

# **The Functional And Institutional Distribution Of Income Across Different Institutional Agents And Sectors In Malaysia**

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*This paper analyzes the functional and institutional distribution of income across different institutional agents and sectors in a context of income inequality phenomenon in Malaysia. The Social Accounting Matrix is employed in this study. The framework with its detail aggregation and disaggregation of accounts leads to the detail structure of the different production sectors, different household groups and various components public expenditure. This study found that there is an unequal distribution of resources in the composition of sectoral demand. Investment is very low as compared to intermediate and final consumption, and public sector share is extremely lower than the private sector share. This in turn has contributed to the unequal income distribution in Malaysia. More important, the components of public sector expenditure that show an unequal distribution of resources to various sectors has exacerbate the income inequality.*

**Keywords:** Sectoral demand, income inequality, Social Accounting Matrix, public and private sector expenditures.

## **1. Introduction**

In Malaysia, income inequality remains an issue as income disparity between ethnic, urban and rural still remained wide and persistent. Gini coefficient has remained fairly high since 1970, with the ratios generally moving in the range 0.44-0.53. The income inequality continued despite high economic growth and remarkable increase in public expenditure. For the period of 1966 to 2008, real Gross Domestic Product (GDP) and public expenditure has grown by an average 5.6 percent and 11.3 percent per annum respectively. This phenomenon sparked the interest to analyze the functional and institutional distribution of resources (income) across different institutional agents and sectors in a way to understand the continuing income inequality in Malaysia. The bias in the distribution of resources across different institutional agents and sectors could result to the increase in income inequality. The study finds that the unequal distribution of resources across different institutional agents and sectors does explained the continuing income inequality in Malaysia. The analysis employed Social Accounting Matrix (SAM) framework. The SAM is believed as the most powerful tools in analyzing income equality issues because income distribution is heavily determined by market or sectoral independence.

This paper is in five parts. Section II presents literature review on income distribution and the used of SAM in income distribution analysis. Section III

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provides a discussion on the architecture of the Malaysian SAM. Section IV gives the empirical results of the analysis and the interpretation of the results. Finally, section V provides some concluding remarks.

### 2. Literature Review

Adelman-Robinson (1978), Ahluwalia and Lysy (1979) and Pyatt and Round (1979) are among the first to study the distribution of income in the SAM framework. These studies include all mixed macroeconomics, and relative price relationships; and the aggregate price level is endogenous. All the studies find that the overall size distribution of income is quite stable and difficult to change through policy interventions. Nevertheless, within the generally stable overall distribution, there is a great variation and sensitivity to policies of the relative and absolute incomes of different socioeconomic groups.

Agenor, Izquierdo and Fofack (2003) have reexamined the role of public expenditure as a policy intervention tool in SAM. Prior to this study, Dorosh and Sahn (1997) have included a reduction in government spending in their SAM models for four countries in Africa to simulate the effects of policy reform on real incomes of various household groups. They present counterfactual simulations that elucidate important pathways by which policy reforms affect real incomes of poor households. They successfully proved the relevance of SAM model for highlighting and addressing issues related to public expenditure and income distribution and poverty.

Before that Keuning and Thorbecke (1989) has done a study on the impact of public expenditure on income distribution in Indonesia. They found that the impact of a reduction in government expenditures affects sectoral output and income growth and for the same reduction in public spending, the effects on the average incomes of each group and hence on poverty, will differ according to the budget option selected.

SAM framework had a relatively short history in Malaysia. Among the pioneer of SAM in Malaysia was by Ramesh et al. (1980). This SAM is to see the distribution of income for Malaysian economy in 1970. About the same time, the equilibrium model was introduced by Ahluwalia and Lysy (1979). The model, however, is mainly theoretical issues and not meant for serious empirical model for Malaysia. However, it is the pioneering model on Malaysia and the basis of the Economic Planning Unit (EPU) SAM model. In collaboration with EPU, the World Bank experts, Pyatt, Round and Denes constructed a national SAM for Malaysian economy in 1970 which distinguished between the Peninsular Malaysia (West) and States of Sabah and Sarawak (east) in 1984. More recent work was done by Zakariah (2005) which discussed the theoretical issues on the SAM applications in policy formulation in Malaysia.

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It is important to note here that a significant limitation in all previous Malaysian SAM and also many other SAM studies is that, they merely focus on real economic activities or real accounts when studying income distribution without incorporated financial accounts in their SAM. Though Ramesh et al. (1980) incorporated the domestic institution's capital accounts in their Malaysian SAM, it is in consolidated form, no further disaggregation of the capital for the separate institutions. Therefore, the principal loss in information contains saving-investments or the flow of funds between institutions. Ramesh et al. (1980) states that, 'to capture such detail for Malaysia, a good deal more work need to be done and this might deserve a high priority in future developments'. (p.71).

This SAM tries to improve Malaysian existing SAM through the incorporation of disaggregating public and private capital investment according to different production sectors. The inclusion of the detailed composition of public sector capital investment in SAM has important potential to give a view on the role of the government as an intermediation among the sectors and institutions, and thus provide a picture to identify effective public sector expenditure policies for poverty reduction and income distribution.

Khan (2007) surveys of modeling of income distribution in a SAM modeling framework identifies three generations of such models for the developing economies. The first and second generation models include distributional issues but do not address poverty and financial market explicitly. The third generation model did include the issue of poverty. However, with a few exceptions, the SAM models of third generation still do not capture the structure of the financial markets.

### 3. Methodology

The distributional income among institutional agents and sectors can be clearly analyzed within SAM framework. The distribution of income works through the market mechanism; react to a shock, optimizing firms will change their demand for factor inputs, intermediate inputs, and their supply of commodities. Change in firm's demand for factors will affect factor prices, i.e. wages and non-labor income in the factor markets and at the end affect household incomes and its distribution across households. Change in household income together with change in all commodity prices will simultaneously change household expenditures on various commodities. This will affect distribution of income and expenditure. In a general equilibrium framework, this series of mechanisms works simultaneously in inter-related markets. Meanwhile, government affects the distribution of income is through government purchasing policy which affects companies, industries, and workers differentially.

The SAM established is inspired by the works of Agenor et al. (2003); Emini and Fofack (2004); Emini (2002); Keuning and Thorbecke (1989); Pyatt and his

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associates (Pyatt, 1991; Pyatt and Round, 1985, 1979, 1977; Pyatt, Round and Denes, 1984) and Kubursi (1973).

Eleven accounts in the Schematic SAM (Table 1) are identified which can be grouped into four broad categories i.e production activities, institutions (household, company and public sector), indirect tax and rest of the world (ROW). The schematic SAM pictured the inter-relationships among these accounts in the economy within a single accounting framework. The distributional income among sectoral and economic agents can be traced by looking the flows around the Schematic SAM which may be viewed as a systematic data system, furnishing initial information on production structure, value added payment, income distribution among agents, capital distribution, tax structure and external flows. It clearly shows that the Schematic SAM focuses on the production sectors, public sectors and household accounts.

The production sectors produce different sectoral goods and services to various categories of intermediate and final users. Each production sector sells their output to other industries as intermediate input (1,1), to the household (1,2) and government (1,4) as the final consumption of domestic commodities, to the government (1,5) and to the private sector (1,9) as capital and to the rest of the world (ROW) as export (1,10). Production sectors produce outputs by buying intermediate inputs that is buying raw materials and intermediate goods and services from other sectors (1,1) and imported raw materials (10,1). These accounts also pay indirect taxes to the government (6,1). The remainder that is, by definition, value added is distributed to various institutions in the economy namely households and companies.

In SAM, household really represents all the people in the society. Households receive factor income from the ownership of their services to production sectors in the forms of wages and other labor income (2,1), inter-household transfer (2,2), distributed profits and transfer from companies (2,3), transfer from government (2,4) and transfers from the ROW (2,10). These amounts of income then are spent on the consumption on domestic commodities (1,2) and consumptions from abroad (10,2), commodities taxes (6,2) and income taxes (7,2), and inter-household transfer (2,2), with residual savings transferred to the private capital account (9,2).

