Ⅳ. Good Practices

[Example 1: International Trade]

[Title] AN ANALYSIS OF THE RELATION BETWEEN THE BUDGET DEFICIT AND THE CURRENT ACCOUNT DEFICIT AND ITS IMPLICATIONS ON THE MACROECONOMIC CHALLENGES OF THE REPUBLIC OF GUATEMALA

[Abstract]

The Republic of Guatemala has always experienced deficits in the fiscal management and in the current account. Under the Twin Deficits Hypothesis the question if these deficits are related and in some way responsible one of the other arises. The present study aims to examine if the budget deficit has a direct causal relationship with the current account deficit. We conducted a descriptive statistical analysis and an empirical analysis to establish the relationship between these deficits. Using time series econometrics tests for the period 1960-2006, the empirical results indicate the existence of a long-run relationship between the deficits, while the Granger-causality test shows the existence of a uni-directional causal relationship running from the budget deficit to the current account deficit. Even though in recent years the economic outlook of the country has improved due to prudent fiscal and monetary policies, new increments in the public debt may impose additional pressure over these two deficits; therefore, the economic authorities will have to adopt another kind of policies to stop further deterioration of these deficits.

[Table of contents]

List of Text

Chapter 1.	Introduction	1
Chapter 2.	Theoretical Background	3
2.1	Twin Deficit Hypothesis	3
2.2	Theoretical Basis for the Twin Deficit Hypothesis	3
2.2.1.	Decomposition of the national income identity	3
2.2.2.	Relevant economic Theory	7
2.2.2.1	Keynesian transmission mechanisms	7
2.2.2.2.	The Ricardian Equivalence Hypothesis	7
2.3.	Relevant Literature Review	9
Chapter 3.	Descriptive Statistical Analysis of the Macroeconomic Developments of the Republic of Guatemala	12
Chapter 4.	Empirical Analysis	28
4.1	Econometrics Methodology	28
4.2	Estimation Results and its Interpretation	28
Chapter 5.	Conclusions, Recommendations and Limitations	34
Bibliography	Empirical Analysis	37
Appendix	Econometrics results from E-views software	40

List of Figures

Figure 1. Gross Domestic Product Growth Rate (%) 13
Figure 2. Budget Deficit as percentage of GDP 13
Figure 3. Inflation Rates (%) 14
Figure 4. Exchange Rate Quetzal/US Dollar 14
Figure 5. Interest Rates (%) 15
Figure 6. Total Public Debt (USD millions) 16
Figure 7. Current Account Deficit as percentage of GDP 16
Figure 8. Value of Trade Balance (USD millions) 17
Figure 9. Exports and Imports Growth Rate (%) 18
Figure 10. Government Tax Revenues and Expenditures (USD millions) 19
Figure 11. Current Account (USD millions) 21
Figure 12. Capital and Financial Account (USD millions) 22
Figure 13. Foreign reserves excluding gold (USD millions) 23
Figure 14. Net National Savings and Budget Deficit 23
Figure 15. Budget Deficit and Current Account Deficit as percentage of GDP 24
Figure 16. Exchange rate transmission mechanism 25
Figure 17. Interest rate transmission mechanism 26

List of Tables

Table 1. Unit Root Test, Argumented Dickey-Fuller Test, Exogenous: With a Constant 29
Table 2. Unit Root Test, Argumented Dickey-Fuller Test, Exogenous: With a Constant 29
Table 3. Ordinary Least Square Test 30
Table 4. Augmented Dickey-Fuller Test for the Residual of the Regression Equation 31
Table 5. Error Correction Model 32
Table 6. Granger Causality Test 33

[Example 2: International Business]

[Title] The Effect of Real time, Social Presence and Personalization on user's loyalty throughout different Websites categories

[Abstract]

The use of Social Presence, Personalization and Real-time as applications for Websites in e-business has been a strong topic for research, especially the two firsts. This mainly caused by the wave of social networking sites and the inclusion of user's contribution and interaction with the Websites (Web 2.0). The focus of this study is to reveal the basis of three selected Websites categories, Retail, Portal and Financial services, the preference of consumer applying Social Presence, Personalization and Real Time and the relationship with loyalty for the Website. Having this results, conclusions can be drawn to provide an objective and empirical evidence for e-business areas.

