

Dedication

To my parents, my brothers and sisters, my wife and daughters: Elaf and Estubrg. To all who have been enlightening the way of my life, without them I could not be.

Acknowledgement

I would like to express my gratitude, from my deep bottom, to my supervisor Associate Professor Ahmed Ali Ahmed from Sudan University for Science and Technology Department of Applied Economics, for his respectful supervision to undertake this thesis with his knowledge of economics, and gave me much encouragement and support to enable completion of this study.

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Abstract

The main purpose of this research is to apply the alternative theories of consumption in Sudan, so as to test whether the Sudanese consumers behave as life-cycle permanent-income theory predicts, and determine the most representative model of consumption among the three macroeconomics models of consumption: Random Walk Model, Error Correction Model and Continuous Time Model, using the annual data for the period 1956-2005.

The hypotheses of this study are:

- The Sudanese consumers behave as if life cycle permanent-income theory predicts.
- Random Walk will not represent consumption pattern for the Sudan economy.
- Continuous time model of consumption is the most representative model of consumption for the Sudan economy.
- Error correction model is not the most representative model of consumption for the Sudan economy.

Eviews Package has been used for the statistical analysis for the data of study. The research based on secondary data obtained from Central Bureau of Statistics. The testing of the Sudanese consumers behavior was through (Random Walk Model), starting from the restricted model up to four alternatives for this model. The research utilizes the co-integration Theory and (Error Correction Model) to specify the dynamic formulation of the Sudanese consumption.

The most important findings of the study illustrate that: Sudanese consumers did not behave as the Life Cycle-Permanent Income predicts. Random Walk Model is not the most representative for the Sudan economy. Two consumption models have found according to the empirical results for the Sudan economy: (Error Correction Model and Continuous Time Model). (Error Correction Model) is the most the most representative model of consumption for the Sudan economy. The consumers do not plan to spend in each year the same as they spent in the equivalent previous year. This behavior is accepted in a country with high level of poverty.

The main recommendations of the research are:

- To increase the capital stock by increasing the net investment through many facilities as incentives for additional investment and this will encourage production and income generation, this directly increases consumption.
- The application of the fiscal policies should take aggregate supply and aggregate demand into consideration, and should be consistent with the macroeconomic policies, that are to have synchronized policies, especially for consumption.

المستخلص

الهدف الأساس لهذا البحث هو تطبيق النظريات البديلة للاستهلاك في السودان، و اختبار ما إذا كان المستهلكين السودانيين يوافقون نمط الاستهلاك لنظرية دورة الحياة-الدخل الدائم و أيضاً تحديد أي من نماذج الاستهلاك أكثر تمثيلاً للاقتصاد السوداني من بين ثلاث نماذج للاستهلاك: نموذج المشي العشوائي ، نموذج تصحيح الخطأ و نموذج الزمن المستمر بإستخدام بيانات سنوية للفترة (1956م- 2005م).فرضيات هذه الدراسة هي:-

- نمط الاستهلاك لدى المستهلكين السودانيين يتوافق مع نظرية دورة الحياة- الدخل الدائم.
- نموذج المشي العشوائي لن يمثل نمط الاستهلاك للاقتصاد السوداني.
- نموذج الزمن المستمر أكثرالنماذج تمثيلاً للاقتصاد السوداني.
- نموذج تصحيح الخطأ لن يكون أكثر تمثيلاً للاقتصاد السوداني.

إستخدم البحث حزمة المشاهدات القياسية (Eviews Package) للتحليل الإحصائي لبيانات الدراسة.إعتمد البحث على البيانات الثانوية، التي جمعت من جهاز الإحصاء المركزي.أختبر نمط الاستهلاك للسودانيين من خلال نموذج المشي العشوائي للاستهلاك، بدءاً بنموذج المشي العشوائي المقيد للاستهلاك بالإضافة إلى أربعة خيارات لهذا النموذج.إستفاد البحث من نظرية التكامل المشترك لصياغة العلاقة الحركية للاستهلاك السوداني.

