



Strategies against poverty: Tunisian Case Study

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ABSTRACT

Reducing poverty has become a priority objective of any policy based on the planning of economic and social development, we will present various strategies adopted by Tunisia to fight against poverty. In analyzing the economic and social situation in Tunisia and to test the relationship between poverty and economic growth in Tunisia, that is to say, to have it was if growth benefits the poor or not.

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Introduction

Tunisia has known for years an important economic growth with a remarkable reduction of poverty, which enabled him to improve the living conditions of the population.

Nowadays the concept of sustainable development and aims primarily to reduce poverty presents an almost regular basis in countries' development policies. Indeed the notion of poverty has become a problem for many countries, especially developing since this situation will result in economic, political and especially at the social level. Tunisia priority in the fight against poverty is to establish a strategy for sustainable human development through the promotion of employment and appropriate social transfers designed to improve the conditions of people living in the shadows also the United Nations urged international cooperation projects which aim to ensure sustainable development and therefore an improved standard of living.

As part of our work we will empirically investigate the impact of economic growth on poverty rates in the Tunisian case.

Dominant traits of poverty in Tunisia

At independence, over 60% of the population were poor and middle classes represented just 20% of the total population (14% of the population were rich). In 2005, the poverty rate was 3.8%, while the middle classes represent more than 80% of the population. (Table No. 1)

The development model adopted in 1970 has naturally generated regional and social disparities that have not been offset by the various levers of income redistribution. On the contrary, taxation, social transfers, spending on education and the General Fund including compensation has largely benefited higher income and higher social classes. The implementation of the SAP in 1986 has exacerbated this drift. This happened between 1986 and 2010 also falls within the overall evolution of poverty as its sociological change. Now poverty is urban (even if one has some reservations as to the assessment of the rural threshold), and particularly affect

workers (agricultural and non-agricultural) and a significant fringe of artisans and self-employed.

Table 1. Evolution of poverty and the middle class

Income brackets in 1959	As% of Population	Cumulative %	Slices of consumption in 2005	As% of Population	Cumulative %
Less than 20 dinars	37	37	Less than 400 dinars	3.8	3.8
From 20 to 40 dinars	29	66	400-585 dinars	7.7	11.5
From 40 to 60 dinars	12	78	585-955 dinars	19.5	31.0
From 60 to 70 dinars	3	81	955-1510 dinars	26.3	57.3
From 70 to 80 dinars	3	84	1510-2250	20.3	77.6
From 80 to 90 dinars	3	86	2250-4000	15.0	92.6
From 90 dinars and more	14	100	4000 and	7.4	100.0
Together	100		Together	100.0	

Source; INS

In fact, the impact of SSP was strongly felt by the entire population. The compression of real wages induced SSP significantly reduced the purchasing power of employees (75% of the employed population) and caused a sharp decrease in the share of wages in value added (48% in 1985 to less 30% in 2010). This has weakened the middle class below the point of devoting their stall middle class. But the impact of SSP was more catastrophic on fragile populations. While the poverty rate has continued to decline significantly between 1975 and 1985 from 22% in 1975 to 12.9% in 1980 and 7.7%

in 1985; a deceleration trend was observed in 1990.

The analysis of socio-economic data available to date shows that:

Poverty is linked to the environment

In 1985, 60% of the poor population already lived in urban areas. But this trend is accelerated between 1985 and 2000, the share of the urban poor in the total poor population from 59.5% in 1985 to 74.2% in 2000. We must see this change impact SAP and of underestimating the rural poverty line. However, non-published by the INS data suggest that a second reversal of the trend took place in 2005, as the rural poverty rate would have reached that year 7.1% against 1.9% only for urban areas. (Table No. 2)

Table 2. Poverty threshold and poor by middle in Tunisia (1975-2000)

