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0521622093 - Emergent Economies, Divergent Paths: Economic Organization and International Trade in South Korea and Taiwan

Robert C. Feenstra and Gary G. Hamilton

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[More information](#)

## *Introduction*

This book began as a study of the business groups in South Korea and Taiwan, but has grown into something much more. Business groups – affiliations of firms, usually with some degree of common ownership – have been a favorite topic of study among a number of economists (who have had a principal interest in the *keiretsu* in Japan, but also the groups found elsewhere in Asia) and economic sociologists (including one of the authors), as well as political scientists and area specialists. In economics, the traditional explanation for these groups has been that they are a response to *market failure*; because the market for capital or entrepreneurial skill or some other asset does not function well within the economy at large, business groups allocate this scarce resource among affiliated firms, thereby substituting managerial initiative for market mechanisms. In political science, rather than being a function of market processes, these groups are explained as being the creation of government mandates, expressed by preferential policies toward business groups and the entrepreneurs who establish them. In sociology, the explanations also downplay purely market processes, but make these groups the outcome of background institutional environments in which political and social institutions place parameters on how economies operate.

On the surface, these various explanations have little in common. Obviously, they are all shaped by the disciplinary gaze of the analysts and the countries they observe. Economists first noticed business groups in developing countries (for example, Leff, 1978), where market failures at an early stage of development are a standard diagnosis, and business groups conveniently fit into that framework. Political scientists, and political economists more generally, working especially on South Korea (for example, Woo, 1991, Evans, 1995), like to identify “historical moments” (such as General Park’s meeting with Korean entrepreneurs in 1961) that define the relationship between the government and nascent groups, which then propel them onto the national stage. Meanwhile, sociologists have been

Cambridge University Press

0521622093 - Emergent Economies, Divergent Paths: Economic Organization and International Trade in South Korea and Taiwan

Robert C. Feenstra and Gary G. Hamilton

Excerpt

[More information](#)

## 2 *Emergent Economies, Divergent Paths*

satisfied with showing that the network structure of the groups mirrors the broader social structure of the societies in which they are found (for example, Hamilton and Biggart, 1988). Having found a “fit” for their theories in one country or comparison group, each discipline has been more or less content to apply the same or similar explanations to all other cases, which treats them as extensions of the initial countries studied.

As we progressed in our research, however, we discovered that business groups are shaped in quite different ways both *within*, as well as *across* countries, and that these differences are more than just a matter of degree. Any explanation for business groups must recognize and be able to explain these differences. Although some analysts noted cross-country differences and variously attempted to explain them, none of the typical explanations predicted or even recognized intra-country differences.

Cross-country differences are especially apparent for South Korea and Taiwan. In Korea, these groups are called *chaebol*, a term represented by the same Chinese characters as the infamous pre–World War II business groups in Japan, the *zaibatsu*, which literally means “money clique.” In Taiwan, the large groups are usually called *guanxi chiye*, which means “related industries.” Both sets of business groups consist of separate and independently constituted firms that are linked together by individual and family ownership. The *chaebol* of South Korea, however, are much larger and more vertically integrated than the business groups in Taiwan. They are also differently integrated into the rest of the national economy. Business groups in Taiwan are located primarily in the upstream markets and the service sectors, and thus are dependent on and integrated with other firms of all sizes in the Taiwan’s economy. In contrast, Korean *chaebol*, particularly the largest groups, form a more self-sufficient set of firms, integrating both upstream and downstream member firms into cohesive production sets. The differences in organization between these two very advanced capitalist economies are so pronounced and lead to such contrasting economic outcomes that they provide “natural” cases that can be used to test any theory of the business groups.

