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### Publication Date

2016

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**The Political Economy of Global Sectoral Agreements in Information Technology,  
Telecommunications, and Finance**

By

Bora Clara Park

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy

in

Political Science

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Vinod Aggarwal, Chair

Professor Steven Vogel

Professor Alison Post

Professor Noam Yuchtman

Summer 2016

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## Abstract

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Doctor of Philosophy in Political Science

University of California, Berkeley

Professor Vinod Aggarwal, Chair

This dissertation examines variation in the institutional design of the WTO sectoral agreements in IT, telecommunications, and finance. It aims to understand why and how states negotiated sectoral agreements and traces the source of state preferences to an industry's core business and its major user industries. Going against the conventional wisdom, my analysis leads to three surprising findings. First, sectoral negotiations were not limited to the sector under discussion. They incorporated supplier (upstream) and user (downstream) industries in the global value chain, especially the preferences of user industries. Second, an industry's global value chains changed the politics of lobbying by shaping the preferences of the firms along the chain and the coalitions they formed. Third, global value chains and industry coalitions affected the institutional design of these international accords in IT, telecommunications, and finance. I show how the number of user industries in the global value chains affected the scope, depth, and membership of sectoral agreements. Each empirical chapter examines the trade negotiations in the IT, telecommunications, and financial services industries. By analyzing multi-country, single-issue agreements, I show a clear pathway and mechanism through which firms utilize trade policies to better serve their large corporate clients. Global value chains, which maps the linkage of goods, services, capital, people, and information, is a specific type of complex interdependence that is evolving and affects every polity within the system. This approach can help answer new theoretical puzzles in international trade such as the rise of trade in services, unilateral agreements such as the TPP and the TTIP, and the effects of these developments for developing countries. It provides a framework with which to understand trade negotiations and raises new questions for scholars.

To my parents

## Acknowledgements

I am in deep gratitude to my advisors, Vinod Aggarwal, Steven Vogel, Alison Post, and Noam Yuchtman. They have been an incredible source of inspiration, knowledge and support for my research project, and I am grateful for their mentorship. I have learned greatly from their dedication to research and teaching, and I hope to follow their examples in my academic career. I am especially grateful to Vinnie, from whom I learned everything I know about international trade. I am grateful for his patience and guidance throughout my training at Berkeley. To him I owe my greatest intellectual and professional debts.

I thank my advisors at Cornell, Valerie Bunce, Matthew Evangelista, Viktor Tsyrennikov, Elizabeth Sanders, Manoj Thomas, and Melissa Thomas-Hunt, who have opened my eyes to academic research and have supported and guided me. I also thank David Collier, Ruth Collier, T.J. Pempel, Kevin O'Brien, Lowell Dittmer, Paul Pierson, Sean Gailmard, Peter Lorentzen, Jason Wittenberg, Ernesto Dal Bo, and Gerard Roland at Berkeley for their advice and support over the years.

The generosity of the Joseph Leconte Goldsmith and Amy Seller Goldsmith Public Service Award and the Regents Fellowship at UC Berkeley gave me blissful years of research and writing, and I am grateful for their support. I also acknowledge the generous support I have received from the Foreign Language and Area Studies Fellowship and the Travers Department of Political Science. I thank my research assistants and students, especially Chris Hussey who helped me with data collection.

I am grateful to my friends who have supported me over the years, near and far. From the department, I am especially thankful to Andrew Bertoli, Ryan Hubert, Daniel Mattingly, Katherine Michel, Sara Newland, Seung-Youn Oh, and Phil Rocco for helping me at various steps. At Berkeley, I am especially grateful to Eric Auerbach, Gillian Brunet, Satoshi Fukuda, Sanket Korgankor, and Vincenzo Pezone who have been my sounding board for research ideas over the years.

I also thank officials in D.C. and beyond who took their time to share their insights and informed a young scholar. I am inspired by their dedication to public service. I am also grateful to the librarians at the Library of Congress.

I would not be here without the love and support from my mom, dad, Jasmine, and Dan. You are the rock of my life. I dedicate my dissertation to my parents.

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## 1. Introduction

Who built the institutional infrastructure of globalization? How did the technological developments that fostered globalization spread around the world? Many scholars and popular writers argue that globalization grew out of technological changes that developed organically and eventually engulfed people, societies, and states around the world. Yet this organic view of globalization misses the pivotal role of trade agreements in opening countries to the free flow of goods and services in information technology, telecommunications, and finance, namely the 1996-97 World Trade Organization (WTO) sectoral agreements—the Information Technology Agreement (ITA), the Basic Telecommunications Agreement (BTA), and the Financial Services Agreement (FSA). Because of the WTO institutional rule that sectoral agreements have to cover at least 90% of world trade in each sector, these agreements were rather substantial in their scope and membership.<sup>1</sup> The ITA's 29 signatories were joined by 11 more members before implementation, which together accounted for 92.5% of world trade in IT products.<sup>2</sup> The BTA's 69 signatories accounted for 91% of global telecommunications revenue,<sup>3</sup> and the FSA's 102 signatories accounted for 95% of world trade in financial services.<sup>4</sup>

These agreements have lowered the costs of telecommunications services and IT products, laid and connected infrastructure for information flow, and allowed for the free movement of capital, goods, services, and people in high-technology sectors. The ITA removed tariffs in IT products, and more people now have access to cheaper IT goods such as computers and mobile phones. The BTA liberalized long-distance telecommunications services and online data transfer and storage services. The FSA allowed financial firms to enter foreign territories to set up subsidiaries and joint ventures with domestic financial firms. Then-WTO Director General Renato Ruggiero said that these agreements were “the essential infrastructure of the global economy of the 21<sup>st</sup> century.”<sup>5</sup> While these agreements helped to create the institutional infrastructure of globalization, there is, surprisingly, no comparative study of these sectoral agreements in the literature.<sup>6</sup>

My dissertation analyzes the creation and development of sectoral agreements in high-technology industries between 1996 and 2015. The puzzles I address are: Why and with whom do countries sign sectoral agreements? What accounts for the variation in the institutional design of sectoral agreements—namely their scope, depth, and membership?

The conventional wisdom is that a powerful state determines the features of the agreement and forces other countries to accept it. An institution-based argument predicts that technological changes make the existing regime inadequate to deal with new issues and that

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<sup>1</sup> The three largest economies—the US, EU, and Japan—controlled more than 75% of the world trade in these industries.

<sup>2</sup> The 29 signatories in Singapore accounted for 83% of world trade in IT products. With 11 more countries, 40 countries, which accounted for 92.5%, agreed to implement the ITA in March 1997. See WTO News. 1997. Launching of Free Trade in Computer Products to Benefit Everyday Life of Consumers and Companies, says Ruggiero. March 27. [https://www.wto.org/english/news\\_e/pres97\\_e/pr70\\_e.htm](https://www.wto.org/english/news_e/pres97_e/pr70_e.htm)

<sup>3</sup> WTO Telecommunications Services: Negotiations. Results of the Basic Telecommunication Negotiations. [https://www.wto.org/english/tratop\\_e/serv\\_e/telecom\\_e/telecom\\_results\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_results_e.htm)

<sup>4</sup> WTO News. 1997. Successful Conclusion of the WTO's Financial Services Negotiations. December 15. [https://www.wto.org/english/news\\_e/pres97\\_e/pr86\\_e.htm](https://www.wto.org/english/news_e/pres97_e/pr86_e.htm)

<sup>5</sup> Ruggiero sees shift to trade round in wake of sectoral pacts. *Inside U.S. Trade*. December 26, 1997.

<sup>6</sup> For each single-sector agreement, see Hufbauer and Wada (1997) for the BTA, Dobson and Jacquet (1998) for the FSA, and Fliess & Sauve (1997) for the ITA.



countries want to reduce organizational and information costs through a regime. Countries negotiate the institutional design of the agreements and establish principles, norms, rules, and procedures. A domestic politics argument argues that state institutions, domestic industries, or a combination of institutions and interests push for an international argument. These explanations contributed to the negotiations beyond doubt. Without the leadership of the US, these agreements would not have been concluded. However, where does the hegemon get its preferences, how does it decide who to push and how much to liberalize? Also if countries agreed to liberalize through an international organization, why is there variation in the scope, membership, and depth of the agreements across sectors? And if domestic groups—industry, ministry, and the combination of both—in different countries pushed for their version of an international agreement, what is the mechanism for how they prioritized and reconciled their differences?

Going against the conventional wisdom, my analysis leads to three surprising findings. First, sectoral negotiations were not limited to the sector under discussion. They incorporated supplier (upstream) and user (downstream) industries in the global value chain, especially the preferences of user industries. Second, an industry's global value chains changed the politics of lobbying by shaping the preferences of the firms along the chain and the coalitions they formed. Third, global value chains and industry coalitions affected the institutional design of these international accords in IT, telecommunications, and finance. I show how the number of user industries in the global value chains affected the scope, depth, and membership of sectoral agreements. An increase in the number of user industries led to a broader coalition, which resulted in a larger scope of products and services and membership of countries but also led to a collective action problem for agreeing on the satisfactory level of liberalization (depth). While scope and membership were uniform for all members of the agreement, each government submitted its commitment of liberalization for other participants to approve, and countries differed on their interpretation of a "satisfactory" level of liberalization (depth). Therefore, I argue that an increase in the number of user industries leads to an increase in scope and membership, but simultaneously to a decrease in the depth of sectoral agreements. My case studies on trade negotiations in the IT, telecommunications services, and financial services industries illustrate how global value chains shaped firms' preferences and coalitions along the chain that affected the institutional design of trade agreements.

I find that a focus on user industries is critical to explain the impetus of trade negotiations and the institutional features of trade agreements in the IT, telecommunications services, and financial services industries. These industries wanted to better serve their corporate clients—MNCs in their industry as well as other industries—as part of their foreign expansion strategy. Firms are linked through global value chains, which are international networks of goods, services, people, and technologies. The information technology, telecommunications, and finance industries are linked to each other and also support other industries in the economy.<sup>7</sup> Semiconductors are key inputs for electronics such as computers and telecommunications equipment. The telecommunications sector not only serves individual households for local- and long-distance services, but also large institutional clients such as financial firms and manufacturing firms in transferring data across intra-firm networks and inter-firm networks. The financial sector has a large intra-industry business (securities trading) and also serves all industries in the economy through financial intermediation (depository banking), mergers and acquisition, insurance, and securities underwriting (commercial banking and investment

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<sup>7</sup> Bresnahan (1986) found the "downstream benefits of technological advance" by calculating spillovers from advances in mainframe computers to the financial services sector.

banking) services. In the global value chains of these industries, the semiconductor industry is an upstream industry of the computer and telecommunications equipment industries, which are upstream industries of the telecommunications services industry (midstream) and the financial services industry (downstream). The financial services industry then circulates capital to all sectors in the economy.

My user industry analysis contributes to the literature in three main ways. First, it contributes to the business and politics literature by examining how firms and governments move beyond Putnam's two-level game<sup>8</sup> to a network of firms and governments and a new configuration of interests and institutions beyond national boundaries. I show how user industries pushed not only their domestic governments, but also host countries and the WTO. Industries formed multi-country, intra-industry associations and domestic inter-industry associations to push multiple governments simultaneously and provide technical information to their domestic negotiators and to the WTO working groups. They also ran media campaigns to put items on the trade agenda, along with selling the benefits of these agreements to members of Congress and, when needed, to the public.

These industries were able to exert significant influence in policymaking because these negotiations were in the sphere of "Quiet Politics," with low political salience and high policy complexity.<sup>9</sup> In this environment, Culpepper (2011) shows that corporate managers utilize three tools: lobbying, working groups, and press framing.<sup>10</sup> In the IT, telecommunications, and finance negotiations, government negotiators, due to the technical complexity of the subject, relied on the relevant industry to give them a list of market access problems around the world and a list of desired products and services for liberalization. For example, the WTO also invited the IT industry to its ITA expansion working group for discussion on non-tariff barriers such as technical standards.<sup>11</sup>

Second, it contributes to the literature on institutional design and bargaining with non-state actors such as global firms.<sup>12</sup> The industry also engaged in forum-shopping<sup>13</sup> for an effective international organization for liberalization by choosing the WTO over the existing institutions in each sector, such as the IMF, the Bank for International Settlement, and the ITU. The private industry *chose* the WTO as the forum to discuss trade liberalization because of the wide membership, strength of dispute settlement, and attractive institutional rules at the WTO. The negotiators could also bypass the vested interests in the existing institutions such as the ITU. As more countries share knowledge and form consensus, they are more likely to arrange institutionalized collaboration through a regime, and non-state actors such as firms become indispensable to policymaking in high-technology industries.<sup>14</sup>

Third, it expands the literature on the governance of global value chains<sup>15</sup> by linking it to institutional design. It updates the literature on strategic trade policies in high-technology industries by moving beyond bilateral protectionist conflicts<sup>16</sup> to multilateral liberalization and

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<sup>8</sup> Putnam 1988.

<sup>9</sup> Culpepper 2011.

<sup>10</sup> Culpepper 2011, 8.

<sup>11</sup> WTO 2015a. Minutes of the Meeting of May 8 2015 Committee of Participants on the Expansion of Trade in Information Technology Products. G/IT/M/62. Geneva: WTO.

<sup>12</sup> Aggarwal 1985, 1998; Koremenos et al. 2001; Steinberg 2002; Busch 2007; and Jupille et al. 2013.

<sup>13</sup> The literature examined countries' forum-shopping for strong (weak) enforcement mechanism.

<sup>14</sup> Haas 1980; Aggarwal 1985.

<sup>15</sup> Gereffi et al. 2005.

<sup>16</sup> Milner and Yoffie 1989; Tyson 1992; Busch 1999.

analyzing intra-industry and inter-industry coalitions beyond the sector under discussion. It also builds a focus on firm heterogeneity within a sector for analyzing support for trade policies. Milner (1988) looks at the way in which a firm's position in the global political economy affects its preferences and firm preferences influenced trade policies. Kim et al. (2016) examine the dimensions of trade agreements such as investment protection, dispute settlement mechanisms, and escape clauses, and find that preferences vary by firm, not by industry, according to their position in the global production networks. My analysis of user industries in the global value chains in goods and services trade will build on these works by showing how firm preferences affect the institutional design of trade institutions.

A user argument broadens the perspective and better captures global value chains in the twenty-first century. As Jamie Dimon, CEO of J.P. Morgan, once said, "The best way to look at any business is from the standpoint of the clients."<sup>17</sup> Although firms have long worked according to the logic of increasing profits by better serving their clients, analysts have not focused on user industries, and their role has not been specifically linked to trade agreements. The reason for this omission is that for most of the fifty years of negotiations in the GATT, the emphasis has been on multi-country, multi-issue rounds. By analyzing multi-country, single-issue agreements, I can show a clear pathway and mechanism through which firms utilize trade policies to better serve their large corporate clients. To understand how these sectoral agreements came about, I briefly review the history of the multilateral trading regime and conflict in high-technology industries.

#### *A Brief History of the Multilateral Trading Regime*

A regime for international trade was established in 1947. For the postwar economic order, countries created three international economic institutions—the International Monetary Fund (IMF) for finance, the International Bank for Reconstruction and Development (World Bank) for development, and the International Trade Organization (ITO) for trade. However, the ITO was never ratified in the US Congress, and so countries relied on a series of governing rules known as the General Agreement on Tariffs and Trade (GATT). Initially established as a stopgap measure, the GATT became an informal institution of the multilateral trading regime and served as the central body for the next half-century for negotiating tariffs across sectors, from agriculture to TVs. The most important norm in the GATT is Article 1, which is known as Most-Favored Nation (MFN), which extends the benefits of any agreement to all members of the GATT. This was enshrined as Article I of the GATT. This differentiated the GATT from any bilateral agreements and was an appealing feature for many countries. Other important norms were non-discrimination, reciprocity, and safeguards.<sup>18</sup>

Over the next half-century, the GATT sponsored eight rounds of multilateral negotiations.<sup>19</sup> The first six rounds of the GATT until the Kennedy Round focused on tariff reductions.<sup>20</sup> Through these rounds, countries drastically reduced tariffs. The average of world tariffs came down from 35% at the creation of the GATT to less than 10% by the Tokyo Round.<sup>21</sup> However, new economic developments made the GATT increasingly inadequate for governing international trade. The transition from the manufacturing economy to the services

<sup>17</sup> Jamie Dimon on Finance: Who Owns the Future? *Bloomberg*. March 1, 2016.

<http://www.bloomberg.com/features/2016-jamie-dimon-interview/>

<sup>18</sup> Winham 2014.

<sup>19</sup> GATT rounds: Annecy (1949), Torquay (1951), Geneva (1956), the Dillon Round (1960-1), the Kennedy Round (1963-7), the Tokyo Round (1973-9), the Uruguay Round (1986-93), the WTO Doha Round (2002-Present)

<sup>20</sup> Winham 2014.

<sup>21</sup> Winham 2014.

economy in the 1970s called for a new multilateral forum to discuss behind-the-border barriers against foreign entry and operation. Beginning with the Tokyo round (1973-79), countries moved beyond lowering tariffs to addressing non-tariff barriers. However, the GATT lacked the capacity to set rules in trade in services. The Uruguay Round (1986-1994) was started with the aim of expanding the scope of the GATT into new issue areas such as services, investment, and intellectual property.<sup>22</sup>

*GATT to GATS*: Getting trade in services on the GATT agenda was challenging. As expected, most developing countries were opposed to including services in which they had comparative disadvantages.<sup>23</sup> Five countries (also known as the G5)—Argentina, Brazil, Egypt, India, and Yugoslavia—were adamantly against including trade in services and submitted a draft of the round in which they made no mention of services.<sup>24</sup> Cuba, Nicaragua, Nigeria, Peru, and Tanzania joined the G-5, which grew into the G-10. In 1986, the G-10 presented draft Ministerial Declarations that excluded trade in services.<sup>25</sup> However, a growing number of countries such as Hong Kong and Singapore wanted to open up services multilaterally.<sup>26</sup>

A separate coalition comprised of 20 developing countries (formerly the Jaramillo Group, led by the Colombian Ambassador) and nine developed countries (led by Switzerland), which later came to be known as the Café au lait group,<sup>27</sup> submitted a separate draft that included a compromise on trade in services. This group was the first coalition of developed and developing countries at the GATT and served as the intermediary between the two “extreme positions of the US and G-10.”<sup>28</sup> Brazil and India tried very hard to prevent trade in services from being included in the Uruguay Round, but when it failed, they insisted on separating negotiations into two tracks—trade in goods and trade in services—to prevent sectoral trade-offs.<sup>29</sup> While some opposed this separation on the grounds that it would limit the “efficiency gains” of trade-offs in multilateral negotiations,<sup>30</sup> this was the *Maginot* line by which developing countries sought to limit this tactical linkage.<sup>31</sup> A separate track on services was established through what is known as the General Agreement on Trade in Services (GATS).

The Uruguay Round transformed the governance of world trade and heralded the new multilateral trading regime. It formalized the GATT by creating the World Trade Organization (WTO), in which the GATT and the GATS were nested.<sup>32</sup> The GATS created the framework for trade in services, such as financial, legal, telecommunications, tourism, and transportation

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<sup>22</sup> Winham 2014.

<sup>23</sup> Marchetti and Mavroidis 2011.

<sup>24</sup> Ibid.

<sup>25</sup> Draft Ministerial Declaration. GATT Preparatory Committee. June 23, 1986. GATT PREP.COM(86)W/41. <https://docs.wto.org/gattdocs/q/UR/PREPCOM86/W41.PDF>.

<sup>26</sup> Marchetti and Mavroidis 2011.

<sup>27</sup> Ibid., G-20 was composed of Bangladesh, Chile, Colombia, Cote d’Ivoire, Hong Kong, Indonesia, Jamaica, Korea, Malaysia, Mexico, Pakistan, the Philippines, Romania, Singapore, Sri Lanka, Thailand, Turkey, Uruguay, Zambia, and Zaire. G-9 was composed of Australia, Austria, Canada, Finland, Iceland, New Zealand, Norway, Sweden and Switzerland. G-20 and G-9 liaised to form the Café au lait group.

<sup>28</sup> Ibid., 703.

<sup>29</sup> Ibid.

<sup>30</sup> McCulloch 1990, 345-346.

<sup>31</sup> Aggarwal 1985.

<sup>32</sup> Aggarwal 1985.

services.<sup>33</sup> The WTO was strengthened with the enforcement mechanism of the Dispute Settlement Mechanism (DSM). The WTO also achieved two agreements on trade-related investment and intellectual property rights—Trade-Related Investment Measures (TRIMs) and Trade-Related Aspects of Intellectual Property Rights (TRIPs). However, a few sectors in services did not reach a satisfactory agreement in the Uruguay Round, and countries agreed to extend the negotiations in the four services sectors—financial services, basic telecommunications services, movement of persons, and maritime transport—and built the agenda for post-Uruguay Round sectoral negotiations.<sup>34</sup>

The WTO sectoral Agreements in the IT, telecommunications, and financial services industries in 1996-97 were the first successful agreements in which countries reached meaningful liberalization in stand-alone sectoral agreements. Sectoral agreements had been traditionally utilized for protectionist purposes. From the 1950s through the 1980s, countries had established bilateral, plurilateral, and multilateral agreements in textiles, steel, electronics, autos, footwear, and semiconductors to restrict imports and exports through measures like Voluntary Export Restraints (VERs) and Orderly Marketing Arrangements (OMAs). These agreements not only set rules but also allowed countries to hold their trading partners accountable in case of violations.<sup>35</sup> In fact, the 1970s and the 1980s were mired with allegations over protectionist policies, retaliation, settlement, and compensation in textiles, autos, steel, electronics, and semiconductors, among other industries.<sup>36</sup> Section 301 of the US Trade Act of 1974 also authorized the President to take all appropriate actions against foreign governments in case of trade violations. Countries shifted to “sector-by-sector liberalization”<sup>37</sup> in the Uruguay Round as firms’ global value chains expanded beyond few major producers.

However, “open sectoralism” also reduced political support for multi-country, multi-issue trade negotiations by undermining a broad coalition for trade liberalization.<sup>38</sup> In fact, the US moved away from the Doha Development Round in order to negotiate bilateral, sectoral, and minilateral agreements, which are trade agreements of limited scope and membership. The trend to minilateralism broke with the tradition of multilateral trade negotiations in which all member countries negotiate on a broad number of issues together.<sup>39</sup> Indeed, the current trade negotiations of Trans-Pacific Partnership (TPP) between the US and eleven other countries in the Asia-Pacific, Transatlantic Trade and Investment Partnership (TTIP) between the US and Europe, and Trade in Services Agreement (TiSA) between 23 members are negotiated by a small group of countries on a selected number of issues. It is not clear whether the US will return to the multilateral negotiating table in the near future.

### *Conflict in High-Technology Industries*

In the 1970s and the 1980s, trade conflicts arose in high-technology industries between the US, EU, and Japan. Tyson (1992) examined trade conflicts in the semiconductors, electronics, telecommunications equipment, and commercial aircraft industries and found that high-

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<sup>33</sup> The GATS excluded “services supplied in exercise of government authority” and measures affecting air traffic rights and services. See The General Agreement on Trade in Services (GATS): objectives, coverage and disciplines, WTO. [https://www.wto.org/english/tratop\\_e/serv\\_e/gatsqa\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/gatsqa_e.htm)

<sup>34</sup> USITC 1997.

<sup>35</sup> Aggarwal 1985.

<sup>36</sup> Aggarwal 1985; Irwin 1996.

<sup>37</sup> Aggarwal and Ravenhill 2001.

<sup>38</sup> Aggarwal and Ravenhill 2001.

<sup>39</sup> Brummer 2014.

technology industries are “*created* by governments, not endowed by nature.”<sup>40</sup> Due to the strategic nature of these industries, she called for a “cautious activist” approach, using domestic trade laws to “deter or compensate for foreign practices that are not adequately regulated by existing multilateral rules.” She also argued that the US should be “guided by the principle of selective reciprocity and motivated by the goal of opening foreign markets.”<sup>41</sup> Not long afterwards the US did just that in high-technology industries through the WTO agreements by rewriting multilateral rules.

At the time of these sectoral negotiations, the IT industry experienced a tectonic shift in which the US, the market leader in semiconductors, was losing global market share to Japan and emerging markets such as Korea, Taiwan, and Singapore that had been quickly catching up. Japanese semiconductors and electronics were so popular in the US and third markets that Intel got out of the memory chip business and entered the microprocessor market. In the telecommunications sector, states operated the telecommunications network in many countries,<sup>42</sup> and it was difficult for foreign providers to gain access. In the financial services sector, the state either directly made loans to SOEs or guaranteed loans made by private banks. Multinational financial firms and telecommunications firms such as Citi, AIG, American Express, AT&T, as well as European firms faced entry barriers in developing countries. To address these problems, MNCs began to look for ways to reduce bargaining and transaction costs through a new regime in trade in high-technology goods and services.

But the negotiation process was tumultuous and the story was far from the US getting what it wants. To achieve its agenda, the US first had to convince the EU and Japan to get on board, and then convince developing countries that they, too, would benefit from the agreements. The US, while a major player in high technology sectors, was not the dominant player. The US accounted for 20-25% of the global IT, finance, and telecommunications market, followed by the EU and Japan, and these three economies accounted for 70-75% of global trade in high technology sectors, with the rest shared by the rising Asian and Latin American economies. The EU, knowing that the US needed its help for a multilateral agreement, used its leverage over the US. However, the EU and the US joined the effort to push Japan to open its market.

Other countries, in principle, agreed on the need for liberalization, although they were concerned that their weak supervisory institutions might not be able to control foreign entry. Developing countries saw the need to update their high-technology industries, as their telecommunications networks were not up to date with technological development. The financial sectors were also ridden with underperforming SOEs and non-performing loans due to the inefficient allocation of capital. Updating their information infrastructure would also benefit other sectors in which they have a comparative advantage, such as the resource extraction, agriculture, and tourism sectors.

Developing countries, too, wanted to shape the trade agenda to their benefit, but they differed on the proposed speed of liberalization and government control. While developed countries wanted market liberalization once and for all, developing countries wanted to do it gradually and on their own terms. Developing countries feared a rapid liberalization because they were aware that their propped-up SOEs were too weak to withstand competition with foreign firms. Hence, they wanted some restrictions in trade policies and instead encouraged joint

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<sup>40</sup> Tyson 1992, 18.

<sup>41</sup> Tyson 1992, 13.

<sup>42</sup> In the US, AT&T was a regulated monopoly.

ventures between MNCs and local firms so that local firms could also benefit.<sup>43</sup> During the Uruguay Round (1986-94), countries could not reach satisfactory agreements, and so they negotiated by sector in the post-Uruguay Round. The ITA was concluded in December 1996, the BTA in February and the FSA in December 1997. Governments reconfigured their domestic institutions and objectives as well as coordinated with industries and other countries at the WTO.

### *Outline*

In chapter 2, I present my theory of global value chains and argue that user industries, through multi-country, intra-industry coalitions and domestic, inter-industry coalitions, affected the institutional design of trade agreements. In chapter 3, I examine the Information Technology Agreement negotiations (ITA I and ITA II) and show how user industries formed industry alliances and initiated the ITA negotiations. I also show within-sector variation in the IT industry that the increase in the number of user industries from the ITA I to the ITA II increased the membership and broadened the scope of the agreement. In chapter 4, I analyze the Basic Telecommunications Agreement negotiations and how the user industries of telecommunications services, especially the financial services industry, affected the preferences of the telecommunications firms and the negotiations of liberalization in telecommunications services. In chapter 5, I focus on the Financial Services Agreement negotiations and show how the number of user industries in financial services affected the scope, membership, and depth of the agreement. In chapter 6, I conclude with directions for future research and theoretical and policy implications.

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<sup>43</sup> Pandya (2014) also found this in restrictive FDI policies.

## 2. A Theory of Global Value Chains and Trade Agreements

Why and how do countries sign sectoral agreements? In this chapter, I will focus on the scope, membership, and depth of sectoral agreements in order to analyze variation across these agreements. I present three different perspectives on why countries sign international agreements in the IT, telecommunications, and financial services industries. In the first explanation, a powerful state forces other states to sign sectoral agreements and determines the features of the agreement. The second approach suggests that countries sign sectoral agreements because they provide net benefits, and the features of the agreement are determined by consensus between countries. The third perspective argues that domestic interests push for sectoral agreements, and the compromise of these interests determines the features of the agreement. After focusing on the explanatory power of these theoretical approaches, I show how a framework that incorporated the role of global value chains complements these perspectives.

### I. Theoretical Frameworks

#### A Power-Based Argument

The first and most well-known framework is the power asymmetry explanation, which states that trade negotiations are power-based. This perspective argues that a powerful state forces other states to join international agreements that serve its interests. The negotiating outcomes would thus reflect the interests of the most powerful state.

This approach is derived from the Hegemonic Stability Theory, which argues that an international system is stable when the most powerful state is capable and willing to maintain the order. This was first introduced by Kindleberger (1973), who analyzed the Great Depression and identified the leadership and willingness of the hegemon to maintain a liberal economic order as a necessary condition for international economic openness. He argued that the declining hegemon, Great Britain, was willing but unable to maintain the system while the rising hegemon, the United States, was able but unwilling to defend the economic system before the crash. Other scholars argued that a hegemon, the most powerful state, creates and maintains a system and writes global rules, which is known as the overall hegemony model.<sup>44</sup> The hegemon may also vary across issue areas, depending on the fungibility (convertibility) of power across issue areas, in what is known as the issue hegemony model.<sup>45</sup> This model was born out of the OPEC crisis, in which militarily and economically weak OPEC countries controlled world oil prices due to their supplier position, and was applied to other issue areas, such as textiles and telecommunications.<sup>46</sup> In these structural models, the hegemonic distribution of potential economic power, measured by the size of the economy and the level of development, determines the structure of international trade and investment in the overall system or the issue area.<sup>47</sup> The regime is maintained by the hegemon until its interests change or a new hegemon, who is not willing to support the existing regime, arises.<sup>48</sup>

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<sup>44</sup> Keohane and Nye 1977.

<sup>45</sup> Art 1996; Waltz 2000; and Mearsheimer 2001.

<sup>46</sup> Aggarwal 1985; Krasner 1991.

<sup>47</sup> Gilpin 1975, Krasner 1976.

<sup>48</sup> In analyzing the system crash during the Great Depression, Kindleberger (1973) identified the willingness of the hegemon to maintain a liberal economic order as a necessary condition for international economic openness. He argued that the declining hegemon, Great Britain, was willing but unable to maintain the system while the rising hegemon, the United States, was able but unwilling to defend the economic system before the crash.



Neorealist institutionalists argue that the hegemon maintains an open trading regime because economic gains help maintain military power.<sup>49</sup> A powerful state uses its military might to protect the economic system that it benefits from and also protects its allies in order to maintain the system.<sup>50</sup> Gowa and Mansfield (1993) argue that nations pursue free trade because it produces “security externalities” that free up resources for military uses and countries trade more with their military allies. Some argued that trade reduces the onset of war.<sup>51</sup> Beyond bilateral trade, other economic agreements such as bilateral investment treaties (BITs) or preferential trade agreements (PTAs) were also correlated with a lower likelihood of conflicts between trading partners.<sup>52</sup> The interaction of economic and security factors leads to a liberal economic regime even in an anarchic system.

Trade also matters in the non-military security realm. The high-technology industry is strategic to economic growth as well as national security,<sup>53</sup> and countries do not want to lose control in these industries while welcoming foreign investment. Semiconductor technology is often viewed as being central to a country’s national interest as it determines the ecosystem of electronics, and countries fight to protect its cutting-edge technology. Telecommunications are also seen as a national interest, as they could affect national communications systems. The latest commercial conflict between the US and China demonstrates the linkage between technology and national security when the US government blocked the Chinese telecommunication company Huawei’s entry into the US market for national security reasons.

Neorealist scholars have argued that even international institutions are reflections of power distributions.<sup>54</sup> Although international institutions are operated by agreed upon rules, power asymmetry inevitably operates in the interaction of states. Aggarwal (1985) also notes that the hegemonic stability theory explains the institutional design of the textile regime in which countries chose to “nest” the textile regime in the GATT trading system, influenced by the structure of the overall security system. Steinberg (2002) finds that the WTO Tokyo and Uruguay Rounds negotiations were conducted in the shadow of power with the law as a façade. He finds that the linkage of security and trade in the Cold War era led the US to give in to the demands of developing countries in order to prevent Soviet power over these countries. However, as the specter of the Cold War disappeared by the end of the Uruguay Round, Steinberg argued that powerful countries used power to extract what they wanted from developing countries.<sup>55</sup>

As noted in my introductory chapter, power asymmetry has been prevalent in the WTO multi-sector trade negotiations, in which weak countries have been forced to open markets due to tactical linkages.<sup>56</sup> Since countries differ in their comparative advantages and disadvantages, trading off sectors could compensate losses with gains. Power play, or “coercive diplomacy”<sup>57</sup> in turn, creates “hold-up” problems in which countries may not commit in fear of the partner’s

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<sup>49</sup> Hirschman 1980; Krasner 1982.

<sup>50</sup> Mastanduno 2009.

<sup>51</sup> Gasiorowski 1986; Rosecrance 1986; Mansfield 1994; and ONeal and Russett 1999.

<sup>52</sup> Mansfield et al. 2000.

<sup>53</sup> Tyson 1992.

<sup>54</sup> Mearsheimer 1994; Steinberg 2002.

<sup>55</sup> Steinberg 2002.

<sup>56</sup> Haas 1980; Aggarwal 1985.

<sup>57</sup> Carnegie 2015.

renege on agreements.<sup>58</sup> However, sectoral trade-offs were blocked in stand-alone sectoral agreements by design.

There are other non-state actors in international relations, such as MNCs, which have long been considered instruments of the state. Gilpin (1975) finds that MNCs penetrate developing countries and carry out not only economic but also political functions. Berger et al. (2013) also find that, in countries where the CIA intervened during the Cold War, their imports from the US increased while their exports to the US did not increase. Moreover, these imports came from the industries in which the US had comparative disadvantages. They conclude that the US government created a market for less competitive US products in the countries with which the US had intervened. However, the rise of MNCs in multiple jurisdictions challenged the primacy of the state in international relations.<sup>59</sup> Vernon (1971) first presented this idea in his book, *Sovereignty at Bay*, that the power of MNCs is increasing vis-à-vis individual states. The rise of MNCs that seem to be independent of state boundaries and power has led some to refer to the “retreat of the state.”<sup>60</sup>

Applied to the IT, telecommunications, and financial services sectoral negotiations, the power asymmetry perspective entails the following three related arguments. First, the most powerful state in the international system would create the regime in high-technology industries. At the time of the WTO negotiations, the US had been the strongest state both militarily and economically. Therefore, this argument would predict that these WTO agreements reflect the hegemon’s (US) interests, and that the US forced “weak” states to accept its demands.

Second, the most powerful state in the issue area determines the structure, process and outcomes of the negotiations. This argument draws on the overall hegemony model, but acknowledges that the most powerful state may vary across issue areas.<sup>61</sup> The issue structure model is linked to the overall structure model if power is transferrable between the higher-level system and the lower-level system and across issue areas. In the case of the IT, telecommunications, and financial services industries, the US was a major player, but not the dominant player, as it shared the market with the EU and Japan, accounting for 75% of world trade in these industries. The triad countries<sup>62</sup> were interested in further liberalizing each other’s markets, especially in services, as well as removing entry barriers in developing countries. They initiated the negotiations and set the agenda for all three agreements.

Third, the US created the new international regime to serve its foreign policy objectives as well as to placate domestic interests and allies. This model seeks to fill a huge gap in the structural models, which have been criticized for neglecting the preferences of other states in the system, even the hegemon’s allies, who are needed for the maintenance of the system. Mastanduno (2009) describes how the US has maintained the international economic order, and by doing so, also served domestic constituencies as well as its allies by providing economic and security support.<sup>63</sup> This approach better captures the relationship between industries and governments in the US, EU, and Japan in these sectoral negotiations.

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<sup>58</sup> Carnegie 2014; Cooley and Spruyt 2009.

<sup>59</sup> Vernon 1971; Strange 1996.

<sup>60</sup> Strange 1996.

<sup>61</sup> Keohane and Nye 1977, Aggarwal 1985.

<sup>62</sup> The Triad countries included the US, EU, and Japan.

<sup>63</sup> However, in the process of enlarging the overall pie, the US also increases the relative distribution of pie. The US has allowed its allies to grow and reduce dependence on the US, such as the EU, Japan, and the rising challenger, China. See Mastanduno 2009.

It is beyond dispute that power asymmetry has shaped trade negotiations—however, there are three main unresolved problems with this explanation. First, the biggest puzzle in the systemic analysis is from where the hegemon gets its preference. Without a doubt, the hegemon initiated and pushed for the agreements, but this theory does not tell us what the source of the hegemon’s preferences was, who the hegemon chose to push, or what the preferences of other states were. This model does not account for US preferences in these sectoral negotiations.

Second, the outcome of the negotiations—country commitments to liberalization—fell far short of the outcome desired by the US. While the US promoted full—or substantial—liberalization in IT, telecommunications, and financial services, the level of liberalization commitments fell short of US expectations, especially in the key target markets in Asia. The level of liberalization varied across sectors as well as countries. Power asymmetry may bring countries to the negotiating table, but cannot guarantee a favorable negotiating outcome for the most powerful states. Third, this framework misses the role of MNCs in international policymaking. Scholars in this tradition see MNCs as an extension of the state.<sup>64</sup> Yet MNCs in high-technology industries were active in the negotiations by forming alliances across state boundaries and contributing to the establishment of new principles, norms, rules, and procedures.

