Fudan University

PhD Dissertation

# A study of FDI in Post Conflict Transitional Economics

## ----------The Case of Nepal

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# A study of FDI in Post Conflict Transitional Economies — the Case of Nepal

## *1. Introduction*

### 1.1 Background

When facing instate conflicts, the development of the economy in one country becomes a serious challenge. After the breaking out of the conflicts, the country will be facing a wide variety of difficulties and it is the responsibility of the government to create peaceful atmosphere, swiftly revitalize economy. The development of the economy requires huge capital investment, advanced technology, human resources, management skills etc. For post conflict transitional economies, these are quite rare resources. However, FDI can provide the host countries with the factors needed in the development of economy. On the other hand, with the globalization of the economy, many cross-border corporations are always seeking for opportunities. For countries that have gone through conflicts, the potentiality of the economy is not fully employed because the long-term conflicts and various investment opportunities lie in the traditional period after the conflicts. Especially the cheap labor and material pursued by the product oriented FDI. These are the unique resources held by this kind of countries. Of course, cross-border corporations also chase for stable political atmosphere, beneficial policies, and other advantageous conditions.

After going through long-term political conflicts, the post conflict countries suffer from badly damaged economic structure, confusing guiding ideology and fragile social atmosphere like a sand castle in the wind. The road to economic resurgence will be undoubtedly difficult. What post conflict countries need are stable macroeconomic, strong economic growth and the increase of national welfare. At this time, FDI is one of the methods of promoting economic development of the host country. As we all know, FDI can help promote the development of economic globalization, boosting technological progress, opening up new markets, bring technological improvements and offer capital to the host country, create job opportunities, reduce the rate of unemployment and so on.

Many post conflict countries follow the example of liberalization and privatization policies of other countries. For example, in 1990s, Nepal implements such policies but failed of success. And the reason is that the post conflict countries have their own particularities and can't simply copy the policies and methods of other developing countries. At this time, studying the factors affecting the inflows of FDI appears to be extremely important. Moreover, as one of the post conflict countries, Nepal is stabilized domestic situation. For foreign investment, Nepal has great potential for economic development because of its rich domestic resources. However, the situation of attracting FDI in Nepal has not been idle in these years. Thus, how to attract FDI to develop the economy is the significant practical problem for Nepal. Based on all these considerations above, this dissertation takes FDI in post conflict countries as the research theme.

## 1.2 Purposes and significance

Theoretically, this dissertation is aimed to determine the factors affecting the FDI inflows to the post conflict countries. For post conflict countries, attracting foreign investment is quite necessary in revitalizing the economy and promoting national welfare. At present, researches on FDI are abundant focusing on developed countries, emerging market economy countries and as well as in developing countries. However, researches on post conflict countries attracting FDI still gap in this field. Thus, research in this area is of high theoretical value. In reality, many developing countries suffer from conflicts both internally and externally. The samples in this dissertation are large including 36 countries with certain statistical data and have significant meaning for the research on attracting FDI for these countries, revitalizing their economic growth and promoting world economic development. What's more, the author of this dissertation comes from the inland mountain country Nepal. As a post conflict country with rich resources, how to attract FDI to boost national economy is of great importance.

Based on the analysis above, this dissertation originated from the theory study, generalizing the factors in attracting FDI for post conflict countries, trying to explore the theory of FDI in post conflict countries to fill the gap in this field. On this basis, this dissertation employs the panel data of 36 post conflict countries in empirical research and with Hausman test. Lastly, this dissertation applies this theory to do empirical research on the data of Nepal, attracting FDI and puts forward targeted policy recommendations on Nepal's attracting FDI.

## 1.3 Research Methods

1. This dissertation employs the combination of theoretical analysis and empirical analysis to have systematic research on the factors of post conflict countries attracting FDI. On the basis of combing the existing literature, this dissertation firstly explores the motivations and affecting factors of post conflict countries attracting FDI. The macroeconomic data of 36 post conflict sample countries are selected in this dissertation, and we apply the econometric methods of panel data, including parameter estimation of fixed effects regression method, parameter estimation of random effect regression method and Hausman test, which determine the panel data in order to do a comprehensive study of the determining factors of post conflict countries using foreign investment.

2. This dissertation combs, from the perspectives of both macroeconomic and microeconomic, the situation of post conflict countries using foreign investment, and the leading effect of foreign investment in saving the post conflict countries from awful plights and developing their economy. The situation of Nepal making use of foreign investment and the factors affecting FDI in Nepal is specially studied as individual profiles to test the determining factors of post conflict countries using foreign investment from a reality case.

3. The research method of comparative analysis can be seen throughout the dissertation. Firstly, it is the comparative study of various affecting factors of FDI: some factors have a positive influence on FDI and some the negative. This dissertation also uses a comparative study of the different situations of post conflict countries and finds out that the differences between post conflict countries show significant influence in attracting FDI. What's more, the comparative study is used on the model of the empirical study, respectively, using fixed effects regression methods and random effect regression method to do empirical test on the data for 36 countries and comparing the results.

## 1.4 Structure

This dissertation is divided into seven chapters. The first chapter briefly introduces the research theme, background, significance, main points, question statement, assumptions, limitations and delimitations. The second chapter is the literature review, dividing into four parts with small parts subdivided below respectively. The third chapter introduces about the situations of economic development and using foreign investment in post conflict countries and makes a comparison between the macroeconomics of in-conflict countries and post conflict countries. The fourth chapter employs the adaptability game theory model of the governments of post conflict countries and cross-border corporations to make a theoretical analysis to transitional countries. The fifth chapter employs the panel data of 36 countries from 1980 to 2009 to do empirical analysis. This part is based on the fixed effects regression method to do quantitative analysis of possible factors affecting FDI and adopts Housman test to testify the effectiveness of the two methods. The sixth chapter mainly tells about the situation of FDI in Nepal including FDI policies and FDI inflows. Moreover, using the data of Nepal to study the determining factors of FDI inflows. The second chapter, as the last one, detailed tells the main conclusions of this dissertation. In the end is the bibliography.

# 2. Literature Review

Foreign Direct Investment (FDI) theory intends to explain the modes and range of overseas value-added activities of multinational corporations. The value-added activities of multinational corporations show in various forms and the motivations and determining factors of FDI vary with them. Many complementary theories related to the competitiveness of FDI continue to emerge, seeking to explain the essence and reasons for FDI, and the social-economic problems that the rapid growth of FDI may cause. Until the 1960s, relevant main theories had not taken shape, but two influential theories about FDI were proposed: the theory of monopolistic advance concerning multinational corporations formulated by S. Hymer and the product life-cycle theory by R. Vemon. When it came in the 1970s, R.Z. Caliber came up with the theory of finance. In order to synthesize the various theories of FDI, this literature review mainly included the following four aspects:

- Theories of motivating factors of FDI
- Theories of absorption of FDI of host countries
- Importance of FDI to developing countries

- Review of the case of Nepal as the host country of FDI

## *2.1 Theories of motivating factors of FDI*

The contribution to FDI theories of Stephin Hymber (1960) is that he argued vigorously against using capital security transfer to explain foreign companies. According to the popular explanation of that time, the flow of international capital was, just as the neoclassic theory of finance says, caused by the difference of international interest rates. Humber applied the industrial organization theory to FDI theories, and affirmed that in order to compete with local enterprises, foreign enterprises must gain enough advantage in the financial markets. Another economist who made an important contribution to FDI theories is Raymon Vernon (1966, 1979). He mainly used the product life-cycle theory to rest the case of the United States, especially foreign investment activities of multinational corporations that occurred in regions at war. The internationalized product life-cycle theory loosened a hypothesis, which is that production factors flow non-international. In this way, his theory focuses on the fact that enterprises determine trade and investment based on costs and earnings (Grosse&Behrman, 1992), meanwhile, Vernon considered that the capacity of the state's participation in trade depends on whether they have the technology to make full use of natural endowments and human resources to create opportunities of trade. He believed that the American markets provided great opportunities for investors, so that foreigners could increase investment, consumers could have a better income per capita and the market size could become increasingly larger (Vernon 1966).

The international product life-cycle theory is the first theory to make dynamic interpretation of the relationship between international trade and foreign production. (Dunning,`1993). Many empirical studies prove that the international trade of America and FDI accords with the prediction model (Well, 1969, 1972, Hirsch, 1972, 1976, Stobaug 1972, Hirssch 1972, 1976). These studies applied the product life-cycle model, aiming to interpret the competitiveness advances of America's electronic industry during 1958 to 1962 and it turns out that the increase of FDI has a high correlation with labor skills progress and international competitiveness. Wells (1969) tested the export of durable goods in America during 1952 to 1963 and his conclusion coincides with the product life-cycle theory. Meanwhile, he found out that the income elasticity of the product and the transportation cost are the crucial factors of the export of durable goods.

International theories are mainly based on Coase (1937) and Williamson (1975). By evaluating these theories, it can be concluded that the development in this field mainly contributes to the following scholars: Hymer (1976), Buckly and Casson (1976), Rugman (1980) and Ether (1986). Homer (1976) believes that setting, factories abroad to make products bear many disadvantages compared to the domestic corporations. Because of this, foreign investors would be willing to flow to countries with special offers compared to domestic corporations in order to make up the disadvantages of investing abroad. Firstly, domestic corporations are more familiar with the needs of local consumers, legal regulations, inter-industry and intra-industry structures, business system, and native customs and so on. Multinational corporations also need to be familiar with these needs with enormous costs. In the mean time, multinational corporations require more costs on transportation, communication and more time with the possibility of decision mistakes when encountering communication obstacles. In short, multinational corporations face multiple difficulties in foreign investment. Therefore, multinational corporations have to enjoy some incentives offsetting the disadvantages to compete with the domestic corporations. Homer and Kindleberger (1969) believed that these incentives are the monopolistic advantages of multinational corporations, including trademark, cheap financial services, advanced administrative organization, management and marketing system, competitive, creative ability, rich human resources and experience restoration, facility of factor input, control of market access and so on. However, even though Hymer shares profound insight about multinational monopolistic advantage theory, it is still not a complete theory on FDI. What's more, even though the multinational monopolistic advantage theory can explain why the multinational corporations have the ability to survive in the market of host countries, not all similar competitions are brought by FDI. FDI usually has a comprehensive consideration about the locations, which has to explain why capitals choose to invest abroad instead of broadening domestic market. Affecting factors of the locations involve trade barriers, government policies of host countries, compression between the business environment of host countries and home countries, the cost of labor, the scale of the market and the potentiality of economic growth of both the host countries and the home countries and so on. Internalization theory stresses on specific competitive advantages of corporations while the location theory came up by early economic trade stresses that the relative advantageous policies imposed to FDI by the countries is the determining factor of FDI inflow.

Many empirical studies (Root and Ahmed, 1977; Night 1984; Schneider and Frey 1985, Kogut and Singh 1988, Wheeler and Mody, 1992; woodward 1992; Lukas 1993, Fukao and Yue 1997; Hines 1999) use certain clear factors to explain the reasons of FDI inflowing to host countries and forming

a function of location factors. In this way, the dependent variables include FDI inflows per capita, the net capital inflow of FDI and capital accounts. Dunning claims that trade theory does not adequately focuses on specific property ownership because of an implicit assumption: exclusive property is irrelevant to where the economic actives happen under the system of ownership. At present, international trade theory has developed a series of theoretical models for FDI while the exclusive property of corporations determines whether the production can go smoothly.

Internalization theory and Eclectic paradigm theory are established on microeconomic methods of international production. These methods attempt to find out and assess the variables that determine the foreign investment of specific corporations or groups of corporations. In contrast, Kiyoshi Kojima introduces macroeconomic theory into this field, making the problem of partial equilibrium to general equilibrium in the attempt of explaining what events in what countries are the most beneficial. FDI theory is an expanding on the neoclassical theory of factor endowments. The factor endowment theory explains the trade of intermediate products (Kojima 1973, 1982) while neoclassical theory claims that FDI can take place of the export based on the relative costs. However, Kojima considers that FDI can be viewed as the supplement of export instead of alternative behavior because FDI can reduce costs and accelerate export by intra-firm trade. Industrial organization, vertical business theory, trade, location theory is all not the determining factor of foreign investment (Dunning 1977, 1980). He considers that capital theory cannot explain the reasons, industrial organization theory cannot answer locations, and location theory cannot solve how FDI can compete with domestic corporations in local markets (Dunning 1977, 1979, 1980).

Dunning assumes that these three factors are fused explaining FDI together installing of defining the advantages of those FDI modes. Ownership advantage answers the question of “how”, while internalization theory answers “why multinational corporations gain the ownership advantages” and the question of “where” should the location be. These are all closely related to FDI and have correlation with the long-term management and business tragedy of a corporation. After determining the location, capital brought by FDI begins to enjoy the advantages of ownership and internalization.

## *2.2 Theories of how host countries attract FDI*

FDI is closely related to the development of economy in host countries. Next is the overview of the influence of host countries brought by capital inflows because of FDI. FDI creates tax revenue for host countries and improve the international balance of payments, but meanwhile brings many disadvantages. Entry of multinational corporations may be harmful to market competition or even expel national enterprises out of the market. Another worry is that foreign investment activities may lead to environmental degradation. This part of the dissertation is only limited to the discussion of the spillover effect, employment effect and institutional effects of multinational corporations because these are directly related to the dissertation of Lipsey (2002). His dissertation basically covers the influence of FDI on host countries. There are also many literatures on the location factors attracting FDI. In recent years, there have been a large amount of theories and empirical studies having in-depth discussions, believing that location factors affecting foreign investment are as shown below:

**Firstly, it is the cost factor.** Weber firstly puts cost minimization as the main factor of location selection. Caves (1996) find out that when the cost of searching for raw material and material, commodity market, hired labor, contrast negotiation and so on is high, FDI tends to regions with lower transaction costs. Williamson (1985) puts forward that transaction cost and FDI location selection share important association.

**Secondly, it is the market scale and potentiality**. The FDI location study strongly emphasizing the influence of market proximity, market scale and its growth potential on FDI locations. Friedman et al (1992) discovered that being close to markets has a crucial positive influence on the location decision of foreign investment in America.

**Thirdly, it is the geographical condition, location social culture differences, government incentives, etc.** Bradman and Son (1998) considered that the location selection of FDI in China lies on the scale of the local market, infrastructure, and adult education level, being close to the import and export market and special investment policy.

**Fourthly, it is uncertainty and economic accumulation.** Because of high information costs and the difficulties of managing corporations abroad, risk-averse enterprises would tend to invest the

locations with well-developed infrastructure, large-scale market and rapid development that people are familiar with.

China is the largest FDI-receiving country and many Chinese scholars also have extensive research on the factors determining FDI and came up with some new ideas and perceptions. Chen Yanying (1009) makes use of the panel data of 81 countries from 2002-2006 to study the influence of the scale of government on the FDI inflows and comes up that there is a significant positive correlation between the government scale of developing countries and the existing of FDI. In developed countries, however, this correlation is not significant. The study of Lu Minghong (2000) shows that market scale, degree of development of market economy, infrastructure, economies of scale and government incentives all have a significant positive correlation with FDI. The study of Pan Zhen and Pan Chichun (2004) shows that institutional factors like marketing level, government efficiency, thriftiness, effective protection of property rights, the extent of limitation on the import and export of foreign-invested enterprises have an important influence on the flows of FDI in different regions. The study of Shen Kunrong (2009) shows that apart from factors like market capacity, labor cost, marketing level, human capital stock an important factor affecting the area location and investment scale of FDI. Mang Li (2003) believes that industrial cluster can meet the need of improving competitiveness from multinational corporations. With the change of strategies in multinational corporations, industrial cluster has gradually become an important factor of investment choice. Li Feng (2004) also believes the influence of accumulation economy factors in reducing business costs and enhancing regional capacity to attract investment. Hu Zaiyong (2006) makes discussion about the influence of FDI inflows by analyzing fundamental economic factors, domestic FDI policies and international FDI policies. Wang Fangfang (2010) constructs a business location choice model containing environment policy factors using Chinese provincial panel data from 1990 to 2007 to make empirical studies on environment policies made by local government intending to attract FDI. The study found that apart from the traditional affecting factors like market scale, public facilities and labor cost, the increase of the intensity of environmental regulation has a significant negative influence on the FDI location selection, but increasing environmental investments can help promote FDI in a certain way. The study of Wang Jian (2004) finds out that market demand scale is the primary factor determining FDI regional distribution. The spatial position has a decisive role in the provincial distribution of FDI and the significance of geographical factors even overpasses policy factor and infrastructure policy.

As for the influence of FDI on local economic development, Jiang Yiping (2008) points out that the influence of FDI on innovation through technical channel mainly shows as a technical spillover effect. The technical spillover effect has a positive role in the technological progress and industrial upgrading in China, and then generates a positive influence on enhancing China's independent innovation capability. The reasons that FDI can promote China's technical progress and independent innovation capability are demonstration and imitation effect, mobility and training effect, introduction and absorption effect, and competition and cooperation effect. Ge Gongwen (2003) considers that the rapid increase of FDI inflows and the growing strength of foreign-funded enterprises become the new Chinese labor placement approach and make great contribution to relieving the present employment pressure in China. FDI increases effective jobs and greatly relieves the employment pressure in China; levels up the wages and forms positive interaction system between wages and business benefits. Fang Yuan (2009) makes use of the example of Fujian finding out that the industrial waste which is the main source of environmental pollution shows different trends along with the increase of FDI. The curved shapes of FDI- industrial waste water, industrial exhaust gas, and industrial solid waste are different. At the present stage, there is a positive correlation between FDI and industrial waste water and exhaust gas emissions and there is a negative correlation between FDI and industrial solid waste emission. The emission of industrial solid waste shows a descending trend along with the increase of FDI. Lou Yongmin (2005) employs data envelopment analysis to estimate the relative efficiency of infrastructure investment of 31 provinces from 1998 to 2006. On this basis, he analyses the contribution of infrastructure investment efficiency on regional FDI and finds out that as well as enhancing the ability of attracting FDI of the investment region, infrastructure investment efficiency also has a certain spatial spillover effect on adjacent regions.

On the aspect of how to attract foreign investment, Zou Xuan (2005) studies the example of Chongqing and finds out that the key to enhance the ability of attracting investment is striving for more favorable investment policy, coming up with more attractive investment-attract measure, having a better government service level. Specifically the following five items should be met. The first one is to make full use of the all the incentives given by the state and further strive for a more elastic policy environment. The second one is to accelerate the pace of system innovation and make more practical measures suitable for foreign investment. The third one is to make innovation in ownership system as soon as possible and break the national monopoly of industries and professions. The fourth one is to coordinate the credit relationship between banks and foreign investment and provide convenience for foreign enterprises on local credit loan, establishing and improving awareness of rules, transparency and predictability. The fifth one is to enhance

government efficiency and improve government services. Mao Min(2005) believes that it required to turn from incentives to targeting, further adjust and improve China's economic structure, coordinate middle and western regions to make good use of the low-cost regional advantage, coordinate middle and western regions to improve marketing regional advantage, help middle and western regions to foster accumulation regional gathering advantage and closely connect the three regions(eastern, middle and western) with economic cooperation while making use of the polarization effect of the eastern region. The study of Ying Qianwei (2004) shows that the influence on host country's welfare because of attracting FDI is uncertain Governments from different countries should refer to their own market needs; technology skills, industry development strategy and other practical situations make FDI policies in order to rightly lead FDI. Pursuing "FDI maximization" in the cost of valuable economic resources is not right and some restrictions on FDI should be set if necessary. When the entry of FDI can exactly bring benefits to the host countries, governments of host countries should create an investment environment as good as possible to reduce other costs to gain an extra advantage in the competition of attracting FDI. By doing this, subsidies on FDI can be reduced to further increase welfare of the nation.

Moreover, how making full use of foreign investment to improve local productivity is also important. In this aspect, Zhang Binsheng (2006) considers that continuous improvement of basic elements has significant meaning on the ability of China, attracting FDI and is the basic condition of the improvement of China's technology absorption ability. Meanwhile, modern construction of infrastructure should be highly valued because the dynamics and structure of infrastructure investment have great influence on dependent innovation and technology absorption. The accumulation of the stock and improvement of the structure of human capital can help the improvement of technology absorption ability. By enlarging investment to increase the stock of human capital, strengthening the social service functions of higher education to make the structure of human capital better met the need of economic development and developing effective policies to attract students studying abroad to come back and venture or encouraging employees in foreign invest corporations to enter Chinese enterprises or venture to enhance China's technology absorption ability and promote the advance of technology and economic growth. What's more, environmental factor has crucial impact on China's FDI technology absorption ability. Financial market serving technological innovation and entrepreneurship is an effective way of enhancing technology absorption ability.

## 2.3 *Theories of how transitional countries attract FDI*

All the developing countries compete with each other to get more FDI. So, what is the attraction of FDI in developing countries? Following is the influence of FDI on transitional countries.

Certainly, the influence of FDI varies with different conditions of different countries, like natural environment. But generally speaking, FDI is of high efficiency and can bring capital, technology, management and entrepreneur ability and other scarce resources that developing transitional countries need. The capital inflows of FDI make it swifter for transitional countries to make use of the high technology and management skills of multinational corporations. Multinational corporations are in essence different from domestic corporations because they need to overcome the extra costs of remote production and management. So, foreign enterprises always provide some direct stimulation for better production and lead to spillover effect. The study of Dunning (1993) and Markusen (1995) shows "Compared to domestic corporations, multinational corporations have higher production efficiency, higher wages and higher inclination to export and can bring many benefits to transitional countries because of the advancement and specialty.". Corporations with FDI always hold many resources, well-developed technology, high-tech management, easier access to international market and have specialty on equipment production. All in all, they can not only increase investment resources forming capital and can also lead host countries to international marketing network, promote technology innovation, bring management skills, better make use of human resources and better protect property rights. To gain these benefits, technology innovation system, intellectual property protection system and practical learning pan is a must for transitional countries. Transitional countries can gain advanced training and technology from multinational countries from the following four methods:-

- Horizontal connection
- Vertical connection
- Labor outflow
- Labor overflow

Horizontal connection refers that domestic corporations can benefit from training in parts and technology use from multinational corporations. Vertical connection refers to multinational corporations offering technology training and technology support. Labor outflow refers to multinational corporations offering high-tech training for domestic employees. Lastly, labor outflow

means domestic employees of multinational corporations quit to other corporations and take away skills and working experience. Through these methods, FDI can promote local market competition and push the overall economic growth of transitional countries. After the entry of multinational enterprises, domestic corporations feel threatened and choose to imitate multinational corporations to use high tech, adopt advanced methods to subjectively improve productivity and invest more human and material capital. Moreover, the high efficiency of multinational corporations tensities the competition in the local market and stimulate entrepreneurship and innovation. When transitional countries gradually become globalized, multinational corporations and domestic corporations all can be benefited.

Generally speaking, FDI can increase local investment because along with the influx of multinational corporations, many domestic investors will follow the trend to compete with multinational corporations Bosworth and Collins (1999) and Mody and Murshid (2001) mention that the number of FDI has a high correlation with the amount of investment in transitional countries. What's more, domestically invest will increase along with the increase of FDI. The increase of FDI can always increase the export of transitional countries. Using high-tech management and marketing strategy and adopting newest technology, host countries can export more local raw material, semi finished products and final products. "There selling network can facilitate the export of local products and it takes a large proportion of host countries' export proportion." (Fontage1997). The empirical analysis of Aitken et.al in 1997 finds that local enterprises getting close to multinational corporations have positive correlation with the amount of export. Many developing countries like China encourage domestic corporations to establish subsidiary corporations near the headquarters of multinational corporations and encourage forming special economic area. FDI can also fill the shortage of foreign exchange reserves of host countries. Developing countries usually have to face two shortages: shortage of savings exchange reserves, leading to capital hard to form and thus affect the speed of economic growth; shortage of foreign exchange reserves making it harder to import goods needed. The inflow of FDI can be used to import goods on investment.

In short, FDI can help the economic development of host countries. The technology sipper of FDI can promote the form of human capital, promote trade nationalization of host countries, foster a competitive local business environment and develop local entrepreneurship. Meanwhile, FDI is one of the most important methods of poverty reduction. Transitional countries try their best to attract FDI as their economic growth strategy. As the data shows, over the past 30 years, governments of many developing countries have changed their attitudes towards multinational corporations. At

present, FDI is receiving more and more attention because it is the external source of private development. Moreover, some countries attempt to improve the overall investment environment and come up with various incentives to attract foreign investment. As a matter of facts, different governments of different countries, even developed countries begin to compete with each other to attract more FDI inflow by policy biases like investment and tax incentives.

## *2.4 Bista (2005) published a book named FDI in Nepal and in the book he mentioned the situation of FDI in Nepal as below:*

1. Most investment in Nepal is small and most investors are individuals instead of corporations. However, those who have ever consulted to the United Nations Conference on Trade and Development are corporations.

2. In Nepal, nearly 20% of FDI come from India. This is of course predictable because of the history and the open border of these two countries.

3. The insecurity caused by Maoist insurgency is not that important for the private sector as it seems this needs further attention. Seeing from past situations, FDI mainly gathers around Kathmandu valley was not being affected by the rebellion.

This indicates to investors that Nepal has good and normal business atmosphere. In terms of security, the base of FDI will not be affected. Therefore, the current situation is the same as the normal situation and foreign investor can invest in Nepal's city area. Attracting FDI under crisis situation is of great significance in Nepal.

Dangal (2002) studied the need, nature and degree of FDI in his master's degree thesis *Problems and prospects of FDI in Nepal* and noticed the determining factors of FDI like law and policy including incentives affecting investment in Nepal, problems and FDI prospects. Data supporting his study shows that the environment beneficial to foreign investment is very low.

Although there exists a free-market reform and incentive system, Nepal can only attract a small part of FDI flowing into Southern Asia. The analysis of the amount of FDI shows that when FDI obviously begin to flow into Nepal, it is the time that the first government elected by the Nepali

Congress Party admitted the freedom policy of the domestic or foreign individual investors flow in one country.

***Sharma (2003) sets the following goals in his thesis Nepal's foreign investment and its economic influence on Nepal.***

1. Finding out the situation and trend of foreign investment in Nepal.

2. Learning about the policy problems of foreign investment in Nepal and making improvements to attract foreign investment.

