

# Demographic transition and economic growth in Benin

Barthélémy Biao and Benin Team

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# 1. Introduction

## Meaning and importance of demographic dividend

The mean demographic dividend growth rate resulting from changes in the age structure of the population of a country (Bloom et al., 2002). A demographic dividend occurs when the drop in the birth rate leads to changes in the age distribution of a population.

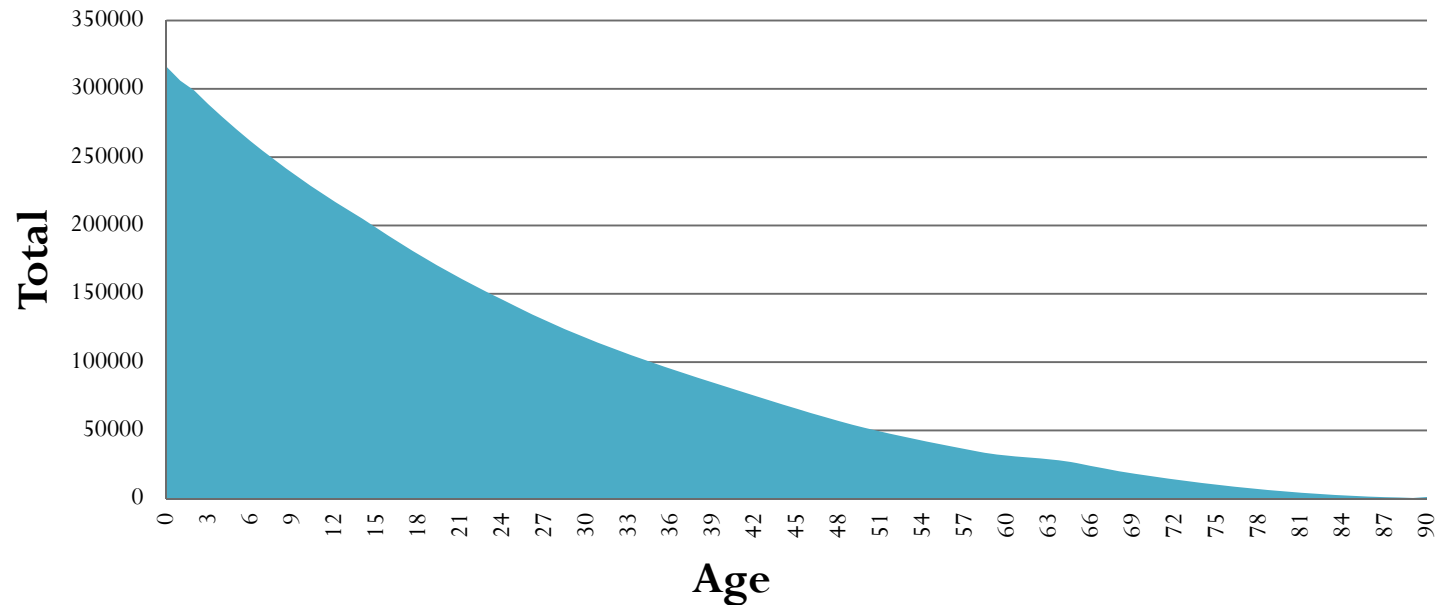
The demographic transition, or the point at which the rate of birth and death moves from a high level to a low level, is a critical stage of development opportunities for families and countries. If countries can plan and make necessary investments in young people during the demographic transition, they can create a virtuous circle of improving education, human capital, and the financial sector, and by extension economic productivity (Mason, Lee and Lee, 2008).

*What about the demographic dividend in Benin?*

## Country Information (2007)

Total population (thousands)	8,407,482
Population growth rate (%)	3.01
Total fertility rate (TFR)	5.31
Life expectancy at birth (years)	56
Child dependency ratio	83
Old-age dependency ratio	5
GDP per capita, PPP annual growth (%)	1.51
Official exchange rate (local currency unit per USD, period average)	6.1