### **An Institution-Based Argument**

An institution-based approach focuses on the benefits of cooperation through a regime, which led countries to sign sectoral agreements and predicts that countries negotiated the features of the agreements to reduce transaction costs and information asymmetry. This framework grew out of the puzzle of the rise of non-state actors and economic integration through “formal and informal international institutions”<sup>65</sup> in the international system. It was built upon the success of the Bretton Woods Institutions—the IMF, World Bank, and the GATT/WTO. Complex interdependence (Keohane and Nye 1977) has three main features: 1) multiple channels connecting societies, 2) lack of a clear hierarchy of issues, and 3) the irrelevance of military force.<sup>66</sup> This differs from the prediction of the Hegemonic Stability Theory that a “hegemonic distribution of potential economic power is likely to result in an open trading structure.”<sup>67</sup>

While neorealist and neoliberal institutional theories are both systemic theories, they disagree on whether international institutions are independent entities.<sup>68</sup> As we have seen from the power-based argument, neorealists argue that institutions are reflections of the hegemon’s self-interests and power distribution. Neoliberal institutionalists argue that a norm-based institution could outlive the power distribution it was founded upon.<sup>69</sup> They question whether a hegemon is necessary to maintain a regime and argue that a small number of states with common interests could create and maintain a liberal economic regime, even without a hegemon.<sup>70</sup>

Why do states agree to create legal institutions? The power-based explanation argues that strong states create these rules and take up the costs of enforcement in order to control weaker

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<sup>64</sup> Vernon 1971; Krasner 1978; Gilpin 1975.

<sup>65</sup> Keohane and Nye 2001, viii.

<sup>66</sup> Keohane and Nye 1977.

<sup>67</sup> Krasner 1976, 318. Neoliberal institutionalists also acknowledged the extraordinary power of the US to support the multilateral economic order, but some argued that multilateralism was coupled with the “quest for domestic stability” that reflected the “shared legitimacy” of a set of norms and objectives of industrial countries. Ruggie 1982, 398.

<sup>68</sup> Barnett and Finnemore 2004.

<sup>69</sup> Ruggie 1982.

<sup>70</sup> Keohane 1984; Lipson 1984; Axelrod and Keohane 1985; Oye 1985; and Snidal 1985.

states. The institution-based explanation argues that countries cooperate to create a regime—principles, norms, rules, and procedures—on the basis of shared common interests. The regime facilitates cooperation by reducing information asymmetry and transaction costs, as well as creating issue linkages.<sup>71</sup> The liberal explanation argues that domestic groups want either to access international tribunals (transnational legalization)<sup>72</sup> or to bind themselves or their successors at the international organization (the tie-hands explanation).<sup>73</sup>

There are five neoliberal-focused models of regime change: 1) the economic process model, 2) the transaction costs model, 3) the international organization model, 4) the cognitive model, and 5) the nested institutions model. The first model, the economic process model, argues that technological changes make the existing regime obsolete.<sup>74</sup> Technological development and the rise in trade in IT, telecommunications, and financial services make the existing regime inadequate to deal with new trade issues that come up.

The transaction costs model argues that countries cooperate through a regime because increased multi-level interactions between states, non-state actors, and international organizations, increase transaction costs and a central forum can reduce organizational costs and information asymmetry.<sup>75</sup> Indeed, increased bilateral negotiations by MNCs in opening up trade in IT, telecommunications, and finance led countries and their industries to look for a multilateral forum, the WTO, to negotiate market access problems.

The international organization model, also known as the inertia model, predicts that international organizations, once established, are difficult to change drastically.<sup>76</sup> It especially focuses on organizationally dependent capabilities such as voting power and the ability to form coalitions to affect countries' behaviors. I find that this model applies in a limited fashion to the IT, telecommunications, and finance negotiations at the WTO. Industrial countries formed coalitions and developing countries formed coalitions, while the voting power of developing countries was limited. Moreover, the coalition of industrial countries was stronger than the coalition of developing countries and depended on powerful countries (the US, EU, and Japan) and their industries to initiate and conclude the agreements.

The nested institutions model predicts that a new institution will be reconciled with existing ones, either through nesting in a hierarchical linkage or division of labor in a horizontal linkage.<sup>77</sup> Countries nested the textile-trading regime in the overall trading regime of the GATT, or divided the function of governing trade and finance in separate institutions, such as the GATT and the IMF, respectively.<sup>78</sup> States also reconcile parallel, linked, and overlapping institutions. Aggarwal (1998) looks at reconciling multiple institutions through bargaining, linkages, and nesting. Institutions could be linked through a parallel (horizontal) linkage or a nested (hierarchical) linkage. A parallel linkage is one in which institutions divide labor into separate functions. A nested linkage is between a lower-level system and higher-level system in which the structure of the higher-level system influences the institutional design at the lower level.<sup>79</sup> Countries also choose between bilateral, minilateral, and multilateral trade institutions for their

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<sup>71</sup> Keohane 1984.

<sup>72</sup> Keohane, Moravcsik, and Slaughter 2000.

<sup>73</sup> Schelling 1960.

<sup>74</sup> Keohane and Nye 1977.

<sup>75</sup> Keohane and Nye 1977.

<sup>76</sup> Keohane and Nye 1977.

<sup>77</sup> Aggarwal 1985.

<sup>78</sup> Aggarwal 1985.

<sup>79</sup> Aggarwal 1985, 1998.

desired issue scope and membership.<sup>80</sup> In the IT, telecommunications, and finance negotiations, instead of creating new organizations, countries nested these agreements in the WTO, thereby enjoying the institutional rules and enforcement mechanism of the WTO. However, the financial services agreement brought down the wall between the WTO and the IMF as the WTO negotiated trade in financial services, even though finance was traditionally governed by the IMF.

As Keohane and Nye have noted, “no single model is likely adequate to explain world politics.”<sup>81</sup> I want to echo this statement in that, while the institution-based explanations work well in explaining countries’ motivations for creating a new regime in these industries, they fail to explain why countries did not agree to liberalize fully in these sectors, including certain countries, products, and services, but excluding others. We need a more specific independent variable to understand variation within a regime.

Institutions are not created exogenously and imposed upon states. Instead, states actively negotiate institutional features during the institution-building process. States intentionally design institutions to further their interests and to maintain the relevance of the institution when faced with challenges.<sup>82</sup> States build in legal mechanisms such as dispute settlement mechanism or escape clauses to strengthen the enforceability of agreed rules and procedures and provide flexibility.<sup>83</sup>

One of the distinguishing features of international institutions is their legal mechanism. A legalization approach<sup>84</sup> distinguishes between hard law and soft law in international institutions.<sup>85</sup> International financial regulations have been known as soft law (Brummer 2012, 2014) and international trade rules, with the dispute settlement mechanism, have been known as hard law. While Abbott and Snidal (2000) found that actors prefer soft legalization, my study looks at the effort of financial firms to bring financial liberalization under the hard law of the WTO. Because financial firms from developing countries rarely enter, or hold a significant share in, the markets of industrial countries, these industrial countries cannot hold access to their markets as leverage over developing countries. Hence, financial firms from industrial countries wanted to utilize hard law—the dispute settlement mechanism—to bind the liberalization of developing countries and hold them accountable in case of violations.

The dispute settlement mechanism is one of the few “hard” enforcement mechanisms in international institutions and hence attracts the attention of scholars studying the direct and indirect effects of the enforcement mechanism in international institutions.<sup>86</sup> At the WTO, industrial countries have had agenda power, but developing countries have also gained power vis-à-vis industrial countries as they began to increasingly use the dispute settlement mechanism. Developing countries now account for more than half of the complainants against industrial countries and other developing countries.

Once scholars had established that institutional institutions matter, their focus turned to how institutions affect economic outcomes of interest. There were active debates on whether the

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<sup>80</sup> Yarbrough and Yarbrough 1992; Aggarwal 1998; Brummer 2014.

<sup>81</sup> Keohane and Nye 2001, 50.

<sup>82</sup> Aggarwal 1985, 1998; Koremenos et al. 2001; and Milner and Rosendorff 2001.

<sup>83</sup> Milner and Rosendorff 1997.

<sup>84</sup> Goldstein et al. 2000.

<sup>85</sup> Abbott and Snidal 2000.

<sup>86</sup> Chaudoin et al. 2016; Davis 2011; Goldstein and Steinberg 2008; Guzman and Simmons 2005; Bown 2004, 2009; Maggi and Staiger 2011; and Brutger and Morse 2015.

WTO increases trade and under what conditions.<sup>87</sup> PTAs and BITs were also found to have increased trade and investment among partners, especially for developing countries,<sup>88</sup> either through credible commitment or diffusion mechanisms.<sup>89</sup>

As the institution-based framework emphasized common interests and consensus, the function of “ideas” in foreign policy began to matter more.<sup>90</sup> From regime theory, the research program on norm developed what is now known as constructivism. Against rational and material preference formation, constructivists emphasized the power of nonmaterial ideas that are collectively held by actors to shape the system we live in.<sup>91</sup> As countries formed consensus on norms and principles, epistemic communities (Haas 1992), norm entrepreneurs (Finnemore and Sikkink 1998), and supranational entrepreneurs (Moravcsik 1999) began to play an important role in setting norms, principles, rules, and procedures. This study attempts to investigate who these norm entrepreneurs were in the international institutions that created norms in trade in the IT, telecommunications, and financial services industries.

The institution-based framework has three related arguments regarding why countries sign international agreements. First, countries sign international agreements because it provides them with net benefits.<sup>92</sup> Opening up trade through multilateral agreements can bring in foreign capital as well as helping their export-oriented firms abroad. A regime can also reduce transaction costs and information asymmetry by providing a central forum for discussing issues and sharing information. These benefits were especially appealing to telecommunications firms and financial firms that were looking to expand abroad. Firms like AT&T, Citi, and American Express faced entry barriers and protracted bilateral bargaining processes to enter foreign markets. Hence, they looked for a multilateral forum to negotiate market access problems.

Second, technological changes led to the creation of a regime in the IT, telecommunications, and finance industries.<sup>93</sup> Many scholars have attributed the advances in telecommunications and transportation technology to globalization, which increased the channels of interaction between people, societies, and countries. These technological advances also transformed the way firms are connected to other firms and consumers. In the IT industry, the development of semiconductor capacity and the industrial upgrading of Japan, Korea, and Taiwan led to the international fragmentation of production networks. Access to fixed-line telephones in developing countries led to an increase in the volume of long-distance phone calls around the world. Increases in the ease of travel and data transfer through technological development led to an increase in cross-border financial transactions.

Third, and related to the previous point, technological developments played a part in countries’ consensus on new principles and norms.<sup>94</sup> As countries increased trade in goods and services, they faced the challenges of reconciling the different priorities of countries in the IT,

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<sup>87</sup> Rose 2004; Goldstein, Rivers, and Tomz 2007; Tomz et al. 2007; Maggi 1999; and Carnegie 2014.

<sup>88</sup> Buthe and Milner 2008; Milner and Kubota 2005; and Neumayer and Spess 2005, among others.

<sup>89</sup> Elkin, Simmons, and Guzman 2006; and Mansfield, Milner, and Rosendorff 2002.

<sup>90</sup> Goldstein 1988; Goldstein and Keohane 1993.

<sup>91</sup> Abdelal et al. 2010.

<sup>92</sup> Keohane 1984.

<sup>93</sup> There were some bilateral agreements, such as the US-Japan semiconductor agreement, but no multilateral trade agreement in the IT, telecommunications, and financial services industries.

<sup>94</sup> Ruggie introduces the concept of embedded liberalism, in which political authority is a fusion of power and purpose. In explaining regime change, he argues that even when economic power changes, as long as the “purpose” stays constant, the normative framework (norms and principles) may not change even if the instruments (rules and procedures) change. See Ruggie 1982, 398; Simmons et al. 2008.

telecommunications, and finance sectors. The biggest problem for the services sector was the lack of national treatment for foreign providers. Because SOEs controlled the financial and telecommunications services sectors of many countries, foreign providers' requests for equal rights with domestic incumbents went unanswered in many countries. Specific to the telecommunications sector, one of the key principles that countries needed to agree on was interconnection. This principle emphasizes the point that incumbents should open their domestic networks to foreign providers for successful connections of calls from one country to another country. These norms, such as national treatment and interconnection, reduce uncertainty as states agree on the expected norms, principles, rules, and procedures.

Complex interdependence provides a rationale for cooperation and an institutional space in which countries negotiate. It also takes into account power asymmetry, in that even regimes that may have been promoted by powerful states can take on a life of their own and create a norm-governed order that may be separate from changes in power distribution.<sup>95</sup> Without a doubt, technological changes led to a consensus on the need to create a new regime in trade in IT, telecommunications, and financial services. However, this framework also fails to account for variation in the level of liberalization commitments and membership across sectoral agreements. While technological changes affected all markets, governments responded differently.<sup>96</sup> Technological changes may provide an impetus for a regime change, but cannot explain when and how these changes occur.<sup>97</sup>

Moreover, as with power-based explanation, this framework is state-centric and does not disaggregate state interests. The statist approach separates the interests of state and society, and assumes that the state has its own set of goals and that the state's interests are not the sum of the interests of different domestic groups.<sup>98</sup> Although this framework acknowledges MNCs and international institutions, it falls short of specific discussion of particular actors, preferences, and their strategies. We must look into the IT, telecommunications, and finance sector and their user industries in order to explain who the target countries are, what products and services are included or excluded, and why countries vary in their level of liberalization.

### **The Domestic Politics Argument**

A domestic politics framework drops the assumption that the state is a unitary actor. Traditionally, a domestic politics explanation was not salient in international relations. Waltz (1959) assumed that all states became "like units" owing to the anarchic structure of the international system and are only differentiated by their capabilities. He divided the analysis into three levels—individual (first image), domestic (second image), and international/systemic (third image). The first image looks at human nature and individual leadership, which the classical realists focused on. The second image looks at the political and economic features of states. The third image looks at the systemic level, where the "like units" vie for power. Waltz argued that the cause of war was found at the third level in the interaction of states in the anarchic system.<sup>99</sup> However, in the late 1970s scholars began to question this assumption. Gourevitch (1978) reversed Waltz's second image and argued that international factors shape domestic responses. International factors can affect the preferences of actors according to their position in the

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<sup>95</sup> Ruggie 1982.

<sup>96</sup> Vogel 1996.

<sup>97</sup> Keohane and Nye 1977.

<sup>98</sup> Krasner 1978.

<sup>99</sup> Waltz 1959. Also see Waltz 1979 for more discussion on the anarchy of the international system.

economy or affect domestic institutions in response to external shocks.<sup>100</sup> In this tradition, scholars analyzed how states respond to changes in the international system by different configurations of institutions, interests, and ideas.<sup>101</sup> Waltz (1967) also analyzed the difference between the US and UK in terms of foreign policy and state structure.

A domestic politics framework looks at the ways in which a group's position in the international economy determines its preferences in economic policies.<sup>102</sup> Using the Stolper-Samuelson Theorem of the Heckscher-Ohlin model and the Ricardo-Viner model, scholars identified groups that are likely to favor trade or protection policies.<sup>103</sup> The Stolper-Samuelson theorem, a specific result of the Heckscher-Ohlin model, links commodity prices and factor prices. In an economy with two factors of production such as labor and capital, when the price of a good increases, the price of the factor used intensely in that good will also increase, while reducing the return to the other factor. Hence, trade benefits owners of abundant factors in the economy (such as capital in developed economies or labor in developing economies), whereas it harms the owners of scarce factors in the economy (labor in developed economies or capital in developing economies). The Ricardo-Viner model, or specific factors theorem, states that in a world with specific-sector capital and labor mobile across sectors, differences in factor endowment can create comparative advantages and distributional conflicts between owners of capital in different sectors.

The literature has evolved from the societal divisions between factor endowments (capital vs. labor) to sectoral divisions (capital and labor in tradable sectors vs. in non-tradable sectors; importers vs. exporters; consumers vs. producers).<sup>104</sup> Recently, scholars have begun to examine support for trade policy at the individual level based on education and employment.<sup>105</sup> In the high-technology sectors, however, the debate over labor was absent. Because workers in high-technology industries are highly educated and highly mobile across sectors, they can relatively easily switch jobs to other high-technology industries. For these reasons, trade negotiations in the IT, telecommunications, and finance sectors have stayed in the realm of "quiet politics."<sup>106</sup>

Scholars in the liberal tradition assume the primacy of society actors, representation of some subset of domestic interest groups, and policy interdependence.<sup>107</sup> In this tradition, societal interests are translated into state policies through a transmission belt. That politics are "captured" by interest groups has long been studied in the literature on business lobbying,<sup>108</sup> which found that businesses spend a considerable amount of time and money on lobbying politicians. Groups form partisan political organizations to affect trade policies,<sup>109</sup> and politicians in democratic regimes respond to lobbying pressure because they face electoral pressure.<sup>110</sup>

Pushing back against the "capture" theory, scholars have argued that state institutions have autonomous preferences that are separable from those of interest groups.<sup>111</sup> The legislature

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<sup>100</sup> Frieden and Martin 2003.

<sup>101</sup> Katzenstein 1976, 1978; Gourevitch 1978; Rogowski 1987; and Vogel 1996, among others.

<sup>102</sup> Schattschneider 1935.

<sup>103</sup> Rogowski 1987, 1990; and Gourevitch 1986.

<sup>104</sup> Hiscox 2001.

<sup>105</sup> Baldwin and Magee 2000; Scheve and Slaughter 2001; Hiscox 2002; and Hainmueller and Hiscox 2006.

<sup>106</sup> Culpepper 2011.

<sup>107</sup> Moravcsik 1997.

<sup>108</sup> Schattschneider 1935; Grossman and Helpman 1994, 1995; Gawande et al. 2012; and Drutman 2015.

<sup>109</sup> Nollen and Quinn 1994; Garrett 1998.

<sup>110</sup> Mansfield, Milner, and Rosendorff 2002.

<sup>111</sup> Evans et al. 1985; Vogel 1996; Allison and Zelikow 1999; and Halperin et al. 2007, among others.



may be driven by constituents, but different parts of government, such as the bureaucracy, may have independent preferences. The institutional arrangements of coordinated or liberal economies<sup>112</sup> or subnational institutional arrangements<sup>113</sup> could affect coalition politics and economic policies. Executives, although elected, have national interests and broader constituents and may act differently from Congress. Milner and Tingley (2011, 2015) analyzed presidential power in US foreign policy and found that presidents act differently from the legislature in some issue areas.

A state's regime type matters for the type of international economic institutions states choose,<sup>114</sup> as democratic states are more likely to sign trade agreements.<sup>115</sup> However, an increase in the number of interest groups (and veto players) could also lead states to be less likely to sign a trade agreement.<sup>116</sup> Kono (2006) finds that democracies engage in "optimal obfuscation," in which tariffs are lower but non-tariff barriers are higher. The rise of China also challenges the literature on regime type and trade as China does not elect its top leaders but plays an important role in the international economic arena.

As we have seen, a domestic politics explanation looks at different institutions and actors<sup>117</sup> within a state to find preferences. There are three main arguments involved here: state institutions, such as bureaucracies, pursue national goals; industry pursues its interests through foreign economic policies; and state and society negotiate over foreign economic policies.

First, state institutions promote sectoral agreements in IT, Telecommunications, and finance to achieve national goals.<sup>118</sup> This argument unpacks the "state" into different domestic institutions such as the executive, judiciary, legislature, regulators, and other agencies. These institutions may have different orientations, constituents, priorities, goals, and tools. This approach analyzes how different configurations of state institutions and societal actors lead to variation in policy responses to external shocks.<sup>119</sup> This approach also helps identify major stakeholders, the preferences of these actors, and how these preferences are ordered.<sup>120</sup>

In these sectoral negotiations, the relevant domestic agencies are the US Trade Representative (USTR), the Federal Communications Commission (FCC), the Department of Commerce, and the Department of the Treasury in the US, and their counterparts, such as the Ministry of Industry and Trade, the Ministry of Post and Telecommunications (MPT) and the Ministry of Finance (MoF), in other countries. These ministries have a double role, regulating industries but also promoting domestic industries abroad, ensuring that they are getting treated fairly as well as creating markets for foreign businesses at home.<sup>121</sup> Along with industry and international organizations, domestic agencies play important roles in mediating industry demands and international demands from other ministries. They also have autonomous

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<sup>112</sup> Hall and Soskice 2001.

<sup>113</sup> Post 2014.

<sup>114</sup> Mansfield, Pevehouse, and Bearce. 2000; Mansfield, Milner, and Rosendorff. 2002; and Mansfield, Milner, and Pevehouse. 2008.

<sup>115</sup> Mansfield and Milner 2012.

<sup>116</sup> Mansfield and Milner 2012.

<sup>117</sup> Frieden 1999.

<sup>118</sup> For example, Vogel looks at the orientation and organization of regulatory regimes in telecommunications and finance in the UK and Japan and defines the objective of state actors in these regimes to be "finding new ways to raise government revenue and designing new mechanisms of policy implementation" Vogel 1996, 19.

<sup>119</sup> Katzenstein 1976, 1986; Gourevitch 1986; Ikenberry 1986; Evans, Reuschemeyer, and Skocpol 1985; and Vogel 1996.

<sup>120</sup> Moravcsik 1997; Milner and Tingley 2011.

<sup>121</sup> Vogel 1997.

preferences, like promoting competition and universal service for underserved populations in the case of telecommunications and financial services, among other governing objectives.

In the telecommunications negotiations, liberalization in basic telecommunications presented the FCC in the US and its counterpart MPTs in other countries with both opportunities and challenges. While liberalization would increase the volume of long-distance calls and lower the costs of these calls, MPTs in developing countries were concerned with losing revenues as a result. Because telecommunications networks around the world were owned and operated by the state, international calls and connection charges from foreign carriers directly went into the government's revenue base.<sup>122</sup> Hence, allowing foreign entrants into the profitable and protected domestic market presented threats to the MPTs' revenue projections. On the other hand, US carriers were losing money when their individual clients called family and friends abroad.

As with the telecommunications sector, many financial sectors were closed to foreign entry, and financial intermediation was inefficient due to a high share of SOEs in the banking system.<sup>123</sup> The prospect of a multilateral agreement in financial services presented governments around the world with the dilemma of opening up the financial services sector not only to FDI, but also to the contagion of risk and sudden reversal of FDI in times of crises. Finance ministers made sure to exclude monetary policy and public pensions (social security) from the scope. On the other hand, these agreements also presented opportunities for the ministries to bring in external discipline and tie leaders' hands<sup>124</sup> against strong incumbents in the inefficient telecommunications and financial services sectors.

Second, domestic interests pushed for agreements in the IT, telecommunications, and finance industries. The domestic industry perspective predicts that telecommunications firms, financial firms, and IT firms lobbied for trade liberalization at the WTO through their domestic governments. This approach views government decisions as a function of societal interests, either the dominant interest in society or the equilibrium that results from compromises between various interests.<sup>125</sup> This framework assumes that politicians, especially in democracies, face electoral pressure from their constituents and industries and try to balance these demands to increase the probability of winning re-election. Domestic industries lobby politicians directly or through coalitions.

Third, state institutions and industries agree to sign an international agreement for mutual benefit. This perspective takes the middle ground to acknowledge the conflicting demands from industries and government agencies in trade negotiations. Putnam (1988) captured this problem in his two-level game. In his model, two negotiating partners (country A and country B) sit at a table across from each other (Level I game). Behind each negotiator sits a group of party figures, representatives of domestic agencies and key interest groups, as well as the negotiator's own political advisors (Level II game). Putnam's model discusses the size of win-sets, the set of all possible agreements that would "win" the negotiations, and how the size and overlap of these win-sets would help the negotiations. However, this model does not capture the fact that domestic interest groups in different countries could communicate and strategize directly. He

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<sup>122</sup> Due to high costs, there were more incoming calls into developing countries from families abroad than outgoing calls from developing countries.

<sup>123</sup> La Porta et al. 2002. Caprio et al. 2004.

<sup>124</sup> Schelling 1960.

<sup>125</sup> McKeown 1984; Gourevitch 1986; and Moravcsik 1997.

ends his paper by calling for research into the “strategic implications of direct communication between Level II players.”<sup>126</sup>

Indeed, I find that industries formed domestic inter-industry associations as well as multi-country, intra-industry coalitions. Governments also saw that liberalizing these sectors would promote economic growth and also have spillover effects in other industries in the economy. Government negotiators and agencies sought advice from industry representatives regarding which products and services to liberalize, which countries to target, and what principles and norms would be necessary in the global trade realm. This was especially important in the telecommunications and financial services sectors as liberalization would involve removing non-tariff barriers behind the border.

Although the domestic politics explanation unpacks the state into different institutions and actors, it neglects the interrelationship between industries, which can affect preferences over trade policy. The literature on firm preferences has focused only on the firms in the industry under discussion, and not their *customers* from which firms’ preferences are derived. There are three major shortcomings with this framework. First, although US industries were powerful, they could not act unilaterally or conclude a multilateral agreement on their own. Preferences of the state—whether the US or other countries—have to be taken into account. Why did the states agree to liberalize? What were the benefits for them and their industries?

Second, state interests may simply align with industry interests, and this may not necessarily mean that the state was “captured” by the industry at the expense of other industries.<sup>127</sup> This is especially true in the industries strategic to national security and economic growth, such as the raw materials and high-technology industries. In fact, after the oil shocks in the 1970s, statisticians argued that energy security was a national interest.<sup>128</sup> Tyson (1992) also argues this point for high-technology industries, claiming that they are strategic to economic growth. She argues that the trade conflicts that US firms in the high-technology industries face at home and abroad are threats to national interests and advocates a “cautious activist” approach to protect these industries. In the WTO sectoral negotiations, the state, both the hegemon and participating countries, agreed that building the digital infrastructure was crucial to the economic growth of their countries.

Third, even when it comes to industry preferences, this framework has not systematically analyzed the goals and strategies of firms in foreign expansion in terms of where to go and why. I look at the global governance of the IT, telecommunications, and financial services industries that involve not only states, but also industries and international organizations. I argue that firms derive their preferences from their clients. In order to better serve their clients, firms formed domestic inter-industry alliances as well as multi-country intra-industry alliances to push their home governments, host governments, and international organizations.

To summarize, a power-based explanation helps us understand who initiated the negotiations and who the major players were. An institution-based perspective provides a framework in which the negotiation process took place and the rules with which the regime was founded. And a domestic politics approach helps identify relevant stakeholders and how they

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<sup>126</sup> Putnam 1988, 459.

<sup>127</sup> If preferences of government and industry can be represented as Euclidean vectors, these vectors may converge in direction in a given dimension, but differ in magnitude (length) regarding the endpoint of outcomes. For example, the vector of industry preferences may be longer than that of government in the same direction such that the outcome desired by industry may be more far-reaching than what is preferred by government. If industry organizes a powerful lobby, government may be subject to capture by industries to deliver more than their desired outcome.

<sup>128</sup> Krasner 1978.

interacted. That these factors contributed to international agreements is beyond dispute; however, while they explain the *how*, they do not explain *why* states negotiated international agreements. They lack predictive power, describing the process, not the source of preferences. I trace the source of state preferences to the industry and its ecosystem (Global Value Chains) in a given sector, especially to an industry's core business and its major user industries.

Global value chain analysis complements these models by locating the preferences of user industries, whose interests affect industry preferences and countries' preferences from their position<sup>129</sup> in the global political economy.<sup>130</sup> It also helps identify where these firms wanted to expand, what products and services they wanted to include, and how deeply they wanted to liberalize. It helps explain not only the preference of the most powerful state, but also of other countries and their industries. A global value chain, which maps the linkage of goods, services, capital, people and knowhow, is a specific type of complex interdependence that is evolving and affects every polity within. It could help answer new theoretical puzzles in international trade, such as the rising share of intra-industry trade,<sup>131</sup> trade in services,<sup>132</sup> and the effects of these developments. The following sections present a theory of global value chains and trade policy in high-technology industries.

## II. Dimensions of Sectoral Agreements: Scope, Membership, and Depth

To understand why and with whom countries sign trade agreements, one needs to analyze the features of trade agreements: what issues the agreements cover, how deeply the agreements liberalize trade in a given sector, and who joins the agreements. I will now discuss these three dimensions of sectoral agreements—scope, depth, and membership.<sup>133</sup>

**Table 1. Independent and dependent variables of sectoral agreements**

	ITA	BTA	FSA
IV: # of User Industries	Small (Telecommunications equipment, computers)	Medium (Finance, Defense, Manufacturing, Information)	High (Agriculture, mining, manufacturing, services, information, finance, or all MNCs with large foreign operations and cross-border transactions)
DV1: Depth	High	Medium	Low
DV2: Scope	Low	Medium	High
DV3: Membership	Low	Medium	High

IV: User industries

DV: Depth, Scope, and Membership of Sectoral Agreement

<sup>129</sup> Milner finds that firms' trade preferences are shaped by their "position in the international economy and less by other, more domestic factors," Milner 1987, 642.

<sup>130</sup> Keohane 2009; Katzenstein 2009.

<sup>131</sup> Krugman 1981; Melitz 2003; and Helpman et al. 2004.

<sup>132</sup> Freund and Weinhold 2002; Deardorff 2001; Eichengreen and Gupta 2013.

<sup>133</sup> Framework adapted from Aggarwal 1985, 1998 and Koremenos et al. 2001.

**Scope** refers to the number of issues included in the agreement. Scope is not exogenously given, but rather negotiated from the beginning to the end of negotiations. Determining scope is contentious because it affects all parties across the board, but some states could benefit more than others depending on the products or services that are included. Countries want to include products in which they have comparative advantages and exclude products in which they have comparative disadvantages.

The ITA had 6 large categories—semiconductors, semiconductor manufacturing equipment, telecommunications equipment, computers, software, and scientific equipment. The notable exclusion from the scope is consumer electronics, due to the demands of the European consumer electronics industry. The BTA had three large categories: basic telecommunications services, value-added telecommunications services, and satellite telecommunications services. Basic telecommunications services included voice telephony, such as wire and wireless telecommunications services on a facilities-basis or lease-basis. Value added services included online data processing and storage, email, and voice mail. Satellite telecommunications services (fixed and mobile) were added near the end of the negotiations.

The FSA had the largest number of services, segmented by banking, securities, insurance, and auxiliary financial services. Banking services included deposits, lending (of all types, including consumer credit, mortgage credit, and commercial credit), and all payment and money transfer services. Securities services included issuance and underwriting of securities as well as trading of money market instruments, foreign exchange, derivatives, and swaps, among other products. Insurance covered life insurance, non-life insurance, reinsurance, and insurance brokerage. Auxiliary financial services included asset management, financial consulting, and other financial advisory services such as M&As, investment, portfolio, and credit analysis. Countries excluded monetary policies and public pension systems from the scope of coverage.

**Membership** refers to the number of countries in the agreement. The bigger the membership, the more trade covered in an agreement. However, the market size of a country is important. For example, the inclusion of some countries, such as the US and EU, due to their market size and/or the strategic position in the value chain, is more important than an agreement without these members, however large the membership is. Founding members can also help shape the trade agenda from the start, while non-members are subjected to the agreement after the negotiations are concluded. Due to this agenda power, membership is important even when the benefits are extended to non-members. The ITA had 28 members, the BTA had 69 members, and the FSA had 102 members. The geographic coverage also varied, as the ITA focused on the Quad countries (US, EU, Japan, and Canada) and Asia-Pacific countries, the BTA extended the coverage to more Latin American countries, and the FSA, in addition to countries in Asia, Latin America, and Europe, included many African countries and small banking havens.

**Depth** refers to the level of liberalization, ranging from full liberalization to no liberalization. In the ITA, depth refers to tariff rates and phase-out periods, and in the services agreements, such as the BTA and the FSA, depth refers to market access levels granted to foreign service providers in four modes of supply: cross border supply, consumption abroad, commercial presence, and natural movement of persons. The GATS framework defined four modes of supply in trade in services. Mode 1 is cross-border supply, in which a service is supplied from one territory to another territory. An example of cross-border supply is when a provider in country A provides online insurance service A to a resident in country B. Mode 2 is consumption abroad, in which a resident from one territory can purchase services when traveling in another territory (e.g. a traveler buys travel insurance abroad). Mode 3 is commercial presence,

in which a service provider establishes local presence in foreign territory (e.g. a financial firm opens a subsidiary/branch in foreign territory). Mode 4 is natural movement of persons, in which a service is supplied in one territory by the presence of a natural person who is a resident of another territory (e.g. a financial professional who is a resident of another state provides services in a foreign country). The most contentious mode of supply was commercial presence, in which foreign services providers could establish commercial presence and compete with domestic incumbents.

Countries removed or clarified the limits of non-tariff barriers such as foreign ownership equity cap, entity structure, licensing procedure, and corporate board structure across sectors and across sub-sectors. In the ITA, depth was uniform across countries at zero tariffs for all products included in the agreement; however, countries differed in phase-out periods, with developing countries taking a longer time to lower tariffs. In the BTA, countries generally opened value-added services but restricted foreign entry into voice telephony. The FSA had restrictions across subsectors of banking, insurance, securities, and advisory services, by specifying either entry conditions or capital requirements. What accounts for variation across sectoral agreements and across countries within a sector?

### III: Theory of Global Value Chains and Trade Agreements

Figure 1.



I argue that user industries determine the scope, depth, and membership of sectoral agreements, and that industry alliances—inter-industry (domestic and international) and intra-industry (international) alliances—function as the mechanism through which user industries affect the dimensions of a sectoral agreement. But first: what are user industries, why do they matter for trade policies, and how do we identify them?

User industries refer to an industry's institutional clients at the industry level. They are also known as B2B (Business to Business) relations, which are different from B2C (Business to Consumer) relations, and include firms in their own industry as well as in other industries. Generally, firms have two large subgroups of clients: institutional clients such as large firms, schools, and governments; and retail clients such as small businesses or individual customers. Many firms divide their customer service into these two dimensions in order to better serve their different needs.<sup>134</sup> For example, a financial institution provides tailored services to institutional

<sup>134</sup> And each division is further segmented by the size and type of portfolios.

clients such as investment managers and publicly listed companies, and serves retail clients through branches and ATMs. IT and telecommunications companies also provide large-scale services for institutional clients like schools and financial firms, and individual services for retail clients such as households and small businesses.

Why do user industries matter for firms? The first priority of firms is to create profits, and in order to maximize profits ( $\pi=R-C$ ), firms seek to increase revenues (R) and minimize costs (C). User industries enter the profit maximization equation by affecting both revenues and costs. Firms seek to expand their customer base to increase revenues, and securing large corporate clients brings in profitable business for the long term. In order to lower costs, firms review the efficiency of their global value chains and look for cheaper input and labor, and better subsidies and benefits across borders.<sup>135</sup>

Why do user industries matter for trade policies? When products and services cross multiple borders before reaching final customers, firms encounter duties, tariffs, and non-tariff barriers. To better serve their clients in foreign countries, firms want to lower tariffs and entry restrictions for foreign services providers. In order to remove or lower barriers, firms either negotiate directly with their counterparts or seek official channels through trade policies. However, the international trade literature has not yet traced the source of industry preferences to clients, nor has it differentiated between the various tiers of clients, despite the fact that they have different policy implications. While many studies have acknowledged the spillover effects of information technology and finance industries to other industries,<sup>136</sup> no study has examined this issue closely enough to understand why firms pursue certain trade strategies. Understanding various tiers of clients, and especially the role of corporate clients, is crucial to understanding the strategic alliances and expansion plans of MNCs, as well as the economic policies promoted by the private industry, such as trade and regulatory policies. A focus on user industries helps us understand firm preferences in trade negotiations with respect to which countries to target, what products and services to liberalize, how deep they want liberalization to be, and why. How do we then identify user industries? We identify the core businesses of an industry and trace its global value chains to identify major user industries.

### **Global Value Chains in the IT, Telecommunications, and Finance Industries**

Global value chains (GVCs) are the international fragmentation of production networks, with the key feature of “international inter-firm flow of knowhow”<sup>137</sup> in the production of goods and the provision of services. They are international networks of people, goods, services, capital, and knowhow. Industries at the beginning of the value chain are known as upstream industries, which provide inputs to downstream industries, which produce final goods and services for end customers.<sup>138</sup> Traditionally known as supply chains, the use of the term global value chains better accommodates the shifting trade pattern from the manufacturing-based economy to the services-based economy. This section examines the evolution of supply chains from vertical integration to vertical specialization to global value chains.

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<sup>135</sup> Firms have other priorities, such as impeding competition or corporate social responsibility (Fligstein 1990). These priorities also serve to create profits in the long-term, even if forgoing short-term profits, to ensure firm survival.

<sup>136</sup> On information technology and productivity, see Brynjolfsson and Hitt 2000. The literature on finance and economic growth is large. For an overview, see Levine 2005. On firm performance and growth, see Rajan and Zingales 1998; Beck et al. 2000; Beck 2012.

<sup>137</sup> Global Value Chains. World Bank, <http://www.worldbank.org/en/topic/trade/brief/global-value-chains>

<sup>138</sup> End customers could be either entities or individuals.

In the late nineteenth century and the early twentieth century, US manufacturing firms engaged in vertical integration, in which a firm controls essential production process under one governing structure. Firms like Ford, General Motors, Standard Oil/BP, IBM, and AT&T produced their inputs and final products either through in-house production or contracts, mergers, and alliances. In high-technology industries, vertical integration had the advantage of controlling input prices (as opposed to market prices) and quantity, and firms could specialize their products by tailoring to its needs (Economides 1999a). IBM sourced key inputs such as semiconductors and microchips to manufacture computers internally. This was producer-driven process, in that a firm's production decision drove the location of factories and subsidiaries (Gereffi 1994). On the other hand, in the apparel retail sector, Gereffi found that retailers such as Walmart or Sears, which do not produce their goods but buy them from factories, drive the changes in the commodity chain, in what is known as the buyer-driven commodity chain (Gereffi 1999).

