Preliminary – Comments Welcome

Ghana: Recent Trends in Growth and Poverty Reduction[1]

July 2005

The received wisdom about poverty and growth in Ghana is that poverty is mostly rural and that its economic structure has changed little since independence. As a result, the country's poverty reduction record has been mixed, with growth benefiting primarily urban and export producing regions, leaving behind deep poverty in regions of subsistence agriculture, especially in Northern Ghana.

Recent evidenced indicates, however, that poverty continuous declining, especially in rural areas, with slight increases in urban areas, albeit from much lower levels. This development reflects the fact that the structure of employment in the Ghanaian economy has changed quite significantly, with a shift away from agriculture and toward urban activities linked to trade and other services, as well as to manufacturing and construction. These labor market transitions are even more pronounced among younger workers, reflecting rapid urbanization and rising rates of educational attainment.

While this virtuous cycle of urbanization has lead to progress in poverty reduction, sustaining the progress achieved so far will depend on maintaining the current economic expansion and raising the rate of job creation. The economic expansion of the last three years has been driven by the exceptional combination of record cocoa crops and historically high world market prices for cocoa and gold. Export growth, combined with rising workers remittances from abroad and continuous aid flows, have allowed the urban economy to expand and workers to move from rural to urban areas. This transition is still unfinished, however, as most of the new jobs are being created in the informal sector, meaning lower wages, greater job insecurity and lower productivity. Lower productivity, in turn, means less scope for raising real wages, and is a reminder that removing obstacles for the growth of private sector firms is essential for the sustainability of poverty reduction and the economic expansion.

The rest of this paper elaborates on these points. It begins with a quick overview of changes in Ghana's poverty profile. It considers next the transitions in the labor market, and how these reflect broader changes in the economy. It proceeds then to investigate the factors driving or hindering these labor market transitions. The last section concludes with a summary of the main findings.

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1 The views expressed in the paper of those of the author, and do not represent the views of the World Bank and its Board of Directors.

Changes in the Poverty Profile

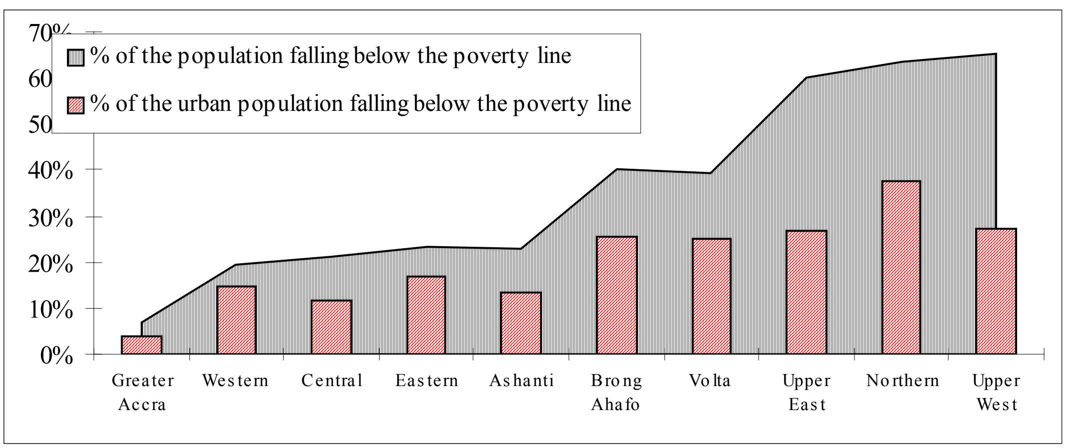
The results of the 2003 Core Welfare Indicator Questionnaire (CWIQ) updates the information on poverty for Ghana, indicating that poverty headcount continues declining, falling by around 7 percentage points between 1997 and 2003 (Table 1).[2] Most of the reduction in poverty is associated with the movement of people from rural to urban areas, with rural areas seeing a decline in poverty rates, while urban poverty rates increased slightly. Poverty remains, nevertheless, predominantly concentrated in the three deprived regions (Northern, Upper West, and Upper East), as well as in the Volta and the Brong Ahafo regions, as urbanization has not changed the regional profile of poverty, and poorer regions report higher urban poverty rates (Figure 1).