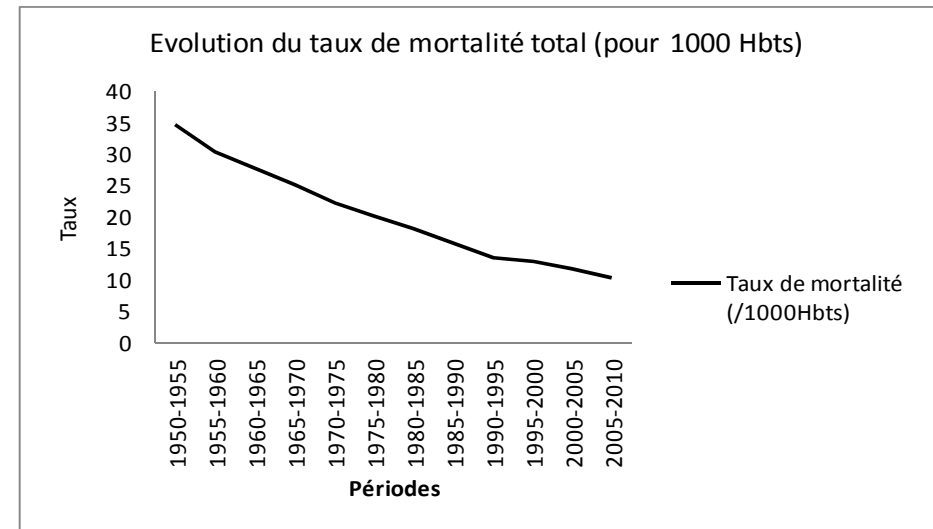
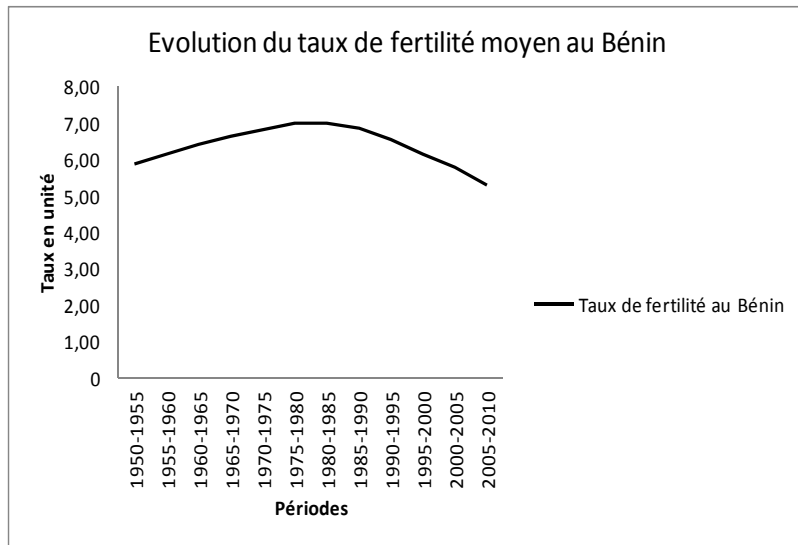
# Population by Age, 2007



**Source: UN Population Program**

The age structure of the population indicates that as the age increases, the size of the population by age decreases. People age 52 and over are a very small proportion of the total compared to the age group 16–48 years. Children age 0–16 are a large group. The size of the population aged 16–48 years is less than the sum of the child and elderly population.

# Fertility and Mortality Rates Are Dropping



Benin experienced increasing fertility from 1950 to 1990, when it reached a peak of 7 children per woman. Then from 1990 to 2010, the fertility rate declined. Mortality declined continuously over the period 1950–2010. We have to keep in mind that low and declining fertility is largely associated with increasing human capital investment.

The window of opportunity for the demographic transition has begun for Benin. However, productivity in the working-age group will scarcely keep up with the cost of consumption by the elderly and children if public policies are not implemented. This is indicated by the profiles of consumption and production throughout the economic lifecycle.



## 2. DATA

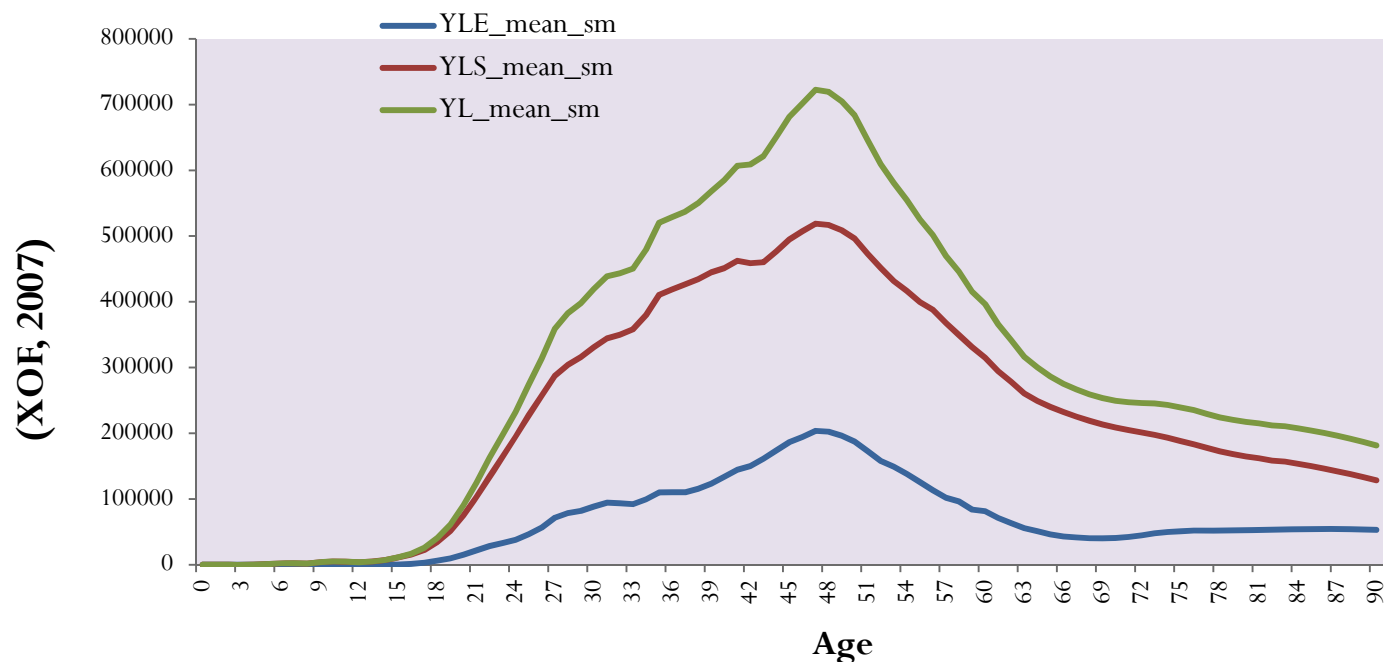
- Household Data survey EMICoV (Integrated Modular Survey of Living Conditions of Households: INSAE, 2007). EMICoV provides information on households and their members and some information on labor market
- Data from national accounts for 2007 (INSAE, 2013)
- School enrollment, primary, public by age and level (INSAE, 2009: Social dashboard)
- budget for the health sector in 2007
- Health sector statistics, 2010