To study FDI's influence on Nepal's economy, she collected data about this question and explain it into yearly trend, sector trend, category trend, plan trend, statehood trend and investment scale trend. Her conclusions are:

1. The inflow of foreign capital in the form of FDI increases after B.S.2046 (Nepali calendar)

2. The government has made some basic terms that are accepted by the international community like Nepal Guarantee to ensure all the investment and repatriation of investment income of the member of the multilateral investment guarantee agency.

3. After the inflow of foreign investment, the performance of trade sector shows both good and band signals. A rapid change of trade gathers from India to other countries and the speed of export decreases by increasing the share of exports of manufactured goods and accompanying share of capital goods. This is the reason to be optimistic.

A Preliminary study has been done by Chitrakar (1986) under the situation of supervising foreign investment. His *Foreign invests in Nepal* will be published and this is the first study concerning foreign investment. His studying goals are:

- The degree of FDI in Nepal

- Policies and incentives concerning FDI in Nepal

- Multinational corporations, investment strategy meeting held in 1982

The researcher has found out that the lack of foreign investment in manufacturing, especially mineral-based sector is insignificant. The main problem is no-implementing policy bill enacted by Nepal government, bureaucratic harassment and the lack of incentives under the terms of the government. Secretary of Commerce meeting and investment promotion meeting are not effective anymore more foreign investment failing to encourage foreign investors to come to Nepal. The study has shown that the attention and effort on policy reform to attract foreign investment is insufficient. The regional and international combined effect is necessary for the increase of inflow of FDI. He also mentioned some problems in attracting FDI like the lack of predictable a transparent policy, the lack of accurate monitoring mechanism, political instability and so on.

***Basnet (2003) hands in a thesis named FDI in Nepal. His goals are:***

- Examine the overall structure of FDI in Nepal.
- Analyze the biggest foreign financial cooperation in Nepal
- Find out the limiting problems of FDI in Nepal
- Make recommending suggestions.

The researcher finds that FDI plays a crucial role in Nepal's economy and about 14% of the 9.61 billion total budget comes from FDI in the year 2059/60 (Nepali calendar). He makes use of raw data and organized data to meet the goals above. And the achievement of his third goal also adopts the raw data.

Gyawali (1994) will mentions the limitations of Nepal's attracting foreign investment in the future: Nepali government encourages FDI in large economic activities in various sectors and only gives small and cottage handicraft monopoly to Nepali citizens. And the only accepting is National Defense Industry. Potential investors may put forwards programs that are beyond the regulation of Nepali government. These suggesting programs should accord to the national priority policy of Nepal, no matter as import substitution industry, export-oriented industry or assembly industry.

Apart from reform meeting the international environment, the government should encourage and persuade foreign investors to decrease the future possible limiting factors to the lowest. In this thesis, he also mentions that some factors should be responsible for the worst performance in attracting FDI to Nepal. Lack of political commitment and structural flaws including corruption, complicated formalities, unnecessary permitting process and multisectoral process are all the factors leading to bad performance. Meanwhile, national priority also limits foreign investment.

***Economic development and foreign investment of Nepal problems and prospects (published by Nepal's social applied economics)***, explain that FDI is a method of industrialization and it will lead a lasting, social, psychological and economic diversity framework. The book also states "Foreign investment is considered as an important role in the process of Nepali industrialization and some traits concerning FDI are that it can attract funds, technology and professional knowledge and it helps sharing risks, making use of current resources and providing import and export markets. All these are what Nepal lack."

They can break the vicious cycle of poverty and thus improve the formation and accumulation of capital in countries with scarce resources like Nepal. Among these, industrial development is considered a must to achieve various economic goals like higher increase speed, gratification of basic needs, creation of more job opportunities and so on. Here, "they" mean "Industrialization breaks the vicious cycle of poverty and creates property in the process." They think that industrialization can overcome the limited "affordability"of agriculture sector in solving jobs, decreasing poverty and overall economic development. Therefore, some basic demands are capital, proper technology, skilled human resources, market, infrastructure, and good administrative and legal environment. And these can be achieved by attracting foreign investment. Their studies mainly focus on the process of history, the importance of FDI structure and the analysis of the legal regulations, incentives and applications provided by Nepal. This study also touches problems of foreign investment in Nepal. However, analysis on this part in not detailed enough compared to other details.

Dahal and Aryal (2002) particularly mentions the joint investment of Nepal and India in the book named ***Nepal Economy: striving to build a strong national country (FDI)***

In a poor economy like Nepal, internal resources are quite rare and not enough to add to the current expenditure. The situation of foreign aid (grant and loan) tensifies with the poor performance of

economic growth speed and political conflict is the main cause. The role of FDI is crucial in maintaining sustainable development and relieving poverty. From the data on FDI, it can be seen that India investment takes the majority because of the bilateral economy and society close relationship. Based on the pragmatic development strategy of two pillars, it will help promote increased and relieve poverty:

1. By strengthening macroeconomic stability, trade openness, market competition, institutional governance improvement and infrastructure to improve the investment environment.

2. Social inclusion, kind policy and poverty relief(Stern, 2002)

## 2.5 Summary

Existing FDI theories all agree that corporations must enjoy the ownership and internalization advantages to have foreign trade production but multinational corporations from developing countries seem not to have the specific advantages on R&D or advertisement ownership like corporations from developed countries. On the opposite, multinational corporations from developing countries directly use capitalization to control or by offering cheap products of middle or low levels to influence the market. Some location factors like cultural and geographical closeness will be of positive influence on the inflow of FDI into host countries. Studies of multinational corporations in service industry show that traditional FDI theories also apply to FDI of Multinational Corporation as long as some important traits can be observed.

Post conflict transitional countries always feel the shadow because they often rely on foreign aid and donation. This kind of donation economy is not sustainable and can form external influence on the country. For countries suffering conflicts, FDI will be the main source of stable economic growth. The influence of FDI on host countries also determines the inflow of FDI. Many studies mainly focus on developed economies or show interest in the FDI of Eastern Europe countries. Various literatures attempt to study market-oriented foreign investment and its motivation is to meet local product needs. These literatures mostly discuss about the product-oriented economy but cover quite less about post conflict transitional economies.

## 3. Economic performance and the influences of FDI inflows of post conflict countries

The world is basically entering a peaceful era, yet regional conflicts are just like Chinese leeks, which are hard to reap all. All kinds of old grudges, national contradictions and religious conflicts have made armed conflicts exhibit the characteristic of “Conflicts here solved, conflicts there aroused; One conflict solved, another conflict aroused”, making it difficult for these countries to get rid of conflicts. For the countries which are involved, widened and continuous conflicts signify long-term Resource consumption casualties, and reduction of the state’s political authority and failure of the state’s economic development. Conflicts uses up a lot of physical financial resources, and military expenditure occupies the vast majority of funding, yet the continued and intensifying conflicts stop and damage the economic development progress. After going through conflicts, the priority is to take the responsibility of peace building. Once one country cannot enter into peace, it’s easy to fall into conflicts again, and the people will lose faith in economic development.

At present, the conflicts around the world concentrate on the Middle East, South Asia, the northeast of Africa and South-America, such as Iraq, Afghanistan, Sri Lanka, Nepal, Myanmar, Thailand, Philippines in Asia; Algeria, Chad, Sudan, Somalia, Burundi, Kenya, Uganda, Ethiopia, Nigeria, Cote d’ivoire, Democratic Republic of the Congo in Africa; Haiti, Colombia in South-America; etc. And these regions have the least developed countries and are the poorest places. Countries that have gone through conflicts are short of fund, technology, management, etc for economic development among which, fund is of the most importance, because the increase of investment always goes with technology, management and other factors. Therefore, attracting foreign investment is one way to fill in the gap of internal resources. With regard to this point of view, the classic argument is the Two-gap model which was come up with by H.Chenery, M.Strout and other economists. For most post conflict countries, they are faced with not only the shortage of domestic savings corresponding to investment opportunities, but also the shortage of foreign exchange which is needed to import capital goods and intermediate goods. The main relatively excess productive resources that these countries have been laboring force. If these countries have access to foreign capital to import new capital goods and relevant technology, （公式） the currently existing domestic resources can be made full use of into new investment projects, thus attracting foreign investments plays a significant role in overcoming the shortage of foreign exchange and raising the economic growth rate. Meanwhile, the inflow of foreign capital can usually bring transfer of advanced technology and share of management experience. If the company funded in a late-developed country of the foreign

investor exports products to the exterior, it can bring the convenience of market access to the late-development country. Moreover, FDI can enhance the competition in the domestic market of the host country, which leads to rise of Resource allocation efficiency.

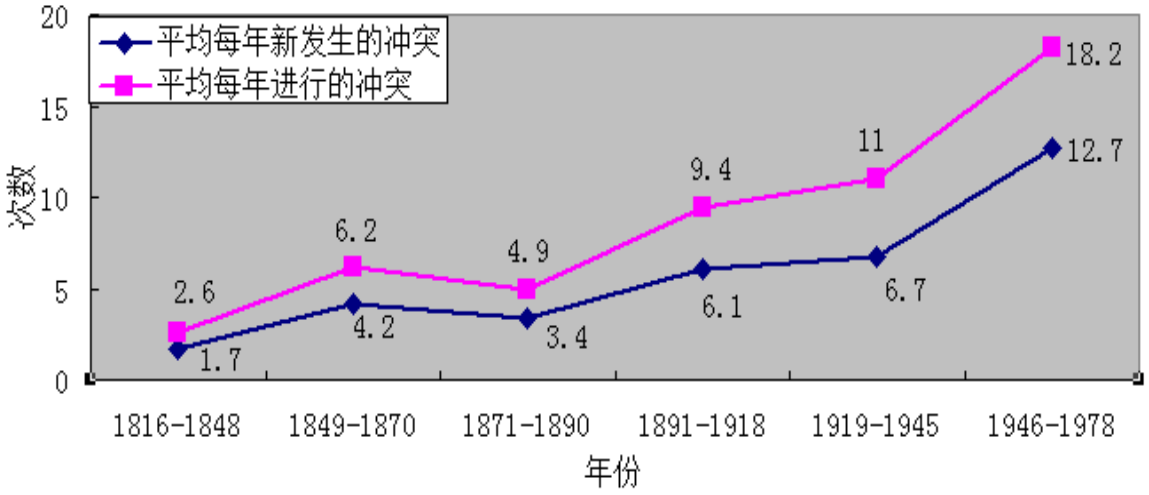
The role of foreign investment in the economic growth of post conflict countries is an inevitable question in development economics. And we will continue to analyze. We cannot affirm that all the late-developing countries that absorbed a large scale of foreign investment obtained a fast development. However, generally speaking, after the World War II, all the last-developing countries that obtained a fast development absorbed a large amount of foreign investment. It is exactly because of such experience that quite a few post conflict countries try every means to attract FDI while pursuing economic resurgence and further development to gain necessary fund and technology. It turned out that many developing countries did obtain a fast economic growth in this way, but some countries still failed to get rid of poverty and backwardness and enter into development of globalization.

## 3.1 Basic facts of conflict and post conflict transitional countries

Since the human being appeared, in other words, since “state” this violence machinery was born, men’s territorial experience has been unprecedentedly enhanced. The shortage of resources, limitation of space and racism has made war common, that is to say, war is absolute, and peace is relative. From 3200 A.C. to 1980s, there were about 14,500 wars, namely, there were 3 wars per year in average. During the whole adventure of humanity, there were only 292 years when there was no war.

## Chart 3.1 History of conflicts

Having the formation of sovereignty and modern state system as boundary, the nature of armed conflicts in human society has changed qualitatively. Before that, conflicts happened between empires, feudal territories, king and princes, sects, secular kings and popes. After the formation of sovereignty and modern state system, the opposition between sovereigns and political turmoil inside a political turmoil has become the basic model of armed conflicts. Although such conflicts don’t lead to war between big powers, they do involve hundreds of millions of common people in the misery of war and becoming homeless.




The happening of conflicts has two basic factors: the first is that the interests and purposes of each party aren't incompatible, and the second takes hostile actions. James E.Dougherty and Robert L.Pfaltzgraff Jr.(2003) consider, in their book ***Contending Theories of International Relations,*** *t*hat the word "conflict" is referred to as a determined group of people (no matter tribe, race, language, culture, religion, social economy or other groups) consciously opposing to one or some other determined groups. This definition emphasizes the "conscious" opposing behavior of both parties, and the incompatibility of their purposes is the cause of a conflict.

Latin America is a region with serious social problems such as poverty and uneven distribution of income, conflicts caused by which are very common. The primary cause of conflicts or Social unrest in many countries and regions is that in those regions, poverty gets worse, and social problems like uneven distribution of income and polarization between the rich and the poor were not solved or improved in a long time, thus leading to an increasing anti-government sentiment of the people that brings about intense conflicts or confrontations.

Africa, where there are the most little developed countries, is a region where global conflicts and wars happen very often. Ever since the national independence, it was never able to get rid of war. Although after the entry into the new millennium, Africa has been generally stable, civil wars and conflicts always rise one after another and new conflicts are likely to break out. After some time of peace on the surface, coups in Egypt and Libya are nothing strange. Backwardness in the economy and pauperization has been the primary cause of civil wars and conflicts. Heavy debt burdens, serious underinvestment, spreading of diseases like AIDS, rage of flooding disaster have severely constrained Africa's economic development. Poverty and backwardness has been the most profound root of social unrest, even conflicts and wars. Some of the poorest countries have been involved in a vicious cycle of endless war and extreme poverty.

In South Asia, Crimea Conflict is the most intense and lasting conflict. The tensions between Hindus and Muslims have been for a long time. There might be no way to solve conflicts with religious problems. Before the partition of India, India and Pakistan already had had serious national and religious contradictions. After the partition of India in 1947, national and religious contradictions and conflicts became ever more serious, which led to three Indo-Pakistani Wars and a series of large-scale armed conflicts?

Next, we firstly define “conflict” and “post conflict country”, analyze the origins of conflicts and their influences on economic.

### 3.1.1 Definition of “conflict” and “post conflict country”

**1. Conflicts and its types:** Conflict is mutual interference of opposing and incompatible force or nature (such as notion, interests, will, etc.) In this dissertation, conflict is intense insurrection between classes of a state, and its extreme expression is revolution. Marx points, “Revolution is loco motive of history”. Mao Zedong points, “Revolution doesn't mean offering guest meals, writing, painting, or doing embroidary. It’s not that graceful, unhurried or polite, or gentle, modest and courteous. Revolution is an insurrection, an action that one class overthrows another.” In the book “States and Social Revolutions”, contemporary American scholar T. Skocpol (1979) describes revolution as a major historical event which deeply “changes the state’s organization, class structure and dominant ideology”. The contemporary western theories concerning revolution can be roughly divided into:

1. **Aggregate-psychological theories:**

Attempt to explain the revolution in regards to the psychological motives of being involved in political violence or antagonistic motion. Its representative work is *Why Men Rebel* by Ted Robert (1970).

**2. Systems/value consensus theories:**

Consider revolution as a violent reaction to the ideology motion caused by the serious disequilibrium of social system. Its representative work is *Revolutionary Change* by C. Johnson (1982).

**3. Political-conflict theories**:

Believe that when explaining collective violence and revolution, it's necessary to focus on the conflict inside the government, as well as the competition to seize power between organized groups. Its representative work is ***From Mobilization to Revolution*** **by C. Tilly (1978).**

**Why revolution? Injustice provokes outcry!**

Marx affirms in ***On Capital,*** "At a certain stage of development, the material productive forces of society come into conflict with the existing relations of production or – this merely expresses the same thing in legal terms – with the property relations within the framework of which they have operated hitherto. From forms of development of the productive forces these relations turn into their fetters. Then begins an era of social revolution." Contemporary scholar T. Sanlon (2003) considers, "I believe that equality is an important political purpose. In other words, all societies practically have all kinds of marks of inequality, and eliminating inequality is a political goal of the greatest importance." T. Skocpol (1979) thinks, "logically speaking, the reason why revolution happens is basically explained like this: in a society where extensive, intense, and multi-aspect relative deprivation occurs, this deprivation touches the population as well as ambitious elites. If the potential leader and his followers feel strongly frustrated, they will widely participate and get organized elaborately, then there might be political violence, and the basic conditions for a civil war have formed.

This dissertation, for this purpose, in the following part, the perspective of "political conflict theory" supported by scholars with the representation of C. Tilly (1978) will be employed. Different from the analysis of displacement of the social status of individualism, Tilly underlines that we should concentrate more on the association pattern of social protest and its political, social and economic structure. He collected a lot of Profs to show that collective violence usually comes from an organization with a violent political purpose. He also believes that social movement is a determined form of politics and history parallel to the election, and a collective fight for the right to live, but a common behavior which doesn't belong to the men.

However, once conflicts occur in a post conflict transitional country, even it can be peaceful; it's easy to happen again. According to the law of the jungle in social relations by Deutsch (1974), competition intensifies competition, instead of cooperation. The self-fulfilling prophecy was proved. Each party believes in the hostility of the other and the inevitability of conflicts, thus taking preventive actions, which makes distrust and rivalrousness. When one party reacts, it

will be the verification of preventive actions, thus leading to a new round of action and reaction. Though this action and reaction, the stronger one will be faced with a stronger resistance, and make even more efforts to win. When both parties are stuck in conflict, they usually cannot get out of it on their own. At this time, they may need a third party to do arbitration, coordination and consultation. Conflicts include interpersonal conflicts, role conflicts, group conflicts, multiparty conflicts, international conflicts, etc.

## 1. Definition of post conflict transitional countries.

Most post conflict transitional countries experienced this long road of being in a conflict, ending it and going back to normal. Regardless of the peace agreement or any other procedure, once the conflict is over, the period after that is considered the post conflict transition period. Some countries have a long transition period while others have a short one. The actual post conflict period can be defined the period after the end of the war or after the signature of a comprehensive agreement between the government and the other side. During this process, these kinds of countries have some particularities. This dissertation defines the post conflict transition period as the following: begins when the two parties sign an armistice or something else that can clearly prove that the two parties are at truce and state political power functions normally, and lasts until the end of the 6th year. With corresponding research, during this period, the economy of this kind of countries has some clear transitional characteristics. This dissertation selected 36 countries throughout the world, which have experienced similar internal conflicts during a short time or a long time. The Table 3.1 Tabled those countries that are defined as post conflict countries, which mostly ended conflicts in the 1990s. Some post conflict transitional countries have suffered thorough destroy, such as Afghanistan, the Democratic Republic of Congo, Libya, Sierra Leone and Somalia, while other countries, such as Croatia, Sri Lanka, basically conserved their political system, administrative capacity. During the conflicts, the growth rate of GDP was less than 2% and suffered from high inflation and low level of FDI. For the moment, some are completely at peace while others aren’t, but are in a transition period because they already started the peace process.

**Table 3.1 Table of post conflict countries**

| Country | Period of conflict | Current situation |
|---|---|---|
| Afghanistan | 1978-1991, 1991-2002, 1995 | Ongoing insurgency |
| Angola | 1975-1994, 1997- 2002 | Peace |
| Azerbaijan | 1991 – 1994 | Peace |
| Bosnia and Herzegovina | 1992-1995 | Peace |
| Burundi | 1991-2002 | Peace, implementation challenge |
| Cambodia | 1970 -75, 1978-1991 | Peace |
| Chad | 1965-1988, 1990-2007 | Revived insurgency |
| Democratic Republic of the Congo | 1996-1997, 1998 -2001 | Ongoing insurgency |
| Republic of the Congo | 1993-1997, 1998-1999 | Peace |
| Coate d'Ivoire | 2002- 2004 | Not settled yet |
| Croatia | 1991 -1993 | Peace |
| Salvador | 1979-1991 | Peace |
| Eritrea | 1974 -1991 | Peace, unsolved border dispute |
| Ethiopia | 1974-1991 | Peace, unsolved border dispute |
| Georgia | 1991 -1994 | Peace, unsolved border dispute |
| Guatemala | 1965 -1995 | Peace |
| Guinea-Bissau | 1998-1999 | Peace |
| Haiti | 1991-1995 | Ongoing instability |
| Indonesia | 1990-2006 | Peace |
| Kosovo | 1998-1999 | Peace unresolved status |
| Lebanon | 1975-1990 | No comprehensive settlement |
| Mozambique | 1989-90,1992-97, 1999-03 | Peace |
| Namibia | 1976- 1992 | Peace |

| | | |
|---|---|---|
| Nepal | 1973 -1968 | Peace |
| Nicaragua | 1996- 2006 | Peace Election held in 2008) |
| Papua New Guinea | 1978-1979, 1979-1990 | Peace |
| Rwanda | 1989-1996 | Peace |
| Sierra Leone | 1990-93, 94, 1998-99, 01 | Peace |
| Solomon Islands | 1991-1996, 1997 -2001 | Peace |
| Somalia | 1998-2003 | Peace |
| Sri Lanka | 1988-1991 | Unsolved the territorial status |
| Sudan (North South conflict) | 1983-2003, 2005 -2009 | Peace |
| Tajikistan | 1983-2002 | Peace |
| Timor-leste | 1992-1997 | Peace |
| Uganda | 1975 -1999 | Peace |
| | 1979- 1991 | Peace |

### 3.1.2 Causes of conflicts of post conflict transitional countries

Conflicts come from the difference of purpose or values of both parties in social relations. Both parties attempt to gain the control thus leading to mutual opposition or hostility. The early theories about conflicts (Fink, 1968; Mack& Snyder, 1958; Katz, 1965) came up with three causes of conflicts:

1. **Economic conflicts**: involve competitive motives for rare Resources. Each party tries to get the most, and their behaviors and emotions are related to the maximization of self-interests. For example, in terms of the conflict between western countries' labor unions and managing stratum, the disagreement about how to divide the "economic cake" usually is one of the causes.

2. **Conflicts of values:** involve lifestyles, preference of ideology, principals and actions; etc. International conflicts (such as cold war) usually conclude this kind of conflicts, where both parties insist on the rationality of his lifestyle and political and economic systems.

3. **Power conflicts:** happen when both parties wish to keep or maximize his impact on a certain relation or social system. Since this kind of conflicts is zero-sum game, the end is to win or lose, or continue to maintain in this "between success and failure" intense status. It's possible that this happened between individuals, groups and countries, as long as one party or both parties try to solve this interaction with power. Power is involved in conflicts, because both parties try to gain control. It should be noted that most conflicts are not pure or unitary, but are some sort of mixture of the three types above. For example, the conflict between labor unions and managing stratum typically involved economic competition, and it's likely to have confrontation of power and sometimes the difference of values and ideology. The more types of causes of conflicts are involved, the more intense is the conflict and the more difficult to handle.

Another cause is the ineffectiveness of communication. Incorrect communication or misunderstanding can also lead to conflicts, even without any disagreement. Moreover, each party may have different sentiments towards one same thing, unless they share information and clarify their sentiments; it's hard to solve a conflict. Egotism, selective perception, affective deviation, prejudice, etc makes different people or interest groups have different sentiments towards one same thing. Failing to communicate in a clear and respectful way often causes misunderstanding, feeling hurt and anger, which end up in conflicts. No matter conflicts come from objective causes or subjective feelings; they are seen as something Republic. This dissertation will not deeply analyze causes of conflicts, besides; we study the influence of post conflict transitional countries on FDI. However, to learn those factors we have to learn the causes of conflict, which is the reason why we only give an outline of them.

### 3.1.3 Influences of conflicts on the economy of post conflict transitional countries

Hirshleifer (1995) constructed a model for causes of conflict, considering both sides may not have conflicts but do what they think its right, which also forms prerequisites. But why there is disagreement? How will the choice of conflict influence the result? He considers three determining factors: preference, opportunity and feelings. These are the questions that classic historians and politicians diverge: War is mainly attributable to hatred and belligerence (preference), benefits at

the cost of the weak (opportunity) or mistaken estimation of the motivation and capacity of the other side.

**Chart 3.2 shows how these factors converge.**

On axis IB and axis IR, respectively representing the income on the blue side and the red side, curve QQ defines the opportunity set of settlement, namely they make peace or compromise. PB and PR represent the feelings about the distribution of income, if they cannot reach agreement or start to fight. In each graph, curve UB (UR) is one curve of the indifference group on each side, and the dashed area means Potential Settlement Region (PSR).

