Working Paper Series No. 3

SEGMENTED DEVELOPMENT AND THE WAY PROFITS GO: THE CASE OF INDONESIA

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February 1984 (Revised)

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In most developing countries profits account for a large proportion of national income, but their origin and use are widely divergent, related to the nature of ownership of the enterprise. This will be illustrated by the way profits go in Indonesia.

By industry of origin (38 subsectors) they accrue to four categories of owners, (foreign, public, private national incorporated, unincorporated), next the imputed labour income of the self-employed is subtracted in order to arrive at the functional distribution of income by sector, and lastly the destination (depreciation, interests, taxes, dividends, retained earnings) of each type of corporate capital income is shown.

The estimates indicate a segmentation of activities, with regard to ownership as well as factor shares.

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* Institute of Social Studies (ISS), The Hague. This paper is a summary of a report written by the author for a joint project between the Central Bureau of Statistics (BPS), Jakarta, Prof. Thorbecke of Cornell University, Ithaca, NY and the ISS, dealing with the construction of a System of Socio-economic Accounts for Indonesia. I want to thank the staff of BPS and Mr. Downey for their great support and cooperation. I am indebted to Prof. Cooper, Prof. FitzGerald, Mr. Kouwenaar and other colleagues at the ISS for their comments on an earlier version of this article (ISS Working Paper Series No. 3). Possible remaining errors are my sole responsibility.

INTRODUCTION

The consideration of distribution of welfare within an economy immediately implies leaving the aggregate, purely macro-economic level. Inequality can only be evaluated if a multi-dimensional picture of the wealth, receipts and outlays of the various layers in a society is available. A framework designed to organize such an overview and to connect it with other variables, which influence assets-, income- and expenditure distributions, is the so-called System of Socio-economic Accounts, an extension of the more familiar Social Accounting Matrix (SAM).[1]

Issues of welfare distribution are not the only reason for disaggregating economic data. It can be argued that a better understanding of the economic growth process itself requires the differentiation of various categories of agents (producers, consumers etc.) as well. Most modern theories of economic growth make some allowance for micro-economic hypotheses about the objectives and constraints of individual actors. Subsequently, however, all subjects of the same type are lumped together. The fact is, of course, that nobody behaves alike, but that is hard to manage analytically, so the opposite tends to be assumed.

Evidently, an intermediate position can be defended. Reality is less strained by combining those actors who can be argued to act more or less homogeneously, usually because their reactions are conditioned by a shared background. This

requires that information on a 'meso-level' is available for all transactions in the economy.

In particular the fate of the developing countries is hardly served by theories based on assumed overall similarity of decision-making in a uniform institutional setting. Thus, Reynolds [1969], in his essay on economic development with surplus labour, responds to simple profit maximizing models with the observation that "...most of recent growth theory ... has little relevance to early growth in the less developed countries".

The first recognition of segmented development was provided by the early theories about economic dualism[2], which try to account for the gaps between a 'modern' urban industrial part and a 'traditional' rural agricultural part.

Several efforts have been made to define these modern and traditional sectors [see e.g. ILO, 1972 and Schimmler, 1979]. However, the relevance of this dichotomy has been questioned by many authors and the underlying theory of dualism has been subject to various criticisms. For example, Fitzgerald [1979: 14-26] points to plural market connections of the sectors, lack of a link with the international economy and dualism which exists within industries (agriculture, manufacturing, services). McGee [1978], mentions boundary problems and the mobility of labour, moving between and within urban and rural activities.

Consequently, a partition should not be based on the characteristics of a mobile labour force but on the type of enterprise (or even more precise: on the nature of ownership of the enterprise). In addition it is clear that two sectors are not sufficient for an adequate description of the segmentation prevailing in many economies.

As an extension of the early dualistic development models Reynolds [1969] suggested the use of four sectors (of which two are 'traditional': agriculture and urban trade-services, and two are 'modern': industry and government). According to Reynolds: "The reason for this classification is that these four sectors operate on different production functions and may be expected to show a characteristically different behaviour of productivity and employment over time." Adopting these fairly reasonable and practical criteria[3], a few refinements can be tested.

Firstly, the informal trade-services sector often employs a considerable number of people in both urban and rural areas [see e.g. BPS, 1982: table 3.1.3]. Secondly, the linkage of Input-Output tables with labour force surveys and other sources of data enables a subdivision by nature of ownership of the enterprise at the level of industries which have a more or less homogeneous technical and organizational structure of production.

Thirdly, the specific goals and other characteristics of decision-making in state corporations, in addition to their

strategic (and much-debated) position in most developing countries, warrant that they are treated separately. Finally, the 'production function' of foreign owned business may have its own shape (in relation to global objectives, fast incorporation of technology, easy access to credit etc.). Moreover, the explicit consideration of subsidiaries of multinational corporations facilitates the link with the world economy.

Summarizing, we arrive at a taxonomy of activities in a 'dual' economy which includes a subdivision according to region (as a minimum: urban, rural), industry (based on the above-mentioned criteria and on data availability) and institution (informal, formal national private, public, foreign).

For demarcating four institutional categories of producers we used two criteria, namely ownership and legal status. The former served to distinguish between foreign, public and private national capital. Afterwards the legal status of the firm served to subdivide private national capital into unincorporated and corporate, because of our view that the fact, whether or not an owner is personally liable for the whole of the firm's commitments plays a crucial role in his investment and other behaviour.[4] Probably it also influences the degree to which the accounts of the undertaking and those of the proprietor(s) are separated. Moreover, corporate taxes are not levied on individually owned companies in Indonesia. Legal organization is not merely a suitable indicator. It proved to

be operational as well, since data classified by legal organization are included in many publications of the Indonesian Central Bureau of Statistics [BPS, most references].

Of course hybrids, like the joint venture, frequently occur. In that case we tried to recover the distribution of ownership between the two (or more) parties and segregated the company's record analogously. Thus the categories in this paper do not refer to type of enterprise but to nature of ownership of enterprises engaged in a certain activity.

We will use this taxonomy to set out estimates of the distribution of profits.

PROBLEMS WITH PROFITS

Profits are a crucial factor according to many theories of economic growth and yet their origins and destinations are largely unexamined in empirical terms. Partly this results from the difficulty of obtaining a reliable estimate of a company's operating surplus, the size of which is generally calculated as a residual.

The debate on income accruing to capital is centred around its link with investments. It is likely, that an important motive to invest is the expectation of future returns. At the same time, on most arguments retained earnings supply low cost funds for investments. But serious doubts have been cast on the neo-classical propositions about an uniform profit rate

reflecting the marginal productivity of (some aggregated measure of) capital, and a 'capital intensity' instantaneously adjusting to a shift in relative factor prices. This is not to say that alternative theories about adjustment in growth models based on the influence of functional income distribution on the growth rate through differential savings propensities (Kaldor-Pasinetti model) have been proved beyond all doubt.