Public sector expenditure in the production sectors ultimately somehow benefits the household sector. Therefore the public sector plays an important role in the redistribution process. The public sector account is distinguished between two account namely current account and capital account. The public current account receives direct taxes from household (7,2) and companies (7,3), indirect taxes (7,6) and non-factor income from abroad (7,10). The public current account allocates its current expenditures on buying the product and services provided by the domestic production activities account (1,4), transfer to household (2,4) and imported commodities (10,7). The remaining savings or current account surplus

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is transferred to the public capital account (8,7). Together with the sources from domestic (8,9) and abroad (8,11), the capital account allocates its investments on domestic production activities (1,5), capital taxes (6,8) and imported capital goods from the ROW (10,8).

The private sector receives capital from households saving (9,2), company saving (9,3), and from external sources (9,11). This private capital then allocates its investments in production activities (1,9), capital taxes (6,9), domestic capital to public sector (8,9) and imported capital goods (10,9).

Finally, transactions between domestic residents and foreign residents are recorded in the ROW account. On the ROW receipt side, Malaysian households, companies and government consumption expenditures on imported final goods and imported capital goods. The economy receives incomes from the ROW from exports, factor and non-factor income earned, and export and import levy. In focusing the distribution of income, it is important to keep track of the separate flows between different institutions and the ROW.

Based on this Schematic SAM, Table 1a (at the Appendix) presents a detailed framework of Malaysia's SAM, 50 x 50 matrix accounts. The level of disaggregation of the individual account depends crucially on the question that this SAM is expected to answer. For studying the functional and institutional distribution of income bring to the importance of the composition of public expenditure, different categories of production activities, household inter-ethnic disparity and the urban-rural bias, which capture the different dimension of income inequality.

The SAM established in this study is based on the data of the year 2000. This is because the latest input-output Table available for Malaysia is for year 2000. Beside Input-output Table as a main source of data, building up SAM also requires extensive data from other sources, published and unpublished materials. Published secondary data include Final National Accounts Statistics Malaysia 2000, Distribution and Use of Income Accounts and Capital Accounts 2000-2002, Population and Housing Census 2000, Central Bank Quarterly Bulletin and Annual Reports, Treasury Economic Reports, and Treasury report for each five year economic plans. These published data are undoubtedly reliable. The published materials are mainly used to aggregate production sectors from 94 sectors to 18 sectors and to disaggregate total public expenditure to the component of expenditure. Meanwhile the unpublished materials from the survey like HIS and HES are used mainly to disaggregate household into geographical locations and ethnic groups and also to disaggregate income received and spent by these different categories of household groups.

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**Table 1. Schematic SAM for Malaysia**

		1	2	3	4	5	6
		Production sectors	Household	Companies	Public current expenditure on domestic commodities and household	Public capital investments in production activities	Indirect taxes
1	Production sectors	Raw materials purchase of domestic commodities (IntG)	Household consumption on domestic commodities (HCd)		Public expenditure on domestic commodities (PCd)	Public investment in production activities (PId)	
2	Household	Compensation of employee and other mixed incomes (CE)	Transfer (Tr)	Distributed profit and current transfer (Div)	Transfer (Tr)		
3	Companies	Business corporate profits (CorProf)					
4	Public current expenditure on domestic commodities and households						
5	Public capital investment in production activities						
6	Indirect tax	Commodity taxes	Commodity	Commodity			

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		(TxGd)	taxes (TxGh)	taxes (TxGcor)			
7	Public current		Income tax (TxY)	Corporate tax (TxCor)			indirect taxes (TxG)
8	Public capital						
9	Private capital		Household saving (SH)	Companies saving (SCor)			
10	ROW current	Import of Raw materials (Mr)	Household consumption on imported commodities (Mh)	Factorial and non factor income paid abroad (YfnfRow)			
11	ROW capital			Net investment abroad (InRow)			
	Total	Gross inputs (Y)	Total household expenditure (Yh)	Total companies expenditure (YCor)	Total public current expenditure on domestic commodities and household (TPCd)	Total public capital investments on domestic commodities (TPIId)	Indirect taxes (TxG)

7	8	9	10	11	
Public current	Public capital	Private capital	ROW current	ROW capital	Total
		Private investment in production activities (PrId)	Exports (X)		Gross output (Y)
			income receive from abroad (YRow)		Total household income (YH)

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			Non-factor income from abroad (NfYRow)		Total companies income (YCor)
Public current expendi (PCd)					Total public current expenditure (TPCd)
	Public investments (PId)				Total public capital investments (TPId)
	Capital taxes (TxGPCap)	Capital taxes (TxGPrCap)	Exports/ imports levy (LV)		Total indirect taxes (TxG)
			non-factor income from abroad (NfYRow)		Total public current (TPC)
Public current surplus (Surp)		Domestic capital (CapDom)		Capital transfer from abroad (CapPRw)	Public capital (TPK)
				Capital transfer from abroad (CapPrRw)	Private capital (TPrK)
Public consumption on imported commodities and current transfer (MP)	Public investment on imported capital (MCapP)	Private investment on imported capital (MCapPr)	Balance of goods and services (BoGS)		Total current ROW (TCRow)
			Balance of payment (BoP)		Total ROW capital (TCapRow)
Total public current (TPC)	Total public capital (TPK)	Total private capital (TPrK)	Total ROW current (TCRow)	Total ROW capital (TCapRw)	



#### 4. Results And Discussions

Table 2 provides the estimation of the composition of sectoral demand. Exports comprise the bulk of the share, account for 45.7 percent of total aggregate demand. Besides that, demands are driven more by intermediate consumption, final consumption and less by investment. Intermediate consumption accounts for 31.09 percent of total aggregate demand. Final consumption accounts for 17.33 percent for both the public and private sector as compared to investment of 5.88 percent. The public sector share of the total final demand is 5.2 percent, of which 3.99 percent is due to public consumption and 1.21 percent due to public investment. By all standards, this share is extremely low especially given the scope and size of the public sector production. In contrast, most of the demands for goods and services are from the private sector which accounts for 18 percent of total aggregate demands where 13.34 percent is due to private consumption and 4.67 percent to private investment.

**Table 2. Composition of Demand by Sector at Market Prices**

(RM Million)	Intermediate Consumption	Private Consumption	Public consumption	Public Investment	Private investment	Exports
Agriculture and livestock	12387.55	4817.66	1323.00	328.32	1337.79	2451.9
Forestry and logging products	7453.01	0.00	0.00	13.68	231.42	2567.8
Fish etc.	2464.25	2851.58	0.00	34.77	301.53	132.8
Mining & quarrying	15046.47	0.00	0.00	0.00	2896.17	25416.8
Industry	129707.22	38964.39	0.00	1679.79	19197.00	322318.5
Electricity, gas & water	13609.22	3765.57	0.00	0.00	5135.70	5.3
Building and constructions	3417.20	381.33	0.00	0.00	592.23	1950.0
Wholesale and retail trade	38094.34	2168.27	0.00	626.43	315.78	9451.1
Hotel & restaurant	6703.55	14201.15	0.00	0.00	311.22	0.0
Transportation and communication	18321.31	13327.76	0.00	847.59	7435.65	20211.7
Financial, insurance and real estate	11838.60	24490.34	0.00	0.00	1422.22	2920.3
Business services	9952.39	806.01	0.00	0.00	885.78	10639.0
Education	70.68	1912.26	11335.99	2432.19	0.00	150.0
Health	20.02	2888.61	4198.41	851.01	0.00	209.6
Other private services	2165.14	6007.82	0.00	235.98	721.62	952.8
General administration	400.42	0.00	5055.72	2215.02	0.00	0.0
Public order and defense	36.46	0.00	8504.26	795.15	0.00	0.0
Other public administration	12.20	0.00	4444.5	536.94	0.00	1.1
Total	271700.03	116582.75	34861.88	10596.87	40784.11	399379.4
Pct of Total	31.09	13.34	3.99	1.21	4.67	45.70

Source: Derived from Table 1a.

