In WTO We Trust?

International Institutions and Domestic Interactions

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Summary

International institutions do matter, both theoretically and empirically, to cooperation in world politics. In line with recent progress of liberalism and institutionalism on the plausible roles of international institutions in shaping domestic interactions, at least two questions need to be answered. Are international institutions like GATT/WTO reliable in promoting domestic cooperation and reducing internal conflicts? What kinds of roles can these “secondary rules” in international politics play in the domestic arena?

In order to answer these questions, this dissertation aims to depict a more elaborate image between the dynamics at international level and the outcomes at domestic level. It tries to bridge the theoretical divide between international institutions as macro structures with the interactive behaviors of domestic actors as micro indicators. It also attempts to integrate key elements of international relations theories from rationalist and constructive approaches in explaining this long and sophisticated causal link.

With the aim of examining the effects of international institutions on domestic actors’ behavior choices among their interactions, it builds an integral theoretical framework and employs Contest Success Function (CSF) to design mathematical models from both structural and processual perspectives. Game-theoretical calculation and data simulation are applied to explore the propositions of the mathematical models. After that, two empirical tests are conducted to measure the effects of international trade institutions (GATT/WTO) on domestic political conflicts by applying statistical methods including logit regression, regression discontinuity design (RDD), and propensity score matching (PSM), etc.

After the introduction of research questions and the literature review on the causal link of diverse actors and various issues across different levels, it goes
beyond “two-level games” and constructs a “two-plus-level model” in Chapter 2 by disaggregating international institutions, operationalizing the black-box of state actor, and applying CSF as the essence of the theoretical framework and models. It describes key parameters and causal mechanisms of international institutions posing impacts on domestic groups that may select different behaviors during their own interaction towards cooperation or conflicts. In addition to structural explanation, this dissertation regards the influence of international institutions as a 4-stage process both by itself and by the relational interaction between international institutions and given state actors. The process perspective further differentiates the roles of key elements of international institutions, i.e. rules and versus norms, between exogenous phases and endogenous phases.

Subsequently, the effects of international institutions on domestic actors’ behaviors and interaction are modeled from both structural and process perspectives on the basis of CSF. Chapter 3 provides three sets of methods to solve the equilibriums and explore the impacts of parameters on both actors’ expected payoffs from conflict and cooperation behaviors, including Nash equilibrium, social norm/custom models, and data simulation. On the one hand, the interplay of international and domestic institutions is confirmed to be crucial in determining the interaction behaviors of domestic actors by Nash equilibrium solutions in a symmetric circumstance with complete information. After the norms of international institutions are internalized, they would update the institutional effectiveness, affect the success probability, increase the moral costs on wrongdoings, and might cause a “snowballing effect” in some situations. Data simulation provides about 27 million observations, which confirms previous findings on institutional interaction and demonstrates the significance of relevant parameters in different configurations. However, the connection between conflict dimension of domestic institutions and provoking aspects of international institutions is further clarified rather than the peace dimension.

In respect to empirical tests in Chapter 4 and Chapter 5, it firstly discusses the -IV-
relations between international trade institutions and domestic armed conflicts from 1946 to 2009. RDD results show GATT/WTO membership can pacify the risk and frequency of conflict incidence; but the pacifying effects are more significant within a 2-year lead-time and 5-year lagged time according to current data. And by using logit regression, GATT/WTO involvement has a mixed and conditional effect on the incidence of conflict. It implies both membership by itself and recent negotiation rounds with higher liberalization degree have a provoking effect while higher institutionalization degree and long adaptation time have a pacifying effect. PSM is subsequently applied to clarify the causal relation by assigning treatment and non-treatment samples and to extend domestic armed conflicts to more general categories. PSM results indicate GATT/WTO treatment can significantly provoke the frequency of domestic political conflicts while slightly but positively affect the incidence of political violence and societal Major Episodes of Political Violence.

In the end, this dissertation generally summarizes key findings, prescribes some theoretical and policy implications, and then provides some unanswered questions that need further investigation in the future.
Zusammenfassung


Um diese Fragen zu beantworten zeichnet die Dissertation ein elaborierteres Bild der Dynamiken auf der internationale Ebene und den innerstaatlichen Ergebnissen. Sie überbrückt die theoretische Trennung zwischen internationalen Institutionen als Makrostrukturen und dem interaktiven Verhalten innerstaatlicher Akteure als Mikroindikatoren. Die Arbeit strebt zudem danach zentrale Elemente der Theorien internationaler Beziehungen rationalistischen und konstruktivistischen Charakters in der Erklärung dieses langen und komplexen Kausalzusammenhangs zu integrieren.

Mit dem Ziel die Effekte internationaler Institutionen auf die Verhaltensentscheidungen in den Interaktionen substaatlicher Akteure zu untersuchen, entwickelt die Arbeit einen umfassenden theoretischen Rahmen und verwendet Contest Success Functions (CSF) zur Entwicklung mathematischer Modelle aus struktureller und prozessualer Perspektive. Spieltheoretische Berechnungen und Datensimulationen werden angewandt um die Prämissen der mathematischen Modelle zu untersuchen. Anschließend werden zwei empirische Tests vorgenommen, welche den Effekt von Institutionen internationalen Handels (GATT/WTO) auf innerstaatliche politische Konflikte messen. Dabei finden statistische Methoden wie Logit Regression, Regressions-Diskontnuitäts-Analyse...

Zusammenfassung


Abschließend fasst die Dissertation die Hauptergebnisse zusammen, bestimmt Implikationen theoretischer Art und für die Politikpraxis, und zeigt einige unbeantwortete Fragen auf, die weitere Forschung in der Zukunft erfordern.
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List of Abbreviations

ATE       Average Treatment Effect
ATT       Average Treatment Effect for the Treated
ATU       Average Treatment Effect for the Untreated
CIs       Confidence Intervals
CNTS      Cross-National Time-Series Data
CSF       Contest Success Function
CU        Customs Union
DFID      UK Department for International Development
DV        Dependent Variable
EIA       Economic Integration Agreement
EU        European Union
FTA       Free Trade Agreement
GATS      General Agreement on Trade in Service
GATT      General Agreement on Tariffs and Trade
GDP       Gross Domestic Product
IGO       Intergovernmental Organization
IMF       International Monetary Fund
IOs       International Organizations
IPE       International Political Economy
IR        International Relations
ITO       International Trade Organizations
ITTC      Average Effect of Intent to Treat at the Cut-point
IV        Independent Variable
LATE      Local Average Treatment Effect
LDCs      Least Developed Countries
MEPV      Major Episodes of Political Violence
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>MRG</td>
<td>Minority Rights Group</td>
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<td>NAFTA</td>
<td>North American Free Trade Agreement</td>
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<td>NGO</td>
<td>Non-Governmental Organization</td>
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<td>PRIO</td>
<td>Peace Research Institute Oslo</td>
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<td>PSM</td>
<td>Propensity Score Matching</td>
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<td>PTAs</td>
<td>Preferential Trading Arrangements</td>
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<td>RDD</td>
<td>Regression discontinuity design</td>
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<td>RTA</td>
<td>Regional Trade Agreements</td>
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<td>TRIPS</td>
<td>Trade Related Aspects of Intellectual Property Rights</td>
</tr>
<tr>
<td>UCDP</td>
<td>Uppsala Conflict Data Program</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Programme</td>
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<td>US</td>
<td>United States</td>
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<tr>
<td>WTO</td>
<td>World Trade Organization</td>
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Chapter 1: Introduction

1 Introduction: Motivations, Findings, and Arrangement

_Governing a large country is like steaming small fish._

——Lao Zi

In the era of globalization, the interactions among different actors across the state level turn widespread. The roles of international institutions should be seriously considered because globalization can be “not disconnected” from international institutions (Milner, 2005, p. 841) while international institutions are built to handle the problems of globalization (Coglianese, 2000). As the “powerful shapers” of state behavior (Joyner, 2005, p. 247), can international institutions affect domestic actors on their behaviors and interactions? If yes, to what extent and in what ways could international institutions (like international trade institutions) as “secondary rules” (Koh, 1997, p. 2616) exert this kind of influence?

In specific, General Agreement on Tariffs and Trade (GATT) and World Trade Organization (WTO), as one example of institutional liberalism, has been anticipated to bring both economic propensity and social stability at the domestic level by policy makers and theorists (GATT, 1994b; Keohane, 2012; Lipson, 1982). Can GATT/WTO be a reliable policy tool in bringing domestic peace and cooperation among domestic groups? To what extent and in what ways can GATT/WTO shape conflict or peace at the domestic level?

In this vein, this chapter firstly introduces three key motivations to conduct this study about the plausible effects of international institutions on shaping domestic interactions and behaviors; subsequently, it briefly displays a few theoretical and empirical findings; and lastly, the introduction shows the structure of chapters in this dissertation.

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1 Original text is _Zhi Daguo, Ruo Peng Xiaoxian_ (治大国，若烹小鮮), which is excerpted from _Daodejing (Classic of the Way and the Life Force)_ by Laozi (老子) (604BC-531BC), the founder of Chinese philosophical Taoism, and translated by Edmund Ryden (Lao Zi, 2008, p. 125).
1.1 Motivations

1.1.1 Deliberating a Gap between Theory and Reality

Liberalists in world politics have had high hopes for international institutions. When looking back at the development of institutional liberalism since the 1990s, Keohane (2012, pp. 125-126) explicitly points out institutional liberalism has its typical “social purpose”, i.e. “to promote beneficial effects on human security, human welfare and human liberty as a result of a more peaceful, prosperous and free world.” In particular, institutional liberalism advocates that international institutions can promote “mutually beneficial cooperation” not only among state actors but also “within” states. However, from “false promise” (Mearsheimer, 1994) to recently identified “three prominent views” (S. M. Mitchell & Hensel, 2007, p. 721), the ambitious prospects have been largely debated on the cooperation function among state actors at the international level.

Similarly, the “within” aspect of institutional liberalism’s role on cooperation-enhancing seems to be puzzling as well. This dissertation mainly sheds light upon international trade institutions, as the “premier examples” of international institutions (J. L. Goldstein, Rivers, & Tomz, 2007, p. 37), i.e. GATT and WTO from 1947 to 2009. In fact, the function of cooperation is in doubt when internal armed conflicts (incidence and onset) are regarded as the indicator of domestic cooperation. On the one hand, 20 member states reduced the incidence of internal conflicts after their GATT/WTO accession, while 38 countries started to suffer from conflicts after their involvement; and there are 11 countries which stayed in conflicts across their accession into GATT/WTO while 61 countries or separate custom territories enjoyed peace regardless of the accession.¹

On the other hand, the relationship between international trade institutions and various domestic conflicts with different intensities is more obscure. As Figure 1-1 shown, GATT/WTO members usually have lower indicators (onset, incidence, ³⁴⁶

¹ The detailed case list can refer to the footnote 1 in pages 134 and 135 in Chapter 3.
frequency, and magnitude) of conflict behaviors like internal armed conflicts, domestic political conflicts, and Major Episodes of Political Violence (MEPV) at societal level than that of non-members, in particular for the incidence of internal conflicts and summed magnitudes of societal MEPV with statistical significance. However, in respect to onset of internal conflicts and frequency of domestic political conflicts, the cooperation function of international trade institutions seems statistically insignificant and the quadratic fits with 95% confidence intervals (CIs) demonstrate GATT/WTO members might confront a higher risk of domestic conflicts during some specific periods.

**Figure 1-1 Domestic Conflicts and GATT/WTO as the Indicator of International Institutions by Quadratic Fit**

In this vein, it is necessary to explore why international institutions sometimes deviate from the track of liberalism and institutionalism in shaping behaviors at both international level and domestic level. Compared with the academic endeavors in exploring the relations and mechanisms between international institutions on international cooperation (e.g. J. L. Goldstein et al., 2007; S. M. Mitchell & Hensel, 2007, etc.), the empirical investigations about international institutions and political
behaviors of cooperation versus conflict at domestic level are much less sufficient. As Haggard and Simmons (1987, p. 515) show, “How international agreements play into these domestic political fights is still poorly understood”. As a result, new studies should attempt to answer the unspecified questions and fill the above gaps between theory and practice. As Ruggie (1998b, p. 876) put it, “Having identified the possibility of system transformation at the macro level, corresponding micro practices that may have transformative effects must be identified and inventoried.” Similarly, Rogowski (1999, p. 136) argues the micro-foundations of international institutions on strategic choice “remain weakly explicated”. However, examining the long causal relationship between international institutions and domestic behaviors of groups has to take diverse factors and different agencies across levels into consideration. It is ambitious but needs to deliberate elaborately in order to avoid the situation of “Ambitious but Rubbish”.

1.1.2 Towards a More Elaborate Image

What is the locus of politics? Some insist “all politics is local” (originally from Tip O’Neill) or “domestic” (Jacobsen, 1996), while others claim “all politics is global” (Drezner, 2007). Debates continue and the focus often shifts in political studies. A third alternative might follow the path that all politics is “relational” to embrace both local and global insights. Currently, one of current tasks for scholars in IR is to release the traditional assumptions of unitary state actors and to bridge the artificial division between international and domestic levels.

In fact, the “relational” issue moved to theoretical scope very early. For example, Polanyi (2001, pp. 136-139) explored one “double movement” between economic liberalism and social protection in society. IR pioneers have also made prominent breakthroughs in building theories between international dynamics and domestic factors. Prior to his structural IR theory, Waltz (1959, pp. 80-123) attempted to explain international conflicts via “internal structure of states”, namely “The Second Image”; on the contrary, Gourevitch (1978) reverses this causal path and analyzes the international effects on domestic politics. In face of the
double tracks, Putnam (1988) finally designs the two-level games in connecting domestic politics and foreign behaviors with a relatively interactive perspective. The pioneering studies have bred a series of relevant literature on international-domestic interaction. The “Image(s)” in Waltz’ (1959) term become more and more elaborate and bring fruitful achievements, with significant introduction and sophisticated decomposition of new variables at two levels in particular “domestic politics”, an originally broad concept, from different perspectives (e.g. Drezner, 2003; Keohane, 1984; Milner, 1997).

However, despite taking micro dynamics in domestic politics like actor behavior and interaction into account, a few questions are still underspecified. The current causal pathway between international institutions and domestic politics needs to be further extended and elaborated. For example, some scholars require to disaggregate theories and data in order to “better understand micro-level mechanisms”, which offer “great promise” (Aas Rustad, Buhaug, Falch, & Gates, 2011, p. 37) in conflict studies and in bridging domestic peace and globalization or capitalism (G. Schneider, 2014, p. 173).

Is it possible for international institutions to affect domestic actors and subsequently shape their behaviors? To be specific, is a given international institution influential enough to reach domestic actor and salient enough to shape the behaviors of these actors in conflict or cooperation? Despite confirmative evidence from a majority of studies about the impacts of international institutions on state actors’ action, the answer to the questions above is still under discussion. This thesis follows “the second image reversed” (Gourevitch, 1978) and particularly investigates the effects of international institutions on vital parts of domestic politics, i.e. the behaviors of domestic actors and interaction among them.

The causal linkage between international institutions and the behavior of domestic actors seems a little long, sophisticated, and affected by a series of confounding variables. Some studies argue international institutions had “little or no impact” on relevant countries, not to mention the effects on domestic actors. At
the same time, more studies confirm the effects of international institutions on countries as well as “private producers”, “investors”, and “private actors” (Milner, 2005, pp. 841-844) and on bringing “societal consequences” from the very start of international institutions in specific issues (O. R. Young, 2004, pp. 10-11). Ruggie (1982, pp. 399, 415) proposes “embedded liberalism” to be a “central institutional feature” of current international economic order, which indicates the multilateralism like international institutions can’t neglect the requirement of domestic stability. Keohane (1984, pp. 252-255) tries to evaluate the effects of international regimes on the “people in rich countries” within the liberal and capitalist structure. Milner (2005, p. 841) speaks of her academic discontent, “we don’t know what the overall domestic effects of International Monetary Fund (IMF) and World Bank membership on countries has been”. In a specific case, some studies focus on the effects of IMF on domestic politics, which find the IMF-led path to liberalization would generate winners and losers within societies, undermine the societal stability, and probably create an environment “conducive” to domestic conflicts (Hartzell, Hoddie, & Bauer, 2010; G. Schneider, Barbieri, & Gleditsch, 2003, p. 9). But some other scholars recently criticize previous assumption on the impact of IMF programs and empirically deny the findings on the triggering effects of liberalization led by IMF (Midtgaard, Vadlamannati, & Soysa, 2014).

Two scenes that attempt to further bridge international institutions and domestic actors are introduced as follows. The first one is the prevailing influence of globalization or internationalization. Both aspects are “not least consequences” of international institutions (Gehring, 2004, p. 220); and international institutions are an important vector of globalization expansion. To discern the effects of international institutions and globalization is “difficult” and “counterfactual”; globalization can’t be “disconnected” from key international economic institutions (Milner, 2005, pp. 834, 841), as Rodrik (2011, p. 9) moreover puts it, “where there is globalization, there are rules”. From a governance perspective, international institutions are built for the globalization of global problems, such as the “efforts to
solve global problems often center on the creation of varied forms of international institutions” (Coglianese, 2000). In case of world economy, Milner and Keohane (1996b, p. 22) indicate internationalization “seems to be having profound effects” on domestic politics “worldwide”. Bussmann (2009) conducts a cross-country study on the losers versus winners of globalization, which finds economic integration and trade openness have close connections with women’s professional lives however, these effects vary in accordance with different countries and sectors.

In contrast to the positive pictures on welfare enhancement, globalization with its international institutions is so prevailing that it gradually becomes a force that affects domestic actors, creates discontents, triggers violence, and even causes instability, etc. (Bussmann & Schneider, 2007; Chua, 2003; Mittelman, 2010; Olzak, 2011; Stiglitz, 2002). A poll in 2013 by Chicago Council on Global Affairs indicates the US public split almost equally in perceiving NAFTA’s effects on their own economy by “49 percent good” versus “46 percent bad” (Maliniak & Powers, 2014). Other previous surveys of public opinion also shows a majority of positive opinions on international trade institutions versus a non-negligible portion of negative and neutral groups; at the same time, the survey reveals that different countries across different regions “feel” quite differently (Council on Foreign Relations, 2012, Chapter 2). In regard to empirical analysis, a few scholars try to explore the plausible linkage between globalization and civil conflicts and preliminarily confirm the indirect conflict-reducing effects of globalization (Hegre, Gissinger, & Gleditsch, 2003; G. Schneider et al., 2003). In general, all findings furthermore show that impacts of international institutions on domestic actors exist. It should also note that globalization has done more to affect countries than international institutions (Milner, 2005, p. 841).

International economic dynamics provides a more specific example equivalent to effects of international institutions. International economic institutions provide a “highly institutionalized” regulative framework for the international economy “in the international distribution of wealth” (L. L. Martin, 2006, p. 654). In spite of
overwhelming insights on the change of state behavior and national policy (Botcheva & Martin, 2001; Cortell & Davis, 1996; Dai, 2007; Drezner, 2001), many scholars affirm international institutions and related dynamics can affect domestic groups and their behaviors, nevertheless as a vector or instrument. For example, as Røpke (1994, pp. 15, 20) puts it, international trade can not only “reinforce” the inequalities at international level “between rich and poor nation” but also cause “both winners and losers inside the developing countries” and create greater equality “between groups within countries”. When states are involved in international institutions, they usually try to legalize, which can affect “the behavior of domestic groups” by promoting the “information available to actors” on distributional implication (J. L. Goldstein & Martin, 2000, p. 606).

In addition, different from policy change, “the behavior of economic agents” is altered as well in order to “reflect new rules for economic transactions” in a relatively long term (Grindle, 2000, pp. 180-181). Frieden and Martin (2002, pp. 120-123) argue international dynamics like international economy can “change their domestic political behavior” by affecting domestic interests, institutions, and information, “a common causal mechanism: change in the international economic environment affects the policy preferences and behavior of domestic groups, and thus has an impact on national policymaking and foreign economic policies.” However, the effects on domestic actors’ behavior are actually conditional. On the one hand, different domestic institutions might breed different outcomes, even when the given target advocated by international institutions is the same for actors (McGillivray, McLean, Pahre, & Schonhardt-Bailey, 2001, p. 2). On the other hand, some specific groups in different national contexts might take similar forms of social movements against globalization (Giugni, 2002); for example, similar protests emerge in other continents after the chaos in Seattle in 1999 (Mittelman, 2010, p. 18). International institutions must “pass through domestic legislative processes” to become a “strong enough” law to change the behavior of domestic actors (O’Neill, Balsiger, & VanDeveer, 2004, p. 165). In this regard, Pew Global Attitudes survey (more than
45,000 people) find, free trade, multinational corporations and free markets are generally endorsed while the adverse attitude on world trade becomes more significant in about 30 countries from 2002 to 2007 (Pew Research Center, 2007, pp. 13-18).

All the above studies (including comprehensive globalization and prevailing trade dynamics) indicate that relevant elements of international institutions could affect domestic actors as well as the state. Additionally, the scenarios also show that the affected domestic actors demonstrate a significantly different attitude and/or behaviors compared with their former role in domestic politics. However, the snapshot is insufficient enough to confirm this long causal mechanism between international institutions and domestic actors with their behaviors. More details needs to be clarified to go beyond these studies; while more endeavors needs to be conducted to verify the causality between key variables through statistical approach.

1.1.3 Refining International-Domestic Interactions

Despite Polanyi’s arguments on “double movement” (Polanyi, 2001), as a discipline, one major focus as well as a “principal challenge” of International Political Economy (IPE) is to explore the “mutual causation” and “feedback effects” of “domestic-international interaction”; as Frieden and Martin (2002, p. 120) continue to show, the “core” of this connection is “the impact of domestic institutions and interests on international interaction, and vice versa”. In a traditional sense, states are involved in “both international and domestic political arenas” with interdependent goals and activities across two levels (Mastanduno, Lake, & Ikenberry, 1989, p. 471). In fact, international interaction is a comprehensive concept, which at least contains “the actions of nation-states, intergovernmental organizations, nongovernmental international organizations, and sub-national groups; and transactions and flows... such as trade, investment” (Scott, 1977, p. 431). When discussing the effects of international interaction on domestic dynamics, Frieden and Martin (2002, pp. 121-122) particularly emphasize that “international economic trends” can “directly”
affect the interests of domestic groups (including economic and political actors) and change their preference as well as political behavior; but their intention on clarifying this causal mechanism finally lies in the “impact on national policymaking and foreign economic policies.” Similarly, Gilardi (2013, p. 453) implies international interdependence is “a powerful driver of domestic change” in decision making at domestic level. However, a critical but unresolved question for previous scholars above is they fail to shed light on the fact that international economy is in a higher institutional degree and they do not take international institutions’ role in the given issue into account.

In general, this plausible causal linkage has been either ignored or hidden by the overwhelming emphasis on connecting international institutions, state behavior, and domestic politics. Current studies are mostly dominated by the three branches, including both rationalist and constructive approaches, as follows. One group emphasizes “causal significance” at the level of “state interactions” (Cortell & Davis, 1996, p. 451) and furthermore identifies the specific effects of international institutions on state behavior (e.g. Botcheva & Martin, 2001; L. L. Martin & Simmons, 1998; R. B. Mitchell, 2009). A second group incorporates the role of domestic politics and discusses the impacts of international institutions on a state’s policy choice by highlighting “the actions of domestic political actors” (e.g. Cortell & Davis, 1996, p. 451; 2000). The third branch pays particular attention to the diffusion and adoption process of international norms under domestic politics as well as the interactions between international dynamics and domestic actors (e.g. Checkel, 1997; Cortell & Davis, 2000; Finnemore & Sikkink, 1998; McKeown, 2009; O’Faircheallaigh, 2014; Risse & Sikkink, 1999).

Three groups indicate the role of domestic actors is marginalized and instrumentalized in relevant studies, much less their behaviors and interactions. Recent progress criticizes previous studies that did not “sufficiently acknowledge” some domestic actors, i.e. “agency of domestic groups”, including transnational corporations, marginalized groups, and some other societal actors; but it still tries to
discuss the impacts of domestic politics on the process of norm adoption (O’Faircheallaigh, 2014, pp. 155-157). Domestic actors did not get rid of the fate that is regarded as a “channel” to promote or hinder international dynamics rather than as an “actor” that is affected by international dynamics. As a result, there is a theoretical gap between current realities and existing academic progress on the far-reaching effects of international institutions on actors below the domestic level. The focus on the effects of international institutions should go beyond state actors and move a little further.

In order to fill in the theoretical gap, this thesis tries to theoretically and empirically solve the research question, i.e. under what conditions, in what ways, and to what extent could international institutions affect domestic actors, shape their behaviors, and cause them to cooperate with each other or to engage in conflict? In sum, it aims at bridging the causal relationship between international dynamics and the behaviors of domestic actors, identifying the mechanisms that international institutions use to affect domestic actors, building mathematical models connecting international and domestic levels, and statistically testing theoretical framework and relevant hypotheses with a specific focus on international trade institutions and political conflicts at the domestic level.

To evaluate these effects, one needs to distinguish some key terms, which contribute to our understanding of international institutions. Easton (1965b, pp. 351-352) makes a detailed difference between “outputs” and “outcomes” in assessing the public policy. The output is “the direct or nearest effect” for example “actual decisions and implementing actions” while outcome is “remote” “consequences traceable to them” that is related but “cannot usefully be assimilated to the decisions and implementing actions.” He also provides a vivid metaphor, “an output is the stone tossed into the pond and its first splash; the outcomes are the ever widening and vanishing pattern of concentric ripples.” Accordingly, Underdal (2002, pp. 5-7) furthermore disaggregates the “set of consequence” after implementing and adapting a regime. He defines output as “new rules and regulations” and draws a
distinction between outcome (one kind of behavioral change, “consequences in the
form of changes in human behavior”) and impact (as consequence on the issue
domain or environment). As a whole, he regards outputs, outcomes, and impacts as
“three distinctive steps in a causal chain of events.” When analyzing regime
effectiveness, Stokke (2012, pp. 13-14) makes use of the categories above and
defines output as “decisions, norms, and programs”, outcome as “actor behavior”,
and impact as changes “in the problem domain” in evaluating international regimes.
What this thesis wants to exactly explore is, according to Young (2004, p. 14), “how
much of the variance in outputs, outcomes, and impacts is attributable to the
character of a regime itself in contrast to various exogenous factors.” It hereby
refers to the term “effects” in order to embrace all the types but with an emphasis
on the actor behavior, i.e. outcome aspect.

In fact, it is challenging to explore the seemingly remote causal mechanisms
that link international institutions to domestic actors and their interactions. Despite
Waltz insisting on the “theoretical separation” of domestic and international
politics, he actually allows “a unified theory of internal and external politics” (Waltz,
1996, p. 57). The endeavors on connecting international with domestic gaps show
great theoretical significance in mainly two dimensions, i.e. 1) improving causal
relations on international dynamics and domestic activities; 2) integrating distinct
theories of rationalist and constructive approaches.

On the one hand, it extends current causal linkage and pays attention to the
specific behavioral patterns and interaction of domestic groups in particular.
Neither domestic politics nor state behavior is the end. The emphasis on domestic
politics can’t replace the role of behavioral interaction among domestic actors.
Under the overarching effects of international institutions in various domains, the
focus on domestic actors’ behaviors and interactions enriches the multiple
interactions among domestic politics, state behavior, and domestic actors. Most
importantly, it provides valuable implications on domestic interactions among
internal actors such as conflict, stability, or peace, etc.
Chapter 1: Introduction

On the other hand, the thesis attempts to integrate key variables (including interests, rules, institutions, and norms, etc.) from both rationalist and constructive approaches into one theoretical framework and related mathematical model, which aims to further bridge two distinct approaches and clarifying the causal mechanism. Building a delicate and comprehensive mechanism from an institutional perspective contributes to connect macro dynamics and micro behavior through diverse channels across the filter of state actor. It expands the scope of current studies on international institutions and domestic politics, and enhances the explanation on the international sources of domestic cooperation and/or conflicts. The application of game-theoretical calculation and data simulation furthermore improves the causal models in a scientific manner.

1.2 Findings

This thesis tries to explore the relationship between international institutions at macro level and behavioral transformation of domestic actors at micro level, and attempts to discuss the conditions as well as mechanisms when these “secondary rules” in international politics play significant or even foremost roles in determining the behavioral patterns of domestic interaction. In brief, this dissertation provides some key findings to answer the research question above from both theoretical discussion and empirical survey, i.e. existence or not, in what ways, under what conditions, and to what extent, etc.

Firstly, it confirms the influence of international institutions in shaping domestic interaction toward either conflict or cooperation. With the effects of international institutions, some actors can transfer their conflict behaviors to peaceful manners while some others may change their cooperative behaviors to conflictual attitude. Meanwhile, there are also some cases that remain the same regardless of the influence of international institutions. Data from 1946 to 2009 indicate that GATT/WTO, as the prominent example of international institutions, is significantly related to both peace/cooperation and conflict/competition at
domestic level. Simulated data echoes this argument on the changing behaviors before and after the influence of international institutions. Furthermore, both RDD and PSM generally display a pacifying effect of international trade institutions on domestic conflict and political violence.

Secondly, the behavioral patterns of domestic actors that are affected by international institutions also depend on different parameter configurations. International institutions can pose distinct effects on domestic institutions, interest improvement and allocation, and mobilization efforts of domestic groups in a complicated way, which will finally determine domestic interaction. Based on CSF, the simulated data show the relationship between international institutions and domestic interaction is nonlinear. Simulation also demonstrates diverse performances of domestic institutions, actors’ mobilization, and rents on net conflict benefits. In this vein, the symmetric structure of mobilization efforts between two actors matters to mediate the influence of international institutions on conflict probability. In addition to the structural perspective, international institutions continue to exert influence in shaping domestic interaction when the norms of international institutions are internalized at domestic level and denoted “moral” sense. Difference exists in shaping the behaviors of domestic groups between exogenous rules and endogenous norms. On the one hand, the internalized norms from international institutions enhance the cost threshold of triggering conflict; however, on the other hand, when more actors refer to conflict behaviors, many more actors will resort to conflicts.

Thirdly, institutional interaction between international institutions and domestic institutions plays a pivotal role in determining conflict or peace among domestic group. Theoretically, the risk of conflict interaction increases only when the provoking dimension of international institutions and the conflict support function of domestic institutions prevail at the same time; and the probability of peaceful interaction enlarges only when the pacifying dimension of international institutions meet with the peace promoting function of domestic institutions.
Within a 2-player structure with complete information, the stable condition of the Nash equilibrium is whether both updated institutions prevail for both groups to support conflict or promote peace. When two groups enjoy both institutional support for conflict and institutional support for peace, it probably chooses to cooperate, because conflict will bring extra costs and there might be deterrence between two groups; when one group is supported by updated institutions toward conflict behavior and the other is encouraged to resort to cooperation, there will be larger risk of conflict. Simulation data furthermore shows the influence of international institutions on the conflict-triggering dimension of domestic institutions is crucial to the given group’s conflict benefits. The argument on the institutional interaction is proved by empirical examinations on GATT/WTO. Logit regression finds the different dimensions of GATT/WTO play distinct roles (both negative and positive) in triggering the conflict risk at the same time. Similarly, domestic institutions like polity nature have different and even reverse faces in triggering internal conflicts.

Lastly, the effect of international institutions on domestic interaction is actually a mixed and conditional effect with temporal characteristics. First, in spite of a general decrease on the risk of domestic armed conflicts, the effect by RDD is mostly focused on the conflict incidence rather than the conflict onset; conflict categories also differ in interacting with international institutions, as statistical investigation by PSM show, GATT/WTO would probably increase the frequency of political violence with low intensity while decrease the numbers of conflicts with high intensity like wars; however, it tends to enlarge the magnitude of political violence. Second, the effect of international institutions in shaping domestic interaction is also typical of its temporal characteristic. The RDD test indicates the behavior-shaping effect only holds within a short period with both lead-time effect and lagged effect of international trade institutions in shaping domestic interaction. Furthermore, the social norm model also shows the effects of international institutions, as internalized norm, seem to disappear after the international
institutions are internalized as endogenous norms; hereby, the key variables like institutions, interests, and mobilization efforts with upgraded performance returns to prevail in determining the behaviors of domestic groups.

1.3 Arrangement of Chapters

The dissertation contains five other chapters in addition to this introduction chapter. Chapter 2 reviews key studies that are relevant in connecting the variables at international and domestic levels; in particular, it pays specific attention to the relationship between the influences of international trade institutions and the interactions as well as behaviors of domestic groups. This section evaluates a number of discussions that are related with trade, conflict/peace, and institutions from international to domestic levels. It shows the limitation of current studies on the one hand; on the other hand, it provides relevant foundations to the theory building. Moreover, it attempts to build a theoretical framework through integrating key variables and investigating the causal mechanisms in order to bridge international institutions and the behaviors of domestic groups. It aims to answer the research question. Based on the “Contest Success Function” (CSF) and “Two-Level Games”, Chapter 2 provides a “two-plus-level model” in order to demonstrate the influence of international institutions on domestic actors’ interaction through the mediation of given state actor with different attributes. In this chapter, both international institutions (as the independent variable) and the interactive behavior of domestic groups (as the dependent variable) are theoretically deliberated and operationalized in the models. Hereby, the influence of international institutions is regarded as not only a structure across international, national/state, and domestic levels; but also a process that contains 4 periods according to the interaction of state actors and international institutions. In respect to the impact approach, it identifies three main roadmaps on how international institutions affect domestic actors’ behavior choices, i.e. institutions, mobilization, and interests, etc. Accordingly, a series of hypotheses are put forward.

Subsequently, Chapter 3 provides a series of mathematical functions to model
the expected payoffs of two domestic groups in conducting both conflict and peace/cooperative circumstances by reconfiguring the parameters of CSFs. The models are analyzed by three alternatives, i.e. solving the Nash equilibrium in game theoretical approach, exploring the case of international institutions transforming endogenous norms through social custom model, and using simulation data to demonstrate the tendency of domestic groups’ net conflict gains in a more general situation. It firstly finds that international institutions can affect domestic interaction on conflict and cooperation mainly through institutional interaction with domestic institutions especially in the symmetric structure of two groups’ mobilization efforts. In addition, the internalized norms of international institutions could determine domestic actors’ behaviors in distinct ways by including moral costs and reputation loss. The slight adjustment has caused larger change in the final outcome. In respect to data simulation, it lastly extends the impact approaches of international institutions on domestic groups by domestic institutions, mobilization, and rents, etc. This part furthermore implies power structure (mobilization efforts), institutional settings (domestic institutional preference towards conflict), and rent amount, with the effects of international institutions, could finally affect the net gains of groups on conflict triggering. In sum, “secondary rules” like international institutions matter in domestic interaction, and even play a crucial role in some specific situations, but are not decisive by themselves.

In reality, the expansion of international institutions brings comprehensive impacts both on state actors and on non-state actors below the domestic level. In order to clarify the facts, Chapter 4 and Chapter 5 move from theoretical discussion to empirical tests. International trade institutions (GATT and WTO) can be regarded as representative of international institutions with their established characteristics and profound influence. As one of the pillars, international trade institutions try to strengthen and regulate world trade, which would definitely affect the debated and plausible nexus of trade and civil conflicts. With the relevant
dataset from 1946 to 2009, Chapter 4 applies a regression discontinuity design (RDD) to identify the impacts of GATT/WTO (Independent Variable) on the possibility of civil conflict/peace (Dependent Variable); and then refers to logit regression to test and analyze the models with the support of a series of controlling variables. It finally finds involvement in GATT/WTO does reduce the possibility and incidence of civil conflicts with validation and robustness in general. However, GATT/WTO involvement has a mixed effect on the civil conflicts. Controlling the economic factors, it tends to increase the conflict possibility; while it reduces the risk of civil conflict when the governmental quality, globalization and global shocks are taken into account. Chapter 5 concludes that, based on the current data from 1946 to 2009, GATT/WTO membership and its higher involving degree in GATT/WTO reduces the risks of civil conflicts.

In addition to the armed conflicts, Chapter 6 has insights on general conflicts like political stability/instability and violence. The relationship between international trade institutions and political (in)stability is still in debate. Chapter 4 argues that involvement in GATT/WTO (1947-2009) can significantly reduce the possibility of internal armed conflict “in general” by applying Regression discontinuity design (RDD). However, RDD method can only demonstrate the causal effect at the threshold and rarely explain the potential distribution of both treatment group and control group. Its result may cause biased results because RDD only tries to control one single variable in a situation containing multiple discontinuities and confounding factors, which finally undermines the robustness of RDD. A lack of external validity is also one of the pitfalls of RDD. In order to improve causal inference between international trade institutions and domestic stability, Chapter 5 applied PSM with the aim of reducing selection bias, estimating counterfactual effects, and minimizing the limitation of observation variables in a finite sample. Beyond RDD, PSM can transform diverse confounding variables to a single propensity score. By PSM, this chapter attempts to estimate Average Treatment Effect (ATE), Average Treatment Effect for the Treated (ATT), and
Average Treatment Effect for the Untreated (ATU). Based on the country-year as unit of analysis, it preliminarily finds GATT/WTO treatment can increase the frequency of political instability events with lower magnitudes. At the same time, it could provide escalating effects on the intensity of political violence while pacifying the extent and incidence of domestic wars.

Finally, the dissertation concludes the findings from theoretical models and empirical tests with mathematical calculation, data simulation, RDD, PSM, and general logit regression, etc. Subsequently, it points out the limitation of this study and provides some research directions for the future.
2 Theoretical Framework: How Can International Trade Institutions Affect Domestic Actors’ Behaviors?

If benefits emerge from a single outlet, the state will have no equal. If they emerge from two outlets, its troops will be halfhearted in their actions. If they emerge from three outlets, it will not be able to mobilize an army. If they emerge from four outlets, the state will be lost.

——Kuan Chung

In order to fill in the aforementioned gap between institutional liberalism and political realities, the causal mechanism between international institutions and domestic interaction needs to be explored, constructed, and consequently tested. Based on reviewing current progress in the studies of international institutions and the trade-conflict nexus, this chapter attempts to build a theoretical framework on international institutions (especially international trade institutions) affecting the behaviors of domestic actors in terms of conflict versus cooperation. The independent variable (IV) is international institutions while the behavior of domestic groups and their interaction are regarded as the dependent variable (DV). It tries to bridge the influential sources at macro level and the affected agents at micro level across the mediation function of state actors. In general, the behaviors and interactions of domestic groups are mainly shaped by a series of relevant variables within a long and complex causal relationship. It attempts to clarify the roles, significance, and effects of international institutions in shaping domestic groups’ behaviors on conflict versus cooperation. On the basis of the above discussion, a few hypotheses can be provided.

1 Original text is Li Chuyu Yi Kong Zhe, Qi Guo Wudi; Chu Er Kong Zhe, Qi Bing Bu Chu; Chu San Kong Zhe, Bu Keyi Jubing; Chu Si Kong Zhe, Qi Guo Bi Wang [利出于一孔者，其国无敌；出二孔者，其兵不诎；出三孔者，不可以举兵；出四孔者，其国必亡]. It is from Guo Xu (The State’s Store of Grain), translated by W. Allyn Rickett. Kuan Chung (Guan Zhong/Guan Zi) (725BC-645BC) was the Prime Minister of Qi State during the Spring and Autumn Period. He assisted the King of Qi, Duke Huan, to be the first of the “Five Hegemons”. See (Kuan, 1998, p. 378).
2.1 Bridging International Dynamics and Domestic Interaction: A Literature Review

At present, a few theoretical endeavors have been made, either explicitly or implicitly, to clarify the causal linkages between international institutions/dynamics and domestic interactions of behaviors, including both specific issues on trade and general agendas. Nevertheless, current results of relevant studies are still in debate.

2.1.1 Scenario I: Debates on Trade-Conflict Nexus at Domestic Level

Take the trade-conflict nexus as example. Similar to the diverse findings on international trade and international conflicts (Barbieri & Schneider, 1999; Reuveny, 2001; G. Schneider, 2010; G. Schneider et al., 2003), the extension of international trade’s impacts from international conflict to internal conflict/peace is also in debate, both theoretically and empirically. In line with the liberalists’ “long-standing belief” on the peace benefits (G. Schneider et al., 2003, p. 3), Schneider (2014, p. 173) describes current research agendas on external openness (commercial liberalism) and internal economic freedom (capitalist peace) in pacifying both interstate and “intrastate relations”. However, even though it could act as a “crucial ingredient”, trade is not the sole panacea in keeping peace and security (Abdel-Malek, 2010, p. 176). Moreover, international organizations are arguably more significant in making commercial institutional peace than international

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1 There are at least four groups that devote attention to the question “whether trade triggers conflict/peace”, i.e. the optimistic group, the pessimistic group, the mixed and conditional group, and the irrelevant group. The optimistic group believes that trade can reduce conflict and promote peace, which is mostly consistent with the logic of the “liberal peace” hypothesis and has an ancient intellectual root. However, the pessimistic group, on the other hand, argues that trade could generate conflict and increase the possibility of conflict. The third group insists that the effect of trade on the conflicts is mixed and it varies according to different conditions. For example, some neo-Marxists and neo-realists claim that the symmetrical ties can promote peace while asymmetric trade brings conflict. The last group, basing their argument on empirical tests, asserts that trade is irrelevant to conflict incidence. See (Barbieri & Schneider, 1999; Dorussen, 1999; Hegre, 2002; Hegre, Oneal, & Russett, 2010; Morrow, 1999; Parlow, 2010; Polachek, 1980, 1999; Reuveny, 2001; Reuveny & Kang, 1998; G. Schneider et al., 2003; G. Schneider & Wiesehomeier, 2008; Xiang, Xu, & Keteku, 2007).

2 For the classical neo-liberalist in the 19th century, they believed that, with the spread of international commerce, people would recognize the “mutual benefits” of peace and trade “both within polities and between them” (Muller, 2008, p. 23). In details, international trade brings economic growth and improvement of living conditions within the given country, and reduces the citizens’ grievance to trigger conflicts (Global Trade Negotiations, 2005).
commerce (Bearce & Omori, 2005).

In respect to empirical findings, some studies find trade can reduce the incidence of civil wars (Barbieri & Reuveny, 2005) and promote peace “directly” (Bussmann & De Soysa, 2006), and more openness causes fewer internal conflicts “by some measures” (Magee & Massoud, 2010). Conversely, other scholars show an indirect conflict-reducing effect of globalization on internal conflict while a positive relation in increasing political stability, and refuse that openness can “significantly” reduce internal conflicts (Hegre et al., 2003). However, through differentiating conflict intensities, Bussmann and Schneider (2007) demonstrate that higher-level economic openness brings a lower risk of civil war, while economic liberalization slightly increases the probability of instability. Similarly, Martin, Thoenig, and Mayer (2008) find trade openness can increase the probability of low-intensity wars while decreasing the risk of high-intensity wars as well.

### 2.1.2 Scenario II: Mapping the Domestic Effects of International Institutions

There are still all kinds of puzzles in current literature around international institutions and their plausible influences. Firstly, whether the effects really exist is still a question. On the one hand, the effects of international institutions\(^1\) have actually been explored and identified by previous studies, in term of “regime consequences” (O. R. Young, 2004), the “effects” of international institutions (Botcheva & Martin, 2001; Dai & Martinez, 2012), as well as the “influence” of international institutions (Costa & Jørgensen, 2012; R. B. Mitchell, 2009) on a series of actors, including state actors and some international organizations like the European Union (EU).

In contrast, some scholars still insist that international institutions have “minimal” or “no” impacts on states but they admit the effects of globalization do

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\(^1\) The following names contain quite diverse meanings. For example, as Young (2004, pp. 7-11) shown, regime consequence in a broader sense contains “a relatively wide range effects”, which might include at least four types, i.e. cross-regime effect, domestic consequences, systemic consequences, and impacts on international system.
exist as a “larger point” (Milner, 2005, p. 841). In respect to the effects of globalization and internationalization, many studies confirm the effects exist on national policies and even policy preference of relevant domestic actors (Frieden & Rogowski, 1996; Garrett & Lange, 1996; Jensen & Shin, 2014; Milner & Keohane, 1996b).

Secondly, how far can the influence of international institutions reach? Current studies have depicted a complicated picture and mostly reveal international institutions on different issue-areas can exert their various impacts on a diverse range of actors from international to domestic levels through multiple approaches and mechanisms. Slightly different from the category of Young (2004, pp. 7-11), there are three main camps that focus on the influence of international institutions on the heterogeneous agents at international, state, to domestic levels by a top-down approach. The first camp emphasizes that international institutions might affect each other. It provides a picture from a “horizontal” dimension, similar to the described “cross-regime effects” (O. R. Young, 2004, p. 8). International institutions are not isolated, despite the fact that these institutions are “separately established to respond to particular problems”. “Regime interaction” is obvious and international institutions “increasingly” affect peers’ “development and performance”, which might create conflictual effects or synergistic effects (Gehring & Oberthür, 2004, pp. 247-248). In early stage, Young (1996) provides a detailed account on “institutional linkages” in international society. Later on, relevant studies attempt to build a conceptual framework on regimes interaction, analyze their causal mechanisms, identify different situations, as well as showing different consequences, etc. (Gehring & Oberthür, 2004, 2009).

The second camp indicates that state actors are the first group to feel the effects from international institutions, regimes as well as some other dynamics by a “vertical” dimension. Waltz (1979, p. 63) provides two perspectives, “inside-out” versus “outside-in”, to examine state behavior. Examining the effects of

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1 Nevertheless, the supporters for this opinion don’t deny that globalization can be “not disconnected” with international institutions (Milner, 2005, p. 841).
international institutions on state behavior follows the “outside-in” approach. The role of international institution emerges from an “intervening variable” to as a more significant role. During an initial phase, Krasner (1982a, 1982b) defines international regimes as one kind of “intervening variable” that affects the observable behavior of states and as an autonomous variable that becomes “interactive”. In contrast to the realist account that uses power and interest alone to explain state behavior, Keohane (1984, pp. 8, 14, 20, 25-26) furthermore puts international institutions and regimes as a “significant” variable in explaining state behavior such as cooperation, or lack of it, in world politics. In line with this increasing significance, more and more studies clarify the effects of international institutions on state actors and discuss the shaping impacts on state behavior. Botcheva and Martin (2001) conceptualize the institutional effects on state behaviors as two contrary impacts, i.e. not only convergence but also divergence in states’ practice. They argue the variation of institutional effects can be explained by different configurations of externality level, organizational difference, institution design, and access of private interests, etc. In addition to analyzing the categories of institutional effects, some scholars also focus on the “effectiveness” and “consequences” that are imposed on but not limited to state actors. The concept effectiveness is operationalized and disaggregated and some relevant measurements in evaluating the institutional effectiveness have been explored (R. B. Mitchell, 2004; Stokke, 2012; Underdal, 1992; O. R. Young, 2004). In this regard, environmental issues within a European context receive more insights. For example, some scholars analyze the trend of policy convergence in European national environmental policies as one indicator of state behaviors (Holzinger, Jörgens, & Knill, 2008; Holzinger & Knill, 2008).

The third camp attempts to release traditional assumption on state as unitary actor in IR theories and shed light on domestic dynamics, which has long been ignored in early studies of international institutions (Keohane, 1988, pp. 392-393). In fact, debates on the significance of domestic dynamics never disappear. Davis
(1961) notices social changes (as domestic dynamics) might affect the international
system. Rosecrance and Stein (1993, p. 5) claim that domestic forces actually
increase “in scope and importance” under “present international circumstances”.
Contrary to the systemic explanation, Fearon (1998) proposes a domestic-political
IR theory on foreign policy. Drezner (2003, p. 7) claims the “weakness” of studying
international institutions is “the absence of domestic politics from their stories.” At
present, both rationalist and constructive approaches start to acknowledge the
previous ignorance on this point. Milner (1997, p. 3) requires “bringing domestic
politics back into international relations theory” in order to discuss the domestic
conditions on shaping foreign behaviors; similarly, Martin and Simmons (1998, p.
747) call for “bringing domestic politics back into the study of international
institutions.” Checkel (1997, pp. 475-476) regards investigating domestic politics
and process as an issue of “central importance”. In order to further clarify the
domestic-global interaction, Drezner (2003, p. 2) raises a series of questions, in
particular including “How are international institutions used to influence domestic politics? Which domestic actors use IOs in this capacity?” Gradually, domestic dynamics particularly
domestic politics starts to receive increasing attention in the studies of international
institutions. Some scholars even claim current theories with emphasis on domestic
politics have been applied to “virtually every major question” in IR studies (Schultz,
2013, p. 479); and even show a tendency of “domestic primacy’ slant” (Jacobsen,
1996, p. 94). As Chaudoin, Milner, and Pang (2015) empirically examined, there are
diverse and complex interactions between international systems and domestic
politics.

Thirdly, *in what ways can domestic dynamics be embedded into the influence mechanism of international institutions?* In general, domestic dynamics plays at least two distinct roles in interaction with international institutions, in spite of strong instrumental sense. On the one hand, international institutions can directly affect domestic politics. Lee (1998, 2001) shows international dynamics like globalization and liberalization at international level pushes the affected countries to adjust and respond to external
effects, i.e. “domestic accommodation”. International institutions can also affect some key actors in domestic politics and influence political equilibrium. Cortell and Davis (1996, p. 452) think “governmental officials and societal interest groups can appeal to” international institutions to “further their own interests”. Beyond the insights of Putnam (1988), Drezner (2003, pp. 2-4) focuses on “how policy initiators can use international bargaining to affect domestic politics” and finds domestic agents can refer to international institutions “as a way of circumventing domestic opposition”, which contains three possible avenues for international institutions to affect domestic politics, i.e. contracting, coercion, and persuasion. Gilardi (2013, p. 453) discusses the mechanism of international interdependence shaping domestic decision making through transnational diffusion process of ideas, norms, and policies “displayed or even promoted by other countries and international organizations”. Some recent studies furthermore highlight international institutions as an informational tool for national leaders or ruling groups in domestic politics (Baccini & Urpelainen, 2014; Fang, 2008; Gilligan & Johns, 2012, pp. 234-235; Snidal & Thompson, 2003).

On the other hand, in line with Waltz’s “Inside-out” approach, domestic politics is usually regarded as a key driving force that is affected by international institutions but meanwhile affects state behaviors. Cortell and Davis (1996, p. 451) attempt to explore “the extent to which an actor’s appeal to an international rule or norm will influence state behavior”, while Martin and Simmons (1998, pp. 739-747) argue, only through “domestic political channels” or “by substituting for domestic practice”, can the international institutions affect state behavior. Schultz (2013) theoretically explores the main domestic sources (i.e. interests and institutions) that affect state behavior as international outcomes, such as cooperation and commitment, through some mechanisms like interest formation and information availability, etc. More and more studies have shown by affecting different domestic settings, international institutions lead to different state behaviors, interactions, and national policies (Botcheva & Martin, 2001; Cortell & Davis, 1996; Dai, 2005;
Mansfield, Milner, & Rosendorff, 2002; L. L. Martin & Simmons, 1998; Milner, 1997). Europeanization provides a relevant example. Both as a part of globalized force and as an institutionalized process, European integration has different impacts on nation-states and domestic institutions, as well as national political cultures in different states (Risse, Cowles, & Caporaso, 2001).

In addition to “international institutions” as a whole term, international norms are specially emphasized as a more significant role in discussing the interaction between international dynamics and domestic politics. Previous studies have made attractive progress in building causality and identifying mechanism. Scholars have clarified that both rules and norms from international institutions would affect domestic political actors (Cortell & Davis, 1996, 2000; Finnemore & Sikkink, 1998). The effects may also diversify. It might bring “threefold investigation of changes” in national discourse, domestic institutions, and state policies (Cortell & Davis, 2000, pp. 70-71). In addition, Checkel (1997) argues international norms can have constraining and constitutive effects under different conditions; Weiss (2003) adds a third effect i.e. enabling effect in the context of globalization. Subsequently, a series of possible mechanisms on international institutions and domestic impacts are proposed by scholars. For example, Cortell and Davis (1996, 2000) focus on the domestic salience of international norms, while Checkel (1997) highlights norm empowerment by societal pressure and elite learning. Risse and Sikkink (1999) identify the process of norm socialization and provide a “spiral model” that is a “particular mix of material pressures with communicative processes” to show its influence on domestic political change. A recent article proposed a new model of domestic norm adoption by including a few significant but previously ignored actors at international and domestic level (O’Faircheallaigh, 2014).

As a whole, current studies clearly show a disaggregated trend on both variables in the causal linkage of international and domestic interactions. In particular, “domestic politics” acquires further operationalization towards a more disaggregated approach. It mainly implies three different but related focuses in
current literature, i.e. bureaucratic politics among governmental agencies, domestic institutions, and domestic actors, respectively, in analyzing the effects of international institutions. These elements are heterogeneously explored in current studies.

