

SMALL AND UNPRONOUNCED - A COMMENT ON DR. TSCHANNERL'S CASE STUDY⁺

Murray J. Clayton⁺⁺

(This note is a follow-up from the discussion raised in the Vol. I No. 1 of Utafiti by Dr. G. Tschannerl and by Mr. S. Rugumisa).

Dr. Tschannerl¹ wants to show that Tanzania fits Amin's peripheral model i.e. that Tanzania is an economy in which the determining relationship is between the export sector and the luxury consumption sector. Neither Tschannerl nor Amin specify this determining relationship; Amin even says ".... at this stage the model does not show any actual linkage between the export sector and the rest of the country..."² But Amin suggests two aspects of relationship;

- (i) "Society is bound to supply cheap labour to the export sector"³ and
- (ii) "The internal market is thus mainly based on the demand for luxury goods from.... internal social classes (linked to or forming the export sector)".⁴

Dr. Tschannerl takes the second aspect. He classifies all "productive surplus generating activities in Tanzania's monetary sector" in 1970 into four sectors and argues "since virtually no capital goods are produced the (determining relations) cannot be between the capital goods and the mass consumption goods sector; (therefore) it is between the export sector and the luxury consumption sector. Thus the export sector stimulates the production of luxury goods".⁵ (Emphasis in the original)

As there is no central planning in Tanzania and we are eschewing class analysis this stimulus can only be through the market. Tschannerl's hypothesis may be reformulated as: a significant proportion of the proceeds from exports are spent on luxury consumption goods.

⁺This note may be seen as a quantification of points (ii) and (iii) of Mr. Rugumisa's comment on Dr. G. Tschannerl's article. Its conclusions support his point (i).

⁺⁺Formerly at Institute of Finance Management, Dar es Salaam.

This note uses the 1969 Household Budget Survey to show:

- (a) that the proportion of the proceeds from exports spent on luxury consumption goods is not significant;
- (b) that by Tschannerl's own definition and by a classical definition "luxuries" were hard to find in 1969.

The Household Budget Survey gives details of cash income and of cash and subsistence consumption by households in various "zones" of the country.⁶

The zones defined were:

- Zone 1: Arusha, Kilimanjaro and Tanga Regions except Arusha, Moshi and Tanga towns.
- Zone 2: Coast, Dodoma and Morogoro Regions except Dodoma and Morogoro towns.
- Zone 3: Mara, Mwanza, West Lake and Shinyanga Regions, except Bukoba and Mwanza towns.
- Zone 4: Kigoma, Singida and Tabora Regions.
- Zone 5: Iringa and Mbeya Regions except Iringa town.
- Zone 6: Mtwara and Ruvuma Regions except Lindi town.
- Zone 7: Dar es Salaam except non-African households in the town center.
- Zone 8: Non-African households in Dar es Salaam center.
- Zone 9: Nine smaller towns (those excluded above).

Zones 1, 3 and 6 produce the crops which make up the bulk of exports. In the absence of high export taxes we may reasonably assume that proceeds from exports accrue to households in these zones.

Table 2 shows the household in these zones did not spend a greater proportion of their income on luxuries (as defined by Dr. Tschannerl). The proportion of annual income spent on luxuries is as high in the "other" rural zones (from 10% - 13%) and in urban zones 7 and 9 as in the "export" zones, (from 5% - 12%). These expenditures are the stimulus of luxury goods production (in as much purchase of output stimulates output), but the figures do not show that the export sector provides more stimulus than any other sector.

Two objections may be advanced. The first is that of a total expenditure of \$ 345 million on the luxury items listed in Table 2. \$ 170.1 million (49%) is spent by the "export zones"; hence export zones are "significant in total". But this "significance" is a function of population and so only indirectly linked to export income. Further total expenditure on luxuries is only 5%

of total expenditure (cash and barter) in the export zones. Luxury expenditure is small and unpronounced whether compared to income or all expenditure. The second objection is by analogy to Friedman's "windfall income, windfall consumption" link; it is that income from exports is used for luxury consumption and other income for non-luxury monetary consumption. This thesis requires luxury expenditure per household to be expressed as a percentage of export income per household rather than as a percentage of all income per household as in Table 2. While Friedman has established his thesis, the "export income, luxury consumption" link has not been established by Dr. Tschannerl.

The items listed in Table 2 are those that Dr. Tschannerl classifies as luxuries. But by his own definition of "luxuries", none of these items are; by an alternative definition only "household durables, equipment and furniture" are luxuries.

Dr. Tschannerl's definition of luxuries is: "an industrial activity" was classified as producing for mass consumption or luxury consumption depending on whether the labouring masses...or the national ruling class...use the greater part of the output by value in that industrial activity".⁷ Dr. Tschannerl lists the output of various industries but does not show figures for consumption of their output by the "labouring masses" and by the "national ruling class"; he does not give evidence for the classification in his Table A1.

