



DEPENDENCY IN SWEDD COUNTRIES

A surplus period of 36 years on average



SWEDD
(Sahel Women Empowerment & Demographic Dividend)

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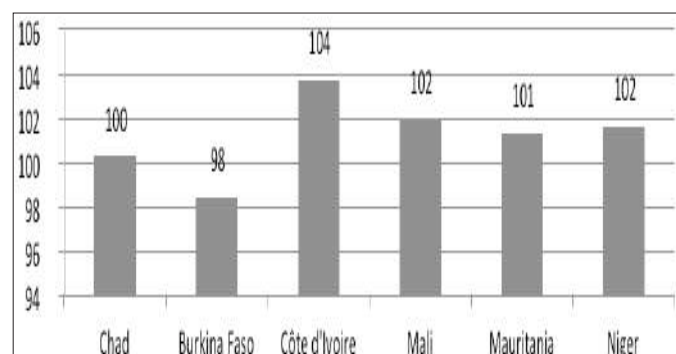
A surplus period of 36 years on average

The SWEDD zone covers five (05) countries in West Africa (Burkina Faso, Côte d'Ivoire, Mali, Mauritania and Niger) and one country in Central Africa (Chad) covering 5,419,800 km² with an individual area of over 1 000 000 km², excluding Burkina Faso (274 400 km²) and Côte d'Ivoire (322 462 km²).



The demographic context of SWEDD countries is characterized by a slightly larger male population (51%) than women (49%). The SWEDD country-to-country sex ratio at birth showing the number of males per 100 females is given in the graph below.

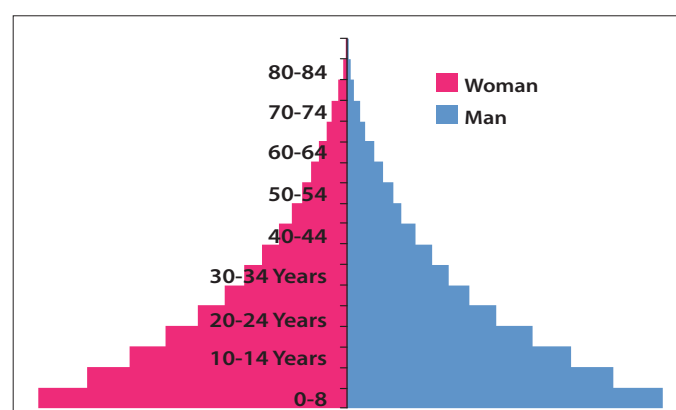
Graph 1 Sex Ratio at birth in SWEDD zone



Source: CREG/CREFAT, from WB database

The SWEDD zone has a very broad age pyramid at the base, a sign of high representativeness of the younger age groups. In 2014, the population under the age of «15» represents 43% of the total population while the proportion of people aged «65 years and over» is only 3%. These statistics reveal that the majority of the population consists of the age group «15-64 years». This highlights the preponderance of the working-age population, which represents a strong potential for the capture of the Demographic Dividend.

Graph 2 : Age Pyramid in SWEDD zone in 2014



Source: Author calculation, from UN data. Population

The SWEDD zone, composed of Sahelian countries with the exception of Côte d'Ivoire has a semi-arid warm climate with alternating dry / winter season with relatively regular rainy seasons except for the parts almost entirely penetrated by the Sahara. Administratively, countries in the SWEDD zone do not have the same types of territorial divisions (13 regions in Burkina Faso, 14 districts in Côte d'Ivoire, 8 regions and 1 district in Mali, 12 wilaya and 1 district in Mauritania, 8 regions in Niger and 23 regions in Chad). Faithful to the very diverse nature of the settlement in Africa, the SWEDD zone knows a strong ethnic melting pot with more than one hundred ethnic groups.

Furthermore, the economic dependence of sub-Saharan African populations has become endemic and deserves special attention. In fact, this situation is reflected in a low gross national income per capita (\$ 660 in Mali, \$ 2410 in Mauritania, \$ 720 in Niger and \$ 1220 in Chad), with a significant negative impact on household consumption.

The dependency ratio defined by the inactive population on the labor force is given in the following table.

