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Liberalization, technical progress and employment

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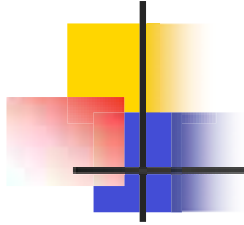
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LIBERALIZATION, TECHNICAL PROGRESS AND UNEMPLOYMENT

Mongi Boughzala



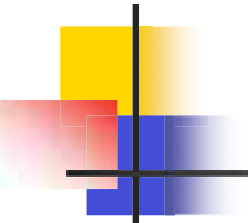
- **Analyzing the Impact of Trade Liberalization and Fiscal reforms On Employment and Poverty in Tunisia: An applied General Equilibrium framework**



INTRODUCTION

- **DO WE NEED ANOTHER CEG MODEL TO STUDY ONCE MORE THE IMPACT OF TRADE, LIBERALIZATION and FISCAL REFORMS?**

A large number of studies have addressed the same issues

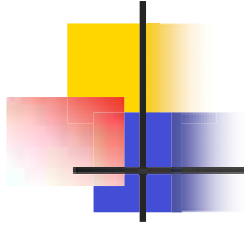
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- need to focus on the impact on unemployment and poverty. We know too little about these two major issues.
 - need a coherent **micro-macro** framework, linking more accurately **income generation, the labor market, the financial market, the real sectors and government policies.**



called IMMPA (Integrated Macroeconomic Model for Poverty Analysis) (Agénor & al.)

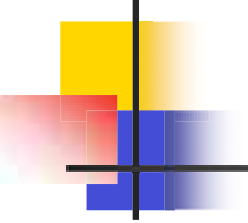
- IMMPA AS A STARTING POINT
- However, as it stands, the available IMMPA is not well designed for addressing the trade liberalization issues and does not reflect all the characteristics of the Tunisian economy

THE ANALYTICAL FRAMEWORK:



- **Treatment of the labor market**
- **The treatment of the financial system**
- **Effects of Government policy
public investment and public goods**

TECHNICAL PROGRESS

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- acquisition of new skills through training.
 - Technical progress is essential.
 - There is a widely held view that trade enhances technical progress through several channels.
 - The endogenous growth theory influence



Some doubt has been cast on this claim

- study of the transmission of technical progress through trade,
- especially trade of intermediate and capital goods,
- and the interaction between trade variables and domestic human capital accumulation and R&D



MARKET STRUCTURE

- Traded goods and protection
- Monopolistic competition



TRADE LIBERALIZATION AND POVERTY IN A STATIC CGE MODEL

- The link between trade and poverty is a new area of study
- quantify the impact on income distribution and poverty as a result of trade liberalization, except agricultural goods, while assuming a revenue neutral rise in indirect taxation



Methodology

- Our own methodology is a mixed methodology allowing to account for intra-group inequalities within the CGE framework.
- A base year social accounting matrix (SAM) for 1998
- Enquête Nationale sur les dépenses et la consommation des ménages, conducted in 1995



The model

- The model contains four tradable sectors (goods): agricultural sector, the formal (private) sector, the informal sector and the formal public sector. The public sector supplies infrastructure and public utilities, and also some tradable goods.
- Five households (by socio-economic status): Agricultural households, unskilled households in the informal sector, unskilled households in the formal sectors, skilled households, and the capitalists

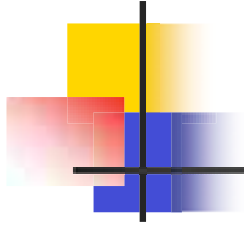
trade liberalization turns out to be costly

	PM	M	XS	EX	ULD	SLD
Agriculture	5.9	-14.3	2.4	20.6	2.6	--
Private good	-5.5	4.5	-4.3	0.8	-4.3	-3.7
Public good	-7.1	12.5	0.5	11.6	0.4	1.0
Informal good	-5.0	9.9	0.4	9.2	0.6	--

Impact on poverty: A measure based on equivalent income

- Poverty variation:

$$\Delta P_{\alpha} = \frac{1}{N} \sum_{i=1}^N \left[\left(1 - \frac{E_i^p}{z_e} \right)_+^{\alpha} - \left(1 - \frac{E_i^o}{z_e} \right)_+^{\alpha} \right]$$



- a Cobb-Douglas indirect utility function:

