

# EVOLUTION OF PALM OIL TRADE POLICY IN INDONESIA, 1978 – 1991

**Keywords:** Indonesia; palm oil; trade policy; price stabilization; political economy

TOMICH, T P\* AND MAWARDI, M S\*

\*International Center for Research in Agroforestry, Bogor  
Jalan Gunung Batu, No. 5, PO Box 161  
Bogor 16001, Indonesia

\*Center for Policy and Implementation Studies  
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**T**his article traces the evolution of Indonesia's palm oil trade policies. Special attention is given to the ten years spanning 1978–1987 when the overriding emphasis of palm oil trade policy was on securing domestic supplies and stabilizing prices of edible oils. That period was followed by a transition toward policies to promote palm oil exports culminating in complete export deregulation in June 1991. The shift in focus of policy from domestic procurement and price stabilization toward export promotion that began in December 1987 was part of a broader move toward deregulation in Indonesia going back to about 1983. For palm oil, rapid growth in domestic production was a driving force in deregulation. Expanding production elicited a shift from restrictions on domestic and international trade arising from concern about shortfalls in meeting domestic needs to freer trade to avoid accumulation of surpluses. Decisive, too, was the realization that export restrictions offered little (if any) protection to Indonesian consumers.

## POLICY OBJECTIVES AND THE RATIONALE FOR INTERVENTION

**U**ntil export deregulation in June 1991, palm oil trade policy in Indonesia was part of a set of policy interventions covering the edible oils that are the main inputs to cooking oil manufacture. Cooking oil is one of

'Nine Essential Commodities' for Indonesian consumers. Government intervention was intended to ensure adequate supplies of cooking oil for consumers at affordable prices. For cooking oil processors, policies were intended to guide investment in processing capacity to meet consumers' needs and to promote industrial development. For producers of edible oils, policy objectives included promoting investment in oil palm plantations to ensure domestic demand for cooking oil could be met while generating a surplus of crude palm oil (CPO) for export as well as protecting the income of coconut smallholders by supporting prices of copra and crude coconut oil (CCO).

In 1985, 97% of Indonesian demand for manufactured cooking oil was met from domestically-produced coconut oil or RBD olein (refined, bleached, deodorized olein, which is made from CPO). (The balance of manufactured cooking oil was from palm kernel oil (PKO), peanut oil, soya bean oil, and a few other edible oils.) Thus, the key commodities for cooking oil policy implementation were: RBD olein, CPO, CCO, and copra (from which most CCO is made).

### THE RISE OF PALM OIL IN THE 1970S AND 1980s

In contrast to Indonesia's long standing as a major copra producer, palm oil only became commercially important in Indonesia in the 1970s. The market share of manufactured cooking oil made from palm oil has exceeded the share of coconut oil since at least 1984, making it the largest among the edible oils consumed in Indonesia today. This dominant share is likely to increase because growth in CPO output far exceeds growth in coconut production (*Figure 1*).

Policy in the 1970s and 1980s was an extension from colonial and wartime policies intended to control both the domestic price and the supply of manufactured cooking oil by regulating the price and supply of inputs to cooking oil manufacturers. Attracted by the growing supply of CPO, the focus of cooking oil policy shifted from copra and coconut oil to palm oil at the end of the 1970s.

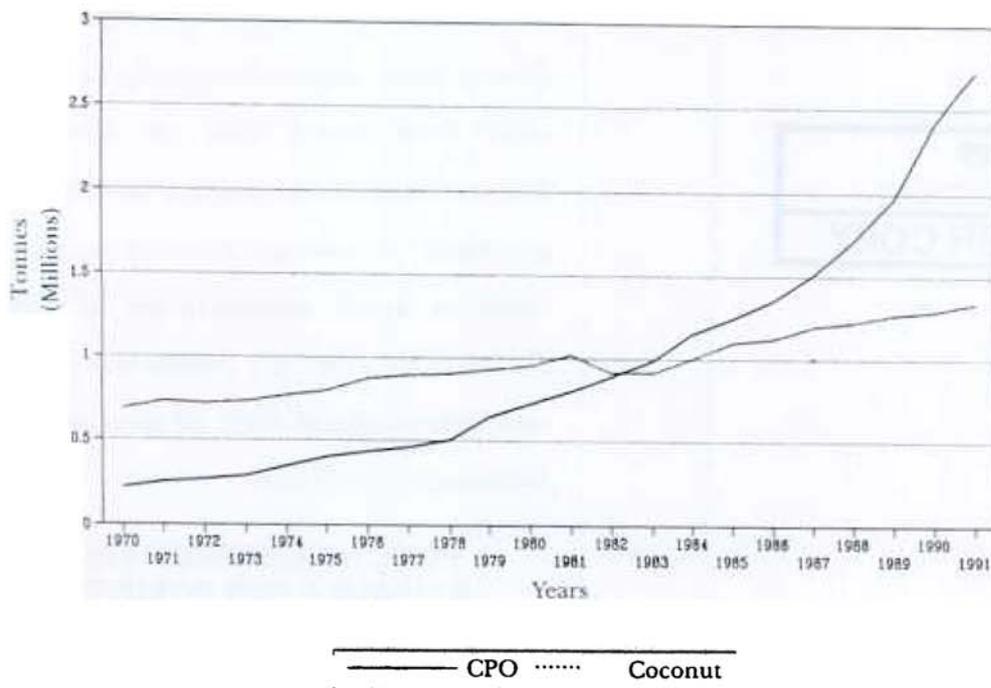


Figure 1. Production of CPO and Coconut (in CCO equivalents), 1970-1991.

