A Note on Trade-Weighted Over-Valuation of the Pakistan Rupee

M. L. QURESHI and SURRAIYA NISHAT*

The Pakistan rupee was devalued from Rs. 4.76 to a US dollar to Rs. 11.00 to a US dollar in May 1972 and was revalued to Rs. 9.90 to a US dollar in February 1973. The dollar has depreciated substantially since then in relation to certain currencies such as the Swiss franc, Deutsche mark, yen and the guilder. It is generally believed that the Pakistan rupee, because of its link with the dollar, has depreciated not only against the above currencies but also in an overall sense so that the rupee has been defacto devalued. An attempt has been made in this note to find out whether the rupee has been de facto devalued or over-valued.

The dollar has no doubt depreciated against some strong currencies. But certain other currencies such as the pound sterling, the French franc and the Italian lira have depreciated more than the dollar so that relatively the dollar has appreciated in terms of these currencies. The Pakistan rupee, which followed the dollar, has depreciated against certain currencies and appreciated against others.

TRADE-WEIGHTED DEPRECIATION OF THE RUPEE

The effect of the changes in the value of the rupee in relation to other currencies on Pakistan's foreign trade can be understood by estimating the trade-weighted depreciation of the rupee. This can be done by calculating the weights of Pakistan's foreign trade with the various currency areas by multiplying these weights with the percentage appreciation/depreciation of the

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rupee against the relevant currencies and adding up the results.1 The weights of Pakistan's trade with different currency areas were determined from the foreign trade data for 1976-1977 and the percentage appreciation/depreciation of the rupee with reference to other currencies was calculated for the period December 1973 to April 1978. The results of the exercise are shown in Table 1.

Table 1 Trade-Weighted Appreciation Depreciation of Pakistan Rupee, December 1973—April 1978

Currency Area	Exchange US \$ a	Rates per as on	Percentage appreciation/	Weight of Pakistan's	Trade- weighted	
	31st Dec. 1973	26th April 1978	depreciation of US \$ and Pakistan Rupee	trade with currency area	appreciation/ depreciation of Pakistan Rupee	
1	2	3	4	5	6	
U.S. Dollar	1.00	1.00	0.00	0.4260	0.0000	
Pound Sterling	0.4304	0.5511	+28.04	0.1062	+2.9778	
SDR	0.8290	0.8198	— 1.10	0.1171	0.1288	
French Franc	4.6041	4.6225	+ 0.39	0.0314	+0.0122	
Belgian Franc	40.3340	32.4200	— 1 9 .62	0.0191	0.3174	
Lira	607.9200	869.00	+ 42.94	0.0399	+1.7133	
Swiss Franc	3.2440	1.9670	→ 39.36	0.0124	0.4880	
Deutsche Mark	2.6690	2.0830	— 21.95	0.0741	—1.6264	
Yen	280.00	226.10	→ 19.25	0.1476	-2.8413	
Guilder	2.7812	2.2255	— 19.98	0.0256	-0.5114	
Overall	-				-1.2100	

Data Sources: Column 2: [2] Column 3: [1]

Column 4: (col. 3 — col. 2/col. 2) x 100

Column 5: [3] Column 6: Col. 4 x Col. 5

Note: (i) Total trade is defined as value of export at f.o.b. prices plus value of imports at c.i.f. prices.

(ii) Eighty-three percent of Pakistan's foreign trade is with the above currency areas. It has beed assumed that the balance of 17% of the total trade follows the same pattern as the total trade with the above currency areas.

$$D = {\overset{\blacksquare}{\underline{}}} {\overset{\blacksquare}{\underline{}}}$$

Pakistan's Trade with jth country group and $\mathbf{E}_{\mathbf{i}} =$ Precentage appreciation/depreciation of jth country's currency in terms of U.S.