Another controversy concerns the causal relations between savings and investments. Are savings a binding constraint on capital formation (and consequently on economic growth)? Or will enough resources be available in the long run for a predetermined level of investments (based on expectations with respect to future demand and profits) through adjustments in the distribution of income between firms, rentiers and workers?[5]

However, the simple dichotomy between capital and labour incomes represents a naive view of reality. In the first place, various groups of workers possess widely diverging skills, objective functions, degrees of organization, bargaining powers etc. Secondly, most (self-employed) workers receive capital income in some respect and many rentiers may labour. Thirdly, the persistence of the illusion that heterogeneous capital goods can be combined into a single malleable tool is well-known.

Whereas returns from incorporated enterprise can be regarded as remuneration to invested capital, the operating surplus

of the self-employed firm primarily reflects imputed labour income (for the enterpreneur and unpaid family workers). These proceeds may be spent in about the same way as the wage incomes of employee families with a similar living standard and social back-ground. Particularly in countries where formal wage labour is not yet so wide-spread profits in this sense account for a large part of value added. From the Social Accounting Matrix for Indonesia, 1975 [BPS, 1982] it appears that only 21.3% of Gross Domestic Product at factor cost consisted of wages & salaries. Operating surpluses (incl. depreciation) thus accounted for 78.7% and most was earned by unincorporated business, notably farmers.[6]

This raises several questions about the usefulness of certain conventional macro-economic concepts. A classification of activities by type of ownership at least permits an estimation of imputed labour incomes in unincorporated industries (with total incomes of these firms serving as an upper bound). Subsequently these estimates (either independently or merged with wages & salaries) may help to provide improved explanations of consumer demand patterns and propensities to save by household group. Moreover, tests of hypotheses about relations between investments and retained earnings obviously require subtraction of the 'wages' of the self-employed from total operating surplus.

The rest of this article contains some empirical results concerning origins and uses of profits in Indonesia. We will

show their origin by sector, their distribution by nature of ownership of the enterprise, their function (as imputed labour/capital income) and their destination (depreciation, interest payments, corporate taxes, dividends and retained earnings). In addition we make comparisons with historical and recent information on the functional distribution of income in other countries.

ORIGIN AND DISTRIBUTION OF PROFITS

Table 1 (4 pages) shows us the distribution of operating surplus + depreciation in Indonesia (1975) by two digit ISIC - sector. The industry totals come directly from the Input-Output table for 1975 [BPS, 1980a] except for a few minor corrections required for the overall consistency of the Indonesian System of Socio-economic Accounts.

The last part of table 1 shows that just over half (53.6%) of total profits - almost ten trillion Rupiahs in 1975 - accrued to unincorporated business, 20.3% ended up in foreign hands, 13.9% went to state corporations and 12.2% was earned by private national incorporated capital.[7]

The distribution differed considerably between the major sectors.[8] Not surprisingly agriculture was dominated by smallholders. Only in forestry and to a lesser extent in the growing of estate crops did other than self-employed business play a significant role. The subdivision of unincorporated income from food crops by size of the plot is discussed in another paper [Keuning, 1982b].

TABLE 1: Distribution of Operating Surplus Plus Depreciation among Types of Capital

(INDONESIA 1975, Millions of Rupiahs)

ISIC	SECTOR	Operating Surplus	Depreciation	T O T A L	Distribution of Operating Surplus + Depreciation				Row %			
					PUBLIC	FOREIGN	PRIVATE NATIONAL		PUBLIC	FOREIGN	PRIVATE NATIONAL	
							Incorp.	Unincorp.			Incorp.	Unincorp.
11	Farm Food Crops	2,080,763	31,248	2,112,011	18,663	19	1,388	2,091,942	0.9	0.0	0.1	99.0
12	Other Agricultural Crops	328,201	14,553	342,754	52,388	12,528	12,218	265,620	15.3	3.7	3.6	77.5
13	Livestock	233,919	3,988	237,908	1,213	572	8,186	227,937	0.5	0.2	3.4	95.8
15 16	Forestry	194,445	23,541	217,986	7,994	24,544	78,073	107,375	3.7	11.3	35.8	49.3
17	Fishing	206,976	13,130	220,106	884	6,785	18,115	194,362	0.4	3.1	8.2	88.3
TOTAL AGRICULTURE		3,044,304	86,461	3,130,764	81,102	44,448	117,980	2,887,235	2.6	1.4	3.8	92.2
21	Coal Mining	398	120	517	517	-	-	-	100.0	-	-	-
22	Petroleum & Gas	2,129,011	56,784	2,185,795	467,274	1,718,521	-	-	21.4	78.6	-	-
23	Metal Ore	41,575	11,178	52,754	31,096	21,658	-	-	58.9	41.1	-	-
29	Quarrying	64,994	1,550	66,544	2,994	38	692	62,820	4.5	0.1	1.0	94.4
TOTAL MINING		2,235,978	69,632	2,305,610	501,882	1,740,216	692	62,820	21.8	75.5	0.0	2.7

All totals are subject to rounding errors

TABLE 1: (continued)

ISIC	SECTOR	Operating Surplus	Depreciation	T O T A L	Distribution of Operating Surplus + Depreciation				Row %			
					PUBLIC	FOREIGN	PRIVATE NATIONAL		PUBLIC	FOREIGN	PRIVATE NATIONAL	
							Incorp.	Unincorp.			Incorp.	Unincorp.
31	Food, Beverages & Tobacco	352,493	73,719	426,212	65,726	35,756	60,910	263,820	15.4	8.4	14.3	61.9
32	Textiles, Apparel & Leather	85,318	20,397	105,715	6,755	14,469	23,464	61,028	6.4	13.7	22.2	57.7
33	Wood Products	17,776	1,857	19,633	714	744	5,881	12,295	3.6	3.8	30.0	62.6
34	Paper & Printing	29,834	6,482	36,315	9,146	3,356	14,651	9,163	25.2	9.2	40.3	25.2
35	Chemicals & Plastics	127,205	21,205	148,409	109,793	11,684	18,914	8,109	74.0	7.9	12.7	5.4
36	Non-metallic Minerals	30,605	5,177	35,782	12,000	2,159	4,376	17,247	33.5	6.0	12.2	48.2
37	Basic Metals	10,451	2,750	13,201	-	4,986	8,238	- 23	-	37.8	62.4	-0.1
38	Metal Products & Machinery	160,146	23,584	183,730	23,720	44,162	90,109	25,739	12.9	24.0	49.0	14.0
39	Other Manufacturing	645	1,366	2,011	38	125	82	1,765	1.9	6.2	4.1	87.8
TOTAL MANUFACTURING		814,472	156,537	971,010	227,892	117,441	226,625	399,052	23.5	12.1	23.3	41.1
41	Electricity & Gas	39,881	12,688	52,569	39,406	4,988	6,860	1,316	75.0	9.5	13.0	2.5
42	Water	1,846	1,341	3,187	3,187	-	-	-	100.0			
TOTAL UTILITIES		41,727	14,029	55,757	42,593	4,988	6,860	1,316	76.4	8.9	12.3	2.4
TOTAL CONSTRUCTION		274,544	43,204	317,747	51,390	3,222	204,136	59,000	16.2	1.0	64.2	18.6

TABLE 1 (continued)

