferences of their domestic constituents, it can allow transnational institutions to do more than reflect the preferences of national governments. The Council of Ministers, it is true, is largely a venue for national government influence. But the European Commission and the European Court of Justice have considerable independence from the governments of member states (although the precise extent of this independence is debated).

[24]The other place where institutions surface is in the neoliberal literature on international regimes. Economists think of regimes as tacit understandings about behavior. Many are inclined to restate the core points of this literature in game-theoretic terms, suggesting that tacit understandings about what is acceptable and likely can play a role in selecting among alternative equilibria. Institutions can play a role in shaping those

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itself to systematic empirical verification, hindering the emergence of a strong analytical consensus.

E. The Level of Analysis Problem

Fifty years ago the parallels between the theorizing in international relations on the one hand and microeconomics on the other were even more pronounced than today.[25] Realists argued that countries were the major actors in world affairs and that they could be treated as unitary actors. Members of the realist school argued that it was unnecessary, as Hollis and Smith (1991) put it, to "open the box" of the state and view what went on inside. There is a parallel with the theory of the firm as, say, Milton Friedman taught it at Chicago, according to

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[24](...continued)
understandings through the mechanisms described at the end of Subsection B. By transmitting information more or less smoothly and making it easier or harder for others (in the present context, other countries) to respond consistently, they can alter the incentives for individual players (Morrow 1994).
There is an analogy with the literature in economics and economic history on trade in the absence of legal enforcement (Greif 1994, Milgom, North and Weingast 1990) -- on how "a dense social network leads to the development of informal structure with substantial stability" (to quote North (1991), p. 38). There the problem is ensuring conformance with the terms of a contract in the absence of an enforcement mechanism. Solutions are found in repeated interaction in the context of an institutional setting that encourages certain norms of behavior, takes recourse to impartial arbitraters to verify that those norms have been met, and that encourages other traders to impose sanctions on those who fail to display the expected forms of behavior (by refusing to transact with them further, banishing them from the venue where transactions take place, withholding certification of their wares, etc.). This work has helped to establish how traders can be encouraged to keep to the terms of an agreement in the absence of legal enforcement, with obvious implications for how countries can "cooperate under anarchy" (Oye 1986).

[25]While the occasion for this symposium is the fiftieth anniversary of International Organization, for purposes of the paragraphs that follow, it is even more appropriate that 1998, when this article will presumably appear, is the fiftieth anniversary of Morgenthau's Politics among Nations.

which it is enough to assume that firms behave “as if” they maximize profits; it is unnecessary to "open the box" and explore their inner workings.[26] Economists rationalized the assumption on the grounds that, in a competitive market, firms which do not maximize profits will be driven out of business, leaving a residual population whose behavior will satisfies the premise.

Subsequently, scholars devoted considerable effort analyzing international relations at higher and lower levels. At a higher level this is the question posed by Waltz (1979), of whether the system has its own dynamics. The analogous question in economics is whether one can learn something about behavior or its consequences by studying the macroeconomy rather than individual households and firms. Economists in fact possess models where one learns from aggregation -- where the dynamics of the whole are more than the sum of its parts. An example is the paradox of thrift, in which individual households or firms, by attempting to save more, end up saving less because more saving means less demand and lower incomes in general equilibrium.

But these models, while confirming that there are gains to be made from studying dynamics at higher -- systemic --levels, do not in fact relieve one of the need to understand the behavior of individual households and firms. Indeed, they require particular assumptions about household and firm behavior (a positive constant marginal propensity to save, for example), as well as assumptions about the structure of the system (the economy is closed to international transactions, wages are fixed, etc.), whose validity is an empirical question. The problem with the Waltzian formulation is that it poses the system level as an alternative to analysis of individual countries. In a sense, macroeconomics went through a similar phase, in which

[26] See Friedman (1953).

model builders analyzed macroeconomic dynamics without much attention to micro-foundations.[27] Today, in contrast, most macroeconomic models explicitly derive variables like economy-wide saving and investment by aggregating the decisions of individual households and firms. International relations has experienced a parallel -- if less decisive -- evolution in which the relatively sterile debate over the level of analysis problem has given way to a paradigm in which one must simultaneously analyze what goes on inside particular countries, on the one hand, and systemic dynamics, on the other.

