Growth and Stagnation in an Era of Nation-Building: Indonesian Economic Performance from 1950 to 1965

Abstract

An overview is given of Indonesian economic performance during the Old Order (1950–1965). The Japanse occupation and independence struggle left the country in ruins and until 1957 recovery strategies were implemented that resulted in a rapid recovery of production because plants and infrastructure were rehabilitated. Yet the fundamental issues of ownership and control of the economy remained. Indonesia's real product in these years was only equal to the average in Asia and the rate of investment to national income was very low. This also held true for the ratio of exports to GDP. Performance grew worse at the time of the Guided Economy (1958–1965). In sum, the Indonesian economy retrogressed structurally between 1940 and 1965 as evidenced by a rising share of labour-intensive production. Yet its potential was still enormous.

1. Recovery from war and revolution, 1950–1957

In an analysis of the transition to independence in India, published in the second volume of the *Cambridge Economic History of India*, Vaidyanathan has commented that 'along with an impoverished economy, independent India also inherited some useful assets in the form of a national transport system, an administrative apparatus in working order, a shelf of concrete development projects and substantial reserves of foreign exchange' (Vaidyanathan, 1983: 948). Indonesia in 1950 had none of these advantages. Although they had been defeated and occupied both at home and in Indonesia, the Dutch were nevertheless determined to re-establish their power in what had been by far their largest and most important colony. They refused to recognize the declaration of independence of 17 August 1945, and a prolonged struggle commenced between the forces of the infant republic, and those of the colonial army. To the problems caused by three years of Japanese occupation were added the chaos and destruction of guerilla war. When sovereignity was finally transferred to the Republic of the United States of Indonesia at the end of 1949, the new government was obliged to take over not just a shattered economy where per capita output was well below 1940 levels, but also a public debt of $ 1.13 billion (Kahin, 1952: 443).

Why did the Dutch government not follow the example of the British in India, as well as the urgings of the Americans, and voluntarily withdraw from its colonial role? The Dutch people, worn out by years of foreign occupation, were clearly unable to sustain a long colonial war, and the United States was in an enormously strong position to influence policy by threatening to withold Marshall aid. The extreme Dutch reluctance to grant Indonesian independence was the result of several factors. First, and most obvious, was the economic importance of Indonesia to the Netherlands. According to the estimates of Derksen and Tinbergen, first published in a confidential memorandum during the war, income from Indonesia amounted to 15 per cent of total Dutch national income in the decade from 1925 to 1934. Income from Indonesia included income received from company profits, dividends, rents, pensions, and trade in colonial goods and services; in addition an attempt was made to take into account the 'secondary' or multiplier effects of this income (Derksen & Tinbergen, 1980: 234). The obvious implication of this calculation was that if the Netherlands lost control of the colonial economy, there would be a considerable reduction in the Dutch national income. Although the Derksen-Tinbergen estimates have subsequently been criticized, there can be little doubt that they influenced the debate on Indonesian independence within the Netherlands.

A second consideration, related to the first, was that in the inter-war years the colonial economy became an extremely important source of dollar earnings to the Netherlands, mainly because of the rapid growth in rubber exports to the United States. Indeed Sumitro argued that the Indonesian dollar surplus was the main reason that the Dutch economy was able to sustain a substantial dollar deficit between 1921 and 1940 (Djojohadikusumo, 1953: 9). Even with the promise of massive dollar aid through the Marshall Plan, the Dutch were obviously reluctant to lose control of their main source of dollar-earning exports. Of course it could be argued that the granting of political independence to Indonesia need not mean that Dutch economic interests would be harmed, and indeed Dutch domination of key sectors of the economy was preserved largely intact until 1958. But the large settler community in Indonesia, many of whom had stronger roots there than in the Netherlands, feared that, with the granting of political independence, economic independence could not be long delayed. At the very least the positive discrimination in favour of Dutch commercial interests would decline, and the probability of the wholesale takeover of Dutch interests must increase. The events of the latter part of the 1950s were to justify these fears.

The problems facing Indonesia in 1950 had been summed up in a report prepared by the Java Bank three years earlier as part of the official Dutch submission for Marshall Aid. This document stressed that it was not possible to assess fully the physical damage which Indonesia had suffered during and after the war, but suggested that it was of the order of two billion dollars in 1938 values, a sum roughly equal to total GDP in that year. It gave the following estimates of production by sector as a percentage of pre-war levels:

Foodcrop production	70–75 per cent
Smallholder tree crops	30–35 per cent
Estate agriculture	20–25 per cent
Fisheries	50 per cent
Mining	20 per cent
Industry	30–35 per cent

Even such a conservative institution as the Java Bank saw that some forward planning was essential to attract the foreign aid necessary to effect a rapid recovery. It drew up immediate plans for rehabilitation of war-damaged plant and infrastructure but also argued that 'for a more balanced development of the Indonesian economy, it will also be necessary to stimulate new or expand existing facilities especially in the industrial sphere'. Officials in the territory held by the forces of the Republic were also hard at work formulating plans for industrialization, population resettlement, public works and education (Thompson, 1947: 178–83). Both the Java Bank and the Republican exercises were little more than lists of projects ordered according to priority; the Republican plans in particular were according to Thompson 'notable for their number and incompleteness'. But the precedent was firmly established, and when Indonesia finally became fully independent in 1949, it was accepted as self-evident that government must assume responsibility for directing the allocation of resources in the economy to achieve the objective of rapid and equitable economic growth.

The first task facing the new government was to restore productive capacity and output to pre-war levels. The extent of the decline in production which occurred as a result of the Japanese occupation and the civil war remains a matter of some controversy. Certainly figures such as those quoted above may have exaggerated the situation, although the official food production statistics for Java show that the harvested area of the six principal foodcrops was only 70 per cent of the pre-war average in 1946, with a similar decline in output (Metcalf, 1952: 38), which confirms the Java Bank estimates. The restoration of foodcrop production to its pre-war levels, either in Java or elsewhere, did not involve large expenditures on rehabilitation of infrastructure, except in those areas where irrigation works were seriously damaged. The problems confronting the export industries, both in Java and Sumatra, were much more serious. By 1948, output of sugar in Java had recovered somewhat from the trough reached in 1946, but was still only 75,000 tons compared with 1.46 million tons in 1937/39 (Metcalf, 1952: Table 7). Although Dutch officials expressed optimisim that the industry could be revived, at least in regions under Dutch control such as the Brantas Delta in East Java, the problems were formidable (Klasing, 1948). Many factories sustained damage at the hands of both the Japanese and the Republican armies, and farmers were far less inclined to be intimidated by the factories into renting land at unprofitable rentals. Some Dutch officials hoped that the post-war industry could be based on indigenous-grown cane, but few farmers were interested in growing cane when their food needs were so pressing. By 1950, sugar output was still only 20 per cent of the 1937/39 average, and indeed the industry only returned to its pre-war production peak in the 1980s.

