The Gains from Open International Trade and Investment in the Deregulation Era: Implications for Indonesia's International Economic Policy in the 21st Century

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ABSTRACT

Trade and investment policy have undergone fundamental change in Indonesia since the oil boom ended. Significant trade liberalization began in 1986 and continued until the currency and financial crisis hit in 1997. Parallel to trade reform were reforms in the treatment of foreign investment, with ownership restrictions all but eliminated by 1995. This paper examines the deregulation experience and performance of the economy during the pre-crisis, crisis and post-crisis periods. The evidence suggests that deregulation was and is a success. Preparation for increased global and domestic competition will require on-going efforts to keep the pace of reform brisk. Indonesia will also need to develop its human and institutional capacities to manage its international economic relations and meet its domestic challenges in the 21st Century. In particular, market access issues will be high on the agenda of international negotiations. Obstacles in the form of contingent protection, rising discriminatory regionalism and domestic decentralization will heighten the urgency of building capacities in the areas of regulatory impact assessment, international trade law and economics, and in analytical research in support of negotiating positions.

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I. Introduction.

Indonesia has never been a "closed economy." Its geography makes that impossible. Nonetheless, Indonesia at times has been an *inward-looking economy* that has erected substantial barriers to international commerce. Foreign participation in the economy through foreign direct investment (FDI) has also been tightly restricted in the past. In particular during the oil-boom period of 1973-1985, Indonesia increasingly tightened restrictions on FDI and imposed an increasingly complex web of protection over foreign trade in the non-oil sectors.[1] With high oil prices, there was no foreign exchange problem thanks to the oil wealth of the country and import-substitution could proceed without seriously affecting real economic growth. Good macroeconomic management of the economy during the oil-boom and attention to the development of agriculture and infrastructure enabled the economy to grow rapidly until oil prices began to weaken after 1981.

Then in 1985 when oil prices started to truly plunge, the negative impacts of the inward-looking strategy became known. Without oil revenue to rely upon, the government had to find alternative sources of foreign exchange. Devaluation of the rupiah alone would not be sufficient to make inward-looking industries more competitive in foreign markets. Only a comprehensive program of economic reform could turn the

[1] Among the first foreign companies to invest following the opening to FDI with the Law on Foreign Investment of 1967 were American oil companies. Foreign companies have played a key role in developing Indonesia's mineral and petroleum resources. This investment, particularly by oil and mining multinationals was critical in allowing Indonesia to take advantage of the oil boom (Sadli 1972, 1991 and 1993). The success enjoyed by Indonesia in tapping its mineral and energy wealth between 1967 and 1995 and the problems that have disrupted production and exploration in the mining sector recently, starting with the Busang "gold mine" fiasco in 1996 are noteworthy (Maher 2000).

tide.[2] Beginning in 1985 and continuing up until the severe crisis of 1997-99, Indonesia embarked upon a far-reaching liberalization program and, since the advent of the crisis, this liberalization trend has continued rather than being reversed. This paper will argue that the liberalization episode in Indonesia was highly successful and today lays the basis for further sustained growth. However, this outcome is contingent upon Indonesia staying the course but also upon new and innovative strategies to meet the challenges of global competition and market access for Indonesian goods and services in the 21st Century.

International Trade and Economic Growth in the World Economy

Expansion of international trade has been closely associated with economic growth and general prosperity around the world. Historical data indicate that world trade volume (measured by exports) has risen relative to world production from under two per cent in the early 19th century to about 15 per cent today (Madison 1995 and 2000). During periods of prosperity the ratio of trade to production has risen and in periods of depression and war it has fallen. For example, between 1820 and 1929 the ratio of trade volume to GDP rose from less than two percent to 9 percent, but fell off to about 6 percent as a result of the Great Depression, World War II and the widespread adoption of protectionist policies amongst developed countries.[3] In 1947 the members of the Bretton Woods institutions founded the General Agreement on Tariffs and Trade (GATT). A series of global negotiations (known as "rounds") steadily reduced tariffs from the very

[2] The reform program was launched under the rubric of "deregulasi" (bahasa Indonesia for "deregulation") mainly because the bahasa translation of the term "liberalization" has unwanted connotations. Nevertheless, the program of reforms adopted was and is consistent with trade and investment liberalization used in the title of this paper.

high post-war levels to much lower levels. As a result trade volume steadily expanded relative to output. One of the clearest stylized facts of modern economic growth is that it has been accompanied by the growth in international economic transactions, particularly the volume of international trade. It is demonstrably true that the strengthening of the global trading system has facilitated the remarkable period of growth and prosperity since the end of the Second World War.

The lowering of protective barriers to international transactions under the GATT/WTO, at the regional level and through unilateral reform, particularly in developing and transitional economies has eased the flow of international trade and investment. The consequent rise in trade volume brought about by this process of liberalization has delivered unprecedented gains to developed and developing countries alike. In addition to trade and investment liberalization, rapid technical progress, improvements in transport and telecommunications infrastructure and the expansion of multinational enterprises have contributed to increased international trade in goods and services.

Developing countries such as Indonesia have generally been latecomers to trade liberalization, but have found the gains from more open markets are substantial. These gains may be measured in terms of increased exports and diversification of exports, higher real incomes and consumption, expansion of employment, productivity and wage increases and access to new technologies and improved management of businesses. Stimulated by greater import competition, domestic firms have responded by seeking to

[3] In the case of the United States, the Smoot-Hawley Act of 1930 was a protectionist response to the economic crash of 1929 that raised US tariffs to historic highs. Foreign countries retaliated and this deepened the global depression in the early 1930s.

cut costs, enhance incentives for workers and managers and striving to improve product quality and customer service. Cross-country studies show that these gains may translate into higher economic growth in the period of open trade brought about by deregulation compared with periods of closed markets and inward-oriented planning. This experience is not unique to East Asian NIEs such as Taiwan and Korea, but is also recognizable in Southeast Asia, Latin America and elsewhere. This paper elaborates on Indonesia's experience with trade and investment policy reform and draws on related experience from other developing countries.

II. Trade Policy: Oil Boom, Oil Bust and Intensive Liberalization.

Trade Policy and the Oil Boom

Oil revenues increased dramatically during the 1970s as oil prices rose sharply in 1973-74 and again in 1979-80. With such a large foreign exchange windfall, Indonesia was under little pressure to further open up the economy and, in fact, went in the opposite direction. In the 1970s the government focussed attention on achieving self-sufficiency in rice production and, wisely, used part of the oil windfall to invest in infrastructure and agricultural services. This spurred a productivity revolution in the rice sector that culminated in national self-sufficiency by the mid-eighties.

Indonesia was relatively conservative in external borrowing compared with other developing oil exporting countries such as Venezuela and Nigeria (Woo, Glassburner and Nasution 1994). Indonesia's external debt to GDP ratio by the time of the second oil shock was lower than those of the Philippines, Argentina, Mexico or Brazil, countries that all experienced crises (Radelet 1996). The debt service to export ratio was also

lower in Indonesia than in some of the other countries and the composition of debt was longer-term and was on concessional rather than commercial terms. In addition, a larger portion of the oil windfall in Indonesia was directed towards fiscal expenditures that benefited agriculture and traditional export sectors compared with the other oil exporters.[4]

Despite the gains in rice yields, primary producers were not entirely favored by the policy regime of the time. Indeed, export-oriented producers in the outer islands were increasingly disfavored by the increasing imposition of protectionist policies that raised the domestic price of manufactured items above international prices and by restrictions on exports that kept domestic prices of primary commodities such as natural rubber, palm and coconut oil, coffee and spices below international prices.

Industrial and trade policy became more inward looking as protective barriers were raised and state enterprises in sectors like steel, cement, petroleum refining, chemicals and aerospace were promoted.[5] Exports of primary commodities other than exportable crops were also restricted for various reasons. The government sought to promote development of downstream processing industries in particular sectors. In part, Indonesia could justify taxing or otherwise restricting exports of raw materials because its industries were confronted by tariffs that were escalated by degree of processing in its major markets, including Japan, Europe and North America. For example, fresh or frozen fish or logs and sawn timber commonly faced low tariffs of 5 percent or less, but

[4] Woo, Glassburner and Nasution (1994) report that during the boom after the first oil shock, Indonesia allocated a larger amount of public investment to agriculture than did Nigeria, Venezuela or Algeria. Agricultural output per capita grew in Indonesia between 1974 and 1983 but contracted in the other oil exporting developing countries. Indonesia also had a stronger growth performance in terms of non-oil exports than did Mexico during the oil boom years.

[5] The World Bank (1985) reclassified Indonesia from being a moderately outward-looking economy to moderately inward-looking because of the emphasis the government placed on import substitution and national self-sufficiency during this period.

canned fish or plywood exports were charged tariffs of 15-20 percent and were also restricted by non-tariff barriers in some major markets. As a consequence, in the case of plywood Indonesia employed an export tax on logs in 1979. However, this tax was not felt to be sufficient to spur large-scale development of the industry. Various nationalist and environmental arguments were advanced in favor of tighter restrictions on exports of logs and a decision to place a ban on log exports was announced in 1980 and was fully imposed in 1985 (Pangestu 1989). The ban on log exports coupled with the turning of forest concessions over to plywood mill owners prompted a stampede of domestic investors into the industry.[6] Subsidized credit to domestic investors encouraged expansion of capacity in the industry.

An increasing number of industries became off-limits to FDI. Access to international capital markets improved as a result of the booming oil sector, hence, Indonesia could easily borrow foreign exchange throughout this period. This obviated the reliance on FDI and, to some extent, the private business sector for investment. The "Priority List of Investments" (Daftar Skala Prioritas or DSP in bahasa) published by the Board of Investment was used to regulate FDI between 1970 and 1985. The DSP was criticized for lacking precision over product categories allowable for FDI projects and for lacking clear criteria for selection of sectors. Moreover, the DSP not only regulated new FDI, but also controlled production capacity and issued licenses accordingly. Finally, foreign investment companies (Penanaman Modal Asing or PMAs in bahasa) were

[6] Foreign companies were not allowed to join in and foreign companies such as Georgia Pacific were forced to exit the forestry sector. Bob Hasan took over Georgia Pacific's concessions (and others as well) and established a preeminent position in the industry. The ban on log exports was later replaced by a prohibitive export tax of over 1000 percent. A ban was also imposed on rattan exports in 1988, also later converted to a prohibitive export tax.

expected to divest and transfer ownership progressively to Indonesian nationals. Initially, a minimum of 20 percent of equity of PMAs was required to be in Indonesian hands.

Macroeconomic management contained inflation and fiscal balance was maintained. After a period of an appreciating real exchange rate between 1974 and 1977, a discrete devaluation of the Rupiah was engineered in 1978 and this helped restore competitiveness in a number of non-oil manufacturing and primary commodity sectors for a few years.[7] During the oil boom period, real interest rates on deposits and loans were typically negative and credit was rationed at subsidized interest rates to preferred borrowers. Financial repression of this type distorted investment and savings decisions and encouraged uneconomical allocation of scarce resources.

Between 1982 and 1985 oil prices weakened as a consequence of a global recession and energy conservation and oil substitution policies in the industrialized economies. For Indonesia this spelt an end to the oil boom period, and growth slowed significantly from the 7 percent per annum average of the oil boom period. With substantial external debt to service and a serious contraction of oil earnings, the government had to respond with some strong measures. In 1983 another devaluation was undertaken and tax reforms were adopted in order to expand the revenue base but this proved to be an insufficient response.

A transition from the strategy of reliance on petroleum exports and import substitution as the main industrialization strategy to an export promotion regime began in earnest in 1985. This shift in strategy was in concordance with the experience of the

[7] Arnt and Sundrum (1984) and Fujita and James (1989) found that exports in several manufacturing sectors had a positive response to the 1978 devaluation, but that by 1983, the real depreciation had been completely eroded by inflation.

Asian newly industrialized economies (NIEs), particularly of Korea and Taiwan. The Asian NIEs had boldly adopted reform measures and embarked on export-oriented growth in the 1960s with stunning success. More recently, following a period of slow growth in the early 1980s, Thailand adopted an export-oriented growth strategy. The shift in strategy in Indonesia started with the phasing out of subsidies on exports and the shift to a duty drawback scheme in 1985. Indonesia at this time signed the GATT code on subsidies at the urging of the United States. A more drastic reform took place as a private Swiss firm, *SGS*, was hired to survey Indonesian imports, sidelining the corrupt and inefficient customs service.[8] The urgency of adopting further reforms was underscored in 1986 when oil prices collapsed to below ten dollars per barrel.

Fortunately for Indonesia, coherent reform policies could be designed and effectively implemented through the efforts of a group of senior economic advisors to the President. The so-called "technocrats" had received economic doctorates at leading western universities and had become affiliated with the Faculty of Economics of the University of Indonesia. Although then President Suharto had leaned towards the Habibie group of technologists whom favored isolationist policies and show case projects in aerospace, atomic energy and other technology-oriented sectors, he turned to the economists for advice at this stage.[9]

[8] Even though the decision to displace customs and engage *SGS* was taken because of the widespread corruption among customs officers, the effect was to significantly improve efficiency through more accurate valuation of imports, enhanced security and more timely processing of paperwork (see Hill 1994).
[9] It should also be noted that the international donor community was supportive of the deregulation program and that friendly "pressure" in support of liberalizing reforms was exerted by agencies such as USAID, the World Bank, the IMF and other donors.

