

# CHAPTER I

## INTRODUCTION

### 1.1 Background of the Study

It is the motive of every economy to attain sustainable economic growth, as it has crucial importance for all economies. Every economy has a responsibility of boosting its economic growth in order to lower its debt burden, especially developing economies like Nepal. Developing countries are facing the scarcities of various resources. These countries are suffered from vicious circle of poverty, unemployment, illiteracy, inequality etc. to get ride from it, the country should invest as large amount of capital in socio-economic and physical infrastructure development (Ntshakala, 2015).

In modern time, the expenditure of the government is increasing very rapidly as compared to increase in their national income. It is due to the rapid increase in the service of the government. It results deficit in the budget. The deficit can be bridged by imposing more taxation or by borrowing the money from public or other agencies. Nepal is not far behind in it and in the problems of proper resources (<https://www.mof.gov.np>)

Self-liquidating projects may be defined narrowly as investment in public enterprises that provide a fee or sales income sufficient to service the debt incurred in their financing, or they may be defined broadly as expenditure projects that increase future income and the tax base. Such projects permit servicing (interest and amortization) of the debt incurred in their financing without requiring an increase in the future level of tax rates (Musgrave, 1959).

Government debt arises out of borrowing by the treasury from banks, business organizations, and individuals. The debt is in the form of promises by the treasury to pay to the holders of these promises a principal sum and in most instances interest on that principal. Borrowing by the treasury takes place when current revenue receipts are inadequate to maintain a treasury cash balance large enough to meet current cost payments and to retire maturing debt. Borrowing is resorted to in order to provide funds for financing a current budget deficit. Such current deficit borrowing results in a net addition to public debt. In recent fiscal years, however, a major part of federal government borrowing has been to refund already existing debt as it matures (Taylor, 1974).

Internal and external debt has different effects on economic growth. Traditional theorists consider that in the long run, domestic debt has a negative impact on economic growth. External debt possesses a negative impact on economic growth while domestic debt has a positive impact on economic growth. A good performance of an economy in terms of per capita growth may therefore be attributed to the level of domestic debt and not on the level of external debt in the country; therefore external debt is seen as inimical to the economic growth progress of a country (Umaru, Hamidu & Musa, 2013).

For development activities of underdeveloped countries, government has to invest huge amount of money where private sector is not well developed. Thus, in developing country like Nepal, government has to engage itself for socio-economic infrastructure development like health, education, drinking water, transportation, irrigation, communication and power which need huge initial investment. Besides, these the government should also involve in productive activities. With this increase role of government expenditure started to increase which were not possible to meet only through revenue collection. The most appropriate method is debt financing.

## **1.2 Statement of the Problem**

In a world in which Keynesianism abounds, one might reasonably expect that just balancing of the government's budget would be regarded as an outdated policy goal. A great many other pre-Keynesian fiscal notions have gone hackneyed. One seldom hears those days that a rupee of government expenditure causes a corresponding reduction of a rupee of private outlay, or that government expenditures cannot raise the level of national income, or that we can never achieve fuller employment by government spending. But amidst the wide acceptance of the goals and tools of Keynesianism, there is remarkable persistence in the notion that government budgets ought to be balanced even balanced annually (Mukherjee, 1979).

Nepalese economic condition is very poor and is characterized by low productively, low income, high marginal propensity to consume and low saving & investment as well as high Gini-coefficient on the other hand, Nepal has natural resources such as water, forest, minerals land etc. but these resources cant not be proper utilized due to the inadequate of financial resources and lack of skill human resources as well lack of high technology. Effective management policy and proper utilization of available resources is challenging proposition.

The government may borrow because current revenue may not be enough to meet expenditure for the mobilization of these resources. The gap between government expenditure and revenue is in increasing trend each fiscal year, due to this, the proposition of budget deficit is rapidly increasing in every fiscal year. In order to fulfill this resource gap public debt would be a suitable measure. So, efforts should be made on appropriate use of public borrowing. So, it creates the internal and external debt in Nepal. Nepal is more fully dependent on external debt. Foreign loan ratio is increasing at a higher rate than foreign aid in these years. In fiscal year public debt is increasing rapidly due to the wide gap between government revenue and government expenditure. The budget deficit to GDP ratio, which was 7.2 percent in FY 2016/17, is estimated to be 10.4 percent in FY 2017/18. Though the revenue mobilization exceeded the recurrent expenditure in the past, the recurrent expenditure of federal government is estimated to outscore the revenue mobilization in the current FY 2017/18, resulting to 0.3 percent of revenue deficit-GDP ratio (MoF, 2017/18).

Nowadays, the government is taking foreign aid not only for development expenditure but also for regular expenditure. Government has taken loan for securities and peace which are unproductive sectors. It is also a great problem of debt burden. So the current situation of public debt in our country makes us to think seriously about it and has become a major concern of government. In context of Nepal, internal debt plays a major important role in comparison to external debt because external debt servicing creates the major problem in the economy than internal debt servicing. So government should focus on internal debt instead of external debt. In Nepalese economy burden of public debt was estimated to be NRs. 200 billion in 2002 (Sharma, 2002).

Nepal has become a debt dependent country. The external debt is increasing more rapidly which has become a major source of financing development expenditure. More than 80 percent of the budget deficit was financed through external borrowing in most of the fiscal year covering FY 1990/91 to 2007/08. This indicates Nepal's dependency on foreign aid. There is a large share of external debt in total public debt. Therefore, Nepal is heavily indebted from external debt which has become a serious problem in the economy (Ghimire, 2008).

Nepal is seriously dependent on external and internal burden of public debt which is challenging for the Nepalese economy. Gap between expenditure and revenue collection requires to be minimized for the fiscal balance. In this sense, it is necessary

to study about the impact of public debt in economic development in Nepal. Following research questions are as follows:

1. What is the structure and pattern of public debt in Nepal?
2. What extent do internal and external public debt impact on the economic growth of Nepal?

The main objective of the study is to examine the impact of public debt in the economic growth of Nepal. The specific objectives are as follows:

1. To analyze the structure and pattern of public debt in Nepal,
2. To examine the impact of internal and external public debt on economic growth of Nepal,

### **1.3 Significance of the Study**

Nepal is rich in natural resources. It is still poor and underdeveloped as well as under vicious circle of poverty. In modern era, planning is taken as the main instruments for economic development. Various objectives and policy are made during the planning for the economic and social development. To achieve the objectives, public debt is necessary due to low level of tax payable capacity of the people, firms and institutions mostly in developing countries. Wants and needs are increasing and resources are limited, in such situation, public debt is common and reliable sources for resource mobilization. Similarly, to break the vicious circle of poverty and to improve social condition of the people, there is greater need of public debt or government borrowing. So, government borrowing has been necessary for developing countries like Nepal.

The concept of globalization and liberalization the development requirement are increasing. Now, the government is much more responsible due to the concept of federal state. For the proper implementation, economic planning is most necessary components for the rapid economic and social development which emphasizes the objectives. The studies are totally concerned with Nepalese public debts and its burden. For the economic development of underdevelopment countries governments must invest on various sector such as education, health, transportations, communication etc. to build up such social overheads capital there is need of heavy investment that is why the important of debt is increasing over the time. Nepal is an underdevelopment country having low per capita income, gross national product and

gross domestic product. Our government is taking the public debts continuously from F/Y 1963/64. The burden of public debt is growing rapidly, so it is a matter of the concern otherwise it may create adverse impact on the economy.

This study has to provide several information of the situation of the Nepalese public debt in Nepal, its scope, necessity, structure, composition and overall impact of public debt in Nepalese economy. Effective and appropriate utilization of debt is also the matter of common of the study. It is also use for the researchers, policy makers and general students. The study has provided important information of our budgetary system and contribution of debt on it. It deals about the source of debt, its present situation and some recommendation related to debt.

#### **1.4 Limitations of the Study**

This study has been based on the following limitations:

- This study has covered a period of 26 years from FY 1990/91 to 2016/17.
- This study has not attempted to examine the effects of public debt on macro-economic variables such as money supply, price level, employment, etc.

#### **1.5 Organization of the Study**

The study has been divided into five chapters. The first chapter concentrates on the introductory part of the study. It includes the general background of the study, statement of the problem, objectives of the study, significance of the study and limitations of the study. The second chapter is concerned with review of literature. In this chapter, previous studies and findings have been analyzed with theoretical studies. The third chapter explains research methodology. The fourth chapter concentrates with the role of public debt in underdeveloped countries, trend and structure of public debt in LDCs, the burden of public debt in Nepal and the empirical analysis and the fifth chapter presents the summary of findings, conclusion and recommendations.

## **CHAPTER II**

### **REVIEW OF LITERATURE**

#### **2.1 Theoretical Perspective**

##### **2.1.1 Classical Review**

The classical philosophy propounded by Smith (1776) and his supporters have view laissez-fair, equates a sound and balance budgetary policy that does not consider the fiscal deficit and public borrowing. Economic activities are best under the private sector because they have the greed of profit thus resources are optimally and efficiently used so the classical economists were in favor of minimum role of government.

Classical economists were generally against public debt. They assumed the minimum role of government in to the economic activities such as, maintenance of law and order, justice and social security. According to them economy is always equilibrium in full employment, so there is no need of government regulation. They were in favor of laissez-fair policy. They preferred balanced budget. Therefore, there is no need of public debt. Classical economists like Say, Mill, Malthus gave their argument that debt crates burden in the economy because of its unproductive nature (Singh, 1991).

The internal debt may not have direct burden in a community as a whole since the payment of interest and increase to meet the debt burden involved simply transfer the purchasing power from one group of person to another to extend the creditors and tax payers are the same there may not be any net burden at along the community but to extend the creditors and tax payer belong to different section of the community may take place. Generally government bonds and securities are hold by mostly rich people whereas the burden of taxation fall both the rich as well as poor sector of the community (Lerner, 1955).

Classical economist was in the favor of productive use of the government borrowing. They approved the public debt for the productive purpose, that is, for capital projects since the fruits of such projects could be sold to the buyers and debt servicing and repayment of the principal and interest did not necessitate additional taxation. These are called the self-liquidating projects. In the words on Musgrave, self-liquidation projects may be defined narrowly as investment in public enterprises that provide a

fee or sales income sufficient to service the debt incurred in their financing or classical economists may increase future income and the tax base. Such projects permit servicing (interest and amortization) of the debt incurred in their financing without requiring an increase in the future level of tax rates (Musgrave, 1959).

Classical economist (economist of 18th and 19th century) are generally against public debt. They assumed that individual, consumer and the business firm employs the resources more efficiently. They were against the role of the state and they had the philosophy that the government is the best, which governs the least. According them state has to perform its limited activities; maintenance of law and order, justice and social security. Classical economist like Say, Malthus and Bastable have the strong faith that "Debt crates burden in the economy because of it unproductive nature (Harris, 1974).

The classical Economist Smith (1776) opposed any use of Public Debt. The author took Public debt as leads to extravagance-encouraged resort to war and induced generally disadvantage economic conditions for the nation, which employed it. Similarly, Bastable (1964) observed a nation can't any more than an individual keep adding continually to its liabilities without at least coming to the end of its resources. Classical economists are also taken public debt is no longer a cake-eating feast but rather a careful and efficient brain to handle the management of the public debt. In this context Shiras opines, as government must remember that borrowing is not a short cut to prosperity except for what can reasonably regarded as productive expenditure (Lekhi, 1995).

Classical economists developed advance theories of public debt. These theories, however, received less attention compared with those of value and distribution. Classical theories of national debt at best receive cursory consideration and are only used to offer further justification to modern theories. Smith's discussion of the unproductive role of the state and the Ricardian equivalence theorem are examples that are found routinely in the books of public finance or macroeconomics. As for the ideas of classical economists, per se these are considered inappropriate for modern economies and are ignored even in books of history of economic thought. This paper takes issue with this view and argues that the ideas of classical economists on public debt might be more relevant nowadays than is commonly thought (Bhatia, 2003).

It is not that the classical writers were against any form of debt. Classical economists favored minimum public.

Deficit financing might produce currency or action and inflation. Payment of interest on public on public debt and refund, of the principle will require additional taxation. It might be difficult. Since government power to tax is not unlimited. Deficit financing means an increase in public debt. Since, it is an easy method to obtain income. Government is likely to be extravagant and irresponsible consequently, public debts will definitely a burden to the economy.

Thus, classical economists always favor of minimum government expenditure in the economy. They generally against public borrowing and always suggest for balance budget and laissez-fair policy. They like to approve public debt only for productive programs and believed that debt serving did not necessitate additional taxation.

### **2.1.2 Keynesian Review**

It was only after the great depression of the 1930's when new wave of thinking took place in the writing of Keynes. Who advocated for increasing government role in the economic activities by adopting deficit financing so that effective demand can be created in the economy ensuring employment opportunities. In the 1950s, a development process in the developing countries took place significantly. To meet the growing need the fund should rise for meeting development requirements. Capital deficiency resulted in increasing volume of budgetary deficits. The great depression of 1930's and the Keynesian revolution paved the way for the development of the modern theory of public debt as a part of the functional finance. Those who follow Keynes are of the view that public debt is income generating and so it is not burden of the community (Acharya, 2015).