ISIC	SECTOR	Operating Surplus	Depreciation	T O T A L	Distribution of Operating Surplus + Depreciation				Row %			
					PUBLIC	FOREIGN	PRIVATE NATIONAL		PUBLIC	FOREIGN	PRIVATE NATIONAL	
							Incorp.	Unincorp.			Incorp.	Unincorp.
61	Wholesale Trade	1,072,701	73,152	1,145,854	111,841	82,914	416,646	534,451	9.8	7.2	36.4	46.6
62	Retail Trade	423,013	28,297	451,310	1,880	55	15,962	433,413	0.4	0.0	3.5	96.0
63	Restaurants	103,415	13,528	116,943	9	327	5,250	111,357	0.0	0.3	4.5	95.2
64	Hotels	10,670	3,307	13,977	3,997	901	743	8,335	28.6	6.4	5.3	59.6
TOTAL TRADE, REST. & HOTELS		1,609,800	118,283	1,728,083	117,727	84,198	438,601	1,087,557	6.8	4.9	25.4	62.9
71	Land Transport	288,176	41,543	329,719	6,649	-	60,895	262,176	2.0	-	18.5	79.5
72	Water Transport	85,863	22,712	108,575	85,626	-	5,588	17,362	78.9	-	5.1	16.0
73	Air Transport	31,444	15,781	47,225	44,527	-	2,698	-	94.3	-	5.7	-
74	Allied Services	39,244	7,383	46,627	20,307	-	26,319	-	43.6	-	56.4	-
75	Communication	9,097	5,586	14,683	14,683	-	-	-	100.0	-	-	-
TOTAL TRANSPORT & COMMUNICATION		453,824	93,006	546,829	171,792	-	95,500	279,538	31.4	-	17.5	51.1

TABLE 1: (continued)

ISIC	SECTOR	Operating Surplus	Depreciation	T O T A L	Distribution of Operating Surplus + Depreciation				Row %			
					PUBLIC	FOREIGN	PRIVATE NATIONAL		PUBLIC	FOREIGN	PRIVATE NATIONAL	
							Incorp.	Unincorp.			Incorp.	Unincorp.
81	Banking	131,094	6,698	137,792	121,864	5,373	8,192	2,363	88.4	3.9	5.9	1.7
82	Insurance	16,231	2,148	18,378	8,747	3,991	5,639	-	47.6	21.7	30.7	-
83	Real Estate & Business Services	337,289	17,469	354,758	5,694	-	62,306	286,758	1.6	-	17.6	80.8
TOTAL FINANCE, REAL ESTATE & BUS. SERV.		484,614	26,315	510,929	136,305	9,364	76,138	289,121	26.7	1.8	14.9	56.6
91 92	Public Administration & Defense	-	35,252	35,252	35,252	-	-	-	100.0	-	-	-
93	Community Services	22,997	12,254	35,251	5,179	-	23,406	6,666	14.7	-	66.4	18.9
94	Recreational Services	47,880	6,477	54,358	2,327	-	4,060	47,970	4.3	-	7.5	88.2
95 96	Personal Serv.	160,729	18,266	178,995	956	-	7,717	170,322	0.5	-	4.3	95.2
TOTAL COMMUNITY & PERSONAL SERVICES		231,607	72,248	303,855	43,715	-	35,183	224,957	14.4	-	11.6	74.0
T O T A L		9,190,869	679,715	9,870,585	1,374,396	2,003,878	1,201,713	5,290,597	13.9	20.3	12.2	53.6

95% of the profits in the mining sector stemmed from the subsector petroleum and gas, in which about one quarter of the returns was appropriated by the state oil company and more than three quarters by investors from abroad. These proportions are somewhat arbitrary. Firstly, they refer to gross returns, before payments of taxes and royalties (in table 4 we will show the difference in tax rates between the public and foreign oil companies). Secondly, the government can influence the receipts by means of its pricing policy.

The pattern in the manufacturing sector was very heterogeneous. Broadly, in subsectors where the minimum viable levels of capital stock are low (food processing, textiles, wood processing, non-metallic minerals, other manufacturing) unincorporated enterprise prevailed. Government had a firm grip on the chemical industries (fertilizer, petroleum refinement). Paper products & printing, basic metals and metal products & machinery were dominated by private domestic corporate capital. All in all almost equal shares of profits (23.5% and 23.1%) were taken by public and private national incorporated business, foreign owners received about half that amount (12.1%) and non-corporate manufacturing accounted for the rest (41.1%).

Electricity, gas & water was controlled by the government except for a few private plants and some own-generated electricity.

In the construction sector most profits accrued to private national incorporated capital (64.2%).

Trade can be separated into retail trade and restaurants on the one hand (almost exclusively carried on by self-employed entrepreneurs) and wholesale trade and hotels on the other (which had a more dualistic structure). On the whole incorporated business accounted for 37.1% of operating surplus + depreciation.

Under transport & communication, air transport and communications were controlled by a few state companies. Land transport was mainly organized on an informal basis. The bulk of the profits from water transport was earned by public bodies (port services). Shipping was run by both incorporated enterprise (long distance hauling) and independent sailors (shorter routes). Finally only public and private national corporations were involved in the allied service sector (travel agents, removers, forwarding companies and storage).

In the finance, real estate & business service sector most of the profits accrued to households (56.6%). This reflects the large amounts of imputed rent on owner-occupied dwellings. Most banks were owned by the state.

Finally, 'own-account' enterprise prevailed in the community & personal service sector, except for (public and private) corporate education, health services, social services, cinemas and other recreational services.

Table 2 shows the sectoral origins of profit income for each type of capital ownership. Overall, 31.7% of Indonesia's

Table 2: Distribution of Operating Surplus and Depreciation in INDONESIA by Nature of Capital Ownership (1975)-Column %

Sector \ Capital	Public	Foreign	Priv. Nat. Incorp.	Unincorporated	T O T A L
Agriculture	5.9	2.2	9.8	54.6	31.7
Mining	36.5	86.8	0.1	1.2	23.4
Manufacturing	16.6	5.9	18.9	7.5	9.8
Electricity, Gas & Water	3.1	0.2	0.6	0.0	0.6
Construction	3.7	0.2	17.0	1.1	3.2
Trade, Restaurants & Hotels	8.6	4.2	36.5	20.6	17.5
Transport & Communication	12.5	-	7.9	5.3	5.5
Finance, Real Estate & Business Services	9.9	0.5	6.3	5.5	5.2
Community & Personal Services	3.2	-	2.9	4.3	3.1
T O T A L	100	100	100	100	100

operating surplus in 1975 originated in agriculture, followed by 23.4% in mining and 17.5% in trade, restaurants & hotels. Manufacturing accounted for only 9.8%.