International relations specialists concerned with lower levels of analysis have similarly questioned whether much can be learned using models based on the assumption that countries act as if they maximize the welfare of the median voter (as simple interest-group models posit). They question the assumptions of rationality and maximizing behavior that undergird game-theoretic analyses.[28] Their qualms have counterparts in economics -- in the literature on psychology and economics in particular. But while anecdotal evidence, studies of market efficiency, and results from experimental economics all provide some evidence of deviations from rationality, utility maximization and productive efficiency, analysis has not pushed much beyond that point.[29] For purposes of illustration, consider the literature on international debt. Guttentag and Herring (1985) invoked the psychology-and-economics literature in arguing that disaster myopia leads commercial banks to lend excessively to developing countries. But

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[27]One is reminded of the first macro-model, built by Bill Phillips of Phillips-Curve fame, which consisted of a series of receptacles connected by pipes and filled with water to be used to analyze aggregate supply and demand hydraulically.

[28]The relevant literature is surveyed by Smith (1988).

[29] On the evidence, see Hogarth and Reder (1986).

subsequent investigators found it difficult to model that behavior and draw out its less obvious implications. In the end, the strand of work based on insights from psychology and economics stalled, and the literature on debt developed in other directions.[30] The same can be said of other attempts to apply the psychology-and-economics literature: speculation is fun, analysis is difficult. The approach has not lent itself to normal science.

Others question not the assumption of rationality but the commonality of motives within countries and the absence of transactions and communications costs. The literature on bureaucracy and foreign policy (Snyder, Bruck and Sapin 1954, Allison 1971) which explains outcomes in terms of bureaucratic interactions has relaxed these assumptions productively. This is very much the spirit of developments in microeconomics over the last 50 years. Once upon a time economists analyzed markets by assuming that firms act "as if" they maximize profits, but the discipline has devoted its attention in recent years almost entirely to incentive problems within firms and to how units of production organize themselves internally.[31] There is no question that it could be similarly productive in principal to analyze the internal organization of foreign-policy-making bureaucracies. The problem, as Katzenstein, Keohane and Krasner (this volume) note, is that the bureaucratic-politics literature, like that based on cognitive psychology, has succeeded in developing few testable propositions. And the few

[30]Mostly toward game-theoretic models in which banks and governments each seek to maximize their own objective functions, but where problems of commitment and collective action make the Nash equilibrium sub-optimal.

[31]In addition to Jensen and Meckling (1976), one might mention Williamson (1975) in this connection.

hypotheses it has generated, such as the notion that bureaus are interested in maximizing the size of their budgets, have not withstood empirical scrutiny.

III. An Application to European Monetary Unification

In this section I apply the perspectives developed above to the case of European monetary unification. Not only is this a case with which I am familiar, but the literature on it is part of a body of work with a long lineage in international relations. Describing how the various analytical approaches recounted in Section II have been used to understand a particular problem illustrates both the strengths and the limitations of the case-study methodology that continues to dominate research in international relations.

While the focus of my analysis is the attempt to create a monetary union by January 1, 1999, I am necessarily concerned with the longer term context, which can be traced to abortive late-1940s plans for a European monetary union. Discussions of European monetary integration took on new urgency with the impending collapse of the Bretton Woods System in the late 1960s. Early discussions led to the Werner Report in 1970, which envisaged a three-stage transition to monetary union over the subsequent decade. But the vehicle for navigating this course, the European Snake, failed to hold the road. The European Monetary System, created in 1979, eliminated the Snake's most serious deficiencies, its early years were turbulent, and it settled into normal operation only after 1986. Then came the Single Act, which mandated the removal of capital controls, the Delors Report, and the Maastricht Treaty. The process continued to gather momentum before slowing significantly following the European currency crises of 1992-93. Since then, EMU has proceeded in fits and starts.

