
CHAPTER I

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“Consumer expenditure accounts for between 50% and 70% of spending in most economies. Not surprisingly, the consumption function has been the most studied of the aggregate expenditure relationships and has been a key element of all the macroeconomic model building efforts since the seminal work of Klein and Goldberg (1955)”

- (Muellbauer and Lattimore 1994, as cited in Fernandez-Corugedo, 2004)

In common parlance, the term ‘consumption’ refers to the act of using up the resources, whereas in economics it means the use of goods and services by households which are not intended to be an investment of some sort i.e. the goods or services are not used with an intention of being sold in future. The expenditure on these purchases is termed as ‘Consumption expenditure’. Unless otherwise described, in the context of economic studies the terms consumption, final consumption and consumption expenditure are used interchangeably and carry the same meaning of amount spent on purchase of final goods and services.

In the world of economics and finance the Gross Domestic Product (GDP) and GDP growth rate are globally considered as the benchmarks to measure the economic performance of a nation. GDP which is sum total of the goods and services produced within the country’s geographical borders over a year, can be measured by adding up four broad components viz., (i) consumption, (ii) government expenditure, (iii) investment and (iv) net exports. Among these four, consumption is the most significant component in all economies and thus consumption is one of the bigger concepts in economics. As a dominant part of the GDP the change in consumption carries weight in determining the growth and success of the economy.

Adam Smith, regarded as the father of economics could not ignore the importance of consumption, in his book, *The Wealth of Nations*, 1776, he wrote “Consumption is the sole end and purpose of all production; and the interest of all producers ought to be attended to only so far as it may be necessary for promoting that of the consumer. The maxim is so perfectly self-evident that it would be absurd to attempt to prove it.”

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The concept of consumption has become central in reviewing the economic performance of countries. Its significance is valid in theory and reality. Unemployment and economic fluctuations can be overcome or curbed through a strong macroeconomic policy. Such policy formation will necessitate an understanding of the propensity to consume and multiplier effect. It is also important because it brings out the crucial significance of investment demand for determination of the level of income and employment in a capitalist economy. Additionally, it explains “why there is a tendency for the marginal efficiency of capital (MEC) to decline” and the changes in business cycles.

Consumption is the start and end of all economic activities. It invalidates Say’s Law, which states that, “supply creates its own demand” and there cannot be general overproduction or general unemployment, because everything that is created (income) is not consumed (spent), as income rises. Hence supply fails to create its own demand. On the contrary, it exceeds demand and causes overproduction and surplus of commodities in the market. It underscores the need for state intervention in the form of public policy to check over production and unemployment. It points out that there is always a danger of an over-saving or under-investment gap (or secular stagnation) appearing in the capitalist economy because as people become rich the gap between income and consumption widens. Therefore, Prof. A.H. Hansen (1946, p. 183) has remarked that, “Consumption function is an epoch-making contribution of Keynes to economic theory.”

In the current setting of capitalist economies and in the present era of globalisation and privatisation, consumption expenditure and pattern determines the level of investment both in terms of amount and direction. Investment level affects the employment and thus the general well-being. Hence, consumption is an important starting point for level of economic activity (Encarta Online Encyclopaedia, 2009).

Today the consumer is in some respects economically more significant than the producer. If a section of the modern productive process is disrupted, commodity substitutions can be made to avoid chaos. But when an appreciable group of consumers lacks purchasing power, profitable demand disappears and the economic structure collapses. As profits vanish, unemployment increases, dividends drop, and the fixed charges for rent, interest, and taxes soon help to perpetuate bankruptcy and the attendant

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conditions of the depression period. It is evident from current world economic scenario too. Hence, economic activity concludes and is not renewed until the consumer has again provided funds to spur consumption which renews profitability for companies. Thus, “Consumption being the end of economic effort, is, as is reasonable, again becoming its chief motivation” (Singh, 2004).

The study of consumption plays a pivotal role in macro and micro-economics. Aggregate consumption is of particular interest for macro-economists for two key reasons. Firstly, aggregate consumption determines total saving, as savings is that part of the income which is not consumed and when combined with aggregate consumption has a dominant effect on the long-term productive capability of an economy. Secondly, since consumption expenditure forms substantial proportion of the GDP, its analysis can help in better understanding of the fluctuations in macroeconomic variables and the economic cycles (Encyclopaedia Britannica, 2009).

Micro-economists have studied consumption behaviour to measure poverty, to examine households' preparedness for retirement, or to test theories of competition in retail industries. A rich variety of household-level data sources (such as the Consumer Expenditure Survey, CES conducted by the National Sample Survey Organisation, NSSO) allow economists to examine household spending behaviour in minute detail. They also utilised these data to examine interactions between consumption and other macroeconomic behaviour such as job seeking or educational attainment. Private Consumption is a central concern of welfare economics too. (Encyclopaedia Britannica, 2009).

In the Indian context, the biggest contribution to the recent spectacular economic growth has come from private consumption. A rising and aspirational middle class, spurred by higher IT and service sector wages, coupled with a low interest rate regime led to the exponential growth of hire purchase schemes, which translated into a boom for the consumer goods and services industries. (Natarajan, 2008).

Per capita income (expenditure) in India has risen rapidly over 1990s, which has significantly altered the structure of food consumption patterns. This provides a basis for analysing the structure of India's food consumption basket. Consumption is an imperative and indispensable activity performed by the household sector. All the personal income we generate across different sources is either saved or spent on

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consumption. Consumption is also accentuating the inequalities. In India, the consumption pattern is defined with the regards to the consumer expenditure survey by the NSSO. This survey classifies rural and urban population into different expenditure groups and provides a distribution of households/persons and per capita monthly expenditure on food and non-food items (Sethia, 2013).

In an interview, Dr. Chakravarthi Rangarajan (former Governor of Reserve Bank of India) said, “It is because of domestic consumption that our economy is able to register the current level of growth. Other economies which are dependent on the rest of the world are affected more than us. Only because of strong domestic demand would we be able to achieve 6 percent - 6.5 percent growth this fiscal” (Frontier Finance, 2009). If we look at the data more closely, we find that during the 1990’s the proportion of private consumption expenditure in the GDP averaged around 66%, while the same had dropped to 60.3% in the decade ending 2009-10. While the share of private consumption in the GDP has fallen over the years, it continues to remain the single most dominant component of the GDP. In more recent years (2010-11 to 2012-13) the ratio is around 57% (Handbook of Statistics on Indian Economy 2014-15, RBI).

There are many principal factors which influence the consumption behaviour. They are broadly divided into two: subjective factors and objective factors. Subjective factors are internal to the economic system. These include social practices, the nuances of human nature and institutions. They also include behaviour patterns of business concerns regarding wages, dividend payments and retained earnings, and the social arrangements affecting the distribution of income. Hence, subjective factors comprise of individual and business motives.

The objective factors are external to the economic system. They may undergo rapid changes and may cause marked shifts in the consumption function. They include changes in the wage level, windfall gains or losses, change in the rate of interest, financial policies of corporations, holding of liquid assets, distribution of income, attitude towards saving and changes in fiscal policy.

