ESSAYS ON OPEN ECONOMY MACROECONOMICS IN DEVLELOPING ECONOMIES.



A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE

FELLOW PROGRAMME IN MANAGEMENT

INDIAN INSTITUTE OF MANAGEMENT INDORE

BY

ANIRBAN SENGUPTA

THESIS ADVISORY COMMITTEE

- 1) Prof. Subhasankar Chattopadhyay (Chairman)
- 2) Prof. Ganesh Kumar N (Member)
- 3) Prof. Siddhartha Rastogi (Member)
- 4) Prof. Debasish Maitra (Member)

ABSTRACT

This dissertation studies about the linkages between foreign capital flows and real macroeconomic variables in a developing open economy context.

This first essay of the thesis studies how the foreign capital flows in a two sector developing open economy have impacted the inter-sector dynamics (in terms of sector-wise allocation of factors of production) and real exchange rate. We derived the path of aggregate capital stock, sector-wise allocation of factors of production and relative price path of non-traded & traded sector goods.

The results found that as the economy grows and accumulates capital, the factors of production start moving out from non-traded sector to traded sector. As a result, the traded sector starts to grow faster than that of non-traded sector. Also the relative price of non-traded sector to the traded sector goods rises with capital accumulation in the economy.

The other essay studies the impact of capital flows on select macroeconomic variables in India during post-liberalization period using a Structural VAR. The variables included are one year government of India bond yield, nominal exchange rate, M3 monetary aggregate, output and GDP deflator. We found that with positive shock to capital flows nominal exchange rate appreciates, M3 monetary aggregate increases. The real GDP increases but the inflation also increases at the same time. The government of India bond yield however gets significantly affected with a lag during the fourth time period i.e. one year after the shocks to capital flows.

Keywords:

Capital Flows, Developing Economies, Non Homothetic preferences, Structural VAR.

Table of Contents

| Acknowledgements |
|---|
| Abstract3 |
| Chapter 1: Introduction7 |
| Chapter 2: Literature review |
| Chapter 3: Capital flows and structural change in a two sector open economy |
| with non homothetic preferences and inter-sector adjustment cost |
| Chapter 4: Impact of capital flows on macroeconomic variables in India |
| Appendix93 |

List of Figures

| 1) | Figure 1: Balance of payment (Pre-Crisis)9 |
|----|---|
| 2) | Figure 2:Current account position in India |
| 3) | Figure 3: Capital account position in India |
| 4) | Figure 4: GDP at Market prices |
| 5) | Figure 5: Real effective exchange Rate |
| 6) | Figure 6:Total reserve position |
| 7) | Figure 7:Trends in FDI |
| 8) | Figure 8: Sector wise FDI share |
| 9) | Figure 9: Trends in FII |
| 10 |) Figure 10: CPI (Combined Trends) |
| 11 |) Figure 11: WPI Trends16 |
| 12 |) Figure 12: Aggregate trends in Emerging Economies |
| 13 | Figure 13:Relative price of Manufacturing Sector goods |
| | to that of Agriculture sector goods |
| 14 |) Figure 14:Growth rates of various sectors in India |
| 15 |) Figure 15: Price-demand relationship in non-traded sector50 |
| 16 |) Figure 16: Calibration Output of Case 166 |
| 17 |) Figure 17: Calibration Output of Case 267 |
| 18 |) Figure 18: Calibration Output of Case368 |
| 19 |) Figure 19: Calibration Output of Case469 |
| 20 |) Figure 20: Calibration Output of Case570 |
| 21 |) Figure 21:Impulse responses85 |

List of Tables

| 1. | Table 1: External sector position of India (1991) | 13 |
|----|---|----|
| 2. | Table 2: Parameter values taken in the calibration exercise | 64 |
| 3. | Table 3: Johannsen Test for Cointegration. | 93 |
| 4. | Table 4:Structural VAR estimates. | 94 |
| 5. | Table 3: Variance Decomposition Analysis | 96 |