

## Trade Deficit in Nepal: Relationship between Trade Deficit and Budget Deficits

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### Abstract

*Nepal has bitter experiences of trade deficit; it has become the tradition of the country. The trade deficit of Nepal has been widening since the decades. The statistical data shows that around 80 percent of imports are from India and China. The growth trend of foreign trade has been increasing in different years after year with a huge amount of trade deficit. As the size of foreign trade increased the trade deficit of Nepal has been increasing as well. The government of Nepal has been announcing the deficit budget. This study focused to analyze the trends of trade deficit of Nepal and observing the relations of trade deficit and budget deficit. Simple statistical tools are applied to analyze the trend and growth of foreign trade of Nepal and correlation and simple linear regression model has been used to examine the linkages between trade deficit and budget deficit of Nepal. The study has found a strong positive relationship between trade deficit and budget deficit of Nepal. As result, there is a significant impact of budget deficit on trade deficit. The finding of the regression analysis indicates that budget deficit is a significant predictor of trade deficit.*

**Keywords:** Foreign trade, growth trend, linkages, twin deficits, descriptive statistics

### Issues of the Study

The trade deficit of Nepal has been widening since the decades. Minimizing the trade deficit has become a critical issue of Nepal. The statistical data show around 80 percent of foreign trade of Nepal is with two countries: India and China. India alone holds a larger chunk of the trade pie near about 65 percent. Basically, Nepal's exports goods such as, carpets, handicrafts and agricultural products such as palm oil, tea, coffee, fruits and juices. Similarly, Nepal imports almost everything from abroad; the

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major goods are petroleum products, metals items, rice and pieces of equipment and other gadgets. Trade deficits are perceived to be more dangerous with fixed exchange rates because under a fixed exchange rate regime, devaluation of the currency is impossible, trade deficits are more likely to continue and unemployment may increase significantly.

Trade deficit occurs when a country lacks efficient capacity to produce its own products due to lack of skill and resources to create capacity or due to preference to acquire from another country such as to specialize in its own goods, for lower cost or to acquire luxuries. In addition, trade deficit allows a country to consume more than it produces. In some countries, trade deficits correct themselves over time which creates downward pressure on a country's currency under a floating exchange rate regime. With a cheaper domestic currency, imports become more expensive in the country with the trade deficit. Trade deficits can occur because a country is a highly desirable destination for foreign investment. Trade deficits can create substantial problems in the long run. The worst and most obvious problem is that trade deficits can facilitate a sort of economic colonization. If a country continually runs trade deficits, citizens of the countries acquire funds to buy up capital in that nation.

The trade deficit of Nepal has been widening since the decades. Minimizing the trade deficit is the pertinent issue of the country. Nepal has long been constraint between two economic countries with large exporting ones: China and India. The statistical data show that around 80 percent of imports are from these two countries. India alone holds a larger chunk of the trade pie to 65 percent. Basically, Nepal's exports goods like carpets, handicrafts and agricultural products such as palm oil, tea, coffee, fruits and juices. Similarly, Nepal imports major portion of daily consumed goods from abroad, the major goods are petroleum products, metals items, rice and pieces of equipment and other gadgets.

### **Research Review**

This study was conducted to examine the relationship between trade deficit and budget deficit of Nepal. Most of the studies have found significant relationship between trade deficit and budget deficit. Trade deficit and budget deficit of Nepal has been continuously increasing. The research review basically focuses on the relationship between trade deficit and budget deficit of different country context.

Basu & Datta (2005) argued that economic theory has two alternatives hypotheses regarding the relation between the budget deficit and the trade deficit of a country. The two deficit hypotheses claim that a budget deficit causes a trade deficit. The paper undertakes an econometric exercise to study the impact of the fiscal deficit on Indian external accounts since the mid-1980s and finds an absence of co-integration

between two deficits. The findings suggest that the ratios of trade deficit, fiscal deficit and net savings randomly maintain the national income identity and that a high fiscal deficit has been sustained by a simultaneous and independent increase in the savings ratio. Though, the absence of a twin deficit so far, the situation offers no or very limited scope for profligacy in fiscal behaviors both for the center and the states.

