SOCIO-ECONOMIC REPORT - MARCH 2011

Supplement:
Employment and productivity profile of growth[1]

Preliminary data suggest that real GDP per capita in oPt grew by about 11% in 2009-2010, with the West Bank and Gaza registering real per capita growth rates of about 12% and 9%, respectively. Profiling this growth in terms of employment and productivity gives an indication of the extent to which the economic expansion has been associated with increases in the quantity and quality of jobs and how employment-intensive or productivity-intensive the process has been.

For the purpose of profiling, GDP per capita is expressed as:

$$\frac{Y}{N} = \frac{Y}{E} \cdot \frac{E}{W} \cdot \frac{W}{N}$$

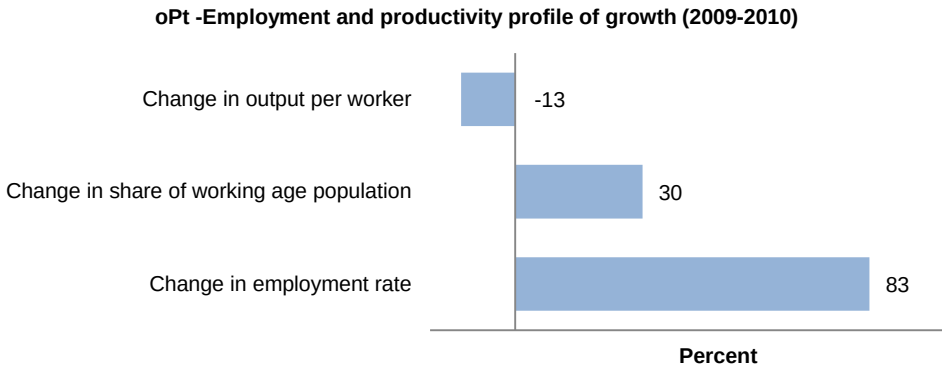
In this equation, Y is equal to GDP (or value added), N is total population, E is total employment, and W is the working age population. Therefore, $\frac{Y}{N}$ is GDP (or value added) per capita, $\frac{Y}{E}$ is output (or value added) per worker, $\frac{E}{W}$ is the employment rate (out of the working age population), and $\frac{W}{N}$ is the share of the total population that is of working age.

The equation is not suggestive of any causal relationships but is used to link changes in per capita value added to changes in each of the three components, that is: 1) changes in productivity or output per worker, 2) changes in the employment rate, and 3) demographic changes resulting in different age dependency relations in the population.

The amount of growth that can be associated with changes in output per worker, for example, is obtained by calculating the resulting growth in per capita value added under the hypothetical scenario where the other two components (the employment rate and the share of working age population) are held constant, but output per worker changes as actually observed. The difference between the resulting hypothetical growth and the observed growth is the change in value added linked to changes in output per worker. A similar procedure is followed to determine the amount of growth associated with the other two components.

Using data for the period 2009-2010, the above equation suggests that 83% of the increase in real GDP per capita can be linked to changes in the employment rate. This implies that if there had not been any changes in productivity or the structure of the population but the employment rate had changed as observed, real GDP per capita would have increased by 9% (or 83% of 11%).

[1] Labor statistics in this supplement come from PCBS's Labor Force Surveys (several issues). Population data used in the calculations are from PCBS's "Palestinians at the end of year 2010", and GDP data are from PCBS's "Preliminary Estimates of Quarterly National Accounts (Fourth Quarter 2010)". It should be noted that the GDP data for 2010 are preliminary estimates based on the available short-term indicators, and the findings in this supplement could be affected as the GDP data are revised.



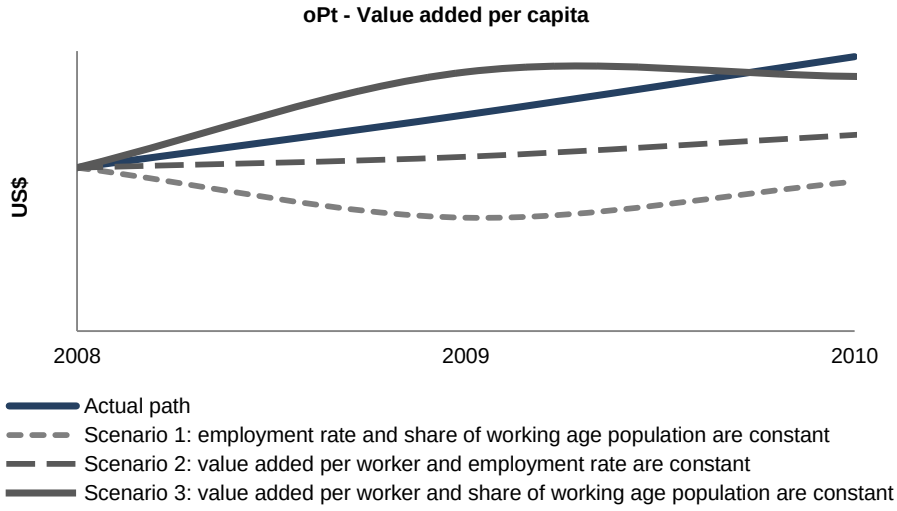
Similarly, 30% of the change in real GDP per capita is linked to changes in the share of the working age population, more precisely variations in the number of dependents per working age person. If productivity and employment had been held constant but the share of the working age population had changed as actually observed, real GDP per capita would have grown by 3% (or 30% of 11%).