While the European Union remains on course for monetary union on January 1, 1999, at the time of writing the project's ultimate success remains uncertain.

A. Interest-Group Models

The logical starting point for an analysis of these developments is interest-group politics. Some interest groups are intrinsically more concerned than others with eliminating exchange rate volatility and uncertainty. Firms with strong international ties evince a particular interest in exchange rate stability. Banks and corporations that invest throughout the European Union will be interested in intra-European exchange rate stability in particular. More generally, producers of tradable goods with EU-wide markets should be averse to currency fluctuations in general and competitive devaluations in particular. Conversely, producers and consumers of nontraded goods will display relatively little interest in exchange rate stability or monetary unification.

This perspective points to economic integration as the force behind the monetary-union project. As the post-World War II integration has proceeded, the number of companies and banks that value exchange-rate stability has climbed. The share of Europe's trade that stays within the continent has risen from 40 to 60 per cent of the total since the mid-1960s. While the explosion of cross-border direct foreign investment (DFI) was delayed (partly by the fact that controls on capital flows were maintained for longer than controls on trade), by the 1980s DFI was growing at impressive rates.

The argument, then, is that "the greater cross-border mobility of goods and capital within Europe made stabilizing exchange rates more attractive."[32] The number and political influence of those who favored exchange-rate stability was augmented by the same technological and institutional factors that caused trade to grow faster than incomes over much of the industrial and developing world.[33] Empirical studies taking both case-study and cross-country econometric approaches have lent considerable support to the hypothesis.[34]

But the reference in the last paragraph to the rest of the world points to an uncomfortable fact: foreign trade and investment have been growing faster than incomes not just in Europe but globally.[35] Yet at the same time Europe was attempting to reduce the variability of its exchange rates, countries elsewhere were accepting greater flexibility.[36] Part of the explanation may be that even while Europe's trade was growing relative to income, it was also becoming more regionalized. Because an increasing share of that trade stayed within Europe, EU member states seeking to peg their currencies no longer faced the decision of

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[32]Frieden (1996), p.211.

[33]Some argue, echoing the literature on multinational enterprises dating from the early 1970s, that the development of transnational interest groups (transnational financial, business and labor coalitions in particular) accelerated the translation of this interest into policy. Sandholtz and Zysman (1989) argue for the importance of these transnational interest groups, Moravcsik (1991) against.

[34]See e.g. Giavazzi and Giovannini (1989), Frieden (1996), Bayoumi and Eichengreen (1997), and de Boussieu and Pisani-Ferry (1998). An institutional variant of the interest-group argument can be found in Garrett (1997).

[35]There is the further problem that some economic models in fact suggest that DFI will render multinational firms less concerned about currency fluctuations, not more. To the extent that a change in the exchange rate reduces the cost of producing in one country relative to another, a firm which produces in both will be better hedged than one which undertakes production at only one site. See Cushman (1988).

[36]As documented in Eichengreen (1996).

whether to peg to the deutsche mark, dollar or yen, a dilemma which might have otherwise tempted them to peg to no one at all. Unfortunately, it is not hard to cite other countries that also grew increasingly dependent on a single trading partner or group of partners and yet moved away from exchange-rate pegging (Canada and Mexico vis-à-vis the United States spring to mind).