However, with trade liberalization and the development of communication and transportation technology, firms began to break down the costly and inflexible production process of vertical integration and outsource parts of production to other firms or countries with better technology, cheaper labor, or both.<sup>139</sup> In fact, the traditionally vertically integrated IBM sold its semiconductor business in July 2015.<sup>140</sup> The outsourcing or offshoring phenomenon led to the fragmentation of production processes at a global scale in what Feenstra calls the "disintegration" of the production chain (1998) or what Krugman calls "slicing the value chain" (1995). Krugman describes how slicing the value chain led to an explosion of manufacturing exports from low-wage, newly industrializing economies in Asia. The concerns over offshoring, the dislocation of manufacturing jobs to other countries, have dominated policy discussions.

Vertical integration gave way to vertical specialization,<sup>141</sup> which involves "a sequential, vertical trading chain stretching across many countries, with each country specializing in particular stages of a good's production sequence."<sup>142</sup> Vertical specialization occurs "when a country uses imported intermediate parts to produce goods that it exports," thereby connecting more than two countries sequentially.<sup>143</sup> As the production of goods and the provision of services have become fragmented, vertical specialization explains the rise of intra-industry trade and intermediate trade.

For trade in goods, GVCs involve a sequence of R&D, design, manufacturing, and sale of products. Global value chains encompass sequential steps from upstream (input) to midstream (intermediate goods and final goods) to downstream (final goods) industries. Many manufacturing firms in the developed countries outsource production to developing countries for cheaper labor. In the IT global value chain from semiconductor makers to computer makers there are firms that produce parts and components like Intel or assemblers of components like Dell. GVC analysis reveals that a firm could be both an exporter *and* importer in a sequential production process before final delivery at home or abroad. Hence, the simple dichotomy of exporter vs. importer interests becomes increasingly irrelevant, and political analyses of firm interests also need to take GVCs into account to better understand firm preferences.

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<sup>139</sup> Feenstra 1998.

<sup>140</sup> IBM News Release. Acquisition of IBM's Semiconductor Business by GLOBALFOUNDRIES is Completed. July 1, 2015. <http://www-03.ibm.com/press/us/en/pressrelease/47241.wss>

<sup>141</sup> Balassa 1967; Krugman 1995; and Feenstra 1998.

<sup>142</sup> Hummels et al. 2001, 75.

<sup>143</sup> Hummels et al. 2001, 81.



Moreover, the literature on supply chains has focused on products, and not on the services industry and its global value chain. This study seeks to fill this gap as services firms have now become major stakeholders in the economy. For trade in services, GVCs involve either cross-border provision of services or the movement of people and capital to provide services in the foreign territory. In the global value chain framework, goods and services cross multiple borders in the production or in the provision of services. Therefore, tariffs and non-tariff barriers in individual countries accrue, and the costs are passed through to consumers, which decreases the competitiveness of goods and services. For these reasons, active participants in global value chains desire the lowering of barriers at the border as well as behind the border, and firms pursue this goal by seeking to affect trade policies

The theory of global value chains has evolved from vertical integration in the “producer-driven commodity chain” of the manufacturing industry (e.g. automobile) to the horizontal integration in the “buyer-driven commodity chain” of the retail industry to now also incorporate global value chains.<sup>144</sup> While the previous literature focused on the identity of producers like vertically integrated firms or buyers like apparel retailers, I focus on the industry’s “users” by looking at the next step(s) in the value chain to understand the industry’s preferences and strategies, regardless of the industry’s identity as manufacturing producer, retail buyer, or service provider. Therefore, I can apply GVC analysis to IT producers as well as to service providers in telecommunications and finance.

The framework of the user industry focuses on firms’ clients, especially institutional clients, in the value chain that determine firms’ preferences and strategies. I analyze global value chains of goods and services in the IT, telecommunications, and finance industries through the lens of user industries and how they affect the dimensions of multilateral trade policies. I especially focus on the network of focal industries<sup>145</sup> in relation to their user industries (downstream industries) in order to understand their preferences in foreign expansion. IT producers are also users of other IT parts and components. Telecommunications carriers and financial firms are service providers, but are also users of other services. I argue that what drives firms’ preferences and business strategies are who they serve and what other firms and industries are next in the value chain.

Many studies on telecommunications and financial liberalization have noted the benefits of liberalization for users.<sup>146</sup> Dam (2001) also notes that the importance of the telecommunications and financial sectors to the economy made these negotiations possible. However, they have not systematically analyzed the role of users and what influence they have on trade policies.<sup>147</sup> Previous studies focused on the firms in the sector under discussion and overlooked who these firms serve. Firms from the industry under discussion were prominent in the formal negotiations; however, the user industries were a phone call away to be briefed on the progress of negotiations. Users have leverage over firms supplying goods and services because they can switch to other firms that might have access to more foreign countries and could better

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<sup>144</sup> Gereffi 1994, 1999; Gereffi et al. 2005 adds three network relationships—modular, relational, and captive value chains—to the market and hierarchical value chains to comprise five basic types of value chain governance.

<sup>145</sup> I follow the management literature in referring to the industries under study as focal industries.

<sup>146</sup> Dobson and Jacquet 1998; Hufbauer and Wada 1997; Cowhey, Aronson, and Abelson 2009; Dam 2001. Woll (2008) even notes, “In essence, the real driving forces behind liberalization were governments and user firms,” 82.

<sup>147</sup> Busch (1999) studied state subsidies in high-technology sectors and found that states subsidize some high-technology sectors if externalities benefit other domestic industries and these benefits stay within national borders. Global value chains expand this analysis beyond national borders in the multilateral trade liberalization of removing tariffs and non-tariff barriers.

serve their interests. Firms, knowing this, do the best to create business advantages in the global market to court international clients.

The framework of user industries is a two-level game in corporate management, as with Putnam's two-level game in international diplomacy. When these two-level games in business and politics interact, it results in a network of firms and governments, a new configuration of interests that may not align with the traditional boundaries. In fact, the rise of intra-industry trade and firm heterogeneity led to the variation of preferences even within the same industry, based on firms' positions in the exporting market. Studies have, for example, found variation in firm preferences between "super-star" exporting firms, who prefer liberalization, versus the remaining firms, who support protectionism, even in the same import-competing industry.<sup>148</sup> The analysis of global value chains helps identify a pattern of cooperation between firms and governments in a universe of complex interdependence.

There is a growing focus on global value chains in the trade and development disciplines among academics and practitioners.<sup>149</sup> Richard Baldwin (2012) calls the global governance of supply-chain trade WTO 2.0, and Gereffi (2014) looks at global value chains in a post-Washington Consensus world. The World Bank, UNCTAD, and OECD now focus on global value chains for international development.<sup>150</sup> Gawande et al. (2012) analyze the lobbying competition of upstream and downstream industries and find that the lobbying competition significantly affects trade policies. However, there is no study that links global value chains to the institutional design of trade policy. GVC analysis helps identify the target countries (membership), issue scope, and depth of firms' desired liberalization through sectoral agreements. I will now review GVCs in the IT, Telecommunications, and Financial services industries and how they affected the dimensions of sectoral agreements. The following figures are the value chains of core products from each industry at the time of sectoral negotiations.<sup>151</sup>

I focus on the core business of each industry at the time of negotiations. As these businesses form the nucleus of trade negotiations, understanding core businesses helps unpack which items were major negotiations, and which items were added later as the negotiations gained momentum. It also helps explain how interests from various subsectors within an industry were prioritized by industry associations and trade negotiators. The core businesses of the IT, telecommunications, and financial service industries, with regard to foreign expansion, were semiconductors, long-distance telecommunications services, and commercial banking services, respectively, due to their central positions in each industry's global value chains.

With their data processing capacity, semiconductors are the "brain" of the IT industry, determining the type and capacity of electronics products in the IT ecosystem. By the 1990s, semiconductors were key inputs in computers, telecommunications equipment, and consumer electronics and were consumed by these industries that manufacture electronics. One of the key priorities of user industries was to secure access to high-quality semiconductors at "low" prices. Hence, user industries targeted countries in the semiconductor value chains as well as their own electronics value chains for trade liberalization.

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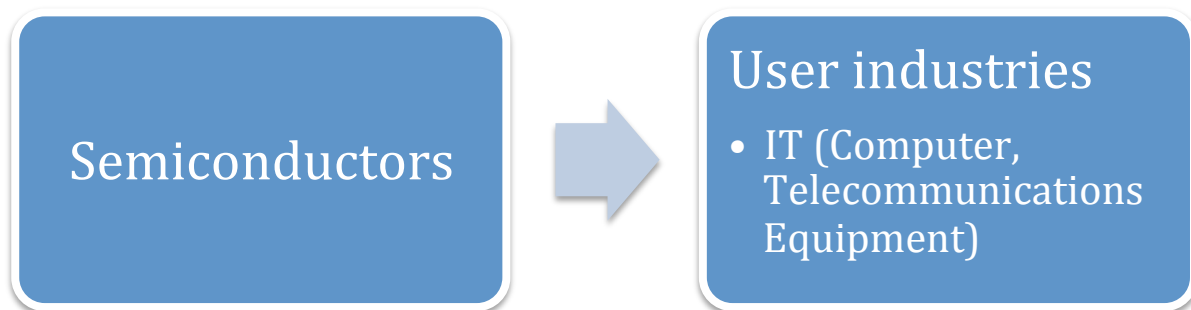
<sup>148</sup> Kim (2012) and Kim et al. (2016) look at firm heterogeneity in an industry and find that even in an import-competing industry, "super-star" exporting firms support trade policies. For firm heterogeneity and trade, see Melitz 2003 and Helpman et al. 2004.

<sup>149</sup> Baldwin 2012; Elms and Low 2013; Ravenhill 2014.

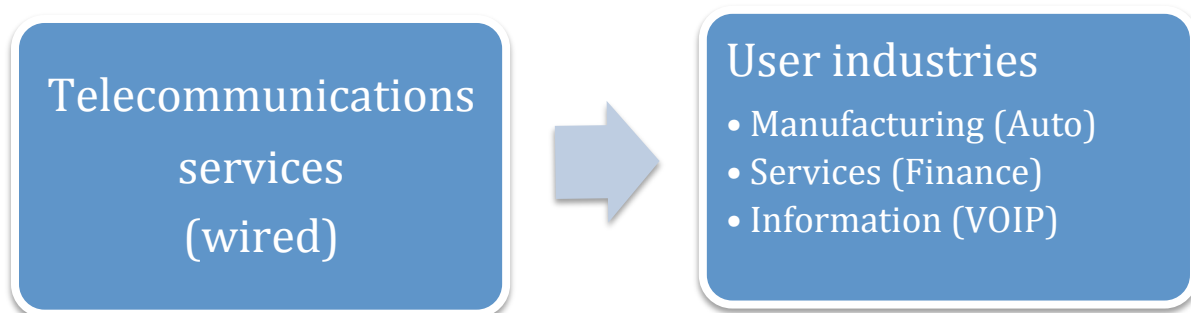
<sup>150</sup> OECD, WTO, UNCTAD 2013; UNCTAD 2013.

<sup>151</sup> Supply chains and user industries of the semiconductors, wired telecommunications carriers, and commercial banking industries (Figs 2, 3, 4) have been adapted from IBIS World Industry Report, April 2016.

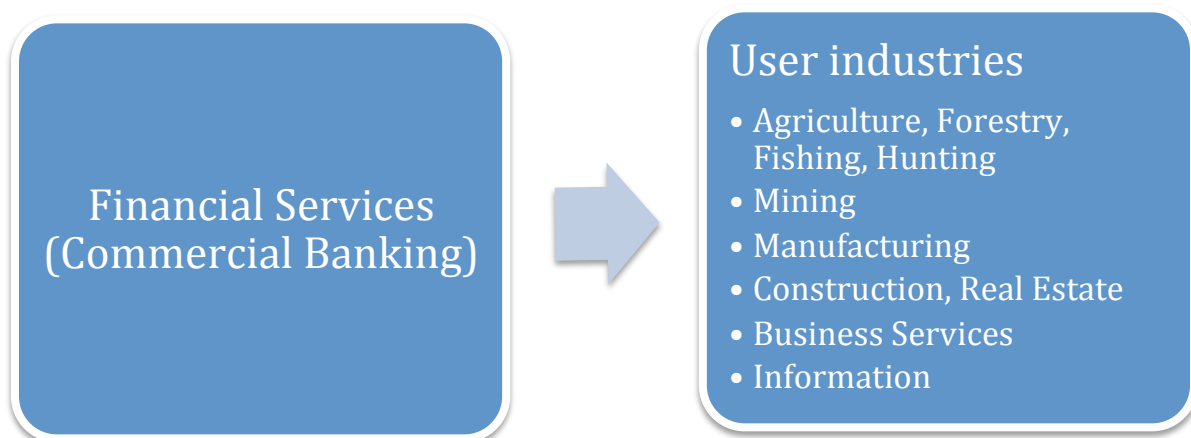
**Figure 2. IT-Semiconductors Value Chain in the ITA I**



**Figure 3. Telecommunications Services Value Chain in the BTA**



**Figure 4. Financial Services Value Chain in the FSA**



Long-distance telecommunications services were eyed by telecommunications carriers on behalf of their clients, namely, the automobile manufacturing industry for connecting their factories, the financial services industry for connecting their banking centers, and the information

industry for the then-emerging industries of internet services and voice-over internet telephony (VoIP). Financial services, especially commercial banking for business enterprises, served all sectors of the economy, from the agriculture, forestry, fishing, hunting, and mining industries (primary sector), to the manufacturing sector (secondary sector), to the services industries, including the finance, information, and real estate industries (tertiary sector).

Multinational financial and telecommunication firms want to enter other countries to better serve their corporate clients and their high profit-margin businesses since the retail client base and revenues are often not large enough to outweigh the costs of serving them, especially in small markets. For example, a financial firm enters a developing country, not primarily to open branches and establish ATMs to serve retail clients, but to better facilitate the capital transactions of multinational corporations in and out of the country. A telecommunications carrier enters a foreign country, not necessarily to serve basic telecommunications services to individual households, but to better provide intra-firm telecommunications networks for multinational companies. An IT firm wants to enter foreign countries to lower costs for producing and purchasing parts and components for their global production network. This is not to say that firms were not interested in serving individual retail clients; rather, it is their long-term goal to establish their presence and eventually expand their domestic business in the country. However, the immediate goal and the motivation driving the trade negotiations was to create sufficient openings in foreign countries to better serve their corporate clients in their foreign expansion.

What is our theoretical expectation of user industries with regard to the dimensions of the sectoral agreements? As the number of user *industries*, not necessarily the number of firms within an industry, increases, the scope and membership of sectoral agreements can be expected to increase as well. Yet, due to this increased scope and membership, the depth of liberalization is expected to decrease due to collective action problems. On the other hand, as the number of user industries decreases, scope and membership are expected to decrease as there are fewer interested parties, but the depth of liberalization is expected to increase. Even within the same sector, changes in the number of user industries are expected to affect the scope, depth, and membership of a new agreement. This argument can be summarized in three hypotheses.

**Table 2. Conceptual Framework**

IV	Number of User Industries	↑	↓
DV	Scope	↑	↓
	Membership	↑	↓
	Depth	↓	↑

*Hypothesis 1. As the number of user industries increases, the scope of the sectoral agreement increases.*

As the number of user industries increases, sectoral heterogeneity increases. Hence, the total number of products and services offered by the user industries combined increases while the share of core (or overlapping) products across industries declines and the share of idiosyncratic

products (specific to each industry) increases. Therefore, the desired number of products and services for liberalization increases. For example, suppose there are two industries: industry A with high intra-industry trade and industry B with high inter-industry trade. Industry B would have a higher number of user industries and a higher number of desired products and services for liberalization than industry A, which mainly serves one industry. The more disparate the user industries, the larger the scope of the agreement. Industries form an inter-industry coalition to agree on a list of products for liberalization and push government negotiators. The coalition also iron out disagreements among firms and sets priorities before submitting a list of products to the negotiators.

*Hypothesis 2. As the number of user industries increases, the membership of the sectoral agreement increases.*

As the number of user industries increases, the geographic coverage of the global value chains of the combined industries increases. Sectoral heterogeneity and scope increase with the number of user industries, and so the number of countries in the global value chain that produce and consume the products and services provided by these user industries increases. As the number of user industries increases, the number of countries with factories producing parts and components of IT products and the number of user industries that require telecommunications and financial services also increase. Hence, the number of countries that desire, and are desired for, liberalization increases. Industries decide which countries to persuade to join sectoral agreements based on where their clients want to expand. Industry coalitions work at two levels—domestic and international levels. A domestic industry coalition includes target countries in a list of market access problems and submits the list to their government negotiators in order to invite these countries to the negotiating table. A multi-country, intra-industry coalition pressures government negotiators contemporaneously.

*Hypothesis 3. As the number of user industries increases, the depth of the sectoral agreement decreases.*

As the number of user industries increases, scope and membership increase, but the cost of bargaining also increases. As the number of user industries increases, collective action problems arise.<sup>152</sup> Scope and membership affect all members, but depth is idiosyncratic as each country submits its level of liberalization for other members to accept. Discussion of scope and membership occurs at an international level, but discussion of depth occurs at the domestic level as depth concerns the extent of the removal of tariffs for IT and behind-the-border barriers for telecommunications and financial services. In the IT sector, depth was fixed at 0% tariffs for any products included in the scope. In services liberalization, the depth of liberalization commitments varies across countries depending on the political power of SOEs, institutional capacity for supervision, and revenue structure in the sector. With an increasing number of user industries, more countries may disagree over the interpretation of a “satisfactory” level of liberalization, and it becomes more difficult to persuade all countries to fully liberalize—0% tariffs for products and no restrictions on foreign entry—in all subsectors. Hence, the depth of a sectoral agreement decreases with the increasing number of user industries.

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<sup>152</sup> Grier et al. (1994) finds that the “costs of industry political action arise mainly from collective action problems,” 911.

### *Mechanism*

What is the mechanism by which user industries translate their preferences into domestic and international policy? How do user industries affect the depth, scope, and membership of sectoral agreements? I argue that the mechanism is industry alliance, which user industries form to perform two main functions: providing technical information to advise negotiators on the desired scope, depth, and membership of agreements, and building consensus to pressure multiple governments simultaneously. Industry input is important in any trade negotiation, but due to the complex nature of the high-technology ecosystem, negotiators especially depended on industry to provide them with a list of market access problems and possible remedies. Hence, industry works at three levels—international organizations, domestic policymakers, and the public.

User industries form two main types of alliances—international, intra-industry alliances and domestic inter-industry alliances. Domestic inter-industry associations help build momentum by broadening the constituent base that would benefit from trade liberalization. An industry may initially not be able to persuade Congress to push for a trade agreement in its sector or mobilize trade agencies. As more related industries (hence more congressional districts) align their interests, they can pressure more members of Congress to push the trade agenda forward. It is a precarious balance because broad industry support may give more leverage, but may also make it more difficult to satisfy all actors involved as the number of stakeholders increases.

Domestic inter-industry associations also help push for trade negotiations at the international level. For example, the WTO did not want to negotiate financial services as it was out of its mandate of governing world trade. Hence, the financial industry brought in other services industries and created the Coalition of Service Industries to create momentum for negotiation in trade in services, in which financial services is a major player.<sup>153</sup> These industry alliances played such a pivotal role in trade negotiations that the International Trade Center in Geneva produced a module for developing countries on how to create a coalition of services industries.

Intra-industry, multi-country associations provided technical information and pushed multiple governments simultaneously. For example, the semiconductor alliances in Singapore, Hong Kong, the US, the EU, and Japan, or the Financial Leaders Group in the EU, the US, Canada, and Hong Kong, gathered together to build consensus on market access problems and new market principles for trade liberalization. These alliances also pushed supranational institutions such as the EU and the WTO. Here, industries informed these supranational institutions of market access problems in a number of countries and delivered a consensus reached by multi-country industry alliances. For example, during the ITA II negotiations the WTO organized a workshop led by IT industries from around the world that briefed the negotiators on IT expansion and non-tariff barriers, such as divergence in labeling, energy efficiency requirements, and technical standards, that they face in accessing different markets.<sup>154</sup> Industry alliances, when needed, also informed the public of the benefits of liberalization through policy reports and media campaigns.

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<sup>153</sup> Freeman 2000; The CSI's "overriding objective has been to obtain commercially significant trade liberalization in financial and payments services, express delivery and logistics, telecommunications, energy, computer-related, travel and tourism, audio-visual, accounting and legal services." Vastine 2005, 4.

<sup>154</sup> WTO 2015a. Minutes of the Meeting of May 8 2015 Committee of Participants on the Expansion of Trade in Information Technology Products. G/IT/M/62. Geneva: WTO.

### *Scope conditions*

*Power of user industries.* As noted, variation in the power of user industries affects the scope, depth, and membership of sectoral agreements. The power relations between suppliers and users, which may be derived from the size or the strategic position of the industry, vary across sectors. In the ITA I negotiations, computer manufacturers were more powerful than domestic semiconductor manufacturers as computer manufacturers could, and did, import semiconductors from other countries to lower their input costs. In the telecommunications negotiations, financial firms were in the driver seat in terms of determining telecommunications carriers' preferences in foreign expansion. In the financial services negotiations, there is no single industry that is more powerful than the financial industry. Hence, the salience of a multi-sector coalition may be less obvious than in the IT or telecommunications industries due to the sheer number of user industries and the strategic position of the financial industry. However, we cannot account for a multilateral agreement in financial services without taking user industries into account. If the negotiations focused only on financial services, the trilateral negotiations between the financial centers of New York, London, and Tokyo would have sufficed with the additional participation or observer status of Frankfurt and Hong Kong. Instead, the FSA included countries from Nicaragua and Honduras to Nigeria and Zimbabwe, with little financial activity. Finance firms wanted to enter these countries to better serve their MNC users in the primary, secondary, and tertiary sectors and had the largest membership across the three agreements.

*Geographic scope.* The theory assumed that geographic scope increases with the number of user industries and sectoral heterogeneity. However, it may be that certain industries are concentrated in one geographical area. In this case, the dimension of membership would not be affected. Depth and scope would still be affected as long as there is variation in products and services offered across different industries.

Without understanding user preferences we cannot understand why firms want to enter certain countries, especially small and medium-sized countries. This analysis disaggregates firm preferences with regard to constraints they face in conducting business. In an ideal world, firms would like to be omnipresent in all markets and serve all customers. However, this is not feasible for most firms as they have to balance costs and benefits. Some markets are too costly, with overhead costs, relocation of staff, and regulatory compliance, among other costs, for the size of the market and the projected revenues. This analysis helps map preferences of industries to their user industries and trade policies.

### *Application*

If we apply this conceptual framework to the ITA, BTA, and FSA, we would expect the number of user industries to account for the variation in the depth, scope, and membership of these sectoral agreements (**Table 2**). The number of user industries is smallest for the ITA as the products covered under the ITA, such as semiconductors, parts and components, are mostly consumed by the IT industry in producing computers and telecommunications equipment. Hence we expect the scope and membership to be low, just capturing the major IT producers and their core products. And since the membership and scope are low, we expect the high depth of liberalization agreed to by the small number of producers.

In the case of the BTA, the major user industries of telecommunications services are finance, defense, and manufacturing (i.e., the automobile industry), industries that rely heavily on cross-border telecommunications networks. The number of user industries of telecommunications services is larger than that of the IT industry but smaller than that of the

financial services industry. Hence, we expect the scope and membership to be medium and the depth to be medium compared to the ITA and the BTA. The financial services industry has the largest number of user industries among the high-technology sectors. Hence, we expect a high scope and membership but a low level of liberalization with the FSA.

The actual liberalization maps onto our theoretical predictions. The ITA removed tariffs for all products covered in the agreement—computers, software, semiconductors, semiconductor manufacturing equipment, telecommunications equipment, scientific instruments, and parts and accessories. The scope of the agreement was well defined, such that any new products would have to be negotiated to be included. The user industries, especially the European consumer electronics industry, demanded the exclusion of consumer electronics. They won their demands, to the dismay of Asian manufacturers, who had comparative advantages in consumer electronics. The membership of the ITA is low compared to other agreements because a smaller number of countries, mainly in the Asia-Pacific and Europe, participated in the IT global value chains.

The telecommunications industry wanted to follow its user industries in order to provide voice and data transfer services, and their needs determined the scope and membership of the BTA. The large user industries of telecommunications services were the finance, manufacturing, information, and defense industries. In fact, AT&T signed its first five network contracts with the Pentagon, GE, DuPont, Ford, and American Express in 1988.<sup>155</sup> Of these industries, the finance industry was the largest client. AT&T solutions (the professional services subsidiary of AT&T) signed its largest contracts with financial firms such as BANC ONE (\$1.4 billion) and Citi (\$750 million) in 1998. AT&T's contract with BANC ONE and IBM Global Services to connect BANC ONE's 1500 banking centers accounted for half of the \$5 billion of AT&T Solution's new business in 1998.<sup>156</sup>

As these user industries required extensive international networks for their businesses, they desired reliable and fast intra-firm networks among branches, factories, and military bases around the world. The key priority was to remove barriers to foreign entry as telecommunications networks around the world were held by state-owned enterprises. Foreign telecommunications firms wanted to be able to buy or lease the network infrastructure already in place in the target countries. The negotiations focused on countries in Latin America and East Asia where their corporate clients wanted to expand their businesses. In addition, as user industries wanted to update their decades-old intra-firm communication networks to new Internet based networks, value-added services were added to the scope of the BTA. Due to the difficulty of negotiating with SOE carriers, the level of liberalization in basic services (the main business of the SOEs) was low, but high for value-added services, so the overall level of liberalization of the BTA was “medium” compared to the ITA and the FSA.

The FSA had the largest number of user industries as the finance industry served all multinational corporations with large foreign operations and cross-border transactions. As seen in the value chain in Fig.4, all sectors of the economy need financial capital for their businesses. For example, the agricultural industry needs loans for large-scale farming, and the energy utilities companies need advice on IPO, M&A, and securities. The manufacturing industry needs loans for building factories, insurance for products, and trade financing for cross-border shipping. The construction and real estate industries need large amounts of capital for loans and credits for their building projects. The finance industry also has high intra-industry business

<sup>155</sup> Wallace, Bob. Amex picks Tariff 12 custom nets. *Network World*. September 12, 1988.

<sup>156</sup> BANC ONE Forms "Technology One Alliance" with AT&T, IBM. IBM Press Release. September 30, 1998. <https://www-03.ibm.com/press/us/en/pressrelease/2445.wss>



across subsectors. In addition to countries in Asia, Latin America, and Europe, the FSA included small banking havens as well as African countries. The high scope and large membership made it difficult for countries to reach full liberalization as many countries and financial firms had different ideas of “full” liberalization. As a result, many countries bound the status quo, or even less than the status quo, at the WTO. Hence the scope of services and membership of the FSA were high compared to the ITA or the BTA, but the level of liberalization was consequently low. In the following chapters, I will present three case studies—the IT, Telecommunications, and financial services negotiations—to show how industries and their user industries created sectoral agreements in these sectors and turned the tide of technological development to their benefit.

**Table 3. Actual Liberalization Table**

	ITA	BTA	FSA
IV: User Industries	IT (computers, telecommunication s equipment,)	Finance, Defense, Manufacturing, Information	Agriculture, Mining, Manufacturing, Construction, Information, Finance, Business Services (All MNCs with large foreign operations and cross-border transactions)
DV1: Depth	0% tariffs for all included products for all countries (with different phase-out periods)	High level of liberalization in value-added services; low level of liberalization in basic voice services	Low level of liberalization in all subsectors of finance—banking, securities, insurance, and auxiliary financial services; large country variation
DV2: Scope	IT products: computers, telecommunication s equipment, semiconductor, semiconductor manufacturing equipment, software, and scientific equipment	Basic services, value-added services, and other telecommunications services such as satellite services—specifically, voice telephony, mobile and fax services, telegraph services, satellite services, data transmission such as email, voice mail, online data processing, interchange, storage, and retrieval	Banking, securities, insurance, auxiliary financial services—specifically, deposits, loans, credit cards, securities, bills of exchange, third party liabilities, securities custody, financial leasing, advisory, insurance (direct life, general), reinsurance, insurance brokerage, intermediation of securities and equity, risk rating, custody, financial advisory services for securities, portfolio management, warrants, etc.
DV3: Membership	29 WTO members	69 WTO members	102 WTO members

### 3. Global Value Chains and the Information Technology Agreement: Semiconductors and User Industries

#### I. Introduction

Is the WTO dead? After the Doha Round stalled countries engaged in a frenzy of signing bilateral, regional, and plurilateral agreements, while the WTO seemed to disappear into oblivion. However, there is one industry in which the WTO has passed tariff-cutting agreements post-Uruguay Round—the IT industry. The WTO passed the first Information Technology Agreement (ITA) in December 1996 and the expanded Information Technology Agreement (ITA II) in December 2015.

The ITA is an agreement in which a participant must reduce all tariffs, charges, and duties to zero-level for all products specified in the agreement, such as computers, software, telecommunications equipment, semiconductors, semiconductor manufacturing equipment, and other scientific equipment. The ITA was signed by 29 leading exporters, including the US, EU, Japan, Korea, and Taiwan, and covered 203 products, accounting for 92.5% of world trade in the IT sector.<sup>157</sup> Signed just before the turn of the century, the ITA removed tariffs for more than 90% of world trade in the IT sector and transformed digital coverage around the world by laying the foundation for the “Global Information Infrastructure.”<sup>158</sup> Building on the success of the ITA I, the ITA II expanded the product coverage to an additional 201 products, which account for \$1.3 trillion per year, or 7% of total global trade.<sup>159</sup> The ITA II added new products such as new generation semiconductors (MCOs), GPS devices, audio and video products, and medical equipment such as MRI machines and CT scanners.<sup>160</sup>

The conventional wisdom would expect a sectoral agreement to be limited to the sector under discussion: for example, agreements in the automobile industry would be limited to the automobile industry and textile agreements limited to the textile industry, respectively. However, I argue that in order to understand a sector one needs to take into account related sectors.

As I proposed in my theory chapter, changes in the number of user industries of the core IT products—semiconductors—affected the scope, depth, and membership of both the ITA I and the ITA II. If the number of user industries leads to variation across agreements, we should look at the number of user industries of the IT products. In the IT industry, it also helps to know that a producer is also a user of other IT parts. Because of the sequencing of production from inputs to intermediates to final products, IT producers use parts and components made by other IT producers in their production of a good, which is then used by another producer in the next step of the value chain.

The core products in the IT industry and the main subject of trade policies were semiconductors. I trace the users of semiconductors in the IT industry that are manufacturers of IT products. In both negotiations, the development of semiconductors determined the IT ecosystem and the linkage to user industries. In the ITA I negotiations, user industries of

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<sup>157</sup> The 29 signatories in Singapore accounted for 83% of world trade in IT products. With additional 11 countries, 40 countries agreed in March 1997 to implement the ITA, accounting for 92.5% of world trade in IT products. WTO News. 1997. Launching of Free Trade in Computer Products to Benefit Everyday Life of Consumers and Companies, says Ruggiero. March 27. [https://www.wto.org/english/news\\_e/pres97\\_e/pr70\\_e.htm](https://www.wto.org/english/news_e/pres97_e/pr70_e.htm).

<sup>158</sup> Gore and Brown 1995.

<sup>159</sup> Information Technology Agreement. WTO. [https://www.wto.org/english/tratop\\_e/inftec\\_e/inftec\\_e.htm](https://www.wto.org/english/tratop_e/inftec_e/inftec_e.htm)

<sup>160</sup> Information Technology: Introduction. Information Technology Agreement—an explanation. WTO. [https://www.wto.org/english/tratop\\_e/inftec\\_e/itaintro\\_e.htm](https://www.wto.org/english/tratop_e/inftec_e/itaintro_e.htm)

semiconductors, such as computer and telecommunications equipment manufacturers, sought to bring down costs of semiconductors as well as of their own products (such as computers and telecommunications equipment) through the ITA I. Hence, the ITA would include countries that are on the IT global value chain, from producers of semiconductors and components to producers of final products. The scope of the agreement would include these products on the IT value chain and the depth of liberalization would be high as a small number of producing countries reach an agreement. Because the number of user industries of IT products was limited to the IT industry in the ITA I, compared to the telecommunications and financial services industries, which had more “external” user industries, the scope and membership of the ITA I is expected to be the smallest while the depth is expected to be the highest across the three agreements.

The IT industry also exhibits an intra-sector variation, as there was another agreement nineteen years after the first agreement. When the new generation of semiconductors, MCOs, were developed after the ITA I, user industries of semiconductors increased as semiconductors came to be used in the “Internet of Things” and “smart” products in the automobile and health care industries. Between 1996 and 2015, while other power, institutional, and domestic factors have largely stayed the same, the number of user industries of IT products increased from the ITA I to the ITA II. Hence, we would expect scope and membership to have increased while depth decreased from the ITA I to the ITA II.

Indeed, scope and membership did increase from the ITA I to the ITA II while depth<sup>161</sup> decreased from the ITA I to the ITA II. User industries sought to bring down IT products because they are both exporters and importers of IT parts and components, and zero tariffs in their value chain would lower their production costs. Looking at the global value chains from core businesses to downstream industries helps explain the preferences of user industries for trade policies.

What is the mechanism by which user industries translate their preferences to domestic and international policy space? Industry alliances—inter-industry (domestic and international) and intra-industry (international)—worked as the mechanism through which user industries affected the dimensions of the ITA. To jumpstart trade negotiations, the industry performed two functions: creating alliances and providing technical information. Hence, the industry worked at three levels—international organizations, domestic policymakers, and the public. First, in both negotiations, industry associations initiated trade negotiations by organizing an international coalition for IT trade liberalization and pushing their governments simultaneously, as well as supranational institutions such as the EU and the WTO. Industry alliances also carried out media campaigns to inform the public of the benefits of liberalization and pressure domestic policymakers.

Second, IT industries advised negotiators on market access problems and the technical details of products for liberalization. Due to the technical complexity of the products in question, government negotiators did not know which products were important for their domestic industries for the short-term and the long-term. Industry alliances provided the negotiators with a list of products for liberalization and target countries based on the global value chain of their production network. Industry alliances also briefed the negotiators at the WTO on non-tariff barriers such as the divergence in labeling, energy efficiency requirements, and technical standards they face in accessing different markets.<sup>162</sup>

<sup>161</sup> Tariff rates stayed at zero, but some countries, such as China, maintained long phase-out periods than average.

<sup>162</sup> WTO 2015a. Minutes of the Meeting of May 8 2015 Committee of Participants on the Expansion of Trade in Information Technology Products. G/IT/M/62. Geneva: WTO.

The ITA presents a clear bottom-up approach in which industry associations have repeatedly reached global agreements. The IT industry has identified key firms and target countries in global value chains and formed alliances with international intra-industry associations, as well as inter-industry associations, such as the alliance of semiconductor industry associations, computer associations, telecommunications equipment associations in the ITA I, as well as medical equipment associations, entertainment industry associations, and consumer electronics associations in the ITA II. Moreover, this framework identifies the semiconductor industry as the driving motivation for its users in both negotiations from its key place in global value chains. In the following sections, I will first show that the emergence of the semiconductor industry lobby in the US affected trade policies prior to the WTO Uruguay Round, and how the semiconductor industry and its user industries affected the first ITA in 1996 as well as the ITA II in 2015.

## II. Semiconductors as the Driving Force in the IT Industry

The key products in the IT industry value chains are semiconductors, also known as the brain of the IT industry. Semiconductors are integrated circuits, microprocessors, and various circuits that enable data processing on small chips. The application of semiconductors has expanded from being the key inputs of computers and telecommunications equipment to now performing the “smart” function of smart phones, smart TV, smart cars, and smart cities. The semiconductor industry was the nucleus of the liberalization of IT trade, in which countries initiated the removal of tariff barriers in global value chains, and its user industries built on this momentum to remove tariff barriers in their industries as well.

**Figure 1. Value Chain of Semiconductors**



Semiconductors cross borders multiple times as manufacturing, assembly, and testing take place in different countries, thereby adding duties at each border. The international nature of semiconductor production is attributed to high production costs and short product cycles (5 years<sup>163</sup>). Only a small number of firms control all phases of the supply chain from design to manufacturing (Intel, Samsung, SK Hynix), and firms that specialize in chip design usually outsource manufacturing to contract semiconductor manufacturing companies, also known as foundries, in Taiwan, China, or Korea.

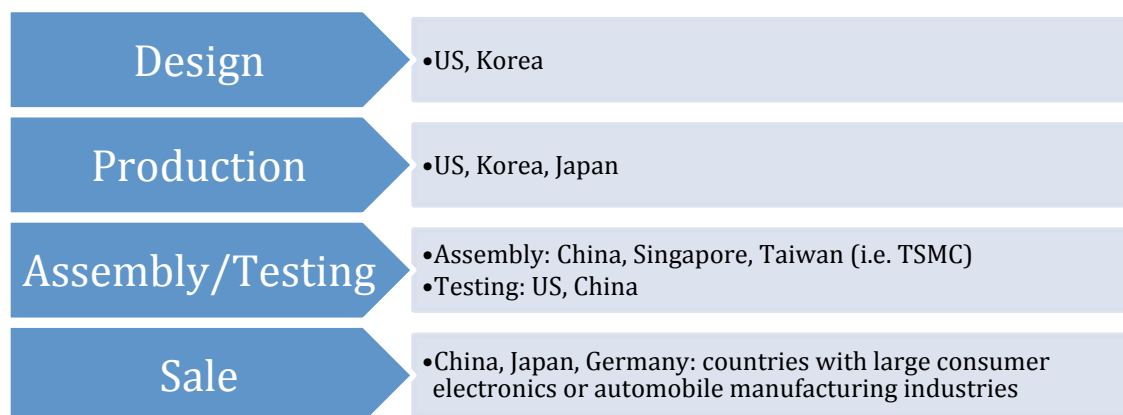
**Figure 2** shows the breakdown of global value chains by leading countries.<sup>164</sup> Firms in the US (Intel) and Korea (Samsung) are market leaders in R&D, design, and front-end manufacturing of integrated circuits. They outsource back-end assembly and testing to foundries in China and Taiwan, and sell to consumer electronics or automobile manufacturing industries, largely in China, Japan, and Germany. The world leaders in the exports and imports of

<sup>163</sup> Moore’s Law (1965): The number of transistors incorporated in a chip will approximately double every 24 months. Moore’s Law and Intel Innovation. <http://www.intel.com/content/www/us/en/history/museum-gordon-moore-law.html>.