Table 1: Distribution of Households by Place of Residence and Economic Status, 1997-2003 (%)

	1997	2003	Change
Place of residence			
Rural	69%	58%	-9%
O/w rural poor	38%	30%	-8%
Urban	31%	42%	9%
O/w urban poor	8%	9%	1%
Overall population living below the poverty line	42%	35%	-7%

Source: Core Welfare Indicator Questionnaire (1997, 2003).

Figure 1: Percentage of the Total and Urban Populations Falling Below the Poverty Line by Region, 2003 (%)

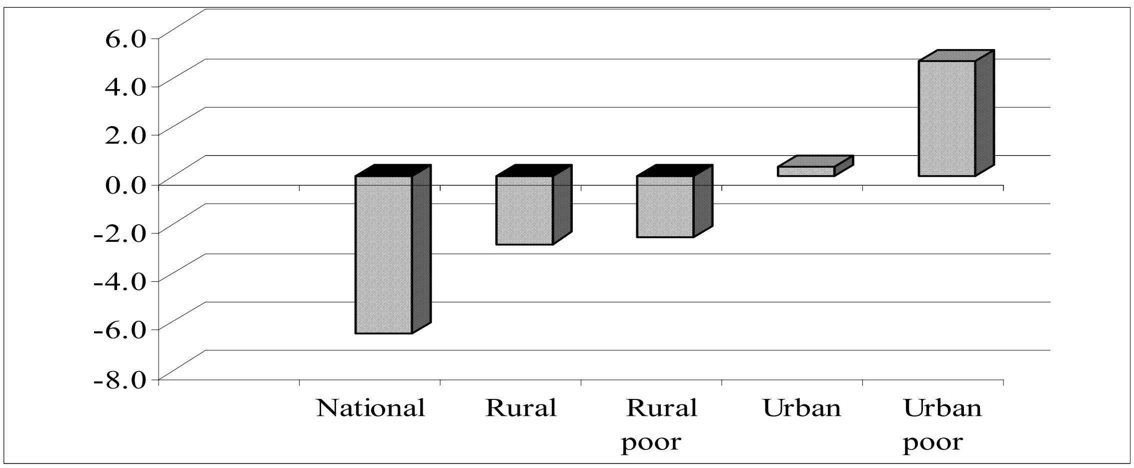


Source: Core Welfare Indicator Questionnaire (2003).

2 Since the CWIQ does not include a full-fledged expenditure module, expenditure levels were calculated by proxy, using assets reported in the CWIQ. This assets-based income proxy is described in Sahan D. and D. Stifle (2003). Also, since a direct poverty line cannot be calculated in this case, the alternatively was to pool the two distributions and then set arbitrarily a line at a certain percentage of the value of the ranked asset index computed. The poverty line was set at the 42th percentile. This choice of the 42th percentile was to match previous studies on trends in consumption poverty using GLSS data. This choice is also consistent with the World Bank's poverty line of one PPP dollar per day or 40th percentile.

Urbanization has not meant that the poor are necessarily moving out of agriculture: between 1997 and 2003 the share of the urban poor engaged in agriculture rose around 4 percent, partially offsetting the decline in the share of poor households engaged in agriculture in rural areas (Figure 2). As a result, while the overall share of households engaged in agriculture as their main economic activity declined between 1997 and 2003 by around 6.5 percent, the decline among poor households was of under 3 percent. Moving out of poverty appears therefore to be more closely associated with moving out of agriculture, as agriculture remains the activity that households fall back to when no other employment option exists.

Figure 2: Percentage Change of Employment in Agriculture by Place of Residence and Economic Status, 1997-2003 (%)



Source: Core Welfare Indicator Questionnaire (1997, 2003).