Ali (2006) has studied the linkages between budget deficit and trade deficit of Lebanon. The objective of the study was to test the validity of the Keynesian proposition and the Ricardian equivalence in the case of Lebanon. A robust econometric framework called the unrestricted error correction model (UECM) and a co-integration test called the bounds test were used to examine whether budget deficit and trade deficit are co-integrated. As empirical analysis, paper supports the Keynesian view a linkage between trade deficit and budget deficit but the direction of causality was reserved having consistent with many other empirical studies.

Tallman & Rosensweig (1991) used a simple identity to analyze the linkage between the budget deficit and current account deficit. That study found a strong linkage between the trade deficit and the budget deficit. Similarly, Piersanti (2000) used a complicated dynamic macroeconomic model such as the standard portfolio and general equilibrium models to examine the relationship between the twin deficits. Those empirical studies found that the trade deficit and budget deficit have a positive relationship and the relationship was statistically significant.

Most of the empirical studies examined the relationship between the twin deficits for developed countries. However, there have been very limited empirical studies on developing countries. Islam (1998) studied empirically the causal relationship between budget deficits and trade deficits for Brazil from 1973 through 1991 using the Granger causality test, the study showed the presence of bilateral causality between trade deficits and budget deficits. Alkswani (2000) has examined the relationship between the budget deficit and trade deficit in the case of Saudi Arabia. The researcher concluded that there was a long-run relationship between the deficits and affirms the direction of causality from the trade deficit to the budget deficits.

Gary (1987) examined the relationship between federal government budget deficits and trade deficits. Consequently, solutions to trade deficit tend to emphasize policy measures that would be either impotent or very costly. The recommendations ignore the consequences of reducing the trade deficit without a corresponding reduction in the budget deficit.

The relationship between budget deficit and economic variables which attracted a great deal of attention from academics and policy-makers. There are wide range of theoretical and empirical literature examining the relationship between budget deficit and trade deficit. Mundell-Fleming (1963) argued an increase in the budget deficit

would induce upward pressure on interest rates causing capital inflows which would lead to an appreciation in the exchange rate, leading to an increase in the trade deficit. Keynesian theory suggests that an increase in the budget deficit would induce domestic absorption which tends to import expansion, causing a current account deficit. Nepal does not have visible competitive advantage in balancing the trades because of nature of products which we import are beyond our capacity to produce. It illustrates that Nepal needs a huge amount of investment to be able to strengthen its capacity, which in turn would require a massive injection of foreign direct investment. However, the problem relies on the government for not being able to attract foreign investment in adequate manner. The institutional deficiencies, tax policies, corruption and small size of the market are restraining where Nepal is being able to fix its problems in the industrial, agriculture and hydropower production sectors. Therefore, Nepal needs to focus on the areas in which it can gain competitive and comparative advantages. The finding of different research shows that there is significant relationship between budget deficit and trade deficit in the economy. In the context of Nepal, such compressive study has not been yet, so the focus of this paper is to analyze the relationship between budget deficit and trade deficit in the economy. There are ample studies devoted to examine the growth trends, direction of foreign trade of Nepal. However, there is no such specific study with linkages between trade deficit and budget deficit in the context of Nepal. This study was conducted to find the linkages between budget deficit and trade deficit. In the context of Nepal, we find both trade deficit and budget deficit in each fiscal year. Both budget and trade deficit are found increasing direction. This study examines relationship between trade deficit and budget deficit.

### **Research Questions**

Developing countries and least developed countries are generally facing the foreign trade deficit, have capital scarce available resources like labour and natural resources remain underutilized and the scarcity of complementary resources such as technology and organizational skills. Foreign trade is therefore seen as an important means of through which Nepal could avail of such complementary resources in other countries. Budget deficit has been the tradition of developing countries like Nepal. The trend of budget deficit of Nepal has taken significant role since three decades or more. Trade deficits and budget deficits are similar to the twins. Due to the twin effects, Nepal is driving with series of economic problems which tends to increase unemployment, economic inequality, decreasing purchasing power of currency as well. The present study tries to find the answer of the following research questions:

- i. What is the growth trend of foreign trade of Nepal?
- ii. What is the direction of foreign trade of Nepal?

- iii. What is the relationship between trade deficit and budget deficit?

### **Research Objectives**

The general objective of this paper is to analyze the growth trends of foreign trade of Nepal. The specific objectives of the study are as follows:

- i. To analyze the trends and direction of foreign trade of Nepal.
- ii. To examine the relationship between budget deficit and trade deficit of Nepal.

