Cloth without a Weaver:

*Power, Emergence and Institutions across Global Value Chains*

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Abstract

In studies of the fragmentation and internationalization of production, most value chain approaches consider the inter-firm balance of power as the critical dynamic in development. With the firm as the primary unit of analysis, research long held out two promises: first, bridging the ‘micro-macro gap’ in development theory, meaning making valid inferences from micro-level actors (firms) to macro-sociological outcomes; and second, reconciling its firm-level organizational approach with institutionalism. This paper argues, first, that the literature is artificially constrained in bridging the micro-macro gap due to its delimited conceptualization of ‘power,’ based on the ‘agentic-strategic’ behavior of firms. It argues for broadening the notion of power to bridge the levels of analysis, based on the concept of ‘emergence.’ Second, while institutional critics are correct in criticizing value chain scholarship for its neglect, this paper finds that the effects of institutions are not as consistent or determinative as suggested, and hence, it seeks to expand the scope for incorporating institutionalism. These points are illustrated through an intra-industry comparative study of three textile agro-industries in China.

Keywords: global value chains; governance; power; emergence; institutions; development; China
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Over the past decades, a large, interdisciplinary body of scholarship has examined the fragmentation and internationalization of production in which large multinational firms, especially in advanced countries, have off-shored important manufacturing functions, while re-integrating their operations through complex networks of trade, foreign investments and non-equity ties. Most scholars agree that this has fostered a new international division of labor, which poses novel challenges and opportunities for developing countries. Early research promised to provide an alternative approach to development theories, which were then dominated by debates between neoclassical economists (Belassa, 1988; World Bank, 1994) and statists (Amsden, 1989; Evans, 1995; Johnson, 1982; Wade, 1990), particularly in explaining the rise of East Asia’s Newly Industrialized Countries (NICs).

Research on fragmented production – in this paper generically referred to as ‘value chains’ – was explicit in asserting an alternative approach to development on account of its analytic starting point: the large multinational or ‘lead’ corporations (MNCs) undergoing de-verticalization and internationalization. In contrast to market-oriented and statist approaches, MNCs were seen as the motive forces and primary organizing agents of global capitalism, and it was through them that developing countries were offered newfound opportunities to access developed country markets. With firms as its analytic starting point, the literature promised to ‘bridge the micro-macro gap’ in development research (Gereffi, 1996, p. 75-81; Gereffi, Korzeniewicz & Korzeniewicz, 1994, p. 2, 9-10; Hamilton & Gereffi, 2009; Henderson, Dicken, Hess, Coe & Yeung, 2002, p. 436-38). As some prominent
contributors assert, inter-firm governance “affects not only the fortunes of firms and the structure of industries, but also how and why countries advance – or fail to advance – in the global economy” (Gereffi, Humphrey and Sturgeon, 2005, p. 79, emphasis added; see also, Gereffi, 1995, p. 103; Gereffi, 1999, p. 39). Thus, the task is to make valid inferences from micro-level actors (like firms) to macro-sociological, development outcomes.\(^2\) At the same time and partly due to its firm-centric focus, value chain research has maintained an ambiguous relationship with institutionalism, including the state – at once, promising to incorporate it as part of a larger framework, but also distancing itself by keeping MNCs at the center of attention. Another prominent contributor has warned that this neglect insinuates an “elective affinity” between value chain literatures and neoliberal conceptions of development (Bair, 2005).

This paper argues that value chain literatures have been artificially constrained in fulfilling these promises. First, their ambitions to explain trends in national development have been thwarted because they lack a mechanism to bridge the micro-macro gap. While some claim that this is due to methodological problems, this paper argues that the problem derives from the literatures’ reliance on a single conception of power in understanding inter-firm governance – in this paper called ‘agentic-strategic’ power – which unnecessarily restricts the scope of research. Using existing literature, this paper considers an alternative approach to the micro-macro aggregation problem in which self-organizing or ‘emergent’ economic organizations are the unintended outcomes of individually rational and
market-oriented actions of unrelated firms. In other words, the strategic-agentic actions of firms can create non-agentic economic structures with important implications for national development.

Second, scholars agree that institutionalism was never reconciled within value chain research, “notwithstanding the potential complementarities between institutional and organizational perspectives” (Gereffi, 2005, p. 170). This paper argues that the locus of conflict arises from the ‘either/or’ choice by which some scholars have framed the relationship between the two literatures. Particularly among ‘varieties of capitalism’ research, this is because institutions are seen as creating internally coherent and mutually re-enforcing ‘systems’ of national institutions. While the paper agrees that domestic institutions deserve more attention than value chain research traditionally accords them, their effects are not as consistent or regularized as institutional critics suggest. Thus, the paper seeks middle ground between the literatures by expanding the scope for integrating institutionalism within value chain literatures.

The first half of the paper addresses problems surrounding the conceptualization of inter-firm power, before returning to the conflict over institutionalism. Both discussions are then combined and empirically illustrated through an intra-industry comparison of three value chains within China’s textile agro-industries.

**Global Value Chains as an Alternative Approach to Development and Conceptions of Power**
Value chain research has long proffered an alternative approach to development by examining how MNCs – powerful, strategic actors – create governance structures incorporating foreign supplier firms. As such, they are less optimistic than neoclassical economists about the developmental prospects of global markets, but also less pessimistic than older dependency theorists for whom global economic forces constrain and distort national development (Bair, 2005).

Furthermore, contrary to statists and institutionalists, value chain research understands MNCs as establishing the primary governance structures by which developing countries and their firms are integrated into international exchange and gain access to advanced country markets. Implicitly, this relegates institutions to a secondary status, which in varieties of capitalism approaches, are seen as ‘localizing’ and ‘domesticating’ global economic forces (Lane, 2008; Lane & Probert, 2009; Whitley, 1996, 1998, 1999). Even traditionally ‘strong state’ countries, like South Korea and Taiwan, have been recently re-interpreted as developing through value chain integration (Feenstra & Hamilton, 2006).

In recent years, however, there has been a growing criticism that the very distinctiveness of value chain research, which gives precedence to firm- and industry-level analysis, has inhibited it from fulfilling its original promise of offering an alternative approach to development and of successfully bridging the micro-macro aggregation problem (Bair, 2005, 2009; Bair & Peters, 2006; Bair & Werner, 2011; Peters, 2008; Feenstra & Hamilton, 2006; Hamilton & Gereffi, 2009). As one prominent contributor succinctly asks, there is still no clear answer to the question
“how does the nature of a firm’s insertion into a particular commodity chain map on to a country’s incorporation into the global economy?” (Bair 2005, p. 166, emphasis in original). In addition, some have criticized that institutions, including the state, have never been properly reconciled with issues of MNC governance, despite frequent theoretical statements of inclusiveness (Bair, 2005; Coe, Dicken & Hess, 2008; Dickens, Kelly, Olds & Yeung, 2001; Hess & Yeung, 2006; Quark, 2011; Whitley, 1996, 1998).

These deficiencies are well-reflected in the literature’s research design and data gathering. Since a critical component of value chain research is analyzing inter-firm governance in particular industries, the modal research design consists of empirically rich case studies of one or a few closely allied industries, its lead transnational firms and their transactions with suppliers. This has produced a wealth of new empirical studies which reveal the diverse ecologies of global capitalism, and which most distinguishes the approach from economists, statists, and other institutionalists.

