

**ESTIMATING THE VOLUME OF THE HIDDEN ECONOMY
IN YEMEN, 1995-2009: EVIDENCE FROM ARDL
APPROACH OF COINTEGRATION**

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EVIDENCE FROM ARDL APPROACH OF COINTEGRATION

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ABSTRAK

Pengetahuan mengenai saiz aktiviti ekonomi tersembunyi adalah sangat penting kepada ahli ekonomi dan pembuat dasar untuk tujuan pembangunan dan perancangan ekonomi.

Pengembangan aktiviti ekonomi yang tersembunyi telah menjadi saingan kepada aktiviti ekonomi rasmi. Kajian ini bertujuan untuk memberikan penerangan tentang fenomena ekonomi tersembunyi di Yemen, salah satu daripada negara-negara yang kurang membangun. Saiz ekonomi yang tersembunyi ini cuba di

ukur berdasarkan saiz pengeluaran cukai dengan mengukur jumlah wang dalamedaran dan nisbah wang kertas baru dicetak dengan jumlah perbelanjaan awam. Kajian ini menggunakan data sukutahunaniaitudarisukupertama 1995 hingga sukukeempat 2009. Dalam kajian ini, nisbah keluaran wang kertas baru yang dikeluarkan oleh pihak berkuasa Yemen adalah tidak selari dengan perbelanjaan awam dan ini adalah satu petunjuk kamalanda sarkewangan yang salah di Yemen. Kajian ini menyiasat sama ada terdapat hubungan jangka panjang di dalam fungsi permintaan wang yang digunakan sebagai ukuran ekonomi tersembunyi Yemen.

Pendekatan kaedah ARDL untuk ujian integrasi bersama digunakan dalam kajian ini.

Hasil kajian menunjukkan terdapat hubungan jangka panjang yang unik dan stabil antara wang dalamedaran dan penentuannya yang

menunjukkan peningkatan ekonomi tersembunyi di Yemen.

Ia mengesahkan bahawa peningkatan ekonomi tersembunyi dikaitkan dengan kelemahan sistem cukai dan rasuah di Yemen.

Purata jumlah ekonomi tersembunyi telah meningkat secara berterusan dari 78.25% GDP bagi tahun 1995 kepada 94.1% GDP bagi tahun 2009. Hasil ujian CUSUM dan CUSUMSQ, menunjukkan fungsi permintaan wang Yemen adalah stabil di antara 1995:1 dan 2009:4.

ABSTRACT

Knowing the size of the hidden economic activities is very important for economists as well as policy makers for economic development and planning. The expansion of the activities in hidden economy has become a competing economy with the official activities. This study aims to shed light on the hidden economy's phenomena in Yemen as a one of the least developing countries. It attempts to measure the size of the hidden economy based on the size of tax evasion by measuring the currency in circulation and the ratio of newly-printed banknotes to the public expenditure. The study uses quarterly data over the period of 1995Q1 to 2009Q4. In this study, the ratio of newly- printed banknotes to the public expenditures which are issued increasingly by monetary authorities over the period are as indicative a wrong monetary policies in Yemen. The study investigates whether there is a long- run relationship in the money demand function which is used as a measurement of the Yemen's hidden economy. The ARDL bound testing approach for cointegration test is adopted in this study. The empirical results show that there is a unique and stable long-run relationship among currency in circulation and its determinants, which indicates a growing activities of hidden economy in Yemen. It confirmed that the growing of the hidden economy is associated with the weakness in the tax system and corruption in Yemen. The average volume of the hidden economy related to the official GDP has grown steadily from 78.25% in 1995 to 94.1% in 2009. The results also reveal that after incorporating the CUSUM and CUSUMSQ tests, the Yemen's money demand function is stable between 1995:1 and 2009:4.

Key words:Hidden Economy; Currency Demand Approach; ARDL Technique ofCointegration

Dedication

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LIST OF ABBREVIATIONS

ADF	Augmented Dickey-Fuller procedure for a unit root-testing
ARDL	autoregressive distributed lag model for cointegration
CBY	Central Bank of Yemen
CDA	Currency Demand Approach
CUSUM	Cumulative Sum of Recursive Residuals
CUSUMSQ	Cumulative Sum of Squares of Recursive Residuals
DAC	Development Assistance Committee
DWD	Durbin--Watson statistic for autocorrelation or serial correlation
GDP	Gross Domestic Product
GNP	Gross National Product
GNI	Gross National Income
HE	Hidden Economy
IMF	International Monetary Fund
JB	Jarque-Bera statistic for normality
LDC	Least Development Countries
LNGP	liquid natural gas project
LM	Breusch- Godfrey of Lagrange Multiplier test for autocorrelation
MIMIC	Multiple indicator multiple cause method
OECD	Organisation for Economic Co-operation and Development
SBC	Schwarz Bayesian Criterion
RESET	Ramsey RESET Regression Equation Specification Error Test
USA	United States of American
WH	White-test for heteroscedasticity
WBIDA	World Bank's International Development Agency
YNIA	National Income Account of Yemen
YNIC	National Information Center of Yemen

CHAPTER ONE

BACKGROUND OF THE STUDY

1.1 Introduction

During the last two decades hidden economic activities have held an interest among economists and academic researchers. The hidden economy has been increasing from year to year and the expansion of hidden economy has become a competitor to the official economy for each economy around the world. The sizes of these hidden economies of some developing countries are quite large compared to the volumes of its official economies (Schneider & Enste, 2000). In this context, as one of the least developing countries, Yemen is one of the poorest countries in the world under the Development Assistance Committee (DAC) categories of the Least Developed Countries (LDC) has a large hidden economy. The high population growth, slow economic development, declining oil resources, very low water resources, poor standard of public health, education and widespread poverty in particular among rural population are the main obstacles for the economic development of Yemen (Nonneman, 1995; Diehl, 2008). In addition, the expansion of a corruption is a major problem in Yemen, and is in particular so in the overstaffed and underpaid government bureaucracy. Chief illicit practices include soliciting bribes, evading taxes, and nepotism (favoring relatives, particularly in hiring). Despite the government has taken a tough stand against corruption, but with little success (Nations encyclopedia, 2011). Therefore, by referring to this economics environment, increasingly Yemen suffers from a growing of the hidden economic activities from year to other (Nonneman, 1995).

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