Finally, a 13% drop in real GDP per capita is associated with the fall in productivity that occurred in the period 2009-2010. This implies that in the absence of changes in the structure of the population and employment, decreasing productivity would be linked to a 1% contraction in real GDP per capita (or 13% of 11%). Conversely, if productivity had been unchanged but employment and the structure of the population had changed as actually observed, real GDP per capita would have grown by 12% instead of the 11% observed.

The graph below shows the path of real value added per capita in the period 2009-2010 under the three hypothetical scenarios:

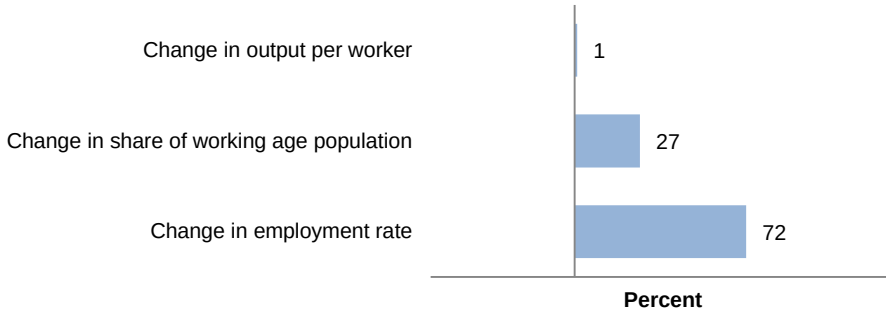
	Scenario 1	Scenario 2	Scenario 3
employment rate	constant	constant	as actually observed
share of working age population	constant	as actually observed	constant
output per worker	as actually observed	constant	constant

The resulting paths reveal the greater association of growth with changes in employment, as well as the lower value added per capita linked to deteriorated productivity during the period.



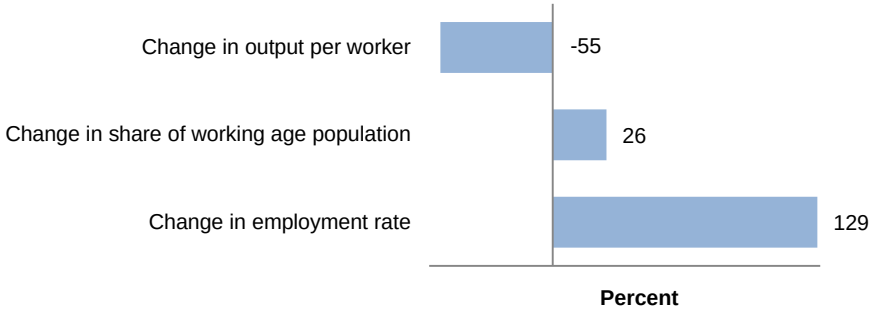
A similar decomposition for the West Bank shows that growth was accompanied most significantly by changes in employment (72%), followed by demographic changes (27%) and output per worker (1%).

West Bank - Employment and productivity profile of growth (2009-2010)



In the case of Gaza 129% of growth can be linked to changes in employment, and 26% to demographic changes. The fall in productivity, on the other hand, is associated with a decrease in value added per capita (-55%). This implies that if productivity had been unchanged but employment and the share of working age population had increased as observed, real GDP per capita in Gaza would have grown by 14% instead of the 9% actually observed.

Gaza Strip - Employment and productivity profile of growth (2009-2010)



The above results suggest that, while accounting for demographic changes, the recent growth in real GDP can be more readily associated with changes in the quantity of jobs than the quality of jobs, particularly in Gaza. Such employment-intensive growth can translate into poverty reduction if it occurs in the “more productive” sectors of the economy and there is adequate labor mobility.