APPENDIX A

Counting Wars in Nuclear Monopoly

In this appendix I first discuss in more detail how I generated the list of wars and disputes used in the conclusion chapter.[1] Counting conflicts involves a number of decisions that can influence the results. I therefore next present several sensitivity analyses for the conclusion results using alternative lists of conflicts and relative capability thresholds. With one exception, discussed below, the results are robust to alternative specifications. That change in results reinforces my basic argument by highlighting that power asymmetries in the overall war favor the nuclear weapon state (NWS) side. The last section then shows that a powerful nonnuclear weapon state (NNWS) is not more likely to win disputes prior to fighting.

I took the basic list of wars from the May 2018 Correlates of War (COW) Interstate War Dataset available on the COW home page. I follow standard practice and count only the first year of each war. For example, the COW dataset codes the United States at war with China in 1950, 1951, 1952, and 1953. I count only the war onset in 1950 and drop the years 1951–1953. When large US-led coalition wars occurred in nuclear monopoly (Korea, Vietnam, Gulf, Iraq 2003) I excluded warring dyads between nonnuclear weapon states unless they were major independent participants in the war.[2] Including all the other dyads in these coalition wars as examples of NNWS-NNWS interactions would be problematic because many of the states without nuclear weapons would not have fought absent the presence of the United States. Moreover, the additional states fought on the side of the nuclear power(s), further enhancing NWS capabilities against the nonnuclear opponent.

I used the May 2018 dyadic Militarized Interstate Disputes (MIDs) to capture political disputes that might escalate to war in order to generate the percentage of disputes that escalated across different power balances. The MID coding decisions do not affect the basic comparison of median power ratios and war. I again count only the first year of each individual MID but do not drop subsequent years if an MID is ongoing. For instance,

the United States and China experienced a militarized dispute beginning in 1949 that continued into 1950 (no. 634). The two nations then had two more disputes in 1950 (nos. 633 and 51). In this case I counted three militarized disputes: one in 1949 (634) and two in 1950 (633 and 51). This captures the intuition that each dispute was a potential opportunity for war, and one in fact became the Korean War. There is thus a subtle difference with many dyadic conflict studies. In those studies, only one MID is counted per year, even if two states experienced numerous disputes in the same year. In cases where a MID began in one year but escalated to war in the next year I use data for the year that the dispute escalated to war. For example, I count both the war and MID for the Gulf War between the United States and Iraq in 1991, even though the MID that became the Gulf War began in 1990. In other words, I do not consider the MID in 1990 to be a separate opportunity for war. This avoids erroneously claiming a dispute did not escalate to war when in fact it eventually did. I do not count any MIDs that occur during an ongoing war because these could not escalate to war since the countries were already at war. Thus I do not count any MIDs between the United States and China in 1951, 1952, or 1953.

I use three alternative lists of wars to assess the robustness of the median power ratios. I find that the basic results from the conclusion chapter do not change. Figure A.1 includes all warring dyads in US-led nuclear monopoly coalition wars. Figure A.2 reports the results using the alternative war dataset generated by Reiter, Stam, and Horowitz, which ends in 2007.[3] It drops the Korean War as a nuclear monopoly war because they code the Soviet Union as a participant. Figure A.3 excludes wars involving Israel and uses only the CINC measure, which was an outlier in the conclusion. In two

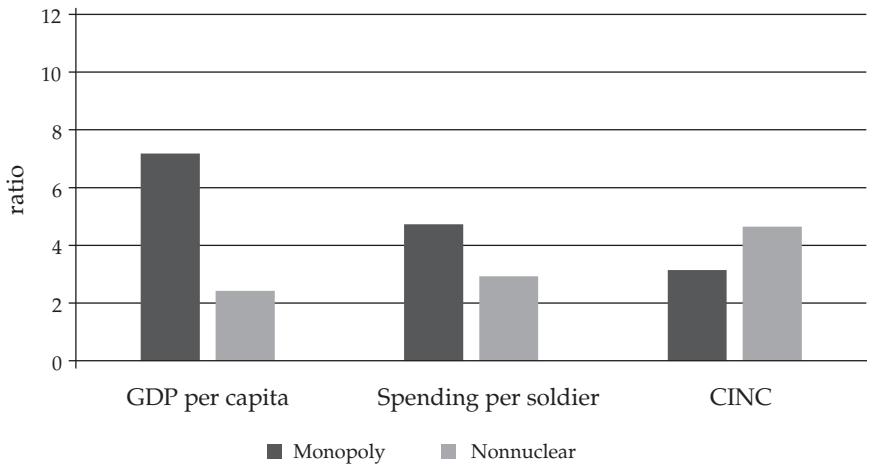

Figure A.1 Median capability ratios by nuclear balance—all warring dyads, GDP per capita data, 1950–2010; spending and CINC, 1816–2010