Urbanization appears to have somewhat worsened, however, the plight of women, since female-headed households are now over-represented among the urban poor, while, surprisingly, being under-represented among the rural poor (Table 3). With around one third of all the households headed by women, there are proportionally fewer female-headed households living in poverty in rural areas than in urban areas. The shift from rural to urban poverty among female-headed households is a change from earlier surveys, when female-headed households accounted for most of the food crop farmers, a majority of who were poor. The shift might be explained by the factors driving urbanization during this period and the position that female-headed households now hold in the labor market. Female heads of households are over-represented among the unemployed and among non-agriculture self-employed without employees. Indeed, women appear to account for the largest share of those working in retail and wholesale trade, many of whom are either casual employees or unpaid workers (Table 4).

Table 3: Distribution of Households by Gender of the Household Head, Place of Residence and Economic Status, 2003 (%)

	Male head	Female head
Total	69.6	30.4
Place of residence		
Rural	72.4	27.6
Rural poor	87.8	12.2
Urban	66.2	33.8
Urban poor	66.4	33.6
Socio-economic group		
Public	81.9	18.1
Private formal	86.1	13.9
Private informal	68.4	31.6
Self-employed agriculture	81.5	18.5
Self-employed non agriculture	48.8	51.2
Unemployed	60.1	39.9
Other	85.8	14.2

Source: Core Welfare Indicator Questionnaire (2003).

Table 4: Distribution of Working Population by Work Status, Gender and Branch of Activity, 2003 (%)

	Self-employed with employees		Self-employed without employees		Unpaid worker		Casual employee		Total	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
Agriculture/Forestry/ Mining	35.8	27.6	67.7	42.2	84.1	75.5	27.1	24.2	64.2	44.5
Manufacturing	10.8	11.1	5.0	5.5	1.2	1.6	6.9	5.6	5.2	5.3
Electricity/Gas/Water	16.2	0.3	5.4	0.3	6.0	3.6	19.5	5.8	7.1	0.8
Construction	5.6	0.7	3.3	0.2	0.7	0.2	11.1	1.5	3.8	0.3
Wholesale/Retail Trade	10.0	36.2	9.5	43.6	4.4	13.8	7.3	33.5	9.0	40.2
Other	27.1	24.8	12.4	8.4	4.3	5.5	39.3	30.8	14.5	9.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Core Welfare Indicator Questionnaire (2003).
1) Includes construction, transport, communication, storage, financial and insurance services, community and social services.

Urbanization appears to be associated also with one of the most worrisome trends captured in the 2003 CWIQ survey: the worsening of nutrition indicators among urban children. The survey indicates increases in the percentage of children stunted, wasted and underweight in every region of the country, except in the three Northern regions, where feeding programs have allowed the percentage of children underweight and stunted to either decline or remain stable (Table 5).[3] These results are consistent with information from the 2003 Demographic and Health Survey, which reports that poor nutrition is one of the underlying factors behind the apparent rise in infant mortality.

3 The survey measured and weighed each child in the sample. In case where the child was not present, surveyors would come back to weigh and measure them. Sick children were not weighed or measured, if the parents or guardian stated so. The results were analyzed using information from the Expanded Program for Immunization (EPI), with 2000 reference scales.

Table 5: Changes in Nutritional Indicators by Region, 1997-2003 (% change)

	Stunted	Wasted	Underweight
Total	4.4	12.8	9.8
Western	14.4	5.0	14.5
Central	1.2	10.6	8
Greater Accra	18.1	22.8	29.6
Volta	4.9	9.2	8.4
Eastern	6.2	11.1	10.4
Ashanti	3.7	26.5	22.5
Brong Ahafo	7.1	6.3	5.1
Northern	0.1	3.0	-7.9
Upper East	-18.2	10.7	-16.2
Upper West	-19.3	1.5	-17.6

Source: Core Welfare Indicator Questionnaire (1997, 2003).