## DATA (Continued)

- Report on Strategy for Growth and Poverty Alleviation, 2007 : Estimating health costs by program
- Survey of World Population Prospects (2013)

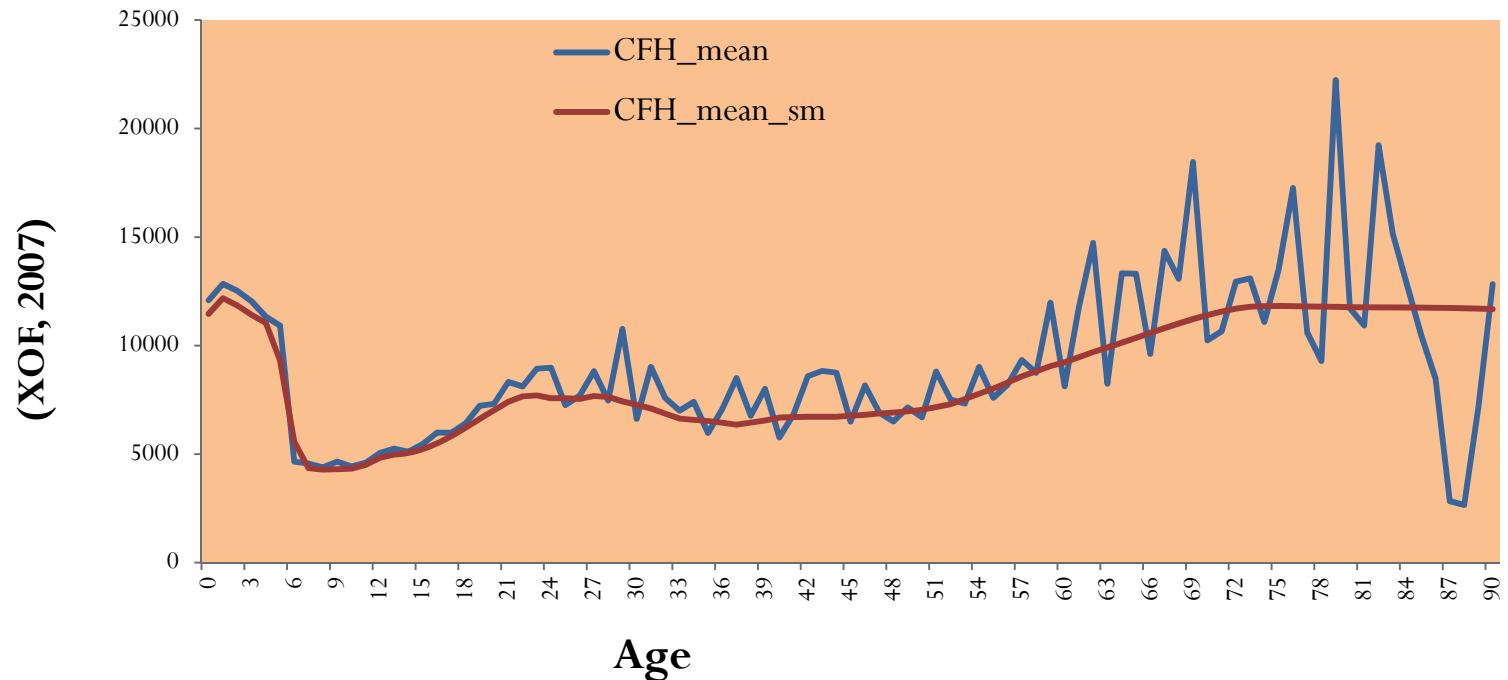
### 3. PRINCIPAL RESULTS

# Per Capita Labor Income Profiles, Smoothed



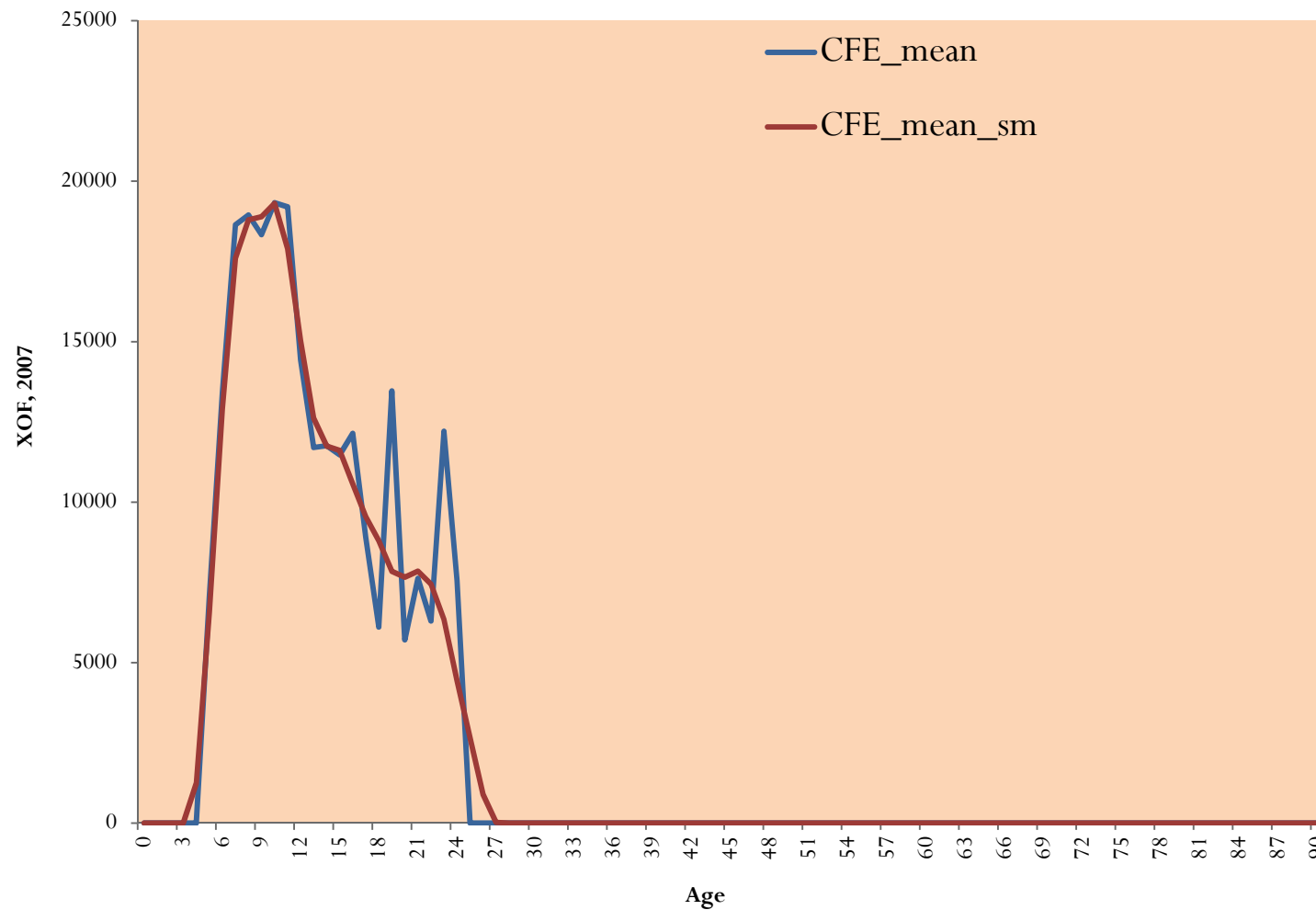
Young people begin to work at age 16 in self-employment and informal activities. Income increases with age evolves to a peak at age 48, but the shape of the curve indicates that only a few in this age group have a high income. From age 49 labor income drop steadily with age, but with a slight increase in income from self-employment.