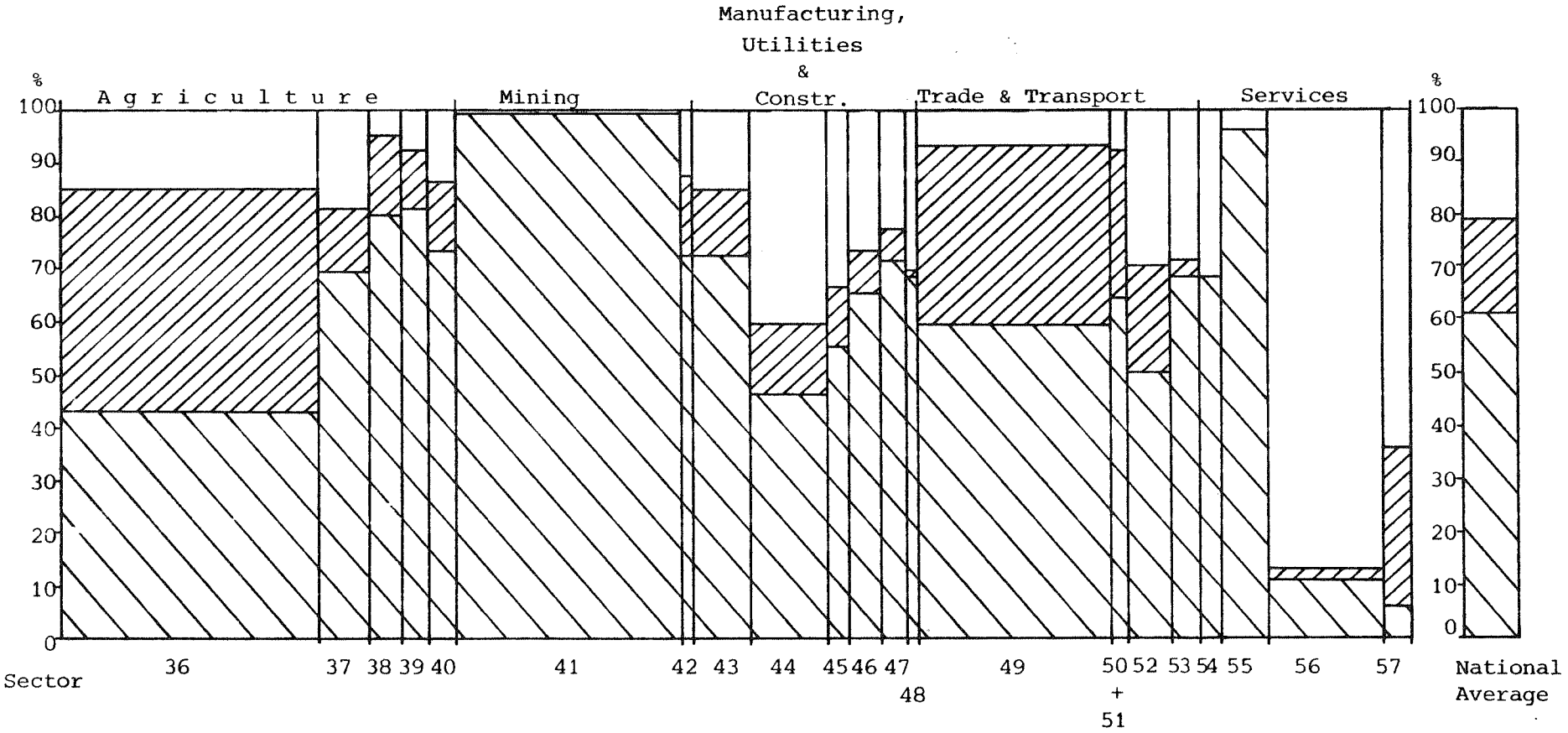
Apparently the lion's share of direct foreign investments has been made in the oil & gas sector. About six-sevenths of the profits due to foreigners stemmed from that industry, which was an important source of surpluses for the public sector too. Besides petroleum, state companies were involved in the supply of chemicals, electricity, gas & water, transport & communication and banking. Private incorporated business was mainly engaged in trade (wholesale), manufacturing and construction. The bulk of informal activities took place in agriculture and trade.

FUNCTION OF PROFITS

These results are summarized in figure 1 and 2. Several small ISIC-sectors have been aggregated and the SAM codes agree with the Social Accounting Matrix for Indonesia, 1975 [BPS, 1982]. Figure 1 shows the distribution of gross value added (at factor costs) by sector among wage income, imputed labour income and capital income (or non-labour income).

The split of unincorporated operating surplus and depreciation into a capital and an imputed labour share was estimated by Downey [see BPS, 1982 and Downey, forthcoming]. He applied reported wage rates for employees in each labour-

Figure 1: Distribution of Gross Domestic Product (at factor costs) by Type of Income and Activity - 1975



100 % = Capital Income + Imputed labour Income + Wage Income

100 % = This width represents 533 x 10^6 Rp. of gross value added

ISIC/SAM CODE:

- 11 / 36 = Food Crops
- 12 / 37 = Other Agricultural Crops
- 13 / 38 = Livestock
- 15,16/ 39 = Forestry
- 17 / 40 = Fishery
- 21,22,23/ 41 = Petroleum & Natural Gas, Coal & Metal ore Mining
- 29 / 42 = Other Mining and quarrying
- 31 / 43 = Food, Beverages and Tobacco Industries
- 33,5/ 44 = Wood Products Industries, Construction
- 32 / 45 = Textile, Apparel and Leather Industries
- 34,38,39/ 46 = Paper & Printing, Metal Products & Machinery, Other Industries

ISIC/SAM CODE:

- 35,36,37/ 47 = Chemicals & Plastics, non-Metallic Mineral and Basic Metal Industries
- 4 / 48 = Electricity, Gas & Water Supply
- 61,62,74/ 49 = Trade and services allied to transport
- 63,64/50+51 = Restaurants and hotels
- 71 / 52 = Land Transport
- 72,73,75/ 53 = Air and Water transport, communication
- 81,82/ 54 = Banking and Insurance
- 83 / 55 = Real Estate & Business Services
- 91-94,97/ 56 = Public Administration & defense, Social & Community Services, Recreational & Cultural Services
- 95,96/ 57 = Personal & Household services

factor category (disaggregated by sex, occupation, age, primary or secondary job, location, production activity and status) to the corresponding unpaid categories of workers (employers, own account workers, unpaid family workers) and multiplied by total number of hours worked. This method seems the most accurate. It involves close examination of a very extensive data base (labour force survey) and reconciliation with SAM-estimates from other sources. A less time-consuming alternative is to take value added per head in firms employing less than 5 people as an approximate (unpaid) wage rate [Fitzgerald, 1979: 308-9] but in that case returns to assets (land, structures, tools) in small firms are not allowed for.

Capital income in this graph refers to profits of all types of enterprise after a salary for the enterpreneurs and unpaid family workers has been subtracted.[9] The figure was constructed in such a way that the whole area represents gross value added in Indonesia. The horizontal axis was divided in accordance with the share of each sector in the Gross Domestic Product and the vertical axis separates this income per sector in three types of production factors. So the surface of each rectangle corresponds to the size of the income depicted in it.

On the right-hand side of the whole block we find a bar giving the national average break-down. It is striking that

over 60% of Indonesia's Gross Domestic Product accrued to capital, even after allowing for imputed wages. This seems a remarkably high percentage for such a labour-abundant country. However, this non-labour income not only reflects the returns on investments, but also the rents on depletion of natural resources. That is particularly obvious in the mining sector. Moreover corporate taxes have not yet been subtracted (see table 4).

