



The Emergence of Global Value Chains

Ideas, Institutions, and Research Communities

The chapters in this book were written during the past 25 years and the ideas in them evolved over a considerably longer period. This era spans dramatic changes in the global economy: the forging of the US-led Bretton Woods system to rebuild the postwar international economy in the 1950s and 1960s; the rise of offshore outsourcing and far-flung global supply chains in the 1970s and 1980s; the dismantling of the Soviet Union and the emergence of the BRICs¹ in the 1990s; the surge of China as an export power following its admission to the World Trade Organization (WTO) in 2001; the wrenching disruptions of the global recession of 2008–2009; the waning influence of the ‘Washington Consensus’ policy regime; and the surprising turn in the mid-2010s to a virulent economic nationalism and xenophobic populism in the United States and Europe that reject many of the principles of the post-World War II Pax Americana (Buruma, 2016). How can we make sense of such fundamental transformations in global capitalism? What are the determinants of this reorganization of the international economy, and how do we link these global shifts to their national and local consequences? Who are the winners and losers along the way? This book addresses these questions.

By nature, the analytical task at hand is international, interdisciplinary and also highly personal. Legions of scholars and pundits have addressed these topics from varied perspectives and geographic vantage points. Providing a coherent interpretation of the evolving events, however, reflects one’s unique intellectual identity based on specific experiences and influences. In my case, I was trained in graduate school at Yale University as a development and economic sociologist, and I spent two years in Mexico doing interview-based field research for my doctoral dissertation on the Mexican pharmaceutical industry. Although my background at Yale was highly interdisciplinary involving coursework in sociology, political science and economics, I had an even more intense exposure to the interplay of academic and policy-engaged work during a three-and-a-half year stint at the Center for International Affairs at Harvard University in the late 1970s. During

this period, I also did extensive consulting and contract research for the United Nations Centre on Transnational Corporations in New York and the Pan American Health Organization in Washington, DC. Through these and related institutional experiences after I joined the Sociology Department at Duke University in 1980, my worldview reflects the imprint of multiple professional and research communities. Thus, this introductory chapter includes elements of intellectual autobiography, sociology of knowledge, and the institutional underpinnings of the research communities that helped define the ideas and paradigms developed in this book.

The structure of the chapter is as follows. First, I highlight several contending perspectives on the international economy and development in the 1970s and 1980s that set the stage for the emergence of the global commodity chain (GCC) and global value chain (GVC) approaches. Modernization theory, dependency theory and world-systems theory were popular paradigms in academic circles that had dramatically different prescriptions for national development in general, and contrasting assessments of the role of multinational corporations (MNCs), the main agent for economic globalization, in particular. Second, I will discuss four building blocks that were instrumental to the emergence of the GVC framework in the 2000s: (1) the centrality of power and MNC lead firms in the GCC and GVC frameworks; (2) the analysis of 'global industries' as a complement to development research at the national and local levels; (3) the role of the state and contrasting regional development strategies in the global economy; and (4) the institutionalization of the GVC research community. Third, and finally, I will introduce each chapter of the book in terms of its core ideas and novel contributions to the emerging field of GVC studies.

Contending Perspectives on the International Economy and Development

In the early decades following the Second World War, modernization theory and dependency theory offered diametrically opposed proposals for developing economies and newly emergent post-colonial societies in the so-called Third World. Modernization theorists explicitly modeled their prescriptions for development on the historical legacy and institutional features of the advanced industrial democracies of the West. One of the best-known economic books in this genre was Walt W. Rostow's *The Stages of Economic Growth* (1960), which postulated that all countries pass through five stages of economic development² with identical content regardless of when these nations started out on the road to industrialization. Notwithstanding the widely criticized Eurocentric bias of

the modernization approach (Bendix, 1967; Gusfield, 1967; Huntington, 1971; Portes, 1973), a key recommendation was close economic, political and social ties between developing economies and the Western capitalist democracies they were encouraged to emulate.

Dependency theory, by contrast, highlighted the exploitative potential of increased contact between the ‘core’ countries and the ‘periphery’ in the international capitalist system. Andre Gunder Frank, one of the most widely read Marxist dependency authors, claimed that asymmetric ties of economic and political dependency between core and peripheral economies promote ‘the development of underdevelopment’ (Frank, 1967), and citing evidence from Latin America and Africa, dependency writers argued that links to the center were the source of many of the Third World’s problems, rather than a solution (see also Amin, 1973; Dos Santos, 1970). The dependency school, while unified in its critique of the ahistorical and apolitical assumptions of modernization theory, had significant internal differences in theoretical and research orientations with varying prognoses for capitalist development in the periphery (see Gereffi, 1983, chapter 1; Gereffi, 1994a).