Keywords: Social Presence, Personalization, Real-time, Loyalty

[Table of Contents]

Table of Content		i
List of Figures		ii
List of Tables		iii
Appendix		iv
Chapter 1:	Introduction	1
1.1	Statement of the problem	6
1.2	Research questions	6
1.3	Importance of the study	7
1.4	Organization of the Thesis	7
Chapter 2:	Literature Review	9
2.1	Social Presence Theory	9
2.2	Real Time	2
2.3	Personalization	30
2.4	Web Classification	39
2.5	Trust	41
2.6	Technology Acceptance Model (TAM)	42
2.7	Loyalty	43
Chapter 3.	Methodology	45
3.1	Model and Hypothesis	45
3.2	Research Design	48
3.2.1	Pilot Test	48
3.2.2	Experiment	54
Chapter 4.	Results	60
Chapter 5.	Discussion	68
5.1	Conclusion	70
5.2	Further research	72
Appendix		83

List of Figures

- Figure 1. Social Presence Stages by Biocca & Harms (2001)
- Figure 2. Research Model
- Figure 3. Modified Model
- Figure 4. Retail Results
- Figure 5. Portal Results
- Figure 6. Finance Results

List of Tables

- Table 1. Social Presence Research
- Table 2. Personalization Research, elaborated from Gao et al. (2009)
- Table 3. Construct Definition and Sources
- Table 4. Pilot Test Results
- Table 5. Survey Construct

[Example 3: NGO Studies]

[Title] International Marriages in South Korea (NGOs' Response in an Age of Globalization)

[Abstract]

Globalization increases all kinds of cross-border flows, including movements of people. With Globalization, the number of individuals traveling, working or studying aborad is increasing globally. In recent years, international migration has grown in volume also in South Korea and the number of international marriages is also increasing and is affecting tremendously South Korean society.

International marriage has been contributing to South Korea economically, socially and culturally. Through international marriage in South Korea is benefited by an educated but cheap labor force from peripheral countries. International marriage is also contributing to South Korean society by providing brides to those marginalized males who are not accepted by South Korean brides due to several causes or not able to get a bride domestically. Transforming a homogeneous society to a multicultural society is a major contribution of international marriage to South Korea.

Besides these tremendous contributions, the problems faced by international married women such as domestic violence, sexual abuse, social and culture discrimination, are hinders to naturalization, language and adjustment etc. and are blocking fully-fledged contributions. Among all kinds of such obstacles, Violence against International Married Women(VAIMW) is the most striking one. The issue of fake or paper marriages is another subject for discussion.

The government of South Korea has tried to handle such problems with its policies and practices of 'multiculturalism' working thorough its agencies. It is also supporting some NGSO to implement its policies, considering the social nature of the problem. But this 'government led multiculturalism; cannot overcome the problems. NGOs are providing supports such as culture and career development, counselling, temporary shelters etc. to the victims of VAIMW. These supports are also not adequate for eliminating VAIMW. If the NGOs adopt a rights based approach rather than a philanthropic approach them they can contribute to overcome problems effectively. South Korea needs an 'alternative multiculturalism' led by NGOs, to wipe-out the obstacles.

[Table of Contents]

Chapter One - Introduction 1

1.1 Research Propose 5
1.2 Hypothesis 5
1.3 Key Research Question 6
1.4 Research Method 6
1.5 Procedures 6
1.6 Participants 6
1.7 Limitation of Study 7

Chapter Two:- Theoretical Aspect and Literature Review

2.1 International Marriages: Migration Perspective 8
2.2 International Marriages: Multiculturalism Perspective 11
2.3 Citizenship and Human Rights 14
2.4 International Marriage: Gender Perspective 15

Chapter Three:- Multiculturalism and Government Policies in South Korea

3.1 Multiculturalism and Government Policies in South Korea 17
3.2 Immigrants in South Korea 17
3.3 Push and Pull Factors for International Marriages 20
3.4 Government Policies and on International Married Women 24
3.5 Problems of Multicultural Polices and Practices 27

Chapter Four:- International Marriages in South Korea

4.1 History of International Marriage in South Korea 29
4.2 Current situation of International Marriages in South Korea 30
4.3 Problems of International Married Women 33
4.4 Fake Marriage in South Korea 40
4.5 International Marriage and Divorce Rates 42
4.6 Violence Against International Married Women 43

Chapter Five:- Alternative Multiculturalism in South Korea

5.1 NGOs' Response in the Age of Glottalization 45
5.2 South Korea NGOs in Practice 45
5.3 NGOs Led Multiculturalism and Rights Based Approach 48

Chapter Six. Conclusion and Recommendation
6.1 Conclusion 49
6.2 Recommendation 51
Bibliography 52
Appendix 55

[Example 4: International Development and Corporation]

[Title] Poverty Reduction in Cameroon by Korea's ODA Policy Frame-work: A Search for a New Paradigm.