### **Data and Method**

This study is the descriptive and analytical in nature. In regard to descriptive research design, different tables, diagram and examples has been presented as necessary. Similarly, correlation and simple linear regression model has been applied to measure the linkages between trade deficit and budget deficit focusing on foreign trade and government budget of Nepal.

The essential data for this study were gathered from the secondary data sources, like publications and reviews Data published by various government and non-government organizations has been used to analyze the situation. Economic Survey, budget speeches published by Ministry of Finance, data published by Trade Promotion Center and Statistical Year Book and other reports published by Central Bureau of Statistics and Quarterly Economic Bulletin published by Nepal Rostra Bank. Apart from this, reports published by other related sector were also applied. To analyze the relationship between trade deficit and budget deficit correlation and simple regression model has been applied.

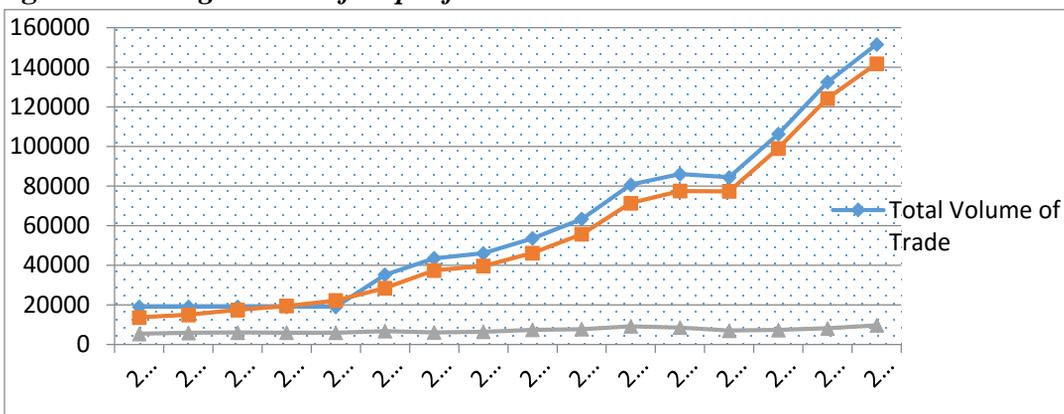
### **Results and Discussion**

The major discussion and results can be discussed in the sections below:

#### ***Growth Trends of Foreign Trade***

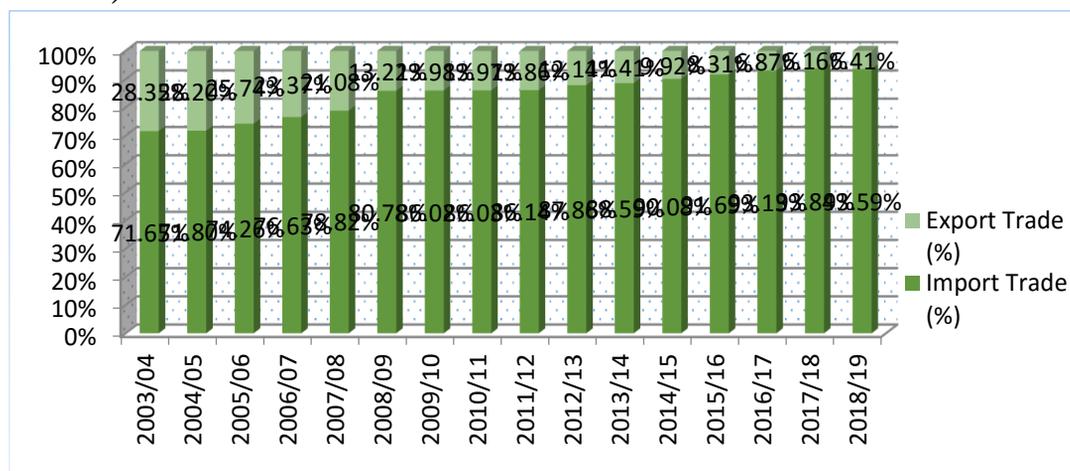
The growth trend of foreign trade has been increasing different years after year having a huge amount of trade deficit. In the FY 2003/04, the share of export in total trade was 28.35 percent and decreased to 6.41 percent in FY 2018/19. Similarly, the share of export trade has further decreased to 6.1 percent. The growth of total foreign trade, export and import trade have the mostly growth trend in the study periods. The trade deficit of Nepal has been increasing during the study periods. In the fiscal year 20003/04, the trade deficit was Rs.82.37 billion which has become Rs.1321.43 billion in the fiscal year 2018/19 (*See Appendix-I*).