أهم نتائج الدراسة توضح أن: نمط الاستهلاك لدى المستهلكين السودانيين لا يتوافق مع نظرية دورة الحياة- الدخل الدائم نموذج المشي العشوائي للاستهلاك لا يعتبر نموذجاً مثالياً للاستهلاك السوداني. توصلت الدراسة إلى وجود نموذجين إستهلاكيين للإقتصاد السوداني هما: نموذج تصحيح الخطأ و نموذج الزمن المستمر. نموذج تصحيح الخطأ هو أكثر النماذج الاستهلاكية تمثيلاً للاقتصاد السوداني. المستهلكون السودانيون إنفاقهم غير مخطط، ما ينفق في أي عام غير مساوياً للعام السابق له. هذا السلوك مقبول في قطر به مستوى عالي من الفقر.

التوصيات الأساسية للبحث تشمل في التالي:

- زيادة راس المال بزيادة صافي الاستثمار و ذلك عبر الحوافز و التسهيلات التي تؤدي إلى زيادة الاستثمارات، و التي تعمل على تشجيع الانتاج و زيادة الدخل و بالتالي زيادة الاستهلاك مباشرة.
- في حالة تطبيق السياسات المالية، يجب الأخذ في الإعتبار العرض الكلي و الطلب الكلي. ويجب أن تكون تلك السياسات متوافقة مع سياسات الإقتصاد الكلي. يعني وجود تناسق في السياسات الاقتصادية خاصةً في الاستهلاك.

TABLE of CONTENTS

NO.	Item	Page
	Dedication	i
	Acknowledgement	ii
	Abstract (English)	iii
	Abstract (Arabic)	v
	Table of Contents	vii
	List of Tables	xii
	List of Figures	xiii
	List of Appendices	xiv
	List of Abbreviation	xv
1.	1.0 INTRODUCTION	
	1.1 Preface	1
	1.2 Importance of the Study	2
	1.3 Statement of the problem	2
	1.4 Objectives of the Study	4
	1.5 Hypotheses of the Study	4
	1.6 Period of the Study	4
	1.7 Source of the Data	5
	1.8 Methodology of the Study	5
	1.9 Previous Studies	5

	1.9.1 International Relative Previous Studies of Consumption	5
	1.9.1.1 A Consumption Function for Saudi Arabia	5
	1.9.1.2 The Long Run Consumption model for USA	6
	1.9.1.3 Australian Consumption Function	7
	1.9.1.4 Estimation of the European Union Consumption under the Permanent Income Hypothesis	7
	1.9.2 Local Relative Previous Studies of Consumption	9
	1.9.2.1 A Consumption Function For the Sudan	9
	1.9.2.2 Consumption in Sudan: Estimation and Forecast	11
	1.9.2.3 An Estimation of A Consumption Function for the Sudan	11
	1.9.3 The Assessments of the Local Relevant Previous Studies of Consumption	12
	1.9.3.1 The Assessments of El-Sheikh's Study	12
	1.9.3.2 The Assessments of El-Hag's Study	13
	1.9.3.3 The Assessments of Hessein's study	13
	1.10 Structure of the Study	13
2.	2.0 Theoretical Framework	
	2.1 Preface	15
	2.2 The Concept of Consumption and Consumption	16

	Function	
	2.2.1 The Concept of Consumption	16
	2.2.2 The Concept of the Consumption Function	16
	2.2.2.1 Linear Consumption Function	17
	2.2.2.2 Non Linear Consumption Function	19
	2.2.2.3 The Properties of the Consumption Function	20
	2.2.2.3.1 The Average Propensity to Consume	20
	2.2.2.3.2 The Marginal Propensity to Consume	21
	2.2.3 Factors Affecting Consumption	21
	2.2.3.1 The Subjective Factors	21
	2.2.3.1.1 Individual Motives	22
	2.2.3.1.2 Business Motives	22
	2.2.3.2 The Objective Factors	23
	2.2.3.2.1 Change in the Wage Level	23
	2.2.3.2.2 Changes in the Fiscal Policy	23
	2.2.3.2.3 Attitude toward Savings	24
	2.2.3.2.4 The Distribution of Income	24
	2.3 Theories of Consumption	24
	2.3.1 Keynesian Theory of Consumption	24
	2.3.2 Relative Income Hypothesis	27
	2.3.3 Permanent Income Hypothesis	33