Figure 1 shows that labour income is seriously underestimated if we consider paid wages only. As might be expected in a developing economy with many self-employed workers, total imputed labour income almost equalled the sum of the salaries received by wage-earners.[10]

A comparison of sectors reveals substantial differences. Indonesia's high 'capital intensity' of production (here approximated by the capital income/value added ratio) was partly caused by the large weight of the very capital (and resource) intensive mining industry.[11] Other sectors in which a low percentage of value added accrued to labour are real estate (owner-occupied dwellings), forestry, livestock and fishery. Most imputed labour income, absolutely and relatively, was earned in food crops and trade, which is not too surprising. The proportion of wage payments to employees was largest in the service and wood products & construction sectors. The labour income/value added ratio came out above average in the manufacturing sector as a whole, but this sector is not homo-

geneous. The ratio was markedly low in food, beverages and tobacco industries.

Figure 1 also permits a judgement on absolute amounts. Obviously manufacturing did not (yet) play a major role in Indonesia in 1975, and thus the vertical bars representing these activities are rather narrow. Another example concerns food crops production where paid wages were a relatively minor source of income, although the total wage bill was certainly not insignificant (second in size, only after sector 56 - public administration and related services).

Inequality cannot be understood without considering such relative and absolute aspects simultaneously-an undertaking, which is facilitated by this type of histogram analysis.

To provide a context for this overview of the functional income distribution by sector in Indonesia, it is of interest to examine historical and contemporaneous factor shares in other nations. For this purpose table 3 has been constructed, showing the shifts that occurred in four industrialized countries since the beginning of this century as well as recent distributions in six developing countries.

The studies on Peru, Brazil, Botswana and Kenya produced an estimate of total self-employment income, which was not subdivided (in a comprehensive way) into remunerations for labour and capital. So in these cases all self-employment income has been classified as imputed labour income (under heading A). However, it seems unrealistic to neglect the

Table 3: The functional distribution of Gross Domestic Product (at factor costs) across nations and over time (row %)

Country	Period	Wage Income	Imputed Labour Income		Capital Income	
			A	B	A	B
1) United Kingdom	1905-14	47	7	n.a.	46	n.a.
2) "	1954-60	70	5	n.a.	25	n.a.
3) United States	1899-1908	54	22	n.a.	24	n.a.
4) "	1954-60	69	12	n.a.	19	n.a.
5) France	1913	45	22	n.a.	33	n.a.
6) "	1954-60	59	22	n.a.	19	n.a.
7) Germany	1913	47	13	n.a.	40	n.a.
8) " (- West)	1954-60	60	11	n.a.	29	n.a.
9) Peru	1950	36	33	17	31	47
10) "	1976	44	23	11	33	45
11) Brazil	1959	39	28	18	33	43
12) Peninsular Malaysia	1970	49	11	n.a.	40	n.a.
13) Botswana	1974/5	45	27	14	28	41
14) Kenya	1976	40	29	13	31	47
15) Indonesia	1975	21	18	n.a.	61	n.a.

Sources and Concepts (Method A):

Lines 1-8: Kuznets, 1969: calculated from table 4.2
Imputed Labour Income estimated by assigning to all entrepreneurs a per capita labour income equal to the average compensation of employees in the country as a whole. Unpaid family workers excluded.

Lines 9-10: FitzGerald, 1979: derived from tables 5.5, 6.5 and 6.10
Imputed Labour Income consists of all income of peasants plus an imputed remuneration for the other independents, based on the income per head of blue collar workers. Capital Income includes depreciation of private companies.

Line 11: Taylor et al., 1980: calculated from tables 8.1, 8.8 and 8.10
Imputed Labour Income consists of all income of the own account workers plus labour income of family farm workers and sharecroppers. Wage Income consists of wages and salaries plus labour taxes. Residual of GDP (including all income of employers) assigned to Capital Income.

Line 12: Pyatt and Round, 1978: chapter 4
Imputed Labour Income essentially derived by applying average labour payments of basic wage earners belonging to a certain household type (disaggregated by location, race and status of the main income earner) to the unpaid categories of workers (employers, own account workers, others) in the same household group. Wage Income includes part of the labour income of employers (reported by themselves as their 'wage' income).

Line 13: Hayden and Williams, 1981: figure 15.1
Imputed Labour Income equals self-employment income. Remaining operating surplus and depreciation assigned to Capital Income.

Line 14: CBS, Republic of Kenya, 1981: 17
Imputed Labour Income estimated from labour force survey and integrated rural survey. Refers to all operating surplus (excluding depreciation) for the traditional sector, small farms and non-agricultural activities with less than 20 employees. Remaining profits assigned to Capital Income.

Line 15: BPS, Republic of Indonesia, 1982: tables 3.1.1. and 3.1.2.
See the text. Uses the number of hours worked, instead of the unweighted amount of workers, for the estimation of Imputed Labour Income.

Method B: Attempt to divide the income of the self-employed into payments for labour and returns on capital (unless not applicable). Proportions based on the Indonesian shares (in agriculture -excl. forestry and fishing: 43.7% of net peasant income can be considered as imputed labour income, outside agriculture this percentage is 41.6%).

capital input (land, buildings) of unincorporated businessmen (see also figure 2) and under heading B we have tried to correct this by separating the operating surplus in traditional industries on the basis of equivalent proportions in Indonesia. This method supposes that factor shares in the informal sector are roughly the same in all developing countries. It is difficult to assess the relevance of this assumption. Probably the average labour input per hectare is much higher in Indonesia than in Peru, but that might be compensated by a relatively lower wage rate for agricultural labour as compared with the profit rate on arable land. Notwithstanding these uncertainties, we would argue that the results in column B approach reality better than the uncorrected figures under heading A.

A further problem of comparability is that the Indonesian estimates have been made at a very disaggregated level and are the only ones to take into account secondary jobs (not necessarily in the same status category) and hours worked (seasonal unemployment and underemployment may not hit all status categories to the same extent) - see Downey, forthcoming.

In the functional distributions of income in table 3, Indonesia stands out immediately because of an exceptional large share of domestic product accruing to capital. Partly this is caused by the very profitable petroleum sector, but even when oil production is left out, still about 53% of value added can be taken as returns to capital. Since the share of imputed labour income was not much lower than elsewhere, it

appears that wages and salaries were a particularly small proportion of GDP in 1975 (21%). In numbers wage employees accounted for only about 39% of the labour force - in worker equivalents [BPS, 1982:table 3.2.2]. In Peru for instance their number increased from 46% in 1950 to 57% in 1976 [Fitzgerald, 1979:129]. More research into the causes of Indonesia's exceptional position seems desirable.

