Impact of Trade Deficit on the Economy of Nepal

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Abstract: This study aspires to investigate the impact of trade deficit on the economy of Nepal by using time series data through 2000/01 to 2017/18. GDP is a dependent variable whereas trade deficit, human development index and gross fixed capital formation are independent variables. Regression analysis method has been used to explore the collected data. The result highlights that there is a negative relationship between the dependent variable GDP and trade deficit. Whilst, human development index and gross fixed capital formation are positively related to GDP. The outcomes conclude that trade deficit influences the economy of the nation unfavorably. Nepal's trade has immensely been experiencing deficit which can harm foreign currency reserve of the nation and can further lead to macroeconomic instability. The government should work on the policies that encourage sufficient investment in the export-based industries that reflects an appropriate blend of promotion and substitutions for export and import.

Keywords: Trade Deficit; Economy; Nepal

1. Introduction

Landlocked, lacking significant resources for economic development, and hampered by deficient transportation channels, Nepal is one of the least developed countries in the world. The economy is vigorously reliant on imports of necessary materials and foreign markets for its forest and agriculture items. Nepal imports essential elements, for example, fuel, construction materials, metals, and most customer goods and exports such items as yarn, tea, and coffee, carpets, and textiles. Nepal has a very long history of trade deficit. Nepal's trade performance over a decade persisted less satisfactory, leading to a huge trade deficit on goods and services. The country exports prominently less in contrast to the bulk of imports. While exports are diminishing imports are considerably expanding every year.

Trade has been sensed globally as a substantial tool for economic growth and advanced development. In various developed countries, international trade and long term capital stream worked as 'engine of growth' for prompt economic growth and development (Oke 2007). Foreign trade is one of the primary wellsprings of earning foreign currency, which helps to import capital goods and services. Trade is not only an efficient way to exchange capital, labor, technologies, and culture but also considered as an exchange of products and services. (Silwal,2008). The trade deficit can present both negative and positive for the nation.

Low investment, political instability, poor technology, socioeconomic unrest, barriers in movements, unemployment, an uncertain inflow of energy supply, poverty, and inequality are the few reasons for trade deficit (Ghimire,2010).

Nepal's trade deficit in FY 2000/01 was around -13.6percent of GDP, increased to -24.28percent in the FY 2010/11. The gap touched the highest point of -38.63percent of GDP in FY 2017/18 MoF (Ministry of Finance). According to the annual trade statistics of 2017-18, the country imported goods worth Rs 1,243.29 billion against exports worth Rs 81.19 billion, which has led in a trade deficit of Rs 1,162.10 billion. The country imported fuel value Rs 18.1 billion; iron and steel (Rs 14.62 billion); aircraft and spare parts (Rs 13.3 billion); machinery and equipment (Rs 8.23 billion) and vehicles (Rs 7.95 billion). Likewise, the country exported yarn Rs 820 million; tea and coffee (Rs 730 million); carpets (Rs 630 million); iron and steel (Rs 530 million); and readymade garments (Rs 490 million), according to MoF.

GDP is highly affected because of the higher import ratio. The trade deficit is demolishing occupations, discouraging wages, harming competitiveness. Numerous endeavors have been come up with to create economic reasons for the trade deficit. A much of the time heard case is that trade deficit doesn't make a difference,

while others contend that macroeconomic components commonly dictate trade balance. Both perspectives recommend that trade deficit will be, to a great extent, lethargic to trade policies and might be removed safely, as long as the country is following sound macroeconomic approaches. The trade deficit has hurt the household economy of Nepal. The nation is bringing in more merchandise from outside organizations, costs are low, and domestic organizations can't deliver things that rival lower prices. Manufacturing industries are generally hit the hardest when a nation imports more than it sends out. This effect had brought about fewer occupations or lower wages for representatives, because of the challenge from imports. Fewer occupations mean fewer items are delivered in the economy, which, thus, prompts much more imports and a more deficit. The trade deficit has likewise depressingly affected wages in a few different ways. They have additionally put descending weight on the wages of laborers, as well as by pushing down the costs of domestic items. Finally, the trade deficit has diminished investment in research and development, thus undermining productivity development and adding to the stagnation of incomes that have tormented economy.

The fundamental goal of this research paper is to dissect the impact of the trade deficit on the economy of Nepal by using time series data through 2000/01 to 2017/18. The relationship between the trade deficit and economy was examined by regression analysis. The second section consists of a literature review. Theoretical framework has been patriated in the third section. Model specification and data collection are presented in the fourth section. Likewise, section five includes results and estimation, and the paper is finalized in the last part.

