

University of Oxford

**DISSERTATION**

**EXAMINERS COPY**

Title: Goods and Service Tax: Crouching Tiger or a Jackal in disguise?

Candidate: Kathiravan Muthu

*Paper submitted in partial fulfilment of the requirements for the Degree of Master of Science  
in Contemporary India at the University of Oxford*

Date Submitted: 06/06/2016

Word count: 9945

# Contents

|   |    |
|---|----|
| Acknowledgments.....  | 2  |
| List of Tables .....  | 3  |
| List of Figures .....   | 3  |
| List of Abbreviations .....   | 4  |
| 1.Introduction.....   | 5  |
| 2. Research Problem .....   | 7  |
| 2.1 Fundamental problems of the Indian tax system.....                      | 7  |
| 2.1.1 Low Revenue .....   | 7  |
| 2.1.2 Transaction costs.....  | 10 |
| 2.1.3 Equity .....  | 13 |
| 2.1.4 Tax Evasion and Avoidance .....                                       | 14 |
| 2.1.5 Environment Externalities .....                                       | 16 |
| 2.1.6 Imbalance in tax raising and spending domains .....                   | 17 |
| 3.Goods and Service tax: .....  | 18 |
| 3.1Government claimed advantages .....                                      | 18 |
| 3.2 The Bill’s current status .....   | 19 |
| 3.3 Importance of the Research .....  | 19 |
| 4.Methodology .....   | 20 |
| 5.Empirical Analysis.....   | 23 |
| 5.1 Can GST solve the fundamental problems of Indian tax system? .....      | 23 |
| 5.2 Case Study .....  | 23 |
| 5.3 Comparative analysis .....  | 27 |
| 5.4. What are the potential impact of GST on ‘consumer expenditures’? ..... | 35 |
| 5.4.1. GST’s incidence.....   | 35 |
| 6.Conclusion .....  | 39 |
| 7.Limitations and future research .....                                     | 41 |
| References Cited .....  | 42 |
| Appendix.....   | 61 |

## Acknowledgments

My sincerest gratitude to Professor Matthew McCartney for his guidance, supervision and patience throughout the past year.

## List of Tables

|  |    |
|--|----|
| Table 1 Illustration of VAT system .....                   | 11 |
| Table 2 Various State and Central Taxes.....               | 12 |
| Table 3 GST incidence across different income groups ..... | 34 |

## List of Figures

|  |   |
|--|---|
| Figure 1 Revenue deficit of states and central government..... | 8 |
| Figure 2 Fiscal deficit of states and central government.....  | 9 |

## List of Abbreviations

|        |   |
|--------|---|
| BJP    | Bharatiya Janata Party                                |
| CENVAT | Central Value Added Tax                               |
| CGST   | Central Goods and Service Tax                         |
| FC     | Finance Commission                                    |
| GDP    | Gross Domestic Product                                |
| GFI    | Global Financial Integrity                            |
| GOI    | Government of India                                   |
| GST    | Goods and Service Tax                                 |
| HDI    | Human development Index                               |
| HST    | Harmonized Sales Tax                                  |
| IMF    | International Monetary Fund                           |
| IT     | Income Tax  |
| MMRP   | Mixed Methods Reference Period                        |
| MPCE   | Monthly Per Capita Expenditure                        |
| NIPFP  | National Institute of Public Finance and Policy       |
| NSS    | National Sample Survey                                |
| OECD   | Organization for Economic Cooperation and Development |
| PAN    | Permanent Account Number                              |
| PDS    | Public Distribution System                            |
| PPP    | Purchasing Power Parity                               |
| QST    | Quebec Sales Tax                                      |
| SGST   | State Goods and Service Tax                           |
| UNDP   | United Nations Development Programme                  |
| VAT    | Value Added Tax                                       |

## **1.Introduction**

The basic principle of taxation emphasizes its role in providing finances for the public goods such as infrastructure, maintaining law and order and provision of public goods etc. Other imperatives include correcting externalities in the economy and influence economic decisions of firms and individuals. In India, the domestic taxes, revenues from public investments and the external debt has been the primary ways of raising resources. Specifically, it has played a pivotal role in the planned development strategy (Rao and Rao, 2005). The tax policies have been the primary tool utilized to transfer private savings for public consumption and investment in India (Bagchi and Stern, 1994). The taxes in India has also served other purposes such as guiding of the economic activity, influencing decisions of businesses and individuals, reducing the regional inequalities of economic growth, providing employment opportunities, incentivizing investments and savings etc.

Federal set up of the country entails more complicated tax framework unlike other similar countries. Globally, the taxation consisting of the indirect taxes based on consumption taxes are fast becoming a key instrument in mobilizing financial resources for the Government (OECD, 2006). At the same time, countries such as United States rely on direct taxes more than the indirect tax revenues (Pomerleau, 2015). In line with this wider shift towards the reliance on indirect taxes, Indian finance ministry through its expert committees has been advocating for such a change in the tax structure in the last 5 decades (Government of India, 1978; 1985; 1993; 2002).

Only after 1991, major systematic and comprehensive efforts were attempted in changing the Indian tax system due to the opening of the economy and adoption of market based reforms

by the government. The most recent change attempted by the Indian government is the introduction of a uniform indirect tax named, 'The Goods and Service Tax' (GST). It is a broad based consumption tax levied on all goods and services across the country.

In this paper, I examine the extent to which this new tax could solve the fundamental issues that are observed in the Indian tax system and its potential impact on household expenditures. This research is placed in the most contemporary period for analysis. However, the factors under consideration of this research have historical continuity which is recognized wherever deemed necessary. The primary rationale for this study is to enhance our understanding of the GST in Indian context and thereby facilitate informed policy choices.

Therefore, two research questions are formulated

- 1) Can GST solve the fundamental problems of the Indian tax system?
- 2) What are the potential impact of GST on 'household consumer expenditures'?

The overall structure of the study takes the form of 6 sections. Firstly, in the section (2) the research problem is examined. Section (3) lays out the overview of GST, its current status and importance of this research. Section (4) outlines the methodology employed for this study. Section (5) comprises the empirical analysis and discussion of quantitative results. Section (6) provides the conclusion from this study and finally section (7) deals with the limitations of this study and avenues for future research

## **2. Research Problem**

This section comprises six parts. Each part is concerned with the fundamental problems found in the Indian tax system such as low revenue, transparency, equity, tax evasion, environmental externalities, imbalance in tax raising and spending domains are explored. Then the next section deals with the definition and scope of GST including its current status. The following section justifies this research study.

### **2.1 Fundamental problems of the Indian tax system**

#### 2.1.1 Low Revenue

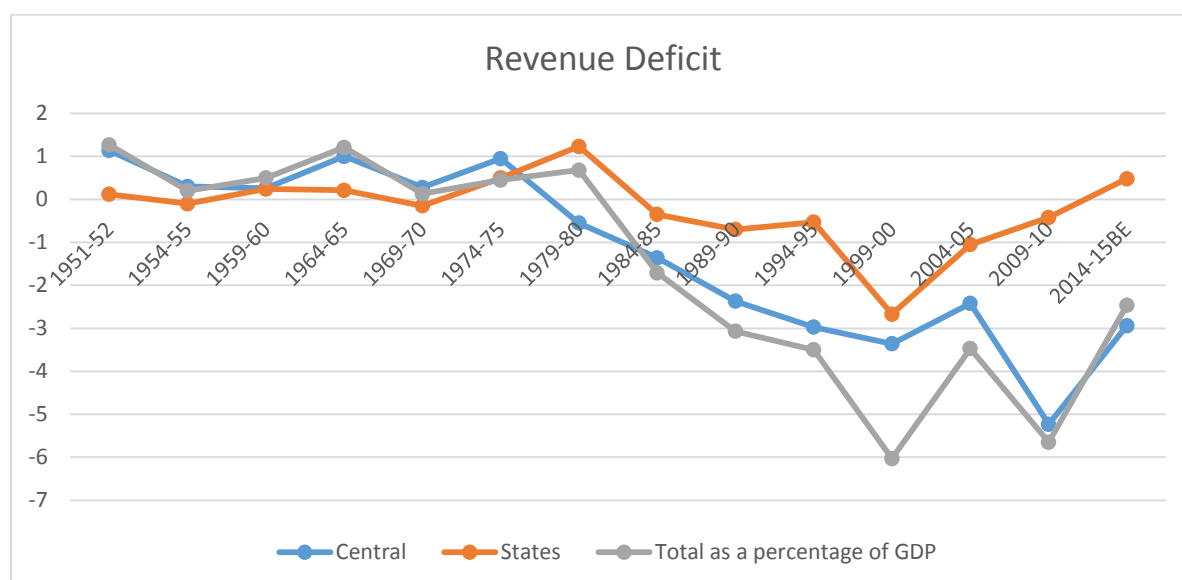
India's tax-gdp ratio stands at 16.6% which is lower than both average of OECD (34%) and emerging market economies (21%). South African data for the same period (2000-14) is about 23-27 % (National treasury, 2015). Chinese data for the period between 2000-2013 is between 15.5%-27.5 % (Lam and Wingender, 2015). Brazilian ratio has consistently been above 30% after 2000-10 (OECD, 2011). Angola, Botswana, Congo, Guinea, Gabon, Lesotho, Namibia, Nigeria, Seychelles and Swaziland have significantly high ratios (Mansour, 2014) compared to India in the period 2000-2010. The spending and tax raising ratios are lower even among the countries with comparable (PPP adjusted) per capita GDP. (Economic survey, 2016).