<sup>164</sup> Adapted from the Danish Technological Institute 2012.

semiconductors in 1996 were the US, the EU, and Japan. The dynamic has changed with China, Singapore, and Hong Kong dominating the world semiconductor market in 2014.

**Figure 2. Breakdown of Global Value Chains by Leading Countries in Each Phase, 2016**



**Tables 1 and 2** also show the change in market concentration in the semiconductor industry. In 1996, the market was concentrated among the US, EU, and Japan, which controlled almost three-quarters of the semiconductor market. However, the share of the top three exporters fell to 51% by 2014 as the market had become less concentrated and more developing countries had joined the semiconductor value chain. The leading firms in 1996 were Intel, NEC, and Motorola. While Intel stayed at the top, Samsung and Qualcomm had jumped up the ranks by 2014 (**Table 3**).

**Table 1. 1996 Semiconductor Exports and Imports, % of world market<sup>165</sup>**

Rank	Exports	Share (%)	Imports	Share (%)
1	US	23	EU	24
2	EU	21	US	23
3	Japan	19	Singapore, Japan	8
4	Korea	10	Malaysia, Korea	6

**Table 2. 2014 Integrated Circuits and Electronic Components Exports and Imports, % of World Market<sup>166</sup>**

Rank	Exports	Share (%)	Imports	Share (%)
1	China	17.2	China	38
2	Singapore	17.0	Singapore	9.6
3	Hong Kong	16.7	EU	9.0
4	Taiwan	13.8	US	6.1
5	Korea	10.5	Taiwan	5.6
6	EU	9.4	Korea	5.3
7	US	7.8	Malaysia	5.1
8	Japan	6.4	Japan	4.1

<sup>165</sup> WTO 2012, 57. Tables 3.3 and 3.4.

<sup>166</sup> WTO 2015b. International Trade Statistics. Tables 45-47.

**Table 3. Leading manufacturers of semiconductors, ranked by revenue, 1997 and 2014 (USD millions)<sup>167</sup>**

Rank	Company	1997 Revenue	Company	2014 Revenue
1	Intel (US)	21,746	Intel (US)	52,331
2	NEC (Japan)	10,222	Samsung (Korea)	34,742
3	Motorola (US)	8,067	Qualcomm (US)	19,291
4	Texas Instruments (US)	7,352	Micron Technology (US)	16,278
5	Toshiba (Japan)	7,253	SK Hynix (Korea)	15,997
6	Hitachi (Japan)	6,298	Texas Instruments (US)	11,538
7	Samsung (Korea)	5,856	Toshiba (Japan)	10,665
8	Fujitsu (Japan)	4,622	Broadcom (US)	8,428
9	Philips (Netherlands)	4,440	STMicroelectronics (FR, IT)	7,376
10	STMicroelectronics (FR, IT)	4,019	Infineon Technologies (Germany)	5,693

The initial users of semiconductors were militaries, who used them in intelligence technologies. As semiconductors became commercialized, the users of semiconductor devices became “either sub-systems assemblers or directly the end-equipment manufacturers,”<sup>168</sup> such as the communication, computer, and consumer electronics industries, by the time of the ITA negotiations. As semiconductors came to be utilized in the Internet of Things, the number of user industries increased to include such disparate users as the automotive, electronics, and medical industries by the time of the ITA II negotiations. With these major user industries of semiconductors, we would expect the ITA negotiations to have user industries as well as the semiconductor industry demanding the lowering of barriers in the semiconductor global value chain. In the next sections, I will go over the pre-ITA, ITA I, and ITA II negotiations.

### III. A Brief History of Trade Policies in the IT sector

The development of integrated circuits and memory chips transformed computing power and led to the IT revolution. Computer firms such as Hewlett Packard, IBM,<sup>169</sup> and Digital Equipment became the major users of semiconductors. In the 1960s and the 1970s, US semiconductor firms enjoyed market dominance. However, starting in the 1970s, Japanese firms entered the market with cheaper and higher quality products than the offerings from US firms, and the market share of US firms quickly eroded. This pressure from Japan led Andy Grove of Intel to move out of the memory chip business and bet on microprocessors, which helped Intel claim dominance in the new market.<sup>170</sup>

<sup>167</sup> 1997 Revenue: ITC 1999, Table 27, p.38 (Gartner); 2014 Revenue: Gartner, January 2016.

<http://www.gartner.com/newsroom/id/3182843>

<sup>168</sup> Danish Technological Institute 2012, 8.

<sup>169</sup> Hewlett-Packard, IBM, and AT&T also produced semiconductors, but they were “captive” producers in that they used semiconductors for internal consumption and they also purchased semiconductors from others. However, they did not supply their semiconductors to others. Irwin 1996.

<sup>170</sup> Grove 1996.

US firms joined forces to open up the Japanese market and increase their market share in Japan. They launched a lobbying campaign in Washington against Japanese manufacturers. They claimed that Japan was keeping foreign firms out of its market.<sup>171</sup> Five US companies—Advanced Micro Devices, Fairchild, Intel, Motorola, and National Semiconductor—formed a semiconductor industry alliance called the Semiconductor Industry Association (SIA) in 1977. At first the association was not successful in persuading Congress. However, in 1980 the SIA enlisted IBM, which gave the SIA “a level of credibility and visibility in Washington that it had never before enjoyed.”<sup>172</sup> The SIA framed its campaign as opening up the Japanese market, which enjoyed a broader consensus than pitting domestic winners against losers from international trade.

The coalition managed to translate its demands into trade policy, and “the extent to which government agencies accommodated the semiconductor industry’s demands” was “remarkable.”<sup>173</sup> In 1985, the US government brought a formal complaint against the Japanese through Section 301 of the Trade Act of 1974 with the USTR. In response, Japan agreed to set a price floor and keep a share target of foreign (US) semiconductor products in the Japanese market through the Voluntary Import Expansion (VIE) program through the 1985 US-Japan bilateral agreement on semiconductors.<sup>174</sup>

However, the antidumping provision was short-lived. Although the SIA achieved a powerful influence in Washington, it had to succumb to the demands of its users, such as computer manufacturers, who realized the impact of the SIA’s antidumping campaign on their business. In 1985, semiconductors cost about 15% of the total value of output in the computing industry, so limited access to cheaper Japanese goods hurt their bottom line. To counter the SIA, computer manufacturers also formed an alliance as leading firms like IBM, Tandem, and Hewlett-Packard invited other firms such as AT&T, Apple, Compaq, and NCR to form the Computer Systems Policy Project (CSPP), now named the Technology CEO Council, in 1989.<sup>175</sup> As domestic interests in the IT industry diverged, the USTR was not able to form a coherent position and asked the CSPP and the SIA to form a joint position. The SIA ultimately gave in to the demands of its users, CSPP, and asked the Commerce Department to end the antidumping investigations against Japanese firms in the renegotiated 1991 US-Japan bilateral agreement.

#### **IV. The Multi-Sector Coalition behind the Sectoral Agreement in IT**

The ITA I negotiations started from a bottom-up private sector initiative by international industry alliances as the Uruguay Round ended without an agreement on IT products.<sup>176</sup> Industry alliances from the three major IT traders, the US, the EU, and Japan, gathered to identify key factors in liberalizing the IT trade. The US Information Technology Industry Council (ITI), the European Association of Manufacturers of Business Machines and Data Processing Equipment

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<sup>171</sup> US firms were also concerned that Japan was engaging in dumping in third markets (international markets). Of the \$300 million (100% tariff) President Reagan imposed in April 1987, \$135 million was calculated for injury suffered by the US firms in third-markets due to Japan’s third-country dumping and \$165 million for injury in foreigners’ market access to the Japanese market. For more discussions, see Irwin 1996.

<sup>172</sup> Yoffie 1988.

<sup>173</sup> Irwin 1998, 170.

<sup>174</sup> There was a huge dispute over an infamous side letter, which specified a 20% target for foreign firms in the Japanese market.

<sup>175</sup> Irwin 1998. Some of them also produced semiconductors for internal consumption—captive firms such as IBM and AT&T—however, they also sought to reduce the costs of the semiconductors they purchased.

<sup>176</sup> WTO 2012.

(EUROBIT), and the Japan Electronic Industry Development Association (JEIDA) came up with recommendations for the G-7 Ministerial Conference on the Global Information Society in February 1995 in hopes of wrapping up the negotiations at the WTO's first ministerial meeting in Singapore in December 1996.<sup>177</sup>

The industry chose the WTO for its procedural and implementation rules. The obvious benefit of the WTO is the wide membership, reducing the transaction costs of signing bilateral agreements. Additionally, once signed, the agreement would be backed by a legal procedure called the dispute settlement mechanism, under which states can bring lawsuits in front of a panel. There are also two institutional rules specific to sectoral agreements—critical mass and zero-for-zero. The ITA is a plurilateral agreement, in which an agreement by a small number of countries can be multilateralized under the WTO as long as benefits are extended to non-participating members on the Most Favored Nation basis, and the agreement covers a “critical mass” of countries—at least 90% of global trade in the sector. The ITA was also part of the zero-for-zero initiative<sup>178</sup> in which all products included in the agreement would achieve zero tariffs. This was a strong mandate to reach full liberalization in the sector.

After selecting the WTO as the negotiating forum, the IT industry in the US formed a coalition called the Information Technology Agreement Coalition, which included Intel, along with 41 other companies and 13 industry associations.<sup>179</sup> The American Electronics Association, which included 3200 member companies, and the SIA also joined the coalition.<sup>180</sup> The ITI led the Information Technology Agreement Coalition with the American Electronics Association at the domestic level and also led the International Information Industry Congress (IIIC) with industry associations from the US, the EU, Canada, and Japan.<sup>181</sup> The ITI represented various high-technology industries such as computer, telecommunications equipment, and printer firms, as well as the U.S. subsidiaries of Japanese IT companies such as Sony and Hitachi.<sup>182</sup> The coalition smoothed out the disagreements within the industry, and worked closely with the administration and the USTR. It also pressured members of Congress by publishing the “High-Tech Voting Guide,” which ranked the voting records of members of the House and Senate on high-technology issues.<sup>183</sup>

The industry also tried to shape the trade agenda by providing technical information to their domestic policymakers as well as international organizations. As trade liberalization in IT products entailed identifying tariff barriers that domestic firms faced at home and abroad, governments relied on the industry to advise them on proposed products for liberalization from

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<sup>177</sup> Fliess and Sauve 1997.

<sup>178</sup> The selected sectors were pharmaceuticals, agricultural equipment, construction equipment, medical equipment, paper, steel, toys, furniture, beer and distilled spirits. IT products were added later.

<sup>179</sup> Although producers of semiconductors, computers, and telecommunication equipment had different preferences for their own subsector, they were united their goal of eliminating tariffs on all IT products by 2000. See U.S. Moves to Ax Billions in Tech Tariffs. *Computer World*, November 25, 1996;

<sup>180</sup> The SIA, along with the Electronic Industries Association of Japan in 1996, formed the Semiconductor Council and accepted new members from the EU (European Electronic Component Manufacturers Association) and Korea (Korean Semiconductor Industry Association) in 1997. The Semiconductor Council changed the name to the current World Semiconductor Council and accepted Taiwan (Taiwan Semiconductor Industry Association) in 1999 and China (China Semiconductor Industry Association) in 2006. History of the World Semiconductor Council, <http://www.semiconductorcouncil.org/wsc/history>.

<sup>181</sup> Simon 2000.

<sup>182</sup> Simon 2000.

<sup>183</sup> Simon 2000; Information Technology Industry Council. Congressional Scorecard—the Tech Voting Guide. <http://www.itic.org/advocacy/government-relations/iti-tech-voting-guide>.



intermediate products to finished products. In order to cut tariffs and duties in their value chains, firms had specific lists of tariffs by country that they could present to the negotiators. Moreover, due to the complexity of IT value chains, governments and industries spent months defining product scope through both HS codes and product descriptions in order to minimize technical ambiguities.

Where did the industry want to go? The target countries were the US, EU, and East Asian countries in both negotiations. In 1996, the EU was the largest exporter and importer of IT products, except for semiconductor exports, of which the US was leading (**Appendix Tables**). However, over the last twenty years China has become one of the leading exporters and importers of IT products.<sup>184</sup> Looking at the leading exporters of IT products in 1996 and 2014 (**Table 4**), the traditional ranking changed from the EU (1), US (2), and Japan (3) to China (1), EU (2), and Hong Kong (3).

**Table 4. Leading Exporters of IT products, 1996<sup>185</sup> and 2014,<sup>186</sup> % world market**

Rank	1996	Share (%)	2014	Share (%)
1	EU	31	China	33.2
2	US	19.8	EU	19.6
3	Japan	14.9	Hong Kong	13.2
4	Singapore	6.9	US	8.1
5	Taiwan	6.1	Singapore	7.0
6	Korea	4.7	Korea	6.1
7	Malaysia	4.0	Taiwan	5.5

The US industry wanted APEC's endorsement to push the agreement forward at the WTO. However, the US had difficulty on both fronts—Pacific and Atlantic—in persuading the EU and Asian countries to agree on product coverage. While the participating parties agreed in principle to tariff elimination in the IT sector, each member tried to exclude “sensitive” products in which they had comparative disadvantages. The EU was the biggest bottleneck throughout the negotiations. Although the Trans-Atlantic Business Dialogue pressured both governments to come to an agreement, the EU, given its large electronics market, demanded multiple conditions for its participation in the ITA negotiations. First, the EU, led by Philips, wanted to exclude consumer electronics.<sup>187</sup> The European Association of Consumer Electronics Manufacturers (EACEM) wanted to protect consumer electronics manufacturers in Europe against foreign competition.

<sup>184</sup> See Appendix for the market share of computers, telecommunications equipment, and parts and accessories (processing trade).

<sup>185</sup> WTO 2012, 54. Table 3.1.

<sup>186</sup> WTO 2015b. International Trade Statistics. Office and Telecom Equipment, which includes Electronic Data Processing equipment, office equipment, telecommunications equipment, integrated circuits, and electronic components. Table II. 36.

<sup>187</sup> The negative list the EU presented included microphones, speakers, CD players, software (games and media such as video and audio), video cameras, DVD players, and TV sets. For more products, see footnote 53 in Fliess and Sauve 1997, 29.

Second, the EU also tried to add products that were not related to the IT negotiations, such as distilled spirits, in a bargain with the US.<sup>188</sup> Third, the EU also conditioned its ITA participation on taking part in the ongoing US-Japan bilateral semiconductor negotiations. The US industry group suggested another forum, such as the Global Government Forum or the Semiconductor Industry Council, to the EU and testified in Congress to press the EU to return to the negotiating table.<sup>189</sup> Only after the US allowed the EU to participate in the bilateral talks with Japan did the EU rejoin the ITA negotiations.

The Asian countries took a step back and watched the trans-Atlantic disagreement over product coverage, especially over consumer electronics, which were key products for East and Southeast Asian countries. They saw the benefit of the agreement but thought it was too early for them to lower tariffs to protect their domestic industry and asked for longer phase-out for tariff elimination. At the APEC meeting in the Philippines in November 1996, President Bill Clinton and the Japanese Prime Minister Hashimoto tried to persuade other APEC nations to support the ITA. APEC leaders released the statement that the ITA should “substantially” eliminate tariffs by 2000 (the US supported full tariff elimination) and the ITA should include “flexibility” for developing countries.<sup>190</sup>

At the first WTO ministerial meeting in Singapore on December 13, 1996, 29 countries, which accounted for 83% of total world trade in IT goods, signed the agreement, “Ministerial Declaration on Trade in Information Technology Products.” However, this fell short of the WTO mandate of “critical mass,” in which a plurilateral agreement has to have 90% of total world trade in the sector. In March 1997, 11 more countries, including Malaysia, Thailand, and the Philippines, joined the agreement, which now covered 92% of world IT trade.

One of the reasons the IT negotiations were swift was that the US had a residual negotiating authority from the Uruguay Round Implementation Act, which gave the President the authority to set tariffs at levels within the rates proposed during the Uruguay Round without requiring congressional approval. The success of the ITA also led Congress to support similar WTO sectoral agreements in a given sector even if the sector was not a subject for zero-for-zero negotiations in the Uruguay Round (H.R. 3005).<sup>191</sup> Immediately after the implementation of the ITA I, industries pushed for the expansion of the agreement as the Information and Communication Technology (ICT) revolution quickly changed the landscape of the IT trade.

## **V. ITA II: New Semiconductor Technology calls for a New Trade Agreement**

Just as the ITA I was born out of the bilateral semiconductor agreement, the ITA II was also pushed by US semiconductor manufacturers as new generation semiconductors (MCOs), which were developed after the first ITA, faced import duties in other countries, especially in China. MCOs<sup>192</sup> are used in many IT products, from refrigerators and vacuum cleaners to smart phones

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<sup>188</sup> There was a last-minute side deal between the EU and US on removing import tariffs on cognac, whiskey, gin, and vodka to sweeten the deal for France. See Fliess and Sauve 1997.

<sup>189</sup> U.S. 1996. Committee on Ways and Means Subcommittee on Trade. *Thomas Ehrgood, Digital Equipment Corp., and Information Technology Agreement Coalition, Hearing on World Trade Organization Singapore Ministerial Meeting*. 104th Cong. 11 Sept.

<sup>190</sup> 1996 Leaders’ Declaration, Subic, Philippines. APEC. 25 Nov. [http://www.apec.org/Meeting-Papers/Leaders-Declarations/1996/1996\\_aelm.aspx](http://www.apec.org/Meeting-Papers/Leaders-Declarations/1996/1996_aelm.aspx).

<sup>191</sup> Bipartisan Trade Promotion Authority Act of 2001.

<sup>192</sup> The definition of MCOs was reached in 2012 after six years of deliberation by five members—US, EU, Japan, Korea, and Taiwan of the Government/Authorities Meeting on Semiconductors (GAMS). MCOs refer to the

and medical devices.<sup>193</sup> Because of global value chains, MCOs cross several borders from manufacturing to sale. Reducing tariffs at every border significantly decreases the costs of semiconductors and final products.

For the US, bringing down the costs of semiconductors and semiconductor manufacturing equipment was crucial. US semiconductor producers (\$152 billion) represent over 51% of the \$300 billion global semiconductor market, which accounts for a quarter of the total ITA expansion of \$1.3 trillion.<sup>194</sup> The U.S. export of MCOs accounts for 1.5 to 3 percent of the global semiconductor market, and the share of offshore production by US firms that design and market MCOs is much greater.<sup>195</sup>

The urgency of the liberalization of MCOs has become more apparent as China, the largest user of semiconductors and producer of consumer electronics, has shifted its strategy to build up its semiconductor industry by 2030. China imported 91% of semiconductors and wanted to reduce dependence on foreign imports and build its own IT ecosystem from semiconductor to consumer electronics.<sup>196</sup> This strategy puts pressure on other players in the market, who fear that they will be priced out of the market due to the Chinese government's unlimited support for its semiconductor industry.

As with the ITA I negotiations, industry groups took two approaches: forming inter-industry alliances and intra-industry alliances to simultaneously pressure multiple governments, as well as providing information to negotiators. Internet connectivity broadened the IT industry's user base to related industries such as the automobile and health care industries, which increased the number of user industries, and this affected the scope, depth, and membership of the ITA II.

First, the industry pressured governments by presenting the benefits of trade expansion. APEC Leaders, supported by over 40 IT industry associations, agreed to the ITA expansion in November 2011.<sup>197</sup> Industry leaders and consumer associations also met at the World Electronics Forum (WEF) in January 2012 and committed to "working with their respective governments" on the ITA expansion.<sup>198</sup> The Technology CEO Council in the US created reports on ICT companies and workers at Congressional district levels to target multiple Congress members in terms of job growth and revenues in their districts.<sup>199</sup>

Second, they formed inter-industry associations to increase industry support and prevent inter-industry opposition. In order to boost support from a broader community, the IT industry enlisted the support of the consumer electronics industry (Consumer Electronics Association,

category of custom-manufactured semiconductors that includes system-on-a-chip (SoC), package-on-package (PoP), and system-in-package (SiP).

<sup>193</sup> USITC 2013.

<sup>194</sup> USITC 2013.

<sup>195</sup> Major U.S. MCO producers are Intel, Texas Instruments, Freescale, ON Semiconductor Corp, Analog Devices, and those that design MCOs include Qualcomm, Broadcom, and Cypress Semiconductor Corp. The leading U.S. export markets are China, Malaysia, Taiwan, and Korea. See USITC 2013, 3-9.

<sup>196</sup> Semiconductors in China: Brave New World or Same Old Story? McKinsey & Company. August 2014. <http://www.mckinsey.com/industries/high-tech/our-insights/semiconductors-in-china-brave-new-world-or-same-old-story>

<sup>197</sup> WTO 2012.

<sup>198</sup> WTO 2012.

<sup>199</sup> Technology CEO Council. 2014.

[http://www.techceocouncil.org/clientuploads/reports/Exports%20for%20American%20ICT%20Companies%20and%20Workers-FINAL2\\_150DPI.pdf](http://www.techceocouncil.org/clientuploads/reports/Exports%20for%20American%20ICT%20Companies%20and%20Workers-FINAL2_150DPI.pdf)

Consumer Electronics Retailer Association),<sup>200</sup> the retail industry (Retail Industry Leaders Association, National Retail Federal, representing firms like WalMart, Target, Amazon.com, and BestBuy), the entertainment industry (Motion Picture Association of America, Entertainment Software Association), and medical device manufacturers.<sup>201</sup> The expansion of user industries increased the scope and membership of the agreement from the ITA I to the ITA II (**Table 5**).

**Table 5. Changes from the ITA I to the ITA II**

	ITA I	ITA II
IV: User industries	IT	ICT, medical, entertainment, auto, health care, etc.
DV1: Scope	203 products: Computers, software, semiconductors, semiconductor equipment, telecommunications equipment, scientific equipment	<i>Additional</i> 201 products: audio, visual products, medical equipment, GPS, new generation semiconductor, etc.
DV2: Depth	0%	0%
DV: Membership	29 Signatories	54 Signatories

Third, the industry advised government negotiators on the desired list of products under the ITA expansion. The US International Trade Commission held a public hearing in November 2012 to seek input from the industry on ITA expansion, and representatives from user industries attended: the Motion Picture Association of America, the Retail Industry Leaders Association, the Consumer Electronics Association, the Information Technology and Innovation Foundation, the Information Technology Industry Council, and the SIA.<sup>202</sup> These organizations, along with interested firms such as Best Buy and Hewlett Packard, also submitted written requests with product inclusion proposals.<sup>203</sup> The industry was also invited to WTO ITA expansion meetings to present market barrier problems.<sup>204</sup>

The industry effort to start the ITA expansion negotiations finally took off. At the WTO ITA committee meeting in Geneva on May 15, 2012, countries agreed to launch an official negotiation of the ITA expansion in September 2012. The international industry groups gathered together in Japan in October and published a support letter urging negotiators to conclude an agreement by 2013 (**Appendix List 1**).<sup>205</sup> Malaysia, Singapore, and Hong Kong had formed a WTO working group called the Friends of Consumer Electronics group after the ITA in order to include consumer electronics that were excluded in the ITA I negotiations. Industry think tank

<sup>200</sup> The ITA expansion list also included media products, such as optical media like films and videogames on DVDs, and accessory products, such as video game consoles, loudspeakers, and headsets. These industries rely heavily on exports to countries such as Mexico, Canada, Russia, China, India, and the EU.

<sup>201</sup> Abbot Laboratories, Baxter, Cardinal Health, GE Healthcare, Johnson & Johnson, Medtronic, and Stryker Corp. The primary markets for U.S. exports of medical devices are the EU, especially Germany and Netherland, Japan, China, and Canada. See USITC 2013.

<sup>202</sup> USITC 2013.

<sup>203</sup> USITC 2013.

<sup>204</sup> WTO 2015a. Minutes of the Meeting of May 8 2015 Committee of Participants on the Expansion of Trade in Information Technology Products. G/IT/M/62. Geneva: WTO.

<sup>205</sup> See Appendix List 1 for the full list of industry associations supporting the ITA expansion.

ITIF published policy reports on the benefits of the ITA for developing countries.<sup>206</sup> The industry groups also traveled to Geneva to represent their interests during the negotiations.<sup>207</sup>

However, the talks quickly stalled as China remained unwilling to offer any meaningful liberalization schedule satisfactory to other members. The industry alliances were especially dissatisfied with the lack of China's commitments in MCOs and medical equipment. The US challenged China in various channels through informal meetings, formal technical meetings in Geneva, the APEC meeting in Qingdao, China in May 2014, and the annual bilateral Strategic and Economic Dialogue meeting in July 2014. Recalling the push the ITA I received at the APEC meeting in 1996, more than 80 technology industry associations around the world wrote a letter to the APEC ministers to conclude the agreement.<sup>208</sup> However, the parties could not reach an agreement at the APEC meeting. On May 8, 2015, the Chinese Ambassador to the WTO ITA committee meeting stated, "China had done all it could, going through extremely difficult internal consultations with the domestic industry,"<sup>209</sup> and added, "it was not fair or reasonable to expect one single participant to be making the contribution all the time." She called on other parties to "give up their unrealistic requests."<sup>210</sup>

The US government changed strategy in order to reach a meaningful bilateral agreement with China in tacit support of the EU and Japan. At the APEC leaders' meeting in Beijing in November 2014, the US and China engaged in a sideline negotiation and reached a bilateral agreement on expanding the ITA by including new products such as MCOs, GPS, and medical devices. However, contrary to expectations, this did not immediately lead to the ITA II. The make-or-break negotiations occurred over flat panel displays. Korea and Taiwan, as leading manufacturers of flat panel displays, wanted to include them in the ITA II; however, China opposed the inclusion. Korea also demanded China lower tariffs on monitors, organic LEDs (OLED), and batteries.

Now the other major ITA participants—the US, EU, Japan, and China—began to pressure Korea to drop its demands. ITIF published a policy paper showing the benefit of the ITA expansion for Korea even without the products listed above.<sup>211</sup> At the end of the day, China emerged as the winner. In the last days of the negotiations, China reversed its agreement with the US to eliminate duties on car radios, a sensitive subject for the EU. The EU responded by cutting out some measuring instruments, of comparable value to car radios, both worth over \$20-30 million per year. China also did not give in to the demands by Korea and Taiwan regarding flat panel displays. The US and the EU made a four-way arrangement to broker a deal between Korea and China.<sup>212</sup> In July 2015 the participating countries finally agreed on the product coverage, which still excluded flat panel displays.

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<sup>206</sup> Ezell 2012, 2015.

<sup>207</sup> The Semiconductor Industry Association, AdvaMed, the Consumer Electronics Association, the Information Technology Industry Council, and the Liquid Crystal Polymers Coalition. DIGITALEUROPE, Japan Business Machine and Information System Industries Association, the Japan Electronics and Information Technology Industries Association, and the European Semiconductor Industry Association. John Neuffer, Semiconductor Industry Association Blog. July 2015, <http://blog.semiconductors.org/blog/its-a-deal-ita-negotiations-on-track-to-conclude-on-friday>.

<sup>208</sup> Froman Says Onus On China To Make ITA Breakthrough At APEC Meeting. *Inside US Trade*. May 16, 2014.

<sup>209</sup> WTO 2015a. Minutes of the Meeting of May 8 2015 Committee of Participants on the Expansion of Trade in Information Technology Products, Communications from China. G/IT/M/62. Geneva: WTO.

<sup>210</sup> WTO 2015a. Minutes of the Meeting of May 8 2015 Committee of Participants on the Expansion of Trade in Information Technology Products, Communications from China. G/IT/M/62. Geneva: WTO.

<sup>211</sup> Ezell 2015.

<sup>212</sup> Fefer 2015.

The negotiations met the next obstacle as China requested a 5-7 year phase-out period for over 40% of the 201 products. Long phase-out periods are especially problematic with ICT goods since the life-cycle for most products is very short, from less than a year to at most 5 years. Hence, a 5-7 year phase-out period may not reduce trade barriers before they become obsolete as newly developed products hit the market. The default phase-out period in the ITA is 3 years, and the US had 80% of its products set to be duty-free immediately upon implementation of the agreement.

The industry had to choose between walking out or accepting China's demands, and they chose to accept the deal,<sup>213</sup> which finally passed at the Nairobi ministerial meeting in December 2015. China kept long phase-out periods for many of the products it requested. The ITA II negotiations showed that China, as the largest buyer of ICT products, was the major stakeholder in the IT trade realm, and other major producers such as the US, EU, Korea, Singapore, and Taiwan gave in to China.

## **VI. Alternative Explanations**

The conventional wisdom is that a powerful state in the IT sector designs the agreement and forces other countries to sign it. The power explanation would expect that the IT giant, the US, determined the outcome of the ITA in terms of scope, membership, and depth. However, the power explanation does not explain what trading partners the US (or the EU) wanted in the agreement and why. And the US had a hard time persuading not only the EU and Japan but also major producers such as Korea, Singapore, Taiwan, Hong Kong, and other ASEAN countries. The triad countries had to resolve their conflicts before involving the APEC countries. The EU, knowing that the US needed its help to push for a multilateral agreement, stood to extract concessions from the US. In the ITA II, the US, EU, and Korea gave in to China because their industries found opening up China to be more important for their global value chains and market opportunities than rejecting the agreement. Everyone wanted to get into the Chinese market, and the Chinese government, knowing this well, successfully sought exclusions for its strategic products. The power explanation is unable to differentiate a country's position other than by market power although a country may be a crucial producer in the global value chains, due to its strategic position in the sector, even if its market size is small.

An institution-based explanation suggests that technological developments make the existing regime inadequate to deal with new trade issues. It also suggests that countries want to create a multilateral regime in IT to reduce organizational and information costs and negotiate the features of the agreement accordingly. Indeed, technological changes prompted user industries to rally around a new agreement to slash tariffs in this rapidly developing and competitive industry. The development of semiconductor technology led to multilateral agreements in both 1996 and 2015. Countries also wanted to create a multilateral agreement to reduce bargaining costs of signing bilateral agreements in semiconductors or other electronics. However, this explanation cannot explain the variation in scope, membership, and depth of the agreements, or the within-sector variation from the ITA I to the ITA II. As in the power explanation, this framework lacks the tools necessary to identify a country's specific benefits from its position in the global value chain.

A domestic politics explanation would predict that interest groups, domestic institutions, or the compromise of societal and state interests push for trade policies. In the IT case, it would

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<sup>213</sup> Neuffer, John. 2015. Nairobi Delivers ITA Expansion! Semiconductor Industry Association Blog. 16 Dec. <http://blog.semiconductors.org/blog/nairobi-delivers-ita-expansion>.

be expected that the preferences of IT producers, domestic institutions such as the Department of Commerce or the Ministry of Trade and Industry, or the compromise of the industry and the ministry would be reflected in the design of the agreements. And indeed, all of these forces contributed to the negotiations. Industry groups from the US, EU, and Japan chose the WTO as the forum to negotiate the features of the agreement and initiated the ITA negotiation. And ministries worked to create advantages for their domestic industries in terms of protecting their domestic industries from foreign competition, especially in domestically sensitive industries, as well as securing favorable export opportunities for their industries. The IT industry was active in negotiations by forming multi-country, intra-industry coalitions as well as domestic, inter-industry associations. However, the question remains: from where do IT firms derive their preferences? Moreover, this explanation misses the variation in preferences of IT firms in the IT industry.

While these frameworks explain some of the negotiations, they do not account for variation across sectoral agreements or across countries in the IT sector. They do not sufficiently explain specific features of the agreement, such as what products to cover (scope), which countries to invite to join (membership) beyond the initial three countries, and how deep to liberalize (depth) beyond 0% tariffs. By identifying an industry's interests in related industries through global value chains, one can better understand why and with whom countries sign trade liberalization agreements.

## **VII. Conclusion**

In this chapter, I have reviewed how global value chains affect firms' preferences, strategies, and outcomes in trade negotiations. I argued that user industries, through inter-industry and intra-industry associations, affect the depth, scope, and membership of sectoral agreements in high-technology sectors. In the ITA I, the semiconductor industry pushed for a multilateral agreement and its user industries, such as the computer, printer, and telecommunication equipment industries, joined the campaign for multilateral trade liberalization in IT products. In the ITA II, additional user industries, such as the consumer electronics, entertainment, and medical equipment industries, joined the IT negotiations. The ITA brought user industries closer and accelerated technology conversion in a new industry called the Information and Communications Technology (ICT) industry. The ITA II is expected to bring even more disparate user industries, such as the automobile, health care, and real estate industries, together in a new industry called the "Internet of Things" or "Connected Technology."

Broadly, the ITA provides several lessons regarding the future of the WTO. As the number of stakeholders has increased, multilateral trade negotiations have become costly for many countries, especially for industry associations in high-technology sectors due to intense competition. As the IT sector is moving away from manufacturing to services, the exclusion of IT services from the scope of the agreement challenges the WTO's role in digital trade. Although the WTO rules of critical mass and zero-for-zero made the WTO attractive to the IT industry, the industry may look for a different forum if it finds the WTO inflexible and increasingly unsuitable for its needs. If the WTO wants to stay relevant in the digital trade realm, it may want to create rules for including digital services and make it easier to update product coverage.

The new power dynamic in the IT realm presents an interesting challenge. The US, Korea, and China are directly challenging each other head-on in the ICT industry, especially in telecommunications, as with the current competition between Apple, Samsung, and Xiaomi. As Chinese industries try to shift away from "factory of Asia" to "global high-technology designer,"

the battle for market dominance will become fierce. Whether the Chinese government and firms will adapt to the existing rules or will create new rules for others to adopt will be the next challenge in institutional design.



## VIII. Appendix

**Tables A. World Exports and Imports of IT products, by selected product category, % of market share, 1996 and 2010<sup>214</sup>**

### A-1. Parts and Accessories Exports

Rank	1996	Share (%)	2010	Share (%)
1	EU	31	China	28
2	US	19	EU	19
3	Japan	17	Korea, US	9
4	Taiwan	8	Japan	8
5	Singapore	5	Taiwan	7

### A-2. Parts and Accessories Imports

Rank	1996	Share (%)	2010	Share (%)
1	EU	37	EU	26
2	US	22	China	20
3	Japan	6	US	11
4	China, Singapore	4	Mexico	7

### A-3. Computers Exports

Rank	1996	Share (%)	2010	Share (%)
1	EU	33	China	48
2	US	17	EU	20
3	Singapore	14	US	8
4	Japan	11	Mexico, Thailand, Malaysia	4

### A-4. Computers Imports

Rank	1996	Share (%)	2010	Share (%)
1	EU	43	EU	33
2	US	27	US	25
3	Japan	8	China	9
4	Canada	4	Japan	5

### A-5. Telecom Equipment Exports

Rank	1996	Share (%)	2010	Share (%)
1	EU	52	China	34
2	US	17	EU	27
3	Japan	7	US	9
4	China	4	Korea	8

<sup>214</sup> WTO 2012, 57. Tables 3.3 and 3.4,

**A-6. Telecom Equipment Imports**

Rank	1996	Share (%)	2010	Share (%)
1	EU	37	EU	31
2	US	15	US	27
3	Japan	6	Japan	4
4	Canada, China	3	Mexico, Singapore, India	3

**List 1. Industry Associations Supporting the Information Technology Agreement Expansion**

US Leaders: SIA, AdvaMed, Consumer Electronics Association (CEA), ITI, SEMI  
Entire list (September 2015)<sup>215</sup>: Over 80 industry associations from around the world  
Advanced Medical Technology Association (AdvaMed, USA)  
American Chamber of Commerce of El Salvador (AmCham El Salvador, El Salvador) -  
American Chamber of Commerce in India (AmCham India, India)  
American Chamber of Commerce in Thailand (AmCham Thailand, Thailand)  
American Chamber of Commerce in Vietnam (AmCham Vietnam, Vietnam)  
Association of Electronic Industries in Singapore (AEIS, Singapore)  
Association of Thai ICT Industry (ATCI, Thailand)  
Australian Information Industry Association (AIIA, Australia)  
Brazilian Association of IT Companies (ASSEPRO, Brazil)  
BSA | The Software Alliance (BSA, USA)  
Camara de Industrias de Costa Rica (CICR, Costa Rica)  
Camera & Imaging Products Association (CIPA, Japan)  
Canadian Manufacturers & Exporters (CME, Canada)  
China Semiconductor Industry Association (CSIA, China)  
Colombian Software and IT Industry Federation (FEDESOFIT, Colombia)  
Communications and Information Network Association of Japan (CIAJ, Japan)  
Communications and Manufacturing Association of India (CMAI, India)  
Computer and Communications Industry Association (CCIA, USA)  
Computer Society of Kenya (Kenya)  
Computing Technology Industry Association (CompTIA, USA)  
Consumer Electronics Association (CEA, USA)  
Costa Rican Chamber of Information and Communications Technologies (CAMTIC, Costa Rica)  
Consumer Electronics Retailers Coalition (CERC, USA)  
Consumer Electronics Technology Industry Association (CETIA, USA)  
Costa Rican-American Chamber of Commerce (AmCham Costa Rica, Costa Rica)  
DIGITALEUROPE (DIGITALEUROPE, EU)  
Egyptian Information Telecom, Electronics and S/W Alliance (Eitesal, Egypt)

<sup>215</sup> Global Industry Calls on ITA Negotiators to Show Restraint on “Staging.” Semiconductor Industry Association. September 2015.  
[http://cdn2.hubspot.net/hubfs/409470/documents/ITA\\_Global\\_Industry\\_Statement\\_Sept\\_2015.pdf?t=145686678771](http://cdn2.hubspot.net/hubfs/409470/documents/ITA_Global_Industry_Statement_Sept_2015.pdf?t=145686678771)

Electro-Federation Canada (EFC, Canada)  
The European Engineering Industries Association (ORGALIME, EU)  
European Semiconductor Industry Association (ESIA, EU)  
Entertainment Software Association (ESA, USA)  
Entertainment Software Association of Canada (ESAC, Canada)  
Federation of Hellenic ICT Enterprises (SEPE, Greece)  
The Federation of Korean Information Industries (FKII, Korea)  
Guatemalan Software Commission (SOFEX, Guatemala)  
Hong Kong Electronic Industries Association (HKEIA, Hong Kong)  
Hong Kong Information Technology Federation (HKITF, Hong Kong)  
Ibero American Federation of IT Associations (ALETI, Latin America)  
ICT Associations of Jordan (int@j, Jordan) - ICT Chamber of Commerce  
MASIT (MASIT, Macedonia)  
IKT-Norge (Norway)  
INFOBALT (Lithuania)  
Infocom Technology Association of the Philippines (ITAP, Philippines)  
Information & Computer Technologies Industry Association (APKIT, Russia)  
Information Technology Association of Canada (ITAC, Canada)  
Information Technology Association of Nigeria (ITAN, Nigeria)  
Information Technology Industry Council (ITI, USA)  
Intellect (United Kingdom)  
Interactive Games & Entertainment Association (iGEA, Australia and New Zealand)  
Interactive Software Federation of Europe (ISFE, EU)  
Israel Association of Electronics and Software Industries (IAESI, Israel)  
Japan Business Council in Europe (JBCE, Japan-EU)  
Japan Business Machine and Information System Industries Association (JBMIA, Japan)  
The Japan Electrical Manufacturers' Association (JEMA, Japan)  
Japan Electronics and Information Technology Industries Association (JEITA, Japan)  
Japan Information Technology Services Industry Association (JISA, Japan)  
Korea Electronics Association (KEA, Korea)  
Korea Semiconductor Industry Association (KSIA, Korea)  
Liquid Crystal Polymers Coalition (LCPC, USA)  
Motion Picture Association of America (MPAA, USA)  
National Association of Manufacturers (NAM, USA)  
National Electrical Manufacturers Association (NEMA, USA)  
National ICT and Multimedia Association of Malaysia (PIKOM, Malaysia)  
National ICT Confederation of the Philippines (NICP, Philippines)  
PRBA-The Rechargeable Battery Association (USA)  
Retail Industry Leaders Association (RILA, USA)  
Semiconductor and Electronics Industries in the Philippines (SEIPI, Philippines)  
Semiconductor Equipment & Materials International (SEMI, USA)  
Semiconductor Industry Association (SIA, USA)  
Singapore Semiconductor Industry Association (SSIA, Singapore)  
Software & Information Industry Association (SIIA, USA)  
Taipei Computer Association (TCA, Taiwan)  
Taiwan Electrical and Electronic Manufacturers' Association (TEEMA, Taiwan)

Taiwan Semiconductor Industry Association (TSIA, Taiwan)  
Technology CEO Council (TCC, USA)  
Telecommunications Industry Association (TIA, USA)  
Transatlantic Business Council (TBC, USA-EU)  
United States Council for International Business (USCIB, USA)  
United States Chamber of Commerce (USA)  
United States Information Technology Office (USITO, USA)  
Vietnam Electronics Industries Association (VEIA, Vietnam)  
World Information Technology and Services Alliance (WITSA, USA)  
World Semiconductor Council (WSC, China, Chinese Taipei, Korea, Japan, EU, USA)

## 4. The Multi-Sector Coalition behind the WTO Basic Telecommunications Agreement

### I. Introduction

This chapter analyzes the basic telecommunications agreement (BTA) and the preferences of firms and governments in the telecommunications liberalization negotiations. I find that a multi-sector coalition, mainly comprised of financial services, manufacturing, and defense industries, pushed for liberalization in telecommunications to facilitate their intra-firm transfer of data and communication in their global value chain. The interests of user industries affected the dimensions of the scope, membership, and depth of the telecommunications agreement. The medium number of user industries of the telecommunications industry, compared to the IT and finance industries, helps understand why the scope, membership, and depth of the BTA was also medium compared to the ITA and the FSA.