First, the bulk of earlier studies give insights into bureaucratic politics such as power sharing and executive-legislature competition, in particular in analyzing the negotiation and ratification phases of international institutions (Milner, 1997; Putnam, 1988); some recent literature takes national leaders and elections into consideration to demonstrate the effects of international institutions (Baccini & Urpelainen, 2014; Fang, 2008; Snidal & Thompson, 2003). In regard to the competition in pre-ratification phases, the interaction between domestic institutions is also important “after treaties have been signed” (Drezner, 2003, p. 6; Underdal, 1998). For example, Baccini and Koenig-Archibugi (2014) aim to discuss the causal mechanisms on the foreign influences on domestic politics during the ratification process.

Next, the role of domestic institutions is relatively neglected in the connection between international institutions and state actor as well as domestic actors. Haggard and Simmons (1987, p. 513) argue domestic political processes are ignored in current theories. Recently, domestic institutions get more and more significance in relevant studies. Cortell and Davis (1996, p. 452) point out it is impossible to “provide a complete account of national policy choice” without exploring the significance of domestic institutions like “domestic structural context”, a key indicator of “blank box of domestic politics”. Domestic institutions are entitled as conditional and mediated functions in studies of internationalization and domestic politics, which creates multiple pictures in different countries (Frieden & Rogowski, 1996; Garrett & Lange, 1996; Milner & Keohane, 1996b). Subsequently, both rationalist and constructive groups indicate domestic (political) institutions matter in allocating power and aggregating preferences of actors domestically on the one hand (Milner, 1997, pp. 18-19, 237-239); on the other hand, domestic institutions
can affect the extent of norm diffusion and influence by privileging some actors in the empowerment process (Checkel, 1997, pp. 475-480). In addition, Rogowski (1999) discusses the effects of domestic political institutions on foreign policy and takes institutions as constraints on the strategic choices of state actors. In particular, recent studies started to further analyze the interaction between international and domestic institutions and regard international institutions as a means of circumventing domestic opposition (Drezner, 2003, pp. 1-2); some scholars try to discuss the interactive effects of international and domestic institutions on state commitments (Bürte & Milner, 2012). However, more research is still needed to go beyond traditionally neoliberal and constructive perspectives on the interaction of international-domestic institutions and to demonstrate the mechanisms of domestic institutions’ reaction to international dynamics (Drezner, 2003, pp. 7-8).

Lastly, domestic actors seem to be a much less attractive group which is shadowed and marginalized compared with bureaucratic politics and domestic institution. But the significance of domestic actors in interacting with international institutions should not be discounted, and this has been recently acknowledged by scholars. Most literature discusses the effects of international institutions on relevant domestic actors but then “feed[s] back to national policies” (Frieden & Martin, 2002, p. 121) and “state action” (Johnston, 2003, p. 188). For example, many studies on international norm adoption prefer to highlight the significance of domestic actors as a vector to show norms diffusion and utilize the norms (Checkel, 1997; Cortell & Davis, 1996; O'Faircheallaigh, 2014). Keohane (1984, p. 26) “believe[s]” the behaviors of “other actors” paralleled with state actors is “strongly affected” by international institutions. In a review article, Jacobsen (1996, pp. 94-95) clearly conceptualizes “international forces” as “acquiring political significance only as they are factored into national politics” through accommodating “interests, strategies, and ideologies of dominant local players.” Frieden and Rogowski (1996) specially focus on the policy preference as well as the behaviors of “social actors” or “socioeconomic and political agents”, and elucidate the effects of international
prices on economic actors and groups. In particular, they reveal the internationalization has a “differential impact” on domestic actors (Frieden & Rogowski, 1996, p. 45). Fearon (1998, p. 299) indicates the “interaction of the actors represented within the state” is vital in a domestic-political IR theory. Blanchard (2003, pp. 51-56) goes beyond the state-centric assumption of two-level game and pays attention to the role of “subnational actors” in the interactions of international institutions. In a similar vein, Johnston (2003, p. 147) selects “domestic (in this case foreign policy-related) agencies and actors” as the focus under the impacts of international institutions. Following a regime analysis, Stokke (2012, p. 9) argues a state-centric approach to examine the consequences of international regimes in fact “does not preclude careful attention to various target groups and other societal organizations” and calls for “sensitivity to differences in interests and competence among non-state and sub-state actors.”

2.1.3 Scenario III: Progress on International Trade Institutions and Domestic Conflicts

As the “prominent features of politics” (Milner, 1997, p. 18), institutional factors recently began to be highlighted in conflict studies. Some scholars started to apply institutional dimension to relevant studies. For example, Barbieri and Schneider (1999) emphasize the need to focus on the causal mechanisms between political institutions and conflict behaviors in the study of trade and conflicts. Schneider and Wiesehomeier (2008) have explored the relationships between diverse political institutions and internal conflicts, which show that political institutions can mitigate the conflict possibility of diverse societies; meanwhile the inclusive rules can alleviate social tensions. In this way, Wegenast (2010) has discussed the relations between the nature of institutions (inclusive institutions) and internal conflict onset in resource-rich countries. Moreover, Pospieszna and Schneider (2012) pay specific attention to power sharing institutions and try to statistically test its possible effects on peace-building through a crisis-level analysis. However, the term “institution” here is mainly at the domestic level, similar to the
political institutional arrangement.

Academic progress also affects studies on the topic of international trade and conflict/peace. For example, some scholars like Mansfield notice the role of Preferential Trading Arrangements (PTAs) in the relations of trade and interstate conflicts. Mansfield et al. find PTA membership can affect the relationship between overseas trade and military disputes. To be exact, PTAs can dampen military disputes in general; and in particular, countries within the same PTA are less prone to enter into military disputes than other states (Mansfield, 2003; Mansfield & Pevehouse, 2000; Mansfield, Pevehouse, & Bearce, 1999).

However, some other scholars provide alternative findings, namely different kinds of trade institutions have different effects on conflicts in different situations. Martin et al. (2008) suggest that regional or bilateral trade agreements have positive consequences for political relations and bring about a lower prevalence of regional conflicts. But they also find that it increases the conflicts with other regions. Meanwhile, multilateral trade liberalization may increase the prevalence of bilateral conflicts. Vicard (2011) indicates that deeper RTAs, like customs unions and common markets, reduce the probability of interstate wars while partial scope and free trade agreements have no effects on the possibilities of war. Hafner-Burton and Montgomery (2012) find that trade institutions do not “always” keep the peace because its trust-building function doesn’t work automatically. They conclude that, due to distrust in some conditions, PTAs can even encourage conflicts, by using social network analysis on the PTA data from 1950 to 2000.

In addition to the focus on international conflicts, some scholars gradually started to discuss the link between international trade and internal conflicts, particularly from a perspective of international or regional trade institutions, i.e. GATT/WTO or RPAs. However most of these literatures are at the stage of theory building and generally take a qualitative approach. Some staff in international NGOs has tried to connect economic globalization, the WTO and militarism. They argue that the WTO and economic globalization would undermine
security, cause conflict and promote militarism. The WTO may damage agriculture and increase contention of resources, land degradation and competition for water availability. Or, the WTO, as with international free trade agreements, creates corporate rules and security exceptions that serve for transnational military corporates (George, 1999; Ritchie, 1999; Staples, 1999).

Regarding international institutions and internal conflicts, Fearon and Laitin (2001) discuss the role of international institutions in the resolution of civil war, in which they particularly emphasize the measures for countering insurgency and trusteeship. However, fewer studies take international institutions as the source of civil conflicts, except the above literature that discusses the relations between trade regimes and internal conflicts. Even fewer scholars have tried to discuss the causal mechanisms between international institutions and civil conflicts/peace.

Brown et al. (2005) talk about the possibility that Regional Trade Agreements (RTAs) trigger civil conflicts in theory. They argue that RTAs may result in painful adjustments to new tariff barriers, fierce competition, unemployment, possible poverty, economic instability, new winners and losers, the gap between high expectations on RTA and reality, and endangered state capacity, etc., which are mostly combined with the onset of civil conflicts. However, their dissertation is on a theoretical level and further empirical tests are needed.

More relevantly, Martin et al. (2008) take GATT/WTO membership as the instrumental variable and find its positive effects on trade openness. However, it is a “weaker” instrument for explaining the interaction between trade openness and civil war intensity. They conclude that GATT/WTO membership seems to be a significant covariate, especially stronger for civil wars compared with the conflicts of PRIO. Magee and Massoud (2010) find that the probability of a civil war gradually decreases with the process of liberalization. In their dataset, they also take GATT/WTO membership into account. However they did not demonstrate the detailed role of GATT/WTO in their analysis. In addition, some try to answer the question “does the WTO help to keep peace?” at the theoretical level and discuss
the possible effects of trade system (WTO) within a framework of structural violence (Berg, 2009).

2.1.4 Pitfalls on Current “Double-Track” Literature

Current studies have tried to bridge international trade institutions with domestic internal conflicts in a specific sense and connect international institutions, state behavior, and domestic politics in general. However, some limitations that can’t be overlooked exist in both specific and general studies.

In respect to the link between international trade institutions and trade-conflict nexus, current literature is still insufficient in both theoretical and methodological sense. Firstly, few studies pay attention to the impacts of international trade institutions (like GATT/WTO) on domestic conflicts. The claims of social activists have been mostly ideological or moral criticism. The relevant studies have only depicted some possible mechanisms that demonstrate that GATT/WTO/RTA either negatively or positively influences internal conflict/peace. Compared with the academic progress which has been made into the relationships between international trade institutions and international conflicts, the relations between trade institutions and internal conflicts still need further discussion, concerning both theoretical modeling and mechanism investigation. Secondly, theoretical models and their subsequent hypotheses need empirical tests. Current arguments on the topic of GATT/WTO and internal conflicts need to be empirically investigated; and the forthcoming models and hypotheses also have to be tested by empirical methods and case studies. Additionally, with the greater progress concerning trade institutions and international conflict/peace, studies on trade institutions and internal conflicts rarely “borrow” relevant knowledge and bring it into their own domain, which restricts the development of internal conflict research and the generalization of conflict studies. In sum, building theoretical frameworks and relevant models is needed in the studies into the relations between international trade institutions and internal conflict/peace. On the other hand, relevant and useful methodology like case studies and statistical techniques should
also be applied to the tests of relevant hypotheses and models.

In respect to the general discussion on international institutions and domestic interaction, relevant studies identified the effects on state and domestic actors, depicted the causal mechanisms from international to domestic level, and provided some theoretical models from different perspectives. In particular, previous progress, such as the disaggregation of international institutions, the theoretical relaxation of unitary state assumption, and the further application of constructive approaches, provides new insights in refining the linkages between international institutions and domestic politics.

Nevertheless, there are at least two problems that received inadequate attention in respect to IV and DV. On the one hand, international institutions in current literature need to be examined on three aspects. Initially, they are mostly static structure rather than dynamic ones. It is not reasonable to imagine that international trade institutions like GATT/WTO have not changed from the 1940s to the present. Finlayson and Zacher (1981) show international trade institutions contains diverse and changing rules and norms across time. Next, more attention focuses on bargaining and negotiation phases of international institutions rather than their actual impacts. As Drezner (2003, p. 4) observed, international bargains are “frequently discrete, one-shot affairs”, but their impacts may be “lasting”. Lastly, fewer endeavors have been conducted to integrate different ingredients, such as the rules emphasized by rationalists and norms highlighted by constructivists, into one comprehensive framework on the effects of international institutions. In sum, the international institution is actually a broad and complex concept, which might have different effects on state and domestic politics according to the different dimensions of international institutions such as rules, principles, and norms, etc. Meanwhile, different states may have different degrees of involvement with a given international institution, which produces varied impacts as well. Moreover, an international institution that interacts with state actors can be regarded as a process, which includes different phases like accession, ratification, enforcement, and
possible termination. There exist different dynamics for international institutions affecting domestic politics on changing actors during different period when states interact with international institutions.

On the other hand, domestic politics needs to be disaggregated further. In an ideal sense, the effects of international institutions might diverge in three directions after interacting with domestic politics, including up to state policies, upon domestic structure, and down to domestic actors, etc. Domestic actors are the main driver in domestic politics; but they are relatively neglected compared with two former categories. Drezner (2003, p. 7) indicates current studies via two-level games leaves the “international dimension” of domestic actors “underspecified”. Moreover, the studies on the effects of international institutions suffer from a more general problem in institutionalist analyses, as March and Olsen (2006, p. 10) indicated, academic “accomplishments are dwarfed by the number of unanswered questions about the processes that translate structures and rules into political impacts and the factors that impinge upon them under different conditions. This is also true for how institutional order impacts the dynamics of institutional change.” One limitation is current relevant studies prefer to highlight the effects of international institutions on state behavior via domestic politics; while ignoring the detailed mechanism and effects on the disaggregated elements of domestic politics like domestic actors. Checkel (1998, p. 340) argues for reducing the unit of analysis and “bring agency back in”; Mckeown (2009, p. 8) criticizes current literature that ignores “domestic process”. The “domestic structure” in current studies is usually treated as “fixed and reactive” in a reducible manner (Jacobsen, 1996, p. 109). In fact, only after the behavior of domestic actors is transformed and the equilibrium of actors’ interaction is broken, can domestic politics and subsequently national policies change. As a result, it contributes to the international-domestic interaction in refining the effects of international institutions on domestic groups. At the same time, constructing the process and identifying the factors require more details on/under the micro level. Some scholars call for future studies on international institutions to “go micro” that
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ignoring “microprocesses and local variation” is “surprising” (Johnston, 2003, p. 149). Micro dynamics within domestic politics, like the behaviors of and interactions among domestic actors, should be increasingly taken into account. In this regard, Ruggie (1998a, p. 27) sheds light on “innovative micro-practices” and claims that it would be “productive” when linking up with some macro-structures; moreover, both macro system transformation and “corresponding micro practices that may have transformative effects” should also be taken into consideration (Ruggie, 1998b, p. 876). Other relevant studies prefer to only discuss the international effects on interest distribution and policy preference of domestic actors (Frieden & Rogowski, 1996), which actually uses a narrow perspective to paint the full picture. Hence, exploring behavior transformation and actor interaction would be productive when the overarching effects of international institutions are linked.

Furthermore, besides the limitations from IV and DV, there are still two unanswered questions regarding the link between international institutions and domestic actors. First, with what mechanism can international institutions affect domestic actors and push them to change their behavior and interactions? Current analyses on mechanisms are mostly about international institutions on state behavior (Botcheva & Martin, 2001) and domestic adoption of international norms (Checkel, 1997; Cortell & Davis, 1996; Finnemore & Sikkink, 1998; O'Faircheallaigh, 2014; Risse & Sikkink, 1999). But few studies shed light on the concrete mechanism that leads to international institutions influencing domestic actors and their interactions. Some scholars argue interests, institutions, and information are the driving force for domestic actors (Frieden & Martin, 2002, p. 120); but this argument needs to be further deliberated and tested.

Second, under which conditions will international institutions tend to shape a cooperative behavior for domestic actors and/or under which conditions will they lead to a conflict behavior? International institutions conduct effects following a long causal linkage, which finally reach domestic actors across multiple variables.
and several levels. Different configurations of relevant variables produce various outcomes. Therefore, to explore “how global processes interact with ‘processes of state/societal transformation’” and “how ‘state/society transformation at one level is affected by and in turn affects the transformations at levels B and C, and so on’” is proposed as a “more promising” path (by Ronen Palan and Barry Gills, citing from Jacobsen, 1996, p. 108).

2.2 IV: International (Trade) Institutions

2.2.1 Definition and Key Components

As a general term, institution is a core concept in political studies. For instance, Milner (1997, p. 18) regards institutions as “prominent features of politics”. Current studies have shown that institutions can prescribe “appropriate behavior for specific actors” via some approaches like providing meaning to behavior and “behavioral codes” (March & Olsen, 2006, p. 3) and furthermore shape “human interactions” through embedding “socially accepted constraints or rules” (Milner, 1997, p. 18). Most importantly, institutions can define the overall political process and aggregate the interests of domestic actors (Garrett & Lange, 1996, p. 49; Milner, 1997, p. 15).

In addition, international institutions also play a significant role. They are denoted as “central” (L. L. Martin & Simmons, 1998, p. 729), “central features” (Koremenos, Lipson, & Snidal, 2001, p. 761), and the “central focus” (Duffield, 2007, p. 1), etc. in international relations and world politics. International institutions can protect the national interests if the interests are “embedded within international regulatory frameworks” even for small states; also for the opponents of globalization, international institutions are usually promoted as “a better tool for achieving desirable goals” in order to solve or control relevant issues in the international arena (Brawley, 2008, p. 206).

However, institution is an “even fuzzier concept than cooperation” (Keohane, 1988, p. 382); various debates of different theoretical branches make the
international institution much more diverse (Risse, 2002, p. 605). As a result, providing a “widely accepted definition” of international institution becomes more difficult (Duffield, 2007, p. 1). Duffield (2007, pp. 1,3) argues current studies use largely “nonoverlapping” rather than “comprehensive” conceptions, which bring fragmented literature and hinder theoretical accumulations. He lists four popular usages of international institution, i.e. formal organizations, practices, rules, and norms. In order to include “all the important forms”, Duffield (2007, pp. 7-8,15,18) shows the typology of international institutions according to ontological forms and functional types, and provides a broad definition, i.e. “relatively stable sets of related constitutive, regulative, and procedural norms and rules that pertain to the international system, the actors in the system (including states as well as non-state entities), and their activities.” This definition contains structural factors as constraints, actors as agencies, and actors’ activities as consequences, which are related to the key elements of international institutions (i.e. rules and norms) with diverse effects. It could provide at least three implications. Firstly, it formally highlights the importance of non-state entities within the international system. Secondly, rules and norms are the essence of international institutions that have multiple functions on the actors. Thirdly, the activities of non-state actors should be further considered to discuss the causes and consequence of international institutions.

Therefore, rules and norms are the essential components of international institutions according to all the institutionalist groups (Aspinwall & Schneider, 2000, pp. 6-7), which are highlighted as “related complexes of rules and norms” by Keohane (1988, p. 383) and “relatively stable sets of related...norms and rules” by Duffield (2007, pp. 2,4-7). This is in tune with both rationalist and constructive (or reflective) approaches. For example, Finnemore and Sikkink (1998, p. 891) define norm as “single standards of behavior” and institution as an “aggregation” in which “behavioral rules are structured together and interrelate”. Other similar terms such as “explicit arrangements, negotiated among international actors” (Koremenos et al., 2001, p. 762) can be also included in the broad scope of rules.
Furthermore, other sub-components have been integrated into the norms and rules category. Previous progress shows, international regimes, as a major type of international institution (Hasenclever, Mayer, & Rittberger, 2000, pp. 4-5; Keohane, 1989, pp. 3-4), were defined as “sets of implicit or explicit principles, norms, rules, and decision-making procedures” (Krasner, 1982b, p. 186). However, in spite of the “complex hierarchy” of regime components, principles were gradually absorbed by norms (Haggard & Simmons, 1987, p. 493). Decision-making procedures are usually regarded as the common functions of norms and rules (Duffield, 2007, pp. 14-15) on the other hand. Similarly, Krasner (1982b, p. 187) also applies these terms as follows “between principles and norms on the one hand, and rules and procedures on the other”.

Nevertheless, some other similar terms are distinguished from international institutions. Some scholars show the “essential core” of international organization is the “rules, regulations, and agreed procedures for which the institutions assume responsibility” rather than “various administrative or judicial bodies” (Armstrong, 1982, p. 119). Higgott (2006, p. 611) regards institutions and organizations as “two inseparable sides of one coin”, with some difference as follows, “All organizations are institutions, but not all institutions are organizations. Institutions can lack organizational form, while some organizations may have multiple institutional roles.” Similarly, Martin (2006, p. 654, footnote 1) defines institutions as generally “sets of rules and norms” and organizations as the embodiment of norms that “are empowered to take actions”. Furthermore, Duffield (2007, pp. 3-4,13) argues international organizations are “not institutions per se” and criticizes traditional usage that regards forms of international institutions (i.e. organizations) as “international institutions” as “misleading” and “inappropriate”. At the same time, the usages that regard international institutions as one practice are either “too narrow” or “too broad”; the “most problematic aspect” of this sociological conception is “the close degree to which they associate institutions with behavior” (Duffield, 2007, pp. 3-4,13).
Moreover, two components of international institutions, i.e. rule and norms, are actually not identical, though they are “difficult to distinguish” (Haggard & Simmons, 1987, p. 493) and scholars use them “interchangeably” (Cortell & Davis, 1996, p. 453; Duffield, 2007, p. 8; Finnemore & Sikkink, 1998, p. 900). In respect to definition, originally by Krasner (1982b, p. 186), norms are “standards of behavior defined in terms of rights and obligations” while rules are “specific prescriptions or proscriptions for action”. They construct a “complex hierarchy” (Haggard & Simmons, 1987, p. 493). Hereby, norms and rules also have distinct significance. On the one hand, norms should be the “foundation of a regime”, which can guide “states’ behavior in designing decision-making procedures and in formulating and implementing rules” (Finlayson & Zacher, 1981, p. 564). On the other hand, norms have “a different quality” from rules. As Fearon indicated in 1997, rules require “Do X to get Y” while norms mean “good people do X” (citing from Risse & Sikkink, 1999, p. 8). Similarly, rules can be “imposed by one actor on others” while norms cannot (Duffield, 2007, pp. 8-10).

The debates of constructivist and rationalist conceptions further differentiate norms and rules. Duffield (2007, pp. 8-15) makes a detailed account according to the ontological distinctions, i.e. intersubjective elements versus formal elements, in which norms indicate different strengths and rules vary at formalization. He finally provides three different but related types in international institutions, including formal rules, combinations of norms and rules, and intersubjective norms, which may perform constitutive, regulative, and procedural functions. Norms usually arise “spontaneously” and prior to the birth of formal rules, which is “implicitly consensual” by nature and can’t be imposed. They require “human consciousness to be sustained”. In addition, international institutions as norms show “deontic, evaluative, or ‘normative’ quality”. On the other hand, rules point to the formal elements in international institutions, which come out usually through a process of negotiation and can be “entirely separate from the agents that devised them”. More importantly, Duffield (2007, p. 18) indicates that different causal relationships and
mechanisms exist for formal rules and intersubjective norms to perform influence and shape behavior, but this requires further research.

2.2.2 Features of International Institutions

This part continues to discuss some key features of international institutions, such as the internal tension between/within rules and norms, the changing nature, as well as the autonomy of international institutions, etc.

2.2.2.1 Endemic Conflicts

Conflict is “endemic” in institutions, in spite of assumptions on “internal coherence and consistency” (March & Olsen, 2006, p. 14). Any given international institution might encompass diverse norms and rules. The relations between rules and norms and even within norms are not constantly harmonious. In some case, rules may even clash with norms (Cortell & Davis, 2005; Duffield, 2007, p. 10). International trade institutions/regimes are an obvious example. Finlayson and Zacher (1981) identify a series of norms in GATT, which can be divided as substantive norms (including nondiscrimination, liberalization, reciprocity, safeguard, and development) and procedural norms (like multilateralism and major interests). The norms are “either mutually supportive or to some extent in conflict”. Relations between reciprocity norm and major interest norm belong to the first category, while norms of nondiscrimination and reciprocity might clash with liberalization (Finlayson & Zacher, 1981, pp. 593-594). And as Milner (2005, p. 840) shows, reciprocity “has not been a main function of the trade regime” especially for developing countries. However, it is clear the “central normative component” is liberalization and nondiscrimination (Cortell & Davis, 2005, p. 10). In addition, international institutions can also exert “conflicting domestic effects” when regulating the relevant issue at domestic level. For example, it has been argued that international law on human rights simultaneously provides an increasing and decreasing influence on state leaders’ incentives (Conrad & Ritter, 2013).
2.2.2.2 Internal Change

Furthermore, international institutions have “changing” faces in the long term. As the core components of international institutions, both rules and norms are actually in a dynamic process. On the one hand, international institutions are usually regarded to be fixed and stable. As Keohane (1988, pp. 383-384) generally argued, institutions should be “identifiable in space and time” and “rules must be durable”. Duffield (2007, pp. 7-8) illustrates them as “relatively stable”.

However, the change of regimes with pillars like rules and norms has already been come into academic scope. IR scholars argue regimes are “something more than temporary arrangements that change with every shift in power or interest” (Krasner, 1982b, p. 186) and may change “over time or vary across cases in at least four ways” (Haggard & Simmons, 1987, pp. 496-498). As a result, the change of international institutions is obvious, as Duffield (2007, p. 11) put it, “the nature of a particular institutional element can change over time”. Finlayson and Zacher (1981, pp. 594-597) tell a comprehensive story about the evolution of relevant norms in GATT from the 1950s to the 1970s within sovereignty and interdependence norm categories. Abbott and Snidal (2000, p. 436) also describe the legalization process of international trade regime from GATT as soft law to WTO as hard law with distinct advantages and costs respectively.

To be exact, norms and rules have different effect on the changing role. Norms are more stable and fundamental than rules. According to Krasner (1982b, p. 187), rules were built “purely on short-term calculations of interests” and the changes on rules as well as decision-making procedures are actually “changes within regimes” while “principles and norms are unaltered”. In particular, rules evolution can be generally explained by “alterations in the importance of its norms” (Finlayson & Zacher, 1981, p. 564); and the changes of rules and norms lead to the transformation of regimes and institutions, implied by Krasner (1982b, p. 188), “changes in principles and norms are changes of the regime itself.” Therefore, some studies take the interactions of rules and norms into account and suggest
researchers focus on “possible interactions between the intersubjective and formal elements” of given institutions rather than “treating them simply as alternative explanatory variables” (Duffield, 2007, p. 18).

Subsequently, what is the direction of the changes in international regimes and institutions as well as their corresponding rules and norms? As a historical phenomenon, the international institution has grown for almost 100 years (Kennedy, 1987, p. 841). During this period, the international institution as a practice experiences two different directions in international politics, i.e. moving to a more institutionalized degree versus dying or becoming inactive. The diverse types of international organization in international relations (Judge, 1978) and the historical practice on international organizations (Shanks, Jacobson, & Kaplan, 1996) indicate two tendencies. On the one hand, international organizations, as the embodiment of international institutions, proliferate quickly in diverse issue-areas. According to the statistics in 2011, there are 8644 conventional bodies (with 262 intergovernmental types and 8382 nongovernmental types) and 17,100 other international bodies (with 1,731 intergovernmental types and 15,369 nongovernmental types) (Union of International Associations, 2012, p. 25). “The move to institutions” is actually an increasing institutionalization (Kennedy, 1987). Finnemore and Sikkink (1998, p. 900) argue norms have “increasingly become institutionalized in international law, in the rules of multilateral organizations, and in bilateral foreign policies” since 1948. Duffield (2007, p. 18) proposes a similar question, “when and how does the basic nature of institutions change?” In an ideal sense, we can predict international institutions would move towards more formalized rules, stronger norms, and probably more bureaucratic organizations, etc. For example, international trade institutions took a “defined, codified, strengthened, and refined” process toward the building of WTO in 1995 (Cortell & Davis, 2005, p. 10). If international institutions are operationalized into a process of norm development, it usually evolves in accordance with a three-stage “life cycle”, i.e. from norm emergence, to norm cascade, and to internalization
On the other hand, international institutions might cease or become inactive (Judge, 1978; Shanks et al., 1996) and norms might “regress” (McKeown, 2009). Data in 2011 shows 2,722 intergovernmental organizations and bodies and 27,699 nongovernmental bodies are inactive, which accounts for more than 46.5% of all international organizations (Union of International Associations, 2012, p. 25). However, the facts are more complex. In addition to the evolution of norms (in a positive sense) that accounts for more attention, there exists “norm regress” in international politics, which includes three phases of norm death, i.e. revisionist challenge, reverse cascade, and norm expiration (McKeown, 2009). Even for the norm “life cycle”, it needs “threshold” or “tipping point” for stage evolution (Finnemore & Sikkink, 1998, p. 898).

As a result, international institutions are not static. This argument has been certified by previous scholars. Claude (1971, p. 4) regards international organization as a “process”, and “representative aspects of the phase of that process which has been reached at a given time”; in particular, he indicates this process is to “adapt the institutions, procedures, and rules of international relations to the conditions of international interdependence.” Armstrong (1982, p. 119) argues the “main thrust” of international organization is “the development of ‘international regimes’”, which contains both formal institutions and “many informal, decentralized arrangements”. Duffield (2007, p. 18) gives a comprehensive picture, observing that some formal arrangements gain stronger normative obligation while others lose legitimacy, on the one hand; on the other hand, some international norms are formalized into treaties but others fail. When international institutions are more “legalized” and “the stronger their organizational backing is”, they are more influential in general (Costa & Jørgensen, 2012, p. 6). Accordingly, international institutions might either move towards a direction with ideal norms and mature rules in a given issue or retreat back to a contrary position. Duffield (2007, p. 11) shows international institutions vary internally in terms of norm strength and formalization degree; the
element with strong norm plus high formalization on rules can be regarded as an ideal policy position, while other elements in the two dimensional matrix are do not hold ideal positions. In the long term, the different elements of a given international institution may vary widely in terms of norm strength and formalization. For instance, international trade institutions experienced a transition from moderately formalized GATT rules to WTO rules with a high degree of formalization around 1995. In this regard, Finlayson and Zacher (1981, pp. 595-596) however tell a complicated story about the norm fluctuation or policy position swing from the 1950s to the 1970s, which demonstrates distinct strengths of diverse norms in GATT across different periods.

In general, this chapter is more interested in analyzing international institutions that mostly move towards the ideal policy position with strong norms and formalized rules while taking temporary deviation on norms and rules into account. Fewer discussions are raised in the case of inactive institutions with weak norms and non-formalized rules. So, what are the sources of change in international institutions? There are currently three explanations on unit, structure, and the nature of international institutions, etc. Firstly, the nature of power politics determines the changes of norms and rules as well as international institutions in given issue-areas. The most powerful or “influential” members account for the most significant role in norms evolution and competition as well as rules making and implementation. GATT can be a cogent case, as previous studies revealed, from the very beginning, they were “the product of the preferences of the strong”, and later on “[t]he reasons for the rise and fall of regime norms are of course to be found in the shifting power resources and policy objectives of regime members, particularly the most influential ones” (Finlayson & Zacher, 1981, pp. 593, 601). Secondly, characteristics of international structure also matter to the change of international institutions. In respect to power distribution, international regimes could be a “function of the distribution of power”; but the roles of hegemonic states in promoting regimes are still in debate along with demand- and supply-side
aspects (Krasner, 1982b, p. 199). Thirdly, the changes (to mature or death) of institutions with norms as well as rules also have their own inherent logic. Institutions “do not merely reflect the preferences and powers of the units constituting them” (Keohane, 1988, p. 382). As Krasner (1982b, p. 205) puts it, “interests, power, diffuse norms, customs, and knowledge may all play a role in regime formation.” Institutions might take either an adaptive approach or “radical change”; their changes are probably related to “historical experience”, environments, external stocks, and “the organization, interaction, and collisions among competing institutional structures, norms, rules, identities, and practices”. Most importantly, “an internal aspiration level pressure for change” exists, which comes from “enduring gaps between institutional ideals and institutional practices” indicated by Albert Broderick in 1970 (March & Olsen, 2006, pp. 11-14).

2.2.2.3 Independence & Autonomy

In spite of the comprehensive influence of factors at unit and structure levels, international institutions have their own independence and autonomy to some extent once they are born. Krasner (1982a, pp. 500-509) proposes the concept of “regime autonomy” and indicates regimes would “assume a life of their own” after they are established, despite the changes of other relevant variables. Mitchell (2009, p. 83) argues institutions “do reflect the power and interests” of states, but they can “wield independent influence over those states’ behaviors”. Subsequent studies show all the principal-agent theories, legal theories, and the studies on the role of bureaucracies through institutionalism support the argument (Barnett & Finnemore, 2004; Collins & White, 2011; Haftel & Thompson, 2006; Venzke, 2008).

Firstly, independence and autonomy are crucial variables in studies of international institutions. Autonomy can arguably be “a key element of any conceptualization of political independence” (Haftel & Thompson, 2006, p. 256). Abbott and Snidal (1998, pp. 4-5,9-23) identify two functional attributes of international organizations, i.e. centralization and independence. Centralization means collective activities on efficiency and ability are managed by a “concrete and
stable organizational structure” and a “supportive administrative apparatus”; while independence is defined as “the ability to act with a degree of autonomy within defined spheres”. Centralized structure brings some “operational” independence. In a different vein, Haftel and Thompson (2006) regard autonomy, neutrality, and delegation as three key institutional properties of international organizations.

Secondly, the independence and autonomy may cause profound influence through different mechanisms in international politics. They are not simple instruments of powerful actors or decision-making arenas (Chiti & Wessel, 2011; Venzke, 2008, p. 1404). For example, independence and autonomy can actually produce “political effects” besides improving efficiency. It can shape understandings, transform state interactions, elaborate norms, mediate disputes among states, and improve legitimacy, etc. (Abbott & Snidal, 1998, pp. 16-23). Barnett and Finnemore (2004, p. 29) find international institutions usually refer to authority, knowledge, and rules to “regulate and constitute” international politics. And Haftel and Thompson (2006, p. 254) argue the independence of international institutions “largely” determines the authority and influence, i.e. the “ability to shape international politics” as an autonomous actor and non-state actor. Collins and White (2011, p. 2) think autonomy is crucial to the development of international legal order and to “secure the rule of law in international affairs”.

Thirdly, both independence and autonomy are not absolute, taking the power politics, institutional environment, and some organizational features into account. They are actually “matters of degree” (Abbott & Snidal, 1998, p. 9) and affected by a series of variables. Independence is “highly constrained” by the interests of powerful member states via interfering with their operations, ignoring their dictates, and restructuring and dissolving them (Abbott & Snidal, 1998, pp. 5,19). Furthermore, autonomy also has a dimension as “institutional independence”. It is independent to some extent but probably constrained by “external institutional interferences”, which measure “the ability of the organization to behave as an independent member of the international community to which it belongs”
In this regard, international institutions demonstrate policy autonomy in different policy phases with the influence of member states and peer organizations (Reinalda & Verbeek, 2011). In addition, the organizational nature of international organizations as collective agents matters to the degree of autonomy as well. According to Graham (2014, p. 386), international organizations with actor-based fragmentation are more likely to increase autonomy than those with structure-based fragmentation.

In general, international institutions keep their autonomy, stability, policy consistency, and institutional independence in a given period in spite of the moderate changes on unit and structural levels.

### 2.2.3 Operationalizing International Institutions in Models

Modelling international institutions has been a focus in IR and IPE. Gilligan and Johns (2012) summarize three “generations” on modelling international institutions via game theory in the past three decades. The first two generations mainly addressed the roots of creations and compliance of international institutions as well as bargaining and negotiation with or without hegemony in international cooperation. The recent third generation moves to “more refined issues” on international cooperation and institutions, including issues like “distribution, depth, flexibility, multilateralism, and the functions of international institutions”. A noticeable trend in modelling international institutions is regarding them firstly as monolithic units in earlier times and subsequently as strategic actors in the past 30 years.

This part takes a different approach. It firstly goes back to the essence of institutions, i.e. “a relatively enduring collection of rules and organized practices” (March & Olsen, 2006, p. 3). The international institution is hereby simplified to be a cluster of rules and norms or a function of norms and rules, and operationalized as a process that moves towards a given ideal policy position at international level.

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1. Alternatively, Snidal and Thompson (2003, p. 217) divide international institutional features as informational, operational, adjudicative, and enforcement capacity, which is “not adequately distinguished” however.
The moving policy process is affected by international structure and interaction with powerful state actors, but it takes some degree of autonomy and is relatively stable. Taking the “adaptive character of rules” (March & Olsen, 2006, p. 13) into account, this chapter assumes international institutions will mostly change incrementally in spite of the possible existence of radical and discontinuous changes. In respect to the overall movement towards an ideal position, international institutions might probably retreat back to their previous position in the long term. In general, international institutions move from weak norms and less formalized rules to strong norms and formalized rules. When the real policy position converges with the ideal position, the given international institution is stronger and more formalized.

Furthermore, the crucial indicator of international institutions’ influence on state actor and domestic politics is the strength of international institutions. Different strengths in international institutions (rules and norms) create different impacts on actors (Duffield, 2007, p. 9). Kahler (1995, pp. 4, 25) defines the strength of international institutions as “explicit and substantive rules are taken to signify stronger institutions”, which can be measured by both “the formal character of the institutions” and levels of “compliance with institutional rules”. When they are stronger, international institutions will be followed according to the institutional procedures; when they are weak, “other power resources take on more importance” (Gourevitch, 1999, p. 164). However, the strength of international institutions is not sufficient to explain state attachments to rules (Kahler, 1988, p. 375). Duffield (2007, pp. 9-12) puts special emphasis on the aspects of norm strength in defining international institutions and ascribes the strength of rules to the degree of formalization. More conditions needs to be explored. In this way, Dai and Martinez (2012, p. 214) argue both the strength of international institution and conditional environment are independent variables that explore the variation on the effects of international institutions. In the case of the EU, they consider the strength of international institutions as “possible carrots and sticks” for decision-makers and
other diverse actors. In a nutshell, when a given international institution has a higher strength, it has a more institutionalized form and a higher level of compliance by its members; in other words, the stronger the international institution, the more policy instruments it has to influence state governments. For the key international institutions, they are moving from a lower level of institutionalization and formalization to higher and higher level; more and more members have accessed these international institutions and more and more policy instruments have been explored in efforts to exert influence on state actors as well as other relevant agents.

A third dimension in measuring international institutions is the salience of the given international institution among the cluster of international institutions. It is actually a counterpart at international level compared with the term “domestic salience” (Cortell & Davis, 1996, 2000). International institutions vary in their salience. To identify the influence of a given international institution, it has to clarify its salience among general international institutions. International institutions and regimes are usually set up to deal with specific problems and issues. The significance of particular issues firstly affects the salience of international institutions. In international politics, more salient issues have higher priority on the political agenda (Oppermann & de Vries, 2011, pp. 3-4). It has been argued that issue salience is linked to the compliance with international agreements (S. M. Mitchell & Hensel, 2007). In addition, the salience of a given international institution is usually related to a higher formalization degree and larger norm strength as well as the development of international situations. In particular, international trade institutions have become one of the most important international institutions in promoting international cooperation with its formalization and norm diffusion. Hereby, GATT and WTO are regarded as “premier examples” of international institutions (J. L. Goldstein et al., 2007, p. 37). Furthermore, salience of international institutions is also affected by the interaction or interplay of international institutions and regimes. Specific institutions or
regimes are not isolated from each other. They might create conflict or “synergistic effects” and exert influence on each other (Gehring & Oberthür, 2004). A given international institution with higher salience can probably influence other institutions and indirectly affect state and other actors through rules and norms.

2.3 DV: Behaviors of Domestic Groups

2.3.1 Defining Behaviors of Domestic Groups

Behavior is an important focus that can be affected by international institutions (Koremenos et al., 2001, p. 762). Among the large amount of relevant studies, the behaviors of state actors and governmental agents in domestic politics have been gradually taken into consideration. However, our academic attention shouldn’t pause at state actors and government agents. With new progress on investigating the role of non-state actors (Bennett, 2013; Checkel, 1997) in interacting with international institutions, this chapter transfers the traditional target to domestic actors and moves further to capture the transformation of behaviors.

In a conceptual sense, behavior is closely related to, but actually different from, an action or act. According to Rummel (1979, Chapter 4.1), acts and actions are crucial elements of “meaning of behavior”, which is defined as follows, “acts are behavior given meaning by an underlying plan, aim, purpose; actions are behavior toward achieving the act.” Various actors may have their own behaviors, such as state actors, transnational actors, individuals, and domestic groups, etc. Different patterns of behaviors mean different choices of relevant actors in politics, i.e. to “make decisions about political matters” (R. J. Dalton & Klingemann, 2007, p. 9). A variety of studies have shed light on the behavior of the aforementioned actors, such as state behavior and, current studies on political behaviors have roughly covered six areas such as mass public, modernization process, political values, voting choice, political participation, and representation, etc. (R. J. Dalton & Klingemann, 2007, p. 3).

This chapter focuses on group behavior of domestic groups in particular.
Group behavior, or behavior of the “corporate actor”, has been a focus in anthropology, sociology, psychology, and politics, etc. (Coleman, 1990; LeVine & Campbell, 1972; Mullen, 1987). In the 1950s, Kindleberger (1951) explored group behaviors (including subgroups and groups as large as nations) in international trade. LeVine and Campbell (1972) discussed the intergroup behaviors of domestic actors, especially the conflict and antagonism in the context of ethnocentrism. Rogowski (1989) showed the coalition conflicts and political cleavage in the process of exposure to trade among the owners of land, labor, and capital, etc. On the basis of the Stolper-Samuelson theorem and the Ricardo-Viner model, Hiscox (2002) furthermore shows the specific conditions where different domestic groups have different conflict behaviors through various lines of sector and class. Hereby, this chapter uses “group” in a more general sense at domestic level, regardless of the distinguishing line of sector, class, or ethnics, etc.

2.3.2 Behaviors as Effects of International Institutions

One of the purposes of institutions is to prescribe behaviors. The effects on relevant behaviors are inherent in the definitions of almost all institutions. For example, the “Grammar of Institutions” implies the “specific action or outcome to which an institutional statement refers” is its “AIM” (Crawford & Ostrom, 1995, p. 585). In line with institutionalism, institutions are “constitutive rules and practices prescribing appropriate behavior for specific actors in specific situations”, which can “give direction and meaning to behavior, and explain, justify, and legitimate behavioral codes” (March & Olsen, 2006, p. 3). Greif (2006, p. 30) argues institutions could “generate a regularity of behavior”. North, Wallis, and Weingast (2009, p. 15) furthermore show institutions are both “constraints on the behavior of individuals as individuals” and a platform to “structure the way individuals form beliefs and opinions about how other people will behave.”

International institutions and regimes can play a prominent role in prescribing behaviors. Krasner (1982b, p. 185) argues they are “inextricably linked” and regards behaviors as outcome from other causal factors in particular with the “intervening”
effects of international regimes; in addition, international regimes can also act as autonomous actors in affecting state behavior (Krasner, 1982a). Regimes by themselves can be a “patterned behavior” (Haggard & Simmons, 1987, p. 493), or “prescribe behavioral roles for actors” (Keohane, 1988, p. 384), or they are defined as follows, “explicit arrangements, negotiated among international actors, that prescribe, proscribe, and/or authorize behavior” (Koremenos et al., 2001, p. 762).

It should note that some studies are aware of “the close degree to which they associate institutions with behavior”, which might cause “logical fallacy” in explaining their relations (Duffield, 2007, p. 4). But the significance of behaviors in understanding international institutions and regimes still prevails. For instance, Haggard and Simmons (1987, p. 515) point out that the process and mechanisms for international agreements affecting “domestic political fights” are “still poorly understood”; Martin and Simmons (1998, p. 729) suggest current studies should “increasingly turn” to the question of “how institutions matter in shaping the behavior of important actors in world politics.”

Theoretically, institutions can affect actors’ behaviors of actors in various ways. For example, when discussing the “institutional turn” in political science, Aspinwall and Schneider (2000, pp. 4-5) state institutions pose either constraining or empowering effects on human action. Current studies generally show institutions can affect actors with their behaviors through a few approaches, with relevant terms, including “empower”, “constrain”, “fashion”, and “enable” actors, as well as “prescribing”, “shaping”, and “reduce flexibility and variability” on behaviors, etc. (March & Olsen, 2006, pp. 3-9).

International institutions exert similar functions with “equally diverse” effects (Checkel, 1997, p. 474) on the behaviors of relevant actors (mostly on state actors). In respect to international behavior, as Ruggie (1975, p. 559) mentioned, it is actually “institutionalized”. Keohane (1988, p. 384) argues international institutions can “prescribe behavioral roles for actors, besides constraining activity and shaping expectation”. Two kinds of behavioral effects of international institutions on states
have been identified i.e. convergence and divergence (Botcheva & Martin, 2001). Furthermore, this conceptual category is applied in some specific issues, which mostly examine the convergence effects of international dynamics on national policies (like Drezner, 2001; Heichel, Pape, & Sommerer, 2005; Holzinger et al., 2008; Knill, 2005, etc.). However, the constraining effect on behavior is purely a popular consensus. A more colorful picture exists in depicting the relations between institutions and behaviors. Checkel (1997, pp. 473-474) provide a dual framework with constraining and constitutive effects on the basis of valuable insights from both liberal and constructive branches, which is echoed by Finnemore and Sikkink (1998, p. 891). Moreover, Weiss (2003, pp. 15-21) proposes a third effect or “institutional consequences” i.e. “the enabling face of globalization” via three pillars of institutions, including rules, norms, and organizational arrangements. And Duffield (2007) adds a procedural effects on actor’s behavior besides regulative (constraint) and constitutive effects. In respect to international trade institutions, Finlayson and Zacher (1981, pp. 598-602) summarize the regime functions of GATT as “facilitative” function, “constraint” function, “diffusion of influence” function, and the “promotion of interaction” function, etc.

Domestic actors are also affected by international institutions, and these are greatly marginalized and even ignored by the overwhelming studies on state actors. In most cases, they are regarded as a channel rather than a terminal to receive effects. Checkel (1997, p. 475; 1998) indicates previous IR theories including constructivism neglect and proposes some models on “the effects of norms on agents”. Cortell and Davis (1996, pp. 454,457) argue international rules and norms can affect “the actions and interests of state and/or societal actors” and help domestic actors “translate their preferences into policy” as one kind of power resources. O’Faircheallaigh (2014, pp. 158-163) points out the “tendency to downplay the role of domestic political agent” in the studies on norm adoption, which tries to incorporate “corporate actors” and “potential beneficiary groups”, etc. The effects of international institutions on domestic groups can be found in
cases like the transformation of Japan's domestic politics and GATT/WTO. Cortell and Davis (2005) shows Japan's transformation from mercantilism to free trade happened not only at state level but also at domestic level from the 1950s to the 1990s. In particular, the movement “was contingent on the actions of domestic actors” (Cortell & Davis, 2005, p. 24) and these actions were influenced by GATT/WTO norms.

Similarly, domestic politics receives specific impacts from international institutions as well. It is mostly regarded as a medium affected by international dynamics and subsequently influences the national policy choice and state behavior (Cortell & Davis, 1996, p. 451). Young (2004, p. 9) argues the rising international institutions can have “consequences” for domestic affairs and political processes in particular under domestic level, taking the form of “impacts on the allocation of material and political resources.” With “equally diverse” manners similar to the effects on state behaviors, international norms could affect political and social actors through either logic of consequences (means-ends calculation) by rationalists or logic of appropriateness by constructivists (Checkel, 1997, pp. 474-475). International institutions are different in that they can either play an informational (or signaling) role in shaping (mostly constraining) the behavior of democratic leaders with private agendas (Fang, 2008); or play an instrumental part in reaping political interests and advancing economic reform at domestic level (Baccini & Urpelainen, 2014).

As a result, international institutions would influence domestic actors and domestic politics with different approaches to that on state actors. The behaviors of relevant actors are subsequently affected within the influence of international institutions. It is necessary to furthermore ask, what features of the actors’ behaviors are affected by international institutions? Duffield (2007, p. 11) indicates international institutions and regimes put emphasis on “patterns of behaviors”, which imply the behaviors can be categorized into different types.

From a perspective of international institutions, actor behavior can be
categorized according to their inherent sources or “inputs”. Haggard and Simmons (1987, pp. 510-511) define behaviors into rule-governed and norm-governed, which accord with the essence of international institutions; similarly, Cortell and Davis (2005, p. 23) divide behaviors as interest-based and norm-based behaviors. The first type of behavior follows the rationalist model on short-term calculation and argues “As interest and power changed, behavior changed.” The second type is much more complicated. Norm-based behavior or “regime-governed behavior” tries to go beyond “narrow calculations of interest” and focus on “the infusion of behavior with principles and norms” (Krasner, 1982b, p. 187). In addition, Finnemore and Sikkink (1998, p. 912) are not satisfied with neglecting “norm conformance can be self-interested” and advocate a new behavioral logic of norm conforming.

Distinct from “input”, behaviors can be defined as an “outcome”. In the case of states, the behaviors, as the outcome of the influence of international institutions, could be regarded as “a single, dichotomous variable: cooperation or no, compliance or its lack.” In spite of this “crude” or “perhaps obscured” typology, a “more precise measurement” of institutional effects on state behavior (especially on national policy change) is proposed to include the convergence versus divergence on effects, as well as no effects. In line with this, the “average or mean level of state behavior” is a criteria to estimate the convergence or divergence on the behavior of actors like the state (Botcheva & Martin, 2001, pp. 3-4; L. L. Martin & Simmons, 1998, pp. 751-757). The convergence-divergence dichotomy has been popularly used in international studies (for example Drezner, 2001; Heichel et al., 2005; Holzinger et al., 2008; Knill, 2005, pp., etc.).

In general, the typology of conflict versus cooperation still prevails in exploring actor behaviors especially when discussing interactions among actors in a relational context. Rummel (1979, Chapter 4.2, 4.3) shows behavior has a “direction” in addition to its own meaning, i.e. solidarity or cooperative behavior versus antagonistic or conflictive behavior. Currently, the dichotomy is widely applied as a scale in order to describe actors’ behavior on a daily-event base not only in
international relations but also in domestic protests (e.g. J. S. Goldstein, 1992; Leetaru & Schrodt, 2013).

Furthermore, the convergence-divergence division is usually incorporated into the typology on conflict-cooperation. Generally, similarity brings cooperation while dissimilarity breeds conflict (Pulliam, 1982, p. 353). For example, Moravcsik (1997, p. 517) tries to investigate the conditions and mechanisms when an actor “converges toward cooperation or conflict”, but some studies show convergence may not only bring peace and cooperation but also “breed conflict” in international politics (Leonardo, 2013). In most cases, convergence or divergence is used to depict the trend of actor’s policy preference; while conflict versus cooperation is a relational description on the behavior types of at least two interactive actors.

This chapter mostly focuses on the conflict dimension. Politics, typically via its distributional function on interests among domestic actors, is the “authoritative allocation of values” (Easton, 1953, pp. 128-129) and “fundamentally about winners and losers from alternative policies” (Lake, 2006, p. 763). As a result, competition or conflict among groups is inevitable.

2.3.3 Determinants of Behaviors among Domestic Groups

Behaviors, including group (or corporate actor) behaviors, are determined by a series of factors in accordance with different theories in interdisciplinary subjects (like LeVine & Campbell, 1972; Mullen, 1987). Coleman (1990, pp. 132-136) goes beyond individual behavior and puts the behavior of the corporate actor into the explanatory framework of values, power, constitution, interest, and resources, etc. In IR, some studies identified relevant determinants in explaining behaviors of actors like states that connect state behavior with the level of externalities, institution, organization, and interests (Botcheva & Martin, 2001). In particular, Moravcsik (1997) has made coherent contributions in explaining state behaviors via bridging liberal, institutionalist, and realist theories. Three categories of determinants abstracted from Coleman (1990), like interests, resources, and institutions, have been highlighted to affect social behavior in general (Moravcsik, -58-.
On the basis of determinants along with different approaches, Moravcsik (1997, pp. 544-545) provides a two-stage framework to describe state behavior, i.e. firstly shaping preference according to ideas, interests, and institutions; and subsequently triggering strategic interaction, which defines a given state behavior in an interactive environment.

This chapter therefore assumes the behaviors of domestic actors are mostly shaped by competition on interest and resources, properties of domestic actors, structural and institutional constraints, as well as distribution of information in a process of strategic interaction among actors within a social system like domestic politics.

Firstly, interest and resources are important in shaping a given actor’s behavior. Interest or self-interest has been a “central concept for the social world”. The “minimal” basis of a system of two actors is “each having control over resources of interest to the other” and “the relations between actors and resources are…control and interest” (Coleman, 1990, pp. 28-29). Concrete resources can be regarded a source for abstract interest. Similarly, Milner (1997, p. 15, footnote 4) argues interests, as a generic concept, are actors’ “fundamental goals” and “change little”; for economic actors, interest is maximizing income, while it is maintaining political office for political actors. The interests that actors aim at maximizing are generally evaluated by utility functions (Milner, 1997, p. 33).

Next, domestic actors’ own properties, typically preference and power, are also crucial for them to conduct relevant actions in interaction. On the one hand, policy preference takes a “primordial” role (Milner, 1997, p. 33). Policy preference is connected with choices and behaviors of actors in a direct and closer way; other relevant factors like ideas, interest, and institutions can affect behaviors only by shaping preferences in advance (Moravcsik, 1997, p. 513). It is a “specific policy choice” for a given actor to “believe” to maximize its interest. Policy preference derives from interests, but actors vary in their policy preference according to different situation across different issues (Milner, 1997, p. 15, footnote 4). On the
other hand, the power attribute like mobilization capacity is essential for a given group to make decisions on actions, which can be estimated by resources and actors themselves. It is firstly “a property of the actor in the system” and depends on the “control of valuable events” or resources (Coleman, 1990, p. 133). In addition to the control of resources, group size and position are also mobilization sources for domestic actors in a hierarchic system. With larger group size and a higher position in the political network, the given actor may hold capabilities to influence other actors in domestic interaction. Mullen (1987, pp. 5-10) regards group size, density, and interrelatedness of group members as “topographical aspects of groups”; and emphasizes their significance in explaining group behaviors in different theories. Moravcsik (1997, p. 517) argues power asymmetries may give given groups incentives to conduct “exploitative, rent-seeking behavior”.