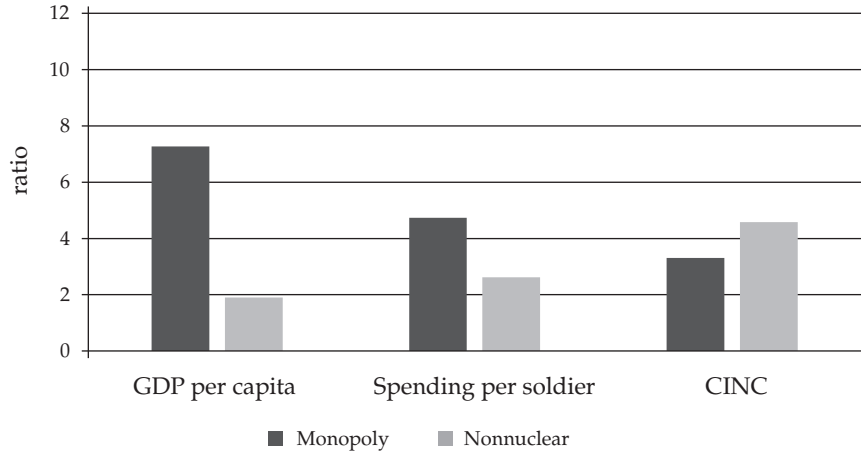

Figure A.2 Median capability ratios by nuclear balance—alternative war measure, GDP per capita data, 1950–2007; spending and CINC 1816–2007

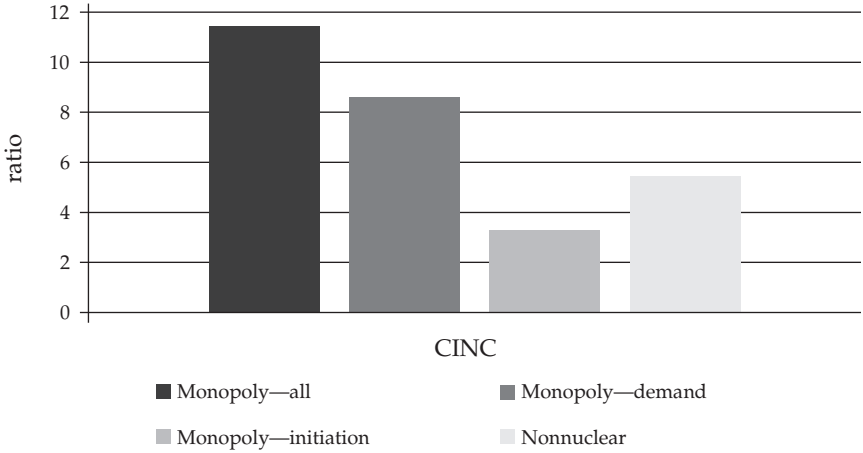

Figure A.3 Median capability ratios by nuclear balance, excluding Israel, 1816–2010

of the three nuclear monopoly lists the median ratio is now larger than in wars between two nonnuclear states.

Next, I include the additional warring dyads in US-led coalition wars in nuclear monopoly (figure A.4) to examine the percentage of MIDs that become wars. The results for the spending measure are similar to those in the conclusion chapter. The pattern for wars between two nonnuclear weapon states does noticeably change for per capita GDP, though. The reason and direction of the change are consistent with my argument's underlying logic and an artifact of using dyads. Specifically, every new

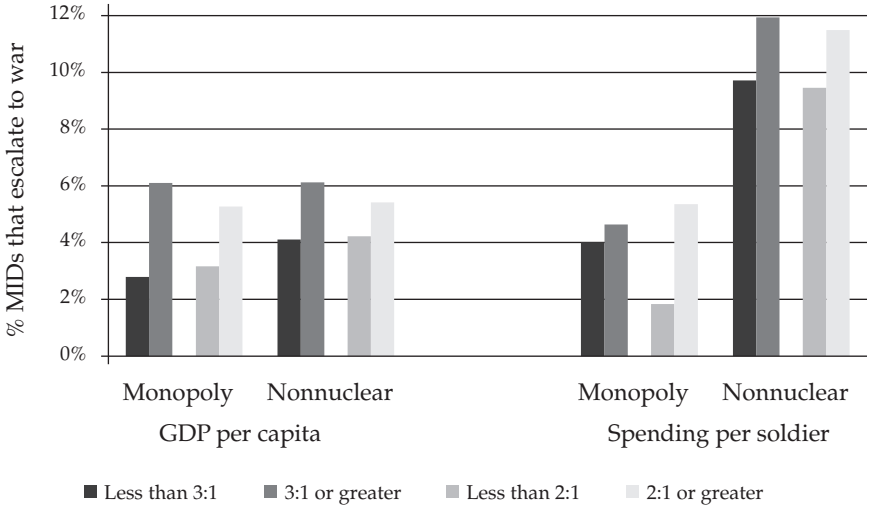

Figure A.4 Percentage of disputes that escalate to war using all warring dyads, GDP per capita data, 1950–2010; spending and CINC, 1816–2010