The BTA led to the opening of monopoly-dominated markets in 69 countries that controlled more than 91% of the world trade in telecommunications services.<sup>216</sup> It allowed market access and provided national treatment to basic telecommunications services such as voice telephony, mobile and fax services, as well as value-added services such as data transmission services.<sup>217</sup> It also set global norms and principles in telecommunications services, which led to the establishment of independent regulatory agencies in more than 120 countries and the privatization of state-owned incumbents in 100 countries by 2001.<sup>218</sup> Why was the liberalization of the telecommunications sector possible through the WTO and not through other organizations, such as the ITU? What accounts for variation across sectoral agreements in terms of scope, membership, and depth? The conventional wisdom focused on the telecommunications industry. My study suggests that, surprisingly, it was not solely telecommunications firms that advocated the benefits of liberalization in telecommunications.

Using the global value chain theory of trade agreements that I put forward in Chapter 2, I find that user industries affect the preferences and strategies of firms and governments in multilateral negotiations in telecommunications. It may seem especially surprising that the telecommunications industry itself was not interested in accessing these many countries, especially geographically noncontiguous countries beyond Canada and Mexico. This is because telecommunications carriers, in entering foreign countries, face 1) a high cost of initial investment in building and leasing telecommunications networks, and 2) unequal competition with the entrenched incumbent (often national monopolies),<sup>219</sup> and hence the lower profit margins that come from serving residential customers in foreign countries. However, the telecommunications industry became interested in worldwide liberalization in order to better serve their largest customers, such as financial, IT services, and manufacturing industries that heavily rely on telecommunications networks for their businesses.<sup>220</sup> Financial services

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<sup>216</sup> Results of the basic telecommunications agreement. WTO.

[https://www.wto.org/english/tratop\\_e/serv\\_e/telecom\\_e/telecom\\_results\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_results_e.htm).

<sup>217</sup> Value-added or enhanced services are “telecommunications for which suppliers ‘add value’ to the customer’s information by enhancing its form or content or by providing for its storage and retrieval.” These include online data processing, online data base storage and retrieval, electronic data interchange, email, and voice mail. See WTO Coverage of basic telecommunications and value-added services,

[https://www.wto.org/english/tratop\\_e/serv\\_e/telecom\\_e/telecom\\_coverage\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_coverage_e.htm).

<sup>218</sup> Rodine-Hardy 2013, 9; ITU 2001.

<sup>219</sup> Low and Mattoo 1997.

<sup>220</sup> Woll 2008; Roseman 2003; Geopolitical Strategies, *Network World*, January 18, 1984.

companies, such as Visa, American Express, Citigroup, and the American Insurance Group (AIG), utilize telecommunications technology to facilitate their financial transactions and data flows domestically and internationally. IT companies such as IBM wanted to better provide seamless data processing services to their corporate clients. Other manufacturing industries, such as the automotive (Ford, GE) and chemical (duPont) industries, were also interested in better facilitating in-house communication among factories and distributors.<sup>221</sup>

This chapter also demonstrates how private industries affected home and host governments by pushing for liberalization at the multilateral level. I find that there was a multi-sector network behind the push for the Basic Telecommunications Agreement from start to finish.<sup>222</sup> The multi-sector coalition not only put trade in services on the trade agenda for the first time, but also worked closely with governments in building the regime in telecommunications services by providing norms and principles, as well as helping with negotiations with other governments.<sup>223</sup> In the BTA negotiations, private industries along with government negotiators from developed countries traveled around the world to create “substantive linkages”<sup>224</sup>—namely, to convince developing countries that liberalization in telecommunications would benefit not only the telecommunications sector by bringing in foreign investment for updating dilapidated networks and connecting more people, but also other sectors that are heavy users of telecommunications networks, such as the financial industry and tourism industry.<sup>225</sup> This piqued the interest of developing countries, and developed countries, which had already liberalized their telecommunications markets, could credibly persuade developing countries of the benefits of liberalization.

The interests of these user industries affected the dimensions of the BTA in terms of what services were included (scope), which markets to enter (membership), and how deep to liberalize (depth). Compared to the IT and financial services industries, the number of user industries of telecommunications services is medium. Unlike the mainly internal users of the IT industry or both internal and external users of the financial services industry, telecommunications services had just a few large external users, such as the financial industry and the manufacturing industries, with needs for multi-country, intra-firm networks (manufacturing and finance) and inter-firm networks (finance). Since the number of user industries is medium compared to the IT and financial services, we would also expect the scope, membership, and depth to be medium.

Previous studies on telecommunications liberalization<sup>226</sup> do not identify the WTO sectoral agreement in telecommunications as one of the causes of worldwide liberalization of

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<sup>221</sup> Amex picks Tariff 12 custom nets. *Network World*. September 12, 1988. “The carrier [AT&T] proposed its first Tariff 12 custom network to the U.S. Department of Defense in 1985. Since then, General Electric Co., E.I. du Pont de Nemours & Co., Ford Motor Co. and now American Express have signed on for custom networks.”

<sup>222</sup> US Coalition of Services Industries (CSI) lobbied to include services in the GATT round. The USCSI President Vastine testified in a Senate hearing, “CSI had a great deal to do with the writing of the General Agreement on Trade and Services (GATS).” In the same hearing, Robert Stumberg says, “If you look at the U.S. schedule of GATS commitments, which is the progeny of the Coalition of Service Industries work in partnership with USTR over more than a decade, you will see that there are a number of specific sector commitments that represent the priorities of the United States in terms of those big markets.” See U.S. Senate 2005; Sherman 1998; Aggarwal 1992.

<sup>223</sup> Coalition of Services Industries. 1997. Statement on the World Trade Organization Group on Basic Telecommunications Reference Paper. [http://www.itu.int/osg/spuold/intset/indu/csi\\_stat.html](http://www.itu.int/osg/spuold/intset/indu/csi_stat.html)

<sup>224</sup> Haas 1980; Aggarwal 1985.

<sup>225</sup> Petrazzini 1996; Vastine 2005; Adlung 2000; Feketekuty 2000.

<sup>226</sup> Vogel 1996; Woll 2008; Murillo 2009; Jordana, Levi-Faul, and Fernandez-i-Marín 2011.

telecommunications. And studies<sup>227</sup> on the BTA are limited to the negotiations in the telecommunications sector and do not systematically analyze its user industries.<sup>228</sup> The 1997 WTO Basic Telecommunications Agreement was innovative in its negotiation strategies and instrumental in establishing rules and principles for global communication infrastructure,<sup>229</sup> and this analysis will shed light on the preferences and strategies of firms and governments in multilateral negotiations. In the following sections I will review the history of the telecommunications sector and analyze the multi-sector coalition, trade negotiations, and changes in domestic institutions around the world.

## II. A Brief History of the Telecommunications Sector

Alexander Graham Bell invented the telephone in 1876 and established the Bell Telephone Company a year later, which became the National Bell Telephone Company and the International Bell Telephone Company. Because Bell had a patent for the technology of the telephone his company soon became a monopoly, which was later renamed the American Telephone & Telegraph Company (AT&T) in 1899.<sup>230</sup>

When telephone services began to expand in the US, AT&T bought Western Union, a company that provided telegraph services, in 1909. However, fearing AT&T's monopoly over both telephone and telegraph industries, the U.S. Department of Justice (DOJ) threatened a federal takeover, and AT&T sold Western Union and released a Kingsbury commitment to ensure interconnection with other long-distance providers in 1913.<sup>231</sup> AT&T continued to build long-distance networks across countries, and new technological innovations brought down the costs of telephone services significantly. The telegraph industry began to decline following the Great Depression, and Western Union was later sold to AT&T in 1990.<sup>232</sup>

The dynamic changed when the US broke up the AT&T monopoly in 1982 due to anti-competitive concerns, and the UK separated British Telecom from British Post in the drive for privatization under Margaret Thatcher. Japan also privatized NTT. The deregulatory trend started to open up competition in developed countries; however, the rest of the world seemed to maintain the status quo of the operation of SOEs. The existing multilateral forum on telecommunications—the International Telecommunication Union (ITU)—was also slow to change.

The ITU was founded in 1865 as the International Telegraph Union. In 1932, it changed its name to the International Telecommunication Union to incorporate telephone and other telecommunications services, and became part of the UN in 1947. The ITU manages and allocates radio-frequency spectrum and satellite orbits and develops international standardization in the ICT services of telephone and the Internet.<sup>233</sup> The ITU's current mandate is to “bridge the

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<sup>227</sup> Hufbauer and Wada 1997; Cowhey 1990; Cowhey and Klimenko 2000, 2001; and Fink, Mattoo, and Rathindran 2001.

<sup>228</sup> Woll (2008) notes the importance of user industries in the telecommunication and air transport negotiations, but she focuses on the role of ideas that shape firm preferences.

<sup>229</sup> Cowhey et al. 2009.

<sup>230</sup> Milestones in AT&T History. <http://www.corp.att.com/history/milestones.html>

<sup>231</sup> For more information, see Remarks of FCC Commissioner Ajit Pai at Techfreedom's Forum on the 100<sup>th</sup> Anniversary of the Kingsbury Commitment, Washington DC. December 19 2013. [https://apps.fcc.gov/edocs\\_public/attachmatch/DOC-324810A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/DOC-324810A1.pdf).

<sup>232</sup> Hochfelder 2002.

<sup>233</sup> The current structure was organized into three main “sectors” to deal with development, standardization, and radio communication in 1992. ITU Overview. <https://www.itu.int/en/about/Pages/overview.aspx>

digital divide,” and has a membership of 193 countries and more than 700 private-sector entities.<sup>234</sup> One of the key functions the ITU served in the telecommunications sector was providing a forum for negotiating settlement rates of international telephone traffic between national monopolies.<sup>235</sup> International phone services have been considered to be provided as a “joint supply” by two carriers based on a system of settlement rates that telecom companies pay for terminating international calls. For example, if a person in the US calls her friend in Mexico, her service provider in the US (AT&T) would pay the Mexican provider (TelMex) to terminate the international call from the US. If her friend in Mexico calls the US, TelMex will pay AT&T for terminating the call. At the end of a given period of time the two companies will settle the traffic at half of the accounting rate, called the settlement rate, and the country that originated more calls will pay a net settlement payment.<sup>236</sup>

However, due to the asymmetry of international telecom traffic (people in rich countries call more), developing countries enjoyed a surplus of settlement payments and developed countries were paying the lion’s share of the settlement traffic. Of the \$10 billion transfers to developing countries in 1997, the US alone paid \$6 billion.<sup>237</sup> Additionally, since most of the telecom providers were national PTT ministries, these settlement payments went to foreign governments in the form of a “revenue transfer” that contributed a substantial share of their revenues.<sup>238</sup> Moreover, the rates were not publicly posted, so developing countries inflated rates for international services and diverted funds to other sectors.<sup>239</sup> There has been a persistent call to reform accounting rates at the ITU; however, due to the vested interests and billions of dollars at stake for many developing countries, a consensus had not been reached.<sup>240</sup>

### **III. Preferences of Governments and Firms in the Telecommunications Sector**

In order to provide support for the global value chain theory in the telecommunications negotiations, I first delineate the preferences of governments and firms in the telecommunications sector in order to understand the demand and supply sides of trade policies. I then bring them together to see the interactions and policy outcomes. On the supply side of policies, I analyze the preferences of governments in the provision of telecommunications services and structural constraints under which governments operate. Most governments operated the telecommunications service directly as part of their own administrations in order to provide universal service. With regard to the demand for deregulation and trade liberalization, I analyze industry coalitions that resulted from a longstanding supplier-user relationship in the IT, Telecom, and Finance sectors that affected the preferences and strategies of these industries.

#### **Government Preferences in the BTA Negotiations**

Most governments—developed and developing—mandate universal services to rural areas, key political constituents in many countries.<sup>241</sup> However, preferences nevertheless diverge according to the development status of the country with regard to two dimensions—policy implementation

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<sup>234</sup> ITU Overview. <http://www.itu.int/en/history/Documents/ITU-HISTORY-Overview.pdf>

<sup>235</sup> Cowhey and Klimenko 2001.

<sup>236</sup> Cowhey 1998.

<sup>237</sup> Ibid.

<sup>238</sup> Cowhey and Klimenko 2001; Petrazzini 1996.

<sup>239</sup> Cowhey and Klimenko 2001.

<sup>240</sup> Cowhey and Aronson 1993.

<sup>241</sup> Cowhey and Aronson 1993.



and revenue structure.<sup>242</sup> Developed countries had started the deregulatory process to allow some competition in the basic telephony market, while many developing countries had continued to operate telecom services either through state-owned enterprise or the PTT ministries. In many countries around the world the telecommunications industry had enjoyed a monopoly for over a century.<sup>243</sup> This was due to the high sunk costs involved in building the infrastructure for telecommunication lines. Telecommunications services were provided either through national Post, Telegraph, and Telephone (PTT) ministries; as a state-owned enterprise that was later privatized, such as the British Telecom (BT), Deutsche Telekom, France Telecom, and NTT (Nippon Telegraph and Telephone); or as a regulated private monopoly like AT&T in the US. For international call traffic, national monopolies bilaterally set rates, known as settlement rates. Due to the lack of competition, settlement rates were often overpriced and many governments diverted these extra-budgetary funds collected by the PTT ministry to other ministries' budgets.<sup>244</sup> Developed countries have wanted to reduce the "transfer" of settlement payments to foreign governments for international calls. Unsurprisingly, developing countries wanted to keep these flows of foreign payments as they handsomely profited from this revenue.<sup>245</sup> At the same time, developing countries became increasingly aware of the limitations of their telecommunications development and wanted to bring in foreign investment and technological knowhow to update their telecommunications infrastructure.

**Table 1.** Preferences of Firms and Government in the Telecommunications Sector

Private Telecom Industry	Government	
	Developed	Developing
-Reduce costs (settlement rates) -Access other markets to provide better services for its largest clients—e.g. financial services firms	-Reduce subsidies -Reduce unfair competition by foreign competitors in the already liberalized domestic market	-Keep the inflows of foreign payments -Bring in investment to upgrade old networks

### Firm Preferences in the BTA Negotiations

Firms want to reduce costs and increase revenues in order to increase profits.<sup>246</sup> In the U.S., the breakup of the AT&T monopoly and the introduction of competition into the long-distance market reduced AT&T's profit margins.<sup>247</sup> Fourteen years after breaking up the AT&T monopoly in 1982, the US allowed the Regional Bell Operating Companies (RBOCs) into the long-distance market through the 1996 Telecommunications Act,<sup>248</sup> which led AT&T to look for ways to further cut costs and to look abroad for more opportunities.<sup>249</sup> Additionally, as domestic liberalization allowed foreign companies to enter the US market, US carriers wanted to cut costs

<sup>242</sup> Vogel 1996, 19.

<sup>243</sup> Cowhey and Aronson 1993.

<sup>244</sup> Cowhey and Klimenko 2001; Petrazzini 1996.

<sup>245</sup> Cowhey and Klimenko 2001.

<sup>246</sup> For the distinction between profits and firm survival, see Fligstein 1990.

<sup>247</sup> Economides 1999b.

<sup>248</sup> Telecommunications Act of 1996, Pub. LA. No. 104-104, 110 Stat. 56. RBOCs had to open their local exchange market to competition to be able to enter the long-distance market to prevent a vertical monopoly that controls both local and long-distance markets. See Economides 2005.

<sup>249</sup> Aggarwal 1992.

in order to stay lean and compete with other global players. On the offensive, they wanted to increase their business by retaining existing clients and bringing in new clients. One of the largest corporate clients of the telecommunications firms were financial services firms, which rely extensively on telecommunications networks for data transmission and transaction processing.<sup>250</sup>

Financial services business is inherently and fundamentally about data transaction. Financial firms need to authorize transactions requested by clients at department stores, hotels, and airlines, even grocery stores around the world. Financial firms sign contracts with telecommunications firms to facilitate intra-firm networks for internal communication as well as inter-firm networks to authorize and process financial transactions quickly.<sup>251</sup> However, while telecommunications companies have long served as an intermediary between domestic financial services firms and foreign governments in negotiating bilateral contracts for network operations, transaction costs of bilateral negotiations increased as the number of negotiating partners increased with technological development.<sup>252</sup> As financial and telecommunications firms encountered market access problems in a number of countries, the private industry came up with an idea to create a multilateral framework that would bring down costs, introduce transparency, and create a norm of liberalization in countries that have not yet liberalized.<sup>253</sup> And they chose the GATT rounds to discuss services, not at the traditional ITU, where monopolies have enjoyed collusion for decades.<sup>254</sup>

Delineating the interests of the private industry and governments according to development status shows the close relationship between governments and firms. While the traditional two-level<sup>255</sup> game structured the negotiations, it is important to clarify the mechanisms by which firms, through coalitions, affect their governments in shaping the negotiation agenda, and in some cases, affect foreign governments, directly by creating issue-linkages and indirectly through information transfer.

The private sector's demand for access to foreign markets in order to better serve its clients and the governments' need to upgrade telecommunications networks for their industries resulted in the BTA. Governments in developing countries, anticipating the benefit of liberalization and competition, opened the sector to competition and foreign entry and established independent regulators. The BTA bound liberalization at the multilateral level, reversed the centuries-old international collusion by national monopolies, and helped accelerate worldwide deregulation in telecommunications. Monopolistic markets around the world have seen competition increase to varying extents, from the oligopolistic basic telephony markets to the competitive mobile telephony markets. I will now show how a multi-sector coalition pushed the telecommunications negotiations.

#### **IV. The Multi-Sector Coalition behind the Sectoral Agreement in Telecommunications**

In the telecommunications negotiations there existed a coalition of service providers that were heavy users of telecommunications services, such as financial service providers and IT service providers. These industries formed a multi-sector coalition from agenda-setting to final outcome

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<sup>250</sup> Banks in a state of flux. *Network World*. May 19, 1986.

<sup>251</sup> Morisi 1996.

<sup>252</sup> Cowhey and Aronson 1993.

<sup>253</sup> Cowhey 1990.

<sup>254</sup> Cowhey and Klimenko 2001

<sup>255</sup> Putnam 1998.

by working with home and host governments. In this section, I will describe the linkage of the IT, telecommunications, and finance industries and the formation of a coalition for trade in services. I will then analyze the BTA negotiations.

The IT, telecommunications, and finance industries have been interconnected for decades. The telecommunications industry enabled the development of the financial services sector and the IT sector. In the US in particular the development of telecommunications technology gave birth to semiconductor technology,<sup>256</sup> which revolutionized the IT industry. In 1948 Bell Laboratories of AT&T invented the first semiconductor device, the solid state transistor, which enabled the production of memory chips. Moore's Law (1965) predicted a growth rate for chip capacity of 35-45% per year.<sup>257</sup> Intel rolled out integrated circuits made of silicon in 1971 and became the world's largest semiconductor manufacturer, followed by NEC (Japan), Samsung (Korea), and Philips (Netherlands). IBM, as a captive producer, also produced semiconductors, DRAM, as well as mainframe computers, and Automated Teller Machines (ATM).

Telecommunications liberalization also contributed to the development of the financial market.<sup>258</sup> With the development of telegraph technology in the 1860s, financial information began to flow more quickly across continental Europe and the Atlantic Ocean, and commodity prices and stock prices began to centralize at major financial centers, such as New York and London.<sup>259</sup> Firms soon began to privately lease lines to connect to NYSE in order to send and receive orders quickly.<sup>260</sup> With the immense interest in telecommunication networks, the banking industry began to intervene in corporate governance in telecommunications firms. In 1907, the American banker J.P. Morgan wanted to establish a wireline monopoly and took control of Bell and installed Thomas Vail as the president of AT&T.<sup>261</sup> Vail, who operated under the principle "One System, One Policy, Universal Service," was instrumental in building the AT&T monopoly and dominance in the US market. Morgan and Vail began to buy up independent operators or offer interconnection in return for fees and buying Bell equipment.<sup>262</sup> J.P. Morgan's "lasting legacy" in the telecommunications industry was the absence of long distance competition for over sixty years.<sup>263</sup>

The traditionally fragmented computer and communications markets began to merge as AT&T's barriers to entry into the information processing market were lifted in 1982 by the DOJ. The regulation came as the technology was developed to link computers, which were previously stand-alone data processing machines, to networks. AT&T and IBM, the world's two largest manufacturers of electronic components, could now develop the cross-product of information and communications technology. No longer limited to the voice telephony market, AT&T began to move into the information processing and computer industries by partnering with companies

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<sup>256</sup> Jorgenson 2001.

<sup>257</sup> Jorgenson 2001, 3.

<sup>258</sup> Field 1998.

<sup>259</sup> Field 1998.

<sup>260</sup> Ibid. The NYSE changed the practice from two auctions per day to continuous trading in 1871. By 1910, the New York Stock Exchange conducted 90% of all bond trades and two-thirds of all stock trades in the U.S.

<sup>261</sup> Wu 2010, 50.

<sup>262</sup> Ibid., 53.

<sup>263</sup> Ibid., 54.

like Philips and Toshiba.<sup>264</sup> IBM sought to bypass AT&T by investing in Satellite Business Systems and long-distance provider MCI.<sup>265</sup>

This development coincided with the growing demand from MNCs in industrial countries for better communications services with each other in industrial countries and in their foreign expansion. As MNCs increased in firm size and geographic scope, they became increasingly dependent on telecommunications networks to transfer data and communicate better with their employees and customers all over the world. Auto companies such as Ford and GM wanted to better communicate with their factories abroad, and financial services companies such as Visa and American Express had always prioritized processing financial transactions in the shortest time possible.<sup>266</sup>

With these market developments industries became more integrated not only through the supplier-user network, but also as competitors and providers of similar and complementary services. They started to compete with each other by entering each other's bread-and-butter businesses. American Express, which was heavily dependent on telecommunications networks in managing credit card transactions,<sup>267</sup> sought ways to facilitate data processing faster and cheaper by locking in a bulk capacity at a fixed, low price.<sup>268</sup> In 1988, American Express contracted to connect its 600 sites in the corporate network and bought a private network from AT&T, which built, operated, and managed that private network.<sup>269</sup> However, American Express decided to sell some of its excess capacity as a telecommunications services provider to the public in 1995, thereby directly competing with AT&T in telecommunications services.<sup>270</sup> It established American Express Telecom, Inc., to sell pre-paid international calling cards in 240 countries.<sup>271</sup> IBM, which had purchased a partial stake in MCI, AT&T's rival in the long-distance market, also wanted to provide single-stop data processing services to its corporate users and established its own telecommunications network services—IBM Global Network.<sup>272</sup> It once served 35,000 corporate clients and 1 million individual users in 59 countries, but IBM eventually sold it to AT&T for \$5 billion.<sup>273</sup> The biggest worry in the financial services industry was that technology giants like IBM and AT&T would move beyond providing backbone networks to financial services firms to actually providing financial services to clients by leveraging their advantage in information distribution.<sup>274</sup> Kent Price, chief of Citibank London, said in 1984, “What worries me most is the prospect of non-banks like IBM and AT&T taking advantage of the technology to

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<sup>264</sup> IBM and AT&T: An International Scramble. *Network World*. August 1985.

<sup>265</sup> Taylor, P., and Kehoe, L. 1984. “AT&T launches major assault on general computer market,” *Financial Times*, March 26.

<sup>266</sup> Amex picks Tariff 12 custom nets. *Network World*. September 12, 1988.

<sup>267</sup> Amex verging on network supremacy. *Network World*. June 23, 1986.

<sup>268</sup> Amex picks Tariff 12 custom nets. *Network World*. September 12, 1988.

<sup>269</sup> Ibid. AMEX was the first user of AT&T's ISDN interface service in 1988 and was the fifth user to sign a multi-year, fixed-price contract for a custom voice and data network with AT&T in 1988 after Pentagon, GE, DuPont, and Ford.

<sup>270</sup> Amex strikes phone gold; Financial services firm to resell excess network capacity. *Network World*. October 30, 1995.

<sup>271</sup> Ibid.

<sup>272</sup> AT&T Agrees to Buy IBM's Data Network” December 9, 1998. *LA Times*.

<sup>273</sup> Ibid.

<sup>274</sup> Telcos flirt with banking industry's one true love; With deregulation, RBHCs, AT&T and others are pursuing an interest in financial services. *Network World*. July 25, 1988.

get into the banking business and who will not be subject to the same regulations and controls.”<sup>275</sup>

With lowered barriers to entry and deregulatory trends in developed countries, coupled with technological development, the IT, telecommunications, and finance industries began to engage in technological warfare.<sup>276</sup> However, they faced a common challenge in accessing foreign markets.<sup>277</sup> In the next section, I examine how services providers, under the leadership of financial services firms, began to open up other countries multilaterally, in the telecommunications market.

## V. Negotiations

From the creation of the GATT in 1947 to the start of the Uruguay Round in 1986, the multilateral trading system focused on trade in goods. This is mainly because the share of trade in services was not significant until the 1970s. However, with technological development, trade in services began to increase.<sup>278</sup>

In 1979, American Express president Jim Robinson put vice president Harry Freeman in charge of opening up services trade at the GATT.<sup>279</sup> Their goal was to put trade in services on the GATT agenda. It was an ambitious goal to include services in the forum, which had mainly discussed goods for the past forty years. Soon they enlisted Citicorp and AIG, which were facing similar market access problems.<sup>280</sup> With Jim Robinson of American Express, John Reed of Citicorp, and Hank Greenberg of AIG on board, the US private sector started a campaign to put trade in services on the agenda. Soon American Express realized that simply opening financial services could be difficult and expanded its pursuit to all services and brought in other partners, and these industries formed the Coalition of Services Industries (CSI) in 1982 and began to lobby the USTR to bring up trade in services at the GATT.<sup>281</sup> The private sector also went to the ministerial meetings in 1980, 1982, 1984, 1986, and the Uruguay Round.<sup>282</sup>

What financial services firms wanted from the WTO negotiations in telecommunications was “the presence of advanced telecoms networks in the markets,” especially “emerging markets.”<sup>283</sup> Up until the early 1980s telecommunications service providers had mostly focused on serving domestic markets. In the US, AT&T sold its international business in 1925 and focused on monopolizing the US market.<sup>284</sup> France, Germany, Japan, and the UK have also focused on domestic markets through their state-owned operators for most of the twentieth century. As the financial services providers—their large corporate clients—looked abroad for more opportunities, the telecommunications companies followed suit. Under the leadership of the Coalition of Service Industries, telecommunications firms joined other service firms in the GATS talk in the Uruguay Round.

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<sup>275</sup> Alan Cane. 1984. “Technology: Why Citibank loves computing-electronics opens up competition in banking.” *Financial Times*, March 30.

<sup>276</sup> IBM and AT&T: An International Scramble. *Network World*. August 1985.

<sup>277</sup> Ibid.

<sup>278</sup> Brock 1982.

<sup>279</sup> Freeman 2000.

<sup>280</sup> Ibid.

<sup>281</sup> Vastine 2005.

<sup>282</sup> Freeman 2000.

<sup>283</sup> Of all Bank of America transactions, 65 percent of them were done through telecommunications networks in 1996. See CSIS 1996.

<sup>284</sup> Geopolitical Strategies, *Network World*, January 18, 1984.

Shortly after the Uruguay Round ended in 1994, countries established a Negotiating Group on Basic Telecommunications (NGBT) to complete the talks by April 1996.<sup>285</sup> By April 1996, there were liberalization commitments from 48 governments (34 offers, EU as one schedule); however, they were short of the expected level of liberalization, especially as judged from the perspective of the US negotiators.<sup>286</sup> Most of the commitments were limited to value-added telecommunications, and only 22 schedules included some commitments on basic telecommunications on a narrow basis.<sup>287</sup> Even the few commitments on voice telephone services were limited to mobile or cellular telephony.<sup>288</sup> In April 1996, Deputy USTR Jeffrey Lang walked out of the telecommunications negotiations, citing the lack of liberalization in satellite services and effective safeguards against anti-competitive behavior.<sup>289</sup> Shortly after the talks failed, countries re-started the negotiations by forming a Group on Basic Telecommunications (GBT). In the final negotiations, the US took MFN exemptions in satellites “with Canada in particular in mind.”<sup>290</sup>

*WTO Reference Paper-Industry Supplying Norms and Principles*

While countries were negotiating market access, they lacked the consensus on necessary requirements.<sup>291</sup> A small group of countries gathered to establish norms and principles for trading telecommunications services through a reference paper that signatories could adopt along with the BTA. To ensure universal service and efficient and fair allocation of resources, negotiators established six principles, which are: competitive safeguards, interconnection, universal service, public availability of licensing criteria, independent regulators, and allocation and use of scarce resources.<sup>292</sup>

One of the transformative effects of the BTA reference paper on domestic institutions was the establishment of independent regulators around the world.<sup>293</sup> As most governments around the world operated telecommunication services out of national PTT ministries, they did not have independent regulatory bodies. This was concerning to foreign carriers as they feared discrimination in licensing and interconnection by national PTT ministries that owned incumbent operators.<sup>294</sup> Firms directly lobbied for the inclusion of transparent licensing criteria and

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<sup>285</sup> Ibid.

<sup>286</sup> Ibid.

<sup>287</sup> WTO News. 1996. Background Note on the WTO Negotiations on Basic Telecommunications. February 22. [https://www.wto.org/english/news\\_e/pres96\\_e/ta3-tel.htm](https://www.wto.org/english/news_e/pres96_e/ta3-tel.htm)

<sup>288</sup> Ibid.

<sup>289</sup> Aronson 1997, 16.

<sup>290</sup> WTO Deal Includes U.S. MFN Exemption in Some Satellite Services. Inside U.S. Trade, February 18, 1997.

<sup>291</sup> Guermazi 2000.

<sup>292</sup> Competitive safeguards referred to safeguards against anti-competitive practices, such as cross-subsidization, information sharing about essential facilities, and relevant commercial information on a timely basis. Interconnection refers to linking suppliers to public telecommunications transport networks so that traffic will be connected from startpoint to endpoint on a non-discriminatory and timely basis. Interconnection is key to telecommunications services as it connects different networks, and often the main operator in the country has control of the backbone network and has to allow other networks to connect to it. Universal service is important in many countries as they seek to connect to rural areas that are key constituents in many countries but will often not be served by the market due to high costs and low margins. Public availability of licensing criteria and independent regulators go hand-in-hand.

<sup>293</sup> The reference paper stipulated the establishment of independent regulators as one of the key provisions of the BTA. See WTO 1996 BTA reference paper; ITU 2001; Mattoo and Sauve 2003.

<sup>294</sup> Guermazi 2000.

independent regulators in the WTO Reference Paper.<sup>295</sup> The reference paper called for independent regulators that were separate from, and not accountable to, suppliers of basic telecommunications services, such as national PTT ministries that operate telecommunications services for eliminating foreign discrimination and ownership restrictions.<sup>296</sup>

Interconnection is also the critical element in telecommunications services. If local services cannot access the long-distance network, the call will not be connected from point A to point B beyond the immediate area. Governments that had separated telecommunications operators from national PTT ministries were aware of the importance of principles such as interconnection and essential facilities. The US, in its attempt to break up AT&T and ensure competition in the market, also learned about the importance of interconnection in allowing local and long-distance network providers to connect the call.<sup>297</sup> With regard to the BTA, US carriers also prodded the government to push for interconnection in foreign countries. They were also aware, because of their practice, that if the foreign incumbent did not allow interconnection they would not be able to process information and would hence be, in effect, blocked out of the market.

In December 1994, the U.S. negotiation invited a select group of countries—Australia, New Zealand, Japan, Korea, and the EU—to initiate discussions on regulatory objectives in telecommunications services.<sup>298</sup> These countries struggled to define what constitutes trade in telecommunications services in the first place and saw that clear norms and principles were needed.<sup>299</sup> The U.S. distributed a paper titled, “Pro-competitive Regulatory and Other Measures for Effective Market Access in Basic Telecommunications Services,” in February 1995 with key regulatory principles and attached it to its July 1995 offer.<sup>300</sup> With the contributions of Canada, Australia, Japan, and the EU, the Reference paper on trade in telecommunications was composed in October 1995 and was circulated to the rest of the NGBT members in December 1995 and January 1996.<sup>301</sup> The BTA established international regulatory principles in the sector that did not previously have agreed upon norms and principles. Deputy U.S. Trade Representative Jeff Lang said that the commitments on regulatory principles were “maybe the most significant part of the agreement.”<sup>302</sup>

### *1997 U.S. Accounting Rate Reform*

Another big push for the conclusion of the BTA was the 1997 Accounting Rate Reform<sup>303</sup> in the US, which altered the incentives for national monopolies around the world. The US sought to transform the accounting rate system that governed the international call system, in which countries colluded to inflate international rates at the International Telecommunications Union

<sup>295</sup> Coalition of Services Industries. 1997. Statement on the World Trade Organization Group on Basic Telecommunications Reference Paper. [http://www.itu.int/osg/spuold/intset/indu/csi\\_stat.html](http://www.itu.int/osg/spuold/intset/indu/csi_stat.html)

<sup>296</sup> WTO 1996. Telecommunications Services: Reference Paper. Negotiating Group on Basic Telecommunications. April 24. [https://www.wto.org/english/tratop\\_e/serv\\_e/telecom\\_e/tel23\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm).

<sup>297</sup> In *MCI vs. AT&T* (1983), the DOJ and the FCC defined essential facilities. Guermazi 2000, footnote 17.

<sup>298</sup> The subsequent meetings were held at the Japanese embassy under the informal chairmanship of Japan. Later, Brazil, Singapore, Chile, Mexico, and the Philippines also attended the group. See Sherman 1998, 71, footnote. 54.

<sup>299</sup> Sherman 1998; Roseman 2003

<sup>300</sup> WTO 1995. Negotiating Group on Basic Telecommunications, Communication from the United States, Pro-competitive Regulatory and Other Measures for Effective Market Access in Basic Telecommunications Services, S/NGBT/W/5. Feb. 9.

<sup>301</sup> *Ibid.*

<sup>302</sup> Barshefsky says delay made deal better. *Inside U.S. Trade*, February 18, 1997.

