NOTES

1. For purposes of simplification I use the term *liberal* here to refer to what Keohane (1993) terms *commercial liberals,* although liberals do not necessarily fit comfortably under a singular rubric. As Keohane states, "Commercial liberalism and republican liberalism—the belief that economic interdependence contributes to peace and that democracies are more peaceful, at least in some relationships, than nondemocracies—have long been important strains in liberal thinking" (271).

2. Hirschman ([1945] 1980, 10–11), provides a discussion of alternative views about whether trade itself constitutes mutual dependence.

3. "Sensitivity refers to the openness of a country to changes in other countries that are transmitted by a mutual interaction, vulnerability refers to the effects of changes in rules or policies" (quote from Gasiorowski 1986a, 24; see Keohane and Nye 1977, 12–13).

4. See Blumenfeld 1991 for an excellent assessment of the problems associated with the schools of thought and foreign policies promoting a strict dichotomy between notions of interdependence and dependence.

CHAPTER 2

1. It is important to note the distinctions in the way that classical and contemporary liberals portray the optimal role of the state. From a classical liberal perspective, permitting individuals and firms to pursue their interests is seen as the primary way in which the state can maximize national and global welfare. The literature tends to characterize classical liberalism as entailing a minimalist state in economic matters, but often overlooks the security functions ascribed to the state by classical liberals.

2. For a comprehensive history of this and related economic thought see Spiegel 1991; see de Wilde 1991 for a history of the interdependence tradition in political science.

3. An extensive review of trade theory is beyond the scope of this study. Interested readers should consult Bhagwati 1996, Kenen 1994, Takayama 1972, and Viner 1937 for an introduction to the literature.

4. See Sayrs 1990 for an extensive critique of Polachek's model.

5. See Baldwin 1985 for a discussion of various types of economic statecraft, including trade that may be used to substitute or supplement military options.

6. For a comprehensive review of dependency schools of thought see Blomström and Hettne 1984.

7. Advocates of South-South economic unions may view less significant, but

equal, economic linkages as a greater force for peace than are extensive relations under the guise of unequal exchange. According to this latter view, the linkages among developing states would eventually expand, providing increasing benefits (economic and political) in the long run and breaking the cycle of dependence on developed states.

CHAPTER 3

1. A comprehensive review of the theoretical and empirical findings concerning all the causes of interstate conflict and cooperation is beyond the scope of this study. Recent distillations of this literature include Bremer 1992b; Bremer and Cusack 1995; Geller and Singer 1998; Levy 1985, 1989; Midlarsky 1975; Vasquez 1993, 2000.

2. Most scholars agree that trade affects conflict and conflict affects trade, but vary over which relationship is dominant. Studies examining the mutual influence of trade and conflict include Polachek 1992 and Reuveny and Kang 1996. Barbieri and Levy (1999) examine the impact of war on trade and find variations across dyadic relationships. At the system level, Mansfield (1994) finds that war reduces trade.

3. Other scholars provide evidence of an inverse relationship between trade and political relations at the dyadic level, but view causation as flowing from politics to trade patterns (Dixon and Moon 1993; Gowa 1994; Pollins 1989a, 1989b).

4. Russett (1967) also provides evidence that increased trade leads to increased conflict during the post–World War II period. However, his study is primarily concerned with intraregional trade and conflict.

5. For example, empirical findings reveal that the impact of democracy varies at the monadic, dyadic, and system levels. The same may be true of trade, despite the cross-level predictions often associated with it.

6. In this study, interstate system membership is defined by the Correlates of War (COW) Project (Small and Singer 1982; Singer and Small 1994).

7. Details about my trade data project are discussed in appendix A.

8. When data were available from other sources, the IMF reports of zero trade were replaced with positive trade-values. I found no difference in the empirical results obtained by excluding, then including, the IMF's zero trade-values. In no cases did I substitute a value of zero for the missing trade-value codes.

9. Studies that assess the impact of trade on net conflict generally take the value of conflictual events minus cooperative events and are derived from Azar's *Conflict and Peace Data Bank* (COPDAB) (Azar 1979, 1985; Azar and Eckhart 1978; Azar and Havener 1976).

10. I refer to MIDs with the terms *dispute* and *disputes.*

11. The dependent variable, dispute, is really an event count, since it is conceivable that dyads may experience more than one dispute in a given year. Thus, a case could be made that an event-count model should be used in this analysis. I chose to dichotomize dispute, since the probability that a dyad would experience more than one MID in a given year is extremely small, and the occurrence of a second dispute

would probably be in violation of the assumption of independence between events. In addition, I argue that engaging in at least one dispute is sufficient to violate the trade-promotes-peace hypothesis.

12. Trade data for the pre–World War II period were derived from a database constructed by the author (see appendix A). For the post–World War II period, the International Monetary Fund's *Direction of Trade Statistics* (1991) was the primary data source. These data were made available by the Inter-university Consortium for Political and Social Research (ICPSR 7628) and were supplemented by a number of sources discussed at greater length in appendix A. The majority of data for GDP figures were obtained from World Bank 1995.