These results are consistent with findings in the 2003 CWIQ, which reports high participation rates in government nutrition and health programs among the urban poor (Table 6). The issue of child malnutrition is obviously of great importance. While poverty is an important underlying determinant of malnutrition, malnutrition is also an important underlying determinant to poverty and growth. Children who are chronically malnourished or stunted in their first two years of life rarely meet their potential for growth and are permanently stunted as adults. There are a number of consequences from these effects of malnutrition, including reduced levels of productivity and earned income.

Table 6: Nutritional Indicators and Participation in Government Programs by Place of Residence and Economic Status, 2003 (%)

		Program Participation				
	Under Weight	**Nutrition**	**Weigh-in**	**Polio**	**Vitamin A**	**Measles**
Total	23.3	76.9	93.0	93.0	92.0	89.0
Place of residence						
Rural	21.8	71.8	90.5	92.5	91.5	88.4
Rural poor	21.3	51.6	82.1	91.0	90.7	87.7
Urban	25.9	86.2	97.6	94.1	93.0	90.2
Urban poor	26.5	76.1	94.4	93.5	92.6	90.5

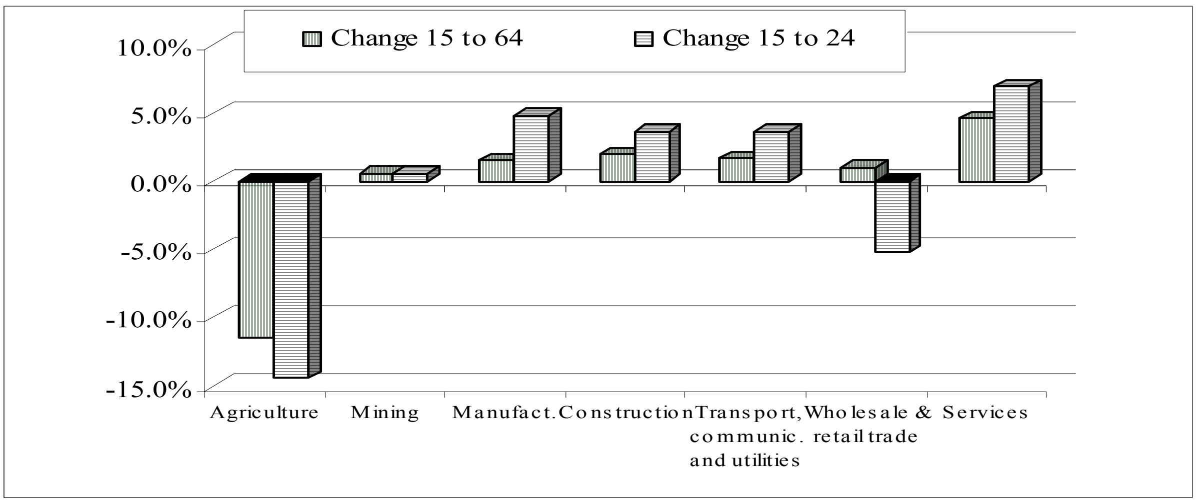
Source: Core Welfare Indicator Questionnaire (2003).

Labor Market Transitions

The results of the previous section indicate that poverty in Ghana continues on a declining trend, reflecting the rapid urbanization and the associated transitions in the labor market. This section endeavors to understand the direction of these transitions and their importance for growth and poverty reduction. The main finding is that during the 1997-2003 period there was a shift in employment out of agriculture, matched by a transition from self-employment to private informal employment. This shift toward private informal jobs was particularly pronounced among younger workers, with private informal employment rising both in activities where there was a decline in private formal employment, such as construction and transport, and in activities that previously had relied on self-employment, such agriculture and services.

The main labor market transition between 1997 and 2003 was the shift in employment out of agriculture toward urban activities, ranging from manufacturing, construction and services in general. This shift was even more pronounced among younger workers and new labor market entrants, with an even sharper shift out of agriculture and increased employment in activities related to manufacturing and services other than retail and wholesale trade (Figure 3).