Moulton (1943) mentioned that public debt as a national asset rather than liability and says that it is essential for the prosperity of the country.

Hanson (1941) wrote in that effect of public borrowing on redistribution of income where net transfer of resources from lower income groups to upper income groups. He further states that, If government borrowing to taken from the small savers, the increase in the size of public debt will not prove unfavorable to an equitable distribution of wealth. But if the growth of it is very rapid, it will not be possible for relatively small savers to take any large proportion of new securities issued. They will



be absorbed by the rich and the well-to do and by large corporations. A rapid growth in public debt is therefore likely to intensify inequalities in wealth distribution.

Harris (1974) analyzed that government expenditure could be productive and need not necessarily be wasteful and so case for public borrowing is not strengthened. Those who follow can take into account the income generating aspect of the public debt and reject any possibility of internal debt being burden upon the community.

Lerner (1955) expressed that the internal debt may not have direct money burden in a community as a whole, since the payment of interest to meet the burden involved simply transfer the purchasing power from one group of persons to another. To extent the creditors and taxpayers are the same as there may not be any net burden at all on the community but to extent the creditor's and tax payer's belong to different income groups the change in the distribution of income among different section of the community may take place. Generally, government bonds and securities holders are mostly rich people whereas the burden of taxation fall both the rich as well as poor section of the community.

Singh (2004) observed that increased government expenditure by using deficit finance is likely to raise the level of aggregate output and income. Hence, public borrowing need not necessarily be unproductive, inflationary and burdensome. Many Keynesian carried the analysis to the other extreme and hold the view that if debts are internally held, there is nothing to worry about their size. Such a debt involves merely a serious of transform payment and they reject the economy as a whole. Hence, the only concern should be about economic stability at the high level of income and employment.

Mukherjee (1979) explained that in the word in which Keynesianism abounds, one might reasonably expect that balancing of the government's budget would be regarded as an outdated policy goal. A great many other Pre-Keynesian fiscal notions have gone hackneyed. One seldom hears those days that a rupee of government expenditure causes a corresponding reduction of a rupee of private outlay, that government expenditure cannot raise the level of national income, or that we can never achieve fuller employment by government spending. However, amidst the wide acceptance of the goals and tools of Keynesianism, there is remarkable persistence in the notion that government budgets ought to be balanced even balance annually.

After Fukushima earthquake of 2011, Japan needs huge government expenditure and for that, they collected fund from public debt and invested in economy. Now Japan

also is in recovery phase. Japan ranked first on taking public debt from 2011 to till now. Keynesians debt theory is even practical in present time.

Keynes suggested that deficit spending is crucial to avoid long term recession but at The age between 2000 to 2007 Britain, Germany, France, Italy, Spain, Ireland, Portugal, Denmark, Rumania are increasing retirement age and sloshing in public outlays and cut in welfare program and increase in tax (VAT). However, people are against this policy. In France various trade unions was in fight with government launching strikes with the help of students. Prof. Stieglitz argued that this plan of slashing government outlays is only a temporary; it is not last solution to reduce public debt. But above mentioned governments are reducing government spending to narrow down the public debt and decrease the deficit. After the Global Economic, meltdown (2007-2009) these countries realize that reducing government expenditure is not long-term solution, so they again increased government expenditure even that is from public debt. After reinvesting in economy there economy gradually came to recovery phase. So Keynesian debt theory is always effective on rescission.

### **2.1.3 Post-Keynesian Review**

During World War II and the post-war years, the size of public debt increased enormously. The increase in the size of public debt has caused some revision in economists thinking on the subject. The post Keynesian economists accept a large part of modifications of the classical debt theory has brought by Keynesian economics. However, it emphasizes the transfer and management aspect as well as the interrelationship between public debt and money supply (Harris, 1974).

Some Post-Keynesian economists argued that deficit spending is necessary, either to create the money supply or to satisfy demand for savings in excess of what can be satisfied by private investment.

The developing countries have the natural resources but lack of the technology for management. There is gap between import-export, saving -investment and income-expenditure. To fulfill this gap debt is an essential fact. It may be internal or external. Due to lack of capital, skill, and management underdeveloped countries fails to receive internal borrowing. Borrowing can be undertaken in order to mobilize the technology for the economic development. It has produced or transfers of resources form the richer to the poorer countries. In these context the term foreign debt is a means of reducing the gap.

Harris (1974) mentioned that government expenditure could be productive and need not necessarily be waste full and so case for public borrowing is strengthened. Those who follow can take into account the income generation aspects of the public debt and reject any possibility of internal debt being burden upon the community.

Groves (1950) concluded that Mill propounded the views that public debt should function as the balance wheel of the economy. Stuart's view as presented by Walter F. Setter is as under, Public borrowing must be adjusted to the condition of trade at the particular time. Public borrowing is in appropriate as long as circulation is full because it would only raise the rate of interest and have undesirable consequences is stagnation in one part of the economy and there is unemployment and a slackening of trade and industry, the state should absorb this excess and through its expenditure throw it into new channels of circulation. Thus, the use of public credit is conceived as the balanced wheel in the economy. It keeps resource fully employed and prevents stagnation in any point of economy from having an adverse effect elsewhere. In addition, public debt credit is a necessary instrument of war finance.

Avramovic (1964) mentioned that external borrowing in terms of a country's debt servicing capacity. They provided as useful framework for the examination of external borrowing: assuming that country borrows only to help finance well-conceived development programs and his authors visualize three stages in the external debt cycle. In stage one; the country's saving is below the desired level of investment. It borrows from abroad to finance part of its investment and also to service the external debt. The burden of debt servicing is continuously differed and debt increase rapidly. In the age two, saving has grown enough to finance all domestic investment however, the country continuous to borrow abroad to cover service cost of debt. The external debt grows but at a slower rate in stage one, at the end of the stage two it reaches a maximum. In stage three, the country stops borrowing abroad to cover interest payments and being to reduce the external debt. A very poor country may take a long time to move through stage one and two, if the return on capital obtained by foreign borrowing is low relative to the interest rate, may never reach stage three.

Goode (1984) analyzed that borrowed money when used to finance public investment causes no such reduction, all that will happen is change in the composition of capital formation. To him the inference is that failure to restrict borrowing to the finance of the investment will retard economic growth. A weakness of argument is that the not

all outlays classified. As investments actually contribute to growth, while some expenditure.

Munla (1992) observed that the origin of debt problems and explained. The debt crisis had its origin in the substantial rise in the external liabilities of the developing countries during the second half of the 1970s and early 1980s, in an environment of large –scale recycling of the oil exporter’s surpluses rising world inflation and negative real interest rate. At the time, many viewed this recycling of funds as a positive development: creditors were able to identify new investment out less and debtors could acquire funds needs for development purposes.

The author again explained that an external debt crisis was due to a drastic deterioration in external economic environment in form severe recession in the industrialized economics. Economic mismanagement and policy errors in debtor countries are very dangerous for economic growth.

Gurley and Shaw (1995) presented that public debt is applied for the maintenance of balance between the expenditure and revenue for financing economic development, since developed or developing countries always face the problem of fund, which is reflected in a large extent and as ever-increasing financial resources gap in government budgetary. Therefore, the selection of appropriate method for development is very important for the success of a development plan. Various methods to be adopted mobilizing financial resources and their implication for the economy are among the leading issues in economic development. Finance aspects are as important as other aspect of economic development and their study should be received proper attention.

Singh (2004) expressed that public borrowing does not always deprive the private economy of resources and instance in a period of widespread unemployment. It is also not accepted now that borrowing in a period of full employment must be inflationary. It depends on the circumstances. If borrowing taps funds otherwise spend on consumption, it is not more inflationary any then taxation. A long public debt, if internally hold, poses many problems for the economy.

The Post-Keynesian did not reject the entirely classical notion regarding to public debt rather put in a better prospective. According to them, public borrowing does not always deprive the private sector from the use of resources. As for example during the time period of wide spread unemployment, it may be productive as well as essential.

Besides, it is not accepted now because borrowing in the period of full employment generally becomes inflationary than taxation. Internally holding of large public debt possesses many problems for the economy. It complicates the monetary policy and creates difficulties of management and so on. In resorting to borrowing, the government should be guided by macroeconomic prospective.

Post-Keynesian economist advanced their idea that government borrowing does not always deprive the private economy of resources as, for instance, in a period of widespread unemployment. It is also not accepted now that borrowing in a period of full employment must be inflationary. It depends on these circumstances if borrowing taps funds otherwise spent in consumption, it is not more inflationary than taxation. A large public debt, if internally held, poses many problems for the economy. They think that income, saving and investment are the crucial factors to achieve steady growth for developing countries. So the overall aim of borrowing is not to equalize income in different countries but to provide every country with an opportunity to achieve steady growth.

#### **2.1.4 Review in Modern Context**

Public debt plays a prominent role in underdeveloped countries. It helps the mobilization of resources for economic development. In such countries, resources of revenue are inadequate and insufficient for the heavy expenditure that has to be incurred for the development schemes. The objectives of government borrowing of LDCs is that it should be used as an investment to mobilize savings of people which would otherwise have gone to idle or to eat and drink. Public debt should be advocated for creating additional capacity and producing capital equipment. Generally government borrows for the creation of infrastructures in the economy. Since it requires huge investment initially which cannot be met only through revenue collection. The aim of government policy should be helped in strengthening the money and capital market, which in turn accelerates development and price stability. The government of LDCs tries to mobilize the savings of the community partly through the device of public borrowing in order to meet the financial need of its development programs. Especially in underdeveloped countries, as a fiscal instrument to rise the effective demand, which ultimately leads to accelerate the pace of economic development. It also acts as an effective instrument of inflation generated in the process of growth and ensures growth with stability. It also acts as a balancing

wheel that controls the tempo of the business cycle. In the period of depression when aggregate demand is not enough to accelerate the level of production and employment, compensatory fiscal policy suggest to increase in public expenditure and public works by mobilizing idle saving in the hands of people through public borrowing to create effective demand and promote an economic recovery ( Barman, 1986).

Growth in the debt ratio causes ratio causes alarm for two reasons. First, growth in debt ratio might lead to crowding out of private investment. Second and important is the assumption that government spending out of the borrowed funds might be unproductive (Michael & Posher, 1992).

Chelliah (1992) observed that the ideal situation is on which, first revenue will meet subsidies, other transfers, interest payment and the greater part of current expenditure, debt finance will be used for meeting the government non remunerative capital formation, a proportion of current expenditure designed to increase social capital and productivity the government of financial investments and second, the total domestic saving, the nongovernment sector will be able to obtain a due share of saving and that there will be no need to borrow from the central bank more than the correct amount of seignior age.

Deficits financing are considered to represent sinful profligate spending at the expense of future generations who will be left with a smaller endowment of invested capital. This fallacy seems to stem from a false analogy to borrowing by individuals. Current reality is almost the exact opposite. Deficits add to the net disposable income of individuals, to the extent that government disbursements that constitute income to recipients exceed that abstracted from disposable income in taxes, fees, and other charges. This added purchasing power, when spent, provides markets for private production, inducing producers to invest in additional plant capacity, which will form part of the real heritage left to the future. This is in addition to whatever public investment takes place in infrastructure, education, research, and the like. Larger deficits, sufficient to recycle savings out of a growing gross GDP in excess of what can be recycled by profit-seeking private investment, are not an economic sin but an economic necessity. Deficits in excess of a gap growing as a result of the maximum feasible growth in real output might indeed cause problems, but we are nowhere near that level. Even the analogy itself is faulty. If General Motors and individual

households had been required to balance their budgets in the manner being applied to the Federal government, there would be no corporate bonds, no mortgages, no bank loans, and many fewer automobiles, telephones, and houses. 15 Fatal Fallacies of Financial Fundamentalism-William (Vickrey, 1996).

According to Sing, the level of government borrowing is a function of the ability and willingness of person and business to lend and the governments' power and intention to tax. Maximum level of debt can be expressed in terms of the following equation.

$$D = \frac{Y_t - 0}{r}$$

Where,

D = Maximum sustainable national debt.

0 = Constant expenditure for ordering government operation.

$Y_t$  = Maximum ratio of tax rate receipts to national income.

r = The contractual interest rate of government debt.

However, the burden controversy depends upon the nature of investment, productive or unproductive. If it is productive, there will not be a burden because of creation of real asset in the economy. This further generates income of the people thereby increasing national income. If it is unproductive, the situation will naturally be burdensome on the government (Singh, 2001).

An underdeveloped country is characterized by shortage of capital resources. Since the saving capacity of masses is very low, the authorities have to take appropriate measures to step up rates of saving and investment in the economy. Public loan had been frequently raised by rules for financing useless and expensive wars, conspicuous consumption and other forms wasteful expenditure. The practice of raising public loans and having deficit budgets symbolizes and irrational behavior which should be avoided so that it would help to be free from debt.

Bhatia (2003) analyzed that public debt should not become drain upon it budget interest payment on public debt should be taken as a burden. The burden that arises from large public debt. The resources used in administering the tax collection and interest payment, it manifests itself in the form of loss of maneuverability in the public budget.

