

CHAPTER – I

INTRODUCTION

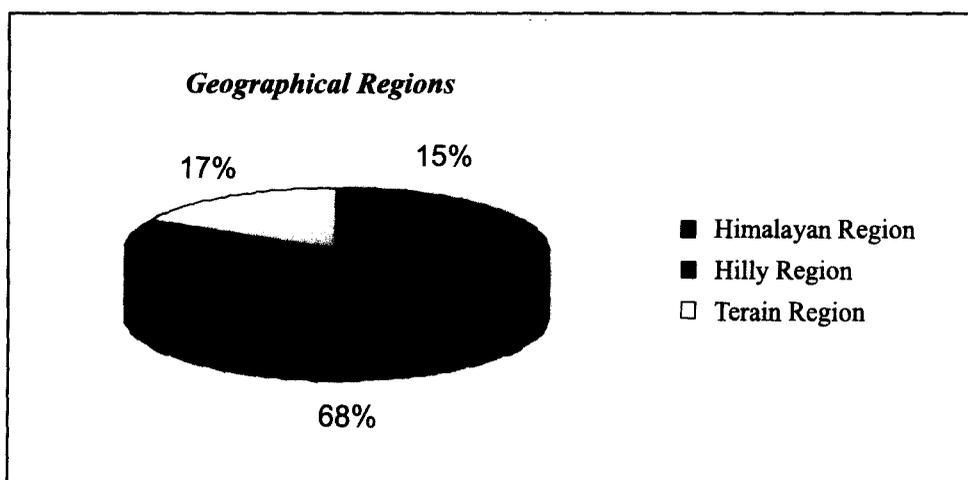
1.1 Précis of Nepalese Economy and Economic Policy Issues

This chapter emanates some light on overall economic features, macroeconomic policy issues and alleyway of socio-economic condition of Nepal, global economic scenario, objectives and plan of the study.

1.1.1 Characteristics of Nepalese Economy¹

In between the two gigantic neighbors, India and China, Nepal is a small landlocked country. With a total area of 147 thousand kilometer, Nepal has geographically been divided into main three regions, namely, Himalayan region and inner Himalayas; sub-Himalayan (hilly) or the mountainous region; and inner Terai and the main Terai region.

Figure – 1.1
Geographical Division of Nepal



¹ Refer Nepal Rastra Bank, Kathmandu "40 Years of the Nepal Rastra Bank", April, 1996, pp 1-6 and Acharya S. P., Features of Nepalese Economy, "Mirmire Monthly", May 2000, Vol. 29, No. 176, pp 123-127.

She is one of the least developed countries in the world with per capita income \$ 250 per annum. She extends to 500 miles along the Himalayas between $26^{\circ} 25'$ and $30^{\circ} 27'$ north latitudes and $80^{\circ} 4'$ and $88^{\circ} 12'$ east longitudes. Her northern boundary adjoins to Tibet region of the People's Republic of China. On the east, she borders with the states of Sikkim and West Bengal of India. She touches the Indian states of Uttar Pradesh and Bihar to the southern part and the state of Uttarakhand to the western part of Nepal.

Climate varies with the jingle of altitudinal diversity, that is, from very cold to very warm. She has only 23 percent of arable land. Nepal is known as one of the most beautiful countries of the world endowed with both natural scenic beauty and rich cultural heritage. The vast potential harnessing water resources, the abundant rainfall due to proximity of Himalayas, Indian Ocean and Bay of Bengal and the scenic beauties and ancient civilization with rich cultural heritage offer tremendous scope for the all-round development of the country. Nepal was opened to the outside world since the 1950s. Road links to India and Tibet (China) as well as air links to third world have helped to augment openness. Access to the sea for international connections is available through the port of Calcutta, India.

Economic characteristics of any country may vary significantly with the physical location, political setup, socio-economic structure and policy adoption. Since Nepal is a landlocked and developing country, she deserves usual underlying features of developing countries in general. Cultural diversities, economic duality, geographical hardships, agro-based economy, transitional and mixed economy, centralized district and zonal headquarters or capital, open and foreign loan/grant dependent economy etc are the some principal features to quote for.