The emergence of large supplies of palm oil had implications for policy implementation. While copra production is a dispersed, private-sector activity of smallholders who have alternative income sources and marketing opportunities, CPO production is concentrated regionally and on large, specialized estates<sup>1</sup>. Until at least 1985, over 80% of these estates were in North Sumatra. Furthermore, about 2/3 of palm oil came from public-sector estates during that period. Finally, while there is a substantial cottage industry producing coconut cooking oil (this product is called *klentik* oil), all RBD olein is processed in factories. Thus, administrative allocation to control domestic marketing of CPO and RBD olein is much simpler than domestic allocation of copra and coconut oil.

#### THE ROLE OF INTERNATIONAL TRADE RESTRICTIONS

Because coconut oil and RBD olein are close substitutes in production of cooking oil, policies affecting either copra and CCO or CPO and RBD olein tend to affect all these commodities. Furthermore, intervention in domestic wholesale markets for either coconut products or palm oil products alone is not sufficient to achieve cooking oil supply and price objectives since each has a large share of the market. Policies to keep consumer prices low by lowering wholesale prices for copra, CCO, CPO, and RBD olein create incentives to avoid domestic wholesale markets in favor of exporting these readily tradable commodities. Thus, in order to secure cooking oil supplies at a relatively low price, international trade restrictions for the whole complex of commodities had to be imposed along with restrictions on domestic trade.

Government usually did not formally ban exports or imports of copra, CCO, CPO, and RBD olein. Instead, international trade restrictions typically were imposed through licenses controlled by the Department of Trade.

For example, traders were required to apply for a permit each time they wished to export the commodities.

#### CONSEQUENCES OF TRADE POLICY INTERVENTIONS, 1978-1987

Regulations intended to impose a CPO price ceiling go back to 1973. But it was not until 1978 that regulations were instituted both to set domestic price ceilings for CPO and to allocate supplies of CPO to Indonesian firms through quantitative export restrictions. By 1979, CPO allocation replaced allocation of copra and CCO as the key instrument for implementation of Indonesia's cooking oil policy.

Administrative allocation of CPO between domestic quotas and export was accomplished through allotments of CPO supplies from oil palm estates to specific Indonesian traders and processors. The domestic price of CPO was also set as part of this allocation mechanism. These domestic quotas and government-administered allotments of CPO to specific firms were established jointly by the Department of Trade, the Department of Agriculture, and the Department of Industry.

The distributional effects of these policies depend on the situation in world markets. When world market prices of these commodities are low, a stabilization policy could protect the income of producers. In this 'low price' scenario, the cost of aiding producers is that consumers pay more for cooking oil. When world market prices are high or rising rapidly, a stabilization policy could protect consumers from high prices and rapid price increases. In this 'high-price' scenario, potential benefits of lower prices for consumers must be weighed against negative effects on producer income and foreign exchange earnings because profitable export opportunities are cut off.

#### Methodology: Parity prices for tradeables

The empirical analysis focuses on the income transfers resulting from the direct effects of Indonesia's trade policies. The analysis ignores

<sup>1</sup>Oil palm estates often incorporate large numbers of smallholders in 'nucleus estate schemes' (NES). The pricing formula for smallholder fresh bunches produced on NES oil palm schemes, which is set by decree, is such that the effects of trade policy on CPO prices are passed back to smallholders. According to press reports in January 1988, smallholders on NES schemes developed by state plantation companies were receiving Rp 70/kg for their fresh bunches while private firms were paying Rp 130/kg.

producers supply response to price changes induced by trade policy. While not zero, the short run elasticity of supply is relatively small for perennials such as oil palm that are mainly produced by plantations. And, over the longer term, the effects of price distortions on private investment probably were swamped by other policies, most notably the large interest rate subsidies for plantation investments under the PBSN (Perkebunan Besar Swasta Nasional) investment credit programme<sup>2</sup>. Moreover, the bulk of palm oil production comes from state plantation firms, where the impact of producer prices on production and investment decisions is attenuated.

The income transfer is the product of quantity produced (or consumed) and the policy-induced price difference. The following estimates of the effects of palm oil trade policies on producers and consumers are based on comparison of actual prices in Indonesia to estimates of prices that could have prevailed under free trade<sup>3</sup>. Because complete series of reliable FOB prices do not exist, export parity prices are calculated by subtracting transport costs from series of actual CIF prices recorded for markets outside Indonesia. Similarly, import parity prices are calculated by adding shipping and port handling costs to actual FOB price series in world markets. These border parity prices are then converted from current US dollars to current rupiah at the prevailing exchange rate. In cases where prices are analyzed at the wholesale level, port handling and transport costs are subtracted from the border parity price to obtain estimates of the wholesale parity price

in current rupiah. These parity prices then are compared to actual prices that prevailed in Indonesia to ascertain the effect of policy on price<sup>4</sup>.

#### CPO prices, 1978 to 1987

The price set by decree for domestic allocations was quoted as FOB Belawan, North Sumatra, for inter island shipments of CPO. This policy-determined price is graphed as a heavy, solid line labelled 'Allocation price' in *Figure 2*. The heavy, dotted line in that figure labelled 'Parity price' is the FOB export parity price for CPO that is derived by subtracting transport costs from a series of prices CIF Rotterdam. This is the price that would have been obtained under free trade if the CPO markets in Belawan and Rotterdam were fully integrated (and perfectly competitive). This estimated parity price is a good match to the incomplete series of actual FOB prices for CPO exports from Belawan, which is graphed as the thin, dotted line labelled 'Export price' in *Figure 2*. The estimated parity price is used in this analysis because there are important gaps in the actual FOB price series for exports, including much of the high price situation in 1984.

