

Structural Characteristics of Japanese Investment in Indonesia¹

J. Thomas Lindblad

Abstract

The role and size of Japanese direct investment in Indonesia between the era of Orde Lama under Former President Soekarno and Orde Baru under Former President Soeharto was significantly changed. There was a rapid increase in Japanese direct investment starting in the Soeharto era. However a comprehensive historical survey is still lacking. (at any rate in the Indonesian or English language). This article hopes to fill this gap.

This article provides a historical survey of the rise of Japanese direct investment in Indonesia since the late 1960s. It discusses the historical roots and the various phases of expansion provide information on the size and distribution by sector and discuss the major Japanese investors and their Indonesian counterparts. This historical survey is divided into four distinct phases: rapid expansion (1969-1976), relative stagnation (1977-1988), renewed expansion (1989-1997) and adaptation to the Asian economic crisis and its aftermath (as from 1998). Continuity has been conditioned by the general political climate in Indonesia and long-run changes in complementarities between the two countries rather than by short-run changes in foreign investment regulations.

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1. INTRODUCTION

By the end of the twentieth century, the Japanese business community in Indonesia embraced more than 750 individual enterprises offering employment to some 220,000 Indonesians and almost 2,300 Japanese expatriates (Yamashita, 2000: 251). This is a far cry from the situation in the late 1950s when a limited number of Japanese trading companies allegedly competed fiercely with one another for profitable contracts and the local Japanese community counted at most 200 individuals, including Sukarno's third wife, Dewi Ratna Sari (*Indonesia Raya*, 24 January 1970; Nishihara, 1976: 17). The spectacular development of Japanese investment in Indonesia under Suharto's *Orde Baru* has been discussed in several important articles focusing on short-term change or the issue of technology transfer (Thee, 1984; Kinoshita, 1986; Thee, 1994). Yet a comprehensive historical survey is still lacking, at any rate in the Indonesian or English language. This article hopes to fill that gap in the literature.

The literature on foreign investment in Indonesia tends to rely heavily on macro statistics contained in publications by the Indonesian Coordinating Board of Capital Investment, BKPM (*Badan Koordinasi Penanaman Modal*) or statistical institutions in countries of origin. Firm-specific data on the micro level are scarcely, if ever, used. This article makes use of both kinds of data. Basic firm-level data were drawn from consecutive issues of a JETRO directory of Japanese-affiliated firms in Indonesia (JETRO, 2000; JETRO, 2001a) and supplemented with information from a Japanese-language listing of overseas firms and a survey of manufacturing firms brought out by the Indonesian Central Bureau of Statistics, BPS (*Biro/Badan Pusat Statistik*) (Toyo Keizai, 2001; BPS, 1995). Macro statistics derive in particular from publications by the Bank of Japan and the Ministry of Finance in Tokyo.²

This article covers the following aspects of the rise of Japanese direct investment in Indonesia since the late 1960s: the long-run historical perspective and chronological patterns including individual pioneering firms (section 2 below), characteristics in terms of size distribution and sectoral composition (section 3), and, finally, main Japanese players and their Indonesian counterparts (section 4).

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2. CHRONOLOGY AND CHAMPIONS

The climate for foreign investment in Indonesia changed radically with the new liberal Foreign Investment Law in 1967. Among the first ones to seize the new opportunities were a couple of Japanese fishing firms who set up business in 1969. They were soon to be followed by many countrymen. However, this formed a re-emergence of Japanese direct investment in Indonesia rather than an entirely new phenomenon. Japanese economic interests in the then Dutch colony date in fact back to the First World War. In 1915 the *Nanyo Kyokai* (South Seas Association) was established by the Japanese government to support Japanese investment in Southeast Asia, including Indonesia. In 1917, Nomura purchased a Western rubber estate in South Kalimantan. By 1925, the aggregate value of Japanese-held corporate assets was estimated at \$ 36 million (90 million Dutch guilders) corresponding to 7.5 per cent of all foreign direct investment in colonial Indonesia of other origin than the Netherlands (Post, 1991: 330; cf. Lindblad, 1997). The 1930s saw further expansion, especially in trading, and in 1933/34 Japan alone accounted for one-third of all imports entering colonial Indonesia (Booth, 2000: 308; Post, 1991: 371).

During the period of military occupation, March 1942 – August 1945, the Indonesian economy was fully subordinated to serve the interests of the Japanese war economy. This is a topic in its own right that is not discussed here (see further Iwatake 1981). Japanese economic activities in Indonesia were for obvious reasons very limited during the immediate post-war years. One exception to the rule was the establishment of the Daiwa Perdana Bank in Jakarta in 1953, a branch office that actually only started operations in 1958. In December 1957, agreement was at long last reached between the Sukarno administration and the Japanese government about massive war reparations payments and loans on soft conditions for future economic development, in total amounting to \$ 800 million (Nishihara, 1976: 51-54). It does not appear coincidental that this agreement was reached precisely at the time that remaining Dutch firms operating in Indonesia were expropriated and eventually nationalized.