Some estimates of consumption by classes are shown in Table 3. Of total expenditure on the major "luxury" consumption items, over 60% was by households whose total expenditure was less than shs 4,000/= per annum; for other than household goods and furniture 70% (or more) was spent by households in these groups. Table 2 suggests that households whose total annual expenditure is less than shs 4,000 are households of "the labouring masses" - perhaps the workers but particularly the peasants for urban household incomes (which nearly equal consumption) are shs 5,000/= per annum and above. Average rural household incomes (about 70% of consumption) range from shs 647/= p.a. to shs 1,425/= p.a. although each rural zone has households in expenditure groups up to shs 6,000/= to shs 7,999 and most have households over the whole range of expenditure. On Dr. Tschannerl's criterion none of the items listed in Table 3 - and by implication in Table 2 - are luxuries.⁸

A definition of Engel's (Ernst) dating from 1857 is that luxuries are those goods on which expenditure increases at a rate greater than the rate of increase in income, i.e. luxuries are those goods with income elasticities of demand greater than one. Table 4 shows such elasticities for four major "luxury" items.

The elasticities have been obtained from regression of:

$$\log E_{ij} = a_i + b_i \log E_{Tj}$$

where E_{ij} = average expenditure per annum on item i by households in expenditure class j.

and E_{Tj} is average total expenditure per annum by households in expenditure class j.

The standard errors of the estimates are shown beneath the estimates; all the b_i are significant at the 95% level. But only "household durables, equipment and furniture" show an income elasticity of demand greater than one; on Engel's definition only this group of items is a luxury.

Strictly speaking the elasticities of Table 4 are expenditure elasticities; total expenditure is taken as a proxy for income. This is usual in household budget studies⁹ and particularly necessary in Tanzania where "income" is monetary income but "expenditure" is monetary and non-monetary. (In 1969, 67% of consumption was from "cash and credit", 30% "own produce").

On two definitions, the classification of luxuries is not "the trickiest" but a trick; an illusion. On a classical definition and on Dr. Tschannerl's own definition there was virtually no luxury consumption sector in 1970 (unless the patterns of 1969 changed markedly). Hence there could not be a link, through the market place, between exports and consumption of luxuries.

The conclusions of this Note, however, do not invalidate Amin's whole model or make Tanzania any less peripheral. But they do suggest that the model needs careful specification in particular cases.

Table 1: The Four Sector Distribution in Tanzania 1970

<u>Sector</u>	<u>Value \$ million</u>	<u>percent</u>
Exports	1,096	45
Mass Consumer goods	981	41
Luxury Consumer goods	307	13
Capital goods	16	1
Total	<u>2,400</u>	<u>100%</u>

Source:- (Tschannerl, G. "Peripheral Capitalist Development" Utafiti
Vol. 1 No. 1 1976 table 6)

Table 2: ANNUAL INCOME AND "LUXURY" CONSUMPTION OF PRIVATE HOUSEHOLDS: BY ZONE, 1969

	<u>"EXPORT" ZONES</u>			<u>"OTHER" RURAL ZONES</u>			<u>URBAN ZONES</u>		
	<u>ZONE 1</u>	<u>ZONE 3</u>	<u>ZONE 6</u>	<u>ZONE 2</u>	<u>ZONE 4</u>	<u>ZONE 5</u>	<u>ZONE 7</u>	<u>ZONE 8</u>	<u>ZONE 9</u>
	<u>\$s</u>	<u>\$s</u>	<u>\$s</u>	<u>\$s</u>	<u>\$s</u>	<u>\$s</u>	<u>\$s</u>	<u>\$s</u>	<u>\$s</u>
(i) Average Income (\$ H/hold)	1,425	1,154	840	844	647	803	5,458	24,169	5,330
Expenditure on:									
Non-alcoholic drinks	1	2	-	-	-	-	31	87	21
Alcoholic drinks at home	18	43	5	18	11	50	65	51	42
Meals & drinks out	78	31	8	27	36	43	123	61	122
H/hold durables & furniture	14	4	4	5	3	2	47	115	13
Other h/hold equipment	8	4	8	4	5	-	26	41	10
Entertainment & recreation	9	2	3	2	3	-	44	285	57
Cigarettes & Tobacco	38	13	12	55	6	3	116	83	76
Contribs. to relig. Soc.	3	1	2	2	-	-	6	16	13
Other goods & services	-	2	2	1	1	2	37	2	22
(ii) <u>Luxury Expend. (\$ H/hold)</u>	169	102	44	114	65	100	495	741	376
(iii) <u>Luxury Expend. (% of average Income)</u>	12%	9%	5%	13%	10%	12%	9%	3%	7%
(iv) <u>Luxury Expend. (\$ mill/ zone)</u>	78.9	68.2	23.0	37.7	27.1	40.4	42.1	5.1	22.5
(v) <u>Total Expend. (\$ mill/zone)</u>	999.1	1334.0	530.7	588.1	475.8	537.8	563.5	60.7	332.3