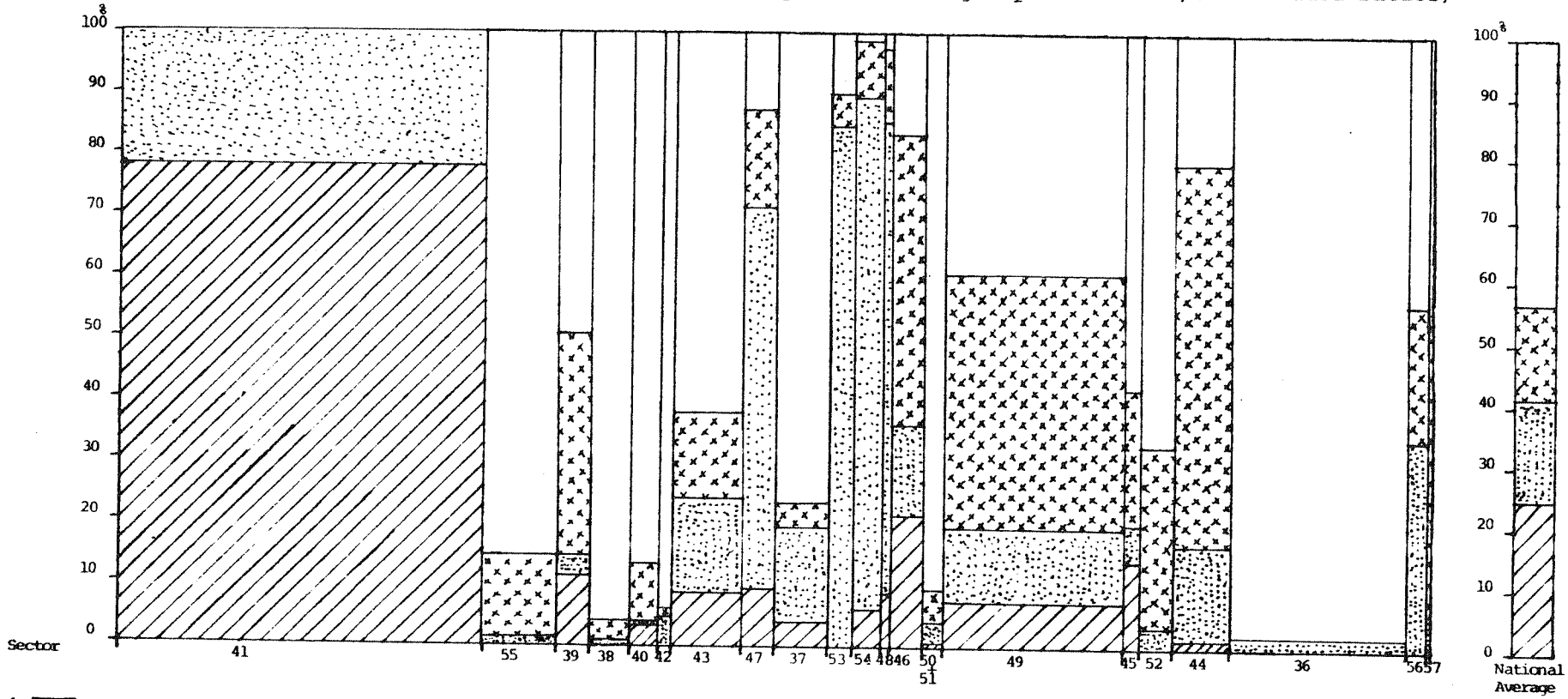
The results in the other developing countries display a fairly regular pattern if we consider the corrected figures (method B in rows 9-11, 13 and 14): wages account for 36-49%, imputed labour income for 11-18% and capital income for 40-47%. Finally the trend of the factoral distribution in the First World is unequivocal: wages increase substantially at the expense of profits and to a lesser extent (except in the United States) at the expense of imputed labour income. In this context the (recent) shift in these proportions in Peru is striking: a high profit share seems to be maintained together with a rise in employee compensations and a fall in the inputed labour income share.

DISTRIBUTION OF CAPITAL INCOME

Figure 2 examines in detail the capital incomes of figure 1, and disaggregates them into the four types of owners mentioned above. This time the horizontal axis has been divided in accordance with the weight of each sector in total capital income. The sectors are ranked according to declining capital

Figure 2: Distribution of Capital Income (before taxes) by type of Ownership and Activity - 1975

(Sectors ranked according to declining Capital Income/Value Added ratios)



100% = Foreign Capital
= Public Capital
= Domestic Private Capital
= Unincorporated Capital

100% The width represents 253 x 10^6 Rp. of capital income

Total Capital Income: 8.1 X 10^9 Rp.

SAM CODE:

41: Petroleum & Natural Gas, Coal & Metal ore Mining
55: Real Estate & Business Services
39: Forestry
38: Livestock
40: Fishery
42: Other mining and Quarrying
43: Food, Beverage and Tobacco Industries
47: Chemicals & Plastics, Non Metallic Mineral and basic metal industries
37: Other Agricultural Crops
53: Air and Water Transport; Communication
54: Banking and Insurance
48: Electricity, Gas and Water Supply
46: Paper & Printing, Metal Products & Machinery, Other Industries
50+51: Restaurants and hotels
49: Trade and Services allied to transport
45: Textile, apparel and leather industries
52: Land Transport
44: Wood Products Industries, Construction
36: Food Crops
56: Public Administration & Defense, Social & Community Services, Recreational & Cultural Services
57: Personal & Household Services

income/value added ratio, in order to get a rough impression of the correlation between 'capital intensity' and the ownership of fixed assets. Again on the right-hand side a column representing the national average appears.

Of course, the share of the informal sector is smaller than in table 1, since imputed labour income has been subtracted. Returns on assets were spread among the four categories of capital owners in the following way: foreign 24.8%, public 17.0%, domestic private corporate 14.8% and unincorporated 43.4%. This indicates that non-labour income of the self-employed is not negligible, contrary to common practice in the calculation of the functional distribution of income in developing countries.

We have already discussed the sectoral distributions of operating surplus, which resemble the patterns in this graph. We need only add that, although the dominant foreign involvement in the most 'capital intensive' activity might not be coincidental, in general no clear-cut relationship between the percentage of 'pure' profits going to incorporated owners and 'capital intensity' can be detected. Inter alia, this is due to a substantial participation of unincorporated capital in various activities which have a high rent component, like real estate, livestock and forestry. Evidently a high capital income/value added ratio might either point to a heavily mechanized (incorporated) production process or to an (informal) activity which collects the 'reward' for the control over

not reproducible wealth (see Ward, 1976 on the definitions of capital). Furthermore, differences in labour input (per 'unit' of capital) are considerable. Illustrative may be a comparison of the positions of food crops (where a relatively low rent component is earned because of a very high labour/land ratio), non-food crops plus fishery (which need more reproducible capital, namely trees and boats) and forestry plus livestock (which use reproducible capital and have a relatively high rent component because of a low labour/land ratio).

This may throw new light on questions regarding sectoral employment opportunities, social costs and benefits of investments[12] etc. For this purpose time trends of capital income/value added ratios by sector and by institution may be illuminating. Further research on this and its policy implications can be directed towards a disaggregation by asset type, the role of human capital and the extent to which capital is actually utilized [see Sen, 1975:47-48].

DESTINATION OF PROFITS

We may go one step ahead and examine the destination of profits for each type of owner.