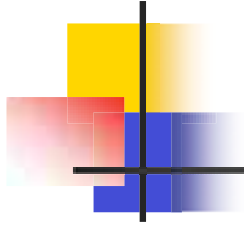
$$v(\mathbf{p}, Y_i) = \frac{1}{Y} \prod_{k=1}^K p_k^{w_{ik}}$$



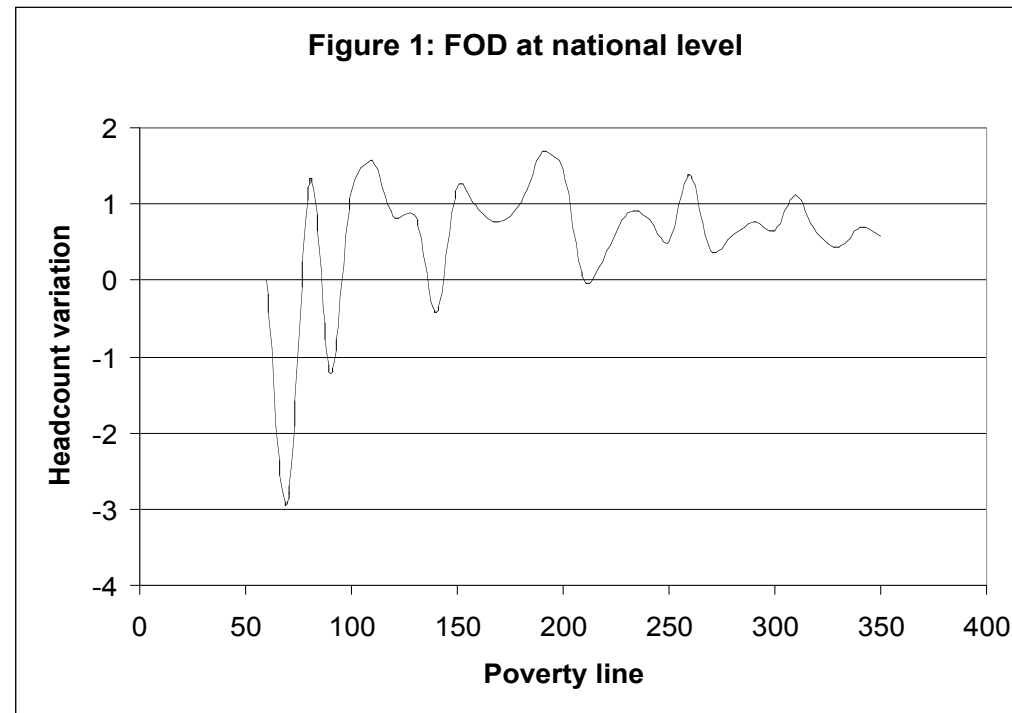
Stochastic dominance

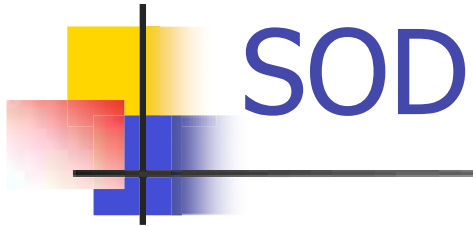
√ $\Delta P_0(.) = P_0(z_e, _p) - P_0(z_e, Y_0) \geq 0$