The rest of the estate sector was in little better shape than the sugar industry. Production of coffee, tobacco, tea, cinchona and palm oil were all still under half pre-war levels in 1948, and recovered only slowly. In some cases, the Japanese had forced the estates to destroy trees in order to plant foodcrops, while in other cases, most notably that of tobacco, much of the estate land had been occupied by local farmers during the war in order to plant food. The two crops whose production made the fastest recovery to pre-war levels were rubber and copra, both predominantly smallholder crops cultivated on land not suitable for foodcrop cultivation. The problems of the estate sector were aggravated after independence with the energence of strong unions which pressured for higher wages for both field and factory workers.

A clearer picture of the speed of production recovery can be obtained from the data on production of the major foodcrops and export commodities for 1937, 1948, 1950 and 1952, valued at 1937 prices (Table 1). In 1948 the value of non-food production was only 60 per cent of the 1937 figure; by 1952 it had more than caught up. Foodcrop production, however, was slower to return to pre-war levels; we do not have any pre-war food production data for most regions outside Java, but in Java production of the six basic foodstuffs in rice equivalents (weighted by calorie content) only surpassed the 1937 figure in 1954. The total value of production of the commodities shown in Table 1 had returned to 1937 levels by 1952, a finding which is consistent with the assertion of Muljatno that real national income in 1953 was about what it had been in 1938 (Muljatno, 1960:184). Van der Eng's series indicates a more rapid recovery in the latter part of the 1940s, so that GDP returned to its 1938 level in 1952. This result is partly due to his estimates of manufacturing value added which are examined in more detail below.

The national income data available from several sources for the 1950s can be used to examine the growth of production by sector as well as in the aggregate. Between 1950 and 1955, GNP grew at 5.6 per cent per annum, according to World Bank sources (World Bank, 1976: 122). Obviously much of this growth can be attributed to rehabilitation. Between 1953 and 1957, UN sources show that real net domestic product at factor cost grew by 5 per cent per annum; about half the total real growth which occurred was in the primary sector (agriculture and mining) while the rest was equally divided between manufacturing and 'other', embracing construction, utilities, transport and trade (Table 2). Van der Eng's data indicate a slower growth rate over these four years; his series indicates a much faster growth rate in the years from 1945 to 1952. For reasons which are discussed in more detail below, I would argue that Van der Eng has exaggerated the rate of recovery of the economy after 1945, and therefore rather understated its growth in the mid-1950s. Van der Eng's series also indicates that more than 40 per cent of the growth in GDP between 1953 and 1957 was due to

Table 1. *Gross value of production of major foodcrops and export commodities, 1937–1952.* (million guilders in 1937 prices)

	1937[a]	1948[a]	1950	1952
Foodcrops				
Padi *sawah*	316.3	n.a.	291.9	323.8
Padi *gogo*	61.3	n.a.	32.1	33.8
Corn	99.6	n.a.	56.7	59.1
Cassava	106.1	n.a.	57.2	74.6
Sweet potatoes	22.3	n.a.	14.8	23.8
Peanuts	20.3	n.a.	13.8	15.3
Soybeans	18.1	n.a.	12.3	17.2
Total	643.9	n.a.	478.8	547.7
Export crops				
Coffee	35.5	6.2	15.1	12.9
Sugar	99.9	5.3	19.6	32.5
Tobacco	66.0	19.4	16.5	40.9
Tea	64.2	10.9	30.4	48.6
Copra	87.0	41.3	46.4	133.1
Cinchuna	16.1	10.5	8.7	5.8
Rubber	338.0	327.3	524.4	558.0
Palm oil	26.4	7.5	16.7	19.4
Kernels	0.7	0.2	0.5	0.6
Petroleum	109.4	65.2	102.6	128.4
Tin	79.3	64.6	67.7	73.9
Coal	6.3	2.5	3.7	4.6
Total	928.7	560.9	852.2	1058.4
Grand total	1572.6	n.a.	1331.0	1606.1

Note: For 1937 and 1948 foodcrop production data are available for Java. The 1937 data have been adjusted to an all-Indonesia basis on the assumption that the ratio of Java to total production was the same as the average for the 1950s. This procedure could not be used for the 1948 data because the independence struggle would probably have depressed Java's foodcrop production disproportionately.

Sources: Indisch Verslag, 1939; De economische ontwikkeling, 1938; Metcalf, 1952; Biro Pusat Statistik, 1956; Mitchell, 1982.

the oil sector alone. This seems to be an overstatement, due to the use of 1983 prices, but there can be little doubt that the oil sector did recover more rapidly from wartime destruction than much of the rest of the economy. This was due in large part to the so-called 'let-alone' contracts which were granted to the three foreign oil companies by the Indonesian government in 1949, and which allowed them to retain much of their foreign earnings on condition that they made no demands on government for rehabilitation and extension of plant (Hunter, 1966). Production of crude petroleum was back to pre-war levels by 1951, and doubled again by 1958 (Hunter, 1966: Table 1).

The UN figures show a very rapid industrial growth rate between 1953 and 1957; value added grew by 73 per cent over these four years. Did this simply

Table 2. *Sectoral growth rates, 1953–1957.*

Sector	Annual average growth rate 1953/57	Percentage breakdown of sectoral contribution to total growth
Agriculture	2.8	34
Mining and Quarrying	25.6	13
Manufacturing	13.9	27
Other	4.2	26
GDP (factor cost)	5.0	100
GNP (market prices)	5.6	
GDP (Van der Eng)	2.3	

Note: GNP (market prices) refers to 1950/55.

Sources: GDP data: United Nations, 1960: 114; GNP data: World Bank, 1976: 122; Van der Eng, 1992: 369.

represent rehabilitation, or was it new growth, beyond what had occurred in the large and medium-scale sector in the 1930s? Certainly the damage and destruction wrought by war and revolution in medium and large-scale manufacturing was probably greater than in any other part of the economy, and rehabilitation proceeded more slowly. Reviewing the situation in 1948, Hardon estimated that the textile industry was operating at about 20 per cent of its 1942 capacity, and that in centres such as Madjalaja in West Java 80 per cent of plant had been damaged beyond repair (Hardon, 1948: 162).