Intentionally or not, however, research frequently leaves implicit a presumption that negative or positive consequences discovered at the firm- or industry-level within a particular country implies similar consequences at the national level. For Hamilton and Gereffi (2009), this derives from a more general “disjuncture within economic sociology at the macro level” given the tendency of scholars to “focus primarily on some aspect of economic organization…and use ‘meso-level’ variables as proximate causes” (p. 137).

While these critiques are valid, this paper argues that the aggregation problem for
value chain scholarship is more than simply methodological. Rather, part of the
problem derives from the literature’s conception of power itself, which lies at the
heart of analyses of inter-firm governance. Explicitly or not, most value chain
research adopts the widely held conception of power as a ‘relation between actors,’
defined as the ability of one actor to get another actor to do what they otherwise
would not (Dahl, 1957, p. 202-03). This conception of power – in this paper
abbreviated to ‘agentic-strategic’ power – has several attributes: it is agent-focused,
restricted to intentional actions, concerned with conflict over common ends, and often
is resolved through expenditure of resources, whether material or otherwise. A
typical scenario is to see power as exercised through the strategic behavior of lead
firms leveraging their most valued resources (technology, marketing channels,
consumer information, etc.) over developing country suppliers, which are integrated
into transnational value chains through various governance mechanisms.

Common agentic-strategic definitions of power in the literature include “the
extent to which the lead firm in the GPN has the capacity to influence decisions and
resource allocations – vis-à-vis other firms in the network;” likewise, other scholars
urge researchers “to examine the intentionality and power relations among social
actors…Powerful, or active, actors are those who drive networks [and] their ability to
do so depends on their control of key resources” (Dickens et al., 2001, p. 93;
Henderson et al., 2002, p. 450). While this type of power is undeniably exercised by
firms, the next section argues that this conception of firm power artificially constrains
scholars in resolving the micro-macro aggregation problem, and making inferences
about national development.

**Firms and the Agentic-Strategic Conception of Power**

Using firms as basic units of analysis, value chain scholars analyze larger assemblages of firm activities, including dyadic inter-firm linkages, longer chains of interlinked production, and whole networks of firms. One of the primary preoccupations of research is to determine the precise locus of power and how, through governance, it is projected within value chains. However, the literature relies on a particular conception of power which is useful in understanding the strategic actions of firms and the balance of power between them, but less capable of transcending levels of analysis to explain outcomes in terms of national development.

The limitations of the agentic-strategic conception of power are well illustrated by examining two paradigmatic value chain frameworks – the original ‘global commodity chain’ (GCC) framework, and the newer ‘global value chain’ (GVC) framework. Although we focus on these two frameworks, as the previously quoted definitions of power indicate, the following discussion equally applies to the global production network (GPN) framework of economic geographers (Dickens et al., 2001; Henderson et al., 2002). The purpose of comparing these prominent frameworks is to illustrate how an agentic-strategic conception of power dominates the literature and places artificial constraints on value chain research in resolving the aggregation problem and offering an alternative explanation for national development. To achieve these goals, the literature should strive to incorporate non-agentic conceptions of
power. As described below, some value chain research does utilize alternative conceptions of power, such as institutional, collective and discursive power. Unfortunately, however, this is usually done by expanding the conceptual lens of research and thus sacrificing the firm-centric governance focus which is the distinguishing feature of value chain research. Thus, the challenge for the literature is a more complex one: to incorporate non-agentic conceptions of power while retaining their focus on firms and corporate power. In other words, ‘squaring the circle’ by conceiving of the actions of strategic actors – firms – in non-agentic ways. Below, I briefly illustrate an alternative conception of power through Robert Feenstra’s and Gary Hamilton’s (2006) comparative research on South Korean and Taiwanese development, whose work attempts to bridge the micro-macro aggregation problem. We begin, however, by highlighting the agentic-strategic conception of power widely utilized by GCC and GVC frameworks and their critics.

Arguably, the two frameworks’ most important preoccupation is to identify the ‘locus of power’ within larger assemblages of firms, and how it is broadcast to other parts of the chain, network or industry. Power can be derived from many different firm resources, which then generate ‘rents’ (Kaplinsky, 2005). The key power dynamic or governance relationship is often between powerful MNCs, which structure cross-national production networks, and foreign supplier firms which service them. This inter-firm balance of power is also intimately tied to the notion of firm ‘upgrading.’ In brief, firm upgrading involves conducting more value-added activities, usually through enhancements in supplier capabilities (Gereffi, 1999;
Humphrey & Schmitz, 2002). This is sometimes seen as indicative of a partial shift in power from lead firms to suppliers, and is the primary means by which developing country firms can rise through the new international division of labor in a world of fragmented production.

In the earlier GCC approach, the locus of power was clearly situated in lead firm, (such as major retailers or automobile assemblers), which retained substantial latitude in structuring governance relationships with suppliers in foreign countries (Appelbaum & Gereffi, 1994; Dolan & Humphrey, 2000; Gereffi, 1994; Schmitz & Knorringa, 2000). Lead firms directly shaped the prospects of national development by deciding which countries and firms are integrated into value chains, the scope of upgrading that suppliers undertake, and what and how goods are produced – all of which ultimately determine the division of resources between firms – and by extension, between countries.

However, over time, developing country supplier firms upgraded their capabilities, most dramatically among East Asian NICs, which created far more complex forms of inter-firm governance (Gereffi, 1999; Humphrey & Schmitz, 2002). This prompted scholars to formulate a more systematic and syncretic conceptual framework, called ‘global value chains,’ which drew from several research projects (Gereffi, Humphrey & Sturgeon, 2005). Given this diversity of inter-firm relationships across industries, the GVC conception of power is more variable, contingent and dynamic over time. According to the framework, there are three factors – all partially external to lead firms – which shape the balance of power
between transacting firms. These include: the degree of complexity of transactions, how easily transactional complexity can be ‘codified’ and hence easily transmitted, and finally the level of capabilities of supplier firms. The first two factors are largely functions of the operations and current technologies of the particular industry, while the last one considers the ability of supplier firms to learn, improve and offer more value in production processes.

Similar to GCC research, however, the focus of attention remains the agentic-strategic actions and balance of power between lead and supplier firms. Power is more variable, contingent and dynamic, because changes in governance can occur through many routes, including through the creation of industrial standards by firms or industrial associations, the utilization of new technologies, enhancements in supplier capabilities, in addition to the original power of lead firms (Gereffi, Humphrey & Sturgeon, 2005).

Apart from these theoretical statements, critics also largely rely on agentic-strategic approaches to inter-firm power. Some re-emphasize lead firm autonomy, for instance asserting that in ‘modular’ governance, the locus of power is incorrectly identified as embedded within codified industrial standards. Instead, they counter that certain firms in a production process ‘know more than they make’ and hence can utilize authoritatively their broader knowledge to affix the contours of interaction among cooperating firms, including the industrial standards themselves. (Brusconi, 2005; Brusconi, Prencipe & Pavitt, 2001; Chesbrough & Kusunoki, 2000). Other research undercuts the idea that industrial-level factors constrain lead firm
behavior, instead, showing that even at a single point in time and within the same industry, governance varies between lead and supplier firms due to differences in corporate cultures and histories (Palpucuer, Gibbon & Thompson, 2005).