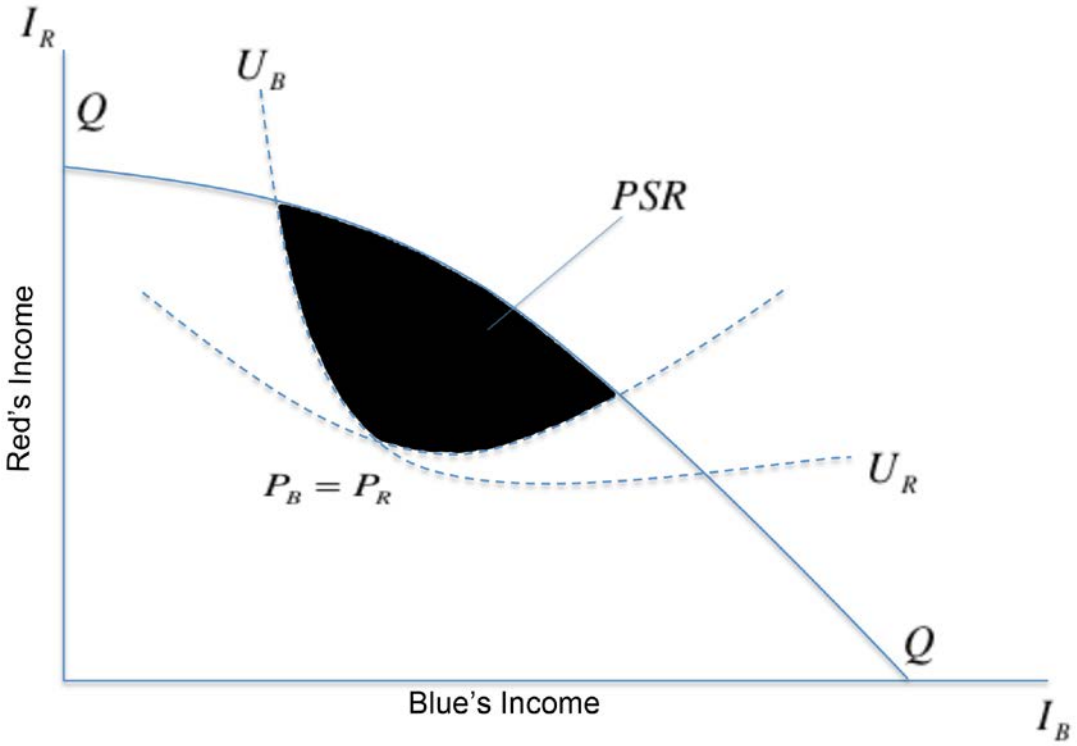



Chart 3.2 (a) Large PSR

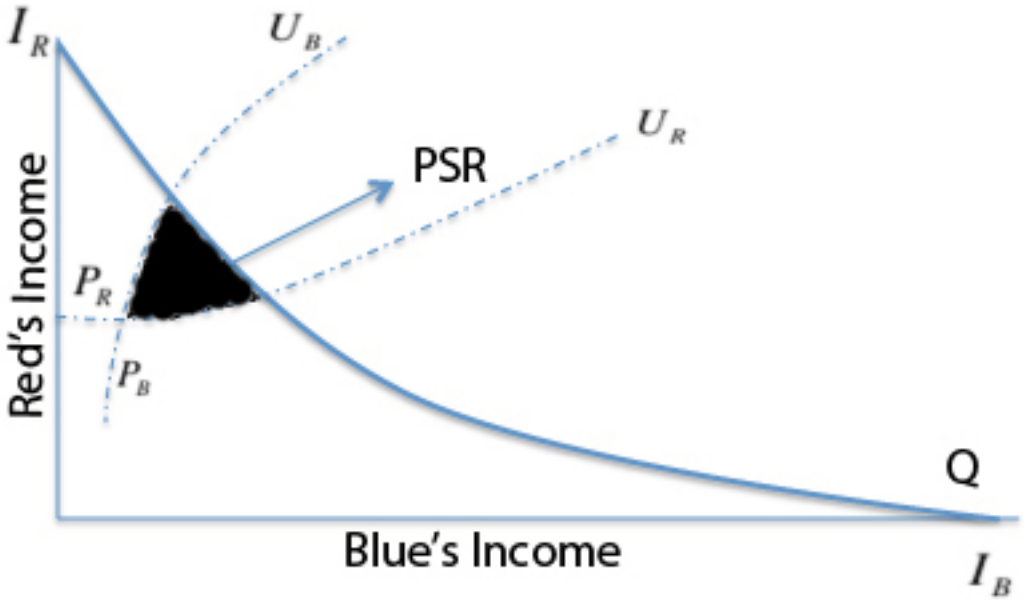



**Chart 3.2 (b) Small PSR**

**Chart 3.2 (a)** Demonstrates a mild situation. Opportunity: curve QQ shows that the opportunity of the settlement of each side is complementary and identical. Cooperation benefits both sides. When each side has an equal share, they can get the most aggregate income. Preference: Negative slope of the indifference curve shows the mildness of each side; for example, the blue side thinks that his income and the income of the other side are both useful. Feelings: Both sides consider that they don't have much benefit when they can't reach a settlement, and they share this point of view （PB and PR intersect.）All these factors form the PSR area, which means they have a great chance of settlement.

**Chart 3.2 (b)** Demonstrates a fighting situation. The PSR area is not harmonious, because compared with unequal income, relatively equal income distribution leads to low aggregate income. (Even though the transfers payment after that can do both sides share the aggregate income equally, this chance has already been shown in the PSR defined by QQ). Second, positive slope of the indifference curve shows malicious preference (in each utility function, the income is injuring instead of being useful). Lastly, both sides hold a disharmonious and optimistic attitude towards unsettlement, and believe that unsettlement is beneficial to them, thus reducing PSR and making the chance of settlement very difficult. (In fact, the deterioration of any factor of the three can completely eliminate PSR, for example, a slight disagreement on the chance of settlement, a slight hostility of preference, a slight disagreement and optimism of feelings, or the combination of the three above may lead to the failure of the settlement. )

**3.2**

Macroeconomic performances during the transition period of post conflict transitional countries

Post conflict countries often pay a heavy price for conflicts. We take South Asia as an example.

In South Asia, the India-Pakistan conflict is the most lasting and difficult to solve problem. Since the partition of India, two countries hardly made peace, with conflicts come one after another. India and Pakistan didn't make peace for a long time, which is a great barrier to the social-economic development of the two countries. The 2001 Indian Parliament attack (December, 2012) once made the political relation quite intense. Two parties broke off the transportation, tourism, trade between them, even recalled the ambassadors, thus downgrading their diplomatic relations. The arms race made both spend too much of its governmental expenditure on military spending, especially in the case of Pakistan were 1/3 of the national budget is spent on defense spending, seriously affecting the economic development. In addition, the growing of population in Pakistan is fast, and Pakistan is burdened with heavy foreign debt, which put Pakistan's economy at risk. Actually, India and Pakistan are both developing countries, in which the proportion of people in poverty is quite high in the population of each country. According to the statistics of 1993-1994 (IMF: 2000), at that time, in India, people in poverty accounted for 26 percent of the total population. With the economic development, the poverty in India was relieved to some level, but in 2001 people in poverty were 260 million, making up 26 percent of the total population. At present, the proportion of people in poverty of total population in India is 6 times larger than in China. In Pakistan, there are also quite a large number of poor people. Until 1992/1993, people in poverty accounted for 22,3 percent of the total population in Pakistan. At the moment, there are still about 29 percent of Pakistanis living below the poverty line, where at least 41 million people are short of food and clothes.

Nepal is one of the least developing countries in the world. For a long time, Nepal employed the economic pattern of centralization. After implementation of the democratic system, Nepal carried out the economical policy of liberalism oriented by the market economy. During the ten years, this policy took some effect, the domestic economy tended to be stable, and private enterprises gained relatively full development. Nevertheless, since the Nepal royal massacre in 2001, there was political unrest, the economy went down, and the development slowed down. During the financial year 2005/2006 (Ministry of Industry of Nepal), GDP was 8.39 billion US$(595, 67 billion rupees), and the foreign exchange reserve was 2,324 billion US$ (165 billion rupees). GDP per capita reached 311US$ (22,540 rupees) because of the appreciation of Indian rupees. The inflation rate reached 8,3%. The regional development is quite imbalanced in Nepal: in valleys and plains, the economy is more developed while in mountainous regions it's extremely poor and people in poverty

account for 40 percent of the total population of mountainous regions. Since the king declared a state of emergency, the chance to put down the revolt of Maoists became ever smaller. Since then, the political and economic crises deteriorate even further.

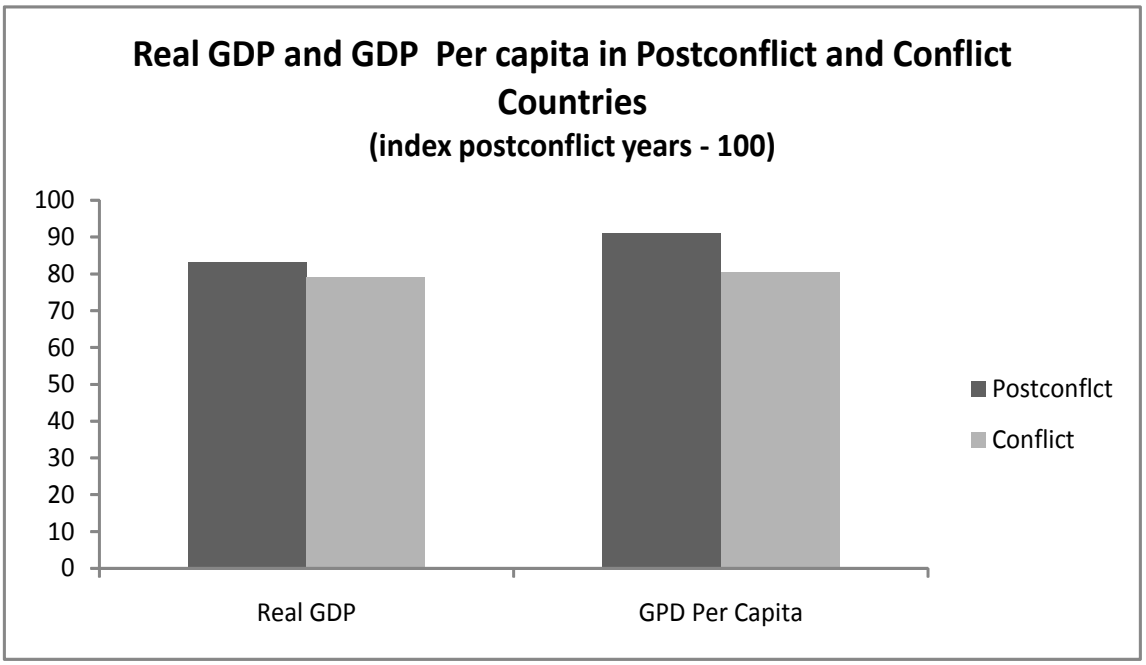
For a long time, Sri Lanka suffered a lot from Tamil/Sinhalese Conflict. Ethnic conflict and civil war have been the toughest problem for the last 20 years. Especially, since 2009, lasting armed conflicts have been escalating, and violent incidences and terrorist activities have become quite common, which seriously affected the stability and development of the country, as well as the normal life of the people. At the same time, the national economy of Sri Lanka has maintained the tendency of lasting growth: the annual economic growth rate was basically maintained between 4% and 5%, and in the last years the economy has grown the tendency to speed up. The economy of Sri Lanka has been grown with the lasting conflicts and civil war, which is the character of the economic development of Sri Lanka, namely developing its economy with the company of conflicts and war. When conflicts happen, all the economic structures were damaged, and GDP and international trade went down significantly. However, with the end of the conflicts, the main economic indications tend to grow slowly. Post conflict countries distribute mainly in the Middle East, South Asia, Africa and Latin America. In some countries growth is fast while in others slowly.

**We selected 16 samples-countries from Table 3.2.**

Whether the economy can be developed is the main challenge for a post conflict transitional government. In some countries, they have strong conditions for economic resurgence, while for others, they don’t. Even if these countries are full of opportunities, investors will continue to focus on the economic resurgence of this country.

*Chart 3.3 Real GDP and GDP per capita in conflict period and the post conflict period*

*Source: Online database of IMF, Word Economic Outlook 2010*




### *3.2.1 Countries with great economic performance in post conflict transitional period*

According to the macroeconomic data, the sample-countries in Table 3.2 experienced a strong economic resurgence, and have been the destination of FDI.

**Table 3.2 Post conflict transitional countries with most attractions to FDI**

| Country | Population(Million) | Average growth of GDP(%) | Rate of Inflation(Base-2009) | Inflow of FDI (million US$) |
|---|---|---|---|---|
| Angola | 17.312 | 5.63 | 14.18 | 10461.27 |
| Cambodia | 14.148 | 7.80 | 5.2 | 2515.49 |
| Ethiopia | 82.812 | 4.51 | 3.45 | 384.57 |
| Indonesia | 231.547 | 5.44 | 4.78 | 1526.65 |
| Mozambique | 21.162 | 4.57 | 4.21 | 1473.66 |
| Namibia | 2.082 | 3.30 | 6.98 | 41362.96 |
| Sri Lanka | 20.242 | 4.80 | 7.40 | 2391.92 |
| Uganda | 32.797 | 5.98 | 7.30 | 903.20 |

***(Source: Online database of IMF, Word Economic Outlook 2010)***

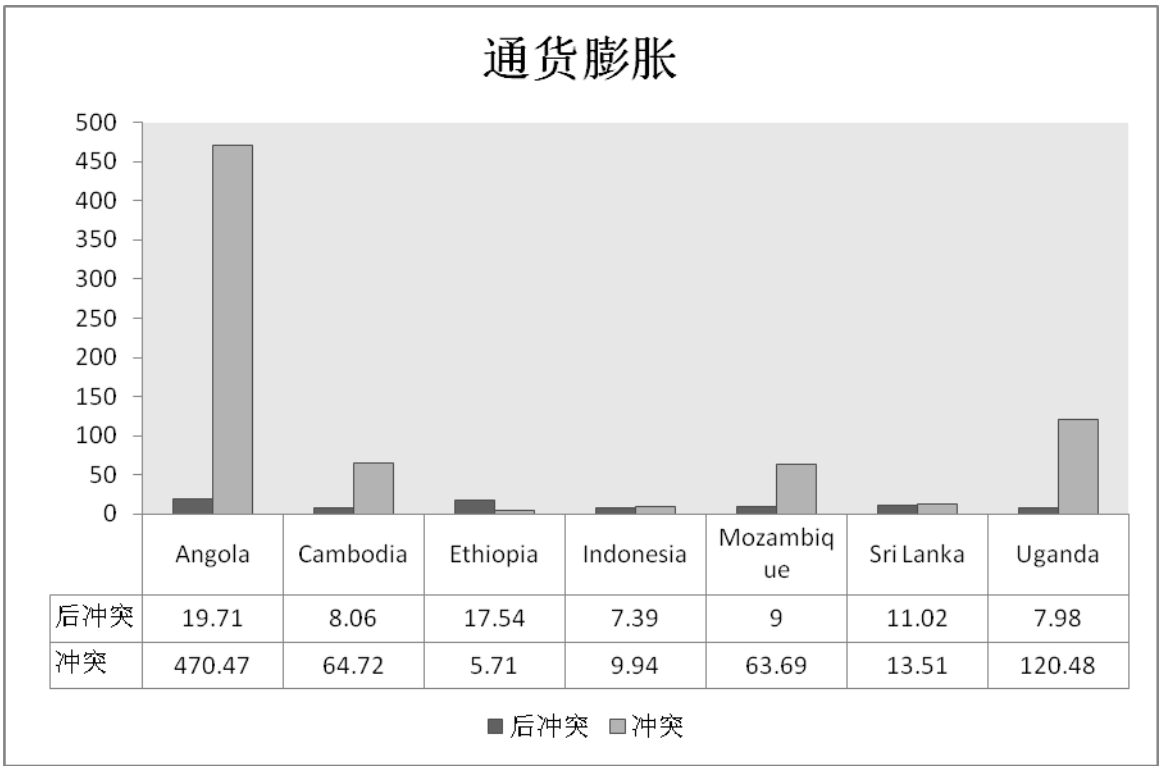
Besides, there is a great difference in macroeconomic indications of these countries during the conflict period and the post conflict period. The cases of Angola, Cambodia, Ethiopia, Indonesia, Mozambique, Namibia, Sri Lanka and Uganda are considered successful in the post conflict transitional period. In 1998, Cambodia completely came back to peace, and realized rapid economic resurgence from 1999 to 2003, with an annual growth of 8.8%. The main reason is FDI in the clothing industry, which is a key factor of economic growth. Moreover, Cambodia realized its reform program of public finance. The government revenue increased from 120 million US$ to 523 billion US$. Mozambique is one of the most attractive destinations to FDI in the world. After the signature of the peace treaty in 1992, Mozambique attracts 9 million US$ per year. This is a good start. Ten years after that, the inflow of FDI in Mozambique per year reached 225 million US$. In 1997, after the entry of Mozal and Tamene, FDI increased sharply. In 2007, the FDI of these two projects accounted for about 60 percent of total FDI. Because of these excellent performances, Mozambique is one of the most successful cases of attraction of FDI.

Indonesia, which took the 15th place in terms of attraction of FDI on UNCTAD in 2007 as a post conflict transitional country, gained an economic growth of 5.9% (2008), GDP per capita of 3.9 thousand (2008), growth of industry of 2.8% (2008) and an inflation rate of 10.5% (2008). All these macroeconomic data created a highly pretrial market and healthy commercial atmosphere.

Angola and Uganda are among the countries that succeeded in attracting FDI. Angola's FDI mostly comes from the U.S., France, Netherlands, Portugal and China.

The case of Sri Lanka is special. In 2009 the government defeated LITTE. After that, Sri Lanka has been in the peace process, becoming one of the most attractive destinations for FDI.

The following charts and Tables (3.4, 3.5, 3.6, 3.7) demonstrate the comparison of economic indications in the conflict period and post conflict transitional period. While calculating, the case of Sri Lanka is different from the others, because Sri Lanka didn't enter the peace period until the defeat of LITTE in 2009.




| | Angola | Cambodia | Ethiopia | Indonesia | Mozambique | Sri Lanka | Uganda |
|---|---|---|---|---|---|---|---|
| 后冲突 | 19.71 | 8.06 | 17.54 | 7.39 | 9 | 11.02 | 7.98 |
| 冲突 | 470.47 | 64.72 | 5.71 | 9.94 | 63.69 | 13.51 | 120.48 |

**Chart 3.4 Inflation rate during the conflict period and post conflict transitional period**

***(Source: Online data from the World Bank and IMF)***

**Note: The period of these data is six years of the conflict period and six years of the post conflict transitional period**

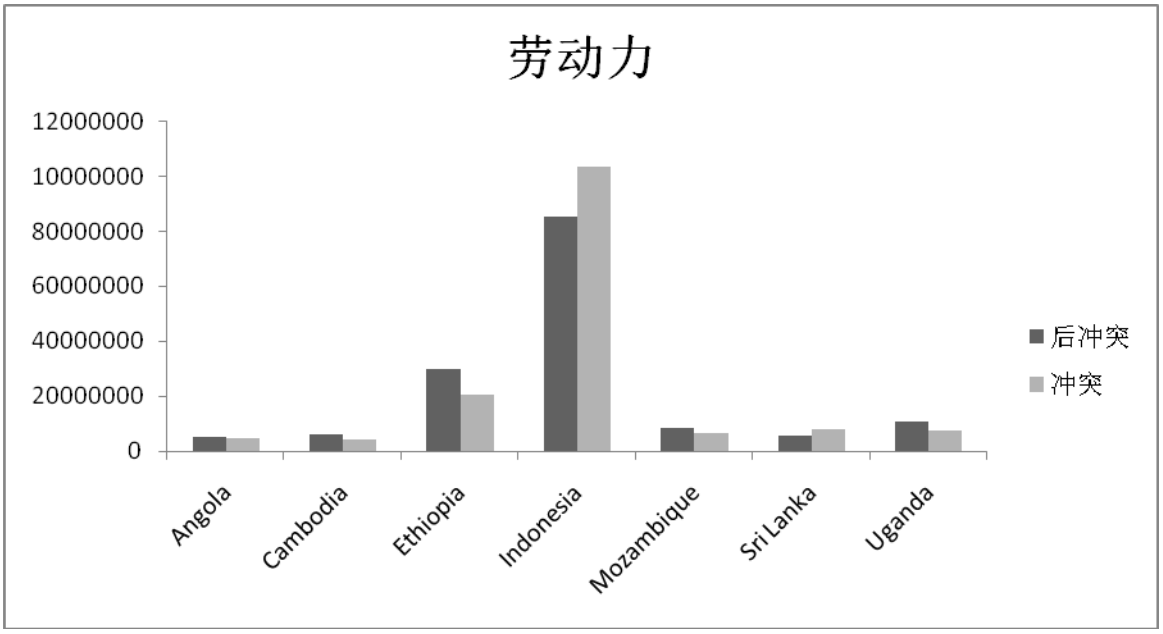



**Chart 3.5 Use of the labor force during the conflict period and post conflict transitional period. (*Source: Online data from the World Bank and IMF)***

***Note: The period of these data is six years of the conflict period and six years of the post conflict transitional period***

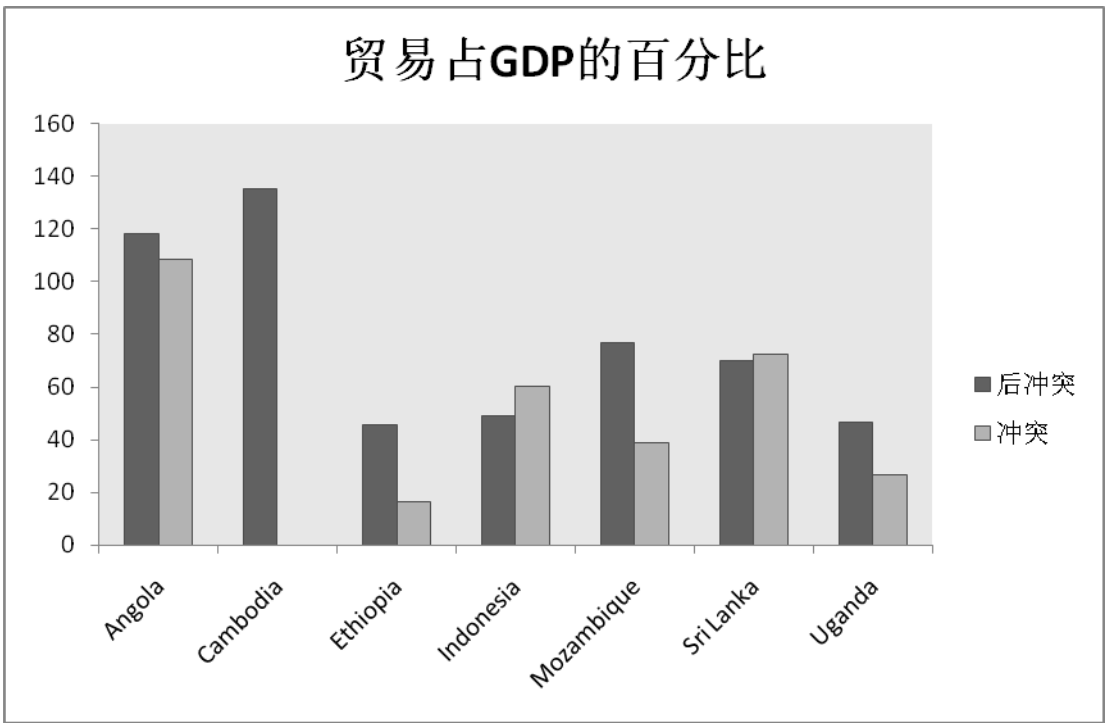



**Chart 3.6 Proportion of trade in GDP during the conflict period and post conflict transitional period**

***(Source: Online data from the World Bank and IMF)***

**Note: The period of these data is six years of the conflict period and six years of the post conflict transitional period**

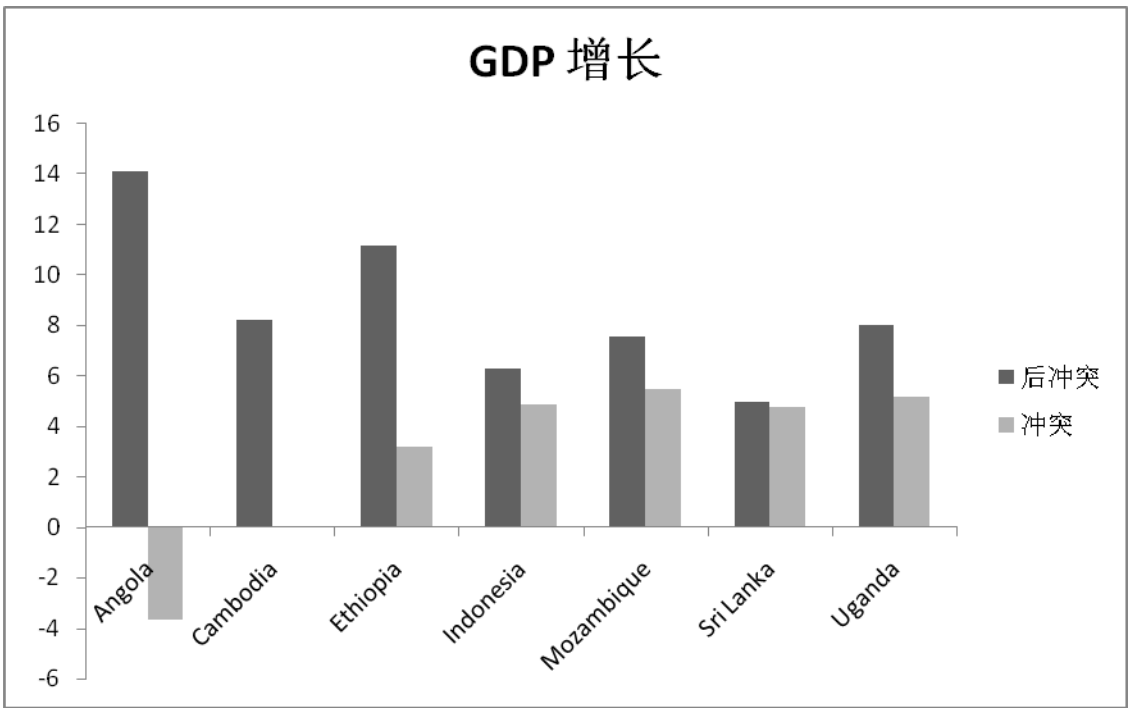



**Chart 3.7 Growth of GDP during the conflict period and post conflict transitional period**

***(Source: Online data from the World Bank and IMF)***

**Note: The period of these data is six years of the conflict period and six years of the post conflict transitional period**

**3.2.2 Countries with poor economic performance in post conflict transitional period** Even in a peace process, some countries still have poor economic performance. **Table 3.3 selects those countries which had a weak economic resurgence and the FDI was less than expected.**

**Table 3.3 Countries with great economic performance in post conflict transitional period**

| Country | Population(Million) | Average growth of GDP(%) | Rate of Inflation(Base-2009) | Inflow of FDI (million US$) |
|---|---|---|---|---|
| Burundi | 14.148 | 3.5 | 24.436 | 326 |
| The Democratic Republic of the Congo | 17.63 | 2.69 | 46.221 | 951 |
| Coate d'Ivoire | 4.29 | 3.59 | 6.25 | 381 |
| Guatemala | 1.61 | .57 | 64.76 | 566 |
| Haiti | 231.547 | 2.88 | 18.17 | 38 |
| Rwanda | 5.7 | 5.3 | 10.4 | 119 |
| | | | | |

***(Source: Online data from the World Bank and IMF)***

Countries like Burundi, the Democratic Republic of the Congo, Coate D'lvoire, Guatemala, Haiti, and Rwanda didn't have a good economic performance after entering into peace. The Tables and charts of comparison of the conflict period and the post conflict transitional period are the following:

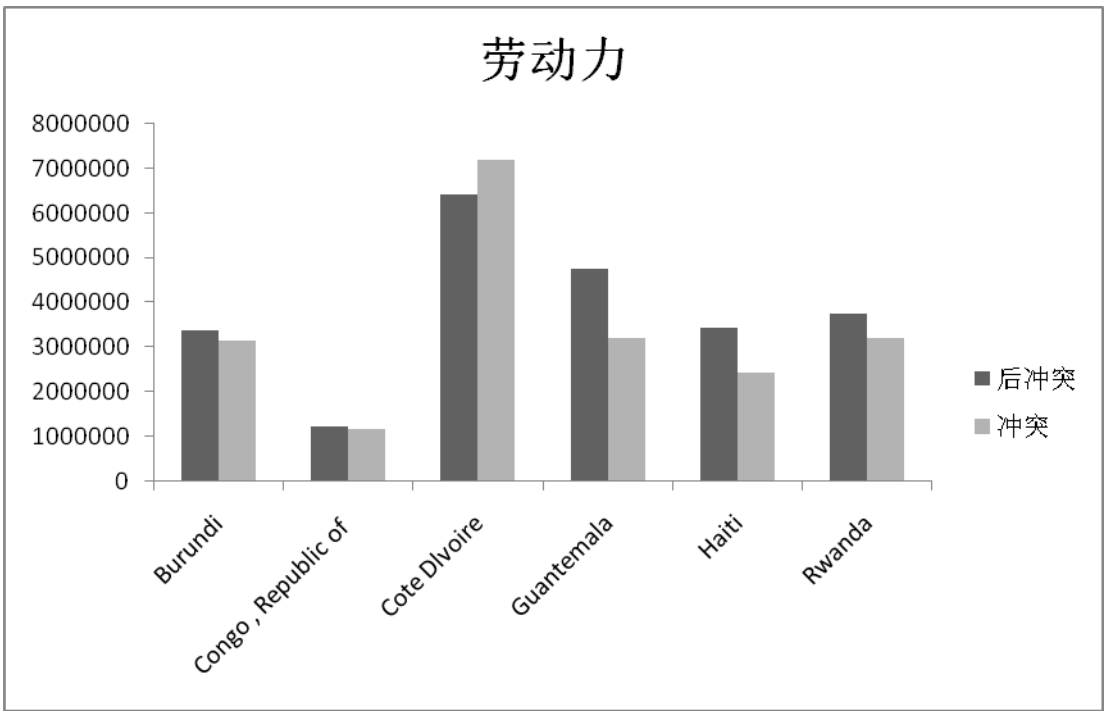



**Chart 3.8 Labor forces during the conflict period and post conflict transitional period**

***(Source: Online data from the World Bank and IMF)***

**Note: The period of these data is six years of the conflict period and six years of the post conflict transitional period**

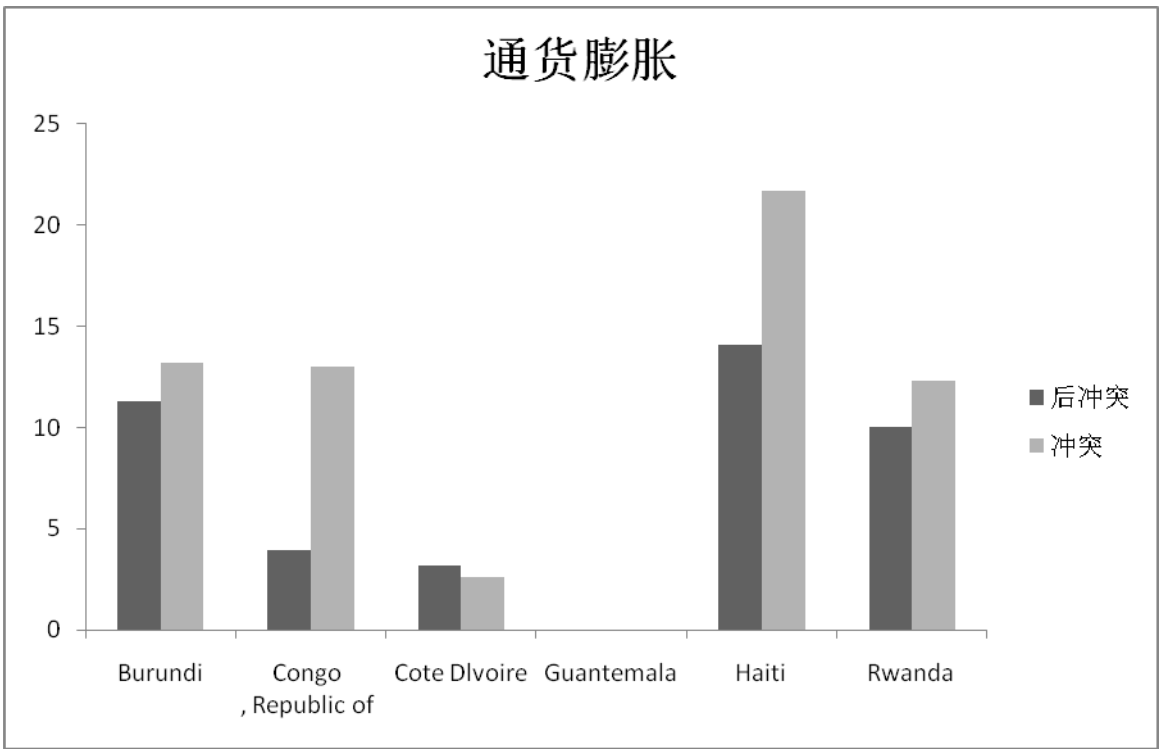



**Chart 3.9 Inflation rate during the conflict period and post conflict transitional period**

***(Source: Online data from the World Bank and IMF)***

**Note: The period of these data is six years of the conflict period and six years of the post conflict transitional period**

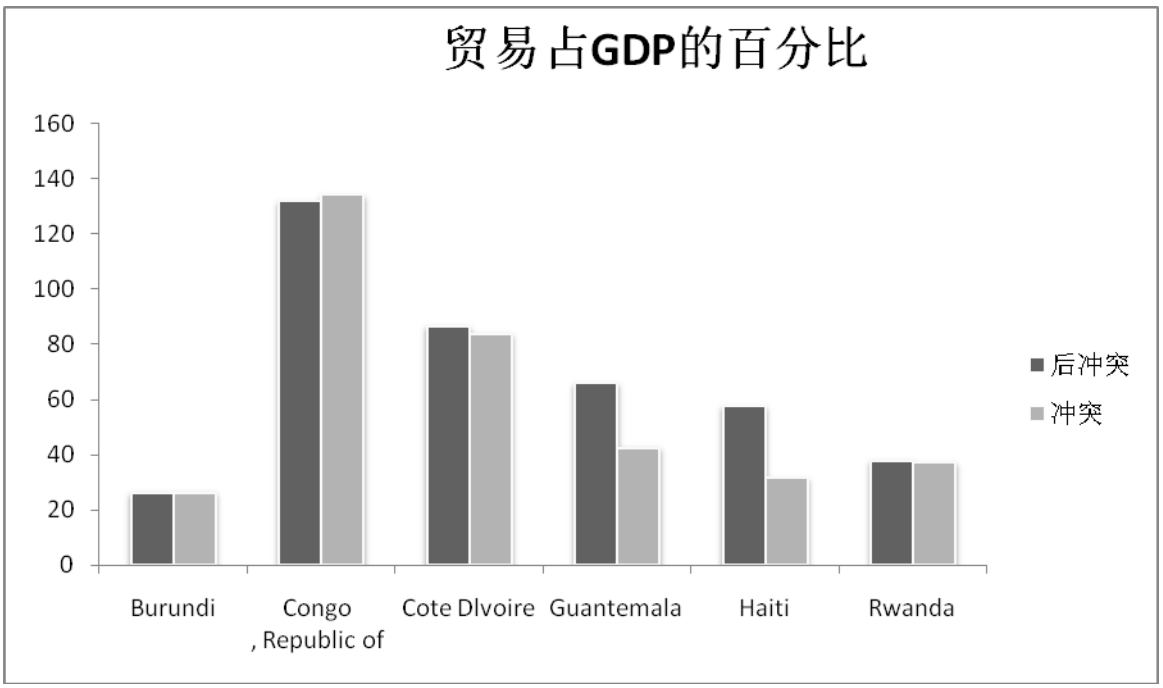


**Chart 3.10 Proportion of trade in GDP during the conflict period and post conflict transitional period**

***(Source: Online data from the World Bank and IMF)***

**Note: The period of these data is six years of the conflict period and six years of the post conflict transitional period**

## *3.3 Current situation of attracting FDI during the transitional period of post conflict transition countries*

The role of FDI in the economic grow of the host country has always been one of the most controversial question in development economics. After World War II, scholars tend to study this issue by doing empirical research. One way is to study the relation of the inflows of foreign capital and economic growth by doing cross border comparative analysis, more specifically speaking, doing regression analysis between foreign investment level and cumulative amount of investment. The other way is to study the contribution of foreign capital to host country's economy with the growth equation deduced by production function. However, the common defect of these two ways is that it's very hard to learn comprehensively all the influences of inflow of international capital on the economic growth of the receiver only with the analysis from the perspective of the amount of FDI and its proportion in the total amount of domestic investment. However, we can almost affirm that the inflows of FDI help the economic development of the host country.

Therefore, post conflict transition countries always try to introduce foreign capital to develop economy. The effect of using FDI is closely related to the structure of introducing FDI and the control of late development countries of FDI. Foreign capital that flow into late development countries is mainly foreign aid, bank loans, securities financing, bond financing, FDI, etc. Considering the conditions of FDI inflows of these countries, it can be observed that the proportion of foreign official capital that flowed into post conflict transition countries in the total amount of investment of these countries reached the peak in the 1980s, when foreign official aid of development accounted for 30.7% of capital that flowed into late development countries. After that, this proportion declined dramatically. The inflow of foreign private capital made up of 2/3 of the total amount of used post conflict foreign capital in the 1970s, declined to 54.2% in the 1980s and

came up to more than 80% in the 1990s. The proportion of Securities financing and bond financing in used post conflict foreign capital also increased in a great amount.

During the conflict period, a majority of infra-structures was destroyed, including daily water using, transportation, electricity, bridges, roads, etc. Post conflict countries are faced with some abnormal economic conditions. Most countries are burdened with political chaos, market failures, structural imbalance, corruption, etc. Because of these factors, these countries are classified as the least developed countries, especially for Nepal, a landlocked country. Due to the geographical structure, Nepal has all kinds of risks, including political instability, security and deficits. Even when conflicts end, these countries are faced with talent shortage because many people leave their homes.

Conflicts have influence on all the society. It's an inevitable problem for everyone to solve no matter he is rich or poor. The main purpose for recovery after conflicts is to construct infra-structures, develop system framework, set up social security systems, and at the same time, to judge and weigh the priority. There are also foreign aid and FDI that help resurgence. Foreign aid cannot be transformed into a self-sufficient system, and FDI can bring more advantages, and even eliminate the need for foreign aid (Turner, 2008). For host countries, FDI is the main bridge to create employment opportunities, and a key factor for social stability. FDI helps increase host country's capital, have access to international markets where there is fierce competition, and technology transfer can help finally get rid of the dependence on the donor country. FDI is an important part in the long-term peace construction and post conflict economic development.

There are few existing literature and theoretical research about the countries with frequent conflicts. Vadlamannati, Krishna Chaitanya (2007) explained how conflicts influenced Sri Lanka.

Because of war, all the organization structures become fragile, there's especially lack of human resources, and prices and production structures made allocation seriously imbalanced. The nature of FDI is to flow from developed countries to developing countries and the least developed countries. The main reason is cheap labor force. Because of the past conflicts, investors will think twice before they enter such a country. Therefore, during this crucial transitional period, a country must encourage foreign investors to enter this country to invest with strategy. Even with all kinds of advantages such as cheap labor force, due to the shortage of information technology, law and order, the investment risks caused by economic, political and social instability will lead to a long investment negotiation with the host country's government. Other factors such as shortage of infra-structures, unavailability of such raw materials, complex business process, workers with law production rate are barriers for the first investors. During this process, many companies discover that during the acquisition negotiation, the limitation for rreconstruction plan, employment agreement and investment agreement is often involved. Former Soviet Union countries, especially

those in East Europe, as well as Asian countries and South American countries have made the best exemplification. In the beginning of market oriented reform, restriction of reconstruction is quite often. Many investors found huge expanding opportunities, and these countries offered them wild markets and cheap labor forces.

**Chart 3.11 showed the situation of FDI of each country from 1980 to 2009.**

The horizontal axis represents the year, and the vertical axis show the situation of FDI of each country from 1980 to 2009. From the chart it can be seen that in nearly 30 years, most post conflict transition countries experienced a process where FDI grew from zero to some, from little to the last 10 years' break out. At the same time, during this process, many countries obtained better chances of economic development, including Angola, Indonesia, Mozambique, etc.

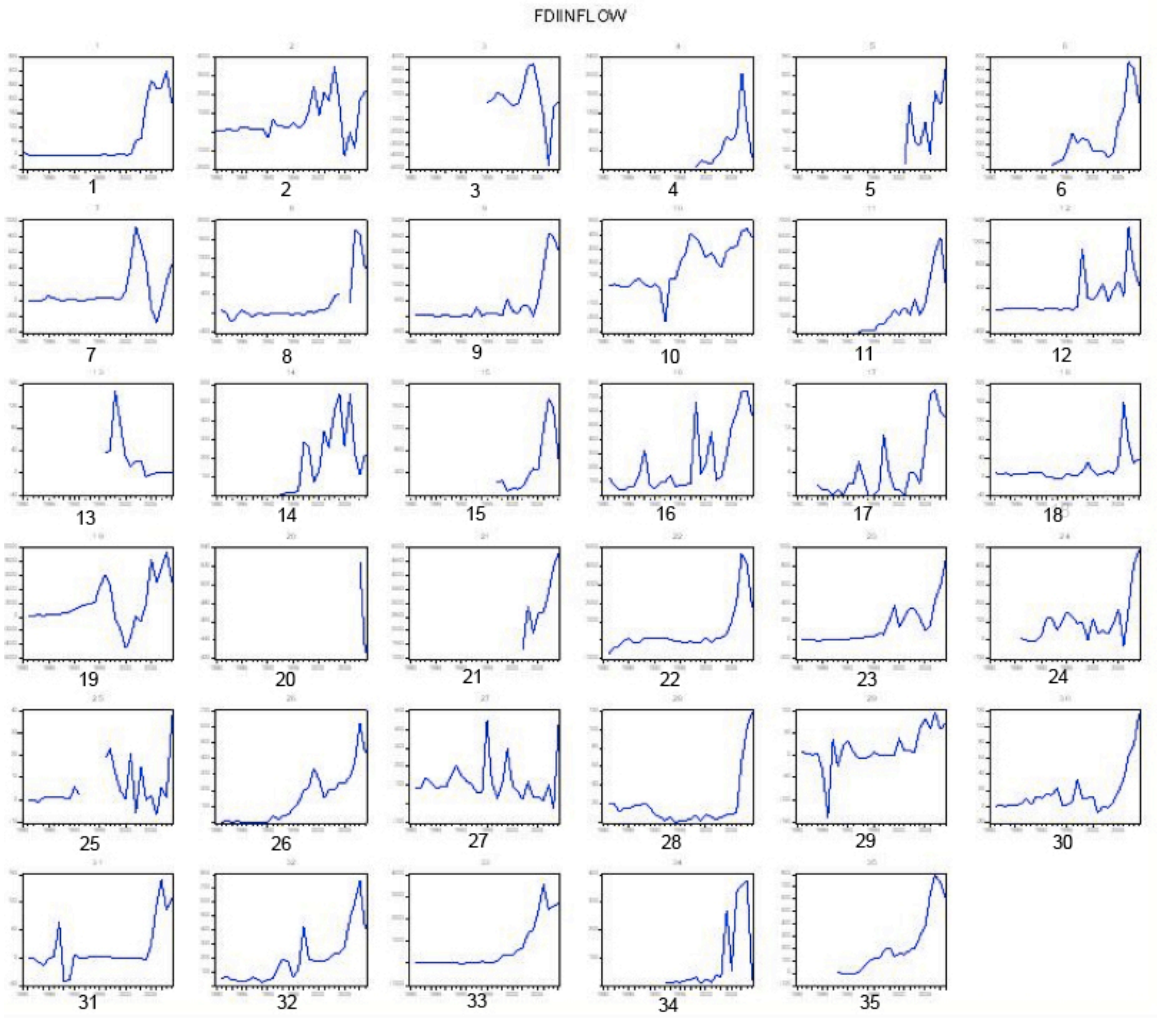



**Chart 3.11 FDI inflows per year in post conflict transitional economies**

***(Source: Annual FDI online database)***

1. Afghanistan
2. Angola
3. Azerbaijan
4. Bosnia and Herzegovina
5. Burundi
6. Cambodia
7. Chad
8. Democratic Republic of the Congo
9. Republic of the Congo
10. Coate d'Ivoire
11. Croatia
12. Salvador
13. Eritrea
14. Ethiopia
15. Georgia
16. Guatemala
17. Guinea-Bissau
18. Haiti
19. Indonesia
20. Kosovo
21. Lebanon
22. Lebanon
23. Liberia
24. Mozambique
25. Namibia
26. Nepal
27. Nicaragua
28. Papua New Guinea
29. Rwanda
30. Sierra Leone
31. Solomon Islands

32. Somalia
33. Sri Lanka
34. Sudan
35. Tajikistan
36. Uganda

For these countries, before conflicts, FDI inflows occasionally increased, but in general represents the tendency of decline. When conflicts end, they enter a new era of transformation of economy, and FDI inflows increased steadily.

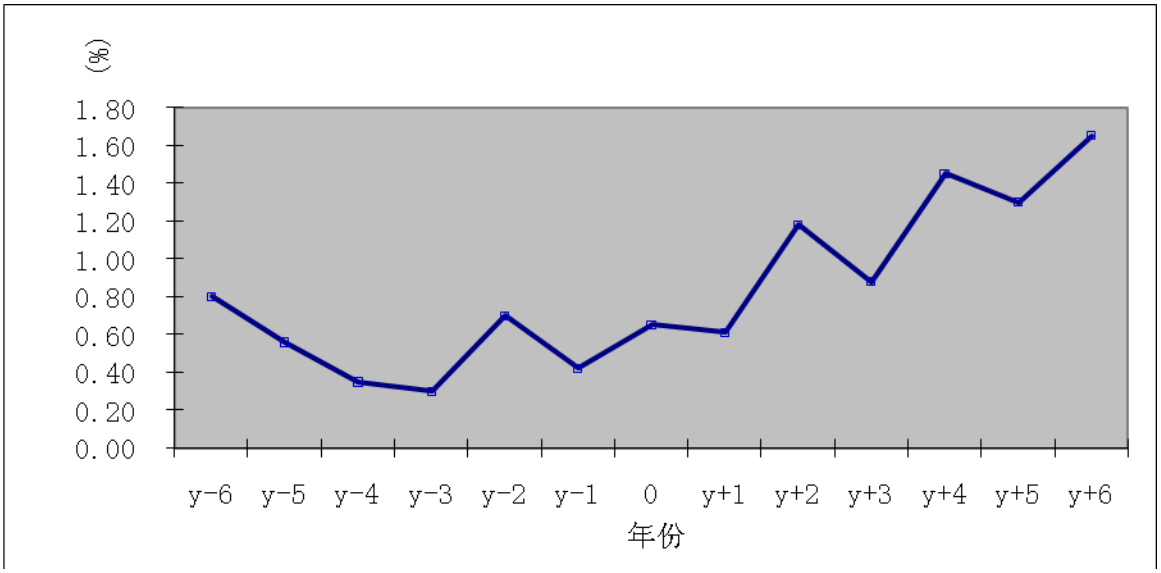



**Chart 3.12 Proportion of FDI in GDP during 6 years in 36 countries**

***(Source: Annual FDI online database)***

## *3.4 Influences of FDI on the transitional period of post conflict countries*

Traditional FDI theories believe that FDI of transnational corporations in host countries have some important effects, such as capital formation, technology transfer, increase of employment chances, balance of payments, etc. FDI of translation corporations have become a crucial factor for the economic growth of the host country. Since the Reform and Opening up, by attracting FDI, China has promoted the construction and improvement of socialist market economy system, enhanced the development of open economy, attracted a large amount of foreign fund, advanced applicable technology and

management experience, elevated the level of domestic technology innovation, promoted the improvement and upgrading of domestic industrial structures, created a large number of employment chances and increased the state's financial income. So, for post conflict transition countries, what effects does FDI have on their economic growth?

### *3.4.1 FDI and infra-structures*

During conflicts, infra-structures are badly damaged. FDI has huge effects on reconstruction of infra-structures. Introducing FDI should not be mainly concentrated on sectors like roadway and railway, but FDI can be introduced into sectors that can help develop infra-structures like electricity, telecommunications, water supplying, water-power engineering, etc. Infra-structures are an important production environment and production base for one country. Without good infra-structures, the transaction costs of economic development will be very heavy. The importance of transportation, electricity and telecommunications for economic development speak for itself. When foreign-funded enterprises enter a post conflict transitional country, they always choose to work in these sectors associated with infra-structures, because the return of investment is quite attractive. Therefore, this kind of investment strategy objectively makes the infra-structures recover fast, which helps post conflict countries get out of the shadows as soon as possible and dedicate to economic productive activities.

### *3.4.2 FDI and income level*

There is some uncertainty of FDI's contribution to one country's tax revenue growth; this is closely associated with the situation of economic development, attitude towards foreign investment, tax policy for foreign investment, etc. Generally speaking, there are both positive and negative effects on the tax contribution of the host country: on the one hand, FDI directly promotes the tax revenue involving foreign elements, and promotes indirectly the tax revenue by promoting economic growth of the host economy. The advantages of inflows of foreign capital mainly consist of two parts: first, the growth of financial tax revenue of the country; second, growth of national income caused by increases of factor prices because of the foreign capital inflow. On the other hand, the costs of tax encouragement to attract more foreign investment (mainly in the case of

developing countries). The crowding out effect which reduces the domestic investment affects, to some degree, the grow of tax revenue of the host country. But for most developing countries, the positive effects are more evident, and many empirical studies proved it. This is also one reason why so many developing countries try to attract foreign investment by all means.

When main basic infra-structures have been reconstructed, the entry of foreign enterprises can make some contribution to the tax revenue of the host country. In many post conflict countries, FDI is one of the main ways to create income. The analysis in this dissertation demonstrate that even for Nepal or some other post conflict transitional country, a slight amount of FDI has an evident promoting effect on GDP. Another factor that has an evident promoting effect on GDP is privatization. The entry of foreign enterprises promotes the process of privatization in the host country, making the economic development more active and encouraging more innovating enterprises. All in all, post conflict countries offer some favorable conditions to attract FDI, and when they enter this country, domestic and foreign investors need to pay a lot of indirect taxes, such as VAT, tax for local governments, employment tax, etc, which is a great contribution to the tax revenue of the country.

### *3.4.3 FDI and employment*

Generally speaking, the increase of FDI has two effects on the employment in the host country, namely direct positive effect and indirect negative effect. The direct positive effect means increasing employment chances by creating new enterprises. The indirect negative effect includes the crowding out effect on domestic investment and the reduced employment chances caused by the fact that the proportion of capital and labor is higher in a foreign enterprise than in a domestic enterprise. The crowding out effect on domestic investment means that foreign enterprises eat the market share of domestic existing enterprises, leading to the reduction of domestic investment and employment chances.

However, in post conflict transition countries, conflicts deteriorate the economy, devastate the production, and there are a large number of labor forces (especially surplus rural labor forces) which have low productivity. No matter the foreign enterprise chooses merges a local enterprise or found a new factory, they will hire a large number of local workers, creating employment chances and consumer demand and stimulating the

economic development. Because of the lasting internal conflicts, the transitional period always accompanies high unemployment rate. To reduce unemployment is one of the greatest challenges for these countries. The case of Cambodia, Indonesia and Mozambique speaks volumes for the fact that FDI have the potential to create employment chances both directly and indirectly. Employment chances created by FDI help develop skilled human resources. Besides technical training, these intangible contributions also help develop the corporate culture.

### *3.4.4 FDI and small and medium enterprises*

FDI always brings new technology, which can be transferred to local economy as the main tool to promote economic growth. Many productive farms get directly involved in local business, helping develop the local economy and small enterprises.FDI has evident spillover effects on the economic growth and labor productivity, benefiting quite a lot the development of small and medium enterprises and bringing them money, technology, management skills, etc. In the beginning stage for a small and medium enterprise, money lacks most. The foreign capital inflows, especially the inflow of venture capital of foreign investment, help distinguish the promising small and medium enterprises and save them. Many Internet enterprises obtained development opportunities because of this. Many small and medium enterprises don't invest much money in technology. With the entry of foreign corporations of developed countries into developing countries, technology transfer and technology spillovers occur with it. Many foreign companies transfer their advanced technology to the subsidiary in host country, and at the same time, this technology can also bring all kinds of spillover effects on local economy.

Therefore, FDI promotes, directly and indirectly, the development of small and medium enterprises, increasing Solow residual and TFP, enhancing the development of innovation capacity. FDI has been playing a more and more important role in rapid and steady economic growth of the host country. For example, Haskel and other economists (2007) used the panel data of manufacturing enterprises from 1973 to 1992 in UK. They found the existence of spillover effects, and that TFP of domestic enterprises and the market share of foreign subsidiaries in that industry have some evident positive correlation. It was estimated that in UK, when the foreign capital increased by 10 percentage points, the TFP of domestic enterprises in that industry can go up by 0.5%. Sgard (2001) used the big enterprise panel to observe the influence of FDI on TFP in

Hungary in the 1990s. Foreign capital is related to higher level of production rate, and has an evident positive spillover effect on the growth of total TFP. Keller and Yeaple (2005) studied the spillover of FDI on international technology of American manufacturing enterprises from 1987 to 1996, and found out that FDI brought important revenue of production rate to domestic enterprises. The scale of FDI spillover is quite important in economy, which can explain that from 1987 to 1996 the production rate increased by about 14% for American enterprises.

### *3.4.5 FDI and export diversification*

The relation between FDI and international trade is a classic question in international trade theories. In the 1950s, Mundell thinks that FDI is a substitution of international trade, namely “substitution theory”. From the end of 1970s to the middle of the 1980s, Kiyoshi Kojima came up with “marginal industrial expansion theory”, claiming that international investment is not simple substitution of international trade. There is an evident complementation between them. FDI can create new trade opportunities between the country that invests and the host country, thus making their trade go on a bigger scale, namely “complementation theory”. After the 1990s, the relevant theories had new development, emerging the theory of different motivation, new trade theory, etc. However, some relevant empirical research shows that FDI has promoting and complementary effects on trade. However, in the case of post conflict transition countries, such especial economic situation convinced us of the fact that FDI inflows and the complementary effect of international trade is stronger than the substitution effect.