Thirdly, as the “prominent features of politics” (Milner, 1997, p. 18), institutions play a significant part in determining actors’ behaviors, both as rules and as equilibria (Greif & Kingston, 2011). Different political institutions can create different political outcomes (McGillivray et al., 2001, p. 2). By definition, institutions provide “codes of appropriate behavior” (March & Olsen, 2006, p. 8). Institutions can not only constrain the behaviors but also “structure the way” on shaping “beliefs and opinions about how other people will behave” (North et al., 2009, p. 15). Most importantly, institutions can “aggregate” the interests of domestic groups as well as their policy preferences (Garrett & Lange, 1996, p. 49; Lake, 2006, pp. 764-765; Milner, 1997, pp. 14-19). In the process of political exchange, institutions are constructed to “make commitments credible, improve the flow of information and reduce the costs of enforcing agreements” (Keohane & Ostrom, 1995, p. 22). In respect to the functional logic, institutions can not only reduce transaction costs and improve efficiency; but also can affect the actors’ “relative rights and capacities to act and bargain”, i.e. distributional effects (Toboso, 2011). Relating to the distributional function, one significant feature of institutions is the biased favor on particularistic actors such as “privilege particular actors’
preference” (Milner, 1997, pp. 18-19), which would probably tend to conduct behaviors on rent seeking as well (Moravcsik, 1997, pp. 530-531). Meanwhile, other actors under the same institution suffer from disadvantaged treatments like higher costs with lower payoffs. In this regard, the favorable role of institutions also incentivizes relevant actors to select different behaviors and cause different consequences of the interactions. And all conflicts on policies and preference can be described as conflict or contest of domestic institutions (Milner, 1997, pp. 122-123). As a result, discussing “how political institutional structures affect political instability” becomes one of the key research questions (Gates, Hegre, Jones, & Strand, 2006).

A fourth factor in shaping behaviors is the distribution of information at domestic level. Actors have to use information to make decisions. Information combined with institutions and capabilities matters to collective actions and actor behaviors such as mobilization (Gavious & Mizrahi, 1999; Lohmann, 1993; Moravcsik, 1997). In domestic politics, incomplete information can usually bring inefficient outcomes, reduce cooperation, foster conflicts, and create political advantages for the more informed actors as well as disadvantages for the less informed at the same time. Therefore, a given domestic actor that has more informational advantages (such as the ruling groups) than others would be closer to gaining interests. It is worthy to note that information structure has to interact with institutions and preference to exert its functions (Milner, 1997, pp. 20-22). Within a biased institution and incomplete information structure, opportunistic behaviors usually appear, which affect the mobilization effectiveness. In the case of international trade institutions, legalization is a process of improving rule precision and transparency. Legalization can affect the behaviors of domestic groups by “increasing the information available to actors” in interest distribution, in which

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1 This chapter mainly assumes that winners would take the advantageous rules and the losers are suffered in this institution. However, it is actually a division with probabilities for social cleavages to benefit/suffer from the prevailing institutions; as Okun (1975, p. 48) puts it, “Many in our society, including some losers as well as most winners, seem to enjoy the rules of the game and the contest.”

2 Some studies usually include the information distribution as an integral part of institution, like (Keohane & Ostrom, 1995, p. 22).
information will have a larger “marginal effect” on the badly-organized groups if these groups are “differentially mobilized” before legalization (J. L. Goldstein & Martin, 2000, p. 606).

Finally, strategic interaction among actors provides a platform for actors to shape behaviors. Interaction is a minimal condition to become a system (Coleman, 1990, pp. 28-29). It is also a “basic unit of analysis” in political life, which is “a set of social interactions on the part of individuals and groups” in authoritative allocation of values (Easton, 1965a, pp. 49-50). Interaction among actors can help relevant actors to aggregate incentives, interests, and preferences (Moravcsik, 1997). Distinct from behaviors at individual level, behaviors among domestic groups imply many more social characteristics. Within a domestic context, all groups might be a relationship of either cooperation or competition. Either way, a given group could make its choice and actions only if it takes other groups’ acts, actions, or practices into consideration. Coleman (1990, p. 30) provides the concept of “behavioral interdependence”, i.e. “the actions of each actor are conditional on those of others at an earlier point in time.” As Rummel (1976, Chapter 9) puts it, behavior “that is peculiarly social” is “oriented towards other selves” or “encompasses another self”; subsequently, the interaction of domestic groups is typically “mutually oriented towards each other’s selves”. Hereby, the actors are also interdependent when selecting behaviors in the interaction, which can either “impose costs” or “confer benefits” on other actors (Keohane & Ostrom, 1995, p. 22).

2.3.4 Model Strategy: Applying CSF to Capture Interactive Behaviors of Actors

This chapter draws on contest success function (CSF) originally proposed by Tullock (1980) in rent-seeking studies to model domestic actors’ behaviors and interactions especially on conflicts among domestic groups. It selects CSF as the

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1 On the basis of Tullock’s (1980) original model, CSF has been greatly extended and revised different emphases on key components and model specifications, on information, group symmetry, institution efficiency, efforts or costs, and rent nature, just to name a few (e.g. Baik, 1993, 1998; Baye & Hoppe, 2003; Bjorvatn & Naghavi, 2011; Chung, 1996; Hehenkamp, Leininger, & Possajennikov, 2004; Hirshleifer, 1988, 1989, 1991; Katz & Tokatlidu, 1996; Koo reman & Schoonbeek, 1997; Nitzan, 1994; Ritz, 2008; Skaperdas, -62-.

modelling foundation because domestic groups as self-interest actors are usually involved in rent-seeking behaviors in resources competition within an inefficient society that is different from competitive market. CSF can be defined as “an appropriative outcome based on the ‘inputs’ of fighting effort” (Sandler, 2000, p. 724). The rationales to apply to CSF can be discussed in three aspects as follows.

Firstly, rent seeking is a popular behavior in society, regardless of democratic institutions or autocratic structure. It is so prevailing in human history that some scholars advocate “The great empires and conquests were the consequences of successful rent seeking” and “the quest for rents has always been part of human behavior” (Congleton, Hillman, & Konrad, 2008, p. 1). Due to imperfect institutions, i.e. no existing “idealized model of market order”, rent seeking becomes a typical behavior in institutional settings “where individual efforts to maximize value generate social waste”; in particular, within the “near chaos of direct political allocation”, rent seeking is “a significant social phenomenon” (Buchanan, 1980, p. 4). Krueger (1974) demonstrates the popularity of rent seeking society in case of government restrictions, even in many market-oriented economies. In this regard, some scholars call for future research to focus on the rent-seeking activities “bases on which conflict is fomented when poor countries attempt reforms for securing their economic futures” (Midtgaard et al., 2014, p. 119). As a result, the interaction between domestic and international dynamics can also be seen as “rent-seeking in two-level games” (Ward, Grundig, & Zorick, 2004, pp. 165-167).

Secondly, resources are essential but scarce for humans, which lead to struggles among different self-interested actors. In addition to actors, “resources” are the other crucial element in a basic system, as Coleman (1990, pp. 28-29) put it, “in the minimal system…the elements are actors and things over which they have control and in which they have some interest. I will call these things resources…” Rent seeking, as interactions and behaviors of domestic groups, only occurs in the process of struggle. Buchanan (1980, p. 3) claims actors engage in rent seeking “so long as

owners of resources prefer more to less”. Similarly, Congleton, Hillman, and Konrad (2008, p. 1) point out incentives for rent seeking exist “whenever decisions of others influence personal outcomes or more broadly when resources can be used to affect distributional outcomes.”

Thirdly, CSF has typical advantages in exploring the interactions of domestic groups, especially on the conflict dimension of different groups, i.e. contest among groups for a given target. The contest is one kind of strategic behavior and interactive choices that “cause players’ payoffs to be interdependent” (Sandler, 2000, p. 724). Contest can be a “game” or “situation” in which the relevant actors compete to win a “prize” through increasing the winning probability and expending efforts (Baik, 1993, 1998; Dixit, 1987; Skaperdas, 1996). As a general term, contest has been applied in multiple domains, like rent-seeking, tournaments, race, and conflict, etc. (Baye & Hoppe, 2003; Nitzan, 1994; Ritz, 2008; Skaperdas, 1996). All the domains are actually of “strategic equivalence” (Baye & Hoppe, 2003). In addition, as Sandler (2000, p. 724) puts it, “from a mathematical modeling viewpoint, rent seeking and contests are structurally identical.” In the contest, the interests and resources can be either seized by conflict approaches, as North (2005, p. 112) puts it, “violent struggle among competing groups for control of the polity and economy”; or acquired by peaceful ways like general political exchange (Keohane & Ostrom, 1995, p. 22; Tridimas, 2011).

2.4 Framework and Hypotheses: Specifying Domestic Effects of International Institutions

This part bridges the connections between IV and DV and furthermore discusses the typical mechanisms of international institutions that influence domestic groups’ behavior and their specific interaction. It firstly analyzes the role of the state in the long macro-micro linkage between international institutions and domestic groups; and secondly depicts key approaches in detail on the effects of international institutions on domestic groups. In order to integrate the variables and actors across these levels, it provides a “two-plus-level model” as Figure 2-1 with the
inspiration of “two-level games” (Putnam, 1988).

Figure 2-1 Two-Plus-Level Model: The Effects of International Institutions on Domestic Interactions

2.4.1 State Actor as Mediating Agency

The state actor takes a primary role in international politics. It is the key agency in building international institutions and is also the foremost target affected by international institutions (Botcheva & Martin, 2001; Keohane, 1984, 1988; Mearsheimer, 1994). However, the state actor is more than a terminal in interacting with international institutions. It is in a constitutive relation with international institutions with strong endogeneity (R. B. Mitchell, 2009). The insight may diverge in three directions in general. Firstly, a given state actor affected by a specific international institution at a given time may continue to constitute international
institutions (R. B. Mitchell, 2009); secondly, the affected state actor may influence other international organizations (Costa & Jørgensen, 2012; Dai & Martinez, 2012); and lastly, the given state actor shaped by international institutions exerts influence on its domestic politics (Cortell & Davis, 2000).

The significance of the state actor has theoretically declined in current IR and IPE studies compared with its previous dominance among realist theories. However, as a most crucial actor in international politics, its importance still prevails; scholars require “bringing the state back in” (Skocpol, 1985), especially when bridging international dynamics and domestic politics. Furthermore, the state actor is typical of its domestic setting or conditional environment, which is crucial to the influence of international institutions in addition to the characteristics of international institutions (Costa & Jørgensen, 2012, p. 6; Dai & Martinez, 2012, p. 214). With dual focuses on international institutions and domestic actors, this chapter regards the state as a mediating factor in international-domestic interaction. When discussing the relations between Europeanization and domestic change, Risse, Cowles and Caporaso (2001, pp. 1-3) point out international dynamics (like Europeanization) are a “necessary but not sufficient condition” and “do not necessarily translate into domestic structural change”, which implies the role of mediating factors is important.

This part defines the role of the state actor in three different but related functions based on its own natures and relations with other variables, i.e. its own autonomy property, policy distance between given state and international institutions, and fitness degree between international and national institutional settings. It assumes three-fold variables intervene in the links between international institutions and domestic actors, which finally leads to diverse scenes of one international institution affecting different specific states.

2.4.1.1 State Autonomy

State autonomy is one of the key features for a given state. It is important in connecting international institutions and domestic dynamics. It implies the state
actor is one “organization” that can “formulate and pursue” its own goals (Skocpol, 1985, p. 9), probably with “a certain degree of autonomy”, in spite of domestic and systematic constraints (Risse-Kappen, 1995, pp. 17-18). In addition to the organizational face, it also reveals a state’s “capacity” to define and pursue an “autonomous goal” with a “degree of flexibility” as well as to “perform alternative and varied political actions” (Agné, 2011, p. 43; Skocpol, 1985, pp. 15-16). In a theoretical sense, state autonomy is “not a fixed structural feature” and can “come and go” (Skocpol, 1985, p. 9), which is together determined by its position in power distribution, international embeddedness, and domestic structures from an IR perspective (Risse-Kappen, 1995, p. 19). Most studies try to analyze the detrimental or positive effects of international forces like globalization and its internal state-society interaction on the changes of state autonomy (e.g. Agné, 2011; L. Weiss, 2003). Chimni (2004, pp. 2-6) argues international institutions can “considerably” restrict the autonomy of sovereign states and particularly erode the autonomy of third world states while probably strengthening the autonomy of stronger states like Western states. Within the trade arena, when international rules are used to “impose” institutional preferences on domestic institutions, both legitimacy and efficacy are eroded (Rodrik, 2007, p. 228). In addition, the expansion of international trade institutions has shifted “domestic political balances” from softer to harder legalization, in which process states have “continued wariness of sacrificing autonomy” (Abbott & Snidal, 2000, p. 441).

However, state autonomy can do more than just act as an affected subject. Its role can be analyzed from both static and dynamic perspectives. On the one hand, the state actor has an autonomy nature prior to its frequent interaction with international institutions. In the face of international forces like “international pressures, constraints, and opportunities”, state autonomy plays a crucial part in explaining the “variations in state responses” (Risse-Kappen, 1995, p. 19). In this regard, state autonomy is a fixed and static factor. The extent of state autonomy determines a given state’s capacity in keeping their own autonomous goals through
buffering external shocks, adapting internal pressures, and even utilizing international institutions for its own interests. On the other hand, in line with most studies, state autonomy is affected and changed, as Risse-Kappen (1995, p. 29) puts it, “state autonomy and governmental control over policies are affected by the degree of the state’s embeddedness in international structure of governance.” In this vein, state autonomy could be shaped by international institutions in at least two directions, increasing or decreasing. Some studies shows globalization has weakened state autonomy while others indicate a prosperous picture in enhancing state autonomy under some conditions (Gritsch, 2005; Mann, 1997; Nordhaug, 2002; L. Weiss, 2003). As a result, with a higher degree of state autonomy, a given state actor is more capable in adjusting its policies to filter external shocks and furthermore making use of international institutions, which subsequently enhance the extent of its autonomy.

2.4.1.2 Policy Distance with International Institutions

The distance of policy positions between given state and international institutions is also important for the state actor in order to mediate the influence of external dynamics on itself and domestic actors. Both state actor and international institutions are typical policy agents in international politics. On the one hand, one of states’ functions is to conduct public policy, that is, dealing with “authoritative allocation” of social values (Easton, 1953, p. 129). The policy position of a given state actor can be determined by power, survival, domestic concerns, values, and goals according to different theories (M. E. Smith, 2004, p. 99). On the other hand, the international institution by itself contains a cluster of rules and policies as well as demonstrating its roles in policy making and implementation (Duffield, 2007). As a result, the difference in policy preferences between state actor and international institution is an important variable in affecting their distinct interaction types.

Inspired by party and electoral studies (Dinas & Gemenis, 2010; Kurella & Pappi, 2014; Laver, 2001), this part theoretically applies “policy position” to depict the interaction between given state and international institutions. Policy position has
already been proved to be crucial in international negotiation and domestic politics (Milner, 1997, pp. 67-98). A policy actor's policy position is the “resultant” or interplay of three sets of interactive forces, including ideologies, interests, and information, which can determine “participants’ stance in policymaking” (C. H. Weiss, 1983, p. 221). For a given political actor, policy position in an “ideal” sense reflects the actor’s “own beliefs, needs and desires” (Benoit & Laver, 2006, p. 16). Therefore, different actors might have different and changing policy positions; as Benoit and Laver (2006, p. 11) furthermore put it, “the very notion” of position implies “distance”, “movement” and “direction”. These “beliefs, needs and desires” or preference can provide motivation for a given state to act and may condition the actor’s behaviors in a given situation, which leads to social and political interaction (Benoit & Laver, 2006, pp. 15-16).

In this way, both state and international institutions are put in one policy space on a given issue (such as trade liberalization). Their distribution, such as distance, movement, and direction in the space, could demonstrate the actors’ relations and affect their interactions. Milner (1997, p. 17) argues “not only does the relative position of the actors matter, so does the distance between their preferences.” Furthermore, Fang and Stone (2012) have shown the policy positions of international institutions and domestic policy expert for a state are important variables to affect both their interactions and the influence mechanism of international institutions. It is therefore reasonable to argue, when a given state actor holds a similar policy to international institutions, the state has a larger common space on the set of choices, takes a more cooperative attitude towards given international institutions and especially prefers to access this kind of international institution; in addition, it also means the state adapts better to the effects of international institutions while suffering less from the shocks of international institutions. For instance, the globalization trend strengthens the state with its dominant coalition “favoring economic openness” even in the case of domestic oppositions and delays (Kahler & Lake, 2003, p. 25).
In particular, similar to the policy position change of international institutions, a given state actor can also adjust its policy position via its interactions with international institutions. As Fang and Stone (2012) shown, under some conditions (like a moderate policy position), international institutions can persuade a member state to adopt a specific policy and change its preference even when there is a conflict of interest. Hence, it is possible to argue when the interaction between international institutions and state actor is institutionalized as a binding relation, their policy positions will be closer. With the higher degree of institutionalization such as accession and membership, the policy distance between international institution and given state actor will become increasingly close.

However, policy position also implies direction (Benoit & Laver, 2006, p. 11). The policy distance between international institutions and the state actor becomes complicated. The policy position of international institutions can be regarded as a function of policy positions of a few states that are involved in the international institution, that is, the given international institution takes a moderate position accepted by most members. Therefore, in a given issue, some states hold policy positions that are more “radical” than that of international institutions while some others are left behind by the policy position of international institutions. In this regard, the given state is less affected by international institutions in the first case than that in the latter one on the burden of policy adjustment and adaption because it has a more advanced policy preference; state actors have to moderate their positions to conform to international institutions.

2.4.1.3 Institutional Matching

A third dimension on a given state actor mediating international dynamics is the degree of matching between internationalization and domestic institutions. International institutions mostly lead to “changes in the national discourse, the state’s institutions, and state policies” (Cortell & Davis, 2000, pp. 70-71). In terms of matching, as Costa and Jørgensen (2012, p. 6) put it, “domestic cultural understandings and informal institutions can also shape the chances of success of
policy entrepreneurs.” In the end, “domestic adaptation with national colors” (Risse et al., 2001, p. 1) is the result. This part applies the concept borrowed from “goodness of fit” and subsequent “adaptational pressures” by Risse, Cowles and Caporaso (2001, pp. 6-7) on investigating the effects of Europeanization. They try to explore “the extent to which domestic institutions would have to change” in order to comply with the “rules and policies” in international institutions. Therefore, the influence of international institutions depends on the compliance extent of state actors, and domestic institutions can have “clear consequences for compliance”, such as the rule of law, including “a stable framework of law and system of property rights” (Simmons, 2000, p. 832).

In general, the higher fit (or misfit) between international institutions and national institutions means a lower degree of adaptational pressure. The pressure varies according to different “goodness of fit” on different states. International dynamics like Europeanization can trigger adaptational pressure both via policy adjustment and by direct influence on domestic institutions. In the cases that fit, international rules might be “easily incorporated and complied” into domestic settings; while these rules and norms “ran completely counter” to national traditions in the cases of a misfit (Risse et al., 2001, pp. 6-9).

Accordingly, the fit or misfit between international institutions and domestic institutions plays an important role in determining the outcomes on domestic politics as well as the interactions among internal groups. When there is a higher degree of institutional fit, there is less structural adjustment required because of low adaptational pressures; and the adjustment is probably necessary when institutional misfit prevails and domestic settings are seriously challenged. For example, international trade institutions are typical of their ambitions in welfare and prosperity. However, policies on free trade actually show “no guarantee that free trade is the best policy” especially for LDCs and could be “politically contentious” at domestic level because of possible clashes with pre-existing institutions in different countries; the rules that originate from international institutions should

This chapter regards the international institution as a force to invade into the “black box” of state actor and then break the original domestic equilibrium. As the mediating factor, the state actor can filter the overwhelming force of international institutions through state autonomy, bridge international institutions and state itself in policy space via policy distance, and adapt international norms into domestic settings in accordance with institutional fit or misfit. Owing to the multidimensional nature of “state mediator”, it is still hard to show the exact impact of international institutions, that is, higher or lower shocks on domestic actors. In some cases, the mediating function might enlarge the strength of international institutions (including both rules and norms) like a convex lens; in other cases, the function might also disperse the power of international rules and norms like a concave lens. Furthermore, a different dimension of state mediation function might bring different preferences on the intruded force of international institutions. However, this chapter acknowledges the importance of the state actor as a mediator but simplifies it as a constant, in spite of its theoretical significance.

2.4.2 Identifying the Effects of International Institutions on Domestic Interaction

Current studies have shown a given international institution or international “stimulus” can shape different behaviors, interaction, and policy responses of relevant countries (Botcheva & Martin, 2001; Gourevitch, 1986, p. 10). The variation in outcomes is a result of diverse institutional settings at domestic level. Therefore, in mainstream literature, domestic institutions are usually regarded as having a more important role than international institutions (Costa & Jørgensen, 2012, pp. 6-7; Sokhey, 2014; Vreeland, 2003). For example, Gourevitch (1978; 1986, p. 33) highlights the mediating role of domestic factors on international influence and argues different policy responses are “strongly affected by differences in the mediating institutions.” Conversely, other studies insist that the “binding effects”
from a domestic institution is “no greater or less” than that from international institutions (McGillivray et al., 2001, p. 24).

Yet, international dynamics generally have multiple approaches in influencing domestic interactions in addition to affecting institutional factors, which elaborate the international-domestic interactions. For example, it has been found that a given state’s “willingness” to follow “international economic ‘rules of the game’” is closely related to “patterns of domestic politics” (Simmons, 1994, p. 4). Frieden and Martin (2002, pp. 121-123) propose three approaches for international factors (such as the economy) in affecting domestic politics, including interest, institutions, and information, which finally “feed back” to national policies; accordingly, the relevant mechanisms include “by restricting the set of feasible policies, by constraining domestic institutions, by altering domestic information, or by changing the preferred policies and behavior of domestic actors.” Young (2004, p. 9) suggests international institutions can have different consequences on “domestic affairs and (especially) political processes” in either “direct and focused” ways or by affecting “the allocation of material and political resources”.

<table>
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</table>

**Figure 2-2 Theoretical Hypotheses: Bridging Key Arguments of CSF Model**

Taking the significance of CSF into account, this chapter explores the influence of international institutions via three paths in shaping actors’ behavior, i.e. interest, institution, and the given actor’s own properties (like preference,
mobilization advantages or disadvantages, etc.). To be exact, international institutions that are mediated by state attributes affect domestic actors through influencing actors’ interest allocation, institutional effectiveness, as well as their own properties. Institutions usually take dual impacts like “constrain” versus “enable”, “prescribe” versus “proscribe” in the changing process (March & Olsen, 2006, pp. 8-11). Hence, international institutions may adhere to several approaches to affect domestic groups and their behavioral direction in cooperation or conflict. Previous studies investigated some relevant questions such as “how the global system empowers and constrains domestic interest groups” (Drezner, 2003, p. 2). It assumes international institutions can exert either constraining or enabling impacts on the three paths mentioned across actors, situations, and times, which directly or indirectly affect the mobilization efforts, interests, domestic institutions, and overall utilities for domestic actors respectively. In general, a series of hypotheses can be derived, which provide key arguments on the causal mechanisms between international institutions and domestic behavioral interaction among groups, as Figure 2-2 shows.

2.4.2.1 Mobilization Argument

The influence of international institutions can directly affect the mobilization efforts and expenditures of domestic actors in competition, which can act as an alternative parameter as to whether a given actor effectively mobilizes resources. Costa and Jørgensen (2012, p. 3) define influence mechanism of international institutions as “altering preferences and power”, which can affect “the chances for success of policy entrepreneurs supporting them”. 1 Rodrik (2011, p. 157) highlights the role of “social capabilities”2 that can be analogous to mobilization efforts in gaining benefits and insists that the benefits from globalization and international institutions “come to those who invest in domestic social capabilities”.

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1 Four alternative pathways are provided by Costa and Jørgensen (2012, p. 3), including (1) providing opportunities or constraints to actors; (2) changing their ability to influence decision making by changing the distribution of power; (3) establishing or spreading norms and rules; and (4) creating path-dependencies.

2 The social capabilities include a few elements like adapting foreign technologies to local conditions, acquiring skills, producing specialized inputs for production, and coordinating complementary investments in diverse areas etc.
The spread of international institutions coincides with the current prevalence of globalization; international institutions are also regarded as one of the important pillars of globalization. Despite some scholars seeing a difference between globalization and international institutions (Tarrow & Porta, 2005, p. 235), most studies generally regard globalization and institutions similarly or as aim versus instrument. Current studies have revealed globalization has prominent impacts on mobilization efforts of groups. A few studies provide important insights into globalization (economic, social, and political aspects) opening “new opportunities and avenues for mobilization” (Olzak, 2011, p. 4). For example, Tarrow (1999) regards the link between international institutions and mobilization as a “rich potential field”; Smith and Johnston (2002) explore how the globalization process affect political mobilization at domestic and transnational levels; Tarrow and Porta (2005, p. 229) argue that international institutions play a “more central role as the targets of resistance” and a “focal point” for many domestic and international conflicts; Olzak (2006) discusses the dynamics at global level in triggering domestic mobilization on protests and other social movements.

However, globalization across countries and regions usually creates uneven impacts on relevant ethnic actors, or “differentially privileges some ethnic groups over others” (Olzak, 2006; 2011, p. 7). Some literature tries to analyze the influence of globalization on the changing mobilization patterns within specific context (Kumar, 2008). In particular, Chen (2009, pp. 128-129) discusses the relations between access to international institutions and transnational mobilization for ethno-political groups and finds a larger degree of involvement from international institutions enhances the probability of ethnic groups to “act internationally”. Moreover, globalization as “increased mobility of goods and factor” might also bring multiple challenges on the given government’s revenue mobilization in developing countries like Sub-Saharan Africa (M. Keen & Mansour, 2009).

In addition, this parameter should constrain not only the potential resources of mobilization but also the manner of mobilization. Regarding mobilization as a
collective action, Cerny (1995) indicates globalization causes a changing logic of collective actions across international and subnational levels. Smith and Johnston (2002, p. 8) argue globalization brings “substantial changes” in the scope and role of social interaction, which may affect “the ways that people engage in collective political action”. Some scholars argue globalization could lead to similar movements on political mobilization through providing opportunities, pressures, defined targets, and structural affinity, etc. (Giugni, 2002; Maney, 2002; J. Smith & Johnston, 2002).

\[ \text{H1: The stronger the given actor's mobilization effort is in an asymmetric structure, the larger the actor's benefits gained from international institutions, and the larger the success probability of both conflict and cooperative behaviors for the stronger actor in the contest.} \]

The (a)symmetry structure of mobilization efforts between domestic actors can mediate the extent of international institutions’ effects and affect the probability for domestic actors to resort to a specific approach. Previous studies on regime consequence usually assume that some groups might have “greater capacity for collective action” i.e. bigger mobilization than others (Underdal, 2004, p. 41) or the success relies on actors’ “relative political power” within the local context (D. Verdier, 1997, p. 17). Higher mobilization makes it easier for actors to utilize international institutions as a “power resource” (Cortell & Davis, 1996, p. 457). In line with CSF essence, a larger mobilization effort implies a larger contest success probability for given actors. As a result, when the influence of international institutions towards specific behavior is exerted upon domestic actors and their mobilization efforts, the effects are mediated unevenly in accordance with the structure of the actors’ relative powers. Given other settings, it is reasonable to argue that the stronger actor has a larger success probability in the contest, regardless of either conflict or cooperative behavior.

\textbf{2.4.2.2 Rent Argument}

The influence of international institutions highlights the interest production and distribution that incentivizes the behavior and interactions of domestic actors. Interest is a “basic force” that drives the individuals and lies at the “very center” of
the concept of institutions (Swedberg, 2006, p. 946). In general, international regimes can also “alter actor interests”, as Haggard and Simmons (1987, pp. 510-511, 517) put it, “the central point is that growing interdependence means that groups at the domestic level increasingly have ‘regime interests’.” Hasenclever, Mayer, and Rittberger (2000, p. 27) argue international regimes could have effects on shaping or reshaping their interests, which subsequently transfer the actor’s policy choices.

With general functions of institutions, international institutions are important for “both efficiency and distribution”, which can reduce transaction costs, increase total output, and balance “participants’ relative rights and capacities” in political process (Toboso, 2011). On the one hand, international institutions generally bring benefits for both state actors and many domestic groups. According to Milner (2005, p. 838), international institutions aim at “constraining the great powers, providing information and reducing transaction costs, facilitating reciprocity, and promoting reform in domestic politics”. For example, international economic institutions since the 1940s have greatly contributed to the “global creation and distribution of wealth” through trade expansion, poverty reduction, and economic regulation (L. L. Martin, 2006, p. 669); meanwhile in respect to other issue-areas, international security and political institutions are also influential in keeping international peace and security (Duffield, 2006; Higgott, 2006).

On the other hand, international institutions also exert a distributional effect together with domestic institutions on the interest allocation. Martin (2006, pp. 660-663; L. L. Martin & Simmons, 1998, pp. 730-737) already shows international institutions and mechanisms have implications on distributional effects of “the behavior of a myriad of producers, distributors, and consumers”, which tends to empower exporters by assuring their “incentives to mobilize” while making import-competitors “lose from deals, leading them to mobilize more extensively.” Similar to domestic institutions, international institutions can also privilege

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1 Domestic actors could directly experience the consequence of international dynamics like international economy, as Gourevitch (1986, p. 65) show, the fall of international price will “stimulates domestic producers to seek tariff protection or some other subsidies”.

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“particular actors’ preference” (Milner, 1997, pp. 18-19); Dai (2007, p. 29) clearly indicates that international institutions can “provide benefits to some domestic actors and thus may shape domestic interest competition”. Due to the scarcity of resources, international institutions become a “controversial issue” in domestic politics (O. R. Young, 2004, p. 9). Current studies also reveal international trade patterns and “associated institutional arrangements” like GATT can reflect the “power relationships between and inside countries” (Røpke, 1994, p. 15). In addition, one focus in international political economy requires deriving interests from the “distributional implications” of different economic policies about trade, investment, finance, and exchange rate etc. and “how a group is located relative to others” in the international economy (Lake, 2006, p. 764).

International institutions are generally designed for given issues, but the subsequent consequence is not limited to the performance of solving specific issues because of social changes (O. R. Young, 2004, pp. 10-11). With the influence of international institutions on given issues, interest distribution generally creates cleavage among domestic actors across different lines, which shape different behaviors of various actors. For example, as a “canonical starting point to understand the redistribution effects of trade liberalization” (G. Schneider, 2014, p. 177), both the Ricardo-Viner model and the Heckscher-Ohlin model indicate international trade causes the interest allocation along with sectors or classes (Lake, 2006, p. 763; D. Verdier, 1996, p. 9; 1997, pp. 12-16). Hiscox (2002) furthermore shows political conflict from sector and class division of international trade at different situations. It is reasonable that the groups that are constrained by policy changes such as economics policies divide the “cake” once more and differentiate winners and losers. Frieden and Martin (2002, p. 121) give a clear causal mechanism in the case of the international economy, i.e. both international economic trends and “change in the international economic environment” can directly affect the interests of domestic groups, which subsequently affect the policy preference and behavior of domestic groups, such as protectionist groups, and may gradually turn
to free trade.

Given states’ interactions with certain international institutions could bring one or multiple resources, rents, or interests (both political and economic aspects) for not only state actors but also domestic actors. However, the interests and other kinds of gains are distributed unevenly among domestic actors in the political process. International institutions play a significant role from its birth to the maturity in producing and allocating interests. With an emphasis on interests and rents, Lake (2006, p. 767) says, “groups may use their national governments to create international institutions that limit competition and produce rents they can appropriate.” After states’ accession, international institutions still exert prominent impacts on the domestic interests. Dai (2005, p. 388) highlights that international institutions can “empower” domestic actors “in pursuit of international rules” and bring domestic consequences “by altering the domestic balance of competing interest and thus indirectly influencing policymakers’ compliance decisions.”

Nevertheless, the source of interests varies according to different interaction phases between international institutions and state actors. For an international institution in given issue-area, it usually brings gains in the given issue for state members, mostly in the long term. For example, international trade institutions have generally expanded world trade volume and brought interests like productivity and prosperity for state actors and many domestic actors. In spite of existing doubts on the significant effects of GATT/WTO on international trade (Rose, 2004, 2007), most studies confirm the positive impacts of international trade institutions in this regard (J. L. Goldstein et al., 2007; Li & Wu, 2004; Rose, 2005; Tomz, Goldstein, & Rivers, 2007). But empirical studies also find the “accession effects” of GATT/WTO, on a certain indicator like economic growth, probably lie within a duration of “ten years” given the panel data in early 2000s (Li & Wu, 2004, p. 112). Accordingly, it seems the interests or rents that are affected by international institutions are composed of more than that from “accession effects” above during long and changing interactions between international institutions and states. In
addition, around the tenth year, the interests might come from resources prior to the accession so effects function as well as gains after the effects.

Therefore, this chapter disaggregates interests into two categories. In addition to the interests from issue expansion that attract most insights, there is another kind of interests that is born from institutional adjustment, namely “institutional dividend”. As discussed in previous sections, resources are the vectors of interests that belongs to actors with control (Coleman, 1990, pp. 28-29). The expansion of international institutions towards domestic level can surely bring political opportunities and resources for some given domestic actors (mostly dominant groups), which produce relevant interests and rents. However, the “value of a resource” mostly depends on “the interests that powerful actors have in it” (Coleman, 1990, p. 133). Previous studies in international politics have revealed the adoption of international institutions into domestic structure is biased to certain actors and breaks down the former balance on interests (Baccini & Urpelainen, 2014; Checkel, 1997; Cortell & Davis, 1996, 2000; Dai, 2007; Fang, 2008; Gourevitch, 1986; Lake, 2006; O’Faircheallaigh, 2014). These kinds of interests can happen as early as the government intentionally prepares to adjust its own policies and institutions in order to meet the requirements of international rules and norms even before the given state’s formal accession to international institutions. International institutions can promote domestic reform (Milner, 2005, pp. 840-841). Institutional dividend prevails after the state’s institutional adjustment after its accession into international institutions. However, after the institutional and policies reform finishes, institutional dividend disappears step by step in the short term. In this regard, some domestic actors take the advantage in competing interests and rents from the institutional reform influenced by international institutions.

**H2:** The larger the effects of international institutions in providing rents, the larger the probability for domestic actors to cooperate; the larger the effects of international institutions in allocating rents, the larger the probability for the actors to resort to conflict.

International institutions can affect the behaviors of domestic actors by both
providing interests and allocating rents. It is not just absolute but also relative
interests that matter to domestic actors in selecting a specific behavior. On the one
hand, international institutions usually have “welfare improvement effects” (J.-r.
Chen, 2010). When the total amount of interests is increased, domestic actors can
gain more in an absolute sense within the given distributional structure, which can
generally pacify actors’ incentive to change the status quo, either by cooperation or
conflict. On the other hand, interests are altered by the influence of international
institutions (Haggard & Simmons, 1987, pp. 510-511, 517). Distribution will
probably lead to conflict. Involvement in international institutions will partially
empower some given groups while deprive other groups of their interests. Purely
because of the domestic distributional effect, international rules become “politically
contentious” (Rodrik, 2011, p. 67). In addition, it is also reasonable that interests
from issue regulation and interests from institutional adjustments are
supplementary given a level of total interests.

2.4.2.3 Institutional Interplay Argument

Domestic institutions are a platform for “societal actors mobilize and apply
power” (Gourevitch, 1986, p. 33) and defines “choice of strategies” of domestic
actors (Rogowski, 1999, p. 118). In respect to domestic actors’ political behavior,
domestic institutions including institutional structures and political processes can
affect the “levels of political activity” in accordance with “Political Opportunity
Structure” approach (R. Dalton, Van Sickle, & Weldon, 2010, p. 53). As the rule of
political game, domestic institutions can “aggregate conflicting societal interests,
with varying degrees of bias, and condition the bargaining between opposing
groups” (Lake, 2006, pp. 764-765). In the interaction of international-domestic
dynamics, the interests are “mediated” through domestic political institutions which
probably affect outcomes (Frieden & Martin, 2002, p. 131).

Scholars have shown how international institutions can affect domestic
institutions by several methods, such as affecting policy choices, improving
governance quality, and internalizing international norms (Dai, 2007, p. 29; Kelley,
2004, etc.). Political change at domestic level is accompanied by the diffusion and internalization of international norms (Finnemore & Sikkink, 1998). International regimes might either “reinforce or prop up” current institutional arrangements or trigger the process of “substantial changes” (O. R. Young, 2004, pp. 10-11). Cortell and Davis (2000, p. 70) shed light on the domestic impacts of international norms on changes of state’s institutions, policies, and national discourse. According to a recent review by Krasner and Weinstein (2014), political institutions can be influenced by internal factors, external environment, and policies by foreign actors. As Frieden and Martin (2002, pp. 121-122) show in particular, international dynamics like globalization and international economy may make a “previously feasible policy difficult to sustain” and “alters the choices available to national governments...in turn affects national policy.” The landscape on the interaction between international and domestic levels has indicated substantial effects of international institutions on the change of domestic institutions and policies in handling different issue-areas like trade liberalization, development, environment, human rights, and climate change, to name just a few (Cortell & Davis, 2005; Risse & Sikkink, 1999). Thereby, the rules and norms of international institutions are gradually embedded in domestic procedures, policies, and laws (Cortell & Davis, 2000, pp. 70-71).

However, the domestic adaptation of international institutions and norms inevitably brings “the politics of contested institutions” (Gourevitch, 1999, p. 137) or “domestic contests” (O’Faircheallaigh, 2014, pp. 158-163). Institutions are “inherently exclusionary” (Holden, 2006, p. 184) and can “privilege particular equilibria” and policy bias of specific interest (Rogowski, 1999, p. 116). Therefore, domestic actors fight for their desired institutions respectively that can “benefit them the most” and “increase their leverage” (Gourevitch, 1999, pp. 146-147). So, international institutions can be a “power resource” for “helping domestic actors to translate their preference into policy” (Cortell & Davis, 1996, p. 457) or be an instrument for leaders to “reap tangible domestic political benefits” or “advance
domestic reforms” (Baccini & Urpelainen, 2014, p. 212). They are utilized to partially support a given domestic actors and the success probability of the desired institution. Haggard and Simmons (1987, p. 515) argue “opposition forces have used the government’s compliance with regime injunctions to their own political benefit.” Fang (2008) highlights the international institutions as a source of information with signaling effects for domestic groups like leaders and voters. A given international institution might “empower” some actors rather than others in domestic politics (Büthe & Milner, 2012). O’Faircheallaigh (2014, p. 161) defines the groups “that stand to benefit directly from norm adoption” as “potential beneficiary groups”. Baccini and Urpelainen (2014) find preferential trading agreements can help national leaders to promote economic reform and reset economic institutions.

Furthermore, it is still in debate whether international institutions will enhance the quality of domestic institutions, create adverse impacts on domestic institutions, or leave no significant influence. Some current studies seem to support the first argument on propping up domestic institutions. For instance, some argue longer GATT/WTO membership leads to “stronger performance” in institutions (Aaronson & Abouharb, 2011) and trade issues also bring “better performance among other domestic institutions” (Irwin, 2009, p. 57). In most cases, conventional wisdom reveals involvement in international institutions is anticipated by state actors to enhance domestic governance through bringing international policies, standards, and regulations, but this is gradually challenged by recent studies. In general, international dynamics, such as openness, are empirically related to the decrease of domestic corruption (Bonaglia, Macedo, & Bussolo, 2001).

Yet, the influence of international institutions on domestic institutions is more recently found to be conditional and mixed. Globalization might bring “perverse impact on governmental incentives” and lead to mis-governance as well (Blouin, Ghosal, & Mukand, 2011). The success or failure of international institutions in changing domestic institutions might depend on “if they can craft agreements that
are Pareto improving” if the influence of foreign actors’ policies is equivalent to that of international institutions (Krasner & Weinstein, 2014, p. 141). Aaronson and Abouharb (2014, pp. 577-579) explore the effects of WTO on domestic governance and institutions and conclude WTO membership doesn’t “explicitly” address governance improvement but does have “some” effects on governance.

H3: The larger the pacifying effects of international institutions exerted upon domestic institutions, the larger the probability for actors to stay in peaceful and cooperative situations; the larger the provoking effects of international institutions imposed on domestic institutions, the more probably the actors resort to conflict.

In sum, the above discussion has provided a detailed analysis about the influence approaches of international institutions on the interactive behaviors among domestic groups. The behavior forms (either cooperation or conflict) of domestic groups are mainly determined by the institutional interactions at both international and domestic levels. International institutions generally exert a double influence like enabling and constraining on institutional setting, mobilization efforts, and interest improvement and allocation of domestic actors. In respect to the nexus between international institutions and domestic conflicts, it mainly focuses on different faces of institutions on conflicts/cooperation at both international and domestic levels. As mentioned, there are “endemic” conflicts in institutions rather than “internal coherence and consistency” (March & Olsen, 2006, p. 14). In this vein, it assumes domestic institutions can support conflict triggering and peace keeping at the same time; while international institutions can also update domestic institution through its pacifying versus provoking functions. Both international institutions and domestic institutions can be regarded as a ratio scale between provoking and pacifying aspects as well as a specific ratio of tension between conflict triggering and peace keeping, respectively. Hereby, within a scale of \((0, 1)\), when the conflict triggering of the domestic institution is larger than the function of peace keeping, a conflict situation might emerge; similarly, when the provoking

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1 Relevant to the conflict issue, some studies confirm international rules hold both conflict triggering and conflict pacifying functions at the same time such as in human rights arena (Conrad & Ritter, 2013).
dimension of international institutions accounts for a larger share compared with the pacifying dimension, there will be greater probability of conflicts. Therefore, as Figure 2-3 shows, the institutional interaction on either conflict or cooperation between international and domestic levels can determine the form of domestic interactions.

Figure 2-3 Institutional Interaction at International and Domestic Levels on Conflicts

**H3a:** When the provoking function of international institutions dominates in interaction with domestic institutions, conflict triggering of domestic institutions will be expanded while domestic peace keeping dimension will be undermined, which indicates an increasing risk of conflict interaction.

The value 0.5 within the scale of (0, 1) defines the threshold of conflict versus cooperation for international institutions and domestic institutions, as the blue dashed line shows. Within this setting, it indicates four categories including conflict (OAEC), cooperation/peace (BED), increasing conflict risk (AEDX), and decreasing conflict risk (YCEB) accounting for an equal area in an ideal case, with the equilibrium point E. When the provoking effects of international institutions account for more than half of the (0, 1) scale, as the red dot line shows with the
equilibrium point E', the area of conflict and increasing conflict risk will expand, i.e. B'E'D' and YC'E'B', which means a higher conflict risk.

H3b: When international institutions exert more pacifying effects than provoking functions on domestic institutions, its cooperation dimension will be enforced and its conflict dimension will be reduced, which implies a decreasing risk of conflict interaction.

Taking the larger ratio of conflict triggering in domestic institutions into account at the same time, the area of cooperation and decreasing conflict risks would become smaller while the conflict risk increases. In case of equilibrium point E", the probability of cooperation/peace behaviors such as area OA"E"C" will prevail. As a result, a few relevant hypotheses are provided in this regard.

2.4.3 Influence of International Institutions as a Process

As Easton (1953, pp. 203-206) puts it, political behavior “has a close relation with political process”. Beyond the structural framework, the influence of international institutions is much more complex. It is not static but evolving as a continuous process composed of changing interactions between state actors and given international institutions, which can be displayed in functional logic, impact strength and efficiency, domestic internalization, and legalization, etc. in different interactive phases.

Firstly, various functional logics emerge across different interaction periods. For example, some scholars (Hasenclever et al., 2000, pp. 19-20) analyze conventional arms control in Europe since the 1970s, and find that a realistic approach on absolute gains initially dominates in the first period and subsequently a “more ‘neoliberal’” logic appears in the second period; they ascribe the behavioral change to “a (partial) change in the context in which the parties interact.”

Secondly, the strength and efficiency of impacts from international institutions vary as well in different interactive periods. In general, the power of international institutions might accumulate at the domestic level, as Snidal and Thompson (2003, p. 214) put it, the effects of international institutions “deepen[s] and become[s] more
valuable over time, the influence and constraining effect of working through the organization may be enhanced.” However, current studies reveal the interaction periods are usually depicted as a diffusion and learning process of rules, policies, and norms via various mechanisms like coercion, competition, learning, and emulation (Costa & Jørgensen, 2012, p. 9; Finnemore & Sikkink, 1998; Gehring & Oberthür, 2004, p. 262; Risse & Sikkink, 1999; Simmons, Dobbin, & Garrett, 2006, p. 781; Simmons & Elkins, 2004). The diffusion process is usually assumed to be a classic S-shaped logistic curve, i.e. “the proportion of actors who would adopt a policy” within a given population, which starts with “hesitant early moves”, followed by “a rapid escalation in the trend”, and finally ends with “a leveling off” at the international level (Gray, 1973; Simmons et al., 2006, p. 783; Simmons & Elkins, 2004, p. 174). Similarly, the relevant diffusion of norms and policies usually happens among subnational actors below the domestic levels as well (Gilardi, 2013, pp. 455-456). In this vein, the influence efficiency of international institutions (rules and norms) on domestic actors is accordingly assumed to be increasing to a peak in a general trend. However, as a learning process, it might diverge according to the existence of interaction. When interaction is not prevailing, the diffusion curve is a learning curve, which reveals the efficiency level tends to approach the upper bound from a higher speed to reduced speed. When the interaction exists, the influence efficiency varies at different phases, as an S-shape curve, from lower speed to higher and then back to lower level again (C. Brown, 2007, pp. 23-29).

Thirdly, international institutions with their corresponding rules, policies, and norms can pose diverse impacts on domestic mechanisms and outcomes. Previous studies show the domestic effects of international institutions differ according to their different stages. For example, Finnemore and Sikkink (1998, pp. 895-905) depict the “life cycle” of norms including norm emergence, norm cascade, and internalization, which have different embodiments on actors, motives, and dominant mechanisms. Risse and Sikkink (1999) provide a three-stage ideal process of norm socialization including instrumental adaptation, argumentative discourses,
domestic institutionalization and habitualization, and finally internalization of norms in “identities, interests, and behavior”. In particular, they provide a five-phase “spiral model” of human rights change across domestic level, state level, and international/transnational levels, which consist of repression, denial, tactical concessions, prescriptive status, and finally rule-consistent behavior. Different phases of “spiral model” are composed by different dominant actors and different interaction modes. O’Faircheallaigh (2014) presents a new framework of domestic norm adoption with an emphasis on the role of “Potential Beneficiary Groups” in affecting state and corporate actors to adopt norm at domestic level via bridging interactions between/within international system and domestic politics by feedback loops.

Lastly, the involvement of states with international institutions may contain several legal procedures like signatures, ratifications, accessions, successions, declarations, reservations, and objections, etc. (Aust, 2010, pp. 105-106). Furthermore, it usually goes beyond the scope of international law. As Koh (1997, p. 2603) puts it, “international rule penetrates into a domestic legal system, thus becoming part of the nation’s internal value set”, which is “pivotal” to understanding nations’ consistency with international law. It is necessary to focus on the domestic process of international institutions’ diffusion including policies adoption, rules internalization, and norm socialization, etc. as mentioned (Checkel, 1997; Cortell & Davis, 1996, 2000; Koh, 1997; O’Faircheallaigh, 2014; Risse & Sikkink, 1999). In fact, the interaction between international institutions and state members with domestic settings can extend to a much earlier phase. Prior to a state’s formal accession to a given international institution, it can be either affected by a third state that has already accessed international institutions, or guided by the rules, policies, and norms that are prevailing standards in the global community. For example, GATT/WTO is the key international regime in regulating global trade. Goldstein, Rivers and Tomz (2007, pp. 38-43) indicate that a simply legal and institutional perspective on GATT/WTO underestimates the actual reach of GATT/WTO.
fact, the rights and obligations of GATT/WTO have “surprisingly broad effects” on non-members, which is helpful to explore the prominent reach of GATT/WTO. In spite of the doubts about GATT/WTO’s effects on world trade (Rose, 2004, 2005), the positive effects are still insisted upon by studies with a broader definition of GATT/WTO reach (J. L. Goldstein et al., 2007; Tomz et al., 2007). Recent studies have furthermore implied the phases of states’ involvement in international institutions are important to trade expansion. Eicher and Henn (2011) find states “with greater incentives to bargain for tariff reductions before WTO accession experience positive and significant subsequent WTO trade effects.” In respect to domestic aspect, Balding (2010) argues some states “may not be as interested in liberalizing trade as selling to the world” when exports and imports are compared.

By the same token, this chapter assumes different stages of interactions between international institutions and state actors have various effects on the interaction among domestic actors and the outcome of actors’ behaviors (See Figure 2-4).

**Figure 2-4 Influence of International Institutions as a Four-stage Process**

It divides the interaction phases of international institutions and states into four ideal types, including 1) preparation and negotiation phase before accession, 2) transition and adjustment phase after accession, 3) phase of policy application on given issues after adjustment, and 4) phase of norm internalization, etc. Four phases create uneven impacts on interest distribution, mobilization effectiveness, institutional efficiency, and activity costs among different actors, which finally affect
the contest success function, bring different utilities of specific groups, and cause distinct outcomes of group behaviors. In detail, during the evolving involvement in international institutions, domestic actors would have different performances around several dimensions, including guiding dynamics, domestic equilibrium, mobilization efforts, institutions, and interests, etc.

In the first stage, the given state may intend to access given international institutions through domestic preparation and negotiation with multilateral members according to legal accession procedures. Within this setting, a given state is mainly affected by other member states of given international institutions but attempts to follow the external rules and policies of international institutions as its guiding principle in international exchange. Previous equilibrium among domestic actors is broken by new external forces, i.e. international institutions with partial advantages for some specific groups. The influence of international institutions is too new to affect the mobilization attitude of domestic actors. The initiative to access given international institutions as well as subsequent preparation and negotiation gradually triggers new adjustment on domestic institutions, distribution of information, and allocation of interests (Milner, 1997), which may generally follow the principles and standards of international institutions. In this vein, candidate states adjust their domestic settings on institutions and policies in advance to meet the basic accession requirements and formally access international institutions, i.e. as Holzinger and Knill (2008, p. 40) put it “the exchange of policy adjustment for membership in international institutions”. With the guiding principle of international institutions, standardized policies started to diffuse and cross-national policies have a converging trend in specific issue-areas (Drezner, 2001; Gilardi, 2013; Holzinger & Knill, 2008; Knill, 2005; Simmons & Elkins, 2004). As a result, institutional dividend emerges while domestic institutions and policies are initially adjusted especially after the formal accession.

Compared with the smaller extent of adjustment and influence in the first stage, international institutions formally create impacts on interests and institutions
as exogenous rules. States officially change their policies and laws in order to participate in a given international institution like GATT/WTO “during and after the accession process” (Aaronson & Abouharb, 2014, p. 549). However, the transition and adjustment phase share similar logic to the first stage in affecting domestic actors, but in a much larger and more formalized approach. The adjustment continues to break down previous equilibrium among domestic actors and brings new tradeoff between gains and costs in the transition phase. The mobilization attributes of domestic actors like capacity, preference, and costs start to get slight influence from the prevailing rules of international institutions. The effects of given international institutions during this stage are mostly about negotiation and domestic ratification, which might trigger intense competition among domestic groups. As a result, in addition to affecting the domestic institutions, the preparation and adjustment probably creates rents from policies adjustment, i.e. “institutional dividend”, which takes a huge role among group distribution before international institutions really affect relevant issues. Interests are mainly from current institutions and predictable policy adjustment guided by international commitment like trade liberalization. This chapter assumes the benefit from institutional adjustment follows a reverse U-shape curve, which persists until the end of adjustment. However, the interests from the improvement of specific issues like trade through promoting or constraining emerge after a certain period. For example, Goldstein et al. (2007) confirm a broader concept on GATT/WTO influence, i.e. “international standing”, significantly affects the trade issue.