Among the objective factors is fiscal policy, the changes through taxation and public expenditure affect consumption. High taxation adversely affects consumption e.g. consumption drastically declined during the Second World War due to heavy indirect taxation, rationing and price controls. Moreover, public expenditure on welfare

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programs and progressive taxation would lead to a redistribution of the income from the rich to the poor and thereby result in an upward shift of the consumption function.

Ever since the seminal work of Keynes (1936), fiscal policy has played a central role within the area of macroeconomics. Policies for stimulating demand, to maintain low unemployment and meet business cycle fluctuations, was the governing view of fiscal policy of many governments up until the late 1980s. The fiscal path followed by the government authorities led to an overwhelming debt situation and heavy fiscal deficit for many countries.

Increasing the fiscal deficit became a chronic problem faced by developing countries. Countries like India and other emerging economies are facing the problem of a large fiscal deficit (Sri, Rao, and Aivelu, 2004). As stated earlier, the study of consumption behaviour is pivotal from microeconomic and macroeconomic points of view, if the government decides to increase its deficit, an important question arises i.e., what is its implication on household consumption? In this respect several studies have been conducted both at the national and international level.

The subsequent sections of this chapter are organised as follows: Section 1.1 presents the review of the related literatures or sketches the context of the study through an overview of the related literature, Section 1.2 and Section 1.3 gives the relevance and objectives of the study, Section 1.4 highlights the theoretical framework, Section 1.5 tells about the data sources, while the methodology is presented in Section 1.6, Section 1.7 and 1.8 discusses limitations and organisation of the study respectively.

1.1 REVIEW OF LITERATURE

Over the years there has been extensive debate on how the fiscal deficits impact private consumption. Broadly there are three approaches on the relationship between fiscal deficit and private consumption that researches have attempted to empirically prove or disprove.

The first one is the Keynesian effect. According to Keynes the current consumption is a function of current disposable income, where disposable income is the present income less taxes. As an extension of this theory Keynes also propounded that an expansionary fiscal policy would lead to a virtuous cycle with higher disposable income leading to higher consumption, there by resulting in higher output for the economy. Keynes

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conceptualised this framework and referred to it as the multiplier effect, which stated that *ceteris paribus* an increase in government spending and/or a decrease in taxes would lead a more than proportionate change in output. This is also referred to as the “Keynesian effect on fiscal policy.” This advocacy of Keynes was met with criticism, wherein researchers argued that rise in government spending would lead to crowding-out of the private consumption and may not lead to an increase in output.

The second theory that has been the focus of economists is Irving Fisher’s intertemporal choice, which describes how people make choices about what to consume and in what quantity at varied points of time wherein the choices at one point of time affect the possibilities at other points at time. A change in fiscal policy would affect household’s current choices and future choices available. A related study is Milton Friedman’s “The Permanent Income Hypothesis” (1957) wherein Friedman’s opines that the current consumption is determined by the present value of the future income. A change in fiscal policy will have households anticipate future fiscal action and adjust the current consumption accordingly. In his opinion the current consumption would depend on current income, future income, and present level of taxes and future tax levels.

Lately the argument and debate have been centered on the validity of Ricardian Equivalence Approach. In his approach David Ricardo has argued that under certain conditions, private consumption is not affected by the manner in which the government chooses to finance its deficit. To put differently, given the public expenditure, the level of private consumption will not be affected by the fiscal deficit (Islam and Wetzell, 1991, p. 83).

Enormous research work has been conducted to study the impact of various macroeconomic variables on private consumption, these variables include government consumption, budget deficit, inflation, disposable income, interest rates, GDP growth rate, fiscal deficit, foreign savings, etc. While some studies have considered the impact of a single variable, the others have studied the effects of multiple variables. A brief summary of some of the studies conducted at national and international level is given below.

1.1.1 Studies Conducted at International Level

David Alan Aschauer (1985) in his work “Fiscal Policy and Aggregate Demand” explored the effect of fiscal policy on private consumption and aggregate demand in an intertemporal framework in US over 1948-1981. The study found that government expenditure led to a decrease in private consumption expenditure on non-durable goods and on services. Further, the study finds that an increase in government spending will lead to a reallocation of resources from the future to the present and thereby lead to an increase in output in the near term.

The work of **Leonardo Leiderman and Assaf Razin** (1986) titled “Consumption and Government: Budget Finance in a High-Deficit Economy” studied the impact of budget variables viz., spending, taxes and deficits on private consumption in Israel during the period 1980-1985. Since there were significant variations in the pattern of consumption during the reference period which was marked by high levels of budget deficit, the study challenged the Ricardian assumption of infinite horizon and to counter it developed and analysed an intertemporal optimizing model of consumption choice by individuals for a finite period. The analysis showed that there exists other means by which the budget deficits affect consumption in the finite period model and thus rejects the Ricardian assumption of infinite horizon.

Further a study titled “The Macroeconomics of Public Sector Deficits - The Case of Pakistan” by **Nadeem U. Haque and Peter Montiel** (1991) examined the effects of fiscal policy on the behaviour of economic agents in Pakistan for the period 1963 to 1987 by using cointegration regression and error correction method. They used Augmented Dickey Fuller test to test the stationarity of all the variables. The signs and magnitudes of coefficients showed that the impact of disposable income is positive and significant on private consumption, suggesting that consumption behaviour may be influenced by liquidity constraints. Government consumption and rate of inflation are negatively and significantly related to private consumption.

Roumeen Islam and Deborah L. Wetzel (1991) presented an empirical investigation of fiscal deficit in Ghana in their study titled “The Macroeconomics of Public Sector Deficits - The Case of Ghana”. The results of the study indicated that the lagged consumption and disposable income were the principal determinants of private

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consumption and neither pure Ricardian equivalence nor the pure Keynesian theory hold. The significance of disposable income indicated that liquidity constraints affect consumption decisions. The study also revealed that the impact of interest rate, credit to the private sector and fiscal deficit were insignificant on private consumption expenditure.

Felipe Morande and Klaus Schmidt-Hebbel (1991) conducted a study “The Macroeconomics of the Public Sector Deficit: The Case of Zimbabwe” examined the effect of public sector deficit on private consumption. The results indicated that the direct effect of public sector deficit on private consumption was more prominent than the indirect effects of financing the deficit (through interest or inflation rates) in Zimbabwe. According to the finding of the study, “an increase in Z\$1 increase in the deficit leads to Z\$0.67 reduction in private consumption.”

Douglas W. Elmendorf (1996) in a research titled “The Effect of Interest-Rate Changes on Household Saving and Consumption: A Survey 1962-94” adopted indirect methods to estimate the interest elasticity of savings in US. The approach combines models of individual behaviour with estimates individuals' preferences. The research concluded that estimating the interest elasticity of savings is not simple and that no individual model can do so precisely. The empirical evidence suggested that the interest elasticity of savings being negative is an unlikely scenario and it's likely to be significantly positive. Consequently this implies that the interest elasticity of consumption is likely to be negative.

Hermann-Josef Hansen (1996) in his study “The Impact of Interest Rates on Private Consumption in Germany: 1975-1994”. The findings were that interest rate changes can influence consumption only in the short run and in the long-run the trend of private consumption was determined by other variables. Therefore, private saving will also not be interest elastic over the long-run.

