PRIVATE RETURNS TO EDUCATION IN SWEDD COUNTRIES

A growing Function of education level

SWEDD
(Sahel Women Empowerment & Demographic Dividend)
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Development is at the heart of economic debates. Among the essential parameters for its implementation is human capital, which is considered as an explanatory factor for economic growth and the improvement of economic and social well-being. The contribution of human capital to economic growth depends on its quality and quantity.

The development of human capital needed for economic take-off seems to be problematic as the education sector, the main component of human capital, seems to be in difficulty. The resources allocated to education and training by SWEDD countries do not allow them to benefit from the positive externalities associated with human capital in the long term. The gross literacy rate of SWEDD countries in 2013 varies between 70 and 101%.

In addition to the difficulties of enlisting everyone in the education system, the quality and inadequacy of the teaching market is problematic. This maintains the high level of the unemployment rate that affects more graduates in some countries and high school graduates in others. Gender inequalities, which are still relevant today, illustrate the vulnerability of women in the education sector and in the labor market.

The SWEDD states have initiated several policies to improve the quality of the education sector in order to make it more profitable, but the deficit of external and internal resources, the predominance of the informal sector in the formal sector and that of the urban environment on the rural limit the scope.

The job offer in the formal sector is insufficient, so the difficulties associated with socio-occupational integration represent a mass problem, which affects young graduates. However, the positive impact of education on growth is indisputable. According to estimates by Komenan (1987), in Côte d’Ivoire, an additional year of schooling can increase an employee’s income by more than 10%. It is in this context that it seems important to analyze the private returns to education. Does education and education play a role in improving economic well-being at the individual level?

The purpose of this report is to highlight the situation in which the education system is located and the resulting profitability for individuals in terms of income.

SWEDD member countries are among the poorest and most fragile countries in the world. SWEDD countries are characterized by per capita GDP in 2014 that fluctuate between $ 1526 USD for Cote d’Ivoire and $ 482 USD for Niger. The primary sector covers most of the economic activity. In 2014, its contribution to the economic activity of each country varies between 40 and 70% of total GDP. Ivory Coast is the only country where all sectors contribute significantly to economic activity. In terms of inflation, Burkina Faso recorded in 2014 an inflation rate of -0.26% while Mauritania has an inflation rate of around 3.54%. Mauritania also had the highest debt ratio in the region at 77% of GDP in 2014. All the countries in the zone have deficient current account balances except the Ivory Coast.

In general, the SWEDD zone faces several factors of fragility and instability, ranging from conflicts, droughts and recurring floods, to vulnerability to external shocks (such as financial crises, the food price crisis, rising oil prices, etc.) that weaken its macroeconomic framework.

Table 1: Economic Indicators of SWEDD Countries, 2014

<table>
<thead>
<tr>
<th>Countries</th>
<th>GDP per Capita (USD)</th>
<th>Inflation Rate in %</th>
<th>Public Debt as % of GDP</th>
<th>Value added (annual growth) in % of sectors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Agriculture</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>708</td>
<td>-0,3</td>
<td>30,618</td>
<td>4,9</td>
</tr>
<tr>
<td>Cote d’Ivoire</td>
<td>1384,9</td>
<td>0,45</td>
<td>38</td>
<td>0,8</td>
</tr>
<tr>
<td>Mali</td>
<td>913</td>
<td>0,9</td>
<td>27,277</td>
<td>2,1</td>
</tr>
<tr>
<td>Mauritania</td>
<td>1275</td>
<td>3,8</td>
<td>77</td>
<td>3,5</td>
</tr>
<tr>
<td>Niger</td>
<td>482</td>
<td>-0,9</td>
<td>31,918</td>
<td>3,3</td>
</tr>
<tr>
<td>Chad</td>
<td>967,1</td>
<td>1,7</td>
<td>39,233</td>
<td>-6,0</td>
</tr>
</tbody>
</table>

Source: World Bank
Importance of human development in relation to the education system

In terms of human development SWEDD countries are among the last in the ranking. They are lagging far behind in terms of human capital, education and health. The sustained increase in the population, which is not followed by a reduction in income inequalities and a reduction in poverty, makes the process of achieving human development problematic. Indeed, the population of SWEDD countries is mostly young and lacks training and health. The small share of the population involved in economic growth has not benefited from skilled training.