The exemptions and constant changing of brackets for tax rates has implied that the effective tax from personal incomes as a percentage of GDP remains extremely low at about 0.5% and the population subjected to income tax is 2-3% (Piketty and Qian, 2009).



As a consequence of the low tax ratio, the revenue deficits have worsened in the last three decades with the states performing relatively better than central government. The BJP Government currently in power has promised to create 100 smart cities, develop road and rail infrastructures, and increase public education spending to 6% of GDP, concrete houses for every family among other things (BJP, 2014). However, it is handicapped to fulfil them due to the low tax revenues.

Figure 1 Revenue deficit of states and central governments

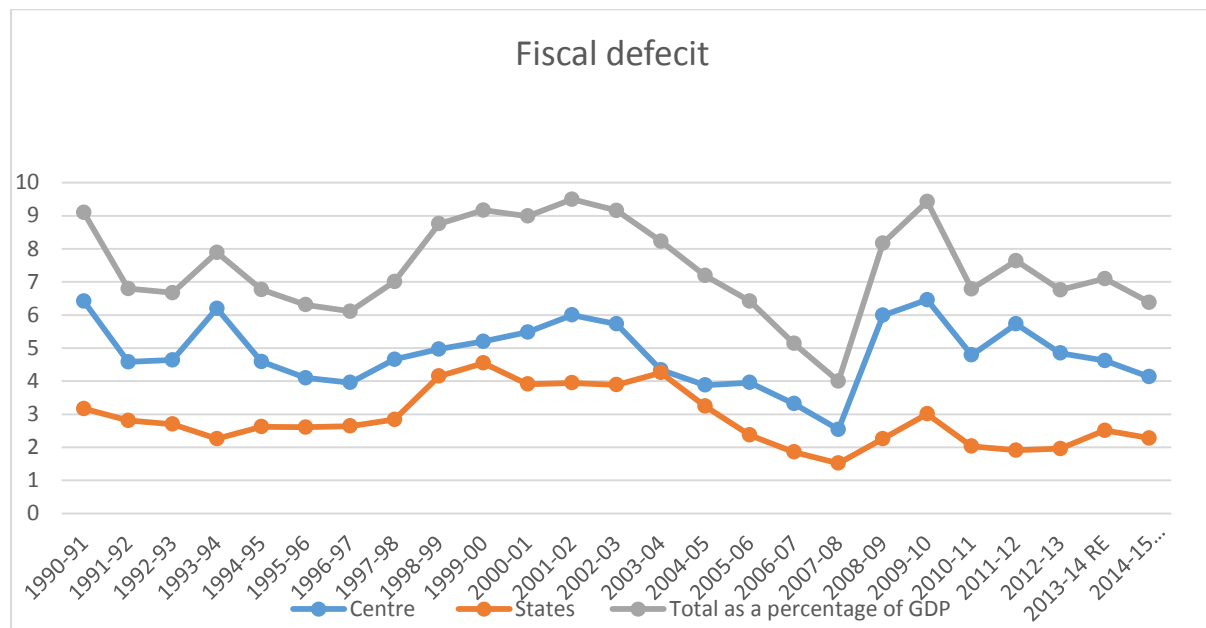


Data source: Indian public finance statistics 2014-15 Ministry of finance, Government of India

The above chart illustrates the shortfall of the government's aspirations to spend and the shortfalls in the revenue of the budget predominantly in the last three decades

Adding to the woes, the fiscal deficit data seems to show similar trends for both states and centre.

Figure 2 Fiscal deficit of states and central government



Data source: Indian public finance statistics 2014-15 Ministry of finance, Government of India

India's HDI value for 2014 is 0.609 which puts the country in the medium human development category positioned at 130 out of 188 countries. Although there have been significant improvements in the last three decades, the Indian scores fall short of the countries in the median Human development group (UNDP, 2015). Last 2015-16 budget revealed further reduction in spending on social sector funding comprising health and education compared to the last two years. It has decreased to 1.01% of GDP from 1.09 % in 2014-15 (Aiyar, 2016). The spending on agriculture too follows the same suit where the overall government expenditure on these crucial sectors are not just low but inadequate by any measurement.

### 2.1.2 Transaction costs

India ranks 130 out of 198 economies in the ease of doing business rankings. The report highlights that in areas such as starting a business, enforcing contracts, dealing with construction permits among others Indian ratings are profoundly poor (World Bank, 2015a). The 'Paying taxes' section highlights the important factors where India performs worse than the OECD. Indicators such as 33 different number of payments (Taxes included) per year and 243 hours as time taken in Mumbai metropolis demonstrates an abysmally low performance (ibid). Taxes like central sales tax also varies across states with a maximum of 2% levied. There is also state specific entry/octroy taxes at the border posts of the states. The input tax credit mechanism is allowed but not for the inter-state sale of goods. The central sales tax paid by the interstate dealers and manufacturers remain a stranded cost (Mukherjee, 2015). Other major taxes are CENVAT, central excise duty, Cess, Central Sales tax etc. 'Tax on tax'/'Double tax', characterizes the present system, the taxes are applied at every stage of production to final sale based on the value of the sale at each stage. For instance, see Table-1 for an illustration.

(...Continued)

Table 1 Illustration of VAT system

| <b>Transaction Stage</b>           | <b>Present VAT regime</b>    |
|------------------------------------|------------------------------|
| Raw material                       | 100                          |
| Tax on Raw material (10%)          | 10                           |
| Value added by Manufacturer        | 20                           |
| Tax payable by Manufacturer        | 2 (10% CENVAT of 20)         |
| Retailers cost                     | 132                          |
| Retailers margin                   | 20                           |
| Tax payable                        | 15.2 (Sales tax :10% of 152) |
| Final price paid (Including taxes) | 167.2                        |
| Total Taxes paid                   | 27.2                         |

(Illustration based on model by PRS legislative research, 2015)

The Current Tax regime has different VAT<sup>1</sup> rates across the states with different bands comprising normal rates 12-14.5%, reduced rates 4-5% and exempted lists. The cost of exporting a container compared with China is around 72% higher. Delays at multiple checkpoints at state/city limits result in higher transit time and increase the high logistics cost at around 13-14% of the value of goods where in other developing/developed economies this stands at 6-8% of the value of goods (World Bank cited in PWC, 2015b)

The multiple taxes of central and state government are better shown in Table-2 which includes different taxes generally levied on goods and services in the country.

---

<sup>1</sup>VAT(Value added tax) and GST are both consumption taxes

Table 2 Various State and Central Taxes

| <b>State Taxes</b>   | <b>Central Taxes</b>  |
|--|---|
| 1.State VAT/Sales tax  | 1.Central Excise duty   |
| 2.Entertainment tax(Also levied separately by local bodies)    | 2.Additional Excise duty  |
| 3.Central sales tax(Levied by central and collected by states) | 3.Service tax   |
| 4.Entry tax( in lieu of Octroi)                                | 4.Additional customs/Countervailing duty                                  |
| 5.Purchase tax   | 5.Special customs duty  |
| 6.Luxury tax   |   |
| 7.Taxes on lottery, betting, gambling and other games          | 6.Central surcharges and cesses (related to supply of goods and services) |
| 8.State specific cesses and surcharges                         |   |

(Source: Mukherjee, 2015)

It is argued that the multiple taxes for same goods across different states increases the compliance costs for businesses and decrease the export competitiveness of the goods and services (Mukherjee, 2015)

### 2.1.3 Equity

The poor tend to spend major proportion of their income on the consumption expenditure than the richer households. Arguably, this renders the taxation policies regressive due to their emphasis on the consumption taxes and naturally questions arise on the relevance of vertical equity in India (Rajkumar and Krishnasamy 2015). The evidences discussed below are only suggestive of the vertical inequity and regressiveness as ideal evidences like detailed household surveys on taxes are absent.

Indirect taxes constitute the major portion (Almost double of direct tax) of the overall tax revenues of combined state and central taxes. In 2014-15, it was 5.81% of GDP (Direct taxes) and 11.57 % of GDP (Indirect taxes) (Finance Ministry, 2015). Considering central tax composition alone, the direct taxes have increased their share than the indirect taxes from the 2007-08 financial year. It currently stands at 5.67 % of GDP (Direct tax) as against the 4.93% of GDP (Indirect tax). The state own taxes composition has been dominated by the share of indirect taxes as the powers of direct taxation is vested with the Centre alone.

In 2014-15, the direct taxes of states constituted 0.14% of GDP and indirect taxes accounted for 6.64% of GDP. Except for the states where the alcohol is prohibited, most of other states revenue constitutes about 20% from alcohol sales which is taxed under different instruments of indirect taxes such as excise, state VAT/Sales tax (Basheer, 2013). For instance, Tamil nadu projected tax revenues for 2015-16 is 96,083.14 crores and out of which tax from alcohol sales alone constitutes about 29,672 crores (more than 25% of its revenues) (Shanmugam, 2015).