The batik industry, of considerable economic importance to West and Middle Java, was practically at a standstill through the lack of cloth and of dyes. The smithies did not produce tools, the tapioca mills remained idle, and the various cottage industries, including weaving and plaiting, ceased to function (Hardon, 1948: 161).

In addition to these problems, increased labour militancy meant that higher wages had to be paid to workers in some industries, while inadequate provision of electricity and transport added to already high production costs. The extent of the economic recovery is very difficult to judge, given the lack of detailed production data. However Palmer argues that the output of the modern weaving sector was only half the 1940 figure in 1951, although recovery was rapid thereafter, and had returned to the pre-war figure by 1955 (Palmer, 1973: 329). CBS data on the large-scale factory weaving sector show output more than doubling between 1950 and 1954. Higgins cites Bank Indonesia figures on imports of industrial raw materials which show a decline in most categories between 1940 and 1952, and recovery to pre-war levels thereafter, although some key inputs, including cement, paper and caustic soda had already surpassed 1940 levels by 1952 (Higgins, 1957: 172).

On the other hand, the annual surveys of the large and medium-scale sectors, which began to be published in 1954, indicate that the real value of total wages paid by the sector had not caught up with pre-war levels by 1954 (when real national product had already surpassed the 1938 estimate), although by 1957 the total wage bill was slightly larger than the 1940 figure computed by Segers (Segers, 1988: 114). Employment in the 'large' or 'factory' sector (defined in 1940 as any establishment employing more than 50 workers, or employing less than 50 workers but using machinery) was about the same in 1957 as in 1940 (Table 3), although the post-war definition may have been slightly narrower. But the available evidence indicates a very steep fall in the ratio of total wage costs to value added in manufacturing in the 1950s and early 1960s compared with Sitsen's estimate for 1940 (Table 3). The most plausible explanation for this was the overvaluation of the rupiah which encouraged manufacturers rehabilitating existing plant or constructing new factories to use capital-intensive technologies imported from abroad. Negative real interest rates in the formal financial sector would also have contributed to this trend. Value added in 1953 prices was consistently above pre-war levels from the mid-1950s onwards (Table 3).

The UN estimates of net domestic product at factor cost show that in spite of rapid growth, manufacturing output accounted for only 12 per cent of net domestic product in 1957, and fell below this share thereafter. Paauw argues that the post-independence data are probably understated, mainly through the ommission of the handicraft sector, although there was also substantial under-reporting in the factory sector as well (Paauw, 1963: 177). Figures produced by ECAFE for the 1950s show that Indonesia had the lowest share of non-agricultural to total national product of any Asian country except Pakistan; furthermore it was the only Asian country to experience a decline in that share (Table 4). The share of manufacturing was lower than for any country except Ceylon and Cambodia.

Table 3. *Employment, real value added and wage costs in the large factory sector 1940–1962.*

	Numbers employed	Real value added (millions)	Wage costs as percentage of value added	Real wage costs per worker
1940	344,177	2225.3	40.3	2605
1954	263,286	n.a	n.a	2818
1958	334,792	3869.1	18.0	2082
1961	339,674	4827.1	12.1	1719
1963	745,020	3720.8	21.7	1064

Note: Money values in guilders or rupiahs. Data for 1938/39 refer to the factory sector, which according to Polak includes industries using 'considerable mechanical installations, electrical or steam power, and/or conducted in relatively large establishments of 50 or more workers' (Creutzberg, 1979: 47). However, all processing of agricultural and mineral products for export are excluded from the pre-war data. After the war the 'large factory' sector was defined as any establishment with machinery employing more than 50 people, or without machinery employing more thean 100 people. The deflator used is the cost of 30 local and imported goods in Jakarta (1953 = 100).

Sources: Segers, 1988: 104, 114; Sitsen, 1943: 44; Biro Pusat Statistik, 1956; Statistical Pocketbook, 1958; Nugroho, 1967: 319.

Table 4. *Contribution of non-agricultural sectors and manufacturing to national product, 1957–1959, and change from 1950–1952, in* ECAFE *countries.*

(Percentage of aggregate product)[1]

	All non-agricultural sectors		Manufacturing[2]		Other non-agricultural sectors	
	Share[3]	Change[4]	Share[3]	Change[4]	Share[3]	Change[4]
Japan	82	7	26	2	56	5
Taiwan (China)	69	4	18	2	51	2
Philippines	65	6	15	4	50	2
Thailand	61	3	14	1	47	2
Mainland China	60	10	22	7	38	3
South Korea	59	4	12	5	47	−1
Burma	58	4	13	3	45	1
Cambodia	54	10	8	2	46	8
India	53	2	16	-	37	2
Ceylon	51	4	5	1	46	3
Pakistan	45	5	12	4	33	1
Indonesia	45	−1	9	-	36	−1

Notes:

[1] Per cent of gross domestic product at market prices for Burma and Thailand and at factor cost for Cambodia, Ceylon and South Korea, of net domestic product at factor cost for China: Taiwan, Japan and Pakistan; of net national product at factor cost for India, Indonesia and the Philippines; and of upward adjusted (to take into account excluded services) net material product at market prices for mainland China.

[2] Including mining and electricity in mainland China, electricity and construction in India, and all utilities in Indonesia and Pakistan.

[3] 1956 only for mainland China.

[4] From 1951/52 for Burma, Cambodia, Taiwan (China) and Indonesia; from 1952 for mainland China; from 1952/53 for Thailand; from 1953/54 for South Korea.

Source: ECAFE, 1961: 15.

Van der Eng's recent series on manufacturing value added in the years from 1945 to 1957 presents a very different picture from all the contemporary evidence. His series indicates that the manufacturing sector made a very rapid recovery after the war, and by 1950 value added had returned to the peak level reached in 1942 (Van der Eng, 1992: 367). Given all the evidence cited above, this result is quite implausible. Although his estimates show manufacturing value added growing at a much slower rate in the years from 1953 to 1957 than the UN data in Table 2, he still concludes that by 1957, manufacturing value added was more than 50 per cent higher than in 1942. This result appears to be entirely due to the extrapolation technique used, and is obviously at odds with virtually all the other data on manufacturing development in the 1950s. Thus his finding that the manufacturing sector accounted for 15 per cent of non-oil value added in 1950 compared with 11.2 per cent in 1941 is also very doubtful. It is much more plausible to argue that manufacturing value added accounted for a lower share of GDP in 1950 than in 1941, and by 1957 the proportion was around 13–14 per cent, although it fell thereafter.