To the extent that reductions in transportation costs and improvements in communications and information technologies stimulated cross-border transactions, there is no reason to think that they should have lent the greatest impetus to trade over short distances (in this case, between neighboring European countries).[37] In fact, growth in the share of intra-European trade in the continent's total has reflected not so much technological progress as policy. The six founding members of the European Economic Community had completed their customs union by the early 1960s, ahead of the schedule in the Treaty of Rome, and extended that achievement to additional countries through successive rounds of enlargement. Intra-European trade liberalization encompassed nontariff barriers in the 1980s with the adoption of the Single Act. While the GATT has taken important steps toward achieving reductions in tariff and nontariff barriers to trade among its contracting parties, its achievements pale in comparison with those of the EU. If the growth of trade reflects policy, rather than policy reflecting the growth of trade, then we hardly have here an autonomous explanation for the policy outcomes we seek to understand. The empirical work described above may have simply uncovered the correlation between a pair of endogenous variables (political support for

[37]Indeed, there are plausible reasons to assume that the opposite is true. See the discussion in Frankel, Stein and Wei (1996).

monetary integration, and dependence on international transactions) without identifying the exogenous factor behind their co-movement.

B. Neofunctionalist Spillovers

The interest-group argument, with the driving force of the European Community appended, suggests that the customs union and the Single Market accelerated the process of monetary integration by shifting the political balance between producers of traded and nontraded goods. It altered the balance of power between those favoring and opposing exchange-rate stability. An appeal of this argument is that it illustrates the operation of Haasian neofunctionalist spillovers. It provides a mechanism by which the integration of goods and capital markets, achieved through the creation of a European customs union, spilled over to the monetary domain. It suggests a virtuous cycle of positive feedbacks: since currency stability encourages trade and factor mobility as well as the other way around, there will be mutually reinforcing spillovers in both directions, lending European integration a strongly path-dependent character.[38]

It is possible to point to several sources of spillover. One is the linkage between the Common Agricultural Policy (CAP) and monetary integration. The goal of the CAP, the European Community's first substantive achievement, was to stabilize the domestic-currency prices of agricultural commodities through a system of variable levies and subsidies. Changes in intra-European exchange rates were highly disruptive to its operation. According to

[38]This argument is made in Bayoumi and Eichengreen (1997). Frankel and Rose (1996) provide another variation on the theme, in which countries whose business cycles move together prefer stable currencies (on optimum currency area grounds), and stable currencies cause their business cycles to move together.

Giavazzi and Giovannini (1989), the need to defend the CAP against the corrosive effect of currency fluctuations provided important impetus for the development of the EMS and for European monetary integration more generally.[39] It would in principle be possible to test this hypothesis directly, by asking whether support for monetary integration was strongest in those countries with the greatest stake in the CAP, although this does not appear to have been done.

Another potential source of spillover is linkage with the Single Act. The Single Act did more than shift resources into the traded goods sector, augmenting the ranks of those engaged in international financial transactions and creating more groups with a vested interest in currency stability. By mandating the removal of capital controls, it "hollowed out" the middle ground between floating exchange rates and monetary unification. Where Frieden suggests that capital mobility mattered by increasing the number of special interests exposed to international transactions, this alternative emphasizes instead how capital mobility limited the range of feasible responses to their demands. Faced with no alternative to the extremes of floating and monetary union and given a strong aversion to floating, Europe chose unification.[40]

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[39]See also McNamara (1992).

[40]Webb (1991) offers a variant of this view. A related argument is that the Single Market mattered not just by shifting additional pressure groups into the free trade camp and undermining the flexibility of narrow bands but also by heightening the sensitivity of sectoral interests to currency fluctuations. (These arguments are elaborated in Eichengreen and Ghironi 1996). Currency instability (more specifically, the “competitive devaluations” problem) threatened to erode support for the Single Market by shifting the locus of competitive advantage and rewarding beggar-thy-neighbor policies. Insofar as the Single Market was a valued objective, exchange-rate stability was seen as necessary to solidify political support.

