

Abstract

This undergraduate thesis delves into the intricacies of the semiconductor industries in the United States and China, with a focus on how both nations balance national security concerns with their roles in the global semiconductor supply chain. Using comparative analysis, this research explores how the U.S. and China craft and implement regulations that reflect their distinct priority—securing national interests. The study emphasizes how export controls are shaped by security strategies, resulting in competitive rather than collaborative approaches. Furthermore, it highlights the essential role of semiconductor chips in modern technologies and the potential disruptions caused by this geopolitical rivalry. The thesis argues that the competitive strategies employed by both nations, rather than fostering mutual benefit, may contribute to fragmentation in the global semiconductor ecosystem, exacerbating tensions between the two superpowers. This research underscores the broader impact of this competition, not only on global technology but also on international relations, as both countries prioritize dominance over cooperation in this critical sector.