To be more specific, in terms of FDI enterprises, the spillover of FDI export has two mechanisms: horizontal spillover and vertical spillover. The former one is divided into market competition effect, export spillover effect and demonstration effect, meaning the export spillover between enterprises in the same industry; the latter one is divided into forward spillover and backward spillover, meaning the export spillover between enterprises in the same industry chain. Through these two export spillover effects, foreign companies can promote the export of post conflict countries and enhance the export diversification.

During the conflicts, these countries are forced to break off trade with other countries. FDI can help these countries get better prepaid for the complicated and

diversified export challenges, promote economic growth and stability of macro economy. Mozambique, Croatia, Cambodia and Indonesia already made a very good exemplification for this. For these countries, after the end of conflicts, the rapid increase of export trade was, to some degree, driven by the increase of actual use of FDI. Attracting a large amount of foreign investment is an important reason for the recovery and growth of export.

## *3.5 Determining factors of post conflict transitional countries attracting FDI in the transitional period*

Up till now, most literatures (Globerman and Shapiro 1999; Shapiro and Globerman 2001) agree that the strong economic base of the host country is the main reason for foreign investment, such as market scale, potential market scale, stable macroeconomic environment, infra-structures, etc. Rashmi(2003)'s study is just like that of Globerman and Shipiro (1999, 2001), and they both found that economic basic variables have significant influence on FDI. More specifically speaking, these factors are mainly market scale, labor cost, advanced technology, external debt and generating capacity. Brewer (1993) analyzed all different policies may improve and (or) enhance the imperfection of markets, thus increasing (reducing) the FDI inflow. However, some empirical literatures about the influences of governmental policies on FDI tell us that the conclusion varies. Rashmi (2003)'s study shows that government incentives have positive influences on FDI inflow, but not evident while the annulment of some restrictive policies have evident positive influences on FDI inflow; meanwhile, Rashmi also found that the degree of economic openness also exerts evident influence on FDI.

From the literature review, it can be seen that the factors that determine the FDI inflow are basically the economic scale, macroeconomic stability, openness degree of domestic economy, infra-structures, etc. In the case of host country being post conflict countries, the economic scale is admittedly important, but the economic scale of these countries is usually not very large. Economic growth rate is a indication that investors place more importance on, because the growth rate represents the expected growth rate. Macroeconomic stability is usually measured by exchange rate and inflation rate. Moreover, there are some other special factors of post conflict countries that affect the

attraction of foreign investment. First, political stability in these countries, the political situation is usually not stable, leading to political instability and major fluctuations, which are disadvantageous to investment. Second, long-term conflicts aggravated the number and quality of labor force, which is also a factor of foreign investment. In addition, conflicts also damaged the infra-structures, which is also a factor for foreign investors. Therefore, besides the economic scale, macroeconomic stability and openness degree of domestic economy, there are some particular factors, such as political stability, labor force population, infra-structures, etc, which play a vital role in whether these post conflict countries can succeed in attracting foreign investment.

In conclusion, for post conflict countries, the factors that influence the attraction of FDI include economic growth, macroeconomic stability, openness degree of economy, political stability, labor force population, infra-structures, etc. To be more specifics, such indications include growth rate of GDP, exchange rate, inflation rate, openness degree, political stability, labor force population, infra-structures, etc. We made the following list which concludes all these factors.

**Table 3.4 Determining factors of post conflict transitional countries attracting FDI**

| economic basic variables | Variables in literatures | Relevant literatures | Variables in this dissertation | Anticipation |
|---|---|---|---|---|
| Market scale | 1. The natural logarithm of GDP<br>2. Growth rate of GDP<br>3. National Income per capita<br>4. Growth rate of national income per capita | Rashmi Banga 2003<br>Root and Ahmed 1997<br>Bhattacharya 1996 | 1. The natural logarithm of GDP<br>2. Growth rate of GDP | + |
| Skilled labor | 1. Literacy rate<br>2. Enrolment rate in middle school education<br>3. Labor production rate | Schneider and Frey 1985<br>Rashmi Banga 2003 | Working labor force | + |

| | | | | |
|---|---|---|---|---|
| Infra-structures | 1. Proportion of electricity consumption in GDP<br>2. Proportion of commerce, transportation and communications in GDP<br>3. Energy consumption (tons consumed by every 1000 people) | Bende Nende 2000 | Proportion of roadway mileage in GDP | + |
| Real exchange rate | Real Effective exchange rate | Rashmi Banga 2003<br>Goldberg and Klein 1998 | Exchange rate of USD against host country's currency | - |
| Inflation | Variation of CPI | Schneider and Frey 1985 | Variation of CPI | - |
| Openness degree | Real tariff | Charkrabarti(2001)<br>Rashmi(2003) | Proportion of exportation and importation in GDP | + |
| Political stability | Credit rating | Trevino 2002<br>Rashmi Banga 2003 | represented by 0 and 1 | + |

We analyze these factors as follows:

## 1. Market scale

Market scale is the most important factor that influences the FDI inflow, including two parts: present market scale and potential market scale. A big market scale can generate scale economy, while growing market improves the perspective of potential market, thus attracting FDI. In this dissertation, we use the natural logarithm of GDP and the growth rate of GDP to describe the influence of market scale on FDI inflow, and predict that scale market will exert positive influence on FDI.

## 2. Infra-structures

Good infra-structures reduce the cost on infra-structures for enterprises, which is advantageous to attracting FDI. However, different literatures use different indications, which are the proportion of electricity, transportation, telecommunications, and energy consumptions in GDP. In this dissertation, we use the proportion of roadway mileage in GDP to describe the influence of infra-structures on FDI inflow.

## 3. Real exchange rate

Since there is a strong correlation between real exchange rate and GDP, in this dissertation real exchange rate is not used as an explainable variable, and we use the fluctuations of exchange rate to measure the influence of exchange rate fluctuations on FDI inflows. It's generally believed that if the change of exchange rate only writes off the fluctuations of prices, purchasing power parity maintains the same, then there's no actual influence. However, empirical studies show that purchasing power parity doesn't remain unchanged in all periods, so the change of exchange rate can influence the competitive power of different countries' enterprises. High fluctuations of exchange rate of host country magnify the uncertainty of its economy and commerce, which restrains the inflow of foreign capital. In this dissertation the variation of annual exchange rate of NPR against USD to measure the influence of the fluctuation of exchange rate on FDI.

## 4. Inflation rate

Low inflation rate is considered a sign of internal stability while high inflation rate demonstrates that the government has no ability to balance the budget, as well as the failure of the central bank carrying out its monetary policies. Therefore, high inflation rate is disadvantageous to FDI inflows. In this dissertation, the variation of CPI is used to measure the influence of inflation rate on FDI.

**5. Openness degree**

Tariff policy, tax policy for foreign investment, investment incentives, annulment of restrictive measures are all part of one country's economic openness policy. Charkrabarti (2001) believes that besides market scale, the most important factor is trade openness degree of one country. In this dissertation, proportion of exportation and importation in GDP is used to measure the openness degree.

## *3.6 Brief summary*

Theoretically, those post conflict countries (post conflict transitional countries) are not perfect destination for foreign investor's investment projects. Conflicts increased the government's instability, damaged and destroyed infra-structures. Economic activities were damaged to different degrees. GDP went down and high inflation emerged. All these factors hinder. On the other hand, post conflict transitional countries made measures and actively sought FDI, and benefited from it, such as investment, creation of employment opportunities, public finance, macroeconomic stability, infra-structures, business development, and economic growth. All these advantages can help maintain long-term peace. In this study, we discovered two groups in post conflict transitional period. One group obtained success in attracting FDI and gaining economic interests. Once coming back to peace, FDI of both groups reached a significant level, but compared to the first group, the second gained less revenue.

FDI exert positive influence on economic growth of these countries. Besides, it also plays an important role in peace construction. If we compare the two groups that are in post conflict transitional period, we can use it for reference. Opportunities of FDI exert positive effects on economy of post conflict transitional period. In additional to the fore-mentioned, the following is some other findings: it's totally unnecessary for any country to wait until the conflicts are totally ended before they start to attract FDI. They can previously establish friendly environment for FDI. Starting to plan the development blueprint of economic reform before peace construction benefits these countries.
In order to better attract FDI, and make if effective, the priority is for the host country to learn its resources and industries, which are also one of the most concerning factors for the investor. After learning the information, these countries can make better use of

regional resources, and investors can better avoid risks. This good condition is also sending investors signals to give them more confidence. Those countries who can be the first to find interested investors can benefit from FDI very soon. Those well-developed groups all get swifter benefits tan other groups of people. Their most basic motive is to choose the first generation of one industry, and review and standardize it in the following stages. These countries attract FDI by establishing special economic zone to avoid that it gets affected by the poor commercial environment.

FDI can be used as the main tool for economic resurgence and development of post conflict transitional countries. Its effects have been explained through two groups of countries. These countries gained long-term economic growth and economic stability, and continue its peace process construction by attracting FDI. Steady and lasting governmental policy is the most indispensable condition to attract more FDI. There is no such thing as “One Size Fits All”. The approach that each country takes varies from by development degree, geographical location, national policy, etc. Therefore, it’s a process of “learning by doing”.

# *4. Post conflict transitional countries and the inflow of FDI: a game model*

## 4.1 Model Background

For post conflict transitional countries, what lack most in economic reconstruction is various forms of funds. The funds can come from international donation or FDI. FDI plays an irreplaceable role in the economic reconstruction of post conflict countries because FDI means: large amount of capital, remaining productivity, and ability of creating jobs, technology and patent. The inflow of FDI can also help domestic corporations to improve themselves but usually suffer from the influence of main problems in post conflict countries and regions. After conflicts, these countries go through high rate of unemployment and meanwhile 40-50% of the populations are below the average income level suffering from poverty. Because FDI can create job opportunities, it brings a chance of peace to host countries; FDI can also integrate former soldiers and place refugees from social and economic angels to appease the fear of social unrest and bring hope.

FDI is the main form of private investors investing abroad and gaining returns. These private investors choose to stay in the local place or leave because of the conflicts. We must understand those factors that determine FDI choosing the most suitable investment locations. Meanwhile, linkage system with international market is needed to deliver information about suitable host countries like those with clearer legal regulations. This can help improve the investment environment of post conflict countries.

In post conflict countries, the main obstacle of attracting FDI is the backward of the construction of infrastructure because countries in conflicts lack electricity, communication, transportation and even highways. It is very challenging and complicated to invest under this environment. Under this environment, Domestic Corporation or private sectors play important roles under the support of the government to meet the basic needs of society. Meanwhile, the government also needs to offer support and confidence to foreign investors to ensure the gradual improvement of investment environment. If it is investment on visible infrastructure, investors and the governments of host countries need a long time to establish confidence, especially in transitional host countries after conflicts. Post conflict countries of this kind are also filled with various investment opportunities because technology falls behind and labor cost is low there. Some industrial sectors like brick production, cement production, woodworking, simple and cheap raw material and son on make investors easy to enter the market and gain back the investment. Moreover, a series of infrastructure need to be reconstructed like buildings, bridges, highways, cableways, tunnels, communication, and electricity and so on. Investing on these sectors can gain high investment profits.

However, even with such good investment opportunities, investors are still cautious. They will closely observe the policies of local governments and fields after wars are much less attractive to investors. Factors affecting the confidence of investors mainly include: truce terms, fear of the failure of joint government and the lack of confidence with each other. Investors are often very cautious towards using local employees even though the main conflict is over because racial and regional conflicts still exist. Like in Nepal, even though the peace process has been pushed, conflicts in Terai still exist and the government can solve this problem.

In post conflict countries, difficulties that investors face are also not perfect economic regulation and laws, hard administration, not independent or justice judiciary and unclear ownership. All these make law enforcement more difficult and the risk of investment higher. What the government needs to do is push the process of peace and preliminarily prepare solid legal framework to protect investors at the starting stage. Empirical studies and historical perspectives have shown that the game behavior between governments of host countries and multinational corporations can be interpreted by dynamic methods. The inflow of FDI can timely help the economy reconstruction of post conflict countries. The most important thing is that how can governments of host countries solve problems of two aspects, the achievement of political goal and the economic reform pushed by FDI. Meanwhile, the relationship between governments of post conflict countries and multinational countries is improving and the laws and institutional framework of host countries are attracting the inflow of FDI. Political instability, change of government and change of policy have advantages and disadvantages. One corporation need to communication with multiple governments in one country like Bulgaria in 1993. Change of policies often means high risk for investment environment. So, multinational corporations face mainly institutional risks in post conflict countries. Investing in post conflict countries has many advantages and many disadvantages as well. Therefore, investing in transitional countries of this kind requires " doing while learning". For example, the government needs to study tax system in the process and how to improve it later. Many developing countries in East Asia make use of tax incentives to attract foreign investment. From the perspective of multinational corporations, the studying process is quite necessary. Early investors often need to take high transition capital and the success of later investors largely depends on early investors.

Moreover, precedents of cooperation's with domestic corporations, no matter success or failure, have significance for latter investors. All these are factors that multinational corporations consider about investment environment in post conflict countries. Knowing how FDI can promote the economic reform in host countries needs to know how different governments and multinational corporations expand game with each other. This is a very complicated process, not limited to a single balance. The communication between multinational corporations and governments of host countries is a dynamic adjusting process with special character. The form of how FDI flows into host countries and how FDI promotes economic reconstruction are very important. The most important thing is how the government can make a balance between political goals and economic reforms. The attitude of governments towards economic reforms directly determines the role of FDI in microeconomic development.

Moreover, the communication between multinational corporations and governments can promote and develop the legal framework of host countries and affect the flow of FDI. As for political instability, it mainly refers to that governments always make unstable policies. Some of these polices may be advantageous to multinational corporations but some may be not. Because of the instability of government regime, every next government need to make some specific changes of policies especially aggressive parties and congress always take risks to change polices changing the investment environment. When investing in transitional countries, the main character during the investment process is the risk of facing regime change.

Lastly, transitional countries may face changes of regime, policy and various institutional frameworks. Therefore, governments of host countries and multinational corporations all need to "doing while studying". In every stage, the government needs to study how to carry out tax policies, later cancel tax incentives, and simplify tax system and so on. Some post conflict transitional countries will offer very favorable tax incentives to foreign investors and meanwhile use duty-free period to attract foreign investors. The studying process of multinational corporations is another thing. Early investors always have much experience negotiating with local governments and cooperating with local corporations and may pay unexpected fees. There are also creating job opportunities, ensuing the commitment of investment funds and the experience cooperating with local corporations. All these are the resources in the progress process of post conflict countries. In order to explain the function of FDI in economic transition countries, it is a must to sort out problems under basic studying environment like the strategy choice between governments and multinational corporations and the final results.

## 4.2 Strategy reliance and efforts made by post conflict countries for reconstruction

According to the discussion above, this chapter will show the game between host countries and multinational corporations and the strategy reliance between governments and corporations striking for reconstruction under the game framework. The description about the discussion about the game of FDI in transitional economies above has the following main traits:

- Multiple balance
- Participants vary in dynamic model
- Self-adaptive learning without perfect information deputy

This model has two stages. Participants and earnings are introduced in static model, discussing about the possibility of multiple balance and focuses on balance selection system. This selection system is called risk advantage (Harsanyi and Selten, 1988). Another dynamic game uses recurrent game framework (Jackson and Kalai, 1997). In dynamic models, the decisions of participants are introduced through self-adaptive learning system (Young 1998). It mainly focuses on the discussion about which way of contract formation may decide which game balance to have better chance to become a result of long game of FDI. Next, FDI 2x2 static cooperation game.

### 4.2.1 Game participants and their behaviors

Assume that this game involves governments of transitional economies and multinational corporations. Participants, their behaviors and their payment functions are define below. Host countries can use fast method to reform and can also use gradual method to reform. The actions that they adopt are FT as fast reform and GD as gradual reform. Actions that corporations can adopt include AQ or by NP. This choice is made by learning different cases and made by two most common entry modes (Estrin et al, 1997; Meyer, 1998) .There are two participants in this FDI game r and each participant has two actions. Firstly, government of host country is one participant. It is in the transition process and can adopt fast reform method FT and also can adopt gradual reform method GD; Next, multinational corporations can choose AQ or can choose to build new factories NP to enter. The policy Collection of the government is defined as $g \in \{FT.GD\}$ and foreign corporation is defined as $\in \{AQ.NP\}$.

### 4.2.2 Payment function

The payment functions of host countries in economy transition and corporations all have results in any given action selection set. Let's assume that participants have complete information. So when one action is chosen, the payment function of every participant is as what follows. Formally, in this condition host countries care more about efficiency and employment situation.

$$G=E\ (g, f) + N\ g, f) \qquad (4.1)$$

The function above is the payment function when the corporation adopts the action $f \in \{AQ.NP\}$ and $g \in \{FT.GD\}$ government of host country adopts E $(g, f)$. The first item $E(g, f)$ means the profits of economic benefits gained by the corporation's reconstruction and the transition technology management/management skill and/or tricks. The second item $N(g, f)$ means the influence of corporation actions on employment. In essence, the objective function of the corporation the profits gained by earnings minus cost in host countries.

$$\Pi = \pi(g, f) - C(g, f) \qquad (4.2)$$

Among them, $\pi(g, f)$ is an ordinary business profit function giving discounted value of the profits gained by future products. $C(g, f)$ is a transitioned cost including some conditions meeting the need of host countries to find targeted market, analyses economy and negotiate with management. For game adapting FDI, host countries and foreign corporations all make best choice according to the actions taken by the opposite side. Specifically, it means that when given the actions adopted by other participants and the expected earnings of participant can be optimized, then his action is the best reaction. To determine the result of the interaction between governments and corporations in the game, and of what construction is the best reaction of every participant, the following part will describe about it.

### 4.2.3 The best choice of government

Now, assume that corporation enters by purchasing one existing corporation. The reconstruction after the purchase achieves positive influence on production efficiency by updated production technology and upgraded governance structure. Meanwhile, reducing overstaffing can have positive influence on efficiency but negative influence on employment. If the government adopts swift reform strategy, quick privatization may reduce the length of the purchase negotiation and may accelerate the reconstruction of foreign corporations after the purchase. In the same way, if the government adopts gradual reform method, the delay of privatization may increase the length of purchase negotiation and the deterioration of assets will quickly decrease the value of Target Corporation and force the corporation to lower the bid price for purchase or later planed investment scale. Meanwhile, the need to ensure employment may delay the decrease of labor after the purchase. Many evidences show that in early purchase there is rare overstaffing of 20%-50% in 20 months and above. This retreat shows that gradual reform can gain lower efficiency from FDI than

quick reform. It means that $E\ (FT,AQ) \geq E\ (GD,AQ)$ in reducing overstaffing in two systems $N\ (FT,AQ) = E\ (GD,AQ)$. Assume that when one corporation enter by purchasing, the government will consider to make itself profit maximized under the premise of improving economic efficiency and increasing employment and the generating conditions of choosing quick reform is better than gradual reform which means:

$$E\ (FT,AQ)\ N\ (FT,AQ) \geq E\ (GD,AQ)\ N\ (GD,AQ) \qquad (4.3)$$

The corporation will also choose the method of building new factories to enter when the investment program he is taking cannot be achieved by host countries because of capital limitation. The production efficiency of new factory is relatively higher than the economic efficiency around because the direct transition of technology and management skill through multinational corporations. Under this condition, host countries gain the same benefits in gradual reform and quick reform.

$$E\ (GD, NP) = E\ (FT, NP) \qquad (4.4)$$

In this condition, the corporation will hire labor making government gain more benefits from the employment item in the benefit function Job opportunities before and after the reforms are the political dividends of host countries. The positive influence on social sector of new investment is easier to appear in gradual reform. In the environment with more investment limitations, less investor will receive more limitations of the investment environment. It means that less investor will gain more attention from the media and more social supervision. Under gradual reform, the government will gain higher government dividends from higher employment rate, $N\ (GD, NP) \geq N\ (FT, NP)$. So, when corporations enter by building new factories, the best choice for the government is to choose gradual reform instead of the quick reform.

$$E(GR,NP)+N(GR,NP) \geq E(FT,NP)+N(FT,NP) \qquad (4.5)$$

### 4.2.4 The corporation's best choice

Assume that now the host country chooses fast reform method. Assume that the best reaction of one targeted corporation in the host country is to purchase instead of building factories. Intuitively, the corporation would tend to choose cost minimization $\delta \Pi / \delta C<0$, future profit discounted value maximization. $\delta \Pi/\delta C>0$ . Since the foreign corporation inherits the customer base and

distribution network, purchasing can accelerate the entry. This means $\pi\ (FT.AQ)>\pi\ (FT.NP)$. In fast reform, the corporation may gain cost by purchasing or restructuring target corporation because purchasing can save the cost of supply and distribution network compared to building new factories $C(FT,AQ)\leq C(FT.NP)$. Combining the inequality gaining profits under two modes, we can get that

$$\Pi\ (FT.\ AQ)\text{-}C\ (FT.\ AQ) > \Pi\ (FT.NP)\text{-}C\ (FT.NP) \qquad (4.6)$$

Under such condition, the government may choose gradual reform. Moreover, usually under fast reform conditions, the corporation faces low transaction costs in purchasing, but under the process of gradual reform, the corporation faces higher transaction costs. Evidence shows that the corporations more generally choose to build new factories instead of purchasing because of the frustrations during the negotiation of purchasing (Gatling, 1993; Gatling et al. 1997). When the framework of the host country is relatively under developed, the discounted value of the future profits of building new factories will be higher $\pi\ (GD,AQ)<\pi(GD,NP)$ ; and the entry cost will be lower $C(GD,AQ)>C(GD,NP)$. So, under the gradual reform, the best choice is

$$\Pi\ (GD,\ AQ)\text{-}C\ (GD,\ NP) <\Pi\ (GD,\ NP)\text{-}C\ (GD,\ NP) \qquad (4.7)$$

**4.2.5 Game Analysis:** In the game of FDI, all participants make the best response to their opponents. The concept of Nash Equilibrium is the answer of this model. Here, we consider the payoff matrix between the game of governments and foreign investing corporations

| | | 对外投资的公司 | |
|---|---|---|---|
| | | AQ | NP |
| 政府 | FT | $G_{11}\Pi_{11}$ | $G_{12}\Pi_{12}$ |
| | GD | $G_{21}\Pi_{21}$ | $G_{22}\Pi_{22}$ |

**Table 4.1 the game between the government and FDI of multinational corporations**

Here, G represents a cooperative game and the pure strategy Nash Equilibrium are (1, 1) and (2, 2). If the payment function satisfies the following inequality:

$$G_{11} > G_{21,} \Pi_{11} > \Pi_{12} G_{22} > G_{12} \Pi_{22} > \Pi_{21} \qquad (4.8)$$

Here $G_{11} > G_{21}$ *and* $G_{22} > G_{12}$ are like what have been discussed in the previous chapter: the earnings of the governments are related to these two inequalities: $\Pi_{11} > \Pi_{12}$ is $\Pi_{22} > \Pi_{21}$ the inequality related to corporation payment. The payments of participants under these constrains have two Nash Equilibrium of FDI game. They are located on the double matrix diagonal *(FT, AQ)* and *(GD, NP).* These traits make the FDI game like a cooperation game. At present, participants take actions with a strict Nash Equilibrium.

The exits of two equilibrium lead to the problem of balance choice because without the regulation about how to game, there is no uncertainty or predictability of which one is equilibrium. When perfect equilibrium turns to coordination game, Harsanyi and Selten(1988), Andrelini(1990), Carlson and Damme(1993) put forward various conditions to make it easier to decide which equilibrium to choose. These selection criteria are more important than risk dominance (due to Harsanyi and Selten, 1998).

Therefore, in our 2x2 game, if reaching equilibrium, treachery government brings loss and when enterprises reach utility maximization at equilibrium, the equilibrium is risk dominance. Next is the function (4.8) equilibrium *(FT, AQ)* is risk dominant, if:

$$(G_{11}-G_{21})(\Pi_{11}-\Pi_{21}) \geq (G_{22}-G_{12})(\Pi_{22}-\Pi_{21}) \qquad (4.9)$$

And (GD, NP) is risk dominant equilibrium, iff

$$(G_{11}-G_{21})(\Pi_{11}-\Pi_{21}) \leq (G_{22}-G_{12})(\Pi_{22}-\Pi_{21}) \qquad (4.10)$$

When the government chooses GD strategy instead of FT, if multinational corporation conduct purchase, the loss that the government of host country can take is positive: $G_{11}-G_{21} \geq 0$ ; if chooses NP instead of AQ, when the government wish to perform a quick regime change, the loss of multinational corporation is positive: $\Pi_{11}-\Pi_{21}>0$ .When Multinational Corporation begins to form a new corporation, the loss could be positive or zero: $G_{22}-G_{12} \geq 0$ if the government of host country chooses FT instead of GD, it will relax control. The relaxation of control on multinational corporations is achieved by choosing AQ. Moreover, if host countries choose gradual strategy which means strictly positive, then $\Pi_{22}-\Pi_{21}>0$

### 4.2.6 2x2 game with the character of "Adaptive learning"

Based on the coordination game model of FDI above, now we expand the model into dynamic model. In dynamic model, the actions of government and multinational corporations are different than the previous phase in every phase. Therefore, period game framework is needed. Meanwhile, parties of the game take different strategies in different periods. Once they take actions, the game starts. There are two participants in the strategy choice of the game. So, we call the game of FDI under this condition, the double game. The government is mainly responsible for attracting investment for the country while multinational corporations play the game according to their own purposes. There is a non-empty group in the game. Here, the group collection of multinational corporations is $C_F$, the group collection of government is $C_G$ .At the beginning, the two group collections and their representing roles are disjoint with each other and the two makers have the same possibility taking part in the FDI game. Meanwhile, the two group collections are disjoint and the agent group collection of multinational corporations and governments do not take part in the game.

The payment function G and Π are invariant and the strategy of the government has two key factors $g \in (FT, GD)$ this can be gained by direct observation. Meanwhile, the strategy of multinational corporations is: $f \in (AQ, NP)$. Here, $\{g, f: G, \Pi: C_G\ C_F\}$ represents recurrent agent. In the following periods, t will take part in the game, $t=1, 2\ldots$ Whether the government or the corporation firstly makes decision is random and takes action at t period. In this way, two decision sides can make decisions independently. At t period, history is represented by the variable m. And the bigness of m depends on how long historical period the decision makers will look forward. Here it is assumed that the two decision sides do not have complete information about the situations that they are in and have limited understanding about the historical situation about t period.

