

**IMPACT OF AGE STRUCTURE TRANSITION TO THE  
CURRENT ACCOUNT BALANCE**

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Science

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## DECLARATION

I declare that this is my own work and this thesis does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

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## **ABSTRACT**

The general objective of this research is to analyze the Impact of Age Structure Transition to the Current Account Balance (CAB) .

This research data included 46 panels of countries over a period of 39 years starting from 1980 to 2018. These countries were selected randomly from the World Bank classification based on income. Dataset was analyzed using different panel data models. Hypotheses were developed to find the relationship between the dependent variable, CAB and three independent variables; 0-24 years aged population as a percentage of total population, 65+ years aged population as a percentage of total population, growth rate of per capita GDP in current prices. Several models including pooled ordinary least squares (OLS) model, fixed effects model and random effects model were tested for the dataset. Chow test and Hausman test were used to select the most appropriate model. Fixed effects model (FEM) was selected as the best model to analyze the impact of age structure variables to CAB. According to the selected model, both age structure variables have negative impact on CAB. On average, CAB is declined by increases in shares of both young and elderly populations. More young and elderly population means higher dependent population. When expenditure for dependent population is getting higher, savings become less. When savings are decreased, CAB is declined, according to the savings-investments approach.

Further, selected countries were divided into two groups according to the current account surplus and deficit. For those countries age adjusted CAB was calculated using the estimated coefficients of FEM calculated in order to check the robustness of the selected model. Following Chitgupi (2014)'s study, averages of the two demographic variables and Current Account Balance for a subset of years (2014-2018) from the period used in the estimation of model were used to calculate age adjusted CAB of the selected countries. An adjustment factor which determines the nature and impact of age structure on CAB was obtained by getting the difference between Age Adjusted CAB and the actual CAB.

Sri Lanka specific analysis was conducted to check the behavior of Sri Lanka's CAB during the period 1980-2018 with the age adjustment. Based on these results of country specific analysis, it is found that Sri Lanka is experiencing lower dependent populations during the period 1980-2017. Even though, Sri Lanka's dependent population was getting lower during 1980-2018 period, the current account balance is decreasing year by year and the deficit in current account is also getting larger. It implies that having a larger proportion of working age population will not always make a positive impact to the current account.

**Key words:** Age Structure Transition, Current Account Balance, pooled OLS, fixed effects , random effects

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## **LIST OF ABBREVIATIONS**

AST	Age Structure Transition
GDP	Gross Domestic Product
CA	Current Account
CAB	Current Account Balance
TFR	Total Fertility Rate
BOP	Balance Of Payments
IMF	International Monetary Fund
OLS	Ordinary Least Squares
FEM	Fixed Effects Model
REM	Random Effects Model

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