Dependency theory altered its initial claims with a new wave of research in the 1970s and 1980s. Diverging sharply from the ‘stagnationist’ views of writers like Frank, Dos Santos and Amin, which declared that dependency could only lead to underdevelopment and socialist revolution, a number of authors promoted the notion of ‘dependent development’ (Cardoso and Faletto, 1979), which asserted that structural dependency on foreign capital and external markets might constrain and distort but is not necessarily incompatible with capitalist economic development in the more advanced countries of the Third World, such as Brazil (Evans, 1979), Chile (Moran, 1974), Nigeria (Biersteker, 1978), Taiwan (Gold, 1981), South Korea (Lim, 1985), India (Encarnation, 1989) and Kenya (Bradshaw, 1988).

A related and at the time novel research agenda was pursued by dependency scholars who focused on industries rather than countries. This approach often employed a ‘bargaining perspective’ that analyzed the interaction between the state, MNCs and national business elites in shaping local outcomes in relatively dynamic manufacturing industries. Sectors included in the initial set of studies were pharmaceuticals (Gereffi, 1978; 1983), automobiles (Bennett and Sharpe, 1979; 1985), computers (Grieco, 1984), and the electrical, tractor, tire, and food-processing industries (Newfarmer, 1985). This bargaining framework sparked a vigorous debate about the limits of dependency, hypothesis testing, counterfactual analysis and the possibilities for dependency reversal (Caporaso, 1978; Becker, 1983; Encarnation, 1989).

The research methodologies of these early country and especially industry case studies of dependency are a clear forerunner of the GCC studies that emerged in the mid-1990s (Gereffi and Korzeniewicz, 1994). Like the GCC and subsequent GVC approach, dependency analysis involved extensive and detailed field research, with the authors typically spending one to two years in their chosen countries gathering relevant secondary materials and meeting local informants. These studies relied heavily on in-depth or ‘strategic’ interviews³ with government officials in charge of both macro and industry-specific policies, as well as firm-level managers and other stakeholders for the industries in question. Multinational corporations were a central actor in virtually all dependency research, whether of the case-study variety or in quantitative, cross-national studies intended to ‘test dependency theory.’⁴ The main issues analyzed in the country or industry studies of dependency revolved around the kinds of power being exercised by MNCs at the national level, the transnational structure and strategies of MNCs, and the roles played by national governments, local firms, workers and other industry actors in defending perceived national interests vis-à-vis the domestic and global goals of MNCs.

Against this backdrop, world-systems theory had a very different intellectual agenda. World-systems theory, which drew heavily on earlier critical perspectives of imperialism and capitalist exploitation, has been closely associated with the work of Immanuel Wallerstein (1974; 1979; 1980; 1989). This approach establishes a hierarchy of core, semiperipheral and peripheral zones in which upward or downward mobility is conditioned by the resources and obstacles associated with a country’s mode of incorporation in the capitalist world-economy. Leaving one structural position implies taking on a new role in the international division of labor, rather than escaping from the system; thus, the possibilities for autonomous paths of development are quite limited.

The semiperiphery, a main category in world-systems theory, identifies an intermediate stratum between the core and peripheral zones that promotes the stability and legitimacy of the three-tiered world-economy. The diverse countries within the contemporary semiperipheral zone, such as South Korea and Taiwan in East Asia, Mexico and Brazil in Latin America, India in South Asia, and Nigeria and South Africa in Africa, purportedly have the capacity to resist peripheralization, but not to move into the upper tier (Wallerstein, 1974; Arrighi and Drangel, 1986). While world-systems theory takes a long-run historical view of cycles of change in the capitalist world-economy that cuts across all regions, it is not well suited to analyze the specific development trajectories of countries and regions that are similarly situated in the hierarchical structure, but respond differently to external economic challenges.⁵

For development scholars working on global industries, the general categories of core, semiperipheral and peripheral zones in world-systems theory were viewed as structural contexts in the world economy, shaped by both world-historic forces and the technological features of key industries (Henderson, 1989; Doner, 1991) as well as by the economic strategies of countries seeking to move toward higher-value-added activities in GCCs (Gereffi and Korzeniewicz, 1990; 1994). While the ‘commodity chain’ concept was originally introduced as part of the world-systems approach by Hopkins and Wallerstein (1977), and defined simply as ‘a network of labor and production processes whose end result is a finished commodity’ (Hopkins and Wallerstein, 1986: 159), it became the central theme of the co-edited volume by Gereffi and Korzeniewicz (1994), *Commodity Chains and Global Capitalism*. For reasons to be explored in greater detail below, this book actually marked a sharp break between world-systems theory and the GCC approach, which sought to link the macro-level issues related to the structure of the world-economy with the meso-level characteristics of national development strategies, and the micro-level emphasis on the inter-firm networks and related political and social consequences of local embeddedness (Gereffi, 1994a: 214).