At the end of t, we have:

$$h^t = \{(g^{t-m+1}, f^{t-m+1}), \ldots\ldots (g^t, f^t)\} \qquad (4.11)$$

Because the government and the multination corporation both have certain social relationship network, through their network respectively, they can get certain information like what happened in the past, similar actions of decision makers with the opponents. This is a standard $h^t$ information transfer model in the random process. In the function (4.11), the process is the certain historical phase at the end of t period. The game sides pair both sides well at $t+1$ period and begin the game. Here, both sides of the game get s according to their performances at m period. Based on this

information, both sides will assume how the opposite side will take actions or continue their actions in the future. The possible situation is that when the government tries to gather the independent sample of action scale of the opposite side, it plays the role of the previous corporations. In summary, governments of host countries will consider the positive role on the best level before to make predictions including the role on economic development and what kind of FDI is most advantageous in this phase.

Under this condition, multinational corporations can gather the same sample size as the government and calculate the frequency distribution of observed government behaviors. Prediction is made based on maximum likelihood equation. The decision makers will make the most favorable decision form them based on the result of prediction about the behavior of their opponents. However, sometimes action habits of both sides will lead to some unexplainable choices. Without doubt, this kind of behavior may lead to mistakes of decision makers but this possibility is less likely. Explanation on this possible mistake is not necessary. Under the existing framework, even though the actions made by governments and corporations are unilaterally or bilaterally are based on continuous learning about how to game FDI, we still may see relatively small interference. Assume that the error rate $\epsilon > 0$, then correct rate is: $1-\epsilon$ every decision maker will make predictions according to the actions of the opposite side to make most advantageous decisions. The bigness of error rate is random and the happening of error is independent with the decision makers. Therefore, using three variables can describe the decisions of governments and multinational corporations in every period: the memory of decision makers, the sample size of decision adopted by decision makers and the error rate. Put these three variables together and you can define a Markov process which is called adaptive game play (Young 1998). This is composed by a repeatable game process. In this game process, governments of host countries and multinational corporations all can have adaptive self-learning.

Initially, both sides make decisions according to their experience or other similar confronting actions (how the opposite side would act). However, governments of host countries and multinational corporations don not have any intercourse or connection. In this case, they need some similar system to form expectation. Here, we develop a self-adaptive learning system based on a expected formation model. Basically, the expectation of multinational corporations is based on the previous behaviors of the governments like the measures adopted by the governments on other multinational corporations before. On the other hand, the government forms behavior exception of the multinational corporations based on the experience from other countries or their own. All the information depends on the situation of the agents instead of maximized revenue. Because host

countries gather information from the embassies or other channels and multinational corporations seek proper political environment, preferential investment policies and so on.

*{(g*, f*)… (g*, f*)}, (g*, f*)  (g*, f*)*

$h_1$*= {(FT, AQ)}… (FT, AQ)}*

$h_2$*= {(GD, NP)}… (GD, NP)}*

*(FT, AQ)*

*t+1*

Anyway, the agents of two group collections will be more rational and information of this kind is always exaggerated or incomplete. To put it simply, governments and multinational corporations of this phase all know a small part of information about the precedents of the opposite side and get it by social network without avoidance of not smooth information transfer, omission or errors. The most possible situation is that the decision makers don not know the precedents before but can only see the situation they are in and make decisions according to different situations.

As the game is repeated, the sample record of decision maker may be the combination of various decision behaviors. In a randomized phase, if the decision maker make the most favorable decision according to their thoughts on the opposite side, then this process will finally reach such status: the last period are of the form (公式), here (公式)is the pure strategy Nash Equilibrium of (公式). This situation is custom just like what has mentioned above, because the game of FDI has two Nash Equilibriums, and the two equilibriums converge with the time in two periods, According to the goal, here we assume that the process is custom $h_1$*= {(FT, AQ)}… (FT, AQ)}* $h_2$*= {(GD, NP)}… (GD, NP)}* , but (FT, AQ) is the game result of m in the last period. When the previous samples of multinational corporations or governments are taken as the confronting roles, then they may predict that the confronters will still choose Nash Equilibrium *(FT, AQ)* in the new period. Because there is no error under this condition, decisions based on this kind of prediction is accepted by other decision makers which mean that confronter also take *(FT, AQ).* Therefore, Nash Equilibrium *(FT, AQ)* appears continuously.

In this model that we develop, the behaviors of governments of host countries and multinational corporations are all visible. Naturally, one rather complication problem will arouse: is the result different from custom? What influence does experiment have on the long-term game?

For the result of long-term game, understanding how decision makers correct random error and how one convention evolves into another convention is very important. Imagining how *(FT,AQ)* evolves with the result of the game, the government of host country makes a mistake at period t. Assume that this mistake was made by the previous government or caused by re-election. At the present phase, assume that multinational corporations can gain all the samples at *t+1* period, but one of these samples comes from *(FT, AQ).* After collecting all these samples, multinational corporations can rely on the maximum likelihood function to estimate the behavior announcement of the government. The best strategy of multinational corporations for the frequency announcement of government behaviors is Nash Equilibrium *AQ*. The result will show that mistakes made by the decision makers in t period are not enough to tear down the convention.

On the other hand, if some decision makers from the government will make mistakes in the future at *t+1* period, then this mistake will overthrow the convention of *(FT, AQ)* and reach another convention *(GD, NP).* We should admit that randomly occurred error doesn't affect the stability of convention. Specifically speaking, this randomly stable status occurs in a long term. Similarly, this process needs more time and smaller correctable error rate. This is the game of FDI. $h_1$= *{(FT, AQ)}… (FT, AQ)}* Caused by error is bigger than $h_2$= *{(GD, NP)… (GD, NP)}* , then here is a randomly stable condition. Because every convention accords with the Nash Equilibrium, in static game, randomly stable status will be the same as the Nash Equilibrium. According to the view of Young, define the randomly stable status as convention and here convention is the same as the risk dement equilibrium.

Theorem (Young1998, page 68): Defines G as a 2x2 coordination game defines $p^{m,s}\in$ as adaptive learning and has memory m, sample size as s and error rate as $\in$ If the information is completely $s / m \leq 1 / 2$, then initially, the undisturbed converges in a contract and get locked as probability 1. If the information is incomplete s/ $m \leq 1 / 2$, and *s* and *m* are big enough, a undisturbed randomly stable status will be connected with continuous risk dominance.

Here, we have considered some conditions in the process of the game of FDI in transitional countries and can solve one of the two conventions. We assume that the continuously repeated decisions made by governments of host countries and multinational corporations are isolated with each other and *(FD, AQ)* is a randomly stale status of a repeatable FDI game. Then under this condition, the result of equilibrium is like the function *(4.8):* $(G_{11}-G_{21})(\Pi_{11}-\Pi_{21}) \geq (G_{22}-G_{12})(\Pi_{22}-\Pi_{21})$ .When satisfying this inequality, the primary task of the government is to adjust the economic structure and make decisions. For multinational corporations, gaining the access into the sales

network is crucial. If the stable government pays attention to reconstruct economy but suffer loss because of gradual system, multinational corporations are strictly better to enter by purchasing than building new factories to change the system of organization of host countries to gain political share which is $(G_{11}-G_{21})> (G_{22}-G_{12}) \geq 0$.

Similarly, deviating from *(FT, AQ),* multinational corporations would give up the advantages of entering the market of host countries quickly by purchasing. These advantages include gaining the supply and sales network by purchasing and this is often better than independently building new factories which is $(\Pi_{11} - \Pi_{21}) > ( \Pi_{22} - \Pi_{12} )>0$ . Governments and multinational corporations don not predict the inequality of loss and form the sufficient conditions of the risk leading equilibrium *(FT, AQ).*

On the other hand, if multinational corporations and governments are isolated, *(GD, NP)* is the randomly stable status of repeatable FDI game. Then, the equilibrium of *(GD, NP)* is as the following (4.9): $(G_{11} - G_{21})> (G_{22} - G_{21} ) \leq ( \Pi_{22} - \Pi_{21})$ in this equation, the government of host country hopes to attract FDI and many other methods to attract foreign invest and technology but does not prepare well for quick reform. Moreover, this result requires foreign investment corporations enter by building new factories *(NP)* instead of purchasing *(AQ).* When the foreign investment corporations have many intangible assets, the government would be more favorable to foreign investment corporations to build new factories. Similarly, if the government does not have the ability to reform quickly and foreign investment corporations enter the host country by building new factories, then the loss is obviously larger than the earnings that can be gained when foreign investment corporations enter by purchasing and changing the system.

This can also be used to explain the logic of action of multinational corporations in the equilibrium. Here, according to the FDI international theory, if multinational corporations have many intangible assets, then it is better to enter by building new factories than purchasing. Under such condition, the equilibrium deviating from *(GD, NP)* has larger loss than *(FT, AQ).* Therefore, $( \Pi_{22} - \Pi_{21} ) > ( \Pi_{11} - \Pi_{12} ) \geq 0$ . In countries implementing gradual reform in a long term, multinational corporations would prefer building new factories instead of purchasing and it will play the role of coordination more in the gradual reform of host countries. Lastly, the inequality represents the relationship between the unilateral loss of the government and the multinational corporations with the traits mentioned above provides sufficient conditions form the risk leading equilibrium *(GD,NP).*

### 4.3 The policy suggestion extended by the model

This chapter is aimed to describe the problem of the transition of post conflict countries and the inflow of FDI, especially those countries that cannot start the pace of reform without external investment support. The external supports that these countries need are various like investment support and the FDI inflow or multinational corporations in various industries in the host countries. Or it can be the support from Asian Development Bank, World Bank, International Monetary Cooperation (IMC) International Financial Cooperation (IFC) and other donation agencies. Their help can promote the host countries and multinational corporations reconstructing economy together. FDI game in this chapter proves that as long as the governments of host countries commit to economy reform, FDI will promote the economic growth of host countries.

Under the low-level reform and equilibrium under the gradual method, the intervene of the IMF and the World Bank will inspire transitional countries to start social reforms. In this way, those organizations are mainly to provide financial support for the administration of social reform policies and the social network of multinational corporations will stimulate the economy reform in host countries. These institutions mainly focus on the financial support to achieve the social safety network capable of encouraging the governments of host countries to carry out economic reform. In summary, political stability and government stability are the necessary conditions for the investment of multinational corporations or corporations would worry that if lying off employees reduces efficiency losses, the government will not forcibly nationalize the purchased domestic corporations. In Nepal, Nepal Airlines and Nepal Oil Corporation are both good examples. For host countries of FDI like Nepal, various supporting plans in the world like non-government education will reallocate labor, reduce the cost of reform and encourage quicker and deeper reform.

Another meaning of this model is that the financial support from the World Bank, IMF, ICF and Asian Bank is very important for the economic development and reform of host countries. It will promote the change from traditional low-level reform of FDI to specific engineering bias financial support of host countries and it will largely promote the economic growth of host countries. On the other hand, work of these organization in various industries like agriculture, especially on the construction of infrastructure, buildings, environment improvement, energy and so on will improve the investment environment of host countries and bring huge innovation opportunities.

The difference of reform in different countries depends on the different process of marketing reform. The financial support from various institutions (like IMF, World Bank and so on) is also affected by the policies encouraging regional equilibrium development. The World Bank played an

important role form the unity of German after the fall of Berlin Wall and it is the same as in Hungary, Poland and Romania. Similarly, in South Africa it is also found that the degree of economic freedom. The degree of economic openness, economic prosperity, the increase of human capital and incremental lagged changes in significant sectors largely accelerate the FDI inflows of Bengal, India and Pakistan. However, the unstable political environment of these countries often makes them suffer setbacks. We can come to such conclusion which is that the deterring factors of FDI are crucial for the economic growth and these causes not only need to take risks for developing countries in Asia and also for all the developing countries in the work. Just like what the United Nations has repeatedly stresses and warns in the Trade and Development Conference, countries that cannot attract FDI will be eliminated in the more and more globalized world economy (UNCTAD, 1999).

### 4.4 Conclusion

The FDI game model above provides a framework for this dissertation and the willing of transitional countries adjusting structure and the FDI from multinational corporations brought by structure adjustment are strategic reliant. There is a substitute relationship between host countries achieving political goals and multi-sectoral investment attraction. And purpose of multinational corporations is to make use of the best form to enter host countries conducting purchasing or building new factories. The main conclusion of the analysis is that there exist tow equilibrium in the game. For the first equilibrium, *(FT, AQ),* host countries commit to fast adjustment of economic structure and enact market-oriented policy while multinational corporations choose to enter the market by purchasing under the current policies. This equilibrium always appears during the adjustment of industry structure. For the second equilibrium *(GD,NP),* host countries prefer to choose gradual reform method while multinational corporations are more likely to directly transfer technology and management knowledge and play the coordinating role in the economic growth.

As a long-term convention, the game equilibrium on the investment of multinational corporations in different transitional countries is closely connected to the policy administration of host countries. External financial support is crucial to the economic structure adjustment of host countries and is also the key factor of coordinating different goals which means the adjustment of economic structure of host countries and the development of multinational corporations. In this process of coordination, IFI and World Bank can play the promoting role. When not reaching equilibrium, the FDI brought by the nation adjusting economic structure is small and it cannot effectively improves the local marketing system while it helps privatization and lowering the purchasing cost of investors. Meanwhile, guaranteeing the financial support from multinational corporations is very

important and it requires the increase of the credibility of the reform. As long as governments of host countries initiatively make commitment that marketing reform is credible, FDI will make contribution to the economic growth of host countries.

**5. The study of affecting factors of the inflow of FDI in post conflict countries**

After analyzing the economic performance and the situation of attracting FDI, this dissertation tries to explore the affecting factors of the inflow of FDI from theoretical perspective and empirical perspective. As we all know, the result of benefit game between FDI and host countries is the key factor of whether post conflict countries can attract FDI. Moreover, in this game, governments of post conflict countries and multinational corporations are the subjects of the game.

Based on the analysis above, chapter four comes up with a game analysis framework. Because of the long-term conflict, domestic situations of post conflict countries are complicated. When doing FDI, multinational corporations will consider the macroeconomic condition and political and economic stability of host countries. Meanwhile, host countries also make use of the economic policies and macroeconomic conditions to attract multinational corporations. Both sides of the game have an adaptive game analysis in a dynamic multiple game situations to stimulate the countermeasures of the opposite side. This research method is an attempt on the study of FDI in post conflict countries.

The result of the analysis of adaptive game shows that there exist two equilibrium between both sides of the game. In the first equilibrium, the host country commits to fast economic structure adjustment and enacts market-oriented policies while multinational corporations choose to enter the market by purchasing under the current policies. This equilibrium always appears during the adjustment of industrial structure. In the second equilibrium, the host country tends to choose a gradual reform method while multinational corporations choose to build new factories and directly transfer technology and management knowledge to play the coordinating role in the economic growth. From the analysis above, macroeconomic structure and policy of post conflict countries are the main factor attracting FDI. However, because of the necessity of building a theoretical model, economic indicators are not detailed in the game analysis of the macroeconomics of host countries. To assure the rigor of the study, this chapter will adopt econometric methods to make an empirical study on the influence of relative macroeconomic variables of post conflict countries with the introduction of FDI.

## 5.1 Model construction and data description

The empirical study below analyzes the relationship between the "quell conflict" of the sample countries and the attraction of FDI inflow. The data used in this model covers the "quell conflict" from 1980 to 2009 of sample countries and the panel data of FDI inflow. The sample countries include Afghanistan, Angola, Azerbaijan, Bosnia and Herzegovina, Burundi, Cambodia, Chan, and Republic of the Congo, Croatia, El Salvador, Eritrea, Ethiopia, Georgia, Guatemala, Guinea-Bissau, Haiti, Indonesia, Kosovo, Lebanon, Libya, Mozambique, Namibia, Nepal, Nicaragua, Papua New Guinea, Rwanda, Sierra Leona, Solomon Islands, Somalia, Sri Lanka, Sudan, Tajikistan and Uganda. The sample period is choosen from 1980 because in this years the political and economic situations of these sample countries have big differences and this enables our study to focus on the interrelation between time trends, conflicts and the inflow of FDI after the quell of the conflict.

In chapter three, it has been pointed out that FDI is mainly affected by economic factors, resource supply factor, international economic fact and policy factor. In this part, an econometric model, including the main affecting factors above is constructed to discuss about the determining factors of FDI inflow. Because FDI change it contains the influence from international factor, we remove the international factor from the model and the basic model is as what follows:

$$FDI = \beta_0 + \beta_1\, GDP\ growth + \beta_2\, population + \beta_3\, trade + \beta_4\ Politics + ß_5\, labor + ß_6\, Road + ß_7\, inflation + \in \qquad (5.1)$$

Among them, GDP growth represents GDP growth; population represents population; Trade represents the total amount of export; Politics are a virtual variable and when sample country is at quelling conflict state, the value is 1 otherwise it is 0; Labor is the total labor amount of the sample country; Road is the representative variable of infrastructure; inflation represents the inflation rate of the sample country. Data used in this model comes from the IMF database and the data of FDI inflow comes from the UNCTAD database; among them, the data of Nepal come from the ***Statistical Yearbook of Nepal*** and economic survey data released by the Nepali Central Bank.

*Table 5.1 Statistical analysis indicators.*

*Table5.1 Statistical characteristics of the main variables*

| Variables | Means | Std. Dev. | Min | Max | Observations |
|---|---|---|---|---|---|
| GDP growth | | | | | |
| Overall | 3.701122 | 5.973431 | -19.01 | 33.62937 | N = 216 |
| Between | | 1.775271 | 1.478533 | 6.052076 | n = 9 |
| Within | | 5.733013 | -18.06079 | 31.27842 | T = 24 |
| Population | | | | | |
| Overall | 15.69712 | 14.41935 | .258 | 61.053 | N = 216 |
| Between | | 14.6983 | .374875 | 45.27346 | n = 9 |
| Within | | 3.871546 | 1.896662 | 31.47666 | T = 24 |
| Trade | | | | | |
| Overall | 64.41344 | 34.31809 | 11.08743 | 156.8618 | N = 216 |
| Between | | 31.83712 | 24.11385 | 117.9124 | n = 9 |
| Within | | 16.50943 | 21.78305 | 129.2077 | T = 24 |
| Politics | | | | | |
| Overall | .4768519 | .5006241 | 0 | 1 | N = 216 |
| Between | | .2772565 | .0833333 | .7916667 | n = 9 |
| Within | | .4265873 | -.3148148 | 1.393519 | T = 24 |
| Ex Rate | | | | | |
| Overall | 358.1494 | 615.2845 | 0 | 2985.19 | N = 216 |
| Between | | 468.0723 | 1.151146 | 1180.784 | n = 9 |
| Within | | 427.6928 | -820.1349 | 2162.555 | T = 24 |
| Labor Force | | | | | |
| Overall | 4193272 | 3557985 | -.0034209 | 1.32e+07 | N = 216 |
| Between | | 3626475 | 3.283146 | 9503111 | n = 9 |
| Within | | 956463 | 1187602 | 7927124 | T = 24 |
| Road | | | | | |
| Overall | 1.436566 | 2.124192 | .0313105 | 13.70344 | N = 216 |
| Between | | 1.529358 | .0881345 | 4.56387 | n = 9 |
| Within | | 1.556749 | -1.615272 | 12.17974 | T = 24 |
| Inflation | | | | | |
| Overall | 158.2638 | 1088.913 | -13.054 | 13109.5 | N = 216 |
| Between | | 412.7017 | 3.658167 | 1257.826 | n = 9 |
| Within | | 1016.676 | -1095.862 | 12009.94 | T = 24 |
| FDI | | | | | |
| Overall | 196.2176 | 426.3458 | -279 | 3534 | N = 216 |
| Between | | 160.3706 | 11.5 | 572.4167 | n = 9 |
| Within | | 398.5014 | -407.1991 | 3157.801 | T = 24 |

The main variables in the model are some variables that may affect the FDI inflow of host countries, for example, the percentage of foreign trade in one country's GDP, GDP growth rate, average foreign exchange rate, population, and labor and so on. Any multinational corporation would choose the country with lower labor cost to invest when choosing the host countries. Empirical studies mainly study the economic status of host countries that investors focus like the GDP growth rate, infrastructure status, politic stability, inflation, market scale and so on.

### 5.2 Fixed effect regression model

#### 5.2.1 Model Overview

In the panel data scatter plot, if for different sections and time sequences, the intercepts o the model are different, then adding dummy variables in the model to estimate regression parameters can be adopted and this model is called fixed effects regression model. Fixed effects regression model is divided into three types which are entity fixed effects regression model, time fixed effects regression model and time and entity fixed effects regression model.

**1. Entity fixed effects regression model**

The entity fixed effects model is the model with different intercepts for different individuals. If for different time sequences, the intercepts are different but for different cross sections, the intercepts do not have significant change, then entity fixed effects regression model should be established and it shows below,

$$y_{it} = ß_1 x_{it} + \gamma_1 W_1 + \gamma_2 W_2 + \ldots\ldots + \gamma_N W_N + \mathcal{E}_{it},\ t=1, 2\ldots T \qquad (5.2)$$

Among them, if belongs to the entity：others

$$w_t = \begin{cases} 1, \mathrm{i} = 1, 2, \ldots \mathrm{N} \\ 0, \end{cases}$$

$\in_{it}$, $i=1, 2, N;\ t=1, 2\ldots$T represents the random error items $y_{it}$, $x_{it}$, $i=1,2\ldots,N;\ t=1,2,..,T$ respectively represents explained variables and explanatory variables.

**2. Time fixed effects regression model**

Time fixed effects regression model is the model that for different entities there are different sections. If for different sections, the intercepts are significantly different, but for different time sequences, the intercepts of different entities are the same, then the time fixed effects regression model should be established and it shows below:

$$y_{it} = ß_1 x_{it} + \alpha_1 + \alpha_2 D_2 + \ldots + \alpha_T D_T + \varepsilon_{it},\ i=1,2,\ldots,N \qquad (5.3)$$

$$D_t = \begin{cases} 1, & t = 2,\ldots,T \\ 0, & \end{cases}$$

$\varepsilon_{it}$, $i=1,2,..,N;t=1,2,\ldots,T$, $y_{it}$, $x_{it}$, $i=1,2,..,N;t=1,2,\ldots,T$ represents randomly error items; respectively represents explained variables and explanatory variables.

**3. Time and entity fixed effects regression model**

Time and entity fixed effects regression model is the model that for different sections (time) and different time sequences (entity), there are different intercepts. If it is certain that for different sections and different time sequences, the intercepts of the models are significantly different, and then time and entity fixed effects model should be established and it shows below:

$$y_{it} = ß_1 x_{it} + \alpha_1 + \alpha_2 D_2 + \ldots + \alpha_T D_T + \gamma_1 W_1 + \gamma_2 W_2 + \ldots + \gamma_N W_N + \varepsilon_{it},\ i=1,2,\ldots,N,\ t=1,2,..,T \qquad (5.4)$$

$$D_t = \begin{cases} 1, & t = 2,...,T \\ 0, & \end{cases}$$

$$W_t = \begin{cases} 1, & i = 1,2,...,N \\ 0, & \end{cases}$$

Among them, dummy variables $\varepsilon_{it}$, $i=1,2,\ldots,N;\ t=1,2,\ldots,T$, $y_{it}$, $x_{it}$, $(i=1,2,\ldots,N;\ t=1,2,\ldots,T)$ represents randomly error items, respectively represent explained variable and explanatory variables.

### 5.2.2 Empirical test

We make use of the fixed effects model method to regress the regression equation and the equation is below:

$$y_{it} = ß_0 + ß x_{it} + \gamma Z_i + a_i + u_{it} \qquad (5.5)$$

Among them $y_{it}$ is the FDI inflow at time t of country i; $x_{it}$ is the explanatory variables of the benchmark regression equation; $a_i$ is the regression element not changing with the time; $u_{it}$ is the error item. The regression results are as shown in table 5.2. This table adopts the method of gradually increasing the number of independent variables and respectively establishing ten regression equation models to come to the measurement results by regression analysis. The regression results show that the higher the GDP growth rate of one country, the more attractive to FDI inflow but it lacks significance. This may be related to the political environments of this country like the policy instability of conflicting or transitional countries, unstable prediction of economic growth and so on. In the same way, the factor of population is also not significant although it shows positive relation with the attraction of FDI inflow. The political stability of host country and the inflow of FDI show positive relation but it lacks significance. This may be related to that we set it as the dummy variables but omits that there exist huge difference of the degree of political stability even though different countries are all in the status of post conflicts. But we cannot get more detailed material about the degree of political stability of evaluating sample countries in our studying period and this is a defect of data. The amount of labor of one country has positive influence on the attraction of FDI inflow; the inflation rate of one country of negative relation with the attraction of FDI inflow. This accords with our expectation and the regression coefficient of this variable is of significance. We consider that the inflation rate of one country may partially reflect the degree of political stability of one county. When the political environment is in turmoil, the inflation rate of one country show a rising trend and this also affect the confidence of foreign investors investing in this country so the regression coefficient of this variable is negative. The road mileage can better represent the infrastructure construction status of one country and the measurement result shows that this item has positive relation with the inflow of FDI and is of significance. This result meets the basic demand of FDI investment and reflects that investors pay much attention to the infrastructure construction status of post conflict countries. Based on the benchmark regression model, ten different equations are regressed and the results are what follow:

Here are the ten regression equations

$$FDI = ß_0 + ß_1\ GDP\ growth + ß_2\ trade\ open + \mathcal{E} \quad (5.6)$$

$$FDI = ß_0 + ß_1\ GDP\ growth + ß_2\ trade\ open + ß_3\ Exchange + \mathcal{E} \quad (5.7)$$

$$FDI = ß_0 + ß_1\ GDP\ growth + ß_2\ trade\ open + ß_3\ Exchange + ß_4\ population + \mathcal{E} \quad (5.8)$$

$$FDI = ß_0 + ß_1\ GDP\ growth + ß_2\ trade\ open + ß_3\ Exchange + ß_4\ labor + \mathcal{E} \quad (5.9)$$

$$FDI = ß_0 + ß_1\ GDP\ growth + ß_2\ trade\ open + ß_3\ Exchange + ß_4\ labor + ß_5\ Inflation + \mathcal{E} \quad (5.10)$$

$$FDI = ß_0 + ß_1\ GDP\ growth + ß_2\ trade\ open + ß_3\ Exchange + ß_4\ labor + ß_5\ Inflation + ß_6\ Road + \mathcal{E} \quad (5.11)$$

$$FDI = ß_0 + ß_1\ GDP\ growth + ß_2\ trade\ open + ß_3\ Exchange + ß_4\ labor + ß_5\ Politics + ß_6\ Road + \mathcal{E} \quad (5.12)$$

$$FDI = ß_0 + ß_1\ GDP\ growth + ß_2\ trade\ open + ß_3\ labor + ß_4\ Politics + \mathcal{E} \quad (5.13)$$

$$FDI = ß_0 + ß_1\ GDP\ growth + ß_2\ trade\ open + ß_3\ Exchange + ß_4\ labor + ß_5\ Inflation + ß_6\ Politics + \mathcal{E} \quad (5.14)$$

$$FDI = ß_0 + ß_1\ GDP\ growth + ß_2\ trade\ open + ß_3\ Exchange + ß_4\ labor + ß_5\ Inflation + ß_6\ Road + ß_7\ Politics + \mathcal{E} \quad (5.15)$$

Table 5.2 is the result of generalized least squares method in the fixed effects model. This model shows that the inflow of FDI is highly related to the relative factors in every stage. These variables are set in the environment after conflict. Because these countries all the least developed countries and the statistical data is lacking, the result of empirical studies cannot well support the measurement model. In general, the measurement result reflects that the inflow of FDI has significant positive relation with the GDP growth rate, trade amount, political stability, labor and other factors.

