An Assessment of Trade Policy in Nepal
- Dr. Udaya Raj Regmi[*]

Abstract

This paper aims at assessing trade policy 1992 in terms of its contribution to economic growth, foreign direct investment, export diversification; SAARC regional trading arrangements; trade volume; terms of trade, and industrialization of the country, using the various econometric and trade policy related indices. Trade policy has not significantly contributed to growth of the country due to low inflow of foreign direct investment, declining terms of trade, small trade volume, low level of trade diversification in terms of both country and commodity, and small intra-SAARC trade. Despite the liberalization efforts of the government, trade policy has been ineffective in intensifying and diversifying the trade sector and developing the country.

Introduction

Trade policy contributes obliquely to overall growth performance of a country through promoting efficient allocation of existing resources, specialization and consumption gains, attracting foreign direct investment (FDI), an accelerated accumulation of physical and human capital, enhanced technological transmissions, forward and backward linkages of the export sectors, improvements in X-efficiency, economies of scale and the existence of externalities (spillovers). Trade policy has had impact on the growth rate of output from the point of view of growth theories too. According to neoclassical growth theory (Solow, 1956; Swan, 1956), trade policy has a positive impact on the growth rate of output through augmenting investment. Endogenous growth theory explains the fact that output growth rate increases due to endogenous technical progress enhanced by trade liberalization which is caused by stronger capital goods

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[*] Dr. Regmi is Associate Professor, Faculty of Management, Tribhuvan University, Nepal. He can be reached at: *regmiudaya1@gmail.com.*

imports, increased transfer of technology, higher FDI and more incentives to innovate factors which are all positively correlated to trade liberalization (Romer, 1986, 1990; Lucas,1988; Rebelo, 1991; Rivera-Batiz and Romer; 1991; Grossman and Helpman, 1991, Grossman, 1992).

Trade policy can have significant implications for and can make a valuable contribution to the financing of development by mobilizing resources through its linkages with foreign investment, government revenues, income distribution, and foreign aid. More open and stable trade policies are a necessary condition for attracting FDI and foreign aid, and for maintaining competitiveness and long-run balance-of-payments equilibrium. The link between trade policy and development financing operates both directly and indirectly. The direct link operates through the savings-investment mechanism and through the level and pattern of domestic aggregate spending. The indirect link operates through the effects of trade policies on economic efficiency. It increases the efficiency through the reallocation of resources towards the sectors in which countries exhibit comparative advantage and through the enhancement of productivity generated by increased competition. Trade policy plays an extremely important role in attracting FDI under open trade regimes since the former can encourage or discourage inflows of foreign capital. The growth impact of FDI tends to be greater under an export promotion trade regime compared to an import-substitution regime.

Trade policy contributes to economic growth in several ways:

1. Trade policy diffuses new technologies, ideas, design, quality control, organization, and management from buyers in developed countries who are willing to pass on the latest information, increasing total factor productivity. In a study of 20 LDCs, Hollis Chenery (1986) found that the annual increase in total factor productivity exceeded 3 percent in the strongly outward economies but was less than 1 percent annually and sometimes negative in the strongly inward oriented economies.

2. The efficiency with which an economy operates tends to improve with outward orientation. The incremental capital output ratio appears to fall (that is, the efficiency of investment rises) with outward orientation. The incremental capital output

ratios in the strongly outward oriented LDCs are 2.50 during 1963-73 and 4.50 during 1973-85 which is far less than 5.26 during 1963-73 and 9.09 during 1973-85 in the strongly inward oriented LDCs (The Economist, September 23, 1989).

3. Trade policy expands the markets that national producers can access, allowing them to produce at the most efficient scale to keep down costs. Even in populous developing economies, low income makes producers' potential national market small, so trading with the world is vital.

4. Removing tariffs on imports gives consumers access to cheaper products, increasing their purchasing power and living standards, and gives producers access to cheaper inputs, reducing their production costs and boosting their competitiveness.

5. Trade policy encourages economies to specialize and produce in areas where they have a relative cost advantage over other economies. Over time, this helps economies to employ more of their human, physical and capital resources in sectors where they get the highest returns in open international markets, boosting productivity and the returns to workers and investors (Aus AID, 2006; Hogendorn, 1996).

Review of the Literature

Kessing (1967) prefers an outward looking strategy as a far superior to an inward-looking strategy for developing countries. New high quality human resources generated early in the process, adoption of new technology and efficient methods through outside competition, emergence of a more rational and efficient allocation of scarce resources, ease of foreign exchange constraints on growth, and increasing returns connected with economies of scale and market size will exert a lasting influence over the character of subsequent growth through industrial experience that could not be obtained under heavy protection and will sow the seeds for flourishing growth of industry that will soon far outstrips the blighted product of an inward-looking strategy.

Rodgers, Hopkins and Wery (1977) found that export promotion (EP) leads to a reduction in the wage differential between traditional

agriculture and modern sectors, and thus reduces income inequality. Import Substitution (IS), on the other hand, tends to have the opposite effect, with worsening rural poverty and increasing income inequality.

Nishimizu and Robinson (1984) examined the impact of export expansion and import substitution trade policies on total factor productivity growth in the manufacturing industries in Korea, Turkey and Yugoslavia with Japan as a comparator. The results indicate that there are important links between trade policies and industrial productivity performance. They found that open trade policies promote international competition and encourage efficiency in domestic production, forcing domestic industries to adopt new technologies, to reduce X-inefficiency and to reduce costs wherever possible. Such type of policy brings economies of scale in production, which implies that widening the market through trade lead to reductions in production costs.

Vorasopontaviporn (1985) analyzed the impact of export promotion and import substitution trade regimes on increasing growth and reducing income distribution in Thailand, using open input-output model based on Social Accounting matrix. Export Promotion (EP) policy has more favorable effect on employment and income distribution than Non-tradable (T) and IS because (a) EP industry has relatively lower capital-labor ratio than IS industry, (b) EP industry uses the abundant factor in Thailand (i.e. own account workers) as a factor of production more intensively than IS and NT, and uses more unskilled labor than skilled labor, (c) EP industry increases income to own account workers (the poorest labor income class) more than to any other classes, consequently reducing income inequality, (d) EP industry has a more favorable effect on agriculture than on industry in terms of both employment and income.

Greenaway and Nam (1988) examined the role of outward-oriented and inward-oriented trade policy in 41 less developed countries. They found that outward-oriented economies performed better than inward-oriented They found that industrialization in terms of manufacturing value added, average share of manufacturing value added, average share of labor force in industry, and manufacturing exports have grown more quickly in the outward-oriented economies than the inward- looking economies because outward orientation offers greater scope for the

exploitation of scale economies, maintains a competitive pressure which is generally lacking in inward-oriented economies, stimulates technical progress, and encourages entrepreneurial activity.