- **FOD: first order dominance**
- **SOD: second order dominance**



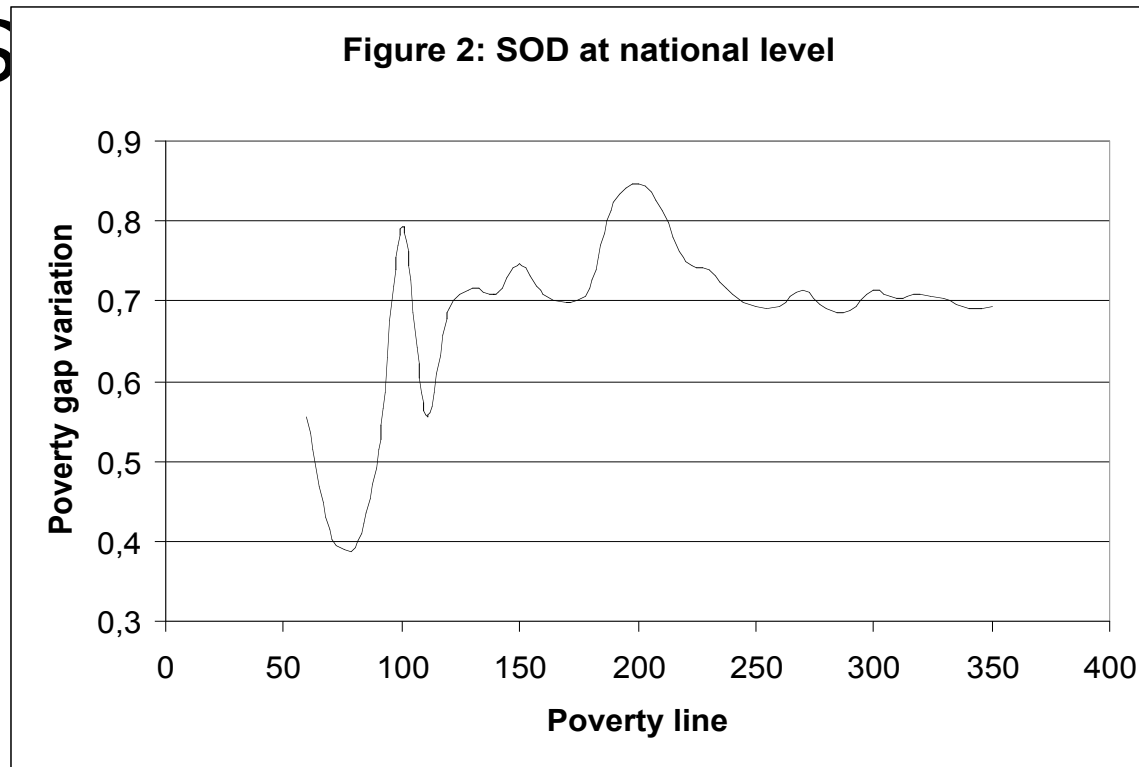
- More poverty for all households except the agric households



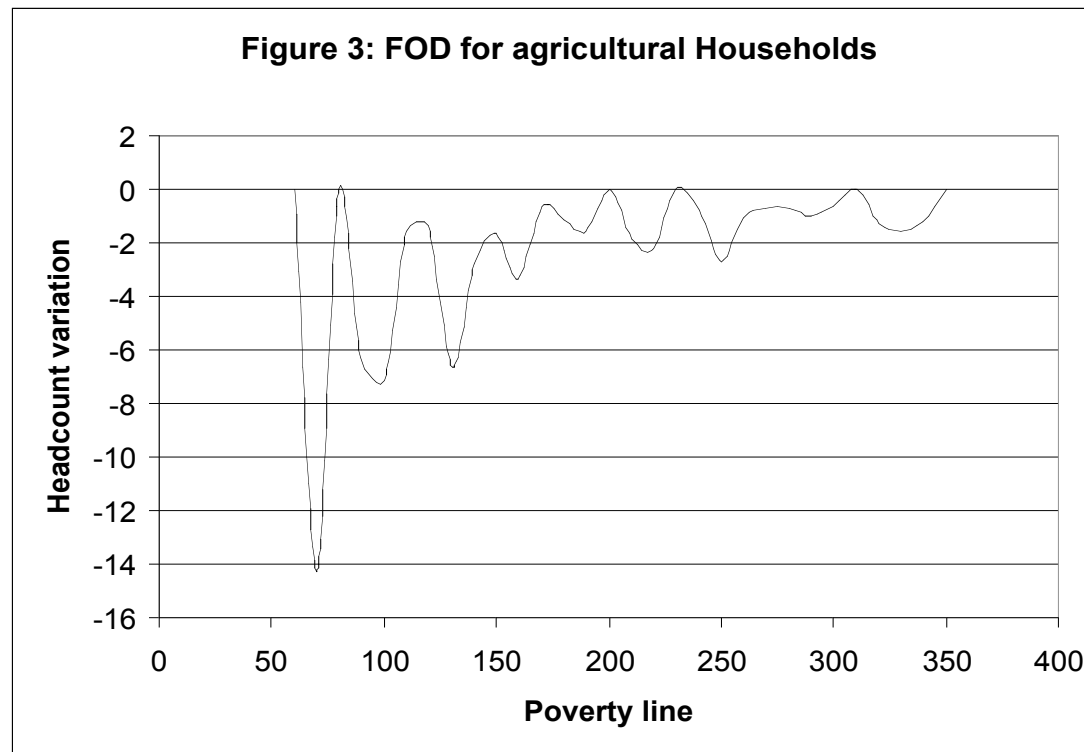
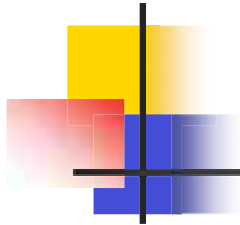


