Logical conditions Either version of hegemonic stability theory can apply only to issue-areas that satisfy several technical and political assumptions. Indeed, such coercion may be relatively easy to accomplish since members of the international system will accept coercion as "legitimate" provided that they remain net beneficiaries. It is not unrea- sonable to view the coercive leader in terms of its ability to render the nonexclusion property of public goods irrelevant, since it extracts contri- butions directly without recourse to any intervening property rights.25 The nonexclusion assumption will therefore be inappropriate in many issue-areas. Indeed, much international effort is directed toward finding means of exclusion. States often seek to resolve problems of public goods provision by devising techniques to restrict benefits to contributing states. For example, they extend tariff reductions or rights of innocent passage only to states that reciprocate. In such cases, cooperation may well be attained without a heg- emonic power. In addition to these two public goods assumptions, hegemonic stability theory contains a third, virtually hidden, assumption: collective action is impossible. This pessimism regarding the prospects for collective action among states, however closely they are allied, is well demonstrated in Kindleberger's negative assessment of the likelihood of Japan and West Germany overcoming their private interests to collaborate with a (less than dominant) United States in providing collective economic leadership.26 Such a view is necessary to the theory, for if collective action is possible then states might cooperate to provide public goods in the absence of hegemonic power. If it is not possible, then only a hegemonic actor (if the system is lucky enough to have one) can provide the good because only it can act unilaterally to provide the good or to coerce other states into contributing, or both. This "impossibility of collective action" stems from an incorrect under- standing of the realist assumptions that underlie the theory of hegemonic stability. Since subordinate states are "forced" to contribute, their contribution cannot be taken as evi- dence of benefits. Indeed, the very distinction between regimes that provide net benefits and have a basis of legitimacy and regimes that are purely coercive and exploitative becomes a major difficulty. Such distinctions nec- essarily require close examination of particular issue-areas, although even then different interpretations (e.g., neoclassical versus imperialist interpre- tations of open trading regimes) may be confounding. (Numerous other technical properties of a good may be relevant in specific issue-areas. Is a good "lumpy"--can it be provided only in large chunks? With a bit of ingenuity, of course, the "provision" of a market (or of a division of labor) could be designated as the relevant public good, but when all is said and done, such fancy footwork may be more confusing than clarifying. Public goods originally became of interest in economics because they pose a different set of problems from private goods. Similarly, public goods analysis is useful in international analysis insofar as it helps us to identify and analyze a distinct set of problems, not because it provides a new language for old ideas. This digression would be unnecessary were it not that analysts sometimes mistake the existence of joint gains from international cooperation for proof of the preexistence of jointness and public goods. In particular, the estab- lishment of the "regime" itself is often taken to be a public good. This inability to enforce property rights depends partly on the technical characteristics of the good, while the nature of the political order in which they are produced will be of paramount importance.24 The absence of cen- tralized coercive authority in the benevolent leadership model severely re- stricts the capacity of states to enforce property rights over goods to which they contribute. This assumption generates insights