Developing an explanation for these cross-country differences was the initial goal of our research. Going into the research, we both felt that any valid explanation for business groups had to be sufficient at the economic level, but also take social and political factors seriously. We, therefore, avoided the temptation to appeal to existing theories, thereby pitting one discipline against another. Instead, we decided to start on the empirical end first. We were informed by detailed firm-level data on the business groups found in South Korea and Taiwan. Rather than analyzing their ownership structure or the purely financial linkages among firms, we instead focused on the *flow of intermediate and final goods among firms* within a group. For Korea, that information was available from a published source,

Cambridge University Press

0521622093 - Emergent Economies, Divergent Paths: Economic Organization and International Trade in South Korea and Taiwan

Robert C. Feenstra and Gary G. Hamilton

Excerpt

[More information](#)*Introduction*

3

whereas for publicly listed firms in Taiwan, this information was included in reports filed with the stock exchange.<sup>1</sup> Using this as a starting point, we began to analyze the internal structure of the business groups: what goods were sold between affiliated firms and how much of each. A significant portion of internal sales often go to trading companies found within many groups, but even after correcting for this, there is still an extraordinary level of *internal sales* within the groups, which is especially so for Korea. These are not final goods being sold to consumers, but rather, are intermediate inputs being produced by one firm in a group and then sold to another for further processing.

These intra-group transactions led us to our first, and most obvious, hypothesis, namely that business groups benefit from preferential access to intermediate inputs produced by their member firms and sold internally within the group. But in order for the group alone to benefit from such trades, it must be the case that these intermediate inputs are not sold on the same terms to firms *outside* of the business group. In other words, the groups must be either withholding intermediate inputs from external sale, or alternatively, charging prices for external sale that exceed the price when the input is transferred within a group. So the converse hypothesis is that the business groups are exercising *market power* in their sale of intermediate inputs to other groups. We found that this hypothesis fits the anecdotal evidence for both Japan and Korea. For Japan, there were allegations from American firms in the 1980s that the business groups were more likely to purchase internally, from their own firms, than buy from the United States and that this was a form of trade barrier between the countries.<sup>2</sup> For South Korea in the 1990s, the Korean Fair Trade Commission actively investigated and fined business groups who were found to treat their member firms preferentially – buying and selling at prices different than those used for non-member firms – which was treated as an unfair business practice.<sup>3</sup> Without passing judgment on whether this practice is “fair” or not, it demonstrates the privileged status that group membership bestows on firms through the trade of goods between them.

<sup>1</sup> As explained in Chapter 4, the primary source for the 1989 Korean data is the volume *1990 Chaebol Analysis Report* (*Chaebol Boon Suk Bo Go Seo* in Korean) published by Korea Investors Service, Inc. The intra-group transactions for Taiwan were collected from company annual reports for 1994 filed with the Taiwan stock exchange, and when that information was incomplete, additional information was collected by contacting the groups. These data on the Korean and Taiwanese business groups are freely available from the Center for International Data at the University of California, Davis, [www.internationaldata.org](http://www.internationaldata.org) (choose “Asia”).

<sup>2</sup> See the contrasting viewpoint of Bhagwati (1992), along with the empirical studies by Lawrence (1991) and Fung (1991).

<sup>3</sup> Some of these cases are described in Appendix B.

Cambridge University Press

0521622093 - Emergent Economies, Divergent Paths: Economic Organization and International Trade in South Korea and Taiwan

Robert C. Feenstra and Gary G. Hamilton

Excerpt

[More information](#)4 *Emergent Economies, Divergent Paths*

With this hypothesis – that group membership brings preferential access to goods produced by affiliated firms, and conversely, that sales outside the groups occur at higher prices – we had already veered far, far away from the conventional views of business groups in economics and elsewhere. While it is true that charging prices significantly above costs is sometimes considered a form of “market failure,” which the business groups can avoid in their internal sales, this *market power* explanation for business groups is mentioned only rarely in the literature.<sup>4</sup> An example is Ghemawat and Khanna (1998), who include it as one of four reasons for business groups to occur, whereas Khanna (2000) concludes that evidence on this explanation is “lacking.” It is perhaps understandable that for the “main bank” groups in Japan, the internal trade of *goods* would be treated as being of secondary importance to *financial flows* within the group. But that should not be true for the *vertical keiretsu* in Japan, such as Toyota and its suppliers, where the transfers of inputs within the group are of fundamental importance. Our theory is based on such internal trades of inputs within groups and is, therefore, particularly appropriate for vertically oriented business groups, but as will become apparent, our theory has a much broader applicability than vertical integration.