Table 3 indicates that most intermediate consumption, final consumption, investments and exports accrues to the industry, recorded at 47.74 percent, 25.73 percent, 40.63 percent and 80.7 percent, of their total, respectively. For the intermediate consumption, after industry, the consumption then accrues to wholesale and retail trade, transportation and communication, mining and

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quarrying, electricity, gas and water, and agriculture and livestock. For the final consumption, after industry the consumption then accrues to financial, insurance and real estate, hotel and restaurant, transportation and communication, and education. Final consumption in these four sectors accounted for 43.1 percent of total final consumption. While for the investments, after the investments in industry, most of the investment is invested in transportation and communication, electricity, gas and water, mining and quarrying, education, and general administration. Investments in transportation and communication, and electricity, gas and water accounted for about 26.1 percent of the total investments. On the other hand, exports for other sectors other than industry are very low. Most of the exports for other sectors are less than 1 percent of the total exports except for exports in mining and quarrying (6.36 percent), transportation and communication (5.06 percent), business services (2.66 percent), and wholesale and retail trade (2.37 percent).

Overall, the sectoral demand reveals that the structure of demand in Malaysian economy is largely supported by demand for industrial sector. Therefore, it is inferred that the economic activities are influenced significantly by the industry sectoral linkages effects because the highest sectoral demand is attributed from this sector rather than other sectors.

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**Table 3. Composition of Demand by Sector**

	Intermediate Consumption	Pct Of Total	Final Consumption	Pct of Total	Investments	Pct of Total	Exports	Pct Of Total
Agriculture and livestock	12387.55	4.56	6140.66	4.05	1666.11	3.24	2451.9	0.61
Forestry and logging products	7453.01	2.74	0.00	0.00	245.10	0.48	2567.8	0.64
Fish etc.	2464.25	0.91	2851.58	1.88	336.30	0.65	132.8	0.03
Mining & quarrying	15046.47	5.54	0.00	0.00	2896.17	5.64	25416.8	6.36
Industry	129707.22	47.74	38964.39	25.73	20876.79	40.63	322318.5	80.70
Electricity, gas & water	13609.22	5.01	3765.57	2.49	5135.70	10.00	5.3	0.00
Building and constructions	3417.20	1.26	381.33	0.25	592.23	1.15	1950.0	0.49
Wholesale and retail trade	38094.34	14.02	2168.27	1.43	942.21	1.83	9451.1	2.37
Hotel & restaurant	6703.55	2.47	14201.15	9.38	311.22	0.61	0.0	0.00
Transportation and communication	18321.31	6.74	13327.76	8.80	8283.24	16.12	20211.7	5.06
Financial, insurance and real estate	11838.60	4.36	24490.34	16.17	1422.22	2.77	2920.3	0.73
Business services	9952.39	3.66	806.01	0.53	885.78	1.72	10639.0	2.66
Education	70.68	0.03	13248.25	8.75	2432.19	4.73	150.0	0.04
Health	20.02	0.01	7087.02	4.68	851.01	1.66	209.61	0.05
Other private services	2165.14	0.80	6007.82	3.97	957.60	1.86	952.86	0.24
General administration	400.42	0.15	5055.72	3.34	2215.02	4.31	0.00	0.00
Public order and defense	36.46	0.01	8504.26	5.62	795.15	1.55	0.00	0.00
Other public administration	12.20	0.00	4444.50	2.93	536.94	1.05	1.15	0.00
<b>Total</b>	<b>271700.03</b>	<b>100.0</b>	<b>151444.6</b>	<b>100.0</b>	<b>51380.9</b>	<b>100.0</b>	<b>399379.4</b>	<b>100.0</b>

The unequal distribution of resources also can be highlighted by a bias in the public and private sectoral composition of investments and consumption. The distribution of the resources for both the public and private sectors are not uniform across sectors. First, the study briefly highlights the unequal distribution of resources by the private sector and then more detailed analysis for unequal distribution of resources by the public sector.

As indicated in Table 4, most private investment accrues to the industry accounted for 47.07 percent of the total private investments. It is followed by the investments in transportation and communication (18.23 percent), and electricity, gas and water (12.59 percent). Similarly, most of the private consumption accrues to the industry sector recorded 33.42 percent of the total private consumption but it is followed by the consumptions on financial, insurance and real estate (21.01 percent), hotel and restaurant (12.18 percent), and transportation and communication (11.43 percent).

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The high rate of private investment and consumption in certain sectors put the sectors in a vulnerable position facing disinvestments and rapid depreciation of their capital stock. Most vulnerable of all is the financial, insurance and real estate sector which have an extremely high consumption share but relatively low exports and no public investment. Meanwhile, given the low level of private consumption on agricultural and livestock sector (3.28 percent), the difficulties of this sector may have been amplified by the low level of private investment (4.13 percent).

**Table 4. Composition of Private Sector Demand**

	Private consumption (RM Million)	Pct of total private consumption	Private investment (RM Million)	Pct of total private investment
Agriculture and livestock	4817.66	4.13	1337.79	3.28
Forestry and logging products	0.00	0.00	231.42	0.57
Fish etc.	2851.58	2.45	301.53	0.74
Mining & quarrying	0.00	0.00	2896.17	7.10
Industry	38964.39	33.42	19197.00	47.07
Electricity, gas & water	3765.57	3.23	5135.70	12.59
Building and constructions	381.33	0.33	592.23	1.45
Wholesale and retail trade	2168.27	1.86	315.78	0.77
Hotel & restaurant	14201.15	12.18	311.22	0.76
Transportation and communication	13327.76	11.43	7435.65	18.23
Financial, insurance and real estate	24490.34	21.01	1422.22	3.49
Business services	806.01	0.69	885.78	2.17
Education	1912.26	1.64	0.00	0.00
Health	2888.61	2.48	0.00	0.00
Other private services	6007.82	5.15	721.62	1.77
General administration	0.00	0.00	0.00	0.00
Public order and defense	0.00	0.00	0.00	0.00
Other public administration	0.00	0.00	0.00	0.00
<b>Total</b>	<b>116582.75</b>	<b>100.00</b>	<b>40784.11</b>	<b>100.00</b>

Source: Derived from Table 1a.

Directly read from Table SAM (Table 1a), across the row of the current account of the public sector (row 45), there are income taxes from the households, corporate taxes, dividends and royalties from the companies, indirect taxes, and financing from domestic and ROW. Altogether the sum across row 45 provides the aggregate current account of the public sector or the total resources accrues to the public current accounts during 2000, these resources are RM55,199 million representing only 16.1 percent of GDP (RM343,215 million). Taxes (direct and indirect) account for almost 90 percent of the total, of which direct taxes represent 52.82 percent and indirect taxes 37.1 percent.

Reading down the columns for the public sector current account (column 45) of Table SAM, there are current expenditures such as public consumption, public transfer to households, public savings and payment to the ROW. Out of the

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public current expenditure, public consumption in production sectors form the largest proportion (63.16 percent), followed by public saving (20.94 percent), current transfer to households (14.24 percent), and payment to ROW (1.66 percent). The high proportion of public consumption in the production sectors could reflect the importance of different programs of public sector purchasing policies in income distributions. In addition, high public current transfer to household could directly reflect the government commitments toward poverty reduction and income equality. On the other hand, low spending on transaction with the ROW (RM919 million) could reflect the low and sustainable level of external debt.

**Table 5. Share in Public Current Expenditure**

	RM Million	Pct of Total
Public consumption in production sectors	34861.88	63.16
Current transfer to households	7861	14.24
Payment to ROW	919	1.66
Savings (current surplus)	11557	20.94
<b>Total</b>	<b>55198.88</b>	<b>100.00</b>

Source: Derived from Table 1a.