Trade and Investment Reforms: Phase I (1985-1990)

Trade and investment liberalization during two phases prior to the outbreak of the currency and financial crisis in 1997 will be examined below. The first phase of reform took place between 1985-1990, with the second occurring between 1992-1996.[10] Trade reforms, in addition to the key institutional reforms outlined above, included a decisive shift from licenses and quantitative import barriers to a tariff-based system of protection. This shift was supported by a substantial devaluation in 1986. Furthermore, between 1987 and 1990 sharp unilateral reductions in tariffs were undertaken. For example, the World Bank estimates that restrictive import licensing covered 54 percent of agricultural production and 68 percent of manufacturing production in 1986, but this decreased to 39 percent for agriculture and 33 percent of manufacturing by 1990. Although tariff reductions were secondary in importance to the removal of NTBs, the simple (unweighted) average tariff was cut some 26 percent from 27 percent in 1985 to a little under 20 percent in 1991.[11]

FDI restrictions were gradually relaxed with the adoption of a negative list and the easing of some ownership restrictions, particularly on export-oriented investments. The number of specific investment clearances required for a PMA fell from 24 to 10 and there was a relaxation of other dimensions of investment regulation. For example, investment licenses were made valid for a period of 30 years compared with 5 before the liberalization. Minimum amounts of investment required were reduced and ownership restrictions on projects that exported 100 percent of output were waived. Eventually in

[10] In 1991 a drastic tightening of monetary policy in response to inflationary pressure (the "Sumarlin shock") meant that macroeconomic stabilization took precedence over liberalization.
[11] See Iqbal and Rashid (2001).

May 1986, PMAs that exported 85 percent of production were deemed to be eligible for relaxed ownership requirements (Pangestu 2001).

In December 1987 initial equity stakes of Indonesians in new PMAs were reduced to just 5 percent and other ownership restrictions were also partially relaxed. Significantly, the DSP list was gradually extended to more sectors and, in May 1989; the DSP list was replaced by a negative list of 64 sectors closed to FDI. In general, this shift was thought to be the most significant reform undertaken during this period. However, between 1989 and 1991 further reform of FDI regulations was on hold. The number and value of FDI projects continued to increase as investors from East Asia took a keen interest in expansion in Indonesia.

Hence, the period of 1986-89 can be characterized as one of *intensive trade and investment reform* and that of 1989-91 can be termed one of *gradual reform*. These reforms greatly influenced the incentive structure in the Indonesian economy. The timing of these reforms was such that Indonesia "caught the wave" of FDI from the East Asian NIES and Japan that surged in the late 1980s.

Finally, macroeconomic policies were generally supportive of the reforms' effectiveness. Indonesia had experienced hyperinflation between 1962 and 1967, but had brought inflation down to single digits in 1971-72 (Woo, Glassburner and Nasution 1994). After a bout of high inflation associated with the oil boom of 1973-74, inflation was again gradually brought down to single digits in 1978. Price inflation was less severe during the second oil price surge and was brought down to single digits after 1985 until 1990. After inflation reached 10 percent in 1990, tight money and high interest rates were used to reduce upward pressure on prices in 1991 with success. By keeping

inflation under control with conservative monetary and fiscal policies, the authorities prolonged the positive effects of devaluation and trade reform on export incentives. In turn, more open trade policies helped mitigate upward pressure on prices by reducing import prices.

Monopoly, Imports and Competition Policies

Openness to international trade can be a significant instrument in preventing monopoly abuses in sectors producing tradable goods, provided identical products or close substitutes may be imported. Consider the case of a monopolist in a closed economy. The monopolist chooses to produce where marginal revenue from producing an additional unit of output is just equal to marginal cost (figure 1). The monopolist is able to charge the monopoly price (0Pm) and produces at a socially sub-optimal level (0Qm) and retains monopoly profit. The rent going to the monopolist is the excess of 0Pm over the marginal cost per unit of output multiplied by the units produced (the area PmABPc). However, should the monopoly face competition (or even the threat of competition) from imports, it will be unable to exercise monopoly power for more than a short interval provided trade policy is not overly restrictive.[12] Consider, the case of imports produced competitively in other countries, with world prices at or below the price level where the domestic monopolist's marginal cost equals average revenue (where MC intersects the domestic demand curve). In this case, the domestic monopolist must behave as a perfect competitor and produce the socially optimal output (0Qc) at the perfectly competitive price level (0Pc). The threat of import competition will eliminate

[12] Baumol, Panzer and Willig(1982) develop the theory of contestable markets. The possible entry of rival firms prevents an incumbent firm from exercising monopoly power. Imports are likely to similarly discipline firms with domestic monopoly power (Cadot, Grether and De Melo 2000).

monopoly profit and will allow domestic consumers to enjoy the full complement of consumer surplus. The gain to consumers is the area PmACPc and exceeds the loss to the monopolist by the triangle ABC. Note that imposition of a tariff that raises the domestic price above 0Pc but is still below 0Pm does not fundamentally alter the outcome—the domestic producer still is unable to exercise monopoly power. The monopolist can only raise the price to the extent of the unit tariff and not beyond that level. However a very high tariff that raises the domestic price back to 0Pm allows the return to monopoly power.[13] Finally, it can also be shown that placing a quota on imports confers monopoly power and leads to lower output and higher prices than does a tariff (Krugman 1994).

Government may justify high protection and monopoly under infant industry or nationalist arguments (as it has in Indonesia from time to time). However, the power of a monopolist may be eroded by smuggling and/or by the development of substitute products.[14] In addition, imports of certain products have themselves been prevented from providing competition in domestic markets through exclusive import licensing (e.g., steel), state trading entities (Bureau of Logistics' import monopoly over rice), and, in some cases, by private distributors or producer cartels (motor vehicles, cement). In general, elimination of import licensing has greatly reduced the incidence of monopoly power and has lowered the price of import-competing goods. The threat of entry of rival producers or imports makes markets contestable and weakens the argument that concentration at the firm level is evidence of monopoly power.

[13] Technically, for a monopolist with an upward sloping marginal cost curve, as long as the tariff inclusive price is equal to or below the price determined by the intersection of the marginal cost curve and the demand curve, the domestic firm must behave as a price-taker rather than a monopolist (Krugman 1994: 234). In figure one, the marginal cost curve is drawn flat for simplicity.

There is debate over the ability of an open trade policy to discipline domestic firms as an alternative to a competition policy (Thee 2000). Briefly stated, domestic firms in sectors producing non-tradables are not threatened by imports and, if they can prevent foreign rivals from entering, they may exercise market power. Hence, domestic competition law may be necessary to prevent monopoly abuses.[15]

There are also concerns regarding the survival of small and medium enterprises (SMEs) if imports are allowed to freely enter the domestic market. However, in general, small and medium enterprises have outperformed the larger enterprises in export markets since the crisis began (Magiera 2000). Moreover, attempts to restrict certain activities to domestic SMEs may actually contribute to abuse of local market power and, by insulating firms from competition, makes them less able to penetrate foreign markets or to develop improvements in technology, productivity and efficiency (Thee 2000).

Trade and Investment Reforms: Phase II (1992-1996)

The second phase of reforms was launched in 1992, only after tight monetary policy had smothered the inflationary pressures that had built up over the booming late 1980s. The recession that began that year in Japan also reduced enthusiasm for pressing ahead with reforms. The years 1992-1996 saw continued reform efforts, but until May 1995 tariff reductions were minor (see section IV below for discussion). Instead deregulation focussed more on investment measures, particularly measures aimed at

[14] Once the domestic price exceeds the world price by a margin of 15 percent or more, smuggling becomes profitable in Indonesia and this constrains the ability of the government to use protection to favor domestic producers.

[15] Thee (2000) notes there are three types of monopoly: natural, innovative and predatory. Natural monopoly may be regulated (for example, railways or telephone companies). Innovative monopolies will only likely be temporary provided entry by rivals is possible. Predatory monopolies may be created by private behavior, but usually require government protection to sustain themselves. For further discussion of trade and competition policy, see Trebilcock and Howse (1999).

encouraging expanded inward FDI. A new wave of FDI reform started rolling in 1992. Foreign ownership shares of up to 100 percent were granted for PMAs that met one or more criteria for export-orientation, location in disadvantaged regions or that involved investment above $50 million (Pangestu 2001). During phase II, not only were high foreign ownership shares allowed but also divestiture requirements were steadily relaxed. Minimum investment requirements were drastically lowered for PMAs that were export-oriented and labor-intensive.

Further easing of regulatory restrictions on FDI took place in 1993 with the devolution of permits for land, building, operation and environmental assessment taking place. The decentralization of authority from the center to the districts or regencies, in theory was intended to make it simpler for PMAs to make investments operational. Between 1992 and 1994 there was a slowing in the growth of inward FDI in Indonesia that prompted concerns that Indonesia was losing out to China and other Southeast Asian countries as a host for new FDI.[16] This led the government to examine carefully the scope for further deregulation of FDI. A number of foreign and domestic experts on investment issues had cited Indonesia's ownership restrictions and divestiture requirements as being out-of-step with the investment regulations in neighboring countries. The government was also aware of the imminent conclusion of the Uruguay Round of the General Agreement on Tariffs and Trade and its provisions for liberalization of regulations and laws governing FDI.

[16] Inward FDI measured on a balance of payments basis was growing by approximately 30% per annum between 1990 and 1993 but slowed to just 5% between 1993 and 1994 (IMF, IFS CD-ROM 2000). Between 1992 and 1993 the value of approvals of FDI had fallen by over 20%, hence, the actual FDI growth in 1994 reflected a better than expected performance, given a one-year lag between approvals and realized investments (BPS, Indikator Eknomi February 1997).

In June 1994, a deregulation package was announced that significantly liberalized the foreign ownership provisions of the law governing foreign investments. For all intents and purposes this "big-bang" deregulation (Pangestu 2001) erased the divestiture requirement and allowed new and existing PMAs to choose between 95 percent or full foreign ownership. The new rules allowed for automatic renewal of licenses, opened additional sectors to FDI and allowed PMAs to freely choose locations for their investments. At the end of the day, Indonesian FDI rules were amongst the most open in the region.

Unlike investment, deregulation of international trade proceeded cautiously between 1992 and late 1994 as the Uruguay Round dragged on (finally concluding after the EU-US agriculture dispute was settled late in 1994). Aside from minor tariff reductions and relaxation of import licensing on a few items, there were no dramatic changes. Perhaps the major event as far as trade reform was concerned in this period was the June 1994 commitment to a *stand still* on new protective measures.[17]

Indonesia's Uruguay Round Market Access Negotiation was resolved with the decision that the country would bind substantially all tariff lines at 40%, with a few exceptions. Among the other "landmarks" in international economic policy during these years of gradual reform were the decisions to support both the ASEAN Free Trade Agreement with its Common Effective Preferential Tariff scheme (AFTA-CEPT) and the APEC Bogor Vision of free and open trade in the region. The successful conclusion of

[17] This stance was not adhered to one hundred percent. As the Chandra Asri petrochemical complex was coming on stream, Peter Gontha successfully lobbied the government for protective tariffs on the principal outputs, polypropylene and polyethylene of 30 percent in 1995. S. B. Joedono, Minister of Trade, and Marie Muhammed, Minister of Finance, both rejected Chandra Asri's request for special tariff protection. However, President Suharto overruled them and a protective 30 percent tariff was enacted.

the Uruguay Round Agreement and the establishment of the World Trade Organization as the successor to the GATT were critical developments during this period.

AFTA set forth a schedule for internal tariff reform called the Common Effective Preferential Tariff (CEPT) scheme, bringing virtually all internal tariffs down to 0-5% by 2008 (later revised to 2002).[18] Indeed, the inclusion list for CEPT covers 84.8% of all tariff lines in member countries, while the temporary exclusion list (with phasing in of tariff cuts after 2002) contains 13.4% of tariff lines. The sensitive list contains just 0.55% of all tariff lines and the general exception list contains only 1.28% of all tariff lines.

The Bogor Declaration called upon APEC members to fully liberalize trade by 2010 for developed members and 2020 by developing members, including Indonesia. However, until May 1995 tariff reforms were rather limited. These "landmark" decisions, however, did little to immediately improve incentives for Indonesian producers in terms of reducing costs and producing more for domestic and external markets. In the meantime, large Asian countries, China and India in particular, had been engaged in unilateral trade and investment policy reforms and had also devalued (China in 1994) or depreciated (India since 1991) their domestic currency vis-à-vis the US dollar. This led to concerns that the manufactured exports of these two countries were possibly being produced at lower cost than similar exports from Indonesia thus placing competitive pressure on Indonesian exports.