1.1.2 Economic Policy Issues

Nepal has experienced nearly five decades of planned economy since 1956. Prior to mid 80s, she had adopted almost controlled economic policies with decisive government even in fixing day-to-day commodity prices through public enterprises. She had purely an import substitution policy until the inception of 4th Five Yearly Planning (1969-74). Export promotion concepts were introduced only in the 4th Plan documents. Government had an influential role not only in the socio-political issues but also in economic matters too. In this line, government had a sole power in fixing monetary, fiscal, financial issues, industrial, pricing, exchange rate fixation, trade, and other relevant economic policies for the nation. Central bank was not fully autonomous. Role of the private sector was not recognized and almost negligible in the economy.

In reference to a severe balance of payment (BOP) crisis, which appeared in 1989, she formally started liberalization by devaluing her currency significantly (nearly 15 percent). Thereafter, banks were allowed to quote their rate of return and cost of fund at their own discretion. Exchange rate quoting system initially embraced partial convertibility and later full convertibility regime on current account later. Economic policies (fiscal as well as monetary) were transformed. Structural Adjustment Program (SAP), Structural Adjustment Facility (SAF), and Enhanced Structural Adjustment Facility (ESAF) programs were launched in collaboration with International Monetary Fund (IMF) and the World Bank. Industrial policies were renewed and followed by open general license (OGL) system in foreign trade.

Multiparty democratic system had been reinstated on 1989. Contemporaneously, the global orientation was also inclined towards economic liberalization and globalization. Nepal also could not abstain from this wave accordingly. She also adopted her policies in line with the full liberalization in a speedy

fashion from the mid 80s. She has taken membership of World Trade Organization (WTO) in 2004. Recently, Nepal is on the move for further policy transformation and liberalization in obtaining and utilizing Poverty Reduction and Growth Facility (PRGF) as announced by the IMF. For that matter, government has unchained central bank in implementing its monetary policy. At the same time, government itself is trying to refrain from unnecessary expenses and so-called white elephants are kicked off for complete privatization. Medium Term Expenditure Framework (MTEF) is the notable policy embracing on public expenditure front.

1.1.3 Socio-Economic Conditions

Having nearly a 23.5 million population with 2.1 percent natural growth, approximately the 81 percent population is dependent on subsistence agriculture that contributes nearly 40 percent share to the gross domestic product (GDP) and this sector provides opportunity of employment of nearly 75 percent of the total labor force of the country. Efforts had been made by five yearly planning systems (1956 AD) for her accelerated economic development. However, absolute poverty is visible notably everywhere in the country. Dual economy persists with nearly 15 percent privileged urban having every possible luxuries and 85 percent bucolic with destitution and adversities.

Despite the rigorous effort of the public sector, private sector and international donors on Nepal's development dynamics, recent per capita income of her dependents is repugantly limited to around 250 in US dollar term. Year 2002 appeared to be very disgusting as this year incurred negative growth rate of 0.6 percent. Subsequent years achieved around 2-3 percent growth rate and nearly 5-6 percent inflation. Thus, the growth of GDP, population and inflation, when taken into consideration jointly resulted

in a decline in real per capita income followed by discouraging economic growth. Unemployment, and specially disguised unemployment, is rather high with nearly 7 percent and 68 percent respectively.

Human development indicators are also not so much optimistic. Ninth plan (ended at 2002) records 49.2 percent literacy rate followed by 60.9 years of life expectancy and 64.2 per thousand child mortality which are considered to be higher than the average standard of the Asian nations. Population below poverty line (BPL) is estimated to be 38 percent by the end of the 9th plan and these people earn less than one US dollar a day. However, the situation has improved recently and BPL population came down to 32.5 percent as revealed through a survey launched by the National Planning Commission (NPC) on 2003. According to that report, such decline in BPL was dependent on inflow of workers' remittances in majority.

Human development index below 0.50 normally indicates low level of development. Poverty having around 32.5 percent is the main problem, which has come up due to unscientific traditional farming, uneven distribution of land holding, high population growth and poor development of industrial sector along with other socio-economic infrastructures. Compared to other developing countries the growth rate of GDP in 2004/05 remained 2.3 percent and in 2005/06. However, it registered a rise only by 2.3 percent, with agriculture and non-agriculture sector remaining 1.7 percent and 2.8 percent respectively. Complex topography and landlocked situation have always limited the scope of socio-economic and infrastructure development. Owing to poor economic base, saving is quite low and the Saving-Investment gap in Nepal has ascended to two digits. It is the outcome of poor domestic resource generation in productive venture.