Mika Arola (1996) published a research titled “Effects of Fiscal Policy on Private Consumption” to examine the effect of fiscal policy on private consumption for nineteen OECD countries and evaluated the proposition that the effects of fiscal policy are dependent on the public sector's financial situation, which changes private sector income expectations by using regression equations. The evidence indicated that every

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component of fiscal policy, public consumption, taxes and transfers may have regime-specific effects related to the financial balance in the public sector and changes in the unemployment rate may have regime-specific effects on consumption.

Anne Brunila (1997) in his study named “Fiscal Policy and Private Consumption – Saving Decisions: Evidence from Nine EU Countries”, considered the effects of fiscal policy on private consumption, both the conventional (Keynesian) view of the fiscal policy and the Ricardian debt neutrality hypothesis taking the annual data of nine EU countries (1961-1994) by using the Blanchard Stochastic model of intertemporal optimization. The author concluded that in the consumers’ utility functions, government consumption tends to be a complement rather than a substitute for private consumption.

The empirical study titled “Macroeconomic Implication of Fiscal Deficits: The Case of Kenya” by **Njeru et. al.** (1998) worked to examine the relationship between fiscal deficit and private consumption in the context of Kenyan economy. The results indicated that changes in fiscal policy has a direct and indirect impact on private consumption. Fiscal policy directly influences private consumption because of the substitution effect (substitutability) between private and public consumption and indirectly because of other macroeconomic variables like foreign savings and real interest rates.

Shinobu Nakagawa and Kazuo Oshima (2000) tested Professor Krugman’s proposition in his research paper titled “Does a Decrease in the Real Interest Rate Actually Stimulate Personal Consumption? – An Empirical Study” that a reduction in real interest rates would stimulate personal consumption. To measure the effect of real interest rate on personal consumption by using Consumption-based Asset Pricing Model (CAPM) for the period 1970-1999. Statistical evidence revealed that stimulating consumption by making the real interest rate decline makes sense in the USA and UK, but is not the case in Japan, because of the unwillingness to use consumer credit in general and the likelihood that Japanese households will accumulate safety assets under any condition.

Antonio Afonso (2001) in his study titled “Non-Keynesian Effect of Fiscal Policy in the EU – 15” examined the annual fiscal policy data of fifteen EU countries for the

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period 1970-1999 to analyse the presence of both Keynesian and non-Keynesian effects. The results established that fiscal policy had traditional Keynesian effects when there exist no fiscal adjustments whereas when fiscal adjustments were present the standard Keynesian effects may turn out to be non-Keynesian. This anomaly occurs when the fiscal policy is contractionary one, and is quite insignificant when the adjustment expansionary, thus leading to asymmetric outcomes of fiscal policy.

Antonio Fatas and Ilian Mihov (2001) highlighted the impact of fiscal policy on macroeconomic variables in their study titled “The Effect of Fiscal Policy on Consumption and Employment: Theory and Evidence” by using Vector Autoregression (VAR) method. The authors found that an increase in government spending was followed by a strong and persistent increase in consumption and employment i.e. the government spending had an expansionary effect with a multiplier larger than one (an output increase of more than one-to-one). This increase was largely driven by an increase in private consumption. The researchers also concluded that government spending did not bring about a significant change in investment.

Eu Chye Tan (2002) in his work “Fiscal Deficits and Macroeconomic Performance in Malaysia” examined whether any correlation exists in Malaysia between fiscal deficits on the one hand and inflation, real interest rates, private consumption and investment, external balances and real exchange rates on the other during the period 1998-2001. The study revealed that, (i) depreciation of real exchange rate can be a result of increase in fiscal deficit, and (ii) more than the interest rate considerations the liquidity constraints plausibly lead to crowding-out of private investment and consumption.

Jim Malley and Hassan Molana (2002) in their study “Fiscal Policy and the Composition of Private Consumption: Some Evidence From the U.S. and Canada” had developed a generalised version of the life cycle model in which consumers’ preferences were defined over components of consumption and were affected by the level of public expenditure on goods and services by using evidence from U.S. and Canadian data for the period 1935-1995. The findings of the model implied that a direct demand side phenomenon was the crowding out of private consumption caused by the way preferences respond to a change in public spending. Further, the demand of durable goods in both countries reflected relatively large swings which could undermine the stability of the sector.

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Hafedh Bouakez and Nooman Rebei (2003) undertook a study titled “Why Does Private Consumption Rise after a Government Spending Shock?” to explain the puzzling crowding-in effect of government spending on private consumption. They assumed that public expenditures affect consumer preferences and that those preferences exhibit habit formation in consumption. The model is estimated by the minimum-distance, maximum-likelihood and vector auto regression methods using U.S. data. Results suggested that private and public spending are complements however, they should not be considered valid for all types of publicly provided goods but only as holding in the aggregate.

In a research “Public Debt and the Effect of Government Expenditure on Private Consumption – A Kalman Filter Analysis of the Swedish Experience 1970–1997” by **Martin W. Johansson and Kristian Jonsson** (2003), investigated the effect of government expenditures on aggregate consumption in Sweden for the period 1970-1997, by using a time varying parameter model. Results suggested that the effect of government expenditure has tended to yield lesser impact on output i.e. become less Keynesian over time and this aspect coincides with the steady rise in public debt lending support to the theoretical models by Blanchard (1990) and Sutherland (1997).

One more contribution to the literature in this field has been made by **Athanasios Tagkalakis** (2004). In his paper titled “The Asymmetric Effects of Fiscal Policy on Private Consumption Over the Business Cycle” explored the effects of fiscal policy on private consumption in recessions and expansions during 1970-2001 on a yearly panel of nineteen Organisation for Economic Co-operation and Development (OECD) countries. The major findings of the paper suggested that fiscal policy is more effective in increasing private consumption in recessions than in expansions, provided there exist binding liquidity constraints on households.

Alfredo Schlarek (2004) in his paper “Consumption and Keynesian Fiscal Policy” assessed the impact on private consumption of fiscal policy shocks by using the two-step econometric model for period 1970-2000 of thirty-eight countries half of which were industrialised and the other half was developing. Among the econometric steps, in the first step, the study estimated the fiscal policy innovations and the expected change in disposable income for each country at the time. The second step used the generated repressors to estimate the structural equation. The results revealed that in

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industrial and developing countries both, the government consumption have Keynesian effects on private consumption. Besides, these Keynesian effects were also present in bad times. Further the result also indicated that in the case of the tax shocks, they did not experience any effects on private consumption either in good times or bad times. This result was valid for both industrial and developing countries.

Another study by **Kristian Jonsson** (2004), titled “Fiscal Policy Regimes and Household Consumption” explored nineteen OECD countries for the period 1960-2000 and investigated how different factors such as size, duration and composition of fiscal changes can alter the effects of fiscal policy on private consumption. The results indicated that the transfers act as both an income source for the households and an expenditure for the government. As an income of the households, an increase in transfers should increase private consumption. Since the government must eventually finance its outlays the expenditure feature of transfers implied that an increase in transfers should increase taxation. This would lead to a fall in private consumption by way of higher taxes expected in future. Further results indicated that during fiscal contractions the expenditure feature of transfers dominates while during other periods the income feature dominated. This implied that an expansionary fiscal contraction is more likely if the contraction is brought about by cuts in transfers, although this will have a significant social effect as well.

