

The Impact of Macroeconomic Policy Options
On the Labour Market
in the Gaza Strip:
Econometric Model Simulation Findings



PALESTINE ECONOMIC POLICY RESEARCH INSTITUTE

2005



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- ♦ Providing a forum for free, open and democratic public debate among all stakeholders on the socio-economic policy-making process.
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FOREWORD

This study is the fruit of continued collaboration between UNCTAD, the ILO and MAS, which was crowned with the development of an econometric model for the Palestinian economy. This paper attempts to forecast the outcome of the application of specific macroeconomic policies on the labour market in Gaza, relying on simulations performed on the econometric model designed by MAS researchers specifically for the Gaza Strip. This was accomplished by separating Gaza's macroeconomic data and developing equations independent from those applied in the econometric model for the West Bank and the Gaza Strip as a whole. This allowed us to study, independently, the behaviour of variables for the Gaza Strip in areas related to investment, labour, government spending and international trade.

As we lay this study in the hands of Palestinian decision makers, we hope it will assist them in their endeavour to confront the challenges of development in the Gaza Strip. This is particularly timely following the unilateral Israeli disengagement from the Strip, which improved the chances for the formulation and implementation of macroeconomic policies there.

I would like to thank all of those who have been involved in this undertaking, particularly the researchers who developed the econometric model and conducted the study, and the experts who assisted in editing and improving the content of the research and its conclusions. We also extend our deepest gratitude to the Friedrich Ebert Stiftung for supporting this project, and with it the successful continuation of academic policy research in the Palestinian Territories.

Dr. Samir Abdullah
Director General

Executive Summary

This study is one of the few ever to analyse and simulate macroeconomic policies in the Gaza Strip alone. Given the special circumstances of Gaza, it attempted to comprehend the effect of macroeconomic policies on the labour market by means of an econometric model that was specially developed for the Gaza Strip by MAS.

The model consists of three main groups: the first group includes nine behavioural equations; four are related to labour demand in the four main economic sectors and one deals with labour in Israel. The other four equations deal with wage interrelationships amongst the various sectors. Labour supply, one of the behavioural equations, is considered an independent variable.

The second group consists of 14 equations that deal with national accounts and prices (which include international trade and government spending). The third group deals with the production side in four value added equations for four economic sectors - agriculture, industry, construction and services.

The research team relied on various sources for model estimation. For the period from 1972 to 1993 it used UNCTAD's database (which was mostly compiled from the Israeli Bureau of Statistics), while data covering the period extending from 1994 to 2003 were taken from the Palestinian Central Bureau of Statistics. The gaps arising due to the use of different sources and different methodologies were overcome using various techniques for extrapolation, and time series for relatively longer periods.

The model was estimated by the means of a Seemingly Unrelated Regression in order to benefit from association amongst residuals for the various equations. Amongst the model's main findings were:

- ✧ Palestinian labour in Israel is not affected by wage differential in Israel as much as it is affected by labour supply and population growth rates in the Palestinian economy.
- ✧ Employment in Israel is inelastic when considering the ratio of Palestinian wages in Israel to local wages.

- ✧ The demand for labour in various sectors is inelastic especially when considering value added (approximately 0.2%), and the same conclusion can be drawn regarding the elasticity against wages.
- ✧ Closures negatively impact wages of Palestinian workers in the local economy. On the other hand, the wages of Gazans working in Israel have a positive impact on local Palestinian wages. A similar conclusion can be drawn about labour productivity in the local economy.
- ✧ The unilateral Israeli disengagement from the Gaza strip is not very beneficial in its current form. On the contrary, its economic effect will be negative on employment and gross domestic product.
- ✧ Given current conditions and the projection that, with disengagement, employment in Israel will fall to zero, the model foresees that unemployment will rise to 41% in 2015. This scenario is considered the baseline scenario.
- ✧ An increase in government investment during the years 2004-2015 by US\$5,768 million will reduce the unemployment rate by an average of 4 points in each year in comparison to that forecast in the baseline scenario.
- ✧ An increase in private investment by US\$6,055 million (holding government investment constant) would decrease unemployment by an average of 2 points in each year.
- ✧ The increase in both private and government investment together would lead to a decrease in the unemployment level by 6 points in each year.
- ✧ Increasing female labour force participation rate by one percent causes an increase in the unemployment level by 2 points in each year.
- ✧ Increasing the number of Gazan workers in Israel by 10,000 workers annually causes a decline in the unemployment level by 3 points in each year.
- ✧ Increasing the number of workers in the public sector by 4% annually leads to only a slight decrease in unemployment, which does not exceed one point in each year.