A second group considers external ‘constraints,’ such as institutions, which are also products of agentic-strategic struggle. GVC research made the very strong prediction that their three causal factors “influence the shape and governance of global value chains in important ways, regardless of the institutional context within which they are situated” – a prediction others question (Gereffi, Humphrey & Sturgeon, 2005, p. 99, emphasis added). For instance, the ending of the Multi-Fiber Agreement (MFA) in the textile-apparel industry quickly disentangled what are traditionally considered very stable ‘relational’ linkages between Mexican full-package manufacturers and US retailers (Bair & Werner, 2011), as well as re-shaped the playing field in global cotton (Quark, 2011). Further, the institutions and standards are themselves products of agentic-strategic ‘political contestation’ among states and firms (Gellert, 2003; Hess & Coe, 2006; Quark, 2011). Still others seek a shift ‘from governance to governmentality’ arguing that governance is a process of social construction and an exercise of discursive power in which the constructed practices of agents shape specific governance patterns (Gibbon & Ponte, 2008; Gibbon, Bair & Ponte, 2008; Quark, 2011).

In some of these critiques, we already see the introduction of alternative conceptions of power, such as discursive, collective and institutional power (see also Coe, Dicken & Hess, 2008). While certainly valid and promising in opening new
lines of inquiry, one risk is that they greatly expand the conceptual core of the literature – inter-firm governance – through the introduction of new variables, new concepts and new actors. However, ‘stretching’ concepts and increasing conceptual complexity are not costless (Collier & Levitsky, 1997; Collier & Mahon, 1993).

While ultimately a matter of methodological taste, we are left with an ever-expanding list of ‘important’ concepts, factors and actors, often at the cost of undermining theory building. Thus, the harder challenge is to keep firm behavior at the center of analysis and to ‘squeeze’ more out of the concepts of firm power and governance.

Overall, the above review examines how the agentic-strategic conception of power pervades value chain approaches. However, as argued next, reliance on a single conceptualization of power is artificially constraining. While this type of inter-firm power is certainly exercised, it does not follow that it is this same form of power, exerted at the level of the firm, which is determinative of the possibilities of national development, as the literature often assumes. Fortunately, this is not the only form of power that one might consider.

**Power and Emergence in Development**

It is true that some of the most common conceptualizations of power concern agentic-strategic actions, traditionally defined as the ability of one actor to get another actor to do what they otherwise would not. Some theorists have defended the agentic-strategic conception as not simply one of many possible meanings of power, but as the *only* legitimate one (Baldwin, 1989, 2002). Others acknowledge the
multiplicity of the concept, but prefer alternative terminology to describe power not exercised by intentional agents, such as ‘governance’ (Guzzini, 1993, 2000). However, this has its own problems by creating a false dichotomy, and implying that governance does not entail power (Barnett & Duvall, 2005), something which also runs directly contrary to value chain usage of the word ‘governance.’ Furthermore, given both Marxist and post-structuralist literatures on power in class relations, hegemonic power and discursive power, there is plenty of support for not restricting the concept simply to intentional actions between agents (Cox, 1987; Hayward, 2000; Lukes, 1975).

While all good and well in the abstract, value chain scholars may wonder if there are other conceptualizations of power which, on the one hand, go beyond the agentic-strategic version, as this paper suggests, but which at the same time do not sacrifice the firm-centric approach which remains the core of the literature. This is possible – however, it requires broadening the definitional boundaries of power. For instance, one prominent alternative defines power as “the production, in and through social relations, of effects that shape the capacities of actors to determine their circumstances and fate” (Barnett & Duvall, 2005,p. 39). This definition certainly incorporates agentic-strategic power as one type of power, but also acknowledges that other types of power are simultaneously exercised.

One illustration of value chain research that implicitly utilizes different concepts of power in empirical research is Feenstra and Hamilton (2006). In their research, power is both agentic-strategic and non-agentic when applied at different levels of analysis, providing greater leverage in resolving the micro-macro aggregation
problem. In brief, their research examines the role of the US retail revolution and the internationalization of US buyers in contributing both to the development of South Korea and Taiwan as ‘demand-responsive economies,’ and to their divergence in economic organization. It is well-known that Taiwan’s economic organization (primarily in downstream sectors) consists of extremely complex networks of small and medium enterprises which cooperate with each other in flexible ways that are well adapted to producing small batches of varied products. By contrast, South Korea is known for its handful of massive business groups (chaebol) linked together through cross-ownership, and well adapted to large-scale, mass production.

In both countries, authority takes center stage. The authors argue that each country’s traditions of authority shaped their divergent economic organizations, and ultimately their specialized niches in international trade – in Korea, a tradition of patrimonialism and in Taiwan, a more delimited patriarchal authority.

However, the divergent forms of economic organization remained largely latent until triggered by the expansion of US retailers into offshore sourcing. In a process of circular causality, the deepening relationship between US and East Asian firms created a dynamic in which buyers’ demands became increasingly differentiated, which both caused and was caused by Korea’s and Taiwan’s increasingly specialized and divergent production systems. With each transaction, this iterative process re-enforced the ‘emergence’ and ‘divergence’ of the business networks in the two countries, until each country became specialized – Korea in mass produced light industry goods, and Taiwan in small batch, varied goods.
Their research shares much in common with value chain scholarship. They are equally concerned with the implications of fragmented production on development, and the interactive co-development of economies interlinked through MNCs. Similar to Gereffi’s (1994) ‘buyer-driven’ commodity chains in light industries, the dynamics are driven by the retail revolution in the US. Furthermore, they are concerned with macro-sociological outcomes, including an explanation of the rise of East Asian NICs, which similarly rejects the conclusions of statist, institutionalist and market-oriented approaches.

However, they are quite explicit in departing from value chain research in terms of both emphasis on firm-level analysis and micro-macro aggregation: “although enormously helpful in their ethnographic detail…they did not conceptualize the economic organization at either end of the chain, either the organization of producer economies or the organization of consumer economies” (Feenstra & Hamilton, 2006, p. 358, emphasis added). In other words, there is a wide gulf between value chain empirical research on firms and industries, and their ambitions to explain national development.

At first blush, Feenstra and Hamilton’s rejection of firm- and industry-level analysis appears contradictory, given that their own research seeks to understand the behavior of firms and their organization into business groups. Thus, they both reject a firm-level focus, while at the same time taking firms as their primary units of analysis.

A second seeming contradiction is that they equally utilize the agentic-strategic
concept of firm power. In their discussion of authority relations within business
groups (p.42), they apply Weber’s definition of economic action, the most important
component of which is the peaceful attempt to gain power of control and disposal.
This contains the key elements of agentic-strategic power which is how Weber
himself understood power (Weber, 1947, p. 152). Thus, similar to value chain
approaches, they very much adopt this conception of firm power.