Table 1 : Dependency Ratio¹ in SWEDD countries

Countries	Dependency Ratio
Burkina Faso	93
Côte d'Ivoire	84
Mali	100
Mauritanie	77
Niger	113
Tchad	102

Source: Author calculation, from UN Population Data

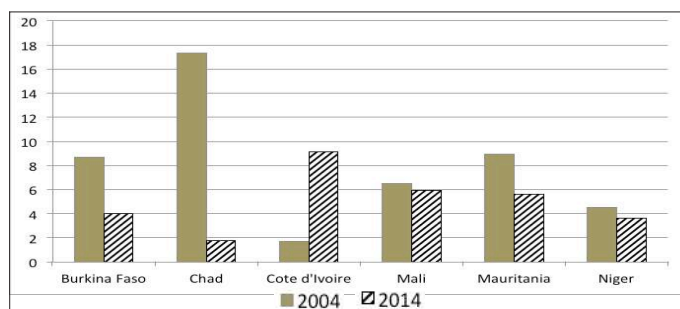
The dependency ratio, which measures the number of people of inactive age per 100 people of working age (population aged 15 to 59), is 84 persons per 100 workers for Côte d'Ivoire while it is of 113 dependents per 100 workers in Niger.

The fertility rate for women in SWEDD countries is relatively high. Indeed, in 2014, it is 5.52 children in Burkina Faso, 6 children in Mali, 7 children in Chad and 7.6 children in Niger. In total, the different SWEDD countries have demographic structures fairly close. It is an area characterized by a strong demographic growth, favored until now, by fertility rates on average of 5 children per woman.

The economic context of the SWEDD zone is characterized, during the 2004-2014 decade, by a growth rate ranging between 6.96% in 2004 and 5.24% in 2014. This reflects a downturn in economic activity during the period. The economic situation of the SWEDD Zone is the result of varied economic profiles of the different countries concerned. Thus, in 2004, the growth of the area was largely supported by Chad, which achieved a double-digit growth rate at that time. This strong growth is largely due to oil production in Chad, which began in 2003.

In 2014, growth in the SWEDD zone was driven by Côte d'Ivoire, which experienced a remarkable recovery related to the rising cocoa prices.

Graph 3 : Evolution of growth rates of SWEDD countries



Source: Author from WDI Data

Regarding human capital, the SWEDD countries, aware of the importance of human capital in the growth and economic development of a nation, have developed social policy strategies, particularly in the field of education and health.

¹ Inactive population/Active population

Education is a priority sector for the future of a nation through a quality education system and an ability to invite well-trained and skilled citizens on the labor market. This is why the SWEDD countries have made significant efforts to improve certain indicators, notably the Gross Enrollment Rate (GER), which went from 80.4% in 2001 to 91% in 2011 in Chad, to 76.1% in 2000 to 82% in 2013 in Niger and from 76.2% in 2009 to 91.2% in 2013 in Côte d'Ivoire.

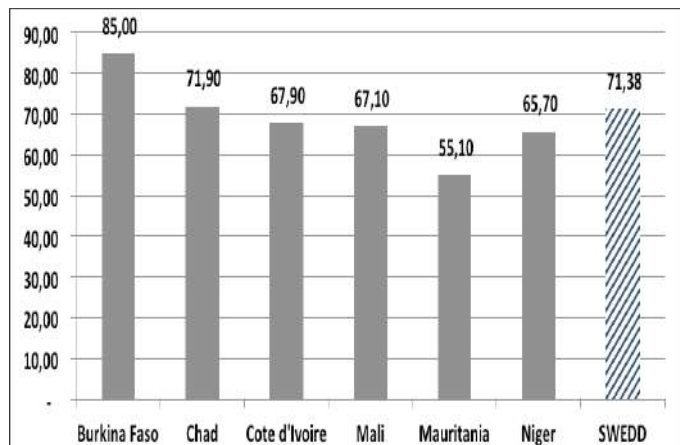
The parity index that gives Chad in 2011, 10 boys for 7 girls in school, in Mauritania, it increased from 0.74 to 1.02 from 2000 to 2011 and in Niger 10 boys for 8 girls enrolled. This situation raises the issue of girls' education and their retention in school for the SWEDD zone, but also that of a productive education system which naturally depends on matching training to the labor market that can materialize only through the promotion of vocational and technical education and the promotion of science in secondary education.