The FOB Belawan, North Sumatera, price for domestic allocations averaged 15% below the FOB export parity price for CPO from 1978 to 1987<sup>5</sup>. There were, moreover, wide swings in the nominal rate of protection for domestic allocations of CPO (see column B of *Table 1*). Between 1978, the allocation price was above the world market price only in two

<sup>2</sup>Indeed there was a dramatic reduction in new plans for large-scale, private investments in oil palm plantations when PBSN was phased out in early 1990s (Tomich, 1992).

<sup>3</sup>The demand side of the analysis also focuses on transfers, which dominate changes in consumers' surplus. Adding estimates of the deadweight loss to consumers' surplus would simply reinforce the implications of this analysis of income transfers. With very few exceptions, as shown below, trade restrictions increased consumer prices. In these cases, the deadweight loss reinforces the negative income transfer.

<sup>4</sup>Underlying these calculations is assumption that Indonesian policy had no significant effect on international prices for edible oils. The effect of Indonesian policies on international prices for palm oil is likely to be small during this period for two reasons. First, Indonesia's share of palm oil trade was only about 7% in the early 1980s (World Bank, 1986, pp. 18–19, and Statistik Sawit). Thus, even doubling Indonesia's palm oil exports would increase the quantity traded internationally by only about 5%–10%. Second, coconut and palm oil represent less than 1/4 of world production of edible oil products (IMF, 1986, p. 25) and these oils are readily substitutable in many uses. Thus, although Indonesia is second only to Malaysia as a producer of palm oil, its influence on international prices of edible oils is limited.

<sup>5</sup>For these and all subsequent averages or totals across years, prices are divided by the consumer price index (CPI) for Indonesia to obtain a constant value in 1985 rupiah.

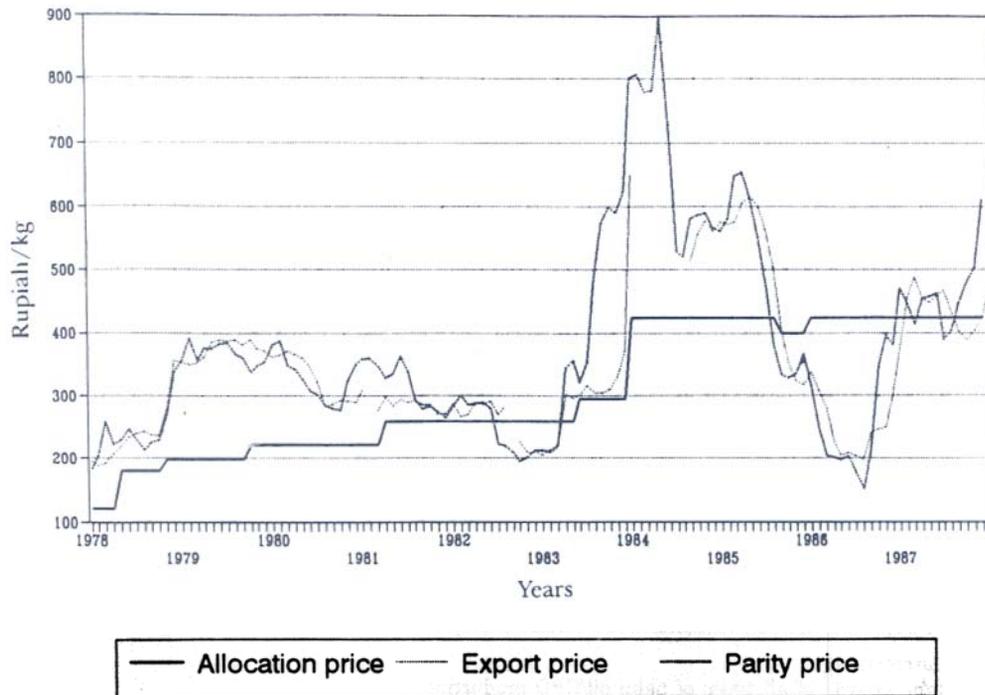


Figure 2. CPO price, 1978–1987, by month in current Rupiah.

years (1982 and 1986). Prices for domestic allocations were 63% above the export parity price in 1986, but allocations traded at a discount of 30% or more to the parity price in 5 years (1978–1980, 1983–1984). As can be seen in *Figure 2*, the largest differences occur when world prices are high, as in 1979 and 1983–1984, or low, as in 1986.

#### Combined effect of trade policies on palm oil producers, 1978 to 1987

Calculating the effect of trade restriction on oil palm estates' revenues is complicated because the minimum quota of CPO allocated to the domestic market beginning in 1978 was combined with the direct taxes applied to the CPO exports permitted above the quota. Between 1978 and late 1985, these direct taxes ranged from zero to 42.18%. (The higher

figure is the sum of an export tax of 5% and extra export tax of 37.18%, both of which were in effect in the first half of 1984.) Export taxes on CPO generally were set to zero after 1985<sup>6</sup>, but the administrative allocation mechanism remained in place until June 1991. Palm kernels also are included in the calculations as a joint product with CPO along with the effects of export taxes on revenue from palm kernels.

From 1978 through 1987, the combined effects of domestic quotas and price ceilings for CPO plus taxes on exports of CPO and palm kernels yielded a nominal rate of protection of –9% for palm oil estates (*Table 1*, column C). The combination of implicit and explicit taxes imposed in estates through trade policy reduced revenues in 8 of these ten years<sup>7</sup>. Nominal rates of protection ranged from –34% during the price spike in 1984 up to 34%

<sup>6</sup>There were some exceptions. For example, on 1 January 1989, a 10% export tax was imposed on CPO only to be removed on 2 March of the same year.