In the study “Fiscal Deficit and Private Consumption Behaviour in Nigeria: 1970-2001” by **Philip Akanni Olomola and Olagunju M.A.** (2004), examined the linkage between fiscal deficit and private consumption expenditure in Nigeria during the period 1970-2001. The Johansen Cointegration Technique was utilized to determine the long run relation between fiscal deficit and private consumption. The procedure involves the estimation of a Vector Error Correction Methodology (VECM) in order to obtain likelihood ratios (LR). They used Augmented Dickey Fuller (ADF) to test the stationarity of the variables. The results suggested an overwhelming influence of fiscal policy on private consumption directly through the substitution effect between private and public consumption and indirectly through other macroeconomic variables such as real interest rates, foreign savings, money supply and domestic credit to the private sector.

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Agustin Garcia and Julian Ramajo (2005) in a research paper “Fiscal Policy and Private Consumption Behaviour: The Spanish Case” examined whether the Ricardian equivalence hypothesis or conventional Keynesian perspective was a valid estimation for Spain’s economic reality of the effects of debt on private consumption-savings decisions. The analysis was based on annual aggregate data for Spain (1955-2000) and used both the structural and the Euler Equation approaches to test the neutrality proposition. Results indicated that the support for Ricardian equivalence was mixed on account of imperfect capital markets. Ricardo assumes that capital markets are perfect and households do not face liquidity constraints however the same was not witnessed in terms of this study. The results also do not offer significant support for Keynes theory on consumption and fiscal policy. Further the study discovered the existence of a substantial crowding-out effect, indicating a degree of substitutability between public consumption and private consumption.

In a research paper “Fiscal Policy and Private Consumption in Industrial and Developing Countries” by **Alfredo Schclarek** (2005), studied the effects of fiscal policy shocks on private consumption and whether fiscal deficit affects that relationship by using a two-step econometric model of yearly data between 1970 and 2000 for forty countries of which nineteen were industrialized and twenty-one were developing countries. In general, the estimated results revealed that government consumption shocks have Keynesian effects for both industrial and developing countries and in case of tax shocks the evidence was mixed.

Chien-Chung Nieh and Tsung-Wu Ho (2005) in their research titled “Does the Expansionary Government Spending Crowd out the Private Consumption? Cointegration analysis in Panel Data” investigated whether expansionary government spending crowds out private consumption by estimating the intra-temporal elasticity of substitution between them. They used the data of twenty-three OECD countries for the period 1981-2000 for their research. One of the findings of the study revealed that according to the intra-temporal elasticity of substitution the government consumption and private consumption are found to be complements, which showed that expansionary government spending does not crowd out private consumption.

Christopher S. Adam and David L. Bevan (2005) in their paper titled “Fiscal Deficits and Growth in Developing Countries” studied a group of forty-five developing nations

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and attempted to analyse the impact on growth from innovations in fiscal deficit over the period 1970–1999. The study focused on the two types of government spending, productive and unproductive, and five ways of financing it, taxes, grants and three forms of deficit finance i.e. by printing money, and by issuing domestic or external debt. The findings of the study suggested that while the impact on growth of taxes and grants were reasonably straightforward, the impact of the deficit was complex and depends on the financing mix and the outstanding debt. In particular, (i) deficits promote growth if financed by limited seigniorage, (ii) inhibit growth if financed by domestic debt and (iii) reduce investments when financed by external loans.

Yum K. Kwan (2006) in his study “The Direct Substitution between Government and Private Consumption in East Asia” estimated the degree of substitution between private and government consumption for nine East Asian countries for the time span between 1960 and 2002. The study used cointegration regression methodology for empirical testing. The investigation concluded that out of the nine countries the four North-East countries viz. China, Hong Kong, Japan, and Korea showed similarities and moderate values of the substitution elasticity and for the five ASEAN countries the relationship between both vary substantially. In Malaysia and Thailand the study witnessed strong substitution effect between private and government consumption, whereas in Indonesia and Singapore the effect was complementary. With respect to the Philippines the results showed a near zero elasticity of substitution.

Lorenzo Forni, Libero Monteforte and Luca Sessa’s (2007) in their study titled “The General Equilibrium Effects of Fiscal Policy: Estimates for the Euro Area” examined the validity of the Ricardian equivalence approach in context of Euro area by analysing the fiscal policy over the period 1980-2005. The study used Stochastic General Equilibrium Model and Bayesian techniques for empirical testing. The findings of the study were divided into two parts: (i) On the expenditure side: government spending including compensation of government employees has an expansionary effect though short-lived. Changes in transfers to households exhibited a more significant impact with a longer lasting period. (ii) On the revenue side: reduction in taxes on income and consumption had substantial impact on output and consumption. Also, a reduction in tax on investments or capital items lead to increase in investments over medium term.

Magda Kandil and Ida Aghdas Mirzaie (2007) in their research “Consumption and Macroeconomic Policies: Evidence of Asymmetry in Developing Countries” attempts to explain irregularities in the cyclical behaviour of private consumption in the sample of nine developing countries in the Middle East by using an empirical model which includes three policy variables: government spending, the money supply and the exchange rate. The finding suggested that there exists a random element which dominates policy changes or policy shifts, thus expected policy shifts have limited impact on planned consumption.

In another study titled “The Impact of Fiscal Policy on Private Consumption and Social Outcomes in Europe and The CIS” by **Fabrizio Carmignani** (2008) studied the effect of fiscal policy on per-capita private consumption and the social outcomes in simultaneous equation framework. The focus is on transition economies in Eastern Europe and the Commonwealth of Independent States (CIS) nations. CIS nationals are generally defined as those countries which in phase of migration from a centrally planned economy (socialist) to a market driven economy (capitalist). The key findings of the study were (i) in transition countries, the fiscal policy (especially public spending) has Keynesian effects on private consumption in all economic cycles. Comparison between high-income OECD (Organisation for Economic Co-operation and Development) economies the fiscal policy had negligible impact in normal times, (ii) that government expenditure on certain social items such as public health and public social expenditure effectively promotes better social outcomes in transitional economies vis-à-vis high income OECD economies and (iii) in both sets of economies in the electoral years, governments appear to be spending to increase their chances of being re-elected.

Luiz Carlos Bresser-Pereira and Paulo Gala (2008) in their titled “Foreign Savings, Insufficiency of Demand, and Low Growth” researched the negative effects in developing economies that chose to finance their growth by foreign savings. The study found that foreign savings lead to appreciation of the exchange rate, as a result the real wages rise and so do the imports. From a demand perspective, significant dependence on foreign savings leads to reduction in exports, investments and domestic savings. In long term the consequence is that the rate of substitution of foreign for domestic savings

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will be highly relative, and the country will fall into a debt trap to consume, which will lead to lower investment and consequently lower growth.

Davide Furceri and Ricardo M. Sousa (2009) in their study titled “The Impact of Government Spending on the Private Sector: Crowding-out versus Crowding-in Effects” analysed the crowding-out versus crowding-in effects in 145 countries over 1960-2007. For this purpose they studied the effect of changes in government spending on private consumption and private investment. The study concluded that government spending produces important crowding-out effects by negatively affecting both private consumption and investment.