Political and economic isolationism under Sukarno's Guided Economy (1959-1966) did not offer a climate conducive to foreign direct investment. In the case of Japanese firms, this was further reinforced by restrictions on capital outflows still in force at home. Nevertheless, numbers of Japanese living in Indonesia did rise fast and volumes of mutual trade in fact rose fourfold between 1958 and 1965 (Nishihara,

1976: 17, 23). The fundamental reorientation under Sukarno, away from the West, especially the Netherlands, and in favor of Asia, in particular Japan, paved the way for the influx of Japanese investment during the early years of Soeharto rule.

The chronological pattern of Japanese investment commitments in Indonesia during the *Orde Baru* is best reflected in annual flows as recorded from 1973 onwards by the Japanese authorities. However, these figures must not be taken at face value since they represent notifications with the Ministry of Finance, i.e. intended rather than realized investment. Comparisons with figures from the Bank of Japan on realized investment suggest that actual investment by Japanese firms in Indonesia corresponded to about 60 per cent of intentions, both in the period 1973-1988 and over the years 1995-1997 (Huang, 1992: 47; Ramstetter, 2000: 34). In light of such evidence, we may assume that the degree of overestimation in intentions remained constant over time so that directions of change and relative magnitudes stay the same also if we do not adjust the official figures downwards by 40 per cent.³

The uncorrected total of incoming Japanese direct investment raised towards a peak at about \$ 900 million in 1976 with the realized proportion probably around \$ 550 million. Then the uncorrected total fell below \$ 500 million and stayed at that level for several years with the notable exception of the huge government-sponsored *Asahan aluminium* project in North Sumatra catapulting the (uncorrected) total above \$ 2 billion in 1982 or \$ 1.2 billion after adjustment. In all other years between 1977 and 1988, the realized proportion probably did not amount to more than \$ 300 million (Huang, 1992: 81). These statistics suggest a shift in the development of Japanese direct investment in Indonesia from an initial phase of expansion (1970-1976) to a second phase of sustained stagnation at a lower level of commitments (1977-1988).

Expansion began anew in 1989 and annual totals rose gradually up to a peak in 1992 at \$ 1.7 billion or around \$ 1 billion in corrected terms. It was followed by a drop below \$ 1 billion (\$ 600 million after correction) in 1993. However, the final steep upward thrust during the years 1994-1997 resulted in a peak at an even higher level, \$ 2.5 billion or \$ 1.5 billion after correction just before the crisis hit (Yamashita, 2000: 250). The decline during the crisis in 1998 and subsequent years was equally steep

³ Matters get even more complicated by the fact that notifications with the Japanese Ministry of Finance by definition do not include reinvested earnings, locally financed investment of transactions via transfer pricing. 'True' realized investment lies between 60 and 100 per cent of intentions.

and by the year 2000 less than \$ 500 million was recorded in terms of approvals probably corresponding to about \$ 300 million in realized terms, i.e. about the same as at around 1970 (JETRO, 2001b; 2000: JETRO, 2002). Two more phases may thus be identified in the development of incoming Japanese investment in Indonesia: a third one (1989-1997) characterized on the whole by rapid expansion, and a fourth one (from 1998 onwards) marked by crisis and its aftermath.

Macro statistics are useful to highlight global chronological patterns but need to be reviewed against the appropriate historical background. What general explanations can be offered for the ups and downs of Japanese investment in Indonesia? The initial expansion was clearly conditioned by the simultaneous relaxation of restrictions on capital outflows in Japan and the dramatic improvement of the foreign investment climate in Indonesia as the Soeharto government took over. Interestingly, the initial phase of expansion continued well beyond January 1974 that witnessed the so-called *Malari* (*Malapetaka Januari*) incident or Tanaka riots on occasion of the visit by the Japanese Prime Minister to Jakarta. *Malari* as such apparently did not discourage Japanese firms from going to Indonesia.

It is tempting to ascribe the prolonged lull in incoming private Japanese investment, from 1977 to 1988, to the more restrictive legislation in Indonesia introduced in direct consequence to the Tanaka riots; especially the obligation to achieve Indonesian majority equity ownership soon after the investment was made. This obligation was only lifted in 1994. But this explanation becomes problematic considering the very chronology of events. Why would Japanese private investment react so slowly to the change in foreign investment climate after 1974? Furthermore, why did the resurgence of Japanese investment precede liberalization of the foreign investment climate by as much as half a decade?

An explanation in terms of the complementarity between Japan and Indonesia in manufacturing appears more convincing. Investment outlets making use of either Indonesia's cheap unskilled labour or the country's rich natural resources were drying up but the time was not yet ripe for a large-scale relocation of Japanese industrial production applying more capital and technology than had been the case in the initial situation. The phase of stagnation can be perceived as an intermediate stage between two different sets of complementarities. The later set was defined by both the acute need to relocate Japanese manufacturing production overseas after the Plaza Agreement of 1985 and new policies from the mid-1980s in

Indonesia bent to speed up industrialization (Phongpaichit, 1993: 31-63; Hill, 1997: 23-54).

Global chronological patterns need to be complemented by more specific information on firms involved. For this purpose we draw on JETRO micro data on individual Japanese subsidiaries in Indonesia (JETRO, 2000; JETRO, 2001a). Dates of formal incorporation and start of operations are both given and we choose to use the latter one. In total, our survey covered 681 individual firms or about 90 per cent of all Japanese firms known to operate in Indonesia by the year 2000.