At a deeper level, the reason that our *market power* explanation for business groups has hardly been explored in economics is that current writing rejects the idea that businesses need to vertically integrate in order to obtain the gains from preferential trades between them. There is an old example (used by Stigler, 1951) of a coal mine charging monopoly prices to a downstream steel mill. Rather than paying monopoly prices, the steel mill would be more efficient if it purchased the coal at its true cost, which would automatically occur if the steel mill owned the coal mine, and then paid the mining costs. Therefore, a vertically integrated mill and mine would capture the gains from the internal sale of coal. But more recent scholarship (starting with Williamson, 1971, p. 115, for example) has questioned whether we really need *common ownership* of the mine and the mill to obtain the same result. Could not the steel company instead go to the mine owner and negotiate a contract whereby the true costs were paid per ton of coal and then some *additional* lump-sum payment is made to the mine owner reflecting the fact that the per-ton price is so low? By varying the prices and lump-sum payment in this contract, the two businesses ought to be able to obtain a result that mirrors the internal sale of coal under common ownership, but without the common

<sup>4</sup> Leff (1978, p. 667) concludes that “The institution of the group is thus an intrafirm mechanism for dealing with deficiencies in the markets for primary factors, risk, and intermediate products in the developing countries,” and describes how vertical integration can be used to offset high input prices. He is therefore including a “market power” explanation for group within his general “market failure” argument.

Cambridge University Press

0521622093 - Emergent Economies, Divergent Paths: Economic Organization and International Trade in South Korea and Taiwan

Robert C. Feenstra and Gary G. Hamilton

Excerpt

[More information](#)*Introduction*

5

ownership! In other words, the steel mill and coal mine do not need to merge; they can just write a contract to achieve the gains from the efficient trade of the coal between them.

If we apply this logic to business groups, it would suggest that they do not need to have common ownership in order to achieve the gains from efficient trade of inputs; some form of contract could be used instead. We have no argument with the idea that common ownership is not needed in business groups, and in fact, the degree of cross-ownership in some business groups is quite low. But, in this logic, the nature of the “contract” used between the firms is usually left unexplored, and it is unclear whether it is intended to be a written contract or just an understanding between firms. In either case, there must be a mechanism to *enforce* such a contract. This brings us to our second hypothesis: The crucial function of business groups is that they provide an *authority structure for enforcing efficient trades of intermediate inputs*. Again, this hypothesis has its converse. Efficient trades cannot be arranged between firms *outside* of the same business group; instead, these trades will occur at prices above costs, and will reflect the relative market power of the transacting firms. In a sense, we are fully agreeing with the aphorism of Adam Smith in the *Wealth of Nations* that “People of the same trade seldom meet together, even for merriment and diversion, but the conversation ends in a conspiracy against the public, or in some contrivance to raise prices,”<sup>5</sup> but are revising this to a context where *business groups* rather than handicraft trades provide the authority structure, as in the following: People of the same [business group] trade seldom meet together . . . but the conversation ends in a conspiracy against [other groups], or in some contrivance to raise prices.

With the twin hypotheses of market power and authority, we arrived at a working definition of business groups, but this working definition was still only a start. The next, and most important, question was to determine what the *organization* of these groups would be. If business groups provide member firms with preferential access to intermediate inputs, which are utilized in final goods that are sold to the public, then how large should such groups be, and what range of upstream and downstream products should they produce? These are difficult questions to address because the answer for one group *depends on what other groups are doing*. If it is the case that most business groups are charging very high prices for the external sale of their inputs, essentially relying on themselves for intermediate inputs in “one set” production systems, then that may well be the best strategy for any other group to take. But alternatively, if most groups are selling intermediate inputs at prices only slightly above costs,

<sup>5</sup> Adam Smith, 1776, *The Wealth of Nations*, Book 1, Chapter X (I.10.82).