A recent study (ADB, 1997) reveals that between 1965 and 1990, annual economic growth was, on average, 2% higher in those Asian economies that maintained outward policies than those that had adopted inward-looking policies. A recent ADB study calculated trade openness indexes based on four important aspects of trade policy: the average tariff rate, non-tariff barriers, the black market premium on foreign exchange, and the extent of export taxes. On this set of indexes East Asia scores 0.97, Southeast Asia scores 0.73, and south Asia scores 0.06. The average of all countries in the sample was 0.43.

Dollar (1992) or Edwards (1998) conclude that openness to trade is a significant explanatory variable for the growth rate of real GDP per capita. Sachs and Warner (1995) also find a clearly positive impact of trade openness on growth, using a set of different measures of openness. Trade is further found to promote productivity growth in developing countries (Coe et al. 1997). The widely-held policy consensus on the beneficial impact of trade openness on growth provided an easy roadmap for developing countries: integration into the globalization process through trade liberalization was viewed as one of the major pillars of any sound development strategy and, most of the time, as an ultimate goal (Rodrik 2001).

Kohpaiboon has examined the effect of trade policy regime on FDI contribution to economic growth using time series data from the Thai economy. The empirical analysis was built around the 'Bhagwati' hypothesis that an export-promoting regime is more conducive compared to an import-substituting regime in generating favorable effect of FDI for the host countries. Thus the Thai experience during the period under study makes a strong case for simultaneous liberalization of trade *and* investment policy regimes.

The Models

The aggregate production function framework of the following type has been used in order to analyze the impact of trade policy on economic growth for the period 1985-2003. The model is presented as follows:

$$RPY_t = \alpha + \beta_1 IY_t + \beta_2 RL_t + \beta_3 TP_t + \varepsilon$$

Where RPY stands for rate of growth of real GDP per capita, IY is the Investment- GDP ratio, RL is the rate of rate of growth of labor force, TP is the indicator of trade policy known as trade openness measured as the ratio of exports plus imports to GDP, α is the constant, β is the parameter to be estimated, ε is the a stochastic error term, and t is time subscript. For time series studies, the ratio (exports + imports)/GDP might be preferable and the only viable choice. The sign of the investment share of output is expected to be positive because higher ratio of investment to output would increase the rate of GDP growth. The sign of the rate of population growth is expected to be negative because as the population growth rate increases, the GDP *per capita* would grow more slowly. The sign of the trade policy is expected to be positive because the prevailing theoretical view is that outward orientation improves economic performance.

In this analysis, an assessment has been made to assess the impact of trade policy on economic growth through foreign direct investment which is derived by using the aggregate production function framework of the following type, using data for the period 1985-2002. The model is presented as follows:

$$RPCY_t = \beta + \beta_1 IY_t + \beta_2 RL_t + \beta_3 RFDI_t + \beta_4 RTP_t * FDI_t + \beta$$

Where RPCY stands for rate of growth of real GDP per capita, IY is Investment- GDP ratio, RL is rate of growth of labor force, RFDI is rate of growth of foreign direct investment to GDP, RFDITP is the interactive term of FDI and trade policy regime, t is time subscript, β is stochastic error term. To test the relevance of Bhagwati hypothesis, the statistical significance of β_4 is examined. Under the Bhagwati hypothesis, the sign of β_4 is expected to be positive. That is, the contribution of FDI to growth will be an increasing function of TP. The sign of β_3 can be positive or negative depending on the nature of the trade policy bias over the entire sample period whereas β_4 aims to capture the impact of trade policy regime operating thorough FDI.

In order to calculate the degree of export diversification or concentration, Gini-Hirschman and Ogive indices have been used. Gini-Hirschman index of commodity concentration is the square root of the sum of squared percentages of exports of individual commodities in the total exports (Hirschman, 1945:158). It is defined as:

$$Cx_t = (\sum_{i=1}^{n} (X_{it} / X_t)^2)^{\frac{1}{2}}$$

Where, X_{it} is the annual value of exports in SITC three-digit commodity group in year t, X_t stands for the annual value of total exports in year t, C_{xt} refers to the commodity concentration of exports in year t, and n denotes the number of commodities exported at SITC three-digit level.

Likewise, the geographic concentration index can be expressed as:

$$G_{xt} = (\sum_{j=1}^{n} (X_{jt} / X_t)^2)^{\frac{1}{2}}$$

Where, G_{xt} represents geographic concentration of exports, X_{jt} stands for exports to individual countries in year t, and n is the number of countries. The lower the value of C_{xt} or G_{xt} the lower will be the value of concentration (i.e. the greater will be the diversification) and vice versa.

Data Sources

All the data are taken from the International Financial Statistics published by IMF (various issues). GDP per capita, Investment, total exports of goods and services and total imports of goods and services are deflated by GDP deflator (1990 =100). All these variables are measured in percentage terms. All these variables are measured in 1985 prices. Data covers for the period 1985-2004. Data with regard to FDI are taken from Global Development Finance, World Bank (Various issues). Terms of Trade data are taken from World Development Indicators World Bank, Various issues. Data with regard to Industrialization are taken from manufacturing Census, Central Bureau Statistics. Economic Survey and Overseas Trade Statistics are also used.

Empirical Evidence from Nepal

Trade Policy and Economic Growth

Trade policy plays an important role in the economic development of LDCs. Trade policy may be defined as one that helps in accelerating the rate of economic development by enabling the underdeveloped country to have a larger of the gains from trade, by augmenting the rate of capital formation, by promoting industrialization, and by maintaining equilibrium in the balance of payments (Jhingan, 1986, p.282). The economic performance of the outward-oriented economies has been broadly superior to that of the inward-oriented economies. The advantage of an outward-oriented trade policy is that it promotes the efficient use of resources. Outward orientation encourages efficient firms and discourages inefficient ones. And by creating a more competitive environment for both the private and public sectors, it also promotes higher productivity and hence faster economic growth. Economies that have followed inward-oriented trade policies have performed poorly. Outward-oriented trade policy leads to a more equitable distribution of income, maintains relatively low and stable rates of inflation, and increases significantly the average annual growth rates of real GDP and per capita income, the gross domestic savings ratio, the average incremental capital-output ratio, the average annual growth rate of real manufactured exports. There are several reasons why this might be the case. First, the expansion of labor intensive exports means higher employment. Second, reinforcing this, outward orientation removes the bias in favor of capital intensive industries which is often implicit under inward-oriented policies. Third, the direct controls of an inward-oriented strategy generate rents that channel income to those with access to import licenses or subsidized credits (World Bank, 1987).