The income tax rates are increase progressively levying 10% on INR250000-500000, 20% on INR 500000-1000000 and 30% above INR 10000000 with some relaxation in limits for its senior citizens (Government of India, 2016a). Al though it appears progressive and fair and expected to perform the function of redistribution, it is important to note this as the income tax is applicable to those minority having three times the median income measured as \$1415 for 2014 by World bank. Banerjee and Piketty (2001) also highlight disproportionately large income/consumption gains by the upper tail of the population. Based on income tax reports, they found that in the 1990s, the real incomes of the top one per cent of income earners in India increased by about 50 per cent Furthermore, among this top one per cent, the richest one per cent increased their real incomes by more than three times during the 1990s.

#### 2.1.4 Tax Evasion and Avoidance

An efficient tax system promotes investment, transparency, inclusiveness, strengthens resource mobilization and promotes compliance and social justice (OECD, 2011). Contrarily, the Indian system is not only inefficient but also promotes informal sector, hoarding away of wealth and tax avoidance instead of investment and savings which are required for economic growth. Government's latest efforts to counter them have turned futile.

Various estimates are available in the public domain about the size of the informal economy that facilitates the tax evasion. Using Arunkumar's estimate of the black economy size as 40% of GDP. Considering the present GDP of India as 2.1tn, the rough estimate could be around 780bn dollars. Surprisingly, India's Finance minister recently stated "I'm a great supporter of this informal sector,". "The informal sector generates more jobs than the organized industry" (Bloomberg, 2015). Meanwhile, due to transactions in informal

economy, India loses \$314 billion in revenues from tax evasion annually (Kumar, 2011). The approximate estimate of the black economy size as 40% of GDP (Kumar, 2002; 2011).

Another phenomenon is the illegal capital flight to tax havens. There are various estimates of the so called 'black money' stashed abroad with some claiming about \$1.4trillion (Ministry of Finance, 2012:14). Global Financial Integrity (2010) estimates it at 213 billion between 1948 and 2008. Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015 provided an opportunity for voluntary disclosure of the black incomes/previously evaded incomes stashed abroad and domestically. After the three month window period, 635 declarations amounting to 4160crores (Around \$3 bn) and garnered Rs.17cr in tax penalty (The Indian Express, 2015a). This is a miniscule compared to the above discussed estimates. Arunkumar (2002) posits the following as major sources of black economy: real estate sector, Gold, Stocks and to an extent Mining incomes etc. The Government has imposed compulsory use of Permanent Account Number(PAN) for the purchase of gold above Rs.2 lakh from Jan-2016 onwards (Hindustan times, 2015). However, it is important to note that the total PAN card holders in India in 2015 December was around 24.37 crore (Times of India, 2016a). This number some news reports indicate had been 17 crore until 2014. Out of which only 3.5crore are actually filing returns. The major concern is that there are large numbers of gold buyers who might not yet have a PAN but well might afford to buy gold. The real estate sector is mainly taxed by property taxes, registration taxes during purchase/selling of assets. The powers on this domain remain with state governments and the guideline values prescribed in all of the states for assets are way below the prevailing market values. This provides another easy avenue for thriving informal economy. There hasn't been any announcement on the curbing of this sector except now allowing the FDI in real-estate constructions.



On the issue of tax avoidance, according to report on illicit financial flows (IFF) by Global Financial Integrity (GFI), \$510 billion of black money flowed out of India from 2004 to 2013. The trade misinvoicing (of goods) accounted for 83.4 per cent of the \$510 billion of IFFs from India, Kavita Rao of NIPFP (2012) suggests that the transfer pricing occurs in a large scale domestically with the firms shifting profits to jurisdictions where they are given tax holidays/incentives.

India spent 0.55% of revenues collected on its tax administration expenditures and only 7.0% of all its expenditures on Information technology related services. This is very low compared to other well developed tax regimes in Asia like Singapore, China, Japan, Australia, Malaysia etc. (Araki and Claus, 2014). As of 31.12.2014 there are 100567 cases of income tax disputes pending in appellate tribunals (Law Ministry, 2016) and the uncollected taxes up to 2014-15 period is about 8.9 lakh crore rupees (The Hindu, 2016a). The above numbers clearly illustrate the inefficiency in the tax system.

#### 2.1.5 Environment Externalities

Carbon tax is 'an explicit carbon pricing linked to the level of carbon dioxide emissions' (World Bank, 2016a). There is no Indian carbon tax on fossil fuels directly linked to their carbon emissions (Ramesh, 2015). India has a 'de facto' carbon tax i.e it has increased the existing cess on coal from 100 per ton to 200 per ton. Economic survey of 2014-15 has argued for further increase in cess on coal. It calculates that 5-fold increase in cess would result in reduction of 214 million tons of CO<sub>2</sub> (11% of total annual emissions) and meet out the health costs arising out of harmful emissions. The International fall in oil prices has

enabled the Indian government to retract the subsidies and increase the existing components and still maintain a lower retail price than the previous peak rates.

The current prices seem to suggest that there are no incentives to reduce the use of fuels as they are cheaper than couple of years ago. Particularly, diesel prices are cheaper than petrol due to tax differences. There is no Indian carbon tax on fossil fuels directly linked to their carbon emissions (Ramesh, 2015). Clarke (2014) notes that kerosene, another source of pollution has been subsidized in India through PDS forms a major chunk of the fuel subsidies.

Environment/Green tax – another instrument widely cited is absent in India. However, some states have additional taxes on the sale of vehicles in the range of 500-3000 INR on an ad-hoc basis. There is no clear data on this in terms of collection or intended use. A number of scholars are arguing for incorporating an ‘environmental tax component’ in the proposed GST (Chaturvedi and Saluja, 2014; Srivastava and Rao, 2010).

### 2.1.6 Imbalance in tax raising and spending domains

The federal nature of the Indian constitutional setup entails greater powers for the centre in raising taxes. Though there are separate taxing powers to states, Central government effectively controls state’s economic decisions and has a ‘vertical fiscal imbalance’ (Rao and Singh, 1998). On the other hand, the states are bestowed with huge developmental expenditure responsibilities (Bajpai and Sachs, 1999), there exists an imbalance in tax raising and spending domains – ‘vertical fiscal imbalance’. During 1980-2010 the average revenues of the states as a percentage of the total revenue of centre and state combined is about

45.47%. Average revenue expenditure of the states in the same period is 55.60% of the combined expenditures of central and state governments (Mahamallik et al, 2014).

Having discussed the major problems in the Indian tax system, the next section will discuss the modalities of Goods and service tax and the arguments around it.

### **3. Goods and Service tax:**

According to the Government of India (2016b), the GST is a tax applicable on all the goods and services with comprehensive and continuous chain of set-off benefits. This chain begins from the producer's point and service provider's point upto the final retailer's selling stage. GST is levied only at the value added at each stages of production and the input taxes paid at each stage is set-off using a tax credit mechanism. This is applicable to all goods and services barring those on exempted list of the government(ibid).

#### **3.1 Government claimed advantages**

“GST has been supported by most political parties and I am sure others will also see reason and this law will become a reality very soon” asserted Finance Minister Arun Jaitley while inaugurating an Investment summit at New Delhi (The Indian express, 2016). The government also posits that the GST would usher in transparency and widening of tax base in the country. The ‘cascading taxes’ discussed in previous section is another major problem envisaged to be treated with GST. Apart from that, the GST is supposed to provide incentives

to agriculture, trade, manufacturing industries, exporters, small traders and entrepreneurs by reducing their tax burden and subsequently increasing their competitiveness. Furthermore, the GDP is predicted to grow by 2-2.5% in the GST regime bringing in more investment and jobs (Government of India, 2016b).

### **3.2 The Bill's current status**

The Constitution (122<sup>nd</sup> Amendment) Bill (GST bill), 2014 was passed in Lok Sabha in 2015. However, since then it has been stalled without success to be passed in Rajyasabha. A dual GST in the form of CGST(Central) and SGST(State) keeping in mind the constitutional requirement of fiscal federalism has been formulated. Alcohol and petroleum have been exempted from the bill apart from the state specific 'exempted' lists, which continues to give states a discretion in determining zero rated goods of local importance. A GST council is to be set up at centre with central and state Finance ministers with the former as chairman. The decisions regarding the administration and disputes are to be taken by 3/4<sup>th</sup> majority of votes in the council (Mukherjee, 2015). It is important to note that the centre would possess 1/3<sup>rd</sup> of votes and the states would be given remaining 2/3<sup>rd</sup>. Essentially, the central government will have a veto over any decision of the council.