Until 1957, ECAFE sources indicated that Indonesia's growth of real product was about average by Asian standards; faster than the South Asian countries, but slower than China, Taiwan or Japan (Table 5). This was in spite of the fact that, according to the ECAFE figures, Indonesia's investment rate was the lowest in Asia. The low investment and high growth outcome thus produced one of the lowest ICORs in Asia, which in turn could presumably be explained by the fact that much of the growth in the early and mid-1950s was due to rehabilitation of existing plant and infrastructure, rather than to new investment. Even so, contemporary observers pointed out that the very low investment rates were to some extent an artifact of the unrealistic exchange rate, which meant that the rupiah values of capital imports did not take into account the inflation-induced rise in rupiah prices relative to world prices (Paauw, 1963: 197). In addition, UN experts claimed that private investment was understated, especially in agriculture, small-scale industry and much of the service sector, because of inadequate reporting procedures (United Nations, 1964: 213). Accordingly, a United Nations study of Indonesia's growth prospects prepared in the early 1960s computed a new series on investment, both public and private, which in turn yielded a rather higher ratio of investment to GNP; the ratio fluctuated over the years from 1952 to 1957 between 8.3 and 10.7 per cent of GNP (United Nations, 1964: 243). On average, according to the UN study, investment accounted for about 9 per cent of GNP over these years, a figure rather closer to the median value for the countries shown in Table 5, although still on the low side. However, even these adjusted data may still have been too low; alternative estimates for 1955 published by the World Bank put the investment ratio at ten per cent, rather than the 8.3 per cent estimated by the UN study (World Bank, 1976: 122).

Table 5. *Growth of real national product, investment rate and incremental capital/output ratio in ECAFE countries.*

	Real national product 1957 (index number, 1953 = 100)	Investment as percentage of GDP (annual average 1950/59)	Incremental capital/output (1950/59)
Mainland China	134	n.a.	n.a.
Japan	133	21.6	2.4
Taiwan (China)	130	13.1*	1.7*
Burma	127	17.1*	3.4
Cambodia	125	n.a.	n.a.
Philippines	125	7.0	1.2
Indonesia	123	6.2*	1.7
South Korea	119	12.3**	2.2**
Thailand	115	14.4	2.6
Ceylon	110	11.3	2.9
Pakistan	108	7.8	3.0
India	107	14.9	4.8

Note: Data for 1951/59 (*) or 1953/59 (**).

Source: ECAFE, 1961: 10, 24.

The problem of the unrealistic exchange rate, which led to an undervaluation of capital imports relative to domestic output, also bedevilled any attempt to calculate the ratio of exports to national product. Paauw acknowledged the problem, and computed the ratio of exports in rupiah to constant price GDP to eliminate the effect of domestic inflation (Paauw, 1963: 183). Even with this adjustment, his estimates showed that the ratio of exports to GDP fell between 1952 and 1953, and remained at around eight per cent until 1957. This was clearly a much lower ratio than the pre-war one. The United Nations study already referred to, took exports valued in US $ terms, deflated by a dollar price index, and converted these at the 1955 exchange rate; the ratio was then computed using GDP data valued at constant 1955 prices. This procedure yielded a slightly higher and more stable ratio, although it never exceeded ten per cent of GDP (United Nations, 1964: 208). But the problem with both the Paauw and the UN approaches was that they still relied on the obviously overvalued 1955 exchange rate. If the current dollar value of exports is converted at the 'free market' rate reported in Pick rather than the official rate, then the ratio of exports to national product increases markedly; however as inflation gathered pace and political instability mounted it is likely that the black market rate undervalued the rupiah (Pick, 1956: 144; 1965: 265). An alternative procedure is to adjust the 1938 export/GDP ratio for 1938 by the ratio of the export volume index computed by Rosendale (1975) to the real GDP index for each year after 1951. This procedure shows that there was no decline in the ratio of exports to GDP after independence; in fact in the early 1950s there was a considerable improvement, although this was largely due to the high prices prevailing at the time of the Korean War boom (Table 6). This adjusted series also suggests that there was little or no decline in the export/GNP ratio after 1957; this point is discussed in more detail in the next section.

Given the valuation problems caused by the fixed exchange rate, it is clearly impossible to make exact estimates of trends in investment or exports relative to national income; indeed the various national income estimates themselves can only be considered indicative of broad trends. But the data do allow the following conclusions to be drawn concerning economic performance up to 1957. Indonesia was able to grow quite rapidly in the immediate post-independence years because there was an immense amount of rehabilitation of war-ravaged plant and infrastructure to be carried out. Typically this type of investment yielded quite high returns from modest outlays. Even after the scope for quick-yielding expenditures was reduced, growth continued at quite high, albeit erratic, rates up to 1957. A GDP series based on data from World Bank (1976) and United Nations (1960) indicated average annual growth of 5.4 per cent between 1950 and 1957, which is rather higher than Van der Eng's result of 4.5 per cent (Table 7). Van der Eng's estimate is probably somewhat understated, due to his overstatement of growth in the years from 1945 to 1950. But both estimates show that GDP growth over these years was well in excess of population growth which had accelerated to around two per cent per annum by the 1950s. One explanation for this reasonable growth performance appears to have

Table 6. *Growth in real GDP and export volume in Indonesia, 1938–1968.*

	Index of real GDP	Index of export volume	Exports as percentage of GDP
1938	100	100	17.1
1951	90	137	26.1
1952	97	132	23.3
1953	100	131	22.5
1954	107	141	22.6
1955	111	127	19.6
1956	114	133	20.0
1957	123	140	19.5
1958	122	135	19.0
1959	122	136	19.1
1960	123	129	18.0
1961	130	140	18.5
1962	132	148	19.2
1963	129	129	17.1
1964	134	147	18.8
1965	135	151	19.2
1966	139	147	18.1
1967	141	166	20.2
1968	151	184	20.9

Note: The 1938 ratio exports/GDP was multiplied by export volume index and divided by GDP volume index.

