

Globalization and SMEs:
A Comment on Three Asian Experiences

Sumner J. La Croix*

Professor, Department of Economics
Professor, Population Studies Program
University of Hawai'i-Mānoa

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Abstract

This paper briefly discusses three case studies (Choi and Tcha 2005; Lin 2005; Motohashi 2005) of responses by small and medium-size manufacturing enterprises (SMEs) in Korea, Taiwan, and Japan to the rising tide of imports from China in their product markets. They find vastly different responses in each country, with some firms relocating plants to mainland China; others exiting affected product markets; and some maintaining home country production by moving up the product ladder and using new production technologies. This paper conjectures that outmoded production technologies may underpin the exit of Japanese SMEs from these product markets; considers the impact that potential impact of Chinese imports on Korea's attachment to a market economy; and finds that Taiwan's SME investments in mainland China have substantial political as well as economic roots. The long-run response by Northeast Asian SMEs to Chinese competition will, in all three countries, be closely tied to SME development (via in-house or cooperative R&D) or acquisition of rights to new products and technologies. I conclude that a better understanding of the public and private institutions structuring SME contracting vis-à-vis R&D projects and technology acquisition is vital to each country's development of effective policy responses to the meteoric rise of China.

Key Words: Globalization, SMEs, creative destruction, exports, imports, entry, exit

*La Croix mailing address: Department of Economics, 2424 Maile Way, Rm 542, University of Hawaii, Honolulu, HI 96822; tel: (808) 956-7061; e-mail: lacroix@hawaii.edu. I thank participants in the 2005 KDI/EWC Conference, Restructuring SMEs in the Age of Globalization, for their highly insightful discussions of this topic.

I. Introduction

Globalization is a fact of life for virtually all manufacturing firms in Northeast Asia.

Either firms have new, potentially profitable opportunities in foreign markets or they face new competition from foreign firms in their home markets. The rise of China and India has placed particular stress on manufacturing firms in developed and newly industrializing economies that use less-skilled labor but must pay relatively high wages. As the relative prices of their products fall due to increasing foreign competition, these firms typically face a stark choice: Change production techniques and product mix at home; join the competition overseas; or shut down.

The three papers discussed in this brief comment present three very different pictures of the response by small and medium enterprises (SMEs) in Japan, Korea, and Taiwan to the increase in competition in their product markets. This is not surprising, as the SMES in these countries have different industrial structures, histories, and regulatory environments. In Taiwan, SMEs have generally responded to the tide of Chinese exports (both in the Taiwan market and in their export markets) by opening thousands of new manufacturing plants in mainland China. Korean SMEs have had a more varied response to Chinese competition, with some firms closing down, others moving all or portions of their manufacturing operations to China, and another group upgrading their products and technologies. By contrast with both Korean and Taiwanese SMEs, Japanese SMES rarely respond to new competition by expanding production in foreign markets. Exit is their preferred strategy. This paper comment begins the search for the economic and political factors underlying the three very different reactions to competition from China. I conclude by emphasizing that the future success of SMEs in Northeast Asia will depend

on their development and acquisition of new technologies. Policy choices by regional governments will be better informed when economists better understand how SMEs choose between in-house R&D projects; larger portfolios of R&D projects undertaken in collaboration with other SMEs; and purchase of new technologies on the international market. A closer examination of the social institutions that facilitate R&D contracting among SMEs could be particularly productive.

At the outset, it bears noting that the authors of these three papers have adopted a somewhat narrow definition of SME globalization—the extent to which SMEs engage in foreign direct investment (FDI). While the FDI by SMEs is surely positively correlated with any more general measure of SME globalization, there are two other channels by which firms can realize opportunities in foreign markets: export and license (or sell) technology. Markusen (1995) makes the critical point that analysis of one mode of servicing the market can be misleading unless factors influencing the choice of other modes are taken into account. In sum, firms with high levels of exports (or technology sales) and low levels of FDI should also be considered highly globalized.

Firms also face a number of similar choices when they face additional competition in their home market. They can switch to a more capital-intensive production technology; they can produce a higher quality or more differentiated product; they can move all or part of the production process overseas; they can cease new investment and exit the market at a future date; or they can liquidate their investments and exit the market within a short period of time. Again, analysis of just one or two of these choices in isolation is likely to be misleading when SMEs have multiple options.

II. Three Different Asian Experiences

A. Japan

Kazuyuki Motohashi's paper (2005) considers how SMEs in Japan have responded to competitive challenges in the home market.¹ He begins by arguing that most Japanese SMEs only venture overseas when their largest corporate customer also ventures overseas. His data show that the share of total sales for large Japanese firms with global production increased substantially—to over 60 percent of total sales—between 1994 and 2002, while the share of Japanese SMES (defined as firms with no more than 300 employees or a 300 million yen capital stock) with global production also increased substantially over the same period—to a paltry two percent of total sales. Figure 9 in Motohashi's paper shows that over 80 percent of SME sales are by firms with only domestic production.

