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Distributional Impact of Globalization-Induced Migration

Evidence from a Nigerian Village

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Abstract

One of the contentious issues about the globalization process is the mechanism by which globalization affects poverty and inequality. This paper explores one of the various strands of the globalization–inequality–poverty nexus. Using microlevel survey data from over 300 poor households in the small village of Umuluwe (about 30 miles west of the regional capital of Owerri) in Southeast Nigeria, the paper investigates whether individuals who migrate from the village to take advantage of the urban-biased globalization process do better than non-migrant villagers. The paper concludes that …/

Keywords: migration, Nigeria, poverty, prices

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while the migrant villagers tend to earn slightly higher incomes than the non-migrant villagers, the poverty profiles of both categories of households are essentially the same. In other words, and contrary to conventional wisdom, globalization has not succeeded in alleviating poverty amongst the poor villagers who explicitly took advantage of the process. The paper argues that, by changing relative prices in the urban areas, structural adjustment appears to have eliminated any advantage that globalization may have bequeathed to the migrant villagers.

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1 Introduction

Globalization is a poorly understood phenomenon, especially with regard to its impact on the poor. Much of the academic discourse on the impact of globalization on developing countries has focused on macroeconomic issues like economic growth, employment, trade, foreign direct investment, and technology (see, for instance, Ajayi, 2005; Abdel-Khalek and Korayem, 2002). Studies that focus on poverty issues have done so from a highly aggregated perspective, such as a comparison of the impact of globalization on developing and developed societies; poor and rich individuals, as well as between urban and rural areas (Ravallion, 2004). This macro approach has limited our knowledge about the impact of globalization on the poor.

More uncertain, especially, is our knowledge of the channels through which globalization affects inequality and poverty. Although there are numerous theoretical frameworks for analyzing the globalization–growth–poverty nexus, there is a paucity of empirical evidence to support these frameworks. As Nissanke and Thorbecke (2007) point out, 'despite the utmost importance of understanding the globalization–poverty–nexus, the precise nature of the various mechanisms whereby the ongoing process of globalization has altered the pattern of income distribution and the conditions facing the world's poor is yet to be carefully analyzed'. Perhaps more revealing is their contention that insights into globalization cannot be gained by regression studies *per se*, but by country-and-region-specific studies.

This paper provides empirical evidence for one strand of the globalization–poverty trajectory, by investigating whether poor migrants who take advantage of the globalization process are better off than non-migrant villagers. Using microlevel survey data from over 300 households in the village of Umuluwe in Southeast Nigeria, the paper compares the poverty profiles of both the migrant and non-migrant villagers, in addition to their socio-economic characteristics. The results are somewhat startling: poor migrants who seek to take advantage of globalization do *marginally* better than their non-migrant counterparts. We speculate that globalization-induced changes in relative prices in the urban areas of Nigeria may have obliterated the benefits that migrants typically enjoy.[1] The paper is structured as follows. Section 2 reviews the driving forces behind the globalization process, while Section 3 describes the socio-economic profile of the village of Umuluwe. Section 4 presents the paper's methodology and empirical model. Results from the model are discussed in Section 5, and Section 6 contains the summary, conclusions, and policy recommendations of the paper.

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1 This proposition, while briefly alluded to in the paper, is not explored fully because it would take us beyond the immediate focus of the paper, namely whether globalization-induced migration results in significantly better economic outcomes for poor migrants. However, an interesting area of further research would be one that explores the relationship between globalization-induced changes in relative prices and economic welfare.

2 A brief review of the driving forces behind the globalization process

The globalization process is arguably one of the most contested phenomena of our time (Onyeonoru, 2003: 37). A cliché often used to describe globalization is that the world has become a 'global village' in which remote villages in far-flung countries now have unfettered access to technology, skills, foreign direct investment (FDI), and global commodity markets. In the words of Giddens, globalization involves 'the intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa' (1990: 64).

Two major trends, however, characterize the current globalization process: the phenomenal growth in cross-border investment and international trade, coupled with the dramatic growth in global communications and technology (Sutherland 2002: 20). The flow of FDI, which amounted to US$160 billion in 1991, jumped to US$1.1 trillion in 2000, the year prior to the study. The volume of international trade has increased 16-fold over the past 50 years, with trade in spare-parts and other intermediate inputs growing faster than trade in final products (Sutherland 2002: 20). The other drivers of the globalization process include financial liberalization, internationalization of production, and the spread of market forces as the dominant mode of resource allocation (Abdel-Khalek and Korayem, 2002: 45–48).