Total indebtedness of a government, especially as evidence by securities issued to investors. The national debt grows whenever the government operates a budget deficit that is, when government spending exceeds government revenue in a year. To finance its debt, the government can issue securities such as bonds or treasure bills. The levels of national debt varies from country to country. From less than 10% of the GDP to more than double it. Public borrowing it's though to have an inflationary effect on the economy and often, used during recessions to stimulate consumption, investment, and employment (Britannica Ready Reference Encyclopedia, 2006).

The Case Study of Central and West African Countries developed a simple analytical framework and showed that highly concessional external debt is usually a superior choice to domestic debt in terms of financial costs and risks, even in the face of a probable devaluation. The paper has stressed the importance of the availability and terms of financing, and of overall long term debt sustainability. It reviews the principles and practical considerations involved in the choice between foreign and domestic financing of fiscal deficits. This paper explains factors such as the country's size; the level of government revenue and the track record in servicing debt play a major role in determining possible government financing options. In practice under the circumstances prevailing in most Sub-Saharan African countries, debt management strategies usually need to focus on short term cash management. Given their low creditworthiness, Sub-Saharan African countries will have difficulty, in the short run, to diversify budget deficit financing sources. This paper states the financing systems of Sub-Saharan African countries are generally underdeveloped and lacking in diversity. Some of countries have a fairly extensive co-operative credit sector, but none so far has active markets in financial instrument. Although regional institutions are introducing securities markets, these initiatives are still at an early stage. So, domestic budget financing in Sub-Saharan African still mainly consists of bank loan. (IMF, 2016).

Domestic government debt markets play a critical role in managing public debt efficiently and in reducing the vulnerability of developing countries to financial crisis. This study assists countries in designing a reform and capacity building program in debt management and domestic government debt market development and covered all areas that has potentially important policy implications to (WB, 2010).

The study propose a theoretical model of endogenous growth that demonstrates that the level of the public debt to GDP ratio should negatively impact the effect of fiscal



policy on growth. This effect occurs because government indebtedness extracts a portion of young people's saving to pay interest on the debts. Therefore, the payment of debt interest requires an allocation exchange system across generations that are similar to a pay as you go pension system, which result in changes in the saving rate of the economy (Mussolini, 2014).

In the long-term, public debt influence the GDP growth and the result is a negative sign pointing out the government gross debt lowers the GDP growth. The correlation has the same sign in the short-term, when public debt maintains its negative influence on GDP growth, controlling for other major determinant factor of growth, such as FDIs or total investments. Some studies evaluate the direct or indirect impact of higher indebtedness on economic growth for countries in the EU, which were in the epicenter of the extended sovereign debt crisis (Mencinger & Verbic, 2016).

## **2.2 Empirical Perspective**

### **2.2.1 International Review**

Various researchers, students, administrators, economists, foreigners have made thesis, dissertations, studies and reports about public debt. Some of those international articles, thesis and project reports related to the subjects included in this thesis are as follows:

Domar (1986) defined public debt as the ratio of the total debt to the national income. The author lays down the condition under which the burden would increase or decrease over time. The author proposed a relation as following.

Let,

$D$  = amount of debt outstanding at a beginning of a year.

$T$  = amount of taxes necessary to cover the interest change on debt.

$i$  = ratio of the interest paid on debt

So,

$$T = Di \dots\dots\dots (i)$$

Let,  $t$  = fraction of income ( $Y$ ) taken through tax to pay interest.

Therefore,

$$t = T/Y = iD/Y \dots\dots\dots (ii)$$

From the equation (ii) it follows that tax rate is necessary to pay interest on debt depends on the size of debt multiplied by the rate of the interest to income. The tax rate may be related to growth of income and the budget. Therefore the relevant equation is:

$$t = \frac{1}{(1/i)(G/b)} = \frac{ib}{G}$$

Where,

G = ratio of growth of income.

b = ratio of deficit to income.

This equation shows the burden of debt would increase or decrease. When either ratio of deficit to income or rate of interest paid on debt increases then the burden of debt will also be increased or the burden of debt (t) and ratio of deficit to income (b) and rate of interest paid on debt has positive relationship. Likewise, the burden of debt (t) and rate of growth of income (G) has negative relationship (Domar, 1944).

Public debt was not heard of prior to the 18<sup>th</sup> century. It has been discussed, included and expressed for and against it by the economists in the beginning of 19<sup>th</sup> century. Particularly the classical economists such as pigou, T.R Malthus, J.B.say, C.F Butable visualized their views against the government borrowing. They said that, “let money fruiting on the pockets of the people”. According to them state has to perform its limited activities, maintenance of law and order justices and social security. They argued that public debt creates burden in the economy because of its unproductive nature.

Classical economists advocated for a balanced budget and therefore, in their analysis public borrowing found no significant place. They were in the view that as far as possible public borrowing should be avoided and if the government is compelled to borrow, government should finance its current expenses entirely out of the taxes and only that project should be financed through public borrowing which is productive in nature so that debt would be liquidated ultimately and the whole process will be self-liquidating.

Self-liquidating projects may be defined narrowly as investment in public enterprises that provide a fee or sales income sufficient to service the debt incurred in their

financing, or they may be defined broadly as expenditure projects that increase future income and the tax base. Such projects permit servicing (interest and amortization) of the debt incurred in their financing without requiring an increase in the future level of tax rates (Musgrave, 1959, p.569).

The classical philosophy propounded by Adam Smith and his supporters have viewed “Laissez-fair” equates a sound and balanced budgetary policy that doesn’t consider the fiscal deficit and hence public borrowing. The classical says that “just as private economic units should not run into a persistent deficit, the government should not also use persistent deficit”. Moreover they state if debts are indispensable and inevitable for a particular period of time it should be paid if as soon as possible.

The classical economists have viewed the economy as always being or tending to be fully employed. Hence their thinking on public debt stressed real rather than monetary aspects. In an economy in which all resources are in use government cannot acquire resources by borrowing save at the expense of the private sector. Borrowing must divert scarce means of production from the private sector to the public sector of the economy (Newman, 1968, p.174).

Ricardo Theory of public debt among the not so many theories on public debt there is the Ricardo theory of public debt. In his Principles, Ricardo premised the treatment of public debts by a statement that the ordinary and extra-ordinary expenditures of the State were chiefly payments made to sustain unproductive laborers and he pointed out that any saving from the expenses of the Government would “be added to the income if not to the capital of the contributor NRs. So convinced was Ricardo of the wastefulness of public expenditure that, in a letter to McCulloch in 1816, he showed great concern lest his writings should be construed as giving encouragement to ministers to be profuse in the public expenditure.

Government debt arises out of borrowing by the treasury from banks, business organizations, and individuals. The debt is in the form of promises by the treasury to pay to the holders of these promises a principal sum and in most instances interest on that principal. Borrowing by the treasury takes place when current revenue receipts are inadequate to maintain a treasury cash balance large enough to meet current cost payments and to retire maturing debt. Borrowing is resorted to in order to provide funds for financing a current budget deficit. Such current deficit borrowing results in a

net addition to public debt. In recent fiscal years, however, a major part of federal government borrowing has been to refund already existing debt as it matures (Taylor, 1974, p.178).

Classical Theory is criticized after the great depression of 1930s and new wave of thinking took place in the writing of J.M Keynes. It was Keynesian economics that effected a truly significant revision in the theory of public debt. “The General Theory of Employment, Interest, and Money” which Keynes published in 1936, attacked the classical idea that an enterprise economy is self-equilibrating at full employment level. Instead, he argued, such an economy may tend towards an under employment equilibrium, in which case there are resources in private sector that may be unemployed for relatively long periods of time in the absences of corrective or compensating action by government. In a situation when resources are unemployed on large scale, government employment of these resources does not necessarily deprive the private sector of anything. On the other hand, increased government spending by using idle men and materials is likely to raise the level of aggregate output and income. Hence public borrowing need not necessarily be unproductive, inflationary and burdensome.

For Keynesian economists, if public debts are internally held, there is nothing to worry about their size. Such a debt involves merely a series of transfer payments and they cancel out for the economy as a whole, hence the only concern was on high level of income and employment. Keynesian view is that deficit budget would be a powerful tool during the time period of stagnation or depression.

In a world in which Keynesianism abounds, one might reasonably expect that just balancing of the government’s budget would be regarded as an outdated policy goal. A great many other pre-Keynesian fiscal notions have gone hackneyed. One seldom hears those days that a rupee of government expenditure causes a corresponding reduction of a rupee of private outlay, or that government expenditures cannot raise the level of national income, or that we can never achieve fuller employment by government spending. But amidst the wide acceptance of the goals and tools of Keynesianism, there is remarkable persistence in the notion that government budgets ought to be balanced even balanced annually (Mookherjee, 1979, p.239).

During the World War and post-world war period, the size of public debt and debt serving increased enormously. This has made the economists to make the revision on

the aspect of public debt. The post Keynesian development concept was that it emphasized the transfer and management aspect as well as interrelationship between public debt and money supply. Post Keynesian economists accepted the large part of modification of the classical debt theory has brought about by the Keynesians. They propounded an idea in which government does not prevent the private economy of resources at the time of widespread unemployment in the economy. They also accepted that in the period of inflation, borrowing must be inflationary. They believed that more public poses more problems in the economy which creates problem in debt management.

Hansen contended that success or failure of public debt policy can be determined only in relation to the aggregate of national income and its distribution. Whether or not the public debt should be reduced depends on the general economic situation, not on principles applicable to private commercial accounting. Economic activity in the government sector is not sustained out of private economic activity; it is an independent sector in the production of goods and services. Government outlay financed by debt creation will increase the level of national income, regardless of the productivity of the assets which may be acquired (Mookherjee, 1979, p.242).

Hansen pointed out that the limits to the public debt must be determined in relation to a nation's taxable capacity, the danger of price inflation, and the distribution of income; the limits are flexible and not fixed. The Hansenian contribution is not, however, the whole of the development of Keynesian fiscal theory. The culmination is A.P. Lerner's functional finance. This approach to fiscal policy views government revenue and expenditure and government debt solely as instruments for the control of aggregate community expenditure. These are the tools, and the goal is the maintenance of stable employment at constant prices. Taxes and expenditures should be increased or reduced solely to affect the community's rate of spending; debt instruments should be sold to the public to absorb their idle balances and reduce liquidity in times of inflation, and redeemed to increase liquidity in times of depression. Perhaps to gain currency for his views Lerner formulated his propositions in terms of 'laws' (Mookherjee, 1979, p.243).

Borrowed money when used to finance public investment causes no such reduction; all that will happen is the change in the consumption of capital formation. Borrowed money when used to finance public investment because no such reduction all that will

happen is the change in the consumption of capital formation, the inference is that failure to restrict borrowing to the finance of investments will retard economic growth. A weakness of the government is that not all outlays classified as government consumption to promote growth (Goode, 1984, p.198).

The Post-Keynesian economists did not reject the entirely classical notion regarding to public debt rather put it in a better prospective.

- According to them, public borrowing does not always deprive the private sector from the use of resources. As for example during the time period of wide spread unemployment, it may be productive as well as essential.
- Besides, it is not accepted now because borrowing in the period of full employment generally becomes inflationary than taxation.
- Internally holding of large public debt poses many problems for the economy. It complicates the monetary policy and creates difficulties of management and so on
- In resorting to borrowing, government should be guided by macro-economic considerations.

Now a day's public debt is applied, especially in under developed countries, as a fiscal instrument to raise the effective demand, which ultimately leads to accelerate the pace of economic development. It also acts as an effective instrument of inflation generated in the process of growth and ensures growth with stability. Besides it also acts as a balancing wheel that controls the tempo of the business cycle. In period of depression when aggregate demand is not enough to accelerate the level of production and employment, compensatory fiscal policy suggest increase in public expenditure and public works by mobilizing idle saving in the hands of people through public borrowing to create effective demand and promote an economic recovery ( Barman, 1986, p.12).

The ideal situation is one in which first revenues will need subsidies, other transfer, interest payments, and the greater part of current expenditure; debt finance will be used for meeting the government's non-remunerative capital formation, a promotion of current expenditure defined to increase social capital and productive and the requirements of financial investments and second, the total of domestic borrowing will be determined in such a way that, given the rate of domestic saving, the non-

government sector will be able to obtain an unpaid share of saving and that there will be no need to borrow from the central bank more than the current amount of seigniarage (Chelliah, 1992, p.208).

Michael Posner pointed out that growth in the debt ratio causes alarm for two reasons. First, growth in debt ratio might lead to crowing out of private investment. Second, and more important, is the assumption that government spending out of borrowed funds might be unproductive. The argument is not sustainable. In fact, that part of public debt is burdensome whose servicing falls entirely or mostly on tax revenues. V.M. Dandekar is of the view that a country enters in a debt trap when its capacity to take loans falls short of interest payment obligations. Hence all public debt is not burdensome (Singh, 2001, p.366).

The level of government borrowing is a function of the ability and willingness of persons and business to lend and the government's power and invention to tax. Maximum level of debt can be expressed in terms of the following equation.

$$D = \frac{Y_t - O}{r}$$

Where,

D = Maximum sustainable national debt

O = Constant expenditure for government operation

Y<sub>t</sub> = Maximum ratio of tax receipts to national income

r = the contractual interest rate of government debt (Singh, 2001, p.367).