Table 1 shows the results of regression analysis:

Table 1: *Trade Policy (Trade Openness) and Per Capita Real GDP Growth*

Variables	Model I	Model II

C	0.123721*	0.147789*
	2.360691	2.662283
IY	-0.358652	-0.634925
	-1.602914	-1.98819***
RP	-0.978258*	-1.155990
	-3.156082	-3.398796
TP		0.093873
		1.198136
R^2	0.406352	0.455229
Adjusted R^2	0.336511	0.353085
D. W. Statistic	2.878269	2.875517
F-statistic	5.818254*	4.456720*
Prob(F-statistic)	0.011885	0.018575

Source: Calculated by the author based on *International financial Statistics* (Various issues), I.M.F.

As shown in table 1, trade policy in addition to investment-output ratio and rate of population growth are important variables used to explain per capita real GDP growth in Nepal. In the first equation, the coefficient of investment-output ratio is not significant with a negative sign. The coefficient of rate of population growth is significant at 1 percent level with a negative sign, which cause a reduction in per capita real GDP growth. The estimated coefficient shows that a 1 percent increase in the rate of population growth leads to 0.98 percent decrease in per capita real GDP growth. In the second equation, trade policy is added in addition to investment-output ratio and rate of population growth. The coefficient of investment-output ratio is significant at 10 percent level with a negative sign, which cause a reduction in per capita real GDP growth. The estimated coefficient shows that a 1 percent increase in the investment-output ratio leads to 0.63 percent decrease in per capita real GDP growth. The coefficient of rate of population growth is not significant even at 10 percent level. The trade policy indicator is not significant even at 10 percent level, indicating the fact that trade policy has not significantly contributed to per capita real GDP growth. In spite of the fact that the government of Nepal has initiated trade liberalization/ has liberalized her

trade policy in the early 1990s, the performance of trade policy is rather dismal. An increase of only 1 percent in the adjusted R^2 in the second model indicates/supports the above view that trade policy has not contributed to per capita real GDP growth in Nepal. Openness to trade promotes development for countries with high skill/land ratios and hence a comparative advantage in manufacturing, as in East Asia, but not for countries with low skill/land ratios, where more open trade policies would tend to cause manufacturing to contract (Wood and Berge, 1997, p.54). The significance of F-statistic in both models indicates the goodness of fit of both models. D.W. statistics indicate no auto-correlation in both models. Owing to the adoption of inward-oriented trade policy, trade policy seems not to have contributed to economic growth of the country. As a result, trade policy failed to enhance income growth, equity, productivity, efficiency, capacity utilization, and economies of scale in Nepal. Trade policy of Nepal could not improve the allocation of resources, could not promote productivity growth, and could not improve the employment and growth performance of developing countries. The value of import substitution index (IS)[1] is -0.0521 during 1975-89 and 0.0389 during 1990-2004 the negative sign of which during the former period and positive sign during the latter period clearly indicates that Nepal has followed inward-looking policy during 1975-89. However, the export oriented policy index is 0.0258 during 1975-1989 and 0.1662 during 1990-2004 Although, both of which are positive the value is especially larger during 1990-2004, which clearly signifies that Nepal has followed outward-looking policy during 1990-2004. In general, inward-oriented economies have shown a poor economic performance because it reduces competition and worsen resource allocation; puts a barrier on the extent to which economies of scale can be internalized by the country; and is an incentive for rent seeking and other directly unproductive activities; and when implemented with nontariff barriers reduce the efficacy of macro-policy (Laird and Nogues, 1988).

Trade Policy and Foreign Direct Investment (FDI)

The Bhagwati hypothesis that, other things being equal, the growth impact of foreign direct investment (FDI) tends to be greater under an export promotion trade regime compared to an import-substitution regime has been assessed. Gains from FDI are likely to be far less or even negative under an import substitution regime compared to a policy regime geared to export promotion regime. Table 2 presents the FDI inflow and its percentage to GDP into Nepal:

Table 2: *Foreign Direct Investment (FDI) Inflow into Nepal*

Year	FDI (Mn $)	FDI (% Of GDP)[b]	Year	FDI (Mn $)	FDI (% Of GDP)
1985	1	0.04	1997	23	0.48
1986	1	0.04	1998	12	0.28
1987	1	0.04	1999	4	0.08
1988	1	0.03	2000	4	0.08
1989	1	0.03	2001	21	0.40
1990	6	0.18	2002	2	0.04
1991	2	0.07	2003	30	0.51
1992	4	0.12	2004	0.0	0.0
1993	6	0.18	2005	2.5	0.0024
1994	7	0.18	2006	-7.0	-0.0077
1995	8	0.19	2007	6.0	0.0058
1996	19	0.45			

Source: *Global Development Finance* (Various Issues), World Bank; Handbook of Statistics (2004), United Nations.

The share of foreign direct investment in GDP is too low and remained almost constant till 1994. After then, it increased significantly though fluctuating sharply. It is too low in comparison to five ASEAN countries.

A liberal and open trade policy attracts far more foreign direct investment than import substitution policy, which can be used to analyze its contribution to the economic growth. Table 3 shows the results of regression analysis:

Table 3: *Trade Policy (Trade Openness) and Foreign Direct Investment*

Variables	Model I	Model II	Model III
C	0.128509** 2.257694	0.128160** 2.131014	0.169445** 2.469589
IY	-0.381614 -1.549559	-0.379753 -1.442721	-0.564880*** -1.869332
RL	-0.976579* -3.062520	-0.976682* -2.965467	-0.953965* -2.932730
RFDI		-5.61E-05 -2.131014	-0.020512 -1.191002
RFDITP			0.043714 1.195944
R^2	0.408396	0.408426	0.463261
Adjusted R^2	0.334445	0.290111	0.309906
D.W. statistic	2.866033	2.873311	2.616478
F-statistic	5.522557*	3.452023**	3.020855**
Prob (F-statistic)	0.015005	0.0500	0.054450

Source: Calculated by the author based on International Financial Statistics (Various issues), I.M.F.