The orientation of Japanese SMEs towards the domestic market is remarkable, given the penetration that Chinese exports have made in Japan's manufacturing markets. One might have expected that the management of Japanese SMEs would have relocated their businesses to China to take advantage of the China's cheap labor and the industry-specific capital of Japanese management. The rare exercise of this option is puzzling, given its frequent exercise by managers in Korea and Taiwan.

Wilbur John Coleman, II (2005) presents one possible resolution to this puzzle. He (p. 4) notes that employment in Japan's services sector constituted just 54 percent of total employment in 1980, increasing to 64 percent in 2001. The percentage of workers in service employment in 1990 was the second lowest (with Australia the lowest) among

¹ All three chapters study SMEs in the manufacturing sector, and throughout this comment, "SMEs" refer to SMEs in the manufacturing sector.

high-income countries. The high proportion of workers left in the remaining sectors—manufacturing and agriculture—provides a hint that these sectors contained some manufacturing firms that were relatively high-cost and susceptible to import competition.²

If this conjecture—that a substantial percentage of Japan’s manufacturing SMEs are high-cost operations—is correct, it raises a deeper question: Why don’t these high-cost SMEs move their operations to China or India to take advantage of lower wages for unskilled labor? A conjectural answer is that their management and production technologies are outmoded—at least partially a consequence of low R&D spending by Japanese SMEs—and that foreign production with older Japanese technologies would not be competitive. An alternative explanation—older managers from long-established SMEs would rather stay in Japan than move or commute to China—is at odds with Japan’s investment ventures over the last 30 years (admittedly undertaken mostly by larger-scale firms) in both high-income areas (Canada, the United States, and Europe) and low-income areas (Southeast Asia).

B. Korea

In his oft-cited and sometimes read classic, *Capitalism, Socialism and Democracy*, Joseph Schumpeter developed one of the most famous concepts in economics: Creative Destruction. Schumpeter argued that political support for a market economy would always be tenuous because new products and new technologies—the *creative* wealth-creating impulses of a market economy—would drive out established technologies and products and *destroy* the wealth of their owners. Society enjoys a net

² Employment in “non-service” sectors in Japan fell from over 26.5 million workers in 1992 to roughly 24 million workers in 2001, while employment in the service sector increased from over 37 million to over 43 million workers over the same time period.

gain in wealth from the process of creative destruction, but the disparate results for particular individuals cause losers to lobby politicians—sometimes with considerable success—for social insurance against such losses. Provision of compensation saps, however, the incentives for creation of new technologies and products. Stripped of the benefits stemming from technological change, a market economy begins to be perceived as an excessively rigorous and risky mechanism for organizing production in a much more static economic environment. The stage is then set for a transition to a more socialist economy.

Yong-Seok Choi and Moonjoong Tcha (2005) document a remarkable example of Schumpeter's "creative destruction" among SMEs in South Korea between 2000 and 2003. The process of creative destruction in Korea was triggered by two externally generated changes: (1) the fall in the relative price of numerous manufactures due to increased import competition from Chinese firms; and (2) the improvement in the investment environment for foreign firms in China. Unlike Taiwan SMEs (discussed below), Korea's SMEs did not receive any special protections from Korea's government to shield them from the new flows of Chinese imports. They were exposed both to rapidly increasing import flows in given product categories and to the full blast of falling product prices that accompanied the new imports.

Choi and Tcha measure the impact of Chinese imports on Korean SMEs by using a modification of an econometric methodology developed by Barnard, Jensen, and Schott (2006). They uncover three major results. First, they find that Korean SMEs are extremely sensitive to competition from Chinese exports. The initial presence of Chinese exports seems to provide a signal that Chinese firms will expand their presence in the

industry and that product prices will fall. Second, the entrance of Chinese exports in a particular product category substantially increased the exit rate of Korean SMEs producing products in the same category. Third, increases in Chinese exports in a particular product category substantially increased the tendency of Korean SMEs to relocate their production facilities to China.

These findings—death and relocation of Korean SMEs in response to low-price Chinese imports—are coupled with the flip-side of changing relative prices: the entrance of new Korean SMEs and the expansion of existing Korean SMEs to export products to China. Some of the products being exported are intermediate goods being used by Korean firms which have relocated production facilities to China, but other Korean exports are due to rising Chinese incomes and an expansion in the variety and quality of goods demanded by Chinese consumers. Due to this surge in export flows, Korea, a country with just 47.7 million people, became the second leading exporter to China in 2003.³

An economist can only conclude that the responses by Korean firms to the trade-induced changes in relative prices and the Chinese investment environment have been substantial, remarkably rapid, and closely follow the responses predicted by modern trade models in which factors are mobile across industries and across countries (with the exception of less-skilled labor). Since the relative price declines are occurring in sectors in which Korea no longer has a comparative advantage (those which are more intensive in less-skilled labor), an economist might conjecture that overall Korean welfare is increasing. But Schumpeter's "creative destruction" thesis is also at work, with the

³ The population estimate is for 2003. Japan, Korea, and the United States were—in that order—the top three exporters of goods to China in 2003.

simultaneous creation and destruction of wealth creating political conflict and polarization in Korea. As changing trade flows from China create more relative price changes in Korea, Schumpeter's thesis will once again be tested, with observers watching to see whether fundamental changes in Korean economic institutions occur.