<sup>303</sup> FCC 1997 Benchmarks Order

(ITU) by prohibiting US carriers from paying no more than 23 cents per minute (about a fifth of the existing accounting rates) to foreign carriers.<sup>304</sup> When the US broke up the AT&T monopoly 1982 and opened the long distance market to competition, AT&T, along with other US carriers, wanted to cut the costs of these high settlement rates. With the conclusion of the BTA nearly in sight, US telephone carriers lobbied the US government to protect them from foreign companies that could be licensed in the US and operate on a leased line at a cheaper rate than US carriers or subsidize their affiliates with the settlement payments received from US carriers.<sup>305</sup> To correct this anti-competitive behavior the FCC released the benchmark on accounting rates, which set price caps under which US carriers could pay for settlement rates to other countries.<sup>306</sup> The rates came down from as much as \$1.30 to 23 cents for the least developed countries.<sup>307</sup>

Not surprisingly, many developing countries were enraged by the accounting rate reform as they would lose a substantial amount of revenue, and more than 90 foreign governments and carriers submitted comments.<sup>308</sup> Although the FCC implemented the reform in the US for the international business of domestic carriers, it was difficult to persuade developing countries to go along with the BTA liberalization. The FCC, USTR, and the industry coalition were deployed around the world to persuade them that cheaper international calls would increase traffic and that volume effect would dwarf the price effect.<sup>309</sup> With the US accounting rate reform, national PTT ministries had to accept the change. All these changes, as well as promised investments and gains in other related sectors, finally convinced the developing countries to accept the BTA and the attached Reference paper.

The accounting rate reform was “instrumental in obtaining the support of major U.S. corporations for the agreement.”<sup>310</sup> AT&T Senior Executive Vice President John Zegliss said at the conclusion of the BTA negotiations that the FCC plan “makes this agreement possible” and that the US industry “looks forward” to working with the Administration on a “swift and smooth implementation.”<sup>311</sup>

## VI. Outcome

“On February 13, two days before the negotiations were to conclude, representatives of the private sector in Geneva, who were there to observe the concluding days, greeted the U.S. negotiating team at its morning industry briefing with signs saying ‘wildly enthusiastic.’”

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<sup>304</sup> Ibid.

<sup>305</sup> Ibid.

<sup>306</sup> Ibid.

<sup>307</sup> Ibid.

<sup>308</sup> Deane 2000. Petitioners, comprising over 100 foreign governments, regulators, and telecommunications companies, challenged this order; however, the US Court of Appeals for the District of Columbia Circuit decided in January 12, 1999, “Rejecting petitioners' argument that the Order directly regulates foreign carriers as well as their alternative argument that it unlawfully regulates domestic carriers, we hold that the Order was a valid exercise of the Commission's regulatory authority under the Communications Act.” See *Cable Wireless Plc vs. FCC*. 1999. [https://www.cadc.uscourts.gov/internet/opinions.nsf/43B16272962251BB85256F15006C158F/\\$file/97-1612a.txt](https://www.cadc.uscourts.gov/internet/opinions.nsf/43B16272962251BB85256F15006C158F/$file/97-1612a.txt)

<sup>309</sup> The same argument was made against the FCC reform that it would further exacerbate the US deficit in telecommunications. See USITC 1998b.

<sup>310</sup> Barshefsky says delay made the deal better. *Inside U.S. Trade*. February 18, 1997. The supporting industry associations included the Coalition of Service Industries, the Information Technology Industry Council, the U.S. Council for International Business, the Telecommunications Industry Association, the Global Information Infrastructure Commission and the Information Technology Association of America.

<sup>311</sup> Ibid.



-Laura Sherman, US negotiator in telecommunications<sup>312</sup>

The multi-sector coalition also helped draw the finish line in determining acceptable outcomes from the telecommunications negotiations. Bank of America, IBM, American Express, and AT&T were the most prominent representatives to Geneva. Bob Kramer of Bank of America said a few weeks before the deadline in December 1996, “even as they stand, we find the existing offers in the WTO negotiations to be significantly better from a cost and success standpoint than the status quo. So we would strongly recommend at this point that the U.S. sign an agreement as it stands, even if there isn’t significant improvement from some of the emerging markets.”<sup>313</sup> This was not only because the existing offers were satisfactory to them, but because the success of this agreement would advance the financial services agreement as well: “Consequently, from a user standpoint purely, it would be good to be able to lock this in and to get on with it. There’s another consideration that we have, which is that success in the telecom talks will also be helpful for success in the follow-on financial services talks.”<sup>314</sup> With regard to the domestic IT industry, Deputy USTR Jeffrey Lang also described the telecom agreement as the “perfect complement to the Information Technology Agreement” as the U.S. makers of telecommunications equipment “will profit by meeting the new demand stimulated by the deregulatory, precompetitive terms of the telecom accord.”<sup>315</sup> The multilateral liberalization accord in telecommunications expanded the opportunities for related sectors in the information and communications technology industry.

In February 1997, the Basic Telecommunications Agreement ended the national monopolies and opened the sector to foreign competition in 69 countries. Of the 69 governments, 63 of them included commitments on regulatory disciplines, with 57 of them accepting the Reference Paper in whole or with a few minor modifications.<sup>316</sup> For 61 of these countries,<sup>317</sup> competition—domestic and foreign—was first opened for international phone services with the BTA. The Fourth Protocol to GATS was annexed and the protocol and its annexed documents entered into force on January 1, 1998.

At the beginning of the 1990s, there were only 10 regulators.<sup>318</sup> By the end of 2000, there were 101 telecommunications regulatory agencies independent from incumbent operators.<sup>319</sup> The US savings from the FCC’s Benchmarks policy was up to \$38 billion from 1997 to 2002.<sup>320</sup> The subsequent negotiations on telecommunications have been subsumed in the broader discussions of telecommunications and E-commerce.<sup>321</sup>

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<sup>312</sup> Sherman 1998, 62.

<sup>313</sup> CSIS 1996, 41.

<sup>314</sup> *Ibid.*, 44.

<sup>315</sup> U.S. House 1997. Committee on Ways and Means Subcommittee on Trade. *Robert Vastine, President, Coalition of Service Industries, Hearing on World Trade Organization Singapore Ministerial Meeting*. 105h Cong., 26 Feb.

<sup>316</sup> History of the Telecommunications Negotiation. WTO.

[https://www.wto.org/english/tratop\\_e/serv\\_e/telecom\\_e/telecom\\_history\\_e.htm](https://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_history_e.htm)

<sup>317</sup> The eight countries that had competition before the BTA were: US, UK, Japan, Australia, New Zealand, Chile, Sweden, and Finland. See Sherman 1998, footnote 8.

<sup>318</sup> ITU 1999, 5.

<sup>319</sup> ITU 2001, 13.

<sup>320</sup> 1997 Benchmarks Policy. FCC. <https://www.fcc.gov/general/international-settlements-policy-and-us-international-accounting-rates>

<sup>321</sup> Telecom & E-Commerce. USTR. <https://ustr.gov/issue-areas/services-investment/telecom-e-commerce>

## VII. Alternative Explanations

We have analyzed the influence of user industries on the telecommunications negotiations. The conventional wisdom is that the most powerful state would push for telecommunications liberalization and determine the scope, depth, and membership of the agreement that serves its interests. The power explanation predicts that the US would decide the outcome of the BTA in terms of scope, membership, and depth. While the most powerful state, the US, did push for a multilateral agreement, this explanation does not tell us why it wanted a multilateral agreement in the first place, why it invited certain countries but not others, and why it included certain services but not others. Moreover, the US faced strong resistance from developing countries that stood to lose billions of dollars in revenues with liberalization. Because liberalization commitments were not forthcoming from many countries, the US walked out of the negotiations, leading to the interim agreement. Only after the US implemented the domestic accounting rate reform to alter incentives, did developing countries make meaningful liberalization commitments.

The institution-based explanation suggests that technological developments make the existing regime obsolete and countries want to reduce transaction costs through a multilateral agreement instead of bargaining through bilateral agreements. Indeed, the increasing number of bilateral negotiations made a multilateral agreement attractive as a way to reduce transaction costs and information asymmetry by setting up new norms and principles. However, while technological developments in telecommunications and information technology did affect all countries, they varied in their level of liberalization.

The domestic politics explanation looks at the interest groups in the industry within a state. There are three main actors: private telecommunications firms, state-owned telecommunications firms, and telecommunications ministries/regulators. The telecommunications industry, despite its function of connecting people, was a heavily regulated and insulated industry that mainly focused on domestic markets in most countries. There was also variation in the preferences of public and private telecommunications firms and telecommunications ministries according to their level of development.

Telecommunications firms in the industrial countries, mostly private carriers, wanted liberalization in order to access foreign markets. On the other hand, telecommunication firms in developing countries, mostly state-owned incumbents, saw the need to bring in FDIs to update their dilapidated telecommunications network, but did not want competition with foreign carriers in their market. The telecommunications ministries in developing countries owned the SOEs so their interests aligned in resisting liberalization. The preferences of telecommunications ministries and regulators in industrial countries aligned with those of telecommunications firms in their countries with regard to foreign liberalization. The domestic politics explanation does not give us the mechanism for how these diverging preferences were reconciled at the international negotiating table.

The framework of user industries and global value chains helps explain the preferences of telecommunications carriers abroad. The need to transfer a large volume of data across countries made the multilateral agreement attractive to telecommunications carriers. It also helps explain why membership included not only large markets but also small- to medium-sized markets. The framework of user industries and global value chains fills a gap in the literature by providing the source of preferences of firms and countries, and helps explain variation across sectoral agreements in terms of scope, membership, and depth, and across countries within the telecommunications sector in the level of liberalization.

### VIII. Conclusion

After the 1997 BTA came into effect, the telecommunications industry around the world saw a wave of mergers and acquisitions as firms sought to grow in size and scope in order to better compete on the open market.<sup>322</sup> AT&T, Sprint, and WorldCom started to buy up small and medium-sized carriers in the US, and international carriers such as British Telecom and Deutsche Telekom started forming transnational coalitions such as Global One (MCI WorldCom-Telefonica) and Concert (AT&T-BT).<sup>323</sup> Although the coalitions fizzled after a few years, the industry was taken over by a frenzy of consolidation at the domestic and global levels, which led to the increased structural power of a small number of firms in the industry.

Most importantly, the analysis of the BTA sheds light on the vicissitudes of basic telecommunications and value-added telecommunications services. Because former monopolies were too focused on protecting their traditional business (long-distance and local services), they spent their energy on negotiating restrictions in the basic services and inadvertently did not specify restrictions in value-added services (mobile telephony and Internet telephony),<sup>324</sup> which were in a nascent stage and did not present a threat to their businesses at the time.<sup>325</sup> With the technological development of the late 1990s *and* the unrestricted liberalization at the multilateral level through the BTA, mobile telephony and Voice over Internet Protocol (VoIP) spread to the rest of the world at an unprecedented rate. Only a couple years after the BTA, the Internet “changed everything” and the success of VoIP almost rendered the contentious settlement rate system ineffective<sup>326</sup>—making the BTA negotiations the obsolescing bargain in favor of mobile services and the Internet providers.

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<sup>322</sup> Telecom alliances met with mixed success. CNET. January 2, 2002. <http://www.cnet.com/news/telecom-alliances-met-with-mixed-success/>

<sup>323</sup> Ibid.

<sup>324</sup> See country schedules of specific commitments and lists of exemptions in the WTO Basic Telecommunications Agreement (Fourth Protocol to the GATS).

<sup>325</sup> Petrazzini 1998, 19: “Today, the Internet is mostly limited to data transmission, while voice services remain the biggest and most lucrative portion of telecommunications services.”

<sup>326</sup> USITC 2010.

## 5. The Globalization of Finance: The WTO Financial Services Agreement

### I. Introduction

This chapter analyzes the financial services agreement (FSA) and the preferences and strategies of firms and governments in the 1997 FSA negotiations. I find that although the financial industry was a powerful lobbying group that put trade in services on the trade agenda and pushed for liberalization in financial services and other services industries, we cannot understand the preferences of financial firms in the FSA without taking into account its user industries. The high number of user industries helps us understand why scope and membership were high but the level of liberalization was low in the FSA. In order to negotiate financial services at the World Trade Organization, the financial industry enlisted other industries to create a multi-sector coalition, as well as an intra-industry association domestically and internationally, and put trade in services on the trade agenda for the first time.

The FSA was the first and largest multilateral agreement in which 102 countries agreed to open their financial market, accounting for more than 95% of global trade in financial services by revenues.<sup>327</sup> It removed trade barriers in financial services from Argentina to Zimbabwe so that insurance companies could sell their services across borders and banks could establish subsidiaries and branches in foreign countries. The FSA was significant to the newly created WTO, not only because it was the last negotiation of the Uruguay Round,<sup>328</sup> but also because it was an ambitious undertaking of the WTO to expand its reach into the realm of finance—exclusively delegated to the International Monetary Fund (IMF) since the creation of the Bretton Woods institutions in 1944. How does the FSA differ from the Information Technology Agreement (ITA) and the Basic Telecommunications Agreement (BTA)? Why did 102 countries agree to open their financial sector through the WTO? The conventional wisdom focused on power asymmetry, technological development in the finance industry, and interest groups in the finance industry. I argue that these arguments fail to explain the variation across countries because they miss the interaction between firms and governments in international financial negotiations.

I argue that the preferences of *user industries* in the global value chain<sup>329</sup> affect variation in depth, scope, and membership across sectoral agreements, as well as variation in liberalization across countries within an agreement. The largest users of financial firms are MNCs with large foreign operations and cross-border capital transactions. Compared to the low number of user industries in the IT industry and the medium number of user industries in the telecommunications industry, major user industries of the financial services industry are all MNCs across sectors with large foreign operations and a high need for cross-border capital transactions. Hence, we expect the scope and membership to be high but the depth of liberalization to be low in the financial services agreement compared to the agreements in IT and telecommunications services.

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<sup>327</sup> White House, Statement by Secretary Rubin and Ambassador Barshefsky, Dec. 13, 1997; USITC 1998a, 18: “The commitments encompass \$17.8 trillion on global securities assets; \$38 trillion in global (domestic) bank lending; and \$2.2 trillion in worldwide annual insurance premiums.”

<sup>328</sup> The FSA ended the 11-year odyssey of the Uruguay Round, which launched official negotiations in 1986. Informal discussion started much earlier in 1981.

<sup>329</sup> Global value chain refers to the international production of goods and services that firms engage in order to boost their competitiveness, and encompasses the supply chain. World Bank. <http://www.worldbank.org/en/topic/trade/brief/global-value-chains>

This framework also helps explain the variation across countries within the financial services agreement. I apply my framework to the country liberalization commitments in the FSA schedules in each subsector—banking, insurance, securities, and other auxiliary financial services.<sup>330</sup> I find that in order to reduce the transaction costs of bilateral negotiations between MNCs and host countries, multinational financial firms have identified target countries of interest based on the commercial value of the market—measured by the presence of MNCs, the level of financial development, and the level of economic development—and presented a list of entry barriers to negotiators. To pressure governments, firms formed cross-country, cross-sector coalitions such as the Coalition of Services Industries (CSI) and the Financial Leaders Group (FLG), negotiated directly and indirectly with target governments, and later approved the outcome of these negotiations so that domestic negotiators could sign it as the international agreement in Geneva.<sup>331</sup> The analysis of the FSA helps explain the structural power of the financial industry in domestic and international policymaking.

To understand trade agreements, it is imperative to look at it from the perspective of businesses, as trade agreements serve to expand the reach of domestic businesses abroad. Jamie Dimon, CEO of J.P. Morgan, once said, “The best way to look at any business is from the standpoint of the clients.”<sup>332</sup> Knowing *where* firms want to go and *why* helps explain the demands behind international trade negotiations. This theory broadens our understanding of a given sectoral agreement by looking not only at the dynamics of firms within an industry, but also the global value chain of an industry. The FSA negotiations were carefully shaped and pushed by multinational financial service providers, who were being squeezed by domestic restrictions and global competition, to dismantle domestic regulations and entry barriers in foreign markets and better serve their clients.

The FSA multilateralized domestic regulatory changes in developed and developing countries. The competitive deregulatory movement and the race to universal banking—the Financial Supermarket—in developed countries forced multinational financial firms to increase their competitiveness by growing in size. Developing countries in Latin America and Eastern Europe also wanted to lock in their domestic liberalization at the multilateral level. The controversy was over not *whether*, but *how* to liberalize the financial sector.

Then-WTO Director General Renato Ruggiero said that the success of the financial services agreement is contributed to a number of reasons:

*“First, countries realized that an efficient financial services sector helps reduce the costs of doing business in other sectors. Second, developing countries in particular saw that signing a WTO agreement in this sector would help draw the investment and expertise of foreign firms. Finally, liberalization in this sector will improve countries’ ‘financial presence’ in other countries and help them raise capital to promote further economic growth.”*<sup>333</sup>

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<sup>330</sup> Auxiliary financial services include credit reference and analysis, investment and portfolio research and advice, advice on acquisitions and on corporate restructuring and strategy. Commitments also include provision and transfer of financial information, and financial data processing and related software by providers of other financial services. See the FSA country schedules.

<sup>331</sup> Vastine 2005.

<sup>332</sup> Jamie Dimon Interview. *Bloomberg*. <http://www.bloomberg.com/features/2016-jamie-dimon-interview/>

<sup>333</sup> Ruggiero sees shift to trade round in wake of sectoral pacts. *Inside U.S. Trade*. December 26, 1997.

In the following sections, I will review the history of financial regulation leading up to the Uruguay Round, delineate firm and government preferences, analyze how these preferences interacted in the FSA negotiations, and review the implications of the FSA.

## II. A Brief History of Financial Regulation

The deregulation of the banking sector in the US accelerated in the 1990s with two major legislations that removed restrictions on the geographic scope and types of banking activities. The first change was the removal of restrictions on interstate banking. Up until the 1990s, interstate banking was not allowed in the US. The 1927 McFadden Act prohibited interstate branching as a coalition of small banks wanted to keep large banks from competing in the same market. However, starting in the 1980s, states began to remove restrictions on interstate branching, and by 1990, 46 states permitted out-of-state banks to establish a presence under conditions set by each state.<sup>334</sup> To provide uniform treatment across states, the 1994 Riegle-Neal Interstate Banking Act allowed the entry and merger of bank holding companies in different states and the establishment of a single branch network across states.<sup>335</sup> This led to a frenzy of consolidation in the financial services sector as large banks bought smaller banks, large insurance companies bought smaller insurance companies, and large securities firms bought smaller securities firms to expand their geographic reach. The number of financial institutions in the US dropped from 14,000 in 1984 to less than 9,000 in 1999.<sup>336</sup>

Now that the geographic restriction was gone, financial firms set out to dismantle the next major restriction—the separation of investment banking and commercial banking. The Banking Act of 1933, also known as the Glass-Steagall Act, separated commercial banking from investment banking after the 1929 stock market crash led to the Great Depression. This act regulated US banking activities for the next half century; however, half a century later this regulatory model was challenged by changes in the European and Japanese banking sectors.

The global trend in financial services was to deliver a single-stop package for their customers. European firms had long followed the universal banking model. Japan also started a “big-bang” deregulation in the financial industry in 1992 to allow financial firms to establish financial holding companies and enter into previously prohibited businesses.<sup>337</sup> As a result Japanese and European financial institutions such as Sumitomo, Mitsubishi, and Deutsche Bank topped the ranking for the largest financial institutions in the world.<sup>338</sup> As the global market

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<sup>334</sup> Federal Reserve History. Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994. Federal Reserve. September 1994. <http://www.federalreservehistory.org/Events/DetailView/50>.

<sup>335</sup> The American Bankers Association negotiated with small bankers and added an opt-out clause and limits to the quality and size of interstate banking. “A bank holding company could not control more than 10 percent of the nation’s total deposits, or 30 percent of any single state’s total deposits, unless a state elected to establish its own deposit cap above or below this 30 percent limit.” Federal Reserve History. Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994. Federal Reserve. September 1994. <http://www.federalreservehistory.org/Events/DetailView/50>.

<sup>336</sup> Federal Reserve History. Financial Services Modernization Act of 1999, commonly called Gramm-Leach-Bliley. Federal Reserve. Nov. 12, 1999. <http://www.federalreservehistory.org/Events/DetailView/53>

<sup>337</sup> Nanto, D. 1999. Japan’s Landmark Financial Deregulation: What It Means for the United States. CRS Report for Congress.

<http://congressionalresearch.com/RS20335/document.php?study=JAPANS+LANDMARK+FINANCIAL+DEREGULATION+WHAT+IT+MEANS+FOR+THE+UNITED+STATES>

<sup>338</sup> *Gale Encyclopedia of Global Industries* 2011, 361.

share of US firms dropped, they complained to the government that they lacked competitiveness in the global market.<sup>339</sup>

The legislative battle to dismantle Glass-Steagall was protracted due to the opposition of small bankers and insurers, among others; however, the passage of the FSA in 1997 brought an increased urgency to the domestic gridlock. After Citi went ahead with the merger with the Travelers Group in 1998, the Gramm-Leach-Bliley Act (GLB) repealed the Glass-Steagall Act in 1999 and allowed the operation of Financial Holding Companies (FHCs), umbrella organizations that could own subsidiaries engaged in different lines of business. The Federal Reserve would regulate these FHCs while state insurance commissioners and the SEC would continue to monitor the insurance and securities subsidiaries, respectively. Over the next ten years financial conglomerates became larger and the structural power of the financial industry increased until the global financial crisis in 2007. Domestic and international financial liberalization through the 1999 GLB Act and the 1997 FSA changed the structure of the financial market around the world.

### **Europe and Japan**

Europe had long been working toward the single market initiative. From the 1977 First Banking Directive to the 1989 Second Banking Directive, the European Union attempted to reduce barriers to banking activities across borders. In 1999, the adoption of a single currency, the Single Market Program, and the Financial Services Action Plan further stimulated financial integration in the region.<sup>340</sup> The EU saw the FSA as an opportunity to bring an external push to rally member states for further liberalization as well as open the financial sectors of Japan and developing countries. Multilateral financial liberalization was crucial for the British, Spanish, French, German, and Italian banks as they followed their MNCs to East Asia, Latin America, and Africa.

Japan had long had a heavy state presence in the financial sector. However, starting from the 1970s, the Japanese government gradually eased its hold on the financial sector through liberalization and reregulation.<sup>341</sup> As the number of non-performing loans skyrocketed in the 1990s, Prime Minister Hashimoto put forward a package of reforms, known as the Japanese Big Bang, to give more freedom to market participants by easing state control in the financial sector.<sup>342</sup> It encompassed liberalization reforms in foreign exchanges, securities, insurance, pension, as well as procedural reforms such as lifting market entry restrictions and streamlining licensing processes.<sup>343</sup> It also lifted the ban on cross-subsector competition in the financial sector via holding companies, following the European model of universal banking.<sup>344</sup> The next section delineates firm and government preferences in the financial market and how these preferences affected their strategies in the FSA negotiation.

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<sup>339</sup> This does not mean that US financial firms were not able to integrate. They did so in piecemeal fashion and through side routes. Section 20 of the Glass-Steagall allowed the banks to be part of a financial firm whose principal focus is not underwriting securities. Federal Reserve History. Financial Services Modernization Act of 1999, commonly called Gramm-Leach-Bliley. Federal Reserve. Nov. 12, 1999. <http://www.federalreservehistory.org/Events/DetailView/53>

<sup>340</sup> Dermain 2003.

<sup>341</sup> Vogel 1996.

<sup>342</sup> IMF 2003; Financial Services Agency, Japan. Japanese Big Bang. January 2000.

[http://www.fsa.go.jp/p\\_mof/english/big-bang/ebb37.htm](http://www.fsa.go.jp/p_mof/english/big-bang/ebb37.htm)

<sup>343</sup> Vogel 2006, 83-85; Lincoln and Litan 1998.

<sup>344</sup> Lincoln and Litan 1998.

### III. Preferences of Firms and Governments in the Financial Services Industry

Traditionally, the development of the financial sector has been described in three stages—internal finance, intermediation, and securitization—in which firms raise internal financing, develop financial intermediaries and raise external capital through securitization.<sup>345</sup> Schumpeter (1911) said that financial intermediation is essential for technological innovation and economic development, and many studies have linked financial development to economic growth, especially through credits to high-technology sectors.<sup>346</sup> The clashes in the FSA negotiations occurred in two groups—between individual high-income countries and between high- and medium-income countries. Major negotiations among high-income countries occurred as a result of the joint efforts of the U.S. and EU to open the Japanese financial sector. Concurrently, developed countries (U.S., EU, Japan, Canada, Australia) negotiated with the middle-income countries in the Asia-Pacific (Korea, Thailand, Indonesia, Malaysia, India, among others).

#### Government Preferences in the FSA negotiations

For many governments, preferences in the financial industry are generally in three issue areas—guarantee monetary stability, regulate financial institutions in their market, and allocate credit to key constituents that may not naturally be served by the market. The first priority of governments is monetary stability. Maintaining a stable exchange rate is important as exchange rate volatility could affect trade flows, interest rates, and foreign currency reserves. For these reasons, the GATS explicitly excluded monetary policies and exchange rate policies from WTO regulations and focused on regulatory harmonization and the linkage of the finance industry to other industries. Nevertheless, developing countries, especially in East Asia, that had recently experienced banking crises and financial crises had concerns over binding liberalization in financial services through a multilateral agreement.

The second priority of governments is financial regulation in the banking sector and non-banking financial sector, such as insurance and securities services to protect investors and facilitate market activities. During the FSA negotiations, developing countries were especially concerned whether the WTO commitments would tie their hands when responding to financial crises. Hence, the GATS included flexibility provisions in terms of prudential carve-out, in which countries can be released from the WTO commitments at times of crisis to intervene in the financial market.<sup>347</sup>

The third priority for governments is credit allocation.<sup>348</sup> Many countries operated state-owned financial institutions in order to allocate credit to the populace that is not naturally served by the market—high-risk groups such as small and medium enterprises and low-return groups such as rural collectives. East Asian countries, including Japan, Korea, Singapore, and Hong Kong, have grown through this state-directed industrial policy.<sup>349</sup> Some developed countries—Germany and the US—also have state-owned financial entities.<sup>350</sup> However, state-owned financial enterprises or private banks that have close connections with the state are found to be

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<sup>345</sup> Frankel 1995.

<sup>346</sup> King and Levine 1993, Rajan and Zingales 1998, Cetorelli and Gamberra 2001.

<sup>347</sup> This flexibility provision seemed to be for the benefit of developing countries, but 10 years later, the US also utilized this provision during the Global Financial Crisis. See WTO 2011. Unintended Consequences of Remedial Measures taken to correct the Global Financial Crisis: Possible Implications for WTO Compliance: Communication from Barbados. WTO Committee on Trade in Services JOB/SERV/38. Geneva: WTO.

<sup>348</sup> Gerschenkron 1962; Lewis 1950; Myrdal 1968

<sup>349</sup> Haggard 1990.

<sup>350</sup> Caprio et al. 2004, 3.



“less well-capitalized, to be less profitable, and to have thinner core-earnings” than private sectors.<sup>351</sup> Developing countries gradually realized that financial liberalization was inevitable if they wanted an efficient credit allocation.

The FSA negotiations were the first multilateral attempt at regulatory harmonization and trade liberalization,<sup>352</sup> and there were several difficulties. First, regulatory arbitrage posed a real threat as the level of opening varied across countries. Moreover, the turf battle took place among domestic financial regulators during the FSA negotiations as trade negotiators were entering the realm of financial regulators. As some countries had multiple levels of regulators or no regulator in the financial industry, negotiation proved difficult. Therefore, finance ministers (the Department of Treasury in the US and the Department of Finance in other countries) took the helm of the negotiations with inputs from other regulators in the insurance and securities industries.

Countries worked to build a new regime in trade in services by establishing principles, rules, procedures, and norms.<sup>353</sup> The GATS framework on market access and national treatment served as the main pillars in financial negotiations. Through the Understanding on Commitments in Financial Services, the WTO FSA negotiations requested that each WTO member grant financial service suppliers of other members the right to establish or expand in their territory, either through acquisition or the establishment of subsidiaries and branches. However, many governments included requirements for joint venture with domestic banks or limited majority control by foreigners to prevent foreign firms from dominating the domestic financial market. Countries also specified non-discriminatory measures on the type of entry or business activities and to give national treatment to both domestic and foreign service providers.

Foreign entry was a concern not only for developing countries, but for developed countries as well. Many developed countries, especially the U.S., had generally liberalized their financial sector already and were concerned that other countries would get a free ride without reciprocal opening. While the U.S. was willing to walk out of negotiations over this issue, the EU was more concerned with the negotiations failing than with extracting more commitments. Japan was closer to the perspective of the developing countries in that it wanted to control the timing of the market opening.

### **Firm Preferences in the FSA negotiations**

As MNCs enter foreign countries to build factories or buy local firms, trade goods and services across borders, and sell products and provide services locally, they need credible and experienced international banks to accept, hold, and transfer capital across different countries. As MNCs lack information about local financial firms in the foreign countries they enter, banks with international experience and networks also followed these MNCs into foreign countries. These banks initially provide treasury services such as escrow service, trade finance, funds transfer, and corporate banking in managing MNCs’ financial transactions. In fact, the most common lines of business for international banks in foreign countries are corporate banking and treasury services that facilitate business transactions.<sup>354</sup>

Because finance is linked to other sectors, not only MNCs, but also large local companies can benefit from foreign banking by accessing the services of foreign banks with international

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<sup>351</sup> Caprio et al. 2004,

<sup>352</sup> Claessens 2003.

<sup>353</sup> Haas 1980, Aggarwal 1985.

<sup>354</sup> Regional websites of J.P. Morgan, Barclays, Goldman Sachs, and Citi.

expertise, lower interest rates, and better loan packages. Studies have found that sectors—especially high-technology sectors—in need of external capital benefit from financial development.<sup>355</sup>

As financial markets in host countries develop, foreign financial firms want to take advantage of initial public offerings of state-owned enterprises or bond offerings by large institutions and governments. They request licenses for investment banking brokerage in order to arrange these IPOs and earn fees. International banks facilitate international M&As, and equity and bond sales. Once the local economy develops further, a substantial number of wealthy individuals and large private institutions emerge, and foreign financial firms want to provide asset management and private banking services in the local market. Insurance firms also want to enter the untapped market in which national saving is accumulated either in the formal pension system or informal banking system.

The last step of financial development is commercial banking for retail investors and individuals. Financial services firms pursue large institutional clients such as governments and large MNCs from home and host countries.<sup>356</sup> Unless the market is big, retail banking may not be profitable for foreign firms as operating costs, such as setting up and maintaining branches and ATMs, could outweigh revenues. In addition, regulatory costs are also greater for individual deposits and lending. For these reasons, of all subsectors the banking sector had the highest restrictions, followed by insurance, securities, and auxiliary financial services in that order. Therefore, the scope and depth of bank activities depend on the preferences and local activities of MNCs and the level of economic and financial development in host countries. And these preferences affected the multilateral liberalization in financial services in terms of scope, membership, and depth of the agreement. Understanding the phases of foreign entry helps explain the negotiations over the level of opening in key markets.

In the 1990s, the global race to universal banking was fierce. The benefit of universal banking is that it can make “revenue efficiency gains” by cross-selling different financial services, offering products and services at a larger scale, and getting access to more client information.<sup>357</sup> However, there are costs to universal banking as well, such as the lack of incentive to innovate in services due to bundling,<sup>358</sup> the dilution of expertise as a general manager would have to manage several specialists in banking, securities, and insurance,<sup>359</sup> as well as cultural differences as the nature and processes of businesses differ according to the line of financial services.<sup>360</sup> At the time, firms were so focused on getting larger that these internal efficiency losses were not much of a concern to the management.

These firm preferences shaped demand and pushed the FSA negotiations forward. Firms had specific interests in key countries based on the presence of MNCs (the history of their operations in the local market), the level of financial development, and the level of economic development. I will now review how firms put financial services on the GATT agenda.

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<sup>355</sup> King and Levine 1993; Rajan and Zingales 1998; Levine 1999; and Cetorelli and Gamberra 2001.

<sup>356</sup> Gray and Gray 1981, Nigh et al. 1986, and Goldberg and Johnson 1990 showed the positive relationship between US Outward FDI in manufacturing and foreign banking by US banks.

<sup>357</sup> Berger 2003.

<sup>358</sup> Berger 2003.

<sup>359</sup> Berger 2003.

<sup>360</sup> We were Wrong about Universal Banking. *Financial Times*. Nov. 11, 2015. John Reed, former Citi Chairman, wrote that the two divisions should not have merged as the cultures don't mix and the attempt to mix was detrimental to both lines of business and added risk to the entire business. <http://www.ft.com/intl/cms/s/0/255fafec-8872-11e5-90de-f44762bf9896.html>.

#### IV. The Multi-Sector Coalition behind the Sectoral Agreement in Financial Services

*“How the FSA responded, alongside telecommunications, to the needs of business users for more competitively priced, diverse, and efficiently delivered products. More than any other voice heard in Geneva during the course of the Uruguay Round, the financial community (and particularly U.S. financial firms early in the GATS crusade) was instrumental in imparting a welfare-enhancing, economywide ‘user’ dynamic to services trade and investment liberalization.”*<sup>361</sup>

Financial firms helped form the Coalition of Services Industries, and the domestic intra-industry coalition of insurers, bankers, and securities traders, as well as international financial coalitions such as the Financial Leaders Group.

The discussion to put services on the GATT agenda started right after the Tokyo Round. As a result of technological development the financial industry began to expand overseas, but soon faced entry barriers in developing countries and competition with European and Japanese financial firms. In the late 1970s US financial institutions faced entry barriers when trying to access foreign countries. They wanted to create a multilateral framework to set rules and principles of trade in financial services, as well as to reduce the transaction costs of bilaterally negotiating entry conditions with each country they wished to enter.

However, finance had been under the jurisdiction of the IMF, so that that the WTO would not be able to negotiate financial services alone, unless it were done as a part of a broader initiative of liberalizing trade in services with other services industries. Hence, financial firms such as American Express, Citigroup, and AIG first formed a coalition and enlisted other services providers in the CSI in 1982.<sup>362</sup> Financial services was a part of the CSI along with telecommunications, professional, travel, tourism, transportation, and information technology services sectors.<sup>363</sup> The USCSI set an example for other countries and spread to the EU, Hong Kong, and Singapore, among others. The private sector also went to the ministerial meetings in 1980, 1982, 1984, 1986, and the Uruguay Round.<sup>364</sup>

In addition to the push by the multi-sector coalition of the CSI, a multi-country coalition also emerged in the financial negotiations. The FSA negotiations were the “first negotiations in which a multinational industry group”, such as financial firms and associations from the US, UK, Canada, and continental Europe, organized to “advocate liberalization of services trade.”<sup>365</sup> Unlike the strong U.S. industry lobby, European firms were not initially organized. However, the EU trade commissioner Sir Leon Brittan wanted to counterbalance the U.S. lobby and encouraged European businesses to come up with entry barriers and negotiating demands.<sup>366</sup> The

<sup>361</sup> Sauve and Gillespie 2000, 424.

<sup>362</sup> Freeman, 2000. “At the close of the Uruguay Round, we lobbied and lobbied. We had about 400 people from the U.S. private sector. There were perhaps four Canadians and nobody from any other private sector. The private sector advocacy operations in the U.S. government are radically different from those in every other government in the world.”

<sup>363</sup> U.S. House 1999. Committee on Ways and Means Subcommittee on Trade. *Dean R. O'Hare, Chairman, Coalition of Services Industries, and President and Chief Executive Officer, Chubb Corporation. Hearing on the Importance of Trade Negotiations --Active U.S. Involvement.* 106th Cong., 4 March.

<sup>364</sup> Freeman 2000.

<sup>365</sup> Vastine 2005, 2.

<sup>366</sup> Woll 2008.

U.S. lobby also saw the benefit of transatlantic alliances by learning its lesson from the divisive transatlantic battles over agriculture. As the U.S. and EU had similar interests in opening the financial sector of developing countries, they decided to join forces.<sup>367</sup> In 1996 financial companies and associations of the U.S., Canada, the UK, and Europe, later Hong Kong, Japan, and Australia, formed the Financial Leaders Group (FLG) and the Financial Leaders Working Group (FLWG) to “present a common agenda to their governments’ negotiators.”<sup>368</sup> They presented “agreed lists of barriers” in banking, securities, insurance, and other financial services, as well as specific requests to remove specified barriers in “20 key markets in Asia, Latin America, Africa, and Eastern Europe.”<sup>369</sup>

These industry groups not only pressured their governments but also directly met with trading partners. They visited 6 of the 8 monthly negotiating sessions “to meet with the 20 Member delegations that the FLWG had targeted as of most interest” and industry representatives of “as many as 40 companies and associations in Europe and North America regularly met jointly with the chief financial services negotiators of both the EU and the U.S.”<sup>370</sup> They maintained a common position throughout the negotiations, except for the last two days when the U.S. diverged with regard to the insurance problem in Malaysia.<sup>371</sup> They also engaged with the epistemic community<sup>372</sup> and commissioned studies to show “how certain Asian economies would benefit from financial services liberalization.”<sup>373</sup>

US industry groups also pressured Congress and the USTR. Industry associations—the Coalition of Service Industries, the Securities Industry Association, the American Council of Life Insurance, the Investment Company Institute, the National Association of Insurance Brokers, the International Insurance Council, and the Bankers Association for Foreign Trade—wrote letters to the Senate and House Banking Committees.<sup>374</sup> Financial firms pushed their New York Senator Alfonse D’Amato, who was the Chairman of the Senate Banking Committee during the FSA negotiation, who in turn pushed the USTR and the Treasury officials to gain more concessions from other countries.<sup>375</sup> Hank Greenberg directly pressured the Treasury officials (Geithner 2014). A powerful financial lobby, backed by a multi-sector coalition, went on a full offensive to push for a multilateral agreement on financial services liberalization.