**Figure-1: Foreign Trade of Nepal from 2003/04 to 2018/19.**



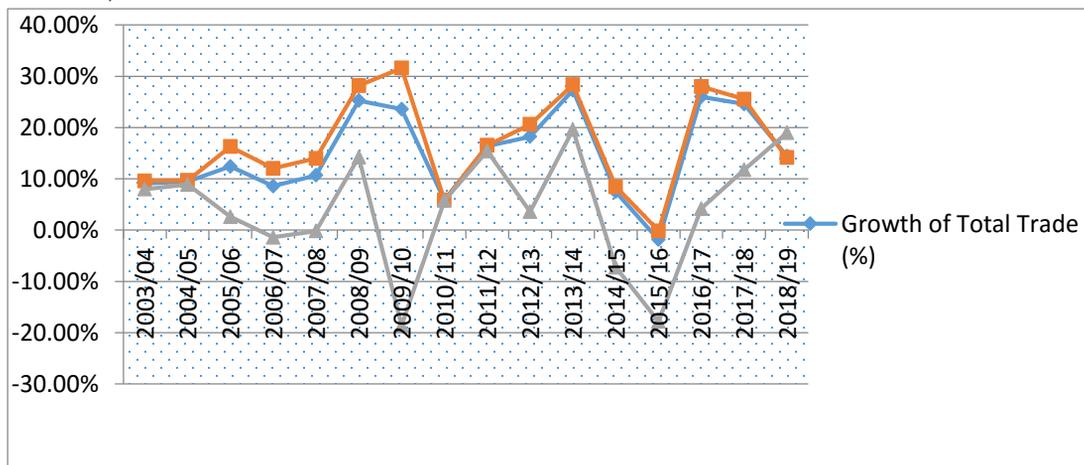
The figure-1 shows the foreign trade of Nepal from 2003/04 to 2018/19. It illustrates that in the most of years, the total volume of trade, import trade and export trade had been increasing. Similarly the gap between import trade and export trade had also been extending which is shown in Figure 2(See Appendix-I).

**Figure-2: Ratio of Import Trade and Export Trade in Percentage Diagram (2003/04-2018/19).**



The figure-2 shows the ratio between import trade and export trade of Nepal. From the data above it can be shown that the export trade of Nepal seems to insignificance in comparison to import trade.

**Figure-3: Growth Trends of Total Trade, Import Trade and Export Trade, (2003/04-2018/19).**

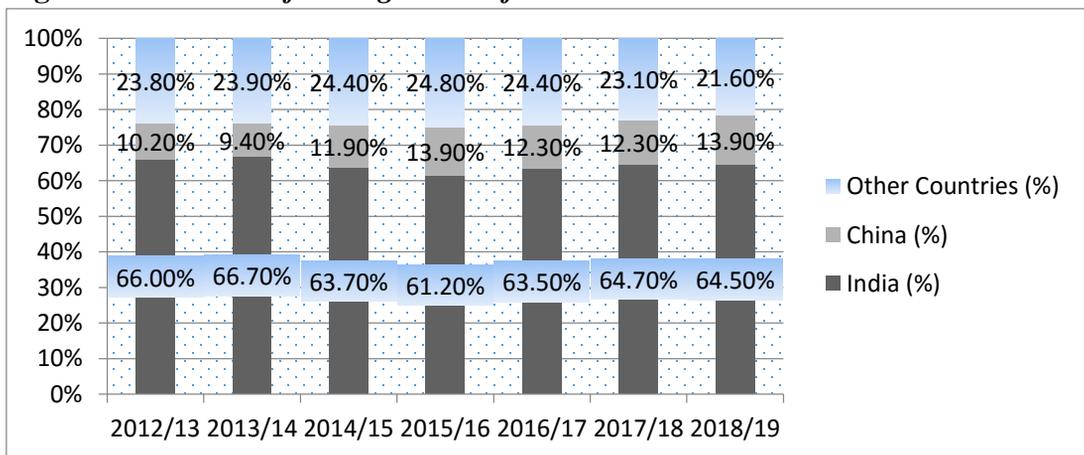


The growth trends of total volume of foreign trade, import trade and export trade have been shown in the Appendix-II and Figure-3. From this figure we can find that the rates of changes are variations such as positive and negative.