As shown in table 3, foreign direct investment and foreign direct investment multiplied by trade policy in addition to investment-output ratio and rate of population growth are added to explain real GDP growth in Nepal. In the first equation, the coefficient of investment-output ratio is not significant with a negative sign. The coefficient of rate of population growth is significant at 1 percent level with a negative sign, which cause a reduction in real GDP growth. The estimated coefficient shows that a 1 percent increase in the rate of population growth leads to 0.98 percent decrease in real GDP growth. In the second equation foreign direct investment is added in addition to investment-output ratio and rate of population growth. But the same results appear with respect to investment-output ratio and rate of population growth. The coefficient of foreign direct investment is not significant even at 10 percent level with a negative sign, which indicates that foreign direct investment has not contributed to economic growth of Nepal. A decline in the adjusted R^2 also supports this fact. In the third equation the coefficient of investment-

output ratio is significant at 10 percent level with a negative sign, which cause a reduction in real GDP growth. The estimated coefficient shows that a 1 percent increase in the investment-output ratio leads to 0.56 percent decrease in real GDP growth. The coefficient of rate of population growth is significant at 1 percent level with a negative sign, indicating decreases in real GDP growth. The estimated coefficient shows that a 1 percent increase in the rate of population growth decreases real GDP per capita growth by 0.95 percent. The estimated coefficient of foreign direct investment is not significant even at 10 percent level with a negative sign, indicating the fact that foreign direct investment has not significantly contributed to real GDP growth per capita via trade policy. An increase of only 1 percent in the adjusted R^2 in the second model indicates/supports the above view that trade policy has not contributed to real GDP growth per capita through increasing foreign direct investment in Nepal. The significance of F-statistic in both models indicates the goodness of fit of both models. D.W. statistics indicate no auto-correlation in both models. In spite of the fact that the government of Nepal has initiated trade liberalization/ has liberalized her trade policy in 1992, the performance of trade policy in attracting foreign direct investment is rather dismal.

Trade Policy and Trade Volumes

The main objective of trade policy is also to increase the volume of exports and imports of the country, which is shown in the following table:

Table 4: *Average Annual Growth Rate*

Variables	Period		
	1975-1990	1991-2004	1975-2004
Exports	4.3	5.1	7.5
Imports	7.1	5.3	7.7
Total Trade (X+M)	6.0	5.2	7.6

Source: Calculated by the author based on International Financial Statistics (Various issues), I.M.F.

The average annual growth rate of the export sector has increased from 4.3 percent during 1975-1990 to only 5.1 percent during 1991-2004. However, the average annual growth rate of import has declined from 7.1 percent in 1975-1990 to 5.3 percent during 1991-2004. As a consequence,

the average annual growth rate of total trade (exports plus imports) has also declined from 6.0 1975-1990 percent   to 5.2 percent 1991-2004. Table 5 shows Total Trade (Exports plus Imports) GDP Ratio of Nepal from 1975 to 2006:

Table 5: *Total Trade (Exports plus Imports) GDP Ratio of Nepal*

Year	(X+M)/GDP	Year	(X+M)/GDP
1975	0.2227	1991	0.3490
1976	0.2495	1992	0.4230
1977	0.2611	1993	0.4571
1978	0.2604	1994	0.5546
1979	0.2775	1995	0.5883
1980	0.3027	1996	0.5801
1981	0.3252	1997	0.6404
1982	0.3040	1998	0.5671
1983	0.3155	1999	0.5257
1984	0.3010	2000	0.5571
1985	0.3307	2001	0.5378
1986	0.3180	2002	0.4855
1987	0.3239	2003	0.4754
1988	0.3259	2004	0.4899
1989	0.3255	2005	0.4850
1990	0.3163	2006	0.4395

Source: Calculated by the author based on International Financial Statistics (Various issues), I.M.F.

Trade openness, as measured by the ratio of total exports plus imports of goods and services to GDP, is 0.2962 for 1975-89, which increased to a mere 0.4983 for 1990-2006 and only 0.4036 during 1975-2006. This figure is far less as compared to ASEAN 5 (Indonesia, Malaysia, Philippines, Singapore and Thailand), which rose sharply from 75.1% in 1985 to 151% in 2002. This has also served as a major force in the region's export driven growth over the last decade; in fact, it was intra-regional trade that facilitated the region's recovery from the crisis in 1997. The rapid growth in some countries would not have been possible if policies intended to fully exploit the benefits of free trade were not implemented.

Export Diversification and Trade Policy

Primary exporting developing countries can achieve terms of trade gains through diversification into manufactures. Prebisch-Singer thesis postulates that a shift away from primary commodities to manufactures will bring significant gains in terms of trade for developing countries because of deteriorating trend in terms of trade for primary exports relative to manufactures due to the structural tendency for the prices of primary exports to experience a secular decline relative to the prices of manufactures (Prebisch, 1950; Singer, 1950). They present four major explanations of the long-run deterioration in the net barter terms of trade between primary products and manufactures. These are: (i) lower price and income elasticity of demand for primary products than for manufactured goods, (ii) technical progress that economies on the use of primary raw material in the manufacturing process, (iii) technological superiority of developed countries and the control exercised by multinational enterprises based on these countries on the use of sophisticated manufacturing technology, and (iv) monopolistic market structures in developed countries combined with competitive conditions in both commodity and labor markets in developing countries. During the last 40 years since the Prebisch- Singer terms of trade deterioration hypothesis was first proposed, the commodity composition of exports of developing countries has undergone a major change in the direction of dominance of manufactures in their nonfuel exports, with strong growth in the volume of their manufactured exports. In this line, Nepal also adopted trade diversification policy in the early 1960s, since it plays an important role in promoting and accelerating economic growth of developing countries through improving total factor productivity, raising investment rates, stabilizing domestic incomes, generating employment opportunities, and securing new markets. What is more, it enhances growth by substituting commodities with positive price trends for those with declining price trends, by increasing value added of export commodities through additional processing and marketing, by changing the production structure in favor of products with a higher value added content, and by substituting domestic production of food commodities and industrial raw materials for imports (Ali, Alwang, and Seigel, 1991:1).The results of the

Commodity and Geographic Concentration or diversification indices of Nepal are presented in the Table 6:

Table 6: *Commodity and Geographic Concentration or Diversification Indices of Nepal*

Year	Commodity Concentration Index	Geographic Concentration Index
1980	0.3838	0.3419
1981	0.3323	0.4583
1982	0.2627	0.5490
1983	0.2619	0.5347
1984	0.2912	0.5010
1985	0.2952	0.5098
1986	0.3445	0.4276
1987	0.5005	0.4419
1988	0.4010	0.4260
1989	0.4872	0.4263
1990	0.4849	0.4221
1991	0.5308	0.5164
1992	0.5500	0.5079
1993	0.5801	0.5684
1994	0.6266	0.5456
1995	0.4786	0.5186
1996	0.4909	0.4828
1997	0.4789	0.4878
1998	0.4021	0.4816
1999	0.3700	0.4948
2000	0.3265	0.5299
2001	0.2897	0.5523
2002	0.1606	0.6347
2003	0.2818	0.5924

Source: Computed by the Author Based on Data from Foreign Trade Statistics (Various Years), Nepal Rastra Bank, and Overseas Trade Statistics (Various Years), Trade Promotion Centre.