In mathematical terms the trade-weighted appreciation/depreciation may be defined as

It will be seen from this table that the overall trade-weighted depreciation of the Pakistan rupee was very small, namely, 1.2% only. This is not surprising in view of the direction of Pakistan's foreign trade. Over 42 percent of Pakistan's foreign trade is with the dollar area which has remained unaffected by changes in the value of the dollar and the Pakistani rupee in relation to other currencies. Pakistan's trade with the currency areas against whose currencies the rupee has depreciated substantially, namely, Belgian franc (16.62%), Swiss franc (39.36%), Deutsche mark (21.95%), yen (19.25%), and guilder (19.89%), is relatively small, i.e. 27.9% of the total. Pakistan's trade with currency areas against whose currencies the rupee has appreciated very substantially such as the pound sterling (28.04%) and Italian lira (42.94%) is small but appreciable, i.e. 14.6%. This has to a large extent offset the impact of the depreciation of the rupee against some other currencies. This explains why, on balance, the overall trade-weighted depreciation of the rupee is negligible.

TRADE-WEIGHTED INFLATION

However, the rate of inflation in Pakistan has been much higher than in most of its trading partners so that the Pak rupee has become inflated in relation to other currencies. The impact of this on Pakistan's foreign trade can be seen by estimating the trade-weighted inflation in Pakistan. This can be done by multiplying the inflation in Pakistan relative to each currency area by the weight of Pakistan's foreign trade with that area and adding up the results² as shown in Table 2.

It will be seen from this table that the trade-weighted inflation in Pakistan is of the order of 32.4%. In other words the actual purchasing power of the rupee has been reduced by about one-third compared with the currencies of its trading partners.

OVER-VALUATION OF THE RUPEE³

On a trade-weighted basis the Pakistan rupee has depreciated by 1.2% as a result of the changes in the value of US dollar in terms of other currencies. On the other hand due to greater inflation in Pakistan relative to other countries the purchasing power of the rupee has declined by 32.4% compared with the

where P' = Pakistan's inflation relative to its trading partners.

P' has been calculated by applying the following formula:

$$P' = \frac{(P_p - P_j)}{P_j} \times 100$$

where P_p is the price level in Pakistan and P_j the price level of the respective trading partner.

^aSimilarly trade-weighted inflation may be described as

^{*}Note that Net Over-valuation/Under-valuation = I - D.

Qureshi-Nishat: Trade-Weighted Over-Valuation of Pak Rupee

currencies of its trading partners. After allowing for the depreciation of the rupee by 1.2% the rupee is found to be over-valued to the extent of 1.2% its official rate of exchange.

Trade Weighted Over-Valuation Under-Valuation of Publisher Berns

Table 2

Table 2

Countries	Rate of Inflation 1973-1977	Pakistan's Relative Inflation	Weights of Pakistan's Trade with Currency Areas	Trade weighted Over-valuation/ Under-valuation o Pakistan rupee
	(2)	(3)	(4)	(5)
Pakistan	98			
U.S.A.	44	37.50	0.4260	+ 15.9750
UK	78	11.23	0.1062	+ 1.1926
SDR Countries	79	10.61	0.1171	+ 1.2424
France	:: " ::38 : / " : [43.47	0.0314	+ 1.3649
Belgium	. 30	52.50	0.0191	+ 0.9989
Italy	120	-10.00	0.0399	- 0.3990°
Switzerland	13	75.22	0.0124	+ 0.9327
Germany	27	55.90	0.0741	+ 4.1421
Japan	45	36.55	0.1476	+ 5.3947
Netherlands	24	59.67	0.0256	+ 1.5275

Data Sources:

Column 2: [2] except for Pakistan. Pakistan: [4] Column 3: (see foot note 2) [2]

Column 4: [3]

Column 5: Col 3 x Col. 4.

(a) Saudi Arabia and Iran were Pakistan block: so their weighted price levels with the column of the

(a) Saudi Arabia and Iran were Pakistan's major trading partners in SDR country block; so their weighted price levels were taken as representing the price level in SDR countries as a whole. Similarly it is assumed that inflation rates in U.S.A., U.K. and France represent the inflation rate in countries pegged to their currencies.