**Direction of Foreign Trade**

Direction of foreign trade refers to the trade among Nepal's trading partners. From the past years to the present, Nepal's biggest trade partner has been remained India. Under the efforts to diversify the country-wise foreign trade of the country, though the percentage of trade with India has heavily shrunk down from over 90 percent in early period. India is still the biggest trade partner in the total foreign trade of the country. The share of trade with any other individual country is not comparable to that with India. Direction of foreign trade of Nepal is shown in the Appendix-III.

**Figure-4: Direction of Foreign Trade from 2012/13-2018/19**



In the beginning of foreign trade, more than 95 percent foreign trade was with India only. The foreign trade of Nepal with India was gradually decreasing due to trade

diversification of Nepal. Appendix-III shows that 66 percent total foreign trade of Nepal was only with India, 10.20 percent with China and 23.80 percent with other countries in 2012/13. Similarly, the trade between Nepal and India was 64.50 percent, 13.90 percent with China and 21.60 percent with other countries in the year 2018/19. The scenery of foreign trade of Nepal shows that Nepalese market is dominated by Indian products. Therefore, from the description above we can infer that Nepal has also not diversified the foreign trade according to commodity wide.

**Linkages between Budget Deficit and Trade Deficit**

Economic theory provides two alternatives hypotheses regarding the linkages of the budget deficit and the trade deficit of a country. The twin deficit hypotheses claim that a budget deficit causes a trade deficit. Nepal frequently faces the problem of trade deficit and budget deficit. It is necessary to analyze the relationship between trade deficit and budget deficit how far they are interrelated. Appendix-IV shows that both trade deficit and budget deficits had been increasing in the different fiscal years in the study periods.

**Figure-5: Budget Deficits and Trade Deficits from 2003/04 to 2019/20.**

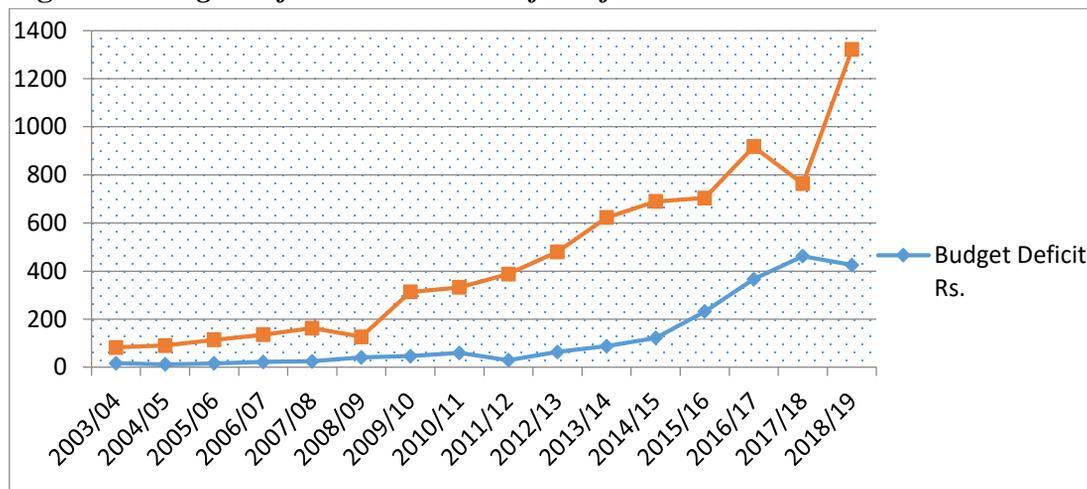
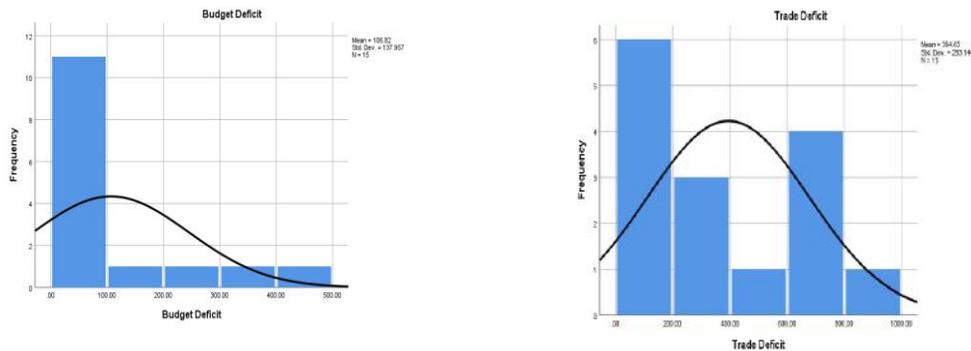


Figure-5 shows that the budget deficit and trade deficit has been expanding which increasing same direction. There is proportional relationship between them.