When a state finishes adjusting domestic policies on a given issue according to the rules and norms of international institutions, the refreshed policies are implemented formally to regulate given issues. In this case, the influence of international institutions therefore moves further into the third phase, which brings prominent changes on different parameters. Firstly, domestic institutions are upgraded via pre-accession preparation and post-accession adjustment. Empirical studies reveal WTO accession positively influences newly-acceded countries with
controlling domestic institutions; it is actually a “package deal” that “provides opportunities to countries to make credible commitments by inducing deeper economic policy changes and making institutions respond effectively and efficiently during the process” (Basu, 2008).

Next, domestic actors’ capacities and efforts in mobilization are revised because international institutions exert influence on the effectiveness of mobilization and gradually affect actors’ preference after accession and adjustment. In the new institutional settings, institutions could “shape those preferences and that power” (Keohane, 1988, p. 382) and create “a mobilization of bias in favor of certain actors” (Milner, 1997, p. 18). Lastly, the gains from given issues like trade expansion become the bulk of distributed interests and rents for domestic groups to compete.1 “Welfare improvement effects” are one of the typical functions of international institutions (J.-r. Chen, 2010). In most cases, it assumes international institutions can generally enlarge the “cake” on the given issue.

Therefore, international institutions can play different roles in affecting domestic actors during different interactive phases between international institutions and state actors. It is also a process of breaking and rebuilding domestic equilibrium while adjusting domestic policies and institutions. Moreover, international institutions could also distinctly influence domestic actors’ mobilization efforts, interests, and domestic institutions in different periods. As a result, due to the different impacts on the CSF elements in different phases, international institutions would bring about different success probabilities, and subsequently affect different choices on behaviors. When the effect of international institutions is regarded as exogenous rules, the behavioral consequence is mainly determined by the interaction of domestic institutions and international institutions on conflict versus cooperative behaviors, which is similar to the structural models above. In this case, with the deepening involvement of state actors, the influence of

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1 For example, in the case of trade liberalization, some studies on the effects of WTO indicate international trade institutions will truly start to affect domestic economic growth “within ten years” (Li & Wu, 2004, p. 112); in the case of human rights, some studies similarly find international institutions on human rights could significantly improve the situation of human rights over time in the world (Fariss, 2014). Hereby, the conditions matter in affecting the improvement of human rights by the influence of international institutions (L. L. Martin & Simmons, 1998, p. 754).
international institutions becomes more comprehensive in various dimensions including interests providing, institutional adjustment, and mobilization efforts; and subsequently the interactions among domestic actors are further affected due to the changing success probabilities. In this vein, the behavior patterns of domestic interactions, cooperation or conflict, are gradually affected by interests, institutions, and mobilization step by step. With the deepening of international institutions under domestic setting, there would certainly be a series of adjustments on domestic institutions and rules and subsequently on groups’ interests. The adjustments affected by international institutions will probably trigger the tensions in re-designing contest rules and re-allocating the interests among domestic groups. Therefore, political conflicts on both rule bargaining and interests distribution mostly tend to emerge until a new equilibrium is built among different groups. In general, the effects of international institutions can only be exerted on a few CSF components from the first three periods during the interactions between state actors and given international institutions. In the rationale, the effects vary slightly in parameters setting according to different phases between international institutions and domestic politics. As a result, the effects of international institutions follow the basic logic of structural framework in affecting domestic interaction, and subsequently affecting the domestic behavior selection.

But the story is still incomplete. The actors at international level and domestic level exhibit their political behaviors by both “rational and norm-governed” ways (Cortell & Davis, 2005, p. 25). In the fourth stage, the rules and norms of international institutions are finally internalized in domestic politics after the phases of preparation, transition, and implementation, etc. The norms of international institutions are accepted by domestic actors and embedded into domestic institutions through “social, political and legal internalization”, which would shape 1 “institutional habits” and “internal acceptance”, and reconstitute interests of actors. One outcome is that internalization creates the binding effects of international

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1 For some scholars, to “shape” behaviors is not equivalent to “determine” behavior. See the review by (Aspinwall & Schneider, 2000, p. 4)
global norms in domestic interaction, which may provide both “secondary rules” and “rules of recognition” in international legal order (Koh, 1997, pp. 2655-2659). Cortell and Davis (2000, pp. 70-71) argue when a norm becomes salient at domestic level, changes on national discourse, domestic institutions and state policies subsequently happen. In respect to the economic area, Mousseau (2000, p. 502) affirms that economic norms can affect the social values and preferences on institutions, culture, and interaction. According to a “common-sense notion”, similarity in customs and beliefs brings cooperation while dissimilarity breeds conflict (Pulliam, 1982, p. 353).

This chapter assumes the principles and norms of given international institutions have evolved into a “social norm” during this stage, in addition to the rules at domestic level. The prevailing “social norm” will pose extra costs, when a given group makes a choice within the framework of mobilization, institutions, and interest allocation, etc. As some studies argued, “interest” has its meaning only “within particular normative and epistemic contexts” (Haggard & Simmons, 1987, pp. 510-511). Akerlof (1980) provides a model on social custom, which adds an extra part to the cost that is constrained by prevailing norms and poses moral pressures like “loss of reputation” on the actors. Young and Levy (1999) regard social norms as one of six mechanisms for regimes to influence behavior. Similarly, Sjursen (2002, p. 500) argues norms can refer to a shaming mechanism to constrain actors’ behaviors in interactions and the success of the shaming process depends on the actors’ conviction that the principles and norms at stake exist and are valid. Johnston (2003, pp. 165-169) implies internal pressures of “perceived divergence from group norms” or a kind of “cognitive discomfort”; and the distance “between...
an actor’s behavior and the socially approved standards” can generate “back-patting and shaming effects”.

H4: The longer the state actor is involved in international institutions, the deeper the rules and norms of international institutions are internalized into domestic settings, and the more likely domestic actors are cooperative.

In this rationale, with continuous internalized influence of rules and norms from international institutions along with the involvement stages, most domestic groups and individuals adhere to the norms and rules as a “code of behaviors” advocated by the given international institutions. The choice of interests of groups and individuals is affected by prevailing norms in some sense. Hereby, international institutions are mainly assumed to be an originally cooperative norm. Meanwhile, taking the “endemic” tension of institutions (March & Olsen, 2006, p. 14) into account, it is ignorable that international institutions contain some elements of conflictual dimensions. Therefore, groups and individuals prefer cooperative interactions and regard a non-cooperative approach as morally “bad”. Hence, triggering conflicts would damage their reputations and require more efforts or costs compared with that in cooperative interactions. In this vein, as Akerlof (1980, pp. 749-750) implied, social norms persist even though they are costly for individuals to follow because of a “binding force”, i.e. “social sanction imposed by loss of reputation from breaking the custom”. As a result, it is more cooperative among domestic actors in the last period than that in the structural periods.

H4a: As endogenous norms, given the newly-rebuilt preference towards cooperation and conflict of domestic institution, the more salient the cooperative norms of international institutions, the larger the probability for domestic actors to conduct cooperative behaviors.

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1 For example, Duina (2006, pp. 3-4) defines the activities of free trade as “social behavior” within “rich institutional and political contexts” that include “traditions, structures, values, and norms along with the preference of powerful actors” and could restrict the choice set.

2 In a broader sense, belief system is regarded as one part of institutions; according to Rodrik (2011, pp. 14-15), trade can be promoted by belief systems or ideologies when the actors “truly internalize” the norms; for example, a country may restrict their tariffs only because it is the right way or they fear the punishment from the communities when they violate the “prevailing norms of good behavior”.

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Domestic norms can reinforce and support relevant institutions. March and Olsen (2006, pp. 11-14) indicate norms are “instruments of stability and arenas of change” and institutions lie among “competing institutional structures, norms, rules, identities, and practices”. For instance, more and more salient norms towards conflict and competition will break the given institutional equilibrium. Due to the inherent tension of international institutions (March & Olsen, 2006, p. 14), the norms internalized from international institutions may be disaggregated into either the conflict triggering dimension or the peace keeping dimension. The salience (or not) of different dimensions is also crucial for domestic actors to select specific behaviors, especially when the norms are attached with moral evaluation. Given the current preference of domestic institutions to be more cooperative, the cooperative dimension of norms can resume enforcing the cooperative preference of domestic institutions; however its roles in enforcing domestic institutions might gradually decrease with the increase of every unit of cooperative norms, reflecting the learning curve mentioned.

When the effect of international institutions is transformed by endogenous norms, domestic groups’ behaviors in either cooperation or conflict generally rely on the updated interests, mobilization efforts, and costs, etc. as well as the distinct role of internalized norms. Different from the impact mechanism of exogenous rule, the success probabilities of domestic actors in selecting a specific behavior are firstly revised by updating key elements in particular, such as institutional preference on specific behaviors (cooperation or conflict) and new mobilization efforts that are rebuilt according to the prevailing norms; and secondly the gains of domestic actors are affected by adding extra costs from moral and reputation loss, when a “morally bad” behavior is adopted.

H4b: When more actors increasingly refer to conflict dimension of salient norms, despite it being the morally bad way, the costs of reputation will decrease more, and the risk of conflict triggering will increase quickly.

It assumes that international institutions are mainly typical of the cooperative
norms which regard conflict norms as a bad approach in the moral sense. When the preference of domestic institutions towards conflict or cooperation/peace is rebuilt in a society, a stronger dimension on cooperation of prevailing norms can generally decrease the success probability of conflict behaviors while increase the success probability of cooperation behaviors. However, the conflictual dimension of prevailing norms might affect the preference of domestic institutions more largely in a marginal term; with the increase of conflictual dimension of prevailing norms, the cooperative dimension is decreasing, more actors may accept the conflict dimension of current norms and correspondingly reduce the restraint on moral costs with a diminishing peer pressure, which could furthermore increase the success probabilities of conducting conflict behaviors to a larger extent.

2.5 Conclusion

With the aim of identifying a more elaborate image, this chapter attempts to review current studies and subsequently tries to theoretically bridge the dynamics at international level and the outcomes at domestic level via the mediation of state actors in a causal way. In particular, it wants to explore the mechanisms of international institutions in shaping domestic actors’ behaviors in either conflict or cooperation through integrating key variables like interests, institutions, capacities, norms in line with both rationalist and constructive approaches in IR.

The theoretical framework is built to explore the causal mechanisms of international institutions affecting domestic actors’ behaviors and interaction through both structural and processual perspectives. From a theoretical perspective, it constructs a “two-plus-level” model to connect actors and dynamics across levels and shows the significance of state actors with autonomy, policy position, and institutional fitness. International institutions are regarded as rules and norms that are typical of its policy positions, strength, and salience among international institutions. The DV, behaviors of domestic actors, is defined as choices on conflict or cooperation through deliberating their CSFs respectively. The theoretical model separates the influence of international institutions into four phases, in which
international institutions have distinct rent incentives, variant contest success functions, and disparate costs (like moral and reputation loss) on the actors' preference, domestic institution, and interest distribution.
3 Modelling the Effects of International Institutions

Yu…burned their armor and weapons, and treated everyone with beneficence…there were people from myriad principalities who brought in gifts of jade and silk.

——Liu An

This chapter attempts to firstly model the effects of international institutions on the interactions of domestic actors by a game theoretical approach and then tries to find out the Nash equilibrium of two symmetric actors in a setting of complete information. Finally, taking the complexity of models into account, it aims to simulate the data by different configuration of relevant variables and demonstrate a full picture of the effects of international institutions on domestic interactions.

3.1 Modelling Domestic Interaction through CSF

It assumes there are two self-interested and rational players $G_i$ at domestic level, $a$ and $b$, which try to compete for a “prize”, i.e. one kind of rent ($R$) from resource of interest, through spending their respective efforts and costs. In order to show the difference, group $a$ is the incumbent and group $b$ is the challenger. Both groups have two strategic alternatives to struggle for the resources, i.e. Conflict ($W$) or Peace ($P$). Accordingly, the payoffs of selecting different strategies for group $i$ are $\pi_i^W$ for conflict strategy and $\pi_i^P$ for peace strategy. Conflict strategy mainly means triggering a war to take all resources. Peace strategy is about winning an election or conducting peaceful trading according to an agreement between rival groups in sharing the resources.

The game-theoretical models on domestic actors’ behaviors mainly draw on the Contest Success Function (CSF) and the logic by Tridimas (2011) in the risk-neutral setting. In this baseline scenario, it assumes domestic actors are in a

---

1 It is a Chinese phrasal *Hua Gange Wei Yubo* [化干戈为玉帛], which is similar to western term “turn swords into plowshares”. *Yu the Great* was a famous ruler in ancient China. The phrasal is from a story in *Huainanzi*, an edited book in Han Dynasty, with the patronage of Liu An (179BC-162BC), King of Huainan. See (Liu An, 2010, pp. 54-55).

2 This thesis use “peace game/approach” and “cooperative game/approach” as well as “conflict game/approach” and “war game/approach” as exchangeable terms respectively.
conflict situation when two groups can take a higher expected payoff from conflict alternative than peace strategy at the same time in a given equilibrium point, i.e. \( \pi_a^W > \pi_a^P \) and \( \pi_b^W > \pi_b^P \). Meanwhile, they can remain in a peace situation when the condition \( \pi_a^W < \pi_a^P \) and \( \pi_b^W < \pi_b^P \) holds; in other cases, like \( \pi_a^W < \pi_a^P \) and \( \pi_b^W > \pi_b^P \) or \( \pi_a^W > \pi_a^P \) and \( \pi_b^W < \pi_b^P \), it assumes domestic groups may confront a higher risk of low-intensity conflicts.

In general, the expected payoffs for a given actor to select conflict or peace alternative can be defined as the remaining utility of that winning probability times returns and then minus the costs. Accordingly, if group \( i \) triggers a conflict, its basic form of expected payoff will be,

\[
\begin{align*}
\pi_a^W &= P_a(1-\delta)R_a - x_a \\
\pi_b^W &= P_b(1-\delta)R_b - x_b
\end{align*}
\]

(3.1)

As a result, when group \( i \) prefer a peaceful strategy, the basic form of expected payoff will be,

\[
\begin{align*}
\pi_a^P &= (1-\sigma)Q_aR_a + \sigma(1-Q_a)R_a - x_a \\
\pi_b^P &= (1-\sigma)Q_bR_b + \sigma(1-Q_b)R_b - x_b
\end{align*}
\]

(3.2)

Where \( i = a, b \); \( \pi_i^W \) and \( \pi_i^P \) are the payoffs of group \( i \) to trigger a conflict and payoffs of keeping peaceful strategies; \( P_i \) and \( Q_i \) are the winning probability of group \( i \) in conflict and peace strategies respectively, \( \sum P_i = 1 \), \( \sum Q_i = 1 \); \( R_i \) is the rents or returns of group \( i \) after its success; \( \sigma \) is the ratio of sharing resources guaranteed for the loser in peace strategy, \( \sigma \in (0, 1) \); \( \delta \) is the ratio of rents destroyed in the conflicts, \( \delta \in (0, 1) \); and \( x_i \) stands for the mobilization costs and efforts of group \( i \).

“Rent” or “return” \( R_i \) from the contests is a key concept in CSF. Different assumptions on rent bring about different outcomes of contests. Currently, there are two different approaches to explore the rent natures. On the one hand, the rent is usually assumed to be exogenous. It indicates rent as “a monetary value” equally for both actors, which is also independent of the “economic output as per standard
practice” in the contest (Tridimas, 2011, p. 333). On the other hand, some other studies regard rents as an endogenous variable, which is related to the different perceptions on rent value of rent seekers and their “productive” efforts, such as rent size increasing with aggregate efforts (Chung, 1996). Hereby, this chapter generally assumes the rent as an exogenous variable in model building; but it also assumes the rent is divisible which can be decomposed into different types in different cases.

The essential parts in two functions are the winning probabilities in either peace or conflict settings, which are built on the basic form of CSF (Hirshleifer, 1989; Tullock, 1980). Firstly, rent-seeking efforts $x_t$ are the building blocks in CSF. It assumes all the players have enough resources to invest in the contest (Tridimas, 2011, p. 334). The efforts are usually determined or affected by at least two factors, including group size, as well as institutions and specific policies, which furthermore affect the rent seeking. Group size is important to rent seeking, as Katz and Tokatlidu (1996) found, group size asymmetry, including total numbers or population distribution, may affect the aggregate rent seeking. In general, larger groups usually have larger potential to invest; however both free rider problem in collective actions and pessimistic prediction undermine the efforts; while optimistic anticipation and efficient group roles enhance the efforts (Corchón, 2007, pp. 14-16). Furthermore, efforts are costly. So, specific policies can affect the player’s effort costs as well as the aggregate efforts. Ritz (2008, p. 293) regards the costs as a linear function of efforts by players, which can significantly influence the contest outcomes. In a broader sense, the costs actually contain diverse aspects, like efforts, the possible destructions and other fixed costs from conflicts (Aslaksen & Torvik, 2006, p. 576; Tridimas, 2011, p. 333).

Secondly, the new model sets a parameter $m_t$ to measure the effectiveness of mobilization efforts in a contest for a specific actor whose mobilization efforts might be biased by the given group’s own characteristics. As Tullock (1980, p. 101) originally puts it, “The individuals need not receive the same return on their investment. Indeed,
in many cases we would hope that the situation is biased.” If \( m_i = 1 \), the function of contributions is simply linear; in other cases (larger than 1 or smaller than 1), it is an exponential function. Furthermore, Hirshleifer (1989, p. 102; 1991) defines \( m \) as “mass effect parameter” in order to depict the “diminishing returns” of inputted efforts (for \( m_i \leq 1 \)) or “increasing returns” (when \( m_i > 1 \)) of a given actor’s efforts in the contests. Chung (1996, p. 60) and other relevant studies regard the parameter as “marginal return to efforts” as well. In addition, Garfinkel and Skaperdas (2007, p. 656) name it “decisiveness” or “effectiveness” in a contest. In this regard, the stronger group might paradoxically lose the contest with the weaker actor probably because “the less well-endowed side has a comparative advantage in fighting, the richer side in producing”; as a result, when the effectiveness of the weaker side is “sufficiently great”, the contest could plausibly be changed (Hirshleifer, 1991, p. 197).

Thirdly, it introduces a parameter \( \theta_i \) as the institutional efficiency factor to measure the effectiveness of a given actor’s efforts on conflict triggering, hereby \( \theta_i \in (0, 1) \) and \( \sum \theta_i = 1 \). Institutions can provide different effects. As the “rule of the game”, they can “induce” or “curtail” the rent seeking through reducing or increasing the rent-seeking expenditures and unproductive conflict (Congleton et al., 2008, p. 30). Moreover, the effects are conducted unevenly on different domestic groups. Milner (1997, pp. 18-19) indicates institutions can “privilege particular actors’ preference” and conduct their biased favor on particularistic actors. Similarly, Toboso (2011, p. 138) points out institutions affect the actors’ “relative rights and capacities to act and bargain” and have a distributional function. As a result, groups \( a \) and \( b \) are in an asymmetric relationship (except when \( \theta_i = 0.5 \)) from a perspective of institutional support, which has been applied in a few game-theoretical studies. Gershenson and Grossman (2000, p. 811) denote a non-negative parameter for the challenger to evaluate the effort effectiveness of the less-dominant group on challenging the dominant group (denoted 1) compared with the effectiveness of the dominant group on defending its status. Dasgupta
(2009, pp. 759-760) and Tridimas (2011, p. 334) also applies this parameter similarly to indicate an asymmetric functional form and show the “effectiveness” of two groups “respectively in fighting the civil war”. The parameter value affects the efficiency of a given group in converting marginal spending in the contest. The higher the institutional efficiency factor, the more favor a given actor enjoys, and the more efficient the actor is in its efforts.

Accordingly, the CSF is revised into a more complicated form, i.e.

\[
\begin{align*}
\pi_a^W &= (1 - \delta) \frac{\theta x_a^m}{\theta x_a^m + (1 - \theta) x_b^m} R - x_a \\
\pi_b^W &= (1 - \delta) \frac{(1 - \theta) x_b^m}{\theta x_a^m + (1 - \theta) x_b^m} R - x_b
\end{align*}
\]  

(3.3)

On the basis of CSF studies, this article models the payoffs of two domestic actors on triggering conflicts applying the logic of “winner-takes-all” as,

\[
\begin{align*}
\pi_a^W &= (1 - \delta) \frac{\theta x_a^m}{\theta x_a^m + (1 - \theta) x_b^m} R - x_a \\
\pi_b^W &= (1 - \delta) \frac{(1 - \theta) x_b^m}{\theta x_a^m + (1 - \theta) x_b^m} R - x_b
\end{align*}
\]  

(3.4)

And, the actors’ payoffs in adopting a peaceful approach via a prior agreement are model as,

\[
\begin{align*}
\pi_a^P &= (1 - \sigma) \frac{\varphi x_a^m}{\varphi x_a^m + (1 - \sigma) x_b^m} R + \sigma \left( \frac{(1 - \varphi) x_b^m}{\varphi x_a^m + (1 - \varphi) x_b^m} \right) R - x_a \\
\pi_b^P &= (1 - \sigma) \frac{(1 - \varphi) x_b^m}{\varphi x_a^m + (1 - \varphi) x_b^m} R + \sigma \left( \frac{\varphi x_a^m}{\varphi x_a^m + (1 - \varphi) x_b^m} \right) R - x_b
\end{align*}
\]  

(3.5)

3.2 Structural CSF Model on the Effects of International Institutions

The above discussion has provided a detailed analysis of the multiple influence approaches of international institutions on the interactive behaviors among domestic groups. International institutions generally exert a double influence such as enabling and constraining on mobilization efforts, interest allocation, and institutional setting of domestic actors. The aforementioned model on domestic contest is hereby revised.

Firstly, the previous section denoted \(x_{m_i}^t\) as rent-seeking efforts \(x_t\)
restrained by mobilization effectiveness \( m_i \) in a game with two groups \( i = a, b \).

The influence of international institutions on group mobilization and contest efforts can be defined as \( \rho_i \), which can affect the mobilization effectiveness and subsequently create impacts on rent-seeking efforts as well. As a result, the mobilization efforts or costs in CSF with the effects of international institutions for group \( i \) is

\[
(x_i^m)^{\rho_i} = x_i^{\rho_i m_i} \tag{3.6}
\]

Next, in respect to the effects on interest allocation, the aggregate “prize”, including interests, rents, or resources, can be denoted as the sum of institutional dividend \( R_d \) and benefits from the improvement of specific issues \( R_s \), i.e.,

\[
R = R_d + R_s.
\]

Thirdly, as the part above shows, domestic institution includes both its conflict aspect and peace dimension. It assumes that the conflict-support dimension of domestic institutions \( \theta \) and the peace-keeping dimension of domestic institutions \( \varphi \) are differently affected by the influence of international institutions through conflict “provoking” effects \( \omega_c \) and “pacifying” effects \( \omega_p \) respectively, i.e. \( \theta^{\omega_c} \) and \( \varphi^{\omega_p} \) for group \( a \) in conflict and peace cases; equivalently, \( (1-\theta^{\omega_c}) \) and \( (1-\varphi^{\omega_p}) \) for group \( b \) in respective situations.

In this vein, the CSF for group \( a \) and \( b \) in conflict and peace cases within the influence of international institutions is as follows, i.e.

\[
\begin{align*}
\mathcal{P}_a^I & = \frac{\varphi^{\omega_p} x_a^m a}{\varphi^{\omega_p} x_a^m a + (1-\varphi^{\omega_p}) x_b^m b} \\
\mathcal{P}_b^I & = \frac{\varphi^{\omega_p} x_a^m a}{\varphi^{\omega_p} x_a^m a + (1-\varphi^{\omega_p}) x_b^m b} \\
\mathcal{Q}_a^I & = \frac{\theta^{\omega_c} x_a^m a}{\theta^{\omega_c} x_a^m a + (1-\theta^{\omega_c}) x_b^m b} \\
\mathcal{Q}_b^I & = \frac{\theta^{\omega_c} x_a^m a}{\theta^{\omega_c} x_a^m a + (1-\theta^{\omega_c}) x_b^m b} 
\end{align*}
\tag{3.7}
\]

Accordingly, with the influence of international institutions, the payoffs for group \( a \) and \( b \) in the conflict case are denoted as,
\[
\begin{align*}
\Pi_a^W &= (1 - \delta) \frac{\theta^{\alpha c}x_a^{\alpha a}}{\theta^{\alpha c}x_a^{\alpha a} + (1 - \theta^{\alpha c})x_b^{\alpha b}} (R_d + R_s) - x_a \\
\Pi_b^W &= (1 - \delta) \frac{\theta^{\alpha c}x_b^{\alpha b}}{\theta^{\alpha c}x_a^{\alpha a} + (1 - \theta^{\alpha c})x_b^{\alpha b}} (R_d + R_s) - x_b
\end{align*}
\]

(3.9)

Meanwhile, the actors’ payoffs in adopting a peaceful approach via a prior agreement with the influence of international institutions are modeled as follows respectively,

\[
\begin{align*}
\Pi_a^P &= (1 - \sigma) \frac{\psi^{\gamma p}x_a^{\gamma a}}{\psi^{\gamma p}x_a^{\gamma a} + (1 - \psi^{\gamma p})x_b^{\gamma b}} (R_d + R_s) + \sigma \left( \frac{(1 - \psi^{\gamma p})x_a^{\gamma a}}{\psi^{\gamma p}x_a^{\gamma a} + (1 - \psi^{\gamma p})x_b^{\gamma b}} \right) (R_d + R_s) - x_a \\
\Pi_b^P &= (1 - \sigma) \frac{(1 - \psi^{\gamma p})x_b^{\gamma b}}{\psi^{\gamma p}x_a^{\gamma a} + (1 - \psi^{\gamma p})x_b^{\gamma b}} (R_d + R_s) + \sigma \left( \frac{\psi^{\gamma p}x_a^{\gamma a}}{\psi^{\gamma p}x_a^{\gamma a} + (1 - \psi^{\gamma p})x_b^{\gamma b}} \right) (R_d + R_s) - x_b
\end{align*}
\]

(3.10)

3.3 Process Model on the Effects of International Institutions

In respect to processual dimension, CSF and interests amount of key model on the effects of international institutions during the first three phases is not substantially different from previous models because the effects of international institutions are given as exogenous. The fourth phase reveals a substantial change in updating CSF and the overall model.

This section mainly focuses on the divergent dimensions of prevailing norms from international institutions in model building. As March and Olsen (2006, pp. 13-14) shown, conflict is “endemic” in institutions in addition to its inherent “coherence and consistency”. It emphasizes not only the norms with “domestic salience” of given norms (Cortell & Davis, 1996, 2000) but also the dimension without domestic salience at present. International institutions are a combination of cooperative components and conflict components. For example, norms of international trade institutions are “either mutually supportive or to some extent in conflict”, which include both reciprocity that aims at cooperation and liberalization that breeds conflict at the same time (Finlayson & Zacher, 1981, pp. 593-594). But the key goal of international institutions is to promote cooperation and alleviate conflict (Haftel & Thompson, 2006, p. 253; Sperling, 2003, p. 16), in spite of realist critics (Mearsheimer, 1994). Some behavioral studies indicate conflict is “an
inherent component” of social norms and the “heterogeneity” of norms is a “potential source” of conflict, which reduce norms’ capability to promote cooperation (Winter, Rauhut, & Helbing, 2012, p. 941). In some sense, cooperation can be regarded as a “good” behavior while conflict is “bad”.

Hereby, it denotes the ratio of actors pursing “bad” behavior (i.e. conflict) as $z \in [0, 1]$. When $z$ moves to 1, more individuals and groups deviate from the norms advocated by international institutions like cooperation, and embrace an adverse norm such as conflict. Hereby, it defines $M = M(z)$ to measure the extra costs on the loss of morality and reputation in addition to the costs evaluated by financial and mobilization inputs. Therefore, the moral costs exist $M(z) > 0$ unless all people and groups disobey the given norms, i.e. $z = 1$. It is reasonable to assume, in line with Akerlof (1980, p. 754) on reputation and disobedience of social customs, the more individuals disobey the norms (i.e. higher $z$), the moral costs or reputation loss becomes lower; in other words, if more actors follow the norms, a specific actor will suffer larger costs when it disobey the norms, that is, $\partial M / \partial z < 0$.

In addition, individuals and groups might be heterogeneous when evaluating their own moral costs and reputation loss. Current studies on social custom model usually set a parameter to describe the “individuality” (Bernheim, 1994, p. 844) or “idiosyncratic sensitivity” (Lin & Yang, 2006, p. 199) across different types of individuals and groups. In line with this setting, this chapter denotes $\lambda \in [0, 1]$ as a given group’s specific property that can burden moral costs when it conducts bad behaviors, which follows a uniform distribution. Accordingly, larger parameter $\lambda$ means the given group holds a lower capacity and has to suffer higher pressures than other groups. As a result, the extra costs that a given actor should pay because of their disobedience are $\lambda M(z)$.

This part attempts to explore the effects of norms and customs that are internalized by international institutions on conflict or cooperative behaviors. The rent or resource is still the prize that different groups compete for. This part
releases the previous assumption that conflict approach follows the rule of “winner takes all” and generalizes it into winners taking a larger part $R$ and losers receiving a smaller part $r$ whatever they refer to conflict or cooperative approaches, assuming $R > r \geq 0$. However, both approaches have to pay a cost for their choices, $C_w$ for conflict versus $C_p$ for cooperation, hereby $C_w > C_p > 0$. In addition, actors that use conflictual approach have to pay the extra moral costs $\lambda M(z)$.

Domestic groups are still in the tournament game. It continues to draw on CSF as the foundation to depict a given actor’s winning probability in both conflict and cooperative activities. $P_i$ is denoted as success probability and $(1 - P_i)$ is the failure probability for a given actor applying conflict approach. By the same token, $Q_i$ and $(1 - Q_i)$ are success and failure probabilities in the cooperative approach.

$$
\begin{align*}
P_i &= \frac{\theta \omega c x_a^p a m a}{\theta \omega c x_a^p a m a + (1 - \theta \omega c)x_b^p a m b} = \frac{\theta \omega c x_a^p}{\theta \omega c x_a^p + (1 - \theta \omega c)x_b^p}, \\
Q_i &= \frac{\theta \omega p x_a^p a m a}{\theta \omega p x_a^p a m a + (1 - \theta \omega p)x_b^p a m b} = \frac{\theta \omega p x_a^p}{\theta \omega p x_a^p + (1 - \theta \omega p)x_b^p}.
\end{align*}
$$

Similarly, both mobilization effectiveness $x'_i$ and institutional parameter for either conflict $\theta$ or cooperation $\phi$ define success probability. As mentioned, domestic institutions have differential functions as “inherently exclusionary” (Holden, 2006, p. 184) or internally “endemic” dynamics (March & Olsen, 2006, p. 14). However, it generalizes the institutional parameter as $e_i$ as current institutional effectiveness on conflict triggering. Accordingly, the institutional effectiveness on cooperation can be defined as $(1 - e_i)$ for example. The institutional effectiveness can be affected by the prevailing norms with different influences towards peace $\omega_p$ or towards conflict $\omega_c$. In this way, (3.11) is simplified as (3.12).

$$
\begin{align*}
\begin{cases}
P_i = P(e_i, x'_i) \\
Q_i = Q(e_i, x'_i)
\end{cases}
\end{align*}
$$

Hereby, higher mobilization effectiveness brings a higher probability of success for both conflict and cooperative camps, i.e. $\frac{\partial P_i}{\partial x'_i} > 0$ and
\( \partial Q_i / \partial x'_i > 0 \). Similarly, higher institutional effectiveness in conflict can increase the success probability of conflict triggering \( \partial P_i / \partial e_i > 0 \) while decreasing the success probability of cooperation promoting, \( \partial Q_i / \partial e_i < 0 \). Furthermore, this part mainly tries to explore the pacifying and/or provoking effects of internalized norms from international institutions on domestic conflict risk. In the real world, conflict in a general sense is a normal interaction among domestic groups. Purely because of the lack of cooperation, it needs to strengthen cooperation and resolve conflict. It therefore assumes the success probability of conflicts is larger than the success probability of cooperation, i.e. \( P_i > Q_i \).

In addition, the institutional effectiveness can be affected by the increasing salient dimensions of norms as well as the changing tension between two dimensions of salient norms, i.e. \( e_i = e(z) \). In this vein, it assumes when more actors support the given norms like conflict-triggering, the institutional effectiveness on conflict mobilization becomes larger, i.e. \( \partial e_i / \partial z > 0 \). It implies, in other words, the more domestic agents endorse the conflict-triggering dimension of norms, the lower the success probability of institutional effectiveness towards cooperative approaches. It also assumes, the more actors support the conflict-triggering norms, the larger the degree of institutional effectiveness on mobilization, that is, \( \partial^2 e_i / \partial z^2 > 0 \).

In sum, the internalized norms with different dimensions from international institutions also have impacts on given actors’ success probability through affecting mobilization effectiveness and institutional support as well as influencing their moral costs or reputation loss via typical routes of norms. As a result, the utilities for domestic actors with specific properties \( \lambda \) applying either conflict or cooperation in the fourth stage are denoted as follows, which takes the influence of norms and moral costs into consideration.

\[
\begin{align*}
\Pi^W_i &= P_i \cdot R + (1 - P_i) \cdot r - C_W - \lambda M(z) \\
\Pi^P_i &= Q_i \cdot R + (1 - Q_i) \cdot r - C_P
\end{align*}
\]

(3.13)
If a given actor with specific attributes $\lambda$ prefers to trigger a conflict behaviors, its expected utility must satisfy the following condition, i.e.

$$\Pi^W_i \geq \Pi^P_i \Rightarrow (P_i - Q_i)(R - r) \geq (C_W - C_P) + \lambda M(z) \quad (3.14)$$

It is actually a cost-benefit function, with the expected utility on conflict approach on the left hand and the relative costs on the right hand. When the utility is larger than paid costs, the given actor refers to a conflict behavior; otherwise, it adopts a cooperative approach in the interaction.

3.4 Discussions and Proofs

This part aims to discuss the different conditions of domestic actors triggering conflicts or promoting cooperation. Accordingly, it shows a series of mathematical proofs on game theoretical models from both structural and processual perspectives, including social norm model, and then discusses the findings compared with the hypotheses from theoretical framework. It finally applies data simulation in order to further previous findings.

3.4.1 Structural Analysis

The key model is regarded as a Cournot game. It tries to respectively solve the Nash equilibria of groups $a$ and $b$ in conflict game as well as peace game according to the mobilization efforts $x_i$, and subsequently discusses the corresponding conditions in which conflict scenario prevails over peace situation. In order to solve the Nash equilibrium and stabilization conditions for peace and conflicts games, the whole calculation is generally conducted in nine steps across three parts as follows.

1) On the basis of mobilization efforts, calculate the first-order conditions of group $a$ and group $b$ in conflict game respectively;

2) Let $R_a + R_s = R$ and equate two-order conditions as 0;

3) Substitute the result of Step 2 in the original equations of Step 1;

4) Let the institutional parameters and international influence be equivalent
and find out the equilibrium of group $a$ and group $b$;

5) Substitute the equilibrium into the original equation and calculate the expected payoffs at equilibrium;

6) Apply the above steps in peace game in order to find equilibrium and calculate the expected payoffs at equilibrium;

7) Calculate group $a$’s payoff difference in conflict game and peace game as well as group $b$’s payoff difference in conflict game and peace game;

8) Equate the payoff difference of group $a$ and group $b$;

9) Calculate the stable condition.

In this vein, it denotes that mobilization efforts $x_a$ and $x_b$ are the functions of expected payoffs of group $a$ and group $b$, i.e. $\Pi_a^W$ and $\Pi_b^W$, respectively. Based on the CSF structure, the expected payoffs of both actors are co-determined by a couple of parameters, as (3.9) shows. Next, the Nash equilibrium of the conflict game is assigned as $(x_a^{w*}, x_b^{w*})$. It also shows mobilization efforts $x_a$ and $x_b$ are the functions of expected payoffs of group $a$ and group $b$, i.e. $\Pi_a^P$ and $\Pi_b^P$, which are determined by similar variables to conflict game as (3.10). The Nash equilibrium of the conflict game is denoted as $(x_a^{p*}, x_b^{p*})$. Hereby, it assumes total interests/rents are simply the sum of the dividends from institutional adjustment plus the regulation benefits from the specific issue, i.e. $R = R_d + R_s$. Given the institutional dividends $R_d$, a larger share of benefits from issues regulation $R_s$ leads to a larger total of rents $R$; the same argument can be applied to larger $R_d$ enlarge $R$, given $R_s$. Meanwhile, given a constant level of total rent $R$, institutional dividends $R_d$ and benefits from issue regulation $R_s$ are supplementary. In general, four sets of propositions could be derived from CSF models.

The first set of propositions aims to provide mathematical evidence for $H1$ and analyze the roles of symmetric structures between two actors’ mobilization efforts in affecting the relations of international institutions and domestic...
interaction. Mobilization efforts (on both conflict and peace) of two actors, as the core element in CSF models, are mediated by their different bias parameters on mobilization effectiveness and the exogenous effects of international institutions. In detail, given the effects of domestic institutions and international institutions, the mobilization efforts of both groups in both conflict game and peace game in domestic contest, \(x_a\) and \(x_b\), can be compared in each game, through the proportional measurement of both original effectiveness bias from domestic institutions, \(\rho_a\) and \(\rho_b\), as well as new parameters from international institutions on mobilization efforts. In this way, the stronger the domestic actor, the more it is affected, and the more probable the actor follow its previous behaviors.

**Proposition 1a:** Given the level of previous bias parameters on mobilization efforts \(m_i\) either in conflict game or in cooperative game, the more asymmetric the two actors’ mobilization efforts \(x_a\) \(x_b\), the more unevenly they are affected by the effects of international institutions on their mobilization effort \(\rho_a\) \(\rho_b\), i.e.

\[
\frac{\rho_a}{\rho_b}, \text{ i.e. } \frac{\rho_a}{\rho_b} = \frac{x_a}{x_b} \cdot \frac{m_b}{m_a}.
\]

**Proofs to Proposition 1a:** It maximizes expected payoffs \(\Pi_i^W\) in case of mobilization efforts \(x_i\). In this way, the first-order conditions in conflict game are conducted as the simultaneous equations as (3.15). As a result, if \(x_a = \frac{\rho_a m_a}{\rho_b m_b} x_b\) holds as equation 3.16, the maximum expected payoffs for both groups in conflict games are obtained, with the precondition \(1 - \delta \neq 0\) and \(1 - \theta^{\omega_c} \neq 0\). Hereby, destruction ratio never reaches 100\%, and the institutional effectiveness towards conflicts is smaller than 1 even with the effects of international institutions.

\[
\begin{align*}
\left\{ \frac{\partial \Pi_a^W}{\partial x_a} = 0 \right. \\
\left. \frac{\partial \Pi_b^W}{\partial x_b} = 0 \right.
\end{align*}
\]

\[
\Rightarrow (1 - \delta)\theta^{\omega_c} \rho_a m_a x_a \rho_m^{m_a - 1} (1 - \theta^{\omega_c}) x_b \rho_b m_b \rho_m^{m_b - 1} \theta^{\omega_c} x_a \rho_m^{m_a} R = (1 - \delta)(1 - \theta^{\omega_c}) \rho_l m_a \rho_m^{m_a - 1} \theta^{\omega_c} x_a \rho_m^{m_a} R
\]

(3.15)
\[\Rightarrow \rho_am_a x_a^{\rho_am_a-1} x_b^{\rho_bm_b} = \rho_bm_b x_b^{\rho_bm_b-1} x_a^{\rho_am_a}\]

\[\Rightarrow x_a = \frac{\rho_am_a}{\rho_bm_b} x_b\]  

(3.16)

To maximize the expected payoffs of peace game \(\Pi_i^p\) based on the mobilization efforts \(x_i\), it is necessary to calculate the first-order conditions in peace game (3.10) through ordering \(\frac{\partial \Pi_i^p}{\partial x_a} = \frac{\partial \Pi_i^p}{\partial x_b} = 0\), as in (3.17). In this case,

\[x_a = \frac{\rho_am_a}{\rho_bm_b} x_b\]  

emerges, equal to equation 3.16, if \(1 - 2\sigma \neq 0\) and \(1 - \phi^{w_p} \neq 0\).

It is reasonable that institutional effectiveness towards peace with the effects of international institutions is usually smaller than 1. It also assumes that the sharing ratio of rents for the loser in peaceful election can’t be equal to 0.5.1

\[\Rightarrow R(1 - 2\sigma)(1 - \phi^{w_p})\phi^{w_p}\rho_bm_b x_a^{\rho_am_a} x_b^{\rho_bm_b-1} = R(1 - \phi^{w_p})(1 - 2\sigma)\rho_am_a x_a^{\rho_am_a} x_b^{\rho_bm_b-1}\]

(3.17)

\[\Rightarrow \rho_bm_b x_a^{\rho_am_a} x_b^{\rho_bm_b-1} = \rho_am_a x_b^{\rho_bm_b} x_a^{\rho_am_a-1}\]

\[\Rightarrow \quad x_a = \frac{\rho_am_a}{\rho_bm_b} x_b\]

As a result, both in conflict game and in peace game, \(\frac{\rho_a}{\rho_b} = \frac{x_a}{x_b} \cdot \frac{m_b}{m_a}\) holds, which indicates that Proposition 1a is proven, i.e. when the difference between \(x_a\) and \(x_b\) increases, the difference of international institutions’ effects on two actors increases as well. The actor with the larger mobilization capacity like \(x_a\) would receive more influence from international institutions, such as \(\rho_a\).

Proposition 1b: Given other parameters, the more the given actor is affected by the influence of international institutions on mobilization efforts, the larger the success probability of the given actor to follow its current behavior. That is, when \(\rho_i\) increases, both \(P_i\) and \(Q_i\) become higher.

1 If \(\sigma = 0.5\), the discussion on mobilization efforts and contest is meaningless.
Proofs to Proposition 1b: When (3.16) is substituted into (3.7) and (3.8) and then divided by $x_a^{p_a m_a}$ and $x_b^{p_b m_b}$, two success probabilities in conflict game and peace game are shown in (3.18) and (3.19). For the conflict probability of group $a$, the influence of international institutions on mobilization efforts $\rho_a$ increases, $(\frac{\rho_b m_b}{\rho_a m_a})\rho_b m_b$ decreases while $x_a^{(\rho_b m_b - \rho_a m_a)}$ becomes smaller as well, which leads to a much smaller part $(1 - \theta^c)(\frac{\rho_b m_b}{\rho_a m_a})\rho_b m_b x_a^{(\rho_b m_b - \rho_a m_a)}$ in the denominator. In the end, $P_a^I$ could increase subsequently. The same is provable on $P_b^I$, $Q_a^I$, and $Q_b^I$. Therefore, Proposition 1b holds.

\[
\begin{align*}
P_a^I &= \frac{\theta^c}{\theta^c + (1 - \theta^c)(\frac{\rho_b m_b}{\rho_a m_a})\rho_b m_b x_a^{(\rho_b m_b - \rho_a m_a)} + (1 - \theta^c)} \\
P_b^I &= \frac{\theta^c}{\theta^c (\frac{\rho_a m_a}{\rho_b m_b})\rho_a m_a x_b^{(\rho_a m_a - \rho_b m_b)} + (1 - \theta^c)} \\
Q_a^I &= \frac{\varphi^p}{\varphi^p + (1 - \varphi^p)(\frac{\rho_b m_b}{\rho_a m_a})\rho_b m_b x_a^{(\rho_b m_b - \rho_a m_a)}} \\
Q_b^I &= \frac{\varphi^p}{\varphi^p (\frac{\rho_b m_b}{\rho_a m_a})\rho_a m_a x_b^{(\rho_a m_a - \rho_b m_b)} + (1 - \varphi^p)}
\end{align*}
\]

The second set of propositions is about the multiple effects of international institutions on domestic actors’ interests and subsequently on the behavioral patterns of domestic actors, shown in $H2$. Within the interaction scenes of two players, it implies the effects of international institutions are more than welfare promoting and increasing welfare by international institutions can’t guarantee a peaceful interaction at domestic level. The effects of international institutions on domestic interaction via interests actually rely on mobilization efforts, domestic institutions, the relative interests between conflict game and peace game, and distribution agreement in peaceful situation, etc. Furthermore, the effects of international institutions on groups’ interests are mostly biased by both current mobilization efforts and domestic institutions. Nash equilibria of conflict and peace game only exists, when both groups are symmetric actors with equivalent bias.
factors of domestic institutions and a given international institution even affects the mobilization efforts for both groups; hereby, the mobilization efforts at equilibrium for groups a and group b in both conflict game \((x_c^a, x_c^b)\) and peace game \((x_p^a, x_p^b)\) are finally determined by destruction ratio, total rent amount, original mobilization bias factor, institutional effectiveness parameter towards conflict triggering, and the provoking effects on domestic institutions as well as external effectiveness parameter on mobilization efforts from international institutions.

**Proposition 2a:** The larger the total interests provided in conflict game \(R_w\), the higher the probability the group will select conflict behaviors; the larger the total interests in peace game \(R_p\), the higher the probability the given group will choose cooperative approach.

**Proofs to Proposition 2a:** In accordance with the mathematical procedures, it hereby calculates the equilibrium of each game and the stable condition of domestic interaction. The propositions are acquired during this process.

Firstly, when equation \(x_a = \frac{\rho a m_a}{\rho b m_b} x_b\) is substituted in the conflict game, (3.15) can be transformed into (3.20) and further simplified as (3.21) with the substitutions of A, B, C, and D.

\[
(1 - \delta)(1 - \theta^{oc})\theta^{oc} \rho a m_a R(\frac{\rho a m_a}{\rho b m_b}) \rho a m_{a-1} x_b^2 \rho b m_b + \rho a m_{a-1} = \]

\[
(1 - \theta^{oc})^2 x_b^2 \rho b m_b + \theta^{2 oc}(\frac{\rho a m_a}{\rho b m_b})^2 \rho a m_a x_b^2 \rho a m_a + 2(1 - \theta^{oc}) \theta^{oc}(\frac{\rho a m_a}{\rho b m_b}) \rho a m_a x_b^2 \rho a m_a + \rho b m_b
\]

\[
\Rightarrow Ax_b^{\rho b m_b + \rho a m_{a-1}} = B x_b^{\rho b m_b} + C x_b^{\rho a m_a} + D x_b^{\rho a m_a + \rho b m_b}
\]

Where \(A = (1 - \delta)(1 - \theta^{oc})\theta^{oc} \rho a m_a R(\frac{\rho a m_a}{\rho b m_b}) \rho a m_{a-1}; B = (1 - \theta^{oc})^2; \)

\(C = \theta^{2 oc}(\frac{\rho a m_a}{\rho b m_b})^2 \rho a m_a; D = 2(1 - \theta^{oc}) \theta^{oc}(\frac{\rho a m_a}{\rho b m_b}) \rho a m_a.\)

Next, (3.19) is divided by \(x_b^{\rho a m_a + \rho b m_b}\) that is assumed to be non-zero. It can be regarded as the maximum sum of total effects \((\rho a m_a + \rho b m_b)\) on a given group’s
mobilization efforts like \( x_b \) from international institutions and original effectiveness bias for both actors. In this way, (3.20) is obtained. It indicates the difference of effects from international institutions and original mobilization effective bias factors between two groups \((\rho_a m_a - \rho_b m_b)\) which finally determines the outcomes of a given group’s mobilization efforts.

\[
Ax_b^{-1} - Bx_b^\rho_{bm} - \rho_{am} a - Cx_b^\rho_{am} a - \rho_{bm} b - D = 0
\]  

(3.22)

When \( \rho_a m_a = \rho_b m_b = \rho m \) holds, i.e. both actors are affected by equivalent influences from international institutions, (3.22) is transformed into \( Ax_b^{-1} = B + C + D \) and group \( b \)'s mobilization efforts are accordingly obtained in (3.23).

\[
x_b = \frac{A}{B + C + D} = \frac{(1 - \delta)(1 - \theta \omega c)\theta \omega c \rho a m_a R}{(1 - \theta \omega c)^2 + \theta ^2 \omega c + 2(1 - \theta \omega c)\theta \omega c}
\]

\[
\Rightarrow x_b = (1 - \delta)(1 - \theta \omega c)\theta \omega c \rho m R
\]  

(3.23)

As a result, Nash equilibrium of conflict game is obtained and the corresponding equilibrium expected payoffs can be also achieved through substituting \( x_a^W^*, x_b^W^* \) back to (3.9), i.e. when \( x_a^W^* = x_b^W^* = (1 - \delta)(1 - \theta \omega c)\theta \omega c \rho m R \), the expected payoffs at Nash equilibrium are obtained. In sum, both equilibrium and its corresponding payoffs contain the provoking effects of international institutions, effectiveness parameter on mobilization efforts of international institutions, and rent term. Compared with the results\(^1\) of the baseline model by Tridimas (2011, p. 334), the relevant terms of international institutions such as \( \omega_c, \rho, \) and \( m \) are added.

\[
\begin{align*}
V_a^W^* &= (1 - \delta)R[\rho m \cdot \theta ^2 \omega c + (1 - \rho m) \cdot \theta \omega c] \\
V_b^W^* &= (1 - \delta)R[\rho m \cdot \theta ^2 \omega c - (1 + \rho m) \cdot \theta \omega c + 1]
\end{align*}
\]  

(3.24)

Similarly, the equations 3.17 can be transformed through substituting \( x_a = \frac{\rho a m_a}{\rho b m_b} x_b \) and simplified by introducing \( E, F, G, \) and \( H \) as equation 3.23.

\(^1\) The equilibrium point in war game is \( Z_A^* = Z_B^* = \gamma(1 - \gamma)(1 - \theta)R \) in Tridimas’ setting.
\[ R(1 - 2\sigma)(1 - \varphi_{wp}) \varphi_{wp} \rho_b m_b \left( \frac{\rho_a m_a}{\rho_b m_b} \right) \rho_a m_a \chi_b^{\rho_a m_a + \rho_b m_b - 1} \]
\[ = \left( \varphi_{wp} \left( \frac{\rho_a m_a}{\rho_b m_b} \right) \rho_a m_a \chi_b^{\rho_a m_a} + (1 - \varphi_{wp}) \chi_b^{\rho_b m_b} \right)^2 \]
\[ \Rightarrow E \chi_b^{\rho_a m_a + \rho_b m_b - 1} = F \chi_b^{2\rho_a m_a} + G \chi_b^{2\rho_b m_b} + H \chi_b^{\rho_a m_a + \rho_b m_b} \] (3.25)

Where
\[ E = R(1 - 2\sigma)(1 - \varphi_{wp}) \varphi_{wp} \rho_b m_b \left( \frac{\rho_a m_a}{\rho_b m_b} \right) \rho_a m_a ; \]
\[ F = \varphi_{wp}^{2} \left( \frac{\rho_a m_a}{\rho_b m_b} \right)^{2}\rho_a m_a ; \]
\[ G = (1 - \varphi_{wp})^2 ; \]
\[ H = 2(1 - \varphi_{wp}) \varphi_{wp} \left( \frac{\rho_a m_a}{\rho_b m_b} \right) \rho_a m_a . \]

Accordingly, (3.23) further highlights the significance of both the maximum sum of total effects \((\rho_a m_a + \rho_b m_b)\) and the difference of effects from international institutions \((\rho_a m_a - \rho_b m_b)\) in deciding the mobilization efforts in peace game. By dividing through \(\chi_b^{\rho_a m_a + \rho_b m_b}\) and ordering \(\rho_a m_a = \rho_b m_b = \rho m\), it can be transformed as (3.26).

\[ \Rightarrow E \chi_b^{\rho_a m_a + \rho_b m_b - 1} = F \chi_b^{2\rho_a m_a} + G \chi_b^{2\rho_b m_b} + H \chi_b^{\rho_a m_a + \rho_b m_b} \]
\[ \Rightarrow x_b = \frac{E}{F + G + H} \]
\[ \Rightarrow x_b = R(1 - 2\sigma)(1 - \varphi_{wp}) \varphi_{wp} \rho m \] (3.26)

As a result, Nash equilibrium of peace game is obtained, i.e. \(x_a^{P} = x_b^{P} = (1 - 2\sigma)(1 - \varphi_{wp}) \varphi_{wp} \rho m R\), and the payoffs at equilibrium in peace game are as follows through substituting \((x_a^{P} , x_b^{P})\) in (3.10). Compared with the results\(^1\) of baseline model by Tridimas (2011, p. 335), the influence terms of international institutions such as \(\omega_p\), \(\rho\), and \(m\) are added as well. In this vein, the pacifying effects of international institutions, effectiveness parameter on mobilization efforts of international institutions, and rent term together affect the equilibrium and corresponding payoffs in collaboration with other kinds of relevant parameters, as equation (3.27).