It is the only case where Pakistan's inflation rate is lower than that in its trading the first (Italy). Thus the relative difference in price levels of the two countries is

derice indices for various countries were available only up to 1977.

This over-valuation of the rupee has important implications for Pakistan's foreign trade. In so far as the import trade is concerned, the over-valuation of the rupee is more than offset by the heavy import duties and other taxes so that the exchange rate, as such, does not provide an incentive for imports. The position is, however, different for exports and remittances from abroad.

The deterioration of the exchange rate from the exporter's point of view may be less than what may appear from the over-valuation of the rupee. For some exports, which were subject to export duties in 1973, the effective rate of exchange was less than Rs. 9.9 to a dollar. The abolition of export duties implies an improvement of the exchange rate for the exporter. The same is true of exports which are at present subsidized in one form or another. For such exports, the effective rate may be more than Rs. 9.9 to a dollar. But the position must have deteriorated for exports which were not subject to export duty in 1973 and are now duty-free or for exports which are not receiving any subsidy at present. Such exports constitute a very large part of the total exports.

The stagnation of exports during recent years might be partly due to the rupee becoming over-valued at its official rate of exchange. Some means will have to be found to subsidise the exports if the present rate of exchanges is to be maintained.

The over-valued rupee might become a disincentive for home-remittances from Pakistani nationals abroad. In this connection one should not be misled by the buoyancy of the remittances in recent months. The remittances are increasing because of increasing exports of manpower and not necessarily because the rate of exchange is favourable or realistic. In view of the importance of remittances in the total foreign exchange earnings, the country cannot afford to let the rate of exchange become a disincentive for such remittances. Like exports, the remittances may also need a subsidy.

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A Note on Economic Activity of Women in Nigeria

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The aim of this article is to investigate some of the factors explaining the economic activity of women in Nigeria, in particular, to examine the question of whether urbanisation is likely to lead to a "marginalisation" of women in Nigeria. Such a question would not normally be asked in most developing countries because, since recorded female labour force participation is low in the rural areas of most countries, it could be expected that urbanisation would be associated with rising levels of female activity. However, a different situation exists in sub-Saharan Africa with female participation in the rural economy being strikingly high. This is associated with a traditional division of labour which allocates prominent roles to women in subsistence agriculture and often in trading activities. This tradition is partly explained by the need for men to travel long distances to hunt or, in this century, increasingly to find wage earning activity.

The present study is based on a survey carried out by the Human Resources Research Unit of the University of Lagos in 1973 and 1974. It covered a sample of 2,700 women aged 20 and over drawn from four areas of Nigeria. It is admitted at the very outset that conceptual deficiencies in the survey appear to have led to an understatement of labour force participation in rural areas, making the analysis somewhat questionable.

RATES OF FEMALE ECONOMIC ACTIVITY IN NIGERIA

The definition of labour force participation used was quite simple. Women were asked if they did any work for pay or to earn money, either outside or inside the home. If not, they were classified as a non-participant. However, the unemployed are normally considered as part of the labour force. Moreover, since no reference was made to any time it is not clear how the survey classified women who normally worked but who, for some reason, were not doing so at

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¹See for example [1].

the moment. Finally, by treating only monetary activities as economic activity the definition had the effect of excluding from the labour force women producing goods for self-consumption, or working in family enterprises from which they derived no direct monetary compensation. These three deficiencies all had the effect of understating female participation and the last one in particular could represent a considerable number of women in rural areas. It is likely, therefore, that the participation rates given here are considerably under reported.

Participation rates, and their composition between work inside and work outside the home, are given in Table 1 for a number of sub-groups of the female population. The two major features are the pattern of the age-specific rates, which has an inverted U-shape, and the difference between urban and rural areas, with the former having higher participation rates.