### **3.3 Importance of the Research**

The GST bill requires a constitutional amendment in the Parliament and ratification in half of the state legislatures of India to become law (The Times of India, 2015). It is widely perceived as a major reform attempted in tax administration since independence. The existing studies of Indian GST have been mostly done by the Central Government institutions (Rao &

Sen, 2011; Rao & Chakraborty, 2010; Chakraborty & Manay, 2011; Mukherjee & Rao, 2014). Complementing the government studies, a number of private business advocacy groups have published reports vouching for GST reform. A paucity of counter arguments is observed on GST. Therefore, the question of objectivity arises in order to make a judgment on what this implies? Higher stakes are involved in the socio-economic and political domains which entail long-term considerations. Whilst, some opinion editorials make claims against the government rhetoric, no previous study has investigated if the proposed bill would address the existing problems in tax administration and the effect it will have on incomes. Casual factors quoted as the benefits of the bill remain speculative. Understanding the impacts of the bill will help influence public policy. Furthermore, the study provides an exciting opportunity to advance our knowledge of the Indian tax structure.

## **4.Methodology**

Mixed methods are most useful when focus on one particular data may not be sufficient enough to explain the results and where an exploratory finding requires generalization (Creswell and Plano Clark, 2011:8). In such cases a second method is needed to enhance and strengthen the primary method and overarching research question can be addressed through multiple phases (ibid). Hence a mixed methods approach is utilized, integrating quantitative analysis, comparative assessment and case study with the use of appropriate literature concerned with each of the topics studied.

The first phase in this research is to evaluate by case study approach to determine the effectiveness of GST in solving the fundamental problems of Indian tax. The fundamental

problems of Indian tax system explored in section (2.1) are analyzed against the proposed GST system as a case study to critically evaluate its effectiveness in solving them. In the next part of the section, the existing studies linking the two consumption taxes and problems mentioned are utilized to help develop insights in the Indian context. This comparative assessment and the case study method will aid in enhancing our analysis and deriving the conclusions.

The comparative assessment draws on the studies from the countries where shifts to consumption taxes were observed and also those countries where the subnational governments have greater autonomy in fiscal decisions. This way of comparative method to study the similarities and differences stems from Ragin's (1994) view that the reliance on qualitative only would narrow the focus to commonalities. Likewise, quantitative approaches emphasize the covariation of one variable with another. Therefore, a comparative method to assess the claims of the government (about GST) in relation to the wider studies is employed to trace the convergence/divergence between claims and literature.

The next phase would quantify the effects of GST based on the household expenditure data (2011) of the 68<sup>th</sup> National sample survey (NSS) to measure the tax burden on expenditures across different groups. The NSS data are the most reliable data on household consumption that is available in the public domain which is widely used by various scholars in their studies due to its reliability. Two NSS reports are utilized in this study that estimates the household consumption in India (NSS, 2014a,b). Particularly, the data which employs a Modified Mixed Reference Period (MMRP) method to calculate are taken for this analysis due to its greater reliability on the recall periods of all the items consumed. Richardson's (1999) model

to measure the impact of GST on monthly household consumer expenditure is adopted. Though, the study is made for Australian GST, I find data used and methodology of this analysis applicable to certain extent in Indian context. Furthermore, owing to the limitations of using any complicated econometric analysis, such a model seems reasonable in this study. This analysis is done for the data on Tamil Nadu state. As the exemption lists vary across states and due to practical constraints, this study would focus on one state – Tamilnadu, using household expenditure data. The distributional impact of GST is investigated under the scenario where food, alcohol, petroleum and other state specific exemptions applied. As there is no consensus reached till date on the specifics of the exempted list on the GST, these three categories are utilized which are widely perceived to be exempted (The Hindu, 2015a). The first step in the quantitative analysis is to calculate the tax rates paid by consumers for various food and non-food items. By applying Tamil Nadu's VAT rate (Commercial Taxes Department-Tamil Nadu, 2015) to the individual items in the NSS (2014a), average tax rates for different sub groups of items are estimated. Similarly, the GST rates are also calculated by the same method by applying to individual items and estimating their rates for different sub groups. GST tax rates were taken from the recent recommended rates of Chief Economic Adviser to the government (Subramanian, 2015). The next step in the analysis was to apply the average tax rates to the monthly per capita expenditure of different fractile classes of Tamilnadu given in the NSS (2014b). A word of caution is necessitated here, as the above qualitative method would only give a crude estimate of the tax incidence for two reasons. One, there exists no evidence that the consumer has paid any tax at all for their purchase. Two, the consumption pattern may vary significantly across different classes. Moreover, the above methodology is warranted from the fact that the disaggregated data for pattern of consumption across different fractile classes is not available for any state. Therefore, by

calculating the approximate tax incidence from the average per capita expenditure and applying it to the different fractile classes seemed a reasonable way forward.

## **5. Empirical Analysis**

This section of the paper deals with addressing the two research questions formulated above.

### **5.1 Can GST solve the fundamental problems of Indian tax system?**

In this part, the GST's effectiveness in India is interrogated by employing the methodology outlined in section (4). Specifically, I will incorporate the problems of low revenue, equity and transaction costs in the first part as a case study. The following comparative assessment helps to address the problems of black economy, environment externalities and fiscal federalism. The last part of this section quantitatively measure the GST's incidence across income groups to determine its impact on household consumer expenditures.

### **5.2 Case Study**

#### **5.2.1 GST - low revenues and equity**

The dominant claim for the introduction of GST is the potential increase in revenues and growth of GDP. There are different estimates for the GDP growth. I use the estimate of Chaddha (2010) who predicts a 1.7% additional gain in GDP. As pointed out in the section 2.1.1, the revenue –GDP ratio has been consistently low in India which has been a major



impetus behind the introduction of GST. Consumption taxes have significantly raised the tax revenues in the pre-VAT and post-VAT period (Dasgupta, 2011). However, at the same time, the contribution of direct taxes to the total share is negligible compared to other similar developing economies.

The emphasis on GST obscures another important source of revenue in India, the direct taxes comprising personal incomes. The share of agriculture to GDP currently stands at 17.8 % (World Bank, 2016b). The recent data released by the income-tax(IT) department for the year 2011 shows that the declared agricultural incomes of IT assesses stood at Rs.2000 Lakh crores (The Hindu, 2016b). The GDP estimate at 2011-constant prices for the year 2014-15 is a mere Rs.106.44 Lakh crores (The Indian Express, 2015b). Plainly, the agricultural incomes that are legitimately filed are approximately 20 times India's GDP. Supporting this view, Purohit and Purohit (2014:159) maintains that the current tax structure in India is insufficient in the agriculture sector which affects the efficiency and equity of the system. Presently only 5 states levy tax on agriculture that too only on plantation crops.

Chaddha (2010) calculates the potential tax gains from introduction of GST at Rs.83999 crores (based on 2008-09 indices). Assuming that this additional revenue is realized in the post-GST scenario, even then the estimated raises in revenues are not enough to meet out the revenue and fiscal deficits of both central and state governments (See section 2.1.1). A mere 10% tax on those 'declared' agricultural incomes would yield 200 lakh crores (Approximately 20 times the revenue gains from GST). Hence, problems of low revenue may not be addressed adequately until the direct tax system is reformed. The GST perhaps may give some short term relief with other unintended consequences.

As seen in section 2.1.3, the tax system in India is already regressive, with more revenues from direct taxes than the indirect taxes. On addressing the issue of low tax revenues, though GST may increase the public resources, to a great extent influences the tax incidence across income groups due to the consumption taxation it levies. The GST is seen as a successor to the current VAT system in India (Nayar, 2014:138). The revenue neutral rates proposed is in the range of 16.9 -18.9 % which is yet to be decided by the government (Subramaniam, 2015:53). Whatever, the rate is chosen in this range, it is still higher than the current VAT rate in the range of 12.5-15.5% (Rao and Rao, 2005). A large body of literature treats the VAT system as more regressive in relation to the direct taxes. However, at the same time, they posit that the exemptions for basic goods make it more progressive. (Gemmell and Morrissey, 2005; Rafeqat, 2003; Bourguignon and Silva, 2003). Though there are exemptions envisaged for basic goods under the new GST system, the present VAT system has about 390 items in both central and state lists (The Hindu, 2015b). These exemptions primarily are accorded to the basic goods and goods of local importance. The proposed reduction of this list from 390 to under 100 items would result in price rise of previously exempted goods.

The tax rate rise and pruning of exemption lists in the GST system indicates that any progressiveness in GST's incidence may be largely limited. Attributing to it further is the recent budget (2015-16) announcements on increasing the indirect tax revenues that imposes an additional burden of Rs.20000 crore on the consumers in general (The Indian express, 2015c). Perhaps, it would be right to posit that the new system could be more regressive than the existing structure.

### 5.2.2 GST and transaction costs

Another predominant reason often attributed to the existing malaise in tax system is the ‘transaction’ costs shown in section (2.1.2). The draft bill (clause 18) of GST discusses about the levy of taxes in addition to the GST on all the goods and services for interstate trade at the rate of 1%. If the rationale for GST was to reduce the issue of cascading taxes as discussed in section (2.1.2), then this additional levy seems contradicting. Arguing on the same lines, Bhaskar and Nath (2015) observe that the levy of these ‘origin’ based taxes runs precisely contrary to the very fundamental framework of GST which focusses on the ‘destination’ based taxes on consumption. Moreover, they are of the view that such flaws in the design of the bill will result in flow of cheaper products from neighboring countries with whom India has signed ‘Free Trade Agreements’ into the border states.