While there is consensus on the driving forces of the globalization process, considerable controversy exists about the impact of globalization on growth, poverty, and equity around the world. Some analysts argue that the poor have been made worse off by globalization, whereas others contend that the benefits have accrued disproportionately to the more affluent members of society (Wei 2002: 26). Because much of what we know about globalization is based on regional and country-level aggregate data, the impact of globalization on the village poor remains murky. In the next and subsequent sections, we describe the village of Umuluwe and explore the impact of the globalization process on the village.

3 The village of Umuluwe, Nigeria

The village of Umuluwe is situated within the predominantly Christian southeast region of Nigeria, and is about 30 miles west of the regional capital of Owerri and about 80 miles from the capital Port Harcourt. Like most communities in Igboland, the Umuluwe people live in a close-knit village of about 3000 people. Except for interaction through marriages, the church, and trade with other neighboring villages, Umuluwe residents have limited contact with the outside world. For instance, the first contact with Caucasians for most of the villagers was when one of the authors and another colleague visited the village in spring 2001 (Gowdy, Iorgulescu, and Onyeiwu, 2003).

Umuluwe is representative of rural Nigerian villages with difficult access from outside areas. The roads are quite a challenge for regular cars that, due to the pervasive poverty, are a luxury only very few can afford. There is no bus line, and people walk daily for hours back and forth to reach the nearby villages and the markets where their products are sold. As a consequence of inadequate infrastructure, people cannot commute to work outside the village. Electricity was introduced only in the last seven years. However, because of undersupply and transmission problems, a chronic problem in

Nigeria, power is on intermittently. The only water source is a small spring about one mile away from the center of the village. The soil has low fertility, and the absence of livestock makes agriculture unsustainable in a poor community unable to afford chemical fertilizers.

All the indicators typically associated with globalization are absent in this village: diffusion of information and communication technology, high-paying jobs, and a rising standard of living.[2] The village has no Internet access, and villagers must travel about 50 miles and pay half of a day's earnings to send an e-mail message. Per capita income in the village is about US$150 per annum, and the main sources of income are cash crops (palm trees and fruit), water and paving stone – the same sources of income it has relied on for at least the past five decades. Farming is mainly for subsistence, although surpluses are sometimes produced and sold at the weekly markets in neighboring villages (Onyeiwu, 1997). Proceeds from such surpluses are used to purchase such items as meat, milk, sugar, and bread. The villagers also use the proceeds to pay community dues, school fees for their children and healthcare.

It would be naïve to discuss living conditions in the village of Umuluwe without discussing the development strategies adopted by the Nigerian government during the country's post-independence era. Following its explicit commitment to economic development and self-reliance, the post-independence government adopted the Import-Substitution Industrialization (ISI) strategy that focused on the promotion (through tariff protection, tax concessions, and other incentives) of 'infant' industrial enterprises. Apart from the expected foreign exchange savings from smaller imports of manufactured goods, ISI was also expected to create more jobs, transfer technology and skills to the local population, and help diversify the monocultural economy – an economy that had been encouraged by the colonial administration to produce and export cash crops (Ake, 1981).

However, ISI generated unanticipated backwash effects that undermined economic development in villages such as Umuluwe. For instance, the government sought to promote industrial development by transferring surpluses from the agricultural to the industrial sector. This was accomplished by the establishment of 'marketing boards' that set mandatory prices for cash crops, which resulted in the loss of income for farmers, particularly when world prices for those commodities were rising.[3] At the same time, the prices of manufactured goods were rising, worsening the living conditions of rural dwellers in villages like Umuluwe and inducing them to migrate to urban areas.

To attract foreign investors, the Nigerian government promoted infrastructural development in urban areas, and neglected rural communities. This partly explains why Umuluwe lacks the amenities mentioned earlier on. Additionally, the concentration of industrial enterprises in the urban areas meant that villagers could only find non-agricultural jobs by migrating to urban areas – a process that led to the neglect of

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2 Laptop computers donated to the village by one of the authors could not be used by the villagers to access the Internet because of the lack of telephone lines in the village. Seeing computers for the first time, the majority of the villagers were not familiar with how to use keyboards, let alone understand how to access the Internet.

3 For details about the modes of surplus transfer from rural to urban areas, see Ake (1981).

agriculture and abandonment of the rural sector. We explore whether globalization has reversed or exacerbated this historical trend in subsequent sections of this paper.