**Figure-6: Histogram of Trade Deficit and Budget Deficit**



**Correlation and Regression Analysis**

There is significant relationship between budget deficit and trade deficit in Nepal. The impact of trade deficit is measured in terms of budget deficit. To show the relationship of dependent variables and independent variables, correlation is applied and measuring the impact on Nepalese economy, linear regression model is applied assuming budget deficit independent variable and trade deficit as dependent variable. For hypothesis testing, regression analysis was done in SPSS v22 with the following.

There is positive correlation between budget deficit and trade deficit in Nepal. It indicates that when budget deficit increases then the trade deficit also increases. The relationship speaks that budget deficit is the cause of trade deficit in Nepal. There is autocorrelations between trade deficit and budget deficit where The Durbin Watson value is less than 1.5.

**Table-1: Regression of Budget Deficit and Trade Deficit**

Model Summary <sup>b</sup>										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.871 <sup>a</sup>	.759	.742	181.40045	.759	44.107	1	14	.000	1.330
Coefficients <sup>a</sup>										
Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.			
		B	Std. Error	Beta						
1	(Constant)	198.063	59.318			3.339	.005			
	Budget Deficit (rs. in billion)	2.004	.302	.871		6.641	.000			
a. Predictors: (Constant), Budget Deficit (Rs. in billion)										
b. Dependent Variable: Trade Deficit (Rs. in billion)										

**Source: Calculated by Author based on Appendix-IV.**

In the description above, the R value of 0.871 indicates the significant positive relationship between budget deficit and trade deficit (p<0.05). Similarly, R-square value of

0.759 states that 75.90% change in trade deficit is due to independent variable. Likewise, Standard error of the estimate of 0.302 indicates the variability of the observed value of trade deficit from regression line is 0.302 units. The result shows that there is a significant impact of budget deficit on trade deficit. It shows a significant association between the changes in budget deficit on trade deficit. The finding of the regression analysis between budget deficit and trade deficit indicates that budget deficit is a significant predictor of trade deficit.

### Conclusions

The trade deficit of Nepal has been widening since the decades. Having the trade deficit as a crucial issue, Nepal has long been constraint between two large economic countries via China and India. The statistical data show that around 80 percent of imports are from these two countries only. The growth trend of foreign trade has been increasing different years after year having a huge amount of trade deficit. Owing to rising imports of goods and services amid slower exports, country's trade deficit has been expanding for a long time. From the discussion above, we come to the conclusion that there is significant relationship between budget deficit and trade deficit in Nepal. A positive correlation between budget deficit and trade deficit is seen in Nepal. The result shows that there is a significant impact of budget deficit on trade deficit. The finding of the regression analysis between budget deficit and trade deficit indicates that budget deficit is a significant predictor of trade deficit.

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## Appendices

Appendix-I: Foreign Trade of Nepal from 2003/04 to 2018/19. (Rs. in Ten million)

Year	Total Trade(Rs.)	Import Trade(Rs.)	Export Trade (Rs.)	Trade Balance (Rs.)
2003/04	19018.78	13627.71	5391.07	-8236.64
2004/05	20817.93	14947.36	5870.57	-9076.79
2005/06	23401.44	17378.03	6023.41	-11354.66
2006/07	25407.77	19469.46	5938.31	-13531.15
2007/08	28120.42	22193.77	5926.65	-16267.12
2008/09	35216.7	28447.00	6769.80	-12677.2
2009/10	43515.9	37433.50	6082.40	-31351.1
2010/11	46051.4	39617.60	6433.90	-33183.7
2011/12	53592.9	46166.80	7426.10	-38740.7
2012/13	63365.8	55674.00	7691.70	-47982.3
2013/14	80635.7	71436.60	9199.10	-62237.5
2014/15	86000.3	77468.40	8531.90	-68936.5
2015/16	84371.6	77359.90	7011.70	-70348.2
2016/17	106316.2	99011.30	7304.90	-91706.4
2017/18	132446.0	124282.70	8163.30	-76320.9
2018/19	151564.48	141853.53	9710.95	-132142.58