The GST’s sole focus on reducing the ‘transaction’ costs crowds out other important problems associated with it. For example, Kumar (2002) argues that the corrupt practices in the black economy raises the costs for transactions and indirect taxes. According to him, the input costs often reflected misses out the bribes and over- invoicing practices that exist widely in India. Further, the inferior quality of inputs for production too increases the transaction costs. Cascading effects are then amplified when new indirect taxes are introduced to compensate for reductions in direct taxes. The tax administrations faced with challenges such as ‘low tax morale’ (Frey, 2003) cannot be enforced by deterrence alone. Edling and Nguyen-Thanh, (2006) suggest that the ‘tax culture’ resulting from inadequate and unwilling enforcements would result in inefficient system. They claim that the cultural factors such as religion, perception towards state, political participation, values and attitudes affect the administration to a large extent. Stiglitz and Rosengard (2015) observe that cost of

running the administration (direct-cost) and the compliance cost for taxpayers (indirect-cost) as two major costs.

The present GST framework fails to address any of the above and rather conforms to some of Kumar's (2002) concerns. Existing corrupt practices of bribery in India implies, the claims of huge revenues from GST are limited as the tax rates are effectively raised and nowhere any theory says that a raise in tax rates would raise compliance. Whilst the evasion and avoidance of taxes originates from the formal sector and creates the informal domains through real estate, transfer pricing, mis-invoicing etc (Refer section 2.1.3), the GST seems to inadequately address those issues. Firstly, the real-estate sector is left out from its purview. Secondly, instead of targeting the pilferage of in the economy that originates in the formal domains, the over emphasis of GST shifts the tax burden largely to the consumers who have a very limited choice of escaping GST tax net.

### **5.3 Comparative analysis**

Goods and Service tax was introduced in New Zealand with a uniform rate of 10% in 1986 and rose to 12.5% and 15% by 2010 (Evans, 1996; Inland Revenue, 2015). The GST in New Zealand yielded tax revenue that was 45% higher than the anticipated estimates. Such a high revenue was realized due to higher rates of compliance and coverage of the tax system (Poddar & Ahmed, 2009). The tax rates of GST were uniformly levied at the same rate without any multiple slabs (Evans, 1996) for taxes unlike those proposed in India. No exemptions were provided and the inflationary effects were contained through other fiscal instruments such as provision of guaranteed incomes for vulnerable populations. Moreover, the construction services and real estate industry are covered in New Zealand's GST system

(ibid). On the other hand, New Zealand's income inequality rose sharply in the post-GST period and remains one of the highest among OECD countries (Ministry of Social development, 2015). Though the rising incomes of top 10% has been attributed to this, the influence of GST and other consumption taxes on the poorest households had been acknowledged too (Barber, 2011). Taken together, these suggest that GST's prospects depend on tax compliance rates, inequality, exemptions and fiscal instruments.

### **5.3.1 GST and black economy**

The link between GST and black economy found in the literature show contradicting outcomes. For instance, Mirus et al (1994) posits that in Canada the underground economy grew by 15-20 % of GDP after the GST implementations parallel to the increase of tax revenues. On the same note, Spiro (1993) observes that in Canada when the GST introduction was articulated, the government argued that broad based consumption taxes may help evade tax evasion and thereby reduce black economy. He uses the ratio of cash balances to the total expenditures to substantiate his argument in support of the increase in underground activities after GST introduction. It is important to note that in country like Canada which has well developed financial institutions, GST has resulted in a spurt of underground activities. Let's take the case of India, where Mazzotta et al (2014:35) point out that only 35% of Indians formally have bank accounts and the total value of liquid cash in circulation is estimated at 12.04 % of GDP whereas the same value is 3.93% in Brazil, 3.72% in south Africa and 5.32% in Mexico (IMF, 2013 cited in Mazzotta et al (2014:12).

On the other hand, Giles and Johnson (2002) finds that the introduction of GST in New Zealand had a cyclical effect on the size of black economy. He finds that though there were

increases in the 'black' economic activities post-GST introduction in 1986, Government used other tools to offset the negative impacts such as reducing the personal income taxes, corporate income taxes etc. However, he maintains that increasing the consumption taxes led to the spurt in underground economy particularly among the self-employed.

India has about half of its total workforce classified as 'self-employed' (NSS, 2016:5) and 90% of Indians perceived cash to be a 'powerful' medium of spending as they are bestowed with negotiating power during purchase of goods and services Mazzotta et al (2014). In such a context, taking cues from both Giles's (1999) and Spira's (1993) findings, it could be said that the GST introduction without any changes in employment statistics and percentage of cash circulation as a percentage of GDP may perhaps add fuel to the already existing bewildering 'black' economy (See section 2.1.4)

If we now turn to UK, the revenues from VAT are lower relative to the personal income taxes where the receipts from VAT are 22% and all the direct taxes are 56% during 2015-16 (HMRC, 2016). Contrary to widely held belief, Crossley et al (2009) consider the UK's VAT system to be 'mildly progressive'. The reason put forward for such a conclusion stems from their assumption that the incomes are volatile in a tax payer's lifetime. They point out that other fiscal instruments like the borrowing opportunities for those in the 'low' income or 'poorest' category helps them to be upwardly mobile and their incomes and savings rise. This concept is termed as 'consumption smoothing' (ibid). Furthermore, they claim that the VAT paid must be examined as a total percentage of household expenditure instead of incomes to demonstrate the 'progressiveness' of VAT. Whereas Tax Research (2010) argues that approximately 900,000 households had no bank accounts (roughly the poorest quintile) and 5 million households that have accounts without any borrowing facilities. Therefore, the

‘consumption smoothing’ principle helped by the borrowing opportunities fails to hold true (ibid).

In the case of India, World Bank (2014) statistics show that only 52% of the adults had a bank account, only 46.3% borrowed any money and only 6.4 % borrowed from a financial institution. Moreover, the popular financial inclusion scheme of present government, ‘Jan Dhan Yojana’ had claimed to have opened 220 million bank accounts. The number of accounts is contested on charges of duplication and the current dormancy rates stands at about 30% of these newly opened accounts (Srivastava, 2016). With such abysmal level of formal financial inclusion, it is rather unfair to expect any reasonable borrowing opportunity to offset the inflationary effects of Indian GST. Hence, it could be conceivably said that the concept of ‘consumption smoothing’ falls more flat in Indian context than UK.

### **5.3.2 GST and environment externalities**

As far as environmental taxes on reduction of carbon emissions are concerned, India is yet to evolve a tax for that purpose (See section 2.1.5). Whereas, the developed economies have incorporated energy and carbon based tax instruments to reduce the environmental impacts. According to Green Fiscal Commission (2009) Scandinavian countries introduced the explicit taxes on emissions in the 1990’s followed by Germany and UK. The empirical analysis proves that the introduction of environmental taxes for activities involving energy and CO<sub>2</sub>, a significant fall in Greenhouse gas emissions was observed in all the countries that levied those taxes. Beyond the conventional taxes on energy/CO<sub>2</sub>, these countries have moved towards taxing wastes, transport and water related sources to reduce the overall impact of resource use on the environment.

The proposed GST model in India not only misses out the environmental tax element but also inherently detrimental to the environmental concerns. Srivastava and Kumar (2014:97) argue that the input tax credit mechanism may further increase the use of polluting input sources as the GST system offers a rebate on input taxes. Furthermore, as the system is designed to shift the revenues from an origin based principle to a destination based one, the producing states revenues from sales tax are reduced. This system of input taxes incentivizes the use of polluting resources and the change in tax principle limits the ability of producing states to achieve desired environmental objectives (ibid).

### **5.3.3 GST and Fiscal federalism**

This part of the study will examine the issues around the implementation of GST and its impact on fiscal federalism of India by outlining the theory on fiscal federalism, the problems in Indian context, government's own contradicting views, lessons drawn from other jurisdictions and finally the trade-offs between tax rates and harmonization.

The standard fiscal federalism model advocated by Oates (1999) is based on the lower levels of government relying on economic units that are mobile. Any redistributive taxes must be imposed by central government and if the local government levy any such taxes, it must be imposed on units that are immobile across jurisdictions. Due to inadequacies caused by evolving political and social factors, the 'second generation' fiscal federalism emerged that places a strong argument for tax autonomy at the local and regional level (Bird, 2010). The literature stresses the use of subnational income taxes such as those in US for better



accountability. However, the enforcement efficiency limits the potential for it and consumption taxes like VAT serves an 'additional substitute'. The control and responsibility of revenue sources must be attributed to the the federal units that have spending obligations (ibid). The fiscal imbalances arising from the expenditure commitments and shortfalls in the own source of revenues under their control are defined as the 'vertical fiscal imbalances' (Bird, 2003). Similarly, the disparities among the sub national state's resources are called the 'horizontal fiscal imbalance' (ibid). There are arguments present for and against decentralization of financial powers in the scholarship. Acknowledging the numerous models of federalism and autonomy in literature, I take Wyplosz's (2015) proposition that 'there are no simple, off-the-shelf, prescriptions coming from an already ambiguous literature'.