Sources: Real index of GDP estimated from series based on: World Bank, 1976: 122 and United Nations, 1960: 114. Export volume index from: Rosendale, 1975: 73. Ratio of exports to GDP in 1938 estimated from data in: Korthals Altes, 1991. Current price data for 1938 supplied by dr. Pierre van der Eng.

been quite high investment rates in the private sector; the government on the other hand accounted for a relatively modest part of the total quantum of investment. But outside the petroleum sector, there was little direct investment from abroad. In spite of the fact that early pronouncements by government leaders tried to encourage foreign investment, as long as Indonesians were encouraged to participate in management (Natsir, 1951: 56), attitudes to foreign investment became more overtly hostile as nationalistic sentiment grew. In any event, declining world prices for tropical products did not make investment in agricultural estates very attractive, and growing political instability discouraged foreign firms from investing in the modern manufacturing or service sector, either for export or for the domestic market.

The problems created by inflation and a severely overvalued exchange rate inevitably began to have some impact on patterns of investment, both in the export sector and in the rest of economy. After 1954 export volume fluctuated but did not show any significant growth; over the entire period from 1950 to 1957 export volume grew by only 1.6 per cent per annum (Table 7). It was also clear that, underlying problems of short-run macro-economic management, were

Table 7. *Growth of GDP and export volume in Indonesia, 1950–1967.*

	Annual average growth of GDP World Bank	Annual average growth of GDP Van der Eng	Export volume growth
1950/57	5.4	4.5	1.6
1958/67	1.7	1.4	1.9

Sources: World Bank, 1976: 122–123; United Nations, 1960: 114; Van der Eng, 1992: Table A4. Export volume data from: Rosendale, 1975: 73.

more fundamental issues of ownership and control of the economy. Although Indonesia was by 1950 a sovereign nation, even many moderates felt that political independence had not been accompanied by economic independence and indeed that 'the Indonesian revolution had not yet entered its economic phase' (Glassburner, 1971: 80). More than 250,000 Dutch nationals remained in Indonesia after independence, and Dutch firms continued to dominate the export-import trade, banking and shipping. According to Higgins, over 6,000 former colonial civil servants were retained in senior positions in the Indonesian bureaucracy, and many used their power to benefit Dutch-owned interests, and in some cases 'to undermine the economic position of the struggling young Republic' (Higgins, 1984: 65). This situation was clearly extremely galling to many former liberation fighters, but there was little consensus on how to change matters. On one side the moderate pragmatists, best represented by Sjafruddin Prawiranegara, who was Minister of Finance in the first two cabinets of Hatta and Natsir, and who became Governor of the Java Bank (subsequently *Bank Indonesia*) after its nationalization, argued that changes in the pattern of ownership and control would have to come slowly as an indigenous entrepreneurial class emerged.

Sjafruddin's main sparring partner in the early years of the Republic was Sumitro Djojohadikusomo, who served with him, as Minister of Trade and Industry in the Natsir cabinet, and who became Minister of Finance in the Wilopo cabinet. As cabinet colleagues, they clashed over the so-called 'economic urgency' or *Benteng* plan which Sumitro designed, and which Sjafruddin considered too nationalistic (Glassburner, 1971: 85). The two debated their differences at considerable length in the press but as Glassburner argues, their differences were in fact over details of policy rather than broad goals (Djojohadikusumo, 1953: ch. XXIII): 'The orientation of both these men was at least nominally socialist and essentially pragmatic toward making the system work' (Glassburner, 1971: 82). But the influence of both waned after the installation of the first cabinet led by Ali Sastroamidjojo, which was far more nationalistic in character. The Minister of Economic Affairs in this cabinet was Iskaq Tjokroadisurjo, described by Feith as 'an energetic and tough-willed PNI leader who had been known for some time as an advocate of stronger measures to make the economy effectively "national"' (Feith, 1962: 374).

Iskaq set about greatly increasing the share of foreign exchange allocations for imports granted to 'national' importers, so that at the end of his tenure, they were receiving almost 90 per cent of the allocation. Similarly, over 50 new private banks were established, and even more new shipping companies, many run by individuals with the right political connections but little business experience (Feith, 1962: 375). The fall of the Ali cabinet in August 1955, and the return of Sumitro to the Finance portfolio in the Harahap cabinet, led to a return of confidence which was reflected in a sharp drop in the free market value of the rupiah. But this cabinet lasted only a few months, and the second Ali cabinet saw a return to blatant buying of political loyalties through the allocation of licenses and foreign exchange (Feith, 1962: 479). By the end of 1957, both Sumitro and Sjafruddin, together with two of the Prime Ministers they had served under, had thrown in their lot with the rebels establishing an alternative government in Sumatra.

Much has been written about the reasons for the failure of parliamentary democracy in Indonesia in the years between 1950 and 1958. But there seems to be a consensus of views that the underlying economic reason was, in Glassburner's words 'the continued existence of an entrenched Dutch economic interest, and ... the economic impotency of the Indonesian elite in general' (Glassburner, 1971: 76). The first four cabinets, those of Hatta, Natsir, Sukiman and Harahap, were 'intensely concerned with solving administrative and economic problems, with the strengthening of law and order, administrative regularization and consolidation, the maximization of production and planned economic development' (Feith, 1962: 556). But the technocrats in these administrations were continually thwarted by the power of foreign interests. Thus the developments of the 1950s led inexorably to the expulsion of Dutch capital. This action, taken after the failure of the UN to pass an Indonesian motion on the future of West Irian in November 1957, was a crossing of the Rubicon for the Indonesian Republic. Economic as well as political policy-making could never be the same again.

2. Performance of the Guided Economy, 1958–1966

In late 1956 and early 1957, President Sukarno made a series of speeches which foreshadowed the demise of parliamentary democracy as it had functioned since the installation of the Hatta cabinet in December 1949, and its replacement with an indigenous version of democratic government based on supposedly Indonesian values and customs. When the second cabinet of Ali Sastroamidjojo finally collapsed in March, 1957, it was replaced the next month by an 'extra-parliamentary party of experts', chosen by President Sukarno, and led by the widely respected planning expert, Juanda. The period between April and November was 'marked by a long and many-faceted tug of war between Jakarta and the regionalist-controlled areas', with dissident regional councils establishing themselves in many parts of Sumatra and Sulawesi (Feith, 1962: 581). Late in the year, the position worsened when two former prime ministers (Natsir and

Harahap) together with the two leading economic managers, Sumitro and Sjafruddin, joined forces in Padang, in West Sumatra, and in February 1958 a rival cabinet was established, led by Sjafruddin. Sukarno was at this time on an overseas visit, and leaders of the Masjumi party in Jakarta tried to negotiate a settlement; in particular it was suggested that a government of national unity be established under Vice-President Hatta (Van der Kroef, 1958: 63). But Sukarno returned to Jakarta in February, and immediately took control of the situation; in the following months the army, under Major General Nasution, regained control of key locations in Sumatra and Sulawesi with relative ease. All those connected with the rebellions became discredited, and several leaders went into exile. Political parties in general were increasingly restricted in their activities, and over the next two years, President Sukarno strenghthened his personal power. In July 1959 the so-called return to the 1945 constitution greatly reduced the power and prestige of parliament, and in March 1960, after all the opposition elements had combined to oppose the draft budget, the president dismissed all members of parliament, and appointed an entirely new body, intended to support his policies. From then on, he exercised close to absolute power in economic as in other matters.