Designation	1975	1980	1985	1990	1995	2000
<i>Poverty in dinars courants</i>						
- Urban	87	120	190	278	362	428
- Rural	43	60	95	139	181	221
- Together	64	91	147	222	292	351
<i>Poverty in constant dinars</i>						
- Urban	272	267	269	278	273	276
- Rural	135	134	134	139	137	142
- Together	200	203	207	222	220	226
<i>Total population in 1000</i>						
- Urban	2642,0	3325,0	3880,5	4842,0	5510,2	6038,5
- Rural	2909,0	3044,0	3274,2	3302,0	3491,3	3559,8
- Together	5551,0	6369,0	7154,7	8144,0	9001,5	9598,3
<i>Total poor population in 1000</i>						
- Urban	700,0	393,0	325,0	354,0	389,0	296,0
- Rural	523,0	430,0	229,0	190,0	170,0	103,0
- Together	1223,0	823,0	554,0	544,0	559,0	399,0
<i>Poverty rate</i>						
- Urban	26,5%	11,8%	8,4%	7,3%	7,1%	4,9%
- Rural	18,0%	14,1%	7,0%	5,8%	4,9%	2,9%
- Together	22,0%	12,9%	7,7%	6,7%	6,2%	4,2%

Source: PNUD

It also shows that poverty is linked to socio-professional category. The workers in industry and services account in 2000 almost half of the poor; agricultural workers 14.7% and 10.7% independent and artisans. The 2005 NSI's household consumption survey confirms this. The annual average expenditure per person per year amounts in effect to 933 dinars for the unemployed, 1020 dinars for agricultural workers, 1263 dinars for non-agricultural workers and 1281 dinars for farmers, 1456 dinars for self in industry, trade and industry; are levels below the average consumption (1820 dinars). Because of the income disparities characterizing farmers, it is reasonable to think that a good half of them is under the de facto vulnerability threshold.

It also shows that poverty is linked to the region of residence

The poverty rate, average consumption expenditure per person per year. In 2000, only three regions had a poverty rate located below the national average: Tunis District, East Central and North East (we disregard the rate of the Northwest region). Conversely, the regions of South and West of the country have a poverty rate above the national average. (Table No. 3).

The annual average expenditure per person

Average annual per capita expenditure amounted to 2390

Table 3. Poverty rate by region in%

Region	1980	1985	1990	2000
Grand Tunis	6,3	3,6	4,2	2,8
Northeast	11,5	7,8	4,5	4,0
North West	17,6	10,6	10,2	2,3
Midwest	19,7	10,9	10,3	7,1
Central East	12,9	5,1	4,4	2,4
South	10,6	10,9	8,1	7,5
Tunisia whole	12,9	7,7	6,7	4,2

Source; INS and PNUD

dinars in 2005 for the District of Tunis, 2,084 dinars for the East Central Region, 1826 dinars for the Southeast region and 1613 dinars for the Northeast region. The same average consumption amounted to 1138 dinars in the Central West region, 1416 dinars in the Northwest region and 1466 dinars in the South West region. In 2000, only two regions were above the national average, three in 2005, the south coast joining the more developed regions. (Table No. 4).

Table 4. Average annual expenditure by region in 2000 and 2005 Dinars

	Dép.moy.an/ P en 2000	Rang	Dép.moy.an/ P en 2005	Rang
Tunis District	1761	1	2390	1
North east	1190	3	1613	3
North West	1103	4	1416	6
Midwest	909	7	1138	7
central East	1594	2	2084	2
South West	1017	6	1466	5
South East	1097	5	1826	4
TOGETHER	1329		1820	

Source :(INS)

Poverty, inequality and economic growth in Tunisia

The poverty rate is a sensitive indicator of social statistical information. But the concept of poverty also extends to many other dimensions of well-being. The extent of poverty in Tunisia requires an analysis of its evolution. In particular, it is important to examine to what extent the recent performance of the Tunisian economy has influenced the dynamics of social progress in terms of poverty reduction.