Among the public consumption in the production sectors, public consumption on education forms the largest components (32.53 percent) followed by consumption on public order and defense (24.39 percent) and general administration (14.5 percent). Public consumption on agricultural sector only accounts for 3.79 percent of the total aggregate of the public consumption.

**Table 6. Share in Public Consumption in Production Sectors**

Sector	RM Million	Pct of Total
Agriculture	1,323.00	3.79
Education	11,335.99	32.52
Health	4,198.41	12.04
General administration	5,055.72	14.50
Public order & defense	8,504.26	24.39
Other public administration	4,444.50	12.75
<b>Total</b>	<b>34,861.88</b>	<b>100.00</b>

Source: Derived from Table 1a.

Across the row of the capital account of the public sector (row 46) of the Table SAM, there are savings of the public sector (RM11,557 million), and the capital received from domestic (RM10,897 million) and ROW (RM864 million). Altogether the sum across row 46 provides the aggregated capital account of the public sector, these capitals are RM23,318 million representing only 6.8 percent of GDP. Reading down the columns of the public sector capital account (column 46), there are capital expenditures such as public investments in production

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sectors, indirect taxes, imported capital and inventory. Out of the public capital expenditure, public investments in the production sectors of RM10,597 million form the largest proportion (45.4 percent), followed by imported capital (33 percent), changes in inventories (20.3 percent) and indirect taxes (1.3 percent).

**Table 7. Share in Public Capital Expenditure**

	RM Million	Pct of Total
Public investments in production sectors	10597	45.4
Indirect taxes	304	1.3
Imported capital	7690	33.0
Inventory	4728	20.3
<b>Total</b>	<b>23319</b>	<b>100.0</b>

Source: Derived from Table 1a.

Public investments in the production sectors are directed primarily to education and health (30.98 percent), general administration (28.41 percent) and industry (15.85 percent) as shown in Table 8. Altogether the public investment in these three sectors, accounted for more than 75 percent of the total investment. The public investment in agriculture and rural development is extremely low at only 3.56 percent of the total investment.

**Table 8. Share in Public Investment in Production Sectors**

Sector	RM Million	Pct of Total
Agriculture & rural development	376.80	3.56
Industry	1679.79	15.85
Trade	626.43	5.91
Transportation & communication	847.59	8.00
Education & health	3283.20	30.98
General administration	3010.20	28.41
Other public administration	772.90	7.29
<b>Total</b>	<b>10596.91</b>	<b>100.00</b>

Source: Derived from Table 1a.

The unequal distribution of income among the ethnic groups across the region is shown in Table 9. Both in the rural and urban areas the Chinese are the dominant income earners, who constitute 10.99 percent and 14.57 percent of total household income, respectively. In the rural areas, after the Chinese, the income earners are followed by the Indian (10.92 percent), Malay (6.46) and others (6.34 percent). In the urban areas, the income earners after the Chinese are the Indian (11.77 percent) but income for other races (11.33) is higher than the Malay (8.96 percent). More significantly, the distribution of income for both regions shows that the urban area generates higher income for all ethnic groups than in the rural area. This characteristic is normal as most of the productive and industrial sectors in Malaysia are centered in the urban areas.

**Table 9. Distribution of Income to Household**

Household	Income per household	Pct
Rural Malay	26036.24	6.46
Rural Chinese	44271.24	10.99
Rural Indian	44000.00	10.92
Rural Others	25535.90	6.34
Urban Malay	36079.13	8.96
Urban Chinese	58686.90	14.57
Urban Indian	47421.14	11.77
Urban Others	45633.69	11.33
Non-citizen	75214.38	18.67
Total	402878.60	100.00

Source: Derived from Table 1a.

## 5. Concluding Remarks

Despite the favorable economic growth that the country has experienced, income inequality remains an issue in Malaysia. Presently, inter-ethnic as well as urban-rural income disparity is still wide and persistent. Indeed, income disparity between urban and rural areas wider remarkably and the ratio is now close to the 1970s level. The findings of the study has indicated that the bias on composition in the sectoral demand, and more importantly the bias on the public current and capital expenditure allocation to various sectors could explain the continuing urban-rural and ethnic income disparity in Malaysia. It appears that most of the expenditure accrues to the sectors which relatively located in urban areas and labour intensive, benefiting as a result, the urban household groups more than rural household groups for all ethnic. The low level of consumption and capital formation in agricultural sector is a serious constraint to income inequality reduction.

The scenario that the private sector share of sectoral demand is higher than public sector could indicate that household income inequality in Malaysia is more explained by the private final demand as compared to the public sector demand. Nevertheless the important of public sector demand cannot be denied as it is an important fiscal policy tool used by the government to achieve income equality goals in Malaysia.

## References

- Adelman & Robinson, S 1978, *Income Distribution Policy in Developing Countries: A Case of Korea*, Oxford University Press.
- Agenor, PR, Izquierdo, A & Fofack, H 2003, *IMMPA: A Quantitative Macroeconomic Framework for the Analysis of Poverty Reduction Strategies*, The World Bank. Washington DC 20433.
- Ahluwalia, MS & Lysy, J 1979, *A General Equilibrium Model of Malaysia*, Developing Research Center, World Bank, Mimeo.
- Dorosh, P, Sahn, D & Younger, S 1997, *Structural Adjustment Reconsidered: Economic policy and Poverty in Africa*, Cambridge University Press, New York.
- Emini, CA 2002, *Designing the Financial Social Accounting Matrix Underlying the Integrated Macroeconomic Model for Poverty Analysis. The Cameroon Country-case*, University of Yaounde 11.
- Emini, CA & Fofack 2004, *A financial Social Accounting Matrix for the integrated macroeconomic model for poverty analysis. Application to Cameroon with a fixed-price multiplier analysis*, Policy Research Working Paper, 3210. World Bank.
- Keuning, S & Thorbecke, E 1989, *The Impact of Budget Retrenchment on Income Distribution in Indonesia: A social Accounting Matrix Application*, Working Paper No.3, OECD Development Centre.
- Khan, A.H. 2007, 'Social Accounting Matrices (SAMs) and CGE modeling: Using macroeconomic computable general equilibrium models for assessing poverty impact of structural adjustment policies', *CIRJE Discussion Papers*. <<http://www.e.u-tokyo.ac.jp/cirje/research/03research02dp.html>>.
- Kubursi, AA 1973, 'Evaluating the economic impact of government expenditure by department an application of input-output analysis', *Socio-Econ Plan Sct*, Vol. 8. Pergamon Press.
- Malaysia, Various years, Economic Reports, Treasury Malaysia.
- Malaysia, Various years Five year plans, Economic Planning Unit.
- Malaysia, 2000, Bank Negara Malaysia Annual Report, Ministry of Finance.
- Malaysia, 2000, Bank Negara Malaysia Quarterly Bulletin, Ministry of Finance.
- Malaysia, Third Outline Perspective Plan, 2001-2010, Economic Planning Unit.
- Malaysia, 2001, Population and Housing Census of Malaysia, Department of Statistics.
- Malaysia, 1999, *Household Income Survey 1998/1999*, Unpublished. Department of Statistics.
- Malaysia, 1999, *Household Expenditure Survey 1998/99*, Department of Statistics.
- Pyatt, G & Round, JI 1977, 'Social accounting for development planning', *Review of Income and Wealth*. 23, 339-364.
- Pyatt, G & Round, JI 1979, 'Accounting and fixed price multipliers in a Social Accounting Matrix framework', *The Economic Journal*, Vol.89, No. 356.
- Pyatt, G & Round, JI 1985, *Social Accounting Matrices: A Basis for Planning*, Washington, DC: The World Bank.