Presently, Indian states are constitutionally bestowed with the powers to tax goods in their jurisdictions at rates deemed suitable for their expenditure obligations and local socio-economic conditions (Nayar, 2014:120). According to Reserve Bank of India (2016:18), the revenue receipts from sales taxes in the state budgets currently stands at approximately 46% of their total revenue receipts. It is reasonable to say that the states revenues are most dependent on sales taxes than any other source. The GST system squarely alters this fundamental revenue raising capacity in favour of a centralised GST council where the uniform rates of taxes are set. Though the states have a seat at the council, the central government can effectively veto any decision that it may differ with. The GST council arrangement more than any of its other tenets of this system goes against what Bird (2010) argued for in terms of autonomy in taxation. This council and the imposition of uniform rates takes away not only the independence for setting tax rates locally but also presents enormous potential for increasing the already enormous vertical fiscal imbalance of the states as mentioned in section (2.1.6).

The Finance Commissions(FC) set up every five years to recommend tax devolutions between the states took note of the burgeoning vertical fiscal imbalances between the centre and states. Particularly, the 11<sup>th</sup> Finance Commission recommended some important institutional reforms keeping in mind the budgetary deficits of both centre and states and the piling public debts. The most important of it all was the reassignment of tax powers to the tiers of government where spending occurs (Finance Commission, 2000: 34). What it meant was that the over centralized tax powers of the central government needed to be restored back to the state and local body levels of government which were more responsible for the public expenditure. The report also observes that such a change would reduce the fiscal instability and dependence of states on the centre for fiscal reasons. The more recent 14<sup>th</sup> finance commission has recommended an increase of share of states in the net revenue of the union from 32% to 42% (Finance Commission, 2015:243). Although following the 14<sup>th</sup> FC's recommendations the aggregate transfers from the central government to states as percentage of GDP had increased, the grants as a percentage of GDP had actually declined (Chakraborty and Gupta, 2016). The main difference between the grants and tax transfers could be said as tax transfers are those comprising states legitimate share that are actually accrued in the states and the grants are provided in two ways- untied and tied with centrally sponsored schemes. The recent increases have been added to the account of centrally sponsored schemes which negates any autonomous spending and the central government has increasingly started to rely on levying surcharges and cesses which are not required to be shared with the states (ibid). The most recent example is the hike in service tax to 15% from 14.5% by adding the 'Krish Kalyan Cess' (The Hindu, 2016c)

Conspicuously, the 14<sup>th</sup> FC is silent on the issue of vertical fiscal imbalances and reassignment of tax powers. However, it ‘takes note’ of these observations put forward by state governments and envisages to reduce the imbalance through higher devolution. Besides, the commission proposed to mitigate the potential loss of revenue to states due to GST by suggesting a compensation of revenues for the states up to a period of five years (Finance Commission, 2014: 171). The 14<sup>th</sup> FC not only contradicts its own predecessor, the 11<sup>th</sup> finance commission on the issue of reassignment of tax powers but also lacks any real substance that supports the concept of true ‘fiscal federalism’.

Some other countries like Brazil and Canada too have grappled with the similar issues currently debated around GST in India. Brazil’s tax system has been the most federal in its design among the non-OECD countries (Rodden et al, 2003: 217). Its tax system had resulted in the sub national units spending a greater proportion of their expenditures through autonomous taxation. The crux of its design is that states and federal governments have their own VAT taxes. Beyond that, the states are also permitted to levy additional taxes up to 5 percent on the bases of federal government taxes like income and corporate taxes. However, the system isn’t fully efficient and has problems around the taxation of inter-state trade and ‘exportation of tax burden’ by the richer states etc (ibid). Bird and Gendron (1998), however maintain that it is possible to have a dual VAT type tax in a federation even when there exists the problems of inter-state trade and tax credit transfers etc. They posit that a ‘clearing house’ mechanism could help overcome those technical issues and reduce the cascading effects.

The Canadian system on the other hand has achieved relative success in both implementing a harmonized system coupled with the independence of states to choose their tax rates (Bird and Tassonyi, 2003: 85). Essentially, there exists a dual VAT similar to Brazil. However,

Canada is unique due to its accommodation of more than one VAT framework. One of its provinces Quebec, has its own sales tax, the Quebec sales tax (QST). Similarly, Ontario too has its own tax rate beyond the VAT levies. The second system of VAT in Canada is the harmonized sales tax (HST) which is present in three provinces. HST rate is about 15% shared between federal and province at the rate of 7% and 8% (ibid). In some ways, this HST is similar to proposed Indian GST. The most important aspect to be derived from Canadian system is that despite having such diverse and complicated tax arrangements in the country, it still operates a well-functioning input tax credit mechanism and maintains the fiscal federalism.

Having discussed the GST comparatively, the next section will quantitatively measure the potential impact on the household consumer expenditures in the post-GST scenario.

#### **5.4. What are the potential impact of GST on ‘consumer expenditures’?**

Firstly, an overview of literature concerning the tax incidence and fairness of tax systems is given below. Subsequently a quantitative analysis is done to evaluate the GST’s incidence effect on consumers across different income groups.

##### 5.4.1. GST’s incidence

Connolly and Munro (1999:186), define the tax incidence simplistically by posing the question ‘on whom does the tax burden fall?’ They note that it depends on the demand elasticity of goods whereby those having elastic demands would result in tax burden falling

on both consumer and producer. The inelastic goods impose the burden entirely on the consumer. The above two conditions are based on the assumption that the tax is levied on the consumers. The other influencers of tax incidence mentioned are whether the tax is specific or advalorem and its peculation in imperfectly competitive markets. Atkinson and Stiglitz (1976) maintain that the focus of tax incidence must be on the consumers rather than producers. Tax rates also influence the redistribution efforts apart from progressivity as is widely perceived (Kakwani, 1977). A major critique of the existing research is that they either focus excessively on either 'uses' (how people spend their incomes) or the 'sources' (how it affects supplier's choice of labor and capital). For a comprehensive analysis, all the effects on relative prices and their burden must be incorporated. Moreover, in assessing the distributional effects of taxes the nature of revenue spending needs to be accounted for (Fullerton and Metcalf, 2002). I recognize that accounting of revenues is problematic as the pilferages remain invisible and in practice the numbers might not indicate a reliable measure of the effects of spending. Therefore, 'tax burden' by the rates paid by different income groups are quantitatively estimated below.

Fairness is concerned with the horizontal (Equal treatment for equals) and vertical equities (appropriate differentiation among equals) of a system (Stiglitz and Rosengard, 2015). The emphasis on horizontal equity must recognize that individual tastes vary and in practice it is extremely difficult to balance it with the utilitarian objective of tax (Atkinson and Stiglitz, 1976). Further, they favor a system which comprises different taxes that interact with each against a 'piecemeal' approach to tax system. Elkins (2006) dismisses the horizontal equity as 'unjustifiable' tax theory on the basis of examination of its 'equalness'. He claims that attempting to bring both horizontal and vertical equities in a system are contradicting and incompatible. If tax structure envisages to redistribute economic resources the vertical equity

is pertinent. The debate on the vertical equity concerning whether to tax the annual incomes or expenditure or lifetime incomes as bases for calculation is observed among economists (Pechman, 1985; Warren, 1980; Caspersen and Metcalf, 1994). Taken together, vertical equity is more relevant in analyzing the GST.

For quantifying the tax incidence and burden on consumers, monthly per capita expenditure of different fractile classes were analyzed from the NSS reports. These expenditures comprise items broadly classified into two groups namely food and non-food for which the average tax incidence was calculated and applied across all income groups. The detailed versions of calculations are given in the appendix.