Health is also an important pillar for the economic and social development of a nation. In this regard, SWEDD countries have implemented social and health policies that have improved health indicators. Indeed, the implementation of the national health policy in Mali, for example, has led to significant progress in terms of reducing health indicators: i) infant mortality of 113.4 ‰ in 2001 (EDSM III), at 56 ‰ in 2012-2013 (EDSM V); (ii) juvenile mortality from 130.5 ‰ to 41 ‰; (iii) maternal mortality from 582 ‰ to 368 ‰; (iv) the HIV-AIDS sero-prevalence rate from 1.7% to 1.1%; the total fertility rate (average number of children per woman of childbearing age) from 6.8 to 6.1 children per woman; vi) the national prevalence of malaria is 52.0%. There were 2,111,434 cases of malaria in health facilities (1,465,046 in single cases and 646,388 in severe cases) with 1,833 deaths, or a case-fatality rate of 0.87%.

With regard to employment and unemployment in the SWEDD zone, the labor market is characterized by a relatively high participation. The rate is 71.38% in 2014. However, there is a certain amount of disparity depending on the country. This rate is far higher in Burkina (85%) and lower in Mauritania (55%).

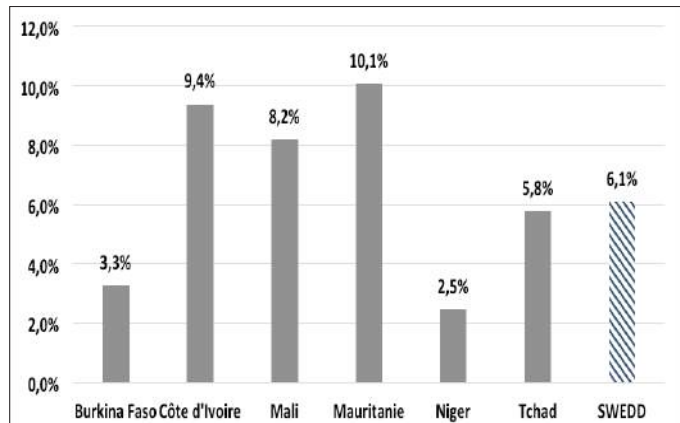
Graph 4: Labor force participation rate in 2014



Source: CREG/CREFAT, 2017, from World Bank database

The unemployment rate is estimated at 6.1% in the SWEDD zone with higher levels in Mauritania, Côte d'Ivoire and Mali (respectively 10.1%, 9.4% and 8.2%, in 2014).

Graph 5: Unemployment rate in the different SWEDD countries in 2014



Source : CREFAT/CREG 2017, à partir de données de la Banque Mondiale

The results and implications of economic dependence in SWEDD countries are appreciated through the regional life cycle deficit as well as the regional demographic support and dividend ratio. Indeed, in the assessment of the levels of economic dependence in the SWEDD area, the application of the NTA methodology makes a major contribution to the understanding of the phenomenon. One should remember, in the sense of the NTA, that an individual is said to be economically dependent if, at a given age, he does not generate a labor income sufficient enough to cover all of his consumption needs.

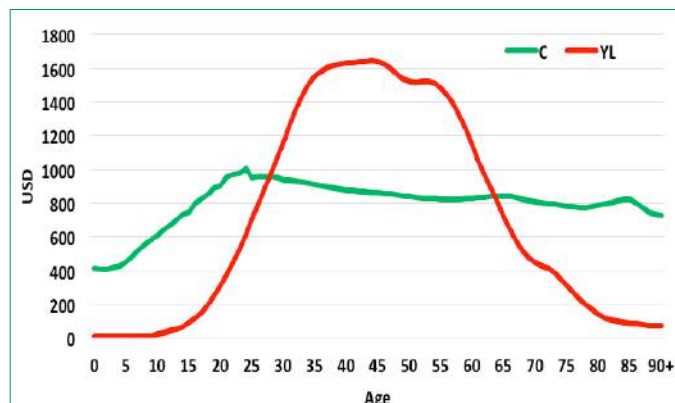
From 0 to 27 years and from 64 years and over: When consumption exceeds labor income

The life-cycle deficit measures the contribution of active age groups to the financing of inactive age-class consumption. It represents the difference between the

consumption and labor income profiles for each individual of a given age.