4 Methodology and empirical model

The globalization process in Nigeria is driven by two interrelated forces: the implementation of Structural Adjustment Programmes (SAP) in the mid 1980s, and the phenomenal increase in the flow of FDI in the 1990s and beyond. Globalization has resulted in the emergence of two categories of poor individuals in the village of Umuluwe. The first consists of individuals that migrated from the village to a small town named Obigbo within the suburbs of the large oil city of Port Harcourt along the Atlantic Ocean. These individuals began moving to Obigbo in the mid 1980s to diversify the large risks they faced as farmers in their village, and also to take advantage of the opportunities opened up by the globalization process in Port Harcourt.[4]

Following Nigeria's implementation of World Bank and IMF-inspired economic reforms in 1986, the country witnessed a huge inflow of FDI in the 1990s. The inflow of FDI in Nigeria rose phenomenally from a mere US$611 million in 1987, to about US$2.2 billion in 1996 (UNCTAD, 2005).[5] Much of this inflow went into the oil sector, resulting in an unprecedented economic boom for Port Harcourt. The boom in the oil sector created opportunities in ancillary services such as welding, auto repairs, electrical repairs, driving, various forms of technical services, general supply, nursing, and clerical positions. Interviews of the villagers who moved to Obigbo show that they did so largely because farming as a major source of income seemed too unreliable. As Collier and Gunning (1999: 76) point out, 'farmers face strikingly greater risks in Africa than elsewhere'. Globalization has thus opened up another avenue for the village poor to diversify their risks.[6]

The second category of individuals consists of those individuals who remained in the village for various reasons (see next section), despite the economic opportunities available to them in the Port Harcourt area. Studies have shown that extremely poor individuals are often risk-averse, as a slight misadventure could be disastrous for them. Thus, they play it safe by sticking to their routines, unwilling to bear the risk of moving to a new cultural and economic environment rather than utilizing the opportunities created by globalization.

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4 About 20 per cent of the estimated 3000 people in the village have moved to Obigbo. Although the move from Umuluwe to Obigbo is aimed at seizing the opportunities created by globalization, it is not intended as a permanent change of residence. The migrant households still own a residence in Umuluwe and return there on a regular basis. Some migrants even leave members of their immediate family behind in Umuluwe. In fact, there are daily bus shuttles between Obigbo and Umuluwe – something that did not exist before globalization.

5 Nigeria is often regarded as one of the few African countries that received a large inflow of FDI in the 1990s, although this inflow declined somewhat in the late 1990s and early 2000s, a following a global economic meltdown (Onyeiwu, 2004). However, by 2001, the inflow of FDI in Nigeria was double the levels of the 1980s.

6 The use of globalization as a risk-pooling mechanism is evident because those individuals who moved to Obigbo to take up non-farming jobs continued to farm both in Obigbo and Umuluwe.

In May 2001, two of the authors visited the village of Umuluwe for about a week. One of our goals was to ascertain whether those villagers who migrated to Port Harcourt to utilize the opportunities created by globalization did better than those that stayed in the village.[7] Assisted by four research assistants, socio-economic data was collected from over 300 individuals selected randomly from both the migrant and non-migrant individuals.[8] Data were collected on income, savings, investment, assets, debt, remittances, occupation, education, apprenticeship training, gender, age, marital status, etc. Many of the individuals were also interviewed face-to-face to obtain descriptive information.

Before proceeding to analyze the survey results, two limitations of the survey are worth pointing out. First, we noticed a tendency for some of the respondents to underreport their income and overestimate their liabilities.[9] This underreporting is attributable to the individuals' paternalistic view of the globalization process as a phenomenon geared toward supporting poor individuals in developing countries. Despite our repeated explanations of the survey's objectives, some of the individuals believed that we were trying to identify low-income individuals that would receive aid money and other forms of assistance from international aid agencies. This view is not without merit, given the proliferation of 'sister-village' or 'sister-city' projects around the world.[10] A second limitation of the dataset is the fact that poor individuals in Africa do not generally keep written records, and often tend to give rough estimates of their income, age, etc. Most of our respondents provided information based on memory, which sometimes can be unreliable – especially those dealing with quantitative information. Within the context of these limitations, we use the survey data to explore three hypotheses about the impact of globalization on the poor villagers of Umuluwe.

5 Three hypotheses on the impact of globalization

Given its contentious nature, it is problematic to make sweeping and axiomatic statements about globalization. Statements on globalization must necessarily be accompanied by caveats, contexts, and explicit assumptions. Based on the survey data collected from the village of Umuluwe, we propose the following hypotheses on the globalization process:

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7 For our earlier publications on the village of Umuluwe, see Gowdy, Iorgulescu, and Onyeiwu (2003, 2004).

8 About 80 per cent of the respondents belonged to the non-migrant category, and the rest were migrants. With the help of a local research assistant, we were able to trace the migrant households to their location in Obigbo. We lived in the town of Obigbo for about one week.

9 For instance, some of the respondents reported zero incomes, which seemed implausible to us. This underreporting was not, however, widespread. Since it occurred in relatively equal frequency in both categories of individuals, there was no systematic bias in the survey data.