\(^1\) The equilibrium point in election game is \(X_a^* = X_b^* = \varepsilon (1 - \varepsilon)(1 - 2k)R\) in Tridimas’ setting.
Equations (3.24) and (3.27) indicate that with the increase of $R_w$ and $R_p$, the expected payoffs for both groups at equilibrium become higher in both conflict game and peace game, i.e. $V^W_{a*}$ and $V^W_{b*}$ versus $V^P_{a*}$ and $V^P_{b*}$ increase, which trigger specific groups to adopt more profitable behaviors. Therefore, Proposition 2a is proven here. Next two propositions further attempt to clarify the biased effect of mobilization efforts and domestic institution on the connections between international institutions and interests of domestic groups.

**Proposition 2b:** The larger the effects of international institutions on mobilization efforts for both groups $\rho$, the smaller the rents $R$ become.

**Proofs to Proposition 2b:** Drawing on (3.23) and the equilibrium in conflict game, a function on $R_w$ is reconstructed as (3.28).

$$R_w = \frac{x_i}{(1-\delta)(1-\theta \omega_c)\theta \alpha_c \rho m} \quad (3.28)$$

Subsequently, (3.26) and the equilibrium in peace game are transformed as (3.29), a function of the interests of peace game $R_p$.

$$R_p = \frac{x_i}{(1-2\sigma)(1-\phi \omega_p)\phi \alpha_p \rho m} \quad (3.29)$$

Therefore, in accordance with (3.28), when the effect of international institutions on mobilization efforts $\rho$ increases, the part $(1-\delta)(1-\theta \omega_c)\theta \alpha_c \rho m$ increase, the interests $R_w$ become smaller. In a similar way, as (3.29) shows, with the increase of $\rho$, the interests in peace game $R_p$ become smaller as well. Hereby, Proposition 2b is proven.

**Proposition 2c:** The larger the effects of international institutions ($\omega_c$ or $\omega_p$) on domestic institutions ($\theta$ or $\phi$) towards either conflict or cooperation, the rent $R$ firstly increases and then declines.

**Proofs to Proposition 2c:** Under the condition $0 < \theta < 1$, when the provoking effects of international institutions $\omega_c$ become larger, the interaction
effects of international and domestic institutions $\theta^{\omega_c}$ decrease, and the part
$(1 - \theta^{\omega_c})\theta^{\omega_c}$ is a reversed U-shape curve. In this case, when $0 < \theta^{\omega_c} < 0.5$, with the increase of $\omega_c$, $(1 - \theta^{\omega_c})\theta^{\omega_c}$ gets smaller, and the interests $R_w$ increase; when $0.5 < \theta^{\omega_c} < 1$, the interests $R_w$ decrease with the increase of $\omega_c$. The same rationale can also be used in the peace game. With increasing $\omega_p$, $(1 - \varphi^{\omega_p})\varphi^{\omega_p}$ becomes smaller when $0 < \varphi^{\omega_p} < 0.5$ holds, and the interests from peace $R_p$ is improved; accordingly, when $0.5 < \varphi^{\omega_p} < 1$, $(1 - \varphi^{\omega_p})\varphi^{\omega_p}$ becomes larger and the peace interests $R_p$ decline. Hence, Proposition 2c holds as well. As a result, domestic institutions, which can be regarded as one rule of rents distribution among domestic groups, can be affected by the effects (both provoking and pacifying) of international institutions and create different impacts on the interests of two behaviors.

Proposition 2d: Given the distribution ratio of rents for losing groups $\sigma$, the larger the gap of updated institutional effectiveness for peace keeping between two groups is, the larger the interests from conflict compared with peace interests $\frac{R_w}{R_p}$ are, the larger the probability of two groups referring to conflict/war.

Proofs to Proposition 2d: The stable condition can be acquired by manipulating two equilibria of conflict game and peace game. For example, cooperative scenario happens out when both actors simultaneously prefer peace to conflict in their interaction, i.e. $V^W_a - V^P_a > 0$ and $V^W_b - V^P_b > 0$; otherwise, conflictual behaviors prevail. As a result, the indifference condition can be obtained by ordering $V^W_a - V^P_a = V^W_b - V^P_b$, which means groups $a$ and group $b$ have indifferent expected payoffs when they select the same behavior at the same time. Therefore, it assumes the interests of conflict game $R_w$ and peace game $R_p$ are not identical. As a result, the indifference condition can be changed as follows, in particular (3.30).

$$(1 - \delta)\theta^{\omega_c}R_w - (1 - \sigma)\varphi^{\omega_p}R_p - \sigma(1 - \varphi^{\omega_p})R_p$$

$$= (1 - \delta)(1 - \theta^{\omega_c})R_w - (1 - \sigma)(1 - \varphi^{\omega_p})R_p - \sigma\varphi^{\omega_p}R_p$$

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\[
R_w(1 - \delta)(1 - 2\theta^c) = R_p(1 - 2\sigma)(1 - 2\varphi^p)
\]

\[
\Rightarrow \frac{R_w}{R_p} = \frac{(1-2\sigma)(1-2\varphi^p)}{(1-\delta)(1-2\theta^c)} = \frac{(1-2\sigma)(\varphi^p - (1-\varphi^p))}{(1-\delta)(\theta^c - (1-\theta^c))}
\]

Equation (3.30) indicates that the interest ratio between conflict and peace episodes is mainly determined by distribution agreement of rents for losing groups in peace \( \sigma \in (0, 0.5) \), and the updated institutional parameters of group \( a \) and group \( b \) for both conflict and peace. In addition to the existing distribution ratio for the losing party, domestic institutions can be also regarded as an allocation rule. If the effects of international institutions on domestic institutions diverge between two groups, it means that international institutions upgrade new distribution rules for domestic groups. When the gap between group \( a \)’s updated institutional parameter for peace \( \varphi^a_p \in (0.5, 1) \) and group \( b \)’s updated institutional parameter for peace \((1 - \varphi^b_p)\) is enlarged, the ratio \( \frac{R_w}{R_p} \) increases, and interests from conflict are more attractive compared with peace interests, which shows the conflict risk would probably rise even in a peaceful situation. Hereby, Proposition 2d could be provided. However, when two groups’ updated institutional parameters for conflict triggering, i.e. \( \theta^a_c \) and \((1 - \theta^b_c)\) are polarized, the distribution rules for two groups turn separate when affected by international institutions. In this case, the interest ratio \( \frac{R_w}{R_p} \) becomes smaller and the conflict interests are less attractive. Hence there would be higher peace probability.

The third series of propositions attempt to prove H3 and clarify the relations between institutional interplay and final outcome of domestic interaction. Hereby, institutions, not only domestic but also international ones, play crucial roles in the consequences of domestic interactions. Stable conditions of 2-player behaviors and outcomes lie on the configurations of domestic institutions (conflict triggering versus peace keeping) and international institutions (provoking versus pacifying). Both institutional preference towards conflict with the provoking effects of international institutions \( \theta^a_c \) and institutional preference towards peace with the pacifying effects of international institutions \( \varphi^a_p \) indicate a nonlinear relation.
with the payoffs of two groups in peace and conflict scenarios. Hereby, H3 needs to be examined further. As Proofs to Proposition 2c shows, only when \( 0 < \theta^{\omega c} < 0.5 \), the increasing provoking effects of international institutions would bring about higher interests from conflicts and subsequently a higher risk of conflict; when \( 0 < \varphi^{\omega p} < 0.5 \), the stronger pacifying effects of international institutions could lead to higher peace rents and a higher probability of peace situation. When the updated domestic institutions for peace \( (\varphi^{\omega p}) \) and conflict \( (\theta^{\omega c}) \) are bigger than 0.5, the stronger the effects of international institutions, and the smaller the probability of both peace and conflict. Similarly, H3a and H3b only capture a partial picture in the domestic interaction of two players.

Proposition 3a: If the conflict-triggering dimension of domestic institutions is updated by the provoking effects of international institutions to be more efficient to support conflict \( (0.5 < \theta^{\omega c} < 1) \) while the peace-keeping dimension of domestic institutions is upgraded by the pacifying effects of international institutions to be more efficient in keeping peace \( (0.5 < \varphi^{\omega p} < 1) \) as well, then peace or cooperation among domestic groups would probably emerge.

**Proof to Proposition 3a:** When the interests in conflict game \( R_w \) and the interests in peace game \( R_p \) are identical, \( R \), the equation (3.30) can be changed to (3.31), which is the stable condition for groups \( a \) and \( b \) to select behaviors.

\[
\frac{(1-2\theta^{\omega c})}{(1-2\varphi^{\omega p})} = \frac{(1-2\sigma)}{(1-\delta)}
\]  

(3.31)

Taking the rationale that winner takes more into account, the sharing ratio for losing actor \( \sigma \) is normally smaller than 0.5 and institutional effectiveness on peace is smaller than 1.\(^1\) As a result, the indifference condition and the subsequent outcomes are actually determined by both \( \varphi^{\omega p} \) and \( \theta^{\omega c} \). In fact, \( \theta^{\omega c} \) can be regarded as the updated dimension toward conflict triggering of domestic

\(^{1}\) To be specific, it is a parabola relation between the institutional factors with their external influence of international institutions, such as \( y = ax^2 + bx + c \) in a general way. In the conflict game, given \( pm > 0 \), with the increase of \( \theta^{\omega c} \in [-\infty, +\infty] \), the expected payoffs of groups \( a \) and group \( b \) will decrease firstly to a lowest point and then increase in a U shape. In the peace game, the parabola shape varies according to the value of prior rent sharing agreement \( \sigma \). When \( \sigma < 0.5 \), the expected payoffs will follow a U-shape curve; otherwise, the payoff will increase firstly to a peak and then decrease like a reversed U-shape curve given \( \sigma > 0.5 \).
institutions, denoted as $\Theta$; while $\varphi^{\omega_p}$ stands for the upgraded dimension towards peace keeping of domestic institutions, named as $\Phi$, where $\Theta, \Phi \in (0, 1)$.

Therefore, the behaviors of domestic groups and their interaction are determined both by the dimension on conflict triggering versus peace keeping of domestic institutions and by the pacifying or provoking effects of international institutions on domestic institutions. At the same time, the prior peace agreement is also important. In general, the ratio of sharing resources guaranteed for the loser is usually smaller than 0.5. Therefore, right hand of (3.31) is usually positive value, i.e. $\frac{(1-2\sigma)}{(1-\delta)} > 0$. As a result, if the cooperative interaction exists, two sets of preconditions must hold as follows.

$$\begin{align*}
\{ \theta^{\omega_c} > 0.5 \} & \Rightarrow \{ \theta > 0.5^{1/\omega_c} \} \\
\{ \varphi^{\omega_p} > 0.5 \} & \Rightarrow \{ \varphi > 0.5^{1/\omega_p} \} \\
\text{or} \quad \{ \theta^{\omega_c} < 0.5 \} & \Rightarrow \{ \theta < 0.5^{1/\omega_c} \} \\
\{ \varphi^{\omega_p} < 0.5 \} & \Rightarrow \{ \varphi < 0.5^{1/\omega_p} \}
\end{align*}$$

(3.32)

In this way, all of these conditions can be generalized into an exponential function, i.e. $y = 0.5^{1/x}$. The graphic illustration is provided in Figure 3-1.

![Figure 3-1 Conditions of Groups Behavior Choice on Conflict or Peace](image-url)
The function displays a dashed curve in second quadrant and a solid green curve with red background in the first quadrant. The x axis stands for the effects (provoking or pacifying) of international institutions on domestic institutions. The provoking and pacifying effects, \( \omega_c \) and \( \omega_p \), are regarded as \((-\infty, +\infty)\); but our focus is mostly on \((0, +\infty)\). Meanwhile the y axis represents the dimensions of conflict triggering or peace keeping of domestic institutions. Therefore, both \( \theta \) and \( \varphi \) should be smaller than 1. Hence, only the solid green curve with red background is the relevant expression for this generalized function.

Moreover, position a, defined by \( \theta \) and \( \omega_c \), stands for the updated conflict dimension of domestic institutions that is affected by the provoking effects of international institutions; and position b, defined by \( \varphi \) and \( \omega_p \), is the updated peace dimension of domestic institutions influenced by the pacifying effects of international institutions. Area I between EF and DC depicts the cases that \( \theta \) and \( \varphi \) is larger than \( 0.5^{1/\omega_c} \) and \( 0.5^{1/\omega_p} \), while Area II between DC and AB contains the cases that \( \theta \) and \( \varphi \) is smaller than \( 0.5^{1/\omega_c} \) and \( 0.5^{1/\omega_p} \). As a result, Area I indicates the prevalence of upgraded domestic institutions towards either conflict or peace; while Area II implies the weak situation of upgraded domestic institutions towards either conflict or peace. When one domestic actor such as group a enjoys both the institutional support for conflict and the institutional efficiency towards peace at the same time, it would prefer a cooperative interaction because conflict behaviors would cause the loss of interests compared with the peaceful behavior. In this case, group b has no institutional advantages in triggering conflicts and keeping peace. This case can be displayed by the green line \( ab \) in Area I, as Proposition 3a is proven.

Proposition 3b: If the conflict dimension of domestic institutions is updated by the provoking effects of international institutions to be less powerful in supporting conflict \( 0 < \theta^{\omega_c} < 0.5 \) while the peace dimension of domestic institutions is also upgraded by the pacifying effects of international institutions to be less powerful in keeping peace \( 0 < \varphi^{\omega_p} < 0.5 \), the peace or cooperation situation would probably emerge as well.
Proofs to Proposition 3b: In contrast, when group $a$ confronts an unfavorable institutional setting for either peace or conflict, group $b$ accordingly becomes favored for peace keeping and conflict triggering by domestic institutions updated by international institutions. In this case, as Proposition 3b implied, the peace persists just as the green line $ab$ shows.

Proposition 3c: When the conflict dimension of domestic institutions is updated by the provoking effects of international institutions to be less efficient in supporting conflict ($0 < \theta^\omega_c < 0.5$) while when the peace dimension of domestic institutions is upgraded by the pacifying effects of international institutions to be stronger at keeping peace ($0.5 < \varphi^\omega_p < 1$), the conflict situation would probably happen. A similar situation also occurs when $0.5 < \theta^\omega_c < 1$ and $0 < \varphi^\omega_p < 0.5$.

Proofs to Proposition 3c: However, when group $a$ is supported by the updated domestic institutions in triggering conflict (it means group $b$ is institutionally disadvantaged to trigger conflict) while group $b$ is favored by domestic institutions in keeping peace (it means group $a$ has less institutional support to keep peace), domestic interaction probably moves to conflict because group $a$ confronts more institutional motivation for conflict with less institutional support for peace, as the red line $a'b'$ illustrated. Or when $0.5 < \theta^\omega_c < 1$ and $0 < \varphi^\omega_p < 0.5$ for group $a$ and group $b$ hold respectively, i.e. two actors enjoy opposite institutional advantages among their interaction, they would probably resort to conflict. Therefore, Proposition 3c is proven.

In the end, it should be noted that there are inherent similarities between general models above and the models in first three periods. International institutions can create similar impacts on domestic actors and their behavioral interactions from the first period to the third period of interactive relations between state actor and given international institution. The models vary slightly in parameters setting according to different phases between international institutions and domestic politics. Accordingly, it is reasonable to argue that the effects of international institutions have typical processual features in affecting domestic
interaction, and subsequently affect the domestic behavior selection. Under the structural perspective, the difference of equilibria across different phases only relies on the existence (or not) of international institutions’ effects on domestic institutions, mobilization efforts, and interests. Their stable condition on the behavior selection is identical across different stages before the fourth period.

The differences between the first, second, and third periods in modelling the influence of international institutions come from different configurations on three CSF components, i.e. interests, institutions, and mobilization. In this way, the payoff models for group \( a \) and \( b \) on conflict and peace at first phase are (3.33).

\[
\begin{align*}
\Pi^1_W &= (1 - \delta) \frac{\theta^m a_x m_a}{\theta^m a_x m_a + (1 - \theta^m c) x_b} (R_d) - x_a \\
\Pi^1_B &= (1 - \delta) \frac{\theta^m b_x m_b}{\theta^m b_x m_b + (1 - \theta^m c) x_a} (R_d) - x_b \\
\Pi^1_p &= (1 - \sigma) \frac{\phi^p a_x m_a}{\phi^p a_x m_a + (1 - \phi^p p) x_b} (R_d) + \sigma \frac{\phi^p a_x m_a}{\phi^p a_x m_a + (1 - \phi^p p) x_b} (R_d) - x_a \\
\Pi^1_p &= (1 - \sigma) \frac{\phi^p b_x m_b}{\phi^p b_x m_b + (1 - \phi^p p) x_a} (R_d) + \sigma \frac{\phi^p b_x m_b}{\phi^p b_x m_b + (1 - \phi^p p) x_a} (R_d) - x_b
\end{align*}
\] (3.33)

Similar to the calculation on generalized model as in (3.23) and (3.26), it proves that the equilibrium of conflict game in the first period is \( x^1_{a*} = x^1_{b*} = (1 - \delta)(1 - \theta^o c) \theta^o c m R_d \) while the equilibrium of peace game is \( x^1_{a*} = x^1_{b*} = (1 - 2\sigma)(1 - \phi^o p) \phi^o p m R_d \) under the symmetry assumption of two groups. In the first stage, the rent is mainly from institutional adjustment and the effects of international institutions on the mobilization efforts don’t exist. The relevant models in the second phase are (3.34).

\[
\begin{align*}
\Pi^2_W &= (1 - \delta) \frac{\theta^m a_x m_a}{\theta^m a_x m_a + (1 - \theta^m c) x_b} (R_d + R_s) - x_a \\
\Pi^2_B &= (1 - \delta) \frac{\theta^m b_x m_b}{\theta^m b_x m_b + (1 - \theta^m c) x_a} (R_d + R_s) - x_b \\
\Pi^2_p &= (1 - \sigma) \frac{\phi^p a_x m_a}{\phi^p a_x m_a + (1 - \phi^p p) x_b} (R_d + R_s) + \sigma \frac{\phi^p a_x m_a}{\phi^p a_x m_a + (1 - \phi^p p) x_b} (R_d + R_s) - x_a \\
\Pi^2_p &= (1 - \sigma) \frac{\phi^p b_x m_b}{\phi^p b_x m_b + (1 - \phi^p p) x_a} (R_d + R_s) + \sigma \frac{\phi^p b_x m_b}{\phi^p b_x m_b + (1 - \phi^p p) x_a} (R_d + R_s) - x_b
\end{align*}
\] (3.34)

The equilibrium of conflict game in the second phase is \( x^2_{a*} = x^2_{b*} = (1 - \delta)(1 - \theta^o c) \theta^o c m R_d \) while the equilibrium of peace game is \( x^2_{a*} = x^2_{b*} = (1 - 2\sigma)(1 - \phi^o p) \phi^o p m R_d \) under the symmetry assumption of two groups and \( R = (R_d + R_s) \). Compared with that in the first period, rents of issue regulation emerge. Subsequently, (3.35) depicts the models in the third phase.

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\[ \begin{align*}
\Pi^W_a &= (1 - \delta) \frac{\theta \omega \rho m a}{\theta \omega \rho \omega m a + (1 - \theta \omega \rho c) \rho m R_s}(R_s) - x_a \\
\Pi^W_b &= (1 - \delta) \frac{(1 - \theta \omega \rho c) \rho m b}{\theta \omega \rho \rho m b + (1 - \theta \omega \rho c) \rho m b}(R_s) - x_b \\
\Pi^P_a &= (1 - \sigma) \frac{\phi \omega \rho \omega m a}{\phi \omega \rho \rho m a + (1 - \phi \omega \rho p) \rho m R_s}(R_s) + \sigma \left( \frac{(1 - \phi \omega \rho p) \rho m b}{\phi \omega \rho \rho m b + (1 - \phi \omega \rho p) \rho m b} \right) R_s - x_a \\
\Pi^P_b &= (1 - \sigma) \frac{(1 - \phi \omega \rho p) \rho m b}{\phi \omega \rho \rho m b + (1 - \phi \omega \rho p) \rho m b}(R_s) + \sigma \left( \frac{\phi \omega \rho \omega m a}{\phi \omega \rho \rho m a + (1 - \phi \omega \rho p) \rho m b} \right) R_s - x_b
\end{align*} \]

(3.35)

It can prove that the equilibrium of conflict game in the third stage is \( x^W_a^* = x^W_b^* = (1 - \delta)(1 - \theta \omega \rho c) \theta \omega \rho m R_s \) while the equilibrium of peace game is \( x^P_a^* = x^P_b^* = (1 - 2\sigma)(1 - \phi \omega \rho p) \phi \omega \rho m R_s \) under the symmetry assumption of two groups. In this period, international institutions start to exert real effects on the actors by affecting their mobilization efforts, and the relevant rents are mainly from issue regulation.

Most importantly, based on the equilibria of both conflict game and peace game in three phases, \( \frac{(1-2\theta \omega \rho c)}{(1-2\phi \omega \rho p)} = \frac{(1-2\sigma)}{(1-\delta)} \) is the condition for both groups selecting either conflict approach or cooperative approach indifferently. At least two preconditions for the stable condition are crucial, including that two groups are symmetric actors and that the influence of international institutions on domestic variables is even. As a result, when international institutions are exogenous rules, the more the state actor is involved in international institutions, the more comprehensively the elements of domestic interaction are affected, and the bigger the CSF, the Nash equilibrium, and the expected payoffs of domestic groups are adjusted in the conflict and peace games.

3.4.2 Processual Analysis

The effects of international institutions on domestic interaction vary according to state actors’ gradual involvement in international institutions. It is usually a process of international institutions acting from exogenous rules to endogenous norms at domestic level. This section aims to provide relevant propositions through comparing the behavioral effects of international institutions between the structural CSF model and the updated model via the procedures of social custom model. Subsequently, it tries to show the distinct roles of endogenous norms from
international institutions in shaping domestic interactions. As a result, the real effects of international institutions are transformed after the prevailing international norms have been adopted, endogenized and updated within domestic settings. Domestic actors selecting either cooperation or conflict are influenced by a series of relevant parameters with different directions. In particular, a snowballing effect might emerge once the norms on provoking conflicts start. The equilibrium condition is mainly determined by the ratio of norm with morally bad evaluation and the moral costs, together with parameters like rent distribution, peace costs, mobilization efforts, and institutional effectiveness that are updated by the norm.

The application of social norm/custom model tends to change previous interaction and behaviors of domestic actors by adding the term of moral and reputational costs imposed by endogenous norms and revising the structures of contest success probability. It applies social norm model and makes at least three differences from structural perspectives. Firstly, the latent assumption that two groups are unitary actors is rejected; some individuals in each group might change their behaviors according to the norm influence and cost-benefits evaluation. Secondly, the tension between different dimensions of institutions, such as cooperation versus conflict, is further highlighted in a dynamic process; cooperation or peace norm is regarded as good behavior while conflict is seen as bad way. Thirdly, the preference for conflict or cooperation can be changed in accordance with the tension between different dimensions of endogenized norms.

Proposition 4a: The more the rules and norms of international institutions are involved in domestic interaction from the first period to the last, the larger the costs of conflict triggering are, and the lower the probability domestic actors resort to conflict.

Proofs to Proposition 4a: This proposition is derived from the conflict costs. Based on the structural model (3.9) and (3.10) as well as the process model (3.13), it shows that all the key parts of domestic actors’ utility function are similar except the moral and reputation costs $\lambda M(z) > 0$ in the fourth period when domestic groups try to launch conflicts. As a result, as the $H4$ indicated, the deeper the international institutions are internalized into domestic setting, the larger the costs for domestic actors triggering conflict, and the larger the probability domestic
actors cooperate.

In general, the social norm model demonstrates its distinctions compared with the CSF model from a structural perspective. The endogenous norms from a given dimension of international institutions can affect the costs perception of domestic actors, such as moral costs and reputation loss in a prevailing atmosphere. In addition, the norms can also update actors’ evaluation on the rent scale, mobilization efforts and effectiveness, and success probabilities of peace or conflict approaches, which finally affect domestic groups’ behavioral choices during the norm socialization at domestic level. In this case, it implies international institutions can affect domestic actors through adherence to the internalized norms on both conflict effects and cooperative effects. The influence of internalized norms is comprehensive but also in conflict within its different dimensions. The cooperative dimension of salient norms can’t guarantee a cooperative situation among domestic actors; at the same time, in spite of the larger cost, the higher spread of conflict triggering effects at the initial phase might bring surprising consequences, when a series of variables are specifically configured, i.e. “A little spark may kindle a great fire.”

Proposition 4b: The more salient the cooperative norms of international institutions (as morally good) at domestic level become, the bigger the moral and reputational obligation, and the more domestic actors resort to cooperative approach; the more salient the conflict norms of international institutions (as morally bad) at domestic level become, the smaller the moral and reputational costs are, and consequently the more domestic actors seek conflict approach, i.e. \( \frac{\partial \xi}{\partial z} > 0 \).

Proofs to Propositions 4b: If domestic actors decide to select conflict approach as their behavior in the interaction, the utility functions in peace game and conflict game (3.13) have to satisfy the requirements of (3.14). As a result, domestic groups and individuals should feel indifferent between cooperative and conflict choices, when their expected utilities are equal in peace and conflict games, i.e. \( \Pi^W_i = \Pi^P_i \). So, the marginal type of domestic actors that are indifferent from
cooperation and conflict is assumed as \( \lambda \), which can be regarded as the “ratio” of groups that conduct conflicts within a certain social custom because it assumes \( \lambda \) follows uniform distribution between 0 and 1. According to (3.36), if a given actor’s property on moral costs is smaller than the indifference threshold, i.e. \( \lambda < \lambda^\ast \) holds, domestic actors prefer conflict behaviors to cooperation behaviors; otherwise, cooperation behaviors prevail when \( \lambda > \lambda^\ast \) exists.

\[
\lambda^\ast = \frac{P(e(x),x'_i) - Q(e(x),x'_i)(R-r) - (C_W - C_P)}{M(x)} \quad (3.36)
\]

By solving first-order conditions (or second-order conditions in some equations) on (3.36), it demonstrates different parameters could affect the indifferent condition of domestic actors’ behavior choices through different directions and extent. Firstly, different actors’ respective evaluation of costs and gains matters to the indifference threshold for them to select either conflict or cooperative approach. For example, the higher the benefits of conflicts and the costs of peace, the higher the indifference threshold, i.e. \( \frac{\partial \lambda}{\partial R} = \frac{P-Q}{M(x)} > 0 \) and \( \frac{\partial \lambda}{\partial C_P} = \frac{1}{M(x)} > 0 \); reversely, the higher the benefits of peace and the costs of conflicts, the smaller the indifference threshold, i.e. \( \frac{\partial \lambda}{\partial r} = -\frac{P-Q}{M(x)} < 0 \) and \( \frac{\partial \lambda}{\partial C_W} = -\frac{1}{M(x)} < 0 \). Next, the success probabilities are also important. The results \( \frac{\partial \lambda}{\partial P} = \frac{R-r}{M(x)} > 0 \) and \( \frac{\partial \lambda}{\partial Q} = -\frac{R-r}{M(x)} < 0 \) show a higher success probability of conducting conflicts with a lower probability of keeping peace increases the indifference threshold of conflict selection. Thirdly, larger mobilization efforts and higher institutional effectiveness would push up the indifference threshold and induce more actors to select conflicts, which is shown by \( \frac{\partial \lambda}{\partial x'_i} = \frac{(R-r)}{M(x)} \left( \frac{\partial P}{\partial x'_i} - \frac{\partial Q}{\partial x'_i} \right) > 0 \) and \( \frac{\partial \lambda}{\partial e_i} = \frac{(R-r)}{M(x)} \left( \frac{\partial P}{\partial e_i} - \frac{\partial Q}{\partial e_i} \right) > 0 \). However, this deduction is based on \( \frac{\partial P}{\partial x'_i} > \frac{\partial Q}{\partial x'_i} \) and \( \frac{\partial P}{\partial e_i} > \frac{\partial Q}{\partial e_i} \), i.e. the larger the mobilization efforts and the larger the institutional effectiveness, subsequently the larger the success probabilities of
conflict and peace behaviors. But the effects of both mobilization and institutional effectiveness on increasing success probability of conflict behaviors are larger than that of cooperative behaviors.

Furthermore, this proposition provides mathematical proofs to H4b. With the increasing ratio of domestic groups disobeying cooperative norms, the indifference threshold of actors $\lambda$ on either conflict or cooperation would become higher as well, as (3.37) shows. Given $\frac{\partial \lambda}{\partial e_i} > 0$, $\frac{\partial e_i}{\partial z} > 0$, and $\frac{\partial M}{\partial z} < 0$, $\frac{\partial \lambda}{\partial z} > 0$ holds. It indicates more actors that follow conflict norms leads to larger institutional effectiveness on mobilization and smaller costs of triggering conflicts, given previous levels of indifference thresholds and costs, a new indifference threshold is enhanced subsequently. On the other hand, if the cooperative norms rather than non-cooperative norms become increasingly salient, there would be fewer actors embracing conflict as their behavior.

$$\frac{\partial \lambda}{\partial z} = \frac{(R-r)(\frac{\partial P}{\partial e_i}+\frac{\partial Q}{\partial e_i})}{M(z)} \cdot \frac{\partial e_i}{\partial z} - \frac{(P-Q)(R-r)-(C_W-C_P)}{M^2(z)} \cdot \frac{\partial M}{\partial z} > 0 \quad (3.37)$$

**Proposition 4c:** The more domestic actors disobey the cooperative norms, the much more domestic actors tend to conduct conflict behaviors, i.e. $\frac{\partial^2 \lambda}{\partial z^2} > 0$.

**Proofs to Proposition 4c:** Proposition 4c can be proven when $\frac{\partial^2 M}{\partial z^2} \leq 0$ holds. It aims to clarify H4b. The precondition means with the increase of actors disobeying norms, the decreasing speed of costs become slower and slower. In this vein, when the ratio of actors disobeying cooperative norms increases, it would increase the indifference threshold to a larger extent and many more actors transfer to this behavior. It is akin to a “snowballing effect”.

$$\frac{\partial^2 \lambda}{\partial z^2} = \frac{(R-r)(\frac{\partial P}{\partial e_i}+\frac{\partial Q}{\partial e_i})}{M(z)} \cdot \frac{\partial^2 e_i}{\partial z^2} - \frac{(R-r)(\frac{\partial P}{\partial e_i}+\frac{\partial Q}{\partial e_i})}{M^2(z)} \cdot \frac{\partial e_i}{\partial z} - \frac{(P-Q)(R-r)-(C_W-C_P)}{M^2(z)} \cdot \frac{\partial M}{\partial z} > 0$$

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\[ \frac{\partial^2 \lambda}{\partial z^2} = \frac{\partial \lambda}{\partial e_i} \cdot \frac{\partial^2 e_i}{\partial z^2} - 2 \frac{\partial \lambda}{\partial e_i} \cdot \frac{\partial M}{\partial e_i} + \frac{2 \lambda}{M^2(z)} \left( \frac{\partial M}{\partial z} \right)^2 - \frac{\lambda}{M(z)} \cdot \frac{\partial^2 M}{\partial z^2} > 0 \]  \hspace{1cm} (3.38)

Hereby, \( \hat{\lambda} \) stands for the indifferent actors that transfer to conflict behavior, which is possibly different from the actual number of actors towards conflict \( z \).

The equilibrium is reached, when \( \hat{\lambda} = z \) holds. In fact, \( \hat{\lambda} > z \) means the actual ratio of actors in conflict behavior increases; when \( \hat{\lambda} < z \), the actual ratio towards conflict decreases until they are equal. As a result, the difference between \( \hat{\lambda} \) and \( z \) should be minimized, as the first-order condition, that is,

\[ \frac{\partial (\hat{\lambda} - z)}{\partial z} = \frac{\partial \hat{\lambda}}{\partial z} - 1 < 0 \]

Hereby, the interaction gradually moves to equilibrium. Because of (3.37) and \( \hat{\lambda} = z \), the equilibrium condition can be transformed as follows,

\[ \left( \frac{\partial \hat{\lambda}}{\partial e_i} \cdot \frac{\partial e_i}{\partial z} - 1 \right) M(z) - \hat{\lambda} \cdot \frac{\partial M}{\partial z} < 0 \]

\[ \Rightarrow \left( \frac{\partial \lambda}{\partial e_i} \cdot \frac{\partial e_i}{\partial z} - 1 \right) M(z) - z \cdot \frac{\partial M}{\partial z} < 0 \]  \hspace{1cm} (3.39)

Because \( \frac{\partial \lambda}{\partial e_i} = \frac{(R - r) - \frac{\partial P}{\partial e_i} - \frac{\partial Q}{\partial e_i}}{M(z)} \) is deduced, (3.39) can be transformed to (3.40).

\[ (R - r) \left( \frac{\partial P}{\partial e_i} - \frac{\partial Q}{\partial e_i} \right) \frac{\partial e_i}{\partial z} - \left[ M(z) + z \frac{\partial M}{\partial z} \right] < 0 \]  \hspace{1cm} (3.40)

Meanwhile, when \( \hat{\lambda} = z \), (3.36) is transformed to (3.41).

\[ \hat{\lambda} = z = \frac{[P(e(z)x_i' - Q(e(z)x_i')]e(z)x_i']}{M(z)} \]  \hspace{1cm} (3.41)

Subsequently, it solves the first-order condition of different parameters on the actual ratio of actors conducting conflict behaviors, i.e. \( z \). The calculation is conducted by applying the differentiate solution of implicit functions. Let implicit function as \( y = f(x) \Rightarrow F(x, y) = 0 \), and the derivative of implicit function can be obtained via solving \( f'(x) = -\frac{F_x(x, y)}{F_y(x, y)} \). In this case, the function can be
transformed as $F(z) = [P(e(z), x'_i) - Q(e(z), x'_i)](R - r) - (C_W - C_p) - zM(z)$ and a series of first-order conditions are calculated as (3.42).

\[
\begin{align*}
\frac{\partial z}{\partial R} &= -\frac{(P-Q)}{(R-r)}\left[\frac{\partial P}{\partial e_i} + \frac{\partial Q}{\partial e_i} + \frac{\partial M}{\partial x_i} + z\frac{\partial M}{\partial x_i}\right] > 0 \\
\frac{\partial z}{\partial r} &= \frac{(P-Q)}{(R-r)}\left[\frac{\partial P}{\partial e_i} + \frac{\partial Q}{\partial e_i} + \frac{\partial M}{\partial x_i} + z\frac{\partial M}{\partial x_i}\right] < 0 \\
\frac{\partial z}{\partial C_W} &= \frac{1}{(R-r)}\left[\frac{\partial P}{\partial e_i} + \frac{\partial Q}{\partial e_i} + \frac{\partial M}{\partial x_i} + z\frac{\partial M}{\partial x_i}\right] < 0 \\
\frac{\partial z}{\partial C_P} &= \frac{1}{(R-r)}\left[\frac{\partial P}{\partial e_i} + \frac{\partial Q}{\partial e_i} + \frac{\partial M}{\partial x_i} + z\frac{\partial M}{\partial x_i}\right] > 0 \\
\frac{\partial z}{\partial x'_i} &= -\frac{(R-r)}{(R-r)}\left[\frac{\partial P}{\partial e_i} + \frac{\partial Q}{\partial e_i} + \frac{\partial M}{\partial x_i} + z\frac{\partial M}{\partial x_i}\right] > 0 \\
\frac{\partial z}{\partial e_i} &= -\frac{(R-r)}{(R-r)}\left[\frac{\partial P}{\partial e_i} + \frac{\partial Q}{\partial e_i} + \frac{\partial M}{\partial x_i} + z\frac{\partial M}{\partial x_i}\right] > 0
\end{align*}
\]

(3.42)

Under this condition, the actual ratio of actors triggering conflict behaviors (also the popular norms on conflict triggering) is affected by rent size among winner and loser, peace costs, and mobilization efforts on peace and conflicts. It indicates that a larger prize for the winners, larger peace costs, and stronger mobilization efforts promote the number of actors to rely on conflict behaviors in the contest; while more compensation and larger conflict costs prevent the domestic actors embracing conflict behaviors.

In sum, the hypotheses in H4 are theoretically proven through mathematical calculation. By regarding international rules and norms as different roles in domestic interaction, different interactive phases between given international institutions and state actors can shape distinct interaction types and behaviors of domestic groups. As exogenous rules, international institutions can affect success probability in 2-player contest through creating impacts on institutional effectiveness, mobilization efforts, and interests. When norms are internalized into the domestic arena and evaluated by moral criteria, the “morally bad” behaviors would face decreasing costs of reputation loss, and the conflictual actors would spread more quickly.
3.4.3 Extension: Data Simulation

Taking the strict assumptions of game theoretical analysis into account, this section attempts to artificially simulate the CSF models in a more general sense. By analyzing the large scale data from simulation, it aims to demonstrate different distributions of actors’ conflict benefits before and after the effects of international institutions. The basic idea is to calculate the expected payoffs of groups $a$ and group $b$ with or without the effects of international institutions, when they select conflict or peace as their behaviors, under different parameter configurations; subsequently, it estimates the pure payoffs (payoff by conflicts minus payoff by peace) when a given group regards conflict as its behavioral choice. That is, if a group’s pure payoff is larger than 0, it resorts to conflict; and if the pure payoff is negative, it probably keeps the peace.

Based on (3.9) and (3.10), the data simulation is performed by “for-each loops” in R Programming 3.1.1. The integrated model mainly includes 14 variables. The simulation procedure selects 3 or 4 values for each parameter. Limited by the computational capacity, it splits the total data into 9 subgroups according to the mobilization symmetry between two groups. Each subgroup dataset has 2,985,984 observations and there are totally 26,873,856 observations, shown as Table 3-1. The data analysis on the simulated data is conducted through Stata 13 MP. Because of the huge volume of data, it concentrates on some key indicators from summary statistics on the parameters and conflict benefits of two groups. In particular, it attempts to demonstrate the relations by using “Quadratic Fit” plots and “Local Polynomial” plots.

---

1 The detailed code, “Code on Data Simulation”, is attached in data disk.
2 Different configurations will produce $3 \times 3 \times 4 \times 4 \times 4 \times 3 \times 3 \times 3 \times 3 \times 4$ (i.e. 2,985,984) observations in a subgroup.
### Table 3-1 Description of Data Simulation

<table>
<thead>
<tr>
<th>Mode</th>
<th>Mobilization Comparison</th>
<th>Symmetry Or Not</th>
<th>Obs.</th>
<th>Parameter Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1:1</td>
<td>$\delta$</td>
<td>2,985,984</td>
<td>$\delta$ = a = (0.1, 0.5, 0.9)</td>
</tr>
<tr>
<td>2</td>
<td>1:5</td>
<td>$\theta$</td>
<td>2,985,984</td>
<td>$\theta$ = b = (0.1, 0.5, 0.9)</td>
</tr>
<tr>
<td>3</td>
<td>1:9</td>
<td>$\omega_c$</td>
<td>2,985,984</td>
<td>$\omega_c$ = c = (-3, -1, 1, 3)</td>
</tr>
<tr>
<td>4</td>
<td>5:1</td>
<td>$\rho_a$</td>
<td>2,985,984</td>
<td>$\rho_a$ = e = (-3, -1, 1, 3)</td>
</tr>
<tr>
<td>5</td>
<td>5:5</td>
<td>$\rho_b$</td>
<td>2,985,984</td>
<td>$\rho_b$ = h = (-3, -1, 1, 3)</td>
</tr>
<tr>
<td>6</td>
<td>5:9</td>
<td>$\mu_a$</td>
<td>2,985,984</td>
<td>$\mu_a$ = f = (-3, -1, 1, 3)</td>
</tr>
<tr>
<td>7</td>
<td>9:1</td>
<td>$\mu_b$</td>
<td>2,985,984</td>
<td>$\mu_b$ = i = (-3, -1, 1, 3)</td>
</tr>
<tr>
<td>8</td>
<td>9:5</td>
<td>$\sigma$</td>
<td>2,985,984</td>
<td>$\sigma$ = l = (0.1, 0.5, 0.9)</td>
</tr>
<tr>
<td>9</td>
<td>9:9</td>
<td>$\varphi$</td>
<td>2,985,984</td>
<td>$\varphi$ = m = (0.1, 0.5, 0.9)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$\omega_p$</td>
<td>2,985,984</td>
<td>$\omega_p$ = n = (-3, -1, 1, 3)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>26,873,855</td>
<td></td>
</tr>
</tbody>
</table>

Note: $S$ (Symmetric Structure); $AS$ (Asymmetric Structure)

Firstly, the net conflict gains of two groups ($\Pi^W_i - \Pi^P_i$) are relatively equivalent in 9 data subgroups, which are evaluated by mean, standard deviation, min and max value. However, when the effects of international institutions are considered, two groups’ net conflict gains vary to a very large extent. Take symmetric group 1 for example, its net conflict gains could reach either -14401.8 as minimal value or 30583.8 as maximal value, while the net gains from conflicts for group 2 is from -30585.6 to 14400.0. In the asymmetric cases, the scope of net conflict gains enlarges as well but to a smaller extent (See Table 3-2). In respect to the mean, there is higher incentive for group 1 to trigger conflict when both actors are in a symmetric setting. Furthermore, null hypothesis says the conflict benefits are equal before and after the effects of international institutions while alternative hypothesis assumes they are not equal for both group a and group b. By performing t-test, it refuses all null hypotheses in 9 data subgroup with $Pr(|T| > |t|) = 0$, that is, international institutions would bring about changes to the behaviors of domestic groups in a simulated situation.
<table>
<thead>
<tr>
<th>Actors</th>
<th>Net Conflict Gains Prior to International Institutions</th>
<th>Net Conflict Gains posterior to International Institutions</th>
<th>Sym. Types</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Min</td>
</tr>
<tr>
<td>Actor 1</td>
<td>2,985,984</td>
<td>-2.50</td>
<td>3.83</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.75</td>
<td>-16.20</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.69</td>
<td>-16.20</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.75</td>
<td>-16.20</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.79</td>
<td>-16.20</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.87</td>
<td>-16.20</td>
</tr>
<tr>
<td>Actor 2</td>
<td>2,985,984</td>
<td>-2.50</td>
<td>3.83</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.59</td>
<td>-16.19</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.75</td>
<td>-16.20</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.59</td>
<td>-16.19</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.69</td>
<td>-16.20</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.79</td>
<td>-16.20</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.75</td>
<td>-16.20</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.79</td>
<td>-16.20</td>
</tr>
<tr>
<td></td>
<td>-2.50</td>
<td>4.87</td>
<td>-16.20</td>
</tr>
</tbody>
</table>

Secondly, the previous conflict benefits of two groups are actually related to the net conflict gains of given groups affected by international institutions. In theoretical sense, there are four alternatives for a given actor’s behavior choice, as Figure 3-2 shows, in accordance with conflicts existing (or not) before and after the intervention of international institutions.\(^1\)

---

\(^1\) In case of GATT/WTO involvement and internal armed conflicts as the indicators of international institutions and domestic behaviors, four types of interaction and behaviors exist as well. Firstly, the category of no civil conflicts before and after GATT/WTO involvement includes 61 countries or separate custom territories in the sample from 1946 to 2009, like Albania, Armenia, Australia, Austria, Bahrain, Barbados, Belgium, Belize, Benin, Botswana, Brazil, Brunei, Bulgaria, Canada, Cape Verde, Cyprus, Czechoslovakia, Denmark, Ecuador, Estonia, Fiji, Finland, Germany, Honduras, Hungary, Iceland, Ireland, Italy, Jamaica, Japan, Jordan, South Korea, Kuwait, Kyrgyz Republic, Latvia, Lebanon, Liberia, Lithuania, Luxembourg, Maldives, Mauritius, Mongolia, Namibia, Netherlands, New Zealand, Norway, Poland, Portugal, Qatar, Singapore, Slovenia, Solomon Islands, Swaziland, Sweden, Switzerland, Syria, Taiwan, Ukraine, United Arab Emirates, Vietnam, and Zambia. Secondly, 38 countries or separate custom territories have no conflict incidence before GATT/WTO accession and suffer from internal conflict after their accession, including Bangladesh (3), Burkina Faso (24), Burundi (0,26), Central African Republic (38), -134-
Chapter 3: Modelling the Effects of International Institutions

Prior Net Conflict Gains

Posterior Net Conflict Gains

No Conflict Before the Effects of
International Institutions

Having Conflict After the Effects of
International Institutions

Having Conflict Before the Effects of
International Institutions

No Conflict After the Effects of
International Institutions

$(X_2, Y_2)$ $(X_1, Y_1)$

$(X_3, Y_3)$ $(X_4, Y_4)$

Figure 3-2 Types of Behavior Tendency before and after Involvement of International Institutions

The scatter distribution of net conflict benefits as Figure 3-3 shows the inherent relationships by the $(a)$symmetry status in 9 simulation data subgroups. It also reveals that the distribution of groups’ conflict benefits varies within different

Chad (3, 13)$^*$, Chile (24), Congo (30), Cote D’Ivoire (39), Cuba (5, 8, 13)$^*$, Dominican Republic (15)$^*$, Egypt (23), France (13)$^*$, Gabon (1)$^*$, Guinea (6)$^*$, Guinea-Bissau (4)$^*$, Haiti (39), India (0, 8, 13)$^*$, Indonesia (0,3,8)$^*$, Lesotho (10)$^*$, Madagascar (6)$^*$, Mauritania (12)$^*$, Mexico (8, 10)$^*$, Nicaragua (27), Niger (28), Pakistan (23), Peru (14)$^*$, Romania (18)$^*$, Rwanda (24), Senegal (27), Serbia (25), South Africa (18)$^*$, Spain (15)$^*$, Suriname (9)$^*$, Togo (22), Turkey (33), UK (23), US (53), and Uruguay (19)$^*$. The number in brackets means the years after GATT/WTO accession that a conflict exists. 21 countries have conflict incidence within 20 years after their accession with asterisk *. Thirdly, 20 GATT/WTO members have armed conflicts before their accession and the conflicts disappear after their accession, such as Bolivia (-23), Cambodia (-26), China 1946-1949 (-2,-1)$^*$, Costa Rica (-42), Croatia (-5,-8)$^*$, El Salvador (-12), Greece (-4)$^*$, Guatemala (-26), Macedonia (-2)$^*$, Moldova (-9)$^*$, Morocco (-12), Mozambique (-15), Nepal (-8), Oman (-31), Panama (-8), Papua New Guinea (-2,-5)$^*$, Paraguay (-5), Saudi Arabia (-26), Tunisia (-10)$^*$, China 1950-2010 (-42), in which the numbers in brackets mean the years before GATT/WTO accession when a conflict last occurred and the asterisk stands for a given country’s conflict happening within 10 years before the GATT/WTO accession. Finally, 11 countries have conflict records before their accession and the conflicts persist even after their accession Angola (-3,0,2,4,8,10), Argentina (-4,7), Cameroon (-3,21), Democratic Republic of Congo (-4,-7,6), Djibouti (-3,5), Georgia (-8,-9, 4, 8), Israel (-13,28), Mali (-3, 1), Philippines (-9,-10, 14), Thailand (-8, 21), and Venezuela (-8, 2). Hereby, the numbers in brackets mean the years that a conflict happens before the accession year (negative number) or the years that a conflict occurs after the accession year (positive number). In addition, there are four other categories, i.e. 18 countries without GATT/WTO membership before 2009 but have a conflict record; 10 countries without GATT/WTO membership and have no conflicts; 7 GATT/WTO members since their independence with conflict records; and 5 GATT/WTO members since their independence without conflicts at all.
conditions, which means the behavior choices may be transferred before and after the intervention of international institutions. Take two groups in the first symmetry case (1:1) into account, both actors confront minus payoffs in conducting conflict and generally keep peace before their country is involved in international institutions; however they would have a positive and higher payoff to trigger conflict when the influence of international institutions exists. Nevertheless, the actors are also in conflict situation prior to the effects of international institutions and transfer to peace after they move to international institutions. Similar cases emerge for the group 2 in other symmetric setting (5:5 and 9:9). Meanwhile, there are also peace situations and conflict situations regardless of the effects of international institutions, showed by the scatters distributed in left-hand bottom area (gain of group 1 in 1:9) and right-hand upper area (gain of group 1 in 9:1). From a whole perspective, both groups have more gains from non-conflict cases than from conflict before their involvement in international institutions. However, with the accession of international institutions, Group 1 could relatively benefit more from conflicts while Group 2 would prefer non-conflict circumstances.

![Figure 3-3 Scatter Distributions of Groups' Net Conflict Gains](image)

However, some sub-graphs (like in the medium asymmetric structure 5:1, 1:5, 5:9, and 9:5) in Figure 3-3 are reluctant to show further information. A further step...
abstracts the distribution as well as the tendency from above scatter graphs by using a fitting curve like Quadratic Fit and Local Polynomial Fit with 95% confidence intervals (CIs).

![Net Conflict Gains of Two Groups by Quadratic Fit and Local Polynomial Fit](image)

**Figure 3-4 Net Conflict Gains of Two Groups by Quadratic Fit and Local Polynomial Fit**

In general, as Figure 3-4 shows, group 1 might either transfer from a peaceful behavior to conflict or change from conflict to peace with the intervention of international institutions; group 2 follows a similar route in behavioral choice and it is also possible to keep peace before and after the effects of international institutions. In respect to the overall tendency, domestic groups would prefer a non-conflict approach as their choice, which seems to be more pacific after receiving the influence of international institutions.

Furthermore, under asymmetric settings on mobilization efforts between two groups, they show various changing tendencies and different gaps of net conflict gains before and after the influence of international institutions. As Table 3-3 and Figure 3-5 indicated, in most cases, two groups have changed their behavioral logics on conflict or peace except that in the most asymmetric cases such as 1:9 and 9:1 on mobilization efforts.

---

1 The illustrations on 9 data subgroups by Local Polynomial Fit are attached in Figure A-2 in Appendix II.
It assumes that peace would emerge if both actors hold a cooperative approach. Subsequently, peace exists in 1:1 case, when both groups change their conflict behaviors prior to accession to international institutions. Meanwhile, the actors that enjoy peace before the effects of international institutions in asymmetric structures insist on their cooperative approaches after their accession. In addition, peace occurs as a short episode in the asymmetric settings. It is also possible that both actors prefer peace after the accession whatever they selected in the previous phase.

Conflict becomes popular in other cases. For example, group 1 transfers its behavior from peace to conflict in 1:1 case. And it prefers conflicts after accession to international institutions in two other symmetric cases, regardless of its previous choice. Even if actors maintain a consistent behavior like conflict during accession to international institutions, their net conflict gains might be enlarged with the possible intervention of international institutions, which can be regarded as an indicator on the conflict intensity. As a result, $H1$ actually simplifies the real relations between the symmetric structure of two groups and the final behavior.
Chapter 3: Modelling the Effects of International Institutions

Table 3-3 Tendency of Net Conflict Gains before/after International Institutions

<table>
<thead>
<tr>
<th>Types</th>
<th>Conflict (Y vs N)</th>
<th>Conflict (Y vs N)</th>
<th>Types</th>
<th>Conflict (Y vs N)</th>
<th>Conflict (Y vs N)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Prior</td>
<td>Posterior</td>
<td>Sum</td>
<td>Prior</td>
<td>Posterior</td>
</tr>
<tr>
<td>G1</td>
<td>N</td>
<td>Y</td>
<td></td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td>G2</td>
<td>Y</td>
<td>N</td>
<td>1:1</td>
<td>G2</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td>G1&gt;G2</td>
<td>G2</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Y</td>
<td></td>
<td>G2</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Y</td>
<td>1:9</td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>N</td>
<td></td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>N</td>
<td></td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td></td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Y</td>
<td>5:5</td>
<td>G2</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td></td>
<td>G2</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>N</td>
<td></td>
<td>G2</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td></td>
<td>G2</td>
<td>Y</td>
</tr>
<tr>
<td>G1</td>
<td>N</td>
<td>N</td>
<td>9:1</td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td>G2</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>N</td>
<td></td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td></td>
<td>G1</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>N</td>
<td></td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td></td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>N</td>
<td></td>
<td>G1</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Y</td>
<td>Y</td>
<td></td>
<td>G1</td>
<td>N</td>
</tr>
</tbody>
</table>

Note: 1) The asterisk (*) means obvious difference between the graphs from Quadratic Fit and Local Polynomial Fit; 2) the summary is on the general tendency rather than details across the matrix.

Lastly, simulation reveals the effects of international institutions on the interaction of two domestic groups vary in accordance with different configurations and diverse impacts approaches towards actors, institutions, and rents, etc.¹ For one thing, the results by quadratic fit (see Table 3-4) show international institutions can have consistent impacts $\omega_c$ on the conflict dimension of domestic institutions $\theta$ and produce various effects on the net conflict gains for two groups through nonlinear relations, including L-shaped curve, ²

¹ The detailed graphs (both Quadratic Fit and Local Polynomial Fit) between every parameter and net conflict gains by mobilization structure and actors are attached in Figure A-3 and Figure A-4 in Appendix II.
J-shaped curve, and U-shaped curve, as well as the reverse curves, etc. Hereby, L-shaped relations between the effects of international institutions and net conflict gains exist in the symmetric case; U-shaped relations emerge in a medium asymmetric structure; and the most asymmetric circumstance cultivates a J-shaped curve. In addition, the exact relation is reversed across two actors in every given structure. However, the effects of international institutions $\omega_p$ on the peace dimension of domestic institutions $\varphi$ found no relations to the net conflict gains of two groups. In this way, $H3$ with $H3a$ are confirmed but $H3b$ is in doubt.