The pioneers during the initial phase of expansion were often renowned large Japanese manufacturing firms. Newcomers included Sanyo Industries, Ajinomoto and Kaneo Tomen Sandang Synthetic Mills (KSTM), all arriving in 1970. Voksel Electric and National (Gobel) followed suit in 1971, Toyota (Astra), Century Textiles, Dai Nippon Printing in 1972, Asahimas Flat Glass, Meiwa (PVC interior goods) and Toray in 1973, Yamaha Motor and Honda (Federal) in 1974, Mitsubishi (Krama Yudha), Kutai Timber and Orix Finance in 1975 and Toa-Galva (audio equipment), Bridgestone Tire, Eastertex and TIFICO (Teijin Indonesia Fiber Corporation) in 1976. The initial phase embraced about 90 new companies; two out of three were in manufacturing. New arrivals outside manufacturing were found in insurance, for instance Tokio Marine and Mitsui Marine, or in banking (Merincorp) and property management such as Sarinitokyu, owner of the Sari Pan Pacific Hotel in Jakarta.

Newcomers during the second phase were primarily found in the consumer goods industry, for instance Yamaha's piano manufacturing in 1977 and Surya Toto's sanitary ware in 1979. A shift towards capital-intensive lines of production was signaled by the arrival of Pardic Jaya (synthetic resins) in 1978 and reinforced by Sumi Indo Kabel (metal cables) in 1981 and Mitsubishi's Lippo Melco (air conditioners and refrigerators) in 1982. The new trend in favor of heavy industry culminated in 1982 with the huge Asahan aluminium smelter in North Sumatra, a joint venture between the Indonesian state (41 per cent of equity) and Japanese firms operating under guarantees from their government.

During the prolonged lull, there was an unmistakable tendency towards diversification. Examples among new arrivals include Komatsu's tractor assembly in 1983, Dipo Star Finance in 1984, Kao's consumer chemicals in 1985 and Hino's bus and truck assembly in 1986. Matsushita (Gobel) extended into battery manufacturing in 1987 and in

1988 YKK Alumico was set up as forward linkage to the Asahan smelter. In total about 90 new Japanese firms started operations between 1977 and 1988, i.e. approximately the same number as during the first phase.

During the third phase, from 1989 up to the eve of the crisis in 1997, numbers of arriving Japanese companies rose dramatically, from only six in 1987 to 46 in 1991 and almost 100 in 1996. The upward trend was heralded by the establishment of eight banks in 1989, including those of Mitsui (later Sumitomo), Sanwa, Sakura (Swadharna), Fuji and Tokai (Lippo). Other financial institutions followed, notably Nomura, Nikko and Daiwa in 1990 and the Dai-ichi Kangyo Bank in 1991.

Well-known brands and components manufacturers added to the diversity in the automotive industry: Mazda in 1990, Izumi and Suzuki in 1991 and Kawasaki in 1995. Leading producers in the chemical industry included Styrimo Mono (styrene) in 1992, Petrokimia Nusantara (polyethylene) in 1993, Bakrie Kasei (acids and resins) in 1994, Chandra Asri (ethylene and propylene) in 1995 and Amoco Mitsui PTA (telephthal) in 1997. Textiles re-emerged as an important destination for fresh investment capital involving both traditional labour-intensive production such as Jakarta Triapparel and Mermaid and the highly automatic fabrics manufacturing introduced by Nikawa in 1995.

Electrical and electronics manufacturing flourished. KDS started making resonators in 1990, Giken Precision arrived in 1991, Sony in 1992, NEC in 1993, Sharp in 1994, Epson in 1995, all offering a wide range of electric components and consumer electronics. The years 1996 and 1997 saw a true proliferation of new investment in electronics with its characteristic blend of advanced technology and highly labour-intensive segments of the production process. No less than 34 firms set up business in these two years including the semiconductor plants of Sharp, NED and Matsushita and new subsidiaries of Hitachi, Toshiba and Sanyo.

There was a sharp decline in incoming intended investment when crisis, from \$ 2.5 billion in 1997 to barely more than \$ 1 billion in 1998 and 1999 and less than \$ 500 million in 2000 (JETRO, 2001b; JETRO, 2002). Yet, not all plans from before the crisis were shelved. One spectacular new venture in 1999 was Mitsubishi's large plant for copper smelting, simply labeled Smelting. New projects were announced in 2000 and 2001 by Mitsui, Nissan, Hitachi, Honda and Asahimas Glass. But there were also tendencies in the opposite direction as leading Japanese companies, for instance Sony, decided to discontinue operations because of deteriorating conditions during the slow and painful recovery after the crisis.