The ousting of Dutch enterprises in late 1957, together with the state of civil war in some key exporting regions, led to a decline in output in some sectors of the economy in 1958, although there is some disagreement on the extent of the decline. The figures in the *United Nations Yearbook of National Accounts* for 1960 indicate a decline of around three per cent, entirely due to the manufacturing and service sector; however the Indonesian National Planning Bureau data showed a much more severe decline of around 12.4 per cent (Paauw, 1963: 193). This latter figure appears to be exaggerated, given that the main impact of the Dutch withdrawal was born by the manufacturing and modern services sectors, and that these were both relatively small, so that even the 40 per cent decline in manufacturing value added shown in the United Nations figures only translated into a 4.5 per cent decline in GDP, and this was offset to some extent by agricultural growth. On the other hand, Van der Eng's argues that there was no decline in GDP at all between 1957 and 1959, but rather that output grew by almost nine per cent over these two troubled years. Van der Eng bases this assertion not just on the good performance of the agricultural sector, which the UN data also show, but also on the continued rapid growth of manufacturing and mining output. He estimates that manufacturing value added grew by nine per cent between 1957 and 1959. This is highly unlikely, given that the available industry studies indicate sharp falls in output in 1958 and 1959 (*e.g.* Palmer, 1973: 336). However, Van der Eng correctly draws attention to the continued rise in petroleum output over these two years. In fact as Nugroho points out, crude petroleum output grew by over 20 per cent between 1957 and 1959 although growth slowed down thereafter (Nugroho, 1967: 354). If the UN data are adjusted to indicate growth rather than decline in the mining and petroleum sector, then the fall in output over these years is further modified, although it is probable that some decline did occur when GDP is valued in 1955 prices, which give less weight to the petroleum sector than van der Eng's series in 1983 prices.

From 1958 to 1967 GDP growth was positive but low compared to 1950/57; the average annual growth of the World Bank/UN series was 1.7 per cent; Van der Eng's series yields an annual growth of 1.4 per cent (Table 7). Both these estimates imply falling per capita growth, as population was growing by around two per cent per annum in the decades from 1950 to 1970. The World Bank series (which after 1960 is based on the estimates given in CBS 1970) shows an absolute decline in GDP in 1963, due mainly to a drought-induced decline in agricultural output. From 1964 to 1967, GDP growth was under two per cent per annum, below the rate of population growth. In 1967, per capita GDP was thus still below the level prevailing in 1957, and also below the level prevailing in 1938.

The relatively poor growth performance between 1960 and 1967 was reflected in each of the main sectors of the economy, with the exception of government services, which grew at 4.6 per cent per annum, or more than twice the growth of GDP (Sundrum, 1986: 58). However the reasons for the poor performance of each of the major sectors were rather different. In the foodcrop sector, attempts were made to promote the new seed-fertilizer technologies in rice production through the three-year rice production program inaugurated in 1959 (Palmer, 1977: 22). Under this program, fertilizer imports increased from 250,000 to 450,000 tons; however because of the succession of very poor rainfalls, especially in Java, in 1961, 1963, 1965 and 1967, rice output growth was disappointing (Sie, 1968: 120–121). The 1963 rice crop fell by ten per cent as a result of exceptionally dry conditions; in Java there was a further fall in 1964. Although there was some evidence of yield increases in the areas of Java where fertilizer was applied most intensively, overall yields were stagnant from 1960 to 1967 (Mears, 1981: 448). Some authorities (*e.g.* Mears & Affif, 1968) blame the disappointing rice production performance, in spite of increased fertilizer use, on the declining effectiveness of the irrigation system, which made crops such as corn more attractive to farmers, especially in the dry season; however it is probable that most of the shift in hectarage from rice to corn in these years was due to poor rainfall, although lack of funds for irrigation maintenance certainly aggravated the situation.

The smallholder cashcrop sector showed some growth from 1960 to 1967, but the large estates sector contracted, especially in the years from 1964 to 1967 (Biro Pusat Pusat Statistik, 1970: 43). This was partly because the estates sector was largely Dutch-owned, and thus affected by the nationalization measures, although as Mackie (1961) argued, the effects of nationalization were not entirely adverse. In addition, the smallholders were better able to avoid the disincentive effects of an increasingly overvalued exchange rate by smuggling out their produce to Malaysia and the Philippines, although the smuggled output may not be fully reflected in the production figures. Further, their production technologies were less dependent on increasingly scarce and expensive imported inputs. Like the large estates sector, the large- and medium-scale industrial sector scarcely grew at all in the years from 1960 to 1967. Important components, such as the weaving industry experienced output declines after 1961 (Palmer, 1973: 336). To a large extent this reflected the acute lack of foreign exchange for inputs and spare parts; in addition the decline in per capita income reduced demand for industrial goods. The small industry sector appears to have fared only slightly better in the early and mid-1960s than the large sector; as with the smallholder cashcrop sector, it is probable that this sector was less dependent on imported inputs, although this might not have been true for industries such as weaving. Palmer shows that although estimated capacity in the small-scale weaving sector doubled between 1957 and 1962, output began to fall away after 1961 as imports of yarn began to decline (Palmer, 1973: 341).

There are, however, some grounds for asserting that the role of small-scale industry was less important by the early 1960s than it had been in the late colonial era. The most persuasive evidence pointing in this direction concerns changes in female manufacturing employment between the 1930 and 1961 population censuses. A striking feature of the Indonesian labour force as revealed by the 1930 Population Census was the very high female labour force participation rates, particularly in Central and East Java, and in some parts of the Outer Islands. These data evoked some surprise on the part of colonial officialdom, as the female participation rates were much higher than those prevailing in most parts of Europe at the same time. An important reason for these high participation rates was the high female employment in non-agricultural activities, especially in manufacturing where women accounted for almost 70 per cent of the total labour force in Java. The 1961 Population Census revealed an absolute decline in the size of the manufacturing labour force in Indonesia, which was entirely due to a decline in female employment from over one million in 1930 to only 500,000 in 1961.