Two main factors determine the variation of poverty; it is the economic growth and income distribution. The first, through raising the standard of living of the entire population and the expansion of the production of wealth, should ensure more to everyone. The second, through the management and distribution of the welfare allowances. Thus the evolution of poverty translated simultaneously two effects; an effect of the evolution of living standards, therefore, economic growth and one of the income inequalities. In the case of Tunisia, poverty may appear as an essentially urban or rural phenomenon, and political implications thereof vary accordingly. In the literature on poverty, two approaches have been used to measure poverty levels; the official approach defined by the National Institute of Statistics (INS) and the approach of the World Bank, recommended and used since 1995 in the reports on poverty in Tunisia. According to the national approach, poverty is primarily an urban phenomenon, while it is a rural phenomenon if one refers to the approach of the World Bank.

Both approaches use the same definition of basic nutritional and caloric requirements in physical terms, but they differ in estimating food poverty lines and non-food expenditures related thereto for rural and urban areas. The necessary conclusions in terms of regional concentration of poverty are opposed. According to the INS poverty rate is much higher in urban areas, except in 1980, while the World

Bank comes to the opposite conclusion for all years of study.

The economic and social situation in Tunisia has evolved; the average annual rate of GDP growth is located, in recent years, at about 5% per year. According to statistics from the INS rural maintains its delay in terms of household income, as revealed by the cost per person per year (DPA). So despite spending growth of stronger household spending levels remain well below that of urban households. Furthermore it is the dominant occupational groups in rural areas have the lowest income levels namely agricultural workers and farm managers preceded by non-agricultural workers. Improving economic indicators is the result of sound macroeconomic management, mainly from the adoption and implementation in 1986 of the structural adjustment program. To ensure a sustainable and sustained economic growth, Tunisia has introduced a series of reforms aimed particularly at reducing the budget deficit while preserving the macroeconomic balance and ensuring a favorable social environment.

Indeed, the agreement with the EU will have important social implications insofar exchanges with this economic area represent 75% of imports and 80% of exports of Tunisia. However, gradual and prudent with which it was implemented and which guarantees some protection until 2008, will allow Tunisia to cushion the short-term negative effects, to prepare for this deadline and continue through a transition period the implementation of reforms including economically. The impact of the partnership agreement would thus be strongest at small and medium businesses that do not arrive to strong competition, and the impact would be felt by low-skilled labor belonging to sectors in decline, especially among women. In social terms, it will consolidate the integration and fight against poverty devices to safeguard the most vulnerable categories of the negative impact of this agreement. This will involve an effort to adapt the political and social institutions in a changing and unpredictable international economic environment. Moreover, with the decline in absolute poverty, it becomes increasingly difficult to influence the incidence and severity of poverty. The need for better targeting the benefits of social programs is especially important as the incidence of absolute poverty diminishes. The review of the evolution of the income distribution allows judging the effectiveness of the process of economic growth compared to the national objective of fighting against poverty. Note that it should be remembered that any method of measuring poverty is based on a structure of needs. During the 60s there were prospects that see an income of 50 dinars per capita per year is needed to ensure a minimum standard of living. From the 70s there have been methods for fixing poverty line as the method of the National Institute of Nutrition and Food Technology (INNTA) and the International Labor Office method (ILO).

Arguably the urban environment has undergone profound changes which have accelerated since the early 1980. Ces transformations allowed, thanks to a major budgetary and financial effort. However, despite this progress, much remains to be done and the risk of a fall is not excluded as long as the funds dry up or that development policies favor urban development poles, non-agricultural sectors or areas which urban space is devoid of comparative advantage.

By against rural areas, whose development has been based so far mainly on the development of natural resources, seems to suffer from overuse the medium and long term resources that could jeopardize all the gains further farm workers are the most affected, as well as the INS in 2005 7%

of the population are poor in rural areas by 1.9% against the urban environment.