Ntshakala (2015) suggested that the relationship between public debt (i.e. public external debt and domestic debt) and economic growth in Swaziland. This study examines the effect of both public external and domestic debt on economic growth in Swaziland including variables such as; inflation and government expenditure to the model to avoid spuriousness of the results. This study is guided by the neoclassic economic growth theory. Advanced econometric techniques were used to analyze the time series data spanning 1988-2013. Ordinary Least Square (OLS) method has been used to determine the nature and extent of each relationship as all variables were found to be normally distributed and stationary at level. The study found that there is no significant relationship between external debt and economic growth in Swaziland

for the period under study, while on the other hand; domestic debt was found to have a significant positive relationship with economic growth at 5 percent level of significance. In view of this, the study recommends that the government of Swaziland should encourage sustainable domestic and external borrowing and utilize the funds in productive economic activities.

Mohanty and Mishra (2016) examined the impact of public debt on economic growth by taking other control variables like institutional credit and commercial electricity consumption. It uses panel data of 14 major (non-special category) States in India for the period FY 1980-81 to FY 2013-14. After establishing long-run relationship among the variables, panel long-run estimates are drawn using both DOLS and FMOLS methods. Results from both the methods suggest positive and statistically significant impact of all the variables on economic growth. To test causal relationships among the variables, Dumitrescu-Hurlin pairwise causality test is employed. The results indicate existence of bi-directional causality between public debt and economic growth. One way causality is revealed from economic growth to electricity consumption and from economic growth to credit. The policy implication is that, the sub-national governments in India should not think public debt as a burden but expand it for productive spending to reap higher economic growth.

Egbetunde (2012) examined the causal nexus between public debt and economic growth in Nigeria between 1970 and 2010 using a Vector Autoregressive (VAR). The variables used in the study were tested for stationarity using the Augmented Dickey Fuller and Philip Perron test. The result showed that the variables are stationary at first differencing. Co-integration test was also performed and the result revealed the presence of co-integration between public debt and economic growth. The co-integration results show that public debt and economic growth have long run relationship. The findings of the VAR model revealed that there is a bi-directional causality between public debt and economic growth in Nigeria. The paper concluded that public debt and economic growth have long run relationship, and they are positively related if the government is sincere with the loan obtained and use it for the development of the economy rather than channel the funds to their personal benefit.

Ra and Rhee (2005) concluded that Nepalese public debt appears to be sustainable. The debt sustainability analysis and stress tests in this report suggest that the debt to GDP ratio will be stable at the current level over the next 5 years. The primary reason



for this is that the bulk of public debt has been financed in the form of loans at favorable interest rates. Nonetheless, there are several concerns. As seen in macroeconomic forecasts, the share of external debt in total public debt is likely to decline in the future, implying that the amount of loans will decline over the next 5 years. If the amount of loans does indeed decrease, Nepal may face higher interest rates on alternative funds. Hence, interest payments are expected to rise, in turn, increasing the debt-to-GDP ratio. A sharp and unanticipated change in the exchange rate is the most important determinant of the debt-to-GDP ratio. A sharp and unanticipated change in the exchange rate is also a threat to debt sustainability. The study found out that exchange rate is the most important determinant of the debt-to-GDP ratio. A long spell of political instability, in particular, could lead to financial turmoil in the foreign exchange market as well as a decline in the supply of funds from abroad.

### **2.2.2 National Context**

Various researchers, students, administrators, economists, foreigners have made theses, previous studies and government reports about Nepalese public debt. Some of those articles, theses and project reports related to the subject matter.

Joshi (1982) concluded that internal debt can play a vital role to develop money market, capital market and external debt is mainly for rapid economic development and to fill up the resource gap in the economy. For development expenditure is persistent because of poor mobilization of internal resources. Macro-economic imbalances such as every widening trade deficit, investment saving gap and large amount of fiscal deficit have been the main issues before the government for Nepal. There are the factor contributing to the foreign aid dependency syndrome. Excessive flow of foreign loan to bridge up three gaps (fiscal deficit, trade deficit and investment saving gaps). Therefore, the substantial increase in foreign debt has increased its burden of debt servicing but debt-servicing capacity of the economy is not increasing satisfactorily. The author has found out that the average annual growth rate of GDP, export earning is considerably as compared with the rate of magnitude of debt and debt servicing requirements which clearly shows that the debt servicing capacity of Nepal is very poor which is also responsible for increasing debt obligations.

Acharya (1968) made the first exercise on public debt including features, problems and pattern of public debt the author conclude that public debt is most popular in this

days because of payment of debt maturity can be adjusted through the issues of fresh public debt instruments. But the fact is that habit of purchasing bond issued by the government should be developed among the people (Acharya, 1968).

Gurugharana (1996) presented data of the percentage share of outstanding foreign debt in GDP at factor cost and foreign debt servicing in regular expenditure (FY 1984/85-1993/94). He analyzed the burden of public debt as debt servicing cost in Nepal and concluded that “Although foreign loan is relatively much softer terms for Nepal compares to India and China, the very low rate of return and increasing share of loan in foreign aid imply that aid slowly pushing Nepal toward debt crisis in the coming years” (Guru-Gharana, 1996).

Pyakuryal (2002) suggested about effective use, reduction in aid dependency and quality enhancement, if no inability to enhance aid utilization can drag the country in to the debt trap.

Great Britain at first helped Nepal to install the Pharping Hydropower Project during the region of Chandra Shamsher (Shrestha, 1990). When formal assistance in Nepal came from the USA in 1951 in the grab of “Point Forum Program” since then the role of Indian aid too was diversified in that Indian aid started to support massively the infrastructure activities in different sectors. Capital aid from the USA was after 1956 when Nepal entered the planning and central banking era (Sharma, 1987). Assistance from China and the USSR, since the late 1950s, when Nepal has to be faced BoP problem, Nepal asked to borrow correcting the macro economic imbalances, strengthening incentives for domestic savings and investments and achieving greater efficiency in resource allocation through medium term of SAP program (Dahal, 1990).

Singh (1997) analyzed the trend of revenue, expenditure and deficit effect of under borrowing on money supply, inflation and import etc. He also analyzed the structure of internal public debt and impact of it on the economy. He found most inflationary nature of internal borrowing to increase inflation in economy.

Sharma (1998) analyzed that the ever increasing debt in Nepal and its servicing has really created a situation which is deriving the country towards debt trap. Huge amount of loan is allocated for meeting expenses within the capital expenditure. A

good amount of borrowed fund is for debt servicing. Volume of borrowed amount exceeds the maximum legal limited of borrowing.

Subedi (2008) concluded that the average annual growth rate of GDP, revenue and export earnings are considerably low as compared with that of debt and its servicing obligation and most of the borrowed funds are using in unproductive sec to NRs. Because of the misuse of borrowed funds, other things remaining the same there are symptoms of steadily falling into the debt trap. The angle amount of debt and poor servicing capacity of the government compel to think the sinking condition of the economy. It arises several questions about the capacity of debt servicing and existing of the nation. Excessive dependency on foreign assistance makes the balance of payment on the favor of creditors which is horrible situation to get rid of. Any way it can play the useful role for the economic development of every nation and it is widely accepted measured also for financing government expenditure.

Regmi (2008) found out that Nepal is in critical phase of managing public finance because of inadequacy of internal resources. Fiscal or revenue deficit is widening every year. In order to finance the deficit, the government is borrowing internal and domestic debt. The portion of external debt is too higher as compared to domestic loan. In the fiscal year 1986/87, the domestic debt accounted for 37.2 percent of the total debt, while its share was 28.6 percent in 2005/06. Likewise, the share of external loans increased to 71.4 in 2005/06, up from 62.8 percent in FY 1986/87, reflecting growing dependency of Nepal on foreign loan.

Thapa (2007) concluded that government should maintain fiscal imbalance by applying strong fiscal monitoring policy, which might contribute to control growing unproductive and useless expenses in one side and increased revenue on other. To maintain imbalance the government expenditure has to be controlled and allocated the basis of national priority and to increase government revenue through transparent tax policy and effective tax administration. It is better to reduce the increasing trend of public debt. Revenue collection should be increased substantially in order to attain self-sufficiency in the long run. To increase the government revenue must effective tax policy, effective tax administration, control corruption, re-estimation of tax, rationalization of tax structure and expansion on tax base.

Panthi (2004) analyzed the size of overall budgetary deficits excluding grants has remained high mainly due to low revenue and very high expenditure. This has led to

heavy borrowing from internal and external sources. In fact the public debt itself is neither worse nor it impairs the economy. The financing of accumulated fund on productive programs and redemption will be made through such like programs; the public debt may be the quite beneficial to the nation as it outstrip the national economy as a whole. But situation is quite adverse because the impact of the investment of borrowed fund on output has remained unsatisfactory.

Bhandari (2006) stated that public debt is widely accepted measure for financing government expenditure. His future observed that due to the high interest rate of internal debt, the debt servicing of internal debt is greater than external debt serving. The large portion of revenue is spending for debt serving. It has found that the debt servicing capacity is lower than the total debt obligation. In his view the average growth rate of debt service obligation is higher than the growth rate of GDP, revenue and export earnings. So, the growth rate of debt becomes faster and higher than the redemption of debt.

Koirala (2001) presented that Public debt is a useful resource for economic development and several inverse consequences are found by its overuse. The debt crisis of 1980s is widely known as the result of the overuse of resources. The result of the overuse of resources. The WB has established MIGA and the IMF has minted SDRs to curb the crisis in the third world. He further opines that we have only two options; either mobilizes more foreign debt to invest for economic development or put the hand on hand doing nothing. In a nutshell, we should have debt management plan for its better use and regular servicing. The government debt has over a given year is equal to the budget deficit of a higher economic growth requires a higher label of investment that is not possible simply from taxation so that a government seek public borrowing.

Sharma (2002) explained that ever-increasing debt in Nepal and its servicing has really created a situation which is deriving the country towards debt trap. Huge amount of loan is allocated for meeting expenses within the capital expenditure. A good amount of borrowed fund is for debt servicing. Volume of borrowed amount exceeds the minimum legal limited of borrowing.

Thapa (2005) analyzed that Nepal's debt burden and servicing should not be called an excessive, on the basis of its level of development. It is quite burdensome. Nepal has

not taken high growth path so far and once it takes it will require enormous amount of investment and that investment will have to be made through borrowing from both domestic as well as external resources. Nepal will have to borrow an unlimited amount of financial resource from both internal and external source. Therefore, until our growth rate takes momentum. We should be extremely judicious while borrowing to finance the budget deficits. Another worrying issue is debt management system in Nepal. Now it should not be delayed even a single minute to introduce this system to remain safe from heavy price sooner or later.

Neupane (2007) observed that government borrowing has been increasing unlikely and financed mostly on the unproductive sector including uncertainties, high expenditure, hence government always lacks of resources then borrows the new loan to previous ones. That's why, the public debt and its interest is mounting rapidly, but addressing capacity for redemption of the debt is not increasing in same pace.

Ghimire (2008) expressed that the average annual growth rate of GDP revenue and export earnings are considerably low as compared with rate of debt and its servicing obligation and most of the borrowed funds are using in unproductive sector. Because of the misuse of borrowed funds, other things remaining the same there are symptoms of steadily falling into the debt trap. The angle amount of the debt and poor servicing capacity of the government compel to think the sinking condition of the economy. It arises several questions about the capacity of debt servicing and existing of the nation. Excessive dependency on foreign assistance makes the balance of payment on the favor of creditors which is horrible situation to get rid of. Any way it can play the useful role for the economic development of every nation and it is widely accepted measure also for financing government expenditure.

Pant (2008) mentioned the deficiency of revenue in Nepalese economy. He has mentioned the importance of public debt in the developing countries like Nepal to support the budgetary deficit. It has suggested adopting the administration with effective tax policy. It has been recommended that the government should give emphasis to macroeconomic stability while accepting short time or long time loan. The government should pay attention in all the sectors of the economy with high economic growth rate by reducing excessive external dependency and internal resource mobilization

Thapa (2010) discussed that the reality behind the deficit condition is the budget. In the case of Nepal, about the forth coming budget: A vision has mentioned that the three year in interim plan has estimated an average, fiscal deficit/GDP ratio of 4.7 percent (foreign loan 2.5 percent and domestic loans 2.2 percent). In the fiscal year 2009/10 fiscal deficit/ GDP ratio has estimated 4.3 percent foreign loan 2.8 percent and internal loan 1.8 percent. In this regard keeping inflationary trend, government borrowing should not exceed 50 billion for the FY year 2010/11.

Rijal (2010) analyzed that the trend and structure of public debt in Nepal from FY 1987/88 to F/Y 2006/07. While doing the research the research of twenty fiscal years he concluded that the average annual growth rate of GDP and revenue are considerably low as compared with that old debt and its series icing obligation. Other things remaining the same, there are several symptoms that says Nepal is steadily talking into the debt trap. It is because the average annual growth rate of internal debt servicing to total revenue, regular expenditure and GDP are 13.3 percent, 16.4 percent, and 1.5% respectively over the review period. Similarly the export-import gap is widening year by year. The volume of imported goods and services is higher than the volume of exported goods and services. As a result, there exists a loss or, deficit in the balance of payment. The government should maintain fiscal balance. Resources should be channelized efficiently through productive activities. Increase the revenue collection by well-improved administrations as well as administrators, the government should mobilize the revenue in the prime field of the economy such as buildings, infrastructure for hydro-power, transportation, industries and so on. The problem of Nepalese economy is export- import gap. So, to reduce the gap, the government should promote export oriented industries or, import substitution industries.