10 Sister-Village' or 'Sister-City' projects are one of the fall-outs from the globalization process. These projects emerge when an institution, organization, a town, or a city in a developed country 'adopts' a village in a developing country. The relationship is typically paternalistic and unidirectional, in the sense that the developed country entity sends money, medicine, clothing, books, used computers, etc. to the 'adopted' village.

—Hypothesis One: *There are socio-economic differences between migrant and non-migrant villagers*

Much has been said about the need to take advantage of the globalization process, but less is known about the characteristics of poor individuals who are more likely to do so. As Stanley Fisher points out, 'the right set of issues to raise about (globalization) is how best to take advantage of the opportunities presented by the growth and growing openness of the world economy; how best to live with the unavoidable difficulties that globalization may bring; and how to modify the system to make it operate better'.[11] Thus, identifying the characteristics of those who are more likely to take advantage of the globalization process enables policymakers to create an enabling environment for those characteristics to flourish – assuming they are endogenous.

In this section, we use a logit model to explore whether differences in age, gender (a dummy variable with men assigned a value of one), education, and apprenticeship training are salient variables in predicting who among the poor is more prone to taking advantage of globalization. The logit model measures the propensity to migrate as a binary-choice dependent variable that assigns 1 to a migrant individual and zero to a non-migrant person. The standard notational form for the model is given as:

$$\ln [P/1-P] = \alpha\beta X + \mu \qquad (1)$$

where P represents the value of the dependent variable between 0 and 1, while X represents a vector of the regressors, in this case age, gender, education, and apprenticeship training. Following Ramanathan (1992), both sides of the equation can be exponentiated before solving for P:

$$P = 1/(1 + e^{-\alpha\beta X + \mu}) \qquad (2)$$

In other words, the probability that an individual will migrate to take advantage of globalization is given by:

$$P(Y_i = 1) = \log\mathrm{it}(X\beta) = \frac{e^{X_i\beta}}{1+e^{X_i\beta}} \qquad (3)$$

and the probability that an individual will be a non-migrant is:

$$P(Y_i = 0) = 1 - \log\mathrm{it}(X\beta) = \frac{1}{1+e^{X_i\beta}} \qquad (4)$$

Following Maddala (1983), the marginal effect of a particular independent variable **X***i* on the probability of the occurrence of the response $P(Y{=}1)$ is expressed by:

$$\frac{\partial P(Y=1)}{\partial X_i} = \frac{e^{X_i\beta}}{\left[1+e^{X_i\beta}\right]^2}\beta_k \qquad (5)$$

11 Remarks made at the France-Africa Summit, Yaoundé, Cameroon, 19 January 2001: 2.

The marginal effects represent the incremental change in the predicted probability caused by a unitary change in the independent variable under consideration. The marginal effects are used here to ascertain the relationship between an individual's socio-economic characteristics and the probability of taking advantage of the globalization process.

Table 1 summarizes results from the logit model, and it shows that education and gender are the only significant predictors of the propensity to migrate amongst the poor in Umuluwe. Specifically, individuals with more years of schooling are more likely to take advantage of the benefits of the globalization process, by about 12 per cent, than those with fewer years of education. Studies on rural-urban migration have consistently found education to be strongly correlated with migration (Barnum and Sabot, 1975), a correlation that can be explained by a number of factors. First, less educated people have much lower rates of return on work outside the village, thus making them less inclined to move elsewhere (World Bank, 1990: 33). Second, uneducated individuals have weak skills that confine them to low-end, village-based pursuits such as handicrafts, palm-wine tapping, palm-oil processing and odd jobs (World Bank, 1990: 33). Third, education opens minds and makes people aware of the opportunities available to them, while illiteracy limits the ability of individuals to not only recognize the opportunities available to them, but also to take advantage of those opportunities. President John A. Kufuor of Ghana was right when he declared recently that 'education, particularly higher education, will take Africa into the mainstream of globalization'.[12]

Table 1: Results from the binary-logit model

Variable	Coefficient	Std Error	z-Statistic	Prob.
CONSTANT	-1.257	1.648	-0.763	0.446
AGE	-0.038	0.070	-0.551	0.582
AGESQ	0.0002	0.0007	0.409	0.682
EDUC	0.117	0.049	2.409	0.016
APP_TRAIN	-0.087	0.175	-0.499	0.618
APP_TRAIN*EDUC	-0.001	0.021	-0.067	0.947
CHILDREN	-0.076	0.072	-1.063	0.288
GENDER	1.396	0.392	3.567	0.0004

Notes: Dependent variable: PROPENSITY TO MIGRATE. Included observations: 271. McFadden R^2 = 0.16