Cambridge University Press

0521622093 - Emergent Economies, Divergent Paths: Economic Organization and International Trade in South Korea and Taiwan

Robert C. Feenstra and Gary G. Hamilton

Excerpt

[More information](#)6 *Emergent Economies, Divergent Paths*

then the best strategy for any other group would be to not only purchase these available inputs, but perhaps also sell its own intermediate inputs at moderate prices as well.

It takes a formal model to sort out what the best strategies for the business groups actually are, but the suggestions we are making turn out to be correct. There is a “reflexivity” in the structure of groups, whereby each group can only determine its prices for external sale of inputs by reference to what other groups are doing, and furthermore, the outcome of this reflexive process *need not be unique*. Rather, the formal model shows that there are a small number of alternative configurations of business groups that are stable and represent fully rational responses to all economic forces. In theoretical terms, this result means that capitalist economies do not necessarily converge toward one type of optimally efficient economic organization, but rather that a small number of differently organized economies are consistent with profit-maximizing theories of capitalism. The fact that there are only a few outcomes, each of which has a coherent structure, is an example of **emergence**: a well-ordered structure arising out of an interactive physical or social process.

Making this argument precise is the goal of the business group model we shall present in Part I. The model is both economic (each group pursues its best interests) and sociological (each group exercises authority over its members), but the finding that there are several, stable organizational outcomes goes beyond what either discipline has suggested. The “market failure” approach in economics and its more modern statement in transactions costs (Williamson, 1975, 1985) suggest that organizational outcomes are determined as an efficient response to the market failure. We make no such claim for the various outcomes from our model. Although one organizational outcome may be better than another, there is no reason to expect that it will be somehow “selected” because of its inherent efficiency. Sociologists following Granovetter’s (1985) “embeddedness” thesis reject the transactions-cost explanation for organization as too functionalist and see the organization of firms as being determined by a host of external conditions and relationships impacting firms. As a consequence, the set of conceivable organizational outcomes is presumed to be large, with the actual outcome being historically contingent and subsequently path dependent. The embeddedness approach, therefore, contains no conception of economic organization that would limit the range of possibilities, so much so that every society might have its own unique configuration of successful business groups. In contrast, our theory suggests that there are only a small number of organizational outcomes for configurations of business groups that are consistent with our assumptions that business groups be economically viable, in the sense that they are acting in their self-interest and that all markets clear simultaneously.

Cambridge University Press

0521622093 - Emergent Economies, Divergent Paths: Economic Organization and International Trade in South Korea and Taiwan

Robert C. Feenstra and Gary G. Hamilton

Excerpt

[More information](#)*Introduction*

7

Our theory, however, does not specify the reasons that one outcome is found in one society and not in another.

We are certainly not the first to argue that organizational processes may lead to multiple outcomes. A number of prominent economists (Anderson, Arrow, and Pines, 1988, Arthur, 1994, Arthur, Durlauf, and Lane, 1997, Greif, Milgrom, and Weingast, 1994, Greif, 1994, Krugman, 1996, Luhmann, 1995, McLaren, 2000, Rauch and Casella, 2001, Rosser, 1999), as well as a few sociologists (White, 2002) have theorized emergent organizational features in economies. We are among the first, however, to demonstrate that organizational features are central to an adequate understanding of the Asian economies and that the predictions of a relatively simple model can mirror the actual organization of groups in South Korea and Taiwan.

Arguing that economic organization is not fully determined by market forces begs the question of what factors do most contribute to outcomes. Marx's phrase about history applies here: People make history, but not as they please. Why do some sets of choices have large cumulative effects for economic development and other choices seem not to matter as much? As Arthur (1994, p. xiii) notes, "the key obstacle to an increasing returns economics has been the 'selection problem' – determining how an equilibrium comes to be selected over time when there are multiple equilibria to choose from." That is the question we address in Part II of the book.