## **Mukaramah, Azali & Zakariah**

- Pyatt, G 1991, 'SAMs, the SNA and national accounting capabilities', *Review of Income and Wealth*, 17, 177-198.
- Pyatt, G, Round, JI & Denes, J 1984, *Improving the macroeconomic database: a SAM for Malaysia, 1970*, Staff Working Paper, 646, The World Bank, Washington DC.
- Ramesh, C, Gnasegarah, S, Pyatt, G & Jeffrey, IR 1980, 'Social accounts and distribution of income. The Malaysian economy in 1970', *Review of Income and Wealth*, vol.26, No.1.
- Zakariah Abdul Rashid 2005, 'Social Accounting Matrix: Applications in Policy Formulation'. *Proceeding of the National Statistic Conference 2005*, Department of Statistics Malaysia.

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## APPENDIX

**Table 1a. Malaysian SAM 2000**

RM Million		Agriculture and livestock	Forestry and Logging product	Fish etc.	Mining & quarrying	Industry	Electricity, gas & water
		1	2	3	4	5	6
Agriculture and livestock	1	2,519.43	0.00	4.12	0.00	8,552.23	0.20
Forestry and logging products	2	0.03	300.56	0.00	0.01	7,047.88	0.00
Fish etc.	3	0.00	0.00	510.89	0.00	868.01	0.00
Mining & quarrying	4	4.25	0.00	0.00	522.91	12,989.63	0.01
Industry	5	3,634.70	877.59	1,258.25	1,096.51	91,409.53	1,938.18
Electricity, gas & water	6	97.91	0.00	46.67	84.87	8,059.28	908.52
Building and constructions	7	61.68	0.00	12.09	97.57	1,400.37	90.54
Wholesale and retail trade	8	668.12	346.95	271.00	322.11	30,168.63	405.00
Hotel & restaurant	9	38.14	0.00	0.47	84.76	883.25	81.59
Transportation and communication	10	254.52	35.35	31.79	591.91	5,364.39	132.57
Financial, insurance and real estate	11	44.84	0.00	5.71	141.17	518.74	243.72
Business services	12	81.83	33.67	8.83	506.09	1,976.02	1,111.96
Education	13	0.00	0.00	0.00	13.42	0.16	39.60
Health	14	14.18	0.00	0.00	0.00	0.10	0.00
Other private services	15	20.90	42.62	10.77	37.78	185.02	25.50
General administration	16	0.45	0.00	0.00	0.00	0.56	0.15
Public order and defense	17	0.00	0.00	0.00	0.00	0.00	0.00
Other public administration	18	4.39	0.07	0.00	0.00	4.27	0.00
Rural Malay	19	1,039.13	801.62	193.33	1,434.31	8,436.19	638.19
Rural Chinese	20	74.52	71.25	27.61	190.98	2,098.08	59.64
Rural Indian	21	28.48	11.30	1.39	109.99	784.59	57.36
Rural Others	22	15.35	5.45	1.47	10.95	51.40	4.75
Urban Malay	23	1,374.25	1,226.74	453.22	2,213.53	11,875.60	1,314.83
Urban Chinese	24	896.31	715.05	160.75	3,223.85	16,624.09	508.92
Urban Indian	25	290.18	131.38	4.40	403.48	3,797.01	454.09
Urban Others	26	23.30	11.92	3.21	9.25	76.40	6.78
Non-citizen	27	184.94	3.18	276.61	1,092.76	2,321.58	18.36
Companies	28	7,894.10	5,274.61	1,974.42	27,154.26	61,255.41	7,704.60
PubCExpAgri&RurDev	29	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpEducation	30	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpHealth	31	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpAdmin	32	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpPubOrder&Defense	33	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpOthers	34	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpTransfer	35	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAgri&RuralDev	36	0.00	0.00	0.00	0.00	0.00	0.00
PubInvIndustry	37	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTrade	38	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTransp&Com	39	0.00	0.00	0.00	0.00	0.00	0.00
PubInvEduc&Health	40	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAdmin	41	0.00	0.00	0.00	0.00	0.00	0.00
PubInvOthers	42	0.00	0.00	0.00	0.00	0.00	0.00
Commodities Taxes (Domestic)	43	38.97	6.55	6.43	32.10	1,993.46	65.99
Commodities Taxes (Imports)	44	19.83	15.59	7.44	18.64	2,590.41	33.38
Public Current	45	0.00	0.00	0.00	0.00	0.00	0.00
Public Capital	46	0.00	0.00	0.00	0.00	0.00	0.00
Private Capital	47	0.00	0.00	0.00	0.00	0.00	0.00
Changes in inventories	48	0.00	0.00	0.00	0.00	0.00	0.00
ROW current	49	1,583.33	1,279.25	181.93	4,464.69	213,974.03	1,535.68
ROW capital	50	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL		20,908.05	11,190.68	5,452.83	43,857.89	495,306.31	17,380.11

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RM Million		Building and constructions	Wholesale and retail trade	Hotel & restaurant	Transportation & communication	Financial, insurance & real estate	Business services
		7	8	9	10	11	12
Agriculture and livestock	1	12.06	11.99	1,109.07	11.53	11.74	27.31
Forestry and logging products	2	18.63	15.33	0.00	0.01	9.85	14.23
Fish etc.	3	2.98	4.94	971.85	5.39	6.34	10.49
Mining & quarrying	4	1,435.50	4.84	0.00	0.26	6.16	41.30
Industry	5	12,629.37	964.60	4,012.70	5,855.96	1,024.08	1,279.08
Electricity, gas & water	6	191.64	828.08	827.08	536.60	816.26	188.52
Building and constructions	7	195.52	518.82	147.85	116.65	266.10	87.92
Wholesale and retail trade	8	2,386.92	235.97	672.61	1,055.39	222.16	472.86
Hotel & restaurant	9	235.52	1,802.63	319.10	1,978.67	278.04	331.05
Transportation and communication	10	1,011.35	1,157.45	626.94	5,021.66	2,003.91	891.18
Financial, insurance and real estate	11	1,007.45	2,133.46	182.22	1,011.93	4,963.02	597.18
Business services	12	585.47	644.54	311.05	1,130.61	873.37	929.82
Education	13	9.91	0.04	0.00	0.20	1.76	5.04
Health	14	0.00	0.17	0.01	0.29	0.04	0.02
Other private services	15	62.20	152.20	103.26	411.80	75.60	121.60
General administration	16	0.03	0.02	0.00	0.14	0.46	7.51
Public order and defense	17	0.00	0.00	0.00	0.00	0.00	0.00
Other public administration	18	0.01	0.41	0.00	1.86	1.13	0.05
Rural Malay	19	1,586.76	1,574.59	737.75	2,191.87	2,209.07	879.92
Rural Chinese	20	790.30	934.57	285.98	387.97	864.36	310.22
Rural Indian	21	111.67	99.96	31.46	220.73	207.28	67.19
Rural Others	22	19.58	33.35	8.59	27.51	16.89	3.15
Urban Malay	23	2,274.30	2,321.06	963.17	3,161.19	3,201.86	1,528.12
Urban Chinese	24	4,475.08	8,378.03	1,372.61	3,166.15	7,584.31	2,926.31
Urban Indian	25	500.15	588.91	222.31	1,076.45	1,505.16	473.78
Urban Others	26	28.79	42.15	32.24	36.46	50.02	23.78
Non-citizen	27	544.97	213.84	40.88	144.26	166.59	304.04
Companies	28	3,940.94	23,959.04	3,725.31	11,765.53	30,077.83	4,758.33
PubCExpAgri&RurDev	29	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpEducation	30	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpHealth	31	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpAdmin	32	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpPubOrder&Defense	33	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpOthers	34	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpTransfer	35	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAgri&RuralDev	36	0.00	0.00	0.00	0.00	0.00	0.00
PubInvIndustry	37	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTrade	38	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTransp&Com	39	0.00	0.00	0.00	0.00	0.00	0.00
PubInvEduc&Health	40	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAdmin	41	0.00	0.00	0.00	0.00	0.00	0.00
PubInvOthers	42	0.00	0.00	0.00	0.00	0.00	0.00
Commodities Taxes (Domestic)	43	349.18	422.30	131.07	444.73	1,140.22	132.50
Commodities Taxes (Imports)	44	94.07	13.61	51.22	196.99	7.28	32.92
Public Current	45	0.00	0.00	0.00	0.00	0.00	0.00
Public Capital	46	0.00	0.00	0.00	0.00	0.00	0.00
Private Capital	47	0.00	0.00	0.00	0.00	0.00	0.00
Changes in inventories	48	0.00	0.00	0.00	0.00	0.00	0.00
ROW current	49	10,590.67	5,290.72	4,018.36	12,084.94	3,299.89	5,256.03
ROW capital	50	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>		<b>45,091.03</b>	<b>52,347.60</b>	<b>20,904.69</b>	<b>52,043.73</b>	<b>60,890.76</b>	<b>21,701.45</b>