Econometric Modelling

> Specification model

We are interested in this work empirically study the impact of economic growth on poverty in Tunisia, estimation of our model is done using statistics and econometrics software Eviews 6.0. Our variables were taken during the period from 1985 to 2009, the statistics from the INS and the World Bank in the case of Tunisia.

Our model is written as follows:

$$P_{it} = \beta_0 + \beta_1 PIB_{it} + \beta_2 POPU + \beta_3 INFR_{it} + \beta_4 EDU_{it} + \varepsilon_{it}$$

▪ Dependent:

-P: Indicator of poverty.

▪ Independent Variables:

-PIB: Level of real GDP per capita in parity of purchasing power.

-POPU: Population growth.

-INFR: Mobile subscribers and landline phone for 100 people.

-Edu: Education Spending% of GDP.

> Descriptive tests

Test of stationary

Definition: The notion of stationary time series is important in modeling the spurious regression problem showing linear regressions with non-stationary variables are invalid. Specifically, the distribution of the parameters of the regression does not follow a Student but a Brownian motion. In the case where variables are not stationary, a close concept, co integrating (in), to determine the type of model to use.

Stationary also plays an important role in the time series prediction, the prediction interval is different depending on whether the series is stationary or not.

• Stationary trend: A series is stationary if the trend series obtained by "removing" the time trend of the original series is stationary. The time trend (or trend in English) of a time series is its time-dependent component.

• Stationary in difference: A series is stationary in difference if the series obtained by differentiating the values of the original series is stationary.

Stationary tests: If the probability density function is not known, which is often the case, it is useful to be able to determine by a test whether the series is stationary or not. There are two kinds, with the stationary null hypothesis or alternative hypothesis.

In another variable is called stationary if the observed data for the latter follow the same order or degree of probability, while a variable is called non-stationary if it does not follow the same order of probability.

The null hypothesis is non-stationary.

The augmented Dickey-Fuller test (ADF) allows highlighting the stationary or not chronic by determining a deterministic or stochastic trend (Bourbonnais, 1998).

The test is simple: if the null hypothesis (H0): = 1 is retained in one of these three models, then the process is not stationary; in this case, one tests the variable first difference. If we accept this hypothesis for one of the variables that are to be used then all variables must be tested to the first difference.

If the alternative hypothesis (H1): 1 is retained in one of the above models, then the process is stationary (Dossou, 2000).

After the stationary test, we found the results presented in the table below:

With: I (1) Stationary in the first difference

Table 5. stationary test (ADF test)

Variable	Stationarity	Becky Fuller-test increased (ADF)
EDU	I(1)	-4.905191
PIB	I(1)	-3.950726
POPU	I(1)	-4.624819
INFR	I(1)	-3.370732
PAUV	I(1)	-7.800893

Source: Treatment of our data with E views 6.0.

Note that all variables are stationary in first difference.

Test VAR: VAR test allows us to write our model in matrix form.

$$PAUV = \begin{pmatrix} -0.249677 \\ -0.326737 \\ -0.021890 \\ -0.231413 \end{pmatrix} + \begin{pmatrix} PIB \\ POPU \\ INFR \\ EDU \end{pmatrix} \begin{pmatrix} -0.366864 & -0.524639 & -0.014571 & -1.398100 & -0.454735 \\ -0.156123 & -0.276292 & -0.009468 & 0.510683 & -0.002848 \\ -0.359048 & 0.568996 & 1.074360 & -0.094896 & -0.113941 \\ 0.036402 & 0.655128 & 0.013901 & 0.137556 & -0.18759 \end{pmatrix} + \begin{pmatrix} \varepsilon_1 \\ \varepsilon_2 \\ \varepsilon_3 \\ \varepsilon_4 \end{pmatrix}$$

Tests co integration Johansen (1988)

The study of the co-integration tests the existence of a long-term stable relationship between two non-stationary variables, including delays variables and exogenous variables. There are several tests of co integration, the most general being that of Johansen. Whatever the chosen test, it has meaning on non-stationary series long. Therefore, the analysis of the co-integration clearly identifies the true relationship between two variables, seeking the existence of a co integration vector and eliminating its effect if any. Two sets x and y are said to be co-integrated if the following conditions are true: they are assigned a stochastic trend of the same order of integration and a linear combination of these series makes it possible to bring a series of order of integration inferior. Finally, the co integration test of Johansen uses two statistics: the statistics of the trace and the maximum Eigen value. The asymptotic distributions of these statistics are not standard.