In May 1995, Indonesia announced a wide-ranging tariff reform program that went well beyond the Uruguay Round commitments. Between 1989 and 1994, there had

been zero reductions in the import-weighted average tariff (12 percent) and between 1991 and 1994 there had been only a very small reduction in the simple (unweighted) average tariff (20 percent to 19.5 percent).

However, the May 1995 package was estimated to cut the simple average tariff to 15 percent and the import-weighted tariff to about 10 percent. The "anti-trade bias" of the Indonesian system of protection (based on nominal rates of protection) estimated at 24 per cent in 1987, fell to 16 percent in 1995 following the May reforms, a 33% reduction, and, using real effective rates of protection fell from 50 percent to 28 percent, a 44 percent reduction, over the same period (Condon and Fane 1996). Moreover, a schedule was set out in 1996 for reducing all tariffs to a maximum of 10 percent under a three-tier structure of tariffs of 10, 5, and 0 percent by 2003.[19]

One of the most heavily regulated and protected sectors of the Indonesian economy, automobiles, was also affected by these developments. The tariff on completely built up sedans was reduced to 200 percent in 1995 and a schedule of tariff reductions was put in place that would reduce this to 90 percent by 2003. New FDI was forthcoming in the auto sector as General Motors Corporation, absent from the Indonesian auto market since the 1930s, decided to proceed with investment in a vehicle production facility, finally introducing some western competition into the Japanese-dominated domestic automobile industry. Not all of the developments in the automotive sector, however, were positive. Indeed, it was suddenly announced in February 1996

[18] Information from www.asean.or.id/economic/ov the homepage of the ASEAN Secretariat in Jakarta, Indonesia.

[19] This schedule is reproduced in World Bank (1997) but is spelled out in Ministry of Industry and Trade, Decree No. 133/MPP/Kep/1996. However, the World Bank pointed out the schedule was not rigorously adhered to, as some 800 HS tariff lines of over 20 percent, mainly in textiles and apparel, were not reduced by 5 percent in 1996 as scheduled.

(apparently after a midnight hour order from the presidential palace to the Minister of Industry and Trade) that a "national car" project had been launched as a joint venture with the nearly bankrupt Kia Motors Corporation of Korea. The "national car" program was immediately placed under the dubious stewardship of Tommy Suharto, the President's youngest son. The "national car" was a compact sedan named the "Timor" and was manufactured in Korea and granted duty free entry into Indonesia prompting a vigorous campaign of protest against the blatant discrimination by existing Japanese, European and American makers that ultimately was taken to the World Trade Organization (WTO).

III. The Impact of *Intensive Trade Liberalization* on Indonesian Non-Oil Exports, Industrialization, and Employment, 1985-1990.[20]

One important measure of the economic success of the reforms is the creation of full-time employment in manufacturing, particularly for new entrants into the labor force including young female workers who might otherwise have to accept jobs as unpaid family workers in agriculture, as domestic helpers or who might entirely drop out of the economically active population. The focus is on employment rather than on wages. Existing studies reveal that real wages in manufacturing industries have increased at a rate consistent with estimates of growth of labor productivity (roughly, 4 percent per annum) over the period 1975-1993 (Szirmai 1994). Given the abundance of rural labor and the estimated 2.7 million annual new entrants, the supply of unskilled workers is thought to be highly elastic, with gains in the quantity of employment being the most

significant impact of growth in export-oriented manufacturing. Estimates of open unemployment in Indonesia are quite low, partly because of the definition used but also because labor markets are quite flexible and real wages adjust fairly quickly to shifts in demand or supply. However, underemployment is a more serious problem. For example, in 1986-1990, open unemployment was stable at between 2.5-2.8 percent of the labor force (according to the annual labor survey—SAKERNAS conducted by BPS) while underemployment (meaning employees who worked fewer than 35 hours per week) was 37.7 percent of the workforce in 1990 according to BPS (1991).

In 1985, the percentage of the economically active population employed by manufacturing enterprises was small (9.28 percent of the employed labor force of 62.5 million). By 1990, the share of manufacturing employment had risen to 10.14 percent of an employed labor force of 75.9 million. During this interval the overall labor force participation rate increased from 53 percent to 57.3 percent. Employment growth in manufacturing was much higher than overall employment growth and reflects the rapid increase in demand for labor in manufacturing. In the following section we evaluate the role the expansion of manufactured exports played in this achievement.

1985-90: Rapid Expansion in Employment

In 1985 manufactured exports are estimated to have provided employment for about 1.71 million Indonesians (2.7 per cent of the employed labor force of 62.5 million). In contrast, primary exports are estimated to have provided employment for 1.82 million Indonesians or 2.9 per cent of the workforce. In 1990 employment related to demand for

[20] This section draws upon Fujita and James (1997). Based upon the I-O tables of 1980, 1985 and 1990, it estimates employment resulting directly and indirectly from manufactured exports and finds large increases after 1985 compared with the earlier period.

Indonesian manufactured exports rose to an estimated 4.84 million, equivalent to 6.4 per cent of the total employed workforce of 75.9 million. In contrast, employment related to primary exports fell to an estimated 1.20 million in 1990 or just 1.6 per cent of the workforce.[21]

Light manufacturing is defined to include labor-intensive and some resource-based sectors such as textiles, apparel and leather, footwear and miscellaneous manufactures, wood-based industries and paper and paper products. The value of exports in various sectors in 1985, 1990 and 1995 is reported by ISIC sectors in table 1. There was a dramatic expansion in manufactured exports, particularly of light industrial products, between 1985 and 1990. Much of this expansion can be attributed to the liberalization drive in trade and investment in this period.

It can be seen from table 2 that the employment resulting from manufactured exports in the light industries was much higher in 1990 than in 1985 (2.333 million vs. 0.854 million). Hence, even if we ignore possible indirect effects on employment in the other manufacturing sectors, services and the primary sectors, employment in these industries related to external demand is still quite substantial.

In contrast, manufactured exports related employment remained relatively minor in the heavy and chemical industries. The amount of employment provided by manufactured exports in the heavy and chemical industries was only 0.153 million in 1985 and 0.336 million in 1990.

[21] Caution should be used in interpreting the number of primary sector jobs "induced" by sectors such as the wood processing industries. In the absence of the processing factories, exports of raw material (i.e., logs and sawn timber) are likely to have been much larger and employment may not have been much reduced. The same holds for the vegetable oil processing industries in relation to palm oil and coconut plantation employment.

Light industrial exports (excluding food and beverages) accounted for a fair portion of the increment in primary and service sector employment attributed to backward and forward linkages or that is "induced" by manufactured exports. The mechanism for stimulation of employment in the primary sector is through backward linkages from manufactured exports or what is sometimes referred to as "derived demand" for primary sector products and, hence, labor employed in these sectors. The estimation of indirect and direct employment effects of manufactured exports is elaborated upon in Fujita and James (1997). Comparing 1985 and 1990, there was a significant increase in primary sector employment "induced" through linkages from manufactured exports in most sub-sectors, whether in agriculture, forestry, fisheries, mining or petroleum. The largest increment is in wood with a gain of 0.18 million jobs.[22]

Manufactured exports of necessity require supporting service industry inputs. By definition exports of all types of merchandise have implications for service industries. In particular, transportation services, telecommunications services, financial services (e.g., export insurance) and other professional services are all embodied in merchandise exports to some degree. We estimate that services employment induced by exports of manufactured goods was 0.317 million in 1985 but rose to 0.707 million in 1990.

Between 1985 and 1990 the estimated employment created by manufactured exports rose at an annual compound growth rate of 23.16 per cent and accounted for over 23 per cent of incremental employment. Of the increment in employment induced by manufactured exports between 1985 and 1990, 60 per cent was induced in the

[22] There may be reasons to attribute the cause of employment effects in the opposite direction—that is the employment in plywood and wood furniture results from the cheap and plentiful supply of raw material in 1990. For our purposes, the direction of causation is not the key issue, rather we are concerned with the

manufacturing sector. Over 47 per cent of the estimated total increment in employment provided by exports is in light industries. Much of this gain in employment was directly induced by light industrial exports themselves. This does not necessarily imply that in the absence of manufactured exports, unemployment would have risen in incidence by 1.707 million workers in 1985 and 4.836 million in 1990. However, there can be little doubt that the overall level of productivity and incomes of these workers would have been reduced (along with the possibility that many would choose to not enter the labor force or would have remained unpaid family workers) if jobs related to exports were not available.

The Role of FDI in Trade: Industrial Structure and Export Specialization

Trade and investment reforms enacted between 1985 and 1990 were influential in the changes in the industrial structure of Indonesia. The liberalization policies spurred rapid growth in sectors that are export-oriented and that make use of relatively abundant factors of production such as labor and natural resources. The share of labor-intensive manufactures in exports and production expanded particularly rapidly in this time period (Hill 1997). In addition rapid increases in private fixed capital formation and in foreign direct investment (FDI) were closely associated with subsequent export growth in manufacturing.

The trade and investment reforms had a significant impact on Indonesia's export specialization. In particular, this section will highlight the positive role of private investment, foreign direct investment and imports of capital goods on subsequent export performance. Proper alignment of the real exchange rate also stimulated export growth in

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overall levels of employment and real wages, presumed to be positively affected by external (and domestic)

this period. On the other hand, introduction of export taxes on some important raw material sectors (as is discussed above), justified as offsetting tariff escalation in export markets like Japan, the USA and EU as well as in other East Asian markets, had unintended negative incentive effects. Export taxes made investment in primary sectors, particularly investments in tree plantations or reforestation in forestry, unattractive and therefore limit the sustainability of export growth in sectors dependent on a steady input of raw material.

Prior to the deregulation that began in 1985, Indonesian exports were highly concentrated (table 3). Oil and gas alone accounted for over 70 percent of merchandise exports in 1980. Apparel products (largely exported under MFA quotas) accounted for a mere 2 percent of exports that year. Overall, labor-intensive products (defined as SITC categories 65 textiles, 81 travel goods, 82 furniture, 84 apparel, 85 footwear and 89 miscellaneous manufactures) accounted for just 3 percent of exports (table 4). The deterioration of the oil market following the global recession in 1981-82 had a very significant negative impact on Indonesia's balance of payments, largely through its impact on export earnings. Overall exports had fallen from $23.6 billion in 1980 to $20.3 billion in 1985. In 1986, export earnings collapsed further to $16.7 billion as oil prices swooned to under $10 per barrel. In 1985, oil and gas still accounted for over 63 percent of export receipts.

It is worth noting that in both 1980 and 1985 semi-conductors (SITC 776) were among the leading export products, though the value declined from $89.2 million in 1980 to $57.6 million in 1985. These exports are attributable to factories established by two

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final demand.

American electronics multinationals (Fairchild and National Semiconductor). However, these companies both withdrew from Indonesia after 1985 because of the restrictive ownership rules (requiring divestiture) among other problems.

In 1985, some textile products such as synthetic fabrics (SITC 653), cotton fabrics (SITC 652), and textile yarn (SITC 651) had also become established as export products. Indeed, cotton textile exporters mounted fierce opposition to a plan by the Minister of Trade to create a monopoly over cotton imports, arguing that monopoly pricing of cotton would drive them out of the export business. Still in 1985 labor-intensive products (as defined above) were a very small percentage of overall exports (7.5 percent). In 1985, plywood and veneers (SITC 634) became the largest 3-digit non-oil/gas export category, with its growth mirroring declines in exports of logs (SITC 247). In fact, exports of plywood and veneers remained far lower in value in 1985 than log exports in 1980. Plywood finally overtook logs' 1980 export value in 1987 (Statistics Canada 2000). Among the other products that contributed to non-oil/gas exports in 1985 aluminum (SITC 684) is noteworthy and reflected the coming on-stream of the Asahan Aluminum complex, a joint venture project with foreign investors in Sumatra. Shrimp (harvested from specially designed ponds) also emerged in 1985 as a significant export category. In 1985 Indonesia had attained self-sufficiency in rice (SITC 042) and even exported $73.75 million of this product.

Industrial sectors that received high rates of assistance through tariff and non-tariff barriers such as the automotive sector and various other types of machinery and other heavy and chemical industries contributed little to exports. Trade data organized by ISIC categories were presented in table 1. Alternatively, data in table 5 are presented in

SITC categories with manufactures defined as only SITC 5-8. On this basis, manufactures did rise to 17.1 percent of exports in 1985 compared with just 6.2 percent in 1980, but almost all of this was a result of growth in exports of sectors that were promoted through export controls and special incentives such as plywood and textiles and apparel (table 5). The removal of export subsidies and the liberalization of imports that began in 1986 led to faster growth in exports of manufactures. This growth was made possible by increases in investment in export-oriented industries, including FDI. Imports of capital goods, intermediate inputs and raw materials were also essential to the boom in non-oil manufactured exports. The duty draw back scheme allowed exporters to purchase these imported inputs at international prices.

In 1990, after five years of significant trade liberalization, export diversification, particularly of non-oil/gas products, and rapid expansion of exports (after export declines between 1980-1986) propelled growth of the manufacturing sector. Oil and gas exports peaked in 1982, with a value of $19.5 billion and a share of 80.5 percent of total exports (table 6). In 1990, despite the fillip in prices resulting from the Gulf War, oil and gas accounted for 40.8 percent of exports and $11.5 billion in export receipts.