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RM Million		Education	Health	Other private services	General administration	Public order & defense	Other public administration
		13	14	15	16	17	18
Agriculture and livestock	1	1.31	4.08	122.00	0.14	0.10	0.22
Forestry and logging products	2	0.13	0.06	46.10	0.02	0.01	0.17
Fish etc.	3	0.00	1.95	81.40	0.00	0.00	0.00
Mining & quarrying	4	0.13	0.04	40.70	0.07	0.27	0.40
Industry	5	651.58	383.00	1,001.60	354.86	1,105.52	230.11
Electricity, gas & water	6	219.31	183.04	220.63	149.86	147.79	103.17
Building and constructions	7	26.02	20.58	188.99	45.89	78.45	62.15
Wholesale and retail trade	8	82.31	248.70	331.98	62.13	123.29	18.21
Hotel & restaurant	9	133.87	41.70	129.05	175.82	117.62	72.26
Transportation and communication	10	165.57	170.19	287.43	242.39	201.79	130.92
Financial, insurance and real estate	11	151.90	80.38	275.49	297.78	44.27	139.35
Business services	12	318.57	192.05	333.71	370.64	128.18	415.98
Education	13	0.31	0.00	0.25	0.00	0.00	0.00
Health	14	0.00	4.14	1.03	0.00	0.00	0.03
Other private services	15	75.47	78.50	511.10	85.67	75.23	89.92
General administration	16	0.00	0.03	20.64	0.13	282.86	87.43
Public order and defense	17	0.00	0.00	0.00	0.00	36.46	0.00
Other public administration	18	0.00	0.00	0.02	0.00	0.00	0.00
Rural Malay	19	2,577.14	565.66	301.29	985.96	1,441.61	760.08
Rural Chinese	20	213.31	61.97	144.17	31.27	59.06	31.49
Rural Indian	21	60.72	97.84	31.10	16.92	51.49	19.21
Rural Others	22	17.46	2.36	5.43	7.72	6.15	3.67
Urban Malay	23	4,902.89	1,290.08	466.78	1,155.55	2,057.72	1,124.84
Urban Chinese	24	1,863.01	881.00	1,274.89	371.27	474.16	246.62
Urban Indian	25	489.97	366.46	178.93	141.06	168.88	87.80
Urban Others	26	29.23	9.42	7.22	10.48	10.31	4.45
Non-citizen	27	175.96	5.51	79.80	0.66	140.42	3.22
Companies	28	233.47	498.89	2,559.53	97.45	46.63	47.12
PubCExpAgri&RurDev	29	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpEducation	30	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpHealth	31	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpAdmin	32	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpPubOrder&Defense	33	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpOthers	34	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpTransfer	35	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAgri&RuralDev	36	0.00	0.00	0.00	0.00	0.00	0.00
PubInvIndustry	37	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTrade	38	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTransp&Com	39	0.00	0.00	0.00	0.00	0.00	0.00
PubInvEduc&Health	40	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAdmin	41	0.00	0.00	0.00	0.00	0.00	0.00
PubInvOthers	42	0.00	0.00	0.00	0.00	0.00	0.00
Commodities Taxes (Domestic)	43	45.69	42.82	150.80	104.13	39.84	85.74
Commodities Taxes (Imports)	44	9.53	5.56	51.50	4.80	17.44	3.94
Public Current	45	0.00	0.00	0.00	0.00	0.00	0.00
Public Capital	46	0.00	0.00	0.00	0.00	0.00	0.00
Private Capital	47	0.00	0.00	0.00	0.00	0.00	0.00
Changes in inventories	48	0.00	0.00	0.00	0.00	0.00	0.00
ROW current	49	1,024.13	2,080.64	1,613.40	743.45	1,685.17	744.62
ROW capital	50	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL		13,468.99	7,316.64	10,456.95	5,456.14	8,540.98	4,513.13

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RM Million		Rural Malay	Rural Chinese	Rural Indian	Rural Others	Urban Malay	Urban Chinese
		19	20	21	22	23	24
Agriculture and livestock	1	1,677.83	165.96	152.72	12.11	746.55	1,286.20
Forestry and logging products	2	0.00	0.00	0.00	0.00	0.00	0.00
Fish etc.	3	643.60	79.07	7.53	1.94	479.70	255.14
Mining & quarrying	4	0.00	0.00	0.00	0.00	0.00	0.00
Industry	5	8,521.65	1,046.13	399.28	17.39	9,557.48	13,755.07
Electricity, gas & water	6	823.04	19.03	29.67	3.70	1,812.05	508.27
Building and constructions	7	62.28	13.45	1.39	0.24	69.86	194.24
Wholesale and retail trade	8	208.39	61.80	5.65	0.69	365.34	1,297.94
Hotel & restaurant	9	2,482.36	301.09	56.89	9.99	4,211.36	5,591.72
Transportation and communication	10	2,744.14	333.77	144.66	10.02	4,960.27	3,385.26
Financial, insurance and real estate	11	2,154.11	325.49	51.87	6.09	8,459.30	11,194.41
Business services	12	94.69	13.07	3.91	0.30	212.64	366.18
Education	13	643.22	21.04	6.30	2.84	749.22	332.80
Health	14	540.22	20.66	12.93	2.61	1,142.22	825.19
Other private services	15	763.29	196.84	22.40	5.23	1,288.35	3,200.16
General administration	16	0.00	0.00	0.00	0.00	0.00	0.00
Public order and defense	17	0.00	0.00	0.00	0.00	0.00	0.00
Other public administration	18	0.00	0.00	0.00	0.00	0.00	0.00
Rural Malay	19	368.12	0.00	0.00	0.00	1,071.28	0.00
Rural Chinese	20	0.00	37.01	0.00	0.00	0.00	117.89
Rural Indian	21	0.00	0.00	304.18	0.00	0.00	0.00
Rural Others	22	0.00	0.00	0.00	71.96	0.00	0.00
Urban Malay	23	368.12	0.00	0.00	0.00	126.49	0.00
Urban Chinese	24	0.00	37.01	0.00	0.00	0.00	11.62
Urban Indian	25	0.00	0.00	304.18	0.00	0.00	0.00
Urban Others	26	0.00	0.00	0.00	71.96	0.00	0.00
Non-citizen	27	0.00	0.00	0.00	0.00	0.00	0.00
Companies	28	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpAgri&RurDev	29	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpEducation	30	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpHealth	31	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpAdmin	32	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpPubOrder&Defense	33	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpOthers	34	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpTransfer	35	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAgri&RuralDev	36	0.00	0.00	0.00	0.00	0.00	0.00
PubInvIndustry	37	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTrade	38	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTransp&Com	39	0.00	0.00	0.00	0.00	0.00	0.00
PubInvEduc&Health	40	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAdmin	41	0.00	0.00	0.00	0.00	0.00	0.00
PubInvOthers	42	0.00	0.00	0.00	0.00	0.00	0.00
Commodities Taxes (Domestic)	43	2,307.05	285.40	106.95	27.21	2,421.49	1,844.62
Commodities Taxes (Imports)	44	441.72	54.64	20.48	5.21	463.63	353.18
Public Current	45	1,273.11	737.33	430.05	79.35	1,402.44	1,595.92
Public Capital	46	0.00	0.00	0.00	0.00	0.00	0.00
Private Capital	47	3,031.02	2,962.95	436.81	6.76	5,567.89	13,134.64
Changes in inventories	48	0.00	0.00	0.00	0.00	0.00	0.00
ROW current	49	6,700.82	828.94	310.63	79.02	7,033.20	5,357.70
ROW capital	50	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>		<b>35,848.78</b>	<b>7,540.68</b>	<b>2,808.48</b>	<b>414.63</b>	<b>52,140.76</b>	<b>64,608.17</b>