when the primary problem is establishing some regime to govern interaction between states and the matter of which regime (i.e., which particular set of rules and conventions) to establish provokes relatively little dispute. The broader definition of jointness is useful for expanding the realm of the analysis, but it is essential to emphasize that not all situations of joint benefit involve jointness and not all instances of cooperation involve the provision of public goods. Exceptions will occur only where the process of exclusion itself interferes with provision of the good (which is often argued to be the problem with exclusionary trade agreements or in excluding alliance members). Sub- ordinate states will understate their evaluation of the good as part of a strategy of free riding; hegemonic states will manipulate their pronouncements and level of provision to encourage other contributions. Unless hegemony is defined solely in terms of interest in the good and not at all in terms of ability to dominate relations with other states, a hegemonic actor is likely to be able to enforce at least partial exclusion from the good. But typically we would expect a hegemonic power--even in the benevolent leadership model-- to have some minimal ability to exclude other states and for the regime's institutional arrangements to reflect this ability. In the coercive leadership model the hegemonic actor, regardless of whether it is able to enforce exclusion, will be capable of coercing others to contribute to the provision of the good. And, except in the implausible case of the constant-sum interaction (which is in fact already ruled out by the assumption of jointness), they may well find it advantageous to pursue their self-interest through collaboration. More typically, being taken advantage of imposes considerable costs (which certainly merit caution), but such risks are not unbearable for states and are often warranted by the incentives offered by the possibility of cooperation. (These restrictions apply to both strands of the theory since both depend on assumptions per- taining to the provision of public goods.) The first condition for a public good is the purely technical one of jointness. Thus hegemonic regimes that are exploitative would not satisfy the property of jointness, since benefits are not shared in common but are redistributed from one state to another. Unless there is widespread agreement on particular regime in- stitutions, the presence of a regime will not itself suffice to ensure the presence of jointness.23 Assessing jointness within any regime or issue-area is inherently difficult. In the benevolent leadership model the assessment is complicated by the strategic incentives of states to misrepresent their true preferences. Instead of taking advantage of cooperators, states increasingly find it in their interest to reciprocate cooperation, especially under the con- ditions of growing interdependence observed in the postwar years. These conditions facilitate self-enforcing cooperative agree- ments since the incentive not to cooperate on a given issue at any point in time must be weighed against the costs inherent in these reactions. My analysis in section 3 will assume that these conditions are met, in order to focus on the important political assumptions pertaining to the nature of strategic interaction in the presence or absence of a dominant state in the international system. Thus, except as noted below, I treat goods as pure, continous public goods.) The second key property of public goods, nonexclusion, concerns the in- ability of states to prevent noncontributors from benefiting from the collective good. Here, however, I review the conditions that pertain to public or collective goods, emphasizing the limitations that they impose on the range of the theory's applicability. Strictly defined, jointness requires that different states be able simultaneously to consume the same produced unit of a good. A broader definition entails only that all members of an international system simultaneously benefit

from the provision of some group or collective good.But as distributional questions (i.e., which order?) become important relative to pure efficiency considerations (i.e., any order rather than chaos), the public goods assumptions become less tenable.Realism argues that states can be treated as unitary (rational) actors engaged in the pursuit of national self-interest.Alternatively, the impossibility of collective action might stem from a misunderstanding of realism's assumptions about the nature of the inter- national political environment.In addition, since most issues are continuous through time and reputations for reliability are linked across issue-areas, states face changed incentives.In these new circumstances the traditional international anarchy, with its lack of centralized enforcement, need not preclude international collective action.27 It does not follow that collective action will always result when the possibility for joint gains is present.Collective action will depend on a host of relevant circumstances (e.g., likely continuation of the issue through time, nature of linkage to other issues, existence of relevant regime rules or conventions).The technical as- sumptions require the issue to fulfill the relevant conditions of a public or collective good.The obvious illustration comes from the neoclassical ideal world where exchanges of purely private goods have the potential to make all members of society better off.In particular, realism emphasizes the lack in international politics of any centralized authority that can guarantee per- formance on commitments to cooperate.This difficulty is heightened by the fear that other states will take advantage of cooperative behavior in ways that will be ruinous for cooperating states.However, this characterization does not adequately describe all of international politics-- especially as it pertains to economic and nonsecurity issues.The result is a need to broaden the realist notion of rationality beyond the simple pursuit of immediate self-interest.States are better characterized by strategic rationality, which takes into account the likely reactions of other states as well as the pursuit of interests across a wide range of issues and through time.The benefit that one state receives must neither be seriously impaired by another state's enjoying the good nor come at the expense of another state's enjoyment.(A more institutionally relevant example is the corresponding social organization into a division of labor.) Joint gains result, but no public goods are involved.Do rules pertaining to sovereignty or other activities of states limit or structure the nature of cooperative actions?Although these questions are important in specific issue-areas, I set them aside here in favor of more general issues pertaining to hegemonic stability.If the good is to be provided in such cases, then attempts to control its exclusion will not be feasible.It will also be affected by many of the same factors associated with the relative rise and decline of states.If the question can be reduced to one of order or chaos--whether a choice between a particular military order and war or between one particular international economic arrangement and its break- down--then a regime is surely a group good.In the coercive leadership model the problems are even more severe.Are there differences between start-up and maintenance costs for a good or regime?However, the impact of this restriction will hinge directly on the basis of the hegemony.Nothing in realism's assumptions about states would rule out collective action.First, consider the assumptions made about states as actors.In this pursuit they will sometimes find it advantageous to take actions that harm other states.But this rationality does not prevent states from collaborating when that is in their best interest.If such were the case, then collective action would surely be doomed to fail.Only a few issues between states are of such a life-and-death nature that elimination from the international system is at

stake.Important classes of international issues do not meet these conditions.