13. I calculate symmetry by one minus the absolute value of the difference of the two trade shares. The absolute value is used to reflect the irrelevance of the order in which the two trade shares are introduced into the equation, while subtracting this difference from one establishes the directional influence of the measure.

14. My desire to address the problem of multicollinearity was motivated, in a large part, by the comments of reviewers, who believed that using an interaction term that was highly collinear with the salience variable produced questionable empirical findings. However, I believe Friedrich (1982) offers a compelling case for including multiplicative terms that are highly collinear with one of their component elements. The findings presented here and those obtained when employing a non-standardized interaction term produce substantively similar findings.

15. Aitken (1973, 882) suggests that neighboring countries are expected to have an additional stimulus to trade because of the similarity of tastes and awareness of common interests. See Arad and Hirsch 1981 for a discussion of the ability of trade to promote peace among belligerent contiguous states.

16. Bremer (1992b) finds that geographically proximate states are the most likely to engage in militarized conflict. For summaries about the relationship between geography and conflict, see Goertz and Diehl 1992 and Gochman 1992. See Vasquez 1993 on the theoretical significance of this relationship.

17. I use the version of the contiguity data set that was revised by Philip Schafer in 1993.

18. In preliminary analyses I measure the influence of four separate categories of geographic proximity on conflict separately: (1) direct land contiguity (shared borders); (2) direct contiguity by sea (up to 150 miles of sea border); (3) indirect contiguity by land (shared border); and (4) indirect contiguity by sea (up to 150 miles). No significant difference in the trade-conflict relationship was identified across these separate categories.

19. See Ray 1995 and Chan 1997 for comprehensive reviews of the empirical literature on the democratic peace.

20. Rummel (1983, 1985) classifies states as libertarian only when economic freedoms exist, making it impossible to discern whether it is the political or economic ties that are responsible for his findings.

21. The addition of ten eliminates negative values from the index.

22. Gowa finds no significant relationship between alliance ties and trade pat-

terns in the pre–World War II period, but this may simply be explained by the small size of her sample. A stronger pattern relationship between alliances and trade might reveal itself in an investigation of a broader sample of relationships.

23. Bremer (1993, 237) finds that a dichotomous measure of alliance ties is sufficient to capture the effect of alliances on conflict, although slight variations exist in the effect of different alliance types.

24. Alan Sabrosky revised the version of the data set used.

25. All analyses were conducted using Stata 5.0 (Stata Corporation, 1996). For information about logit regression analysis and the interpretation of results, see Aldrich and Nelson 1984, King 1989, and Liao 1994.

CHAPTER 4

1. For discussions of ordered logit analysis, see King 1989; Liao 1994; Maddala 1983; Greene 1993; Zavoina and McElvey 1975.

CHAPTER 5

1. Data for the period 1869 through 1970 were taken from U.S. Bureau of the Census 1975, Series E 135, 210–11. These data were supplemented for the years 1960 through 1994 with data from the *World Almanac* and *Book of Facts* (1995, 492). See Barbieri and Bremer 1998 for a more complete discussion of this adjustment procedure.

2. Papayoanou (1997, 1999) also considers nontrade ties in evaluating economic interdependence between the major powers prior to World War I.

3. As discussed in appendix A, I rely on reports from each partner in deriving the dyadic measures. Therefore, the figures reported below might vary from published reports that rely on the statistics reported by one country. As I also discuss in appendix A, the data reported below are derived from several publications, and inconsistencies in reports of trading partners and across publications are common.

4. See Barbieri and Levy 1999 for a discussion of trade between enemies during and after the war. There, I argue that trade ties between wartime adversaries might expand once the war has ended. Some notable examples are seen in the United States' relationships with Japan and Germany. Again, we must consider the fact that trade dependence might still decline relative to earlier periods, since all states in the post–World War II period are better able to divert trade patterns more easily than they were in earlier periods of history.

APPENDIX A

1. Yates (1959, chap. 2) provides a comprehensive discussion of problems posed by trade data limitations.

2. Comparisons were made to empirical results obtained by excluding and including major war years, and no significant differences were observed.

3. Information about the *Polity II* exchange rates was acquired through a telephone conversation with Gurr (approximately April 1994). He informed me that the majority of exchange rates found in the database were originally collected by the COW Project. However, some revisions were made to the COW figures, but these cases are not documented in the Codebook. Philip Schafer (telephone conversation, April 1994), who works on the COW Project, informed me that the COW exchange rates were collected from *The Statesman's Yearbook.* When currency names were missing, I could assume that they corresponded to the names listed as the national currency with the yearbook. Unfortunately, I uncovered many instances where the exchange rates reported in *Polity II* did not correspond to the rates appearing in *The Statesman's Yearbook.* It is unclear whether these discrepancies correspond to the adjustments made by Gurr or whether they include an error in reporting. Since the answer was unclear, I choose to rely on alternative sources for exchange rates when currency names were absent from *Polity II.*

4. Some of these sources were also used for the pre–World War II period.