To determine the number of cointegration relationships, it is recur test of Johansen (1988) from two statistical tests: test of the trace and the maximum Eigen value.

Test Tack

The result of this test is shown in Table (6) below:

Table 6. Johansen Co integration Test of the trace

H0: r: Le Nombre de relations de co intégration	Own values	Statistics track	Critical value at the 5%	Critical value at the 1%
$r = 0$	0.868769	114.9446	68.52	76.07
$r \leq 1$	0.772129	68.23631	47.21	76.07
$r \leq 2$	0.594965	34.21988	29.68	54.46
$r \leq 3$	0.365705	13.43292	15.41	20.04
$r \leq 4$	0.120849	2.962364	3.76	6.65

Source: Treatment of our data with E views 6.0.

The decision rule for both tests is the following: if the calculated value (statistical trace or statistical λ_{max}) is greater than the critical value then we reject the null hypothesis.

In our case, the trace test indicates the existence of a co integration relationship with the thresholds of 5% and 1%. Therefore we reject the null hypothesis of no co integration ($114.9446 > 68.52$) and ($48.89510 > 47.21$) and ($34.21988 >$

29.68) at the 5% threshold. However, we accept the null hypothesis that there is at most three co integrating relationships between the five variables ($13.43292 < 15.41$).

Test co integration λ_{max}

The co integration test result λ_{max} is given in the following table:

Table 7. co integration test of Johansen λ_{max}

H0: r: the number of co integration relationships	Own values	Statistics λ_{max}	Critical value at the 5%	Critical value at the 1%
$r = 0$	0.868769	6.70834	33.46	38.77
$r \leq 1$	0.772129	34.01643	27.07	32.24
$r \leq 2$	0.594965	20.78697	20.97	25.52
$r \leq 3$	0.365705	10.47055	14.07	18.63
$r \leq 4$	0.120849	2.962364	3.76	6.65

Source: Treatment of our data with E views 6.0.

In our case, the λ_{max} tests indicate the existence of a co-integrating relationship with the thresholds of 5% and 1%. We accept the null hypothesis that there is no relationship of two co-integration between the five variables ($20.78697 < 20.97$).

Test of Granger causality

The sense of economic causality is essential to develop an economic policy or to make predictions. Granger, a series "cause" another series if the knowledge of the past of the first improves the prediction of the second.

Pairwise Granger Causality Tests			
Sample: 1985 2009			
Lags: 2			
Null Hypothesis:	Obs	F-Statistic	Probability
EDUC does not Granger Cause PAUV	23	2.09733	0.15178
PAUV does not Granger Cause EDUC		1.43279	0.26459
INFRA does not Granger Cause PAUV	23	1.54397	0.24052
PAUV does not Granger Cause INFRA		3.51494	0.05144
POPU does not Granger Cause PAUV	23	1.37529	0.27809
PAUV does not Granger Cause POPU		1.27567	0.30331
PIB does not Granger Cause PAUV	23	2.89799	0.08108
PAUV does not Granger Cause PIB		0.34322	0.71403
INFRA does not Granger Cause EDUC	23	0.65237	0.53269
EDUC does not Granger Cause INFRA		2.81172	0.08657
POPU does not Granger Cause EDUC	23	2.16658	0.14352
EDUC does not Granger Cause POPU		1.98085	0.16690
PIB does not Granger Cause EDUC	23	0.92690	0.41386
EDUC does not Granger Cause PIB		0.51348	0.60691
POPU does not Granger Cause INFRA	23	5.29198	0.01557
INFRA does not Granger Cause POPU		3.71139	0.04471
PIB does not Granger Cause INFRA	23	0.29025	0.75151
INFRA does not Granger Cause PIB		0.09813	0.90701
PIB does not Granger Cause POPU	23	0.30513	0.74076
POPU does not Granger Cause PIB		1.06617	0.36509