**Table 5.2 Fixed effects model about the variables of FDI inflow**

| Variable | I | II | III | IV | V | VI | VII | VIII | IX | X |
|---|---|---|---|---|---|---|---|---|---|---|
| GDP Growth | 6.894 (.0.139) | 6.897 (0.152) | 5.50716 (0.230) | 5.465274* (0.184) | 5.282192 (0.202 ) | 5.28286 (0.203) | 5.06232 (0.221) | 5.047 (0.221) | 4.9459 (0.233) | 4.957 (0.233) |
| Population | | | 38.36595 (0.000) | | | | | | | |
| %of trade in GDP | 8.0455 (0.000) | 8.046 (0.000) | 3.046577 (0.109) | 2.801391 (0.068) | 2.735176 (0.076) | 2.736405 (0.079) | 2.769702 (0.074) | 2.734 (0.074) | 2.6941 (0.080) | 2.732 (0.079) |
| Politics | | | | | | | 72.60259 (-44.42) | 70.7134 (0.226) | 67.99 (.025) | 70.01068 (0.245) |
| Exchange Rate | | .0001837** (0.998) | -.0528809* (0.397) | -.1744949 (0.003) | -.1741677 (0.003)** | -.1742265 (0.004) | -.1749779** (0.004) | -.17332 (0.003) | -.173162 (0.003) | -.17503 (0.004) |
| Labor Force | | | | .0002436 (0.000) | .0002441 (0.000) | .0002442 (0.000) | .0002317 ** (0.000) | .00023 (0.000) | .00023 (0.000) | .000232 (0.000) |
| Road | | | | | | 0.1000729* (0.995) | 2.840348*** (0.859) | | | 3.231939** (0.841) |
| Inflation | | | | | -.0107074** (0.628) | -.0107214** (0.630) | | | | -.0072244* (0.747) |
| Obs | 216 | 216 | 216 | 216 | 216 | 216 | 216 | 216 | 216 | 216 |
| R-Squared | 0.1362 | 0.1362 | 0.2207 | 0.3724 | 0.3731 | 0.3731 | 0.3770 | 0.3769 | 0.3772 | 0.3774 |
| Variable | I | II | III | IV | V | VI | VII | VIII | IX | X |
| GDP Growth | 6.894 (.0.139) | 6.897 (0.152) | 5.50716 (0.230) | 5.465274* (0.184) | 5.282192 (0.202 ) | 5.28286 (0.203) | 5.06232 (0.221) | 5.047 (0.221) | 4.9459 (0.233) | 4.957 (0.233) |
| Population | | | 38.36595 (0.000) | | | | | | | |
| %of trade in GDP | 8.0455 (0.000) | 8.046 (0.00 | 3.046577 | 2.801391 | 2.735176 (0.076) | 2.736405 | 2.769702 | 2.734 (0.074) | 2.6941 (0.080) | 2.732 (0.079) |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0) | (0.109) | (0.068) | | (0.079) | (0.074) | | | |
| Politics | | | | | | | 72.60259 (-44.42) | 70.7134 (0.226) | 67.99 (.025) | 70.01068 (0.245) |
| Exchange Rate | | .0001837** (0.998) | -.0528809* (0.397) | -.1744949 (0.003) | -.1741677 (0.003)** | -.1742265 (0.004) | -.1749779** (0.004) | -.17332 (0.003) | -.173162 (0.003) | -.17503 (0.004) |
| Labor Force | | | | .0002436 (0.000) | .0002441 (0.000) | .0002442 (0.000) | .0002317 ** (0.000) | .00023 (0.000) | .00023 (0.000) | .000232 (0.000) |
| Road | | | | | | 0.1000729* (0.995) | 2.840348*** (0.859) | | | 3.231939** (0.841) |
| Inflation | | | | | -.0107074** (0.628) | -.0107214** (0.630) | | | | -.0072244* (0.747) |
| Obs | 216 | 216 | 216 | 216 | 216 | 216 | 216 | 216 | 216 | 216 |
| R-Squared | 0.1362 | 0.1362 | 0.2207 | 0.3724 | 0.3731 | 0.3731 | 0.3770 | 0.3769 | 0.3772 | 0.3774 |

### 5.3 Hausman Test

#### 5.3.1 Basic idea

The basic idea of Hausman Test is : because in the case of the omission of relevant variables, it often leads to that explanatory variables and random disturbance occurs correlation of the same period, which is $Cov\ (X_t\ ,\ u_t) \neq 0$ Exogenous condition is not satisfied and makes OLS estimating amount biased and not consistent. Therefore, test for omission relevant variables of the model can be replaced by the test of whether the model occurs explanatory variables and random disturbance correlation of the same time.

$Cov\ (X_t\ ,\ u_t) \neq 0$ When(公式), or explanatory variables and random disturbance correlate at the same time, adopting instrumental variable method can get the consistent estimator parameters; when explanatory variables and random disturbance are not correlated at the same time, OLS estimating amount is consistent with the estimated amount of the parameter. Therefore, it only needs to test whether IV estimating amount and OLS estimating amount have significant difference to test

whether explanatory variable and random disturbance is not related at the same period to judge whether the model exists the situation of omitting related variables.

Hausman test under the original assumptions, IV estimating amount is the same as the LS estimating amount but under the alternative assumption, only the IV estimating amount is the same. When exogenous condition is certain to be satisfied, we prefer using LS estimating amount; but when exogenous condition is uncertain to be satisfied, IV estimating amount is needed.

Suppose $d= (b_{Iv-} b_{LS})$,then H testing statistic is a Wald statistic and $H=d'\ [Est.\ Asy.\ Var\ (d)]^{-1}\ d$ (5.16) will decrease, goodness of fit ($Asy.Var(d)= Asy.Var(b_{IV})-Asy.Var(b_{LS})$ will increase, but the degree of freedom will decrease. The proposal of $H= (b_{IV}-b_{LS})\ '[Est.\ Asy.\ Var(b_{IV})]- Est.\ Asy.\ Var\ (b_{LS})]^{-1} (b_{IV}-b_{LS})$ and index *IV* are both for balancing $RSS=\Sigma e^2_i$ decreasing and degree of freedom loss. It is the most commonly used standard in model selection.

$$R^2\left[\frac{1}{n-k}\sum e_i^2\right] \quad RSS=\sum e_i^2$$

In recent years, various model selection standards have continuously been put forward. The form adopted by these standards is the product of residual sum of squares and freedom factor with punishing meaning (characterization of model set complexity). In it, Chichi (1970, 1974) put forward limited prediction error(FPE) and Akaike information criterion; Hannan and Quinn's HQ criterion; Schwarz criterion; Shibata criterion; Rice criterion; generalized cross validation criterion and so on. The following table is the summary about different types of standards. These statistics are also called model selection statistics. The standard of model selection is that the various models mentioned above have smaller statistics amount.

**Table 5.3 The summary of the standard of Hausman analysis**

| | | | |
|---|---|---|---|
| SGMASQ | $\left(1-\frac{k}{n}\right)^{-1}\left(\frac{1}{n}\sum e_i^2\right)$ | HQ | $(\ln n)^{2k/n}\left(\frac{1}{n}\sum e_i^2\right)$ |
| AIC | $e^{2k/n}\left(\frac{1}{n}\sum e_i^2\right)$ | RICE | $\left(1-\frac{2k}{n}\right)^{-1}\left(\frac{1}{n}\sum e_i^2\right)$ |
| FPE | $\frac{n+k}{n-k}\left(\frac{1}{n}\sum e_i^2\right)$ | SCHWARZ | $n^{k/n}\left(\frac{1}{n}\sum e_i^2\right)$ |
| GCV | $\left(1-\frac{k}{n}\right)^{-2}\left(\frac{1}{n}\sum e_i^2\right)$ | SHIBATA | $\left(\frac{n+2k}{n}\right)\left(\frac{1}{n}\sum e_i^2\right)$ |

### 5.3.2 Empirical test

The aim of Hausman test is to judge whether to use fixed effects or use random effects. But in the metering process, the difference of the regression results of these two methods is not big. Therefore, only fixed effects model is used and here only Hausman test fixed effects model is used.

Fixed effects model accords with our analysis, so here is how we use the Hausman test:

$$W=\{(\beta_{FE}-\beta_{RE})\Sigma^{-1}(\beta_{FE}-\beta_{RE})\tilde{}X^2(k)\} \qquad (5.17)$$

In fixed effects model, the variables used are GDP growth rate, the percentage of foreign trade in GDP, labor and the number of miles of road per hundred. The result of the test is shown in table 5.4. From the result of Hausman test, we can see that fixed effects are effective estimate and random effected can be omitted.

**Table 5.4 The result of Hausman test**

| Variable | b( Fixed ) | B ( Random) | (b-B)Difference | (diag(V_b-V_B)) SE |
|---|---|---|---|---|
| GDP growth | 4.957669 | 4.14059 | .8170797 | |
| % tarde on GDP | 2.73264 | 4.973348 | 4.973348 | .8089754 |
| Politics | 70.01068 | 152.8486 | -82.83794 | 11.29309 |
| Exchange Rate | -.1750318 | -.0972161 | -.0778157 | -.0778157 |
| Labor Force | .0002328 | .0001127 | .0001201 | .0000253 |
| Road | .0000253 | 11.04426 | -14.2762 | 3.034618 |
| Inflation | -.0072244 | .0058833 | -.0131077 | |

b = consistent, B = inconsistent

*Test: Ho: difference in coefficients not systematic*

chi2= (b-B)'[(V_b-V_B) ^ (-1)](b-B)

= 26.54

Prob>chi2 = 0.0002

(V_b-V_B is not positive definite)

### 5.4 Conclusion

Even under the situation of limited data, we employ the data of 36 post conflict countries that we can get to have quantitative analysis of the possible affecting factors of FDI. The results show that:

Firstly, factors that have positive correlation with the inflow of FDI are GDP growth rate, political stability of host countries, the amount of labor, and the number of miles of the road and so on. However, among these factors, GDP growth rate lacks significance and we think that this situation occurs due to the low total economy, bad stability of economy growth and incomplete data.

Secondly, the inflation rate and foreign exchange rate of negative correlation with the inflow of FDI. The result has strong significance and this conclusion meets our prediction. Because to some extent, inflation rate and foreign exchange rate reflect the situation of political and economic stability of countries of this kind and it further improves that FDI is highly correlated with political stability.

## 6. FDI in Nepal: analysis of policy and experience

### 6.1 Overview of Nepal using FDI

Nepal is an inland country with a population of about 26 million. The national land area is 147.181 thousand square kilometers. The north side borders with China while the other three side's boarder with India. Over the past sixty years, especially from the abolition of Rana regime in 2007, Nepal has gone through multiple politic and system changes. Since the first democratic movement in 1990 to the second people' movement in 2006, until finally the thorough political reform on May 28th Wednesday in 2008 abolishing monarchy and establishing federal democratic republic, Nepal has gone through dramatic political change and reached a relatively stable period.

In 1984, Nepal started the process of financial liberalization. In 1984 Nepal revised the law of commercial banks removing the barrier of private sector entering commercial banks and after that only two state-owned banks are running in the market. In 1985, the issue of financial company law made financial companies has the access into the financial system of Nepal and in 1992, the division of this law promoted the rapid development of financial companies in Nepal. In 1989, a reform on treasure bill is made and in 1994 securities trading floor is introduced making it the important start of stock trading. In 1997, Nepal issued the development bank act and revised Nepal

national bank law(Nepali central bank) and accelerated the process of central bank taking part in the of government's overall financial sector development and modernization.

On April 23rd 2004 Nepal officially joined WTO. As a member country of WTO, Nepal enjoys the according rights like not being discriminated by other WTO member countries and using WTO dispute settlement process. Accordingly, Nepal also made broad commitment on regulating trading system and market access criteria and regulations. About the trading system, Nepal agreed to ensure that all the laws concerning trade accord with the obligations of WTO, abolish non-tariff barriers and other taxes and promised to fully implement Customs Valuation Agreement, Agreement on technological barriers trade, SPS Agreement on animals and plants, TRIPS and Agreement on rules of origin. The average tariff rate of importing is farm produce 42%, industrial products around 24% and most imported goods 10% to 20%. In almost 160 service sub-sectors, Nepal made commitment on 70 sub-sectors and half of them concern financial service and communication service.

The introduction of foreign investment in Nepal started in 1980s. Since the issue of investment and industrial enterprises law, Nepal has always had clear policy on foreign investment. Until March 2009, Nepali government has approved 1743 industries and the program costs are together 1300000000 rupee. From the statistical data from 1988 to 2009, the attraction of FDI in Nepal has the following characters. Firstly, generally speaking, the number of corporations investing in Nepal and the foreign investment amount show an upward trend. Moreover, Nepal using foreign investment is undulating and the appearance of these characters is closely related with domestic political and economic situations. From table 6.1, it can be seen that there is a huge increase of using foreign investment from 1992 to 1993 mainly because that after the first democratic movement in early 1990, domestic politics entered a relatively stable period. The new government issued a series of new policies like opening domestic market, vigorously developing the private economy and so on to stimulate the increase of FDI. But it did not last long because in 1996 Communist Party of Nepal (Maoists) was established and the abolition of monarchy and adoption of constitutional monarchy was required. On February 13th 1996, the Communist Party of Nepal (Maoists) launched the "People's War" and from then Nepal entered the conflict period bring negative influence to the FDI investment policy. Domestic highways, electricity etc. infrastructure were damaged and many places did not have roads to the capital. Because of the security factor, many multinational corporations closed down and newly approved programs were postponed indefinitely. Moreover, long-term conflicts make the management system of corporations lagging behind with low efficiency. For example, the allocation of electricity in Nepal is controlled by the state-owned enterprise Nepal Electricity Company but this enterprise is mismanaged with low

efficiency. Even though Nepal holds big potentially in hydropower, solar power and even wind power, electricity in everyday life still shows the characteristic of shortage. According to the record of 1990, because of the lack of electricity, nearly half of the capacity of manufacturing industry is not used. At present, over 80% of the capacity in Nepal is not used and many enterprises even face closure.

**Table6.1 1988/89-2008/09 Nepali foreign investment programs (unit: rupee)**

| fiscal year | number of corporations | total project cost | total fixed cost | foreign investment | number of persons employed |
|---|---|---|---|---|---|
| 1988/89 前 | 59 | 5425.92 | 4581.82 | 466.84 | 10586 |
| 1989/90 | 30 | 2438.19 | 2139.60 | 398.51 | 9515 |
| 1990/91 | 23 | 863.56 | 690.74 | 406.28 | 2974 |
| 1991/92 | 38 | 3508.17 | 2902.10 | 597.84 | 5615 |
| 1992/93 | 64 | 17886.22 | 16210.81 | 3083.67 | 13873 |
| 1993/94 | 38 | 3733.23 | 3175.66 | 1378.76 | 4734 |
| 1994/95 | 19 | 1627.28 | 1247.85 | 477.59 | 2386 |
| 1995/96 | 47 | 10047.47 | 9398.54 | 2219.86 | 8032 |
| 1996/97 | 77 | 8559.25 | 6692.15 | 2395.54 | 9347 |
| 1997/98 | 77 | 5569.38 | 5142.32 | 2000.28 | 4336 |
| 1998/99 | 50 | 5324.di42 | 4380.17 | 1666.42 | 2146 |
| 1999/00 | 71 | 2669.09 | 1910.24 | 1417.61 | 4703 |
| 2000/01 | 96 | 7917.62 | 6122.49 | 3102.56 | 6880 |
| 2001/02 | 77 | 3318.53 | 1559.59 | 1209.65 | 3731 |
| 2002/03 | 74 | 4921.82 | 3608.25 | 1793.77 | 3572 |
| 2003/04 | 78 | 4323.74 | 3775.86 | 2764.80 | 2144 |
| 2004/05 | 64 | 1801.10 | 1150.89 | 1639.52 | 5576 |
| 2005/06 | 116 | 4121.08 | 3296.95 | 2606.31 | 7358 |
| 2006/07 | 188 | 3425.57 | 2650.56 | 3226.79 | 7389 |

| fiscal year | number of corporations | total project cost | total fixed cost | foreign investment | number of persons employed |
|---|---|---|---|---|---|
| **2007/08** | **212** | **2690.21** | **2123.54** | **2453.12** | **5398** |
| **2008/09 FNM** | **139** | **16057.59** | **13664.93** | **7968.10** | **6604** |
| **2008/09 FN M** | **150** | **7905.19** | **103685.01** | **47998.12** | **133862** |
| **总计** | **1743** | 1306980 | 1077350 | 521430 | 139592 |

***(Source: Various kinds of economic investigations published by Nepali Finance Ministry)***

From table 6.1, it can be seen that from the period of 1996-2006, the total amount of FDI fluctuates hugely and in 2001 which is the most turbulent year of politics in Nepal(the king of Nepal was killed) FDI slips to the lowest valley. From 2006 to present, with the domestic situation gradually improving, the amount of foreign invest in Nepal begin to show the sign of recovery.

From the perspective of investment sectors, the investment of FDI in Nepal mainly gathers in industry, services and tourism. Apart from these, investment on architecture, energy, agriculture and mineral are also the main investing fields. After long-term conflicts, the Nepali government has fully realized the importance of FDI attracting foreign investment and issued relative industry policies and tax policies especially the incentive policies on industry, services and tourism that attracted a huge number of multinational corporations to invest in Nepal. As of 2009, the fixed capital of approved industry reaches 108000000000 rupee and 52000000000 rupee of it is from foreign investment. Once these investments fully implemented, it will offer jobs for 139492 Nepali citizens.

**Table 6.2 1987-2009 Nepali foreign investment program category (unit: rupee)**

| industry type | number of enterprises | total amount of program cost | total amount of fixed cost | foreign investment | number of persons employed |
|---|---|---|---|---|---|
| **industrial products** | 634 | 44720 | 318520 | 172250 | 72941 |
| **Services** | 482 | 250330 | 205860 | 114970 | 25285 |
| **Tourism** | 479 | 183720 | 173070 | 68500 | 22099 |
| **Architecture** | 40 | 34360 | 25480 | 25950 | 2890 |
| **Energy** | 37 | 43720 | 38220 | 26510 | 2848 |
| **Agriculture** | 21 | 54000 | 40940 | 28810 | 4219 |
| **Mineral** | 50 | 293590 | 275260 | 84440 | 9310 |
| **Sum** | 1743 | 1306980 | 1077350 | 521430 | 139592 |

***(Source ：Nepali government industry)***

From the perspective of the countries of FDI in Nepal, the majority of corporations come from India, China, America and Japan. Apart from this, Azerbaijan, Australia, Bangladesh, Colombia, Croatia, Cyprus, Czech, Russia, Italy, Singapore, Pakistan, Norway, Thailand and Spanish are also the main countries having FDI in Nepal.

**Table 6.3 1987-2009 top ten investing countries in Nepal (unit: rupee)**

| No. | Country | number of corporations | total amount of programs cost | total fixed cost | foreign investment | number of persons employed |
|---|---|---|---|---|---|---|
| 1 | India | **429** | **48747.24** | **37045.46** | **21229.55** | **50917** |
| 2 | China | **254** | **11320.99** | **9205.77** | **4857.72** | **16634** |
| 3 | America | **146** | **13686.81** | **12397.08** | **4781.16** | **11456** |
| 4 | Japan | **138** | **3072.37** | **2619.88** | **1089.51** | **6196** |

| No. | Country | number of corporations | total amount of programs cost | total fixed cost | foreign investment | number of persons employed |
|---|---|---|---|---|---|---|
| 5 | Korea | **105** | **8057.67** | **7631.19** | **4052.89** | **5066** |
| 6 | England | **87** | **4554.08** | **4052.29** | **1452.54** | **7434** |
| 7 | German | **67** | **2203.81** | **1980.30** | **844.22** | **3522** |
| 8 | France | **40** | **530.35** | **440.31** | **250.55** | **1743** |
| 9 | Switzerland | **29** | **722，48** | **655.95** | **322.85** | **596** |
| 10 | Netherlands | **19** | **1117.04** | **928.46** | **456.45** | **2294** |
| 11 | Others | **429** | **1213690** | **1000393.31** | **482092.6** | **33734** |

***(Source: Nepali government industry)***

### 6.2 The policy analysis of Nepal attracting FDI

Since 1980s when starting to introduce foreign investment and issuing investment and industrial enterprises law, Nepal has had clear policies for foreign investors. These policies play an important role for Nepal attracting foreign investment. Based on the systematic introduction about the policies of attracting FDI, This section makes a comparative analysis about Nepal and other Southern Asia countries to seek the shortage of Nepal attracting FDI and further improve the FDI policies of Nepal. The regulations and policies concerning foreign investment in Nepal mainly include Foreign investment and one window policy act, Foreign investment and Technology transfer act, Industry Act, Foreign employment law, Customs Law, Finance law, Immigration regulations and so on. Among them, the first three acts are the most directly related with investment.

Foreign investment and one window policy sets the tone for the utilization of foreign investment in Nepal. This act regulates Nepal to set up “One window committee”, uniformly handling matters relating to foreign investment. The so called window policy is to effectively make approval to the foreign investment or technology transfer, coordinate the functions of agencies, designate the Industry Ministry as the executive body of the window service and play the role of Industrial Promotion Council. The window committee can provide foreign invest industries with registration, land, electricity and water and other infrastructure services. The minister of the Industry Ministry is

responsible for the committee and the members include the official in charge of Industry Ministry, Ministry of finance and Department of commerce.

The industry act was formulated in November 1992, and there were two amendments in August 1997 and August 2000. The development of this act encourages private foreign investment to enter every industrial sector(medium and large) except for national defense activities. Meanwhile it is regulated that joint venture is the preferred form of attracting FDI and restriction on holding foreign shares is set, for example, for medium enterprises, foreign shares can be at most 50%.

Foreign investment and Technology transfer act was formulated in November 1992 and there were two amendments in January 1996 and August 2000. The regulations about foreign investment in Nepal mainly include: project approval, foreign investment form, profit remittances, tax policy, fields for foreign investment, application procedures in Nepal, application materials, 24 incentives of encouraging foreign investment in Nepal and contents about visa, industry protection, arbitration and so on. The analysis of the abstracted main points is as follows:

After the democratic movement, the new democratic government in 1990 stressed the importance of FDI and technology transfer in national development. In 1991, the duty-free period for investment on national key projects extended to 10 years and national key projects include industries of producing goods satisfying basic needs(food, clothes, building and so on), export promotion activities(export taking 50% or more of the total sales amount) and hotel industry and tourism programs. Foreign investment and Technology transfer act issued in 1992 allowed foreign investment to enter all the industries except for national defense and alcohol and liquor. And it is allowed to hold 100% ownership. Foreign investment is also allowed to enter hydropower industry. This act ensures that shares, bonus and principal and interest of external debt in the form of freely convertible currency payments can be repatriated 100%.

Foreign investment and technology transfer act issued in 1992 simplified approval and licensing procedures and industry and business Ministries will approve the investment applications in 30 days. Meanwhile, a one window committee is set and be responsible for providing various institutional facilities and services (infrastructure related and others). Moreover, the government of Nepal had agreements with some European countries like France, German and England in investment protection and meanwhile had agreements with India, Norway and Thailand to prevent double taxation. As for foreign investment related disputes, according to international law committee framework of the United States, the law has a clear arbitration clause. Foreign

investment and Technology transfer act issued in 1992 also includes one prohibition prohibiting the FDI entering cottage industry and projects with fixed costs below 20 million Nepali rupee.

Foreign investment laws went through some changes in the development process. The first amendments of foreign investment and Technology transfer act abolished duty-free period and reduces the tax rate of market-oriented corporations of manufacturing and services by 20% because export-oriented corporations have the selection right and can choose 0.5% tax rate based on export value or choose 8% tax rate based on profits. Until 1999/2000 fiscal year, levy 5% tax on the profits exempted for foreign corporations. To balance the balance of payments, the country eagerly needed to introduce new tax type but this had some conflicts with the commission made by the government to promote FDI. Nepal, India, Pakistan and Sri Lanka are all located in South Asia. Because of geopolitical relations, the political and economic connections of these countries are close and have similarities and comparability in attracting foreign investment and developing economy. Therefore, it is necessary to compare the FDI policies of Nepal with these countries. Table 6.2 is the comparison of FDI policies of Nepal with other Asian countries (South Asian countries).