# Per Capita Private Health Expenditure Profile

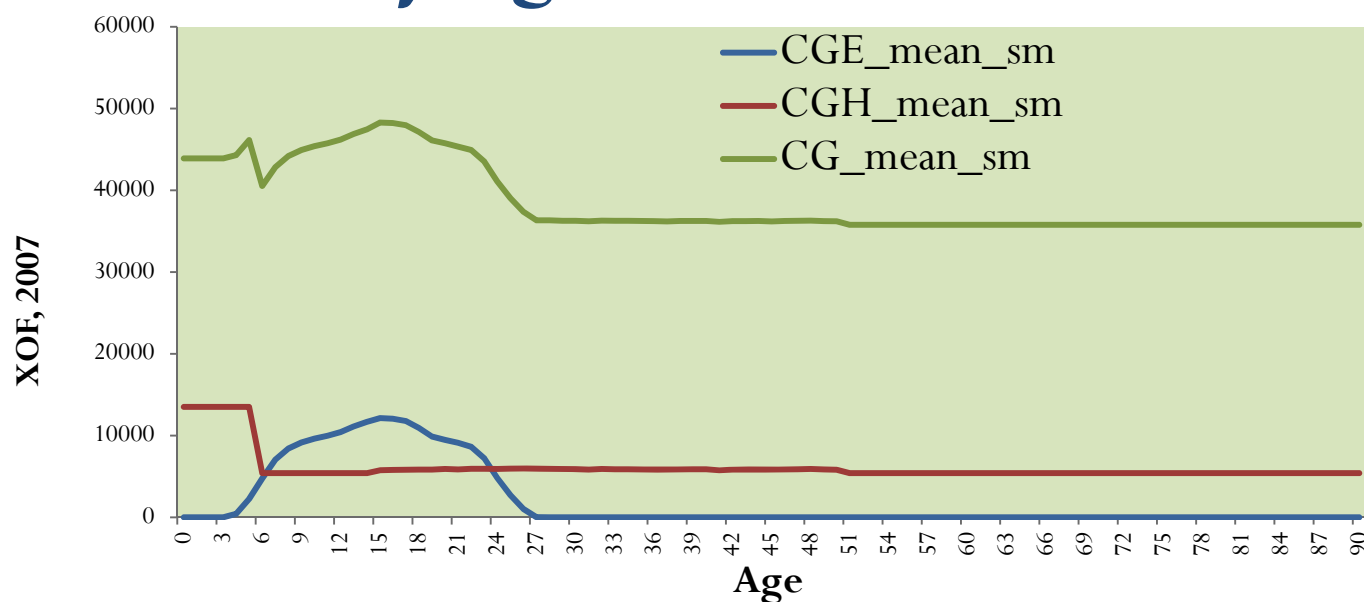


**Children and the elderly have higher healthcare consumption than the working-age population**

# Per Capita Private Education Expenditure Profile

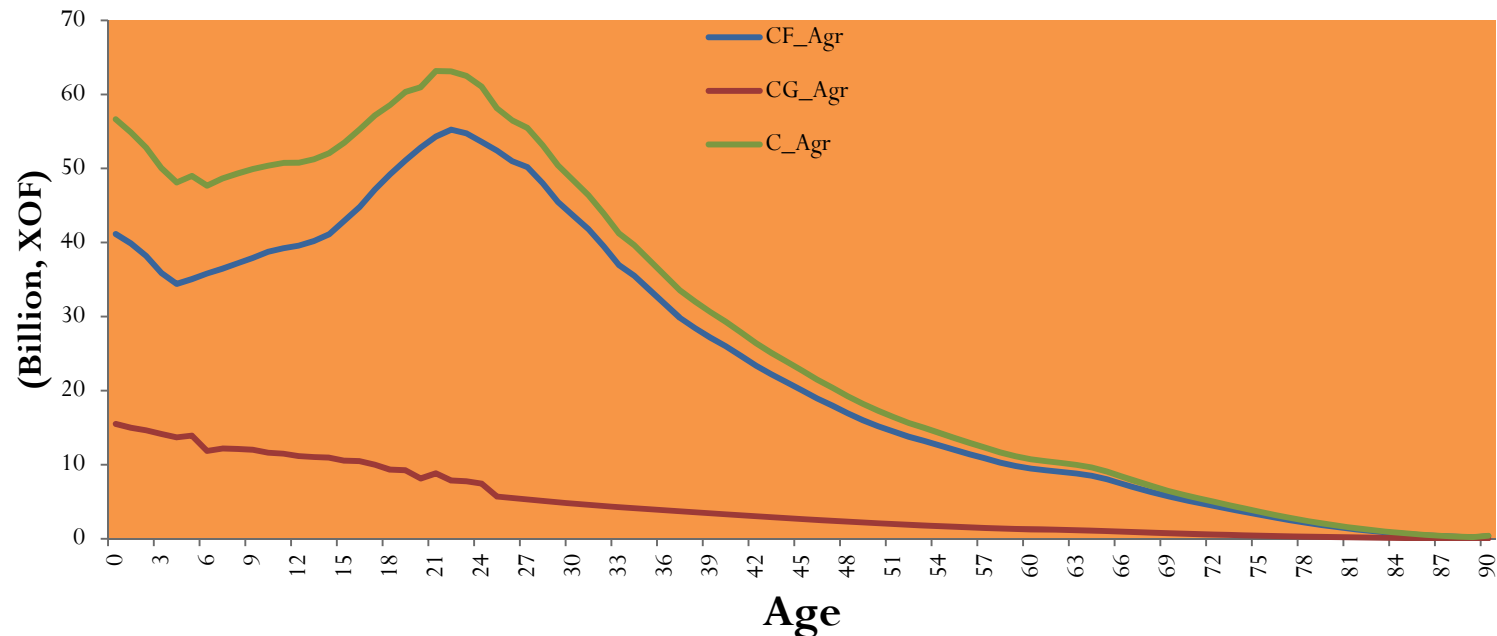


# Public Expenditures Profiles (Cge, Cgh And Cgx) by Age, Smoothed



The government invests with partners in the education and health of young people. Health programs are concentrated on children age 0–5 years. There is little public spending on healthcare for the elderly.