2.   Literature Review

AUNG, W. T. (2017). The study aimed to examine the positive and negative effects of the trade deficit on the economic growth of Myanmar using empirical analysis from the year 1989 to 2015. Vector Error Correction Model and Johansen co-integration test was used to examine the long-run and short-run relationship between the trade deficit and economic growth. The results reveal that there is a significant negative relationship between trade deficits and economic growth in the long-run. While in the short-run, there is an insignificant negative relationship between trade deficits and economic growth.

Ahad, M. (2017). The article seeks to examine the relationship between trade balance, financial development, exchange rate, and inflation, utilizing time-series data from 1972 to 2014 for Pakistan. Augmented Dickey-Fuller (ADF), Phillips–Perron, and breakpoint unit root tests have been applied. To examine the cointegration between variables. An autoregressive distributive lag (ARDL) approach is used. The ARDL findings suggested that there is a long-run relationship between trade balance, financial development, inflation, and exchange rate. In contrast, the Error correction model (ECM) is applied to analyze the short-run relationship. In the long run, financial development, inflation, and exchange rate have a significant impact on the trade balance. Whereas in the short term, only the exchange rate and inflation have a substantial effect on the trade balance.

Hassan, M. S., Wajid, A., & Kalim, R. (2017). The paper investigates factors that influence trade deficit in Pakistan, India, and Bangladesh. After applying the ARDL limits testing approach on the test period from 1972 to 2013, this investigation discovers the long run connection between the trade deficit and its components in Pakistan, India, and Bangladesh. The discoveries confirm that the devaluation of the exchange rate decreases the exchange trade deficit in Pakistan and Bangladesh. Also, the outcomes further unveil that as economic growth extends, trade deficit shrinks altogether in Pakistan, India, and Bangladesh.

Tung, L. T. (2018). The paper looks at the impact of fiscal deficit on economic development in Vietnam; the examination has applied the Error Correction Model on the quarterly data of 2003-2016. The outcomes show there is a cointegration connection between fiscal deficit and economic development. The relationship examination has affirmed that fiscal deficit can hurt the gross output as well as private investment, net exports as well as foreign direct investment.

POPESCU, G. (2016). The paper finds out the connection between budget deficit and macroeconomic factors, for example, economic growth, trade deficit, and interest rates. The point of this paper was to test the legitimacy of the Keynesian view on account of the Slovak Republic by experimentally investigating the presence of a long-run relationship and the heading of causality between the budget and current account shortages utilizing a VAR model and Granger causality test for values extending from 1999Q1 to 2014Q2. The paper uses regression analysis to investigate the effect of budget deficit on economic growth.

Ibrahim, M. (2016). This examination empirically appraises the basic parameters of trade deficiency in Egypt for the period of 1970-2014 by utilizing dynamic ordinary least squares (DOLS) approach of Stock and Watson (1993). The estimation results show that all factors have a positive relationship among the trade deficit in Egypt and incomes, relative domestic costs to foreign costs, and International reserves. But then there is a negative and significant connection between the trade deficit and exchange rate.

Moushumi Dhar (2016) tried to find out "the relationship between trade deficit, FDI, and economic growth of Bangladesh." Her findings present that "trade deficit is better for economic growth" as it enhances the GDP and increases jobs in the long term. But the report did not include the variables which make a positive impact on GDP and employment in the long run.

Shawa & Shen (2013) studied the causes of the trade deficit and found the main reason for the trade deficit of Tanzania. They used the Phillip-Peron (PP) unit root tests and augmented Dickey-Fuller (ADF) to identify the relationship between variables. Actual GDP, real exchange rate, relative GNI, and import weighted index variables were used. The overall result shows that all variables have a unit root at levels.

Duasa (2007) investigated the long-run and short-run relationships between trade balance, income, money supply, and RERs of Malaysia. Using the ARDL co-integration approach, he found a positive yet statistically insignificant connection between the trade balance and exchange rate. The money supply had a negative and domestic income had a positive impact on the trade balance.

Eravwoke, K. E., & Imide, I. O. (2013). This examination looks at international trade as an engine for economic development in developing nations, a contextual analysis of Nigeria. The essential target of the study is to test the effect of international trade on economic growth in Nigeria. Regression analysis, unit root test, error correction model (ECM), and the co-co-integration analysis is used to find out the results. The examination uncovers that export is highly significant for international trade since it is noteworthy at both levels and first difference.