By 1990 an array of labor-intensive and resource-based exports ascend to prominence in Indonesia. Plywood and veneers, boosted by the tight ban on raw material exports and the initially plentiful supply of logs, tripled in value compared with 1985, enjoying the soon-to-burst bubble economy of Japan as well as high demand elsewhere in East Asia. Labor-intensive manufactures clearly emerge as “winners” from trade liberalization and account for over 20 percent of total exports. For example, footwear exports (SITC 851) rose 30-fold over miniscule 1985 levels. Exports of furniture (SITC

821) show similarly spectacular growth. Among the resource-based product exports, shrimp (SITC 036), coffee (SITC 071), vegetable oil (SITC 424), tea (SITC 074), fresh and frozen fish (SITC 034), spices (SITC 075), vegetables (SITC 054) and cocoa (SITC 072) emerge as export-oriented sectors in 1990. This diversification of exports is consistent with Indonesia's comparative advantage and reflects the efficiency gains from the intensive trade deregulation. Manufacture's share of exports more than doubles over that of 1985 achieving approximately the same share as oil and gas of around 40 percent of the total.

In 1991, overall export growth slowed with the end of the Gulf War and with the recessions in the USA and Japan. However, growth in exports of non-oil and gas products continued to be rapid. Underlying the good export performance of non-oil/gas sectors was a boom in private investment in export-oriented industries in manufacturing, mining and agriculture, forestry and fisheries.

FDI recorded in the balance of payments exceeded one billion dollars for the first time in 1990 (up more than four-fold from 1986). The surge in new FDI between 1986 and 1990 raised capacity in the emerging export sectors, particularly in manufacturing. Imports were adversely impacted by the slow growth of the Indonesian economy from 1982 to 1985 and by the increasingly protective stance of trade policy in this period. Imports fell from $15.1 billion in 1982 to just $9.4 billion in 1985, but began to recover once trade liberalization began and the Indonesian economy began to sustain higher growth. By 1990 imports had grown to more than double the 1985 level and were $22.1 billion that year. Imports continued to expand in 1991, reaching $25 billion doubling the level of 1987. Imports supporting private investment and production (capital and

intermediate goods) were expanding significantly in the years 1986-1991. This import growth was important in sustaining investment and export growth in the first phase of deregulation of trade and investment.

IV. Trade Growth, Liberalization and Employment Creation in the Pre-Crisis 1990s.[23]

The process of trade reform has been uneven in Indonesia, with a distinct slowdown of reform between 1991-1994 compared with 1987-1991. For example, the World Bank (1995) reported that the simple arithmetic average tariff plus surcharge was 20 per cent in 1990 and 19.5 per cent in 1994.[24] Using import weights, the average tariff actually increased from 11 per cent in 1991 to 12.5 percent in 1994. Non-tariff barriers (NTBs) were estimated by the World Bank (1995) to cover 31.1 per cent of non-oil manufacturing in 1991 and 30.6 per cent in 1994.[25] Indonesia's participation in the successful Uruguay Round negotiations did not signal that significant trade reforms would follow. This is because Indonesia's market access commitment was limited to binding substantially all tariffs.[26] Nevertheless, major trade reforms were unilaterally adopted in 1995. The May 1995 trade liberalization lowered tariff and non-tariff barriers, but took place too late to really have much impact on production, employment or trade in that year.

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[23] This section draws upon "Employment and Manufacturing Exports in Indonesia: An Input-Output Analysis" by W. James and N. Fujita, ICSEAD Working Paper Series Vol. 2000-06, Kitakyushu, May 2000.

[24] Prior to reforms in 1985, the simple average tariff was 37 per cent, the import-weighted tariff was 22 per cent and the production-weighted tariff (1987 production weights) was 29 per cent (World Bank 1995).

[25] In 1986, non-tariff barriers covered an estimated 46 per cent of non-oil manufacturing. The World Bank also reports production weighted average tariffs as falling from 15 per cent in 1991 to 10.4 percent in 1994. These estimates, however, use 1987 production weights and may be quite misleading. Fane and Condon (1996) provide estimates using 1990 production weights.

[26] The bound rate for over 95% of Indonesia's 9000 plus tariff lines was set at 40%.

Over the period as a whole, trade reforms are estimated to have reduced the nominal rate of protection in non-oil manufacturing from 21 per cent in 1987 to 11 percent in 1990 and, further, to 6 percent in 1995. The effective rate of protection fell from 80 percent in 1987 to 35 percent in 1990 and, further, to 25 percent in 1995.[27] Moreover, industries deemed to be export-competing were given a more level playing field with import-competing industries during this period of trade reform. Effective protection (or assistance) rose from –28 percent in 1987 to –21 percent in 1995 for export-competing sectors and fell from 46 percent in 1987 to 19 percent in 1995 for import-competing sectors.[28] The standard deviation of nominal and effective rates of protection in manufacturing was reduced greatly by these reforms (Fane and Condon 1996). The reduced anti-trade bias in the industrial policy regime fostered continued rapid growth in exports from non-oil manufacturing, with labor-intensive sectors such as textiles, apparel, footwear and miscellaneous manufactures all growing impressively (table 5).

In the interval of 1990-95, manufactured exports are estimated to have provided an additional 0.96 million jobs. Total employment "induced" by manufactured exports represented 7.2 percent of the employed workforce of 80.1 million.[29] Growth in employment related to the demand for manufactured exports was 3.7 percent per annum, a lower growth rate than in the period 1985-90. Indirect employment in the primary sectors "induced" through backward linkages from exports of manufactures was

[27] The figures for 1987 and 1990 are from Fane and Phillips (1991) and Fane and Condon (1995). The figures for 1995 are estimated using data incorporating the May 1995 trade reforms (Fane and Condon 1996).
[28] These figures are derived from Fane and Condon (1996)

estimated to be only around 30,000 higher in 1995 than in 1990. And between 1990 and 1995, there was a contraction in jobs indirectly induced by manufactured exports in the primary wood sector. The reduced rate of expansion of wood exports between 1990 and 1995 is chiefly due to slower growth in the plywood sector.[30] [31] Backward linkages from manufactured exports to primary sectors supplying raw materials remained significant but did not expand as rapidly as in the previous period.

Manufacturing employment related to exports in 1995 is estimated to have increased by 260,000 compared with levels estimated for 1990. The bulk of the increase was in light industry (table 2). Manufactured exports expanded demand for labor in the services sector as estimates of employment are up by 630,000 over 1990 levels in 1995. Light industrial exports created most of the employment "induced" by manufactured exports (59 percent). Aside from the primary sector, light industry exports accounted for the bulk of employment related to exports in manufactures (65 percent) and in services (58 percent).

It is important to put the slow-down in employment expansion provided by manufactured exports in the first half of the 1990s in proper perspective. The expansion of employment related to manufactured exports was from a much higher base than in the previous period. Annual growth in the labor force slowed considerably compared with

[29] The estimated economically active population, including those not employed seeking work, in 1995 (BPS, Statistical Yearbook 1995) was 86.4 million compared with 77.8 million in 1990 (ADB, 1999). The growth rate of the economically active population is about 2.05 per cent per annum over this period.
[30] James (1998a) shows that plywood exports fell in value by 7.2 per cent in 1995 compared with 1994 and fell in volume by 7.3 percent. From 1993-95 export volume of plywood (SITC 634) fell by an estimated 11.5 percent.
[31] The slow-down in expansion of wood product exports may indicate that easily harvested logs are becoming scarce. At the same time, expansion of tree crop production and exports may reflect the on-going conversion of forests into agricultural estates.

the previous period.[32] According to census data, overall employment growth between 1990-95 was just 2.2 percent, down from 3.2 percent in the 1980-90 period and nearly 4.0 percent in 1985-90. Exports played a less significant role in the expansion of employment during 1990-95 than domestic final demand.[33] Export composition and diversification was strongly influenced by FDI between 1990 and 1995. By 1995, machinery exports begin to emerge as significant contributors to export receipts. In particular, telecommunications parts and equipment (SITC 764), radio broadcast receivers (SITC 762), electrical machinery and apparatus (SITC 778) and office machinery (SITC 751) all attain export levels of over $200 million (table 3). Oil and gas in 1995 accounted for just 22.2 percent of export receipts, while the share of manufactures increased to around 54 percent. Labor-intensive manufactures' share in total exports was 25 percent, down slightly from a peak of 28 percent in 1993.

Electrical and non-electrical machinery exports are clearly related to FDI and the economic activities of foreign multinational corporations. The sharp rise in inward FDI and expansion of multinational corporate economic activity, including exports, has been documented (Takii and Ramstetter 2000, Ramstetter 1999, Sjoholm 1999). For example, the number of minority-owned (less than 50 percent but at least 10 percent of equity) foreign establishments in manufacturing recorded in the census of manufacturing by BPS rose from 134 in 1985 to 210 in 1990 and 341 in 1996. Similarly, the number of majority-owned (more than 50 up to 90 percent of equity) foreign establishments increased from 229 in 1985 to 287 in 1990 and 518 in 1996. Finally, the number of

[32] Jones (1994) estimated that the overall expansion in the labor force during the 1990s would be around 19 percent compared with 33 percent in the 1980s.

"heavily-foreign owned" (90 percent of equity or more) establishments increased from just 53 in 1985 to 110 in 1990 and 460 in 1996. These multinational affiliates in manufacturing were significantly more export-oriented than domestic establishments, particularly those with high foreign ownership shares (Ramstetter 1999). The foreign affiliates account for a rising share of employment and value-added in manufacturing and accounted for, on average 4-6 percent of employment and 9-12 percent of value added (Takii and Ramstetter 2000). The evidence from the survey of manufacturing indicates that foreign-owned establishments tend to have higher average labor productivity than domestic firms and also offer higher remuneration to employees. The number of heavily foreign-owned establishments expanded particularly rapidly after the 1994 reforms.

Despite the trade reforms of May 1995 and the increased presence of foreign-owned firms, non-oil/gas export growth experienced a slowdown beginning in the last six months of 1995 and continuing in 1996. This slowdown was a general phenomenon in East Asia (James 1999). The current account deficit widened in 1995 in response to continued high economic growth and strong domestic final demand, both in consumption and in capital formation. Despite an increase in estimated gross domestic savings, investment increased by even more, and the current account deficit rose from –$2.792 billion in 1994 to –$6.431 billion in 1995. The current account deficit rose as a share of GDP from –1.58 percent in 1994 to –3.18 percent in 1995. During the period of 1986-1996, however, other Southeast Asian countries typically ran much higher deficits on

[33] Akita and Hermawan (2000) provide a decomposition of output growth using a similar methodology for the period 1990-1995 and find that final consumer demand was the most important component followed by investment demand and then by exports.

current account than did Indonesia. Thailand and Malaysia had deficits as high as 8 or 9 percent of GDP.

The slowdown led some to raise the issue of competitiveness of non-oil exports in the pre-crisis 1990s. Alleged "loss of competitiveness" in labor-intensive sectors with the emergence of China and the advance of other countries into the electronics, telecommunications and office machinery (information and communications technology or IT sectors) underlay the concerns. However, analysis of the factors accounting for the slowdown reveals that slower growth in world and regional demand, rather than erosion of competitiveness explains most of the downturn in growth between July of 1995 and December 1996 (Parker and Lee 2000). Indonesian non-oil exports performed relatively well in 1996 compared with most other Asian countries (James 1999). The downturn was more pronounced for countries with exports that were heavily oriented towards electronics and electrical machinery, particularly those dependent on Japan and the EU as major markets rather than the USA. Cyclical downturns in trade and economic activity have periodically affected the exports and commodity markets of the East Asian economies and will continue to have such effects in the future.

Even though it appeared that Indonesia had sound economic fundamentals, it was vulnerable to a crisis of confidence. Not only did it have a high level of external debt, but financial supervision of banks was weak and corporate governance was haphazard at best. Furthermore, once political uncertainty is taken into account, the spread of the crisis from neighboring countries with similar characteristics is understandable.

V. The Crisis and IMF Reforms: Trade and External Balance during the Currency Collapse.

The impact of the crisis on trade and investment was quite significant. The collapse of the Rupiah, which lost 80 percent of its value against the US dollar between July 1997 and 1998, could be expected to have a major impact on relative prices of tradable goods and services relative to non-tradables in the Indonesian economy. Amidst the deepening crisis, Indonesia was forced to approach the IMF for assistance and guidance in restructuring its debt and reforming the economy.