Building Blocks in the Emergence of the GVC Paradigm

Given this brief overview of the contending theoretical perspectives on the international economy and development in the 1970s and 1980s, we turn to several cross-cutting themes that cumulatively began to distinguish the GCC and GVC research communities from their peers: (1) the centrality of MNCs and power dynamics in development studies; (2) the analysis of ‘global industries’ as a complement to national case studies of dependency and the parallel work on local industrial clusters; (3) reconceptualizing the role of the state and regional development strategies in East Asia and Latin America; and (4) institutionalizing the GVC research agenda through the support of foundations and university-affiliated research centers.

MNCs and Power in the Global Economy

While there was a great deal of popular interest in the power and global reach of MNCs in the 1970s (e.g., Barnett and Müller, 1974; Sampson, 1973; 1975), the study of multinational enterprises was still a neophyte field from an academic point of view. To the neoclassical economists of the 1950s and 1960s, the postwar world economy was defined by international capital flows, which were viewed at the country level as foreign direct investment (FDI). The United States was the main source of outward FDI, and the first national studies of US FDI were

carried out by Dunning (1958) on the United Kingdom and Safarian (1966) on Canada. Both of these authors were interested in the public policy question of the contributions that US FDI had for a host economy (Rugman 1999), and thus they did not really think about MNCs as an institutional actor.

The Multinational Enterprise Project at Harvard Business School, which began in 1965 under the direction of Raymond Vernon and lasted for 12 years, tried to remedy the relative neglect of MNCs. In his most popular book, *Sovereignty at Bay*, Vernon (1971) posed the question: To what extent have MNCs supplanted the national autonomy of governments? Despite being out of step with his academic brethren in economics departments and business schools who were using general equilibrium models and rational choice to study the properties of efficient markets, Vernon's approach emphasized the strategies and activities of MNCs as both a political and economic force, rather than just another form of international capital movement (Vernon, 1999). Furthermore, empirical studies of MNCs underscored their large size, whether measured in sales or by more sophisticated calculations of value added, which showcased the concentrated power of vertically integrated MNCs that were bigger in economic terms than many countries.⁶

In applying to graduate programs in sociology, I was interested in international development and preferred programs that encouraged interdisciplinary scholarship. Yale fit the bill on both counts. I received a fellowship in a comparative sociology project that focused on inequality systems in five nations, and Yale had strong area studies programs in multiple regions with particular strengths in Latin America, Africa and Europe.⁷ Among my sociology mentors, Louis Wolf Goodman worked on MNCs in Chile and political scientist Alfred Stepan was a noted Brazilianist who had close personal ties with Fernando Henrique Cardoso, one of the early pioneers of dependency theory.⁸ In economics, there was also a very strong group of Latin American scholars, including Carlos Diaz-Alejandro, Gus Ranis, and Jorge Katz, among others. My exposure to dependency theory came largely through courses with Stepan and Goodman, who co-chaired my dissertation committee. I developed a proposal to work on MNCs in Mexico, and I received funding for a two-year Foreign Area Fellowship from the Social Science Research Council (SSRC) in New York.

While MNCs and dependency theory were both popular topics, there was considerable controversy about how to combine them in a dissertation project. In my case, I was fortunate that the SSRC took a pro-active stance in fostering a research community to help address a number of theoretical and operational challenges in this emergent field. In 1976, the SSRC created the 'Continuing Working Group on Multinational Corporations in Latin America' that brought junior and senior researchers together for periodic meetings in New York in the

late 1970s and early 1980s to discuss their projects, methods and preliminary findings.⁹ All members of the working group were studying MNCs in different countries and industries across Latin America, and exploring how dependency on MNCs in particular sectors shaped national development outcomes. In the early 1980s, Richard Newfarmer joined the working group. Trained as an industrial organization economist at the University of Wisconsin, Newfarmer helped to create a much-needed structural perspective on how global industries were organized. Using the tools of conventional industrial organization theory (such as Bain, 1968; Scherer, 1980), Newfarmer edited a book with chapters from all members of the working group that related the market power of MNCs in each industry to the conduct and performance of overseas affiliates and domestic firms (Newfarmer, 1985).¹⁰ This model was a precursor to the governance structure dimension that later appeared in GCC and GVC studies.