<sup>7</sup>Malaysian policies also produced negative protection for palm oil. Jenkins and Lai (1988, pp. 41–42) report that the NRP for Malaysian palm oil averaged –10% from 1961–1983. They estimate an NRP of –5% for Malaysian palm oil for 1980–1983, compared to –12% for Indonesia for the same period (*Table 1*).

TABLE 1. NOMINAL RATES OF PROTECTION AND REAL TRANSFERS FROM OIL PALM PRODUCERS, 1978-1987

Year	Palm Oil Exports/ CPO Production (percent) (A)	NRP for Domestic Allocations of CPO (percent) (B)	NRP for Producers of CPO & Palm Kernel (percent) (C)	Revenue Lost from Domestic Allocations (Rp millions) (D)	Revenue Lost from Export Tax on CPO (Rp millions) (E)	Revenue Lost from Export Tax on Kernels (Rp millions) (F)	Total Revenue Transfers from Producers (Rp millions) (G)
78	82	-31	-9	15 691	11 380	1587	28 658
79	55	-44	-21	88 266	12 145	3343	103 754
80	70	-33	-13	36 771	1931	1931	57 824
81	25	-22	-17	58 800	6870	1708	67 378
82	29	4	1	-8618	3238	1465	-3915
83	35	-31	-19	91 370	3213	2746	97 329
84	11	-38	-34	274 603	27 746	6399	308 749
85	42	-14	-13	50 466	31 780	5919	88 165
86	42	63	34	-131 641	0	0	-131 641
87	37	-8	-4	28 463	0	0	28 463
Ten year average	43	-15	-9				
total				504 171	109 496	25 098	638 765

NRP = nominal rate of protection

A. Official statistic for exports of all types of palm oil/CPO production

B.  $[(\text{domestic allocation price/parity price}) - 1] \times 100$

$(1 - \text{CPO}(X) \times \text{CPO}(2) + \text{CPO}(X) \times [(1 - \text{T}(1)) \times \text{CPO}(1) + 0.16 \text{X}[(1 - \text{T}(2)) \times \text{KERN}]])$

C.

$\text{CPO}(1) + (0.16 \times \text{KERN})$

Where:

CPO (X) = CPO export share

CPO(1) = FOB parity price for CPO

CPO(2) = price for domestic allocations of CPO

T(1) = CPO exports taxes

KERN = FOB parity price for palm kernels

T(2) = palm kernel export taxes

D. =  $[\text{CPO}(1) - \text{CPO}(2)] \times [\text{CPO production} - \text{palm oil exports}]$

E. =  $[(1 - \text{T}(1)) \times \text{CPO}(1)] \times [\text{CPO exports}]$

F. =  $[(1 - \text{T}(2)) \times \text{KERN}] \times [\text{palm kernel production}]$ ; assumes all kernels are exported

G. = D + E + F

in 1986 when world prices plunged.

Trade restrictions and export taxes resulted in a cumulative reduction in oil palm plantations' revenues of almost Rp640 billion (\$570 million in 1985 US dollars) during the ten-year period (*Table 1*). Low prices set for domestic allocations, combined with export quotas, account for Rp504 billion (almost 80%) of the cumulative reduction in estates' revenues (*Table 1*, column D). These cumulative transfers happen because allocations in 1984 raised the CPO allocation price to coincide with the real parity price trend through 1983 (*Figure 3*). The large increase in 1984 raised the CPO allocation price to coincide with

the real parity price trend for CPO. The pattern from 1984 to 1987 resembles the conscious parity pricing policy Indonesia has long employed for rice (Timmer 1991, also see Tomich 1992)<sup>8</sup>. However, as will be discussed later, the multi-tier price structure for palm oil is more difficult to administer than Indonesia's market-oriented approach to rice. Nevertheless, in the late 1980s, the CPO pricing policy might be seen to be evolving toward something like Indonesia's successful rice price stabilization policy except that there were no consumer benefits to offset the administrative problems that remained for producers.

<sup>8</sup>Although the price of cooking oil has substantial social and political significance in Indonesia, it is far less important than rice. For example, according to the Central Bureau of Statistics, rice accounted for 51% of Indonesian calorie supply in 1980 while the share of cooking oil was only 5.1%. And while rice supplied 47% of protein, cooking oils supplied none.

### Methodology: Trade restrictions' effects on consumer prices

The main policy-induced effects on the price of cooking oil come through trade restrictions imposed far from the consumer-level. Thus, benefits from trade restrictions intended for consumers in fact may be captured by traders and processors. However, there are no world price series for commodities that are directly comparable with retail prices of cooking oils in Indonesia. Thus, it is necessary to link changes in retail prices in Indonesia to prices for another commodity that is tradable.

Fortunately, a series of prices for RBD olein is available in world markets and at the ex factory level in Indonesia beginning in June 1981. ('Ex factory' refers to the wholesale price of refined cooking oil coming out of the factory after the final stage of processing but before packaging and distribution). The import parity price for RBD olein is calculated

by adding freight, insurance, and port handling costs to the FOB price of RBD olein exported from Malaysia. This border parity price is then adjusted to the wholesale level by adding port handling and local transport costs.