How to ‘square these circles’? Although not explicitly framed as such in their
research, they shift the level of analysis above the firm-level and thereby implicitly
introduce a second conception of power to explain economic organization in Korea
and Taiwan. Rejecting both statists’ and economists’ explanations for East Asian
business groups, they argue that business groups are self-organizing or emergent
economic structures that derive from individually rational and market-oriented actions
of individual firms; however, through repeated interactions and when aggregated, firm
behavior creates new forms of economic organization which are impossible to predict
ex ante. In other words, the economic organizations of Korea and Taiwan were
created ‘by human action but not by human design.’ Thus, the most consequential
results of the agentic-strategic actions of firms are not necessarily the original,
intended goals of the agents themselves; rather, they are the emergent by-products of
their action, which when aggregated together and through an iterative process, create
stable and self-enforcing economic organizations in their own right. Put simply, one
and the same agentic action can have multiple outcomes, but at different levels of
analysis.
It should be noted that emergence is more consequential than simply an examination of the myriad ‘unintended consequences’ derived from firm actions. Rather, in the economic organization of Korea and Taiwan and in the influx of foreign capital into China (described next), the by-products of ‘emergence’ are enduring structural outcomes around which firm and state actions are oriented. Most unintended consequences of firms do not coalesce into self-enforcing and enduring structures. Emergent ones do.

However, are these emergent economic organizations manifestations of power? For those who reject all conceptualizations other than agentic-strategic power, the only possible answer is ‘no,’ because economic organization was not directly the result of intentional human strategy and design. However, if our broader, multi-faceted conception of power is adopted, then this clearly is a form of power. In fact, Feenstra and Hamilton point out that even the seemingly ‘all-powerful’ East Asian states frequently were rebuffed in their attempts to control their native business groups and to develop alternative business organizations.

This also goes a long way in resolving the micro-macro aggregation problem of value chain research since it begins with individual firm-level action, but ends with macro-sociological outcomes. Furthermore, unlike other critics, it does not introduce extraneous factors. Thus, it is an emergent form of power that is transformational of macro-structures and strongly shapes the capacities of other actors, whether firms, bureaucrats or others. It is this alternative type of power which value chain research is already well positioned to incorporate and which can greatly assist in
their broader theoretical ambitions. I turn now to an empirical demonstration of these ideas and introduce the debate over institutions.

‘Emergence’ of Foreign Capital, Institutions and Development in China

China is a bellwether of contemporary industrialization, and since the 1990s, it has transformed into the epicenter of East Asia’s export-oriented production networks. If fragmented production indeed has broad, macro-sociological implications which strongly influence national development, then evidence of it ought to be readily apparent in China. However, surprisingly little research from a value chain perspective has been conducted on China.5

Utilizing detailed Chinese industrial data, this section provides evidence of the impact of fragmented production on China’s industrial structure, in particular the remarkable structure of foreign capital investments along the chain of production. Similar to Feenstra and Hamilton (2006), the influx and structure of foreign capital is ‘emergent’ partly because there are no viable, alternative statist or institutional explanations to account for the empirical patterns. Rather, the structures emerge from the aggregation of innumerable firm-level decisions within cross-national networks, with profound implications for China’s domestic economic development.

Once the emergent quality of foreign capital and East Asian networks in China is illustrated, I turn to its impact on China’s development. It is on this issue that GVC’s institutional critics are often focused, arguing that institutions ‘localize’ and ‘domesticate’ global economic forces. As mentioned, although institutions and the
state were acknowledged in early value chain frameworks, some have accused the literature of an “elective affinity [with] neoliberal conceptions of development” in that “while the global value chain literature does not necessarily express skepticism or hostility towards the state, the role of governments as potential facilitators (or inhibitors) of development receives scant attention” (Bair, 2005, p. 174).

In practice, this tension with institutionalism is framed in widely different ways. Some institutional critics argue that value chain research over-emphasizes MNC power over developing country firms, by ignoring domestic political constraints (Cramer, 1999). A more common complaint is that value chain research does not fully consider the role of national institutions in managing global economic forces as highlighted by ‘varieties of capitalism’ literatures; hence, it ignores wider debates of how MNCs conform to host country institutions, as well as how national institutions influence the behavior of home-country MNCs when they go abroad (Lane, 2008; Lane & Probert, 2009; Morgan, Kristensen & Whitley, 2001; Whitley, 1996). Finally, others illustrate how institutions and standards along value chains undergo continual ‘political contestation’ among firms and states alike (Gellert, 2003; Hess & Coe, 2006; Quark, 2011).

One problem with some of these institutional critiques is that they frame the issue as an ‘either/or’ choice, pitting value chains against national or institutional capitalism approaches; for instance, one prominent contributor asks, “how, and to what extent, do different sectors develop separate international patterns of coordination and control which dominate national ones?” (Whitley, 1996, p. 415, emphasis added; see also
Whitley, 1998, p. 446, 473, 475). Another critic asserts that “understanding how institutional variations converge in the construction of global institutions thus means replacing the GCC/GVC’s focus on economic structure with a spatialized, cultural political economic approach” (Quark, 2011, emphasis added). Still others accuse the GVC literature of being fatalistic in which MNCs determine the limits of development (Cramer, 1999, p. 1248). A second problem is that institutions have greater capacity to conform MNC behavior to national standards and laws in advanced countries “where national institutions are…powerful and highly standardized” (Whitley, 1996, p. 412). Thus, ‘strong’ versions of institutionalism are likely less robust in studies of developing countries, where much value chain research is focused (Gereffi, 2005, p. 169).

This paper’s empirical work on China strongly supports the view that domestic institutions deserve greater attention in value chain research. However, in contrast to varieties of capitalism assertions, there is little regularity or predictability in how institutions domesticate the effects of MNCs, even within a single industry – textiles – and a single country – China. Rather, the influx of foreign firms generated inconsistent and unpredictable synergies within China’s domestic economy, to which Beijing and local governments reacted in varied and often contradictory ways.

Furthermore, unlike much scholarship which understands national institutions as independently influencing industrial organization and firm behavior, I find that in China, they play an intervening but reactive role. This irregularity meant that Beijing was repeatedly compelled into action after local governments and producer groups
reacted to influxes of foreign capital. This lack of consistency in institutional responses created widely divergent outcomes across China’s producer groups and geographic regions. Thus, the paper argues for expanding the possibilities for integrating value chain and institutional approaches by resisting ‘either/or’ framing of the debate and by relaxing the strong determinism of institutional analysis.

These points are illustrated by comparing three sub-sectors of China’s textile agro-industries, the cotton, wool and silk value chains. In all three sub-sectors, the emergent structures created through the influx of foreign capital are identical. However, their impact on the three agro-industries varied widely, given differences in domestic institutions and the reactions of policy-makers, local governments and producer groups.

**The Emergent Structure of Foreign Capital in China**

Compared to earlier industrializers and current large emerging economies, Chinese industrialization is distinctive in the degree to which it has relied on foreign direct investment (FDI) and exports. After an initial wave of Hong Kong investments, China absorbed a second wave of FDI from Japan, Taiwan and South Korea, which were undergoing industrial restructuring from the mid-1980s. By the mid-1990s, China was absorbing one third of total FDI flows to all developing and transitional economies, causing China’s exports and imports to skyrocket from 25% to over 40% as a share of GDP between 1989 and 1994, and then to 65% by 2005 after WTO accession – outpacing other large, emerging economies (Naughton, 2007,p.
A close examination of FDI within industrial sectors, however, reveals a remarkable structure. Table 1 lists the share of FDI in all sub-industries for which there can be found distinct up- and downstream sectors – a value chain – at the four-digit level of Chinese industrial classification. Consistently across almost all industries – many of them light industries – foreign capital as a share of total assets is substantially lower in upstream sub-industries (such as cotton spinning), and then gradually increases with the highest levels in downstream industries (garments). More surprisingly, the basic pattern of foreign investments does not substantially change over time, during which one might assume Chinese firms would become more competitive, especially in the simplest of light industries (Dallas, forthcoming). Contrary to expectations, some downstream light, consumer goods industries became increasingly dominated by foreign firms between the 1990s and 2000s.