Health expenditure in SWEDD countries is less than 15% of GDP. Rural residents are the most affected. They are faced with a lack of permanent health care provision. The low involvement of women in the education sector in relation to men promotes exclusion and hinders human development in SWEDD countries, with more than 40% of the total population being female. Economic dependence also plays on human capital. Indeed, the rate of young people under the age of 15 who depend on the working-age population of the area is 92%.

Niger is the least developed country in terms of human development. He has the last place in the ranking. Mauritania has made a lot of efforts in terms of human development, its HDI has increased from 0.424 in 2004 to 0.487 in 2014. Unlike Côte d’Ivoire which ended in 172nd place in 2014 against 168th place in 2012. This can be explained by the fallout from the 2011 political crisis.

Educational systems of SWEDD countries

With regard to the education-training-literacy component, Mauritania recorded the highest literacy rate for this age group, with 66% for girls compared to 72% for boys. On the other hand, Niger recorded the lowest rate, with 23% for girls and 52% for boys. This is due to poverty, income inequality and political crises. They have instituted policies such as literacy for all to facilitate access to education and to achieve the Millennium Development Goals.

A comparative analysis of the gross enrollment rates for 2006 and 2013 shows a rather positive evolution overall. Indeed, only Mali has not made enormous progress in terms of schooling. Chad achieved the total enrollment of its population in 2014, rising from 71.8% in 2006 to 101.4% in 2013. This is the result of the government’s...
efforts to improve human development. However, apart from these good results, it hides other problems such as gender inequalities in this school enrollment rate and the predominance of schooling in the urban environment. There are significant inequities in funding and resources allocated in different areas.

The educational system of SWEDD countries suffers from inadequate and inefficient quality of education. Measuring the quality of education seems to be difficult, but some parameters make it possible to judge the quality or otherwise of education. Despite the increase in the gross enrollment rate, the rate of children who succeed in completing primary education with the skills that go with still remains very low. The results obtained from household surveys conducted in thirteen countries establish about 66% of the literacy rate of the population aged 22 to 44 after six years of study, some countries such as Burkina Faso, Niger, where Chad does not even reach 50% (UNESCO, 2011).

**Chart 1: Evolution of public expenditure on education as a % of GDP in SWEDD countries from 2000 to 2014**

In SWEDD countries, governments fund the bulk of education. The insufficiency of the allocated resources is decried and has the corollary of classes overstuffed with teachers understaffed and often poorly equipped by adequate training.

Niger, Cote d'Ivoire and Burkina Faso are the countries that invest the most in education in 2014. However, education expenditure for each country in the zone does not exceed 6%, thus showing the low level of investment even if there is an improvement. The following chart tells us about the quality of education at the primary level in relation to human resources. There is a shortage of teachers in the primary cycle. Pupil-to-teacher ratios are often lower in the private sector, which generally has better teacher ratios.

**Disparities in returns to education by gender**

In addition, it is important to note that gender disparities persist at all levels of the education system to the labor market. Indeed, the chances of succeeding in school are not the same for both sexes. Already access to education for these is problematic. The literacy rate for girls aged 15 to 24 is only 50%, except for Mauritania, with a rate of 66%.

The drop-out rate for girls at primary level is high. It is important to reduce differences in academic performance between boys and girls especially if girls are known to excel at school compared to boys. Recently several policies aimed at gender equality in SWEDD countries have emerged, with the support of major institutions such as the UN, the World Bank and so on.

**Job crisis - unemployment in SWEDD countries**

SWEDD countries are all facing an employment crisis and chronic unemployment. The labor market can not manage the job demand. Indeed, the number of leavers in the education sector exceeds the available job opportunities. In addition some areas are much more privileged than
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The number of unemployed youth in SWEDD countries continues to grow. The informal sector covers most of the labor market with more than 50%, which is characterized by precarious working conditions, low income, lack of social protection. Hence, unemployment is more prevalent in urban areas than in rural areas where most of the population works in the informal sector. Moreover, unemployment in SWEDD countries is not cyclical but structural. Indeed, a lack of industrialization of the countries, the inadequacy of the training and the lack of the spirit of entrepreneurship among the young people aggravate the unemployment.