Various interpretations of this apparently steep decline in female manufacturing labour force are possible. Jones suggested that many part-time handicraft workers who were classified as 'industrial' in 1930 were classified as 'agricultural' in 1961, although the actual allocation of their time between farm and handicraft activities may not have changed (Jones, 1966: 55). A second possibility is that a much more rigorous definition of 'economically active' was used in 1961, compared with 1930, and many women engaged in various types of handicraft activity considered 'gainful employment' in 1930 failed to qualify as members of the labour force in 1961. A third possibility is that the handicraft production techniques which had survived in Java in sectors such as textiles, clothing and bamboo working until 1930 could not compete with the advent of large-scale mechanized plants in the 1930s and the 1950s. If the first interpretation were correct, then we would expect that overall activity rates for women would have remained roughly stable between 1930 and 1961, with the relative decline in the industrial share of the female labour force being offset by an increase in the agricultural share. In fact, the regional data show a decline in female participation rates in Java, with particularly marked declines in Central Java and Yogyakarta (Table 8).

Table 8. *Female labour force participation rates and the percentage of the female labour force employed in manufacturing in Indonesia, 1930–1961.*

	Female labour force participation rates		Percentage of female labour force employed in manufacturing	
	1930	1961	1930	1961
Java	36.6	30.7	27.7	8.7
- Jakarta	19.7	23.1	-	16.5
- West Java	21.5	24.0	24.2	9.8
- Central Java	45.8	30.1	25.5	10.8
- Yogyakarta	59.3	48.8	46.3	14.6
- East Java	37.4	35.4	18.2	5.3
Outer Islands	28.3	32.1	12.6	6.1
Indonesia	34.2	31.2	22.5	7.8

Note: The 1930 figures refer to all indigenous female workers as a percentage of all adult females. The 1961 figures refer to all female workers over the age of 15 as a percentage of total population aged 15 and above.

Sources: Volkstelling, 1936: vol. VIII1; Table 19; Population of Indonesia, 1961: ser. S.P. II.

A decline of this magnitude seems unlikely to have been the result of purely statistical factors, and it does seem plausible that many small-scale and cottage industries employing females disappeared between 1930 and 1961. One reason may have been competition from larger and more efficient enterprises, particularly in the later 1930s. Certainly Van Oorschot's estimates show that real output in the factory sector was growing rapidly at the same time as that in the household sector was declining during the 1930s (Van Oorschot, 1956: 93). Another possible explanation more applicable to the post-independence era, and particularly the years from 1958 to 1967, could have been falling real incomes which meant falling demand for industrial goods of all kinds. It is also likely that changing tastes and greater foreign influence after independence meant that demand for the more primitive products of small-scale industry declined while that for factory products grew, especially if the latter were no more expensive.

When we turn from a discussion of sectoral growth performance to examine the expenditure of national income in the years from 1960 to 1967, it is important to bear in mind that these years saw a very substantial decline in the net barter terms of trade. An index published by Bank Indonesia had declined to almost one half its 1960 value by 1965; this is broadly consistent with the index computed by Rosendale from the commodity trade statistics (Rosendale, 1975: 80). This decline must have led either to a reduction in reserves, or to a reduction in real income available to the domestic economy. As with the pre-war national income estimates, it is essential to adjust the GDP figures for terms of trade fluctuations. The estimates prepared by Sundrum show that the terms of trade decline after 1960 was sufficiently sharp to have a marked impact on GDP (Sundrum, 1986: Table 4); once the official CBS series is adjusted for this decline, the average annual growth rate over the years 1960/67 fell from 1.7 per cent to only 0.6 per cent.

Sundrum's calculations show clearly that, as real resources available to the domestic economy fell in per capita terms in the early 1960s, efforts to maintain real consumption levels led to a steady squeezing of expenditures on both government consumption and investment. Whereas in 1960, private consumption expenditure was almost 80 per cent of adjusted GDP (GDY), by 1967 this percentage had risen to over 90 per cent. In 1967, investment was only 9.7 per cent of GDY, and 8.8 per cent of GDP, a lower percentage than the ten per cent estimated by the World Bank for 1955 (World Bank, 1976: 122). The years from 1960 to 1966 were also marked by a considerable rise in the ICOR from the low level which had prevailed before 1957. While this was partly due to the fact that the stock of quick yielding rehabilitation projects was exhausted by 1960, the jump in the ICOR also reflected the fact that an increasing share of government investment resources were channelled into 'prestige' construction projects with low yields.

Given the rapid deterioration in the terms of trade after 1959, and the succession of unusually dry years from 1961 to 1967 in many parts of the country, was the poor real growth performance inevitable, even if more sober political and economic policies had been pursued from 1959 onwards? The answer to this question would seem to be no, for several reasons. First, if a more accommodating foreign policy had been pursued, more foreign borrowing at concessional rates would have been possible, which in turn would have cushioned the economy from at least some of the adverse effects of the terms of trade decline. In particular it would have allowed a higher level of real government expenditures to have been maintained without recourse to deficit financing on the scale which in fact occurred. Had these resources been devoted to productive infrastructure development in sectors such as irrigation, it is probable that the adverse effects of the poor weather could have been mitigated. Second there can be little doubt that the inflation, together with the overvalued exchange rate, distorted incentives in the private sector, so that resources and entrepreneurial skills which could have been devoted to the development of businesses were diverted into various kinds of speculative activity. Certainly other economies, equally affected by declining terms of trade, had much higher real rates of growth in these years; for example, Malaysian GDP grew by six per cent per annum between 1960 and 1967, compared with the Indonesian annual average growth rate of 1.7 per cent.

3. Structural retrogression in the Indonesian economy, 1940 to 1965

It has been argued that the Indonesian economy underwent 'structural retrogression' between the late 1930s and the early post-independence years, in the sense that the share of the labour-intensive or traditional sectors in total output increased while that of the modern, capital-intensive sectors declined. For example Paauw, on the basis of Polak's pre-war figures and Neumark's rather dubious national income data for 1952, and some rather rough assumptions about labour- and capital-intensities of various sectors, concluded that the share of the labour-intensive sector in total output had increased from 68 per cent to 76 per cent (Paauw, 1960: 209).