Table 1

Statist and institutional explanations are unable to account for these enduring structures in foreign capital, lending credence to an ‘emergent’ explanation. For instance, the consistency over time of the structure of foreign ownership is surprising given several dramatic domestic and international transformations that would normally foretell significant changes. First, it remains generally unaltered despite
China’s accession to the WTO in 2001, which emphasizes changes in policy on the ‘national treatment’ of foreign firms, as well as the lowering of tariffs and greater market access (Lardy, 2002). Second, this fifteen year period witnessed radical changes in ownership of state-owned and collectively-owned firms, which were either privatized, forced into bankruptcy or securitized and placed under state corporations (zhuada, fangxiao), generating under- and unemployment for tens of millions of state workers (xia gang) (Hurst, 2009; Yusuf, Nabeshima & Perkins, 2005). Political discrimination against privately-owned domestic firms was also mitigated as the Communist Party valorized private entrepreneurship (Dickson, 2003; Tsai, 2007). One might expect that these ownership transformations in China would shift opportunities for foreign and domestic firms. Finally, major changes in international regimes, such as the ending of the MFA between 1999 and 2005, did not alter the basic pattern of ownership in ways predicted.6

The structure of foreign investments in China also cannot be explained by activist government policy. It is well known that Beijing created an uneven policy playing field favoring foreign firms in order to attract investment to China. Foreign firms were granted privileged access to resources and favorable regulations, including generous tax holidays, profit remittance, access to foreign exchange, and favorable labor laws, especially for firms located within China’s diverse array of export processing zones (EPZ) (Gallagher, 2005; Howell, 1993; Huang, 2003; Pearson, 1992).

However, while government incentives might partially explain the aggregate entry of foreign investments, one would be hard pressed to explain the up- and
downstream structure of foreign investments through such incentivisation alone, something many other countries do too. That said, it is also well-known that China’s foreign trade ministry, currently called the Ministry of Commerce (MoC), served as a gatekeeper to the entry of foreign firms. For instance, it issues the *Catalogue for the Guidance of Foreign Investment Industries* – very detailed lists of industries in which foreign investments are categorized as ‘encouraged,’ ‘restricted’ or ‘prohibited.’ The *Guidances* are the best overall indicator of the warmth of Beijing’s welcome toward foreign capital in different industries.

Overall, the *Guidances* between 1995 and 2007 were neutral toward foreign investments in the light and consumer goods industries of Table 1, neither encouraging nor restricting them in the up- or downstreams. The only exceptions were the three most upstream sectors of the textile industries: cotton spinning, wool spinning and raw silk reeling. In these three industries, foreign capital was classified as ‘restricted’ until WTO regulations required their removal, which the MoC implemented in the 2007 *Guidance*. None of the *Guidances* since 1995 encourage downstream labor-intensive industries. Likewise, besides these three textile sectors, no other light industrial upstream sectors, such as the processing of rubber, timber, glass, plastics, and so forth, were restricted or prohibited. Furthermore, the next links after textile spinning, such as weaving, dyeing, and apparel were left unregulated, neither encouraged nor discouraged. Thus, there appears to be no systematic policy bias, positive or negative, against these industries to explain the unusual pattern of foreign investments. In fact, as a general rule, the *Guidances* are
heavily weighted towards ‘encouraging’ foreign investments, and among encouraged industries, they sought to promote higher technology sectors. The best that can be said about low-tech, labor-intensive industries is that they were ignored.

Overall then, the unusual pattern of foreign ownership in China, its repetition across many industries, its duration over time, and its persistence through dramatic international and domestic changes, all suggest that foreign capital inflows constitute a stable ‘emergent’ structure based on the uncoordinated decisions of tens of thousands of foreign firms across industries completely unrelated to each other. Institutions and government policy offer little explanatory leverage.

**Cotton, Wool and Silk Agro-industries in China**

Switching levels of analysis from firms to national development, how have these stable, emergent structures of foreign capital influenced China’s domestic economy and what roles have Chinese institutions played? To illustrate this, I compare the domestic production chains from raw agricultural commodities to final garments in the cotton, wool and silk sub-sectors of China’s textile agro-industry. Similar to other industries, the emergent structure of foreign capital across all three agro-industries is very similar (Table 1). Foreign firms are overwhelmingly concentrated in the garment/knitwear industries and heavily export-oriented, providing an enormous stimulus to China’s previously closed domestic textile and raw material sectors.

This triggered a range of reactions among Chinese farmers, firms and local
governments, most importantly the ‘commodity wars.’ The ‘wars’ were intense, prolonged and at times violent struggles over control of raw commodities (like cotton, wool and silkworm cocoons) waged between local governments, farmers and a growing class of private traders, all seeking to control the exchange of commodities between administrative regions within China (Watson & Findlay, 1992; Wedeman, 2003; Young, 2000). The underlying causes of the wars are complex, but they highlight a distinct institutional feature of China’s political economy – the autonomy of local governments, including provincial and county-level governments. In the 1980s, their autonomy grew, partly due to Beijing’s policy of ‘fiscal decentralization,’ in which local governments were given new opportunities for generating and retaining a growing share of tax revenues (Oi, 1992, 1999; Wong, 1992). The tax opportunities incentivized local governments not simply to stimulate local growth (as local governments in many countries do), but also to utilize government revenues to invest in and draw profits from ‘collectively-owned’ industrial assets, dubbed ‘local corporatism’ (Oi, 1999). Local industrialization and the commodity wars were transformative because the struggles over raw commodities rapidly (and illegally) bid up their domestic prices beyond international price levels, which squeezed industrial processors, undermining China’s competitive edge in textiles, and creating an industrial crisis.

In addition to triggering commodity inflation, the emergent structure of downstream foreign capital posed a further threat to Chinese textiles because far more readily than domestic garment firms, foreign firms flexibly sourced intermediate
inputs from international suppliers. Foreign firms are not only more knowledgeable about global sourcing, but, as mentioned, Beijing granted them preferential treatment in terms of import quotas and foreign exchange. As discussed below, in the 1990s, foreign garment firms turned towards sourcing textiles globally, just as China’s domestic textile industry was rapidly expanding to supply China’s garment export boom, contributing to the collapse of the domestic industry.

Put simply, the emergent structure of foreign capital set off a complex series of reactions, which when intermediated by Chinese institutions, engendered unpredictable reactions among different producer groups and geographic regions. These compelled Beijing to intervene in reactive ways that influenced the winners and losers of international integration. The following sections illustrate this through three rough, schematic histories of the cotton, wool and silk textile agro-industries, which are more thoroughly detailed elsewhere (Dallas, 2011). Holding technological and economic variables constant, the intra-industry comparison highlights how the emergent structure of foreign firms influenced China’s development; at the same time, in all three cases institutions do matter, but not in the consistent or regularized ways that institutionalists might expect international economic forces to be ‘domesticated.’