Table 3 GST incidence across different income groups

| <b>URBAN</b>            |             |             |             |             |             |             |             |             |             |             |             |             |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>FRACTILE CLASS</b>   | <b>P5</b>   | <b>P10</b>  | <b>P20</b>  | <b>P30</b>  | <b>P40</b>  | <b>P50</b>  | <b>P60</b>  | <b>P70</b>  | <b>P80</b>  | <b>P90</b>  | <b>P95</b>  | <b>P100</b> |
| MPCE                    | 832.36      | 1050.61     | 1241.7      | 1485.36     | 1736.78     | 1957.48     | 2220.92     | 2600.74     | 3078.22     | 3865.13     | 5224.12     | 8959.54     |
| VAT                     | 45.35       | 56.21       | 70.33       | 87.81       | 100.63      | 114.93      | 128.62      | 163.28      | 192.81      | 253.86      | 355.2       | 666.44      |
| GST                     | 71.09       | 88.61       | 108.99      | 135.44      | 156.62      | 179.26      | 200.59      | 250.65      | 297.1       | 389.53      | 544.69      | 1012.12     |
| VAT% MPCE               | 5.45        | 5.35        | 5.66        | 5.91        | 5.79        | 5.87        | 5.79        | 6.28        | 6.26        | 6.57        | 6.8         | 7.44        |
| GST%MPCE                | 8.54        | 8.43        | 8.78        | 9.12        | 9.02        | 9.16        | 9.03        | 9.64        | 9.65        | 10.08       | 10.43       | 11.3        |
| Additional tax burden   | <b>3.09</b> | <b>3.08</b> | <b>3.11</b> | <b>3.21</b> | <b>3.22</b> | <b>3.29</b> | <b>3.24</b> | <b>3.36</b> | <b>3.39</b> | <b>3.51</b> | <b>3.63</b> | <b>3.86</b> |
| <b>RURAL</b>            |             |             |             |             |             |             |             |             |             |             |             |             |
| MPCE                    | 587.2       | 766.32      | 915.09      | 1086.57     | 1240.86     | 1380.24     | 1522.35     | 1711.4      | 1971.83     | 2444.9      | 3170.09     | 4786.34     |
| VAT                     | 30.44       | 43.97       | 48.78       | 59.23       | 67.75       | 76.32       | 89.19       | 103.49      | 128.3       | 150.62      | 203.43      | 293.06      |
| GST                     | 47.55       | 67.2        | 75.99       | 92.18       | 104.84      | 118.7       | 135.09      | 154.22      | 187.87      | 226.05      | 308.35      | 456.27      |
| VAT%MPCE                | 5.18        | 5.74        | 5.33        | 5.45        | 5.46        | 5.53        | 5.86        | 6.05        | 6.51        | 6.16        | 6.42        | 6.12        |
| GST% MPCE               | 8.1         | 8.77        | 8.3         | 8.48        | 8.45        | 8.6         | 8.87        | 9.01        | 9.53        | 9.25        | 9.73        | 9.53        |
| Additional tax burden % | <b>2.91</b> | <b>3.03</b> | <b>2.97</b> | <b>3.03</b> | <b>2.99</b> | <b>3.07</b> | <b>3.01</b> | <b>2.96</b> | <b>3.02</b> | <b>3.09</b> | <b>3.31</b> | <b>3.41</b> |

From the above table, two things are clear. Firstly, there is a tax burden on the consumers in the envisaged GST regime that defies the claims of the government and businesses. Secondly, the progressiveness of the tax burden is observed across both rural and urban consumers. Surprisingly, unlike Richardson's (1999) results which demonstrated the regressiveness of GST in Australia, our analysis portrays an opposite picture. One possible reason which explains the progressive incidence of GST in Tamil Nadu could be that it is one of the states that have a well-functioning public distribution (PDS) system. For instance, in the rural sector, 89% of households in Tamil Nadu purchased their rice from the PDS shops and in the urban areas the figure stands at 67%. The same for All India average is 45.9% and 23.3% (NSS, 2015). A similar pattern is also observed for other food items such as wheat, sugar and fuels like kerosene etc. This implies that the majority of the taxes from consumption of food items are reduced due to the greater reliance of households on the PDS, where they are sold tax free.

As mentioned in the section (2.1.3), the tax system in India is already regressive and the proposed GST's impact certainly adds further indirect-tax burdens across all income groups. Mukherjee (2015) acknowledges that the GST will result in immediate impact on the prices and consequent changes in consumer behavior, he is optimistic that in the long run the inflationary effects will subside to the removal of cascading effects of the existing tax system. He also observes that unless there exists a commodity-wise research on the impact of tax rates under GST, it is difficult to generalize the tax rates on all food and non-food items. On the same line, Subramanian (2015) argues that the GST is 'intrinsically regressive' and the development of social safety nets would make it progressive.

I agree partially to his claim that a well-developed social safety system such as in Tamilnadu demonstrates to us that the consumption taxes could be progressive. However, such rhetoric's hides the additional tax burden that could fall on the consumers despite being progressive. From the NSS, (2015) it is clear that there exists huge inter-state variations among the states in their PDS systems reflected in the pattern of consumption by households. Therefore, the generalization of GST as a 'progressive tax' by taking into account the social safety net in India is flawed.

## **6.Conclusion**

The tax efforts which explicitly inform the citizenry about the burden of payments clearly are defined as 'transparent taxes' (Stiglitz and Rosengard, 2015:521). To overcome the problems of public resentment and political opposition when ambiguous reforms are introduced, the policy discourse deploys a constructivist approach for legitimization (Eccleston, 2007:30). Since, GST is a broad based consumption tax, it fits into the 'unconscious tax' notion for indirect taxes (Bittker, 1987).

From the above analysis, six major elements stand out. Firstly, the proposed Indian GST system has no explicit fiscal policy instruments linked to social welfare as seen in countries like New Zealand to dampen the inflationary effects and safeguard poor households. The only safety net is the provision of an 'exemption list' that too with reduced number of items form the existing exempted list. Multiple rates make the revenue gains uncertain.



Secondly, with respect to the tax evasion arising due to GST type consumption taxes, Jha (2011:180) reminds us that with the presence of a large informal sector, raising revenues through consumption taxes for social welfare is ambiguous. Therefore, the GST may not disincentivize transactions in underground economy as claimed by the government instead encourage it more as observed in Canada.

The Indian system neither has a properly compliant income tax system nor a comprehensive social safety net to prevent vulnerable income groups from the adverse effects of a broad based consumption tax. Mirrlees and Adam (2011:149) notes that an ideal VAT/GST system must have the appropriate income tax and benefit frameworks to effectively achieve the redistributive goals.

Fourth, the present GST bill by ignoring the environmental aspect it certainly presents a large potential for environmental degradation by freeing more capital for businesses which could be detrimental.

The research also demonstrates that concept of 'fiscal federalism' seems to be very dynamic in the case of India. The central government when faced with mounting debts turns the 'fiscal federalism' concept in favor states by asking them to shoulder greater share of debts and assigning greater taxation powers. However, with the prospect of GST increasing tax revenues (claimed so), the federalism adorns the prefix of 'cooperative' federalism frequently (Finance commission, 2014) when the states are expected to be in-line with the central governments taxation proposals for GST. The central governments ad-hoc levy of various cesses and surcharges on one hand and vigorous push of GST on the other seems self-defeating. This stems from the fact that the fundamental rationale of GST is to weed out

cascading effect of taxes what the cess and surcharges principally intends to do. Rodden (2002) reminds us that the fiscal performance of sub-national units has been better where they are provided with greater taxation and borrowing powers. Wherever, the sub national units increase their reliance of intergovernmental transfers, the fiscal health had actually declined. The GST has in its heart the latter hypothesis that Rodden (2002) had argued.

Lastly, the results of the quantitative analysis indicate that the impending GST system entails a significant tax burden for all income groups in the area studied (Tamil Nadu). It is now possible decisively to suggest that GST will certainly impact the household consumer expenditures negatively. However, on the question of whether GST is being progressive or regressive, as mentioned earlier in section (5.2.1) a detailed commodity-wise and perhaps state wise empirical study too could provide us with more clarity for making judgements.

## **7.Limitations and future research**

Firstly, the lack of detailed household level tax data for India hinders the possibility for a better analysis of tax incidence. To overcome it, wherever necessary proxy measures were utilized in this study. When the data becomes available in future, the analysis of tax incidence on a more disaggregated level is strongly recommended. Particularly commodity wise and state wise comprehensive studies would be interesting. Secondly, the political uncertainties in India would mean the GST may be shelved or substantially modified from its current form. As the law needs to be passed in state legislatures and the recent elections have brought communists to power in Kerala, the opposition to GST might get stronger. Thirdly, the

diversity of Indian states renders any generalization attempts questionable. The existing studies around GST are largely based on developed economies like EU, Canada, United States and Australia. To what extent they can be applied to Indian context is somewhat again contestable given the uniqueness of the country. Lastly, owing to word limit and practical constraints any potential empirical extensions were avoided in this study. Such sophisticated economic models could possibly give a more empirically grounded results.

Notwithstanding the above limitations, I believe this research had shed some new light on the much debated Goods and Service tax in India that remains ‘under-researched’.

## **References Cited**

Aiyar, Y. (2016). *Social Sector Investments in Budget 2016 No Different Than Previous Year*. [online] The Wire. Available at: <http://thewire.in/2016/02/29/social-sector-investments-in-budget-2016-no-different-than-previous-year-23210/>.

Araki, S. and Claus, I. (2014). *A COMPARATIVE ANALYSIS OF TAX ADMINISTRATION IN ASIA AND THE PACIFIC*. [online] Asian Development Bank. Available at: <http://www.adb.org/sites/default/files/publication/41792/tax-administration-asia-pacific.pdf>

Atkinson, A. and Stiglitz, J. (1976). The design of tax structure: Direct versus indirect taxation. *Journal of Public Economics*, 6(1-2), pp.55-75.

Bagchi, A. and Stern, N. (1994). *Tax policy and planning in developing countries*. Delhi: Oxford University Press.