Nepal faces a moderate risk of external public debt distress but risks could arise from financial sector vulnerabilities, a shock to remittances, or quasi-fiscal liabilities. Although external debt burden indicators generally do not breach the thresholds in both baseline scenario and stress tests, under a heightened financial stress scenario, the debt burden rises notably, with external debt breaching thresholds for prolonged periods. This test stresses the need to urgently address financial sector weaknesses via in-depth reforms. The analysis also suggests that contingent liabilities from SOEs and the pension scheme could pose additional risks to debt dynamics. This highlights the

importance of containing net domestic financing of deficits to around 2 percent of GDP in the near term that would create space for contingent liabilities, though there is marginal room to accommodate additional capital spending in case it is strengthened via enhanced public financial management (IMF, 2012).

CEID Nepal (2012) analyzed the study of overall situation of public debt in Nepal. It examined that the high stock of debt, show growth rate of economy and outflow of considerable amount of resources in the form of debt servicing have raised questions debt sustainability and also whether foreign or domestic borrowing on current terms is beneficial for our economy or not. This study proposed to analyze impact of debt on macroeconomic performance and so on, the methodology approach used in this study is based on: published status reports, audits reports and financial records, and consultation and interactions with the officials of key stakeholders this study was carried out for a quick assessment of the situation, as per the call made for financial Comptroller General Office. The study has examined and identified the key issue in the overall debt situation of Nepal and has made recommendation for its improvement.

Neupane (2015) wrote that the ratio of fiscal deficit to GDP has decrease from 10.65 percent to 7.02 percent in F/Y 1990/91 to 2010/11. However, average annual growth rate of fiscal deficit to GDP 7.02 percent and that of budget deficit to GDP is 5.16 percent during the study period. The share of internal debt is increasing year by year at high rate. Average annual growth rate of total debt as percentage of GDP is 4.42 percent whereas the average growth rate of internal and external debt as percentage of GDP is 1.57 and 2.85 percent respectively. The amount of multilateral loans has been increasing day by day. The government receive more than 90 percent of external loan from multilateral source and less than 10 percent external loan from bilateral sources. The growing trend of borrowing create grate problem for debt management and become major challenging issue for the country. The borrowing money is unlikely financed on the non-monetize and unproductive sector of the economy which is turn has the burden for the country.

Nepal recorded a Government Debt to GDP of 28.80 percent of the country GDP in 2014. Government Debt to GDP in Nepal averaged 48.72 percent from 1999 until 2014, reaching an all-time high of 69.50 percent in 2001 and a record low of 28.80 percent in 2014. Government Debt to GDP in Nepal is reported by the Nepal Rastra Bank (NRB, 2014).

Bhandari (2016) stated that the level of public debt is increasing in the Nepalese economy. While talking about composition of public debt, the average share of external debt is greater than that of internal debt. However, in the latter period, the share of internal debt is significantly greater than that of external debt. The growth rate of economy seems to be relatively low. Low rate of economic and high rate of inflation is one major problem of Nepalese economy. Therefore, the efforts should be accelerating the growth rate so that more employment opportunities can be generated and income of the people can be increase. For this, those measures should be employed which increase the level of aggregate supply. For this, investment should be increase and use of new technology should be promoted. Efforts should be directed towards maintaining the price stability. As the study is based on the descriptive analysis, the cause and effect relationship between the variables could not be found. So, there is further scope to study such relationship between the abovementioned different variables.

Nepal debt is 5,779 million dollars, has increased 421 million since 2015. This amount means that the debt in 2016 reached 27.33 percent of Nepal GDP, a 2.3 percent point rise from 2015, when it was 25.03 percent of GDP. It has risen since 2006 in global debt terms, when it was 4,422 million dollars although it has fallen as a percentage of GDP, when it amounted to 48.9 percent. Nepal per capita debt in 2016 was 199 dollars per inhabitant. In 2005 it was 188 dollars, afterwards rising by 11 dollars, and if we again check 2006 we can see that then the debt per person was 171 dollars. The position of Nepal, as compared with the rest of the world, has remained in 2016 in terms of GDP percentage. Currently it is country number 26 in the list of GDP and 10 in debt per capita, out of the 184 (MoF, 2016).

Hence, Nepal is indebted with internal and external debt. Nepalese budgetary deficit is fulfilled by loan, which is inflationary. However, there is no any best way to avoid borrowing because there is low saving rate. Wide saving-investment gap, revenue-expenditure gap and export-import gap. To fulfill these deficits, there is necessary of borrowing. If it is used appropriately we can improve growth rate, otherwise, may direct towards debt trap.

### **2.3 Research Gap**

The system of public debt is one of the best ways of financing development expenditure of the government which helps to control inflation and to mobilize the



internal financial and to mobilize the internal financial resources in the productive sector of the country's economy. Trade deficits investment saving gap and large amount of fiscal deficit has been fundamental issues and constraint to increase foreign dependency in the Nepalese economy. There has been excessive flow of foreign loans to bridge up these gaps (fiscal deficit, trade deficits and domestics investment saving gap).

Issues of public debt are not a new phenomenon. Earlier thesis also has studied the different aspect of public debt like trend, pattern, financial resource gap and relationship between public debt and GDP. However issues of public debt changes with the changes in time. Therefore, this earlier research study may not be grasping the current issues of public debt because these studies have used old data and information. As a result, these earlier research may not be relevant for the understanding of the different contemporary issues of public debt. In this context, this research study has tried to find out the trend, pattern, financial resource gap and GDP in Nepal by using latest data and information. Further, in the changed socio-economic structure of the economy, the past studies may not provide sound guidelines for present policy prescription. Therefore, an in- depth study on relationship between government debt and economic growth is utmost important and it is expected that it will contribute extra knowledge in the existing field.

## CHAPTER III

### RESEARCH METHODOLOGY

#### 3.1 Research Design

Research design is the plan structure and strategy of the investigation conserved so as to obtain answer to research questions. This research is designed to analyze the import of foreign debt on the economics developed production type model and the variables used in the model has been estimated by the using ordinary least square (OLS) method to identify the significance of result different statistical methods of the different test like F-test, t-test, R<sup>2</sup>-test, D-W test, etc. have been used.

#### 3.2 Nature and Sources of Data

The nature of the study as well as analysis is descriptive as well as analytical. This analysis of the study attempts to get various empirical results using only secondary data. The required data are collected from various issues like Economic Survey (FY 1990/91 to 2016/17), Ministry of Finance(MoF), World Bank(WB), Quarterly Economic Bulletin published by Nepal Rastra Bank(NRB), other bulletins publication like the Budget speech. Human Development Report (HDR), World Development Report (WDR), Journal and various publications of National Planning Commission (NPC) and Nepal government (NG) are also used for other important information.

#### 3.3 Period of the Study

Our empirical analysis is made covering the period of eighteen years from FY 1990/91 to FY 2016/17 focusing on the trend, structure and burden of public debt i.e. after Nepal had multiparty democracy in the year 1990.

#### 3.4 Definition of Variables

**Gross Domestic Product (GDP):** the total final output of goods and service produced by the country's economy within the country territory by residents and non-residents, regardless of its allocation between domestic and foreign units.

**Internal Debt (ID):** Internal debt refers to the public loan floated within the country.

**External Debt (ED):** It is the obligation of a country to foreign agency or government through the bilateral and multilateral sources.

**Total Debt (TD):** It is the obligation of a country to foreign agency or government through the bilateral and multilateral sources.

**Government (GR):** Government revenue is money received by a government. It is an important tool of the fiscal policy of the government and is the opposite factor of government spending.

**Foreign Grant (FG):** Foreign Grant is money that one country voluntarily transfers to another, which can take the form of a gift, an aid or a loan.

### 3.5 Analysis and Interpretation of Data

The collected data have been presented in the tabular form. Trend analyses have been made to explain the table.

#### Regression Equation

The simple linear model will be basically utilized for the multivariate analysis using Ordinary Least Square (OLS) method to estimate the equation. The general form of the regression equation would be:

$$Y = a_0 + \sum_{i=1}^k b_i X_i + \mu$$

Where, Y = Dependent Variable (regressed)

X = Independent Variable (repressor or predictor)

$\mu$  = Random Error Term

#### Effects of Debt on Economic Growth

Regression equation has been used mainly to analyze the relationship between dependent variable like GDP and independent variable like internal debt and external debt. It is used to show the degree and direction of the relationship between variables and it also provides a mechanism for prediction or forecasting. The theoretical statement of this regression model is that Gross Domestic Product (GDP) depends upon the internal debt and external debt. This shows the relationship between GDP and internal debt, external debt as well as total debt. Mathematically, this can be written as:

$$Y = a_0 + a_1 X_1 + a_2 X_2 + a_3 X_3 + e_i \dots\dots\dots (1)$$

Where,

Y = Gross Domestic Product (GDP)

X<sub>1</sub> = Internal Debt (ID)

X<sub>2</sub> = External Debt (ED)

X<sub>3</sub> = Total Debt (TD)

### **Effects of Government Revenue and Foreign Grants on Economic Growth**

$$Y = a_0 + a_1 X_1 + a_2 X_2 + a_3 X_3 + e_i \dots\dots\dots (2)$$

Where,

Y = Gross Domestic Product (GDP)

X<sub>1</sub> = Government Revenue (GR)

X<sub>2</sub> = Foreign Grant (FG)

### **Combine Models**

$$Y = a_0 + a_1 X_1 + a_2 X_2 + a_3 X_3 + a_4 X_4 + a_5 X_5 + e_i \dots\dots\dots(3))$$

Where,

Y = Gross Domestic Product (GDP)

X<sub>1</sub> = Internal Debt (ID)

X<sub>2</sub> = External Debt (ED)

X<sub>3</sub> = Total Debt (TD)

X<sub>4</sub> = Government Revenue (GR)

X<sub>5</sub> = Foreign Grants (FG)

a<sub>0</sub>, a<sub>1</sub>, a<sub>2</sub>, a<sub>3</sub>, a<sub>4</sub> and a<sub>5</sub> are the parameters.

e<sub>i</sub> = Random Error Term

The statistical test of significance of the estimated coefficient has been done by t-test. In order to check the fitness of the model F-test and Adjusted R<sup>2</sup> has used.

In order to test the violations against the classical linear regression model, D-W test has been used to detect autocorrelation. Prais-Winsten and Cochrane- Orcutt method has been used to correct autocorrelation.

### 3.6 Statistical Test of Significance

#### 3.6.1 The Test of the Goodness of Fit ( $R^2$ )

$R^2$  is used for judging the explanatory power, which measures the dispersion of observations around the regression line. It is essential, because the closer the observations to the line, the better the goodness of fit, that is the better explanation of the variables of Y by the change in the explanatory variables.  $R^2$  shows the percentage of the total variation of the dependent variable that can be explained by the independent variables of the multiple determinations and the square of the correlation coefficient. The formula to derive  $R^2$  is mentioned below:

The model with k explanatory variables

$$R^2 = 1 - \frac{\sum e^2}{\sum y^2} = \frac{\hat{a}_i \sum yx_i}{\sum y^2} = \frac{\hat{a}_1 \sum yx_1 + \hat{a}_2 \sum yx_2 + \dots + \hat{a}_k \sum yx_k}{\sum y^2}$$

Where,  $y = Y - \bar{Y}$

$x = X - \bar{X}$

Similarly,

Adjusted ( $\bar{R}^2$ ) can be calculated by following formula. It is denoted by  $\bar{R}^2$ .

$$\text{i.e. } \bar{R}^2 = 1 - \frac{\sum e^2 / n - k}{\sum y^2 / n - 1}$$

Where,  $n$  = total number of observation

$k$  = number of parameters

#### 3.6.2 Test of Significance of the Parameter Estimates

It is applied for judging the statistical reliability of the estimates of the regression coefficients. The following tests will be performed to test the hypothesis in the study:

##### 3.6.2.1 t-test

This test has been performed in order to identify the statistical significance of an observed sample regression coefficient and the formula for calculating the value is:

$$t = \frac{\hat{a}_i}{SE(\hat{a}_i)}$$

Where,

$\hat{a}_i$  = Estimated value of  $a_i$

$SE(\hat{a}_i)$  = Standard error of  $a_i$

### 3.6.2.2 F-test

F-test is used to examine the overall significance of the model. The formula for calculation is:

$$F = \frac{R^2/K - 1}{(1 - R^2)/N - K}$$

Where,  $R^2$  = Coefficient of determination

$K$  = Number of explanatory variables

$N$  = Number of observations in the sample

### 3.6.2.3 Durbin Watson (D.W.) Test

This test is used for detecting serial correlation. In the presence of autocorrelation (Serial Correlation) the Ordinary Least Square estimators remain no longer efficient. As a consequence usual t and f tests cannot be legitimately applied. D.W. test being a most celebrated test can be computed as:

$$D.W. (d) = \frac{\sum_{i=2}^t (e_i - e_{i-1})^2}{\sum_{i=1}^t e_i^2}$$

Where,  $e$  = the estimated error

## 3.7 Data Analysis Procedures

Simple calculation like ratio, percentage etc. is made with the help of ordinary calculator. SPSS (Statistical program for social science), a computer application program and excel are used to calculate and analyze the regression equation. It is also used for other mathematical calculation like annual growth rate,  $R^2$ , Adj.  $R^2$ , F-test, t-test, D-W test etc.