Figure 3: Percentage Change in Employment by Economic Activity, Workers 15 to 64 and 15 to 24 years old, 1997-2003 (%)



Source: Core Welfare Indicator Questionnaire (1997, 2003).

The rural-urban differences in this shift in employment provide further insights into these labor market transitions. As expected, the shift out of agriculture appears related primarily to workers moving out of rural areas, while the transition out of wholesale and retail trading activities is more pronounced in urban areas (Table 6). Also, the transition out of agriculture is associated with an increase in educational attainment among labor market participants in that branch of economic activity, albeit from very low levels. These changes in the levels of educational attainment of workers in any given activity are captured by Table 7, which measures the change between 1997 and 2003 in the share of workers with a given level of educational attainment. The transition into urban activities is associated primarily with workers with lower educational attainment moving into these activities (as indicated by the positive sign). The exceptions in this transition into urban activities are the increase in the share of workers with senior secondary and vocational education in wholesale and retail trade, and in the share of workers with tertiary education in other services and in construction.

Table 6: Distribution of Heads of Household by Place of Residence, Economic Status and Branch of Economic Activity, 1997-2003 (%)

	Agriculture and Fishing	Manufacturing, Mining and Construction	Wholesale and Retain Trade	Other sectors
1997 National	51.5	8.0	24.0	16.5
Rural	68.9	6.0	15.5	9.6
Rural poor	76.7	4.7	14.2	4.5
Urban	15.0	12.1	42.0	30.8
Urban poor	29.2	9.8	43.0	17.9
2003 National	45.0	11.2	22.3	21.5
Rural	66.1	8.8	14.6	10.5
Rural poor	74.2	9.1	11.1	5.6
Urban	15.4	14.4	32.6	37.6
Urban poor	33.9	13.2	30.8	22.1

Source: Core Welfare Indicator Questionnaire (1997, 2003).

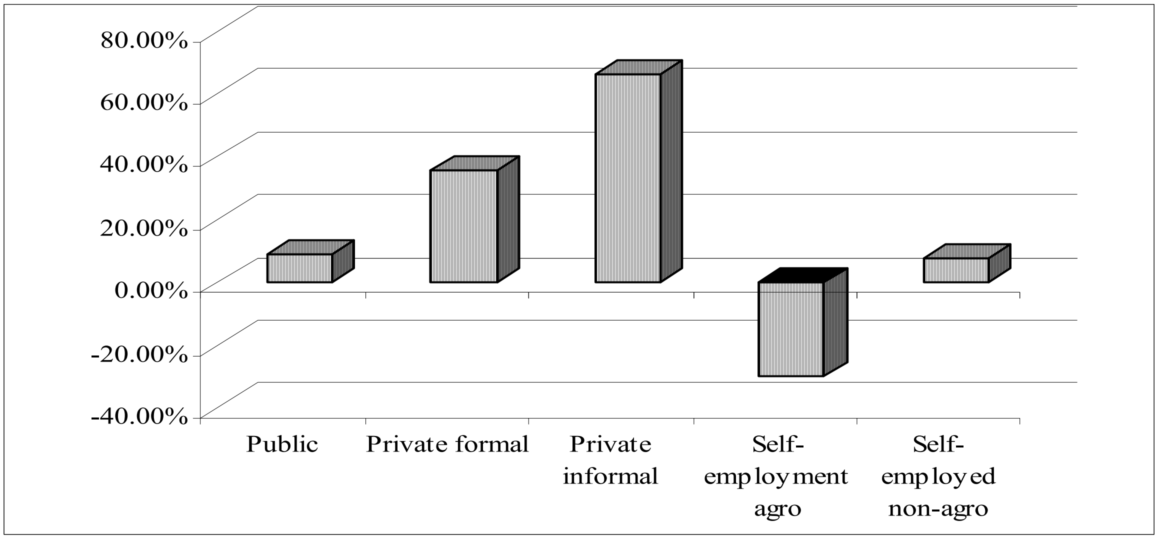
Table 7: Changes in Educational Attainment by Branch of Economic Activity, 1997-2003 (%)