These results may be compared with those of two other surveys carried out in Nigeria. One of these was conducted in Lagos in 1973 [3] in which overall participation rates were found quite similar to those shown in Table 1 for urban areas, except that it showed slightly higher rates in the older age groups. The other survey was the Labour Force Sample Survey of 1966-1967 which was carried out in Lagos and in rural Nigeria [7]. This survey also showed urban rates quite similar to those shown in Table 1. However, the rural rates were much higher. In fact, the 1966-1967 survey found that participation rates were higher in rural areas than in Lagos, whereas the survey on which the present study is based found the opposite. Thus, while there is some corroborative evidence for the accuracy of the participation rates in urban areas, some reservations must be held about the findings in rural areas.

Table 1

Rates of Economic Activity Inside and Outside the Home

	**************************************	, i da sa			
	20-24	25-29	30-39	40-49	50-59
Full sample	Totaloga Egyptis		a di dia di	3. 3	
Work outside home Work inside home Work inside and outside	29.0 18.9 5.7	32.9 24.6 5.5	32.5 30.7 9.6	26.3 31.1 7.2	12.8 34.9 9.3
Participation rate Sample size	53.6 768	63.0 724	72.7 785	64.7 334	57.0 86
Urban	anders (1997) Editor (1997)			andre State	i Harring
Work outside home Work inside home Work inside and outside	34.1 14.9 5.2	58.2 22.8 5.2	45.3 25.3 6,8	35.0 29.1 8.4	19.1 36.2 14.9
Participation rate Sample size	54.2 592		77.4 501	72.4 203	

Table-1—Contd.	drut h	mga inggest	l-exitat al		
#4-(0),411-(0),841-(11),424-(11),44	20.24	25.29	30.39 ₀	40.49	50.59
unida Rurah processis los recreas aculta		Then to to	ille Arac	Listle	മാണ്ട്
Work outside home	11.9	19.2			
Work inside home				34.4 mi	
Work inside and outside	7.4	6.4	14.5	5.3	2.6
Participation rate who was a second					
Sample size	176	203		131	
ista The chairth a stroit i divide	v North Ari	Krawa Kara			
Married Women of the control			i e e fi	1000	vî swî W
Work outside home	18.4	28.8	28.9	25.7	4.0
Work inside home	24.1	26.6	32.5	33.0	36.0
Work inside and outside	4.9	5.2	9.5	6.9	10.0
Participation rate	47.5	60.6	70.8	65.Ś	50.0
Sample size	526	601	665	261	50
Single Women					jegoriče. Vitorije,
Work outside home	55.6	57.4	57.1	ged to death	
Work inside home	5.3	17.6	10.7	<u> </u>	n n <u>ali</u> i
Work inside and outside	7.0	7.4	3.6	. کند	1 <u>44</u>
Participation rate	67.9	82.4	71.4		-
Sample size	: 186	68	28	9	1
				i i fa i	
Separated, Widowed Divorced		200		20 20 6 5 7 7	4 1/2 1/20
Work outside home	37.3	51.1	52.9	26.2	27.3
Work inside home	15.7	10.6	24.1	24.6	30.3
Work inside and outside	7.8	8.5	10.3	8.2	9.1
Participation rate	60.8	70.2	87.4	59.0	66.7
Sample size	51	47	87	59.0 61	
		7/	07,	O1	33

ANALYSIS OF PATTERNS OF FEMALE ECONOMIC ACTIVITY

Given the suspect levels in rural areas, analysis of determinants of participation in rural areas and of different patterns in rural and urban areas must be tentative. However, the relevance of particular factors associated with urban-rural difference should still be discernible in the analysis of the behaviour of women in urban areas. The suggestion that urbanisation is associated with declining participation is based on the changing nature and requirements of increasingly "formal" (wage) employment and the greater constraint on participation represented by child-care responsibilities. Accordingly, an attempt was made to use the survey data to test simple behavioural functions to assess whether certain personal, household, cultural, and labour market factors were more important explanations of participation in urban areas than in rural areas.