12 See *The New York Times*, 17 September 2005, p. A4.

Table 2: Age and gender distribution of non-migrant and migrant individuals

Age group (years)	NON-MIGRANT			MIGRANT		
	% of TOTAL sample	% males of TOTAL sample	% females of TOTAL sample	% of TOTAL sample	% males of TOTAL sample	% females of TOTAL sample
20–29	9	2	7	20	17	3
30–39	14	6	8	26	25	1–2
40–49	25	9	16	26	20	6
50–59	22	8	14	15	9	6
60–69	20	9	11	5	1	2
70–79	7	4	3	5	3	1–2
Over 80	3	3	~0	3	3	0
TOTAL	100	41	59	100	78	22

The positive sign of the coefficient on gender implies that men have a higher propensity to migrate than women, and thus have a higher propensity to take advantage of the globalization process. The low propensity of Umuluwe women to migrate is attributable to cultural constraints which, for instance, prohibit them from living alone in a different community or seeking opportunities elsewhere without the approval of their husbands (if married) or parents (if single). It is also known that African women bear a disproportionate burden of child-rearing, a burden that limits their ability to take advantage of the globalization process and other opportunities. One implication of this result is that there is gender bias in the globalization process; men are more likely to take advantage of the opportunity than women. This gender bias hypothesis is supported by the results in Table 2, which shows the gender distribution of migrant and non-migrant individuals. While 78 per cent of the migrant individuals were men, only 22 per cent were women. The implications of this bias for gender inequality and the feminization of poverty are explored later in the paper.

—Hypothesis Two*: Individuals who migrate to take advantage of the globalization process tend to do better economically than non-migrant individuals*.

Analysts who claim that globalization has alleviated poverty often do so based on national or regional data, with little or no information on the conditions of the village poor. Because the majority of the poor in developing countries live in villages, it is crucial to assess the impact of globalization on poverty, using village-level data.

We use the survey data to compute two standard measures of poverty in the village: *the poverty headcount index and the poverty gap index*. The poverty headcount index was calculated by finding the ratio of individuals who lived below the poverty line to all the individuals in the survey.[13] The poverty gap index, which measures the severity of poverty, was computed by multiplying the headcount index by the ratio of the difference

[13] We follow the conventional definition of the poverty line as an income of US$1 per day, which was equivalent to 100 Naira in the year 2000, the reference year for the income data collected for the village.

Table 3. Headcount Index for Umuluwe* and Africa** (%)

	< US$1 per day	< US$2 per day	< US$1 per day (female)	< US$2 per day (female)	< US$1 per day (male)	< US$2 per day (male)
Non-migrant	93.0	97.0	98.0	99.2	85.1	94.3
Migrant	69.2	85.0	93.3	100.0	62.8	80.4
Entire sample	87.2	94.3	97.2	99.3	76.8	89.1
Africa-rural	55.6					
Africa-urban	43.0					
Africa	52.3					

Sources: *Own calculations (based on 2000 income). ** Ali (2002: 12)

Table 4: Poverty gap index in Umuluwe* and selected regions of the world**

	1990	1999	2001
East Asia	8.9	4.2	3.9
South-East Asia	3.8	2.0	1.7
South Asia	10.3	7.1	7.1
North Africa	0.5	0.3	0.3
SSA	19.5	18.6	20.5
Umuluwe (Entire sample)	N/A	N/A	73.2
Umuluwe (Non-migrant)	N/A	N/A	79.2
Umuluwe (migrant)	N/A	N/A	54.4

Sources: * Own calculation. ** UN (2004), quoted in Shimeles and Thoenen (2005: 4).

between the poverty line and the average income of individuals in the sample living under the poverty line expressed as a proportion of the poverty line. Both indexes are reported in Tables 3 and 4. These tables illustrate the sobering extent of poverty in the village, with 87 per cent of all the respondents living below US$1 per day. An upward revision of the poverty line to US$2 per day increases the poverty rate amongst the respondents to a whopping 94 per cent. While sub-Saharan Africa (SSA) has the ‘highest incidence of extreme poverty and the greatest depth of poverty’ (Chen and Ravallion, 2004), the poverty rate in Umuluwe is shocking – even by African standards! It may well be that the poverty rate in African villages is underestimated by macrolevel data, a point poignantly made by Ravallion (2004). While the accuracy of using of using macrodata to measure the poverty rate may be debatable, it is clear that two decades of globalization have not reduced the overall poverty rate in Umuluwe. As Tables 3 and 4 illustrate, both the poverty headcount and poverty gap indexes in Umuluwe exceed regional levels by very wide margins.