Source: *Economic Survey (2003/04- 2018/19) & Department of Customs, 2018/19.*

## Appendix-II: Growth Trends of Foreign Trade (Rs. in ten million)

Fiscal Year	Total Trade (Rs.)	Growth Rate (%)	Import Trade (Rs.)	Growth Rate (%)	Export Trade (Rs.)	Growth Rate (%)
2003/04	19018.78	9.12%	13627.71	9.59%	5391.07	7.97%
2004/05	20817.93	9.46%	14947.36	9.68%	5870.57	8.89%
2005/06	23401.44	12.41%	17378.03	16.26%	6023.41	2.60%
2006/07	25407.77	8.57%	19469.46	12.03%	5938.31	-1.41%
2007/08	28120.42	10.67%	22193.77	13.99%	5926.65	-0.20%
2008/09	35216.7	25.24%	28447.0	28.17%	6769.8	14.23%
2009/10	43515.9	23.57%	37433.5	31.60%	6082.4	-18.61%
2010/11	46051.4	5.83%	39617.6	5.83%	6433.9	5.78%
2011/12	53592.9	16.37%	46166.8	16.53%	7426.1	15.42%
2012/13	63365.8	18.23%	55674.0	20.60%	7691.7	3.57%
2013/14	80635.7	27.29%	71436.6	28.31%	9199.1	19.60%
2014/15	86000.3	7.48%	77468.4	8.44%	8531.9	-7.25%
2015/16	84371.6	-1.89%	77359.9	-0.14%	7011.7	-17.82%
2016/17	106316.2	26.01%	99011.3	27.99%	7304.9	4.18%
2017/18	132446.0	24.58%	124282.7	25.52%	8163.3	11.75%
2018/19	151564.50	14.43%	141853.53	14.14%	9711.00	18.96%

Source: Economic Survey, 2019/20 & Department of Customs, 2019/20.

## Appendix-III: Direction of Foreign Trade in Nepal, 2018/19 (Rs. in Ten Million)

Fiscal Year	Total Trade (Rs.)	India		China		Other Countries	
		Trade Rs.	%	Trade (Rs.)	%	Trade Rs.	%
2012/13	63365.8	41803.1	66.00	6453.7	10.20	15108.9	23.80
2013/14	80635.7	53756.1	66.79	7615.9	9.400	19263.7	23.90
2014/15	86000.3	54752.1	63.70	10239.6	11.90	21008.7	24.40
2015/16	84371.6	51670.6	61.20	11737.6	13.90	20963.4	24.80
2016/17	106316.2	67511.9	63.50	12894.7	12.30	25909.7	24.40
2017/18	132446.0	85641.9	64.70	16251.6	12.30	30552.5	23.10
2018/19	151564.5	97190.9	64.50	20552.7	13.90	295099	21.60

Source: Economic Survey, 2019/20.

**Appendix-IV: Budget Deficit and Trade Deficit of Nepal, 2003/04-2018/19 (Rs. in billion)**

<b>Year</b>	<b>Total Budget Rs.</b>	<b>Budget Deficit Rs.</b>	<b>Total Trade Rs.</b>	<b>Trade Deficits Rs.</b>
2003/04	102.4	16.839	190.19	82.37
2004/05	111.689	12.115	208.18	90.77
2005/06	112.07	16.560	234.014	113.55
2006/07	143.912	22.451	254.078	135.312
2007/08	168.996	24.561	281.204	162.671
2008/09	236.159	41.116	352.167	126.772
2009/10	285.93	46.34	435.159	313.511
2010/11	337.9	59.91	460.514	331.837
2011/12	384.9	29.65	535.929	387.407
2012/13	404.82	63.83	633.658	479.823
2013/14	717.24	87.7	806.357	622.375
2014/15	618.10	121.81	860.003	689.365
2015/16	819.469	231.53	843.716	703.482
2016/17	1048.92	366.13	1063.162	917.064
2017/18	1278.99	461.77	1324.446	763.209
2018/19	1315.16	425.03	1515.645	1312.426

**Sources: Budget Speeches from 2003/04-2019/20 & Economic Surveys 2005/06 to 2019/20**