Source: Household Budget Survey, 1969, Vol. 1 Table 6.1, Appendix 10c, Appendix 8m

Table 3: ANNUAL CONSUMPTION OF SELECTED ITEMS BY PRIVATE HOUSEHOLD, TANZANIA MAINLAND, 1969
By Expenditure Group*

Household Expenditure Per Annum	TOTAL EXPENDITURE ON ALL HOUSEHOLDS ON:							
	Alcoholic Drinks at Home		Meals and Drinks outside Home		Cigarettes and Tobacco		Household Durables, Equipment and Furniture	
	\$s mill.	Cum %	\$s mill.	Cum %	\$s mill.	Cum %	\$s mill.	Cum %
0 - 999	11.7	14.8	12.3	10.0	6.6	10.7	4.3	7.0
1,000 - 1,999	27.1	49.4	36.4	39.4	17.3	38.9	17.3	35.4
2,000 - 3,999	20.6	75.6	40.1	71.8	18.9	69.7	15.4	60.6
4,000 - 5,999	9.3	87.4	14.6	83.6	7.1	81.3	6.5	71.3
6,000 - 7,999	3.4	91.7	9.0	90.9	4.1	88.0	4.4	78.5
8,000 - 9,999	0.7	92.5	2.8	93.2	1.5	90.4	1.3	80.6
10,000 - 24,999	4.4	89.2	5.0	97.2	4.8	98.2	4.1	87.3
over 24,999	1.4	100.0	3.4	100.0	1.1	100.0	7.7	100.0
TOTAL	78.6	100.0	123.6	100.0	61.4	100.0	61.0	100.0

Source: Household Budget Survey, 1969, Vol. 1 Appendix f

Table 4: (a) HOUSEHOLD AVERAGE ANNUAL EXPENDITURE ON SELECTED ITEMS, TANZANIA MAINLAND, 1969

Household Total Annual Expenditure Between Shs	HOUSEHOLD EXPENDITURE ON: (Shs)				
	All Items (1)	Alcoholic Drinks at Home (2)	Meals and Drinks Outside Home (3)	Cigarettes and Tobacco (4)	Household durables, Equipment & Furniture (5)
0 - 999	696	14	15	8	5
1,000 - 1,999	1,387	24	33	16	16
2,000 - 2,999	2,619	36	70	33	28
4,000 - 5,999	4,505	62	98	47	44
6,000 - 7,999	6,984	62	164	75	81
8,000 - 9,999	8,095	37	147	76	68
10,000 - 24,999	11,933	142	159	153	130
over - 24,999	25,450	155	381	120	860

(b) ELASTICITIES¹ FOR THESE ITEMS

	<u>a_i</u>	<u>b_i</u>	<u>R²</u>
Alcoholic Drinks at home	-0.6985 (0.402)	+0.6543 (0.109)	0.857
Meals and drinks outside home	-1.174 (0.22)	+0.856 (0.06)	0.971
Cigarettes and Tobacco	-1.382 (0.33)	+0.832 (0.09)	0.936
Households durables, etc.	-2.905 (0.45)	+1.264 (0.12)	0.948

¹See Text.

Source: Household Budget Survey, Vol. 1, Appendix 9c.

FOOTNOTES:

1. Tschannerl, G. "Periphery Capitalist Development - A case study of the Tanzanian Economy"; Utafiti Vol. 1 No. 1, 1976.
2. Amin, S. "Accumulation and Development; a theoretical model", Review of African Political Economy, No. 1, 1974, p. 13.
3. Amin, S. Ibid. p. 13.
4. Amin, S. Ibid., p. 14.
5. Tschannerl, G. op. cit., p. 20.
6. 1969 Household Budget Suvey, Vol. 1 Bureau of Statistics, URT: 1972
7. Tschannerl, G. op. cit., p. 35.
8. Dr. Tschannerl works with output; Table 3 with expenditure - which differs from output due to exports, imports and inventory movements. Except for cigarettes and tobacco, the totals of Table 3 are greater than the gross output figure of Tschannerl's Table A1 (even though his figures are for 1970). Suggesting that expenditure includes imports. One would expect that imports are purchased by households in the higher expenditure brackets; if local goods only were considered expenditure would be more heavily concentrated in the lower expenditure groups. Exports of cigarettes and tobacco do not affect the class distribution of expenditure. The H.B.S. does not distinguish expenditure by Government or Parastatals, and it does not allow us to distinguish "non-electrical machinery" and "jewellery and other miscellaneous manufacturing".
9. Prais, S.J. & Houthakker, H.S. "The Analysis of Family Budgets", Department of Applied Economics University of Cambridge, (CUP. 2nd imp.).