An initial letter of intent (LOI) was signed with the IMF early on in November 1997 and was largely seen as precautionary in nature. However, as the crisis worsened more assistance was required and a second letter of intent was signed in January 1998. This time around the IMF required that Indonesia totally reform its economic policies, sweeping away all monopolies (including that of BULOG) and cartels (such as APKINDO), undertaking drastic changes in governance through anticorruption and competition laws and policies and in liberalizing remaining barriers to international trade and foreign investment, including the drastic reduction or abolition of export restrictions and taxes, including the prohibitive taxes on exports of logs and rattan. The reform measures also meant that special protection and preferences given to state enterprises or projects such as the "national car program" had to be abolished.[34] "Made to measure" tariff protection for the Chandra Asri petrochemicals complex was also reduced with tariffs on polyethylene and polypropylene cut from 30 to 20 percent.[35] Another

[34] Of course, reforms in banking and the financial sector are an important part of the program but are not covered herein as our focus is on trade and investment in the real sectors of the Indonesian economy.
[35] Although the reforms required in the 2nd LOI appear to be comprehensive, some items may have "slipped through the cracks."

component of the reforms of the real economy is the decentralization of fiscal authority and regional autonomy.[36] The breadth and depth of the required reforms was so great it has led to more than a few "Indonesia hands" to complain that there was little trade regulation of interest to study anymore![37]

The current account deficits that characterized Indonesia in the 1990s were reduced in 1997 to –2 percent of GDP and reversed into surpluses in 1998 and 1999. The reversal was a result of the compression of imports and the fact that exports fell by much less than imports in nominal terms (Magiera 2000; James 2000). World Bank (2000) reports exports of goods and services in current US$ fell from $63.2 billion in 1997 to $54.8 billion in 1998, while imports of goods and services fell from $62.8 billion to $43.8 billion over the same period. Moreover, there was a positive response of export volume to the change in relative prices brought about by the currency collapse.[38] In constant 1995 dollars, the real value of exports of goods and services increased from $62.1 billion to $69.0 billion (World Bank 2000) between 1997 and 1998. One area in services where exports did contract in real terms is tourism services and this is reflected in a drop in arrivals from 5.185 million in 1997 to just 4.606 million in 1998 (World Bank 2000).

The current account surplus reached 4.2 percent of GDP in 1998, with a turn around of almost $9 billion compared with the deficit of 1997. However, external debt in 1998 was estimated to exceed $150 billion (World Bank 2000) and could be as much as $180 billion. Debt service payments in 1997 and 1998 were around $19 billion (equal to

[36] See Goodpaster and Ray (2000) for discussion of domestic trade issues and decentralization.
[37] This is, of course, hyperbole. The entire services area is a rich future research field where Indonesia has made very limited reform commitments to date. As international negotiations on services under the General Agreement on Trade in Services (GATS) are going to be relatively more important than negotiations on goods, Indonesia will need to put much more effort into understanding the complex issues surrounding deregulation of services.

around 30 percent of exports of goods and services). Much of the debt is owed by Indonesian conglomerates and will have to be restructured. Meeting Indonesia's debt service obligations will require dynamism in exporting, marketing Indonesian services abroad and in attracting inflows of FDI. In the severe downturn of 1998 there was a withdrawal of FDI, estimated to be between $356-$400 million (IMF 2000 and World Bank 2000). The 1999 current account surplus ballooned to $5.8 billion, reflecting the collapse of gross fixed capital formation and the on-going withdrawal of foreign capital from the economy as $2,745 million in FDI was withdrawn.

VI. The Recovery Process and the Role of Exports and Domestic Demand: 1999-2000.

In 1999, the crisis finally began to wane and the economic situation stabilized. In 2000, a surge in exports (helped by higher oil and gas prices), recovery in consumption spending and a revival of private investment (including signs of rekindled interest by foreign investors) helped the economy to grow by about 5 percent. Merchandise exports are playing a crucial role in the still fragile recovery. Indeed, in the first ten months of 2000, total merchandise exports were up almost 30 percent and non-oil/gas exports had improved by 24.5 percent compared with the same period in 1999. It is almost certain that new record levels of exports of goods will be achieved in 2000.

Unfortunately, a change in export documentation that was implemented in 1997 (allowing shipments of under Rp.300 million exemption from detailed customs forms) had made it very difficult to make detailed analysis of non-oil/gas export performance

[38] See Rosner (2000) for analysis of the export volume response to the currency collapse.

during the crisis years compared with the pre-crisis period (James 1998b).[39] However, the PEBT form was rescinded in April of 1999, so the export data for 2000 will be uncontaminated and will allow us to compare export composition and performance with the pre-crisis period with reasonable confidence.

Currently, data are available for the first 10 months of 2000 and reveal that there has been a dramatic shift in the composition of exports of non-oil/gas products. In particular, SITC categories 75 (office machinery), 76 (telecommunications equipment) and 77 (electrical machinery) have shown phenomenal growth in 2000. In fact, exports of these categories together were already 84 percent above annual levels for 1999, even after adjustment for PEBT exports.[40] Growth rates for the first ten months of 2000 compared with 1999 underscore the dramatic rise in machinery and electronics exports. Office machinery exports increased by 158.7 percent, telecommunications equipment and parts rose by 138 percent and electrical machinery and apparatus by 92.5 percent (table 7).[41] Labor-intensive manufactures, including textiles (SITC 65), clothing and apparel (SITC 84) and miscellaneous manufactures (SITC 89), have also performed relatively well in 2000. That exports have rebounded strongly in value terms in 2000, and even before that, had a relatively good volume performance, certainly has been important in containing the crisis and in launching the recovery.

[39] Magiera (2000) adjusts data for 1997, 1998 and 1999 using detailed company records on exports.
[40] Magiera (2000) notes that despite the fact that these sectors are heavily dependent on imported components, they still performed relatively well, perhaps because of foreign-owners access to capital and marketing know-how. The dramatic shift in export composition towards electrical machinery and electronics and the role of multinational corporations are documented in Ramstetter (2000).
[41] Data are from BPS, but have been processed by the Agency for Research and Development, Ministry of Industry and Trade, taking into account estimates by Magiera (2000) of PEBT exports by two-digit SITC category in 1999.

Does Intervention Work in the Long Run? Export Performance in Wood and Cocoa

Clearly, the development of non-oil/gas exports has been an important success of the era of deregulation of trade and investment in Indonesia. However, questions remain in interpreting the underlying mechanisms for the success of the export push. For example, important labor-intensive sectors of textiles and apparel are regulated by the Multi-Fibre Arrangement (MFA) that requires exporting countries to control exports to major industrial markets through allocation of export quotas, which presumably allow the exporting countries to capture a portion of the quota rents created by this system.[42] Moreover, in recent years industrial countries have used auxiliary forms of protection such as complex rules of origin and tariff discrimination (along with selective relaxation of quotas) to further regulate market access. Hence, it is difficult to assert that purely market forces are behind the fortunes of textile and apparel exports. The fact that the MFA will be abolished in 2004 means that international apparel and textile markets will soon become more fiercely competitive. The question is whether or not Indonesian producers will be prepared to compete when this epic change takes place.

Two resource-based sectors where Indonesian comparative advantage could be expected to give vent for export development are compared briefly in order to caution against the commonly held view that intervention is likely to improve the situation compared with a "free market" approach. The two sectors for comparison are wood and cocoa, both of which have gained notoriety as export-oriented sectors during the deregulation era. Wood industries have been characterized by a great deal of special promotion policies including bans on exports of raw materials, promotion of processing

[42] Krishna and Tan (1998) argue that importers themselves capture at least a portion of these rents.

industries by special credits and other means, and the use of environmentalist and nationalist arguments to turn away foreign companies and investors in favor of domestic producers.[43] A plywood export cartel (APKINDO) was established with the support of the government and sought to make use of Indonesia's perceived market power in international plywood markets.

Despite the large amount of assistance received by plywood producers in the form of credit subsidies, replanting subsidies (largely pocketed rather than being used to support replanting) and especially the artificially cheap raw material supply created by the log export ban, exports performed well only in the short-run, peaking at $4.7 billion in 1993 and steadily contracting thereafter to an estimated $2.6 billion in 1999 (including adjustment for PEBT) approximately the same nominal amount as in 1989. The volume of plywood exports peaked in 1994 at approximately 5.9 million metric tons and has fallen since then (see table 8b, also see James 1998a and Rosner 2000). By the mid-1990s it became apparent that Indonesian efforts to force foreign buyers to deal solely with APKINDO's marketing arm were a failure and that market share was being steadily lost to competing producers and substitutes. The volume of plywood exports in the first ten months of 2000 was 1.6 percent below the volume for the same period in 1999 (data from MoIT). The annual volume of plywood exports is likely to be a good deal lower than the 4.7 million tons exported in 1999. A reduction to 4.5 million would mean that volume is 25 percent below the 1994 peak (see table 8b). From an Indonesian environmental standpoint, the policy has also been a disaster, with supply of raw

[43] This is based upon personal communication between the author and Chris Bennet and members of the Natural Resource Management (NRM) Project. For earlier studies of the environmental and economic

materials running low, severe deforestation and encroachment by wood harvesters on remaining stands in national parks and preserves.

In contrast to the situation in wood, the cocoa sector was allowed to develop in a largely unregulated fashion, with no explicit promotional interventions. As is pointed out in Akiyama and Nishio 1997: 106, for cocoa:

> "*There is no marketing board, no direct involvement by Bulog in marketing or importing, and none of the price controls, export quotas or exclusive trade licensing requirements that affect a wide range of agricultural commodities in Indonesia."*

The absence of intervention meant that a competitive and efficient marketing and distribution system developed for cocoa. The only interventions were a 10 percent tariff on imports of cocoa beans, the VAT, and *retribusi* or charges on transport levied by local governments in Sulawesi, the main production area. However, unlike the African countries, Indonesia refrained from levying export taxes on cocoa and marketing costs were kept low. With a competitive exchange rate, cocoa farmers have adequate incentives to produce for export. As a consequence, production and exports of cocoa grew rapidly in the years 1980-99 (in 1993 Indonesia had become the third largest producer and a major exporter). Exports continued to grow at an extremely high rate (annual average growth of 32.5% between 1990 and 1998) into the crisis, peaking in value at $489 million in 1998 up from $120 million in 1990. While exports fell back in value in 1999, they were still close to $400 million and cocoa had clearly become one of Indonesia's most significant agricultural exports. In volume terms, cocoa exports grew from 230,000 metric tons in 1995 to 390,000 metric tons in 1999 a compound annual growth rate of 14%, quite an impressive and opposite performance to that of plywood

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impact of forestry policies see Ruzicka (1979) and other related articles in the *Bulletin of Indonesian*

(table 8a). In the first ten months of 2000, volume was about the same as in the first ten months of 1999 (unadjusted for PEBT). However, any analysis of longer-term trends would have to conclude that cocoa exports are on a much firmer basis for sustained development than are plywood exports.

The Trade and Investment Policy Agenda: Lessons for the Next Phase of Development

A clear lesson from the above comparison is that government interventions to "promote exports" through special incentives can have adverse unintended side effects and, in contrast, allowing market forces to function can foster the development of new export products that make use of relatively abundant factors of production and that have good market potential. The government, rather than trying to "pick the winners" and intervene with special incentives, would possibly do better by strengthening its ability to analyze regulatory regimes and changes and to promote Indonesia's commercial interests, particularly in the area of improved market access in bilateral, regional and multilateral arenas.

The next challenge facing Indonesia is to maintain the momentum of tariff reduction schedules, both MFN reductions and those related to AFTA-CEPT. Currently, the expectation is that CEPT reductions will be completed (for the inclusion list) by 2002. However, the Indonesian Chamber of Commerce (Kadin) has called for a "delay until 2005" in order for domestic industry to "prepare itself for the competition" (*Jakarta Post*, February 27, 2001, p.1). Backsliding on AFTA/CEPT is not only uncalled for, it is unnecessary. Most of the CEPT tariff reductions have already been implemented (85 percent were completed in 2000 and 90 percent will be implemented by the end of 2001

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according to the ASEAN Secretariat. Moreover, in light of the crisis a special escape clause has been created by which a member can delay tariff reductions to other members provided a written request is submitted to the AFTA Council and compensation is provided to countries that keep to the tariff reduction schedule.[44]

A similar challenge exists in respect to investment, as there have been untoward delays in selling IBRA-controlled assets, particularly when foreign investors are among the purchasers. It will remain difficult for Indonesia to attract new FDI if it cannot resolve to forge ahead with sales of IBRA-held assets and demonstrate serious commitment to cleaning up bad debts that are on bank and corporate balance sheets.

Market Access Issues for Indonesia: Implementation of the Uruguay Round Agreements

The last round of multilateral trade negotiations included the achievement of bringing agriculture, textiles and apparel and services under the WTO umbrella. The breakthrough was made possible by the comprehensive nature of the round that provided incentives to come to an agreement by a large and diverse group of countries. Implementation of the agreements, thus, is important in building trust and confidence in the WTO/GATT system. In particular, the implementation of Uruguay Round commitments in textiles and apparel by developed countries will have profound implications for Indonesia, a major exporter of textiles and apparel. The Uruguay Round Agreement on Textiles and Clothing (ATC) will fully eliminate quotas on textiles and clothing in major markets of the European Union, Norway, Canada and the United States by December 31, 2004. Developing countries will still face rather high tariffs in these markets for textiles and clothing (Mukerji 2000). However, international competition

[44] This resulted from Malaysia's request to delay tariff cuts on autos until 2005 and Thailand's demand for

based on price and quality rather than artificial market access through quotas will govern trade in these important commodities. Thus, it will be essential for firms to improve their efficiency in order to take advantage of the new situation. There are concerns that vested interests in both importing and exporting countries will attempt to resist the removal of quantitative restrictions. Indonesia, therefore, will have an interest in seeing that the ATC is implemented fully and that its own industry is prepared for vigorous global competition.