3 SIZE AND SECTOR

Twenty-five years of expansion catapulted the accumulated stock of Japanese investment in Indonesia from at most \$ 50 million in 1969 to \$ 17 billion in 1994 or even \$ 21 billion by 1996, again according to the notifications with the Japanese Ministry of Finance (Ichimura, 1998: 108; Hirono, 2000: 153). Downward adjustment by 40 per cent produces a figure of \$ 12.6 billion that agrees very well with an unofficial estimate of \$ 13.2 billion by the BKPM for the entire period 1967-1996 (Ramstetter, 2000: 42). In short, we may assume that actual Japanese direct investment in Indonesia on the eve of the crisis in the late 1990s neared \$ 15 billion. The result of a quarter of a century of expansion was by all means highly impressive.⁴

Again, it is instructive to complement very global aggregates with firm-specific information. As a proxy for the size of individual Japanese firms in Indonesia, we use paid-up equity as reported in the JETRO directories.⁵ Yet this variable by definition produces an underestimation of the actual size of the firm since all other types of liabilities than equity are excluded. Aggregate paid-up equity accumulated over all firms covered by the JETRO directories amounted to \$ 7.7 billion which is obviously too low considering the estimated grand total given above.⁶ Yet, we may assume that the degree of underestimation would not differ significantly by firm characteristics which enable us to use this proxy variable for size and sectoral distributions, i.e. whenever relative proportions rather than absolute magnitudes matter.

A key feature of Japanese subsidiaries in Indonesia is the dichotomy between a small number of large firms on the one hand and a large

⁴ This estimate is far more realistic than the staggering total given by the BKPM for approvals of Japanese investment projects throughout the period 1967-1999, \$ 35 billion (JETRO, 2000: 380).

⁵ Two consecutive issues of the JETRO directory were consulted in order to obtain as much information as possible on each individual firm. Data on paid-up equity was available for 662 out of the 681 firms covered, i.e. 97 per cent. No attempt was made to isolate the Japanese proportion of equity since the Indonesian proportion may have been furnished in kind or financed by loans from the Japanese partner.

⁶ An intricate methodological problem concerns the exchange rate used for conversion of rupiah values into US dollars; most figures on equity in the source are denominated in rupiahs. Conversion was done in a stylized manner depending on the year of start of operations and assuming a time span of five years for actually building up the enterprise. Conversion guidelines are as follows: start before 1986: the 1990 rate (Rp. 2705/\$), between 1986 and 1991: the actual rate five years after the start, between 1992 and 1996: the 1996 rate (Rp. 3427/\$), from 1997: the current rate which has remained relatively stable since 1999 (around Rp. 10,000/\$).

number of small firms. This is illustrated by a simple size distribution distinguishing between small firms (paid-up equity below \$ 5 million), medium-size firms (\$ 5-25 million) and large firms (above \$ 25 million). Small firms accounted for 55 per cent of all whereas 30 per cent of the firms were classified as medium-size leaving only 15 per cent for large ones. The only deviation from this pattern was in finance where more than one-half of all firms were medium-size. Between them, large firms held almost 70 per cent of all equity whereas all the small firms were good for less than 10 per cent leaving some 20 per cent for the medium-size category.

The ten largest individual firms were as follows, with paid-up equity and the Japanese share in equity stated:

1. Asahan Alluvium: \$ 921 million (59 %)
2. Chandra Asri: \$ 400 million (25 %, other foreign 75 %)
3. Sumitomo Bank: \$ 235 million (99 %)
4. Sanwa Bank: \$ 187 million (95 %)
5. Amoco Mitsui PTA: \$ 160 million (50 %)
6. Smelting (Mitsubishi): \$ 150 million (75 %, other foreign 25 %)
7. Bakrie Kasei: \$ 147 million (74 %)
8. Komatsu: \$ 143 million (63 %)
9. Sumi Indo Kabel: \$ 113 million (no distribution given)
10. Sumi Rubber: \$ 100 million (85 %)

Significantly, eight of the highest-ranking firms were in manufacturing, including five in heavy industry such as basic metals and chemicals. In seven out of ten cases, there was a solid majority Japanese holding of equity, in five cases even exceeding three-quarters of total equity. Nowhere was a clear-cut Indonesian majority registered. Several prominent branches of Japanese-affiliated manufacturing in Indonesia, notably the automotive industry, electronics and textiles, were not at all represented among these top ten. The largest firms in those three branches, respectively Honda Prospect Motor, Matsushita Semiconductor and Indonesia Toray Synthetics, all reported a paid-up equity of less than \$ 100 million. This again testifies to the high degree of diversification in Japanese direct investment as it has been built up over the years in Indonesia.

Another important measure of size is of course employment but this kind of information is not given in the JETRO listings. Supplementary data was drawn from two complementary sources, a private Japanese-language list of overseas subsidiaries with data from 1999 and a BPS

survey of manufacturing firms undertaken in 1995.⁷ When the same firm was encountered in both of these lists, the figure for 1999 was usually higher than the one for 1995. Apparently, an enlargement of the scale of operations took place in many firms during the boom years of 1996 and (early) 1997 and was not reversed in immediate response to the crisis.

The aggregate labour force in the firms, for which employment was known at the level of the individual enterprise, amounted to some 170,000 persons or about three-quarters of the grand total known for the year 2000. The aggregate included 1800 Japanese expatriates, a similar proportion of the total known from other sources. Most manufacturing firms were of medium size employing between 100 and 500 persons each whereas firms outside manufacturing were more likely to have a smaller number of employees, less than 100 or even less than 50 persons per firm. One firm in ten counted more than 1,000 employees, almost all were in manufacturing. Very large employers included four producers of electrical goods and electronics (Giken Precision, KDS, Epson, TEAC Electronics), two motor car assemblers (Indomobil Suzuki and Toyota Astra) and four other manufacturing enterprises in rubber, pvc, sanitary ceramics and plywood (respectively IRC INOAC, Meiwa, Suryo Tot and Kutai Timber). Taken together, these ten firms offered employment to about 35,000 Indonesians.