	Agriculture	*Mining*	*Manufact.*	*Construct ion*	*Transport, Comm. and Utilities*	*Wholesale and retail trade*	*Services*
None	-6.5	0.5	0.5	1.5	0.9	3.1	0.1
Primary	-11.6	0.8	2.2	2	1.9	1.6	3.2
Junior Secondary	-10.6	0.4	2.2	2	1.9	0	4.2
Senior Secondary	-8.8	1	1.6	2.6	2.2	-3.1	4.5
Vocational and Technical	-2.8	0.8	-0.3	1.6	0.8	-1.8	1.9
Tertiary	-0.8	3	0.1	-2.3	2.2	1.2	-3.3

Source: Core Welfare Indicator Questionnaire (1997, 2003).

The shift out of agriculture was matched by a transition from self-employment to private informal jobs (Figure 4). The factors driving this transition into private informal jobs are not uniform across economic activities, however. In absolute numbers the transition into private informal jobs is driven by the workers leaving self employment in agriculture. There is, nevertheless, also a transition into private informal employment from existing workers and new entrants into activities where there was a decline in formal employment (public and private), such as mining, transport and construction, although mining activities also saw a significant increase in self-employment (Table 8).

Figure 4: Changes in the Status of Employment by Activity, 1997-2003 (%)



Source: Core Welfare Indicator Questionnaire (1997, 2003).

Table 8: Changes in Status of Employment by Branch of Economic Activity, 1997-2003 (%)

	Agriculture	*Mining*	*Manuf.*	*Construction*	*Transp.*	*Whole sale and retail trade*	*Services*	*Total*
Public	0.2	-2.9	0.7	-3.2	-11.1	0.1	-6.9	0.8
Private Formal	1.3	-35.3	0.3	-17.8	-3.6	1.7	3.2	2.4
Private Informal	1.1	7.5	20.3	13.6	10.9	2.3	10.9	6.4
Self-employed Agriculture	-2.6	0.0	0.0	0.0	0.0	0.0	0.0	-12.2
Self-employed Non-Agriculture	0.0	30.7	-21.3	7.4	3.8	-4.2	-7.2	2.7

Source: Core Welfare Indicator Questionnaire (1997, 2003).

This transition into private informal jobs from either self employment in agriculture, or formal employment in other activities, was particularly pronounced among younger workers (Table 9). As a result, while the share of private informal employment among all workers more than tripled between 1997 and 2003, rising from just over 3 percent to almost 10 percent, among younger the increase was seven-fold, rising from 3 percent to over 27 percent.

Table 9: Changes in Status of Employment for Young Workers by Branch of Economic Activity, 1997-2003 (%)

	Agriculture	*Mining*	*Manuf.*	*Construction*	*Transp.*	*Whole sale and retail trade*	*Services*	*Total*
Public	0.0	4.9	1.3	0.9	-0.7	0.3	-0.3	0.9
Private Formal	0.8	-41.0	0.1	-23.3	-9.1	1.6	5.2	3.0
Private Informal	2.7	24.4	49.1	26.6	24.0	6.7	32.9	21.2
Self-employed Agriculture	-3.5	0.0	0.0	0.0	0.0	0.0	0.0	-15.4
Self-employed Non-Agriculture	0.0	11.7	-50.4	-4.3	-14.2	-8.6	-37.8	-9.7

Source: Core Welfare Indicator Questionnaire (1997, 2003).

What is driving these labor market transitions?