Unincorporated returns have accrued entirely to households. Table 4 shows what happened with corporate capital income. In this table the industry specifications are abandoned (except for the crucial oil sector). First, depreciation has been separated from operating surplus. The oil sector

Table 4 : The Destination of Non-Wage Income in the Corporate Sector by Ownership (1975)

(Billions of Rupiah)

Type of Ownership	Oper. Surpl. +Depr.	Depr.	Oper. Surpl	Net Interest Payments	(4)/(3) %	Profits before taxes	Unrequited Transf. to Gov.mt.	(7)/(6) %	Profits after taxes	Distributed Profits	Retained earnings	(11)/(9) %	(11)/(6) %	(11)/(1) %	Gross Savings	Net Savings	Stock Change	Residual
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1. Foreign	2,004	85	1,919	69[c]	4	1,850	1,136	61	714	503	211	30	11	11	296	211	54	157
i) Oil[a]	1,719	45	1,674	59	4	1,617	1,095	68	519	402	117	23	7	7	162	117	38	80
ii) Non-Oil	285	40	245	10	4	235	41	17	195	101	93	48	40	33	133	93	16	77
2. Public[b]	1,315	122	1,194	12	1	1,182	113	10	1,068	27	1,041	97	88	79	1,163	1,041	32	1,009
i) Oil[a]	467	24	444	4	1	439	4	1	436	-	436	100	99	93	459	436	22	413
ii) Non-Oil	848	98	750	8	1	742	109	15	633	27	605	96	82	71	704	605	10	595
3. National Private	1,202	140	1,062	88	8	974	172	18	802	521	281	35	29	23	421	281	72	210
T o t a l	4,521	346	4,174	169	4	4,006	1,421	35	2,584	1,051	1,533	59	38	34	1,880	1,533	157	1,376

a) I/O - Sectors 45 : Petroleum & Natural Gas Mining, 103-108 : Petroleum Refinery and 109 : Other Petroluem & Coal Products.

b) Excluding depreciation of general government (public non-profit community services) and rents of government land.

c) Including property income n.i.e. paid abroad (for patents, copyrights etc.)

needed a smaller part of total profits for replacement investments than other sectors, because of the rents resulting from the control over the depletion of natural resources. Afterwards interest payments (incl. compensations for the use of patents, copyrights etc.) have been taken into consideration. The data did not permit a partition in oil and non-oil activities, so we have assumed the same percentages for each of them (see column 5). Public enterprise, noticeably, hardly paid any interest in 1975.

Another obligation concerns taxes handed over to the government. The lion's share of these (77%) came from foreign oil companies. They were allowed to keep 32% of their profits before taxes (column 8). By now it may be clear that a higher tax rate on profits gained in petroleum production is justifiable because of the rent component. As expected, state companies paid less taxes than the rest, even when we leave out the national oil company Pertamina (which was in a financial crisis at that time).

Next we have estimated dividends paid (based on the balance of payments, government budget receipts and an investment survey). The residual retained earnings by type of owner appear in column 11. A comparison of the retention ratios is of interest (column 12). First, the state hardly received any benefits from the corporations it owned. Second, branches of multinationals transferred proportionally more abroad (70%) than national private incorporated concerns (or parts of joint

ventures) distributed among all their share-holders (65%). Third, the foreign oil corporations transferred 77% of after tax profits and the other foreign owned subsidiaries 52%[13].

Retained earnings plus depreciation equals gross savings (column 15). In conclusion we present stock changes by (sector and) type of capital owner. Then in the last column a residual appears, which might have served to finance new investments (in either fixed or financial assets). From here on a flow-of-funds account could take over and show how this money was channelled through the banking system and was used for new capital accumulation by each type of capital in each activity.

A FEW CONCLUSIONS

79% of Indonesia's GDP in 1975 consisted of operating surpluses, including incomes with a widely diverging origin and destination, such as returns on investments in the oil sector and compensations for the labour of agricultural small-holders and their families. In this paper a break-down of profits has been presented, not only by industry of origin but also by nature of ownership of the institution entitled to the generated surplus.

Roughly 54% of Indonesia's profits in 1975 was earned by unincorporated proprietors, while foreign, public and private national incorporated capital owners received 20%, 14% and 12% respectively. The considerable proportion accruing to foreign investors was caused by their dominant role in the petroleum

industry, which accounted for almost a quarter of total profits. Each of the four forms of organization distinguished was engaged in more or less distinctive types of activity. This fact is often associated with technology use [Cornelisse and Thorbecke: e.g. 15-16] and points to a certain degree of segmentation of the national economy.

In order to arrive at the functional distribution of income the unincorporated incomes have been separated into an imputed labour income part and a capital income part. Based on the estimates of Downey it was shown that total unpaid wages accounted for 18% of gross value added, thus hardly less than paid wages and salaries (21%). Returns on capital amounted to 61% of GDP, an exceptionally high share, even if we take into consideration the rent on the depletion of natural resources.

43.4% of non-wage incomes accrued to the self-employed. In fact, of total unincorporated operating surplus more than half (59.5%) served as remuneration for capital, contradicting the common thought that in 'own-account' firms value added only consists of (inputed) labour payments. This does not imply that these returns to capital are collected by the entrepreneurs. A large proportion is handed over to the landlord, money-lender, tricycle owner etc. More research into the size and direction of these inter-household property income transfers is desirable (for rents on agricultural land refer to [Keuning, 1982b]).

Finally the destination of corporate non-wage incomes has been examined. The rent earned by foreign oil companies was liable to a special tax. Of total corporate profits after allowance for depreciation, interest payments and taxes 28% ended up in foreign hands, 41% accrued to public bodies, and 31% was received by private nationals. The retention ratio was 30% for foreign capital, 35% for private national capital and 97% for public capital.

Most types of income were concentrated in a few sectors. Wages and salaries were mainly received in the service sector. 72% of imputed labour incomes and 43% of unincorporated capital incomes were earned in food production and retail trade. Almost all foreign capital incomes and a large proportion of public capital incomes originated in the petroleum sector. Private national incorporated investors were mainly engaged in wholesale trade, manufacturing and construction.

A recent overview of the Indonesian economy since the mid-sixties emphasizes the lack of integration: "Certainly few contemporary observers would deny that the dualistic features of the Indonesian economy described by Boeke are still obvious today, and have in many ways been aggravated by the type of technological change ... The large inflow of capital since 1968 has served to accentuate the difference between the modern and traditional sectors of the urban economy, while the increased use of new technologies in rural areas has probably increased the dualistic nature of the indigenous rural economy compared with colonial times" [Booth and McCawley, 1981:15].

In this paper it has been tried to indicate that a more complex system of disaggregation of activities can improve our understanding of a segmented economy. If a subdivision of a conventionally delineated industry classification into four ownership types (foreign, public, private national corporate, unincorporated) and two regions (urban/rural) were established, most of the criticism on theories of dualism might be obviated. We argue, that features like legal status (the degree of liability) and capital ownership (foreign or national, public or private) have a decisive influence on the objectives and constraints of the enterprise, in particular if the economy is highly compartmentalized. Besides, these non-numerical criteria can be measured in an easy and reliable way and do not result in volatile classes, so that consistent time series can be constructed.

Furthermore it is obvious that in all economies with a substantial part of GDP earned by the self-employed a separate estimate of their share facilitates a subsequent computation of imputed labour incomes, which is indispensable for a correct estimation of the functional distribution of income, consumers' behaviour etc.[14]

It is self-evident that the number and types of discerned institutions have to be tailored to the needs and conditions of each country concerned. On most occasions it seems worthwhile to single out financial institutions in order to allow for the important link with a flow of funds analysis.[15] This

in turn would pave the way for an empirical investigation into the transmission mechanism from retained earnings (and other savings) to investments.