[Abstract]
It is common knowledge that a considerable percent of the world's population still lives below the poverty line, although mankind has achieved economic prosperity at an unprecedental level. Sub-Saharan Africa is the region highly affected by poverty. Cameroon is not exempted from this situation and the need to solicit for an intervention by Korea's ODA is a crucial and sincere plea and this world obviously be a new paradigm, as Korea's ODA has so far, not yet been directly extended to Cameroon. It is not uncommon that a country like South Korea that has catapulated from a similar poverty situation to becoming one of the Asian Tiger would be better placed to provide reliable solution to poverty reduction in Cameroon. In this thesis, I am interested in diagnosing both the old and new paradigms of Korea's ODA while suggesting and emphasizing on the need for a new paradigm by Korea and Cameroon in order to reduce poverty in the latter. The old paradigm is associated with 'Planner' who emphasize on the need for a 'Big push' as advocated by Sachs and which Korea's government is virtually adhering and implementing through the top-down approach. Meanwhile, the 'new paradigm' is associated with practicalities which Easterly refers to as 'Searchers' and implemented through the bottom-up approach which would make it good for win-win cooperation between Korea and Cameroon. The significance of the Official Development Assistance (ODA) is increasingly gaining recognition in the international community as its efforts to eradicate poverty results not only in the protection of basic human rights, but also in the construction of a healthy governance system, the spread of democracy within the recipient country, and ultimately the contribution to world peace. So far, Korea's ODA has strived very well in achieving the MDGs especially the poverty goal. But much is yet to be done as many Less Developed countries (LDCs) are still languishing in abject poverty. I would be using an analtic and descriptive approach to show the nexus between Korea's ODA and the MDGs and making particular reference to poverty alleviation in Cameroon. Some statistical records are equally provided to buttress my facts as I wrap up by suggestion that, there should be a significant reduction in the burden of policy conditionality by 2011 and an ambitious target for demand-led technical assistance by 2015.

Key word: Poverty Reduction, ODA Korea, MDGs, Capacity building and capacity development, Planners, Searchers, top-down, bottom-up, tied-aid, new paradigm shift.

[Table of contents]

List of Text

Abstract		vii
Acronyms		viii
List of Table		ix
Chapter 1:	Introduction	1
1.1	Scope and limit of Paper	1
1.2	Research Objectives	2
1.3	Hypothesis	3
1.4	Research Questions	3
1.5	Research Motivation	3
1.6	Methodology	3
1.7	Outline of Thesis	4
Chapter 2:	Post World War II Development Literature	6
2.1	Introduction	6
2.2	The Keynesian Theory	6
2.3	Development Theory after Keynesian	7
2.4	From the Dependency Theory	9
2.5	Harrod-Dornar and Solow Model	11
2.6	Conclusion	13
Chapter 3.	Colonization and Poverty in Cameroon	15
3.1	Introduction	15
3.2	Conclusion	18
Chapter 4.	A Bird's Eye View of Korea ODA Policy in Sub-Saharan Africa	19
Chapter 5.	The Way Forword; A Search for New Paradigm	29
Chapter 6.	Conclusion	50
References		53

[Example 5: Energy Science and Policy]

[Title] Modeling Pumped Thermal Energy Storage with Waste Heat

[Abstract]

This work introduces a new concept for a utility scale combined energy storage and generation system. The proposed design utilizes a pumped thermal energy storage (PTES) system, which also utilizes waste heat leaving a natural gas peaker plant. This system creates a low cost utility-scale energy storage system by leveraging this dual-functionality. This dissertation first presents a review of previous work in PTES as well as the details of the proposed integrated bottoming and energy storage system. A time-domain system model was developed in Mathworks R2016a Simscape and Simulink software to analyze this system. Validation of both the fluid state model and the thermal energy storage model are provided. The experimental results showed the average error in cumulative fluid energy between simulation and measurement was +/- 0.3% per hour. Comparison to a Finite Element Analysis (FEA) model showed <1% error for bottoming mode heat transfer.