The NTA methodology allows for a clear perception of all inter-generational transfers over a given period in order to assess the individual and global levels of economic dependence in the SWEDD area. The graphs below show the individual and aggregate life cycle deficits that are an operational result of the age profiles of consumption and labor income.

Graph 6: Consumption and income in the SWEDD area: average individual profiles in 2014



Source: CREG/CREFAT, 2017

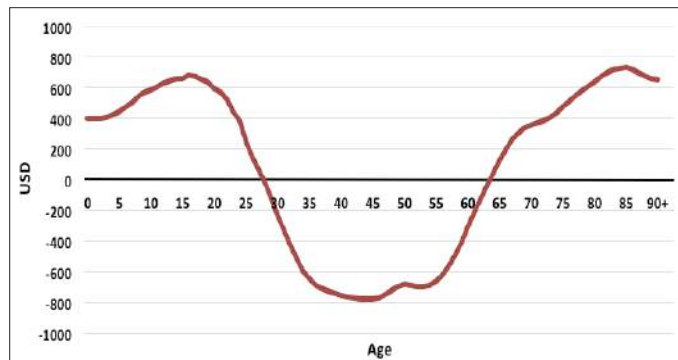
The analysis in Graph 6 shows that in the SWEDD zone, consumption exceeds labor income for two life periods: 0 to 27 years and 64 years and over. Individuals in these age groups consume more than they produce. The average age at which individuals become net producers, meaning, the age at which they produce more than they consume, is estimated at 28 years of age. And the average age at which they become net consumers again is «65 years». For the period of 0 to 27 years, corresponding to that of childhood and youth, the maximum deficit is observed at the age of «16 years» and amounts to 685 \$ US. For the old age (64 years and over), the highest deficit is observed at the age of «85 years», and amounts to 732 \$ US.



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Graph 7 shows that individuals in the age group 28 to 63 have a surplus that corresponds to the period during which labor income makes it possible to finance the self-consumption of the self-employed and that of the youngest and the oldest. It is important to note that this surplus period would last «36 years» in the SWEDD zone, but disparities are visible between the different countries. The registered surplus is transferred to children and youth aged 0 to 27, as well as to those aged «64 years and older» to take care of their health and education needs.

Graph 7: Life Cycle Deficit by Average Age in the SWEDD Zone in 2014



Source: CREFAT/CREG, 2017

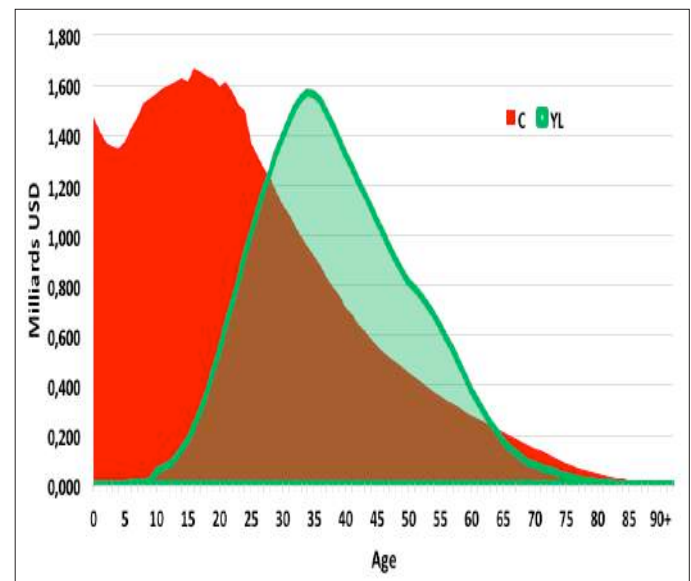
Table 2: Summary of surplus durations in SWEDD countries (in years)

Zone / Countries	Start of surplus	End of surplus	Duration
Burkina Faso	26	66	41
Cote d'Ivoire	29	63	35
Mali	27	62	36
Mauritanie	30	68	39
Niger	28	63	36
Tchad	28	61	34