The economy is still dependent on agriculture and about 89 percent of the people live in the rural areas of the country. The diversification in the economy has not taken place and this led to over-concentration in agriculture. However, this dominant agriculture has been facing several problems, like, lack in human and physical capital, economic infrastructures, appropriate strategic planning and commercialization. The productivity of the agriculture sector has been largely stagnant because of its dependence on the monsoon, almost primitive methods of production and unavailability of adequate irrigation facilities. The industrial sector is contributing about 10 percent of the GDP. The trading, construction and services have been contributing about 50 percent of the GDP and these sectors are recently providing employment to a large section of the population.

1.1.4 History of External and Fiscal Policies in Nepal:

Nepal has been an independent country governed by monarchy ranging from absolute monarchy to constitutional monarchy in different time horizon in the past. Now she has taken move for the federalist and absolute democratic system. After the Nepal-British war (1814-16), which led to the Treaty of Sugauli with British East India Company in March 1816, the country was totally closed for protecting her national interest and thwarting the possibility of British rule in Nepal. The modern era started from 1951 following the end of Rana reign in the country. The absolute monarchy continued until 1992 after the downfall of Ranas. Nepal adopted planned economy. The first economic plan was launched for the period 1956-61. The subsequent economic plans were for 5 year period in which economic goals of the country were to ensure growth acceleration and poverty alleviation. These five yearly (sometime 3 yearly or interim period as per the requirement) plans also led to changes

in economic policies of the country. The fiscal policies were mainly intended for resource mobilization in order to support growth and these policies were normally reflected through yearly budget announcements and specification of medium term expenditure framework (MTEF), while trade policies, on the other hand, were designed for consumption management and export promotion. Until the fourth plan, Nepal had no export promotion oriented policies to achieve favorable balance of payment (BOP) situation. Now that the country has entered into the WTO system (in 2004), Nepal has adopted professional orientation towards import substitution, export promotion and free trade (except for few banned goods like narcotic products, alcohol etc) policies.

1.2 Global² vs. National³ Economy

Global economy grew by 4.1 percent in 2003. This was possible with the expansion in the trade of goods and services and efficient macroeconomic management during this period. Similarly, the global economy in 2004, as compared to 2003, further grew by 5.3 percent. This growth was mainly due to the outcome of the adoption and implementation of expansionary fiscal policy and foreign direct investment (FDI) policies by the United States and the East Asian nations. Such pace of growth and recovery was maintained for 2005 and 2006 and is believed to be further improving and sustaining for the coming years too, following high growth rates in China and India.

The economic growth rate of Developing Asian Countries, which was 8.6 percent in 2005, according to IMF estimates, was exhibited to grow by 8.2 percent in 2006 and 8.0 percent in 2007. On the regional level, the economic growth rate of emerging Asian nations has also been higher. The growth rate of this region was 8.2 percent in 2005 and the projections for 2006 and 2007 were 7.9 percent and 7.6 percent

² See World Economic Outlook, IMF, Washington D.C., September 2005, April 2006

³ See Economic Survey, Ministry of Finance, Nepal, 2006

respectively. The South Asian Economy, which grew at an increasing rate of 7.7 percent in 2004 and 7.9 percent in 2005, was expected to grow by 7.1 percent and 6.9 percent respectively in 2006 and 2007. In India and China, the neighboring countries of Nepal, economic growth rate was 8.3 percent and 9.9 percent respectively in 2005. The economy in India in 2006 and 2007 is projected to grow at 7.3 percent and 7.0 percent respectively, whereas for China the growth rate is projected to hover around 9.5 percent and 9.0 percent respectively during the same period. At the same time Nepalese economy suffered from several economic and non-economic hindrances (set backs) and got very low growth rate of 3.3 percent in 2003, 3.8 percent in 2004 and 2.7 percent in 2005. The IMF projected that the Nepalese economy would grow at a constant rate of 3.0 percent in 2006 and 2007, and this rate is a slight improvement over that of previous year (Ministry of Finance: 2006). However, a current revision indicates that the projected growth would not be achieved due to the present investment climate and political instability. The basic concern regarding growth to Nepal is China and India. They are thriving for double-digit growth. In contrast, Nepal is suffering from high level of inflation (6 percent now) and low level of growth resulting in net loss of growth in real term, thereby, leading towards the low quality of life.