The basic micro-behavioural function tested was the following:-

$$L_f = a + b_1(E) + b_2(C) + b_3(A) + b_4(M) + b_5(U) + b_6(T) + b_7(S) + e$$

where L is the probability of participation. E is a vector of dummy variables for level of educational attainment, which is a proxy measure for a woman's opportunity income and hence would be expected to be positively correlated with her probability of participation. C is a measure of fertility. Unfortunately the survey data only allowed it to be defined as a dichotomous variable: a dummy variable for women without children being included in the regression equations and women with one or more children being the excluded category. There are a number of problems with this variable. The data did not indicate whether the child or children were born recently or were still alive. It should also be noted that childlessness could also be a proxy for other factors affecting female economic activity such as physical health, marital status and recency of marriage. Marital status is controlled for in the regressions but since the other two variables are not included, the results for the fertility variable should be interpreted with caution.

The variable A consists of a set of dummy variables for membership of various age groups. Age can be taken as a very crude proxy for demand-for-child-care time, with the expectation that women in their early twenties (the period of most intensive childbearing) are less likely to be in the labour force than older women. Marital status (M) is used as a control variable, married women being expected to have lower participation. The variable U is a control for differential labour market conditions, and possibly cultural-social environments, in different urban areas—the four urban areas being Lagos, Enugu, Ibadan and Zaria. Ethnic differences (T) are also considered, being tested as a dummy variable for members of the Yoruba ethnic group, all other ethnic groups comprising the excluded category.

As previously mentioned, women generally appear to have a more important economic role in West Africa than in less developed countries elsewhere; this is usually because a large part of subsistence agricultural activity is traditionally carried out by women. Among the Yorubas the situation is somewhat different: in a tradition dating back at least to the early nineteenth century, women, though assuming a less important role in agriculture, have dominated marketing activities and have tended to enjoy considerable economic and political independence [5]. Therefore, we were interested to test whether in fact this strong commercial role of Yoruba women would be reflected in higher rates of economic activity.

Finally, some data were available on whether a woman's husband or anyone else made a financial contribution to her personal or household expenses. This was tested as a dichotomous variable (S) for women not receiving such financial support, the excluded category being women receiving some such form of financial support. One would expect significantly higher activity rates for women not receiving financial support if economic factors were a major determinant of a woman's decision to enter the labour market.

To test this function, multiple regression analysis was used. All of the variables used in this analysis are categorical in nature, including the dependent

^{*}See for example [6, p. 55].

variables.3 This gives rise to certain statistical problems related to the significance testing of results and as a consequence the statistical results reported in this paper should be interpreted with caution, although it appears that with this type of analysis the conventional statistical tests are more likely to be conservative than vice versa.4

Results of two regressions, for women aged 20 to 49 living in urban and rural areas respectively, are presented in Table 2. A larger part of the variance is explained in the regression for the urban sample, 14 percent as against 40 percent for the rural sample, but both equations are statistically significant and these figures are not unduly low for behavioural functions based on micro data. Three variables explain much of the variance in both samples. These are: education (E), the variable for women receiving some financial support (S)

Table 2 Regressions on Women Aged 20-49: Comparing Urban and Rural Areas

Independent variables			Urban		Rural		
		Coeffi- Standard F		Coeffi- Standard F cient Error			
Age 25-29	(A_2)	0.123	0.030	18.8**	-0.024	0.050	0.2
Age 30-39	(A_8)	0.229	0.029	060.3**	0.103	0.048	4.7*
Age 40-49	$(\underline{\mathbf{A}}_{4})$	0.190	0.039	023.8**	0.000	0.057	0.0
Primary education Secondary	(E_2)	-0.059	0.027	04.8*	0.179	0.050	12.8**
education	(E_3)	0.171	0.030	32.6**	0.285	0.076	14.1**
Tertiary education	(E_4)	0.226	0.047	22.8**	0.576	0.163	12.5**
Married	(M)	0.054	0.033	2.7	0.070	0.058	1.4
No children		-0.043	0.034	1.6	-0.143	0.058	6.1*
Not receiving							
financial support	(S)	0.130	0.032	16.1**	0.170	0.061	7.9**
Yoruba	(T)	0.119	0.028	18.4**	0.269	0.050	28.6**
Ibadan resident	(U_3)	0.174	0.029	34.9**		· ,	
Enugu resident	(U_2)	0.071	0.030	5.5*			
Constant	` =/	0.381			0.397		
\mathbb{R}^2		0.141			0.102		
F		24.1**				•. • .	1.0
Degrees of freedom		12/1,768			10/767		
Constant R ² F		0.381 0.141 24.1**		3.3"	0.102 08.7**	- •	