In Côte d’Ivoire, the proportion of the tertiary workforce as a percentage of the working-age population is 65.9% compared with 44.8% for secondary school graduates (source: ENSETE 2013). The external efficiency of the education system is called into question because of low rates of integration of graduates into the labor market.

**Private returns to education: Plus-Values and Correlations**

The analysis of the data used shows that there is no relationship between age, sex, employed assets and self-employment and their income. Capital gains are not significant in these cases. On the other hand, between the size of the household, the level of education and the income, there is a link (less than 5% value); but this link is weak in both cases (less than 2%).

**Correlation Table**

<table>
<thead>
<tr>
<th>Earnings</th>
<th>Age</th>
<th>Female Sex</th>
<th>Working Person</th>
<th>Self Employment</th>
<th>Household Size</th>
<th>Level of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0000</td>
<td>0.0347</td>
<td>-0.0146</td>
<td>-0.0053</td>
<td>-0.0002</td>
<td>0.9933</td>
<td>0.1688</td>
</tr>
<tr>
<td>0.0000</td>
<td>1.0000</td>
<td>-0.3723</td>
<td>-0.2121</td>
<td>-0.2331</td>
<td>0.1236</td>
<td>0.0190</td>
</tr>
<tr>
<td>0.0000</td>
<td>0.0000</td>
<td>0.5758</td>
<td>0.8410</td>
<td>0.9355</td>
<td>0.1622</td>
<td>0.4639</td>
</tr>
<tr>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
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<td>0.0000</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Among the explanatory variables, there is no relationship between self-employment, household size, level of education and age. On the other hand, a weak link exists between the other variables taken two by two.

An examination of the table below shows that sex is a very important factor in private returns to education as women have lower incomes than men. Women’s income is 3.4 times less than that of men. Age also discriminates in men as well as women. Younger people are much more likely to have better incomes than seniors.

Occupied inactive persons have a higher income propensity once higher than those who report working on their own. However, those who are in self-employment have an income of more than six (6) times higher than that of the dependents.

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We also found that individuals with large households are 0.28 times less likely to have better incomes than those with large households as might be expected.

**Table 6: Private returns on education by year**

<table>
<thead>
<tr>
<th>Rendement</th>
<th>SWEDD (2008-2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>-10.9%</td>
</tr>
<tr>
<td>Secondary1</td>
<td>-7.3%</td>
</tr>
<tr>
<td>Secondary 2</td>
<td>37.7%</td>
</tr>
<tr>
<td>University</td>
<td>28.4%</td>
</tr>
</tbody>
</table>

Source: Our Calculations
Recommandations

This study has shown that there is a difference in earnings between men and women. While in the 1990s this gain was in favor of women, it is in this study in favor of men. According to the work of the OECD, it was found that women generally have lower financial returns than men. These results confirm those of this study. During the study period (2008-2014), income is strongly influenced by household size. Its gain is in favor of small households.

In the study conducted in Senegal on the private return on education, the latter was decreasing in 2005. In the case of this study, it evolves into wax teeth: decreasing to secondary 1 and increasing from secondary 2. Private returns for individuals without a level are increasing while they have declined in primary and secondary 1 over the period. As for private returns in secondary 2 and higher, however, they increased during the study period (2008-2014).

As the informal sector is highly developed in the SWEDD countries, the income earned by the jobless is explained by this informal system. The informal sector covers most of the labor market with more than 50%, including the primary sector. Although this job is marked by the precarious working conditions, absence of social protection, it occupies a large proportion of the assets of the area. In Chad, 90% of jobs are in the informal sector compared to only 10% in the formal sector (2011).

The following recommendations stem from this study:

- Encourage households to invest in higher education to increase the cost recovery rate: it is from high school that the returns are high. This result led us to formulate this recommendation;
- Make formal all the activities including those of the informal sector: this measure would stabilize the activities of the informal sector since this sector abounds most of the active population of the zone;
- Make equal-gender pay for men equal: this recommendation is based on the fact that the gain in returns is in favor of men.