Antidumping, Safeguards, Rules of Origin and Technical Barriers to Trade

As traditional tariff and non-tariff restrictions have been steadily reduced through the GATT/WTO, new forms of protectionism have developed that adversely affect market access of Indonesian products and services in some major international markets. Herein, areas of concern are only briefly mentioned, leaving it to future work to analyze in detail the issues involved. It is sufficient for purposes here to point out that Indonesia has been adversely impacted in the area of market access by antidumping measures imposed by major trading partners, by safeguards, rules of origin (used in the context of enforcing discriminatory preferential tariffs by regional trading arrangements) and by technical barriers such as product safety and sanitary measures and testing and labeling requirements. Indonesia will also have to strengthen its expertise in areas of interest to its major trading partners. These areas include intellectual property rights protection, agricultural trade liberalization, enforcement of trademarks and copyright, and national treatment for foreign-owned companies and concerns over labor and environmental standards.

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compensation in response (*The Daily Yomiyuri*, November 24, 2000, p.19).

Presently there are few Indonesian experts in international trade law and regulation and fewer economists with knowledge of both international economics and international trade law. Hence, training and capacity building in these areas would be useful in supporting future Indonesian international trade. This will be essential to Indonesia's full participation in regional and global trade negotiations, including forthcoming rounds of WTO negotiations.[45]

The New Regionalism and Indonesia: Opportunity or Threat?

A plethora of discriminatory regional arrangements are being negotiated, including at least 15 new Asia-Pacific initiatives in the past year, with more in the offing (table 9). For example, bilateral free trade agreements are in the works between Singapore (Indonesia's third largest market) and several other major Asian and Pacific partners. Moreover, Japan (Indonesia's largest export market) and Korea (ranked 4th in 1999 and 2000) are in the process of discussing the terms and conditions of a closer economic relationship, including the possibility of a free trade agreement.[46] Indonesia has limited its participation in regional arrangements to ASEAN and APEC and has, in principle, supported some sub-regional agreements with neighboring countries (so-called "growth triangles"). If Indonesia remains outside the rapidly developing regional arrangements, it will face tariff discrimination in some of its major Asian markets just as it already does in Europe and the Western Hemisphere. The severity of the impact on Indonesia's market share cannot be determined without careful empirical analysis of trade composition and tariff and non-tariff barriers and price elasticities of demand. It may be

[45] See Mukerji (2000) for a discussion of WTO implementation issues from the perspective of developing economies.

useful to examine the effects of a Korea-Japan FTA in this context in order to gain perspective on the likely trade diversion that may be caused.

Services and Information Technology: Strengthening Productivity and Competitiveness

Low barriers to service imports or to provision by foreign sources through various channels, including commercial presence in Indonesia is advantageous to exporters of manufactured products, as all goods exports depend to some degree on services such as finance, insurance, transportation, marketing and distribution and telecommunications. Indonesian services, particularly those involving Indonesian labor such as construction, could greatly benefit from global liberalization of services. Tourism services in Indonesia also stand to gain from reduced costs of ancillary services such as travel services. In preparation for services negotiations under the GATS framework, Indonesia may join like-minded countries in promoting market access for it service providers. However, it is also essential that Indonesia take advantage of the opportunities that services trade liberalization can create for its merchandise exports and the international competitiveness of manufactures and agricultural products that rely on efficient, low-cost services.

One must also consider the implications of information and communication technology (IT) for present and future trade policy. In this context, the rapid growth of electronic commerce has important implications for the regulatory and competition policy framework. Understanding the potential uses of information technology to improve efficiency across important sectors of the economy is growing. The appropriate policy framework, including legal and regulatory issues, needs to be sorted out in the

[46] IDE/JETRO (2000), James (2001), and Yamazawa (2000) provide discussion of the analysis of Korea-

context of Indonesia's strong support for the Information Technology Agreement reached at the Singapore Ministerial Conference of the WTO in 1996.

Regulatory Impact Assessment

Another area of concern has been raised by recent events. In particular the recent estrangement between Indonesia and the IMF and World Bank is alarming to investors and to all donors who wish Indonesia well. Setting aside the emotional issues of sovereignty and the reform program and taking a dispassionate analytical stand would enhance the confidence of investors and strengthen the public discourse concerning the regulatory environment. In this context, the recent APEC-OECD initiatives in the area of regulatory quality and impact assessment could provide a practical guide to these matters.

Indonesia might consider the establishment of a Regulatory Impact Assessment (RIA) committee or directorate. While other countries have established such bodies as independent commissions, Indonesia might consider this or the possibility of setting up such a body in EKUIN. The RIA would have to be staffed by capable economists trained in analysis of trade and competition, market structure and contestability of markets as well as analysis of trade and regulatory change for national economic welfare. In particular, an RIA that can objectively assess regulations and that has as its mandate the reform of anti-competitive regulations and improvement of the design of market reforms would strengthen the ability of the government to carry out the reform agenda. Domestic and international trade reform, competition or anti-monopoly laws and regulations and consumer protection laws and standards are important in establishment of good governance.

Japan trade ties and the outlook for a free trade agreement.

Tariffs, Taxes and Bapeksta

Indonesia is committed to a schedule of MFN tariff reductions under the IMF Program to bring maximum tariffs in all but a few excluded sectors down to ten percent by 2003 and also will bring AFTA-CEPT tariffs down to a maximum of five percent by 2002. As a result of the lowering of MFN tariffs to a range of zero to ten percent and AFTA preferential tariffs to a range of zero to five percent, the current duty drawback system (BAPEKSTA) will become less important to exporters of manufactures. Indeed one of the major *drawbacks* of the duty drawback scheme is that it tends to favor use of imported intermediate goods and materials (zero effective tariff) over domestic inputs and components. The latter pay a ten percent value-added tax (VAT) on raw materials and inputs and while exporters are able to get rebates of VAT, indirect suppliers of components to exporters are not. Elimination of the duty drawback would level the playing field for domestic components suppliers and would help spur the development of ancillary domestic support industries with linkages to export-oriented sectors like footwear, wearing apparel and miscellaneous manufactures and, eventually, in machinery sectors.

VII. Conclusion.

The gains available to Indonesia through more open trade and investment policies are manifest in the strong growth performance that followed deregulation between 1986 and 1997. Trade liberalization and openness to foreign investment produced large gains for Indonesia in the 1990s.

Although Indonesia suffered a severe setback with the onset of the crisis, it has begun to recover. A sustainable economic recovery supported by consumption, investment and international trade growth will best be promoted by sound macroeconomic policies and continued openness. In particular, it must be emphasized that the gains available through increased efficiency and productivity and better employment opportunities may be eroded should Indonesia slide backward on tariff reform and use of new trade barriers (i.e., antidumping measures). Closing sensitive sectors is not the way to improve export competitiveness.

Openness to trade and export growth made a crucial contribution to Indonesia's economic resiliency in the period of the currency and financial crisis. The employment provided by export-oriented sectors, including those in agriculture, was essential to maintenance of living standards and the export receipts were clearly vital to the viability of Indonesian farms and enterprises, particularly the small and medium enterprises. Domestic demand recovery in consumption and private capital formation has begun to emerge in 2000, even as export performance has strengthened.

Indonesia cannot rest still on its laurels but must continue to push forward with trade reforms if it is to maximize the gains and realize higher economic growth in future. New challenges are emerging that will demand attention and effective responses in areas of market access.

Indonesia's *new strategy*, based on sound economic principles, will aim at acceleration of the development process through market-friendly policies, openness to trade and foreign investment, and a comprehensive approach to human resource development in addition to on-going processes of democratic change and decentralization.

Indonesia has the potential to be an influential voice in both multilateral and regional forums. Capacity building and strengthening of key institutions will be essential for Indonesia to achieve its full potential as a major international economic power. Information and communication technologies will be an integral part of the strategy and will be vital to strengthening Indonesia's internal cohesion as the decentralization process moves forward. In this context, it is not enough for Indonesia to promote exports and imports of goods and services. In order to create an environment that is attractive to investors, domestic and foreign, more must be done. An emphasis on improving the flow of domestic trade between the regions is essential in an archipelago such as Indonesia. In this context, the central government can ill-afford internal impediments to the free flow of goods, services and factors of production among the regions. After all, *open international and domestic trade* must be allowed and encouraged if the country is to make efficient use of its abundant resources and factors of production and to maximize the income, employment and consumer well-being of the vast majority.

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Table 1. Composition of Exports: Indonesia

	1985	1990	1995	1985	1990	1995
	(mil. US$, current prices)				(%)	
Total Merchandise Exports	18,587.0	25,675.0	45,417.0	100.00	100.00	100.00
Manufacturing, excl. petroleum refineries:	3,498.1	10,852.0	26,781.1	18.82	42.27	58.97
Food, Beverages & Tobacco	597.9	901.4	2,143.6	3.22	3.51	4.72
Light Manufacturing:	1,825.8	6,738.1	13,598.2	9.82	26.24	29.94
Textiles, Apparel, Leather	588.4	3,007.4	6,343.4	3.17	11.71	13.97
Bamboo, Wood and Rattan	1,195.2	3,398.3	5,327.3	6.43	13.24	11.73
Paper and Paper Products	27.5	201.8	1,269.0	0.15	0.79	2.79
Manufacture of Other Products, nec	14.6	130.6	658.5	0.08	0.51	1.45
Heavy & Chemical Industries:	1,074.4	3,212.5	11,039.3	6.73	17.98	24.31
Industrial Chemicals	153.2	459.0	1,308.0	0.82	1.79	2.88
Other Chemical Products	70.2	161.8	287.0	0.38	0.63	0.63
Rubber and Plastic Products	20.8	882.0	3,155.0	0.11	3.44	6.95
Non-Metallic Mineral Products	32.3	240.4	357.8	0.17	0.94	0.79
Iron and Steel	33.9	254.1	415.1	0.18	0.99	0.91
Non-Ferrous Metal Products	617.2	591.7	895.9	3.32	2.30	1.97
Fabricated Metal Products	20.2	223.0	794.9	0.11	0.87	1.75
Electrical and Non-Electrical Machinery	123.9	281.2	3,350.5	0.67	1.10	7.38
Transport Equipment	2.6	119.3	475.1	0.01	0.46	1.05

Source: International Economic Data Bank, Australian National University (1997) and authors' compilations, James and Fujita (2000).

Table 2. Primary and Non-Primary Employment Induced by Manufactured Exports, 1985-95 (no./%)

	1985	1990	1995
Primary Sectors	353,824	1,219,394	1,253,591
	20.7	25.2	21.6
Food Processing	28,612	240,345	192,647
	1.7	5.0	3.3
Light Industries	854,007	2,332,953	2,503,295
	50.0	48.2	43.2
Heavy & Chemical Industries	152,954	336,350	471,139
	9.0	7.0	8.1
Services, etc.	317,337	706,818	1,372,236
	18.6	14.6	23.7
Total	1,706,734	4,835,860	5,792,908
	100.0	100.0	100.0

Source: Authors' estimates, James and Fujita (2000).

Table 3 Indonesian Export Specialization and Diversification (000 US$, current prices)

SITC 3-Digit Sectors	1980		1985		1990		1995
Total	23629452	Total	20345016	Total	28065824	Total	47378072
333	12351013	333	8602422	333	6416970	333	5170922
341	3109214	341	3874156	341	3806961	341	4042536
247	1723939	634	935244	634	2872560	634	3837727
334	1268309	232	756875	334	1240901	851	2048457
232	1159748	O71	599221	842	898912	232	1972177
O71	697040	334	502074	232	876469	287	1812295
287	416090	335	401758	845	831642	842	1394061
689	378765	424	361648	O36	748198	334	1283728
424	275895	684	300587	287	640266	845	1239179
842	244648	842	286838	851	600274	653	1180838
248	228760	287	283664	653	559758	O36	1097484
O36	210903	248	244310	846	464085	764	1090172
845	152247	845	242125	844	414528	322	1036885
O74	110907	O36	226904	O71	401614	424	1008946
O81	105811	844	197413	424	328098	651	891216
776	89240	O75	139105	821	300101	821	873199
292	87044	O74	138086	684	292509	635	847266
844	79140	894	114266	635	292470	641	786033
O75	71838	653	110257	652	267141	846	758171
634	68758	292	108483	248	250931	844	720460
121	57700	846	94872	894	235799	O71	641324
846	54009	689	93168	562	198477	762	522383
Sub-total	22941018	562	86410	656	181731	251	512602
		652	84114	O74	177675	894	424902
		O42	73747	843	176239	684	423608
		O81	68602	O34	175857	843	422903
		651	64418	322	169734	O34	417429
		635	63218	651	162485	778	389586
		O73	62035	O75	155822	652	364098
		431	61657	O54	135718	431	339646
		776	57603	O73	126010	897	336923
		O54	55446	971	123580	248	317308
		Sub-total	19290726	641	123420	751	317026
				674	115304	O73	304802
				661	114941	562	276985
				Sub-total	24877180	848	225195
						674	216718
						O75	212939
						665	200490
						Sub-total	39958619
	1980		1985		1990		1995
Cut-off value	$50 mil.		$50 mil.		$100 mil.		$200 mil.
No. 3-digit sectors	22		32		35		39
Mean value	$1,043 mil.		$603 mil.		$711 mil.		$1,025 mil.
% of total	97.09%		94.82%		88.64%		84.34%
% SITC 5-8 sub-total	4.82%		14.15%		37.09%		49.52%

Source: Statistics Canada World Trade Analyzer Data Base, 2000.