1.3 Budget Deficit and Trade Deficit in Nepal

Chronological data recording on Time Series of Trade Deficit (TD) and Budget Deficit (BD) in Nepal in International Financial Statistics (IFS) published by International Monetary Fund (IMF) is found from 1964. We have used the same in our Twin Deficit Hypothesis analysis from 1964 – 2004 for 41 years.

The nominal and real (1985=100) figures of the TD and BD have been presented at Annexure – 1. By going through the data presented in the Annexure – 1, it is observed that,

- (i) the yearly volume of the TD is bigger than BD all years under study both in nominal and real terms.
- (ii) both the variables (TD and BD) are seen in increasing trend over the years with volatility. This means majority of the years (within 41 years - TD nominal has increased for 31 years and TD real has increased for 27 years; and BD nominal has increased for 27 years and BD real has increased for 17 years) have registered increments in the both deficits.
- (iii) however, TD has never shown positive sign testifying for the absence of trade surplus over the 41 years under study. BD has also registered positive balances only in very few years as in 1965, 1968, 1969, and 1970 respectively.
- (iv) the graphical presentation (see Fig 1.1) also suggests that both the TD and BD balances (nominal as well as real) in Nepal for 1964-2004 are in increasing trend with frequent upswings and downswings during these periods.

These movements of the TD and BD variables have motivated us to examine the Twin Deficit Hypothesis (TDH) which is widely tested for the other countries, but not yet in the Nepalese context. Superimposed time plots of the TD and BD have been presented through the Figures 1.1 and 1.2.

Figure - 1.2

Time Plots of Real Trade Deficits and Budget Deficits (41 Years)

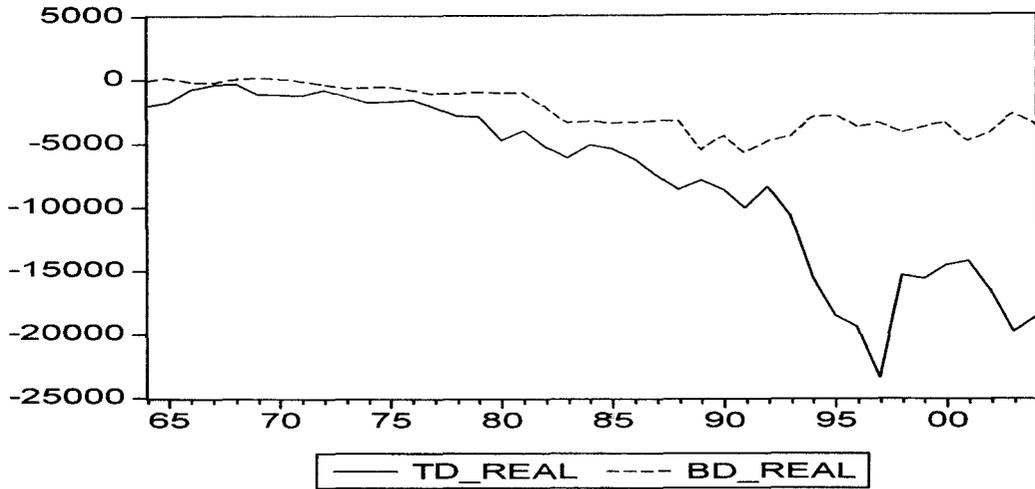
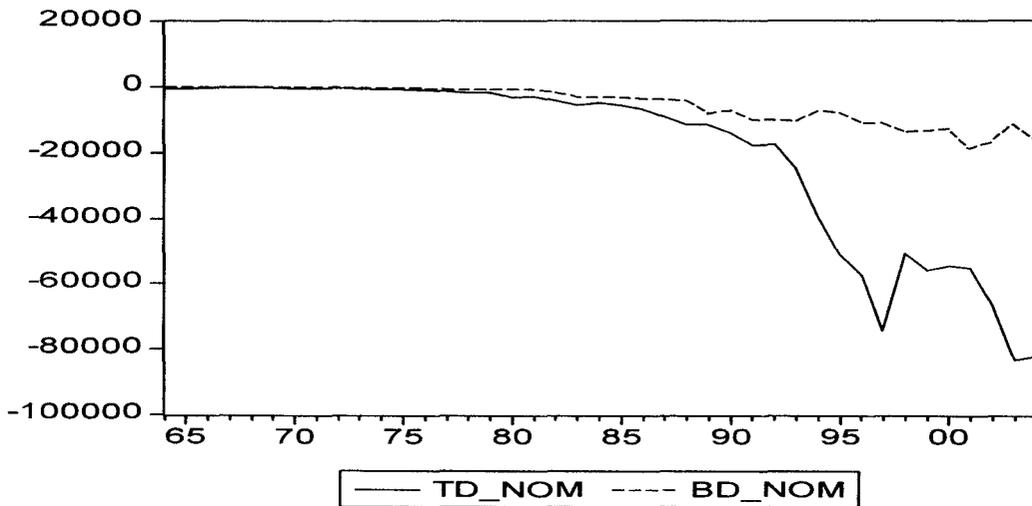