Employment in manufacturing in particular increased substantially in the two years immediately preceding the financial crisis in Indonesia. During the crisis itself, layoffs did take place although most Japanese investors adopted an attitude of wait-and-see. At Toyota Astra, for instance, employment rose by no less than 65 per cent just before the crisis, from 3760 in 1995 to 6200 in 1997. It was reduced to 3600 in 1998 as the Indonesian car market virtually collapsed but increased again to above 4000 in 2000.⁸ Elsewhere, initial layoffs did become permanent, for instance in Asahimas Flat Glass, where employment fell from 1940 persons in 1997 to 920 persons in 2000.

Information on paid-up equity and employment in the same firm permit us to arrive at a rough approximation of capital intensities and to differentiate by sector lines of production. Since figures on paid-up equity underestimate the true extent of capital committed, resultant

⁷ Out of the 691 firms in the JETRO directories, 402 or 59 per cent, were included also in the Toyo Keizai list of 2001. Out of 474 manufacturing firms in the JETRO directories, only 120 or 25 per cent, could be traced in the BPS survey.

⁸ Information from Toyota Astra in Jakarta.

capital intensities are also likely to be too low. However, we may again assume that the degree of underestimation does not differ by type of production so that inferred capital intensities may at least be used for comparative purposes. It then appears that the average capital/labour ratio in manufacturing at large and non-financial services amounted to only 15 per cent of the corresponding ratio in financial services. Within the manufacturing sector, capital intensities were significantly above average in basic metals, chemicals and the automotive industry but below average in textiles and electrical goods and electronics.

The top ten ranking by this crude measure of capital intensity included two banks (Sakura Swadharma and Tokai Lippo) and three financial institutions (Sumit Sinar Mas, Inter-Pacific and Daiwa Lippo). Out of the remaining five, only two were in manufacturing (Paramount Bed and Autotech Indonesia) whereas another three were found in non-financial services, in particular leasing (Diamond, Perjahl and EXIM SB). The high degree of diversification and variety again emerges as a chief characteristic of Japanese direct investment in Indonesia.

Manufacturing has traditionally represented the perfect mix of pull and push factors explaining the resurgence of Japanese investment in Indonesia since the late 1960s. Indonesia offered a massive supply of cheap, unskilled labour, access to unique raw materials and, increasingly, a potentially very large market. The initial emphasis on labour-intensive production of consumer goods was soon balanced by very substantial commitments in heavy industry. As a consequence, by 1983, basic metals (including the Asahan project) ranked first among manufacturing industries followed by textiles while the third and fourth-ranking branches, respectively chemicals and transport equipment, commanded far smaller proportions of the sectoral total (Huang, 1992: 100).

In 1994 the situation looked quite different within the manufacturing sector. Chemicals now ranked first, followed by basic metals; whereas textiles had fallen back to a third rank (Ichimura, 1998: 108). The pattern of manufacturing production continued to change gradually also during the years immediately preceding and following the crisis of 1997/98. Our firm-specific data for the years 2000 and 2001 show a distribution inside the manufacturing sector with chemicals and basic metals in shared first rank and textiles being superseded by both the automotive industry and the production of electrical goods and electronics. Even if much routine assembly work is involved, these successive changes in terms of composition do reflect a continuous technological upgrading of Japanese-affiliated manufacturing in Indonesia.

Much attention has been given to the manufacturing part of Japanese investment on account of both its quantitative predominance and its associated great potential for effective technology transfers (see further Thee, 2005). Yet, some of the qualitative information had given here points at the increasing importance of Japanese commitments also outside manufacturing. A breakdown by sector of the firms for which the JETRO directories offer information produces the following distribution by paid-up equity:

- Primary sector: 1 % (20 firms or 3 % of total number)
- Manufacturing: 77 % (474 firms or 69 % of total number)
- Financial services: 15 % (45 firms or 7 % of total number)
- Other services: 7 % (142 firms or 21 % of total number)

The financial sector is underrepresented in terms of sheer numbers of firms, which again reflects the higher average paid-up equity per firm in this type of investment. It is precisely the other way around for non-financial services: they are overrepresented in numbers due to a degree of capitalization below average. Manufacturing, with more than two-thirds of all firms and more than three-quarters of all paid-up equity, obviously remains predominant but it is increasingly being complemented by activities in the services sector.

4. CLUSTERS AND CONGLOMERATES

Foreign investors share a professed preference for majority or even 100 per cent equity control and Japanese investors in Indonesia are no exception to the rule. Of the individual firms surveyed here, only one in seven reported a minority Japanese share in equity whereas two in seven (28 per cent) had obtained 100 per cent ownership of the subsidiary.⁹ The average share in equity held by the Japanese investor was as follows, ranked by the five-year period in which operations in Indonesia began:

1970/74	60 %	1985/89	74 %
1975/79	66 %	1990/94	73 %
1980/84	59 %	1995/99	87 %

⁹ Equity distributions could be established for 669 firms including 92 with a Japanese minority holding, 36 with a 50/50-arrangement and 187 with exclusive Japanese ownership of equity.