In a research titled “Fiscal Policy and Private Saving in Australia: Ricardian Equivalence, Twin Deficits and Broader Policy Inferences” by **Shane A. Brittle** (2009) studied the effect of government fiscal policy on private savings for the period 1959-2006 in Australia. The model estimates the long and short run coefficient estimates of the variables using the Autoregressive Distributed Lag Approach (ARDL) to cointegration. Results implied that fiscal policy did have some impact on the real economy, it led to partial increase in the private savings and also exhibited crowing-out effects. Thus the Ricardian equivalence was not found applicable in entirety.

In a study titled “How Can Government Spending Affect Private Consumption? A Panel Cointegration Approach” conducted by **Antonello Alessandro** (2010) investigated the impact of government expenditure on private consumption employing Error Correction Model (ECM) in twenty Italian regions from 1980-2003. The result of the study indicated that government expenditure have a positive impact on private consumption.

In an empirical work “Impact of Government Spending on Private Consumption and on the Economy: The Case of Thailand” written by **Paitoon Kraipornsak** (2010) investigated the effect of government consumption spending and government capital spending on private consumption and growth of GDP in Thailand during the period 1993-2009. Researcher employed the Vector Error Correction Mechanism (VECM) to study the function of aggregate demand wherein aggregate demand is a function of private consumption, government spending, investment and net exports (exports less imports) to estimate their relationship. The study found no effect on private

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consumption or the growth of GDP from changes in levels of government capital spending, however it was discovered that the government consumption spending has a negative effect on the growth of GDP.

Akekere and Yousuo (2012) in their research titled “Empirical Analysis of Change in Income on Private Consumption Expenditure in Nigeria from 1981 to 2010” considered the impact of gross domestic product (independent variable) on private consumption expenditure (dependent variable) in Nigeria from 1981 to 2010 using the classical (OLS) simple regression analysis and augmented dickey fuller test for stationarity. The result showed the existence of a positive significant impact of Gross Domestic Product (GDP) on private consumption.

In a research paper “The Determinants of Private Consumption Spending in Nigeria” by **Adedayo O. Adedeji and Abiodun A. Adegboye** (2013) examined the factors that determine the private consumption expenditure as a share of total expenditure in Nigeria from 1981 to 2010 by using the error correction mechanism (ECM) after testing the stationarity of the data. Their model was structured to study, “the comparative contribution of income and other factors that have an influence on savings and private consumption expenditure in Nigeria.” The study revealed that the old-age dependency ratio, inflation rate, gross domestic product (GDP) per capita and disposable income have a significantly positive impact on private consumption expenditure, while real GDP growth, foreign direct investment, government expenditure and change in real effective exchange rate had a negative impact. This result suggested that in Nigeria, government consumption crowds out private consumption and private consumption spending is an increasing function of income.

Muhammad Ramzan, Sarfraz Saleem and Izhar Mazhar Butt (2013) in their research paper titled “Budget Deficit and Economic Growth: A Case Study of Pakistan” analysed the impact of Budget Deficit on Economic Growth in Pakistan for the time series data spanning from 1980 to 2010 by using regression analysis. The Pearson Correlation test was applied to check the relationship among independent variables. The finding of the study stated that Gross domestic product and inflation were normally distributed. Investment, domestic credit and budget deficit were positively skewed. There was a non-linear relationship between dependent variable, GDP and independent variables, inflation and investment. A linear relationship exists between GDP, the

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budget deficit and domestic credit. Independent variables cause 34.8% change in the dependent variable. The correlation between inflation and investment and credit and investment were weak while correlation between budget deficit and investment was moderate.

A.A. Awe and A.K. Funlayo (2014) in his study titled “The Short and Long-Run Implications of Budget Deficit on Economic Growth in Nigeria (1980-2011)” explored the short and long run implications of budget deficit on economic growth in Nigeria covering the period 1980-2011 by using Regression analysis. The results from the Johansen Cointegration technique found that in the long run there was an inverse relationship between (i) budget deficit and economic growth and (ii) interest rate and economic growth in Nigeria. The Error Correction Model (ECM) revealed that there exists (i) a negative relationship between budget deficit and gross domestic product (ii) a negative relationship between budget deficit and gross savings and (iii) a positive relationship between budget deficit and gross capital formation (investment).

In the study “Fiscal Deficit and Private Consumption: The Nigerian Experience” by **Vincent Nnanyereugo Ezeabasili and Patrick Amaechi Egbunike** (2014) explored the relationship between fiscal deficit and private consumption in Nigeria between 1970 and 2006 by employing Johansen Cointegration and Error Correction Method (ECM). The Augmented Dickey Fuller (ADF) Test was used to test the stationarity of the data. The study indicated that the pure Ricardian Equivalence hypothesis does not seem to hold in the Nigerian case as the coefficient of the growth of disposable income was positive, indicating a short-run marginal propensity to consume of 1.40, without any adjustment lag. In addition, domestic credit to the private sector was also capable of increasing private consumption in Nigeria. Further evidence indicated that government consumption and fiscal deficit have a negative effect on private consumption. Specifically, “a 1% increase in fiscal deficit reduces private consumption by 0.285% and a 1% increase in government expenditure reduces private consumption by 0.694%”.

Yang Chen et al. (2014) in a study titled “The Effect of Government Expenditure on Private Consumption: Evidence from China” assessed the relationship between government spending and private consumption with/without disposable income of twenty-nine Chinese provinces covering the period 1996-2013 by using the panel unit root tests and dynamic ordinary least square. The results revealed that government

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expenditure has a positive impact on private consumption and the expenditure on economic construction and administrative management has a negative effect on private consumption whereas the expenditure on culture and education leads to an increase i.e. crowds in private consumption.

In his study **Chigozie Nelson Nkalu's** (2015) titled “The Effect of Budget Deficit on Selected Macroeconomic Variables in Nigeria and Ghana (1970 – 2013)” inspected the effects of budget deficits on selected macroeconomic variables (interest rates, inflation, and economic growth) in Nigeria and Ghana using annual time-series data on both economies covering the period from 1970 to 2013 within the methodological framework of Seemingly Unrelated Regression (SUR) model and Two-Stage Least Squares (2SLS). The study used Eagle-Granger Cointegration test, Augmented Dickey Fuller (ADF) and Phillips-Perron (PP) tests in estimating the systems equations. The empirical outcomes demonstrated that there was a negative effect of budget deficit on interest rate, inflation, and economic growth, thus supporting the neoclassical argument in the literature that the budget deficit slows growth of the economy through resources crowding-out.

Khalid Khan et al. (2015) conducted a study titled “Impact of Government Spending on Private Consumption Using ARDL Approach” to examine the long and the short run effects on private consumption from government spending in China by employing Autoregressive Distributed Lag (ARDL) approach from 1985 to 2013. The outcomes of the study showed that government spending has a positive impact on private consumption and a very good tool to enhance the economy and encourage aggregate demand in China during recessions.