This is tantamount to arguing that the Indonesian economy showed retrogression (in terms of extending the scope of the capital-intensive sector) during the domestic political turmoil which characterized most of the period 1939–1952. In the years since independence, Indonesian development activity has been effective in raising output mainly in the labour-intensive sector of the economy. In the capital-intensive sector the Indonesian government's primary concern has been transferring ownership of enterprise from foreign to Indonesian nationals. On balance, the result of this policy has probably been a net reduction of capital facilities in this sector, at least outside the petroleum industry (Paauw, 1960: 209).

In a later paper Paauw (1969) went on to argue that these trends accelerated in the late 1950s and early 1960s, in contrast to other Southeast Asian countries such as Thailand and the Philippines where the manufacturing sector in particular was far more dynamic. Perhaps the clearest picture of the extent of this retrogression can be obtained from comparing Polak's breakdown of national income accruing to Indonesians in 1939 with the 1960 and 1965 data on sectoral composition of GDP given by the CBS (Biro Pusat Statistik, 1970) (Table 9). The share of smallholder agriculture was little different in 1965 from 1939; the declining share of mines and estates, manufacturing and government was taken up by the increasing share of trade and services. These sectors are notoriously difficult to quantify accurately, and it is very likely that part of the increase was due to understatement in the 1939 figures, as Van der Eng (1992) has argued.

Van der Eng's estimates also that the share of smallholder agriculture stayed roughly constant between 1939 and 1965, although he argues that it was already much lower in 1939 (Table 9). His series indicates a considerable increase in the share of the manufacturing sector, so that by 1960 this sector accounted for 17 per cent to total GDP. It has already been argued that his estimates of growth in manufacturing value added after 1945 were exaggerated, due to the extrapolation technique which he used. Perhaps surprisingly, given his emphasis on the importance of small-scale services in the economy, his estimates show that the trade sector only accounted for 10.6 per cent of GDP in 1960, compared with 14.3 per cent in the official series, although the two estimates are broadly comparable by 1965. His estimates also indicate a larger, although declining, role for the transport sector in all three years which is plausible, although because of disinvestment, and poor management, the standard of services certainly fell after independence. Overall, with the exception of his figures on the manufacturing sector, Van der Eng's results do not contradict the structural retrogression hypothesis. Certainly there is much anecdotal evidence to show that by the 1960s trade and other services were performing the function of 'last resort employers', soaking up the workers who could find employment neither in

Table 9. *Sectoral breakdown of GDP of Indonesia, 1939–1965.*
(percentages of total)

	Official figures			Van der Eng estimates		
	1939	1960	1965	1939	1960	1965
Smallholder agriculture:	52.1	48.2	54.2	33.6	32.0	33.0
Foodcrops	38.4	34.3	35.8	23.8	21.5	20.7
- Export crops	7.8	7.2	9.1	3.0	3.5	3.6
- Livestock/poultry	5.1	4.8	3.5	5.4	5.2	6.2
- Fisheries	0.8	1.9	5.8	1.4	1.8	2.5
Forestry	0.6	2.4	0.9	0.7	0.5	0.5
Mines and plantations	8.6	6.9	6.1	10.5	8.5	8.4
Manufacturing	14.9	8.4	7.6	12.1	17.0	15.9
Construction and utilities	n.a.	2.3	1.8	1.6	1.6	2.1
Government	7.5	4.5	3.6	4.3	3.5	1.9
Trade	6.7	14.3	12.4	10.8	10.6	12.2
Transport and communications	1.4	3.7	2.2	9.7	8.6	7.9
Services	3.3	7.2	9.2	9.7	11.6	12.3
House rents	4.9	2.0	2.0	7.0	6.1	6.0

Note: Official 1939 data refer to sectoral origins of income accruing to Indonesians. Services include financial services. All data in current prices. GDP data are those computed using a shadow price of oil.

Sources: 1939: Creutzberg, 1979: 71; 1960 and 1965: Biro Pusat Statistik, 1970: 42; Van der Eng, 1992: Table A.4.

agriculture, in manufacturing nor in the modern service sector which was dominated by government. But output almost certainly did not expand with growing employment, leading to falling productivity and remuneration.

These trends can in turn be seen as resulting from the failure of either government or private investment to generate sufficient employment in the more productive sectors of the economy. The decline in the manufacturing share of the labour force between the 1930 and 1961 Population Censuses, which has already been commented on, was reflected in a similar increase in the service sector share (Jones, 1966: Table 2). The drift of labour into the least productive sectors of the economy in turn explains the very high proportion of the population in many parts of the country living in poverty by 1964/65 (Booth, 1988: 126). Although we have no comparable figures for the pre-war years, it seems probable that the economic retrogression of the Guided Democracy years saw a higher proportion of the population sliding into poverty and destitution than was the case in the latter part of the 1930s.

By the mid-1960s, the picture of the Indonesian economy which most reports presented was a sad one. Inflation was accelerating, output was stagnating, poverty and hunger were widespread, and a tiny minority with access to import licenses were enriching themselves while incomes of virtually everyone else were declining. Infrastructure was deteriorating, and new public investment was devoted either to defence equipment or to a few showpiece buildings in the capital city. Private investment had almost ceased, except in speculative activities yielding quick returns. And yet it was also clear to more perceptive observers that this was an economy with potential for rapid growth if only the government could be induced to follow appropriate fiscal and monetary policies. True, much infrastructure was in need of rehabilitation, but this meant that relatively modest outlays could achieve considerable returns in the form of increased output. Most manufacturing establishments were producing at less than capacity, not because they were constrained by lack of demand, but because they were unable to get the foreign exchange for raw materials and spare parts. While the large estates sector was declining, smallholder producers of cashcrops had demonstrated their resilience in the face of adverse terms of trade, and highly discriminatory government policies. How much better could they perform if they were to receive government assistance to replant and extend their holdings, and adopt improved production and processing technologies. In the rice sector, experiments with extension programs in some parts of Java were already demonstrating the potential for increasing yields from the new seed-fertilizer technologies. What the farmers needed was extension, and credit to purchase the new inputs. Only through the application of new technologies could enough rice and other basic necessities be produced to alleviate the appalling problem of rural poverty.

In short, Indonesia in the mid-1960s was a country with enormous economic problems, and enormous economic potential. What was needed was a government with the energy and commitment to economic development to overcome these problems and realize the potential, if necessary with substantial foreign assistance. In the mid-1960s there appeared little prospect of such a government emerging.

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