Table 4. Labor-Intensive Manufactures in Indonesian Merchandise Exports (000 US$, current prices)

SITC 2-Digit Industries	1980	1985	1986	1990	1993	1995	1996	1997
65-Textiles	98120	364369	427055	1435803	2853177	2915603	3086429	2450242
82-Furniture and parts thereof	5250	12878	14890	300101	694828	873199	981231	773420
83-Travel goods	4783	15684	14981	35056	84241	92238	95556	84843
84-Articles of apparel and clothing	559459	916227	1224812	2877551	4762825	4850029	5357703	4837745
85-Footwear	2599	10267	13869	600274	1690251	2048457	2236753	1543360
89-Miscellaneous manufactured articles,n.e.s.	35500	206529	277768	488951	944308	1278827	1592105	1237512
Sub-Total Labor Intensive Goods	705711	1525954	1973375	5737736	11029630	12058353	13349777	10927122
TOTL-Total - All commodities	23629452	20345016	16656112	28065824	39144588	47378072	53076128	56076456
Share	2.99%	7.50%	11.85%	20.44%	28.18%	25.45%	25.15%	19.49%

Source: Statistics Canada World Trade Analyzer Database, 2000.

Table 5 Indonesian Exports by Industry (000 US$, current prices)

SITC (1 digit industries)	1980	1985	1986	1990	1991	1995	1996	1997
0-Food and live animals chiefly for food	1,352,744	1,458,584	1,873,688	2,340,073	2,577,128	3,599,485	3,864,623	3,564,526
1-Beverages and tobacco	59,957	49,139	63,582	139,759	160,294	219,397	260,617	281,197
2-Crude materials, inedible, except fuels	3,714,479	1,489,171	1,557,050	2,037,859	2,436,250	5,040,633	5,259,898	4,397,104
3-Mineral fuels, lubricants and related mate	16,731,973	13,420,571	8,837,477	11,643,645	11,397,680	11,561,262	13,214,653	13,339,277
4-Animal and vegetable oils, fats and waxe	280,913	425,110	172,709	426,621	569,434	1,354,932	1,580,493	2,106,673
5-Chemicals and related products, n.e.s.	85,030	222,187	279,539	646,367	876,624	1,529,330	1,780,558	1,893,270
6-Manufactured goods classified chiefly	638,780	1,904,859	2,129,713	5,928,426	6,859,084	10,680,099	11,273,845	10,005,665
7-Machinery and transport equipment	116,509	144,018	109,607	381,587	726,659	3,905,775	5,146,097	4,744,488
8-Miscellaneous manufactured articles	615,305	1,198,867	1,600,292	4,395,812	5,611,385	9,436,586	10,602,961	8,922,841
9-Commodities & trans. not classified	33,762	32,509	32,455	125,676	149,246	50,574	92,382	6,821,414
Manufactured Exports	1,455,624	3,469,931	4,119,151	11,352,192	14,073,752	25,551,790	28,803,461	25,566,264
TOTL-Total - All commodities	23,629,452	20,345,016	16,656,112	28,065,824	31,363,784	47,378,072	53,076,128	56,076,456
Share of Manufactures	6.16%	17.06%	24.73%	40.45%	44.87%	53.93%	54.27%	45.59%
Non-oil/gas exports	6897479	6924445	7818635	16422179	19966104	35816810	39861475	42737179
Share of Manufactures	21.10%	50.11%	52.68%	69.13%	70.49%	71.34%	72.26%	59.82%
Growth of Manufactured Exports by Sub-period:		1980-85	1985-90	1990-95	1990-96	1980-1995		
SITC 5-8		18.97	26.75	17.62	16.79	21.05		

Source: Statistics Canada, World Trade Analyzer Data Base, 2000.

Table 6. Oil and Gas Exports (000 US$, current prices)

	1980	1981	1982	1985	1986	1990	1995	1996	1997
TOTL-Total - All commodities	23629452	23471184	24156492	20345016	16656112	28065824	47378072	53076128	56076456
33-Petroleum,petroleum prod	13619322	14791010	16373066	9506254	5854840	7664043	6471296	7434169	6914528
34-Gas,natural and manufact	3109214	3518320	3084306	3874156	2947385	3806961	4042536	4625749	4913177
Sub-Total of Oil & Gas	16728536	18309330	19457372	13380410	8802225	11471004	10513832	12059918	11827705
% of Total Exports	70.80%	78.01%	80.55%	65.77%	52.85%	40.87%	22.19%	22.72%	21.09%

Source: Statistics Canada, World Trade Analyzer Data Base 2000.

Table 7. Exports in 2000 and 1999, Year-on-Year Growth for January-October with PEBT Adjustment (000 US$, current prices)

SITC3	SITC2	2000 J-O Sum	1999 J-O Sum	PEBTadjust	PEBT alloc.	Growth Rate
001	00	32,160,458	26,857,047	27,341,047	484,000	17.63%
011	01	31,812	59,593			
012	01	15,116,605	14,337,998			
016	01	73,216	322,294			
017	01	93,623	251,179			
	01	15,315,256	14,971,064	15,455,064	484,000	-0.90%
022	02	58,579,842	14,727,548			
023	02	107,318	624,893			
024	02	48,382	28,185			
025	02	271,416	468,048			
	02	59,006,958	15,848,674	16,332,674	484,000	261.28%
034	03	280,592,457	359,364,554			
035	03	45,192,058	42,365,742			
036	03	901,424,860	784,679,066			
037	03	89,439,984	82,882,797			
	03	1,316,649,359	1,269,292,159	1,270,848,159	1,556,000	3.60%
041	04	3,708	60,388			
042	04	271,712	1,444,797			
043	04		20,394			
044	04	4,642,156	10,210,340			
045	04	36,000	52,743			
046	04	665,507	652,212			
047	04	2,072,377	1,407,728			
048	04	41,026,602	35,496,668			
	04	48,718,062	49,345,270	49,829,270	484,000	-2.23%
054	05	33,380,726	41,884,312			
056	05	39,242,365	38,646,450			
057	05	102,907,769	114,698,900			
058	05	59,699,227	77,132,575			
059	05	17,680,598	20,501,405			
	05	252,910,685	292,863,642	293,248,642	385,000	-13.76%
061	06	8,208,548	8,719,667			
062	06	42,830,520	42,706,867			
	06	51,039,068	51,426,534	51,910,534	484,000	-1.68%
071	07	307,527,593	433,491,857			
072	07	257,746,533	338,460,868			
073	07	26,150,725	30,184,595			
074	07	91,969,120	79,705,795			
075	07	282,325,190	237,075,399			
	07	965,719,161	1,118,918,514	1,120,228,514	1,310,000	-13.79%
081	08	78,006,704	71,973,496	72,063,496	90,000	8.25%
091	09	77,504,115	101,100,436			
098	09	59,795,011	46,907,446			
	09	137,299,126	148,007,882	148,007,882		-7.24%
111	11	9,306,890	10,372,952			
112	11	2,059,500	2,578,721			
	11	11,366,390	12,951,673	13,183,673	232,000	-13.78%
121	12	58,814,352	82,319,434			
122	12	127,026,000	105,014,162			
	12	185,840,352	187,333,596	187,565,596	232,000	-0.92%
211	21	1,283,533	3,800,006			
212	21	28,572	63,579			
	21	1,312,105	3,863,585	4,347,585	484,000	-69.82%
222	22	1,788,106	2,581,465			
223	22	12,399,410	13,334,187			
	22	14,187,516	15,915,652	16,399,652	484,000	-13.49%
231	23	773,779,716	689,464,838			
232	23	18,608,105	8,809,240			
	23	792,387,821	698,274,078	699,139,078	865,000	13.34%
244	24	369,983	57,234			
245	24	27,108,907	22,124,334			
246	24	8,401,580	6,838,561			
247	24	38,173,032	27,287,572			
248	24	246,268,971	196,322,284			
	24	320,322,473	252,629,985	252,947,985	318,000	26.64%
251	25	658,226,630	376,220,394	376,702,394	482,000	74.73%

SITC3	SITC2	2000 J-O Sum	1999 J-O Sum	PEBTadjust	PEBT alloc.	Growth Rate
261	26	57,275	108,191			
263	26	20,471,487	15,532,924			
264	26	201,167	180,849			
265	26	317,779	206,578			
266	26	30,792,054	23,963,767			
267	26	59,468,961	42,200,353			
268	26	574,612	121,866			
269	26	1,475,841	1,226,067			
	26	113,359,176	83,540,595	83,644,595	104,000	35.52%
272	27	2,108,735	1,849,268			
273	27	56,535,163	39,426,851			
274	27	266,020	19,146			
277	27	2,730,064	2,511,343			
278	27	15,128,892	13,164,583			
	27	76,768,874	56,971,191	57,242,191	271,000	34.11%
281	28	9,568				
282	28	11,870,035	5,527,228			
283	28	964,938,664	992,235,136			
284	28	277,839,436	151,657,200			
285	28	10,007,255	8,380,692			
286	28	5,005				
287	28	654,283	1,148,011			
288	28	13,080,669	13,150,877			
289	28	4,633	1,903,393			
	28	1,278,409,548	1,174,002,537	1,175,482,537	1,480,000	8.76%
291	29	4,263,954	3,070,421			
292	29	73,693,719	58,846,620			
	29	77,957,673	61,917,041	62,401,041	484,000	24.93%
321	32	1,034,092,653	1,087,399,684			
322	32	18,200,594	593,114			
325	32	7,117	56,157			
	32	1,052,300,364	1,088,048,955	1,089,354,955	1,306,000	-3.40%
333	33	5,126,997,095	3,609,405,225			
334	33	1,358,088,972	727,730,906			
335	33	29,208,126	103,836,467			
	33	6,514,294,193	4,440,972,598	4,440,972,598		46.69%
342	34	317,089,700	207,900,816			
343	34	4,917,825,814	3,093,566,210			
344	34	18,561	1,533,723			
345	34		130,449			
348	34		1,119,656			
	34	5,234,934,075	3,304,250,854	3,304,250,854		58.43%
411	41	440,727	431,998	915,998	484,000	-51.89%
421	42	2,762,953	3,047,491			
422	42	1,411,233,004	1,414,152,283			
	42	1,413,995,957	1,417,199,774	1,419,027,774	1,828,000	-0.35%
431	43	104,057,634	128,278,438	130,106,438	1,828,000	-20.02%
511	51	228,900,068	84,033,501			
512	51	204,354,771	170,662,945			
513	51	257,997,468	207,080,198			
514	51	213,779,795	164,159,859			
515	51	46,757,383	39,225,974			
516	51	4,541,111	3,577,872			
	51	956,330,596	668,740,349	669,604,349	864,000	42.82%
522	52	128,974,120	63,887,662			
523	52	7,791,690	5,773,076			
524	52	3,803,669	2,010,685			
525	52	70,596	239,144			
	52	140,640,075	71,910,567	72,349,567	439,000	94.39%
531	53	63,289,457	45,525,407			
532	53	5,850,227	7,396,229			
533	53	18,388,079	15,977,249			
	53	87,527,763	68,898,885	69,337,885	439,000	26.23%
541	54	15,896,269	44,907,234			
542	54	47,406,907	13,801,278			
	54	63,303,176	58,708,512	59,147,512	439,000	7.03%
551	55	44,481,929	46,383,662			
553	55	56,031,760	46,334,946			
554	55	170,823,020	39,558,509			