Yaya Keho (2016) in his study titled “Impact of Budget Deficit on Private Consumption in WAEMU Countries: Evidence from Pooled Mean Group Estimation”, examined the effect of budget deficit on private consumption for the period 1970-2013 of the seven member countries of the West African Economic and Monetary Union (WAEMU), namely Benin, Burkina Faso, Côte D'Ivoire, Mali, Niger, Senegal and Togo by using the pooled mean group estimation method. The study concluded that there was a long run positive effects of budget deficit and per capita GDP on private consumption, whereas the inflation rate has negative effect on private consumption. Further the outcomes indicated that private consumption cannot be held responsible for

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any crowding-out effects that budget deficit might have on long run aggregate demand and economic growth in WAEMU countries. Therefore, limiting the size of budget deficits is costly for the development of WAEMU countries.

1.1.2 Studies Conducted at National Level

In context of the Indian economy some studies have also been conducted related to fiscal policy, private consumption expenditure, consumption pattern, inflation, etc. A brief description of the studies is brought out in the following paragraphs.

A. Prasad and Jeevan K. Khundrakpam (2003) in their study “Government Deficit and Inflation in India” revealed that an important cause for the long-run inflationary trends was government deficit. For their study they had considered time series data relating to the period 1951-2000. This study showed that there is a greater need for coordination between the monetary and fiscal policies. The study suggested that at an optimum level fiscal deficit can be financed through monetisation, as monetisation is not always inflationary. The study also recommended that government exercise restraint while borrowing from central bank as it has received the benefit of higher reserve appreciation on account of foreign exchange assets being part of reserve money.

P. Praveena Sri, K.L. Narsimha Rao and G. Alivelu (2004) in their study titled “Managing Fiscal Deficit in India in 1990s: A Case Study” focused on how to cope up with the problem of large fiscal deficit so that it would lead to sustainable economic growth. They provided suggestions like coordination between monetary and fiscal policy, widening the tax base, controlling non plan expenditure and optimum level of financing through monetisation in order to surmount the problem of high fiscal deficit and growing debt GDP ratio.

Chakravarthi Rangarajan and Dinesh Kumar Srivastava (2005) in their study “Fiscal Deficit and Government Debt in India. Implications for Growth and Stabilisation” looked at the effect on growth, saving and investment in the light of debts that arose from financing fiscal deficits. The study showed that large debts and their servicing relative to the GDP has had negative impact on the GDP growth in recent years. The study recommended the need to limit the debt to GDP both at central and state level. Recommendations also include the phased reduction in fiscal debt levels and maintaining them at suggested targeted level.

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Lekha S. Chakraborty (2006) conducted a study titled “Fiscal Deficit, Capital Formation, and Crowding Out: Evidence from India” for the period 1970-71 to 2002-03. In her study she analysed the real and financial crowding-out in India employing asymmetric Vector Autoregressive (VAR) model. Real crowding-out takes place when government investment displaces private investment and financial crowding-out arises when higher interest rates from large government borrowing dissuade private investment. Her study revealed that there was no real crowding-out between public and private investment, rather they were found to be complementary. Also the study found no financial crowding-out in India.

Mudit Kapoor and Shamika Ravi (2008) estimated the impact of higher real interest rate on consumption in their study titled “Effects of Interest Rate on Consumption”. To calculate the actual effect of interest rate on consumption they have exploited Indian banking legislation of April 2001 and Senior Citizens Savings Scheme (SCSS) in 2004, providing higher interest rates to senior citizens amounting to 50 basis points on an average. The regression discontinuity approach was employed to estimate the precise causal effect of interest rate on consumption of individuals. The results revealed that an increase of 50 basis points in interest rate leads to an immediate decline of consumption expenditure by 10 percent and the decline is primarily in non-food, non-essential items.

James Ang (2009) in his study titled “Growth Volatility and Financial Repression: Time Series Evidence from India” focused on financial repression and private consumption volatility in India by using annual time series data from 1955-2005. The result showed that the implementation of financial repressionist policies are strongly associated with lower consumption volatility in India.

In a research paper titled “Fiscal Deficit and Inflation: An Empirical Analysis for India”, **Aviral Kumar Tiwari and A.P. Tiwari** (2011) investigated the linkage between fiscal deficit and inflation in India or the factors that are responsible for increasing fiscal deficit in India for the period 1970-71 to 2008-09. The study found that inflation was not the cause of fiscal deficit, but government expenditure and money supply were found to be an important reason for an increase in fiscal deficit.

Supriyo De (2012) in a study titled “Fiscal Policy in India: Trends and Trajectory” outlined the major development in India’s fiscal policy from “the early stages of

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planned development in the 1950s, through the country's balance of payments crisis of 1991, the subsequent economic liberalisation and rapid growth phase, the response to the global financial crisis of 2008 and the recent post-crisis moves to return to a path of fiscal consolidation." The study indicated that the strategy used by India's fiscal policy from 1950 to 1991 was the transfer of private resources to the investments in the public sector industries to achieve income equality that leads to high maximum marginal income tax rates and the consequent tendency of tax evasion. After 1991 crisis government followed the path of economic liberalisation, results in lowering tax rates, broadening tax base, curb subsidies and disinvestment of the government holdings. Later to curb the rising deficits the FRBM Act was introduced in 2003-04 along with reforms in indirect taxes. To tackle the financial crisis in 2008 the government undertook counter-cyclical measures to bolster growth. The study also suggested that future of the deficit would depend upon the tax and public expenditure approaches of the government.

In a research paper titled "Fiscal Deficit-Economic Growth Nexus in India: A Cointegration Analysis", **Rajan Kumar Mohanty** (2013) attempted to examine both the short run and the long run relationship between fiscal deficit and economic growth in India by covering the time period from 1970-71 to 2011-12. He adopted the techniques like Johansen Cointegration test, Granger Causality test and Vector Error Correction Model (VECM) to examine the objectives of this study. The findings of the paper indicated that there was a negative and significant relationship between fiscal deficit and economic growth in the long run. But the Vector Error Correction model and Granger Causality test, discarded the short run relationship between fiscal deficit and economic growth. This was contrary to Keynesian theory, but in conformity with neo-classical theory, which holds that fiscal deficits lead to a fall in the Gross Domestic Product.

Savneet Sethia (2013) conducted a comparative study titled "India's Changing Consumption Pattern" on aggregate national income and aggregate consumption expenditure between pre and post economic reform period indicates that there was a significant difference in the pre and post reform period. The findings of the study were, "the percentage of Private Final Consumption Expenditure (PFCE) on food items had declined from 53.7% to 48.4% and on non-food items showed fluctuating trend and has

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increased from 46.3% to 51.6% in the pre reform period (1970-1991). While in the post reform period (1991- 2004), the expenditure on food items had declined from 49.9% to 35.4%, whereas expenditure on non-food items showed a steady increased from 50.1% to 64.6%.”

Allam Venkata Swamy et al. (2014) further in his research paper “An Empirical Study of India’s Fiscal Deficit” studied fiscal deficit and its effect on Indian economy, on selected economic factors (PMI, IIP, SLR and INR Vs. USD), on CAD and Budget planned expenditure and on selected external factors (Trade balance of payments, Imports and Foreign reserves) from 2004 to 2014. Augmented Dickey Fuller (ADF) was applied to test for the stationary of the data. They used Granger causality test, Correlation and T-test. The findings of the study revealed that the selected economic factors (PMI, IIP, SLR and INR Vs. USD) are slightly correlated with fiscal deficit. Except PMI all other variables were also affecting it. The fiscal deficit was influencing the Indian GDP (economy), CAD (Current Account Deficit) and Budget planned expenditure and the selected external factors (Imports, Foreign Reserves and Trade Balance of Payments).