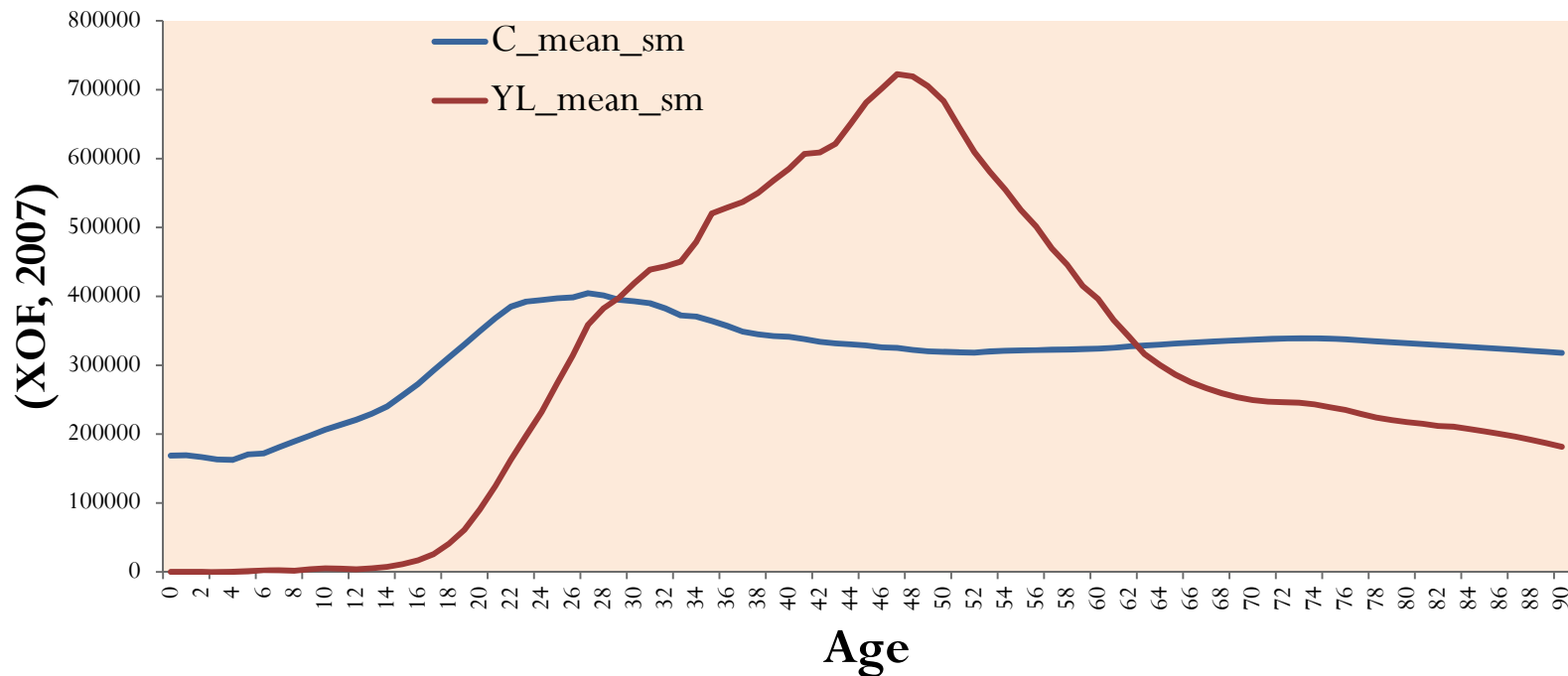
# Aggregate Consumption Expenditure Profiles



**Children, adolescents and young adults have high consumption, based on health and education consumption. Consumption then declines steadily with age.**