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Figure 2: SOD at national level



FOD for agricultural households



FOD for the informal households

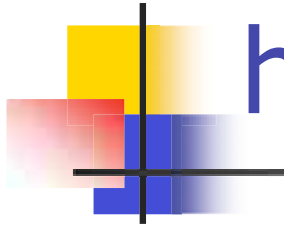
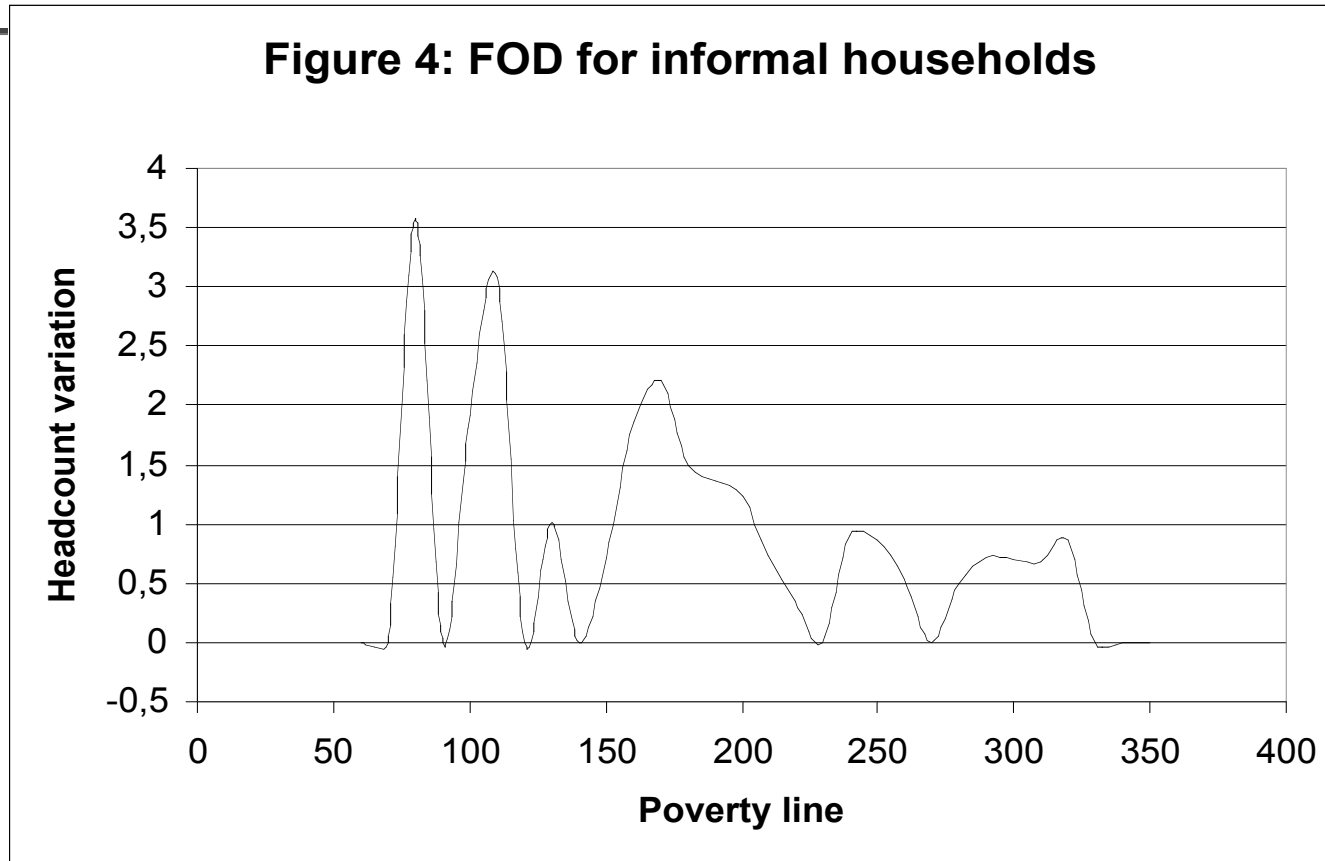


Figure 4: FOD for informal households





CONCLUSION

- THESE PESSIMISTIC RESULTS ARE NOT FINAL AND NOT NEW.
- OUR EXPECTED RESULTS WILL BE BASED ON THE MORE COMPLETE MODEL ALLOWING MAINLY FOR TECHNICAL PROGRESS