## V. Negotiations

Despite these heated negotiations, the Uruguay Round ended without substantial commitments in financial services. Countries agreed to extend the financial services negotiations in the post-Uruguay Round and set the deadline for July 1995. Over the course of the post-Uruguay Round, Washington’s position changed several times.<sup>376</sup> Contrary to the expectations of the power

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<sup>367</sup> Vastine 2005. Sauve and Gillespie 2000.

<sup>368</sup> Vastine 2005, 2.

<sup>369</sup> Vastine 2005, 2.

<sup>370</sup> Vastine 2005, 2.

<sup>371</sup> Vastine 2005.

<sup>372</sup> Brock 1982; Feketekuty 1988.

<sup>373</sup> Vastine 2005, 2.

<sup>374</sup> Industry Letter on Financial Services Deal. *Inside US Trade*, Dec. 15, 1997.

<sup>375</sup> Jonquieres, G., Happy End to a Cliff Hanger. *Financial Times*. Dec. 15, 1997.

<sup>376</sup> “Thus the final 1995 U.S. schedule, which took effect on June 30, 1995, guaranteed only the level of market access associated with the current activities of foreign firms already in the U.S. market. However, these companies’ opportunities to expand, for example, by taking advantage of 1994 legislation for interstate bank branching, possible future Glass-Steagall reform on integrated banking, and opportunities for new companies to enter the U.S. market,

asymmetry explanation, the US faced hurdles from developing countries, and coercion did not go far in a stand-alone sectoral negotiation with no trade-offs to other sectors. Already anticipating the Glass-Steagall Reform and further deregulation in the US market,<sup>377</sup> the financial industry lobbied to *not* participate in an agreement that had limited commitments from Latin America and East Asia for fear of free-riding. Therefore, the U.S. took MFN exemption in financial services by only guaranteeing market access and national treatment to the existing foreign firms already in the market, conditioned on reciprocity,<sup>378</sup> thereby undermining the fundamental principle of MFN in the newly established WTO. The EU persuaded other WTO members that the offers from this negotiation would serve as an interim agreement until the final agreement was reached in December 1997.<sup>379</sup>

In March 1997, U.S. negotiators “met with U.S. financial services regulators and industry representatives in order to determine broadly what additional commitments the United States would need from the extended negotiations in order to agree to a permanent MFN based agreement.”<sup>380</sup> The U.S. then sent a “formal request to each of its trading partners (with the exception of Canada, the European Union (EU), Mexico, and Switzerland), listing the improvements the United States wanted to see in each trading partner’s 1995 offer.”<sup>381</sup>

Still, the liberalization commitments put forward by key developing countries were not satisfactory to the U.S.,<sup>382</sup> especially those from East Asia.<sup>383</sup> Japan, Korea, and the ASEAN countries submitted proposals that were at the status quo or even less than the status quo. Countries in East Asia wanted to control market opening in terms of timing and the extent of opening, while other WTO members wanted them to bind multilateral opening through the GATS. Other regions did not pose as much of a problem as East Asia. Countries in Latin America (other than Brazil<sup>384</sup>) and Eastern Europe submitted proposals that were deemed satisfactory to other WTO members.<sup>385</sup> Latin American countries wanted to lock in privatization at the multilateral level, and Eastern Europe wanted to accelerate its ongoing transition that had begun in the early 1990s.<sup>386</sup> The negotiators targeted Japan, Korea, and the Southeast Asian nations concurrently. The first priority was Japan and Korea for their advanced financial markets. The second tier priorities were Indonesia, Thailand, and Malaysia,<sup>387</sup> not only for the future potential, but also to protect the rights of their existing firms in these markets.

Japan was a particularly enticing market for foreign insurers as Japan had a high savings rate and a growing number of pensioners. Japan was the world’s second-largest life insurance market, accounting for 27 percent of premiums in OECD countries, and also the second-largest

were not guaranteed and could be conditioned on reciprocal access being accorded U.S. firms in the company’s home market.” USITC 1998a, 19.

<sup>377</sup> USITC 1995.

<sup>378</sup> The US sent a letter to the EU and Japan that the “reciprocity provision did not apply to them, on the grounds that their financial services markets were acceptably open to U.S. firms.” USITC 1995, 10.

<sup>379</sup> USITC 1995.

<sup>380</sup> USITC 1998a, 20.

<sup>381</sup> USITC 1998a, 20.

<sup>382</sup> USITC 1998a.

<sup>383</sup> “Geographically, Washington’s strategy was centered on key Asian countries that were of greatest value to the U.S. financial-services industry.” Martinez-Diaz 2009, 27.

<sup>384</sup> USITC 1998a. Brazil was not able to overcome domestic oppositions to broad liberalization commitments by the June deadline due to the change of government in 1995.

<sup>385</sup> USITC 1998a.

<sup>386</sup> USITC 1998a.

<sup>387</sup> As quoted in Martinez-Diaz 2009, 27.

non-life insurance market, accounting for 11 percent of OECD premiums.<sup>388</sup> Insurance and mutual fund companies wanted to enter to make inroads into the the huge pool of accumulated savings. Although the third sector, made up of the niche markets of cancer insurance and personal accident insurance, was dominated by foreign firms, most significantly AFLAC, foreign firms were making slow progress in the lucrative life insurance industry.<sup>389</sup> Separate from the WTO talks, the U.S. and Japan have long engaged in bilateral liberalization negotiations, such as the 1996 Bilateral US-Japan insurance agreement and the 1997 U.S.-Japan Enhanced Initiative on Deregulation and Competition Policy.<sup>390</sup> The EU wanted Japan to multilateralize its bilateral commitment at the WTO, subject to dispute settlement procedures. While Japan's FSA schedule contained few trade limitations, the U.S. and EU negotiators thought that Japan needed to further open its financial sector. After much negotiation, Japan submitted the revised offer at the last minute.<sup>391</sup> Korea had a similar problem in which the government controlled the sector and banks had close relations with the government. Korea was "chief among the U.S. Treasury's priorities" as it "offered the most attractive opportunities for U.S. firms of the countries that could be realistically expected to respond to pressure."<sup>392</sup> Korea had separate liberalization commitments through its OECD accession in 1996, but did not want to bind these commitments multilaterally at the WTO.<sup>393</sup>

While the negotiations stalled without much progress, a crisis was brewing in East Asia. The Thai Bhat began to fall in July 1997 and the economies of other Asian Tiger countries fell like dominoes. Capital flight depleted their foreign reserves due to fixed exchange rates, and many financial ministers and regulators in the region were busy trying to put out the fire.

As the Asian Financial Crisis unfolded, many observers were initially dismayed that the crisis would make the Asian countries even more reticent about opening up their financial market. However, the crisis turned out to present an opportunity for breaking the negotiation gridlock and changing the framework for both the industry lobbies and Asian countries.<sup>394</sup> With the flight of capital accelerating, many Asian countries were desperate to reverse the flow. The US, EU, and other WTO negotiators utilized this opportunity to present a stronger argument for the FSA as a mechanism for bringing foreign capital and "strong foreign institutions" into the region by strengthening the financial sector.<sup>395</sup> They framed the FSA as the harbinger of *long-term* investment that would benefit the Asian economies, not the short-term portfolio investments that

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<sup>388</sup> USGAO 1999.

<sup>389</sup> This niche market accounted for over 60% of the US premiums from Japan. AFLAC dominated the niche market, while the AIG, CIGNA, and Prudential Life split its business between the first and third sectors. AFLAC offered cancer insurance and the AIG was the largest US provider of automobile insurance in Japan. Foreign firms and the Japanese government disagreed over 1) the scope and timing of deregulation in the primary sector and 2) the entry of Japanese competitors in the foreign-dominated third market. See USGAO 1999. *U.S.-Japan Trade, The Japanese Insurance Market*. Report to the Chairman, Subcommittee on Trade, Committee on Ways and Means, House of Representatives. March.

<sup>390</sup> USITC 1998a.

<sup>391</sup> WTO 1997. Committee on Trade in Financial Services, Communication from Japan, Revised Offer on Financial Services, Dec. 12.

<sup>392</sup> Quoted in Martinez-Diaz 2009, 27.

<sup>393</sup> USITC 1995.

<sup>394</sup> Martinez-Diaz 2009.

<sup>395</sup> Building a Global Financial System for the 21<sup>st</sup> Century" Deputy Treasury Secretary Lawrence H. Summers Congressional Economic Leadership Council Washington, D.C. 8/12/1997. <https://www.treasury.gov/press-center/press-releases/Pages/rr1879.aspx>

were wreaking havoc.<sup>396</sup> USTR Charlene Barshefsky and Larry Summers at the Treasury Department “drove home the point that the agreement will help stabilize the financial crisis in Asia” and the EU Commissioner Leon Brittan also said that the FSA would “provide a source of confidence in that part of the world.”<sup>397</sup>

It also had an unexpected role by lowering the expectations of industry lobbies for the level of liberalization in Asia. Industry lobbies had been pushing their governments to extract more concessions from Asia. In the US, financial firms in New York, through Senator Al D’Amato, then the Chairman of the Senate Finance Committee, pushed the USTR and the Treasury officials to bring more concessions or they would not support the FSA.<sup>398</sup> The Asian financial crisis provided an opportunity for negotiators in industrial countries to persuade their domestic lobby groups to soften their demands and accept the commitments made so far.<sup>399</sup> Barshefsky said that the Asian Financial Crisis could force the “U.S. to lower the demands it makes of other countries,” and the Administration was working to determine “what realistically can be done at this juncture.”<sup>400</sup> Firms also realized that they would be better off signing a multilateral agreement than losing this momentum, now or forever, and they decided to support the deal.<sup>401</sup>

The U.S. wanted another interim agreement until the new multilateral round in 2000, but in a “rare display of unanimity” the EU Council of ministers told Brittan that they would accept only the permanent agreement.<sup>402</sup> The EU was the last bulwark against the U.S. When the U.S. continued to extract concessions until the last minute, the EU threatened to walk out of the talk if the U.S. did not wrap up its negotiations. U.S. brinkmanship finally extracted concessions from India and Thailand at the last minute.<sup>403</sup>

As President Clinton had failed to secure the Trade Promotion Authority (Fast-Track) the week prior, the pressure mounted to secure a deal that would please Congress. At the end of the day, the financial industry had to determine whether to walk out again or to accept the deal, and

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<sup>396</sup> USITC 1998a, 22. The US, EU, and other members noted, “The negotiation was not about either monetary policy or currency exchange rates; rather, it was about guarantees of market access and national treatment for foreign investors.” The difference between capital account liberalization and current account liberalization was important in persuading the finance ministers of developing countries. Current account liberalization refers to the removal of market access barriers, discrimination against foreigners, in order to invite foreigners into the country. Capital account liberalization encompasses cross-national capital flows, which include short-term portfolio investment as well as long-term investment into domestic enterprises by foreigners. Current account liberalization is a part of capital account liberalization. The IMF was in charge of the capital account liberalization and the WTO dealt with current account liberalization. See Kireyev 2002.

<sup>397</sup> U.S. Signs WTO Financial Services Pact with MFN Exemption on Malaysia. *Inside U.S. Trade* Special Report. December 15, 1997.

<sup>398</sup> D’Amato, Sarbanes Letter on Financial Services to Robert Rubin and Charlene Barshefsky, Dec. 3, 1997; House Letter on Financial Services to Robert Rubin and Charlene Barshefsky, Dec. 5, 1997, in *Inside US Trade*, Dec. 12, 1997.

<sup>399</sup> Jonquieres, G and Williams, F. EU presses US on financial services deal. *Financial Times*. Dec. 11. 1997.

<sup>400</sup> Barshefsky calls for WTO Financial Services Offers by December. *Inside U.S. Trade*. Nov. 28, 1997.

<sup>401</sup> Industry Letter on Financial Services Deal from the Coalition of Service Industries, Securities Industry Association, American Council of Life Insurance, Investment Company Institute, National Association of Insurance Brokers, International Insurance Council, and Bankers Association for Foreign Trade to Robert Rubin, Members of the House and Senate Banking Committees, Members of the Senate Finance Committee, Members of the House Ways and Means Committees, Members of the House and Senate Commerce Committees, in *Inside US Trade*, Dec. 15, 1997. .

<sup>402</sup> Jonquieres, G., Happy End to a Cliff Hanger. *Financial Times*. Dec. 15, 1997.

<sup>403</sup> International: Financial Services. *Oxford Analytica Daily Brief Service*. Dec 18, 1997.

they chose the latter. The FLG gave a go-ahead to the USTR team in Geneva. On December 13, 1997, the FSA was concluded and the long journey of the Uruguay Round was completed. The FSA became the Fourth Protocol of the GATS. Then-AIG Chairman, Hank Greenberg, announced on December 15 that, “significant benefits will result for both producers and consumers of financial products” through the FSA.<sup>404</sup> CSI President Robert Vastine said that the “industry is prepared to defend the agreement to members of Congress skeptical about its merits.”<sup>405</sup> And the American Council of Life Insurance also said that the “group would strongly lobby in support of the agreement.”<sup>406</sup> Larry Summers, then Deputy Treasury Secretary, said that the FSA, “following on the telecommunications and information technology agreements, completes a triple play of agreements building a foundation for a 21<sup>st</sup> century economy.”<sup>407</sup> The FSA entered into force in March 1999.

## VI. Outcome

The key target countries varied in their liberalization commitments. Thailand and Korea bound less at the WTO than the actual liberalization through the IMF and OECD. Although the U.S. held the IMF emergency funding hostage, Korea deflected the pressure, citing the upcoming presidential election.<sup>408</sup> While Korea’s final offer improved on the 1995 offer by removing the economic needs test and including some OECD commitments to take effect by August 1997, it still fell short of the full commitments made to the OECD, especially in the insurance sector.<sup>409</sup>

ASEAN countries also varied in their grandfathering of these existing rights of foreign firms. While Indonesia grandfathered 100% of the acquired rights of the existing foreign firms in its market,<sup>410</sup> Thailand and Malaysia did not grandfather the acquired rights of existing firms.<sup>411</sup> Thailand only guaranteed a 25% foreign equity limit in the insurance sector, even though its insurance market was more open in reality.<sup>412</sup> Malaysia presented an insurance schedule that would in essence divest the existing foreign ownership to less than 49%. This was particularly problematic for foreign financial firms, such as AIG, who already had full ownership in Malaysia. After much negotiation between the U.S. and Malaysia past the deadline, the U.S. included a narrow MFN exception to any country that forcibly divested a company’s historically acquired rights after December 12, 1997, targeting Malaysia.<sup>413</sup> The talks to expand the scope of the agreement started immediately after the conclusion of the negotiations. Although financial

<sup>404</sup> AIG Supports WTO Financial Services Deal Despite Malaysia Law. *Inside U.S. Trade*. December 19, 1997.

<sup>405</sup> U.S. Signs WTO Financial Services Pact with MFN Exemption on Malaysia. *Inside U.S. Trade* Special Report. December 15, 1997.

<sup>406</sup> U.S. Signs WTO Financial Services Pact with MFN Exemption on Malaysia. *Inside U.S. Trade* Special Report. December 15, 1997.

<sup>407</sup> Press Briefing by Ambassador Charlene Barshefsky, Assistant to the President for International Economic Policy. The White House. December 13, 1997. <http://clinton6.nara.gov/1997/12/1997-12-13-financial-services-briefing.html>

<sup>408</sup> USITC 1998a.

<sup>409</sup> *Ibid.*

<sup>410</sup> *Ibid.*

<sup>411</sup> “Overall, the United States devoted an extraordinary amount of time and effort to negotiations with the ASEAN member states, with two special trips to the region by U.S. negotiators, and many other conversations and communications in varied forums. These included the 1997 APEC Senior Officials meeting in August, the IMF/World Bank annual meeting in September in Hong Kong, and the Vancouver APEC Leaders’ Meeting in November, among others.” *Ibid.*, 23, footnote 64.

<sup>412</sup> *Ibid.*

<sup>413</sup> US schedule in the FSA.



services were on the Doha agenda, it did not achieve much progress. The industry coalitions continued to work across sectors and across countries to push for more liberalization.<sup>414</sup>

In the meantime, consolidation in the industry accelerated. With the deregulatory movement in the U.S. and in the international market, the number of M&As peaked in 2000. The Internet bubble burst in 2001 and the economy entered a recession before recovering in 2004. When the 1999 GLB Act passed, Citicorp merged with the insurer Travelers Group and formed the second largest financial services firm in the world after Mizuho of Japan. AIG also bought American General Corp, “creating the largest insurance deal in industry history to that time.”<sup>415</sup> The investment bank J.P. Morgan bought commercial bank Chase Manhattan Bank in 2001 and became a financial giant. J.P. Morgan, which previously had to spin off its securities underwriting arm into a separate investment bank, Morgan Stanley, in 1935,<sup>416</sup> could finally encompass both commercial banking and investment banking under one house. Some of the other largest mergers in 1998 were Banc One with First Chicago Bank, Deutsche Bank with Bankers Trust New York Corp, and Wells Fargo with Norwest. Bank of America was created from the merger of BankAmerica in California and NationsBank in Charlotte, North Carolina. **Table 1** shows the list of mega-mergers in the financial industry from 1997 to 1999.

Foreign expansion also continued. After the passage of the FSA, multinational banks expanded to frontier countries. In 1999, Citi opened its first branch in Uganda and expanded its business to middle and lower tier markets in Kenya. With regard to the percentage of foreign banks among total banks (%) in the OECD countries,<sup>417</sup> the U.S. doubled (from 15% in 1998 to 32% in 2009), and Korea quadrupled (from 6% in 1998 to 24% in 2005) the percentage of foreign banks over the period of 1995-2009.<sup>418</sup> The UK, which had the highest starting percentage among the OECD countries (at 47% in 1997), increased the share of foreign banks to 57% in 2008. Among the other OECD countries, France and Japan barely changed the share of foreign banks (from 7% to 6% in France and 1% in Japan with a brief jump in 2007) over the same period, while Germany increased the share of foreign banks from 10% to 14% (**Figure 1**).

In East Asia, most countries—Indonesia (28% to 52%), Malaysia (27% to 33%), Singapore (38% to 55%) and Hong Kong (64% to 79%)—increased the share of foreign banks, except for Vietnam, whose share fell from 11% to 9% (**Figure 2**). **Table 2** and **Table 3** show the changes in operation of the most active foreign banks in the 10 largest countries in Asia between 1997 and 1999. All countries in the region saw the expansion of foreign operation by the most active banks.<sup>419</sup> For the high-income countries in the region (Hong Kong, Japan, Singapore, and Korea), the increase was gradual, and the ranking of countries did not change.<sup>420</sup> However, the rate of increase differed for the low-income countries in the region. In 1997, Thailand led the other ASEAN countries in the number of foreign banks, but it was quickly

<sup>414</sup> Keidanren 2000. Expectations on the WTO Negotiations and Requests for Liberalizing Trade in Services. March 28. <http://www.keidanren.or.jp/english/policy/2000/008.html>

<sup>415</sup> *Gale Encyclopedia of Global Industries* 2011, 361.

<sup>416</sup> Morgan Stanley Global History. [http://www.morganstanley.co.jp/aboutms/globalhistory/index\\_en.html](http://www.morganstanley.co.jp/aboutms/globalhistory/index_en.html).

<sup>417</sup> Percentage of the number of foreign owned banks to the number of the total banks in an Economy. A foreign bank is a bank where 50 percent or more of its shares are owned by foreigners. (Claessens and Van Horen 2012).

<sup>418</sup> World Bank Global Financial Development Database.

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTGLOBALFINREPORT/0,,contentMDK:23492070~pagePK:64168182~piPK:64168060~theSitePK:8816097,00.html>

<sup>419</sup> The increase between 1997 and 1999 indicates the entry of the selected banks in Table 5 to other countries in the region. For example, the first entry—Belgium’s Generale Bank—entered 4 more countries between 1997 and 1999 as it increased its presence in Asia from 1 country in 1997 to 5 countries in 1999.

<sup>420</sup> China was not captured in the 1997 data.

eclipsed by Indonesia and the Philippines by 1999. (**Table 2**). The most active foreign banks in the region are Banque National de Paris (France), Deutsche Bank (Germany), ABN Amro (Netherlands), Standard Chartered (UK), Bank of America (USA), Citi (USA), and J.P. Morgan Chase (USA), which operate in all of the top ten largest economies in Asia (**Table 3**).

In Latin America, most of the six largest economies had an increasing growth rate of foreign banks, except for Chile, which has not yet returned to its pre-2000 peak (**Figure 3**). Argentina and Brazil had a similar growth trend from 23% to 35% and had a relatively stable level of foreign banking around 35% from 2000. Mexico increased the share of foreign banks from 34% to a peak of 56% in 2002 before falling down to 48%. Uruguay increased from 77% to 81% from 1995 to 2010. **Table 4** and **Table 5** show the changes in the operation of the most active foreign banks in Latin America. As in East Asia, Latin America saw the expansion of foreign banking in the region. Brazil, Argentina, and Colombia were the first, second, and third most popular destinations in both 1998 and 1999. However, the ranking changed for Chile, Peru, Uruguay, and Venezuela. The traditional strongholds in the region—Uruguay and Venezuela—saw emerging players—Chile and Peru—catching up over time (**Table 4**). The most active foreign banks in the region are European banks—Credit Lyonnais (France), Deutsche Bank (Germany), Banca Commerciale Italiana (Italy), ING Bank (Netherlands), Banco Bilbao Vizcaya (Spain), Banco Santander (Spain), UBS (Switzerland)—and Citi (USA) that operate in all of the seven largest economies in Latin America (**Table 5**).

With regard to consolidated foreign claims of BIS-reporting banks to GDP (%),<sup>421</sup> many OECD countries increased lending to foreigners through cross-border lending and local lending in host countries (**Figure 4**). From 1999 to 2011, Germany (33% to 53%), France (32% to 58%), the UK (83% to 140%), Korea (18% to 30%), and the U.S. (22% to 40%) had about a 60~80% increase in foreign lending. Japan had a smaller increase from 15% to 19%. In East Asia, Hong Kong, Vietnam, and Malaysia had an increase in foreign lending while Singapore, Thailand, and Indonesia experienced decline in consolidated foreign claims to GDP (**Figure 5**). In Latin America, some countries—Argentina, Brazil, Chile, Mexico, and Peru—increased foreign lending from 1997 to the peak levels in 2000-2002 until the global financial crisis (**Figure 6**). While other countries recovered, Argentina lost 72% of its 2002 peak foreign lending by the end of 2011.

## VII. Alternative Explanations

In this chapter I have analyzed the international negotiations in financial services through the lens of global value chains. The conventional wisdom is that the most powerful country in the financial sector determines the features of the agreement and forces other countries to join the agreement. The power argument would predict that the US decides the outcome of the FSA. The US has been the most powerful country in the financial sector and had immense interest in opening up the world financial market through a multilateral agreement. It also pressured some of its allies, such as Japan and Korea, to open up their markets. However, this explanation does not go far enough in explaining why the US wanted to enter certain countries and what level of

<sup>421</sup> The ratio of consolidated foreign claims to GDP of the banks that are reporting to BIS. Foreign claims are defined as the sum of cross-border claims plus foreign offices' local claims in all currencies. In the consolidated banking statistics claims that are granted or extended to non-residents are referred to as either cross-border claims or local claims, which refer to claims of domestic banks' foreign affiliates (branches/subsidiaries) on the residents of the host country (i.e. country of residence of affiliates). World Bank Global Financial Development Database. <http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTGLOBALFINREPORT/0,,contentMDK:23492070~pagePK:64168182~piPK:64168060~theSitePK:8816097,00.html>

liberalization it sought in each issue area. The final negotiating outcomes fell short of the US expectation. Four years of negotiations after the Uruguay Round, even countries in key markets in Asia bound less than the status quo. Many countries committed to less at the WTO than their actual liberalization level. Although power asymmetry was at play in fine-tuning the level of opening in some countries, firms and governments in developed and developing countries negotiated based on their preferences for liberalization.

An institution-based explanation would predict that economic process in the finance industry makes the existing regime inadequate to deal with new issues and that countries negotiated the features of the agreement to reduce transaction costs and information asymmetry through a multilateral agreement. Indeed, the increase in financial businesses in emerging markets called for a new regime to establish rules, procedures, norms, and principles in trade in financial services. However, the institution-based explanation does not account for variation across these sectoral agreements in terms of scope, membership, and depth, or across countries within the financial sector. Although financial developments affected all markets, governments responded differently. Given that countries negotiated under the same rules at the WTO, the institution-based explanation does not give us tools with which to analyze variation of liberalization commitments across countries in the FSA.

A domestic politics explanation would predict that preferences of interest groups in the industry, financial ministries/regulators, or the compromise of the societal and state interests lead to variation in the institutional design of the sectoral agreement. While domestic politics played a large part in both industrial countries and developing countries, this explanation fails to explain why financial firms wanted to enter small and medium-sized markets, where the costs of serving residents outweigh the revenues, and why developing countries and their SOEs liberalized their financial sector. This explanation also does not explain how financial firms across countries joined forces beyond their national borders and interacted with home and host governments as well as the WTO. In order to better serve corporate clients across sectors, financial firms formed a multi-sector coalition such as the Coalition of Service Industries, the domestic intra-industry coalition, and international intra-industry coalitions, such as the Financial Leaders Group, put financial services on the trade agenda, and achieved a multilateral agreement at the WTO. Some contend that financial crises pushed governments to reform the financial sector.<sup>422</sup> However, this argument does not explain the commitments made by the majority of the 102 signatories that were not hit by financial crises, or even the commitments made by some of the crisis-hit countries.<sup>423</sup>

While these factors certainly contributed to the opening of financial services trade for some countries, they are insufficient to explain *why* and *with whom* countries sign the financial services agreement. By analyzing the linkage of the financial sector and MNCs in the global value chain, we can better understand why countries open up, why firms want to enter certain countries, and how countries and firms align and negotiate their preferences.

### VIII. Conclusion

The 1997 WTO Financial Services Agreement was notable as it was the first time that over 100 countries made agreements on financial liberalization and governance of trade in financial services. This broke with the tradition of developed countries making decisions over global

<sup>422</sup> Martinez-Diaz 2009; Rodrik 1996.

<sup>423</sup> For example, Korea and Thailand—IMF recipients of the Asian Financial Crisis—bound less at the WTO than their actual level of liberalization.

financial governance. What is more, the participation of developing countries was not just a rubber stamp. Countries from Africa, Europe, East Asia, and Latin America committed to liberalization for varying reasons. Some countries wanted to lock in domestic and regional liberalization at the multilateral level while others liberalized their sector for the first time.

However, there is a limit to the application of the theory of global value chains to the financial services industry due to the large number of user industries of financial services and their disaggregated power vis-à-vis the financial services industry. The financial industry is the single most powerful lobbying group in the US and one of the most powerful groups in many countries. The financial industry took the helm even in a multi-sector coalition. Nevertheless, we cannot think of the preferences of financial firms in liberalizing financial services without taking into account the preferences of its users.

If multilateral liberalization had focused on just the financial sector, an agreement among major financial centers, New York, London, and Tokyo, with the additional participation or observer status of Frankfurt and Hong Kong, would have sufficed. Instead, the FSA covered countries from El Salvador and Honduras to Gabon and Zimbabwe with little if any financial market activities. The financial industry serves business users for their financing and transaction needs, and without corporate clients, it would not enter small economies as the revenues from the retail business would not outweigh the costs of regulatory compliance and the relocation and hiring of staff. I show that financial firms offer different services for corporate users according to their level of economic and financial development and the FSA covered countries at all levels of economic development.

Moreover, a multi-sector coalition helped bring financial services negotiations to the WTO since the WTO would not take up financial services liberalization—since it may encroach on the mandate of the parallel organization, the IMF—unless it was part of a broader initiative in opening up trade in services. The CSI helped pave the way for negotiations of financial services at the WTO, along with other services sectors through the GATS. Although the application to the financial sector has some limits, the theory of global value chains nevertheless complements the power, institution, and domestic politics explanations and helps explain the preferences of financial firms in large and small, rich and poor countries, as well as the coalitions these firms form across countries. The private industry chose the WTO for the benefits it provides, not the traditional international financial organizations like the IMF and the BIS. The separation between trade and finance established at the Bretton Woods has fallen with the Financial Services Agreement at the WTO.

**IX. Appendix****Table 1.** Major Mergers of Financial Firms<sup>424</sup>**1996/97**

Credit Agricole-Banque Indosuez

First Union-Signet

Wachovia-Central Fidelity

Bank Austria-Creditanstalt

US Bancorp-First Bank System

Swedbank-Foreningsbanken

GiroCredit-First Austrian

**1997/98**

Citicorp-Travelers

BankAmerica-Nations Bank-Barnett Banks

UBC-SBC

Banc One-First Chicago NBD

(First Union-Signet)-CoreStates

ING Bank-BBL

Wells Fargo-Norwest Corp

Bayerische Vereins-Bayerische Hypo

Generale Bank-ASLK CGER-Fortis Bank Nederland

Credito Italiano-Cariverona-Banca CRT-Cassamarca

Kredietbank-CERA

SunTrust Banks-Crestar

National City-First of America

Merita-Nordbanken

Cariplo-Ambrosiano Veneto-Cassa dei Parma e Piacenza

Den Danske Bank-Fokus Bank

**1998/99**

HSBC Holdings-Republic New York

Deutsche Bank-Bankers Trust

Bank Santander-Banco Central Hispano

Fleet Financial-BankBoston

Mitsui Trust-Chuo Trust

Firststar-Mercantile Bancorp

Den norske Bank-Postbanken

First American-AmSouth

First Security-Zions

<sup>424</sup> *The Banker*, July 1999, p.94-95.

**Table 2.** Countries with the largest number of foreign banks in Asia<sup>425</sup>

Country	1997	1999
Hong Kong	29	32
Japan	27	32
China	N/A	31
Singapore	27	31
Korea	20	27
Thailand	15	10
Vietnam	9	15
Indonesia	8	25
Malaysia	8	13
Philippines	7	24

**Table 3.** Foreign banks with the largest presence in Asia<sup>426</sup>

Country	Bank Name	1997	1999
Belgium	Generale Bank	1	6
Canada	Royal Bank of Canada	4	5
Canada	Bank of Nova Scotia	6	7
France	Banque National de Paris	6	10
France	Credit commercial de France	2	6
France	Credi Agricole Groupe	1	8
France	Credit Lyonnais	6	9
France	Paribas	4	7
France	Societe Generale	3	8
Germany	Deutsche Bank	8	10
Germany	Dresdner Bank	4	9
Germany	Westdeutsche Landesbank	3	5
Italy	Banca Commerciale Italiana	3	6
Italy	Banca Intesa	0	7
Netherlands	ABN AMRO	8	10
Netherlands	ING Bank	7	7
Spain	Banco Santander	4	5
Switzerland	Credit Suisse	3	6
Switzerland	UBS	3	6
UK	HSBC Holdings	9	9
UK	Standard Chartered Bank	9	10

<sup>425</sup> Countries with the largest number of foreign banks. *The BANKER*. May 1997, p. 83-86; May 1999, p.62-65. The data for China is not available for 1997.

<sup>426</sup> Selected foreign banks, which operate in at least 5 countries of the 10 largest economies in the Asia-Pacific. *The BANKER*. May 1997, p. 83-86; May 1999, p.62-65.

USA	American Express Bank	6	8
USA	BankAmerica Corp	9	10
USA	Bank of New York	5	7
USA	BankBoston	4	7
USA	Bankers Trust	5	8
USA	Chase Manhattan Bank	8	10
USA	Citibank	9	10
USA	CoreStates Bank	1	6
USA	J.P. Morgan	3	7
USA	Nations Bank	3	5
USA	Republic New York Corp	3	6

**Table 4.** Countries with the largest number of foreign banks in Latin America<sup>427</sup>

Country	1998	1999
Brazil	30	37
Argentina	17	36
Colombia	25	28
Uruguay	15	20
Venezuela	13	22
Chile	12	26
Peru	4	17

**Table 5.** Foreign Banks with the largest presence in Latin America<sup>428</sup>

Country	Bank Name	1998	1999
France	Banque National de Paris	5	6
France	Credit commercial de France	2	3
France	Credit Lyonnais	4	7
France	Societe Generale	3	4
Germany	Commerzbank	2	4
Germany	Deutsche Bank	5	7
Germany	Westdeutsche Landesbank	1	4
Italy	Banca Commerciale Italiana	0	7
Netherlands	ABN AMRO	5	6
Netherlands	ING Bank	5	7

<sup>427</sup> Countries with the largest number of foreign banks in Latin America. *The Banker*, January 1998, p.67-68; January 1999, p.56-57.

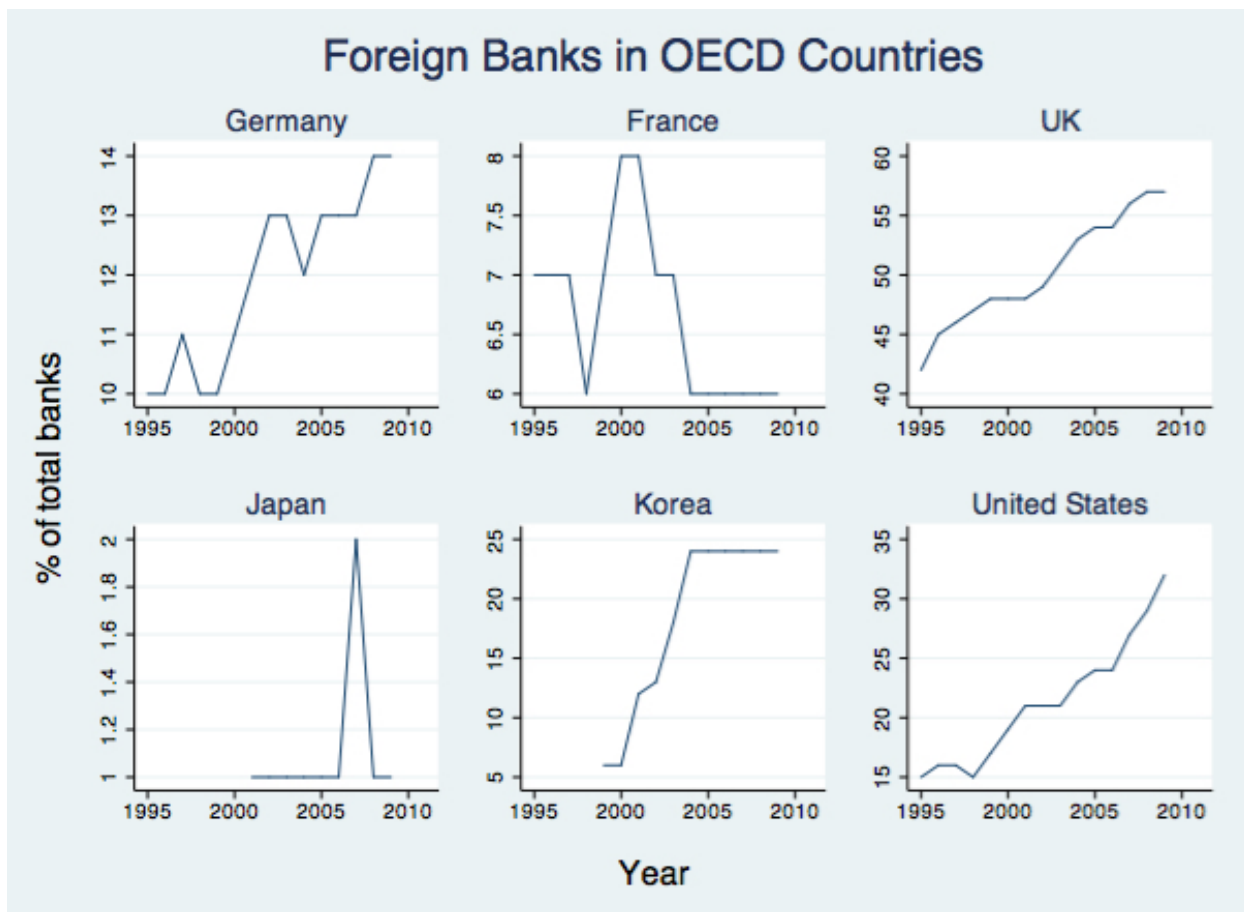
<sup>428</sup> Selected foreign banks, which operate in at least 4 of the 7 largest economies in Latin America. *The Banker*, January 1998, p.67-68; January 1999, p.56-57.