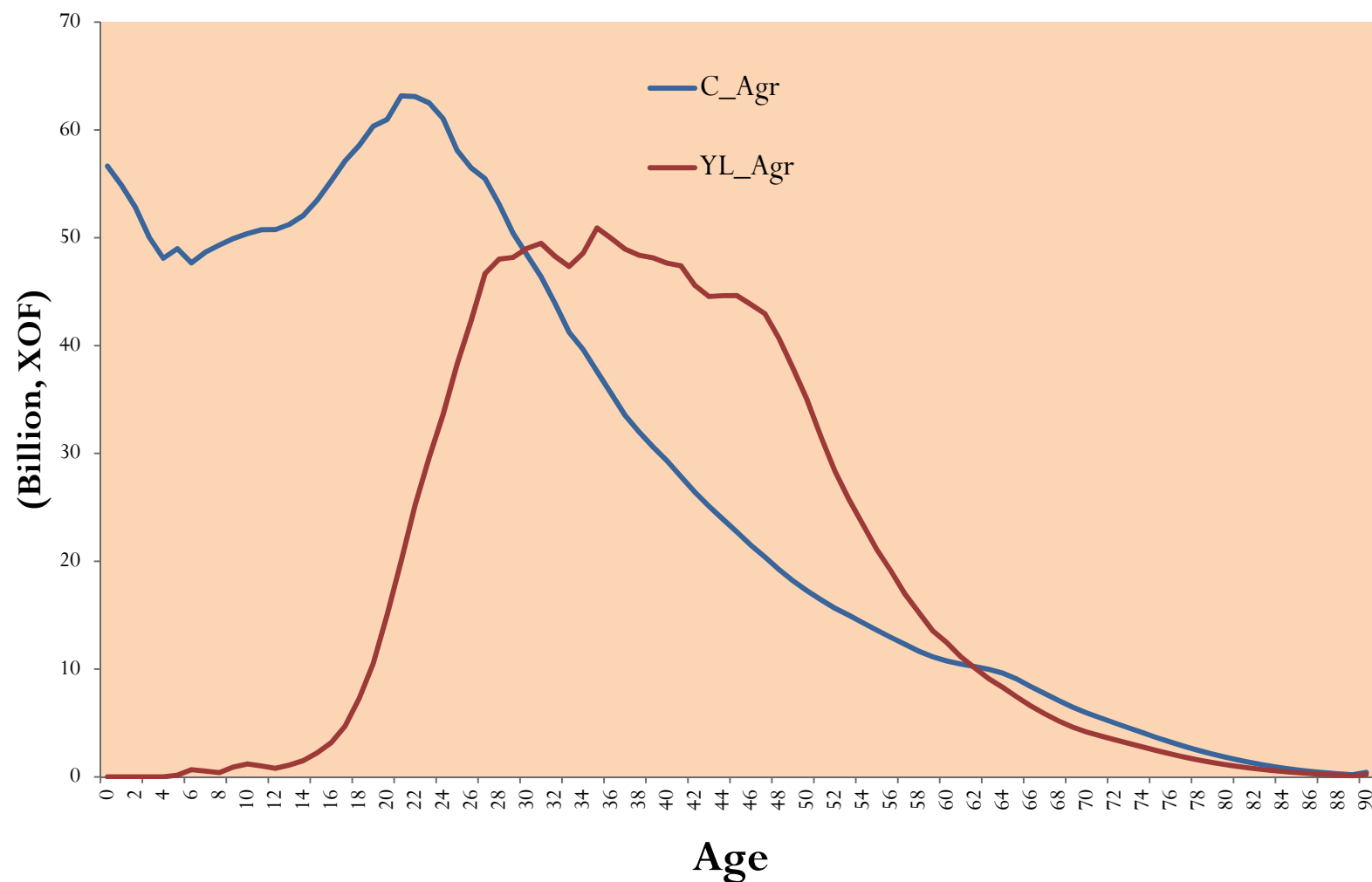


# Per Capita Consumption and Labor Income Profiles

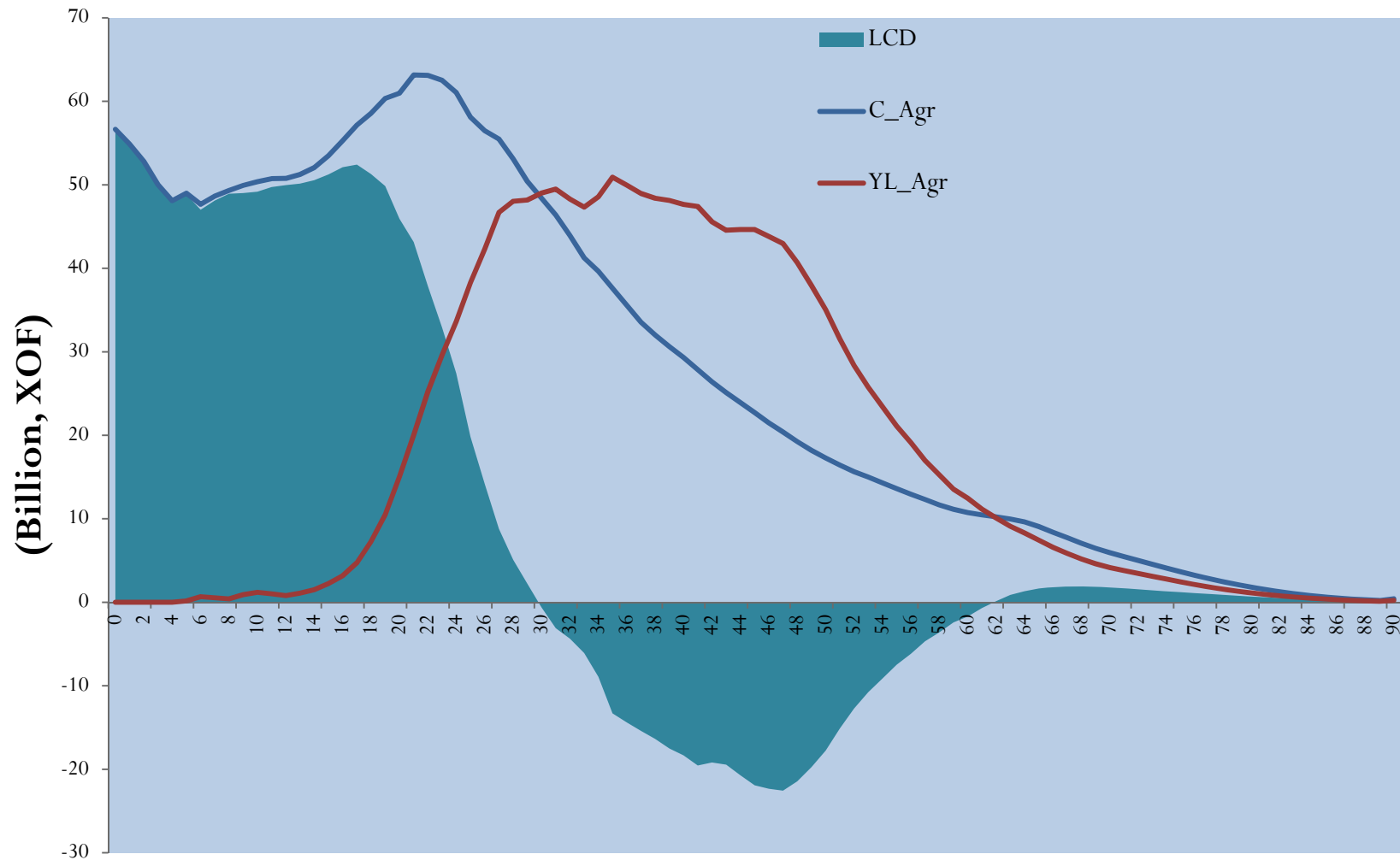


**Labor income equals consumption age ages 29 and 64. The age group 30–63 produces more than they consume, while the younger and older age groups consume more than they produce.**