**Wool**

With China’s cautious ‘opening up’ over the 1980s, Hong Kong businesses were keen to exploit the enormous price differentials between Chinese and global wool prices. Unlike cotton and silk, wool was the least strategic textile and thus
Beijing was more liberal in accommodating Hong Kong interests. As such, Beijing expanded wool import licenses to coastal wool mills since they were best equipped to earn foreign exchange, with Hong Kong’s assistance as intermediary. However, in order to protect China’s herding population, Beijing instituted the ‘Three Selfs’ policy, which meant that inland mills were required to ‘self-produce, self-process and self-sell’ provincial wool supplies, as wool import licenses were disallowed to inland mills (Longworth & Brown, 1995). By 1985, market reformers had become ascendant over conservative factions in Beijing politics, leading to partial liberalization in several agricultural commodities, including wool. For wool, policy-makers ‘decentralized’ the power to price and regulate wool to provincial governments.

With decentralization and high foreign demand, local governments immediately erected trade barriers to gain control over their region’s wool, creating the phenomenon of the ‘wool wars’ (yangmao dazhan) (Findlay & Watson, 1992; Watson, Findlay & Du, 1989; Wedeman, 2003). Western provincial and county-level governments exerted their local monopsony power over their herdsmen by forcing the sale of wool to local government departments, most commonly the Supply and Marketing Cooperatives (SMCs), China’s state-run commodity collection stations. At the same time, neighboring local governments set up purchase stations across administrative borders and offered higher prices to entice farmers to cross-border sales. This usually led to counter-measures, sometimes even violence, as local police blockaded wool ‘exports’ (Wedeman, 2003).
The wars deepened the divisions between China’s eastern and western wool agro-industries as SMCs cut off the entire pipeline of wool supplying coastal wool mills. Fearing the coastal mills’ complete shutdown from lack of wool, Beijing was forced to open the gates to wool imports, which rose from almost nothing to 80% of national production (measured in tonnage) (UNComtrade; China Agriculture Yearbook [CAM], various years). Nearly as much wool was being imported as China’s hundred million sheep were producing each year.

Thereafter, China’s economy fell on hard times, suffering from hyperinflation, the Tiananmen Square crisis and a global recession, which caused the wool agro-industry to collapse. To maintain social stability in China’s fragile and poor Western pastoral regions where separatist factions are concentrated, Beijing recentralized domestic wool markets and purchased tens of thousands of tons of extra wool fibers.

However, with the return of economic vitality in 1992, there was every reason to think that local government wool wars would return. Fearing the consequences, Beijing allowed greater import flexibility and lowered wool tariff rates, thus integrating China’s wool agro-industry into global commodity networks. In no time, wool imports rose to 120% of domestic production, making China flush with wool fibers (UNComtrade; CAM, various years). So, while Beijing saved the herders in 1989 to preserve social stability during a severe political crisis, by 1992 they exposed herders once again to international wool markets.

Normally, this liberalization would have been beneficial to inland mills for
whom imports were banned under the ‘Three Selfs’ policy. However, Beijing simultaneously granted foreign garment manufacturers liberal access to imported wool textiles, which led to China’s deeper integration with East Asian textile production networks. Between 1987 and 1996, wool yarn imports rose from 15% of total domestic production to 25%, and wool cloth imports rose from around 2% to 10% (China General Administration of Customs [CGAC], various years; China Textile Industry Yearbook [CTIY], various years; UNComtrade). In fact, these figures significantly underestimate the influx of foreign wool textiles because they are measured in kilograms, which yield a lower figure than if measured by value.

How did this institutional ‘delinking’ of regional wool economies affect herders, industry and workers in inland and coastal regions? Take for instance the prefectural region of Yikezhao in Inner Mongolia, which is a major region of sheep herding in China. After the initial international integration of China’s wool industry, the share of households classified as ‘herding’ (mumin) doubled from 11% to 22% (Yikezhao Statistical Bureau [YSB] 1997, p. 97). Furthermore, before 1986, herders were consistently making between 50% and 100% more in income per household than agricultural families in the Yikezhao region, and an equivalent amount as urban residents in the prefectural capital city of Dongsheng (YSB, 1997, p. 184). By contrast, the subsequent international integration of foreign garment manufactures caused the terms of trade to become permanently reversed against herders, as their relative incomes were cut in half by 1991 compared to Yikezhao farmers and urban dwellers. Furthermore, herding household real income declined for over half a decade,
and took almost a full decade to return to their pre-recession highs – a lost decade for herding families (YSB, 1997, p. 348, 379, 417, 455, 493).

These deteriorating terms of trade were not unique to the Yikezhao region. Nearly identical income trends can be found in other major sheep and goat herding regions of China including in the Chifeng region of Inner Mongolia, the distant pastoral regions of Sunan and Dunhuang in Gansu province, and Cabucaer and Hebukesaier in the extreme northwest of Xinjiang province (Longworth & Williamson, 1993, p. 102-03, 132, 161).

Turning to industry, a similar shift in the terms of trade occurred between the inland and coastal regions. Through the mid-1980s, wool yarn production grew rapidly among both inland and coastal mills alike. However, despite China’s feverish expansion of garment exports, the fortunes of coastal and inland textile mills diverged dramatically starting in 1987. Coastal mills’ wool yarn production expanded by seven times from around 500,000 tons to over 3.5 million tons by the mid-1990s; by contrast, inland mills de-industrialized, falling from 240,000 to 160,000 tons, which continued even after China’s WTO entry and MFA phase out, dropping to a mere 50,000 tons – a period when China’s textile and garment industries gained huge global market share (CTIY, various years).

China’s wool agro-industry offers our first illustration of how the emergence of foreign firms in China’s downstream export garment sector triggered latent institutional capacities and compelled Beijing to remold the upstream agro-industry. In combination, the effects of foreign firms, domestic institutions and Beijing’s
counter-measures shaped the winners and losers among producer groups and geographic regions. These outcomes differed markedly, however, in cotton and silk.

**Cotton**

The cotton agro-industry does not differ from wool in terms of the basic triggers of domestic transformation, including the emergent structure of foreign garment firms, their stimulation of China’s upstream agro-industries, the reactions of local governments in waging ‘cotton wars,’ and the international sourcing of textiles by foreign firms. The differences stem from the institutional structure, in which at every node along the cotton production chain, different constellations of government agencies and ministries heavily intervene.

An important trigger of transformation was the massive expansion of industrial capacity to satisfy export demand for both cotton textiles and finished garments. Between 1987 and 1991, an unprecedented sixteen million cotton spindles were added – an astounding twelve times more spindles than India added over this same period, even though the countries each had about 25 million installed spindles in 1987 (International Textile Manufacturers Federation, 1986, p.11, 1991, p. 11). This massive expansion triggered intensive struggles over control of China’s cotton harvest, creating the cotton wars (*mianhua dazhan*), and after pricing changes, huge cotton harvest gluts as local governments and farmers simultaneously rushed into cotton (Alperman, 2010; Wedeman, 2003; Zhang, Lu, Sun, Findlay & Watson, 1996). Unlike in wool, however, attempts at cotton liberalization were always
reversed as Beijing unfailingly supported cotton farmers over other downstream interests, by means of state planning, fixed prices and subsidies – at great costs to central coffers (Blecher & Wang, 1994; Alpermann, 2010). The State Council and central ministries, often at odds with provincial governments, spent the next decade trying to bureaucratically balance supply and demand through spindle elimination and stimulation of fiber production (Dallas, 2011).