In effect, we ask in Part II: Why does the model, outlined and tested in Part I, work so well? We begin by examining the initial decades after World War II and the Korean War. It was during these years that the economic organization of these countries formed into separate capitalist trajectories. The reasons for the divergence, however, are not apparent from a simple recounting of historical events. Indeed, feeling they know the development story, a generation of scholars has told the recent histories of these countries by privileging certain political and economic factors, and ignoring almost everything else. Our task, however, is to account for the development of organizational configuration of firms, and for this it is important to disentangle proximate events and unchanging conditions from underlying causes. We show from a comparative examination that the trajectories are not the inevitable outcome of cultural and social institutions, that, in other words, the Koreans and Taiwanese do not just act that way. Alternative outcomes are not only conceivable, but also actually exist in the form of economies of Mainland China and North Korea, as well as overseas economies in which Chinese and Korean operate as minorities. We also demonstrate from a historical comparison that these organizational outcomes cannot be accounted for strictly in terms of so-called "historical moments," decisive events that change all subsequent history. Rather, we show that the small differences existing between Taiwan and Korea in the

Cambridge University Press

0521622093 - Emergent Economies, Divergent Paths: Economic Organization and International Trade in South Korea and Taiwan

Robert C. Feenstra and Gary G. Hamilton

Excerpt

[More information](#)8 *Emergent Economies, Divergent Paths*

initial stages of development emerged, under *the influence of a globalizing world economy*, into progressively larger differences as development progressed.

The key point in the analysis in Part II is what caused these small differences to become large differences as time and development progressed. Continuing our empirical focus on the economic activity of business groups, rather than on existing theories of development, we closely examined what these two economies, and respective business groups, actually produced. This focus led us to a detailed analysis of exports, what we call “trade data archeology,” from 1972 until 1985. We show that in the earliest period of import data, from 1972 to 1975, South Korea and Taiwan exported similar and often identical products (as defined by the 7-digit product codes) to the United States, but after 1975, the two exports from the two countries began to diverge. South Korean exports are increasingly concentrated in categories consisting of products that could be mass-produced (for example, in garments: men’s shirts, as opposed to women’s fashion), and often, but not always, were final products ready for consumer use, such as microwave ovens, video machines (VCRs), tires, and automobiles. In contrast, within the same product categories, Taiwanese exports tended to be component parts, goods having short product cycles (for example, in garments: women’s clothes), and some fairly complex final products that can be assembled from standardized components (for example, computers, TVs, and bicycles), this in addition to a considerable range of relatively inexpensive, simply made consumer products.

This analysis of trade data reveals a sudden and accelerating expansion of U.S.-bound exports from South Korea and Taiwan that began in the late 1960s and that does not level off until the mid- to late 1980s, twenty years of extraordinary growth. The rapid emergence of these exports was highly concentrated in only a few product categories, and within these categories during this twenty-year period export products began clearly to diverge, as each economy began to specialize in particular types of production capabilities and the products compatible with those capabilities.

Our conclusion from this analysis of the export patterns is that, in contrast to the “supply side” narratives, it must be *increasing demand* that drove economic growth in South Korea and Taiwan. But what explains this rising demand? There is considerable, but very scattered material suggesting that the driving factors for Asian growth are to be located in the reorganization of the retail sectors in the United States, which resulted in an increasingly concentrated retail sector consisting of mainly new types of brand-name merchandisers (for example, Nike, The Gap) and discount retailers (Wal-Mart, Home Depot). In the literature, this trend is known as lean retailing, in which the merchandisers and retailers make direct

Cambridge University Press

0521622093 - Emergent Economies, Divergent Paths: Economic Organization and International Trade in South Korea and Taiwan

Robert C. Feenstra and Gary G. Hamilton

Excerpt

[More information](#)*Introduction*

9

(non-market) connections with manufacturing firms over which they can exert some control and pricing power. The important technological underpinnings of this “retail revolution” were inventory management systems based on computerization, scanning, and uniform product codes, and alongside these technological changes there was the establishment of major buyers for products from Asia, or “intermediary demand.” Our third hypothesis is that the emergent, and yet divergent economic organization in these two economies was due not to “market failures” or to government policies, but rather to the differential impact of increasing global demand, expressed by intermediaries.

