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# Trade, foreign firms and economic policy in Indonesian and Thai manufacturing

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ABSTRACT

This paper first examines the rapid growth and changing composition of manufactured exports in Indonesia and Thailand, highlighting the rapid growth of office and computer machinery and electric machinery, somewhat slower growth of non-electric and transportation machinery, as well as the low growth of previously large exports of textiles apparel. Second, the important contributions of foreign multinational enterprises (MNEs) to export growth in the machinery industries, particularly in electric, office, and computing machinery, are documented. Third, the paper describes trade policies in all these industries in some detail, emphasizing how low protection was a key facilitator of rapid export growth in the MNEs that dominated the electric, office, and computing machinery industry, while high protection reduced incentives to export among MNEs in the transportation machinery industry.



## 1. Introduction

The surge in exports of manufactured goods from Indonesia and Thailand that occurred in the late 1980s through the mid-1990s coincided with a sharp increase in foreign direct investment (FDI) in both countries. Several previous studies have indicated that multinational enterprises (MNEs) were the source of a large portion of the surge in manufactured exports and made important contributions to changes in export composition.[1] Trade policies both within these two countries and in countries to which they export also played an important role in the change in composition and growth of manufactured exports. Despite a slowdown in export growth that began in 1996 and continued into 1998 with the Asian financial crisis, neither country reversed its export-oriented trade-liberalizing reforms. After the crisis, many MNEs expanded their operations in Indonesia despite large withdrawals of net FDI (Takii & Ramstetter, 2005), and there was a boom of new FDI in Thailand in 1997–2001 (International Monetary Fund, 2005).

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[1] See, for example, James & Ramstetter (1997), Ramstetter (1997, 1998, 1999a, 1999b, 2002b) and Ramstetter & Takii (2006). Although this study covers the period through 2000–2003, it is important to note that many of the patterns observed in trade, protection, and MNE activity persisted in subsequent years. See, for example, Kohpaiboon & Ramstetter (2008) and Takii & Ramstetter (2007).

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In this paper, we explore the changes in exports and revealed comparative advantage in manufacturing industries in Thailand and Indonesia (Section 2) and document the role of MNEs in this process over the period 1987–2002 (Section 3). Then we detail the nature of trade policies in the industries studied (Section 4), focusing on how trade policy regimes have influenced MNE exporting behavior across industries.

## 2. Trade performance

Thailand and Indonesia were the hardest hit by the Asian financial crisis of 1997–1998. Nonetheless, exports continued to grow in 1997, declined relatively little in 1998, recovered quite strongly through 2000, and stagnated somewhat in 2001–2002 (Table 1). Exports of manufactured goods were a key driver of this export expansion, growing extremely rapidly between 1985–1987 and 1997: a 4.5-fold increase in Indonesia and 7.5-fold in Thailand. As a result, the share of manufactures in total exports rose from 27 to 43% in Indonesia and from 50 to 71% in Thailand. After the crisis, exports of manufactures continued to increase rapidly through 2000, when the share of manufactures to total exports peaked at 58 and 76% in Indonesia and Thailand, respectively. Between 2000 and 2002, the value of manufactured exports declined more in Indonesia (10%) than in Thailand (3%) but the share of manufactures in total exports fell more in Thailand (to 71%) than in Indonesia (to 56%).

Textiles and apparel manufactures have been important exports in both countries but their shares of manufactured exports declined prior to the global liberalization that began in 1995 with the phased implementation of the 10-year Agreement on Textiles and Clothing (ATC).[2] The combined share of these products in manufactured exports was one-third or more in both countries in 1985–1988 but fell to 23% in Indonesia and 14% in Thailand by 1997 (Table 1). After the crisis, this share continued to decline in Thailand (to 11% in 2000–2002) but did not change much in Indonesia. Apparel exports were much larger than textiles exports in both Thailand and Indonesia through 1989–1992 and in Thailand thereafter, but textile exports grew rapidly in Indonesia and were of similar magnitude from 1997. Indices of revealed comparative advantage (RCA) were always well above unity for apparel in both countries (a minimum of 1.6) and for textiles in Indonesia from 1989 to 1992 (a minimum of 1.4). This suggests that both countries were very competitive in world export markets for these products. However, the RCA index for Thai textiles declined to only 1.1–1.2 in 1989–2001 and below 1 in 2002, most likely reflecting a long-term trend toward reduced competitiveness in this Thai industry.

In contrast to textiles and apparel, exports of office and computing machinery and other electric machinery grew extremely rapidly in both countries during this period. Combined, these two closely related categories accounted for only 3.7% of Indonesia's manufactured exports in 1989–1992; however, this share had trebled in 1993–1996 to 12% and doubled again to 23–25% in 2000–2002 (Table 1). Corresponding shares were initially much larger in Thailand, but they also increased very rapidly, from 20% in 1985–1988 to 37% in 1993–1996 and then to 42–45% in 1997–2002.

Exports of office and computing machinery were initially very small, less than 1% of manufactured exports in Indonesia through 1989–1992 and 3.6% in Thailand in 1985–1988 (Table 1). However, these shares grew rapidly to peaks of 8.3% in Indonesia in 2000 and 20.0% in Thailand in 1998. Subsequent shares were somewhat lower, but remained higher than in previous years. RCA indices for office and computing machinery also increased rapidly, recording peaks in 2000 for Indonesia and 1998 for Thailand. These indices were always well below unity in Indonesia but they exceeded 1.7 in Thailand from 1989 to 1992, reflecting Thailand's strong competitive edge in the labor-intensive assembly of many products in this category.

Other electrical machinery consists primarily of radios, televisions, recording equipment, telecommunications apparatus and a large number of parts used in electric machinery and other industries. This category was also relatively small in Indonesia as late as 1989–1992 when it accounted for 3.3% of manufactured exports; but its share rose rapidly to 10–12% in 1993–1999 and to 17–18% in 2000–2002 (Table 1). Corresponding RCA indices also increased rapidly and steadily in this category, but again remained below unity. Thus, although Indonesia's exports of office and computing machinery and other electric machinery have grown extremely rapidly, Indonesia has yet to develop a relatively large competitive edge in world export markets for these products. On the other hand, in Thailand, other electrical machinery already accounted for 17% of manufactured exports and had an RCA index that slightly exceeded unity in 1985–1988. The share of manufactured exports subsequently increased to 26% in 1999 and 2001–2002, with a peak of 28% in 2000. Corresponding RCA indices were also well above unity from 1989 to 1992, but did not reach the high levels seen in office and computing machinery.

Unlike the four categories examined above, non-electric machinery and transportation machinery are two categories in which both Indonesian and Thai RCA indices remained far below unity throughout the period studied. Indonesian exports in both categories were very small. Non-electric machinery never accounted for more than 3.3% of manufactured exports (in 2002) while the share of transportation machinery peaked at 3.2% in 1998 (Table 1). However, the share of non-electric machinery increased rather steadily while the share of transportation machinery fluctuated erratically after 1993–1996, and RCA indices were extremely small (a maximum of 0.2) in both categories. In Thailand, exports of non-electric machinery were larger and increased to over 7.1% of manufactured exports in 1997, but fluctuated somewhat without a strong trend thereafter. In contrast, there was a more continuous upward trend in the share of transportation machinery, which reached 4.1% in 1997 and peaked at 5.6% in 2001. The upward trend in the share of motor vehicles in Thailand's exports (2.7% in 1997

[2] The ATC features a four-stage process of quota liberalization (growth) and integration (elimination of quotas) over a 10-year period. However, much of the liberalization was "back-loaded" to latter stages (James, Ray, & Minor, 2003).