In contrast to cotton farmers, the fate of China’s cotton textile industry was quite different – inexorably squeezed between cotton farmers and foreign garment exporters. On the one hand, the cotton wars and consistent government support of farmers caused cotton prices to rise from 26% below world prices to 1.5% above world prices (National Development Planning Commission, various years; Cotton World Statistics, various years). At the same time, China’s cotton quality deteriorated due to the erosion of China’s state-run commercial system and agricultural extension services, as local governments and private traders battled for supplies.

Rising prices and declining quality led foreign firms rapidly to shift to imported textiles. Between 1987 and 1996, imported cotton textiles (yarn, cloth and dyed cloth) rose from less than 3% of total domestic production to between 11% and 16%; more significantly, chemical fiber cloth imports rapidly replaced cotton fibers by rising from similarly low levels to nearly 40% of total domestic production, while unprocessed chemical fiber imports doubled their market share over this period (CGAC, various years; CTIY, various years; UNComtrade). Measured in tonnage, these figures again underestimate the true shift towards imports.
Squeezed at both ends, by the late 1990s, China’s cotton textile firms were utterly devastated, teetering on the verge of bankruptcy, save for government subsidies. The days of reckoning occurred from the mid 1990s to early 2000s when Beijing sought to prepare the industry for WTO entry and the phasing out of the MFA. Over two million workers were laid off in cotton textiles alone, as innumerable firms were pushed into bankruptcy, forced to downsize, or revamped using foreign machinery. At the same time, Beijing had to comply with cotton liberalization agreements in WTO protocols (Alperman, 2010).

These institutional transformations in agriculture and industry had widely differing effects on China’s cotton cultivating and manufacturing regions. As a general rule, prior to WTO accession and the phase out of the MFA – and unlike in the wool agro-industry – so long as China relied on its domestic harvests as the principle source of raw cotton, then cotton textiles manufacturing remained clustered in provinces with control over cotton harvests. Thus, it was the cotton-cultivating provinces that maintained the most vigorous cotton textile industries, regardless of their location in inland or coastal China.

For instance, with cotton textile’s crisis, between 1995 and 1998 alone, 27.5% of the national workforce, or about one million jobs, were eliminated. However, non-cotton provinces bore the brunt: inland non-cotton provinces lost a hefty 38% of their workforce and coastal non-cotton provinces lost 31.5%. By contrast, inland cotton-growing provinces surprisingly experienced the least severe attrition with slightly less than 19% of jobs lost, whereas coastal cotton-growing provinces shed 24%
However, with WTO cotton protocols and the phase out of the MFA, China’s cotton imports skyrocketed from a then record 700-800,000 tons in the mid-1990s to an astounding 4 million tons in 2005. This new era of partial liberalization transformed the textile industry by severing the bond between regional cotton cultivation and textile manufacturing. Between 1998 and 2008 both cotton and non-cotton inland provinces continued to shed workers -- an additional 15% and astonishingly 53%, respectively. In stark contrast, coastal provinces dramatically reversed their hemorrhaging of textile jobs, with a 71% gain in cotton-cultivating coastal provinces and a staggering 229% gain in non-cotton coastal provinces (ACMR, various years).

Once again, we see how the emergent structure of foreign capital set off a series of unintended and often wild effects through China’s institutions, compelling vigorous reactions by Beijing. However, the interaction between foreign firms and China’s institutions created quite different outcomes in cotton, as it was the millions of textile workers and their factories that absorbed the brunt of the assault, by being ‘squeezed’ between contrary forces in cotton agriculture and foreign firms. This is most ironic given that Chinese textiles ought to have been a primary beneficiary of China’s booming export-oriented garment manufacturing.

Silk
Silk offers a final variation on the theme in which emergent structures of foreign capital impose varied pressures on domestic producers, while domestic institutions and policies intervene, but in ways unlike cotton or wool. Unfortunately for China’s silk agro-industry, foreign silk firms in China attracted unwanted attention from US and EU trade regulators, who determined China’s fate.

Prior to the cocoon wars, a stable international division of labor had existed in silk: China supplied most of the world’s raw silk and fixed global prices, while European and Japanese processors manufactured silk goods. China was able to ensure fixed prices because it had retaken Japan as the world’s largest producer of raw silk, and by the 1990s produced over 75% of world output, dominating 80-90% of world trade (China Silk Association, 2000, p.569).

A second trend over the 1980s was the rural re-industrialization of reeled silk which became clustered in cocoon-cultivating regions. Intervening between rural agro-industrial clusters and exports was the monopoly state trading corporation, China Silk. Although in outward appearances China Silk looked like any other state trading company, it differed in regulating the entire agro-industrial chain from the procurement of fresh cocoons to the production of final goods, and domestic and foreign trade (Textile Asia [TA],11/1982, p. 17-23). Furthermore, given silk’s sole utility as a foreign exchange earner, Beijing applied its most stringent level of state regulatory controls over cocoons, called ‘Category One’ commodities.

In combination, the conditions were set for the cocoon wars. First, rural clusters of silk agro-industries were linked into exports through local branches of China Silk.
Second, with the advanced countries revived from the 1980s recession, luxury goods like silk were in high demand, and foreign processors could turn only to China to feed this demand. Finally, silk was not regulated under the MFA, so no quota limits constrained their export. All that was needed was a spark to ignite the wars.

In 1987, in order to move downstream into more time-sensitive products and create better linkages between export factories and their foreign buyers, China Silk was disbanded, foreign trade was decentralized, and the local branches of China Silk were empowered to conduct trade independently. The cocoon wars were battles over which local foreign trade bureau could most readily serve these global markets.

Directly linked into international markets, from 1985 to 1994, cocoon cultivators feverishly expanded their plantations and improved yields of mulberry trees, greatly increasing cocoon output each year. In lock step, co-clustered industrial reelers expanded capacity to process the outpouring of cocoons.

The changes were a two way street, however. Since China was a near monopoly supplier of raw silk, China’s internal wars rapidly bid up global prices; thus, European and Japanese industrial processors also had to be willing to sustain this buying frenzy. From 1987 to 1989, foreign buyers doubled their gross purchase of raw silk, and unit prices doubled.

The turning point came when China overturned the global division of labor by encroaching upon the downstream industries. This occurred after the bursting of the Japanese economic bubble and the onset of a new global recession in 1990. As global
demand faltered, Chinese processors scrambled for other outlets to utilize their newly installed industrial capacity.

They did so with the help of foreign garment manufacturers, using Hong Kong and American retailers as intermediaries. Together, they moved China into downstream manufacturing by marketing to middle class consumers in advanced countries. For instance, designers like American Robert Stock and others explored new uses for silk, such as sand-washed silks, since silk now could be sourced cheaply and in large quantities from China – also a by-product of the cocoon wars. Furthermore, without MFA quotas, there were no barriers to the quantity or types of silk goods that China could export. Thus, whereas in the late 1980s, raw silk constituted about half of China’s silk goods exports, between 1990 and 1994, silk garment exports quadrupled from around $600 million to $2.5 billion, while raw silk exports declined (CSA, 2000, p. 531; UNComtrade).