^{*}Significant at 5 percent level.
**Significant at 1 percent level.

(L) labour force participation Dependent variable:

Excluded categories:

(A) age 20-24

(E) no education (M) not married

C) having one or more children

S) receiving financial support T) non-Yoruba

(Ú) resident of Zaria or Lagos metropolitan area.

⁸A detailed explanation of the use of categorical variables may be found in [4].

For a discussion of the problems inherent in using a categorical (binary) specification of the dependent variable, see [2].

and ethnicity (T). For each of these variables the relationship is in the expected direction for both the urban and rural samples. Other things being equal, women with more education, particularly those with at least secondary education, were more likely to be economically active. The same was true of women not receiving financial support and Yoruba women.

In the urban sample, significant coefficients are obtained for the dummy variables for residence in Ibadan and Enugu (U₃ and U₂), suggesting that differences in labour market conditions, and perhaps in other environmental factors, proxied by these variables, help to determine women's activity rates. These variables are not applicable in the rural sample. The age variables (A) are more strongly significant in urban than rural areas. The positive coefficients for the age variables in the urban sample indicate that women had a higher propensity to be in the labour force if they were older than 24 (the excluded category). But it appears that age was not strongly related to participation in rural areas.

Neither marital status nor fertility appear to place important constraints on women's economic activity in either urban or rural areas of Nigeria. The marital status variable (M) is not significant in either sample and the fertility variable (C) is only significant in the rural sample where its negative coefficient suggests that childless women were less likely to be in the labour force.

Because of the importance of education in these results, both the urban and rural samples were split into more and less educated women (those with secondary or higher education being taken as the more educated group) and separate regressions were run for all four sub-samples. The results are reported in Tables 3 and 4.

In the urban sample (Table 3), the more educated women appear to be more homogeneous: only two variables age (A) and financial support (S) are statistically significant and only 8 percent of the variance is explained. The economic activity of less educated urban women is mainly explained by the same variables as are significant for the urban sample as a whole. The results for age (A), ethnicity (T) and labour market conditions (U) are more or less the same. The only important differences are for marital status (M), which is weakly significant for the less educated group and suggests some limited tendency for marriage to inhibit women's participation in the labour force and financial support (S) which is not significant for the less educated women. The latter result is interesting since women not receiving financial support do appear to have significantly higher participation rates in the more educated group. The most likely explanation for this result is that, since less educated women would normally come from lower income households, the amount of financial support their husbands (or other persons) could afford to give them would not be sufficiently large to affect their decision to enter the labour force.

The results obtained by splitting the urban sample into two educational groups confirm the importance of education in explaining women's economic activity since it seems that more educated women have higher participation rates irrespective of most of the other factors which explain the participation of less educated women.

Table 3

Regressions on Urban Women Aged 20-49: Comparing Less than Secondary Educated and Secondary or Tertiary Educated

Indonesia de la constata			han second education	dary	Secondary or terti education		
Independent variab	102 -	Coeffi- cient	Standard Error	F	Coeffi- cient	Standard Error	l F
Age 25-29	(A ₂)	0.117	0.037	9.8**	0.111	0.044	6.5*
Age 30-39		0.215	0.037	34.3**		0.049	23.0**
Age 40-49		0.180	0.046	15.6**	0.097	0.081	1.4
Married		0.097	0.045	4.8* -	-0.001	0.053	0.0
No children Not receiving	(C) —	0.034	0.045	0.6 -	-0 .036	0.056	0.4
financial support	(S)	0.079	0.046	2.9	0.190	0.044	18.8**
Yoruba		0.135	0.033	16.6**	0.097	0.051	3.7
Ibadan resident	(Ù,) (0.240	0.038	40.9**	0.052	0.047	1.2
Enugu resident	(U_2)	0.070	0.037	3.6	0.072	0.051	2.0
Constant).436			0.552		
R ²	().144			0.081		
\mathbf{F}	2	[. 5 **			6.0**		
Degrees of freedom	9	7/1,153			9/608		

^{*}Significant at 5 percent level.