Perhaps more revealing is the fact that the migrant villagers did only slightly better than the rest of the villagers. As Tables 3 and 4 show both the headcount and poverty gap indexes are *slightly* lower for migrant individuals, indicating that globalization only marginally improved the economic condition of those who took advantage of the process. Interestingly, these results can be used by those in the pro-globalization and anti-globalization camps to bolster their positions. For instance, one can make the case for the positive effects of globalization on the poor by pointing out that globalization did lift some of the villagers out of poverty. On the other hand, globalization detractors could point to the fact that the overall poverty rate in the village remains very high, despite the globalization process. This suggests that the globalization debate may not be resolved objectively, even in the presence of data.[14]

Since globalization is often touted as a welfare-enhancing phenomenon, one wonders why it failed to significantly lift the migrating villagers out of poverty. Therefore, the underlying mechanisms within the globalization process that limit the ability of potential beneficiaries to extricate themselves from the shackles of poverty must be examined. As mentioned earlier, structural adjustment is one of two key drivers of the globalization process in Nigeria. While structural adjustment has promoted some macroeconomic stability in Nigeria, it has also caused economic hardships for the poor, particularly those in urban areas.[15] A major component of structural adjustment in Nigeria is the removal of government subsidies on goods and services like fuel, imported food, education, health care, and transportation. To reduce government budget deficits, another key objective of adjustment, taxes were imposed on workers.[16] The overarching effect of structural adjustment policies has been a change in the relative prices paid by urban dwellers for food, housing, transportation, education, health, etc. In describing the shifts in relative prices against urban dwellers, Kolb (undated: 14) observes that 'SAPs have narrowed the rural-urban wage gap and shifted the balance of trade against the urban wage earner. Wage freezes in the context of currency devaluation mean that real wages are actually declining'.

This change in relative prices has the effect of reducing the real incomes of the migrant villagers, making their economic welfare no better (in a significant sense) than the non-migrant villagers.[17] Easterly's (2001) contention that structural adjustment makes it difficult for the poor to benefit from economic expansion (and in effect from globalization) further supports this claim.

Although the poverty profiles of the migrant villagers are almost identical to those of the rest of the village, the former earn slightly higher incomes than the latter. To test this hypothesis, a multiple regression equation was fitted into the survey data, with income as the dependent variable. Although the determinants of the income of poor villagers are very complex, the following explanatory variables are used in the model: gender, age,

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14 Because data on the globalization process can be interpreted to fit any preconceived notion, the debate on the impact of globalization may be a contrived exercise.

15 See 'Technical Proposal' submitted by the National Centre for Economic Management and Administration (NCEMA) to the Global Development Network. The proposal is entitled: 'Structural Adjustment Programme in Nigeria: Causes, Processes, and Outcomes'.

16 Because of the weak tax-collection capacity of the Nigerian government, those in the informal sector (including the non-migrant villagers in Umuluwe) succeed in evading taxes.

17 The non-migrant villagers do not face this problem, as they live in their homes, produce much of their own food, have no need for regular transportation, and demand very little education.

education, apprenticeship training, and a dummy variable that measures migration. The rationale for including these explanatory variables is as follows:

Gender: Income can be influenced by gender, with men tending to earn higher income than women. Gender differences in earnings have been explained by a number of factors, including discrimination in the labour market and the fact that women tend to work part-time because of their child-bearing responsibilities. The coefficient on gender is expected to be positive, indicating that men earn more income.

Age: The relationship between income and age can be represented by a quadratic function, implying that income increases with age up to a point and then begins to decline for very old people. To capture the declining effects of 'old age' on income, another variable (Age Squared) is included in the model. We expect the coefficient on *Age* to be positive and *Age Squared* to be negative.

Education: There is a consensus in the literature that income varies with the number of years of schooling. Education is measured in this model by the number of years an individual spent attending primary, secondary, and post-secondary schools. The coefficient on *Education* is expected to be positive, implying that education has a positive affect on income.

Apprenticeship Training: It imbues individuals with skills that enable them to earn income in both the formal and informal sectors of the economy. Thus, the coefficient on *Apprenticeship Training* is expected to be positive. Furthermore, individuals who combine years of schooling with this kind of training can be expected to earn even higher incomes than those with apprenticeship training alone. To determine the effects of this combination, we interact apprenticeship training with education, and expect its coefficient to be positive.

Migration: As shown earlier, individuals who take advantage of globalization tend to be better off, as measured by the poverty headcount and poverty gap indexes, than non-migrant individuals. We measure migration by a dummy variable that assigns 1 to migrant individuals and zero otherwise. The coefficient on the dummy variable is indeterminate *a priori*. However, a positive sign would indicate that, if the values of all the explanatory variables were the same for both the migrant and non-migrant individuals, the migrants would earn higher incomes than non-migrant villagers.