nonnuclear-versus-nonnuclear dyad with a power imbalance greater than 3:1 occurs when the stronger nonnuclear state is fighting on the side of the United States. In the few cases in nuclear monopoly wars when the nonnuclear state had an advantage over another nonnuclear state on the nuclear state's side, the advantage was less than 3:1. For example, Figure A.4 includes a warring dyad between nonnuclear Britain and nonnuclear North Korea in 1950. Britain had a nearly 8:1 advantage in per capita GDP over North Korea. This shows up as an asymmetric dispute between two nonnuclear weapon states escalating to war. In reality, it is an NNWS fighting alongside an NWS, which results in an even greater NWS advantage against the NNWS. Thus while the other results are robust to alternative coding decisions, in this instance they are sensitive but in a way that reinforces the original coding decision to exclude these dyads in order to best assess the difference between wars in nuclear monopoly and wars involving only nonnuclear weapon states.

Finally, I examine the median capability ratios in disputes that the nonnuclear state wins versus those that it loses. My argument predicts that wars in nuclear monopoly are more likely when the NNWS is weak, because it poses a smaller danger to the NWS that minimizes the risks of nuclear strikes. An alternative explanation might be that this pattern occurs because a powerful NNWS is likely to win a dispute against an NWS prior to war. Therefore, war is unlikely to occur in those situations. Weak nonnuclear states, by contrast, may have no recourse but to fight, because the nuclear opponent will otherwise dismiss their demands. The MIDs dataset

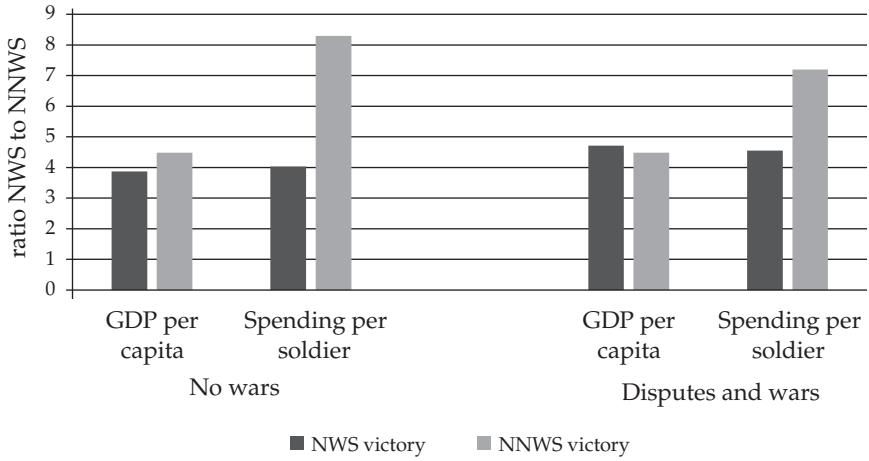

Figure A.5 Median capability ratios and dispute victors, GDP per capita, 1950–2010; spending per soldier, 1946–2010

codes dispute victories, which provides the ability to assess one observable implication for this alternative argument. Specifically, in disputes against nuclear-armed opponents, we should observe the power ratio to be more favorable to nonnuclear weapon states when they win than when they lose. COW codes victory in the last year of a dispute in contrast to the rest of the analysis, which focuses on the first year of a dispute. As a result, the results are not fully comparable, although the vast majority of disputes begin and end in the same year. I follow Maoz et al. and code a state as winning if the dispute ends in its victory or the other side yielding.[4] I code all other outcomes as draws.

Approximately 90 percent of the disputes ended in a draw; neither side did much winning. Not surprisingly, the NWS won twice as many disputes that didn't escalate to war as the NNWS (forty-one to twenty). Surprisingly, though, the median ratio for spending per soldier shows that the NWS had a smaller advantage when it won a dispute compared to when it lost (figure A.5). The median NNWS that won was at an 8:1 disadvantage, while the median NNWS that lost (meaning an NWS victory) was at a 4:1 disadvantage. In other words, when a NNWS did manage to win, the power ratio for the NNWS was actually less favorable than when it lost using this measure. Using per capita GDP, there is little noticeable difference when the NNWS wins versus when it loses. The NNWS is at approximately a 4:1 disadvantage when it loses (NWS victory) and a 4.5:1 disadvantage when it wins (NNWS victory). Including the victor of disputes that escalated to war does not meaningfully alter the findings. These results should be treated with some caution, given the small numbers and difficulties coding victory

and defeat. Yet they suggest that powerful nonnuclear weapon states winning disputes without having to fight is not the reason for observing the pattern that wars in nuclear monopoly tend to be fought when the NNWS is conventionally weak relative to the NWS. Most disputes end in draws, and while nonnuclear weapon states lose more overall, those that do win are as often, if not more often, weak nonnuclear weapon states rather than powerful ones.