Besides, the idea of a plural segmenation still has to be embedded in a theory modelling the assumedly distinct objectives and constraints of various types of capital owners engaged in various activities in different regions, as well as their interrelations which matter, even in a fragmented society. Therefore the taxonomy presented in this paper has been integrated into the disaggregated estimation of the full economic circle, described in the Indonesian System of Socio-economic Accounts [BPS, 1982].

NOTES

1. The System of Socio-economic Accounts which has been compiled for Indonesia relates a SAM to several (non-monetary) sets of data, with regard to e.g. population, intake of nutrients, employment, educational attainment, housing and access to electricity, piped water, agricultural land and some durable goods [BPS, Republic of Indonesia, 1982; Downey, forthcoming and 1981a; Keuning, 1982b].

   The literature on SAM's swells at a great pace. Concise and good introductions can be found in Pyatt and Thorbecke, 1976 and King, 1981. SAM's have already been

constructed for various countries [see among others Pyatt and Roe, 1977; Pyatt and Round, 1977; Chander et al., 1980; Eckaus et al., 1981; CBS, Republic of Kenya, 1981; BPS, Republic of Indonesia, 1982 and van Heemst, forthcoming]. Models using a SAM are described in Taylor, 1979 and Dervis et al., 1982.

2. See Kelley et al., 1972 and Meier, 1976: Ch.3.

3. In a policy-oriented model additional requirements would be: first, sectors must consist of identifiable target groups for planning, and second, subsectors which are considered strategic for development must be distinguished separately.

4. The most common forms of business enterprise in Indonesia are the following [Price Waterhouse, 1978]:

(a) Perusahaan Negara (P.N.)

Variations are: Perusahaan Umum (Perum) and Perusahaan Jawatan (Perjan).

These are corporations owned by the state which, although intended to operate on a commercial basis, are supported from the state budget in case of a deficit.

(b) Perusahaan Daerah (P.D.)

These are similar to the P.N.'s, but usually owned by provincial governments.

(c) Perseroan Terbatas (P.T.)

A variation is: Naamloze Vennootschap (N.V.)
These are limited liability companies. The majority is private, but some of them are owned by the government. Almost all foreign companies operate under this legal status.

(d) Commanditaire Vennootschap (C.V.)

This type represents a hybrid between incorporated and unincorporated enterprise. It is a limited partnership, which allows one or more silent partners. Silent partners are liable only for their capital contributed. Managing partners are personally liable for the whole of the firm's commitments.

(e) Firma (Fa.)

This represents a full partnership; the partners carry unlimited personal liability for the whole of the firm's commitments.

(f) Yayasan (Yay.) - Foundations

(g) Koperasi (Kop.) - Cooperatives

(h) Perseorangan - Individually owned companies

Of these legal forms (a), (b) and (c) are definitely corporate, we treated (e), (f), (g) and (h) as unincorporated and for (d) we applied a fifty-fifty split.

5. Meier, 1976: Ch.5 and 6 renders the former opinion. The latter, neo-Keynesian, view is discussed in Harris, 1978: 182 and an application appears in FitzGerald, 1980; 404-8. Recently several experiments with conflicting 'closure rules' have been described [Bell, 1979; Ahluwalia and Lysy, 1979; Taylor et al., 1980; Ortmeyer, 1980; Dervis et al., 1982].

6. In fact, a conceptual difference between operating surplus and profits exists. Land rent, gifts and interest on loans must be subtracted from the former in order to obtain the latter. Data restrictions impeded, that we made this refinement by industry, except for land rents in food crops cultivation [Keuning, 1982b]. We will return to this issue in table 4.

7. A comparison with the state of affairs in other countries is hardly possible for lack of data. Fitzgerald, 1979, using slightly different definitions, estimated the distribution of output in Peru (1975) among unincorporated activities (40.7%), foreign capital (11.1%), the public sector (21.0%) and domestic corporate capital (27.2%). These figures suggest a more important role for national incorporated enterprise in Peru.

8. Unfortunately, in the construction, trade and transport sectors and in part of the service sector the institutional break-down of profits had to be estimated indirectly. In some cases the solution was found by examination of

the proceeds in subsectors (e.g. the railways are fully owned by the government and this enabled us to assign a certain proportion of profits in the sector land transport). Otherwise we used as a proxy the distribution of assets (number of buses, number of rooms in hotels times the room rates) or the distribution of sales (trade, restaurants).

For a detailed overview of the industry classifications, estimates for subsectors and estimation procedures refer to the original report [Keuning, 1982a]. The recommended split of unincorporated profits into urban and rural has been executed as well [BPS, 1982:table 3.1.2], but is not reproduced here.

9. In a few sectors total wages and salaries, as recorded in the Input-Output tables [BPS, 1980a & 1980b], appeared to include a compensation for the labour of the self-employed. In those cases sectoral imputed labour income has not been deducted from unincorporated operating surplus, but from wages and salaries.

10. Estimates on physical labour input and wage differentials by sector and status category were included in the Indonesian System of Socio-economic Accounts [BPS, 1982:tables 3.1.3. and 3.1.4].

11. Capital intensity can refer to a) the capital/labour ratio or b) the capital/value added ratio or c) the capital/output ratio. If the capital income/value added

ratio is used as a proxy, this implies that identical profit rates in all sectors are assumed, in addition to the supposition of a uniform wage rate in case a), or of a fixed proportion of output spent on intermediate inputs in case c). Because of the high rents in some sectors (oil mining, real estate, forestry) the rate of return will not be uniform, unless the government skims off the 'excessive' gains. To a certain degree this occurs in Indonesia (see table 4).

Besides, the measurement of capital intensity meets with theoretical problems [Sen, 1975: Ch.5]. Nevertheless an overview of sectoral capital income/ value added ratios can be of help in revealing the structure of the economy and in selecting employment generating investment projects (provided that the returns to human capital are taken into account).

12. See e.g. Terhal, 1977.

13. Foreign petroleum business accounted for 40% of Indonesia's incorporated operating surplus (excl. depreciation), 20% of total corporate profits after taxes and 8% of net company savings.

14. It has been tried to skip the functional distribution of income in a World Bank study on growth and equity in Indonesia [Gupta, 1977]. The population was subdivided into four income groups, with the lower three strata receiving wages and interests (from past savings) and the

upper class collecting the residual value added- disregarding corporate savings beyond depreciation. We would argue that overlooking retained earnings (comprising half of Indonesia's savings [BPS, 1982:table 1]) introduces a serious distortion. Besides, the use of income brackets as classification criterion produces unreliable and volatile categories without a policy content. A subdivision of company owners lacks as well, although the author signalized "the development of a dualistic economy with a dominant foreign-owned sector... and a primitive domestic-activity sector..." [Gupta, 1977:12].

15. Outlines and applications of the flow of funds analysis appear in Stone and Roe, 1971 and Bain, 1977. Introduction in the SAM framework is discussed in King, 1981.

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