The empirical corollary is that countries which removed capital controls should have at the same time become stronger proponents of monetary unifications, since proceeding as before (with the pegged-but-adjustable exchange rates of the EMS) was no longer feasible. The problem, of course, is that all members of the European Community ratified the Single Act at the same time, leaving little room for identifying variation. To be sure, countries phased out controls at different rates, providing some identifying variation, although this may reflect their comparative ease of running independent national monetary policies, which may itself be a function of structural features of their economies, structural features that could be correlated with preferences toward monetary integration for independent reasons. It is revealing of the complexity of this empirical analysis that it does not appear to have been undertaken.

C. Linkage Politics

Some have argued that the Single Market was important not just because it promoted trade but because it was a stepping stone toward more important goals such as political integration. Germany was ready to accede to French pressure for monetary unification, the intergovernmentalist argument goes, only because France was prepared to agree to meaningful steps toward political integration, which Germany desired in order to obtain an expanded foreign policy role in the context of an EU foreign policy. The fact that EU member states had taken significant steps toward political integration by ratifying the Maastricht Treaty and scheduling another Intergovernmental Conference to elaborate the treaty's political pillar spilled over to the monetary domain.[41] The fact that Germany and France could credibly

[41] Creating deliberate linkages as a strategy for encouraging progress was a theme of Nye (1971).

threaten to proceed without British support won British accession to the Maastricht bargain in the end.[42]

Arguing that monetary integration must be seen as a corollary of the EU's broader program of economic and political integration poses no logical problem for proponents of the interest-group model. For them the analytical task then becomes identifying the interest-group pressures that lie behind Europe's broader integration agenda. Unfortunately, as an empirical matter this is not straightforward. Once the relevant domain is economic and political integration, not just monetary integration, it becomes harder to recover the identity of the relevant interest groups from standard models of international trade and finance.[43] In the absence of strong theoretical guidance for how to identify the relevant interest groups, there is a tendency to specify the model in a way that is not refutable. It is always possible to identify interest groups that favored and opposed a particular initiative, and in the absence of strong theoretical pointers to the null hypothesis, it is tempting to simply assert that their influence must have been key.

D. Ideas, Ideology and Policy Entrepreneurship

[42]Moravcsik (1991) calls this combination of intergovernmental bargaining and structural preconditions that allowed the Franco-German alliance to credibly threaten to proceed without Britain "intergovernmental institutionalism," following Keohane.

[43]And there is the further problem that monetary integration in Europe has proceeded discontinuously, as emphasized in a similar context by Sandholtz and Zysman (1989). One might attempt to salvage the simple interest-group model by arguing that it would have delivered monetary integration in a more linear fashion, with steadily increasing economic integration delivering progressively greater intra-EU exchange rate stability, had exogenous disturbances like German economic and monetary unification not disrupted Europe's financial markets and efforts to achieve policy convergence. This attempt at salvation seems rather tortured; in particular, it seems strange to treat German unification as entirely exogenous to the integration process with which we are concerned.

Political scientists were not slow to fill the gaps in the interest-group model. Sandholtz and Zysman (1989) argued that the relative decline of the United States and rise of East Asian economic power led Europeans to reassess the costs and benefits of regional integration. The instability of the dollar, reflecting imbalances between U.S. monetary and fiscal policies, provided an incentive to create a zone of monetary stability in Europe. The perception that both the U.S. and Japan were creating commercial and financial blocs provided Europe an incentive to do likewise, resulting in neofunctionalist spillovers into monetary affairs. The end of the Cold War eroded the EU-U.S. security alliance, removing restraints on Europe's pursuit of its regional strategy.

While changes in the international balance of economic and political power may have triggered the revival of integrationist sentiment, translating sentiment into action, according to this story, required institutional intervention. This presupposed policy entrepreneurship on the part of the European Commission. Not even national political elites, in this view, had a clear sense of their policy priorities in the post-Cold War, post-American hegemony era. The Commission's role was to mobilize a coalition of governmental elites in support of regional integration. Effective entrepreneurship was made possible in part by changes in domestic structure (the decline or transformation of the left, and the failure of national economic strategies) that can be understood as the response of interest groups to integration. It only remained for policy entrepreneurs to capitalize on the opportunity.

