



UNIVERSITI PUTRA MALAYSIA

**RELATIONSHIPS BETWEEN SHADOW ECONOMY AND
FOREIGN DIRECT INVESTMENT, GROWTH AND POVERTY**

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**RELATIONSHIPS BETWEEN SHADOW ECONOMY AND
FOREIGN DIRECT INVESTMENT, GROWTH AND POVERTY**

By

HESAM NIKOPOUR DEILAMI

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfillment of the Requirements for the Degree of Doctor of Philosophy**

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DEDICATION

My family is the most important thing of my life. I would not have been able to finish this study without the permanent and systematic support of my lovable wife Vahideh, and my son Mehdi (Arman). I thank each of them not only for the invaluable comprehension and dedication but also for their eternal love. I also dedicate this document to my parents who taught me to be perseverant in this world and to the memory of my mother in law.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

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Economic activities may be classified under a structural approach into two major group namely formal economy and shadow economy. On a broad aspect, shadow economy encompasses the operations not taken to national accounts. Omission of some economic operations from national accounts may create numerous problems in policy making. Until recently, quantitative analyses of relationship between shadow economy and other economic variables across countries were not possible due to lack of shadow economy data. Fortunately, the recent availability of its data, in particular Schneider et al. (2010) estimates of the shadow economy as percentage of official GDP makes such an issue researchable.

This study investigates the theoretical issues and empirical evidences related to 1) shadow economy and foreign direct investment, 2) shadow economy and economic growth, and 3) shadow economy and poverty.



In most of the studies on possible causes of the shadow economy, tax burden is considered nationally and the effect of tax avoidance in a global scale is not mentioned. The first objective of this study is to investigate the causal relationship between FDI and the shadow economy using causality methods GMM estimator, based on observations for a sample of 162 countries during 1999-2007. The empirical results suggest that higher FDI causes higher shadow economy and higher shadow economy causes higher FDI.

The second objective is to answer whether the relationship between shadow economy and economic growth depends on the level of economic development. For this, the shadow economy Kuznets curve is employed using data of 162 countries during 1999-2007, and the dynamic panel system GMM is estimated. Considering the role of micro and small enterprises (MSEs), human and social capital, and multinational enterprises (MNEs) on shadow economy and based on unified growth theory, the empirical findings indicate that a cubic, N shape, functional form justifies the relationship between shadow economy and economic growth.

Governments lose a large portion of their revenues through tax evasion, tax avoidance, and inefficient fiscal authorities or in sum shadow economy, which can contribute toward poverty reduction and promoting sustainable development. Therefore, the third objective of this study is to investigate the relationship between shadow economy and poverty by explaining the mechanism through which shadow economy affects poverty via its impact on government size and economic growth, and using the human poverty index (HPI) for developing and developed countries as an index of capability poverty. In order to achieve this objective, the three-way interaction model is utilized using data of 139 developing and 23 developed

countries separately during 1999-2007. For developing countries the dynamic panel system GMM and for developed countries, the fixed and random effects method of estimation is used. The results suggest that increasing the shadow economy leads to increase poverty in developing countries while it decreases poverty in developed countries.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**HUBUNGAN ANTARA EKONOMI BAYANGAN DAN FDI,
PERTUMBUHAN DAN KEMISKINAN**

Oleh

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Aktiviti-aktiviti ekonomi boleh diklasifikasikan di bawah satu pendekatan struktural ke dalam dua kumpulan utama iaitu ekonomi formal dan ekonomi bayangan. Pada satu aspek luas, ekonomi bayangan merangkumi operasi tak diambil untuk akaun-akaun nasional. Peninggalan beberapa operasi ekonomi dari akaun-akaun nasional boleh mewujudkan banyak masalah dalam membuat dasar. Sehingga baru-baru ini, analisis kuantitatif hubungan antara ekonomi bayangan dan pembolehubah-pembolehubah ekonomi lain merentasi negara tidak munasabah disebabkan kekurangan data ekonomi bayangan. Nasib baik, baru-baru ini ketersediaan datanya, khususnya Schneider et al. (2010) anggaran ekonomi bayangan sebagai peratusan KDNK rasmi membuat isu sedemikian

Kajian ini menyiasat isu-isu teori dan bukti-bukti empiris berkaitan dengan 1) ekonomi bayangan dan pelaburan langsung asing, 2) ekonomi bayangan dan pertumbuhan ekonomi, dan 3) ekonomi bayangan dan kemiskinan.

Dalam kebanyakan daripada kajian pada kemungkinan punca-punca ekonomi bayangan, beban cukai dianggap dari sudut kebangsaan dan kesan pengelakan cukai dalam satu skala global tidak disebut. Matlamat pertama kajian ini merisik kebersebaban antara FDI dan ekonomi bayangan menggunakan kaedah-kaedah sebab akibat penganggar GMM, berdasarkan pemerhatian-pemerhatian untuk satu sampel 162 negara semasa 1999-2007. Keputusan empirikal mencadangkan sebab-sebab FDI lebih tinggi itu ekonomi bayangan lebih tinggi dan ekonomi bayangan lebih tinggi menyebabkan lebih tinggi atau lebih rendah FDI.

Matlamat kedua menjawab sama ada hubungan antara ekonomi bayangan dan pertumbuhan ekonomi bergantung jujur pembangunan ekonomi. Untuk ini, ekonomi bayangan lengkung Kuznets bekerja menggunakan data 162 negara semasa 1999-2007, dan sistem panel dinamik GMM adalah dianggarkan. Mempertimbangkan peranan mikro dan perusahaan-perusahaan kecil (MSEs), modal sosial dan manusia, dan perusahaan-perusahaan multinasional (MNEs) pada ekonomi bayangan dan berdasarkan teori pertumbuhan seragam, dapatan-dapatan empirik menunjukkan bahawa satu padu, bentuk N, bentuk fungsian menjustifikasikan hubungan antara ekonomi bayangan dan pertumbuhan ekonomi.

Kerajaan-kerajaan hilang satu bahagian besar hasil mereka melalui pengelakan cukai, pengelakan cukai, dan pihak-pihak berkuasa fiskal tidak cekap atau dalam ekonomi bayangan jumlah, yang boleh menyumbang ke arah pengurangan kemiskinan dan menggalakkan pembangunan kekal. Lantarannya, matlamat ketiga kajian ini merisik hubungan antara ekonomi bayangan dan kemiskinan dengan menjelaskan mekanisme di mana ekonomi bayangan melibatkan kemiskinan melalui kesannya pada saiz kerajaan dan pertumbuhan ekonomi, dan menggunakan indeks kemiskinan manusia

(HPI) untuk membangun dan negara-negara maju sebagai satu indeks kemiskinan keupayaan. Supaya mencapai matlamat ini, model interaksi tiga bahagian digunakan menggunakan data 139 membangun dan 23 negara maju berasingan semasa 1999-2007. Untuk negara-negara sedang membangun sistem panel dinamik GMM dan untuk negara-negara maju, kesan-kesan rambang dan tetap kaedah anggaran adalah digunakan. Keputusan mencadangkan yang bertambah ekonomi bayangan membawa ke kemiskinan peningkatan di negara membangun manakala ia mengurangkan kemiskinan di negara maju.

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

HESAM NIKOPOUR DEILAMI

Date: 15 November 2010

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