## 3.8 Tools of Data Analysis

To analyze the data, computer programmed Microsoft Excel and SPSS 18 has been used.

## CHAPTER IV

### INTERPRETATION AND ANALYSIS OF DATA

This chapter provides systematic presentation and analysis of secondary data which deals with various issues associated with external debt, internal debt, foreign grant, government revenue and its impact on Gross Domestic Product (GDP) of Nepal. The study has been divided into two parts. Various statistical models described in chapter three have been used for this purpose. It is divided into three sections. The first section deals with general background relating to various issues at the investigation of this research study. Similarly, second section covers the presentation and analysis of secondary data and finally third section discusses on the concluding remarks associated with findings of secondary data analysis.

The secondary data intends to explore the relationship between the GDP and macro-economic variables such as external debt, internal debt, foreign grant and government revenue. Descriptive statistics, correlation analysis and regression analysis has been done to know the relationship between these variables. This chapter presents analysis and findings of the study as set out in the research methodology. There are altogether five independent variables. This study analyses the impact of these variables on GDP.

Statistical package for social science (SPSS) is used to find out the relationship between dependent and independent variables. Firstly, descriptive statistics is used to describe the minimum, maximum, average and standard deviation. Secondly, Pearson correlation is used to examine the relationship between various variables. Thirdly, regression analysis is done to find out the impact of independent variables on dependent variables. Finally, the concluding remark is drawn on the basis of analysis of data.

#### **4.1 Analysis of Data**

The data are collected from the economic survey reports. The structure and pattern of the variables taken for the study are studied and properly analyzed. These variables are external debt, internal debt, foreign grant, government revenue and gross domestic product (GDP) Their structure and pattern are presented in the respective tables and are properly analyzed and described as follows:

The trend of total debt, internal debt serving and external debt serving can be shown in given table:

## 4.2 Trend of Debt and GDP of Nepal

**Table 4.1**

### Trend of Debt and GDP of Nepal

(NRs. In Millions)

Fiscal Year	Internal Debt (ID)	External Debt (ED)	Total Debt (TD)	GDP at Producers Price
1990/91	4,553	6,257	10,809	120,370
1991/92	2,079	6,817	8,896	149,487
1992/93	1,620	6,921	8,541	171,474
1993/94	1,821	9,164	10,984	199,272
1994/95	1,900	7,312	9,212	219,175
1995/96	2,200	9,464	11,664	248,913
1996/97	3,000	9,044	12,044	280,513
1997/98	3,400	11,054	14,454	300,845
1998/99	4,710	11,852	16,562	342,036
1999/00	5,500	11,812	17,312	379,488
2000/01	7,000	12,044	19,044	411,519
2001/02	8,000	7,699	15,699	459,443
2002/03	8,880	4,546	13,426	492,231
2003/04	5,607	7,629	13,236	536,749
2004/05	8,938	9,266	18,204	589,412
2005/06	11,834	8,214	20,049	654,084
2006/07	17,892	10,054	27,946	727,827
2007/08	20,496	8,980	29,476	815,658
2008/09	18,417	9,969	28,386	988,272
2009/10	29,914	11,223	41,137	1,192,774
2010/11	42,516	12,076	54,591	1,366,954
2011/12	36,419	11,083	47,502	1,527,344
2012/13	19,043	11,969	31,012	1,695,011
2013/14	19,983	17,999	37,982	1,964,540
2014/15	42,368	25,616	67,983	2,130,150
2015/16	37,440	16,661	54,101	2,253,163
2016/17	49,777	35,310	85,086	2,642,595
<b>Average Annual Growth Rate</b>	<b>15.58</b>	<b>11.23</b>	<b>11.28</b>	<b>12.7</b>

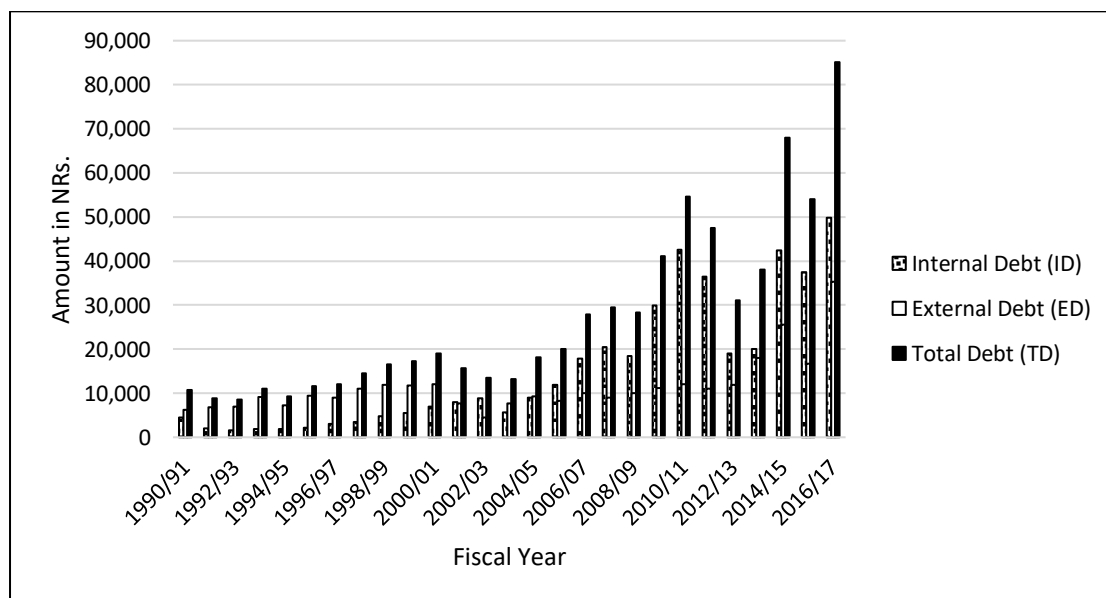
Source: MoF, Economic Survey, 2017/18



Table 4.1.1 shows that the internal debt stood at NRs. 4,553 millions, NRs. 2,079 millions, NRs. 1,620 million at FY 1990/91, 1991/92, 1992/93 respectively and reached to NRs. 49,777 millions in FY 2016/17, whereas the average annual growth rate was 15.58 percentage. Similarly, the external debt stood at NRs. 6,257 millions, NRs. 6,817 millions, NRs. 6,921 million at FY 1990/91, 1991/92, 1992/93 respectively and reached to NRs. 35,310 millions in FY 2016/17, whereas the average annual growth rate was 11.23 percentage. Likewise, the total debt stood at NRs. 10,809 millions, NRs. 8,896 millions, NRs. 8,541 million at FY 1990/91, 1991/92, 1992/93 respectively and reached to NRs. 85,086 millions in FY 2016/17, whereas the average annual growth rate was 11.28 percentage. The GDP at producer's price stood at NRs. 120,370 millions, NRs. 149,487 millions, NRs. 171,474 million at FY 1990/91, 1991/92, 1992/93 respectively and reached to NRs. 2,642,595 millions in FY 2016/17, whereas the average annual growth rate was 12.7 percentage.

**Figure 4.1**

**Trends of Debt in Nepal**



Source: Based on the Table 4.1

Figure 4.1 shows the trend of total debt, internal debt and external debt in Nepal. It shows that both internal debt and external debt have been increasing but internal debt has been increasing in fluctuations but external debt has been increasing smoothly. The bar of internal debt is smaller than external debt initially however it seems larger later on.

### 4.3 Trend of Debt, Foreign Grants, Government Revenue and GDP

The table 4.2 shows the volume of internal debt, external debt, foreign grants, government revenue and GDP at Producer Price along with average annual growth rate.

**Table 4.2**  
**Trend of Debt, Foreign Grants, Government Revenue and GDP**

(NRs. In Millions)

<b>Fiscal Year</b>	<b>Internal Debt (ID)</b>	<b>External Debt (ED)</b>	<b>Foreign Grants(F G)</b>	<b>Government Revenue (GR)</b>	<b>GDP at Producers Price</b>
1990/91	4,553	6,257	2,165	10,730	120,370
1991/92	2,079	6,817	1,644	13,513	149,487
1992/93	1,620	6,921	3,739	15,148	171,474
1993/94	1,821	9,164	2,394	19,581	199,272
1994/95	1,900	7,312	3,937	24,575	219,175
1995/96	2,200	9,464	4,825	27,839	248,913
1996/97	3,000	9,044	5,988	30,374	280,513
1997/98	3,400	11,054	5,403	23,938	300,845
1998/99	4,710	11,852	4,337	37,251	342,036
1999/00	5,500	11,812	5,712	42,894	379,488
2000/01	7,000	12,044	6,753	48,894	411,519
2001/02	8,000	7,699	6,686	50,446	459,443
2002/03	8,880	4,546	11,339	56,230	492,231
2003/04	5,607	7,629	11,283	62,331	536,749
2004/05	8,938	9,266	14,391	70,123	589,412
2005/06	11,834	8,214	13,828	72,282	654,084
2006/07	17,892	10,054	15,801	87,712	727,827
2007/08	20,496	8,980	20,321	107,622	815,658
2008/09	18,417	9,969	26,383	143,475	988,272
2009/10	29,914	11,223	38,546	179,946	1,192,774
2010/11	42,516	12,076	45,922	198,376	1,366,954
2011/12	36,419	11,083	40,810	244,374	1,527,344
2012/13	19,043	11,969	35,230	296,021	1,695,011
2013/14	19,983	17,999	33,960	356,621	1,964,540
2014/15	42,368	25,616	36,374	405,867	2,130,150
2015/16	37,440	16,661	32,478	481,962	2,253,163
2016/17	49,777	35,310	31,332	609,180	2,642,595
<b>Average Growth Rate</b>	<b>15.58</b>	<b>11.23</b>	<b>15</b>	<b>17.56</b>	<b>12.7</b>

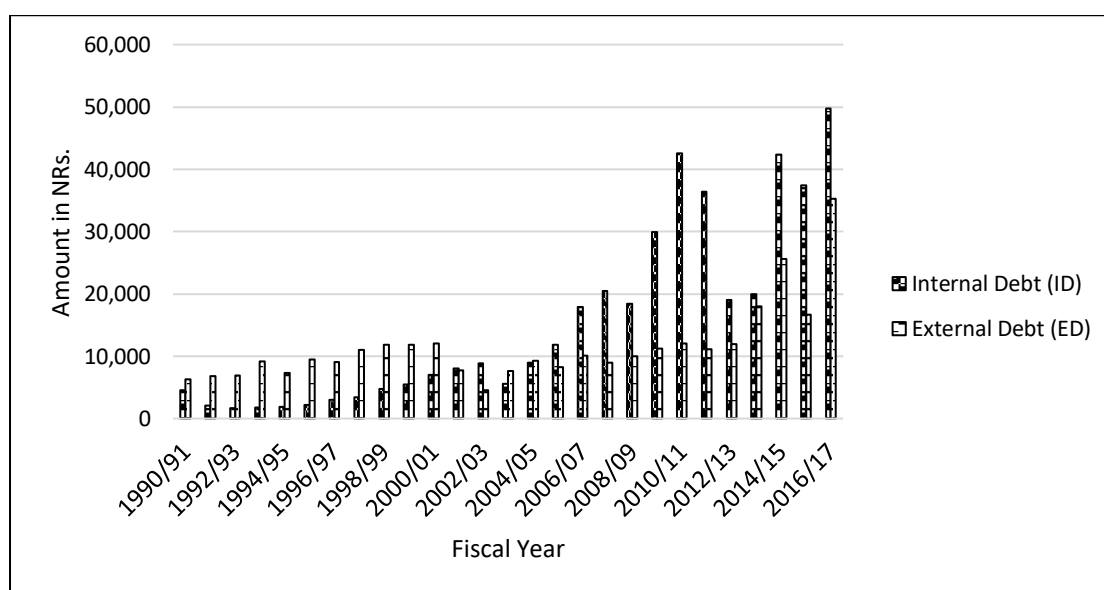
Source: MoF, Economic Survey, 2017/18

Table 4.2 shows that the internal debt stood at NRs. 4,553 millions, NRs. 2,079 millions, NRs. 1,620 million at FY 1990/91, 1991/92, 1992/93 respectively and reached to NRs. 49,777 millions in FY 2016/17, whereas the average annual growth rate was 15.58 percentage. Similarly, the external debt stood at NRs. 6,257 millions, NRs. 6,817 millions, NRs. 6,921 million at FY 1990/91, 1991/92, 1992/93 respectively and reached to NRs. 35,310 millions in FY 2016/17, whereas the average annual growth rate was 11.23 percentage. Likewise, the total debt stood at NRs. 10,809 millions, NRs. 8,896 millions, NRs. 8,541 million at FY 1990/91, 1991/92, 1992/93 respectively and reached to NRs. 85,086 millions in FY 2016/17, whereas the average annual growth rate was 11.28 percentage.