At first, before 1974, a substantive capital involvement by the Indonesian partner was considered essential, whether in kind or as financed by Japanese loans. This reflects the necessity of Japanese investors to draw on the contacts and knowledge of local conditions available through Indonesian business partners. Contrary to expectations, the Japanese share in equity increased and stayed high, except in the early 1980s, throughout the period when stiff requirements for divestment in favour of Indonesian participants applied. Japanese investors were either successful in circumventing such requirements or quick to raise their equity participation after the liberalization of the foreign investment legislation in Indonesia in 1994. The latter strategy was reinforced in the late 1990s at the time of the financial crisis when Indonesian partners were in desperate need of cash. Buying up Indonesian-held equity or financing enlargements of capacity with Japanese capital injections became common as did new investment projects with 100 per cent Japanese ownership from the very start.

Japanese subsidiaries in Indonesia tend to be grouped around a number of leading investors akin to the way corporate business is organized in Japan.¹⁰ In combination with information on Japanese mother companies (ACH 1995; JCH 2000; JCH 2001), our firm-specific data allow a clustering of Japanese subsidiaries into several groups affiliated to a major concern in Japan. The following ten each had equity holdings in Indonesia in excess of \$ 100 million:

1. Sumitomo: 31 firms, \$ 651 million in paid-up equity
2. Mitsubishi: 25 firms, \$ 462 million
3. Mitsui: 19 firms, \$ 364 million
4. Sanwa Bank: 4 firms, \$ 268 million
5. Matsushita: 9 firms, \$ 257 million
6. Toyota: 11 firms, \$ 133 million
7. Asahi Glass: 4 firms, \$ 133 million
8. Nippon Shokubai: 2 firms, \$ 120 million
9. Honda: 7 firms, \$ 120 million
10. Sanyo Electric: 4 firms, \$ 104 million

Taken together, these ten clusters represent a total paid-up equity of \$ 2.6 billion or one-third of the aggregate equity for all firms included in the JETRO directories. In addition, there were three firms (Asahan, Chandra

¹⁰ The Japanese investor could be identified in 624 out of the 681 firms surveyed (92 per cent).

Asri and Komatsu) with equity holdings in excess of \$ 100 million each that did not form part of a business group. Clusters of a lesser size, with a total paid-up equity in the range \$ 50 – 100 million, include Kanematsu, Tomen, Toray, Yamaha, Toshiba, Ajinomoto, Sakura Bank, Tokai Bank and Nomura Securities.

The development of the Japanese corporate clusters in Indonesia displays four distinct patterns of expansion. The first pattern is the classical one associated with a very large multinational company arriving early in the new host country and soon aiming at diversification by moving outside its original lines of production. Sumitomo and Mitsubishi may both serve as examples. Sumitomo ventured into a wide range of economic activities – basic metals, chemicals, forestry, construction, even finance – during the founding phase between 1972 and 1975. Mitsubishi similarly arrived already in the 1970s soon getting involved in motor car assembly, battery production, textiles and chemicals while switching to electronics in the very late 1990s.

A second pattern shows a large investor arriving early but undertaking little, if any, diversification at a later stage. Examples include Toyota, Sanyo Electric, Yamaha Motor and Toray Industries. Yet another option is to arrive but to wait for a protracted period of time before expanding into new lines of production. Among the top ten clusters, Mitsui and Matsushita serve as prime examples. Mitsui started out with steel processing and chemicals, often in direct co-operation with the Indonesian government, but only undertook new investment in petrochemicals and services during the 1990s. The electronics concern Matsushita actually re-established itself in Indonesia in the 1990s after two decades of limited activity. Asahi Glass, Honda and Ajinomoto also fit into this pattern.

The fourth and final pattern is defined by late arrival, often coupled with very large amounts of capital committed immediately. Here we encounter investors such as Kanematsu, Tomen, Toshiba and Nippon Shokubai. All started out in the 1990s. Kanematsu moved swiftly from golf course management into highly automated synthetics (Nikawa Textiles) whereas Tomen moved from chemicals (Styrindo Mono) to services. Toshiba stayed in consumer electronics throughout while the catalyst maker Nippon Shokubai was the very last of major Japanese investors to enter Indonesia, in 1998 when the country had already been hit by severe crisis. These four patterns of building up and maintaining or enlarging clusters of subsidiaries demonstrate a considerable versatility on the part of Japanese investors in Indonesia.