## Mukaramah, Azali & Zakariah

Continue

RM Million		Urban Indian	Urban Others	Non-citizen	Companies	PubCExp Agri&RurDev	PubCExp Education	PubCExp Health
		25	26	27	28	29	30	31
Agriculture and livestock	1	299.43	3.46	473.41	0.00	1,323.00	0.00	0.00
Forestry and logging products	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fish etc.	3	26.28	0.21	1,358.10	0.00	0.00	0.00	0.00
Mining & quarrying	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industry	5	3,304.72	142.84	2,219.82	0.00	0.00	0.00	0.00
Electricity, gas & water	6	489.74	52.10	27.99	0.00	0.00	0.00	0.00
Building and constructions	7	17.95	2.72	19.19	0.00	0.00	0.00	0.00
Wholesale and retail trade	8	132.95	7.73	87.78	0.00	0.00	0.00	0.00
Hotel & restaurant	9	1,058.77	127.10	361.86	0.00	0.00	0.00	0.00
Transportation and communication	10	1,394.68	101.81	253.15	0.00	0.00	0.00	0.00
Financial, insurance and real estate	11	1,764.98	101.70	432.39	0.00	0.00	0.00	0.00
Business services	12	83.91	4.42	26.88	0.00	0.00	0.00	0.00
Education	13	102.11	9.77	44.96	0.00	0.00	11,335.99	0.00
Health	14	324.52	11.21	9.05	0.00	0.00	0.00	4,198.41
Other private services	15	349.76	54.51	127.28	0.00	0.00	0.00	0.00
General administration	16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Public order and defense	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other public administration	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rural Malay	19	0.00	0.00	0.00	3,638.28	0.00	0.00	0.00
Rural Chinese	20	0.00	0.00	0.00	450.08	0.00	0.00	0.00
Rural Indian	21	214.94	0.00	0.00	168.66	0.00	0.00	0.00
Rural Others	22	0.00	30.02	0.00	42.90	0.00	0.00	0.00
Urban Malay	23	0.00	0.00	0.00	5,878.66	0.00	0.00	0.00
Urban Chinese	24	0.00	0.00	0.00	7,159.63	0.00	0.00	0.00
Urban Indian	25	430.46	0.00	0.00	872.17	0.00	0.00	0.00
Urban Others	26	0.00	172.49	0.00	109.52	0.00	0.00	0.00
Non-citizen	27	0.00	0.00	81.46	4,414.10	0.00	0.00	0.00
Companies	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpAgri&RurDev	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpEducation	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpHealth	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpAdmin	32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpPubOrder&Defense	33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpOthers	34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpTransfer	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAgri&RuralDev	36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvIndustry	37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTrade	38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTransp&Com	39	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvEduc&Health	40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAdmin	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvOthers	42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commodities Taxes (Domestic)	43	470.11	41.80	227.52	134.00	0.00	0.00	0.00
Commodities Taxes (Imports)	44	90.01	8.00	43.56	166.30	0.00	0.00	0.00
Public Current	45	616.83	134.53	745.43	27,262.66	0.00	0.00	0.00
Public Capital	46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Capital	47	767.36	10.64	3,012.46	72,593.51	0.00	0.00	0.00
Changes in inventories	48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW current	49	1,365.44	121.41	660.83	46,494.00	0.00	0.00	0.00
ROW capital	50	0.00	0.00	0.00	32,257.00	0.00	0.00	0.00
<b>TOTAL</b>		<b>13,304.95</b>	<b>1,138.47</b>	<b>10,213.13</b>	<b>201,641.48</b>	<b>1,323.00</b>	<b>11,335.99</b>	<b>4,198.41</b>

## Mukaramah, Azali & Zakariah

Continue

RM Million		PubCExp Admin	PubCExp Order & Defense	PubCExp Others	PubCExp Transfer	PubInvAgri &RuralDev	PubInvIndustry	PubInvTrade
		32	33	34	35	36	37	38
Agriculture and livestock	1	0.00	0.00	0.00	0.00	328.32	0.00	0.00
Forestry and logging products	2	0.00	0.00	0.00	0.00	13.68	0.00	0.00
Fish etc.	3	0.00	0.00	0.00	0.00	34.77	0.00	0.00
Mining & quarrying	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industry	5	0.00	0.00	0.00	0.00	0.00	1,679.79	0.00
Electricity, gas & water	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building and constructions	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wholesale and retail trade	8	0.00	0.00	0.00	0.00	0.00	0.00	626.43
Hotel & restaurant	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transportation and communication	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Financial, insurance and real estate	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Business services	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Education	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Health	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other private services	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00
General administration	16	5,055.72	0.00	0.00	0.00	0.00	0.00	0.00
Public order and defense	17	0.00	8,504.26	0.00	0.00	0.00	0.00	0.00
Other public administration	18	0.00	0.00	4,444.50	0.00	0.00	0.00	0.00
Rural Malay	19	0.00	0.00	0.00	2,416.61	0.00	0.00	0.00
Rural Chinese	20	0.00	0.00	0.00	298.95	0.00	0.00	0.00
Rural Indian	21	0.00	0.00	0.00	112.03	0.00	0.00	0.00
Rural Others	22	0.00	0.00	0.00	28.50	0.00	0.00	0.00
Urban Malay	23	0.00	0.00	0.00	2,536.48	0.00	0.00	0.00
Urban Chinese	24	0.00	0.00	0.00	1,932.22	0.00	0.00	0.00
Urban Indian	25	0.00	0.00	0.00	492.44	0.00	0.00	0.00
Urban Others	26	0.00	0.00	0.00	43.79	0.00	0.00	0.00
Non-citizen	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Companies	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpAgri&RurDev	29	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpEducation	30	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpHealth	31	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpAdmin	32	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpPubOrder&Defense	33	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpOthers	34	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpTransfer	35	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAgri&RuralDev	36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvIndustry	37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTrade	38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTransp&Com	39	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvEduc&Health	40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAdmin	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvOthers	42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commodities Taxes (Domestic)	43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commodities Taxes (Imports)	44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Public Current	45	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Public Capital	46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private Capital	47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Changes in inventories	48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW current	49	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW capital	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>		<b>5,055.72</b>	<b>8,504.26</b>	<b>4,444.50</b>	<b>7,861.00</b>	<b>376.77</b>	<b>1,679.79</b>	<b>626.43</b>