The evidence presented up until now indicates that the structure of employment in the Ghanaian economy is changing quite significantly, with a shift in employment out of agriculture and other low value added activities, and a transition in the status of employment away from self employment. However, the labor market transitions are leading to informal employment, raising concerns about the quality of the jobs being created and the long term sustainability of these labor market transitions. The reasons for concern are as follows. The evidence indicates that employment creation has been driven by increases in labor demand factors, with the performance of exports leading to the expansion of the internal market, and by improvements in educational attainment, allowing workers to seek better economic opportunities in urban areas. Younger workers, however, appear to be stifled in their labor market transition, having to settle for employment in the informal sector, with lower wages, greater job insecurity, and lower productivity. This section aims, therefore, at measuring the relative importance of these factors and, in doing so, understand some of the binding constraints for shared growth.

To measure what is driving the expansion of labor demand, consider the relative importance of exports and domestic demand in job creation. We decompose changes in employment into changes in domestic demand (apparent consumption), exports, imports and average labor productivity. The decomposition is based on the following accounting identity:[4]

[4] A more precise definition is that this formula is based on two accounting identities, where we substitute one identity into the other, differentiate them with respect to time and disregard second order interaction terms. While this approach is a useful tool for the determination of the relative importance of major factors behind changes in employment, there are two shortcomings. One shortcoming is that it assumes fixed input-output coefficients. This, however, should not be a significant shortcoming over a relatively short time horizon, where one may expect that changes in the production coefficients were much less significant then other factors. Another shortcoming is that this approach lacks any behavioral content, failing to capture possible interdependence between the accounting components. For instance, productivity and demand for goods are related, as gains in productivity tend to raise domestic consumption and exports. Also, increases in imports force firms to act more competitively and rationalize production processes, which results in productivity gains. The decomposition formula will explain a fall in employment by

$$r_E = r_D(D/Q) + r_X(X/Q) - r_M(M/Q) - r_P$$

where r represents, respectively, the rate of change of employment (E), domestic demand (D), exports (X), imports (M), and productivity (P) – Q represents total output.

This accounting decomposition is applied to aggregate data for 1997 and 2003, and the results are summarized Table 10. The results indicate that, on the aggregate, demand shocks outweighed productivity shocks during this period. Within the aggregate demand shocks, the job-creating effect of exports and increases in domestic demand were much higher than the job-displacing impact of imports and rising productivity. In Ghana's small, open economy, the contribution of exports to employment growth was critical to generate new jobs, allowing the economy to sustain growth in domestic demand and helping finance part of the growth in imports, which in turn was key for higher productivity growth.

Table 10: Decomposition of Employment Change, 1997-2003 (%)

Employment change (1=2+6)	Aggregate demand (2=3+4+5))	Domestic consumption (3)	Exports (4)	Imports (5)	Productivity (6)
3.9	21.7	13.8	36.1	-19.4	-17.7

Source: Bank of Ghana; Core Welfare Indicator Questionnaire (1997, 2003); Author's calculations.

To measure the impact of improvements in the educational attainment of Ghanaian workers on employment prospects, consider estimates of employment elasticity for different age groups with respect to output in different branches of economic activity (Table 11). We find that more capital intensive activities (e.g., mining, transport, communications and utilities) have higher employment elasticity, while lower value added activities, such as agriculture and wholesale and retail sales present lower or even negative elasticities, meaning that increased output lead to lower employment. More importantly, the size of the employment elasticities is larger for younger workers, which in this case is seen as a proxy for workers with higher educational attainment.

Table 11: Employment Elasticity With Respect to Output By Branch of Economic Activity, 1997-2003

	All Employment	Youth Employment
Agriculture	-0.70	-0.52
Mining	5.22	7.65
Manufacturing	0.82	1.53
Construction	1.99	3.18
Transport, Communications and Utilities	1.80	3.40
Wholesale/retail trade	-0.14	-1.61
Services	0.89	1.43

Source: Coulombe, Lavanna and McKay (2005).

increases in productivity without recognizing that those gains might have been resulted from import competition.