Spain	Banco Atlantico	2	4
Spain	Banco Bilbao Vizcaya	5	7
Spain	Banco Central Hispano Americano	2	5
Spain	Banco Exterior de Espana	2	6
Spain	Banco Santander	7	7
Switzerland	Credit Suisse	4	6
Switzerland	Discount Bank & Trust Co	0	4
Switzerland	UBS	2	7
UK	Barclays Bank	3	4
UK	Lloyds TSB Bank	3	4
UK	Midland Bank	0	5
UK	Standard Chartered Bank	2	5
USA	American Express Bank	5	4
USA	Bank of America	5	5
USA	BankBoston	4	6
USA	Bankers Trust	3	6
USA	Chase Manhattan Bank	4	5
USA	Citibank	6	7
USA	JP Morgan & Co	2	5
USA	Republic National Bank of NY	5	5



Figures 1-3. Foreign Banks (share among total banks) by Region, 1995-2011<sup>429</sup>

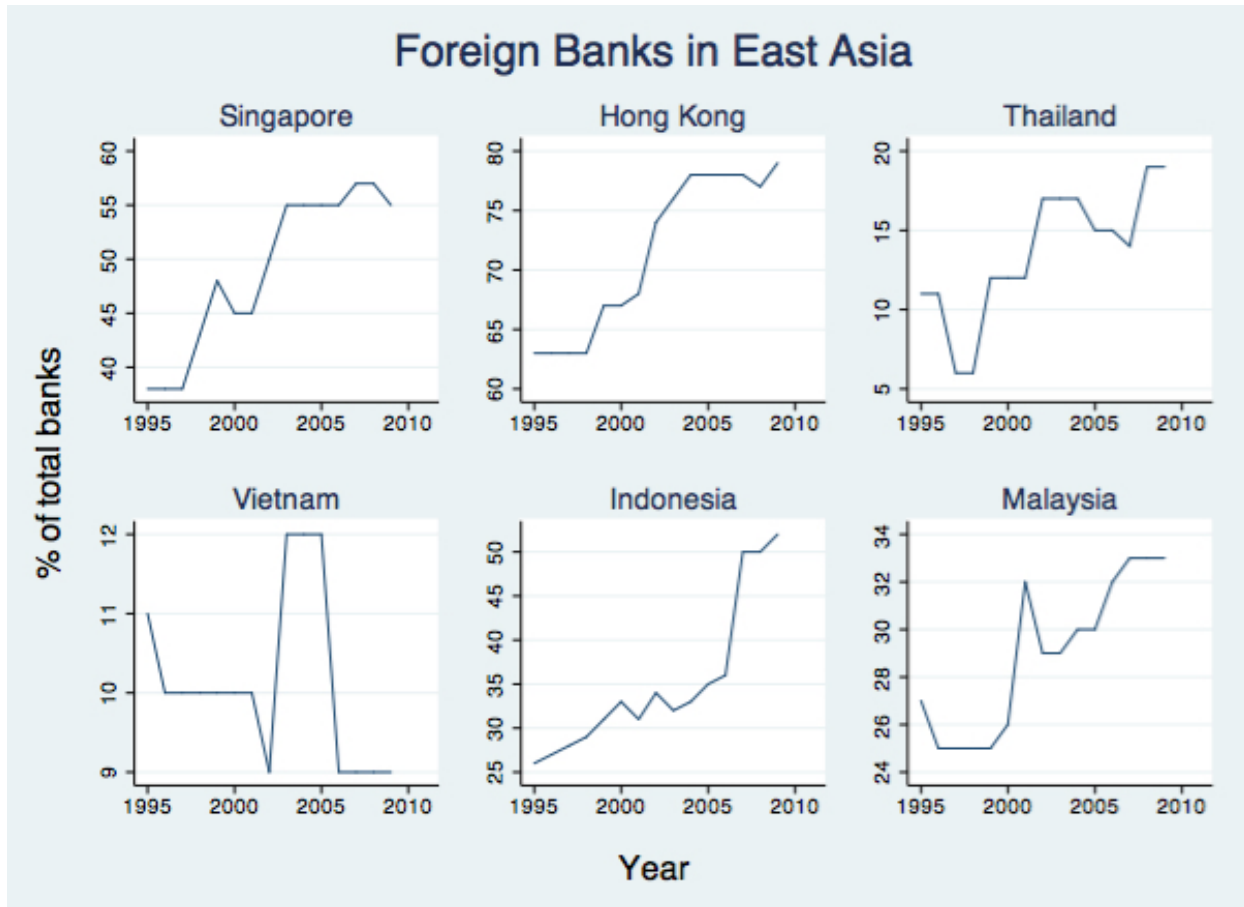
Figure 1. The Share of Foreign Banks among Total Banks in OECD countries, 1995-2011



Source: World Bank 2013.

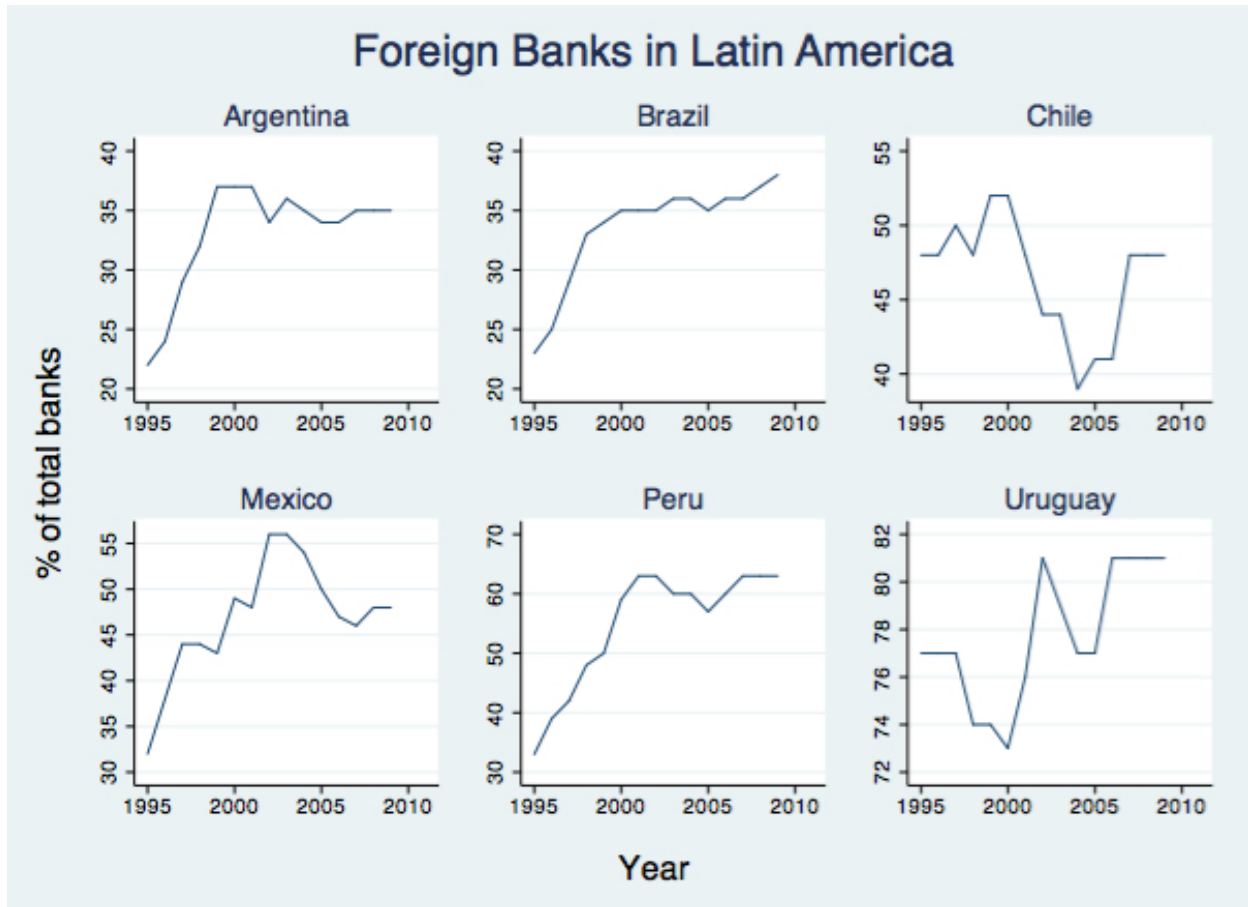
<sup>429</sup> World Bank 2013. Global Financial Development Database, v. 17. November.

Figure 2. The Share of Foreign Banks among Total Banks in East Asia, 1995-2011



Source: World Bank 2013.

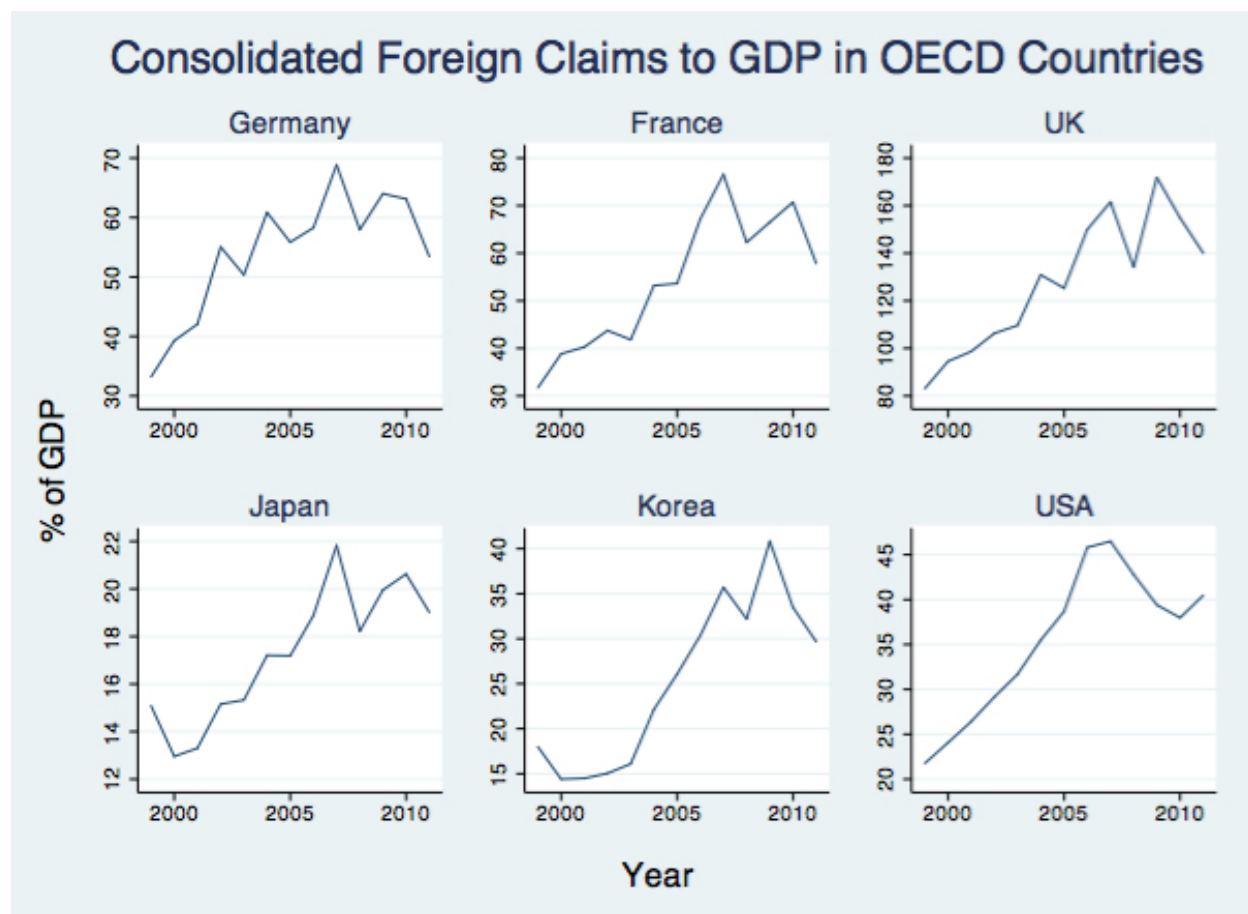
Figure 3. The Share of Foreign Banks among Total Banks in Latin America, 1995-2011



Source: World Bank 2013.

Figures 4-6. Consolidated Foreign Claims by Region, 1990-2011<sup>430</sup>

Figure 4. Consolidated Foreign Claims in OECD countries, 2000-2011<sup>431</sup>

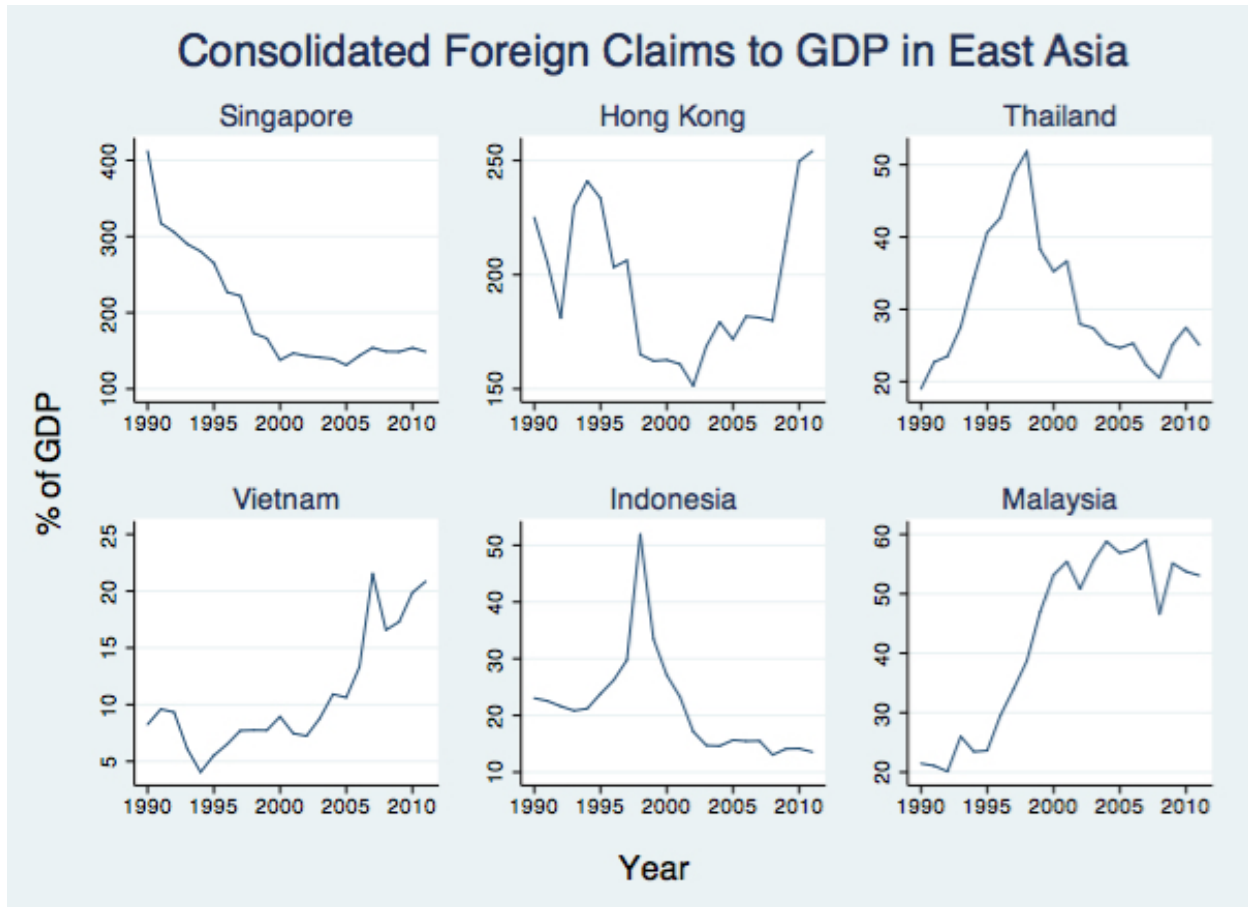


Source: World Bank 2013.

<sup>430</sup> World Bank 2013. Global Financial Development Database, v. 17. November.

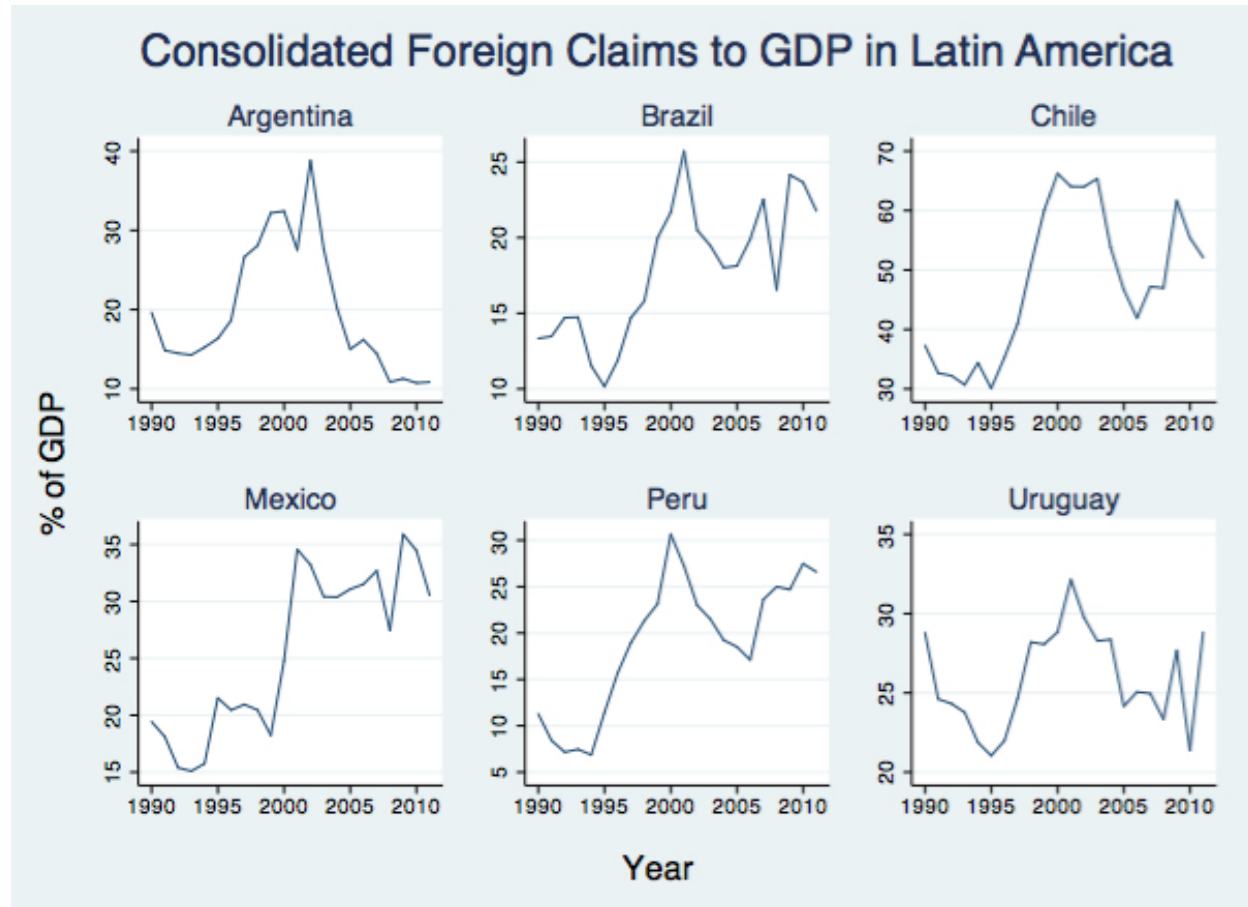
<sup>431</sup> Data prior to 2000 are not available for many OECD countries.

Figure 5. Consolidated Foreign Claims in East Asia, 1990-2011



Source: World Bank 2013.

Figure 6. Consolidated Foreign Claims in Latin America, 1990-2011



Source: World Bank 2013.

## 6. Conclusion

In this study I have analyzed the trade negotiations in the IT, telecommunications, and financial services industries at the WTO. These agreements varied in scope, membership, and depth, and I have argued that user industries affected variation in these dimensions of sectoral agreements. The user industry argument helps us better understand firm preferences, namely that securing corporate clients was a key priority as they brought in large, long-term contracts. The focus on business-to-business relations also helps us differentiate between tiers of clients that are often overlooked in the literature and shows more clearly how business interests affect policymaking. I will review how the theory explains variation across the three sectoral agreements, what the theory cannot explain, and discuss theoretical and practical implications.

### Variation of Sectoral Agreements

Chapter 2 developed three hypotheses:

*Hypothesis 1: As the number of user industries increases, the scope of the sectoral agreement increases.*

*Hypothesis 2: As the number of user industries increases, the membership of the sectoral agreement increases.*

*Hypothesis 3: As the number of user industries increases, the depth of the sectoral agreement decreases.*

### Scope

The theory proposed that as the number of user industries increases, the scope of the sectoral agreement increases. This is due to the increase in sectoral heterogeneity and the difficulty in reaching a consensus on scope. The number of user industries varied across the sectoral agreement from the highest number of users in the financial services, to telecommunications, to the lowest number of users in the IT industry. The IT industry had the least number of user industries because countries limited the scope to industrial electronics and excluded consumer electronics. The products under the agreement included semiconductors, semiconductor manufacturing equipment, scientific equipment, telecommunications equipment, and computers. The global value chain of the IT industry starts with semiconductors, “the brain of the IT industry,” and proceeds to industry electronics and consumer electronics. I found that the ecosystem established by the production of semiconductors determined the flow from upstream to downstream industries and the location of IT manufacturers in the global value chain.

Moreover, the IT industry displayed within-sector variation as the number of user industries increased between the ITA I and the ITA II. Semiconductors, with the continual increase in their processing speed and capacity, led to the development of “smart” products such as smartphones, smart cars, and smart cities, and the application of semiconductors will get even broader in the new “Internet of Things” industry. Now the number of user industries of semiconductors has increased beyond the IT manufacturers to include such disparate industries as the automobile, health care, and entertainment industries. And this increase in the number of user industries has led to expansion of the scope of the agreement, through coalition-building, to

include products like GPS, MRI machines, and video game consoles. The ITA II was agreed to in July 2015 and implemented in July 2016.<sup>432</sup>

I also found that telecommunications carriers had a clear objective of serving their corporate clients in their expansion abroad. Serving residential customers abroad was costly, as the constraints inherent in accessing state-owned telecommunications networks offset the revenues from residential customers. The heavy users of telecommunication services included the financial services and manufacturing industries. By following where financial firms wanted to expand their services and manufacturing firms wanted to build factories, I identified where telecommunication carriers wanted to go. These industries were heavy users of telecommunication services because they needed multi-country, intra-firm networks for their factories and branches as well as an inter-firm network to facilitate transactions between firms, such as hotels and credit card companies. Therefore, the scope included basic telecommunications services such as voice telephony, value-added telecommunications services such as emails and data transfer, and satellite telecommunications services. Because the number of user industries for telecommunication services is medium compared to the IT and financial services industries, as expected, the scope of services included in the agreement was also medium.

The number of user industries also affected the financial services industry, which serves all industries in the economy. I analyzed the needs of user industries in financial services according to the level of economic development and financial development of countries. In the least developed countries with low levels of economic and financial development, MNCs in the resource extraction industries enter foreign markets and look to international financial firms for getting capital in and out of their host countries. Financial firms enter these countries to provide basic services for MNCs such as treasury services and trade finance. In emerging economies with medium levels of economic and financial development, governments want FDIs in the manufacturing industries. Financial firms provide treasury services to manufacturing industries as well as insurance services for manufactured goods. In advanced economies, MNCs expand their reach to the services sector, and financial firms serve these firms with advanced financial services such as merger and acquisition, consulting, and securities underwriting services. Because user industries had different needs, the scope of the financial services agreement included the largest number of services.

## Membership

The theory predicted that an increase in the number of user industries would increase the membership of sectoral agreements. The ITA, initially had 29 signatories, which covered 83% of world trade.<sup>433</sup> The BTA had 69 signatories, accounting for 91% of world trade; and the FSA had the largest number of signatories with 102 WTO members, which covered 95% of world trade at the conclusion of negotiations. How do user industries account for this variation?

Following an industry's global value chains, we discovered which countries firms wanted to enter. The users of the ITA goods were IT producers that used IT parts and components to

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<sup>432</sup> President Proclamation—Implementing the World Trade Organization Declaration on the Expansion of Trade in Information Technology Products and For Other Purposes. White House. June 30, 2016. <https://www.whitehouse.gov/the-press-office/2016/06/30/presidential-proclamation-implementing-world-trade-organization>

<sup>433</sup> The institutional rule at the WTO provided a floor of membership, such that signatories have to cover at least 90% of world trade in the sector to be implemented. The ITA added 14 more countries to reach 92.5%.



produce final goods. Therefore, the ITA included major IT producers, which included the EU, US, Japan, and countries in the Asia-Pacific. The users of the telecommunications industry also wanted to enter emerging economies in the Asia-Pacific and Latin America to expand their business there. The manufacturing advantages and exponential economic growth in Latin America and Southeast Asia attracted many firms, as well as their business partners—telecommunications firms. Financial services firms served a broader economy as they provided capital for large businesses in various sectors such as the real estate and construction industry, as well as the resource extraction industry. Therefore, the membership of financial services was the largest as more industries in the Asia-Pacific, Latin America, Eastern Europe, and Africa wanted access to foreign capital through the FSA.

### **Depth**

The theory predicted that an increase in the number of user industries would decrease the level of liberalization. As the number of user industries increases, sectoral heterogeneity also increases, and it becomes more difficult to reach full liberalization in all issues.

The ITA was a part of the zero-for-zero sectoral initiatives during the Uruguay Round in which countries agreed to a list of products for zero tariffs. The IT industry, which had the smallest number of user industries, limited the scope to products and reached 0% tariffs for all products under the agreement with varying phase-out periods. Hence, it had the highest level of liberalization across the three sectoral agreements.

The telecommunications industry, which had a medium number of user industries compared to the IT and financial services industries, had a medium level of liberalization compared to other agreements. At the time, the Internet was just becoming commercialized and long-distance calls still dominated the telecommunication market. Hence, the majority of discussions focused on foreign firms' access to the public telecommunications transport network.<sup>434</sup> Countries included liberalization in basic telecommunications services but not in value-added services because value-added services, such as voice over Internet telephony (VOIP) services, were in their nascent stage and did not present a threat to the incumbent SOEs. The value-added industry at the time had fewer users than the traditional telephone companies; hence it was easier to reach a higher level of liberalization in value-added services than in basic telecommunications services. However, soon after the BTA was implemented, value-added services transformed the telecommunications market and basic telecommunications services lost the market share in long-distance services. This inadvertent absence of restrictions eventually paved the way for the “information superhighway” of the free flow of information over the digital telecommunications network.<sup>435</sup>

The financial services industry, which had the highest number of user industries, had the lowest level of liberalization. As the scope increased, incumbents and foreign firms disagreed over the acceptable level of liberalization. Because of the weak financial supervisory capacity, many developing countries were afraid to open fully to foreign capital. As a result, many target countries bound the status quo level of liberalization or even less than the status quo through the FSA.

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<sup>434</sup> WTO. 1995. Negotiating Group on Basic Telecommunications, Communication from the United States, Pro-competitive Regulatory and Other Measures for Effective Market Access in Basic Telecommunications Services, S/NGBT/W/5 Feb. 9. Geneva: WTO.

<sup>435</sup> Perritt 2001.

### **How did the theory of global value chains and trade policy work?**

The theory has not yet differentiated variation within the type of user industries. Not all users have the same influence. Some industries, due to their position in the domestic and international economy and industry structure, had more influence than others in policymaking. For example, the financial industry, which was the strongest industry group, affected both the telecommunications service negotiations as a heavy user as well as its own financial services negotiations. The telecommunications sector had three main “external” user industries, such as the finance, automobile manufacturing, and defense industries. The IT industry saw an increase in the number of user industries between two negotiations, from the “internal” user industries in the ITA I, such as the computer manufacturers and telecommunication equipment makers that use semiconductors, to “external” user industries in the ITA II such as the entertainment, health care, and automobile industries. The financial sector had the most disaggregated user industries spread over all industries in the economy. Hence, financial firms internalized these user interests into the common position of serving their corporate clients’ expansion abroad and creating footholds in other financial markets to expand their banking businesses in the long-term. Understanding variation in the power of user industries helps us understand which industry preferences are prioritized and how industries overcome the collective action problem to present a united front in sectoral negotiations.

The theory of global value chains is better at explaining the scope and membership of agreements than it is at explaining their depth. It can approximate the desired level of liberalization given the country’s position in the GVC, but cannot give the exact level of liberalization as depth is also related to domestic political factors, such as the interests of incumbents and the capacity of state institutions. There were three additional factors in the negotiation over depth: 1) free-rider concerns, 2) the power of incumbents, and 3) other external factors such as financial crises.

First, the biggest concern throughout the negotiations over the depth of the agreement was the “free-rider” problem. Countries that opened more than others worried that foreign firms would compete with domestic firms in their markets while their domestic firms would continue to face barriers abroad. While the participating countries agreed on liberalization in principle, they debated over not whether, but how much, to liberalize. Developing countries especially wanted to selectively open to the extent they could control foreign entry.

Second, the inevitable competition between inefficient state-owned firms and large foreign firms with international experience prohibited full liberalization in many countries. From the state’s perspective, liberalization would bring long-term benefits by disciplining the incumbents as well as bringing in much-needed capital to update the dilapidated telecommunications and financial networks in the country. However, state-owned firms have so dominated the telecommunications and financial services sectors in many countries that allowing foreign entry presented an adjustment problem for the SOEs. Hence, the state faced a powerful coalition of SOE managers against liberalization.

Third, the 1997 financial crisis also played an unexpected role by lowering the expectations of the US firms for liberalization in Asia. While negotiations had been underway since the end of the Uruguay Round in 1993, the negotiations in financial services were slow. Asian countries were hesitant to open fully because of their inefficient domestic firms and ineffective supervisory capacity. Developing countries are especially susceptible to short-term capital flows due to weak fundamentals, as foreign investors seek capital flight at times of crises.

Many governments thought opening up the financial services sector would expose them not only to FDIs, but also to the contagion of risk from the global market.

With the Asian Financial Crisis in June 1997 in the midst of the FSA negotiations, Asian countries seemed more certain than ever that further financial opening would be disastrous for their economies. When the FSA negotiations seemed to be sinking, the US government and the finance industry changed the framing of the issue such that the WTO agreement would deliver credibility to the market and would bring long-term investment, not just short-term portfolio investments, into the Asian economies.

The crisis also provided a way out for government negotiators in persuading the strong domestic financial groups to soften the demands and accept the commitments made so far. US firms, except for AIG, lowered their expectations and decided that it would be better to sign the agreement than lose this momentum, now or forever.<sup>436</sup> The crisis may also have affected the level of liberalization, as countries were able to get away with *more* restrictions by citing factors such as crisis recovery (Malaysia, Thailand) or upcoming presidential elections (Korea, Brazil).<sup>437</sup>

### **Theoretical Implications**

The theory of global value chains complements the power-based, institution-based, and domestic politics explanations and presents an analytical framework with which to trace the preferences of governments and industries, as well as the role of industry coalitions in international policymaking. This framework helps explain firm preferences and what coalitions they form to affect trade policies.

First, this theory helps explain the preferences of the hegemon, other states, and domestic actors by mapping interests to behaviors. The power asymmetry argument worked well to explain the processes and outcomes of international trade negotiations of the past century. Even in these high-technology negotiations, power asymmetry was clearly at play in pushing some states that were susceptible to a power play, such as the hegemon's allies or trade partners, to make more commitments. The US also walked out of the telecommunications and financial services negotiations when unsatisfied with the commitments from other countries, stopping all negotiations. However, the sophistication of trade through global value chains and the increased market power of developing countries shows the inadequacy of a purely power asymmetry argument. It falls short in explaining *where* the major contentions would arise, *who* the winners and losers would be, and *why*. The theory of global value chains helps identify the hegemon's preferences and whom the hegemon targeted for liberalization. In the high-technology negotiations, the US preference in these negotiations were full liberalization, especially in key target markets in Asia. Given that its domestic market was already open to foreign firms and competition, the US wanted to open other countries so that its industry, too, would enjoy reciprocal benefits abroad.

We also saw the limit of US power in the high-technology negotiations as it was not the dominant player, but one of three major players in these markets, along with the EU and Japan. Indeed, cooperation among the three most powerful states constituted the bulk of the negotiations in the IT, telecommunications, and financial services industries. This theory also helps predict who the rising hegemon will be in a sector given the current configuration of the global value chain, such as China in the IT sector.

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<sup>436</sup> Ruggiero Warns of Failure in WTO Financial Talks. *Inside US Trade*. Dec. 5, 1997.

<sup>437</sup> USITC 1998a.

Second, the theory of global value chains helps explain why countries sought a multilateral regime in high-technology industries and how the regime shaped patterns of cooperation in high-technology industries. As firms began to expand overseas and faced entry barriers, countries sought to reduce information asymmetry and transaction costs in bilateral bargaining processes through a multilateral agreement. I traced the process by which countries, with the help of industry, created a regime—norms, principles, rules, and procedures—in a new trade realm. This also showed how technological developments affected all economies, but prompted different responses from different governments. We saw that there were variations in state preferences given their position in the global value chain and their domestic institutional capacity. A country's position in the GVC—whether they are involved in upstream or downstream industries, how competitive their markets are—and a country's existing domestic firms' revenue structure affected the level of that country's liberalization commitment.

Third, the theory helps explain from where industries derive their preferences and how state institutions and actors interact. The domestic politics explanation predicts that negotiations are driven either by state interests, industry interests, or the compromised positions of state and industry interests. This theory traces the source of these preferences to user industries that affect firm preferences and state preferences. I traced the interests of IT firms to downstream IT firms; the interests of telecommunications carriers to its major users, such as financial firms and manufacturing firms. In addition, I examined the interests of financial firms to their institutional clients in resources, manufacturing, and services firms. By broadening the coalition of interested industries, sectoral negotiations could gain support from other industries that directly and indirectly benefited from sectoral agreements.

This work has identified the preferences of the state and industry and how they interact to advance their common as well as distinct goals. I contend that state interests and industry interests does not have to be a zero-sum game. Liberalization in high-technology industries may open up possibilities for economic growth from which industry could benefit epiphenomenally. The state is not necessarily “captured” by industry interests at the expense of other industries, although it admittedly is a fragile balance. For example, in the financial services negotiations, industry demanded much narrower benefits beyond the general objectives that governments tried to agree to.

The theory also provides clear insight into the role of firms in international policymaking. Firms in high-technology negotiations operated in the realm of “quiet politics,”<sup>438</sup> in which the public is not aware of the negotiations or implications due to the low political salience of business-to-business deals. The theory also builds on Putnam's two-level game (1988), in which domestic interests work with their own governments as well as with industry groups in other countries by forming international industry coalitions and “communicating with other level II players.”<sup>439</sup> By unpacking these layers of interests, we can clearly see how firms interact with their home governments, host governments, and international organizations. This framework provides a framework to analyze firm preferences and coalitions in trade policies to know who the interested firms are, where they want to expand, which countries will drive the negotiations, which countries will be invited (or excluded from) to the negotiations, and how they will negotiate on the scope, depth, and membership of agreements.

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<sup>438</sup> Culpepper 2011.

<sup>439</sup> Putnam 1988.

### Practical Implications

This framework unpacks the blackbox of behind-the-door trade negotiations. While ministry and industry representatives may be aware of the interests of their domestic user industries, their negotiating partners may not be well aware of the interests of user industries in other countries. This framework can help them do a more thorough due diligence of the partner countries' global value chains to reduce information asymmetry. This framework provides a clear framework with which to analyze the preferences of participating governments and firms. In negotiations, knowing what the counterpart wants can increase the success of negotiations, while misunderstanding and information asymmetry can delay the process. This tool will help bring everyone to an understanding of each other's demands and how they can best agree on mutually beneficial outcomes. The theory of global value chains will provide a useful framework with which to analyze trade agreements, such as the current sectoral agreements under negotiation—the Trade in Services Agreement (TiSA) and the Environmental Goods Agreement (EGA)—or future international economic agreements.

Global value chains are evolving and fluid. Who the leading firms are and what their products and services will focus on over the next five years or ten years can change the direction and magnitude of trade. Moreover, global value chains are not separate from politics as they are shaped by changes in regulations, labor costs, and intellectual property rights. China, with relatively low labor costs<sup>440</sup> and a large internal market, is attractive to foreign firms, but uncertainty over government policies and intellectual property rights discourage many firms from entering or expanding. The government has been lackluster in giving licenses to foreign services providers.

The convergence of the IT and telecommunications industries into the ICT industry, facilitated by these agreements, transformed the politics and economics of countries around the world. Trade has now moved to the digital realm. Although goods are still physically transported, the cross-border services trade has skyrocketed due to the decrease in costs of communication, as well as the increase in Internet platforms, Internet and mobile banking services, and financial transactions and information clearing services. E-commerce will soon need new global rules to protect consumers and facilitate more transactions. Using the global value chain analysis, we can identify firms like Amazon, eBay, Alibaba (Taobao and Tmall), Coupang, and Rakuten, and their target markets. We can identify relevant countries such as the US, EU, Japan, China, Korea, and India where large e-commerce firms are located or want to enter. The e-commerce framework will also be of interest to countries in Southeast Asia and Africa with expanding broadband networks. A work program on e-commerce has been ongoing at the WTO since 1998. As e-commerce is a cross-cutting issue, four WTO bodies are involved: the Council for Trade in Services, the Council for Trade in goods, the Council for TRIPS (Trade-Related Aspects of Intellectual Property Rights), and the Committee for Trade and Development.

After these agreements were concluded, industrial countries lost interest in multi-country, multi-issue negotiations encompassing everything from agriculture to pharmaceutical products. These multi-country, multi-issue negotiations have tired many ministries and negotiators for their protracted and difficult negotiations. Countries have moved on to signing bilateral and plurilateral agreements as well as sectoral agreements. This theory helps us understand the determinants of the plurilateral and sectoral agreements that have come to dominate the world trading scene. By understanding global value chains, it can identify countries, firms, goods and services of interest. It can also give guidance with regard to a country's negotiating position, not

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<sup>440</sup> Although this is changing as wages in China are getting higher.

just with regard to the size of its economy, but to its position in the global political economy. Signed just before the turn of the century, these WTO sectoral agreements in high-technology industries were “21<sup>st</sup>-century agreements”<sup>441</sup> that signaled that the WTO differed from the tariff-cutting agreements of the 20th-century. These agreements, which cover trade in services and non-tariff barriers, are more penetrating with regard to domestic governance than any trade agreements before.

Trade agreements shape the industrial profiles of countries, and are especially important for developing countries that seek to enter a global value chain or upgrade their industries. This analysis will especially help developing countries, given their current and projected positions in the GVC, and will provide insight into how to structure their liberalization to maximize benefits. More research is needed on how to incorporate LDCs that are not on the global value chain in order to provide opportunities for industrial upgrading and to participate in the multilateral trade network. International institutions such as the WTO, UNCTAD, and the World Bank should pay more attention to how LDCs can participate in global value chains, so that they too can get out of the poverty trap through trade and long-term investment.

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<sup>441</sup> Baldwin 2014.

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