The system model was used to conduct sensitivity analysis, baseline performance, and levelized cost of energy of a recently proposed Pumped Thermal Energy Storage and Bottoming System (Bot-PTES) that uses ammonia as the working fluid. This analysis focused on the effects of hot thermal storage utilization, system pressure, and evaporator/condenser size on the system performance. This work presents the estimated performance for a proposed baseline Bot-PTES. Results of this analysis showed that all selected parameters had significant effects on efficiency, with the evaporator/condenser size having the largest effect over the selected ranges. Results for the baseline case showed stand-alone energy storage efficiencies between 51 and 66% for varying power levels and charge states, and a stand-alone bottoming efficiency of 24%. The resulting efficiencies for this case were low compared to competing technologies; however, the dual-functionality of the Bot-PTES enables it to have higher capacity factor, leading to $91-197/MWh levelized cost of energy compared to $262-284/MWh for batteries and $172-254/MWh for Compressed Air Energy Storage.

Table of contents

Abstract iii
Table of contents.....v
List of figures ix
List of tables xiv
List of symbols.....xvii
Acknowledgements xxii
Chapter 1: Introduction 1
Chapter 2: Thermodynamic analysis of four compressed air energy storage designs:
Conventional CAES, D-CAES, A-CAES, and CAES-HTE 8
Preface.....
..9
1- Introduction.....
11
2- Methods .....

15
3- Thermodynamic analysis of D-CAES and conventional CAES..... 19
3-1- Modeling conventional CAES
.....21
3-2- Modeling D-CAES
.....27
3-3- Numerical example: D-CAES and conventional CAES
models.....31
3-4- Remarks on thermodynamics of
D-CAES.....37
4- Thermodynamic analysis of A-CAES and CAES-HTE 39
4-1- Modeling
A-CAES.....48
4-2- Modeling
CAES-HTE.....53
4-3- Modeling conventional CAES
.....60
4-4- Numerical example: A-CAES and CAES-HTE models
.....60
4-5- Remarks on thermodynamics of A-CAES and
CAES-HTE.....73
vi
Chapter 3: Compressed air energy storage (CAES) with compressors distributed at
heat loads to enable waste heat utilization 77
Preface.....
78
1- Introduction.....
81
2- Methodology.....
87
2-1- System of
study.....88
2-2- Inputs and simulation model
.....91
3- Results and discussion..... 99
3-1- Optimal size of components
.....101
3-2- Distribution of electricity
generation.....103
3-3- Distribution of wind
energy.....105
3-4- Distribution of heat supply
.....107
3-5- Cost of
electricity.....108

3-6- Sensitivity analysis on the length of pipeline.....110
3-7- Emissions tax and emissions reduction.....112
4- Conclusions 114
Chapter 4: Compressed air energy storage with waste heat export: An Alberta case study 117
Preface.....118
1- Introduction.....121
2- Methodology.....124
2-1- System of study.....124
2-2- Electricity market of Alberta.....125
2-3- Heat load.....126
2-4 Compressed air pipeline.....127
2-5- Performance parameters.....129
2-6- Costing inputs.....130
2-7- Optimization model.....132
vii
3- Results and discussions.....135
3-1- Base case scenario 135
3-2- Optimal size of heat load.....140
3-3- Optimal size of air storage.....142
3-4- Optimal size of turbo-machinery.....143
3-5- Effect of pipeline length.....144
4- Conclusions 146
Chapter 5: How much bulk energy storage is needed to decarbonize electricity? ... 148
Preface.....149
1- Introduction 151
2- Data and methods 153

2-1- Modeling energy storage.....153
2-2- Load and wind data.....157
2-3- Electricity system model.....158
3- Results and Discussions 162
3-1- Cost of electricity.....162
3-2- Storage cost and wind penetration.....163
3-3- Economically optimal deployment of storage.....168
3-4- Implications for specific BES technologies.....169
3-5- Sensitivity to capital cost of DZC.....172
3-6- Sensitivity to price of gas 179
3-7- Sensitivity to storage efficiency 183
3-8- Upper bound for penetration of storage 183
6- Conclusions 184
Chapter 6: Conclusions..... 192
1- Managing GHG emissions of CAES.....193
2- CAES and D-CAES under emissions tax.....196
3- CAES and D-CAES in deregulated electricity markets 198
4- Importance of bulk storage for electricity decarbonization 200

Bibliography 207