Source: CREFAT/CREG, 2016

A significant social demand

Graph 8: Age-aggregated consumption and income in the SWEDD area in 2014



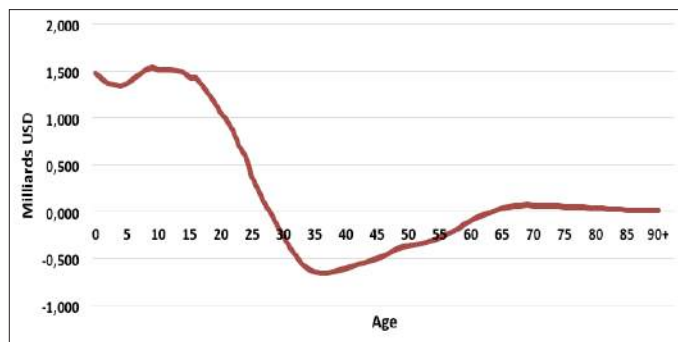
Source: CREFAT/CREG, 2017

This situation translates into a social demand valued at 34.1 billion USD in 2014, which is more than twice the surplus generated by the population of actual producers. This leads to a total deficit estimated at 20.3 billion USD for the SWEDD zone in 2014. It should be noted that young people weigh for 97% in the total deficit against only 3% for seniors, reflecting the predominance of young people in terms of number but also the importance of consumption levels at these ages. This information thus illustrates the overall financial imbalance that exists between the two deficit periods (0 to 27 years and 64 years and over) and the surplus period (28 to 63 years).



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Graph 9: Aggregated Life Cycle Deficit in the SWEDD in 2014



Source: CREG /CREFAT, 2017

The situation described shows a strong dependency on the youth that has a great impact on the economic surplus recorded in recent years in each of the six SWEDD countries whose corollaries are the persistence of unemployment. To reverse this trend, the necessary conditions must be created for this mainly urban, high-aspirational youth in order to gain access to decent jobs and to take part in shaping the country's development policies at both central and decentralized levels.

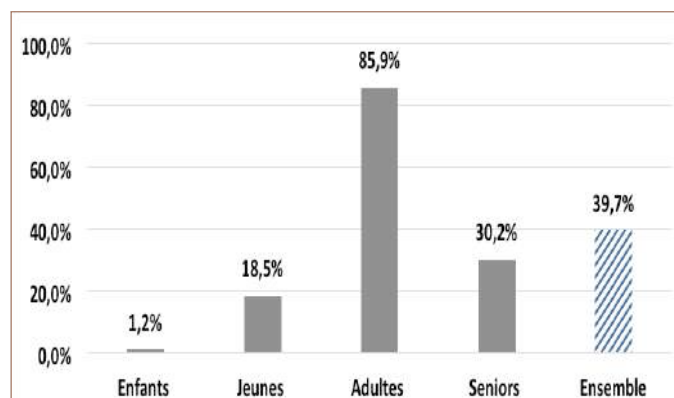
The SR in SWEDD: 39 actual workers support 100 consumers

In the SWEDD zone, the ratio of economic support (SR) stood at 39.7% in 2014. In other words, 39 actual workers can support 100 actual consumers. So, for 61 individuals, the demand in terms of consumption is not satisfied. Such level

of the ratio indicates a strong economic dependence of the SWEDD population. The age-specific support ratio given in the graph below provides the following facts:

- the low child support ratio is explained by the large weight of this age group in the population, but shows the existence of child labor in SWEDD countries;
- the level of the youth economic support ratio gives information on their situation of economic precariousness and their late exit from economic dependence, which has a heavy burden on adults and a late constitution of wealth;

Graph 10 : Economic Support Ratio by SWEDD Zone Age Group



Source: CREG /CREFAT, 2017

- adults constitute the least economically dependent age group but bear a significant load (young people, children and seniors) which impacts on their ability to accumulate assets to finance their old age;
- Seniors live off their working income and active adult transfers rather than their wealth income.

Recommandations

- Reduce the strong economic dependence of the populations particularly the youngest.
- Substantially increase the number of workers while also playing a stabilization and simultaneous improvement of income levels.
- Maximize the support ratios of the different age categories. Within the SWEDD, for an effective achievement of its demographic dividend.

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