The descriptive statistics and results from the OLS multiple regression are summarized in Tables 5 and 6 respectively. *Education* and *Migration* are the only significant variables that explain variations in income amongst the poor villagers in Umuluwe.[18] As expected, individuals with more years of schooling earn higher incomes than those with fewer years of education. More importantly, the positive sign of the coefficient on migration implies that migrants who take advantage of the globalization process earn higher incomes than non-migrant individuals, earning approximately US$200 more per year than a non-migrant individual.[19] As mentioned previously, the village poor use the opportunities created by globalization to diversify their risks in the agricultural sector.

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[18] Both variables are significant at the 1 per cent level. Gender is significant, and with the correct sign, at the 15 per cent level.

[19] As stated earlier, 100 Naira = US$1 as of 2001 when the survey was undertaken.

Table 5: Descriptive statistics of variables in the OLS model

	AGE	APP	EDUC	INC
Mean	47.5	1.4	4.8	158.78
Median	45.0	0.0	6.0	50
Maximum	90.0	25.0	16.0	5000
Minimum	18.0	0.0	0.0	0.0
Std Dev.	14.7	2.6	4.4	380.55
Skewness	0.22	3.8	0.35	0.082

Table 6: Results from OLS multiple regression

Variable	Coefficient	Std Error	t-Statistics	Prob.
CONSTANT	-182520.42	23176.02	-0.799120	0.4249
GENDER	7284.443	4978.242	1.463256	0.1446
AGE	294.698	913.792	0.323500	0.7473
EDUC	1731.341	681.3380	2.541089	0.0116
APP_TRAIN	721.708	1681.060	0.429317	0.6680
APP_TRAIN*EDUC	44.380	261.110	0.169966	0.8652
PRO-MIGRANT	20742.15	5719.851	3.626344	0.0003
AGESQ	1.121	9.0003	0.124551	0.9010

Notes: Dependent variable: INCOME. Included observations: 272. Adjusted R^2: 0.13.

Because individuals who take advantage of the globalization process earn higher incomes, risk pooling through globalization may be a source of economic growth. By contrast, the traditional strategies for risk-coping amongst poor African farmers – consumption smoothing and diversification of economic activities – are likely to reduce growth (Collier and Gunning, 1999: 78).

—Hypothesis Three: *Globalization promotes both income and gender inequality among the village poor*.

Analysts often extol the distributional impact of globalization, contending that it narrows the income gap between rich and poor worldwide (Dollar and Kraay, 2001: 16). But the distributional impact of globalization *within* poor villages has remained unclear. We explore the distributional impact of globalization on the poor villagers of Umuluwe by comparing the income, educational, and skill levels of the risk-taking and risk-averse individuals in the survey. Table 7 reveals a remarkable heterogeneity in the earning abilities of the migrant and non-migrant individuals. While about 56 per cent of the non-migrant individuals earned less than US$100 per year, only 6 per cent of the migrant individuals earned less than this income level. Conversely, while 26 per cent of the

Table 7: Comparison of annual incomes of migrant and non-migrant individuals

INCOME GROUP (US$/year)	NON-MIGRANT			MIGRANT		
	% of TOTAL sample	% males of TOTAL sample	% females of TOTAL sample	% of TOTAL sample	% males of TOTAL sample	% females of TOTAL sample
Over 500	6	5	1	26	21	5
200–	7	4	3	18	15	3
100–	16	11	5	14	12	1–2
0.01–99.99	56	19	37	6	5	1–2
0	15	2	13	36	25	11
TOTAL	100	41	59	100	78	22

Table 8: Comparison of education levels between the migrant and non-migrant individuals

EDUCATION GROUP (Education level)	NON-MIGRANT			MIGRANT		
	% of TOTAL sample	% males of TOTAL sample	% females of TOTAL sample	% of TOTAL sample	% males of TOTAL sample	% females of TOTAL sample
Tertiary	3	1	2	11	8	3
Senior	13	7	6	31	29	1–2
Junior	3	1	2	—	—	—
Primary	37	19	18	43	34	9
No education	44	13	31	15	7	8
TOTAL	100	41	59	100	78	22

Table 9: Skill differences between migrant and non-migrant individuals

MAJOR OCCUPATION	NON-MIGRANT			MIGRANT		
	% of TOTAL sample	% males for each occupation	% females for each occupation	% of TOTAL sample	% males for each occupation	% females for each occupation
Non-paid occupations	69.8	29	71	36	59.3	40.7
Farmer	66	30.1	69.9	24	44.4	55.6
Student	0.4	0	100	2.7	100	0
Applicant	0	0	0	8	100	0
None	3.4	12.5	87.5	1.3	0	100