The local counterpart of the Japanese investor has often been found among the leading business conglomerates in Indonesia. Some associations are well-known, for instance Sumitomo with the Salim group, Mitsubishi with Bakrie & Bros. and the Lippo group, Matsushita with Gobel, Toyota and Honda with Astra International, Asahi Glass with Rodamas. In total, eleven clusters of Japanese-controlled subsidiaries could be associated with leading Indonesian conglomerates. Total equity of these eleven clusters amounted to almost \$ 1,750 million but less than one-fifth of this total, \$ 325 million, was in joint ventures where the Indonesian partner held 50 per cent or more of the equity. The eleven clusters thus above all represented minority Indonesian positions. Only a few of them were of a comparable magnitude with the top ten groups associated with Japanese concerns. The eleven clusters were:

1. Astra International: 30 firms, \$ 442 million in paid-up equity
2. Salim: 18 firms, \$ 274 million
3. Rodamas: 8 firms, \$ 251 million
4. Bakrie & Bros.: 5 firms, \$ 189 million
5. Bank Bali: 2 firms, \$ 187 million
6. Harapan Motor: 2 firms, \$ 78 million
7. Ang Kok Ha: 3 firms, \$ 71 million
8. Gobel: 4 firms, \$ 70 million
9. Lippo: 6 firms, \$ 63 million
10. Sinar Mas: 3 firms, \$ 63 million
11. Sinar Sahabat: 5 firms, \$ 57 million

Although ranking behind Salim in overall size, William Soeryadjaja's Astra International, dating from the 1950s, has emerged as the foremost Indonesian partner of Japanese investors. Participation in joint ventures has been organized through Astra International itself or subsidiaries such as Federal Motor, Prospect Motor, United Tractors, Senantiasa Makmur and Nusa Raya Cipta. Commitments range from motor cars or motor cycles (Toyota, Honda, Daihatsu) to chemicals, textiles and even coal mining (in Berau in East Kalimantan). An exceptional feature of the joint ventures of this group is the Indonesian partner enjoys a majority equity position in more than half of the subsidiaries.

Continuous participation in Japanese investment project has also been characteristic of Rodamas linking up at an early stage with Dai Nippon Printing, later with Kao and Riken Vinyl in chemicals. Majority positions have been retained in the joint ventures with Asahi Glass and Kao. Gobel and Sinar Sahabat both experienced an early start and a

belated expansion in the 1990s, co-operating with respectively Matsushita and Bridgestone, but here original majority holdings eventually became minority positions for the Indonesian participant. Through its subsidiary Karya Sakti Utama, Harapan Motor, yet another early starter, has co-operated exclusively with Yamaha Motor on basis of minority equity holdings.

Salim was a relative latecomer among Indonesian conglomerates linking up with Japanese investors. Involvement before 1990 was by and large limited to financial services through BCA (Bank of Central Asia) and assembly of trucks and buses (Hino) but in later year's diversification has embraced wiring manufacturing (Sumitomo), chemical processing (Tomen) and food processing (Nissin) and container management. Almost all participation has taken the form of minority holdings of equity.

Bakrie Bros. and Sinar Mas also count among the latecomers with Japanese joint ventures materializing only in the 1990s, in particular in chemicals (respectively Bakrie Kasei and the Smart Corporation). The Lippo group may be seen as an intermediate case between those stressing long-run continuity and the latecomers. Lippo's first joint ventures with Japanese firms were in the early 1980s, with Mitsubishi Electric, whereas combinations in the mid-1990s included the Tokai Bank, through Lippo Bank, as well as Hitachi Chemical, through Lippo Multiusaha. Several of Lippo's joint ventures resulted in a majority equity position for the Indonesian partner. Bank Bali and Ang Kok Ha, finally, both participated in Japanese investment only on rare occasions linking up with respectively Sanwa Bank and Toray.

These examples from leading Indonesian conglomerates in their dealings with Japanese investors demonstrate clearly that a high degree of versatility and variation may also be observed at the receiving end of the foreign investment relationship.

As is well known, several of the leading Indonesian conglomerates were hit severely by the crisis, notably the Salim group and Astra International. Many were faced with restructuring and saw their bargaining-position vis-à-vis the Japanese partner weakened. The financial crisis and its aftermath have clearly brought important changes in the relationship between the clusters surrounding main Japanese investors and their Indonesian counterparts.

5. CONCLUSION

This article has offered a historical survey of the rise of Japanese direct investment in Indonesia since the late 1960s. It has traced the historical roots and the various phases of expansion as well as provided insights into size and sectoral distributions and identifying clusters of leading Japanese investors and their counterparts among chief Indonesian conglomerates. Several points need to be stressed by way of a synthesis.

The first one refers to the fundamental long-run continuity of Japanese investment in Indonesia, a continuity that has more than once implied starting anew after a protracted period of interruption or stagnation. This continuity links pre-war activities in colonial Indonesia with the influx of fresh Japanese investment during the Soeharto era. Four distinct phases are identified: rapid expansion (1969-1976), relative stagnation (1977-1988), renewed expansion (1989-1997) and adaptation to crisis and its aftermath (from 1998). Continuity has been conditioned by the general political climate in Indonesia and long-run changes in complementarities between the two countries rather than by short-run changes in foreign investment regulations.

The second point to be stressed concerns the high degree of diversity as conveyed by the structural characteristics of the accumulated body of Japanese subsidiaries in Indonesia. This is in particular borne out by size distributions in terms of paid-up equity capital, employment and capital intensities. With respect to the sectoral distribution, manufacturing clearly remains predominant but commitments outside manufacturing have become increasingly important in recent years. In addition, manufacturing production itself has changed dramatically as a result of diversification and technological upgrading.