Comparison of wholesale prices of processed products in Indonesia with wholesale parity prices of the same commodities in world markets makes it possible to estimate the absolute magnitude of policy-induced effects that will be passed on to consumers from the wholesale level.<sup>9</sup> This approach is valid even if packagers, distributors, or retailers exercise market power *vis-a-vis* consumers because market power should make it easier for business interests to pass along their cost increases or to refrain from passing on their cost savings to consumers. Thus, measuring price changes at the ex-factory level gives an upper bound to consumer gains and a lower bound to consumer losses resulting from government policy.

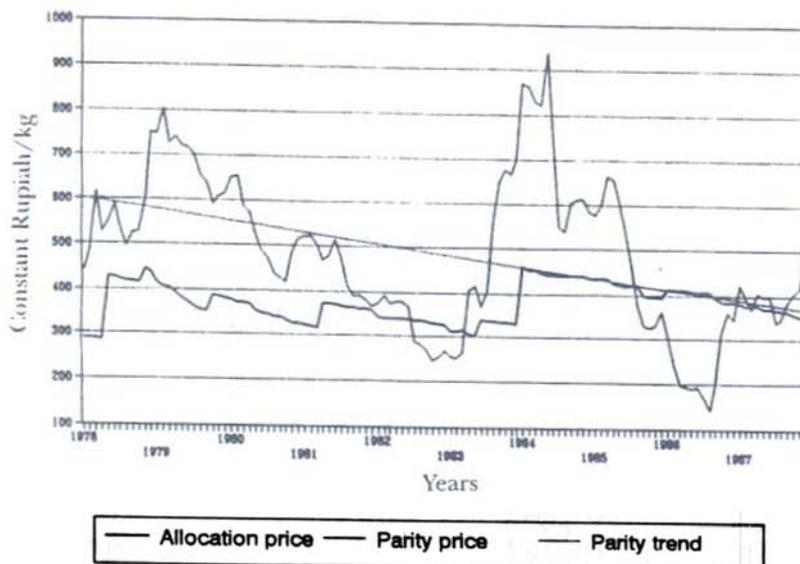


Figure 3. CPO prices, 1978–1987, by month in constant (1985) Rupiah.

<sup>9</sup>This approach also rests on the assumption that retail price movements for all cooking oils are connected to wholesale price movements of RBD olein. Despite a substantial margin between the factory and the consumer, the ex factory price of RBD olein and the retail price of cooking oils move together. And, although there often is a premium for refined coconut oil (RCO) over RBD olein, absolute changes in RBD olein prices match changes in RCO prices (aside from an exceptional period in 1984). Finally, because they are close substitutes for consumers, the retail prices of various cooking oils do appear to move together. In summary, absolute changes in the price of RBD olein appear to be passed on to consumers directly through the price of cooking oil made from processed palm oil and indirectly through the relationship between the prices of RBD olein and RCO.

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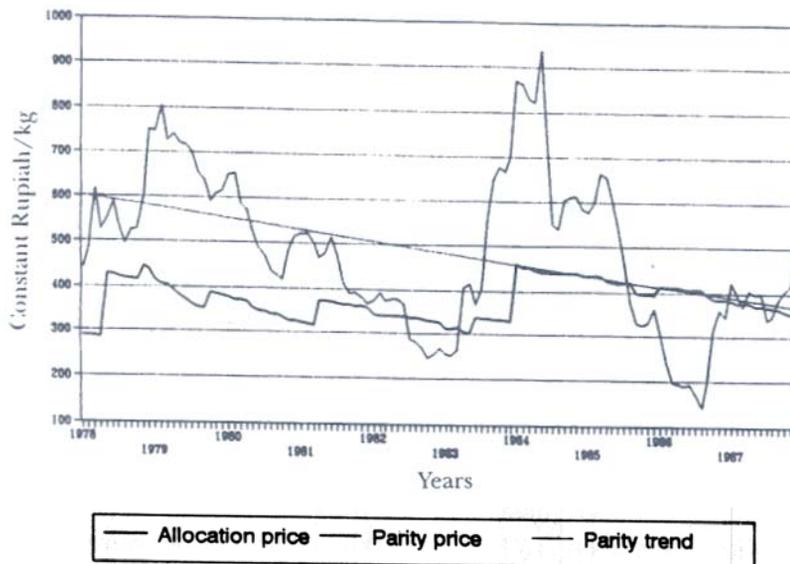


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### Effects on consumers during a "high price" situation, 1983–1984

One premise of Indonesian policy until at least the mid-1980s was the belief that export restrictions produced better outcomes for consumers than would result under free trade. Such benefits could be seen to offset the losses that export restrictions imposed on palm oil producers. But evidence presented in this section indicates Indonesian consumers received little protection when world prices rose rapidly. Furthermore, the next section shows consumers paid too much when world prices were low.

The run up of prices in world markets starting in mid-1983 and high prices prevailing to mid-1984 provide an opportunity to examine how policy worked under 'high price' conditions when consumers presumably need protection the most. In response to these rapid increases in prices of raw material inputs to cooking oil, the government added two new policy measures involving RBD olein. To see how consumers fared relative to free trade under the extraordinary measures instituted at that time by the government, the price of RBD olein, ex factory in Indonesia, and the corresponding wholesale parity price for the period from January 1983 through December 1984 are plotted in *Figure 4* as, respectively, the heavy solid line and the dotted line.

Beginning in September 1983, the government instituted 'market operations' to exert direct influence on the retail price of cooking oil. At that time, the Department of Agriculture authorized two distributors to sell a total of 2500 tonnes of RBD olein per month in ten major cities. This oil was sold at a subsidized price of Rp650–750 per kg when the retail price was above Rp1000 per kg. Cooking oil prices fell below import parity for October and November, but resumed their rapid increase to rise above the parity price once again in December 1983 (*Figure 4*). Domestic prices were about 13% lower than the parity price when world prices peaked in January 1984. According to the Department of Trade, market operations reached 221 000 tonnes in 1984.