Source: Treatment of our data with E views 6.0

Accordingly, in the case of Tunisia, the co-integration of proven five variables led us to the analysis of the Granger causality test by an econometric estimation of this causality assessment, the results shown in the table below.

From this table, two hypotheses were tested simultaneously, ie the causality between the five variables taken two by two. We therefore tested the hypothesis to know if economic development does not cause poverty and vice versa. The same assumptions were taken between the opening infrastructure and poverty and between population growth and poverty, and between education spending and poverty.

We note that the 5% threshold, Granger test suggests a causal link between poverty and infrastructure. In the case of Tunisia, it is poverty that causes the infrastructure and not the reverse. Also, always at the 5% threshold, the Granger test suggests a causal link between population growth and infrastructure that is to say, in the case of Tunisia changes the population because the infrastructure and vice versa.

Error residual tests

Normality has testing

• Test heteroskedasticity errors

In statistics, we speak of heteroscedasticity when the variances of the variables examined are different. This concept comes from the Greek and is composed of heterogeneous prefix ("other"), and skedasê («dissipation").

The notion of heteroscedasticity opposes that homoscedasticity, which corresponds to the case where the variance of the error variable is constant. While in the case of homoscedasticity, we $\text{Var}(\varepsilon_i) = \sigma^2 \forall i$, we now $\text{Var}(\varepsilon_i) = \sigma_i^2$, where σ_i^2 may be different from σ_j^2 , for $i \neq j$.

Is taken as H_0 : absence of heteroskedasticity errors ($P > 5\%$)

Chi-sq	df	Prob.
174.4173	150	0.0841

In our model $p = 0.0841$ which is greater than 5% so it accepts H_0 , that is to say, the variables are heterogeneous have (absence of heteroscedasticity).

• Autocorrelation test

The correlation of two objects measures their mutual dependence; the autocorrelation of a signal will measure the internal dependencies of the signal. We will apply in the case of a signal to an integer variable. Indeed, if this dependence is very small we can make the assumption that both objects are independent, or if it decreases very quickly, we may think that the two objects form a Markov process.

This is a situation where the error terms are not independent over time. We will introduce a H_0 assumption that the error term depends linearly on its own past value that is to say the error terms are correlated.

Lags	LM-Stat	Prob
1	36.44321	0.0651
2	27.41100	0.3357
3	21.11280	0.6863
4	19.10351	0.7921
5	15.93083	0.9169
6	29.69773	0.2358
7	20.78245	0.7047
8	14.76174	0.9468
9	17.65117	0.8568
10	19.53657	0.7707
11	14.37652	0.9548
12	27.69958	0.3219

In our model the odds are greater than 5% so we reject the null hypothesis that is to say there is no correlation between residues

Generally among the OLS assumptions: (i) the model follows a normal distribution, (ii) absence of heteroskedasticity errors, (iii) lack of autocorrelation is the case of our model. So the estimate by OLS gives results not biased, meaningful and effective.

PAUV= -0.27309-0.249677 PIB-0.326737 POPU-0.021880
INFR-0.231413 EDUC

R2= 0.648121.

R2 adjusted = 0.574041.

DW= 1.972062

In our model, the independent variables explain 64% and 57% poverty rate, also DW = 1.97 goes to two (2), so our model is statistically significant.