The third point brings out the considerable versatility of Japanese investors operating in Indonesia as demonstrated by a spectrum of four different investment strategies pursued by main investors over time. A similar versatility can also be witnessed in the participation by leading Indonesian conglomerates in Japanese joint ventures. New opportunities have opened up and been seized in several different ways. However, recent events, in particular the crisis and its aftermath, have eroded the bargaining-position of Indonesian partners vis-à-vis Japanese investors

Continuity, diversity, versatility – these are the chief characteristics of Japanese direct investment in contemporary Indonesia. Such characteristics and the highly impressive body of accumulated investment safeguard a sustained important role to be played by Japanese private capital in Indonesia also in years to come.

6. REFERENCES

- ACH , 1995, *Asian Company Handbook 1995/96*, Tokyo: Toyo Keizai.
- Booth, A, 2000, "Crisis and Response. A Study of Foreign Trade and Exchange Rate Policies in Three Southeast Asian Countries in the 1930s", in: P. Boomgaard and I. Brown (eds), *Weathering the Storm. The Economies of Southeast Asia in the 1930s Depression*, Singapore: Institute of Southeast Asian Studies, pp. 295-320.
- BPS ,1995, *Manufacturing Directory 1995*, Jakarta: Biro Pusat Statistik [available on CD-rom].
- Hill, H., 1997, *Indonesia's Industrial Transformation*, Singapore: Institute of Southeast Asian Studies.
- Hirono Ryokichi, 2000, "Changing Japanese Economic Policy toward East Asia in the Postwar Period", in: V. Blechinger and J. Legewie (eds), *Facing Asia – Japan's Role in the Political and Economic Dynamism of Regional Cooperation*. Munich: Iudicium, pp. 147-174.
- Huang, G., 1992, "Comparative Analyses of U.S. and Japanese Overseas Direct Investment", *Ph.D.dissertation*, University of Pennsylvania, Philadelphia.
- Ichimura Shinichi ,1998, *Political Economy of Japanese and Asian Development*. Singapore: Institute of Southeast Asian Studies.
- Iwatake Teruhiko, 1981, *Nampo gunsei-ka no keizai seisaku-Malai, Sumatera. Jawa*. [Economic policies under Japanese military administration in the southern region: Documentation on Malaya, Sumatra and Java]. Tokyo: Kyoko-shoin.
- JCH , 2000, *Japan Company Handbook 2000*, Tokyo: Toyo Keizai.
- , 2001, *Japan Company Handbook 2001*, Tokyo: Toyo Keizai.
- JETRO, 2000, *Directory of Japanese Companies & Representative Offices in Indonesia. 2000*, Tokyo: JETRO.
- , 2001a, *Directory of Japanese Companies & Representative Offices in Indonesia. 2000*, Tokyo: JETRO.
- , 2001b, *White Paper on Foreign Direct Investment 2001*. Tokyo: JETRO.
- , 2002, *White Paper on Foreign Direct Investment 2002*. Tokyo: JETRO.
- Kinoshita Toshihiko, 1986, Japanese Investment in Indonesia: Problems and Prospects, *Bulletin of Indonesian Economic Studies* 22 (1): 34-56.

- Lindblad, J.Th., 1997, Foreign Investment in Southeast Asia in Historical Perspective, *Asian Economic Journal* 11: 61-80.
- Nishihara Masashi, 1976, *The Japanese and Sukarno's Indonesia: Tokyo-Jakarta Relations 1951-1966*. Kyoto: Centre for Southeast Asian Studies.
- Phongpaichit Pasuk , 1993, *The New Wave of Japanese Investment in ASEAN*. Singapore: Institute of Southeast Asian Studies.
- Post, P., 1991, *Japane bedrijvigheid in Indonesië, 1868-1942. Structurele elementen van Japan's vooroorlogse economische expansie in Zuidoost-Azië* [Japanese business operations in Indonesia, 1868-1942. Structural elements in the pre-war economic expansion of Japan in Southeast Asia]. Ph.D. dissertation, Free University of Amsterdam.
- Ramstetter, E.D., 2000, Recent trends in Foreign Direct Investment in Asia: The Aftermath of the Crisis to Late 1999, *ICSEAD Working Paper Series* [February]. Kitakyushu: International Centre for the Study of East Asian Development.
- Kian Wie, Thee, 1984, Japanese Direct Investment in Indonesian Manufacturing, *Bulletin of Indonesian Economic Studies* 20 (2): 90-106.
- , 1994, Technology Transfer from Japan to Indonesia, in: Yamada Keiji (ed.), *The Transfer of Science and Technology between Europe and Asia, 1780-1880*. Kyoto: International Research Centre of Japanese Studies, pp. 39-59.
- , 2005, The Major Channels of International Technology Transfer to Indonesia: An Assessment, *Journal of the Asia-Pacific Economy* 10: 2 (in press).
- Keizai, Toyo, 2001, *Kaigaishinshutsu kigyō soran. Databank 2001*. [List of Japanese-affiliated Firms Abroad]. Tokyo: Toyo Keizai Shinposha.
- Shoichi, Yamashita, 2000, "The Role of Japanese Overseas Affiliates and Technology Transfer: Implications for Indonesia", in: V. Blechinger and J. Legewie (eds), *Facing Asia – Japan's Role in the Political and Economic Dynamism of Regional Cooperation*. Munich: Iudicium, pp. 247-262. ■