Mubeen, N., & Ahmad, N. (2016). In this paper, Gini Hirschman Index (GHI) is used to gauge the level of export diversification by using time series data from 1980-2015. This examination applies Auto Regressive Distributive Lag way to deal with long-run relationships in fundamental variables. The discoveries of this investigation demonstrate that geographic concentration of exports improves product concentration in exports and lessens export diversification, while world income, exchange rate, and foreign direct investment play a significant role in promoting export diversification. Then again, trade openness also has benefits to export concentration.

3.   Theoretical Analysis of the Impact of Trade Deficit on Economy
3.1.   Negative Impact

Nations where development is export-led, for example, those of crude materials, oil and so on are probably going to encounter trade surpluses during times of world financial extension. Saudi Arabia, for example, is a nation that has export-led development, that through oil. Its trade balance is mostly positive. The surpluses produced from exports can be pumped back into the local economy (by spending less on satisfying global commitments). If the excessive money thrives in increasing the productive capacity of the economy, GDP may boost. However, if the surplus neglects to bring domestic production in comparison to higher demand, it will just make an inflationary weight on the economy. Export-led development may fall during world recessions, where global market debilitates. Similarly, if goods exported are low of income and price such as necessary drugs and fuels, the trade will still flourish. Countries whose trade and balance of payment are negative will also have weak currencies. If the government rehearses the free-floating exchange rate, then trade deficits will result in the currency depreciation. This is because the supply of money is high, and it demands more foreign goods than it sells in the global market. The fall in currency value might make it worthless for some foreigners who may choose to dump the cash on the worldwide market. This dumping may additionally build a supply of currency and cause it to lose value. This depreciation can cause massive damage to the GDP of an economy.

3.2.   Positive Impact

The other connection between the trade deficit and GDP is positively associated. Sometimes, the trade deficit can be a lift to GDP development. Expanding trade deficit could, in certainty, lead to GDP development. At one point when an economy experiences trade deficit, demand for its products is not as much as its demand for products. Likewise, the need for its cash is lower than its need for other currencies. In a free-floating exchange rate system, any trade deficit will consequently prompt depreciation of the nation's currency. This fall in the estimation of the exchange rate makes export look cheap and increasingly competitive. As the flexibility of exports is higher over the long haul (buyers have the opportunity to shift orders to bring down economies, though current and short term orders are hard to withdraw), buyers will respond by demanding more. Output needs to be expanded to service these additional requests, and thus GDP will grow. The trade deficit will begin to narrow, but the real change in trade imbalance will depend not only exporting pattern change but as also on whether output created requires imports (crude materials and machinery etc.) The fall in trade deficit is probably going to be smaller in this case.

4.   Model specification and data collection
4.1.   The model

The econometric model utilized in this examination attempts to clarify the effect of the dependent variable with different independent variables. To appraise the effect of the trade deficit on the economy of Nepal regression model is utilized. The following equation is used to gauge model.

$$GDP_{it} = \beta_0 + \beta_1 TD_{it} + \beta_2 HDI_{it} + \beta_3 GFCF_{it}$$

Where, GDP = Gross Domestic Product, TD= Trade Deficit, HDI= Human Development Index and GFCF= Gross Fixed Capital Formation.

4.2.   Data

This study implies on secondary data. The dependent variable is GDP whereas trade deficit, human development index and gross fixed capital formation are independent variables. The number of observations covers 18 years' period i.e. 2000/01 to 2017/18 and the data were collected from the ministry of finance of Nepal.

Descriptive statistics of all the variables are seen in Table 1.

Table 1: Nepal Trade Deficit Vs. GDP (1974/75-2017/18)

Year	GDP	Trade Deficit	Year	GDP	Trade Deficit
1974/75	1660.1	-92.5	1996/97	28051.3	-7091.69
1975/76	1739.4	-79.59	1997/98	30084.5	-6148.85
1976/77	1728	-84.33	1998/99	34203.6	-5184.9
1977/78	1972.7	-142.34	1999/00	37948.8	-5868.22
1978/79	2612.8	-158.79	2000/01	44151.9	-6003.31
1979/80	2335.1	-232.96	2001/02	45944.3	-6044.42
1980/81	2553	-281.95	2002/03	49223.1	-7442.15
1981/82	3098.8	-343.88	2003/04	53674.9	-8236.64
1982/83	3382.1	-518.2	2004/05	58941.2	-9076.79
1983/84	3929	-481.04	2005/06	65408.4	-11354.62
1984/85	4658.7	-500.15	2006/07	72782.7	-13531.15
1985/86	5573.4	-626.32	2007/08	81565.8	-16267.12
1986/87	6386.4	-791.38	2008/09	98827.2	-21677.21
1987/88	7690.6	-975.51	2009/10	119277.4	-31351.12
1988/89	8927	-1206.84	2010/11	136695.4	-33183.7
1989/90	10341.6	-1316.87	2011/12	152734.4	-38740.67
1990/91	12037	-1583.9	2012/13	169501.1	-47982.32
1991/92	14948.7	-1823.35	2013/14	196454	-62237.44
1992/93	17149.2	-2193.91	2014/15	213020	-68936.51
1993/94	19927.2	-3227.74	2015/16	225316.31	-70348.2
1994/95	21917.5	-4604.03	2016/17	267449.28	-91706.41
1995/96	24891.3	-5457.34	2017/18	303103.36	-116374.34