In contrast to the assumptions underlying game-theoretic formulations, then, neither national leaders nor their constituencies "possessed the intellectual means to foresee alternative outcomes, much less rank them" (Sandholtz and Zysman, p.107ff). The preferences of national leaders and their constituencies were incompletely formed, providing scope for them to be shaped by an entity like the Commission. The mechanism it used was a series of technical measures designed to create a fully unified internal market. The successful implementation of theses measures in turn created further integrationist momentum.

In their discussion of the structural conditions that opened the way for the Commission's policy entrepreneurship, Sandholtz and Zysman emphasize the policy failures of the 1970s and 1980s -- in particular, the failure of national economic policy strategies that produced high inflation and unemployment. In France, the manifest failure of the macroeconomic strategy of the first Mitterand Government (whose finance minister was, of course, none other than Jacques Delors) led in the end to a renewed commitment to European integration, partly as a way of providing a friendlier international environment for the kind of policies the French desired. If France could not reflate unilaterally without risking the collapse of the franc, perhaps she could reflate collectively in the context of a strengthened EMS (especially if the EMS provision requiring other countries to provide unlimited support for currencies that fell to the bottom of their fluctuation bands could be taken at face value).[44] Somehow, however, France's rededication to the EMS did more to alter French preferences than to reshape those of her ERM partners (although Sandholtz and Zysman do not explain why).

The role of policy failure and reinterpretation is also evident in McNamara's (1996) analysis of European monetary integration. According to McNamara, the solidification of the

[44] See Pauly (1992). As it turned out, this commitment was not worth the paper it was written on, although this was not fully appreciated until 1992. See Eichengreen and Wyplosz (1993).

EMS and the agreement to strike out for EMU reflected an emerging consensus about the goals and instruments of monetary policy. That consensus was the product of learning by national elites in the inflationary 1970s.[45] In the face of uncertainty about the connections between macroeconomic and regulatory policies on the one hand and currency stability and growth on the other, it became possible for elites to shape political actors' perceptions of the relevant relationships. Cameron (1995) lays particular stress on the role in this process of a transnational coalition of central bankers, a role that was strengthened by decades of EU institution-building through which central bankers had gained access to the channels of influence. These elites concluded that it was not feasible to pursue an activist monetary strategy in a world of integrated financial markets. Here European views may have been influenced by the successful record of the monetarist-oriented German Bundesbank, by the concurrent advent of monetarist monetary policy in the United States, and by developments in economic theory (the Friedman-Phelps expectations-augmented Phillips Curve and the Kydland-Prescott demonstration of the time inconsistency of optimal policy) which provided intellectual justification for the new policy stance. The development of this pan-European consensus rendered the EMS more stable and easier to manage. Cameron's transnational policy elite was similarly able to shape the Maastricht Treaty to its liking, removing one potential source of opposition to monetary unification.[46]

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[45]Hall (1993) makes the same argument for Britain.

[46]It is tempting to appeal to this new policy consensus as a focal point for coordinating the strategies of policy makers in a situation of multiple equilibria. This analogy, developed by Goldstein and Keohane (1993) and Garrett and Weingast (1993), is not entirely satisfactory from the perspective of an economist. The problem is that game-theoretic models with multiple equilibria and focal points assume stable, well-defined preferences, where players do

(continued...)