As evident from Table 6, the Gini-Hirschman concentration or diversification index seems to have decreased from a mere 0.3838 in 1980 to 0.3445 in 1986 which jumped to 0.5005 in 1987 and continuously increased to reach the ever highest level of 0.6266 in 1994 and begun to decline thereafter to reach 0.2818 in 2003, showing some indication of diversification during the early 1980's and after the mid-1990's. The period

between the mid-1980's and the mid 1990's is the time of high concentration. The higher the value of this index, the more will be the concentration of the export structure and the lower the value of this index, the more will be the diversification of the export composition. Despite the policy efforts of diversification initiated in the early 1960s, Nepal could not get success. It is also supported by the fact that the share of big three commodities at the SITC three-digit level has increased from 58.04 in 1980 to 89.51 in 1994 and declined thereafter.

However, structural diversification is the most important achievement of the country during the past decades. Structural diversification is the process of shifting exporting from primary to manufacturers and from traditional to non-traditional items. Structural diversification is the process of economic transformation as resources are shifted within the agricultural sector to higher value activities, and out of agriculture into manufacturing and services and broadens intersectoral relationships (Barghouti et al, 1990). In terms of structural diversification, Nepal became strongly more diversified as the share of agricultural exports in total export earnings fell from 64.3 percent during 1975-89 to 18.6 percent during 1990-2005, which suggests strong structural diversification because "a lower or declining share of agricultural commodity exports is associated with a higher degree of structural diversification" (Ali, Alwang and Siegel, 1991). Although, structural diversification that took place during the past decades, diversification in real sense could not be achieved due to the lack of meager commodity base and the nature of resource endowments of the country. "Human capital and natural resources are important in determining the composition of their trade. In particular, being rich in natural resources and having a poor human resource base appears to be detrimental to export diversification away from unprocessed commodities (Mayer, 1996). Variation in trade policies is only a minor cause of variation in export composition (Wood and Berge, 1997:35-59). Moreover, the export sector has dominated by the slow growth items, which are directed at stagnant markets. Nepal's exports are concentrated on and specialized in those products for which demand is growing relatively slowly in the world market except a few products. Also, manufactures seem to stand out as the

products with poor competitiveness as compared with primary products in the international market. Here the crux of the problem lies in the failure in shifting specialization from slow growth items to fast growth ones. Increasing diversification of developing countries' exports out of primary commodities into manufactured products did not provide a real escape from the deteriorating terms of trade with the industrialized countries because there still exists a widening gap in labor productivity between the developing countries and the developed countries and because trade in manufactures also contributes to increased inequality in the distribution of gains from trade between the developing countries and the developed countries. The manufacture- manufacture barter terms of trade of the developing countries declined vis-à-vis the developed countries, the double factoral terms of trade of the developing countries deteriorated even more (Sarkar and Singer, 1991).

However, the result is quite the other way round so far as geographical diversification is concerned. Gini-Hirschman geographical concentration index seems to have increased from 0.3419 in 1980 to 0.5924 in 2003. It is sufficient to indicate that the country has completely been failed in realizing geographical diversification of the 1980 level in which year the country has diversified much. It is also evident that the share of big three countries has increased from 55.38 percent in 1980 to 81.63 percent in 2003, indicating more geographical concentration. Moreover, the fact that the share of India increased considerably after the mid-1990 from a mere 7.6 percent in 1995 to 67.6 percent in 2005 is sufficient per se to conclude that the country has failed to achieve geographical diversification. Whatever the level of diversification the country has achieved is only due to the diversion of exports away from India to overseas countries especially to Germany and the U.S.A. As a matter of fact, the country has attained the long-awaited goal of diversifying exports away from India to overseas countries especially Germany, the USA, Spain, Austria, Belgium, Japan, Australia, France, Italy, which are more stagnant markets and also experiencing slow growth, and where the market is fastest growing and opportunities for expanding exports is sufficient, the relative importance of these markets is small for Nepal. Under the circumstances, the government had better

identify the high-growth items and then stimulates exporters to center their efforts on high growth markets including Hong Kong, Singapore, China, Sri Lanka, Bangladesh, Japan, and India if the government wants to turn the ailing and the moribund economy into a healthy one. The government of Nepal is giving priority to concentrate exports at stagnant markets where no prospects appear for further export growth. The country should be prepared as soon as possible to export at highly growing markets such as Hong Kong, Singapore, China, Sri Lanka, Bangladesh, Japan, and India.

Trade Policy and Improvement in Terms of Trade

The most important factor that determines the gains from international trade is the terms of trade. The terms of trade refer to the rate at which the goods of one country exchange for the goods of another country. If the export prices of a country rise relatively to its import prices, its terms of trade are said to have improved. In such a case, the country gains from trade because it can have a larger quantity of imports in exchange for a given quantity of exports. If the import prices of a country rise relatively to its export prices, its terms of trade are said to have worsened. In such a situation, the country's gain from trade is reduced because it can have a smaller quantity of imports in exchange for a given quantity of exports than before.
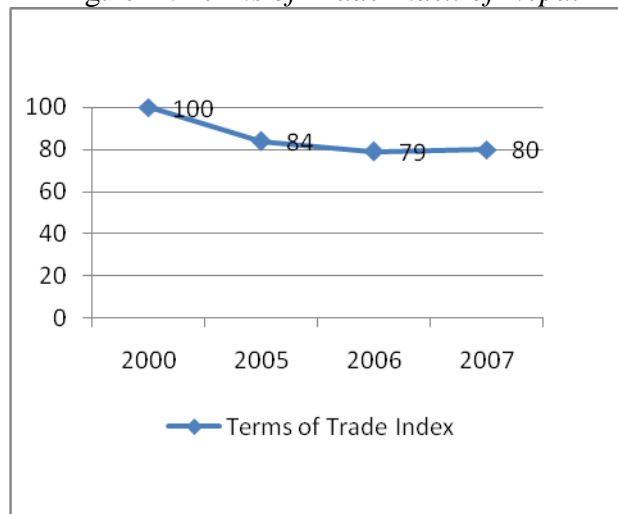
Figure 1: *Terms of Trade Index of Nepal*
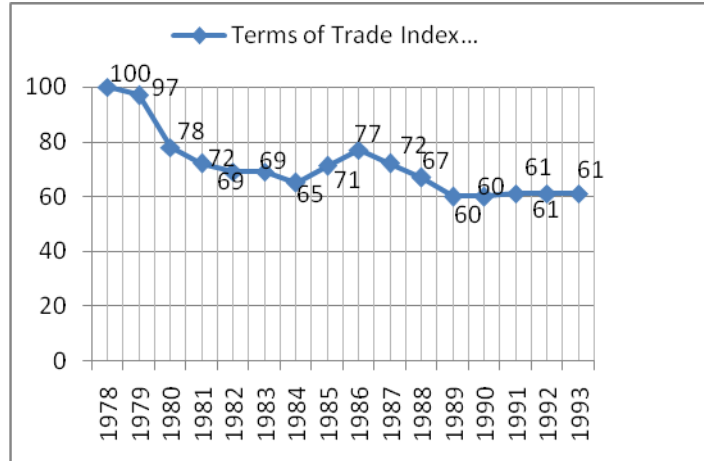
Source: World development Report and World development Indicators
(Various issues), World Bank. Washington D.C.

