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Review Report on PhD Thesis of Beny Tzarfati

entitled

**“INFLUENCE OF PERSONAL INCOME TAX ON INCOME DISTRIBUTION IN IS-
RAEL BETWEEN 1997 AND 2015”**

prepared base on invitation letter from the Dean of Poznan University of Economics and
Business Professor Kamila Marchewka – Bartkowiak, dr hab. prof. nadzw. of UEP

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1. The Research Problem and the Scope of the Thesis

Income dispersion is the focus of socio-economic policy in all market-based economies. Therefore, considerations about income inequalities and the need to take initiatives that lead to the possibility of ensuring financial balance and stability are reflected in the policies of governments around the globe. A situation in which each unit or household has the same level of income at its disposal is termed an egalitarian distribution, while a deviation from this distribution indicates an income inequality.

Today, many measures are known that relate to the numerical representation of this phenomenon. One of the commonly used measures is the Gini coefficient based on the Lorenz concentration curve, whose value indicates the average absolute difference between the income

of a randomly selected pair of entities with the average income. This measure allows to consider the categories of income in two perspectives - income before and after-tax and social transfers received. Interpretation of the result is based at the level of concentration of the phenomenon of income inequalities, in relation to other countries or to the historical results of the examined country or region (Rogojsza 2017).

Beny Tzarfati submitted the doctoral thesis dealing with the relationship between personal income tax (PIT) and income distribution in the context of income inequalities in Israel in the period 1997-2015. The problem of income inequalities has been discussed widely in the literature among economists like Bashir (2018), Piketty (2015), Heshmati (2006), Sen (1997).

However, analyzing the income inequalities problem in the context of the impact of PIT on income distribution is an original and novel research approach. The research problem is a vital, important, and crucial one from the point of view inclusive growth and inclusive economy, and as a part of the sustainable development challenges. The novelty as well as the scientific level of the thesis is very good, considering the importance of the research subject and market requirements.

The main goal of the research was “*to explore the influence of PIT on income distribution in Israel between 1997 and 2015*”. The research goal is defined clearly and easy to follow. Besides, the main purpose of the thesis four specific objectives were provided defined as follows:

- to present instruments aimed at reducing inequality in income distribution;
- to examine the structure and composition of PIT in Israel;
- to analyze numerical data related to PIT and to measure its progressivity;
- to calculate the Gini index, Reynolds Smolensky index, percentage ratio index, Pearson correlation, linear regression, and the Suits and Kakwani index for monthly income in

deciles of households, by gross money income per household before and after PIT payments.

The specific objectives of the thesis are defined properly and are coherent with the main research goal. Two research questions were raised to explain research problem:

- Has income inequality increased in Israel since 1997 ?
- How did PIT affect income distribution in Israel between 1997 and 2015 ?

Taking into account the main goal of the thesis one research question is missing, it was worth asking how PIT has been changed in Israel since 1997 ? to provide general picture of the research study. In fact, the Author has discussed this issue in the chapter no 2 and no 3.

The research questions and research goal refer to two research hypothesis:

- H1 Although various measures of inequality in income distribution yield different results on the level of inequality, inequality is declining;
- H2 Despite the high level of progressivity of PIT between 1997 and 2015, the level of efficacy of PIT in reducing inequality in income distribution has been reduced.

The research hypothesis is generally correct however, one can expect that they will formulate the research phenomenon. Instead of assuming the direction of changes (decrease/ increase) they will explain factors responsible for the changes.

To verify the research hypothesis and to answer research questions, quantitative methods were used, with emphasis on linear regression. To analyze the progressivity of PIT Suits and Kakwani indices were calculated; in order to analyze the level of income inequality three different empirical models were validated: the Gini index by monthly income in deciles of households, gross money income per household, percentages by gross money income in deciles of households, gross money income per household, and division of financial income by monthly income.

The research methodology is in line with the research problem, research goals, and research hypothesis. The research methodology is sound and allows for the research question to be answered. In general, the presented results seem to be reliable and well documented, although, as always in cutting-edge research, the interpretation and discussion can be extended and be more in-depth.

2. The Content of the Thesis

This PhD thesis is well structured and correctly presented. It consists of four coherent chapters. At the beginning of this dissertation – the introduction, theoretical background, research objectives and hypothesis, methods, and organization of the thesis are introduced. Finally, references, list of tables and figures and summaries in Polish and English are presented. The thesis comprises of 179 pages, and is enriched by several figures (17) and tables (24). The theoretical principles, as well as the research part, were validated with references.

The first chapter refers to the issue of income inequality in the economy. The Author discusses the definitions and factors responsible for income inequalities. The chapter provides information about the consequences of income inequalities in the economy as well. The significant part of the chapter focuses on the description and analysis of the tools for reduction of income inequality with specific stress on the role of PIT in decreasing of income inequalities and its impact on income distribution. Finally, the last part of the chapter discusses the measurement and indices of income inequality.

The second chapter explains PIT reforms in Israel and describes income tax as a tool for the distribution of income in the period 1997 – 2015 with special stress on tax reform in 2003. The Author also discusses PIT in Israel in 2017, especially tax levels, tax rates, and compliance with tax payments. The last part of the chapter includes policy recommendations and recommendations for future changes.

The third chapter provides general knowledge about PIT statistics in Israel. The tax burdens calculated as income tax as a percentage of GDP were presented and commented. The progressive nature of PIT was discussed. The data set of Central Bureau of Statistic were provided to explain various levels of incomes and various levels of PIT. Finally, the chapter describes the ways how to use PIT as a tool to reduce income inequality.

The fourth, last chapter is empirical and presents the research results. The structure of inequality in Israel in 1997-2017 is presented firstly. The discussion about the impact of PIT on reducing inequality is provided thereafter. In the next part of the chapter, Hypothesis 1 and Hypothesis 2 are verified, and the results of the study are presented according to indices calculated by the Author. The policy advice and recommendations, research limitation, and future work are also pointed out.

3. The Main Contribution of the Thesis

The main achievements of PhD thesis of Mr. Tzarfati are:

- identifying and searching the relationship between PIT and income inequality in Israel;
- covering the research gap in the scope of income inequality research, especially by addressing the theoretical and empirical approach and tools to explain the problem how PIT may impact on income distribution?;
- explaining and providing new, original knowledge about the effectiveness of PIT in reducing inequality in the distribution of income in Israel.

4. Critical Remarks and specific comments

Even though the thesis was written correctly, there are some minor errors to correct. Below some misspelling errors and inaccuracies are pointed out:

- p. 18 “recommendations for future” it should be “recommendations” as it always refers to the future;
- it is a pity that the bibliography is not numbered;
- a certain disadvantage at work is caused by the limited number of comparisons to international statistics; although the Author shows tax on personal income in Israel and OECD countries as % GDP and as % of taxation, however, based on the average value for OECD countries as a group and not individual country statistics.
- there is also no reference and presentation of income inequalities in Israel against the background of OECD countries or countries with similar functioning conditions as Israel;

Taking into account the suggestions provided above, I kindly ask the Author to respond during the public defense the question – which countries are in a similar position to Israel referring to income inequalities? Have those countries use PIT as a tool for reducing income inequalities and what kind of results they obtained?

5. Conclusion

This thesis represents a great deal of work and contains original and valuable scientific results. The results are well presented and their interpretation is at a high scientific level. This thesis is ready to be defended orally and for sure meets the requirements laid down for the degree of Ph.D., defined by Polish law (*Ustawa o stopniach naukowych i tytule naukowym z 14.03.2003*) and I recommend to admit Mr. Tzarfati to public defense of his thesis.