The foreign grants stood at NRs. 2,165 millions, NRs.1,644 millions, NRs. 3,739 million at FY 1990/91, 1991/92, 1992/93 respectively and reached to NRs. 31,332 millions in FY 2016/17, whereas the average annual growth rate was 15 percentage. The government revenue stood at NRs. 10,730 millions, NRs.13,513 millions, NRs. 15,148 million at FY 1990/91, 1991/92, 1992/93 respectively and reached to NRs. 609,180 millions in FY 2016/17, whereas the average annual growth rate was 17.56 percentage. The GDP at producer's price stood at NRs. 120,370 millions, NRs. 149,487 millions, NRs. 171,474 million at FY 1990/91, 1991/92, 1992/93 respectively and reached to NRs. 2,642,595 millions in FY 2016/17, whereas the average annual growth rate was 12.7 percentage.

**Figure 4.2**

**Trend of Debts, Foreign Grants, Government Revenue and GDP**



Source: Based on the Table 4.2

Figure 4.2 shows the trend of, internal debt, external debt, foreign grants, government revenue and GDP at producer's price of Nepal. It shows that both internal debt and external debt have been increasing but internal debt has been increasing in fluctuations but external debt has been increasing smoothly. The bar of internal debt is smaller than external debt initially however it seems larger later on. The foreign grants, government revenue and GDP at producer's price are increasing rate throughout the period.

#### 4.4 Descriptive Analysis

The descriptive statistics has been made to understand the facts regarding the different independent variable and the firm performance of the banks. The descriptive statistic includes minimum value, maximum value, mean value kurtosis, skewness and standard deviation. Table 4.3 provides descriptive statistics for dependent variables GDP. The independent variables are external debt, internal debt, foreign grant, government revenue. It summarizes the descriptive statistics of variables used in this study during the period FY 1990/91 through FY 2016/17 associated with samples.

**Table 4.3**  
**Descriptive Statistics**

	<b>GDP at Producers Price</b>	<b>Internal Debt (ID)</b>	<b>External Debt (ED)</b>	<b>Total Debt (TD)</b>	<b>Government Revenue (GR)</b>	<b>Foreign Grants (FG)</b>
<b>N</b>	27.00	27.00	27.00	27.00	27.00	27.00
<b>Mean</b>	846,640.70	15,381.68	11,482.75	26,864.44	137,677.88	17,095.56
<b>Median</b>	536,749.00	8,880.00	9,968.90	18,204.20	62,331.00	11,339.10
<b>Std. Deviation</b>	736,530.83	14,822.21	6,338.08	19,930.35	160,717.41	14,423.09
<b>Minimum</b>	120,370.00	1,620.00	4,546.40	8,540.90	10,729.90	1,643.80
<b>Maximum</b>	2,642,595.00	49,776.60	35,309.60	85,086.20	609,180.00	45,922.10

Source: Self-Calculation

The descriptive statistics shows that the average GDP at producers price, internal debt, external debt, total debt, government revenue and foreign grants stood at NRs. 846640.70, NRs. 15,381.68, NRs. 11,482.75, NRs. 26,864.44, NRs. 137,677.8, NRs. 17,095.56 respectively. Similarly, standard deviation of GDP at producer's price, internal debt, external debt, total debt, government revenue and foreign grants stood at NRs. 736,530, NRs. 14, 822.21, NRs. 6, 388.08, NRs. 19, 930.35, NRs. 160, 717.41 and NRs. 14,423.09 respectively.

#### 4.5 Correlation Analysis

Having indicated the descriptive statistics, the Pearson correlation coefficients have been computed and results have been presented in the table 4.4. The correlation coefficients show the extent and direction of the linear relationship between bank efficiency and variables affecting it.

**Table 4.4**  
**Correlation Analysis**

	<b>GDP at Producers Price</b>	<b>Internal Debt (ID)</b>	<b>External Debt (ED)</b>	<b>Total Debt (TD)</b>	<b>Government Revenue (GR)</b>	<b>Foreign Grants (FG)</b>
<b>GDP at Producers Price</b>	1.00					
<b>Internal Debt (ID)</b>	( 0.91) **	1.00				
<b>External Debt (ED)</b>	( 0.81) **	( 0.73) **	1.00			
<b>Total Debt (TD)</b>	( 0.94) **	(0.98) **	( 0.86) **	1.00		
<b>Government Revenue (GR)</b>	( 0.98) **	(0.87) **	(0.87) **	(0.93) **	1.00	
<b>Foreign Grants (FG)</b>	( 0.87) **	( 0.90) **	( 0.53) **	(0.84) **	( 0.78) **	1.00

*\*\*' sign indicates that correlation is significant at 1 percent level.*

Source: Self-Calculation

The correlation analysis indicates that all the independent variables i.e. internal debt, external debt, total debt, government revenue and foreign grants are significant at 1 percent level. The correlation coefficient of all the variables are positive which indicates that all the variables i.e. internal debt, external debt, total debt, government revenue and foreign grants has positive relationship with the dependent variable i.e. GDP. The correlation coefficient of internal debt, external debt, total debt, government revenue and foreign grants with GDP stood at 0.91, 0.81, 0.94, 0.98 and 0.87 respectively.

#### 4.6 Regression Analysis

In order to test the statistical significance and robustness of the results, this study also relies on the secondary data analysis based on the cross-sectional regression model specified in chapter III. It basically deals with the regression results from various specifications of the models to examine the estimated relationship of GDP with several independent variables such as external debt, internal debt, foreign grant, government revenue for cross-sectional data of samples during the period 1990/91 to 2016/17. The regression results have been reported in table 4.4 as follows:

##### Model 1: Effect of Debt on Economic Growth

$$\text{GDP} = 2.73 + 0.580 * \text{ID} + 0.383 * \text{ED} + 0.172 * \text{TD}$$

Model	Intercept	Internal Debt	External Debt	Total Debt
1	2.730	0.580	0.383	0.172
	(0.077)*	(0.061)*	(0.021)**	(0.034)**

*Figure in the parenthesis indicate significance; \*\*\* at 1 percent, \*\* 5 percent, \* 10 Percent*

**Table 4.5**

##### ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.	Adjusted R Square	Durbin-Watson
1	Regression	19.45	3	6.48	1178.61	0.000	0.9	1.993
	Residual	1.89	23	0.08				
	Total	21.35	26					

The regression model 1 indicates that the internal debt is significant at 10 percent level, whereas external debt and total debt have significant impact at 5 percent significance level on GDP. The f value of model stood at 1178.61, the adjusted r squared at 0.9 which indicates 1 percent change in the independent variables changes GDP by 9 percent and Durbin Watson value at 1.04 respectively. This indicates that the DW value is between 0 to 2. So, there is positive autocorrelation between the variables.

**Model 2: Effects of Government Revenue and Foreign Grants on Economic Growth**

$$GDP = 4.601 + 0.650 * GR + 0.149 * FG$$

Model	Intercept	Government Revenue (GR)	Foreign Grants (FG)
2	4.601	0.650	0.149
	(0.118)	(0.033)**	(0.037)**

*Figure in the parenthesis indicate significance; \*\*\* at 1 percent, \*\* 5 percent, \* 10 Percent*

**Table 4.6**

**ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.	Adjusted R Square	Durbin - Watson
2	Regression	21.26	2.00	10.63	2,737.02	0.00	0.99	2.015
	Residual	0.09	24.00	0.00				
	Total	21.35	26.00					

The regression model 2 indicates that the government revenue and foreign grants are significant at 5 percent level, which means they have significant impact on GDP. The f value of model stood at 2,737.02, the adjusted r squared at 0.99 which indicates 1 percent change in the independent variables changes GDP by 99 percent and Durbin Watson value at 1.56 respectively. This indicates that the DW value is between 2 to 4 i.e. there is there no autocorrelation between the variables.

**Model 3: Effects of Internal Debt, External Debt, Total Debt, Government Revenue and Foreign Grants on Economic Growth**

$$\text{GDP} = 4.575 + 0.116 * \text{ID} + 0.150 * \text{ED} + 0.210 * \text{TD} + 0.606 \text{GR} + 0.169 * \text{FG}$$

Model	Intercept	Internal Debt (ID)	External Debt (ED)	Total Debt (TD)	Government Revenue (GR)	Foreign Grants (FG)
3	4.575	0.116	0.150	0.210	0.210	0.169
	(0.234)	(0.041)**	(0.021)**	(0.032)**	(0.000)***	(0.004)**

*Figure in the parenthesis indicate significance; \*\*\* at 1 percent, \*\* 5 percent, \* 10 Percent*

**Table 4.7**

**ANOVA**

Model	Sum of Squares	df	Mean Square	F	Sig.	Adjusted R Square	Durbin-Watson	
3	Regression	21.27	5.00	4.25	1,065.90	0.00	0.99	2.005
	Residual	0.08	21.00	0.00				
	Total	21.35	26.00					

The regression model 3 indicates that the internal debt, external debt, total debt and foreign grants are significant at 5 percent level of significance and government grants at 1 percent significance level which means they have significant impact on GDP. The f value of model stood at 1065.90, the adjusted r squared at 0.99 which indicates 1 percent change in the independent variables changes GDP by 99 percent and Durbin Watson value at 1.84 respectively. This indicates that the DW value is between 2 to 4 i.e. there is there is no autocorrelation between the variables.

**4.7 Concluding Remarks**

The over analysis shows that the average GDP at producers price, internal debt, external debt, total debt, government revenue and foreign grants stood at NRs. 846640.70, NRs. 15,381.68, NRs. 11,482.75, NRs. 26,864.44, NRs. 137,677.8, NRs.



17,095.56 respectively. The correlation analysis indicates that all the independent variables i.e. internal debt, external debt, total debt, government revenue and foreign grants have positive and significant impact on GDP. The regression model 1 indicates that the internal debt is significant at 5 percent level, whereas external debt and total debt have significant impact on GDP, the regression model 2 indicates that the internal debt, government revenue and foreign grants are significant at 5 percent level of significance which means they have significant impact on GDP and the regression model 3 indicates that the government revenue is significant at 1 percent level internal debt, external debt, total debt and foreign grants at 5 percent which means they have significant impact on GDP.

# CHAPTER V

## SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

### 5.1 Summary of Findings

Summary of findings are as follows:

- Public debt plays a prominent role in underdeveloped countries like Nepal. Economic development is one of the main tasks of the government that helps to stimulate the growth of the economy with stability but due to lack of financial resources it cannot be achieved easily. In this context the role of taxation is emphasized but there is limited in taxation. This leads to the use of public borrowing as a method of resource mobilization. The public borrowing for financing productive investment generates additional productive capacity in the economy which would not have been possible in its absence.
- For economic development of underdeveloped countries borrowing from public can be another importance source for mobilizing the financial resources. No doubt, to uplift the economic development public borrowing has significant role. In terms of the orthodox theory of public finance, the current expenditure of government developed to producing capital expenditure the fruits of which subsequently be sold to purchase for fees, should be financed by loan. But Keynesian theory emphasized on demand generating aspects of public debt.
- The role of public debt in an underdeveloped economy goes beyond financing government expenditure. Generally, government borrows for the creation of infrastructure in the economy. Since, it requires huge investment initially; this cannot be met only through revenue collection. The aim of the public debt policy should be to help in strengthening the money and capital market, which in turn accelerate development and price stability.
- Public debt plays an important part in the development of the capital stock as well. The growth of public debt helps the development of the money market and the capital market. Public debt hence plays a significant role in the economic development. The success of public borrowing depends upon the

capacity to save in the economy and attractiveness of the government securities. Government securities have been recognized to be a very safe investment. An investor takes pride in his investment because he thinks that he has contributed to development of the country. Domestic resources are not sufficient to promote rapid development of the Nepal. An underdeveloped economy caught up in the vicious circle of poverty can achieve a real breakthrough only with the help of external capital. It is an accepted fact that economic development mostly be financed by domestic saving and that foreign aid only supplement domestic saving.

- Still there is a need for mobilization of external and internal debt and also foreign grants to bridge the gap between government revenues and the rising public expenditures required for socio-economic development. Budget deficit goes unabated, as there is no match between availability of non-debt resources and the budget expenditures. As a result, on the one hand there is a necessity of controlling mobilization of loan in the public sector, reducing getting overdraft facility from the Nepal Rastra Bank (the Central Bank) and mobilizing domestic credit not above certain percent of the GDP and on the other hand, the requirements in fulfilling the covenants while utilizing the foreign loan has limited in inflow of foreign loans. Nevertheless, there is need of more foreign loans due to the low level of domestic savings, uncertainty in the current account balance and high requirement of capital goods for the mobilization of domestic resources and means.
- In the study period the internal debt has increased from NRs. 4,553 million to NRs. 49,777 million with the average annual growth rate of revenue is 15.58 percent between periods in FY 1990/91 to FY 2016/17.
- In the study period the external debt has increased from NRs. 6,257 million to NRs. 35,310 million with the average annual growth rate of revenue is 11.23 percent between periods in FY 1990/91 to FY 2016/17.
- In the study period the total debt has increased from NRs. 10,809 million to NRs. 85,086 million with the average annual growth rate of revenue is 11.28 percent between periods in FY 1990/91 to FY 2016/17.
- The GDP at produces price has average annual growth rate of increased to 12.7 percent in FY 1990/91 to 2016/17 with 120,370 million to 2,642,595 million respectively. .