Table 3-4 Effects of International Institutions on Net Conflict Gains

<table>
<thead>
<tr>
<th>Mobilization Structure And Actors</th>
<th>Impacts Approaches</th>
<th>On Domestic Institutions</th>
<th>On Mobilization</th>
<th>On Rents</th>
<th>Rents from Structural Adjustments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1:1</td>
<td>$G1$ L No</td>
<td>No</td>
<td>No</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>$G2$ R-L No</td>
<td>No</td>
<td>No</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>1:5</td>
<td>$G1$ R-U No</td>
<td>No</td>
<td>No</td>
<td>U</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>$G2$ U No</td>
<td>No</td>
<td>No</td>
<td>R-U</td>
<td>N</td>
</tr>
<tr>
<td>1:9</td>
<td>$G1$ R-J No</td>
<td>No</td>
<td>R-U</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>$G2$ J No</td>
<td>No</td>
<td>U</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5:1</td>
<td>$G1$ R-U No</td>
<td>U</td>
<td>No</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>$G2$ U No</td>
<td>No</td>
<td>R-U</td>
<td>No</td>
<td>N</td>
</tr>
<tr>
<td>5:5</td>
<td>$G1$ L No</td>
<td>No</td>
<td>No</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>$G2$ R-L No</td>
<td>No</td>
<td>No</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>5:9</td>
<td>$G1$ R-J No</td>
<td>R-U</td>
<td>R-U</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>$G2$ J No</td>
<td>U</td>
<td>U</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>9:1</td>
<td>$G1$ R-J No</td>
<td>R-U</td>
<td>No</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>$G2$ J No</td>
<td>U</td>
<td>No</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>9:5</td>
<td>$G1$ R-J No</td>
<td>R-U</td>
<td>R-U</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>$G2$ J No</td>
<td>U</td>
<td>U</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>9:9</td>
<td>$G1$ L No</td>
<td>No</td>
<td>No</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td></td>
<td>$G2$ R-L No</td>
<td>No</td>
<td>No</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

Note: J (J-shaped Curve); L (L-shaped Curve); U (U-shaped Curve); R-J (Reverse J-shaped Curve); R-L (Reverse L-shaped Curve); R-U (Reverse U-shaped Curve); N (Negative Relations); P (Positive Relations); No (No Relations). Illustrations by Quadratic Fit, 95% CIs.

-140-
The effects of international institutions on the mobilization efforts of two groups $\rho_a$ and $\rho_b$ are also confirmed and found conditional on the (a)symmetric structure. As Figure A-3 in Appendix II shows, in the symmetric environment, the effects of international institutions are offset. But in the asymmetric structure, the effects of international institutions on mobilization efforts for the weakest group (that is denoted 1 in mobilization efforts) are usually marginalized to no relations; at the same time, the stronger group’s mobilization efforts can be enforced to enlarge the net conflict gains of the given group. Furthermore, within the asymmetric structure when both actors are strong (mobilization efforts are no smaller than 5), their net conflict gains can be affected by the effects of international institutions on their mobilization efforts at the same time. Hereby, the U-shaped or reverse U-shaped relations imply that the impact extent of international institutions is nonlinear and change its influence direction when the peak or bottom is reached.

In respect to the effects of international institutions on rent sources and interests in symmetric structure, the larger the rents of issues and institutional adjustment for the first group, the larger its net conflict gains; but with larger rents, the second group’s net conflict gains would decrease. In contrast, with the effects of international institutions in asymmetric setting, the larger the rents of two groups from both issue $R_d$ and institutional adjustment $R_s$, the smaller the net conflict gains become. Hence, in a general sense, the relations between interests and domestic actors’ selection on conflict are more complicated than $H2$ indicated.

Additionally, simulated data depicts the relationships between other parameters and two groups’ net conflict gains as well, as Figure A-3 shows in Appendix II. It further demonstrates the efficiency of domestic institutions on conflicts $\theta$ always plays a significant while changing role in determining the net conflict gains of two actors in addition to the effects of international institutions on the domestic institutional efficiency. Meanwhile, the mobilization parameters $m_a$ and $m_b$ on both groups’ mobilization efforts would emerge together with the effects of international institutions in this case.
In sum, this simulation section further clarifies the complex relationship between diverse effects of international institutions and net conflict gains of two groups through abstracting the specific impacts and approaches of different parameters. The results have mostly depicted the nonlinear relations between international institutions and domestic interaction on several indicators. Furthermore, the effects of international institutions are compound and diverse in both impact approaches and causal directions. In this way, stronger international institutions don’t always affect domestic equilibrium to a large extent. Different performances from 9 subgroups’ data, according to the configuration between two groups’ mobilization efforts, indicates the influence of symmetric or asymmetric structures on determining the effects of international institutions and the final net gains of conducting conflict approaches.

3.5 Summary

This chapter builds a series of mathematical models of two domestic groups on selecting either conflict or cooperation under the influence of international institutions; subsequently, it discusses the models through solving Nash equilibria by game theoretical approach, exploring social norms model, and analyzing the simulation data. Hereby, the interaction between states and international institutions is separated into four involvement phases with different influence approaches on domestic interactions.

It firstly finds international institutions can affect domestic actors through interests, institutions, and mobilization efforts, which affect their Nash equilibria on both conflict and cooperative settings. In particular, the institutional preference on conflict or cooperation at both domestic and international levels determines the final consequences of domestic interactions. In general, it concludes that secondary rules like international institutions matter to domestic interaction, and play a crucial role in some specific situations, but are not decisive by themselves. However, the findings are obtained in a symmetric setting between two actors.

Furthermore, international institutions can be internalized as domestic norms
Chapter 3: Modelling the Effects of International Institutions

with inherent tensions, such as cooperation versus conflict. As a combination of conflict triggering effects and cooperation promoting effects, international institutions continue to affect domestic interactions among actors as a social custom model. With specific emphasis on the constraints of moral and reputation loss, it finds the conflict triggering effects of internalized norms might shape a snowballing effect on domestic conflict behaviors when the benefits, costs, and mobilization efforts are specifically configured.

Lastly, data simulation extends the symmetric limitation of Nash equilibrium and provides more general results. It demonstrates the change of behavioral choice for two groups within different parameter configurations. Subsequently, it affirms the findings of the first part, and then confirms international institutions’ effects on mobilization efforts and interests/rents amount as other impact approaches. In this way, the general relationship between the effects of international institutions and behavior of domestic groups is comprehensively revealed.
4 Can International Trade Institutions Promote Peace? A Regression Discontinuity Design Test

The tangerine is gained if the orange tree grows in the south of Huai River whereas the trifoliate emerges if it grows in the north of Huai River. Why are they similar in leaves but distinct in tastes? The difference in water and soil makes it.

——Yan Ying

4.1 Introduction

The relations between trade and conflict/peace are still in a “complex, multifaceted” debate (Global Trade Negotiations, 2005, p. 1) or “enduring debate” (Mansfield & Pollins, 2003). Meanwhile there has been a significant change recently that is embedded into the relationships, which makes conflict/peace relations much more puzzling, that is, the intervention of institutional factors. The focus on institutional factor expands the scope of current conflict studies and provides new questions for scholars. Facing the emergent questions on the relations between trade and domestic conflicts, this chapter tries to investigate the effects of international trade institutions on the likelihood of domestic conflicts/peace, which connects institutions and trade issues and simultaneously highlights the impacts of international factors (i.e. trade institutions) as sources on domestic outcomes (i.e. internal conflicts). Hence, trade institution provides an interesting perspective to further explore the nexus between trade and conflict. It selects General Agreement on Tariffs and Trade (GATT) and World Trade Organization (WTO) as indicators of international trade institutions from 1947 to 2009, which are empirically

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1 A preliminary edition of this chapter has been presented at the Annual Conference of European Political Science Association (EPSA), Berlin, Germany, 21-23 June, 2012; and the Annual Conference of International Studies Association (ISA), San Francisco, US, 3-6 April 2013. A part of this chapter was published in Chinese at World Economy and Politics (No.4), 2012, pp.124-153.

2 Original text is Ju Sheng Huainan Ze Wei Ju, Shengyu Huabei Ze Wei Zhi, Ye Tu Xiangsi, Qishi Wei Bu Tong. Suoyi Ranzhe He? Shuitu Yi Ye [橘生淮南则为橘, 生于淮北则为枳, 叶徒相似, 其实味不同。所以然者何？水土异也]. It is excerpted from Yanzi Chunqiu [The Annuals of Yanzi]. Yan Ying [晏婴] (578BC-500BC) was the prime minister of Qi state during the Spring and Autumn Period. See (Yan Ying, 1987, p. 283).

3 Some scholars like Rodrik (2007, p. 234; 2011, pp. 71-75) argue neither GATT nor WTO aims to promote “globalization all that much”, “maximize free trade” or “fundamentally pursue free trade”.

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discussed in detail.

Therefore, this chapter plans to discuss the effects of international trade institutions on the incidence of internal conflict. Its research questions concentrate on the following:

1. Whether does international trade institutions i.e. GATT/WTO have an impact on conflict incidence? Positive effects, negative effects or mixed effects?

2. How could GATT/WTO increase or decrease the risk of internal conflict?

3. To what extent can GATT/WTO increase or decrease the risk of internal conflict?

Therefore this chapter tries to combine the institutional approach and current studies on the trade-conflict nexus in order to empirically investigate the effect of international trade institutions (GATT/WTO) on the incidence of internal conflicts through Regression discontinuity design (RDD) and logit regression. In sum, it firstly attempts to focus on the institutional dimension of trade liberalization rather than issues such as goods or interdependence; secondly, it measures the effects of a given international institution on the internal conflict to evaluate the institutional role in conflict studies; thirdly, it discusses international sources and domestic outcome which connects the factors and actors from the international to the domestic level.

This chapter tries to construct an integrated framework with the support of theories of “Second Image Reversed”, theories of international institution, and theories of trade and conflicts, etc., in which the framework and relevant mechanisms are analyzed through direct and indirect approaches. Fourthly, this chapter discusses the relevance of statistical methods like RDD and logit regression, and then provides the key data and related sources on the IV, DV, and controlling variables. Fifthly, it applies RDD with the “Adjusted Year” as the running variable, in which the validation and robustness tests are also stressed; furthermore, this chapter continues to apply logit regression to analyze the impacts of GATT/WTO membership on the incidence of civil conflicts within different settings of
controlling variables. Finally, conclusions are presented.

4.2 Theoretical Framework and Hypotheses

This chapter aims to explore the possible impacts of GATT/WTO, as one international trade institution, on the likelihood of domestic conflicts and peace. It connects at least three key variables, namely, Trade, Institutions, and Internal Armed Conflicts. It also connects sources at the international level and outcomes at domestic level. In general, the impacts of GATT/WTO act as the IV while the likelihood of domestic conflict/peace as the DV in this research.

In order to investigate the causal relationship between international trade institutions and civil conflicts, at least three intertwined theories should be mentioned to construct an integrated framework, including 1) theories of “second image reversed”; 2) theories of international institutions; 3) theories on the relations between trade and internal conflict/peace.

4.2.1 “Second Image Reversed”

Traditional IR theories like Realism mostly see the state as a unitary actor, which has stirred debates and drawn criticism. Some scholars call for “bringing domestic politics back into international relation theory” (Milner, 1997, p. 3). Due to the theoretical transfer, there is an obvious tendency to connect domestic politics with international politics. Generally, it has two distinct branches, of which one tries to discuss the influence of domestic factors on international politics such as international cooperation (Milner, 1997), which can be attributed into the “Second Image” related theories (Waltz, 1959).

Different from the IR approaches adopted to discuss how domestic factors affect international politics, other scholars also focus on how international politics and structure have been influencing domestic structure since the 1970s, where international dynamics become an independent variable and may “shape behavior at specific moments of decision, events, or policy formation” (Gourevitch, 1978, p. 883). In this way, scholars began to demonstrate an increasing interest in the
international sources of domestic politics, which generally attribute domestic outcomes to international factors (Milner & Keohane, 1996a, 1996b). Almost at the same time, transnational relations were increasingly argued as the explanatory variable for domestic politics (Keohane & Nye, 1972; Risse-Kappen, 1995). However, in this regard, the current majority of literature mostly focuses on the international impact on the state actor or governmental behavior. The non-state actors within the domestic level are relatively ignored.

With regard to international trade, some scholars have explored the influence of international trade on domestic politics; to be precise, political cleavage, alignment and coalitions among different groups at domestic levels. They have identified relevant factors such as societal interests, distribution of productive factor endowments and levels of inter-industry factor mobility, etc., which may affect the coalition and degree of domestic groups (Gourevitch, 1977; Hiscox, 2002; Midford, 1993; Rogowski, 1989).

In relation to conflict studies, scholars have paid increasing attention to the internationalized or transnational dimensions of civil wars/conflicts from case studies to empirical tests, which remedy the deficiency of current studies relating “civil war primarily to country-specific factors or processes that take place within individual states experiencing conflict” (Gleditsch, 2007, p. 293). Some scholars highlight the significance of global politics and the relationship with the capitalist world economy, trying to investigate the rebellion from a perspective of “global economics as opposed to political structure” (Jenkins & Schock, 1992, p. 181). In detail, dynamics such as foreign intervention, terrorism, ethnicity, and diaspora are connected to civil conflicts (Gasser, 1983; Lobell & Mauceri, 2004; Rasler, 1983; Raymond & Kegley, 1987; Ryckman, 2009; Salehyan, 2009; Tarrow, 1999).

With support from the theoretical sources mentioned above, especially with Milner’s tri-variable framework of domestic politics, i.e. preferences, institutions and information (Milner, 1997), this chapter introduces relevant key variables and assumes that international trade institutions (like the WTO), as the international
force, affect both state actors and non-state actors within the domestic level by shaping their preferences, defining their interests, and determining their information distribution. At the same time, the international institutions affect domestic political institutions, which frame the “process by which preferences are aggregated domestically” (Milner, 1997, p. 18). With different preferences and information distributions and within different institutional frameworks, the actors re-define their interests, calculate their cost-benefit ratios and finally make different choices in the process, which eventually leads to varied outcomes, e.g. conflict or cooperation among different actors, etc.

4.2.2 Theories of International Institutions

As for a more specific research subject, studies on international institutions in the framework of “second image reversed” demonstrate considerable relevance in the discussion of the relations between international trade institutions and the likelihood of civil conflicts.

Institutions have gradually demonstrated their significance in both political science and IR. The term is regarded as “socially accepted constraints or rules that shape human interactions” (Milner, 1997, p. 18) or “a general pattern or categorization of activity or to a particular human-constructed arrangement, formally or informally organized”, if it is necessary to provide a definition for this “even fuzzier concept” (Keohane, 1988, pp. 382-383).

From a rationalistic perspective, an institution can reduce uncertainty, alter transaction costs, provide information, stabilize expectations, make the “decentralized enforcement” feasible, and contribute to anticipation and prediction (Keohane, 1988, pp. 386,388). Particularly in IR, as the set of rules “that stipulate the ways in which states should cooperate and compete with each other”, institutions are argued to “prescribe” acceptable forms of state behaviors and “proscribe” unacceptable kinds of behaviors (Mearsheimer, 1994, p. 8). Institutions matter because they shape the behaviors of important actors, especially states’ (L. L. Martin & Simmons, 1998, p. 742).
Peace is one of the focal points of various institutionalist theories. It is argued that institutions are able to push states “away from war” and “foster stability”. Meanwhile, Mearsheimer (1994, p. 14) also criticizes that the pursuit and the promise of institutionalist theories are “false”. However, the problem is that most scholars try to discuss the link between international institutions and international peace. In contrast to current studies dominated by the assumption of the state as a unitary actor, fewer relevant literatures focus on the impacts of international institutions on domestic peace, conflict and stability.

In order to overcome the obstacle between international institutions and domestic politics, Martin and Simmons begin to focus on the institutions across the “Level-of-Analysis Divide”, to emphasize the role of domestic politics, and to try to bring “domestic politics back into the study of international institutions.” They argue that only through “domestic political channels” or “by substituting for domestic practice”, can the international institutions affect state behavior (L. L. Martin & Simmons, 1998, p. 739, 747). However, this only emphasizes the behavior of a state actor. The behavior formation of a non-state actor is generally ignored.

Regarding the mechanisms through which international institutions affect domestic politics, some scholars think that international institutions change the existing equilibrium of information distribution, power allocation, and interest allocation among various domestic actors given their current preference. International institutions can act as the signaling and commitment device, the tool of redistribution of power resources, and the strategy of political mobilization by some groups, according to different features of domestic institutions and the state’s compliance or non-compliance to the commitment (Tian, 2011).

With respect to the outcome or effects, institutional effects can simply be treated as “a single, dichotomous variable”, i.e. cooperation, or compliance. Furthermore, institutions may have two types of effects on state behavior regarding cooperation and compliance, i.e. convergence and divergence. Convergence means the reduction in the standard deviation of state behavior while divergence means
the increase of standard deviation (Botcheva & Martin, 2001, pp. 3-5; L. L. Martin & Simmons, 1998, p. 752).

In order to investigate the impacts of international institutions, this chapter firstly regards civil conflicts as the interaction outcome of different domestic actors including both state actors and non-state actors, under the influence of international institutions. Given different preferences, it assumes that international institutions can affect information, interests and powers between/among state actors and non-state actors, which further leads to different outcomes, like cooperation or conflicts. The effects of international institutions on the behaviors of domestic actors also contain a distinction between convergence and divergence.

Secondly, considering the specific and different domestic structures of states and different relations between given states and the given international institutions, international institutions like the GATT/WTO in this research can also be categorized into the device of signaling and commitment, the tool of redistribution of political powers, and the instrument of social mobilization. It is assumed in this chapter that different roles of international trade institutions have different impacts on the likelihood of civil conflicts among different actors.

In addition, there are a number of international institutions on various issues at international and regional levels. If GATT/WTO is taken into account, other kinds of trade institutions like RTAs and other relevant economic institutions should also be taken into consideration, due to the “institutional linkage” and the clusters of arrangements. GATT/WTO is supposed to affect domestic structures and domestic actors directly, and have an influence on other international institutions in an indirect way.

There is a second kind of international trade institution at the regional or bilateral level, i.e. RTAs, which can be categorized in detail, such as Free Trade Agreement (FTA), Preferential Trade Agreement (PTA), Economic Integration Agreement (EIA), and Customs Union (CU), etc. Aiming at building trade blocs, RTAs are argued to have both competing and compulsory effects on the global
trade institutions (Baldwin & Seghezza, 2007; Bhagwati & Panagariya, 1996; Dahrendorf, 2009; Limão, 2005; Wilson, 2008). Meanwhile, evidence reveals that with its growing membership, the periodic trade negotiation rounds, and losses of GATT/WTO disputes, GATT/WTO encourages its members to participate in PTAs (Mansfield & Reinhardt, 2003). In regard to the liberalization, some scholars find the RTA liberalization Granger-causes GATT/WTO liberalization (Herz & Wagner, 2010). At the same time, RTAs, especially the PTAs have close relations with conflict/peace particularly at the international level (Mansfield, 2003; Mansfield & Pevehouse, 2000; Mansfield et al., 1999). At the domestic level, RTAs are also argued to be important in the relations of civil conflicts (O. Brown et al., 2005); or at least they have close relations with some conflict-sensitive variables like government repression (Hafner-Burton, 2005).

Lastly, as an instrument of solving global issues, this chapter also assumes that international institutions may increase the effectiveness of global governance or cause other global issues, which bring about different circumstances in the higher or lower risk of civil wars.

4.2.3 Trade and Internal Conflicts

In accordance with current studies on civil conflicts, some trade-related issues have been identified as the key variables triggering civil conflicts. This can be also roughly divided into two branches, that is, the neo-liberal approach versus alternative arguments with a series of possible key variables.

As “received wisdom” and “long-standing belief”, trade is argued to be a “powerful driver” of economic growth, poverty alleviation, and job creation with “pacifying benefits”, which can support peace and reduce the risk of civil conflicts (O. Brown et al., 2005; Mittelman, 2010, p. 32; G. Schneider et al., 2003, p. 3). In the opinion of globalization supporters, trade “serves at best” as the tool to meet societies’ pursuits, including prosperity, stability, freedom, and quality of life, etc. (Rodrik, 2007, p. 228). Supporters of trade liberalization provide 10 benefits of the WTO trading regime, which argues that free trade may reduce living expenses,
including necessities and luxuries, services etc.; trade provides more choices for consumers and increases incomes; trade can stimulate economic growth and create considerable employment; and it can improve governance. In addition, WTO thinks peace is “partly” an outcome of three basic principles, i.e. “helping trade to flow smoothly”, “dealing with disputes over trade issues”, and “international confidence and cooperation” which “does contribute” to international peace (WTO, 2008a). All of the arguments provide an almost “perfect” world, in which the risk of civil war is considerably reduced.1

However, the above-mentioned neo-liberalist claims between trade or globalization and other indicators of a perfect world are not reliable and “still largely disputed” (Barbieri & Schneider, 1999) in respect to different countries, various cases, and changing conditions. Free trade can be either a “progressive” or “regressive” force according to the state’s position in the world economy and “how trade policies align with its social and political cleavages” (Rodrik, 2011, p. 30).

Different from the neo-liberal arguments, the anti-neoliberal arguments indicate that world poverty and inequality have been rising. Although the percentage of the population in extreme poverty is argued to be falling, income inequality seems to continue widening. With income inequality within countries, there is higher poverty, slower economic growth, higher unemployment and higher crime rates (Wade, 2004). Some scholars believe that globalization and poverty reduction is “far from straightforward” and the evidence indicates that trade liberalization does not create the positive outcomes that the neo-liberals expected (Kiely, 2005). In addition, unemployment is closely related to trade. Trade, or globalization, is argued to be “good” for most workers but not for “all” workers because of the distributional effects (Jansen & Lee, 2007). Unemployment rates are considered an important indicator of the outbreak of civil conflicts (Hamilton, 2010; Miguel, Satyanath, & Sergenti, 2004; Urdal, 2004). In a critical review, Røpke (1994, pp. 13-15) also insists

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1 The aims of international trade institutions were ambitious from the start. According to Wilcox (1949, p. ix), the Charter of International Trade Organization is “really concerned are whether there is to be economic peace or economic war, whether nations are to be drawn together or torn apart, whether men are to have work or to be idle, whether their families are to eat or go hungry, whether their children are to face the future with confidence or with fear.”
“free trade dogma”, i.e. trade is good for everyone, is “contested” because of creating winners versus losers and “free” trade might become “forced” trade especially for developing countries.\(^1\)

Apart from the above-mentioned arguments and variables, trade may exert its varied influence (high or low, positive or negative) on domestic actors and cause different results with various factors and from different perspectives. As Figure 4-1 shows, these factors include trade structure; degree of trade openness; institutional quality; state capacity; different issues, like unemployment, ethnicity, shocks; relevant industries and groups, particularly agriculture and peasants; ethnic minorities and other marginalized groups, etc.

![Figure 4-1 Issue Linkage of Trade and Civil Conflicts](image)

**Figure 4-1 Issue Linkage of Trade and Civil Conflicts**

1) It is argued that exports of primary commodities and resources, the major portion of international trade for some countries, provide the opportunity for financing the rebel (Collier & Hoeffler, 2004); or higher oil exports may cause weaker state capacity and act as an attraction or motivation for rival groups (Fearon, 2005). In addition, closely related to trade issues, commodity dependence in GDP

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\(^1\) Similarly, Rodrik (2011, p. 75) argues the term of “free trade” holds only when “it posed little challenge to domestic institutions, distributional preferences, or values.”

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(Bussmann & De Soysa, 2006; Bussmann & Schneider, 2007; Collier & Hoeffler, 2004; Fearon, 2005; P. Martin, Thoenig, et al., 2008) and the degree of liberalization (Bussmann & Schneider, 2007; D. Keen, 2005) are also argued to be important indicators of the risk of civil war.

2) Trade openness plays a significant role in the risk of civil war. Some anti-globalists criticize trade openness declaring that it “hollow[s]” the state and causes conflicts and hatred (Chua, 2003). However, some articles recently demonstrate that there is a generally adverse relationship between trade openness and the risk of civil conflicts (Bussmann & De Soysa, 2006; Bussmann & Schneider, 2007).

3) The quality of institutions is a key variable in the gains of trade and distribution among different actors. Institutions define the power sharing setting of domestic actors and determine the most influential actors and their preferences in the policy process (Milner, 1997, p. 127). Borrmann et al. (2006) argue that institutional quality is important for a positive link between trade and growth. A country with low-quality institutions is less likely to benefit from trade. The institutional quality includes labor market regulation, market entry regulations, the efficiency of the tax system, the rule of law and government effectiveness, etc. Most importantly, trade usually promotes “better performance among other domestic institutions” (Irwin, 2009, p. 57).1

4) Trade liberalization has significant connections to fiscal revenues, which is also related to state capacity. Especially for many low-income countries, the tax garnered by trade is quite an important source of revenue. However, trade liberalization and trade reform may have an “ambiguous” impact, which relies on the particular circumstances of a given country (Ebrill, Stotsky, & Gropp, 2002). However, once the state capacity is weakened, its risk of civil conflicts rises. In the

1 However, some other articles have provided different insights. For instance, some think depending on the strength of political ties, trade may lead to weaker institutions and more cronyism (Hochman, Tabakis, & Zilberman, 2013); some argue trade can bring both “foreign competition effect” and “political power effect” for better and worse institutional quality at the same time (Do & Levchenko, 2009, p. 1491).
context of trade openness, some scholars have established a connection and a brief causal routine among trade openness, state capacity and civil conflicts (Besley & Persson, 2010; Bussmann & De Soysa, 2006; T. Verdier, 2011).

5) Global shock is a disputed factor in explaining the onset of civil conflicts. Involvement in trade institutions seems to bring economic benefits in general, and also leads to exposure to the international economic situation, including inflation and shocks. Miguel et al. (2004) find that growth shock has “a dramatic causal impact” on the likelihood of civil wars. Nieman (2011) discovers that increasingly dramatic changes (economically, socially, and politically) at the level of global integration are statistically significantly related to an increasing risk of the onset of civil war.

6) Human rights are a third issue that has strong ties with international trade. Recent studies began to connect human rights with international trade, finding that trade has tangible impacts on human rights (Hernandez-Truyol & Powerll, 2009; Sirico, 1998; Zagel, 2004). For example, trade can affect human rights in terms of child labor, sustainable development, promotion of health, equality of women, human trafficking, indigenous peoples, poverty, citizenship, and economic sanctions, etc. Trade can aggravate already-underdeveloped governmental institutions in small countries. And some studies show a correlation between the increase of trade volume and a worsening record of human rights (Hernandez-Truyol & Powerll, 2009, pp. 1-12). Moreover, human rights are a significant indicator in predicting the outbreak of civil war (Rost, Schneider, & Kleibl, 2009; Thoms & Ron, 2007).

7) In most countries, agriculture plays a central role in poverty eradication and hunger removal, which is fundamental to sustainable development, global peace and political stability (Sharma, 2005, p. 9). It is also regarded as the “strongest driver of broad-based economic growth and poverty alleviation in LDCs” (Koning & Pinstrup-Andersen, 2007, p. 10). However the effects of trade liberalization are “uneven”. Both winner and loser emerge simultaneously in the trade liberalization process. International trade liberalization has heterogeneous impacts on different
countries and different groups within a given country (UNDP, 2005, p. 113). LDCs are claimed to be marginalized in the benefits of trade liberalization (Dowlah, 2004), while some cases indicate that trade liberalization shows dual features, i.e. “the promise of agro-exports and the perils for small farmers producing staple food” (Pérez, Schlesinger, & Wise, 2008, p. 1). A lot of cases indicate “a serious agrarian crisis” from the cumulative impact of economic liberalization policies. The “import surges” lead to “further marginalization of the rural communities” and the deterioration of the livelihood of relevant peasant groups (Sharma, 2005, p. 7). The relevant issues and groups in LDCs are confronted with a more serious situation. The LDCs’ ability to benefit from agricultural trade liberalization is limited by “severe supply constraints” and LDCs may “in fact lose out” (Koning & Pinstrup-Andersen, 2007, pp. 4,10). Some reports insist that the poor and marginalized groups do “not reap the benefits of growth or far less than other groups” (DFID, 2008, p. 9). And some governments instead create obstacles against their economic growth in spite of their economic success achieved by political power (Irwin, 2009, p. 199).

8) One of the most significant groups is the ethnic minority group that has a close relationship with trade liberalization, mostly in a negative sense. Most minorities and indigenous peoples are “among the poorest of the poor”. However, they have few opportunities to benefit from development or are excluded from the national growth process, i.e. economic exclusion (Archer & Mohamedou, 2001; DFID, 2008; MRG, 2003; Vandemoortele, Harris, & Bird, 2010). At the same time, ethnic groups and their composition (polarization or fractionalization) play important roles (as an indicator of social structure) among the determinants of civil wars (Blimes, 2006; Chua, 2003; Esteban & Schneider, 2008; Fearon & Laitin, 2003; Hamilton, 2010; Lobell & Mauceri, 2004; Montalvo & Reynal-Querol, 2005; Reynal-Querol, 2002; Sambanis, 2001). Figure 4-1 demonstrates the links between trade and civil conflicts and the intervening variables.

In sum, the discussion in this part has identified different causal routines that
connect international trade and internal conflicts, including economic growth, income/GDP per capita, GDP, human rights, ethnic groups, state capacity, quality of institutions, poverty, agricultural groups, and unemployment, etc.

4.2.4 How Do International Trade Institutions Affect Civil Conflict?

As the key international trade institution, GATT/WTO generally employs both direct and indirect approaches to influence interaction among diverse domestic actors, which causes civil conflicts in given conditions. This chapter assumes that the dynamics can be identified on the international and domestic level. On the domestic level, there are three factors, i.e. actors, issues and the domestic institutions. At the international level, this chapter emphasizes various international institutions on different issues, including GATT/WTO and RTAs. Acknowledged in the above discussion, this chapter assumes that the issues are interrelated while the domestic institutions also intertwine at the domestic level. GATT/WTO also has a close relationship with other international institutions.

4.2.4.1 Direct Approach

GATT/WTO can affect interaction among government and other non-state actors, both through influencing on the relevant issues and exerting an impact on the domestic institutions that affect the actors’ interaction with an indirect approach.

With respect to the issues, trade can singly affect the actors and also influence other relevant issues, e.g. human rights, unemployment, and ethnicity, which may further interact with the actors and cause different risks of civil conflicts. In this regard, GATT/WTO can exert an influence on other issues as well because of its relations with other kinds of international institutions and its own comprehensive link with other issues such as environment, intellectual property, service, etc.

With the roles of international institutions, most members adjust their own domestic institutions and the non-members may also adjust their institutions in order to catch up with the majority of the world. Considering the existing
relationship between domestic institutions (especially the political institution) and risk of civil conflicts, international institutions impact actors as well. The paper also assumes impacts on domestic institutions of different degrees, from legal regulation to the specific norms. In addition, domestic institutions interact with other domestic institutions.

4.2.4.2 Indirect Approach

The indirect approach can be discussed via two kinds of media, i.e. RTAs and other kinds of international institutions. RTAs are also trade institutions beyond the national level while other kinds of international institutions have close relationships with GATT/WTO. This chapter assumes that GATT/WTO may affect both RTAs and other international institutions, which influence the interrelated issues and intertwined domestic institutions. Following the line of argument of *Why Nations Fail* (Acemoglu & Robinson, 2012), this chapter also suggests that the nature of domestic institutions is important because of a distinction between inclusive institutions and extractive institutions. Different institutions seem to have different effects on conflict onset.

GATT/WTO provides a brief and integrated trade regulation framework. It affects both members and non-members, since current countries are all involved in the comprehensive trend of trade liberalization and roughly regulated by the international trade-related rules. This chapter infers that GATT/WTO also exerts influence on nonmembers through the issues and the institutions, directly and indirectly. The difference only lies in the degree of influence.

Afterwards, all factors affect the interaction among different actors, which may lead to domestic peace or civil conflicts. The framework can refer to Figure 4-2 as follows.
4.2.4.3 Mechanisms of GATT/WTO’s Impacts

In line with Figure 2-3, this chapter suggests that there are two main kinds of mechanisms through which GATT/WTO as a given international institution affects trade and other issues, i.e. Provoking and Pacifying. The institution is argued to “prescribe” acceptable forms of state behaviors and “proscribe” unacceptable behaviors (Mearsheimer, 1994). On the one hand, the institution can reduce uncertainty, decrease transaction cost, and provide necessary information, which increases the interaction speed of relevant actors. On the other hand, the institution creates a series of rules and complex procedures and also stabilizes expectation, which may decrease the interaction rate of the actors (Keohane, 1988).
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The Enabling mechanism accelerates the process and enlarges the impacts of the mentioned insurance and deterrence mechanism of trade on civil war by affecting the issues. Conversely, the constraining mechanism reduces the speed and minimizes the impacts of both insurance and deterrence of trade on civil war through the issue proxy. Consequently, there are four results in the risk of civil conflicts. When the enabling function combines with the insurance mechanism, it increases the risk; when combined with the deterrence mechanism, it will decrease the risk of civil conflicts. The constraining mechanism has the opposite outcome, which means it increases the risk when it combines with deterrence (See Figure 4-3). The interactions between dual mechanism of trade issue and functions of international institutions are similar to Figure 2-3 in Chapter 2.

Figure 4-3 Institutional Impacts on the Linkage between Trade and Civil Conflicts

In addition to the mechanism on the issues, international trade institutions also influence the links between domestic institutions and civil wars through three mechanisms, including the signaling and commitment device, the redistribution of power resources, and political mobilization. All three mechanisms change the
equilibrium among actors, which therefore changes their preference, interest, information and power.

In light of the domestic effects of international institutions on state behavior, that is, convergence and divergence (Botcheva & Martin, 2001), this chapter presumes that international institutions exert similar effects on non-state actors. Therefore, when the actors, including government and non-state actors, are involved in the effects of convergence, they mostly remain at peace through the three mechanisms. When partnered with the divergence effect, the risk of conflict increases. This chapter also connects the roles of institutions and the effects of international institutions.

With respect to the indirect approach, other international institutions (including Regional Trade Agreements and international institutions on other topics) also take relevant mechanisms in domestic institutions as their own mechanisms to influence the link between institutions and domestic politics or civil wars.

4.2.4.4 Interaction of Domestic Actors

Civil conflicts usually happen between government and non-state actors or purely between non-state actors. With the impacts of trade liberalization, different actors enjoy benefits or suffer losses in the process. Likewise, trade may undermine the state’s capacity for governance while the given non-state actors may be greatly marginalized in the process of trade liberalization.

In some cases, domestic actors may be motivated by both grievance and greed factors, which leads to competition and even conflicts. In addition to this, domestic actors may cause transformation or imbalance with respect to their powers, which leads to a different equilibrium situation and brings about the possible alternative of civil conflicts.

Lastly, the interaction among domestic actors is restricted and affected by their own preferences and information. In this regard, institutions can affect and shape their preference in the long term and provide relevant information for the actors.
In addition, this chapter also takes the response of domestic actors to the dynamics at the international level into account. Prior to international trade, states usually resort to tariffs to increase their revenue while protecting its domestic actors from shock.

4.2.5 General Hypotheses from Structural Approach

The variable, involvement of GATT/WTO, is mainly a structural concept in this chapter, despite it also having strong processual nature. The “structural” approach is defined as describing the features and characteristics of a given country’s involvement in GATT/WTO. It splits the given countries’ involvement in GATT/WTO into 4 dimensions, i.e. GATT/WTO member (or not), institutionalized degree, involvement time, and liberalization level.

H1: Compared with non GATT/WTO members, GATT/WTO members are usually confronted with a lower risk of domestic armed conflicts.

When a country is involved in GATT/WTO, it has to abide by relevant international trade rules, which affect not only the state actors but also the domestic groups. In general, GATT/WTO can decrease the uncertainty of domestic actors, reduce the transaction costs, and increase the anticipation benefits. Taking the punishment mechanism into consideration, actors converge on their behaviors and pay attention to the trade interests in a peaceful way. Meanwhile, the non GATT/WTO member encounters a higher uncertainty even if it has accepted the GATT/WTO rules, which may lead to diverse behaviors and cause conflicts.

H2: The higher the degree to which a country is institutionally involved in GATT/WTO, the lower the risk of internal armed conflicts.

There are four institutionalized degrees of a country’s involvement in

---

1 The “process” approach can be defined to regard a country’s involvement in GATT/WTO as a treaty process, including three phases, i.e. treaty negotiation, domestic ratification, and final enforcement.
2 In this regard, there is a possible problem on the endogeneity between failing states and non-WTO/GATT membership. This research will firstly control the “Peace Duration” of a given state in its Logit regression in order to avoid or reduce the possibility of endogeneity. The history of GATT/WTO since 1947 indicates that previous internal conflicts didn’t prevent many states from becoming GATT/WTO members, such as Macedonia, China (1946-1949), Papua New Guinea, Paraguay, Greece; Angola, Argentina, The Democratic Republic of Congo, Philippines, Venezuela, etc.
GATT/WTO, i.e. de facto status, provisional accession, GATT contracting parties, and WTO membership. Each degree implies different rights and obligations. With a higher institutionalized degree, international trade liberalization may have more significant effects on the members and their domestic actors. In this way, a high degree of institutionalization increases the anticipation of domestic actors while effectively controlling their behaviors through the mechanism of punishment and benefits. Therefore, the risk of conflicts among different domestic groups decreases.

**H3:** The longer a country has been involved in GATT/WTO, the lower the risk of internal armed conflicts.

When a country is involved in international institutions, it has to adjust its own interests and domestic institutions. In general, the adjustment is affected by two factors, i.e. the policy gap between domestic actors and international institutions; and the adaptive time. When the preference gap is minimal, it takes a shorter time for the country to achieve consistency with international institutions; otherwise, more time is needed. When a country has been involved in GATT/WTO for a longer period, it usually has enough time to adjust and adapt, thus aiming to gradually meet the requirements of international institutions and leading to a convergence of actions. In this vein, some scholars find longer GATT/WTO membership creates “stronger performance” in political participation, free and fair elections, and information accession (Aaronson & Abouharb, 2011). As a result, the preference of domestic actors is similar to the international trade institution, which decreases the conflict probability.

**H4:** When a country experiences an earlier round of GATT/WTO in the world, whether it is a GATT/WTO member or not, its risk of internal armed conflicts will be reduced.

Since its inception, GATT/WTO has experienced eight successful rounds of negotiation and an ongoing round (Doha), in which the liberalization level increases step by step. Higher liberalization levels affect trade issues to a greater extent, which may bring about more serious external shocks and cause more severe interest
disputes. As a result, when a country appears in a later round, its risk of conflicts will increase. On the one hand, trade liberalization rounds can affect members through direct institutional effects; on the other hand, these liberalization rounds would spillover and affect non-members on the relevant issues and other domestic institutions.

4.3 Methodology and Data

4.3.1 Statistical Methods

It aims to apply RDD and Logit Regression to identify and estimate the effects of trade systems (IV) on conflict risk (DV) and to test the assumed causality. RDD is regarded as one of the “Most Harmless Econometrics” (Angrist & Pischke, 2009).\(^1\) It is usually applied in situations when the samples are selected to receive treatment on the basis of “whether their value for a numeric rating exceeds a designated threshold or cut-point.” It is widely used in allocating resources and imposing sanctions. One of the preconditions for applying the valid RDD is that the setting of the cut-off point should be independent from the rating of specific candidates (Bloom, 2009).

Accession into GATT/WTO usually indicates changes of both the domestic policies of a given country and global rules to some extent (particularly when big powers are involved). It creates conditions for allocating or re-allocating resources, which is relevant to RDD. In this case, the treatment is the involvement into the trade system, which makes a difference between membership and non-membership in terms of rating. In order to minimize the possible inter-relations between the setting of the cut-off point and rating of samples, this chapter introduces and emphasizes the “Adjusted Year” as the running variable rather than the natural years from 1946 to 2009. As a result, the paper arbitrarily assigns -10, -5, -2, 0, 2, 5, and 10 as the cutoff points, which is actually independent from the rating or score.

\(^1\) However, some scholars recently caution high-degree polynomials in RD model may cause noisy estimation and inaccurately overfit (Gelman & Zelizer, 2015). In this regard, this thesis avoids the critic and applies quadratic form rather than third- or fifth-degree polynomial form in modelling and graphing. Furthermore, in order to provide reliable results, it also examines on different timelines to verify the causal inference.
that is based on the accession (or not) of a given country into GATT/WTO in a given year.

The general RD estimator that measures the causal effect of the trade system on conflict incidence can be written as (4.1).

\[
\tau_{\text{trade}} = \lim_{x \downarrow c} (Y_i | X_i = x) - \lim_{x \uparrow c} (Y_i | X_i = x) \tag{4.1}
\]

where \( Y_i \) is the conflict outcome of a given country \( (i) \), \( X_i \) is the given country’s involvement in the trade system (or not), \( x \) means the year that the country moves to WTO, and \( c \) refers to the cut-off point that determines assignment that is equal to 2 in this research. If \( x \) is not smaller than 2, it indicates that the country receives the treatment.

As a supplement, it applies T-test and general regression in cubic form to test the validation and robustness of RDD. In addition to RD analysis, this chapter uses logit regression to further investigate and test the causal relations between trade system and conflict incidence because conflict incidence is a binary variable, “0” or “1”.

4.3.2 Data and Sources

The analysis unit in this chapter is “country-year”. From 1946 to 2009, there are about 8,748 observations in total.

1) Independent Variable: International Trade Institution

The IV is the international trade institution in which a given country is involved, mainly GATT and WTO. This chapter firstly assumes GATT and WTO as the same international trade arrangement (albeit from different time periods). Their functional differences are demonstrated based on the progress of trade negotiation rounds.

After the failure of the International Trade Organization, GATT came into being in 1948, and was replaced by the WTO in 1995. Goods, services and intellectual property constitute the majority of WTO concerns. Accordingly, there are three main agreements within WTO areas in which the researcher is interested,
i.e. The General Agreement on Tariffs and Trade (GATT), the General Agreement on Trade in Service (GATS) and Trade Related Aspects of Intellectual Property Rights (TRIPS).

This chapter categorizes the involvement of a given country in GATT/WTO through both broader and narrower definitions. In respect to narrower definitions, this chapter assumes one country’s involvement in GATT/WTO from the very year it was officially accessed into the international institution, i.e. the formally “Contracting Parties” in GATT and “membership” in WTO. In this case, if a country has membership of GATT/WTO in a year, it is defined as “1”, otherwise as “0”.

However there were ways for a country to interact with GATT, like the de facto status for the new-born post-colonial countries, or provisional accession. In respect to the broader definition, this chapter also regards its accession into one of the three mentioned categories as its involvement in GATT/WTO. In order to highlight the degree of a country’s involvement in the international trade institution, the paper subsequently classifies five types of involvements from lower degree to higher degree, respectively, no involvement “0”, de facto status “1”, provisional accession “2”, GATT contracting party “3”, and WTO membership “4” (See Table 4-1).

Table 4-1 Description of Independent Variable by Involvement Degree

<table>
<thead>
<tr>
<th>Involvement Degree</th>
<th>Frequencies</th>
<th>Percent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Membership</td>
<td>2,877</td>
<td>32.89</td>
</tr>
<tr>
<td>De Facto Status</td>
<td>561</td>
<td>6.41</td>
</tr>
<tr>
<td>Provisional accession</td>
<td>76</td>
<td>0.87</td>
</tr>
<tr>
<td>GATT Contracting Parties</td>
<td>3,269</td>
<td>37.37</td>
</tr>
<tr>
<td>WTO Membership</td>
<td>1,965</td>
<td>22.46</td>
</tr>
<tr>
<td>Total</td>
<td>8,748</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: country-year as analysis unit

By the end of 1994, there were 128 GATT contracting parties (GATT, 1996) and there were 153 WTO members by 23 July 2008 (WTO, 2009). It is necessary to

---

1 The “Coding Book on GATT/WTO Data” is attached in Appendix I.
note that the countries or separate customs territories surveyed are mainly based on the sample in the UCDP dataset since 1946. According to the sample, there are 143 WTO members in 2009. Its annual change is displayed in Figure 4-4.

At the same time, the international trade institutions have gradually made progress on the increasingly large trade liberalization since the birth of GATT in the 1940s. From 1947 to 2009, there were eight successful negotiation rounds (Geneva Round 1947, Annecy Round, Torquay Round, Geneva Round 1956, Dillon Round, Kennedy Round, Tokyo Round, Uruguay Round) and an ongoing round, i.e. the Doha Development Negotiation Round since 2001 (WTO, 2011c). From the Geneva negotiation in 1947, each round would increase the list of tariff reductions, reductions of other non-tariff barriers, and other kinds of issues, which indicate larger and larger degrees of world trade liberalization. Therefore, this chapter categorizes rounds to indicate various degrees of trade liberalization globally.

![Figure 4-4 Number of GATT/WTO Members, 1948-2009](image)

Furthermore, this chapter takes the time that a given country has been involved in GATT/WTO as an important variable, i.e. “Adjusted Year”, which can be applied to the measurement of the adaptive degree of a given country in the international trade institution. The maximum time for a given country involved in GATT/WTO is 61 years, while there are -99 years to indicate non-involvement of a country. Some rounds, especially after the Dillon Round, took 3-8 years to achieve...
agreements; while the Doha round has experienced 10 years of negotiations, but there is no hope of an ending, at least for now. 8,748 observations are distributed in Table 4-2.

**Table 4-2 Negotiation Rounds as the Indicator of Trade Liberalization**

<table>
<thead>
<tr>
<th>Period</th>
<th>Categories</th>
<th>Freq.</th>
<th>Period</th>
<th>Categories</th>
<th>Freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>before 1947</td>
<td>Pre-GATT</td>
<td>71</td>
<td>1961-1966</td>
<td>Dillon</td>
<td>735</td>
</tr>
<tr>
<td>1956-1960</td>
<td>Geneva 1956</td>
<td>474</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Doha Round is still in negotiation.

2) Dependent Variable: Incidence and Onset of Internal Armed Conflicts

This research regards incidence and onset of internal conflicts as the DV and adopts the intrastate conflict definition of more than 25 battle deaths. It sources from the “Onset of Intrastate Armed Conflict, 1946-2009” by the Uppsala Conflict Data Program (UCDP) (Harbom & Wallensteen, 2010).1

---

1 According to the country-year analysis unit, there are 8,750 observations from 1946 to 2009. However, two of these observations have lost their record of countries, which are marked as “-99” as the country code. In this chapter, the two cases in RDD analysis and Logit regression are left out.
If there was at least one active conflict, it is coded “1” in all the country-year observations; otherwise, it is coded as “0.” The annual distribution of internal conflicts by quadratic fit is in Figure 4-5.\(^1\) The incidence risk of internal conflicts is defined as the number of country-year observations with conflicts divided by the sum of country-year observation in a given year. The onset of internal armed conflicts generally follows a similar path to a dummy variable. The onset risk of internal conflicts is equal to the ratio of the number of country-year observations with conflict onset in a given year.

3) Controlling Variables

This chapter identifies the relations between international trade institutions and conflict incidence as mentioned while a series of controlling variables are taken into account. The controlling variables and their respective sources are listed as follows in Table A-1 in Appendix III.

4.4 Empirical Discussion

4.4.1 Ambiguous Results from Normal Description

In the case of controlling GATT/WTO, the distribution of civil conflicts on incidence and onset indicates different pictures (See Figure 4-6, with 95% CIs).\(^2\)

In respect to conflict incidence and onset, it shows countries with GATT/WTO membership usually start to significantly take a higher frequency after the mid-1970s, while they take a lower frequency in spite of lower statistical significance before 1970. Taking the phase of trade liberalization into account, the intersection happened during the regulations of Kennedy Round (1967-1978) yet after the start of Tokyo negotiation rounds in 1973.

---

1. An illustration on annual distribution of international armed conflicts (1946-2009) by cubic spline fit is attached in Figure A-5 in Appendix III.  
2. A similar graph on distributions of civil conflicts by cubic spline fit with controlling GATT/WTO membership is attached in Figure A-6 in Appendix III.
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Figure 4-6 Different Conflict Distributions by GATT/WTO Membership

However, a distinct story emerges when the conflict indicator becomes the risk of either conflict incidence or onset. It shows countries with GATT/WTO face a lower incidence possibility of civil conflict since the mid-1950s. At the same time, countries without involvement of GATT/WTO have faced a higher incidence risk of civil conflicts since then. Onset risk resembles incidence risk but is much smaller.

The crossing point between countries with and without GATT/WTO took place just after the end of the Torquay Round and the beginning of the Geneva Round in 1956. Since then, the civil conflict possibility of countries with GATT/WTO membership has continued to decrease. After the achievement of the Uruguay Round in 1994, the possibility between countries with and without GATT/WTO was expanded.

The above discussion demonstrated two almost contrary pictures between the incidence and possibility of civil conflicts from 1946 to 2009. The influence of GATT/WTO on the conflict onset in countries is still unclear and ambiguous. This kind of analysis faces serious problems. Firstly, most countries have been involved in the mainstream international trade institutions in various years from 1948 to
2008; secondly, the features of different countries are comprehensively different across the period from 1948 to 2009. As a result, the variation in both regards would confuse the relations between GATT/WTO involvement and civil conflicts.

4.4.2 RDD Analysis from the Application of “Adjusted Year”

In order to solve these two problems, this chapter has applied the operationalization of “Adjusted Year”, which can help to clarify the ambiguous relation between international trade institutions and civil conflicts. This method firstly regards the year that a country $i$ is involved into GATT/WTO as the cutoff point (0; or 2 with the consideration of lagged effects). Therefore, the features of the given country before and after the GATT/WTO treatment are similar, i.e. $i_{\text{pre treatment}}$ is similar to $i_{\text{post treatment}}$. It helps to set the treatment group and control group. When controlling individual features, the impacts of particular treatments from GATT/WTO are identified more clearly than before.

In addition, the method of “Adjusted Year” minimizes the time effects across different periods. The expansion of international trade institutions is a long-term issue, which affects the given country $i$ through various approaches at different times. Take 2001 as an example, it is the US’ 53rd year of involvement in GATT/WTO, while it is the very first year for China, having been accepted by WTO in Doha. For an individual country, its adaption and learning within international trade institutions must vary according to its length of involvement. As a result, it is indeed unreasonable to evaluate the impact of GATT/WTO in accordance with natural years because different countries have been involved for different lengths of time. This chapter assumes the first year a given country is involved into GATT/WTO as the 0 year while the year before this year is “-1” and the year after this year is denoted “+1.”

Taking both the lead-time effect and lagged effect of GATT/WTO treatments into account, this chapter illustrates the incidence and onset of internal armed conflicts through double indicators (frequency and risk) before and after the assumed effects of GATT/WTO intervention. Furthermore, the cut-off points
include 10 years before, 5 years before, 2 years before, accession year (0), 2 years after, 5 years after, and 10 years after GATT/WTO membership, which can comprehensively help to differentiate the effects of GATT/WTO on the treatment groups by $i_{\text{post treatment}}$ compared with the control group composed of $i_{\text{pre treatment}}$. Hereby, the illustrations contain the onset and incidence of conflicts in the states that weren’t involved in GATT/WTO until 2011. In this regard, there are 1,301 observations with the “-99” in setting the adjusted year. It contains 331 incidences of internal conflicts, which shows an incidence risk of 0.254. It also demonstrates a higher possibility of civil conflict. Taking the possible bias influence, the graphs also provide the illustration without “-99” cases.

**Figure 4-7 Distribution of Conflict Incidence by 2 Years after GATT/WTO Accession**

The graphic illustrations firstly indicate countries with GATT/WTO effects usually have a lower risk and frequency of conflict incidence (rather than conflict onset) compared with that of the countries without GATT/WTO treatment. The effects of pacifying internal conflicts are most noticeable around different “cutoff points”, i.e. adjusted years from 2 years prior to formal accession to at least 5 years
after formal membership.¹

$H_1$ has been proved in the case of conflict incidence and $H_3$ is discounted around the cut-off points. In the case of RDD illustration for lagged 2 years, Figure 4-7 is as follows. In both the graphs with and without “-99” setting, there are lower jumps in conflict incidence not only in frequency but also in risk. When the countries that haven’t been involved in GATT/WTO are excluded, the pacifying effects become more obvious.