Figure - 1.3

Time Plots of Nominal Trade Deficits and Budget Deficits (41 Years)



1.4 Objectives of the Study

Twin deficits have multidimensional linkages to the macroeconomic variables and they may produce substantial effects on the economy. In fact, they have a blending feature of national and international relation reflected through their oscillations forcing

the whole economy forward (or, backward) accordingly. Considering their importance in the economy, we seek to specify the following objectives in this present study.

- i To explore the causal relationship between trade deficit and budget deficit in Nepal.
- ii To assess the causes and effects of budget deficit and trade deficit on principal macroeconomic variables in Nepal.
- iii To examine the ongoing relation of twin deficits.
- iv To set forth alternative measures for sustainable export-boost and appropriate fiscal management.

1.5 Two Main Hypotheses for Testing

The work is mainly concerned with Twin Deficit Hypothesis, and therefore, we seek to verify the following widely noted hypotheses for testing in the present study:-

- i. The Budget Deficit causes the Trade Deficit in Nepalese Economy - Twin Deficit Hypothesis (Null Hypothesis), against
- ii. The Trade Deficit is caused by the Budget Deficit in Nepalese Economy (Alternative hypothesis).

Different time series econometric tools will be applied for this purpose to derive the conclusions.

1.6 Sub-Objectives of the Study

The sub-objectives of the present study are as follows:

- i. To assess the applicability of the policy effectiveness/ineffectiveness theorem in Nepalese economy with special reference to government expenditure and trade.
- ii. To examine the Stationarity of the macroeconomic variables concerned.

- iii. To explore if there exists any co-integrating relationships between the variables (Trade Deficit and Budget Deficit).
- iv. To investigate the causal relationships between the variables concerned.

1.7 Plan of The Study

The present study consists of the following chapters:

Chapter - II presents the theoretical foundation and survey of empirical studies relating to Twin Deficit Hypothesis. Findings of several relevant studies related to TDH have been presented in Chapter II.

Chapter - III deals with source and nature of the data, methodological issues and period of the study. Some econometric methods, which are applied in the present study, have also been delineated in this chapter.

Chapter - IV is devoted to the study of stationarity of variables used in the study. Augmented Dickey Fuller, Phillips-Perron, DF-GLS (ERS), KPSS, ERS Point-Optimal and Ng-Perron modified unit root tests have been run. Stationarity of the variables have also been checked on the basis of correlogram (ACF and PACF) and nature of time plots.

Chapter - V presents to the study of long-run relationship between the variables concerned. In order to verify the long-run relationship between variables concerned, we have performed co-integration tests.

Chapter - VI is devoted to examine the short-run dynamics in order to analyze the stability of the long-run relationship. For this purpose, we have performed the *Vector Error Correction Modeling* for the variables concerned.

Chapter - VI is mainly concerned with the causality test between variables through the Residual tests method and *Conventional Granger Causality test* to

examine the direction of causality between Budget Deficit and Trade deficit in Nepal.

Chapter - VIII analyzes *Vector Autoregression (VAR) Modeling* for further verification of the causality between variables. VAR has a quality of treating all the variables as 'endogenous' and finding the relationships between them.

Chapter - IX deals with *Impulse Response Function* in finding the dynamic responses of concerned variables across different periods in response to shocks transmitted through channels of different endogenous variables. To this concern, we analyzed the same for TD and BD.

Chapter – X focuses on *Variance Decomposition* analysis of the model variables i.e. TD and BD. VAR helps separating the variations in an endogenous variable into some component shocks.

Chapter – XI presents the summary, and conclusions along with public policy implications of our findings and future scope of the study. As a matter of fact, policy implications and policy prescriptions constitute the main theme of this chapter.