Figure 2: *Terms of Trade Index of Nepal*

Source: World development Report and World development Indicators
(Various issues), World Bank. Washington D.C.

A shift in the terms of trade in favor of an underdeveloped country like Nepal is tantamount to an increase in its national income. As shown in figure 1 and 2 above, Nepal's terms of trade indices have continuously

declined. It declined incessantly from 100 in 1978 to 61 in 1993 and from 100 in 2000 to 80 in 2007. It is evident from this fact that Nepal would not have benefitted from the foreign trade during the last three decades. The decline in the terms of trade did not help in financing economic development and could not enhance the economic growth of the country because of its negative impact on factor employments or productivity.

Trade Policy and Industrialization

Trade policy helps in industrializing the country through making cheaper access to imported capital goods which may increase the efficiency of investment and increasing productivity in manufacturing. Productivity is enhanced through several channels including transfer of knowledge embedded in imports, innovation and technology upgrading induced by import competition, learning-by-doing from exporting, and technology transfer through FDI. Evidently, the relationship between the import of capital goods and economic growth is very weak in Nepal (Khadka, 1980:32). Foreign trade allows countries to realize gains by subjecting domestic production to foreign competition, to specialize between industry and other sectors and by providing access to a wider market to achieve economies of scale. Trade has provided access to critical industrial inputs, including technology, for countries capable of producing them. Expanded demand for exports has spurred technological development and industrial production (Rajapatirana, 1987; World Bank, 1987). One of the principal obstacles to more rapid industrialization is the limited scale of operations in a manufacturing plant supplying only the domestic market of an underdeveloped country. It is precisely this limitation which international trade can remove (Cairncross, 1972:228).

The manufacturing sector expanded inputs substantially during both periods, output growth was perhaps mainly from this increase in inputs rather than an increase in TFP growth. Owing to the absence of economies of scale caused by small domestic market, lack of competitive advantage over Indian and Chinese products, and high protection until the 1980s, the resources and the entrepreneurship got diverted into unproductive activities, resulting in "negative total factor productivity growth (TFP) which was -0.24 for the 1981/82 -1991/92 to -0.01 for the 1991/92-

2001/02 due mainly to the widespread inefficiency (negative efficiency) coupled with technological regress. "The continued fall in productivity growth indicates that liberalization alone does not guarantee higher productivity growth in a LDC like Nepal in the absence of efficient physical infrastructures and skilled labor (Sharma, 2000:19). The productivity growth is much lower than input growth during the period under study. This can be inferred as a symptom of inefficient use of productive resources and very low level of technological development (Regmi, 2006).

Furthermore, in spite of the heavy priority accorded to the manufacturing sector, the process of industrialization seems to have slackened during the post-reform period. The annual average growth rate of employment during the post-reform period are lower (-1.45) than those during the pre-reform period (10.16). The annual average growth rates of value added declined from 2.88 to 2.29 percent per annum. The annual average growth rates of output also declined from 8.66 percent per annum during the pre-reform period to 4.02 percent during the post reform period. The average growth rate of fixed assets in the manufacturing sector seems to have declined from 10.63 percent per annum during the pre-reform period to 7.06 percent per annum during the post reform period. The number of manufacturing establishments declined sharply from -1.25 percent per annum to -2.55 percent per annum during 1991/92-2001/02. However, the average annual growth rate of industrial and manufacturing sectors declined considerably from 8.8 percent and 9.3 percent to 6.0 percent and 6.7 percent from 1980-90 to 1990-2003 respectively (Regmi,2007).

Moreover, the contribution of manufacturing and Industrial sector to GDP increased from 5.2 and 13.0 per cent respectively in 1980-89 to 8.6 and 19.4 percent respectively in 1990-03, it is still well below 10 and 25 per cent of GDP. A country is considered as an industrialized country for which at least 25 percent of the GDP arises in the industrial sector, out of which at least 60 percent is in the manufacturing sector and which has at least 10 percent of the total population employed in industry (Suitcliffe, 1972). If trade policy is integrated with economic policies, foreign trade can have multiplier effects in the economy through linkages, support and

assistance. However, there is no spin off or multiplier effects in the economy because of the lack of linkages and coordination between trade policy and other economic policies. This is a result of weak linkages within the fragmented economy (Fry, 1974:7).Though trade is an important sector in our national economy, if it is left alone to function automatically, it will thwart our development efforts.

Regional Trading Arrangements and Trade Policy

In order to accomplish the task of reconstruction and economic restructuring after the world war II and thereby paving the way for economic growth, the importance of co-operation among nations, wherein regional co-operation in the form of regional economic integration along with global economic integration, has been realized and initiated thereafter. It is supposed that regional economic integration provides expanded markets in the area and unhindered multinational production, leading to more efficient division of labor, economies of scale, and specialization, which, in turn, result in cost efficiencies and higher standard of living (Kirpalani, 1987:147).

Of late, South Asian countries also formed their association for regional co-operation in 1985 formally named as the South Asian Association for Regional co-operation (SAARC). The rationale was primarily predicated on the premise that regional experiences elsewhere in the globe has been highly successful and that the countries in the South Asian region would benefit enormously from such co-operation as it would strengthen their competitive position, both individually and as a group (SAARC, 2000:1). Accordingly, SAARC took up the initiative for trade and economic co-operation in the region in 1991 when Sri-Lanka proposed and Sixth SAARC Summit held in Colombo approved the establishment of an Inter-Governmental Group (IGG) to formulate an agreement to establish a SAARC Preferential Trading Arrangement (SAPTA) by 1997. It was finalized during the Dhaka summit in 1993 and finally came into operation in December 1995 well in advance of the data stipulated by the Colombo Summit.