However, the expansion in labor demand and the improvements in educational attainment have not translated into better jobs for younger workers. This point is made clear in the work by Teal (2005), who draws on a 1992-2003 sample of manufacturing firms to highlight three facts about labor markets outcomes in Ghana:

- **Younger and less educated workers tend to be employed in smaller firms, although the difference in age is more pronounced than in education**. Workers in micro firms (10 employees or less) are on average 10 years younger than workers in very large firms (200 employees or more), with the difference in age declining as the size of the firms increase. This difference in age between smaller and larger firms is not matched however by a difference in the level of education, as workers in micro firms have on average only two years less of education -- 9.1 years, as opposed to 11.1 years – than workers in larger firms.[5] Younger workers appear to face barriers in the transition from smaller to larger firms.

- **Workers in larger firms tend to earn more, even after taking into consideration their age, education and job tenure**.[6] In round numbers, wages double from US$25 per month to US$50 per month as one move from firms with 5 employees to firms with 150, with the rise being most rapid over the size range from 5 to 50.

- **Unionized workers earn over 60 percent more than non-unionized workers, even after controlling for gender, age, education and job tenure**, indicating a wage premia for unions in Ghana that are as high, or higher, than the average union effects found for South Africa.

Although Teal focuses primarily on how these facts reflect the slow growth in manufacturing employment, in part because the sample of manufacturing firms does not capture the increase in informal sector employment during this period, these findings also underscore that the main restriction facing Ghana's relative dynamic economy. These binding constraints appear to be the barriers in the transition from informal to formal employment, as captured by information on employment and wages in firms of different size.

These barriers are quantified in the World Bank's 'Doing Business Report', which ranks countries according to five obstacles for business growth: the costs of starting a new business, the hiring and firing costs, the costs of enforcing contracts, the costs in the access to credit, and the cost of closing businesses. While Ghana ranks well in contract enforcement, with the introduction of case management in courts, business registration procedures (averaging 85 days and about US$ 250, respectively) are still long and costly, discouraging new entrepreneurs from formally registering business. Also,

5 The classification of firms by number of employees is as follows: micro firms employ between 1 and 10 employees; small firms employ between 11 and 59; medium firms employ between 60 and 99 employees; large firms employ between 100 and 199; and very large firms employ more than 200 employees.
6 Wages are calculated for an average worker over the period from 1992 to 2003.

access to credit is hampered by the requirement that loans be collateralized and the lengthy and costly procedures for registering the collateral.

Conclusions

This paper draws on recent evidence to indicate significant changes in Ghana's poverty and growth trends. The main findings are as follows:

- **Poverty in Ghana continues declining, with the poverty headcount falling by around 7 percentage points between 1997 and 2003**. Most of the reduction in poverty is associated with the movement of people from rural to urban areas, with rural areas seeing a decline in poverty rates, while urban poverty rates increased slightly.

- **Between 1997 and 2003, there was also a shift in employment out of agriculture toward urban activities, ranging from manufacturing, construction and services in general**. This shift was even more pronounced among younger workers (between 15 and 24 years of age), with an even sharper shift out of agriculture and increased employment in activities related to manufacturing and services other than retail and wholesale trade.

- **The shift in employment out of agriculture was matched by a transition from self-employment to private informal employment**. This shift toward private informal jobs was particularly pronounced among younger workers, occurring both in activities where there was a decline in private formal employment, such as construction and transport, and in activities that previously had relied on self-employment, such agriculture and services. As a result, while the share of private informal employment among all workers more than tripled between 1997 and 2003, rising from just over 3 percent to almost 10 percent, among younger the increase was seven-fold, rising from 3 percent to over 27 percent.

- **The main factors driving these labor market transitions are the expansion of labor demand and the improvements in educational attainment.** These labor market transitions are incomplete, however, as younger workers end up settling for jobs in the informal sector, with lower pay and lower productivity. Lower productivity, in turn, means less scope for sustaining poverty reduction and the economic expansion. Sustaining the recent trends in growth and poverty reduction will require, therefore, actions to facilitate private sector development, reducing obstacles for firm to grow and move up the value added ladder.

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