## Mukaramah, Azali & Zakariah

Continue

RM Million		PubInv Transp&Com	PubInvEduc &Health	PubInv Admin	PubInv Others	Commodities Taxes (domestic)	Commodities Taxes (imports)	Public Current
		39	40	41	42	43	44	45
Agriculture and livestock	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Forestry and logging products	2	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fish etc.	3	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mining & quarrying	4	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industry	5	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity, gas & water	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building and constructions	7	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wholesale and retail trade	8	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hotel & restaurant	9	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Transportation and communication	10	847.59	0.00	0.00	0.00	0.00	0.00	0.00
Financial, insurance and real estate	11	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Business services	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Education	13	0.00	2,432.19	0.00	0.00	0.00	0.00	0.00
Health	14	0.00	851.01	0.00	0.00	0.00	0.00	0.00
Other private services	15	0.00	0.00	0.00	235.98	0.00	0.00	0.00
General administration	16	0.00	0.00	2,215.02	0.00	0.00	0.00	0.00
Public order and defense	17	0.00	0.00	795.15	0.00	0.00	0.00	0.00
Other public administration	18	0.00	0.00	0.00	536.94	0.00	0.00	0.00
Rural Malay	19	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rural Chinese	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rural Indian	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rural Others	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Urban Malay	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Urban Chinese	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Urban Indian	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Urban Others	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-citizen	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Companies	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubCExpAgri&RurDev	29	0.00	0.00	0.00	0.00	0.00	0.00	1,323.00
PubCExpEducation	30	0.00	0.00	0.00	0.00	0.00	0.00	11,335.99
PubCExpHealth	31	0.00	0.00	0.00	0.00	0.00	0.00	4,198.41
PubCExpAdmin	32	0.00	0.00	0.00	0.00	0.00	0.00	5,055.72
PubCExpPubOrder&Defense	33	0.00	0.00	0.00	0.00	0.00	0.00	8,504.26
PubCExpOthers	34	0.00	0.00	0.00	0.00	0.00	0.00	4,444.50
PubCExpTransfer	35	0.00	0.00	0.00	0.00	0.00	0.00	7,861.00
PubInvAgri&RuralDev	36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvIndustry	37	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTrade	38	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvTransp&Com	39	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvEduc&Health	40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvAdmin	41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PubInvOthers	42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commodities Taxes (Domestic)	43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Commodities Taxes (Imports)	44	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Public Current	45	0.00	0.00	0.00	0.00	14,650.40	5,826.82	0.00
Public Capital	46	0.00	0.00	0.00	0.00	0.00	0.00	11,557.00
Private Capital	47	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Changes in inventories	48	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ROW current	49	0.00	0.00	0.00	0.00	0.00	0.00	919.00
ROW capital	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL</b>		<b>847.59</b>	<b>3,283.20</b>	<b>3,010.17</b>	<b>772.92</b>	<b>14,650.40</b>	<b>5,826.82</b>	<b>55,198.88</b>



# Mukaramah, Azali & Zakariah

Continue

RM Million		Public Capital	Private Capital	Changes in Inventories	ROW Current	ROW Capital	TOTAL
		46	47	48	49	50	
Agriculture and livestock	1	0.00	1,337.79	-1,738.21	2,451.93	0.00	20,908.05
Forestry and logging products	2	0.00	231.42	924.71	2,567.86	0.00	11,190.68
Fish etc.	3	0.00	301.53	-332.19	132.88	0.00	5,452.83
Mining & quarrying	4	0.00	2,896.17	498.40	25,416.86	0.00	43,857.89
Industry	5	0.00	19,197.00	-16,560.60	322,318.51	0.00	495,306.31
Electricity, gas & water	6	0.00	5,135.70	-5,135.68	5.31	0.00	17,380.11
Building and constructions	7	0.00	592.23	38,750.22	1,950.05	0.00	45,091.03
Wholesale and retail trade	8	0.00	315.78	1,691.61	9,451.17	0.00	52,347.60
Hotel & restaurant	9	0.00	311.22	-311.22	0.00	0.00	20,904.69
Transportation and communication	10	0.00	7,435.65	-8,100.34	20,211.77	0.00	52,043.73
Financial, insurance and real estate	11	0.00	1,422.22	20,219.24	2,920.36	0.00	60,890.76
Business services	12	0.00	885.78	-581.77	10,639.05	0.00	21,701.45
Education	13	0.00	0.00	-2,432.19	150.06	0.00	13,468.99
Health	14	0.00	0.00	-851.01	209.61	0.00	7,316.64
Other private services	15	0.00	721.62	373.52	952.86	0.00	10,456.95
General administration	16	0.00	0.00	-2,215.02	0.00	0.00	5,456.14
Public order and defense	17	0.00	0.00	-794.89	0.00	0.00	8,540.98
Other public administration	18	0.00	0.00	-481.66	1.15	0.00	4,513.13
Rural Malay	19	0.00	0.00	0.00	0.00	0.00	35,848.78
Rural Chinese	20	0.00	0.00	0.00	0.00	0.00	7,540.68
Rural Indian	21	0.00	0.00	0.00	0.00	0.00	2,808.48
Rural Others	22	0.00	0.00	0.00	0.00	0.00	414.63
Urban Malay	23	0.00	0.00	0.00	325.30	0.00	52,140.76
Urban Chinese	24	0.00	0.00	0.00	325.30	0.00	64,608.17
Urban Indian	25	0.00	0.00	0.00	325.30	0.00	13,304.95
Urban Others	26	0.00	0.00	0.00	325.30	0.00	1,138.47
Non-citizen	27	0.00	0.00	0.00	0.00	0.00	10,213.13
Companies	28	0.00	0.00	0.00	8,674.01	0.00	201,641.48
PubCExpAgri&RurDev	29	0.00	0.00	0.00	0.00	0.00	1,323.00
PubCExpEducation	30	0.00	0.00	0.00	0.00	0.00	11,335.99
PubCExpHealth	31	0.00	0.00	0.00	0.00	0.00	4,198.41
PubCExpAdmin	32	0.00	0.00	0.00	0.00	0.00	5,055.72
PubCExpPubOrder&Defense	33	0.00	0.00	0.00	0.00	0.00	8,504.26
PubCExpOthers	34	0.00	0.00	0.00	0.00	0.00	4,444.50
PubCExpTransfer	35	0.00	0.00	0.00	0.00	0.00	7,861.00
PubInvAgri&RuralDev	36	376.77	0.00	0.00	0.00	0.00	376.77
PubInvIndustry	37	1,679.79	0.00	0.00	0.00	0.00	1,679.79
PubInvTrade	38	626.43	0.00	0.00	0.00	0.00	626.43
PubInvTransp&Com	39	847.59	0.00	0.00	0.00	0.00	847.59
PubInvEduc&Health	40	3,283.20	0.00	0.00	0.00	0.00	3,283.20
PubInvAdmin	41	3,010.17	0.00	0.00	0.00	0.00	3,010.17
PubInvOthers	42	772.92	0.00	0.00	0.00	0.00	772.92
Commodities Taxes (Domestic)	43	96.87	372.83	0.00	1,082.05	0.00	14,650.40
Commodities Taxes (Imports)	44	206.59	795.18	0.00	4.20	0.00	5,826.82
Public Current	45	0.00	0.00	0.00	444.00	0.00	55,198.88
Public Capital	46	0.00	10,897.14	0.00	0.00	864.00	23,318.14
Private Capital	47	0.00	0.00	0.00	0.00	-881.00	100,643.05
Changes in inventories	48	4,727.58	18,195.33	0.00	0.00	0.00	22,922.91
ROW current	49	7,690.23	29,598.46	0.00	26,559.00	0.00	405,169.87
ROW capital	50	0.00	0.00	0.00	-32,274.00	0.00	-17.00
<b>TOTAL</b>		<b>23,318.14</b>	<b>100,643.05</b>	<b>22,922.91</b>	<b>405,169.87</b>	<b>-17.00</b>	<b>1,967,520.04</b>

Notes: Identification on the short form for accounts 29-42, please refers to Appendix Table1a(i) below.

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**Table 1a(i). Full Form of Public Expenditure**

Short Form	Number	Refer to
PubCExpAgri&RuralDev	29	Public current expenditure on agriculture and rural development
PubCExpEducation	30	Public current expenditure on education
PubCExpHealth	31	Public current expenditure on health
PubCExpAdmin	32	Public current expenditure on administration
PubCExpOrder&Defense	33	Public current expenditure on public order, security and defense
PubCExpOthers	34	Public current expenditure on other public administration
PubCExpTransfer	35	Public current expenditure on household transfer
PubInvAgri&RuralDev	36	Public investment in agriculture and rural development
PubInvIndustry	37	Public investment in industry
PubInvTrade	38	Public investment in wholesale and retail trade
PubInvTransp&Com	39	Public investment in transportation and communication
PubInvEduc&Health	40	Public investment in education and health
PubInvAdmin	41	Public investment in general administration
PubInvOthers	42	Public investment in other public administration
ROW current	49	Rest of the world current
ROW capital	50	Rest of the world capital