Table 9 presents intra -SAARC exports as percentage of total exports of member countries for 1980-03. Although intra-SAARC trade as

percentage of total trade increased of all its Member Countries and made rapid strides in regional trade after the establishment of SAPTA, almost all the member countries except Nepal and Maldives have negligible share in intra-SAARC Trade. Among the SAARC countries, Maldives and Nepal occupy the highest share, Bangladesh and Sri Lanka occupy the moderate share, and India and Pakistan occupy the lowest share in Intra-SAARC Trade as Percentage of Total Trade. Overall, the regional trade orientation of SAARC countries seems to have remained virtually sluggish in spite of the discernable improvement after the establishment of SAPTA.

Table 9: *Intra-SAARC Trade as Percentage of Total Trade of Member Countries*

Countries	1980	1985	1990	1995	2000	2003
Bangladesh	4.85	4.66	5.95	12.82	8.65	10.80
India	1.93	1.88	1.40	2.68	2.55	2.43
Maldives	26.15	11.89	13.15	14.25	24.86	22.30
Nepal	45.69	38.72	10.03	15.04	31.32	34.86
Pakistan	3.63	2.78	1.81	2.16	2.78	2.63
Sri Lanka	6.70	5.54	5.58	7.8	7.38	12.92

Source: Calculated by the author based on Direction of Trade Statistics (Various Issues), IMF.

Table 10 reveals the trade intensity ratios, which refer to a tendency for two countries to trade more or less heavily with each other based on factors such as their global importance in world exports and imports (Yeats, 1998), between SAARC members from 1980 to 2003. Bangladesh's trade intensity with Nepal was 3.2 times higher in 1998 than its corresponding level in 1980 and declined considerably thereafter. Likewise, Bangladesh's trade intensity with India was 1.4 times higher than its corresponding level in 1980 and declined somewhat thereafter. However, her intensity with Pakistan and Sri Lanka declined considerably over the same period. India's intensity surged 2.3 fold with Bangladesh over the same period and increased considerably thereafter, 26.03 fold with Pakistan over the same period and decreased a little thereafter and 1.03 fold with Sri Lanka over the same period and increased considerably

thereafter. However, it declined considerably with Nepal over the years. Similarly, Nepal's intensity with India is highest and ever increasing. It was 1.6 times higher with Bangladesh than its corresponding levels in 1980 but it declined thereafter. Her intensity has declined with Pakistan and Sri Lanka over the years. Likewise, Pakistan's intensity has been fluctuating with Bangladesh and Sri Lanka. Its intensity with Nepal has raised 2.6 fold between 1998 and 1980 and further increased thereafter. It declined considerably with India. And, Sri Lanka's intensity has declined with Sri Lanka between 1998 and 1980 and improved somewhat thereafter. Its intensity with Nepal increased 1.6 fold over the same period and improved considerably thereafter. However, its intensity with Bangladesh and India seems to have fluctuated over the years.

Table 10: *Trade Intensity Ratios for SAARC Countries in Intra -trade*

Exporters	Trading Partners				
	Bangladesh	**India**	**Nepal**	**Pakistan**	**Sri Lanka**
Bangladesh					
1980		1.3165	5.5996	25.7212	4.4594
1998		1.8786	18.0444	4.4897	0.2295
2003		1.0669	5.4488	4.3058	1.4337
India					
1980	9.3020		99.5981	0.0855	11.3956
1998	21.2681		34.0833	2.2257	11.7531
2003	224.7872		40.7589	2.1339	24.3005
Nepal					
1980	10.5357	39.0222		20.5442	5.9061
1998	16.8020	42.8993		1.3290	5.9061
2003	6.9455	60.8013		1.7218	0.5217
Pakistan					
1980	15.4775	3.5119	1.3522		14.1153
1998	9.4688	3.1426	3.6347		9.8818
2003	14.2004	0.8457	4.7741		10.8429
Sri Lanka					
1980	2.8515	4.2925	0.4678*	11.8820	
1998	5.0450	0.9972	0.7701	3.2113	
2003	2.2205	5.7333	3.6833	4.4947	

Source: Calculated by the author based on International Financial Statistics (Various issues), I.M.F.

The trade intensity ratios for intra-SAARC trade have not markedly increased in 2003 over 1980 with a very few exceptions, reinforcing the

impression provided by previous tables that exports have not been successfully reoriented toward regional markets. Despite the efforts to promote intra-SAARC trade under SAPTA, the value of intra- SAARC trade is still very low. Some of the reasons for low intra-SAARC trade are conduction of trade under special bilateral relation between India-Nepal and India-Bhutan rather than SAPTA, low complimentarity due to similarity in production patterns and commodity composition, fear of economic domination by India leading to trade diversification, high cost of production, and adoption of restrictive trade policies to promote import substitution.

Concluding Remarks

This paper has examined the effect of trade policy on economic growth using time series data from the Nepalese economy. Trade policy play an extremely important role in increasing the growth rate of output through promoting efficient allocation of existing resources, attracting foreign direct investment and foreign aid, accelerating the accumulation of physical capital and human capital, enhancing endogenous technical progress and transfer of technology which is caused by stronger capital goods imports, affecting the supply of financial resources, establishing forward and backward linkages of the export sectors, improving the X-efficiency, economies of scale and the existence of externalities (spillovers). An attempt has been made to assess the Trade policy 1992 in terms of its contribution to economic growth, inflow of foreign direct investment, export diversification; SAARC regional trading arrangements; trade volume; terms of trade, and industrialization of the country, using the various econometric and trade policy related indices. Trade policy has not significantly contributed to output growth of the country due to low inflow of foreign direct investment, declining terms of trade, small trade volume, low level of trade diversification in terms of both country and commodity, and small intra-SAARC trade. . Despite the liberalization efforts of the government, trade policy has been ineffective in expanding and diversifying the trade sector and developing the country. Although structural diversification away from primary commodities to manufacturers that took place during the past decades, diversification in

real sense could not be achieved due to the lack of meager commodity base and a poor human resource base. Liberalization in trade policies is only a minor cause of variation in export composition

Notes

[1]Trade policy Orientation (export oriented or import substituted trade policy) has been computed using the following models (Kawai, Hiroki. 1994).

$$IS = (1 - SX)\frac{(\Delta d/d)}{((\Delta Y/Y)}$$

$$X = SX\frac{(\Delta X/X)}{((\Delta Y/Y)}$$

Where,

$$SX = \frac{export}{GDP},$$

$$d = 1 - \frac{M}{cp + cg + ip},$$

$cp = consumption\ expenditure,$

$cg = government\ expenditure,$

$ip = gross\ private\ domestic\ capital\ formation,$

$m = import,$

$X = export,$

$Y = GDP,$

$\Delta = First\ difference\ operator.$

References

Ali, R., Alwang, J. and Siegel, P. B. (1991). *Is export diversification the best way to achieve export growth and stability? A Look at Three African Countries*. Policy, Research and External Affairs Working Papers 729, World Bank: Southern Africa Department, Africa Regional Office.