China’s movement into downstream markets overturned the traditional international division of labor, creating much angst among European manufacturers. During international conferences organized by the International Silk Association, Italian manufacturers and industry representatives pleaded with the Chinese representatives not to undermine the entire industry (International Silk Association, 1992). Then, in a move that took even Hong Kong traders by surprise, between 1993 and 1994, the EU and the US imposed quota limits on Chinese silk blend cloth and garments (Li, 2006; TA, 2/1994, p.6, 4/1994, p.15). While clearly violating several articles of the MFA, free trade in silk was ended (TA, 4/1995, p. 10-11).
China’s silk agro-industry collapsed and its effect reverberated indiscriminately across agriculture and industry, coastal and inland provinces. Despite the many years of dedicated investments in cultivating mulberry plantations, by 1999, 647,000 hectares of mulberry trees, or 52% of China’s total plantation acreage was uprooted and destroyed, something never before seen (CSA, 2000, p. 468). Reelers completely scrapped their machinery, and within five years of 1994, over one million silk industrial workers – almost two-thirds of the total workforce – were laid-off from the peak of employment in 1994 (Wang, 1999, p. 474). China’s silk agro-industry has never fully returned to its peak years in the 1990s.

**Conclusion**

Value chain literatures have been criticized for not fulfilling their original promise of offering an alternative approach to national development by bridging the micro-macro gap. This paper argues that the central concept of the literature – firm power – is too narrowly defined, thereby artificially inhibiting resolution of the aggregation problem and making inferences about development.

The concept of ‘emergence’ straddles this gap. At one level of analysis, firms remain the primary units of analysis and act in agentic-strategic ways, which is a distinguishing feature of value chain literature. But, firm behavior and decision-making can also create emergent structures at a macro-level which are both unintended and unpredictable *ex ante*. That is, the most consequential results of the agentic-strategic actions of firms are not necessarily the original, intended goals of the
agents themselves; rather, they are the emergent by-products of their action, creating stable and self-enforcing structures. Thus, the ‘circle is squared’ in that power is simultaneously conceived of as agentic-strategic and non-agentic when applied at different levels of analysis, with important implications for development.

In this paper, the emergence of foreign firms in China created a distinct up-downstream industrial structure. These emergent structures were common across completely unrelated industries, endured over time, and triggered latent institutional capacities and reactions across China’s domestic value chains. Comparing across three textile sub-sectors, the emergent structure of downstream foreign firms occupied a pivotal position between the domestic and global halves of the value chains. First, they invigorated China’s upstream sectors, which triggered local governments to exert their institutional capacities, creating the commodity wars. Second, foreign firms flexibly sourced intermediate goods which de-linked the textile-garment nexus and contributed to the collapse of China’s textile industry.

However, despite this uniformity across nominally identical sectors, the ultimate outcomes varied widely, due to the intervening roles of institutions – a major lacuna of value chain research according to institutional critics. Global economic forces were filtered through a variety of institutions, including local governments, SMCs, industrial clusters and organizations like China Silk, which in turn, often compelled Beijing to react. As institutionalists correctly argue, the influences of global economic forces were powerfully ‘refracted’ by domestic institutions. However, contrary to their predictions, China’s institutions produced outcomes that were neither
consistent nor predictable, and they often failed to ‘domesticate’ the impact of the emergent structure of foreign capital. As such, stronger versions of institutionalism which understand them as internally consistent and complementary ‘systems’ with regularized and predictable outcomes are less useful to value chain research, especially in developing country contexts.

More broadly, this paper suggest that contemporary processes of development and interactions between fragmented production, institutions and development are significantly more ‘messy’ than commonly understood. Strictly firm-level analysis can create a myopia fixated only on the strategic behavior of firms. This may blind scholarship to development outcomes that ‘emerge’ from human actions but not from human design. By their nature, these social phenomena are less easily identified empirically, but are no less consequential. Likewise, varieties of capitalism analysts need to consider the irregularities and poor complementarity of institutions, especially in developing countries, where institutions are less likely to be internally coherent or mutually re-enforcing. Being attuned to non-agentic and emergent outcomes – unintended yet enduring and self-enforcing – may offer a better reflection on the challenges of development.
Acknowledgements:
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Notes
1 For a small sample of foundational works and overviews across disciplines, see, Arndt & Kierzkowski, 2001; Bair, 2005, 2009; Berger 2005; Borrus, Ernst & Haggard, 2000; Feenstra, 1998; Gereffi, Korzeniewicz & Korzeniewicz, 1994; Krugman, 1995; Sturgeon, 2002.
2 This differs from the multiscalar territorility of economic geographers (e.g. Dickens, et al., 2001).
3 See Kaplinsky and Morris (2001) for a useful handbook on value chains, rents and measurement issues.
5 For exceptions, see Breznitz & Murphree, 2011; Steinfeld, 2004, 2010.
6 The ending of quotas opened new opportunities, presumably allowing less sophisticated domestic firms to enter export markets. See Yoffie 1983; for an application to China, see Moore 2002.
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Table 1: Foreign Assets as a Share of Total Assets by Sub-industry

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<td><strong>Grain Milling</strong></td>
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<td>Grain Milling</td>
<td>5.8%</td>
<td>10.4%</td>
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<td>Rice/Flour Products</td>
<td>27.5%</td>
<td>14.8%</td>
<td>19.3%</td>
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<td>Starch Products</td>
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<td>37.8%</td>
<td>33.8%</td>
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<td>Baked Goods</td>
<td>44.9%</td>
<td>62.5%</td>
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<td><strong>Sugar</strong></td>
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<td>Sugar Processing</td>
<td>3.7%</td>
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<td>Candy, Chocolate</td>
<td>40.4%</td>
<td>71.8%</td>
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<td><strong>Meat</strong></td>
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<tr>
<td>Livestock Slaughter</td>
<td>1.3%</td>
<td>15.6%</td>
<td>12.7%</td>
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<td>Canned Meats</td>
<td>9.0%</td>
<td>26.2%</td>
<td>25.7%</td>
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<td>Meat Products</td>
<td>21.1%</td>
<td>22.2%</td>
<td>47.7%</td>
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<td><strong>Cotton Textile-Garments</strong></td>
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<tr>
<td>Spinning/Weaving</td>
<td>10.3%</td>
<td>18.9%</td>
<td>18.4%</td>
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<td>Dye/Printing</td>
<td>31.5%</td>
<td>39.9%</td>
<td>40.3%</td>
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<td>Knitwear</td>
<td>36.4%</td>
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<td>Garments</td>
<td>46.1%</td>
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<tr>
<td>Cloth Shoes</td>
<td>37.2%</td>
<td>51.5%</td>
<td>43.7%</td>
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</tr>
<tr>
<td>Hats</td>
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<td>62.2%</td>
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</tr>
<tr>
<td><strong>Wool Textile Garments</strong></td>
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</tr>
<tr>
<td>Tops</td>
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<td>35.5%</td>
<td>31.2%</td>
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</tr>
<tr>
<td>Spinning/Weaving</td>
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<td>30.2%</td>
<td>24.2%</td>
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</tr>
<tr>
<td>Dye/Printing</td>
<td>47.9%</td>
<td>67.8%</td>
<td>51.0%</td>
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</tr>
<tr>
<td>Knitwear</td>
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<td>45.7%</td>
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</tr>
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<td><strong>Silk Textile-Garments</strong></td>
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<tr>
<td>Spinning/Weaving</td>
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</tr>
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</tr>
<tr>
<td><strong>Leather Goods</strong></td>
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<tr>
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</tr>
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<td>Leather Luggage</td>
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<tr>
<td><strong>Fur Goods</strong></td>
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Sources: University of Michigan, China Data Online; AMCR, 1997; Office of the State Council, 2006.