Taking the lagged 2-year circumstance as an example, this chapter attempts to calculate the extent of the “jump” via a cubic form. It furthermore assumes the regression curve as $y_t = at + bt^3 + c$. $t$ is the adjusted year including both before and after the cutoff point, i.e. $t < 2$ and $t ≥ 2$. Through applying regression fit, the functions of incidence risk for both treatment group and control group are as (4.2).

\[
\begin{align*}
    y_{t<2} &= 0.0036971t - 0.000000434t^3 + 0.1667099 \\
    y_{t≥2} &= 0.0035606t - 0.000000397t^3 + 0.0637837
\end{align*}
\]

(4.2) can explain the risk distribution of conflict incidence in 52.17% and 60.01% respectively. When $t = 2$, the predicted $y_{t<2}$ is 0.17410063 while $y_{t≥2}$ is 0.07090172. As a result, the average effect of intent-to-treat at the cut-point (ITTC) is 0.10319891. It means a more than 10 percent decrease in the risk of conflict incidence for the countries which are involved in GATT/WTO especially in the early phases. Furthermore, as (4.3) implied, the explanatory degree is slightly improved (52.87%) in the risk of conflict incidence, if the countries with “-99” are excluded. Hereby, the prediction of $y_{t<2}$ is 0.14967984 and the ITTC is 0.07877812, which means about 8 percent decline in the risk of conflict incidence.

\[
\begin{align*}
    y_{t<2} &= 0.0018896t + 0.000000192t^3 + 0.1458991 \\
    y_{t≥2} &= 0.0035606t - 0.000000397t^3 + 0.0637837
\end{align*}
\]

(4.3)

In this way, the frequency of conflict incidence also implies a decreasing trend. Still in the case of 2-year lagged setting, the regression on the incidence frequency

¹ All the RDD illustrations on conflict incidence are attached in Figure A-7 in Appendix III.
can cover 89.12% and 60.54% of annual data, as (4.4), which does not include the “-99” case. In this case, the ITTC is 5.5708626, which means the GATT/WTO treatment decreases about 6 times in the sense of incidence frequency of civil conflicts at least around the cutoff point, i.e. the 2nd year after a given country is involved in GATT/WTO. If taking the countries not involved in GATT/WTO until now into account, they provide 331 cases of conflicts, which is a higher number.

\[
y_{t<2} = 0.4827798t - 0.0000751t^3 + 14.68525 \\
y_{t≥2} = 0.2387446t - 0.0000985t^3 + 9.602645
\] (4.4)

However, one more indication from graphical illustrations is the effects of GATT/WTO on pacifying internal conflicts become subtle in circumstances such as 10 years and 5 years prior to formal accession as well as at 10 years after the country became a member. In this way, H3 is overthrown due to the potential lead-time effects and the limits of the effects after the membership. For instance, the distribution of conflict incidence shows either conflict performance doesn’t make a difference around the cut-off point 10 years before the given state’s formal accession or conflict incidence increases after the cut-off point (See Figure 4-8).

Figure 4-8 Distribution of Conflict Incidence at 10 Years before GATT/WTO Accession

Note: top 2 graphs contain non-member states till 2009
In the case of the 5-years-before circumstance (See Figure A-7-2 in Appendix II), the incidence risk of internal conflict decreases significantly around the cut-off point even though the frequency indicator demonstrates no significant “jump”. It might imply GATT/WTO starts to have a lead-time pacifying effect on conflict incidence between 5 and 10 years before formal accession on average. Meanwhile, GATT/WTO’s lagged effect on pacifying conflict incidence can last for a relatively long period and might weaken on average around 10 years after formal accession. The pacifying effect after 10 years can only be inconsistently presented in the risk indicator with “-.99” case or frequency indicator without “-.99” case (Figure A-7-7 in Appendix II).

Lastly, the illustrations demonstrate that there are no effects either provoking or pacifying on the conflict onset with statistical significance (Figure A-8 in Appendix II). But from a dynamic perspective from 10-years-before to 10-years-after formal accession, a few indicators on conflict onset relatively decrease compared with before the cut-off point, despite 95% of CIs overlapping to some extent.

In summary, GATT/WTO can pacify the risk and frequency of conflict incidence through both a lead-time effect and a lagged effect to a moderate extent, for example, from 2-years-before to 5-years-after; however, GATT/WTO’s effects are not sufficient to significantly reduce the risk and frequency of conflict onset at all.

4.4.3 Validation and Robustness Tests

For Regression Discontinuity Model, the most important test on validation is to compare the baseline characteristics for the treatment group and control group (Bloom, 2009). As follows, the treatment group is quite similar to the control group apart from the impact of GATT/WTO through T-test. As the Table A-2 in Appendix II indicated, there is no significant difference between the treatment and control groups at the 0.05 level according to the different periods across the involvement in GATT/WTO, i.e. 1 year, 5 years, and 10 years.
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Figure 4-9 Distribution of Conflict Incidence by 3-year Data

The Robustness Test tries to compare the findings from alternative approaches in order to investigate how stable they are among different approaches. It refers to a new bandwidth (a 3-year data) to test the variation of the findings. It selects 3-year data on GATT/WTO membership and civil conflict incidence from 8,748 observations and finally produces about 3,000 observations. Additionally, it defines the adjusted year for the countries without involvement in GATT/WTO as “-33.” As a result, the maximum period for a country to be involved in GATT/WTO is 20 and the minimum period is -20. According to Figure 4-9, the frequency and risk of conflict incidence reduce significantly after formal accession into GATT/WTO.

Moreover, the according mathematical test continues to use the functional form $y_t = at + bt^3 + c$. (4.5) is about the risk of conflict incidence with and without the countries excluded from GATT/WTO until 2011 and the frequency of conflict incidence without the mentioned countries. It can explain from 42.43% to 86.01% of fitting extent. Accordingly, around the accession year, GATT/WTO can provide pacifying effects to reduce incidence risk by 12.1% or 6.1% with or without “-33” and decreasing about 2.9 times the incidence frequency of civil conflicts.
\[
\begin{align*}
\begin{cases}
\bar{y}_{t<0} &= 0.0125167t - 0.0000138t^3 + 0.2232976 \\
\bar{y}_{t\geq0} &= 0.0140171t - 0.0000264t^3 + 0.1026658 \\
\bar{y}_{t<0} &= -0.0004379t + 0.0000216t^3 + 0.1640167 \\
\bar{y}_{t\geq0} &= 0.0140171t - 0.0000264t^3 + 0.1026658 \\
\bar{y}_{t<0} &= 1.6431t - 0.0019285t^3 + 19.00027 \\
\bar{y}_{t\geq0} &= 0.0140171t - 0.0000264t^3 + 0.1026658
\end{cases}
\end{align*}
\tag{4.5}
\]

In sum, it shows that countries with GATT/WTO treatment have a lower possibility of conflict incidence than those without treatment. The argument is valid and robust through the tests of baseline characteristics and bandwidth selection.

4.4.4 Analysis about Effects of GATT/WTO on Civil Conflicts

From the statistical description, it can be found IV and DV have a statistical significance at the level of 95% (p=0.000) both from a narrower definition and a broader definition of involvement in GATT/WTO. In the case of narrower definition, with the influence of GATT/WTO, the risk of civil conflict is 13.5%; while it is 16.4% without the impact of GATT/WTO. In the broader definition, the number is almost similar (See Table 4-3).

Table 4-3 Relations between Conflict Incidence and GATT/WTO Involvement

<table>
<thead>
<tr>
<th>Involvement</th>
<th>Narrower Definition</th>
<th></th>
<th>Broader Definition</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G/W</td>
<td>No G/W</td>
<td>Total</td>
<td>G/W</td>
</tr>
<tr>
<td>No Conflict</td>
<td>2,938</td>
<td>4,527</td>
<td>7,465</td>
<td>No Conflict</td>
</tr>
<tr>
<td>Conflict (83.61%)</td>
<td>(86.49%)</td>
<td>(85.33%)</td>
<td>Conflict (83.25%)</td>
<td>(86.36%)</td>
</tr>
<tr>
<td>Conflict</td>
<td>576</td>
<td>707</td>
<td>1,283</td>
<td>Conflict</td>
</tr>
<tr>
<td>Conflict (16.39%)</td>
<td>(13.51%)</td>
<td>(14.67%)</td>
<td>Conflict (16.75%)</td>
<td>(13.64%)</td>
</tr>
<tr>
<td>Total</td>
<td>3,514</td>
<td>5,234</td>
<td>8,748</td>
<td>Total</td>
</tr>
</tbody>
</table>

Pearson Chi2(1)=13.9701; Pr=0.000

Pearson Chi2(1)=14.9241; Pr=0.000

The chapter continues to apply logit regression to investigate and measure the impacts of GATT/WTO on the incidence of civil conflicts from a disaggregated perspective. It mainly refers to eight models to estimate the effects of GATT/WTO in controlling a series of relevant factors. Model 1 mainly discusses
the impacts of core variables on GATT/WTO on the conflict incidence. Model 2 takes the influence of RTAs into account as controlling variables. Model 3 controls the main variables like mountainous terrain, oil export, ethnic and religious fractionation, polity, peace years and neighboring conflicts. It continues to control the openness and foreign trade in Model 4. Model 5 mainly discusses the impact of GATT/WTO in the controlling of social, economic and demographic factors. Furthermore, it brings the state back into the Model 6, i.e. the Quality of Government, Human Rights and State Capacity. In addition, the model considers the influence of globalization and its subsequent global shock on a given country in Model 7. Finally, Model 8 comprehensively tests all the factors related to other global factors including the variables in the mentioned models. (See the regression results in Table A-3 in Appendix III).

Model 1 indicates GATT/WTO has a mixed effect on the incidence of civil conflicts. When a country is involved in GATT/WTO (with a lagged 2-year setting), its possibility of civil conflict increases 0.477; meanwhile among the negotiation rounds from Geneva (1947) to Uruguay (since 1994), the later the round is, the higher the possibility of civil conflict. However, two other aspects of GATT/WTO decrease the possibility of civil conflicts. If a country has been involved in GATT/WTO for a longer time, it faces a lower possibility of civil conflict, about 0.004 lower than a country involved in GATT/WTO later. If a country is involved in GATT/WTO with a deeper and more institutionalized form, that is, GATT and WTO as a high institutionalized form compared with de facto status and provisional accession as a low form, it decreases 0.189 on the possibility of conflict. All four variables are statistically significant at the 0.01 level.

Considering the impacts of RTAs, Model 2 shows a similar and significant effect of GATT/WTO variables like Model 1 at the 0.01 level, in which lagged 2-year GATT/WTO membership and GATT/WTO negotiation rounds would increase the possibility of civil conflicts while a country’s involvement degree and involvement time have a negative effect. Furthermore, if a country is involved in
RTAs, its possibility of civil conflict increases about 0.571 when it is a binary dummy. But with the increase of RTA numbers, the possibility of civil conflict decreases about 0.175. The mentioned relations are all statistically significant at the 0.01 level. However, the interaction effect between GATT/WTO and RTA numbers would contribute to a higher possibility of civil conflicts about 0.093 at the 0.05 level.

Model 3 demonstrates GATT/WTO membership contributes 0.630 times of conflict possibility and newer negotiation rounds may increase the possibility by 0.298 times. However, the higher involvement degree of GATT/WTO helps a country reduce the possibility about 0.213. They are all statistically significant at the 0.01 level. It seems the years of GATT/WTO involvement slightly increase the possibility, which is not significant (p=0.576). In respect to the controlling variables, they are significant at the 0.01 level (with oil exporter at the 0.05 level), in which mountainous terrain, oil export, religion fractionation, peace duration and neighboring conflicts increase the possibility of civil conflict from 0.024 to 0.369; at the same time, the larger the ethnic fractionation is, the lower (-0.705) the possibility of conflict; if a country is a more democratic regime, its conflict possibility will decline about 0.224.

When the influence of foreign trade is taken into account, some variables in Model 3, like religion and polity, are no longer significant. At the 0.01 level, if the involvement of a given country in GATT/WTO is at a higher and more institutionalized stage, its possibility of civil conflict will decrease about 0.162; however, if the country is in a more recent GATT/WTO negotiation round, the possibility of civil conflicts will increase about 0.350. At the same time, if its degree of openness (at 2005 constant price) is higher, its conflict possibility will reduce about 0.012; however, the interaction effect between GATT/WTO membership and openness is not significant. Compared with the export that is not significant (p=0.46), more imports increase the conflict possibility about 0.230 at the 0.05 level (p=0.012).
When the social, economic and demographic variables are brought into the model, the GATT/WTO membership still has a positive effect on conflict incidence about 0.925 (p=0.024) at the 0.05 level. Although the involvement duration and negotiation rounds take an adverse role in the conflict incidence, they are, in fact, not significant. At the same time, the increase of GDP reduces the possibility of conflict about 0.943 (p=0.046); however, it indicates that the rise of real GDP per capita may increase the possibility of conflict about 0.952 (p=0.053). If the population is larger, its possibility of civil conflict will rise about 3.611 (p=0.002). The youth bulges contribute about 0.190 increase on the possibility of civil conflict (p=0.001). Along with other studies, Model 5 also shows larger inequality (p=0.027), unemployment (p=0.02) and poverty (p=0.094) increase the possibility as well. However, the ratio of family farms seems to have a negative effect at a not significant confidence level.

When the Quality of Government, State Capacity and Human Rights are controlled, Model 6 clearly indicates three aspects of GATT/WTO showing negative effects on the conflict incidence at the 0.001 level. If a given country is involved to a higher degree in GATT/WTO, it will reduce about 0.976 of the possibility of civil conflict; its lagged 2-year GATT/WTO membership may decrease the conflict possibility about 1.220, while the longer involvement in GATT/WTO will make the possibility decline about 0.012 in general. In this case, both number of RTA and binary RTA contribute to the increase of conflict incidence. The RTA number increases the possibility of 0.147 while the binary variable is not significant. In addition, good quality of the government reduces the possibility about 1.278 (p=0.016). However the larger Relative Political Capacity may increase the possibility about 0.380. From the interaction effect between human rights and GATT/WTO, records of governmental violations in the GATT/WTO framework will significantly increase the possibility of civil conflicts about 1.456 (p=0.000). It indicates good government and governance contributes to the decline of conflict incidence; however, a stronger state may increase the risk.
With the control of global dynamics, the lagged 2-year GATT/WTO membership decreases the conflict incidence about 0.464 at the 0.05 level (p=0.018). Model 7 demonstrates that higher globalization reduces the conflict possibility about 0.035 (p=0.000) and larger global shock also decreases the possibility about 0.108 (p=0.01) within the GATT/WTO framework. However, the interaction effect between GATT/WTO and global shock may increase the possibility about 0.031 (p=0.017). At the same time, the price index, including energy price and non-energy price, has a contrary effect on the conflict incidence. The higher energy price increases the conflict possibility about 0.005 while the higher non-energy price can reduce the conflict possibility about 0.007 at the 0.01 level. Larger export and import can increase the possibility but have no statistical significance.

Finally, the comprehensive Model 8 still indicates GATT/WTO membership and the involvement degree have a significantly negative effect on conflict incidence. Higher involvement in GATT/WTO decreases the possibility about 1.346 while the lagged 2 year GATT/WTO membership would reduce the risk about 3.544. In respect to the controlling variables, Quality of Government plays a significant role in reducing conflict possibility, which can reduce the risk about 5.491 compared with that of bad governmental quality (p=0.004). Higher ethnic fractionation contributes to conflict incidence about 8.356 (p=0.000); a larger population increases the possibility about 9.749 (p=0.024); the higher GDP per capita makes conflict incidence about 5.536 (p=0.007) higher than those countries with a lower GDP per capita. Furthermore, oil exporter increases the possibility about 2.802 (p=0.000); stronger state capacity may increase 2.983 times (p=0.000) the possibility of civil conflicts; a higher violation of human rights will also increase the possibility by 3.181 (p=0.000); and larger import makes the conflict incidence possible about 2.759 (p=0.000) while large export may decrease the incidence about 3.70. In addition, mountainous terrain and democratic regimes slightly increase the risk of civil conflict at the 0.01 level.

However, Model 8 also presents some puzzling results within GATT/WTO
settings, i.e. neighboring wars decrease the possibility of civil conflicts about -1.063 (p=0.061); larger inequality decreases the risk about 0.185 (p=0.003) and larger poverty reduces the possibility about 0.075 (p=0.056). Other variables have no statistical significance.

In conclusion, the involvement of GATT/WTO has a mixed effect on conflict incidence. In general, if a given country’s access to GATT/WTO is in the higher and more institutionalized stage, it will decrease the conflict incidence, shown as $H_2$; if the country has been accepted by GATT/WTO for a long time and has a longer adaptive period, as $H_3$ indicated, the conflict risk will be reduced as well. However, newer GATT/WTO rounds mostly face a higher conflict possibility, while the GATT/WTO membership has triggering effects on increasing the conflict risk in the basic models and the models that control RTAs and other domestic specific factors. As a result, $H_4$ holds while $H_1$ is in doubt. Moreover, its effect becomes negative when the global factors and government quality are considered in the model. Its adverse role on conflict incidence quickly rises in the comprehensive model taking into account a series of relevant factors.

In general, the disaggregated perspective generally echoes with theoretical divide on international institutions, such as provoking versus pacifying dimensions, just like the illustration of Figure 2-3. Most importantly, through including the variables of other factors and domestic institutions, as Model 6 and Model 8 show, international institutions like GATT/WTO can be transformed to provide totally pacifying effects. Likewise, domestic institutions like Polity IV scores, quality of government, and relative political capacity, also demonstrate different direction in triggering conflicts or keeping the peace, which implies the dual dimensions of domestic institutions in domestic interaction as well.

4.5 Concluding Remarks

As a key international dynamic, international institutions not only affect state actors, but also influence non-state actors and related interactions below the domestic level. More and more countries have been involved in international trade institutions
since GATT was born at the end of the 1940s. By the end of 2008, there were 153 WTO members; while by the end of 2010, 30 other governments were seeking to access WTO. WTO members account for almost 90 percent of world trade and 2/3 members are developing countries (WTO, 2010, 2011a).\(^1\) The increasing expansion of international trade institutions probably affects the interaction of domestic groups and domestic politics in two main ways, i.e. trade and institution. At present, both peace and conflict are argued to be the plausible consequence of trade and institution, which brings about a number of theoretical debates and empirical contest. The focus on international trade institutions provides an opportunity to combine the trade approach and institution approach to investigate the mechanism and dynamics of civil conflicts.

In order to identify the causal relations between the impacts of international trade institutions like GATT/WTO at the international level and the risk of civil conflicts below the domestic level, it applies RDD with “adjusted year” as the running variable to assign treatment group and control group. The findings support the argument of institutional interactions shaping domestic behaviors and robustly imply GATT/WTO involvement can decrease the risk of civil conflict in general. But this pacifying effect is only obvious to the incidence rather than the onset of internal conflict. Its effect usually performs well from 2 years before GATT/WTO membership to 5 years after the involvement.

However, logit regression furthermore finds involvement in GATT/WTO has a mixed effect on the possibility of peace or civil conflicts. The GATT/WTO membership and higher trade liberalization stages usually have positive effects in triggering a civil conflict; while both the higher involvement degree in GATT/WTO (from de facto status and provisional accession to GATT) and longer involvement time have negative effects on the possibility of civil conflicts. Considering the controlling variables, in respect to the economic factors, GATT/WTO involvement increases the possibility of civil conflicts; while it

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\(^1\) By the end of 2014, the number of WTO membership is updated to 161; and 22 countries or territories are still in the accession process. See https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm.
decreases the conflict risk when the governmental quality, globalization and global shocks are taken into account. In the comprehensive model, it significantly indicates both GATT/WTO membership and its involvement degree would reduce the possibility of civil conflicts.

In respect to future research, there are three main unsolved problems. The model should firstly take the tariff and non-tariff protection into account as the response from state actor to the international institutions when the relevant dataset is available. It can contribute to the subjectivity of state actor in response to the external force. Secondly, it needs to collect and analyze the relevant data that is related to concrete treaties and specific sub-trade categories a country is involved, which can help to formulate a given country’s trade preference in the GATT/WTO framework. Lastly, it should explain the noticeable trend that civil conflict possibility seems to rise in a given period after its involvement in GATT/WTO.
Chapter 5: International Trade Institutions and Political Stability

5 International Trade Institutions and Political Stability: A Propensity Score Matching Approach

It has ever been the law of change that when things reach their period of greatest flourishing, they must begin to decay.

—— Ssu-Ma Ch’ien

5.1 Introduction

Chapter 4 by regression discontinuity design (RDD) finds involvement in international trade institutions could slightly but significantly pacify the risk of internal armed conflicts within a specific period from a perspective of conflict incidence. However, the pacifying effect is not absolute. It varies with conditional configurations of institutional and situational variables on trade issues. It successfully captures the “local average treatment effect (LATE)” (Angrist & Pischke, 2009, p. 262) of GATT/WTO on the incidence of internal armed conflicts around the cut-off point, i.e. the accession time of the members. But it fails to cover other treatment effects of international trade institutions and to identify the substantial impacts of GATT/WTO on domestic interaction and behaviors.

In addition, internal armed conflict is an attractive but rare event in categorizing domestic interaction of cooperation versus conflict compared with other events. R rummel (1966, p. 65) describes a variety of conflict behaviors such as riots, demonstrations, coups, revolutions, guerrilla warfare, assassinations, strikes, and so on. He furthermore indicates “a dimension of conflict behavior” emerges only if the events mentioned together happen in as a “cluster”. Next, internal

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1 Original text is Wu Sheng Er Shuai, Gu Qi Bian Ye [物盛而衰，固其变也]. It is excerpted from Ping Zhun Shu (The Treatise on the Balanced Standard) in Shih Chi (Records of the Grand Historian) by Ssu-Ma Ch’ien [司马迁] (145 or 135 BC - 86 BC) who was a Chinese historian of the Han dynasty, and translated by Burton Watson (Ssu-Ma Ch’ien, 1961, p. 82)

2 In general, treatment effects in statistical studies include ATE, ATT, ATU, LATE, etc. See (Angrist & Pischke, 2009; Heckman & Vytlacil, 1999; Moffitt, 1999)

3 In addition, Eckstein also provided 13 kinds of “conflict behaviors” in 1962. Citing from (Rummel, 1966, pp. 71-72)
armed conflicts or internal wars usually need organized mobilization and huge financial costs in both their initiation and continuation (Collier, Hoeffler, & Rohner, 2009; Wennmann, 2009). It is one kind of “special forms” of political violence in the political system (Zimmermann, 1983, p. 14). Moreover, it is necessary to examine internal armed conflicts and other kinds of conflicts because internal wars are often related to other types of violence “in space and time” (Eckstein, 1965, p. 134). In this vein, it should shed light on more conventional behavioral types in depicting “political performance” (Eckstein, 1971) in domestic interactions, such as political stability and political violence. Current studies also point out a “recent sharp drop in civil wars and the simultaneous increase in democratic reversals” and argue other conflict events will be of “even greater importance in the future” (Goldstone et al., 2010, p. 191).

Last but not least, state actors are indeed heterogeneous in both international politics and domestic politics. The heterogeneity is based on the diversity on their preference, capacities, information, beliefs, sizes, and institutions, etc. (Keohane & Ostrom, 1995, pp. 6-10). The impacts of heterogeneity are comprehensive but various in the international cooperation, institutional settings, and international regulation (L. L. Martin, 1995; R. B. Mitchell, 1995; Snidal, 1995). As a result, diverse state actors lie within “conditional effects of scope and heterogeneity” in international cooperation (Keohane & Ostrom, 1995, p. 23). Their distinct attributes can not only shape the international-domestic interactions on international trade institutions but also differentially mediate the effects of international trade institutions on their own actors and relevant issues at domestic levels. Furthermore, domestic institutions are actually affected by international trade institutions with the intervening effects of domestic institutions as well as other configurations on a specific basis. Therefore, it should take a more strict method to control the heterogeneity of domestic institutions and to identify the true effects of international trade institutions on domestic interactions among actors.

Most importantly, one indicator of state heterogeneity is the diverse rules and
process of GATT/WTO accession, which finally determines whether a country or separate customs territory can be treated by GATT/WTO. Accession is the precondition of applicant states to receive the treatment of international institutions. The changing history, from International Trade Organizations (ITO) to GATT and to WTO, shows different accession regulations from the 1940s to the 2000s. In general, a state that becomes a contracting party in GATT or WTO is usually categorized into 6 types as Figure 5-1, which roughly follow a route from application and negotiation to accession. Due to the transformation of trade regimes and rules, diverse accession types contain original (founding) parties, normal states from outsider to contracting parties and WTO members, states from withdrawal to re-becoming formal members, states from provisional parties to full member, states with colonial experience from de facto status to formal parties and members but with two different applications on relevant articles. Additionally, many countries are GATT/WTO outsiders in the application process.

![Figure 5-1 Accession into International Trade Institutions (GATT/WTO)](image)

To sum up, this chapter attempts to clarify “pure” effects of international trade institutions on more general conflict behaviors of domestic actors and the consequences on political stability by controlling the heterogeneity of diverse countries (like different institutional settings) by a propensity score matching (PSM) approach.
It is arranged as follows. The next section aims to discuss an array of concepts around political stability and explaining the significance in domestic interactions of actors with specific behavioral types. The third part provides a theoretical framework to evaluate the preconditions and probabilities of receiving treatment effects, i.e. exploring the variables that matter for GATT/WTO accession; meanwhile, it constructs causality linkage on the ways and extent that prior conditions would affect treatment and furthermore shape domestic behavioral interactions. After providing the hypotheses, the fourth section briefly introduces PSM and statistically tests the hypotheses with relevant cross-country data on political stability. At the end, key findings are concluded.

5.2 Political Stability and Violence as Conventional Interactive Behaviors

“All human behavior is potentially political” is a popular assumption in political studies (Ake, 1975, p. 272). This chapter furthermore crystallizes the dichotomy of cooperation and conflict into political stability versus political violence as conventional behaviors among domestic actors within their interactions at domestic level.

Just like the typology of conflict and cooperation, political stability and political violence are actually two sides of a coin. Both dimensions together depict key characteristics of political order, social interaction, and political performance at domestic level (Rosenthal, 1978). In a nutshell, as Rosenthal (1978, p. 165) puts it, “the reduction of violence produces political stability…violence produces instability.”

Firstly, political stability is usually connected to political structure and political behaviors, which highlight “the regularity of the flow of political exchange” (Ake, 1975, p. 273) or the typical order-ness of political interaction (Rosenthal, 1978, p. 68). It is actually a comprehensive concept. Hurwitz (1973) summarizes its diverse approaches into five aspects, i.e. the absence of violence, governmental longevity/duration, the existence of a legitimate constitutional regime, the absence of structural change, a multifaceted societal attribute, etc. Similarly, Rosenthal (1978,
Chapter 5: International Trade Institutions and Political Stability

p. 68) differentiated six notions of political order, “we think we cover the area of political stability”, including the absence of structural change, rule-bound politics, legitimate politics, institutionalized politics, the limitation of violence, and the stability of chief executive offices, etc. Hereby, he takes new institutional factors into the area of political stability.

Moreover, political violence is actually a crucial if not sole dimension in political stability (or political instability). Political violence is a popular indicator in conflict behaviors within nations (Rummel, 1966). In addition to the conceptual settings, policy advisors in global governance have regarded “political stability and absence of violence/terrorism” as one indicator in evaluating global governance (Kaufmann, Kraay, & Mastruzzi, 2011). Goldstone et al. (2010) also suggest that political violence and political instability are identical in their empirical studies. For another example, Bjorvatn and Naghavi (2011) operationalized political stability into three types, including civil war/coup threat, terrorism/political violence and civil disorder, when trying to evaluate the impact of political violence on governance in a country.

Thirdly, political violence is a more general term in conflict behavior. According to Zimmermann (1983, p. 9), political violence is a “process” of various actors within a political system including not only rebelling against the state but also violent activities against citizens. As a general term, political violence covers a broad scope as well. For example, Eckstein summarizes 13 kinds of conflict behavior measures, including unequivocal violence, warfare, turmoil, rioting, large-scale terrorism, small-scale terrorism, mutiny, coup, equivocal plots, administrative action, quasi-private, extended violence, and unequivocal and equivocal violence, etc. (citing from Rummel, 1966, pp. 71-72). Gurr (1968, p. 1107) provides a three-fold typology of civil strife, i.e. turmoil, conspiracy, and internal war. Flanigan and Fogelman (1970, p. 5) describe domestic political violence on at least 6 scales, i.e. no significant nonlegitimate participation, political assassination or minor rioting, major rioting, coup d'état, rebellion, civil war, etc. from low to high intensity. Hibbs
(1973, pp. 8-9) categorizes political violence into riots, armed attack events, political strikes, assassinations, and antigovernment demonstrations. In summary, political violence is a more comprehensive concept to describe the variations of conflict behaviors at domestic level with different intensities.

A comprehensive concept of political stability and violence can contribute to exploring the full landscape of conflict versus cooperation in domestic interactions much better. Furthermore, it can provide a more adequate indicator to measure the specific effects of international institutions on domestic interaction than solely focusing on internal armed conflicts. For instance, internal war is usually regarded as a “dysfunctional” act, while other political violence acts like turmoil and conspiracy are considered as “order-neutral” (Rosenthal, 1978, p. 82).

The advantages hereby are mainly due to low costs and organizational obstacles as well as the sensitivities of conventional political violence (compared with internal armed conflicts) in reflecting the changes of domestic interactive behaviors. On the one hand, conventional political violence is usually less organized and even spontaneous against a moderate target. As Rummel (1966, p. 71) puts it, compared with internal war, conventional acts of conflict behaviors have “little relationship to be organized, cooperative kind of behavior”. Their target is unnecessary to “change its constitution, rules, or policies” like internal war (Eckstein, 1965, p. 133).

On the other hand, normal acts of political violence are still a representative indicator of political violence and political (in)stability. For example, turmoil, is defined as a “spontaneous kind of conflict behavior” and the “major dimension” of domestic conflict behaviors (Rummel, 1966, p. 71). Zimmermann (1983, pp. 1, 7) indicates political violence usually has “political consequences” and even a “local protest” can become “a highly significant political events”.

As a result, conventional acts of political violence compared with internal armed conflicts are more sensitive to the changes of domestic interactions within the political and economic contexts. Due to their typical characteristics, they are
usually easier to trigger and more reflective on capturing the motivations of domestic actors. Nevertheless, internal armed conflicts and other kinds of political violence can’t be totally separated. General categories of political violence like demonstrations, political strikes, riots, and rebellions can be regarded as “symptoms of the polity’s conduciveness to internal war” (Rosenthal, 1978, pp. 82-83).

5.3 Conditioning GATT/WTO Effects and Bridging Political Stability

5.3.1 Introduction

In respect to the behaviors of state actors, the influence of international institutions can be imposed on both member states and non-member states but in different ways (R. B. Mitchell, 2009, p. 70). The effects of international institutions might vary in the difference of state actors making international commitments (Simmons, 2000). However, from a methodological perspective, Von Stein (2005) confirms the existence of selection bias in evaluating the impacts of international institutions. In this vein, to assess the influence of international institutions thus is not only a theoretical question but also a methodological problem.

Current studies on the influence of international institutions have indicated two groups with different emphases. One group argues institutional strength is crucial in the domestic influence of international institutions; the other thinks domestic conditions are much more important in mediating and intervening (Costa & Jørgensen, 2012; Dai, 2005; Dai & Martinez, 2012; Underdal, 2002, 2004).

However, two kinds of pitfalls exist in current literature. On the one hand, the problem of endogeneity prevails in the interaction of international institutions and state actors when discussing the influence of international institutions (R. B. Mitchell, 2004, 2009).¹ Mitchell (2004, pp. 142-143) recommended time-series and panel analyses by comparing non-member and member behaviors to avoid this limitation. On the other hand, most insights have shed light on the influence of international institutions on state behaviors (Botcheva & Martin, 2001) and even

¹ Other scholars also realize the problem of endogeneity and attempt to intentionally avoid endogeneity with different designs (Wetzel, 2012, p. 25; A. R. Young, 2012, p. 77).
other international organizations (Costa & Jørgensen, 2012; Dai & Martinez, 2012).

It becomes more complicated to evaluate the relationship of international institutions and domestic actors as well as assessing the effects of international institutions on shaping domestic interactions, because the plausible linkage from international institutions to domestic groups via state actors is connected to multiple variables across different levels. In line with previous chapters, it still regards the influence of international trade institutions as a treatment effect and the conventional behaviors of domestic actors as outcome. But it highlights the conditional configurations of GATT/WTO influence, including both international and domestic factors, which could assign the treatment effects and determine the probabilities of assignments, which bring about different effects on both trade issues and subsequent interaction. For example, empirical studies indicate more accession efforts from a given state bring increases in trade; otherwise, litter or no works on joining bring fewer gains (Allee & Scalera, 2012, p. 243).

As a result, this section solves which way and to what extent can a state with its domestic actors receive the treatment of international trade institutions? To be exact, the first step is to explore how to assign GATT/WTO treatment to state actors and subsequently domestic actors and what conditions are needed.\(^1\) Gowa (2010, pp. 487-488) implies the effects of international institutions on a specific state actor tend to “vary across different subsets of its members”; the variation is not only caused by “political ties and economic attributes” that affect their ability to exploit benefits but also from “different ways states acceded to the regime” that is mostly ignored.

5.3.2 Accession: Gaining GATT/WTO Membership

GATT/WTO is actually an “exclusive country club” (Gowa & Kim, 2005). The history of international trade institutions indicates accession to GATT/WTO

\(^1\) In fact, every group or individual might be affected by international trade institutions, to a more or less extent, through direct or indirect means like policies, rules, and even norms. Hereby, this research only pays attention to the behavioral interaction of domestic actors from formal member states that officially receive the GATT/WTO treatment.
is not only a legal and procedural issue, but also a political problem in world politics. As Smith (1996, p. 167) indicates, the accession contains technical and institutional issues and “much broader economic and geopolitical issues”. Its accession rules or procedures matter to both international institutions and member states. As Schneider and Urpelainen (2012, p. 291) emphasize, the accession rule is of “central importance”, which shape the degree of cooperation in the long term. Gowa (2010, pp. 487-488) implies “different ways states acceded to the regime” have been ignored in studies on exploring the effects of international trade institutions. Furthermore, Allee and Scalera (2012) shows accession types have “causal importance” in determining the (beneficial) effects of GATT/WTO membership on a specific state like on trade expansion.

In general, the accession procedure in GATT is regulated by Article XXXIII\(^1\) for non-founding members and Article XXVI\(^2\) for original contracting parties. Besides 23 original contracting parties, there are 32 countries that became contracting parties of GATT through Article XXXIII from 1955 to 1994 (Jones, 2010, p. 60). In addition, there is an alternative pathway, i.e. Article XXVI:5(c),\(^3\) for newly-independent countries with colonial experience to be de facto parties and then formal members (about 64 countries become GATT parties) on a basis of sponsorship after a Recommendation on 1 November 1957, which set the de facto

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\(^1\) “A government not party to this agreement, or a government acting on behalf of a separate customs territory possessing full autonomy in the conduct of its external commercial relations and of the other matters provided for in this Agreement, may accede to this Agreement, on its own behalf or on behalf of that territory, on terms to be agreed between such government and the CONTRACTING PARTIES. Decisions of the CONTRACTING PARTIES under this paragraph shall be taken by a two-thirds majority” (WTO, 2012, p. 1017).

\(^2\) “Each government accepting this Agreement shall deposit an instrument of acceptance with the Executive Secretary to the CONTRACTING PARTIES, who will inform all interested governments of the date of deposit of each instrument of acceptance and of the day on which this Agreement enters into force under paragraph 6 of this Article...6. This Agreement shall enter into force, as among the governments which have accepted it, on the thirtieth day following the day on which instruments of acceptance have been deposited with the Executive Secretary to the CONTRACTING PARTIES on behalf of governments named...the territories of which account for 85 per centum of the total external trade of the territories of such governments, computed in accordance with the applicable column of percentages set forth therein. The instrument of acceptance of each other government shall take effect on the thirtieth day following the day on which such instrument has been deposited” (WTO, 2012, p. 907).

\(^3\) “If any of the customs territories, in respect of which a contracting party has accepted Agreement, possesses or acquires full autonomy in the conduct of its external commercial relations and other matters provided for in this Agreement, such territory shall, upon sponsorship through a declaration by responsible contracting party establishing the above-mentioned fact, be deemed to be a contracting party” (WTO, 2012, p. 908).
application period at two years after its independence (Jones, 2010, pp. 60-61; WTO, 2012, p. 921). Even in this process, the accession rules for newly-independent states also changed somewhat from sponsorship and sentiments to commercial concerns with adherence to “the general intents of the GATT in their trade with the contracting parties” (Sobel, 1997, p. 369).

The institutional degree has been enhanced with the development of international trade institutions from GATT to WTO, and so do the rules and procedures on accession. In respect to governing issues, WTO mandates “almost all facets of international trade and expanding” different from GATT with “a rather limited scope” (Parenti, 2000, p. 141). Compared with a “minimalist” requirement of GATT accession (Bhala, 2008), WTO as a “much more legalistic organization” regulates more strict, formal, and “totally different” rules on accession, i.e. “the process is more structured and transparent...qualitative changes of a procedural and substantive nature” (Footer, 2005, pp. 241-242; Jones, 2010, pp. 60-63; Parenti, 2000, p. 141). Before the formal construction of WTO, all the GATT parties were required to submit schedules of concessions as accession protocol to join WTO in 1995. In spite of the simple provision of Article XII1, i.e. “terms to be agreed between it and the WTO”, it actually has a series of complicated procedures2 (Marković, 2009; Milthorp, 2009) on negotiations between applicant state and other members, in order to get the approval of WTO members (Jones, 2010, pp. 60-63). The accession rules have made it harder for new applicants to. Accession to GATT/WTO means increasing joining costs for later members, as Jones (2010, pp. 63-64) puts it, “individual WTO member countries, even small ones, can potentially stall or block progress in any given case.” From 1995 to 2014, only 32 countries were approved as WTO members via Article XII and more than 25 countries are in

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1 “Any State or separate customs territory possessing full autonomy in the conduct of its external commercial relations and of the other matters provided for in this Agreement and the Multilateral Trade Agreements may accede to this Agreement, on terms to be agreed between it and the WTO. Such accession shall apply to this Agreement and the Multilateral Trade Agreements annexed thereto” (WTO, 2007b, p. 55).

2 Accessible at http://www.wto.org/english/thewto_e/acc_e/acces_e.htm -196-
the acceding process.¹

In this way, GATT/WTO accession can be classified as diverse in accordance with the application of different legal articles as well as the practical constraints. For example, Neumayer (2013, pp. 671-672) argues three modes of accession in accordance with three different articles on original parties, colonial states, and WTO members. Allee and Scalera (2012) develop a three-part classification of GATT/WTO members, i.e. early, automatic, and rigorous accession types. In addition, the flexibility of accession rules also creates a debate on formal versus non-formal membership. Goldstein, Rivers, and Tomz (2007) apply the concept of “institutional standing” (not just formal members) to understand the “true reach” of international institutions, which implies a substantial divide on the effects of international trade institutions on world trade (Rose, 2004, 2007; Tomz et al., 2007).

On the other hand, access to GATT/WTO is more like a political issue than a legal problem. It can be analyzed from three perspectives. Firstly, its built-in political nature emerged from the very start. GATT gradually became a typical indicator of free trade in the “free world” in the era of the Cold War. The Cold War had “far-reaching but hardly uniform” impacts on GATT and even “recast” its meaning. The accession was biased by the political divide: membership might be a “reward or enticement” to countries that US “was intent on anchoring to the Western alliance”; while withdrawal from GATT might bring about an intent to “weaken enemies” (McKenzie, 2008, pp. 106-107). In accordance with Copelovitch and Ohls (2012), the timing of GATT/WTO accession of de facto parties can be explained by its trade ties with existing members, its existing PTA commitments, and its domestic political issues.

Secondly, the negotiation of accession goes beyond the legal text and is involved in various political considerations among different actors across international and domestic levels. As Lee and Ullrich (2009, pp. 1-2) argue, accession negotiation is a diplomatic process through which “domestic and

¹ Accessible at http://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm
international interests and goals are negotiated” and its success depends on “both domestic and international level factors [that] need to be accommodated.” And Milthorp (2009, p. 104) puts “political motive” on the agenda of negotiation. The negotiation might furthermore shift bargaining power and trigger distributional consideration of current members (C. J. Schneider & Urpelainen, 2012, p. 291). In this way, incumbent members utilize their bargaining power and compel acceding states’ additional concessions (Jones, 2010, p. 66) and some countries might get better accession terms than others (Pelc, 2011).

In addition to the political nature and negotiation characteristic, accession is finally embedded into the competing atmosphere of power politics in international relations. For instance, Smith (1996, pp. 173-175) demonstrates a list of factors that shape the negotiation dynamics, including the consolidationists (adherence to the WTO integrity and rules conformity), mercantilist trade interests, humanitarian and economic interests on reforms, geopolitical interests in political stabilization and peace, and political conditionality on environment and human rights, etc. Moreover, Davis and Wilf (2011) ascribe the political nature of expanding GATT/WTO membership to the flexible accession rules and find foreign policy with a focus on economic and geopolitical interests is related to the length of accession negotiations. As a result, Neumayer (2013, p. 669) insists involvement in GATT/WTO would be of “essentially power” rather than purely “rule-based” process.

In sum, assigning GATT/WTO treatment on a given state is unique because of the changing accession rules, practical feasibilities, and various political considerations at both international and domestic level. It is actually a result of both its own characteristics and also being embedded within the relational interactions of other states, as Jones (2010, p. 65) puts it, “the lengthiness of the accession process may also be the result of the desire of incumbent WTO members to assure that all major WTO compliance issues have been laid to rest.” All the factors affect the probability of a specific state receiving GATT/WTO treatment and subsequently
Chapter 5: International Trade Institutions and Political Stability

the specific effects of GATT/WTO treatment.

5.3.3 Framing Political Constraints on GATT/WTO Accession

Current studies have empirically identified a few key variables that may either promote or hinder a given state's involvement in GATT/WTO. These factors at both international and domestic levels can determine the probability of accession to GATT/WTO and assign the treatment to state actors as well as their domestic actors. Furthermore, these factors would bring about different impacts on the performances so that the given state fulfills its rights and obligations in different settings; and yield different policy outcomes via different variable settings. This section clarifies the links between relevant variables and GATT/WTO accession and demonstrates the extent that these variables determine the accession. Controlling these variables will contribute to evaluating the pure GATT/WTO treatment on domestic actors’ interaction, i.e. political violence.

Firstly, the nature of the regime matters for the accession to international trade institutions. As mentioned above, GATT was established during the Cold War and was strongly in favor of “free world” versus socialist bloc. It was debatable on the acceptance of socialist countries (McKenzie, 2008, pp. 106-107). In the post-Cold War era, a few WTO accession negotiations sought to “bridge the Cold War fault line” and integrate some autarkic economies into the global economy (M. G. Smith, 1996, p. 167). Nevertheless, the division between democratic and non-democratic regimes still prevails (but doesn’t dominate) in assessing a state’s accession probability, as in the lengthy cases of China and Russia. Wong and Yu (2009) find a democratic applicant is likely to have a shorter accession duration than non-democratic ones through survival analysis test. Davis and Wilf (2011) also make a similar conclusion and find GATT/WTO is more attractive for democratic regimes; but somehow different, they find no significant evidence that democratic regimes have easier negotiations and accession. Copelovitch and Ohls (2012) argue different regimes act differently in joining international organization as well.

Next, applying to be a GATT/WTO member is actually a dimension of
foreign policy. Foreign policy mostly takes geopolitical consideration into account. WTO can be regarded a “major diplomatic forum” and negotiation is a diplomatic process, in which interests are bargained for at both domestic and international levels (D. Lee & Ullrich, 2009). In this regard, Davis and Wilf (2011) show similarity in foreign policies with existing GATT/WTO members improves a given state’s incentive to join GATT/WTO; and an acceding state with geopolitical alignment with dominant members has a shorter application and negotiation time. The history of the Cold War also implies the landscape of the conflictual situation between the US and the Soviet Union (McKenzie, 2008).

Furthermore, trade connection could also play a significant role in a state’s decision on access to GATT/WTO. Trade connection might contains several aspects such as trade interests (absolute and shared), trade structure (dependence or openness), and trade ties among a given state with others, etc. Copelovitch and Ohls (2012, p. 100) find that a state that holds close trade ties with existing GATT/WTO members affects the accession time for democratic and anocratic states, but it has no significant effects on autocracies. With emphasis on the composition of WTO Working Party, Neumayer (2013) indicates some countries in Working Party would delay an applicant’s accession or extract beneficial concessions from a strategic perspective, if their trade interests (such as bilateral trade, export product, market structure, and preferential trade agreement, etc.) are strongly affected by the applicant. However, Davis and Wilf (2011) show an applicant with a higher level of GATT/WTO trade dependence might face a longer negotiation time even though there is no general evidence.

Fourth, from a perspective of institutional interplay, a given state’s access to GATT/WTO is probably affected by its roles in other international institutions such as their attendance at preferential trade agreements (PTA) and their involvement degree in international organizations. On the one hand, regional trade agreements and international trade institutions are in a competing while complementary relationship (Bhagwati & Panagariya, 1996; Dahrendorf, 2009). The
development of GATT/WTO promotes states’ participation in PTA (Mansfield & Reinhardt, 2003); at the same time, the level of PTA coverage tends to delay a state’s accession to GATT/WTO (Copelovitch & Ohls, 2012). On the other hand, prevalent international institutions and organization build an “institutional context” for potential candidates in shaping new cooperation. The previous institutional and legal commitments further constrain a given state’s choice in designing new agreements (Copelovitch & Putnam, 2014). Therefore, the involvement degree in international institutions theoretically affects a state’s accession to GATT/WTO. However, Davis and Wilf (2011) find joining many international organizations has no relation to GATT/WTO application.

Lastly, the ability or capacity of the given applicant is also related to its accession to GATT/WTO. Ability provides a basic qualification to be a GATT/WTO member, as Parenti (2000, p. 148) indicated, The ability criteria is “particularly important” in determining whether newly-independent states can join the WTO in accordance with Article XXIV in GATT and Article XII in WTO. For poor countries, they are deficient in evaluating the potential impacts on economies, sustainable commitment, internal struggle for scarce resources and priorities, etc., which leads to a longer negotiation time (Jones, 2010, p. 65). Moreover, when a state with a larger capacity applies for accession to GATT/WTO, it might trigger the stronger member’s strategic response and extend the duration of the application as in the case of China and Russia.

As a result, the effects of a given state’s GATT/WTO membership on domestic behavioral interaction might be mediated and changed by different settings across various states. Under different institutions and state attributes, domestic actors in different states may have different perceptions on interest and preference. Therefore, the GATT/WTO membership has distinct impacts on domestic actors that vary with different actors as well as different domestic settings, which brings different probabilities of political violence in different countries. It’s possible that in some cases the treatment effects on domestic conflicts is enhanced.
while the effects may be decreased within a different institution.

Moreover, “all politics is domestic” (Jacobsen, 1996) and “enduring differences across geographies still shape social life” (Duina, 2006, p. 4). In fact, the world is not “converging societies” but “the local – in its multiple dimensions – still matters” (Duina, 2006, p. 9). Therefore, in addition to regime nature and domestic structure, both the GATT/WTO treatment and the actual efficiency of GATT/WTO effects are furthermore constrained by at least two domestic variables, in particular in the scenario of domestic interactions and behavior shaping.

The first factor is ethnic composition, cleavage, and structure at domestic level. Ethnic factors can affect the domestic bargaining of international negotiation and furthermore have impacts on the treatment assignment on the one hand; on the other hand, ethnic groups have to deal with the influence of international trade institutions and its chain effects after the assignment is finished. Despite the fact that some studies discount the significance of ethnic structures in triggering civil wars (Fearon & Laitin, 2003), ethnic violence and conflict still prevails in international and domestic conflicts (Muller, 2008; Reynal-Querol, 2002); of course, ethnic diversity alone is not sufficient to trigger violence or conflict without the combination of specific institutional settings and other factors (Esteban & Schneider, 2008; Habyarimana, Humphreys, Posner, & Weinstein, 2008; Montalvo & Reynal-Querol, 2005).

Second, it is necessary to examine domestic institutions further than whether it is simply a democracy or not. In one sense, the domestic influence of international institutions is actually an interaction between international and domestic institutions. On the one hand, domestic politics and institutions would affect a given state’s foreign policies (Fearon, 1998); the institutional quality is recognized in holding “the key to prevailing patterns of prosperity” (Rodrik, 2007, p. 184). In particular, a typical feature such as a quality indicator of domestic institutions can affect a given state’s negotiation of accession to GATT/WTO
through highly accommodating domestic interests among groups and effectively facilitating domestic liberalization reform in order to satisfy basic requirement of GATT/WTO. With a higher quality of domestic institutions, the given state can also more successfully respond to unintended consequences from GATT/WTO treatment. It is argued that better institutions (like rule of law, corruption, enforcement, etc.) are important for the international trade (Anderson & Marcouiller, 2002; Anderson & Young, 2000; WTO, 2004, p. 179). For developing or transition countries, they usually have to suffer from “a legacy of central planning and/or weak legal and policy institutions” and have difficulties in adopting all the trade policies into their governmental structures (Jones, 2010, p. 65).

5.3.4 Bridging GATT/WTO Treatment and the Logic of Political Stability

The logic of political stability is multi-dimensional and still debated currently. The investigation firstly lies on domestic variables. In the early period, Gurr (1968) ascribes the basic precondition of civil strife to one psychological factor, i.e. relative deprivation, which is mediated by four different variables such as coercive potential, institutionalization, facilitation, and legitimacy. Later on, Parvin (1973) implies at least three different branches of socio-psychological, geopolitical, and economic traits existing in explaining political unrests. Zimmermann (1983) provides a comprehensive account summarizing the findings of political violence in the early period. Current studies have empirically indicated that political stability or violence can also be explained by socio-economic factors (such as economic opportunities, economic growth, GDP, income and poverty, inequality, and economic development) (Arena & Hardt, 2014; Caruso & Schneider, 2011; Miljkovic & Rimal, 2008; Schock, 1996), generational factors like youth bulge (Urdal, 2006), institutional factors (such as regime nature, quality of political institutions, institutional consistency, and power sharing) (Besley & Persson, 2011; Gates et al., 2006; Goldstone et al., 2010; Miljkovic & Rimal, 2008; G. Schneider & Wiesehomeier, 2008), and the significance of natural resources and disaster that might affect wages and aid flows (Besley & Persson, 2011), etc.
In addition to the variables at domestic level, external dynamics have been explored as a significant factor in triggering political instability. In particular, globalization has brought about comprehensive discussions about its effects on political stability. For example, Flaten and Soysa (2012) argue globalization is a most robust determinant of political violence and brings social progress and lower risk of civil wars. However, Bussmann and Schneider (2007) investigate a second face of globalization on internal violence and find higher economic openness can decrease the risk of civil war while economic liberalization could increase political instability slightly; they conclude the level and process of globalization exerts both pacifying and destabilizing effects simultaneously on political violence. Olzak (2006, 2011) finds global dynamics on ethnic mobilization and indicates different components of globalization may differently affect the severity of ethnic conflicts.

**Figure 5-2 Assigning GATT/WTO Treatment and Exerting Effects on Domestic Interaction**

Recently, the insights on political stability and civil war are shed more light on specific global institutions in promoting liberalization following global economic turndown. In this respect, Lipson (1982, p. 426) thinks the “functional institutional logic” is that trade regime can facilitate trade openness “without ignoring domestic aspects of trade policy”, which is also “a crucial source of its political stability”. For instance, GATT (1994b, p. 12) ministers were alert to the link between political stability, trade and development, etc. IMF was proposed to create winners and losers as well as a conducive environment for domestic conflict (Hartzell et al.,
2010), however, some further studies have criticized this argument and finding (Midtgaard et al., 2014).

It aims to theoretically connect the influence of GATT/WTO as the treatment and the risk of political instability as the outcome, with the given factors that affect negotiation and accession of GATT/WTO (See Figure 5-2).

On the one hand, GATT/WTO can be abstracted as one kind of external dynamics on a specific issue with institutionalized form and regulatory functions, that is, the institutional agency on regulating economic globalization at the international level. On the other hand, political stability and instability is regarded as a conventional behavioral interaction among domestic groups, including diverse conflict types. Compared with its extreme form such as internal armed conflicts and civil wars, conventional types of political instability usually need smaller mobilization requirements with less organized and institutionalized degree, lower triggering cost, fewer causalities, flexible forms, and even non-violent means, etc.

In general, GATT/WTO formally reaches the domestic scenario only after a state's official accession, which has already been filtered by a series of domestic and international variables. In line with previous theoretical framework, GATT/WTO, via multiple functions on issue interests, institutions, and groups’ preference, can affect the trade gains of different groups, institutional adjustment, and subsequently domestic groups’ mobilization capacity, etc. during its interaction with given state actors. Accordingly, domestic groups would adjust their previous strategies even before the formal accession starts and transform their behaviors to respond and accommodate new institutional settings. If their interests are adversely affected on both institutional privilege and issue gains, they take measures within their political structure in order to change this situation. In this vein, one key hypothesis is derived as follows.