Economic interpretation

In our model the poverty rate is well explained by exogenous variables such as GDP growth rates, the rate of public expenditure on education, the rate of public spending on infrastructure and the evolution of population growth:

- In our model, the coefficient of per capita GDP is negative and statistically significant at the 5% threshold. The resulting negative sign goes along with the assumption that growth reduces poverty. Indeed, in Tunisia the impact of an increase of one percentage point of GDP per head is likely to reduce the poverty rate of 0.249677 percentage points. This result is consistent with the work of Delalande (2008) which shows, through a study of the least developed countries (LDCs), the contribution of economic growth to improve the standard of living and in particular to the accelerated poverty reduction and achieving the Millennium development goals for growth. A vision widespread in the field of development economics is that the fruits of growth are automatically broadcast to all segments of society according to the famous hypothesis of "trickle down".

Specifically, according to this hypothesis, development is seen as a flow of wealth from the rich to the poor, the rich are the first beneficiaries of growth.

- Similarly, our tests show a negative relationship and not significant between population growth and poverty. Indeed an increase of one percentage point of the population is likely to decrease poverty 0.326737% of poverty. This can be first explained by the effect of supply. In fact, the increase in population will free abundant labor and cheap. This workforce will move to cities and industry, which is advantageous for the country's economic growth. The industry is a high value-added industry which brings high profits and long-term growth. In addition, early child labor in the industry encourages families to increase their income. This cheap labor allows entrepreneurs to achieve maximum benefits, giving them the opportunity to reinvest, to make even more profits, and thus ensure high economic growth that reduces poverty.

- The indicator of infrastructure namely subscription to landline and mobile per 100 people, negatively affects poverty and statistically significant at 5%. Indeed, the impact of an increase of one percentage point of INF is likely to lower the poverty rate of 0.021880 percentage points. Indeed, the economic infrastructure plays a strategic role in the development process. They help connect operators to markets, lower input costs and improve competitiveness of the economy, and also to provide basic services to the population (access to roads, water, etc.), which determine the quality of life. They therefore contribute both to the growth and improvement of living conditions of populations.

So Strong economic growth leads to an increase in per capita income and improving the well-being of the population. The wealth thus released allows the state to invest more in the social sectors (education, health, and housing) and infrastructure, which has a positive effect on reducing poverty. - Poverty can also be influenced by public spending on education. In fact, our test shows that there is a negative but statistically insignificant between public education spending and poverty, the negative sign means an increase of one percentage point of public expenditure on education in Tunisia is likely to lower 0.231413 poverty, because education is a potential driver of economic growth. The state deployed major efforts to expand access to primary education for all children while developing

parallel free post-basic education. The number of pupils who complete the primary education cycle is increasing and the demand for higher levels of education also increases. Thus, public expenditure on education represents an increase resulting in a reduction in poverty in this economy. This result is not statistically significant at the 5% threshold for poverty in Tunisia is mainly related to monetary concept.

It is concluded that poverty in Tunisia during the period of study is primarily related to the GDP growth rate to a significant effect on poverty. As against the other variables such as education, infrastructure, the growth rate of the population has no significant effect on poverty because poverty in Tunisia is essentially monetary (income, consumption).

Conclusion

Despite the efforts made by the government, poverty in Tunisia and lack of access to acceptable living conditions remain concentrated in the western regions and the South (within the country) where the need to master this situation on the one hand and to catch up on the rural and urban areas to include the Tunisian countryside in the dynamics of development. Indeed, concerning the case of Tunisia, our study shows that poverty is influenced by the variation in the population. In addition, it shows the crucial role of economic growth in reducing poverty, therefore at national level, growth was pro-poor means that an increase in economic growth leads to a reduction in poverty.

The real challenge of developing a development strategy for reducing poverty lies more in the interactions between growth and distribution in relations between, on the one hand, poverty and growth and, secondly, poverty and inequalities which remain essentially arithmetic. But the problem linked to poverty in Tunisia is not the country's economic situation but at the wealth distribution inequality and living condition improvement of the population that remains highly uneven across different regions.

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