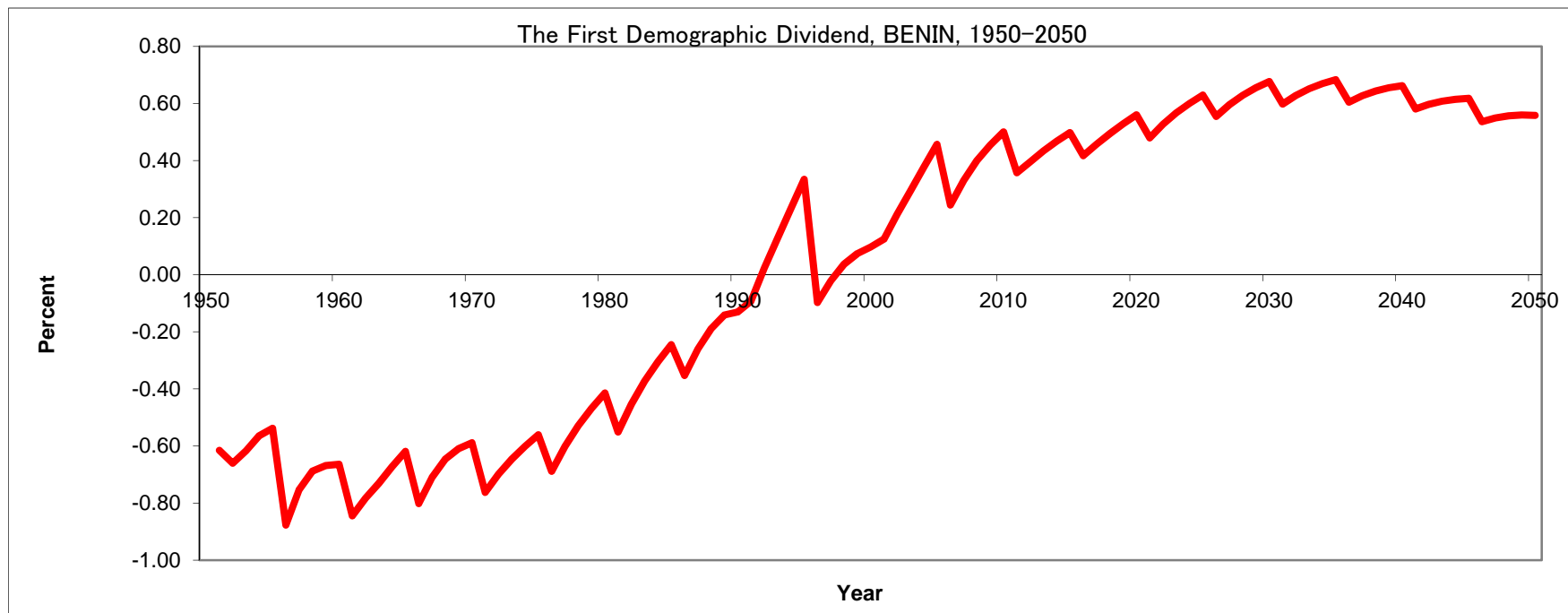
# Aggregate Consumption and Labor Income Profiles



## In Another Form.....



# First Demographic Dividend Estimated



**Since 1999, Benin has enjoyed a demographic dividend .**

## Benin's Lifecycle Deficit

Deficit age 0 to 29	1,248.20
Surplus age 30 to 61	-397.51
Deficit age 62 +	27.68
Total deficit	1,275.88
Total surplus	-397.51
Difference	878,37

## 4. Conclusion and Project Plans

Benin can enjoy its demographic dividend until 2100. Before 1990, the value of the first dividend was negative. The dependency ratio was still high and the nonworking population was a burden to the workforce. The window of opportunity is available between 1990 and 2100. Over this period, the first dividend is estimated at 0.25%. It should reach its peak between 2020 and 2030 with an estimated average of 0.50%. This implies that the guidelines on demographic policy must take into account the dynamics of the age structure in order to implement efficient policies.

**Public investments in the education of young people is low, and there is significant private education spending.**

**Educational programs should primarily aim at harmony with the labor market. The expansion of jobs could contribute significantly to economic growth. Currently, the deficit generated by young people may significantly reduce domestic savings and hence the availability of capital for investment to support economic growth.**

## Project Plans

1. Release of SAM for Benin, 2007
2. Estimation of BENIN's lifecycle deficit financing