**H1:** Compared with states without GATT/WTO treatment, states with GATT/WTO treatment confront a higher probability of political violent behaviors with lower intensity while have a lower probability of political violence with higher intensity.
Previous literature indicates global institutions including GATT/WTO break the equilibrium of domestic groups, affect the creation and allocation of interests, and might trigger discontent of some specific groups. As Allee and Scalera (2012, p. 269) put it, “internal political conflict inhibits trade. Controlling internal conflict is important because many automatic acceders, in particular, experience domestic power struggles during stretches of their membership.” Meanwhile, it seems much easier to trigger normal violence than that of civil war from a perspective of costs and mobilization. Due to the lower requirements of mobilization as well as the increasing discontent from globalization and regulatory institutions, $H1$ is reasonable on the risk of conflict behavior with different intensities.

5.4 Research Design: Methodology and Data

In order to test expected arguments and improve causal inference between GATT/WTO effects and domestic behavioral interactions, this chapter applies PSM as the key method with the support of a series of relevant variables and data. It firstly introduces basic rationale and operational procedure of PSM, and secondly describes the confounding variables with their data and sources.

5.4.1 Propensity Score Matching: Rationale and Procedure

PSM is applied in this chapter in order to investigate the effects of GATT/WTO membership on the risk of political instability at domestic level. At present, PSM has been used as a most popular matching method in economics, sociology, epidemiology, medicine, psychology, behavior studies, and political sciences. Within a counterfactual framework, matching is one of the key approaches for making causal inference and evaluating the treatment effects on the basis of non-experimental data or observational data, besides other methods like panel regression, regression discontinuity, and instrumental variables, etc. It contains a series of concrete sub-branches and aims to assess the treatment assignment and effects through balancing focal data, minimizing the intervening influence of confounding factors, and reducing the estimation bias in a nonrandom setting. Its
basic idea is to balance IV ($X$) across the binary treatment variable ($D$) for not only the treatment group but also the control group until $X$ is equivalent (within a given extent) between two groups, which can finally estimate the average differences of DV ($Y$) between two groups (Austin, 2011; Guo & Fraser, 2010; Heinrich, Maffioli, & Vázquez, 2010; Morgen & Harding, 2007; Nichols, 2007; Stuart, 2010).

Compared with RDD applied in the last chapter, PSM has its own advantages. Despite the fact that RDD is categorized into “Most Harmless Econometrics” (Angrist & Pischke, 2009) and regarded as a “realistic alternative” (Trochim, 1994, p. 11) in the non-randomized situations, it actually has some built-in limitations in causal inference. For example, Schochet (2009) criticizes its statistical power as limited by a cut-off point, pretests, and research questions, etc. First, RDD usually has a larger internal validity while a questionable external validity compared with other non-experimental methods (Imbens & Lemieux, 2008, pp. 621-622). In addition to the contribution to internal validity, matching can reduce the selection bias and the application of propensity score can be used to benefit generalization and external validity (Tipton, 2012). Next, in spite of recent developments, RDD usually can only control one single variable while several discontinuities might exist in reality at the same time. The application of propensity score can reduce the multidimensional covariates to a one-dimensional score (Becker & Ichino, 2002; Caliendo & Kopeinig, 2008; Guo & Fraser, 2010; Heinrich et al., 2010; King, Nielsen, Coberley, Pope, & Wells, 2011). Thirdly, RDD has a lesser extent of feasible application in concrete issues and needs a high level of data requirements and model specification (Green, Leong, Kern, Gerber, & Larimer, 2009; Schochet, 2009). In this vein, matching can reduce model dependence by balancing the treatment groups and the control groups (Ho, Imai, King, & Stuart, 2007). Lastly, as we have mentioned, what RDD can explore is the “local” effects of treatment around the cut-off point (Angrist & Pischke, 2009; Battistin & Rettore, 2003; Hahn, 2007).  

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1 Some scholars has recently provided some discussions on the situation of multiple discontinuities, see (Imbens & Zajonc, 2011; Papay, Willett, & Murnane, 2010).
Todd, & Klaauw, 2001; Schumacker, 2007; Trochim, 1994). PSM, however, can cover other kinds of treatment effects on both treated and control groups like Average Treatment Effect for the Treated (ATT), Average Treatment Effect for the Untreated (ATU), and Average Treatment Effect (ATE), etc. (Austin, 2011; Xie, Brand, & Jann, 2012).

The propensity score is “the conditional probability of assignment to a particular treatment given a vector of observed covariates” (Rosenbaum & Rubin, 1983, p. 41). It is actually a one-dimensional score that derives from multidimensional covariates. Due to its advantages, PSM is recommended as a method that “often approximates random matching” in the sense of real application and data simulation (King et al., 2011). With the precondition of observing all selection information and correctly measuring all variables as well as using a good matching model, PSM could generally diminish the overt bias and provide consistent estimates on ATE (Luo, Gardiner, & Bradley, 2010; Nichols, 2007, p. 515).

However, two assumptions exist in PSM, including Conditional Independence and Common Support (Caliendo & Kopeinig, 2008; Heinrich et al., 2010; Luo et al., 2010; Nichols, 2007; Stuart, 2010). Conditional Independence means the treatment assignment should be independent of potential outcomes and close to random assignment; while Common Support indicates the propensity score distribution in two groups should be overlapped, i.e. the proportion is greater than 0 for every possible value of $X$. Only when the two assumptions are satisfied, can the treatment assignment be regarded as “strongly ignorable” (Rosenbaum & Rubin, 1983). In addition, PSM is a “data-hungry method” (Heckman, Ichimura, & Todd, 1998, p. 262); ideally, it needs all relevant observed characteristics to be controlled, which means a large number of variables and a big sample size is crucial to PSM. Furthermore, it is better if all data comes from the same source and measurement (Heckman et al., 1998; Heinrich et al., 2010).

In general, applying PSM usually has three main steps, i.e. estimating
propensity score through choosing models and variables, selecting matching
algorithms and estimating treatment effects, and finally sensitivity analysis (Caliendo
& Kopeinig, 2008; Heinrich et al., 2010). In accordance with the steps, this section
explores the treatment effects of GATT/WTO membership on the probability of
triggering political instability.

1. Estimating Propensity Score

Hereby, propensity score is the conditional probability that affects a state’s
participation/accession (versus nonparticipation) to GATT/WTO. In respect to the
model, it applies logit regression to estimate the propensity scores for a given state
actor to receive GATT/WTO treatment. The identification of confounding
variables have to follow three principles, that is, confounding variables 1) can
influence the DV conditional on treatment; 2) are correlated with the treatment
variables; (3) are causally prior to treatment, etc. (Gilligan & Sergenti, 2008, p. 97).
In line with previous discussion on identifying confounding variables, the logit
model takes the following variables into account, including the Cold War, accession
types, domestic institutions, democracy, state capacity, economic size, Regional
Trade Agreements (RTAs), foreign policy, and trade openness, etc.1 In addition,
this chapter also proposes some other factors that may affect a given state’s
accession to GATT/WTO and provide a background for its accession, which is less
analyzed in current literature. Firstly, it assumes that a state’s foreign trade volume
(both export and import) is closely related to its incentive to access GATT/WTO.
Secondly, the degree of involvement in international institutions also affects a
state’s motivation to become a member of GATT/WTO. Thirdly, it also takes the
length of time (adjusted year) interacting with GATT/WTO into account.

In sum, this chapter takes these variables and some interactions into account
in a logit regression to estimate the propensity scores, which transfer multiple
covariates into a single-dimensional score. It is necessary to note that the main

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1 Due to the difficulty of data collection, this chapter will not consider trade interest or trade ties between
GATT/WTO applicants and existing members.
purpose of this model used in logit regression is to classify rather than to estimate structural coefficients (Caliendo & Kopeinig, 2008, p. 37).

2). Matching Algorithms Selection and Treatment Effects Estimation

Matching estimators vary when applying different matching algorithms. The performance of matching estimators also depends on the case-by-case analysis and the given data structure. As Caliendo and Kopeinig (2008) indicated, only with growing sample size can these PSM estimators become closer to the exact value. This chapter mainly focuses on Kernel matching to evaluate the treatment effects of GATT/WTO on political violence and instability (Caliendo & Kopeinig, 2008; Guo & Fraser, 2010; Heinrich et al., 2010). With the assistance of software package *PSMATCH2* (Leuven & Sianesi, 2003) in Stata, it estimates all the ATU, ATT and ATE across different matching algorithms.

3. Sensitivity analysis

After estimating the matching estimation, a sensitivity analysis is conducted to discover hidden bias, deviations from unconfoundedness, or unobserved heterogeneity, which may affect the accuracy of matching estimators. This part tries to investigate the extent of sensitivity of matching estimators towards hidden bias (Becker & Caliendo, 2007; Caliendo & Kopeinig, 2008; Guo & Fraser, 2010). Hereby, this chapter continues to check the sensitivity and robustness of the matching estimator (mainly the ATE) from GATT/WTO treatment on political stability via Mantel-Haenszel bounds with the support of MHBOUNDS in Stata (Becker & Caliendo, 2007).

5.4.2 Variables, Data, and Sources

This chapter treats “country-year” as the unit of analysis. Drawing on the state list from the UCDP/PRIO database (Themnér & Wallensteen, 2012), there are 8,748 observations in total from 1946 to 2009.  

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1 The countries that accessed WTO after 2009 will be regarded as normal members rather than non-members with code “-99”.
Figure 5-3 Description of Political Violence and Political Conflicts

The DV (treatment outcome) is incidence (0, 1) and magnitude (0, 10) of political violence (Marshall, 2014); as well as the frequency of domestic political conflicts (Allee & Scalera, 2012) from Cross-National Time-Series Data (CNTS) (Banks, 2008), which is a weighted measure of domestic political conflict, which includes the number of normal strikes, government crises, riots, purges, antigovernment demonstrations, revolutions, and acts of guerrilla warfare. From 1946 to 2013, there were 1,578 major episodes of political violence at domestic level among 9,106 observations and a total of 7,759,306 political conflicts among 3,685 country-years from 1946 to 2008 (see Figure 5-3).

The IV is the GATT/WTO membership or not (1 or 0), which is collected from Annual GATT Activities, WTO Annual Reports, and relevant literatures. By the end of 1994, there were 128 GATT contracting parties and there were 153 WTO members by the end of 2009 (GATT, 1996; WTO, 2010). However, this sample includes 168 countries with 143 GATT/WTO members; some smaller and island countries are excluded (See Figure 5-4).

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1 It is necessary to note that the countries including separate custom territories surveyed in this chapter are mainly based on the sample in the UCDP dataset since 1946 and not every WTO members is covered in this dataset.
According to these guidance rules, this chapter has listed a series of confounding variables that can affect a state’s GATT/WTO treatment and may trigger the incidence of political violence. Controlling variables are listed as Table A-4 in Appendix III, with their indicators and data sources.

Finally, it considers some interactive terms among mentioned variables. When a state tries to look for alliance or access to international organizations, it usually prefers to align with groups that have similar regime natures. As a result, the interactive effect between alliance number and polity index affects a state’s preference to access international organizations like GATT/WTO. In addition, a state’s import often interacts with its own export, which affects a government’s decision making both by themselves respectively and by their interactions. Furthermore, this chapter applies the cubic form of polity IV and Relative Political Extraction into the whole model.

5.5 Statistical Results

PSM is applied to analyze the matching estimators regarding the effects of GATT/WTO treatment on different measurements of political violence and
instability. The results on the assignment effects of covariates show that different factors at different levels (structural, interstate, state, and domestic) will positively or negatively affect a given state’s accession into GATT/WTO. It provides two scenarios (i.e. political violence or political conflicts as outcome variables), which significantly indicate similar results (See Table A-5 in Appendix III).

Table 5-1 GATT/WTO Members and Non-Members on Political Instability

<table>
<thead>
<tr>
<th></th>
<th>T-Test (Equal Variances)</th>
<th>T-Test (Unequal Variances)</th>
<th>Wilcoxon Rank-sum Test (z)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic</td>
<td>3.6104</td>
<td>3.4754</td>
<td>2.092</td>
</tr>
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<td>Political Conflicts</td>
<td>(Pr(</td>
<td>T</td>
<td>&gt;</td>
</tr>
<tr>
<td>Civil Violence</td>
<td>-0.9864</td>
<td>-1.0161</td>
<td>0.614</td>
</tr>
<tr>
<td></td>
<td>(Pr(</td>
<td>T</td>
<td>&gt;</td>
</tr>
<tr>
<td>Civil War</td>
<td>12.0799</td>
<td>10.7033</td>
<td>10.573</td>
</tr>
<tr>
<td></td>
<td>(Pr(</td>
<td>T</td>
<td>&gt;</td>
</tr>
<tr>
<td>Ethnic Violence</td>
<td>-3.1379</td>
<td>-3.1472</td>
<td>-5.495</td>
</tr>
<tr>
<td></td>
<td>(Pr(</td>
<td>T</td>
<td>&gt;</td>
</tr>
<tr>
<td>Ethnic War</td>
<td>1.5250</td>
<td>1.4645</td>
<td>-1.963</td>
</tr>
<tr>
<td></td>
<td>(Pr(</td>
<td>T</td>
<td>&gt;</td>
</tr>
<tr>
<td>Total Societal MEPV</td>
<td>7.9474</td>
<td>7.5008</td>
<td>4.331</td>
</tr>
<tr>
<td></td>
<td>(Pr(</td>
<td>T</td>
<td>&gt;</td>
</tr>
<tr>
<td>Total MEPV</td>
<td>9.3678</td>
<td>8.7173</td>
<td>5.474</td>
</tr>
<tr>
<td></td>
<td>(Pr(</td>
<td>T</td>
<td>&gt;</td>
</tr>
<tr>
<td>Political Violence</td>
<td>-2.8563</td>
<td>-2.9036</td>
<td>-3.609</td>
</tr>
<tr>
<td></td>
<td>(Pr(</td>
<td>T</td>
<td>&gt;</td>
</tr>
<tr>
<td>Dummy of Political Violence</td>
<td>-3.5977</td>
<td>-3.7003</td>
<td>-3.595</td>
</tr>
<tr>
<td></td>
<td>(Pr(</td>
<td>T</td>
<td>&gt;</td>
</tr>
<tr>
<td>Dummy of Total Societal MEPV</td>
<td>3.2382</td>
<td>3.1989</td>
<td>3.236</td>
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<td></td>
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</table>

Firstly, it refers to the tests of two samples, member and non-member, in order to explore different performance of political instability. However, t-tests on the mean of treatment groups and control groups see no statistical difference, with t=0.3461 and p-value=0.7316 (See Table A-6 in Appendix III). The multiple t-tests

1 In the process of PSM, kernel matching is actually performed by Stata package “psmatch2” and the propensity scores are estimated by logit regression. Meanwhile, the common support is imposed through dropping the treatment observations that go outside the scope between maximum and minimum propensity scores. It will not only demonstrate ATT, but also ATE and ATU.
Including t-test with equal variances, without variances, and Wilcoxon rank-sum test respectively) on outcome variables indicate GATT/WTO members and non-members (hereby, a state is regarded as a non-member before its accession while member refers to the time after its accession) generally face different performances on political violence, as Table 5-1. Non-member states and member states have different risks of political conflicts incidence and onsets to a significant level. They also show different magnitudes of political instability between member states and non-member states, except civil violence and ethnic war that see no statistical significant difference.

Secondly, PSM on political conflicts from CNTS (Allee & Scalera, 2012; Banks, 2008) and on MEPV (Marshall, 2014), as Table 5-2 indicates slightly different results on participation probability (propensity scores), common support, and bias reduction extent. However, the average probability to participate in GATT/WTO for all the country-year units is 78.7-78.8% and the common support domain contains about 490 units. Taking interactive effects of confounding variables into account, the results indicate the logit analysis on receiving treatments can be greatly improved to 53% on Pseudo R^2. Generally, it can decrease about 22%-99% percent of bias between treated and control groups according to different confounding variables in calculating propensity scores, with a reduced bias mean and standard deviation between before-treatment and after-treatment. With decreasing standard deviations, PSM creates a comparison that is similar enough for the estimation of treatment effects.

Thirdly, the matching results show GATT/WTO treatments could mostly increase the frequency of domestic political conflicts (like strikes, demonstration, riots, etc.) with statistical significance. The ATT difference among treatment and control groups is 480 and the average effect difference is 496. Similarly, incidences of political violence and total societal MEPV are positively but slightly affected by GATT/WTO treatments as well on ATT and ATE within 95% CIs.
### Table 5-2 Statistical Results of Propensity Scores Matching

<table>
<thead>
<tr>
<th>Propensity Score Mean</th>
<th>Domestic Political Conflicts</th>
<th>Civil Violence</th>
<th>Civil War</th>
<th>Ethnic Violence</th>
<th>Ethnic War</th>
<th>Total Societal MEPV</th>
<th>Total MEPV</th>
<th>Political Violence I</th>
<th>Political Violence II</th>
<th>Total Societal MEPV</th>
</tr>
</thead>
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<td></td>
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<tr>
<td>Pseudo R2 (%)</td>
<td>53.11</td>
<td>52.97</td>
<td></td>
<td></td>
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<tr>
<td>ATT Diff.</td>
<td>479.94</td>
<td>0.24</td>
<td>0.10</td>
<td>-0.05</td>
<td>-0.12</td>
<td>0.28</td>
<td>0.33</td>
<td>0.29</td>
<td>0.09</td>
<td>0.08</td>
</tr>
<tr>
<td>ATU Diff.</td>
<td>522.39</td>
<td>0.08</td>
<td>-0.03</td>
<td>0.04</td>
<td>-0.19</td>
<td>-0.11</td>
<td>-0.20</td>
<td>0.11</td>
<td>0.01</td>
<td>0.04</td>
</tr>
<tr>
<td>ATE Diff.</td>
<td>496.28</td>
<td>0.18</td>
<td>0.05</td>
<td>0.05</td>
<td>-0.14</td>
<td>0.13</td>
<td>0.12</td>
<td>0.22</td>
<td>0.06</td>
<td>0.06</td>
</tr>
<tr>
<td>ATT</td>
<td>802.12</td>
<td>0.11</td>
<td>-0.04</td>
<td>0.11</td>
<td>0.08</td>
<td>0.44</td>
<td>0.47</td>
<td>0.24</td>
<td>0.09</td>
<td>0.14</td>
</tr>
<tr>
<td>Obs.</td>
<td>1025.31</td>
<td>0.156</td>
<td>0.134</td>
<td>0.158</td>
<td>0.215</td>
<td>0.662</td>
<td>0.704</td>
<td>0.313</td>
<td>0.133</td>
<td>0.19</td>
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<tr>
<td>Coef.</td>
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<td>P&gt;</td>
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<td>0.000</td>
<td>0.000</td>
<td>0.129</td>
<td>0.000</td>
<td>0.002</td>
<td>0.000</td>
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<tr>
<td>UT</td>
<td>189</td>
<td>189</td>
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<td>T</td>
<td>302</td>
<td>298</td>
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<tr>
<td>Bias Reduction</td>
<td>22.9</td>
<td></td>
<td></td>
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<tr>
<td>Between Treated and Control (%)</td>
<td>98.7</td>
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<tr>
<td>Bias Distribution Mean (Std. Dev.)</td>
<td>Before</td>
<td>65.77</td>
<td>(22.27)</td>
<td>65.91</td>
<td>(22.13)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>After</td>
<td>9.85</td>
<td>(5.68)</td>
<td>9.65</td>
<td>(5.35)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Sensitivity Test (Γ)</td>
<td>No</td>
<td>&gt;1.05</td>
<td>&gt;1.15</td>
<td>No</td>
<td>&gt;1.05</td>
<td>&gt;1.25</td>
<td>&gt;1.35</td>
<td>&gt;1.3</td>
<td>&gt;1.4</td>
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</tbody>
</table>

Fourthly, PSM also demonstrates GATT/WTO treatment can affect the intensity or magnitude of domestic political instability. Similar to a study on trade openness and conflicts by intensity (P. Martin, Thoenig, et al., 2008), it tends to decrease the magnitude of ethnic wars in case of ATT and ATE while increase the
magnitude of civil war but with an insignificant meaning. In respect to general violence, GATT/WTO treatment can mostly escalate the magnitude of civil violence, ethnic violence, political violence, as well as total societal major episodes, on ATT (0.05-0.33) and ATE (0.05-0.22). As a result, it can argue that GATT/WTO treatment can increase the incidence and intensity of political violence with a lower intensity while decreasing the degree of high-intensity wars at domestic level. In this vein, \( H1 \) can be significantly proved by PSM.

**Figure 5-5 Common Support of PSM**

Lastly, common support matters to PSM. The condition of common support indicates that people can find a counterpart in a control group if they observe some attributes in the treatment group. PSM based on the sample can provide common support cases across different propensity scores as the Figure 5-5. Furthermore, \( MHBOUNDS \) results show that current research via PSM in this chapter is differently sensitive to the hidden bias and lacks robustness with the increase of \( \Gamma \), except the effects on political conflicts, ethnic violence and ethnic wars. In particular, in respect to civil violence, it becomes sensitive if there is 0.05 unit of hidden bias. Both the incidence on political violence and total violence as well as the intensity of political violence and total societal MEPV shows a mild sensitivity
on the treatment effects.

5.6 Summary

Taking the limitations of RDD and the restrictions of internal armed conflict in depicting domestic interaction into account, this chapter applies PSM and extends the focal scope of domestic interaction to various conflicts in a general sense, including political violence and stability. Most importantly, it tries to solve the heterogeneity of state actors in receiving GATT/WTO treatment, explore the conditional configuration of GATT/WTO accession, and provide more valid evaluations on the effects of GATT/WTO on domestic peace and conflicts.

Based on original data with significant difference on both independent variables and dependent variables between treatment groups and non-treatment groups, this chapter builds a framework of accession that accounts for about 80% explanatory degree of all relevant variables of GATT/WTO accession and provides the propensity score that a given state receives GATT/WTO treatment. Through PSM, large bias (22%-99%) on confounding variables is reduced across different variables as well. The results of PSM shows GATT/WTO treatment can largely increase the frequency of domestic political conflicts and slightly increase the incidence of political violence and total societal MEPV. Meanwhile, GATT/WTO tends to increase the magnitude of general political violence while decreasing the intensity of ethnic wars and civil wars with different statistical significance. However, despite the fact that the requirement of common support is satisfied, the results are relatively sensitive to hidden bias in some conflicts indicators and the robustness is challenged. It still implies that there are some confounding variables hidden in assigning the treatment probability of GATT/WTO.
6 Conclusions: Secondary Rules, Foremost Roles

"Jostling and joyous, The whole world comes after profit;
Racing and rioting, After profit the whole world goes!"

——Ssu-Ma Ch’ien

"Relational" might be the relevant locus of politics. Interactions among different actors and interplays of various dynamics at international, state, and domestic levels prevail in the world. In order to explore the interactions across levels, a first step is to bridge the artificial divide in the causal links of international-domestic interactions, integrate existing insights into a single theoretical framework, and connect the influence of macro dynamics to micro factors.

So as to examine the effects of international institutions on domestic actors’ behavior choices among their interactions, this dissertation constructs a theoretical framework and mathematical models using Contest Success Function (CSF) as game-theoretical core from structural and processual perspectives, and subsequently conducts empirical tests with respect to GATT/WTO and domestic political conflicts via the statistical methods such as logit regression, regression discontinuity design (RDD) and propensity score matching (PSM), etc.

It attempts to integrate different dynamics within various images and examines the influence of an overarching institutional force at international level on cultivating behavioral choices and interactions of domestic actors with a top-down approach. Hereby, different branches of IR theories are bridged with focus on institutions, powers, and norms, in demonstrating the comprehensive and diverse effects of international institutions on domestic politics. It primarily finds that as "secondary rules" in international order, international institutions might play foremost roles in determining domestic interaction under some circumstances.

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1 Original text is Tianxia Xixi Jiewei Li Lai, Tianxia Rangrang Jiewei Li Wang [天下熙熙皆为利来，天下攘攘皆为利往]. It is excerpted from Huozhi Liezhuan (The Biographies of the Money-Makers) in Shih Chi (Records of the Grand Historian) by Ssu-Ma Ch’ien [司马迁] (145 or 135 BC - 86 BC) who was a Chinese historian of the Han dynasty, and translated by Burton Watson (Ssu-Ma Ch’ien, 1961, p. 479).
As a result, this chapter generally summarizes key findings, prescribes some theoretical and policy implications, and then suggests some questions for future investigation.

6.1 Outputs and Findings

Based on the pioneering studies that attempt to bridge different levels, this thesis builds a theoretical framework as well as corresponding models through integrating diverse key elements in IR theories, and demonstrates at least 5 findings via both mathematical and empirical solutions.

1. It provides a “2-plus-level model”. The causality link between international institutions and the behavioral interactions among domestic actors is involved with diverse actors at different levels and various dynamics as well as multiple mechanisms. The long and sophisticated relationship is more than the simple sum total of international-state link and state-domestic link as in popular “two-level games” (Putnam, 1988). It is not to piece up a few short and delicate causal connections; the macro-micro link, that is, the influence of international institutions on domestic actors and in shaping their behaviors has distinct mechanisms and approaches, across the mediation of state actors. Due to the multi-dimensional features, the effects of a given international institution are theoretically constrained by its degree of institutionalization, institutional strength by itself, and its salience extent among the international institutional cluster. In addition, this thesis includes but weakens the role of the state actor within the international-domestic causality. The state actor is regarded as a tri-dimensional box, with its state autonomy, its policy position and distance compared with the position of international institutions, and the institutional matching degree between international institutions and domestic/social counterparts. When a given international institution penetrates the “black-box” of state actor, its influence can mostly be mediated by individual configurations of a state’s black-box. After the filtering mechanism, the real influence of international
Chapter 6: Conclusions

Institutions reach domestic actors and have diverse impacts on the interest production and distribution, domestic institutions upgrade, and actors’ preference transformation, etc. In line with the essence of CSF, domestic groups might adjust their behaviors and trigger different patterns of interactions toward cooperation or conflict.

2. In addition to the influence from a structural perspective, the influence of international institutions as a process is also put forth. On the one hand, international institutions can be regarded as a process from birth, to rise, to mature, and to fall; on the other hand, state actors keep an interactive relationship with international institutions from negotiation to access and to domestic implementation, etc. This thesis divides the interaction of state actor with international institutions into 4 stages, which have various effects on the interaction among domestic actors and their behaviors through the channels such as interest, institutions, and mobilization, and so on. The impact channels have different adjusting functions in different phases in the key elements of CSF and subsequent utilities of specific groups like interest distribution, mobilization effectiveness, and institutional efficiency, actors’ preference, and activity costs. In particular, taking the impacting difference of rules and norms into account, the 4th stage starts to consider internalized norm as endogenous variable rather than exogenous rules and act as a binding social custom, which poses additional costs (moral and reputation costs) for domestic groups in selecting behaviors.

3. CSF is relevantly applied to model the effects of international institutions on domestic actors’ behaviors and interaction. It assumes international institutions can affect domestic actors’ behavior on conflict or cooperation through either enabling or constraining mobilization efforts, institutional parameters, and interest allocations respectively. In line with Tridimas (2011), this thesis provides dual utility functions on conflict or cooperation under a two-player and risk-neutral circumstance. Furthermore, the mathematical model is revised in accordance with the “social custom” model (Akerlof,
in order to capture the role of internalized norms in affecting domestic actors. Three sets of methods hereby are used to solve the mathematical model on the effects of international institutions. Firstly, it gives Nash equilibrium and relevant stable conditions within a strict assumption such as two symmetric players in a setting of complete information. The results confirm the interplay of domestic institutions and international institutions is crucial in determining the consequence of domestic actors’ interaction. To be specific, the behavior patterns and interactions are the results of not only the internal efficiency of domestic institutions on conflict triggering versus cooperation keeping, but also the external efficiency of international institutions on provoking or pacifying of conflicts. Secondly, the application of the “social custom” model aims to discuss the effects of international institutions after the international rules and norms are adopted and endogenized. A slight change in moral costs might bring about a “snowballing effect”, when an adverse dimension of a given norm with a morally “bad” evaluation like conflict conducting is triggered. In the 4th phase, relevant elements like rent size, mobilization efforts, peace/conflict costs updated by internalized norms are key determinants in affecting domestic groups’ behavioral choices. Lastly, data simulation with about 27 million observations is conducted to further extend the findings from Nash equilibrium to a more general situation and explore the different influences of a series of key parameters in mathematical models. The simulated data significantly implies the payoff difference of net conflict benefits before and after the intervention of international institutions and affirms the role of international institutions in defining the behaviors of domestic groups. Furthermore, the simulated results show the importance of mobilization structure, mobilization efforts, rent distribution, and multiple impacting parameters (on actors, institutions, and rents) of international institutions in affecting the net conflict gains of domestic groups. Hereby, the interaction between international institutions
and domestic institutions is confirmed again; but the connection between conflict dimension of domestic institutions and provoking aspects of international institutions is further clarified rather than the peace dimension.

4. This dissertation subsequently regards international trade institutions as the typical representative of international institutions and empirically explores the plausible relationship between GATT/WTO membership and domestic armed conflicts from 1946 to 2009. By bridging institutional approaches and current studies on trade-conflict nexus, it demonstrates a few dimensions of this causal relation, including existence or not, direction, mechanism, and extent, etc. In respect to methodology, this thesis combines RDD and logit regression. It assumes both direct and indirect approaches are employed to affect the interactions of domestic actors through actor, issues, and domestic institutions. Acknowledged in the theoretical discussion, it mainly focuses on the interaction of international trade institutions (provoking and pacifying) and trade issues (insurance versus deterrence) on conflict triggering. With valid and robust testing, RDD generally shows that GATT/WTO membership can pacify the risk and frequency of conflict incidence rather than conflict onset; however, the pacifying effects are significant mostly within a 2-year lead-time and 5-year lagged time according to current data. Finally, logit regression indicates GATT/WTO involvement has a mixed and conditional effect on conflict incidence. Given other controlling variables, both membership by itself and recent negotiation rounds with higher liberalization degree have a provoking effect while higher institutionalization degree and long adaptation time have a pacifying effect. The findings further support the theoretical argument above in disaggregating the effects of international institutions into pacifying and provoking.

5. Beyond RDD, a second empirical part attempts to robustly elaborate the causal relation by applying propensity scores matching between treatment
and non-treatment samples on the one hand; on the other hand, it tries to extend armed conflicts to a more general category on conflict behaviors and political stability/instability, including a series of similar terms such as domestic political conflicts, civil violence, civil war, political and ethnic violence, ethnic war, and other MEPV from diverse data sources. It is complex for a state to access to GATT/WTO over a long process. A given country’s accession to GATT/WTO has a few political constraints, such as specific GATT/WTO articles, the Cold War, PTA involvement, foreign orientation, trade connection, regime natures, and state capacity from structural to interstate and to state level, which can determine the accession probability in GATT/WTO and subsequently affect domestic political behaviors throughout the membership assignment. In respect to treatment variable, the data indicates there are no significant differences between the treated and non-treated groups by different T-tests; at the same time, most indicators of the outcome variable show different performance like conflict incidence and magnitudes with statistical significance. By using PSM, the matched data on treated and non-treated groups can explain 80% of treatment probability and reduce large bias within different variables. It finds GATT/WTO treatment can significantly provoke the frequency of domestic political conflicts such as strikes, demonstrations, and riots, etc. and slightly but positively affect the incidence of political violence and societal MEPV. Moreover, it also implies GATT/WTO tends to decrease high-intensity conflicts such as wars and increase the low-intensity conflicts, if the magnitude of domestic political stability is taken into consideration.

6.2 Theoretical and Policy Implications

This dissertation aims to explore a plausible causal link that is basically hidden behind the flourishing studies on bridging international institutions, state behaviors and domestic politics. It attempts to further examine not only international institutions but also domestic politics and sheds light on relevant actors’ interaction
and behaviors on cooperation and conflict. In sum, this dissertation can provide at least three theoretical implications and one policy implication.

1. **Elaborating a Remote Causality.** “A unified theory of internal and external politics” is possible in spite of the necessity of “theoretical separation” (Waltz, 1996, p. 57) in IR, and the discussions on “international-domestic interaction” have been burgeoning (Frieden & Martin, 2002). This dissertation is actually an attempt to further bridge dynamics involving different actors between two remote levels across the state “black-box”, i.e. international institutions at macro level and domestic behaviors at micro level. In addition to the connection across levels, it also tries to integrate key variables from different theoretical approaches, such as powers, interests, institutions, norms, and rules in either rationalist or constructive approaches, in one theoretical framework from international dynamics to domestic interactions. Moreover, it considers the effects of international institutions from both structural and processual perspectives.

2. **Disaggregating Key Variables.** Disaggregating is a popular tendency in conflict studies, which “promises to yield new and worthwhile insights” (Cederman & Gleditsch, 2009, p. 494). The thesis pays attention to a key element of international dynamics, and refines the effects of international institutions on the behavior choices of domestic actors. Specifically, it disaggregates international institutions into rules and norms, which have different impact approaches and influence outcomes respectively. Hereby, international institutions are typical of its institutionalization, strength, as well as saliency, etc. And it further denotes the relevant effects on behavior shaping as provoking versus pacifying while categorizes domestic institutions into a combination of conflict-prone and cooperation-inclined dimensions. Additionally, the domestic interaction and behaviors are divided into conflict and cooperation/peace, which is an outcome of domestic actors’ contests based on mobilization efforts, institutional parameters, and
interests. Moreover, the conflict behaviors are empirically differentiated into an array of activities in political scope from protests to high-intensity wars.

3. **Enriching Institutional Interaction across Levels.** Institutional approach is a keystone of the integral theoretical framework in bridging international institutions and domestic interactions. This thesis connects the macro effects of international institutions with the micro behavior of domestic actors, which can contribute to the overall studies about “regime consequence” (O. R. Young, 2004). In this way, it also extends the interaction among institutions from a horizontal level (Gehring & Oberthür, 2009) to a top-down perspective. The interaction of international institutions and domestic institutions with different dimensions would inherently prescribe various types of behavior outcomes of relevant actors within domestic contest. Furthermore, it specifies the structure and mechanism of domestic contest through taking external dynamics into consideration. Institutional rules and norms can penetrate the shell of the state actor, and have overarching and diverse impacts on a few crucial elements of actors’ contest from international to domestic, even to local levels.

4. **Using International Institutions as Policy Tools with Caution.** International institutions are usually referred by governments and domestic groups as policy instruments in domestic politics. However, international institutions like GATT/WTO are “not something inherently good” (Røpke, 1994, p. 13) at all. It usually backfires on domestic actors, if political stability and peace as key components of national security (Buzan, Wæver, & Wilde, 1998) are taken into consideration. The specific effects of a given international institution on domestic peace, political stability, and other adverse synonyms, etc. are conditional on a series of relevant variables and interactions across levels. Despite international institutions being far-reaching and comprehensive on domestic affairs, its influence degree is not only affected by its own strength, institutionalization, and saliency, but
also constrained by the matching fitness of domestic counterparts. Meanwhile, international institutions are maturing, which has different impacts on domestic actors in a specific process. Next, the interaction between state actor and given international institutions is important to the impact approaches and influence extent as well. Finally, international institutions are usually typical of their dimensions with given tensions; one dimension might prevail while the other exerts minor effects in a given circumstance. In this vein, to condition the positive effects of international institutions on political stability, as well as other issues like economic growth is a very complicated and complex issue for policy makers. They have to examine a few essential variables like inherent dimensions and the life cycle of international institutions, interactions with state involvement, and matching fitness with domestic institutions, etc.

6.3 Recommendation for Future Research

This dissertation has a couple of limitations mainly on both theoretical models and empirical tests about international trade institutions, which need to be resolved in the future. Therefore, routes towards complex approaches seem to be inevitable.

First of all, the theoretical framework and mathematical models regard international institutions as an exclusive force with two dimensions, set in a simplified situation. For a given international institution, conflicts prevail within its inner scope on the one hand; on the other hand, international institutions are actually part of an institutional cluster. Previous chapters abstract one international institution in an ideal sense but in fact ignore the existence of institutional complex at international levels that contain a diversity of international institutions with different rules and norms at different life phases. It is not the single effect of one international institution but the cross-regime effects of international institutions (Gehring & Oberthür, 2004; R. B. Mitchell, 2004, pp. 124-135; O. R. Young, 2004, pp. 8-9) in shaping domestic actors’ behaviors. Future studies should at least add the number of targeted international institutions with different impact directions in
the integral framework and models.

Secondly, the CSF applied in the mathematical models is a basic 2-player form. Current studies on CSF have extended the actor number to a more complicated scenario. Based on the progress in other disciplines, future studies also have to extend the actor number in model building and move closer to the realistic circumstances in domestic interactions. In addition, the effects of international institutions might update domestic institutions and groups’ mobilization capacities with a specific probability. In this vein, future revision should also take the parameters of probability into consideration.

Furthermore, the state actor is the key agent in international politics. This thesis acknowledges the importance of the state actor in international-domestic interaction, but actually fails to model an “active” state mediator in theoretical framework. In order to reduce the complexity of mathematical calculation, the state actor is regarded as a fixed variable in model building. With tri-dimensional characteristics, the state actor should mediate the true influence of international institutions with multiple directions and extents on domestic interaction. The closer connections between the potential effects of international institutions and the effects de facto on state actors and domestic actors have to be considered and modelled in the future research.

Lastly, in respect to empirical parts of GATT/WTO, the processual dimension of GATT/WTO involvement is mostly ignored due to the insufficiency of relevant data. Time is important to the involvement and subsequent consequence. For example, when a country has had more time to apply for GATT/WTO accession, it may be better prepared to deal with the shocks of trade liberalization or the domestic actors may try to resolve their disputes in advance, which decrease the conflict risk after formal GATT/WTO accession. The problem is there may be a higher possibility of low intensity conflicts or protests during the given state’s preparation because domestic actors may protect their interests through protests or other minor conflicts before their accession to GATT/WTO.
Moreover, the process of given states’ accession to GATT/WTO as well as other international institutions, such as negotiation, ratification, and enforcement might vary in impact approaches and impact strength. It is reasonable to argue, during the negotiating and ratifying period, domestic actors may calculate their own possible benefits and costs and then probably tend to struggle for their interests among competing groups, which may increase the risk of domestic conflicts. The prediction of possible accession to GATT/WTO actually speeds up the risky factors of political instability. After ratification, the involvement in GATT/WTO becomes a consensus and becomes a legal document in a given country, which indicates the risk of domestic conflicts probably decreases around the time of enforcement. And the risk gradually rises again with the country’s deeper and deeper involvement in GATT/WTO, in which new interest struggles and disputes arise following the liberalization process. In sum, reconstructing the processual perspective will improve all future studies.
Appendix
Appendix I Coding Book on GATT/WTO Data

1. Sample Selection

Country list is consistent with the countries concluded in the “Onset of Intrastate Armed Conflict, 1946-2009” by Uppsala Conflict Data Program (UCDP). (Harbom & Wallensteen, 2010) In total, there are 178 countries. Some small countries (such as Liechtenstein) and island countries (such as Antigua and Barbuda) are not included; while some disappeared countries (like Zanzibar, Czechoslovakia and Yugoslavia) are contained.

2. Methods of Adjusted Year

The adjusted year is based on the situation of a given country whether is involved into a trade system or not, which defines the year a given country accesses into GATT/WTO as 0 while the years before the accession year are from -1 to –n and the years after the accession year are from 1 to n. The rest may be deduced by analogy.

Take Bolivia as an example, this proposal define 1990 when Bolivia moved to GATT as “0”, define 1991 as “1” and the year 2009 as “19” when it has been in GATT/WTO for 19 years; at the same time, the year 1946 is ahead of 1990 for 44 years, which is defined as “-44”. The adjusted years for the non-membership countries are -99.

3. Special Countries in the Dataset

3.1 Countries with Withdrawing History

During GATT period, there were some countries withdrawing from GATT, like China (1950), Syria (1951), Lebanon (1951), and Liberia (1953). The dataset defines the country-year of these countries in GATT as “1”; otherwise “0”.

Subsequently, if the state haven't involved into GATT/WTO, its adjusted year will be -99 since its withdrawal like Liberia. It was in GATT from 1950 to 1952.

However, if the state is involved into GATT/WTO again, its adjusted year after its withdrawal will be re-counted according to its second accession. Like China was in GATT in 1948 and 1949. It has accessed into WTO in 2001. Accordingly, 1950 was defined as -51.

3.2 Divided Countries

Czechoslovakia is spitted into Czech and Slovakia, which both re-accessed into GATT or WTO. This dataset define their second accession as the start of relevant codes like GATT/WTO degree, binary GATT/WTO, and Adjusted Year.

Yugoslavia has divided into more than 6 states. It was the GATT contracting party since 1966 but collapsed in 1990s. Some of its former states have involved into GATT/WTO while some are not.

This dataset regards Serbia as the main successor of Yugoslavia and inherit the GATT since 1966, which means since then its value will be 3 on GATT/WTO degree, 1 on the binary GATT/WTO and its adjusted year will go on after the collapse of Yugoslavia.

3.3 Merged Countries

This kind of countries includes West Germany and East Germany, South Vietnam and North Vietnam, Zanzibar and Tanzania, and South Yemen and North Yemen. East Germany had never involved into GATT. When East Germany was annexed by West Germany, this dataset assumes it has received the treatment of GATT/WTO as long as West Germany. The possible question lies in South Yemen and North Yemen, if the broader definition of GATT involvement is considered. The South Yemen once took the
3.4 Countries from Colonial Territories

Some colonial countries had involved into GATT/WTO when they hadn't got the independent status like Zimbabwe. It was the earliest contracting party of GATT with the name of “Southern Rhodesia” in 1947-1948. As a result of special status as initially contracting party, this dataset take its independent year 1965 as the 17th year according to the adjusted year.

However, other countries or colonial territories like Federation of Rhodesia and Nyasaland or Tanganyika are not taken into account in the dataset.

Furthermore, if one country had been the colony of a former contracting party of GATT, which might get the treatment of international trade institution, it would not be taken as involvement into GATT/WTO. Its involvement will begin from its formally accepted by the GATT/WTO as an independent state.

3.5 Disputed Territories

Country list in UCDP also contains some regimes such as Tibet (1946-1950) and Taiwan (1949-2009), which may bring some political disputes from some countries. This dataset will follow the original record of UCDP on the basis of scientific research. It will not represent the author’s political opinion in this dataset and paper.

3.6 New WTO Members in 2011

In December 2011, the 8th WTO Ministerial Meeting accepted three countries’ accession, i.e. Russia, Vanuatu and Samoa. Take Russia as example, it will formally become WTO member in July 2012 after its domestic ratification. However this dataset will still regard them as the non-member before 2009 and code them as -99.

3.7 Extension in 2013 and 2014

The dataset was collected two times, which produces two datasets. The first one was finished by December 2012 and the latter one was recollected and finished in June 2014. New dataset has revised some errors in the one before December 2012 and updated the information of new GATT/WTO members. The period is extended to 2013 and the number of observation increases from 8748 to 9,612. In the new version, it adds an indicator “adjustyear2”, which denotes “-79” rather than “-99” to the year of applied but non-accessed country.

4. Sources

Appendix II Figures

Figure A-1 Net Conflict Gains before/after International Institutions by Quadratic Fit

Figure A-2 Net Conflict Gains before/after International Institutions by Local Polynomial Fit

Note: Red Curve (Group 1); Blue Curve (Group 2)
Figure A-3 Factors on Groups’ Net Conflict Gains by Quadratic Fit

Figure A-3-1 Quadratic Fit Effects on Group 1’s Net Conflict Gains in 1:1

Figure A-3-2 Quadratic Fit Effects on Group 2’s Net Conflict Gains in 1:1
Figure A-3-3 Quadratic Fit Effects on Group 1's Net Conflict Gains in 1:5

Figure A-3-4 Quadratic Fit Effects on Group 2's Net Conflict Gains in 1:5
Figure A-3-7 Quadratic Fit Effects on Group 1’s Net Conflict Gains in 5:1

Figure A-3-8 Quadratic Fit Effects on Group 2’s Net Conflict Gains in 5:1
Figure A-3-11 Quadratic Fit Effects on Group 1’s Net Conflict Gains in 5:9

Quadratic Fit (95%) Effects on Group 1’s Net Conflict Gains in 5:9

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Quadratic Fit (95%) Effects on Group 2’s Net Conflict Gains in 5:9
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Figure A-3-15 Quadratic Fit Effects on Group 1's Net Conflict Gains in 9:5

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Figure A-4 Factors on Groups’ Net Conflict Gains by Local Polynomial Fit

Figure A-4-1 Local Polynomial Fit Effects on Group 1’s Net Conflict Gains in 1:1

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Figure A-4-12 Local Polynomial Fit Effects on Group 2’s Net Conflict Gains in 5:9
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Figure A-4-18 Local Polynomial Fit Effects on Group 2’s Net Conflict Gains in 9:9
Figure A-5 Annual Distribution of Internal Armed Conflicts (Cubic Spine Curve)

Figure A-6 Annual Distribution of Internal Armed Conflicts (Cubic Spine Curve) by GATT/WTO Membership or Not

Note: Red Line (Without GATT/WTO); Blue Line (With GATT/WTO)
Figure A-7 RD Graphs of Conflict Incidence across Different Adjusted Years

Figure A-7-1 Conflict Incidence by RD at before 10 Years of Formal Accession

![RD Graph of Conflict Incidence (Quadratic Fit, before 10 Years)]

Note: top 2 graphs contain non-member states till 2009

Figure A-7-2 Conflict Incidence by RD at before 5 Years of Formal Accession

![RD Graph of Conflict Incidence (Quadratic Fit, before 5 Years)]

Note: top 2 graphs contain non-member states till 2009
Figure A-7-3 Conflict Incidence by RD at before 2 Years of Formal Accession

RD Graph of Conflict Incidence
Quadratic Fit, before 2 Years

Note: top 2 graphs contain non-member states till 2009

Figure A-7-4 Conflict Incidence by RD at the Year of Formal Accession

RD Graph of Conflict Incidence
Quadratic Fit, 0 Years

Note: top 2 graphs contain non-member states till 2009
Figure A-7-5 Conflict Incidence by RD at after 2 Years of Formal Accession

Figure A-7-6 Conflict Incidence by RD at after 5 Years of Formal Accession
Figure A-7-7 Conflict Incidence by RD at after 10 Years of Formal Accession

Note: top 2 graphs contain non-member states till 2009
Figure A-8 RD Graphs of Conflict Onset across Different Adjusted Years

Figure A-8-1 Conflict Onset by RD at before 10 Years of Formal Accession

![RD Graph of Conflict Onset Quadratic Fit, before 10 Years](image1)

Note: top 2 graphs contain non-member states till 2009

Figure A-8-2 Conflict Onset by RD at before 5 Years of Formal Accession

![RD Graph of Conflict Onset Quadratic Fit, before 5 Years](image2)

Note: top 2 graphs contain non-member states till 2009
Figure A-8-3 Conflict Onset by RD at before 2 Years of Formal Accession

Note: top 2 graphs contain non-member states till 2009

Figure A-8-4 Conflict Onset by RD at the Year of Formal Accession

Note: top 2 graphs contain non-member states till 2009
Appendix

Figure A-8-5 Conflict Onset by RD at after 2 Years of Formal Accession

Note: top 2 graphs contain non-member states till 2009

Figure A-8-6 Conflict Onset by RD at after 5 Years of Formal Accession

Note: top 2 graphs contain non-member states till 2009
Figure A-8.7 Conflict Onset by RD at after 10 Years of Formal Accession

Note: top 2 graphs contain non-member states till 2009.

RD Graph of Conflict Onset
Quadratic Fit, after 10 Years
### Appendix III Tables

**Table A-1 List of Controlling Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Source</th>
</tr>
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<tr>
<td>RTA</td>
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<td></td>
<td>RTA or Not, 1 or 0</td>
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<td>Trade Openness</td>
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<td></td>
<td></td>
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<td>Maddison GDP data, from (Teorell et al., 2011)</td>
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<td>Natural log of real GDP per capita</td>
<td>Expanded Trade and GDP Data, expgdpv5.0, (Gleditsch, 2002)</td>
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<td>Estimated Household Income Inequality</td>
<td>University of Texas Inequality Project, from (Teorell et al., 2011)</td>
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<tr>
<td>Unemployment</td>
<td>Unemployment Rate</td>
<td>World Development Indicators, from (Teorell et al., 2011)</td>
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<td>Human Rights</td>
<td>Political Terror Scale</td>
<td>(Gibney, Cornett, &amp; Wood, 2010)</td>
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<td>Neonatal Mortality Rates</td>
<td>Institute for Health Metrics and Evaluation, University of Washington, from (Teorell et al., 2011)</td>
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<tr>
<td>State Capacity</td>
<td>Relative Political Capacity</td>
<td>(Braithwaite, 2010)</td>
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<tr>
<td>Ethnicity</td>
<td>Ethnic fractionalization</td>
<td>(Fearon &amp; Laitin, 2003)</td>
</tr>
<tr>
<td>Religion</td>
<td>Religion Fractionalization</td>
<td>(Fearon &amp; Laitin, 2003)</td>
</tr>
<tr>
<td>Rural Population</td>
<td>Percent of Family Farms</td>
<td>Family Farms, Index of Power Resources, from (Teorell et al.,</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
<td>Source</td>
</tr>
<tr>
<td>-------------------</td>
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<td>---------------------------------------------</td>
</tr>
<tr>
<td>Oil</td>
<td>&gt;1/3 export revenues from fuels</td>
<td>(Fearon &amp; Laitin, 2003)</td>
</tr>
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<td>Polity</td>
<td>Polity IV-2</td>
<td>(Marshall, Jaggers, &amp; Gurr, 2010)</td>
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<td>Globalization Index</td>
<td>KOF Globalization Index</td>
<td>(Dreher, 2006; Dreher, Gaston, &amp; Martens, 2008)</td>
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<tr>
<td>Export and Import</td>
<td>Natural log of COW Trade Data</td>
<td>(Barbieri, Keshk, &amp; Pollins, 2009)</td>
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<td>Mountain</td>
<td>Estimated percent mountainous terrain</td>
<td>(Fearon &amp; Laitin, 2003)</td>
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<td>Youth Bulges</td>
<td>15-24 year old as share of total population</td>
<td>(Urdal, 2006)</td>
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<td>Annual Non-energy Price indices</td>
<td>(World Bank, 2011)</td>
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<td>Neighboring Conflicts Dummy</td>
<td>(Buhaug &amp; Gleditsch, 2008)</td>
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<td>Peace Years</td>
<td>Peace years</td>
<td>(Buhaug &amp; Gleditsch, 2008)</td>
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<td>Shocks</td>
<td>Global Shock</td>
<td>(Nieman, 2011)</td>
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<td>Tariff</td>
<td>Tariff Index</td>
<td>(Clemens &amp; Williamson, 2004)</td>
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### Table A-2 Baseline Characteristics between Treatment Group and Control Group

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<tr>
<th>Variable</th>
<th>1 year pre and post GATT/WTO</th>
<th>5 years pre and post GATT/WTO</th>
<th>10 years pre and post GATT/WTO</th>
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<td>524</td>
<td>870</td>
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<td>Variable</td>
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<td>Mean</td>
<td>Diff.</td>
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<td>0.69</td>
<td>0.04</td>
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<td>11.35</td>
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<td>8.19</td>
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<td>Estimated % mountainous</td>
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**T-test**

$$Pr(|T| > |t|) = 0.7839$$  
$$Pr(|T| > |t|) = 0.9749$$  
$$Pr(|T| > |t|) = 0.2550$$
Table A-3 Logit Regression Models: GATT/WTO and Incidence of Civil Conflicts

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<th>Model 3</th>
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<td>Model 7</td>
<td>Model 8</td>
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<td>----------------------------</td>
<td>------------------</td>
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<td>------------------</td>
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Asterisks denote statistical significance at the 0.01 (***) and 0.05 (**) levels.
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<td>(Arbetman-Rabinowitz, Kugler, Abdollahian, Johnson, &amp; Kang, 2011)</td>
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<td>National Material Capabilities</td>
<td>(Singer, 1987)</td>
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Table A-5 The Assigning Effects of Covariates on GATT/WTO Accession

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<td>-0.05</td>
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<td>(p=0.46)</td>
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<td>59.01***</td>
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<td>(p=0.01)</td>
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<td>Number of Participated Alliances</td>
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<td>Size of Ethnic Powerful Groups</td>
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<td>0.04*</td>
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Asterisks denote statistical significance at the 0.01 (***) and 0.05 (*) levels.
## Table A-6 Variables Description in PSM

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