In a meeting on April 30, 1984, attended by representatives of the Department of Trade, the Department of Industry, and the Joint Marketing Board in Medan (Kantor Pemasaran Bersama; KPB-Medan) for palm oil, the Association of Cooking Oil

Producers fixed the maximum ex factory price for RBD olein at Rp750 per kilogramme. This probably helped in May, but the move coincided with a decline in the price of RBD olein outside Indonesia (*Figure 4*). Ironically, instead of capping the rise in cooking oil prices, this 'price ceiling' seems to have prolonged high cooking oil prices until the precipitous world price decline in mid-1985 made this price insupportable.

### Overall effect on consumers, June 1981–December 1987

In this analysis, consumers are considered to have gained when the domestic price of RBD olein was less than the price at which it could have been imported. Consumers are considered to have lost when the domestic price exceeded the price at which it could have been imported. Although palm oil is a major Indonesian export, using a measure based on the import parity price gives a conservative estimate of transfers from consumers. Using export parity as the border price standard would lead to even larger estimates of transfers from consumers.

*Figure 5* shows the relationship of Indonesian wholesale prices to parity prices through the end of 1987. Protection of domestic consumers of RBD olein and its substitutes occurred only when edible oil prices reached high levels in world markets. Efforts to use trade policy and other measures to 'stabilize' cooking oil prices caused RBD olein prices to be higher than the parity price most of the time. In July 1984, the parity price fell below Rp750 per kilogramme and, except for April 1985, the wholesale price of RBD olein has been above the parity price every month since then. Overall, prices of RBD olein in Indonesia were higher than the parity price for 71 of the 79 months from June 1981 through December 1987.

When world prices were extraordinarily high – in January, February; and May 1984 – domestic prices were lower than wholesale parity prices. Thus, for a brief period, policy seemed to be able to lower domestic prices. But the tradeoff between 71 months of higher domestic prices and the reduction in domestic prices during 8 months represents a large net transfer from consumers.

*Table 2* presents policy-induced transfers by month whenever consumers gained and averages

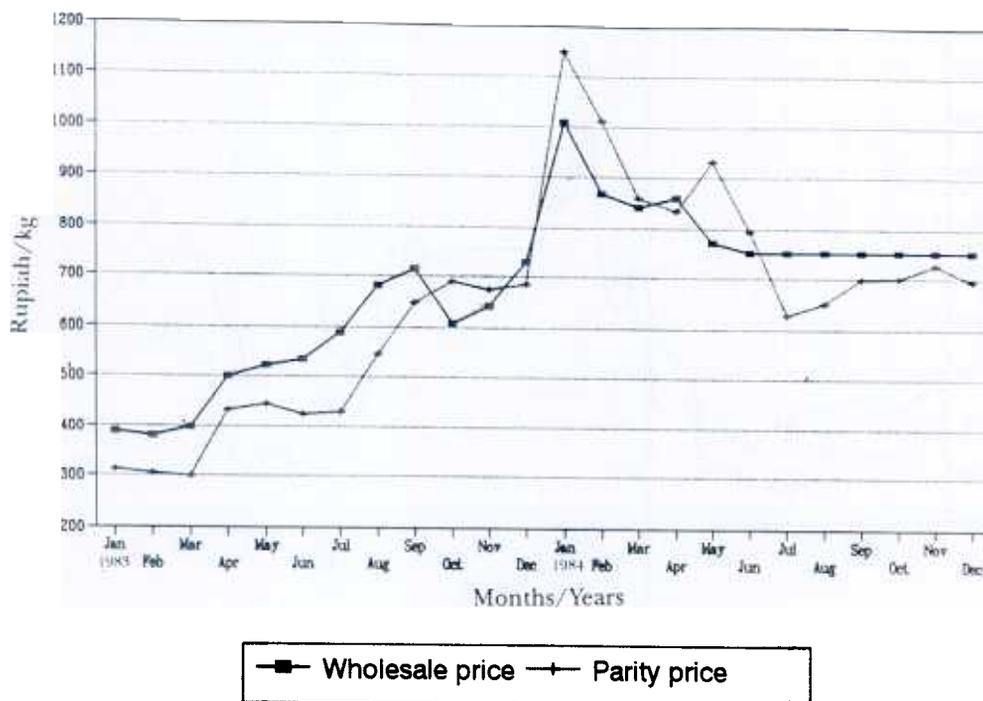


Figure 4. RBD olein prices, January 1983 to December 1984, by month in current Rupiah.

over periods when consumers lost from June 1981 through December 1987. These calculations understate the costs of stabilization to consumers because they do not take into account demand shifts in response to changes in price. For example, it is assumed consumption did not drop in 1983 and 1984 despite evidence that it fell in response to large price increases.

The calculations in *Table 2* indicate consumers probably paid an extra Rp120 per kilogramme for 9 months for each month they benefited from price reductions that averaged Rp84 per kilogramme at the wholesale level.<sup>10</sup> In aggregate, the eight months of reduced prices represented a potential transfer to consumers of Rp67 billion, but this must be balanced against the transfer from consumers of Rp987 billion during the other 71 months. The 8 months of protection from high world prices represent a net cost to Indonesian consumers of about Rp920 billion (in constant 1985 rupiah) between June 1981 and

December 1987. In other words, consumers routinely overpaid almost Rp15/kg for every rupiah they saved when prices were high.