To demonstrate these divergent patterns of growth, we examine the “global matching” between such retailers in the United States and firms in South Korea and Taiwan. In the initial years of growth, foreign contract buyers sought out, ordered, sometimes assisted, and often supervised the Asian manufacture of differentiated goods later sold in the United States. Rapidly expanding demand encouraged Asian entrepreneurs to use available resources to construct production networks that would satisfy and even increase demand for their products and that, through the use of authority and market power, would assure some measure of predictable continuity in the future. Their early successes in responding to big buyers, in turn, created additional demand for wider ranges and greater quantities of products. This self-reinforcing cycle of selective matching in the context of increasing demand for exports led very quickly to the development of divergent economic trajectories. Once economic players (for example, entrepreneurs as well as government officials) saw themselves as participants in a common economic arena, the economic organization of both countries became increasingly rationalized both organizationally and economically.

In the context of a rapidly emerging economic organization, we further argue that state officials unwittingly became a primary force behind rationalizing the *status quo* and fixing the economy in a trajectory of growth. They fashioned economic policies that sometimes succeeded and sometimes failed. The policies that worked to reinforce and rationalize the existing trajectory of growth usually succeeded, and the policies attempting to change the existing organization in substantial ways usually failed, sometimes disastrously. Most policies made no difference one way or another. As a consequence, the sum total of the governments’ efforts tended to encompass, encourage, and stabilize the existing patterns of organization and growth.

In summary, the business group model we present in Part I is substantiated by our analysis of trade flows in Part II. Linking these trade flows to the actions of retailers and other big buyers in the United States is needed to explain how the divergent economic organizations came to be

Cambridge University Press

0521622093 - Emergent Economies, Divergent Paths: Economic Organization and International Trade in South Korea and Taiwan

Robert C. Feenstra and Gary G. Hamilton

Excerpt

[More information](#)10 *Emergent Economies, Divergent Paths*

established in South Korea and Taiwan. Our approach in Part II is heavily empirical, relying on the most disaggregate trade statistics collected by the U.S. Customs Service, which have proven to be useful to a recent generation of trade economists and can hopefully be utilized by other analysts as well.<sup>6</sup> A specific hypothesis we can test using these data is that Korea has *less product variety in exports* than Taiwan. This hypothesis is implied by our theoretical model of business groups, and finds strong support when tested using the disaggregate U.S. import data from both countries. In many markets, Korea is exporting fewer products than Taiwan, but in larger volume. This hypothesis is consistent with the observation that the very large *chaebol* found in Korea have sought to be “world leaders” in particular products and dominate in those export markets, but that resource constraints in the economy put limits on the *overall number of products* that can be produced and exported. By devoting enormous resources to products such as microwaves, cars, and semiconductors, it is impossible that Korea can also fill all the smaller “niche” markets that are served so effectively by the Taiwanese firms.

In Part II we also draw on descriptions of the regulatory changes in the United States and evidence of network linkages between big buyers and exporters in Asia, and future research may be able to further quantify and document these linkages. This material all goes beyond the strict confines of our business group model, with its narrow focus on internal transactions within the groups, and it can be expected that future scholarship will formalize the influence of global demand on economic organization, using the hypotheses that we suggest. As we say in the concluding chapter, our research findings should lead to a reevaluation of the connection between local economies and global capitalism, in particular the developmental state theories of economic development.

We started our research with a goal to better understand Asian business groups. We ended with a desire to better understand how all economies, local and global, come to be organized and how they change over time. This is an elusive, difficult goal, for which this book is merely a first step. We believe, however, that it is an important step because it changes the focus of analysis away from separate and often contradictory disciplinary views to a more integrated perspective in which economics and sociology work hand in glove to create an informed interpretation of economic organization. In the next chapter, we outline the theoretical foundations for this integrated perspective.

<sup>6</sup> The U.S. trade data we utilize can be downloaded from the Center for International Data at the University of California, Davis, [www.internationaldata.org](http://www.internationaldata.org) (choose “Data”). See also the documentation in Feenstra (1996) and Feenstra, Romalis, and Schott (2002).