**Table 6.4 Comparison of FDI policies in Nepal and South Asia countries**

| Region | India | Nepal | Pakistan | Sri Lanka |
|---|---|---|---|---|
| **government organization dealing FDI** | foreign investment promotion committee and council | investment promotion agency | investment promotion committee | investment promotion committee |
| **foreign share holding limitation:small scale shares reaches 24%** | the majority of the industries 51% maximum; in export-oriented industries allowing 100%, like energy, electricity, software and so on | allowing foreign capital holding 100% shares except for industries in the negative list. | 100% without any administration | 100% |

| Region | India | Nepal | Pakistan | Sri Lanka |
|---|---|---|---|---|
| **Incentives** | 10 year duty-free period for enterprises in export processing one and 5 years for other investors; export-oriented corporations enjoy incentive interest rate in financing ; enterprises located in export processing zone enjoy 10-year duty-free period. | export-oriented enterprises levy 8% corporate tax based on profit or 0.5% corporate tax based on export income; import-competing enterprises applies 20% corporate tax; importing M/E or parts enjoy 2.5% tariff; levying 5% ─ 10% tariff for most enterprises under the tax-refund program | export-oriented and high tech industry import industry, machinery and applications do nt need tariff; non-tariff for agriculture machines import | exempt shares transfer income capital gaining tax; five-year tax holiday; exporting enterprises enjoy tax-refund |
| **interest rates back to the countries and expatriates income tax** | after tax allowing capital, profits and dividends repatriation 100% | allowing dividends and capital repatriation 100% | allowing capital, profits and dividends repatriation 100% | allowing profits and dividends repatriation 100%; taxation enjoys 15% incentives for five years |
| **Infrastructure** | EPZs terms; NPN allows property acquisition except for agriculture land, farm and plantation | 11 industrial zone terms; self-arranged land and public facilities; dry port located in Birding and international container stations located in Biratnagar and Bhairawa | export processing zone terms | export processing zone terms |
| **foreign investment protection** | dispute resolution is decided by 1940 India Arbitration Act; restructuring and implementing foreign arbitral awards according to United | never nationalization; settle disputes by consultation according to the arbitration provisions by the United Nation's committee | never nationalization; settle investment disputes through international committee | prevent nationalization through bilateral trade agreements and constitutional guarantees; settle investment disputes |

| Region | India | Nepal | Pakistan | Sri Lanka |
|---|---|---|---|---|
| | Nation's conventions | on international trade law | | using international conventions. |

(***Source: sum of materials of various countries (Nepal: Investment Promotion Agency India: Foreign investment promotion committee and council, Sri Lanka: sum from the Investment Promotion committee***)

From table 6.4, it can be clearly seen that the FDI policies in Nepal are advantageous in some ways compared with other countries but some improved still need to be made.

1. Nepal makes relatively loose policies in FDI shares limitation, repatriation of profits, expatriate tax and foreign investment rights protection providing incentives for FDI and erasing the doubts of many FDI enterprises. In this aspect, Nepal basically shares the similar character with India, Pakistan and Sri Lanka.

2. On tax, Nepal is not so incentive as other Southern Asia country like India and it will bring negative influence on Nepal attracting foreign investment. Generally speaking, for post conflict countries like Nepal, foreign enterprises invest in this kind of countries mainly because of the incentive taxes and cheap labor. According to Foreign Investment Law in 1997, Nepal does not provide duty-free incentive for foreign investment projects and this will bring negative influence on FDI in a degree.

3. FDI enterprises are mainly with two ends outside because the final products are mainly exported to international market. Compared with other Southern Asia countries, Nepal is an inland country without the sea and this is extremely unfavorable for attracting FDI. As remedies, it is reasonable for Nepal to accelerate export processing zone and corresponding law terms construction. However, through comparison, it is seen that at present Nepal does not set export processing zone terms as the method of encouraging export.

### 6.3 Economic Effect analysis of Nepal attracting FDI

Throughout the development path of Asia's developed economies and emerging marketing economies, FDI plays an important role in the process of rapid economic growth like Japan, Korea, China and India. For Nepal, FDI is of significant importance to domestic economic growth. At present, Nepal lacks capital, technology and other factors of production because of years of conflicts and the production ability is weak. To overcome these problems, the government must introduce foreign capital, technology, knowledge, management skill and advanced technology. Compared with other forms of foreign financing, FDI is more popular because it contains a whole set of capital, technology, research, management and so on. This is much more beneficial than other forms of foreign financing like foreign aid and external debt. Under the background of economic globalization, FDI is beneficial to the realization of long-term economic stability to connect with the international market. What is especially noteworthy is that through FDI, Nepal is expected to gradually achieve self-development instead of relying on foreign aid to reconstruct economy.

#### 6.3.1 Theoretical analysis

The American economists H.B.Chenery and A.M.Strout proposed the double gap model in 1960s. According to the basic principles of macroeconomics, any economy must keep the balance of social total supply and social total demand to develop steadily. From the perspective of total supply, GNI equals the sum of consumption, savings and import. From the perspective of total demand, Gross National Expenditure equals the sum of consumption, investment and export. From macroeconomic theory, GNI should equal GNE, and it show in the form of equations:

$$GDP=C+S+M \qquad (6.1)$$

$$GDP=C+I+X \qquad (6.2)$$

$$C+S+M=C+I+X \qquad (6.3)$$

$$I-S=M-X \qquad (6.4)$$

M-X is called "Foreign exchange gap", *I-S* is called "savings gap". This model connects investment, savings, import and export with the introduction of foreign investment making it an important tool for countries analyzing domestic and international economic relation. But practically,

the preparation stage of economic growth is normally hard to balance. On the one hand it shows in that total social investment is bigger than total domestic savings which is *I-S>0*, so “savings gap” appears. On the other hand it shows in that export is bigger that export which is *M-X>0*, so “foreign exchange gap” appears.

According to the views of H.B.Chenery and A.M.Strout, if one country appears” foreign exchange gap” or “savings gap” which means a lack of domestic construction fund, it is able to adopt foreign investment attraction to fill these two “gaps” to ensure the need of domestic construction funds and promote the improvement of economic development, production technology and management level. To realize relatively high economic growth speed, developing countries must set a relatively higher investment level as the prerequisite and therefore need sufficient domestic savings. However developing countries normally have situation of low saving rate and immature financial market and domestic funds if far from satisfying the need of economic growth.

Nepal is one of the most underdeveloped countries in the world. This country has unstable politics and therefore faces rigorous “savings gap” “foreign exchange gap” at the beginning (table 6.5 and table 6.6). Table 6.5 shows the status of yearly enlarging savings gap from 1975 to 2009 in Nepal. In 1975, this gap is 4.7 and in 1980 it had increased to 7.7. The average gap from 1991 to 1995 is 9.84 and the average gap from 1995 to 2000 is 10.31. The main reason for the enlarging gap between investment and savings is that the need for investment is higher and higher while the governing savings is lower and lower. Income stagnation in Nepal is an important reason.

Table 6.5 Statistics of Nepal’s savings gap (%)

| Time | I/GDP | S/ GDP | (I-S)/GDP |
|---|---|---|---|
| 1975 | 15 | 10.4 | 4.6 |
| 1980 | 19.5 | 11.8 | 7.7 |
| 1985 | 21.9 | 13.4 | 8.5 |
| 1989 | 21.8 | 11.4 | 10.4 |
| 1991-1995 | 22.54 | 12.7 | 9.84 |
| 1996-2000 | 24.23 | 13.92 | 10.31 |
| 2000-2001 | 22.34 | 11.66 | 10.68 |
| 2001/2002 | 19.18 | 9.49 | 9.69 |
| 2002/2003 | 19.65 | 8.56 | 11.09 |
| 2003/2004 | 22.04 | 11.75 | 10.29 |
| 2004/2005 | 23.05 | 11.56 | 11.49 |
| 2005/2006 | 26.9 | 9.00 | 17.9 |

| | | | |
|---|---|---|---|
| 2006/2007 | 28.7 | 9.8 | 18.9 |
| 2007/2008 | 30.3 | 9.9 | 20.5 |
| 2008/2009 | 31.9 | 9.7 | 22.2 |
| 2009/2010 | 38.2 | 9.4 | 28.8 |

***(Source: various economic investigations published by Nepali Finance Ministry)***

Note: this table adopts the percentage of investment and savings compared with GDP to show

**Table 6.6 Statistics of Nepal's foreign exchange gap (%)**

| Time | GDP(%) | GDP(%) | E-I |
|---|---|---|---|
| 1988-1990 | 4.99 | 17.97 | -12.8 |
| 1990-95 | 8.76 | 24.38 | -15.62 |
| 1995-2000 | 10.02 | 29.19 | -19.17 |
| 2000-01 | 22.56 | 33.24 | -10.68 |
| 2001-02 | 17.74 | 28.49 | -10.75 |
| 2002-03 | 15.70 | 28.55 | -12.85 |
| 2003-04 | 16.68 | 29.46 | -12.78 |
| 2004-05 | 14.58 | 29.48 | -14.9 |
| 2005-06 | 13.60 | 31.32 | -17.72 |
| 2006-07 | 13.04 | 31.30 | -18.26 |
| 2007-08 | 12.08 | 32.66 | -20.58 |
| 2008-09 | 15.70 | 37.42 | -21.72 |

***(Source: various economic investigations published by Nepali Finance Ministry)***

Table 6.5 and table 6.6 shows that Nepal meets the “double gap” model raised by H.B.Chenery and A.M.Strout and attracting FDI can effectively minimize the foreign exchange gap and savings gap. On the one hand, FDI brings capital to the economic growth of Nepal to relieve the plight of domestic funds shortage and directly make up the gap between expected capital stock and practical capital stock. On the other hand, most FDI enterprises are export-oriented enterprises and therefore the attraction of FDI in Nepal can effectually promote the increase of export, benefit exports, improve the balance of international payments and further minimize the foreign exchange gap to promote sustainable and balanced development of economy in Nepal.

### 6.3.2 Empirical analysis

To have in-depth analysis of the economic effect of attracting FDI in Nepal, this dissertation adopts the statistical yearbooks of each year of IMF and Nepal, industrial statistics of Nepal and statistics of Nepali Central Bank and World Bank to make empirical study on the effect of attracting FDI in Nepal. In the view that the practical domestic situation in Nepal and the availability of statistics, here the regression analysis about FDI and Nepali GDP, domestic savings, foreign aid and other economic variables is made. All the regression equations used EVIEWS6.0 analysis software.

**1. The influence of FDI on GDP**

For developing countries, FDI can bring capital and technology to host countries and these factors are normally scarce resources for the economic growth in developing countries. Therefore, the introduction of FDI will affect the Production system of host countries. In this book, linear regression is made with the data of 22 years from 1988 to 2009 attempting to explore the influence of FDI on GDP. Finally it is found that apart from FDI, volume of trade, population, miles of the road, foreign aid and so on can also explain the growth of GDP. Referring to the existing literature analysis and considering the availability and computability of statistic, we put five macroeconomic factors as explanatory variable and set the following regression equation:

$$GDP=\beta o+\beta_1 FDI+\beta_2 TRADE+\beta_3 POP+\beta_4 Road+\beta_5 AID+\varepsilon \quad (6.5)$$

FDI is foreign investment

TRADE is the volume of trade of the year

POP is the population of one country

ROAD is the miles of the roads

AID is the foreign aid and donation one country received.

$\mathcal{E}$ is the residual

Making use of the existing data to make OLS regression analysis for the first equation and the results are as follows. This shows that the equation fit is good and the determining factor $R^2$ reaches 0.986181; Apart from individual variables, others are all significant. The statistics T is in the reasonable range so we can get the fit equation as:

$$GDP = -89204.32 + 1.578603\ FDI + 0.865998\ TRADE + 0.005668POP + -1.641685ROAD + -0.005527\ AID + \mathcal{E} \quad (6.6)$$

***Table 6.7 the influence of FDI on GDP***

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -89204.32 | 46035.39 | -1.937734 | 0.0717 |
| FDI | 1.578603 | 0.654780 | 2.410892 | 0.0292 |
| TRADE | 0.865998 | 0.799274 | 1.083481 | 0.2957 |
| POP | 0.005668 | 0.002915 | 1.944734 | 0.0708 |
| ROAD | -1.641685 | 1.194163 | -1.374758 | 0.1894 |
| AID | -0.005527 | 0.871352 | -0.006343 | 0.9950 |
| R-squared | 0.986181 | Mean dependent var | | 36298.13 |
| Adjusted R-squared | 0.981574 | S.D. dependent var | | 21412.98 |
| S.E. of regression | 2906.640 | Akaike info criterion | | 19.02234 |
| Sum squared resid | 1.27E+08 | Schwarz criterion | | 19.32077 |
| Log likelihood | -193.7346 | F-statistic | | 214.0860 |
| Durbin-Watson stat | 1.313519 | Prob(F-statistic) | | 0.000000 |

The regression result shows that FDI is the key factor of promoting economic growth in Nepal. The reason is no exception but what has mentioned above. FDI can bring sufficient capital and advanced technology for host countries, improve production and sale system, and accelerate the pace of host countries entering the era of globalization and so on. For underdeveloped areas, especially those with rich resources and big potentiality of investment, the inflow of FDI can better allocate domestic resources and largely promote the development of economy. The experience of many underdeveloped countries can well prove it. Trade is one of the three carriages pushing economic

growth and has significant positive correlation with GDP growth. Population is an important factor determines long-term economic growth and the economic growth model tells us that when investment does not reach certain amount, the growth of population can promote economic growth. In underdeveloped countries, cheap labor is normally most attractive for foreign corporations to invest and set factories. In the regression result, the miles of the road shows slight negative correlation with GDP and this is caused by the special condition of Nepal. As a mountainous country, the transportation in Nepal is underdeveloped and because of tens of years of conflicts, many roads are damaged. The more roads built, the more roads damaged. Many underdeveloped countries rely much on international aid and this regression analysis shows that the more one country relies on international aid, the more it does not have power to depend on its own. This is the same reason as the more one region has rich resources, the more is does not have power to develop economy.

**2. The influence of FDI on domestic savings**

Foreign capital can provide various resources for domestic investment and create opportunities for rapid economic growth but what is the influence of FDI on domestic savings? To understand the formation of FDI on Nepal's capital, a regression equation is set as follows:

$$DS = \beta o + \beta_1 AID + \beta_2 GDP + \beta_3 POP + \mathcal{E} \qquad (6.7)$$

DS is total domestic savings

FDI is foreign direct investment

GDP is Gross Domestic Production

POP is the population of one country

$\mathcal{E}$ is residual

Having regression analysis on this equation gets the following results. It can be seen that the equation is well fit and the determining factor $R^2$ reaches 0.946262; Variables except for GDP are significant, T statistic and F statistic are all in the reasonable range and here we can get the get equation:

$$D.S = -10379.88 + 0.371203\ FDI - 0.003853\ GDP - 0.181103\ AID + 0.0006250\ POP + \mathcal{E} \qquad (6.8)$$

The results of the regression analysis are shown in the following table:

**Table 6.8 the influence of FDI on domestic savings**

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -10379.88 | 4793.473 | -2.165420 | 0.0458 |
| FDI | 0.371203 | 0.157152 | 2.362069 | 0.0312 |
| GDP | -0.003853 | 0.047025 | -0.081929 | 0.9357 |
| AID | -0.181103 | 0.183659 | -0.986085 | 0.3388 |
| POP | 0.000625 | 0.000271 | 2.305525 | 0.0349 |

| | | | |
|---|---|---|---|
| R-squared | 0.946262 | Mean dependent var | 4405.495 |
| Adjusted R-squared | 0.932827 | S.D. dependent var | 2385.181 |
| S.E. of regression | 618.1860 | Akaike info criterion | 15.89571 |
| Sum squared reside | 6114463. | Schwarz criterion | 16.14441 |
| Log likelihood | -161.9050 | F-statistic | 70.43454 |
| Durbin-Watson stat | 1.971948 | Prob(F-statistic) | 0.000000 |

The regression result shows that FDI has significant correlation with Nepali total domestic saints. Meanwhile it can be seen that international aid has very obvious supporting effect on savings and this meets the reality of underdeveloped countries highly relying on international aid. The determining coefficient $R^2$ is 0.946262 and it shows that the set variable is of high interpretation degree of the depended variable domestic savings. The changes caused by variables take 94.6% of the total changes. The adjusted is 0.932 and it is still high. Durbin-Watson value is 1.971 which is very close to 2 and the F statistic reaches 70.4345.

**2. The influence of FDI on international aid**

As one of the underdeveloped economies, the economy of Nepal largely relies on international aid. To study the influence of FDI on international aid of FDI, the regression equation is set:

$$AID = \beta o + \beta_1 FDI + \beta_2 TRADE + \beta_3 RD + \mathcal{E} \qquad (6.9)$$

According to the existing data to make OLS regression and in the following are the results:

**Table 6.9 the influence of FDI on international aid**

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -67.61755 | 1462.979 | -0.046219 | 0.9637 |
| FDI | 0.157345 | 0.194950 | 0.807105 | 0.4308 |
| TRADE | -0.210261 | 0.159996 | -1.314165 | 0.2062 |
| ROAD | 0.124327 | 0.208525 | 0.596221 | 0.5589 |
| GDP | 0.099102 | 0.042478 | 2.333037 | 0.0322 |

| | | | |
|---|---|---|---|
| R-squared | 0.759696 | Mean dependent var | 2854.583 |
| Adjusted R-squared | 0.703154 | S.D. dependent var | 1644.667 |
| S.E. of regression | 896.0738 | Akaike info criterion | 16.63064 |
| Sum squared resid | 13650119 | Schwarz criterion | 16.87860 |
| Log likelihood | -177.9370 | F-statistic | 13.43592 |
| Durbin-Watson stat | 2.486097 | Prob(F-statistic) | 0.000041 |

In this regression, FDI, volume of trade and miles of the roads are variables. The regression result shows that Durbin-Watson value is 2.486 which are quite significant. The determining coefficient is 0.759696 and adjusted is$R^2$ 0.703154 which shows that the model fits well. In the regression results, the significant level of coefficient of FDI and foreign aid on the regression coefficient of GDP is 0.0322.

### 6.4 test of the determining factors of the inflow of FDI in Nepal

From the existing literatures it can be seen that the factors affecting the inflow of FDI are mainly economic scale of host countries, stability of macroeconomics, openness of domestic economy, infrastructure and so on. For host countries which are post conflict countries, the scale of economy is important but the total economy of these countries is normally not big and economic growth rate is normally the more valued factor for investors because growth rate represents the growth expectations in the future. Nepal is a post conflict country and here the following regression equation is set to test the determining factors of FDI in Nepal. The variable factor takes the following macroeconomic variables: GDP, TRADE, ROAD, EXCHANGE, INFLATION and AID. The two variables EXCHANGE and INFLATION are added to the regression equation. EXCHANGE represents the change of exchange rate and INFLATION represents the price changes in Nepal. These two variables are as normal macroeconomic variables and can also reflect the

stability politics to some extent. Using the existing data to make OLS regression and the results are as follow:

$FDI = ß_0 + ß_1\ GDP + \beta_2\ TRADE + \beta_3\ ROAD + \beta_4\ EXCHANGE + \beta_6\ INFLATION + \beta_6\ AID + \mathcal{E}$ *(6.10)*

**Table 6.10 the regression results of FDI affecting factors.**

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | -4771.939 | 4176.575 | -1.142548 | 0.2863 |
| GDP | -0.064733 | 0.188788 | -0.342886 | 0.7405 |
| TRADE | 0.152794 | 0.261708 | 0.583836 | 0.5754 |
| ROAD | -0.050707 | 0.615804 | -0.082343 | 0.9364 |
| EXCHANGE | 83.28949 | 44.82434 | 1.858131 | 0.1002 |
| INFLATION | 131.5919 | 99.04675 | 1.328584 | 0.2206 |
| AID | 0.277735 | 0.298920 | 0.929128 | 0.3800 |

| | | | |
|---|---|---|---|
| R-squared | 0.651269 | Mean dependent var | 1493.065 |
| Adjusted R-squared | 0.389720 | S.D. dependent var | 952.5386 |
| S.E. of regression | 744.1272 | Akaike info criterion | 16.36703 |
| Sum squared resid | 4429802. | Schwarz criterion | 16.69745 |
| Log likelihood | -115.7527 | F-statistic | 2.490048 |
| Durbin-Watson stat | 2.818687 | Prob(F-statistic) | 0.116050 |

The regression result shows that determining coefficient $R^2$ is 0.651269 and adjusted $R^2$ is 0.389720. It shows that the model fits well and the FDI changes of most dependent variables can be explained by six variables. The F statistic is 2.490048 and is relatively significant. Among the six variables, foreign exchange and inflation largely affects in inflow amount of FDI because these directly concern the investment profits gained by foreign corporations investing to set factories in Nepal and are the primary considered factors of foreign investment. Moreover, in Nepal, international aid shows obvious support for FDI and the aid by IMF, World Bank and so on takes a large part of the total amount of FDI inflow.

### *6.5 Conclusion*

Because of the volatile domestic situations, the changes of the number of FDI in each year are big in Nepal. From the investment industry, the investment of FDI in Nepal mainly gathers in industry, services and tourism. Since the issue of Investment and Industrial enterprises Act in 1980s, Nepal has had clear policies towards foreign investment and these policies play an important role in attracting foreign investment in Nepal. The last and regulations concerning foreign investment in Nepal mainly contain Foreign Investment and one window policy Act, Foreign Investment and technology transfer Act, Industry Act and so on. Through the quantitative analysis of FDI with the GDP of Nepal, domestic savings, domestic aid and other economic indexes, we find that FDI has significant promoting effect on the economic growth in Nepal.

From the existing literatures, factors affecting the inflow of FDI are mainly the economic scale of host countries, stability of macroeconomics, openness of domestic economy, infrastructure and so on. For the post conflict country, Nepal, the economic scale is important but the total economy of these countries is normally not big and economic growth rate is the mostly favored factor for investors because growth rate represent the growth expectation in the future. Through quantitative analysis, it is found out that apart from the factors analyzed above, expectations for economic growth and stability of macroeconomics are the entire important affecting factor for attracting FDI in Nepal.

Compared with other low-income countries, Nepal has huge potentiality of attracting foreign investment like broad market and the prosperous local entrepreneurship shown in small, medium and large enterprises. However, even so, political instability becomes the biggest obstacle of Nepal attracting foreign investment. If this can be overcome, Nepal is certain to gain higher economic growth rate with the promotion of FDI. To further attract foreign investment, Nepal has adopted some new policies like further simplify laws and regulations and improving infrastructure construction attempting to offer better incentive to attract more inflows of FDI. However, the impression of Nepal in the world is political instability and many problems like serious corruption, over-protection on labor by the law and problems of social order must be solved gradually to attract more foreign investment of high quality. Therefore, there is still a long way to go for Nepal becoming attractive host countries and continuing to promote the process of economic reform and political reform, stabilizing political order, optimizing economic environment to avoid internal conflicts for FDI policies are needed.

## 7. Conclusion

A post conflict transitional country is a special group. For countries after conflicts, economic growth lacks funds, technology, and management and so on and funds are the most important one among them. Because once funds come in, it is often accompanied by the introduction of technology, management and other factors. Therefore, attracting FDI is an important method of filling the gap of domestic resources. Most post conflict countries face not only the lack of domestic savings corresponding with investment opportunities but also the foreign currency exchange of importing capital goods and intermediate goods. Among the studies on this kind of issue, the classical discourse is the double gap model put forward by H.B. Chenery and A.M. Strout. The relative surplus of productive resource that post conflict countries have is mainly labor. Assume that it is able to gain foreign investment to have new capital goods and concerning technology, then existing domestic resources can be fully used in new investment programs. Therefore, the inflow of foreign invest can often bring the transfer of advanced technology and impart of management experience. If corporations in lagging countries supported by foreign investment choose to export the goods abroad, it will bring convenience to the market access of lagging countries. FDI can also strengthen the marketing competition of host countries and improve the efficiency of resource allocation.

Theoretically speaking, post conflict countries (post conflict transitional countries) have high investment risk making them not ideal for foreign investors to invest programs. Post conflict countries generally exist some unstable factors and conflicts may break out anytime. Once the conflict occurs, infrastructure will be damaged, economic activity will be badly disturbed, GDP will decrease and there will be high inflation rate. All these factors will impede FDI. However, by introducing FDI, post conflict countries can to some extent relieve the domestic political and economic risk. Along with the inflow of FDI, Post conflict countries will be benefited by investment addition, job opportunities addition, public finance improvement, macroeconomic stability, infrastructure construction improvement and acceleration of business development and economic growth. In short, to some extent, FDI will be beneficial to maintaining the long-term peace and stability of post conflict countries.

This dissertation divides post conflict countries into two groups. One of the groups relatively successfully introduces FDI and benefits from the economy construction while the other group is not so successful. Once the economic environment of this kind of countries recovers to peace, the level of investment of the two groups of countries will be significantly improved but compared with the second group, the first group would be slightly worse in the utilization of foreign direct investment. In order to relieve the concerns of foreign investors on the investment environment, governments of post conflict transitional countries would normally develop appropriate laws and policies to ensure and stimulate the investment activities of foreign investors. In this context, some foreign investment corporation or multinational corporations would make differences choices of the capital entry methods and profit models based on their own interests. Based on this, this dissertation constructs the game model between post conflict transitional countries and multinational corporations.

In the game model, governments of post conflict countries and multinational corporations(foreign investment corporations) are the two sides of the game in this dissertation. This game model provides a reasonable analysis framework. In this framework, the willingness of transitional corporations adjusting structure and the multinational corporations FDI brought by structure adjustments are strategically related. There is an alternative relation between host countries reaching political goals and multi-sectors attracting investment. The purpose of multinational corporations is to use the most appropriate capital entry method to enter the host countries which is by multinational purchase or by new investment. There are two equilibriums existing in this model: the first equilibrium is *(FT,AQ)* which is that host countries commit to fast economic structure adjustment and enact market-oriented policy and multinational corporations choose to enter the market by purchasing under the existing policy. This equilibrium always appears during the industrial structure adjustment. The second equilibrium is *(GD, NP*) which is that host countries prefer to choose gradual reform method and multinational corporations directly transfer technology and management knowledge by setting new factories. The game model reflects the process of mutual adaption between governments of host countries and multinational corporations.

To guarantee the rigor of the studying results, this chapter will adopt measurement analysis to make empirical study on the influence of macroeconomics variables of post conflict countries on the introduction of FDI. The result of empirical studies shows that the growth of total domestic output value, infrastructure construction, political stability, trade liberalization policy and so on are the main determining factors of FDI. The result of the empirical study on Nepali FDI shows that FDI is highly correlated with Nepali domestic macroeconomics variables and liberalization policy.

Finally, studies on the FDI of post conflict countries are almost blank and this dissertation does not make fundamental theoretical innovation on the FDI theory of post conflict countries. Meanwhile post conflict countries are located in various continents in the world there are huge differences between them. One unified model normally cannot be applied to all the post conflict countries and the extension of relative model is difficult. Moreover, because the lack of microscopic information and data of post conflict countries, it is not able to have empirical study on post conflict countries respectively. Therefore, many studies still lack completion and depth. In the later study and research, I will further explore it.

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