C. Taiwan

Chu-Chia Lin's (2005) analysis of Taiwan SMEs begins by emphasizing that Taiwan's large, capital-intensive firms have traditionally focused on the domestic market, while Taiwan's labor-intensive SMEs have traditionally focused on foreign markets. This pattern was in place even before Taiwan's opening to trade and investment with mainland China in 1987. As wages for less-skilled labor in Taiwan increased over the last 25 years, labor-intensive Taiwan SMEs reacted by moving their production facilities to Southeast Asia and China, adopting more capital-intensive technologies, and changing their product mix. This adaptation process is similar to the one identified by Bernard, Jensen, and Schott (2004 and 2006) for U.S. manufacturing firms facing import competition from low-wage countries during the 1990s and by Choi and Tcha for Korea SMEs (this volume).

Taiwan SMEs were less exposed to direct competition from imports from mainland China because Taiwan regulations prohibited imports (until the last few years) from mainland China in a wide variety of product categories. Nonetheless, since less-skilled labor-intensive Taiwan SMEs exported a large proportion of their output, these SMEs faced increased Chinese competition in foreign markets.⁴ Taiwan SMEs (and a few large firms) responded to the increased competition and to the lower wages of less-

⁴ In addition, foreign direct investment from China to Taiwan is prohibited, and China bans certain types of Taiwan direct investment, e.g. investment in China's banks.

skilled workers in China by investing in over 62,000 projects in mainland China between 1987 and 2004.

Chin argues that the responses by Taiwan firms to the new environment have not produced adverse effects for the Taiwan economy and implicitly argues that they have contributed to increases in welfare in Taiwan. He also argues that the inability of Taiwan banks and other financial institutions to open affiliates in mainland China has resulted in higher costs of finance for affiliates of Taiwan firms operating in mainland China. These firms tend to purchase intermediate inputs and services from other Taiwan firms operating in China because of the indeterminate legal environment for Taiwan firms operating in China and contracting with Chinese firms.⁵ Disputes with other Taiwan firms can be resolved by arbitration or in Taiwan's courts, while disputes with Chinese firms risk intervention from the Chinese government which cannot be countered by Taiwan's government. However, even if Taiwan firms are disadvantaged by China's investment restrictions on Taiwan financial institutions, it is important to understand precisely how assistance by the Taiwan government to Taiwan SMEs operating in China would resolve these problems and to have some inkling as to whether overall Taiwan welfare would increase as a result of such interventions.

III. Conclusion

SMEs in Taiwan, Japan, and Korea are facing increased competition from SMEs in China across a wide variety of product categories. There are some common responses in all three countries. Some firms, realizing that they cannot compete against low-price

⁵ Taiwan firms have access to China's courts and to arbitration services mandated in many contracts. They do not, however, have consular representation to intervene with the mainland China government if and when unfair actions are taken against them the government.

imports, are exiting the market. Other firms are switching to a more capital-intensive production process and into the production of more differentiated higher quality products. SMEs in Japan, unlike SMEs in Taiwan and Korea, are not responding by moving production facilities overseas. I conjectured above that this could be due to the use of outmoded technology by Japan SMEs, i.e., that moving production facilities overseas and using the existing technology would still result in marginal and average costs that were too high to compete in the global market. While the situation in Japan is the most extreme, economists and government officials in Taiwan and Korea are also concerned that SMEs may not be able to develop the technologies needed to compete in the next round of product upgrading. Calls for government assistance to subsidize R&D by SMEs are understandable.

Calls for government intervention in this realm need, however, to be prefaced by a greater understanding and more careful modeling of the particular problems faced by SMEs engaged in R&D activities. For example, in some fields, it may be the case that SMEs are unsuited for R&D work and new technologies will generally be purchased from firms specializing in their development. In this case, direct government subsidies to SMEs conducting R&D would be counterproductive. Alternatively, there may be some concern that the scale of some types of R&D activities would be too large for a single SME to conduct. Private contracting among SMEs may, in some cases, allow the pooling of investment funds in an industry research program, the fruits of which are made available to all firms participating in the program. In sum, before governments move aggressively to subsidize R&D by SMEs, it would be useful to identify and understand the particular problems faced by SMEs engaged in R&D; how government intervention

can potentially alleviate the problem; and some experimental or empirical evidence from home or abroad that such intervention works in some situations.

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