My own dissertation project focused on MNCs in the pharmaceutical industry in Mexico (Gereffi, 1980). After two years of field research in Mexico (1975–1976), Raymond Vernon invited me to write my dissertation at Harvard, where I could interact with members of his Multinational Enterprise Project team as well as scholars at Harvard's Center for International Affairs, which Vernon was directing. My stay at Harvard extended from January 1977 through June 1980, and my work on MNCs evolved in several directions. In terms of my dissertation research on Mexico, I developed my central arguments in an article (Gereffi, 1978) for a special issue of the journal *International Organization* on 'Dependence and Dependency in the Global System,' (Caporaso, 1978). Although my analysis was a single-country case study, I was pushed by Vernon and others to develop falsifiable hypotheses related to dependency reversal, including a 'counterfactual analysis' that extrapolated from the experience of relevant comparative cases how national firms in Mexico might have performed better than MNCs in terms of national welfare (defined as local industry growth) and global consumer welfare (defined as identical products at lower prices).

Beyond my dissertation, I had the opportunity to initiate different kinds of policy-related studies of MNCs in the global pharmaceutical industry: one project involved the UN Centre on Transnational Corporations in New York, and a second looked at the viability of 'essential drugs' programs in Latin America for the Pan-American Health Organization (PAHO) in Washington, DC. In both cases, I was asked to analyze the structure and strategies of top MNCs in the global pharmaceutical industry, which was a key (and missing) complement to the bottom-up perspective of my Mexican case study on the steroid hormone industry. In retrospect, learning how to study a global industry from the perspective of MNCs and link it to the experience of national economies was critical to framing

the governance structure and industrial upgrading pillars of the GCC and GVC paradigms in subsequent decades. However, in the late 1970s and 1980s these were uncharted waters.

Studying Global Industries

One of the major limitations of dependency theory was the absence of an integrated global perspective on MNCs. Most of the historical-structural authors in the dependency tradition assessed the development implications of peripheral capitalism by focusing on the class structure in the peripheral country, the alliances formed by local business and political elites with international capital, and the role of the state in shaping and managing the national, foreign and class forces that propel or constrain development within countries (Cardoso and Faletto, 1979; Evans, 1979). For dependency theorists, not the whole country but only a selected portion of it is integrated into the international economy (Sunkel, 1973), which does not fit classic power-dependence models that view dependence as a dyadic asymmetrical relationship between pairs of nation-states or other unitary actors (Emerson, 1962; Duvall, 1978).

For those dependency scholars who focused on industries rather than countries or regions, MNCs became a logical focal point for research because these companies embodied the power asymmetries entailed by a peripheral economy's integration into the international capitalist system. However, in US academic circles, there was a great deal of pressure to develop methodological strategies that would treat dependency not merely as a holistic structural 'situation' but rather as a relational 'variable' that could be measured and tested in falsifiable propositions about MNCs and other key actors (Caporaso, 1978; Gereffi, 1978; Moran, 1978; Bennett and Sharpe, 1979).¹¹ Notwithstanding this uptick of interest in analyzing MNCs through an industry lens, dependency theory still looked at the world from the bottom up, i.e., from the perspective of peripheral economies. There was little systematic empirical information about international industries viewed from the top down.

World-systems theory had the advantage of a more intrinsically global perspective on the historical evolution of the capitalist system, but the broad tripartite classification of core, semiperipheral and peripheral zones used in this approach created an agency problem in terms of not clearly specifying the concrete actors and mechanism of change in the system. In their influential study of the semiperipheral zone in the world-economy, Arrighi and Drangel (1986: 11) critiqued the dependent development literature for acknowledging 'the possibility that development in general and industrialization in particular might occur within states while still reproducing a structure of dependence.' Among the weaknesses

of dependent development from a world-systems stance is that national or regional economies do not simply occupy an intermediate position between ‘center’ and ‘periphery’ in the world-economy; rather, a systemic view emphasizes the structural significance of each stratum or group of states (core, semiperipheral, peripheral), and not the rise or fall of individual economies. This three-tiered structure of the world-economy is assumed to be ‘more or less constant throughout the history of the capitalist world-economy’ and ‘to play a key role in promoting the legitimacy and stability of the system’ (Arrighi and Drangel, 1986: 12–13).¹²