SITC3	SITC2	2000 J-O Sum	1999 J-O Sum	PEBTadjust	PEBT alloc.	Growth Rate
	55	271,336,709	132,277,117	132,580,117	303,000	104.66%
562	56	171,561,158	154,356,099	154,627,099	271,000	10.95%
571	57	63,793,042	153,560,609			
572	57	30,414,991	46,629,376			
572	57		19,121,361			
573	57	148,296,081	104,796,249			
574	57	267,436,900	175,945,444			
575	57	56,450,823	38,809,638			
579	57	3,459,001	1,759,397			
	57	569,850,838	540,622,074	541,298,074	676,000	5.27%
581	58	14,391,116	9,499,214			
582	58	206,918,541	118,354,814			
583	58	1,034,239	157,982			
	58	222,343,896	128,012,010	128,688,010	676,000	72.78%
591	59	61,616,236	45,155,595			
592	59	10,436,581	17,204,008			
593	59	794,778	2,348,817			
597	59	4,736,148	5,642,317			
598	59	94,899,607	55,036,527			
	59	172,483,350	125,387,264	125,826,264	439,000	37.08%
611	61	77,839,302	53,679,597			
612	61	1,070,318	1,027,756			
613	61	166,520	329,356			
	61	79,076,140	55,036,709	55,249,709	213,000	43.12%
621	62	18,382,075	27,509,535			
625	62	251,490,318	211,951,930			
629	62	48,008,447	24,460,542			
	62	317,880,840	263,922,007	264,246,007	324,000	20.30%
633	63x	653,275	440,161			
635	63x	801,098,034	645,998,597			
		801,751,309	646,438,758	647,272,758	834,000	23.87%
634	634	1,989,720,974	2,054,598,175	2,057,168,175	2,570,000	-3.28%
641	64	1,485,963,345	1,198,504,127			
642	64	486,953,500	365,977,947			
	64	1,972,916,845	1,564,482,074	1,566,465,074	1,983,000	25.95%
651	65	1,130,926,337	970,171,845			
652	65	374,729,292	303,533,689			
653	65	945,429,333	818,070,998			
654	65	3,160,712	3,029,703			
655	65	66,799,245	34,339,547			
656	65	79,311,573	42,967,840			
657	65	148,205,838	116,254,277			
658	65	191,939,886	140,147,731			
659	65	24,006,000	27,179,027			
	65	2,964,508,216	2,455,694,657	2,458,852,657	3,158,000	20.56%
661	66	150,336,398	144,059,918			
662	66	64,239,940	53,785,414			
663	66	74,842,384	58,185,809			
664	66	182,922,400	124,724,090			
665	66	116,769,115	90,832,982			
666	66	66,842,430	57,911,351			
667	66	18,505,745	18,812,004			
	66	674,458,412	548,311,568	549,015,568	704,000	22.85%
671	67	84,596,583	41,005,792			
672	67	2,164,141	5,317,957			
673	67	128,117,404	164,368,993			
674	67	30,033,687	31,605,790			
675	67	7,359,690	1,002,009			
676	67	69,258,384	72,970,710			
677	67	2,322,638	972,889			
678	67	9,660,052	9,122,058			
679	67	109,956,214	68,614,894			
	67	443,468,793	394,981,092	395,474,092	493,000	12.14%
681	68	21,949,198	19,186,088			
682	68	324,333,790	209,869,030			
683	68	441,016	11,698			
684	68	273,836,052	130,232,420			
685	68	5,214,985	4,534,722			
686	68	3,310,198	543,417			
687	68	191,144,615	204,812,016			

SITC3	SITC2	2000 J-O Sum	1999 J-O Sum	PEBTadjust	PEBT alloc.	Growth Rate
689	68	909,389	547,701			
	68	821,139,243	569,737,092	570,461,092	724,000	43.94%
691	69	60,316,928	39,819,889			
692	69	72,822,425	63,052,193			
693	69	13,895,289	10,080,216			
694	69	34,771,907	21,425,792			
695	69	11,535,725	12,035,554			
696	69	65,240,342	44,880,843			
697	69	139,358,714	116,890,755			
699	69	77,294,742	95,333,007			
	69	475,236,072	403,518,249	404,033,249	515,000	17.62%
711	71	4,940,412	1,806,355			
712	71	9,209,546	3,125,188			
713	71	73,213,389	49,744,277			
714	71	4,709,204	4,427,486			
716	71	293,261,468	182,850,966			
718	71	3,978,858	1,248,869			
	71	389,312,877	243,203,141	243,691,141	488,000	59.76%
721	72	3,496,924	6,430,880			
722	72	658,179	1,463,418			
723	72	69,904,892	60,553,205			
724	72	12,562,173	21,620,585			
725	72	1,268,708	2,997,125			
726	72	16,089,102	3,929,259			
727	72	1,778,472	2,054,823			
728	72	37,066,303	26,390,906			
	72	142,824,753	125,440,201	125,928,201	488,000	13.42%
731	73	9,409,781	7,531,310			
733	73	2,415,015	2,425,619			
735	73	769,556	320,885			
737	73	5,619,445	4,971,084			
	73	18,213,797	15,248,898	15,736,898	488,000	15.74%
741	74	125,061,963	50,708,959			
742	74	21,149,699	9,988,645			
743	74	86,026,346	44,860,508			
744	74	19,864,323	36,967,218			
745	74	22,613,753	19,519,288			
746	74	64,441,276	722,123			
747	74	12,932,370	8,619,599			
748	74	15,138,889	15,043,136			
749	74	18,423,035	10,398,957			
	74	385,651,654	196,828,433	197,079,433	251,000	95.68%
751	75	21,192,242	29,170,898			
752	75	1,698,615,665	181,199,231			
759	75	788,416,569	754,103,261			
	75	2,508,224,476	964,473,390	965,676,390	1,203,000	159.74%
761	76	261,569,824	29,747,862			
762	76	519,654,858	179,566,708			
763	76	711,747,243	383,216,899			
764	76	1,449,823,638	642,270,049			
	76	2,942,795,563	1,234,801,518	1,236,301,518	1,500,000	138.03%
771	77	185,771,533	70,907,132			
772	77	365,407,334	93,115,533			
773	77	290,122,808	226,022,464			
774	77	15,051,343	6,998,642			
775	77	51,014,037	42,268,883			
776	77	629,074,114	220,750,239			
778	77	560,161,296	427,829,102			
	77	2,096,602,465	1,087,891,995	1,089,291,995	1,400,000	92.47%
781	78	6,655,331	7,174,115			
782	78	15,000,634	35,904,102			
783	78	2,344,548	13,388,259			
784	78	196,517,878	123,829,591			
785	78	196,281,654	165,561,442			
786	78	2,064,163	1,393,078			
	78	418,864,208	347,250,587	347,813,587	563,000	20.43%
791	79	4,794,162	1,129,406			
792	79	16,564,797	33,348,857			
793	79	52,267,329	94,316,535			
	79	73,626,288	128,794,798	129,357,798	563,000	-43.08%
811	81	5,469,403	3,187,356			
812	81	57,477,485	30,910,602			

SITC3	SITC2	2000 J-O Sum	1999 J-O Sum	PEBTadjust	PEBT alloc.	Growth Rate
813	81	29,606,646	24,909,311			
	81	92,553,534	59,007,269	59,349,269	342,000	55.95%
821	82	1,269,414,342	993,091,019	994,414,019	1,323,000	27.65%
831	83	137,450,070	115,306,648	115,519,648	213,000	18.98%
841	84	1,156,485,488	966,427,356			
842	84	1,070,470,838	852,992,725			
843	84	272,650,919	262,730,427			
844	84	264,564,800	187,232,840			
845	84	945,878,151	734,509,181			
846	84	98,379,494	76,098,526			
848	84	142,366,309	104,561,387			
	84	3,950,795,999	3,184,552,442	3,188,581,442	4,029,000	23.90%
851	85	1,411,769,716	1,307,668,757	1,309,365,757	1,697,000	7.82%
871	87	302,968	395,069			
872	87	19,782,574	11,284,536			
873	87	20,505,766	13,060,176			
874	87	14,180,660	12,468,055			
	87	54,771,968	37,207,836	37,549,836	342,000	45.86%
881	88	119,987,475	101,241,204			
882	88	5,609,683	5,437,775			
883	88	6,631	7,937			
884	88	86,360,006	66,692,646			
885	88	4,481,070	3,173,855			
	88	216,444,865	176,553,417	176,895,417	342,000	22.36%
891	89x	1,572,054	2,772,561			
892	89x	23,968,496	21,739,632			
895	89x	53,302,434	45,835,030			
896	89x	3,742,639	4,162,423			
898	89x	231,437,300	105,007,611			
899	89x	201,773,101	159,100,776			
	89x	515,796,024	338,618,033	339,065,033	447,000	52.12%
893	893	206,596,896	144,697,701	144,889,701	192,000	42.59%
894	894	407,524,151	224,959,580	225,249,580	290,000	80.92%
897	897	96,661,070	157,298,915	157,473,915	175,000	-38.62%
911	91	96	10,093	10,093	0	-99.05%
921	92	6,759,587		0	0	
931	93		8,555	8,555		
961	96		70,205			
971	97	313,482,117	270,849,812		350,000	
980	98		1,099,421,143			
981	98	8,790	1,884		0	
999	99	445	1		0	

Source: Ministry of Industry and Trade, Jakarta.

Note: PEBT adjustments are from Magiera (2000).

Table 8a Cocoa Exports of Indonesia (000 US$, current prices)

SITC			1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
072	Cocoa	UN	119859	143253	152802	204755	273166	301046	365311			
		BPS						301058	365346	407650	489304	386921
								(000 kg. Net weight)				
			1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
072	Cocoa	BPS						230202	318922	261457	327952	389957

Table 8b Plywood Exports of Indonesia (000 US$, current prices)

			1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
634	Plywood	UN	2803760	3042259	3510847	4598888	4134495	3837096	3992305			
		BPS	2725581	2870834	3230214	4220971	4315490	3826965	3991454	2232362	3742967	2552375
								(000 kg. Net weight)				
			1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
634	Plywood	BPS	5027271	5296334	5607366	5774021	5864673	5740010	5623492	5321971	5372876	4713573

Source: BPS, Statistik Ekspor, 1995-1999, UN Comtrade Database, 1996.

Table 9

The New Asian Regionalism: Free Trade Agreements

FTAs Involving Singapore:

1. Singapore-Japan FTA
2. Singapore-New Zealand FTA
3. Singapore-Korea FTA
4. Singapore-India FTA
5. Singapore-Mexico FTA
6. Singapore-Chile FTA
7. Singapore-USA FTA
8. Singapore-Australia FTA

FTAs Involving Japan:

1. Japan-Korea FTA
2. Japan-Mexico FTA
3. Japan-Chile FTA
4. Japan-Singapore FTA

FTAs Involving Korea:

1. Korea-Japan FTA
2. Korea-Singapore FTA
3. Korea-Mexico FTA
4. Korea-New Zealand FTA
5. Korea-Chile FTA

Other FTAs Involving E. and S.E. Asian Countries:

1. AFTA (ASEAN FTA)
2. AFTA-CER (ASEAN FTA with Australia and New Zealand)
3. PAC5 FTA (Singapore, Australia, New Zealand, Chile and USA)

Source: Author's Compilations.

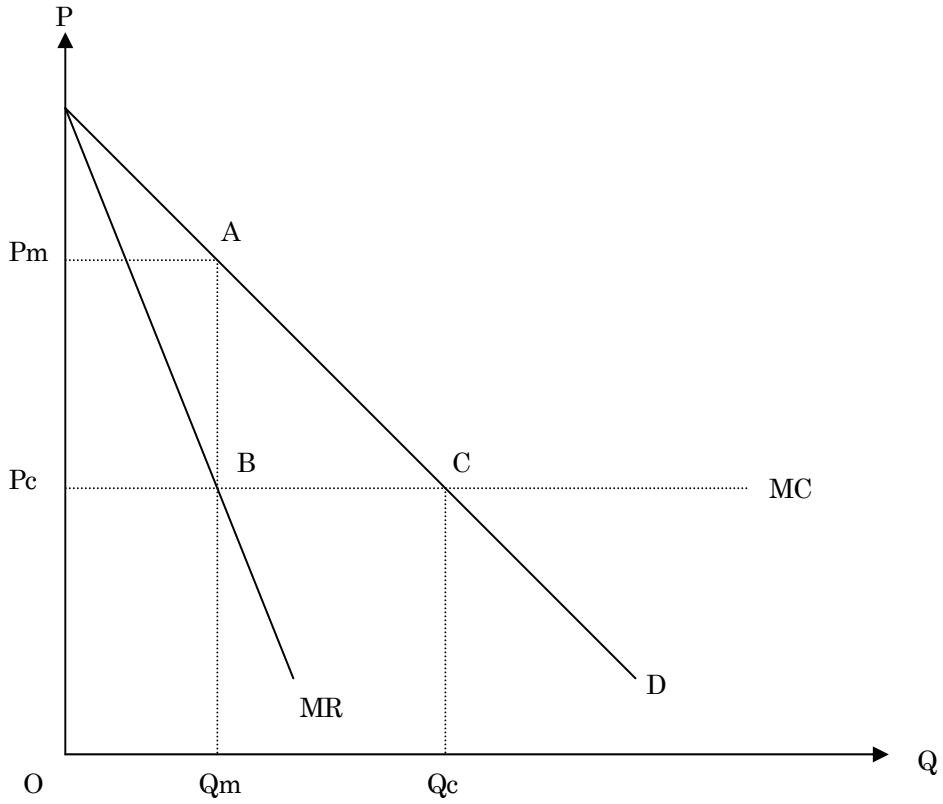

Figure 1. A domestic monopoly disciplined by the threat of imports.