To give some perspective to the effect of RBD olein prices on consumers prices, it is useful to consider relative magnitudes at the retail level. The average retail price of manufactured cooking oil ranged between Rp842 and Rp1650 per kilogramme during the wide fluctuations between January 1983 and December 1985 (all in constant 1985 rupiah). From June 1981 to December 1987, RBD olein prices in Indonesia averaged about Rp100 per kilogramme above parity. Since, the entire price differential probably was passed through to the retail level, Indonesian consumers usually paid 6%–12% above the import parity price for cooking oil. The greatest reduction of domestic prices below world prices occurred in May 1984, when the difference was about Rp153 per kilogramme. At that time, manufactured cooking oil cost about Rp1490 per

<sup>10</sup>71 months versus eight months is approximately 9:1. Note that figures are unchanged whether expressed in thousand rupiah per tonne or rupiah per kilogramme. For example, Rp 80 000/tonne is the same as Rp80/kg.

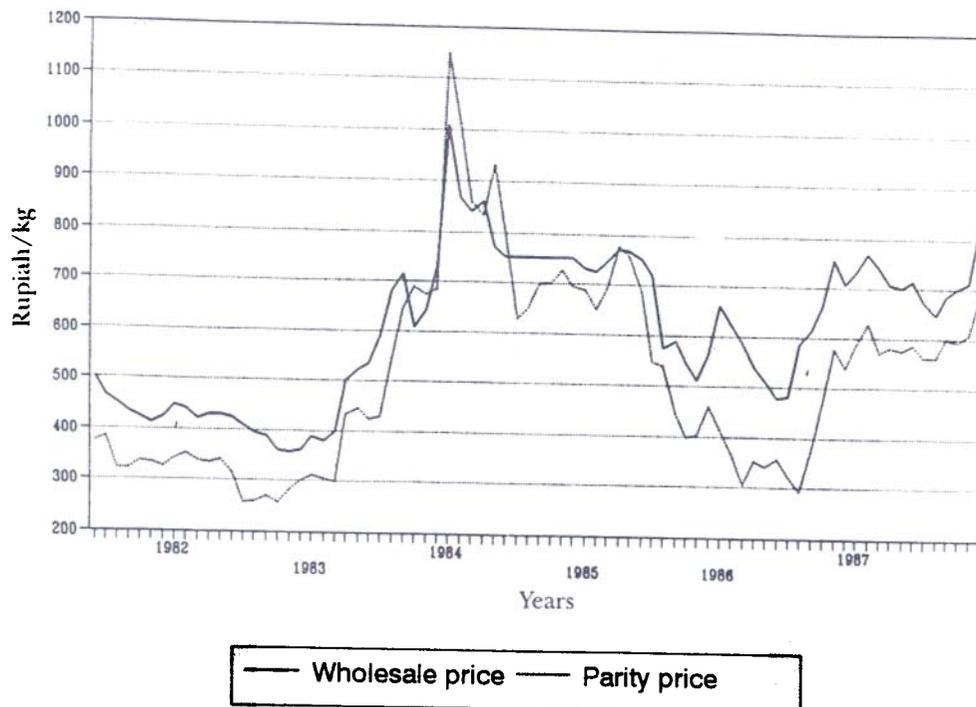


Figure 5. RBD olein prices, June 1981 – December 1987, by month in current Rupiah.

kilogramme in Jakarta. This indicates the greatest reduction of retail cooking oil prices was less than 10 percent.

Therefore, it is clear that Indonesian consumers did not receive a net subsidy during the 79-month period from June 1981 to December 1987, except for eight months in late 1983 and early 1984. Furthermore, the cumulative effect of higher prices consumers paid during most of this period far outweighed the value of income transfers during the brief periods of implicit subsidy.

#### The verdict on cooking oil price stabilization

Trade policy stabilized Indonesian prices of RBD olein and CPO relative to the world market (Figures 2 and 5). Price stability, however, came at a high cost to producers and consumers. Consider the period 1982-87, when data are available to calculate net transfers for cooking oil consumers as well as oil palm producers. Net transfers from consumers

exceeded Rp800 billion for those six years (Table 2). Transfers from oil palm producers for the same period were Rp387 billion (Table 1).

Even experience in 1984 – the only year cooking oil consumers gained – sends a strong signal that something was badly wrong with palm oil trade policy. Consumers received a gross transfer of Rp53.6 billion during five months when domestic wholesale prices were kept below the parity price for RBD olein. But because domestic prices exceeded the parity price for the balance of the year, the net transfer to consumers for 1984 was Rp8.9 billion (Table 2, column D). The same year, estates revenues were reduced by more than Rp300 billion (over US\$275 million) by trade restrictions and export taxes on CPO and palm kernels.<sup>11</sup> In other words, the trade restrictions caused producers to lose almost 35 rupiah for every rupiah consumers saved in 1984. How is it possible that consumers and producers both lost so often from cooking oil price stabilization? These analyses suggest either

<sup>11</sup>Smallholder copra producers lost an additional Rp 65 billion as a result of the corresponding restrictions on copra and CCO exports.