Paid occupations	30.2	70	30	64	91.7	8.3
Trade	8.2	52.6	47.4	26.7	90	10
Driver/transportation	1.3	100	0	8	100	0
Business	2.1	100	0	6.7	100	0
Technical occupation	4.2	100	0	13.3	100	0
Construction-related	2.2	100	0	1.3	100	0
Retired	0.9	100	0	0	0	0
Other	11.1	53.8	46.2	8	66.7	33.3
TOTAL	100	41.4	58.6	100	80	20

migrant individuals earned over US$500 per year, less than 6 per cent of the non-individuals earned this amount. The income differences between these two categories of individuals partly reflect differences in their educational attainments.[20]

Table 8 shows that educational attainment varies dramatically between these two categories of individuals, with 44 per cent of the non-migrant individuals reporting no education at all, while only 15 per cent of the migrant individuals reported no education. The higher level of educational attainment among the migrant individuals may be attributed to the fact that globalization spurs investment in human capital and skills. It may well be that the villagers are aware that they cannot possibly thrive in Obigbo without education and skills. This view, though conjectural and speculative, is supported by the superior skill sets of the migrant households. Table 9 shows that there are more migrant individuals in non-farm and skill-intensive occupations like trade, driving/transportation, business, technical occupations, and construction-related occupations. For instance, only 24 per cent of the migrant individuals were engaged in farming, compared to 66 per cent for the non-migrant individuals. This result should not be surprising because most of the jobs created by the large inflow of oil-related FDI in the Port Harcourt area require basic skills and education beyond those that are sufficient for a village economy.

Gender inequality also appears to be one of the by-products of the globalization process in Umuluwe. As shown previously, men are more likely to take advantage of the globalization process than women. Since those who take advantage of the process earn higher incomes than non-migrant individuals, it means that the incomes of Umuluwe women will lag behind those of men. Data from the survey indeed show that this is the

[20] Income remittances from the risk-taking households have also become a significant source of income for Umuluwe. An increasing number of Umuluwe residents now depend on remittances from their relatives in Obigbo. Thus, by creating windows of opportunities for risk-bearing households, globalization helps provide economic vitality to an entire village.

case. For instance, Table 3 shows that the poverty headcount index is higher for women than it is for men. This result suggests that globalization might be exacerbating the feminization of poverty in the village, a phenomenon that has become pervasive in many African countries.

Poverty in Africa is increasingly feminized because of the rising number of female-headed households, which has been estimated at about 45 per cent of all households on the continent. In Umuluwe itself, over half of the women are widowed – a result of the rapid decline in the life expectancy of men during the past 20 years or so. Female-headed households, especially those with very young children, do not have access to productive resources because African culture precludes women from land ownership. Table 2 shows that most of the risk-taking women are aged 40–59, suggesting that these are widowed individuals who had no choice but to move from the village to explore the opportunities provided by the globalization process.

6 Summary, conclusions, and policy recommendations

This paper has shown that globalization creates winners and losers among the poor. Migrant villagers that are willing to take advantage of globalization have benefited from the process, though not as much as one would expect. Conversely, non-migrant villagers fail to take advantage of the globalization process continue to live in abject poverty, as manifested in very high head-count and poverty gap indexes. Village women, in particular, have benefited less from the globalization process. Thus, globalization creates both income and gender inequality among the village poor.

Rather than treating the poor as a homogenous group, policymakers should identify those poor households that are unlikely to benefit from, or even be hurt by, the globalization process. These include women and uneducated individuals. To prevent the widening of the income gap between migrant and non-migrant villagers, policies should be focused on how to promote and stimulate economic activity at the village level. Government and development agencies should focus on projects that favour women because they appear to have been disfavoured by the globalization process. To head off the increasing feminization of poverty in Africa, women should be given a priority in the allocation of economic development resources.

One of the implications of the paper is that the benefits of globalization do not accrue passively and automatically to the poor. The poor must be proactive and adventurous in order to take advantage of the opportunities created by globalization. Also, the fact that poor households have to move from their villages in order to internalize the benefits of globalization implies that the gains from globalization have not been equitably distributed among the various regions of Nigeria. This is very problematic, as the quest for the villagers to reap the benefits of globalization through migration may deprive the village of human capital that is essential for local economic development. The quest to take advantage of the globalization process outside of the village also weakens village institutions by disrupting social interactions and norms. For globalization to benefit the village poor, it must promote economic activities and generate economic opportunities *within* the village.

Finally, withdrawal of government subsidies on social services hurts the village poor and makes them worse off in the globalization process. Poor villagers are unable to invest adequately in resources that enhance their ability to produce because their disposable income has been whittled down now that they are responsible for social services that were previously provided by the government.

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