- In the study period the government revenue has increased from NRs. 10,730 million to NRs. 609,180 million with the average annual growth rate of revenue is 17.56 percent between periods in FY 1990/91 to FY 2016/17.
- The government has taken the foreign grants of Rs 2,165 million to NRs. 31,332 millions in FY 1990/91 to FY 2016/17 with average growth rate of 15 percentages.
- The standard deviation of GDP at producer's price, internal debt, external debt, total debt, government revenue and foreign grants stood at NRs. 736,530, NRs. 14, 822.21, NRs. 6, 388.08, NRs. 19, 930.35, NRs. 160, 717.41 and NRs. 14,423.09 respectively.
- The correlation analysis indicates that all the independent variables i.e. internal debt, external debt, total debt, government revenue and foreign grants have positive and significant impact on GDP.
- The first regression model indicates that the internal debt is significant at 10 percent level, whereas external debt and total debt have significant impact on GDP at 5 percent significance level.
- The second regression model indicates that the government revenue and foreign grants are significant at 1 percent level, which means they have significant impact on GDP.
- The third regression model indicates that the internal debt, external debt, total debt and foreign grants are significant at 5 percent level of significance respectively and government revenue at 1 percent level of significance which means they have significant impact on GDP.

## **5.2 Conclusion**

Public debt is taken by the government to meet government expenditure. It plays a vital role in socio-economic development of the country. It is widely accepted measure for financial government expenditure. The government of a country gets its income from two sources namely; public debt and public. The revenue, expenditure and GDP of Nepal are increasing each and every. But, the growth of revenue is not sufficient for financing increased government expenditure.

Nepal started obtained internal debt since FY 1961/62 and external debt since FY 1963/64 with the objective of national development. To fulfill the resource gap public debt is necessary. The development activities of Nepal mostly depend on the public debt especial external debt because our domestic resource is not adequate and sufficient to meet the growing needs of development funds. The degree of indebtedness of the external debt has increased, due to the poor mobilization of internal resources, widening investment saving gap, export import gap, revenue expenditure gap and large amount of fiscal deficit. So, there has been excessive flow of foreign loans to bridge these gaps. The growing trend of borrowing create great problem for debt management and becomes major challenging issue for the country. The borrowing money is unlikely financed on the non-monetized and an unproductive sector of the economy which is turn has the burden for the country.

The major conclusion of this study is that the GDP at producer's price is highly influenced by internal debt, external debt, total debt government revenue and foreign grants since there is positive and significant regression coefficient. Economic growth in Nepal is low and unstable. Due to low growth rates and high population growth rates, per capita real GDP is also increasing slowly at low rate. Internal and external debts have boosting effects on real GDP growth in Nepal when they are interactive with remittance inflow income and Gross Capital Formation. However, overall debt servicing is either enhancing or hindering real GDP growth, it is inconclusive for Nepal. This study is important because it has been done at a time when internal, external and debt servicing are fast growing after economic liberalization took its speed after 1990 onwards.

### **5.3 Recommendations**

Based on findings, the following recommendations have been made:

- The study has revealed that internal debt has positive impact on GDP. Hence, the economy willing to increase its GDP needs to increase internal debt. The increasing nature of public debt variables indicate that Government of Nepal should manage resource gaps, public debt, foreign grants and debt servicing within the defined limit.
- The study has observed that government revenue is positively related to GDP. Hence, the economy willing to increase its GDP needs to focus on government

revenue. Foreign grants and debt should be allocated to productive sector so that it should create sustainability in filling resource gaps and in refunding debt service through income generation.

- The study has suggested that foreign grants shall be encouraged since it has positive and significant impact on GDP. Internal and external debts are not deterring real GDP growth in Nepal. Internal and external debts have no crowding effect in case of Nepal. Rather they have crowding in effect. Thus, internal and external debts at concessional rates are must for development projects in Nepal.
- The economy has increased the level of external debt as it has significant impact on GDP. Total debt has been increased since it has significant impact on GDP.
- While conducting future studies researcher can select larger sample and more number of observation years for the study that could lead to much more valid prediction regarding effect of with internal debt, external debt, total debt, government revenue and foreign grants on GDP.
- This study has been conducted by using GDP as dependent variables and with internal debt, external debt, total debt, government revenue and foreign grants as independent variables. While conducting future studies researcher can add more independent variables to see the impact of added variables in the economic performance.
- The internal debt has increased from NRs. 4,553 million to NRs. 49,777 million in FY 1990/91 to FY 2016/17. So, the productivity of the internal debt should be increased to promote infrastructure development.
- The external debt has increased from NRs. 6,257 million to NRs. 35,310 million in FY 1990/91 to FY 2016/17. So, the utilization of the external debt should be properly utilized for the economic growth of Nepal.
- The total debt has increased from NRs. 10,809 million to NRs. 85,086 million in FY 1990/91 to FY 2016/17. So, total debt should be promoted to utilize properly for the economic growth of Nepal.

## REFERENCES

- Acharya, B. P. (2015). *Trend and structure of public debt in Nepal* (Unpublished master's thesis). Tribhuvan University, Central Department of Economics (CEDECON), Kiritipur, Kathmandu.
- Acharya, P. (1968). *A case study on public debt in Nepal* (Unpublished master's thesis). Kathmandu, Nepal: Central Department of Economics, TU, Kiritipur.
- Avramovic, D. (1964). *Economic growth*. Baltimore: John Hopkins University.
- Barman, K. (1986). *Public debt management in India*. Department of Economics, Banaras Hindu University, Varanasi: Uppal Publishing House press.
- Bhandari, R. (2016). *Public debt in Nepal: Analysis of trends and pattern* (Unpublished master's thesis). Central Department of Economics, TU, Kiritipur, Kathmandu, Nepal.
- Bhandri, R. (2006). *Public debt in Nepal: An analysis of its structure and burden* (Unpublished master's thesis). Tribhuvan University, Central Department of Economics (CEDECON), Kiritipur, Kathmandu.
- Bhatiya, H. L. (2003). *Public finance* (24<sup>th</sup> ed.). New Delhi: Vicas Publishing House Pvt.
- Braman, K. (1986). *Public debt management in India* (Unpublished doctoral dissertation). Central Department of Economics, Banaras Hindu University, Varanasi.
- Britannica Ready Reference Encyclopedia (2006). *Encyclopedia Britannica Pvt. Ltd.* New Delhi, India: Impulse Marketing.
- Chelliah, R. J. (1992). *Fiscal policy in underdeveloped countries*. New Delhi, India: McGraw Hill Book Co.
- Chelliah, R. J., Rao, M. G., & Sen, T. K. (1992). Issues before Tenth Finance Commission. *Economic and Political Weekly*, 2539-2550.
- Dahal, M. K. (1990). *Development challenges for Nepal*. Kathmandu, Nepal: NEFAS.
- Domar, E. D. (1944). The burden of debt and national income. *American Economic Review*, XXXIV, USA.

- Egbetunde, T. (2012). Public debt and economic growth in Nigeria: Evidence from granger causality. *American Journal of Economics*, 2(6), 101-106.
- Ghimire, U. (2008). *Public debt in Nepal of trends and structure* (Unpublished master's thesis). Kathmandu, Nepal: Central Department of Economics, TU, Kirtipur.
- Ghimire, U. (2008). *Trends and structure of public debt in Nepal* (Unpublished master's thesis). Tribhuvan University, Central Department of Economics (CEDECON), Kirtipur, Kathmandu.
- Goode, R. (1984). *Government finance in developing countries*. Washington, DC: Brooking Institution
- Groves, H. M. (1950). View point of public finance. *Quarterly Journal of Economics*. New York.
- Guru-Gharana, K. K. (1996). The role of foreign aid in economic development and poverty alleviation. *Journal of Public Finance and Development*, Rajeswa, 2.
- Hanson, A. H. (1941). *Fiscal policy and business cycle*. New York, NY: N.W. Norton & Co.
- Harris, S.E. (1974). *The national debt and the new economic*. New York: McGraw-Hill Book Co.
- IMF (2016). *Debt and reserve related indicators of external vulnerability*. Washington D.C.: IMF.
- Koirala, L. B. (2001). *Effective public debt management in Nepalese economy* (Unpublished master's thesis). Tribhuvan University, Central Department of Economics (CEDECON), Kiritipur, Kathmandu.
- Learner, A.P. (1955). *Economic of employment*. London: Oxford University Press.
- Lekhi, R. K. (2001). *Public finance*. New Delhi, India: Kalayani Publication.
- Mallik, G., & Chowdhury, A. (2001). Inflation and economic growth: Evidence from four South Asian countries. *Asia-Pacific Development Journal*, 8(1), 123-135.
- Mencinger, R., & Varvic, M. (2016). *The impact of the fiscal policy transformation mechanism of economic activity*. Ljubljana: Ljubljana University Press.



- MoF (Ministry of Finance) (2016). *Economic Survey, F/Y (2015/16)*. Kathmandu: (MoF).
- Mohanty, A. R., & Mishra, B. R. (2016). Impact of public debt on economic growth: Evidence from Indian states. *Vilakshan, XIMB Journal of Management*, 13 (2).
- Mukherjee, S. S. (1979). *Indian public finance and financial administration*. New Delhi, India: Surjeet Publication.
- Moulton, H.G. (1943). *The new philosophy of public debt*. Oxford: Oxford University Press.
- Mulan, N. (1992). *Macro-economic adjustment: Policy instruments and issues*. Washington D.C.: IMF Institute.
- Musgrave, R. A. (1959). *The study of public finance*. New York, NY: McGraw Hill Book Co.
- Musgrave, R. A. (1959). *The theory of public finance*. McGraw Hill, New York: McGraw Hill.
- Neupane, R. (2007). *Public debt in Nepal: A study of its structure and burden* (Unpublished master's thesis). Tribhuvan University, Central Department of Economics (CEDECON), Kiritipur, Kathmandu.
- Newman, H. E. (1968). *An introduction to public finance*. New York, NY: John Wiley & Sons. Inc.
- Ntshakala, P. L. (2015). Effects of public debt on economic growth in Swaziland. *Asian Society of Business and Commerce Research*.
- Panthi, N. P. (2004). Public debt situation in Nepal (Unpublished master's thesis). Kathmandu, Nepal: Central Department of Economics, TU, Kirtipur.
- Pyakuryal, B. (2002). *Debt and foreign investment*. International Media Network Nepal (P.) Ltd., APCA House, Nepal.
- Regmi, K. P. (2008). *A study on role and burden of public debt in Nepal* (Unpublished master's thesis). Tribhuvan University, Central Department of Economics (CEDECON), Kiritipur, Kathmandu.

- Regmi, K. P. (2008). *A study on public debt and its impact on economic growth in Nepal* (Unpublished master's thesis). Kathmandu, Nepal: Central Department of Economics, TU, Kirtipur.
- Rijal, S. (2010). *Trend and structure of public debt in Nepal* (Unpublished master's thesis). Tribhuvan University, Central Department of Economics (CEDECON), Kiritipur, Kathmandu.
- Sabater, E. L. (1995, November). United Nation Conference on Trade and Development Multilateral Debt of Least Developed Countries. *Discussion Paper No. 107*.
- Sharma, G. (1998). The growing fiscal imbalance in Nepal. Are we falling into the debt trap? *Debt Trap and its Management*, Kathmandu, Nepal.
- Sharma, G. (2002). *The growing fiscal imbalance in Nepal: are really falling into debt trap*. Kathmandu, Nepal: NEFAS.
- Sharma, R. (2002). *Public debt of Nepal: Trend and pattern of public borrowing from 1985/86 to 2001/02* (Unpublished master's thesis). Kathmandu, Nepal: Central Department of Economics, TU, Kirtipur.
- Singh, M. D. (2001). *Political economy of foreign aid in the third world: A case study of India*. Varanasi, India: Konark Publishing House.
- Singh, R. D. (1997). *A Study on the Impact of Internal Borrowing in Nepal*. Kathmandu: CEDA, TU, Kirtipur.
- Singh, S. K. (2004). *Public finance theory and practice*. New Delhi: S. Chand Company.
- Subedi, B. (2008). *Public debt in Nepal: An analysis of trends and structure* (Unpublished master's thesis). Kathmandu, Nepal: Central Department of Economics, TU, Kirtipur.
- Subedi, K. P. (2008). *Public finance, financial system and international trade*. Kathmandu, Nepal: Mahal Books.
- Sungsup, R., & Chand, Y. R. (2005). Managing the debt: An assessment of Nepal's public debt sustainability. *Working Paper Series No. 6*. Kathmandu, Nepal: Asian Development Bank.

Taylor, P. E. (1974). *The economics of public finance* (3<sup>rd</sup> ed.). New Delhi, India: Oxford and Publishing Company.

Thapa, N. K. (2005). *Public debt: Its trend pattern and impact in Nepalese economy* (Unpublished master's thesis). Kathmandu, Nepal: Central Department of Economics, TU, Kirtipur.

The World Bank (2016). *Annual report*. Washington, DC: The World bank Publication.

Vickrey, W. (1996). *Public economics*. London: Cambridge University Press.

Retrieved from <https://www.mof.gov.np>.