	2.3.4 Life Cycle Hypothesis	37
	2.4 The Macroeconomics Models of Consumption	41
	2.4.1 Random Walk Model of Consumption	41
	2.4.2 Error Correction Model of Consumption	45
	2.4.3 Continuous Time Model of Consumption	50
3.	3.0 Methodology and Model Specification	
	3.1 Interface	54
	3.2 The Econometric Methodology	54
	3.2.1 The Stationary Test	54
	3.2.2 The Vector Auto Regression	56
	3.2.3 Granger Causality Tests	57
	3.2.3 Co-integration Tests	57
	3.3 Models Specification	60
	3.3.1 Random walk Model of Consumption	60
	3.3.2 The Error Correction Model of Consumption	61
	3.3.3 The Continuous Time Model of Consumption	62
4.	4.0 Empirical	
	4.1 Interface	63

	4.2 The Characteristics of the Sudan Economy	
	4.3 Histogram and Normality tests	66
	4.4 The Stationary Test	69
	4.5 The Estimation of the Consumption Models	71
	4.5.1 The Random Walk Model of Consumption	71
	4.5.2 The Vector Auto regression Estimates	76
	4.5.3 The Granger Causality Test	81
	4.5.4 The Error Correction Model of Consumption and Forecasting	82
	4.5.5 The Continuous Time Model of Consumption and Forecasting	85
	4.6 The Results	87
5.	5.0 Conclusion	
	5.1 Interface	92
	5.2 Findings	92
	5.3 Recommendations	94
	5.3 Areas for Future Research	95
	References	96
	Appendices	101

LIST of TABLES

Items	Page
Table (4.1) :Unit Root Test	70
Table (4.2): The Restricted RWM Estimation result	71
Table (4.3): The First Alternative Specification Estimation Result	72
Table (4.3): The Second Alternative Specification Estimation Result	73
Table (4.3): The Third Alternative Specification Estimation Result	74
Table (4.3): The Fourth Alternative Specification Estimation Result	75
Table (4.7): The VAR Estimates	77
Table (4.8): Pairwise Granger Causality Tests	81
Table (4.9): ECM Estimates	83
Table (4.10): TCM Estimates	85
Table (4.11): Statistical Indicates of the ECM&TCM models	87

LIST of FIGURES

Items	Page
Fig (1.1) El-sheikh's consumption function	10
Fig (2.1) Linear consumption function	18
Fig (2.2) Non linear consumption function	19
Fig (2.3) the Keynesian consumption function	26
Fig (2.4) the ratchet effect in consumption	31
Fig (2.5) Friedman ^s Consumption Function	36
Fig (2.6) Life Cycle Consumption	38
Fig (4.1) The Normality Test for RTC	67
Fig (4.2) The Normality Test for RGDP	68
Fig (4.3) The Normality Test for RCS	68
Fig (4.4) The Normality Test for INF	69
Fig (4.5) Impulse Response Function	80
Fig (4.6) Forecasting of the ECM	84
Fig (4.7) Forecasting of the TCM	86

LIST of APPENDICES

Items	Page
Appendix (1): Variables of the Study (Thousand Sudanese pound)	101
Appendix (2): Natural Logarithm of the Variables	102
Appendix (3): The GDP Growth Rate %	104
Appendix (4): The Performance, Structure and structural Change in Sudan Economy	105
Appendix (5): Multiple Graphs Line	106
Appendix (6): Residuals Graphs	107

LIST of ABBREVIATIONS

ADF	Augmented Dickey Fuller
Adj.R ²	adjusted R ²
AIC	Akaike Information Criteria
APC	Average Propensity to Consume
BP	Bias Proportion
CP	Covariance Proportion
CTM	Continuous Time Model
D.W.	Durbin Watson
ECM	Error Correction Model
EQU	Equation
EU	European Union
Fig.	Figure
GDP	Gross Domestic Product
i.i.d	Independent and Identically Distributed
INF	Inflation
LCH	Life Cycle Hypothesis
LCPI	Life-Cycle Permanent Income
LDCs	Least Developed Countries
LN	Natural Logarithm

MAE	Mean Absolute Error
ML	Maximum likelihood
MPC	Marginal Propensity to Consume
NO.	Number
OLS	Ordinary Least Squares
P.	Page
P.P	PHillip-Perrson
PIH	Permanent Income Hypothesis
PP.	Pages
RCS	Real Capital Stock
RGDP	Real Gross Domestic Product
RIH	Relative Income Hypothesis
RMSE	Root Mean Square Error
RTC	Real Total Consumption
RWM	Random Walk Model
SIC	Schwarz Information Criteria
SPSS	Statistical Packages for Social Sciences
VAR	Vector autoregression
VP	Variance Proportion
W B	World Bank