Source: Ministry of Finance, Government of Nepal. Trade deficit and GDP in ten million Nepalese rupees.

5   Results and Estimations

Regression analysis was used to evaluate the effect of the trade deficit on the economy of Nepal. The findings of the study are in the table below: in table 2.

The result of regression showed a direct impact of the trade deficit on the economy of Nepal. The independent variables trade deficit, human development index, and gross fixed capital formation designate 99percent of the deviation in the trade deficit in Nepal as represented by R square. The regression result indicates that the significance value is less than 0.05, which means that the overall equation is significant. The regression states that trade deficit and human development index have negative impact on GDP with the p-value of 0.001and 0.000 respectively. Conversely, the p-value for gross fixed capital formation is greater than the common alpha level of 0.05, which shows that it is not statistically significant.

Table 2. Regression Results

	coefficients	Standard error	t-value	p-value
Intercept	-233155	27736.84	-8.40597	0.000***
Trade deficit	-1.43579	0.323662	-4.43608	0.001***
HDI	588546.4	58690.23	10.02801	0.000***
GFCF	0.318324	0.320027	0.994677	0.337
R square = 0.99，Significance F = 0.000				

Note: "***" means significant at the 1% statistical level.

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When a nation tenaciously experiences trade deficit, various negative consequences can influence economic growth and stability. A trade deficit can have both positive and negative impact for a country. It all depends upon the condition of a nation, the policy decision that has made and the duration and size of the economy. Although the data and the underlying economic hypothesis don't line up. Economic theory suggests that persistent trade deficit will be inconvenient to a country's economy, yet proponents of free markets explains that any unfavorable impacts will address themselves over time. Small nations like Nepal have encountered the harmful effects that trade deficit can bring over time. Proponents of free markets, in any case, insists that any detrimental effect of trade deficit will address themselves through time via exchange rate adjustments and through competition leading to change in what a nation produces. Huge trade deficits may reflect consumer preferences and may not make any difference much at all over the long haul.

Higher rate of physical capital prompts higher economic growth. Exports create employments and lift economic growth development, also give domestic organizations more involved in producing for foreign markets. Companies obtain a competitive advantage in global trade, and research shows that exporters are more profitable than companies that emphasis on domestic trade.

6   Conclusion and Recommendations

This paper clarified the potential consequences of a trade deficit, which affects the economy of Nepal. The conclusion from the above outcomes that trade deficit influences the economy of the nation unfavorably. In the case of Nepal, the country is facing this circumstance of trade deficit from decades due to persistent political upheavals, underdeveloped manufacturing industries and lack of infrastructure. A higher increment in exports will consequently build GDP which will grow the market size in this manner driving in a more noteworthy division of work and a decrease in the cost of production. A nation can create value-added products by the progression of domestic and foreign ventures. Local assets are completely used by the rise in demand for products which leads to a decrease of underemployment. It further adds to the current demand for capital goods, increasing in domestic expenditure. It consolidates worldwide world-class developments and quality norms, helping exports and active participation in international trade.

Apprehension over rising trade deficit has been constantly reflected in essential government archives and brought up in different financial dialogues throughout the years. If we go through government spending plans and different strategies presented by the progressive government after 1990, decreasing the trade deficit has consistently been a priority. In general, there is an extraordinary requirement for making a great business environment in Nepal. Industrial turmoil and inflexible work laws are the absolute greatest deterrents to the industrialization of Nepal and its future interest in a quick globalization economy. The nation should concentrate on advancing items and services where it has a competitive advantage. It needs to grow its HR base with better preparing and education for its whole workforce. In this sense, the government is relied upon to give another approach that can energize investment in both domestic and foreign investors with the goal that the government can improve the economy and reduce the trade deficit.

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3/23/2020