In a study titled “Growth, Inequality and Diversification in Consumption Pattern in India - An Empirical Analysis” by **Ratan Ghosal** (2014) examined the nature of growth, inequality and the diversification in the consumption pattern in India using the National Sample Survey Organization’s quinquennial data covering the period from 1972-73 to 2009-10. The study was done on an individual basis for rural and urban areas. All the states are found to hold an increasing trend in the rates of growth of real per capita income and in real monthly per capita expenditure (MPCE). Further the study found a positive correlation between growth rates of Net State Domestic Product (NSDP) and real monthly per-capita consumption expenditure across states. And also found tremendous diversification in the consumption pattern favouring the non-cereal food and non-food components, both in rural and urban areas of the states.

Divya, Swathi, Preethi and Thara (n.d.) in their “A Study on Impact of Fiscal Deficit and Inflation in India” examined the relationship between fiscal deficit, inflation, government expenditure, money supply and interest rate for the period 2000-2015. The analysis of the study revealed that there was a “positive relationship between fiscal deficit and inflation, indicating fiscal deficit as a measure of controlling inflation and

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fiscal deficit and government expenditure, indicating every one rupee extra expenditure, by the government more or less proportionately increases fiscal deficit.” Further the study showed a negative correlation between the fiscal deficit and interest rate and fiscal deficit and money supply.

1.2 RELEVANCE OF THE STUDY

The review of literature presents in section 1.1, reveals that at the international level there have been several studies conducted which are related to studying the impact of government’s fiscal activities on private consumption expenditure, yet the number of related studies conducted with respect to Indian economy are very less. Studies conducted in context of Indian economy concentrate on the following issues: examining the diversification in the consumption pattern in India (Ghosal, 2014), fiscal deficit and its impact on Indian economy (Swamy, Chakravarthy, and Koka, 2014), effect of fiscal deficit on economic growth in India (Mohanty, 2013), a comparative study on aggregate national income and aggregate consumption expenditure between pre and post economic reform period (Sethia, 2013), the major development in India’s fiscal policy from the early stages of planned development in the 1950s till the post financial crisis 2008 (De, 2012), to investigate the linkage between fiscal deficit and inflation in India (Tiwari and Tiwari, 2011), to explore the determinants of private consumption volatility (Ang, 2009), to examine the impact of higher real interest rate on consumption (Kapoor and Ravi, 2008), to study the real and financial crowding-out between public and private investment (Chakraborty, 2006), impact of fiscal deficits on saving, investment, and growth (Rangarajan and Srivastava, 2005) and managing the problem of fiscal deficit so that it would lead to sustainable economic growth (Praveena et al., 2004).

Hence studies are yet to emerge on the effects of fiscal deficit on private consumption behaviour in India. Looking at the significance of domestic consumption in India’s growth process, this seems to be an important area of research. The present study therefore, intends to fill this gap.

This study is also crucial for policy purposes. Firstly, it will shed light on the linkage between fiscal deficit and private consumption and then provide guidelines to the danger of increasing the size of the deficit and implications of the financing method of such a deficit.

1.3 OBJECTIVES OF THE STUDY

The major objectives of the study are:

1.3.1 To make an in-depth review of various consumption theories for better understanding of the factors affecting consumption behaviour.

1.3.2 To analyse the relative significance of Private Final Consumption Expenditure (PFCE) in total GDP, relative share of food and non-food items in PFCE, the interstate differences in the consumption pattern in both urban and rural areas, the major food items of consumption both in urban and rural areas and differences in consumption of food and non-food items across income groups covering urban and rural areas.

1.3.3 To analyse the major trends of fiscal deficit and its sources of financing in India.

1.3.4 To make an econometric analysis for studying the long run and the short run relationship between fiscal deficit and private consumption behaviour in India. Also examine the effect of other variables (disposable income, government consumption, foreign savings, real rate of interest, domestic credit to private sector, base money and three dummy variables) on private consumption.

1.4 THEORETICAL FRAMEWORK

Macroeconomic linkages especially national income identity could identify the means and channels of how a fiscal deficit is financed. The consequence of the deficit and its financing affect the level of private consumption expenditure in any economy like India.

Given the national income identity of the Keynesian form:

$$Y = C + I + G + X - M \quad (1.1)$$

We can see the relation that governs the current account, private sector (savings and investment) and the government budget.

$Y = \text{GDP}$

$C = \text{private consumption}$

$I = \text{investment}$

$G = \text{government absorption}$

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X = exports and

M = imports.

Taking domestic absorption, A, as the sum of consumption, investment and government spending, ($A = C + I + G$), equation (1.1) becomes

$$Y - A = X - M \quad (1.2)$$

Equation (1.2) states that positive net exports imply that aggregate spending falls short of income, while an excess of imports over exports implies that spending exceeds income. Given the former, a surplus on current account requires domestic absorption A, to be smaller than domestic national income. This implies that domestic savings and taxes are larger than domestic investment and government expenditure and the difference is spent on the net acquisition of foreign assets. This can be seen if we remember that by definition, real income can be classified into its component uses, so that

$$Y = C + S + T \quad (1.3)$$

Where S is saving and T is tax.

Equating (1.1) and (1.3)

$$[S - I] + [T - G] = [X - M] \quad (1.4)$$

In equation (1.4), the balance of payments on current account must be equal to the difference between private-sector saving and investment, plus the government budget surplus or deficit. The first term in brackets on the left-hand side of the identity is equal to the sum of the net acquisitions by the private sector of government bonds, money and foreign assets. This is called the net acquisition of financial assets by the private sector. Thus, in this identity, an external current account deficit results when investment is more than current national savings. Alternatively, if the private sector savings is equal to private sector investment, then current account deficits would result if the government runs a deficit by spending more than its revenue. A deficit on current account implies insufficient savings relative to investment and government spending more than the resources at its disposal.

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From equation (1.4), current account, CA, is the rate at which economy in aggregate is adding to its external asset. That is

$$CA = NFA \quad (1.5)$$

where NFA is net foreign asset. Substituting (1.5) into (1.4);

$$[S - I] + [T - G] = NFA \quad (1.6)$$

where

S - I is private net savings,

T - G is for Public Deficit, and

NFA is net foreign assets.

If we assume that $S = I$, government deficits (T - G) can be financed through one or more combination of the following means: an increase in money, a reduction in the banking system credit to the nonbank public, through government borrowing from the banking system, and a reduction in net foreign assets through a reduction of international reserves by the government, through external borrowing from bilateral or multilateral sources abroad. The consequences of public deficit depend on how they are financed through a combination of domestic borrowing, foreign borrowing, etc.

If fiscal deficit is financed by sale of bonds, domestic borrowing may lead to a credit squeeze which pushes up interest rates. Also, there is a danger that increased financing of the government deficit through domestic borrowing may pre-empt the nonbank private sector from using these resources. Higher interest rates and less credit allocation to the private sector may crowd out private consumption.