TABLE 2. REAL TRANSFERS FROM COOKING OIL CONSUMERS,  
JUNE 1981 - DECEMBER 1987 (all values in 1985 Rupiah)

	Parity Price Minus Wholesale Price of RBD olein (Rp '000/tonnes) (A)	Duration (Months) (B)	Manufactured Cooking Oil Consumption ('000 tonnes/mo) (C)	Transfers to (from) Consumers (Rp million) (D)
<b>Transfers to Consumers</b>				
October 1983	93	1	100	9276
November 1983	36	1	100	3612
January 1984	153	1	100	15 293
February 1984	151	1	100	15 139
March 1984	19	1	100	1915
May 1984	169	1	100	16 910
June 1984	44	1	100	4370
April 1985	8	1	120	961
Average	84			
Sub-total		8		67 476
<b>Transfers from Consumers</b>				
June-Dec 1981	-144	7	100	-101 084
Jan-Dec 1982	-132	12	100	-158 217
Jan-Sept 1983	-113	9	100	-101 275
December 1983	-49	1	100	-4933
April 1984	-28	1	100	-2836
July-Dec 1984	-70	6	100	-41 890
Jan-March 1985	-60	3	120	-21 433
May-Dec 1985	-98	8	120	-93 965
Jan-Dec 1986	-198	12	125	-296 554
Jan-Dec 1987	-106	12	130	-16 360
Weighted Average	-123			
Sub-total		71		-987 545
			<b>Net Transfers from Consumers</b>	<b>-920 069</b>

**Notes**

A. Average difference between parity price and actual for the period

C. Rough estimates of annual cooking oil disappearance, actual figures probably were lower in 1983 and 1984 than indicated here

D = A × B × C

that traders or processors received very high profits, or that they were inefficient, or both. The price series alone do not reveal exactly what happened between Belawan and Jakarta in 1984. But the difference of Rp275 000 per tonne (about 60% more than the approved domestic price) between the FOB price for domestic sales from Belawan and the border parity prices indicates there was a strong incentive for anyone with the means and inclination to smuggle CPO out of Indonesia. Some amount of smuggling certainly occurred, although the magnitude

of illegal trade is impossible to quantify. (One source claimed half the CPO produced in North Sumatra in 1984 was sold illegally in Singapore.) Enough was "leaking" from the system to bring the wholesale price of CPO in Jakarta up to the high levels in world markets.

Those with access to CPO allocated for domestic use in 1984 could sell at a price close to the price in world markets, but paid much less. In 1984, the Department of Industry allocated at least 600 000 tonnes of CPO to the domestic market and the

majority of this must have been shipped from Belawan. At a price differential between Belawan and Jakarta of Rp275 000 per tonne, those who received domestic allocations could have made Rp165 billion (about US\$150 million). This amounted to a direct transfer from CPO producers to those individuals and firms who used privileged access to administrators to secure these lucrative opportunities.

Indonesian consumers have routinely paid too much for cooking oil because trade restrictions insulated them from world markets. The ability of certain processors to benefit from this situation derived from their privileged access to low cost inputs, either through administrative allocation or through import licensing. For example, the CPO allocation system made it difficult for weaker cooking oil processors to obtain CPO inputs. The strongest ones got favoured treatment that helped them to limit competition and thereby charge higher prices to consumers. Thus, the trade restrictions intended to stabilize cooking oil prices tended to raise prices consumers paid because the regulations created market power in distribution and processing of cooking oil.

Import licensing played a central role in keeping consumer prices high. Except for consignments exempted under the 6 May 1986 decrees that allowed duty-free import for export industries, import licenses had to be obtained for every shipment of copra, CCO, and CPO entering Indonesia. These import licenses were intended to protect producers from low prices. But the import tariffs administered by the Department of Finance were more than adequate to protect producers. With these import tariffs in place, the import licenses were unnecessary. Moreover, the main effect of import licenses was that they granted control over imported supplies to specific firms which then could use their control to extract excess profits.

Domestic palm oil allocations were a mixed blessing for most processors. They resisted accepting their CPO allocations when the domestic allocation price exceeded the world price in 1986. According to figures from the Department of Trade, CPO allocations of 160 000 tonnes were planned for that year, but only about 70 000 tonnes of allocations were realized. As a result, CPO allocations to most firms were reduced in 1986. When world prices

rose above the official price of domestic allocations in 1987, processors requested that allocations be restored to the high levels of 1985. According to one official, the state plantation companies successfully resisted this move. Department of Trade figures show that virtually the entire domestic allocation of 160 000 tonnes planned for 1987 was distributed. This was less than 40% of the volume of CPO allocations to domestic processors in 1985 and less than 25% of the level in 1984.

Rather than providing protection for the processing industry as a whole, palm oil policies strengthened the position of a few firms that already dominated palm oil marketing and cooking oil processing and distribution. While some processors received no CPO allocation at all and most others were seeing substantial cuts in their CPO allocations, the amount planned for market operations was not cut. Official and trade sources reported that the bulk of CPO allocations and all allocations for market operations were being distributed through two firms that together had at least a 60% share of the cooking oil market. Thus, the majority of processors were hurt by unfair competition resulting from market operations combined with restrictions on their access to raw materials. (The firms designated for market operations also were favoured in the licensing of importers of cheap raw materials).

#### PECULIARITIES OF PALM OIL MARKETING IN THE LATE 1980s

Much of the burden of regulation of palm oil exports put in place through the 1980s was borne by state-owned plantations (PTPs). All CPO produced by state-owned plantations had to be marketed through KPB-Medan, whether for domestic sales or for export. These state-owned companies produced about three-quarters of Indonesia's CPO in 1988. (This requirement also meant that all production by smallholders on NES/PIR oil palm schemes operated by state plantation companies was marketed through KPB-Medan.) Since the Department of Agriculture had direct authority over KPB-Medan and the state plantation companies, it was able to dominate the domestic allocation process. CPO in excess of the domestic quota could be exported or sold on the domestic market.