In world-systems theory, commodity-chain dynamics are closely linked to world-system position. Core-periphery relations comprise ‘economic activities structured in commodity chains that cut across state boundaries’: ‘core’ countries are countries where ‘core’ activities are located, and ‘core activities are those that command a larger share of the total surplus produced within a commodity chain and peripheral activities are those that command little or no such surplus’ (Arrighi and Drangel, 1986: 11–12).¹³ In other words, there is something about core status that enables firms (called ‘core capital’) to generate the highest returns or secure the most rent. But world-systems theory does not specify what those mechanisms are in any detail, so the formulation ends up being tautological.¹⁴ If indeed commodity chains link all three tiers of the world-economy and are a key to reproducing this hierarchical system, we need to know more about the kinds of firms (state-owned, foreign and domestic) and industries that make up these chains, and how state policy can shape their contribution to surplus generation in zones like the semiperiphery (Gereffi and Evans, 1981).

These theoretical debates among dependency and world-systems scholars reaffirmed the importance of a core-periphery system, but did little to address the empirical question of how to analyze the global industries that actually make up the world economy. This became a practical mandate for the newly formed UN Centre on Transnational Corporations (UNCTC) in the late 1970s. Although UNCTC is probably best known for its unfilled quest to draft a code of conduct to govern the activities of transnational companies¹⁵ in the wake of political scandals in the early 1970s,¹⁶ it also did important work in commissioning comprehensive empirical studies of MNCs.

One of the initial priorities was a study of the global pharmaceutical industry, which had received a lot of attention because of controversial practices related to transfer pricing, differential drug labeling across countries, and the role of essential drugs programs in the developing world (Lall, 1973; 1975; 1978). Given my ongoing dissertation research on the pharmaceutical industry in Mexico (Gereffi, 1978; 1980), I was commissioned by UNCTC in 1977 to write a report on the structure and strategies of the top 50 pharmaceutical MNCs worldwide. This was

followed by a second report on how the structure, conduct and performance of these pharmaceutical MNCs was good or bad for economic and health outcomes in developing countries, including various industry stakeholders such as consumers, domestic drug firms and local innovation systems (UNCTC, 1979; 1981).

The scale of this project was unlike anything I had undertaken before. Even more daunting, there were no guidelines offered by UNCTC staff because there were no research models of what a report on MNCs in a global industry should look like. Drawing on a wide variety of industry-specific source materials and numerous consultations with academic and business experts on the sector, I drafted the initial report focusing on the 50 largest pharmaceutical MNCs in the world. After listing the biggest companies in terms of their annual sales, the MNCs were classified by nationality and information was gathered on their position in distinct 'therapeutic markets' within the pharmaceutical sector (e.g., antibiotics and vaccines, cardiovascular, respiratory, autoimmune diseases, pain, etc.) in order to establish the main competitors in each market segment. The global reach of the top pharmaceutical firms was estimated by their sales distribution across major geographic regions. While the methodological and empirical difficulties in compiling such a report were formidable, the toughest hurdle was handling the intense political scrutiny and stakeholder interests attached to a UN study of pharmaceutical MNCs.¹⁷ The official report (UNCTC, 1979) was widely circulated in UN circles and it became a reference point for how subsequent global industry studies could be carried out.¹⁸

The UNCTC report on MNCs in the global pharmaceutical industry complemented the national focus in my dissertation on the Mexican steroid hormone industry (Gereffi, 1980). In my book on *The Pharmaceutical Industry and Dependency in the Third World* (Gereffi, 1983), I added a couple of chapters that used the UNCTC studies to put the Mexican case in a broader international perspective. In the early 1980s, the Pan American Health Organization, the regional arm of the World Health Organization, commissioned me to prepare a policy paper and several national case studies evaluating the scope and effectiveness of 'essential drugs' programs in various Latin American countries, including Mexico, Brazil and Peru (PAHO, 1984; Gereffi, 1988).

These early studies of global industries foreshadow several important themes in the subsequent GCC and GVC literature. First, a focus on specific industries has obvious policy relevance. Often, the demand for industry studies comes from those most interested in designing or implementing effective regulation.¹⁹ Second, the organization of global industries reflects the power dynamics of their leading firms. This insight led directly to the concept of 'governance structures,' which is a mainstay in the GCC and GVC frameworks.²⁰ Third, the organization of