Other alternative possible effect of fiscal expansion on private consumption is through expectation. Citizens may foresee that the budget deficit implies the need for increased taxes later. Hence they may increase their savings now so as to avoid a sharp decline in consumption later. In other words, they seek to smooth consumption over time. This is the Ricardian equivalence effect, in this case, it is at least possible that fiscal expansion does not lead to an increased current account deficit or at least that the effect on the current account deficit is modified.

1.5 DATA SOURCE

This study is conducted in Indian perspective, and is entirely based on secondary data. The relevant data for the study were obtained from Handbook of Statistics on Indian Economy, Reserve Bank of India (RBI), the World Bank, National Sample Survey Organisation (NSSO) Reports various years and Central Statistical Organisation (CSO).

1.6 METHODOLOGY

This research is essentially an exploratory one and it attempts to explore if there exists a significant relationship between the dependent variable 'private consumption' and the independent variables i.e. disposable income, government consumption, foreign savings, real rate of interest, domestic credit to private sector and base money. In parts the research is also descriptive in nature as it studies the concept and theories of consumption, fiscal deficit and analyses the trends in private consumption and fiscal deficit.

To understand the concept of consumption function in depth, the study is based on secondary research that has been conducted using books from eminent economists and various scholarly articles.

In order to study the relative significance of private final consumption expenditure, the share of PFCE and other components of GDP has been calculated and analysed by using time series data from 1980-81 to 2014-15. The study has also examined the relative share of food and non-food items in PFCE by studying the annual expenditure of food and non-food items within the overall PFCE. The interstate differences in the consumption pattern in both urban and rural areas has been analysed by studying the total, food and non-food monthly per capita expenditure. The major food items of consumption were identified on the basis of monthly per capita quantity consumed in both urban and rural areas. The income differences in rural and urban areas have been analysed by studying the relative proportion of monthly per capita consumption expenditure by varying income groups across categories of food and non-food items.

Major theories that describe the effect of deficits on consumption have been visited to understand the fiscal deficit from a wider perspective. Further, to analyse the trends of fiscal deficit over the period 1980-81 to 2015-16, time series data of fiscal deficit as

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percentage of the GDP have been calculated and analysed along with the major economic events that occurred during that time. The study has used regression analysis to see the relationship between fiscal deficit and its major components. The study has also examined the trends in financing of the deficit by studying the relative proportion of the instruments of financing the deficit.

To identify if there exists a significant long run and short run relationship between fiscal deficit and private consumption behaviour in India by conducting empirical tests, time series data from 1980-81 to 2012-13. However, in addition to fiscal deficit there are other variables affecting private consumption. Thus for the purpose of empirical analysis the study has incorporated other variables to get more comprehensive picture. The other variables are disposable income (YD), real rate of interest (R), foreign savings (FS), base money (BM), domestic credit to private sector (DCP) and government consumption (GC). The study has also incorporated three dummy variables i.e., D₁ (Liberalisation policy of 1991), D₂ (FRBM Act in 2003) and D₃ (Financial Crisis of 2008) to account for the structural breaks.

Accordingly, the hypothesis to be tested in this study has been constructed as:

Null Hypothesis (H₀):

There is no significant impact of independent variables (fiscal deficit, disposable income, real rate of interest, foreign savings, base money, domestic credit to private sector and government consumption) on dependent variable (private consumption) in the long run;

which is tested against the alternative hypothesis

Alternative Hypothesis (H₁):

There is significant impact of independent variables (fiscal deficit, disposable income, real rate of interest, foreign savings, base money, domestic credit to private sector and government consumption) on dependent variable (private consumption) in the long run.

To capture the effect of fiscal deficit on private consumption we specify the following relationship:

$$PC = f(YD, GC, FD, FS, BM, DCP, R)$$

Variables are taken as percentage of GDP.

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The estimating equation is therefore:

$$PC_t = \alpha_0 + \alpha_1 YD_t + \alpha_2 GC_t + \alpha_3 FD_t + \alpha_4 FS_t + \alpha_5 BM_t + \alpha_6 DCP_t + \alpha_7 R_t + \mu_t \quad (1.7)$$

For empirical analysis the study uses Johansen Cointegration and Vector Error Correction Model (VECM) to estimate the long run equilibrium and the short run dynamics. VECM will not only help in understanding long run relationship between variables but also introduce the concept of error correction to study how the deviation from the long run are “corrected”. As a prerequisite for applying the cointegration the study has used Augmented Dickey Fuller (ADF) unit root test to test the stationarity of the data and the order of integration.

The details of these statistical tools and applications has been described in Chapter V.

1.7 LIMITATIONS OF THE STUDY

While due care and abundant caution has been exercised in extracting data, choosing variables and in conducting empirical tests, I am aware that the study carries certain unavoidable limitations. These are as follows.

1.7.1 Limitations with respect to the data

While the study covers reasonably long period of time, to maintain consistency of the data, the time series data has been restricted to the years from 1980-81 to 2012-13. Also, wherever applicable the base year for the time series data is 2004-05 because while the new base year of 2011-12 has been adopted the historical numbers have not been recalibrated to the new base.

1.7.2 Limitations with respect to the variables

The study attempts to capture the major variables impacting private consumption as derived from the theoretical framework, however is restricts itself to the certain independent variables namely, fiscal deficit, disposable income, government consumption, foreign savings, base money, domestic credit to the private sector and real rate of interest.

The study is aware that during the reference period the occurrence of major economic events are likely to have significant impact and thus provided for dummy variables in

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that respect. Nonetheless, the study restricts itself to the following major economic events i.e. liberalization policy of 1991, FRBM Act in 2003, Financial Crisis of 2008.

1.7.3 Limitations with respect to the model

For conducting unit root tests, the study confines itself to the use of Augmented Dickey Fuller test and for establishing the long run relationship the study uses a single model to interpret data i.e. the Johansen cointegration.

1.8 ORGANIZATION OF THE STUDY

The study consists of the following chapters:

Chapter – I Introduction

This chapter highlights the relevance and significance of consumption in an economy. Besides the chapter also explains the objectives and significance of the study, Review of literature, Methodology and Limitations of the study and data sources.

Chapter – II Consumption Function: Conceptual Issues and Theories

This chapter throws light on basic conceptual issues like propensity to consume, short run and long run consumption functions and their reconciliation. Important theories of consumption function have also been discussed briefly.

Chapter – III Consumption Behaviour in India

This chapter covers several issues relating to consumption behaviour in India like changing consumer profile and major trends in the consumption expenditure in India using National Sample Survey Organisation (NSSO) and Central Statistical Organisation (CSO) data.

Chapter – IV Fiscal Deficit and its Financing in India

This chapter explains what exactly the fiscal deficit is. Further the chapter also focuses in detail on the major trends in the fiscal deficit along with the major economic events that occurred during that time. Major trends in the modes of financing fiscal deficit in India have been analysed using Database on Indian Economy, Reserve Bank of India (RBI) data.

Chapter – V Effects of Fiscal Deficit on Private Consumption Behaviour in India

In this chapter an attempt has been made to examine the linkage between fiscal deficit and private consumption expenditure in India from the period 1980-81 to 2012-13 using Johansen Cointegration and Vector Error Correction Model (VECM).

Chapter – VI Conclusion

This chapter contains a summary of major findings of the study and policy implications of the study and also suggest scope for future work.