Asian Development Bank. (1997). *Emerging asia: Changes and challenges*. Manila:Author.

Aus AID. (2006). *Trade, development and poverty reduction.* Australia:Author.

Cairncross, A.K. (1972). *Factors in economic development.* London:George Allen and Unwin Ltd.

Chennery, H. B. (1986). Growth and transformation, in Hollis B. Chenery, Sherman Robinson and Moshe Syrquin, *Industrialization and Growth: A Comparitive Study,* Washington, D.C.

Coe, D. T., Elhanan H. & Alexander W. H. (1997). North-South R & D Spillovers. *The Economic Journal* 107, 134-139.

Dollar, D. (1992). Outward-oriented economies do really grow more rapidly: evidence from 95 LDC's, 1976-1985. *Economic Development and Cultural Change 40*, 523-44.

Edwards, S. (1998). Openness, productivity, and growth: what do we really know? *Economic Journal* 108: 383-98.

———. (1997). Trade policy, growth and income distribution. *American Economic Review* 87(2) 205-210.

———. (1993) Openness, trade liberalization, and growth in developing countries. *Journal of Economic Literature* 31(3) 1358-1393.

Greenaway, D. and Chong H. N. (1988). Industrialization and economic performance in developing countries under alternative trade strategies. *Kyklos* 41(3) 419-35.

Grossman, G. M. and Elhanan H. (1991). *Innovation and growth in the global economy.* Cambridge:MA, MIT Press.

Hogendorn, J. S. (1996). *Economic development*. New York: Harper Collins College Publishers, Inc.

Jhingan, M.L. (1986). *International economics*. New Delhi: Konark Publications.

Kawai, H. (1994). International competitive analysis of economic growth: trade liberalization and productivity. *Developing Economies* XXXII (4):373-97.

Kessing, D. B. (1967). Outward looking policies and economic development. *Economic Journal* LXXVII (306) 1303-20.

Kohpaiboon, A. Foreign trade regime and FDI-growth nexus: A case study of Thailand. Macalester College.

Kirpalani, V.H. (1987). *International marketing*. New Delhi: Prentice- hall of India.

Krueger, Anne O. (1997). Trade policy and economic development: How we learn, *American Economic Review*. Vol. 87 (1): 1-22.

———. (1998). Why trade liberalisation is good for growth. *The Economic Journal*, 108, 1513-22.

Laird, S. & Julio N. (1988). Manufactured export performance of the highly indebted countries. *Developing Economies 26*(4) 403-21.

Lucas, Robert E. (1988). On the mechanics of economic development. *Journal of Monetary Economics* 22(1) 3-42.

Milner, Chris, Dev V. & Peter W. (2007). Trade policy and productivity growth in indian manufacturing. *World Economy 10.1111/j.*:249-266.

Mountjoy, A. B. (1982). *Industrialization and developing countries*, London: Hutchinson.

Nishimizu, M. & Sherman R. (1984). Trade policies and productivity change in semi-industralized countries. *Journal of Development Economics* 16, 177-206.

Prebisch, R. (1950). *The Economic development of latin america and its principal problems*. New York: UN Commission for Latin America.

Pritchett, L. (1996). Measuring outward-orientation in LDCs: Can it be done? *Journal of Development Economics* 49(2), 307-335.

Rajapatirana, S. (1987), Industrialization and foreign trade. *Finance and Development*.24 (3) 2-5.

Rebelo, S. (1991). Long-run policy analysis and long-run growth. *Journal of Political Economy* 99 (3). 500-521.

Regmi, U. R. (2004). Nepal's export performance: a constant market share analysis. *Economic Journal of Nepal* 27(1) 12-25

——— (2006). Output Growth, Total factor productivity, and technical efficiency in nepalese manufacturing industries. *Economic Journal of Nepal* 29(2) 85-92.

——— (2007). An assessment of industrial policy of nepal. *Administration and Management Review* 19(1)1-24.

Rivera-Batiz, L. & Paul R. (1991). Economic integration and endogenous growth. *Quarterly Journal of Economics* 106, 531-566.

Rodgers, H. & Wery (1977). *Economic demographic modeling for development planning: BACHUE. Philippines.* Geneva: ILO.

Rodriguez F. & Dani R. (1999). Trade policy and economic growth - A skeptic's guide to cross-national evidence. CEPR Discussion Paper, No.2143.

Rodrik, D. (1998). Trade policy and economic performance in sub-saharan Africa. *NBER Working Paper No.* 6562.

———. (2001). Development strategies for the 21st century. in Pleskovic B. and N. Stern (eds), *Annual World Bank Conference on Development Economics 2000*, The World Bank, Washington D.C.

Romer, P. M. (1990). Endogenous technological change. *Journal of Political Economy X*CVIII, 71-103.

SAARC (2000). *Regional economic cooperation: initiatives within the SAARC region, Kathmandu.*

Sarkar, P. and H.W. Singer (1991). Manufactured exports of developing countries and their terms of trade since 1965. *World Development* 19(4)333-40.

Sharma, K. (2000). Liberalization and structural change: evidence from nepalese manufacturing. Discussion paper No. 812, Economic Growth Center, New Heaven: Yale University.

Singer, Hans and Patrica Gray (1988). Trade policy and growth in developing countries: some new data. *World Development* 16(3) 395-403.

Singer, Hans W. (1950). The Distribution of gains between investing and borrowing countries. *American Economic Review* 40(2) 473-85.

Solow, Robert M. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics, Vol. LXX,* 65-94.

Sachs, Jeffrey and Andrew Warner. (1995). Economic reform and the process of global integration. *Brookings Papers on Economic Activity* 1995(1) 1-118.

Suitcliffe, R.B. (1972). *Industry and underdevelopment,* London: Addition Wesley Publishing Company.

Swan, T. W. (1956). Economic growth and capital accumulation. *Economic Record* 32, 334-361. The Economist, September 23, 1989

Vorasopontaviporn, P. (1985). The impact of trade policies on employment and income distribution in Thailand. *Economic Bulletin for Asia and the Pacific* XXXVI(1) 48-61.

Wacziarg, R. and Karen H. W. (2003). Trade liberalization and growth: new evidence. NBER Working Paper, No 10152, December.

Wood, A. & Kersti B. (1997). Exporting manufactures: Human resources, natural resources and trade policy. *Journal of Development Studies* 345(1) 35-59.

World Bank (1987). *The World Development Report 1987*. Washington D.C.: Oxford University Press.