This approach emphasizing incompletely-formed preferences or incompletely formed understandings of the strategic environment is widely applied by political scientists to the question of European monetary unification. Interests motivate decision making, but, when the issue is something as confusing and complex as monetary integration, they cannot be taken as fully formed from the start. Institutions transmit the influences that help nascent preferences to coalesce.[47]

However appealing this synthesis, it is hard to know how to operationalize it absent a methodology for calibrating its explanatory power relative to alternatives. Those who advocate the interest-group view can pose their arguments in a refutable way (formulating hypotheses of how, inter alia, the magnitude of foreign trade and investment should be correlated with economic policy decisions), and offer formal statistical tests of their arguments, as Frieden (1996) has done in the context of European monetary unification. Those who argue for the importance of institutions can and have done likewise. Those who

[46](...continued)
not know which strategy to pick only because they do not know which one will be picked by their opponents. But what these authors have in mind is something fundamentally different, namely, where agents do not even know their own preferences, or at least how to translate their preferences into actions given assumptions about the behavior of their rivals in the policy game. It seems wise therefore not to push the analogy too far.

[47]Sandholtz (1993) provides a clear statement of this view. “Each member state tries to ensure that EC outcomes are as close as possible to its national interests, but the crucial point is that those national interests are defined in the context of the EC...In other words, the national interests of EC states do not have independent existence; they are not formed in a vacuum and then brought to Brussels. Those interests are defined and redefined in an international and institutional context that includes the EC. States define their interests in a different way as members of the EC than they would without it.”

emphasize the role of ideas continue to have considerably greater difficulty in systematically operationalizing their approach.

IV. Conclusion

Scholars in international relations possess a rich portfolio of theories, hypotheses and interpretations of the factors shaping the interaction of nation states. Some of these will be familiar to economists, including those which take nations as unitary actors whose governments seek to advance the national interest and use game theory to study international interactions; those which disaggregate nation states into interest groups who dictate governments' policy decisions according to the median voter or adding machine models; and those which focus on institutions in shaping domestic and international interactions. Other approaches -- those concerned with ideas, norms, regimes, for example -- will appear more novel. Either way, few economists will question that research in international relations is now informed by a rich variety of suggestive analytical approaches — if anything, a richer menu of theories than mainstream economics itself.

But what international relations lacks from the perspective of economics is close connections between theory and empirical work. It lacks systematic, standardized ways of bringing data to bear on those theories. It lacks a standard methodology with which to assess their explanatory power. The case study remains the dominant testing ground for alternative approaches. As shown in Section III of this paper, this can be a weakness as well as a strength. Case studies are useful for illustrating the practical applicability of abstract reasoning, but they are crude instruments for discriminating among alternative hypotheses and rating their relative explanatory power. Because individual cases, in their richness, are complex, they can always be interpreted in terms of several alternative analytical approaches. And because explanatory variables are correlated, interpretations in terms of one that omit all reference to others will suffer from omitted variables bias and run the risk of spurious correlation. This danger follows inevitably from the case-study approach, since the limited number of cases any one scholar has the energy to master offers limited degrees of freedom for systematic tests.

From the perspective of economics, the task for scholars in international relations is to develop other ways of more formally, systematically and rigorously testing their theories, presumably by pooling cases across countries or over time and taking advantage of the institutional variation in that expanded data set. Having said this, it is important to emphasize that a call for more empirical work should not encourage those who engage in the search for theory-free patterns in the data. Empirical work that degenerates into mindless empiricism will not be progressive, while empirical work that is theory-linked will push the field forward.

It is important to avoid the tendency in economics to take this approach too far by disregarding hypotheses that are not easily quantified and tested and by neglecting one-of-a-kind events whose analysis is not conducive to the application of a general theory or a general test. It is hard to imagine a field of international relations in which unique situations (World War I, Nazi Germany, post-World War II European integration) were excluded because there existed an inadequate group of other, somehow comparable, situations on which to base cross-section analyses.

This, then, is not a plea to study classical statistics or the econometrics of panel data. Nor it is a plea for political scientists to necessarily engage in more large-scale empirical work (some would say “mindless data mining”). It is a suggestion that the field needs to move in the direction of formulating parsimonious models and clearly refutable null hypotheses, and toward developing empirical techniques that will allow those hypotheses to be more directly confronted by the data. This, admittedly, is easier said than done.

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