

INVESTMENT, TRADE AND EXCHANGE RATES



**RESEARCH MANAGEMENT INSTITUTE (RMI)
UNIVERSITI TEKNOLOGI MARA
40450 SHAH ALAM, SELANGOR
MALAYSIA**

BY :

**NOOR ZAHIRAH MOHD SIDEK
MAHADZIR ISMAIL**

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Contents

| | |
|--|------|
| 1. Letter of Report Submission..... | iii |
| 2. Letter of Offer (Research Grant)..... | vii |
| 3. Acknowledgements..... | viii |
| 4. Enhanced Research Title and Objectives..... | viii |
| 5. Report..... | 1 |
| 5.1 Proposed Executive Summary..... | 1 |
| 5.2 Enhanced Executive Summary..... | 2 |
| 5.3 Introduction..... | 2 |
| 5.4 Brief Literature Review..... | 4 |
| 5.5 Methodology..... | 5 |
| 5.6 Results and Discussion..... | 7 |
| 5.7 Conclusion and Recommendation..... | 12 |
| 5.8 References/Bibliography..... | 13 |
| 6. Research Outcomes..... | 15 |
| 7. Appendix..... | 17 |



**FINAL REPORT
FUNDAMENTAL RESEARCH GRANT SCHEME (FRGS)**

*Laporan Akhir Skim Geran Penyelidikan Asas (FRGS) IPT
Pindaan 1/2010*

RESEARCH TITLE :
Tajuk Penyelidikan

PROJECT LEADER : DR NOOR ZAHIRAH MOHD SIDEK
Ketua Projek

PROJECT MEMBERS : 1. DR MAHADZIR ISMAIL
(including GRA) 2.
Ahli Projek

PROJECT ACHIEVEMENT (Prestasi Projek)

ACHIEVEMENT PERCENTAGE

| Project progress according to milestones achieved up to this period | 0 - 50% | 51 - 75% | 76 - 100% |
|---|---------|----------|-----------|
| Percentage | | | 100% |

RESEARCH OUTPUT

| Number of articles/ manuscripts/ books <i>(Please attach the First Page of Publication)</i> | Indexed Journal | Non-Indexed Journal |
|--|-----------------|---------------------|
| | 1 | 3 |
| Conference Proceeding <i>(Please attach the First Page of Publication)</i> | International | National |
| | 3 | |
| Intellectual Property <i>(Please specify)</i> | Nil | |

HUMAN CAPITAL DEVELOPMENT

| Human Capital | Number | | | | Others <i>(please specify)</i> |
|-----------------------|-----------|---------------|-----------|---------------|-----------------------------------|
| | On-going | | Graduated | | |
| Citizen | Malaysian | Non Malaysian | Malaysian | Non Malaysian | |
| PhD Student | 1 | | | | |
| Master Student | 2 | | 1 | | |
| Undergraduate Student | 2 | | 6 | | |
| Total | 5 | | 7 | | |

EXPENDITURE (Perbelanjaan)

Budget Approved (Peruntukan diluluskan) : RM42,000.00
Amount Spent (Jumlah Perbelanjaan) : RM42,000.00
Balance (Baki) : RM0
Percentage of Amount Spent : 100 %
(Peratusan Belanja)

ADDITIONAL RESEARCH ACTIVITIES THAT CONTRIBUTE TOWARDS DEVELOPING SOFT AND HARD SKILLS (Aktiviti Penyelidikan Sampingan yang menyumbang kepada pembangunan kemahiran insaniah)

| International | | |
|---|---------------------|---|
| Activity | Date (Month, Year) | Organizer |
| GAUSS Workshop | 3-6 June 2012 | East Asia Training and Consultancy Ltd, Singapore |
| National | | |
| Activity | Date (Month, Year) | Organizer |
| Introduction to 'R' | 4-6 Jul 2011 | Universiti Sains Malaysia (USM) |
| The Art of Writing Publishable Scientific Manuscript and Beyond | 27-28 February 2012 | Universiti Sains Malaysia (USM) |

PROBLEMS / CONSTRAINTS IF ANY (Masalah/ Kekangan sekiranya ada)

Rejection from ISI-indexed journals.

RECOMMENDATION (Cadangan Penambahbaikan)

5. Report

5.1 Proposed Executive Summary

The major thrusts of the 10th Malaysia Plan are geared towards transforming Malaysia into a high income nation. Higher income per capita can only be achieved with higher growth of GDP. In the past, GDP growth in Malaysia is supported by the influx of foreign direct investment which fuels the export-oriented industries. Domestic investment in terms of infrastructure and human capital development further enhance the influx of foreign direct investment into Malaysia.

Hence, the main objective of this study is to derived a model which illustrates the dynamic interactions between income per capita, domestic investment and foreign investment. We extend the existing growth model by incorporating the impact of both domestic and foreign investment with a threshold which connotes the novelty of this study. Given the identification of the model, we estimate a threshold value which indicate the minimum or a threshold amount of investment needed to promote income per capita growth. Subsequently, we simulate the impact of shocks of foreign investment and domestic investment on income per capita. Finally, the robustness of the model (s) and the estimation of the threshold value (s) are conducted using heuristic approaches of genetic algorithm, neuro network and support vector machine.

The final outcome of this study is the formation of a generic theoretical model which is applicable, at least, in developing countries. The estimated threshold value (s) would be a guide to the government or policy makers as to how much investment is needed to sustain and increase income per capita. Eventually, the theoretical model serves as a benchmark model which would be useful for future simulations, predictions and other extensions in growth modelling in developing world.