Dependent variable: (L) labour force participation (A) age 20-24

Excluded categories:

(M) not married

(C) having one or more children (S) receiving financial support

(T) non-Yoruba

(U) resident of Zaria or Lagos metropolitan area.

Less clear-cut results were obtained by splitting the rural sample by level of education (see Table 4), partly because the sample contained only a small number of rural women with secondary or tertiary education. The coefficients for some of the age variables (A) in the more educated group in Table 4 are large and significant but it might not be wise to place too much importance on this result, given the small sample size. The only other significant variable for the more educated group is financial support (S). For the less educated group the results are fairly similar to those obtained for the whole rural sample but this can mainly be attributed to the fact that most of the rural sample is in this less educated group. Therefore the results of splitting the rural sample are rather the and this not clear whether or not there are important differences. envious of women with different levels of education in rural

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^{**}Significant at 1 percent level.

Table 4

Regressions on Rural Women Aged 20-49: Comparing Less than Secondary

Educated and Secondary or Tertiary Educated

Independent variables			than secondary Secondary Secondary			dary or tertiary education		
		Coeffi- cient	Standard Error	F	Coeffi- cient	Standard Error	F	
Age 25-29	(A ₂)	-0.057	0.055	1.1	0.362	0.111	10.6**	
Age 30-39	(A_3)	0.080	0.051	2.5	0.276	0.135	4.2*	
Age 40-49	(A_4)	0.040	0.060	0.4	0.104	0.202	0.3	
Married	(M)	0.026	0.062	0.2	0.067	0.163	0.2	
No children	(C)	-0.126	0.062	4.1* -	-0.212	0.173	1.5	
Not receiving financial suppo		0.175	0.067	7.0**	0.246	0.121	4.1*	
Yoruba	(T)	0.294	0.053	30.3**	0.135	0.133	1.0	
Constant	• •	0.477			0.579			
R ²		0.067			0.350			
F		7.3**			3.7**			
Degrees of freed	om	7/714			7/48			

^{*}Significant at 5 percent level. **Significant at 1 percent level.

Dependent variable: (L) labour force participation

Excluded categories: (A) age 20-24

(M) not married (C) having one or more children

(S) receiving financial support

(T) non-Yoruba

CONCLUSIONS

Some differences were found between the factors explaining women's economic activity in urban and rural areas, the main one being that age was less important in rural areas. But over-all, the differences between urban and rural areas were not very marked. For example, there was no evidence that marital status or childcare placed any major constraints on women's economic activity in either urban or rural areas (except to a very limited extent for less educated urban women). Therefore, while our analysis is purely cross-sectional and it is possible that a longitudinal study would have shown that urbanisation has contributed to a decline in female activity, on the evidence of this survey it does not appear that urbanisation has so far led to any "marginalisation" of women in Nigeria.

A number of other factors were found to influence women's economic activity rates. More educated women, particularly those with at least secondary education, were more likely to be in the labour force. Social and environmental differences also appear to exert a strong influence over women's economic activity. Residents of Ibadan (and to a lesser extent Enugu) tended to have

higher participation rates than those from other urban areas presumably because of differences between the labour markets and other environmental factors in these towns. The traditionally more independent role of Yoruba women appears to explain their higher activity rates. Finaly, strong evidence is found for the economic motivation behind women's participation in the labour force because women not receiving financial support from a husband or other person were more likely to be in the labour force.

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