Bajpai, N. and Sachs, J. (1999). *The State of State Government Finances in India*. [online] Development Discussion Paper No. 719-Harvard Institute for International Development. Available at: <http://www.cid.harvard.edu/archive/india/pdfs/719.pdf>

Banerjee, A., and T. Piketty (2001). Are the rich growing richer: Evidence from Indian tax data. Processed, MIT, Cambridge MA and CEPREMAP, Paris. Available at: <http://www.worldbank.org/indiapovertyworkshop>

Barber, P. (2011). How to Get Closer Together Impacts of Income Inequality and Policy Responses[online]. Policy Quarterly, Volume 7 ( 4) Available at <http://ips.ac.nz/publications/files/d3ffbb25bdb.pdf>

Basheer, (2013). *The alcohol economy*. [online] The Hindu Business Line. Available at: <http://www.thehindubusinessline.com/economy/the-alcohol-economy/article5436924.ece>

Bhaskar, V. and Nath, K. (2015). What Ails the Implementation of the Goods and Services Tax?.*Economic & Political Weekly*, 50(37).

Bird, R. (2010). SUBNATIONAL TAXATION IN DEVELOPING COUNTRIES: A REVIEW OF THE LITERATURE. *J. Intl Econ. Comm. Policy*.,The World bank 02(01), pp.139-161. Available at: [http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/10/19/000158349\\_20101019161844/Rendered/PDF/WPS5450.pdf](http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/10/19/000158349_20101019161844/Rendered/PDF/WPS5450.pdf)

Bird, R. and Gendron, P. (1998). Dual VATs and Cross-Border Trade: Two Problems, One Solution?.*International Tax and Public Finance*, 5(3).

Bird, R. and Tassonyi, A. (2016). Constraining Subnational Fiscal Behavior in Canada: Different Approaches, Similar Results?. In: J. Rodden, G. Eskeland and J. Litvack, ed., *Fiscal Decentralization and the Challenge of Hard Budget Constraints*, 1st ed. Cambridge, Massachusetts: MIT press.

Bittker, Boris I. *Tax Reform-Yesterday, Today, And Tomorrow\**, 44 Wash. & Lee L. Rev. 11 (1987), <http://scholarlycommons.law.wlu.edu/wlulr/vol44/iss1/3>

BJP, (2014). *Election Manifesto 2014*. [online] New Delhi: Bharatiya Janata Party. Available at: [http://www.bjp.org/images/pdf\\_2014/full\\_manifesto\\_english\\_07.04.2014.pdf](http://www.bjp.org/images/pdf_2014/full_manifesto_english_07.04.2014.pdf).

Bloomberg, (2015). *Jaitley Hails India's Tax-Free, Job-Rich Informal Economy*. [online] Bloomberg.com. Available at: <http://www.bloomberg.com/news/articles/2015-11-03/jaitley-hails-booming-tax-free-job-rich-informal-india-economy>.

Bourguignon, François; Pereira da Silva, Luiz A. (2003). *The impact of economic policies on poverty and income distribution: evaluation techniques and tools*. Washington, DC: World Bank and Oxford University Press, New York.

Caspersen, Erik & Metcalf, Gilbert 1994. "[Is A Value Added Tax Progressive? Annual Versus Lifetime Incidence Measures](#)," [NBER Working Papers](#) 4387, National Bureau of Economic Research, Inc.

Chaddha, R. (2010). *Moving to Goods and Services Tax in India: Impact on India's Growth and International Trade*. [online] New Delhi: National Council of Applied Economic Research.

Available at:

[http://fincomindia.nic.in/writereaddata/html\\_en\\_files/oldcommission\\_html/fincom13/discussion/report28.pdf](http://fincomindia.nic.in/writereaddata/html_en_files/oldcommission_html/fincom13/discussion/report28.pdf).

Chakraborty, P. and Gupta, M. (2016). Evolving Centre–State Financial Relations. *Economic & Political Weekly*, 51(16).

Chakraborty, P. and Manay, J. (2011). REVENUE IMPLICATIONS OF GST AND ESTIMATION OF REVENUE NEUTRAL RATE: A STUDY OF KARNATAKA. [online] NIPFP. Available at:

[http://www.nipfp.org.in/media/medialibrary/2013/08/Revenue\\_Implications\\_of\\_GST1.pdf](http://www.nipfp.org.in/media/medialibrary/2013/08/Revenue_Implications_of_GST1.pdf)

Chaturvedi, A. and Saluja, M. (2014). Environmental fiscal reforms. *IIMB Management Review*, [online] 26(3). Available at:

<http://www.sciencedirect.com/science/article/pii/S0970389614000603>.

Clarke, K. (2014). *Kerosene Subsidies in India*. Global Sustainability Initiative. [online]

International Institute for Sustainable Development. Available at:

[https://www.iisd.org/GSI/sites/default/files/ffs\\_india\\_kerosene.pdf](https://www.iisd.org/GSI/sites/default/files/ffs_india_kerosene.pdf).

Commercial Taxes Department- Tamil Nadu, (2015). *Tamil Nadu VAT - Tax Rate*. [online]

Tnvat.gov.in. Available at: <http://www.tnvat.gov.in/English/Taxrate.htm>

Connolly, S. and Munro, A. (1999). *Economics of the public sector*. London: Prentice Hall Europe.

Creswell, J. and Plano Clark, V. (2011). *Designing and conducting mixed methods research*. Los Angeles: SAGE Publications.

Crossley, T., Low, H. and Wakefield, M. (2009), 'The economics of a temporary VAT cut', *Fiscal Studies*, vol. 30, no. 1, pp:3–16.

Das-Gupta, A. (2011). An Assessment of the Revenue Impact of the State Level VAT in India. *SSRN Electronic Journal*.

Eccleston, R. (2007). *Taxing reforms*. Cheltenham, UK: Edward Elgar.

Economic Survey, (2016). *UNION BUDGET & ECONOMIC SURVEY*. [online] Indiabudget.nic.in. Available at: [http://indiabudget.nic.in/vol1\\_survey.asp](http://indiabudget.nic.in/vol1_survey.asp)

Edling, H. and Nguyen-Thanh, D. (2016). *Taxes and culture – Tax Reforms for Sustainable Development*. [online] *Fiscal Studies* No. 5 Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH. Available at: <http://www.frp2.org/english/Portals/0/Library/Tax%20Policy/en-tax-and-culture.pdf>

Elkins, David, Horizontal Equity as a Principle of Tax Theory. *Yale Law & Policy Review*, Vol. 24, pp. 43-90, 2006. Available at SSRN: <http://ssrn.com/abstract=892022>

Evans, C. (1996). *A report into the incremental costs of taxpayer compliance*. Canberra: Australian Govt. Pub. Service.

Finance Commission, (2000). *REPORT OF THE ELEVENTH FINANCE COMMISSION*. 2000-2005. [online] New Delhi: Ministry of Finance. Available at: [http://fincomindia.nic.in/writereaddata/html\\_en\\_files/oldcommission\\_html/fcreport/11threport.pdf](http://fincomindia.nic.in/writereaddata/html_en_files/oldcommission_html/fcreport/11threport.pdf).

Finance Commission, (2014). *Report of the Fourteenth Finance Commission*. 2015-2020. [online] New Delhi: Ministry of Finance. Available at: <http://finmin.nic.in/14fincomm/14fcrengVol1.pdf>.

Finance Ministry, (2015). *Indian Public Finance Statistics: Ministry of Finance, Government of India*. [online] Finmin.nic.in. Available at: <http://finmin.nic.in/reports/ipfstat.asp>

FREY, B. (2003). Deterrence and tax morale in the European Union. *European Review*, 11(03).

Fullerton, Don & Metcalf, Gilbert E., 2002. "Tax incidence," Handbook of Public Economics, in: A. J. Auerbach & M. Feldstein (ed.), Handbook of Public Economics, edition 1, volume 4, chapter 26, pages 1787-1872 Elsevier.

Gemmell, N. and Morrissey, O. (2005). Distribution and Poverty Impacts of Tax Structure Reform in Developing Countries: How Little We Know. *Development Policy Review*, 23(2), pp.131-144.



Giles, D. and Johnson, B. (2002). Taxes, Risk Aversion, and the Size of the Underground Economy. *Pacific Economic Review*, 7(1), pp.97-113.

Global Financial Integrity. (2010). *The Drivers and Dynamics of Illicit Financial Flows from India: 1948-2008* « *Global Financial Integrity*. [online] Available at:

<http://www.gfintegrity.org/report/country-case-study-india/>.

Government of India, (1978). *Report of the High-Powered Expert Committee on Companies and MRTP Acts*. [online] New Delhi: Government of India. Available at:

<http://reports.mca.gov.in/Reports/30->

[Rajindar%20Sacher%20committee%20report%20of%20the%20High-powered%20expert%20committee%20on%20Companies%20&%20MRTP%20Acts,%201978.pdf](http://reports.mca.gov.in/Reports/30-Rajindar%20Sacher%20committee%20report%20of%20the%20High-powered%20expert%20committee%20on%20Companies%20&%20MRTP%20Acts,%201978.pdf).

Government of India, (1985). *Fiscal Policy and Government Budget*. [online] New Delhi:

Government of India. Available at: <http://indiabudget.nic.in/es1985->

[86/6%20Fiscal%20Policy%20and%20Government%20Budget.pdf](http://indiabudget.nic.in/es1985-86/6%20Fiscal%20Policy%20and%20Government%20Budget.pdf).

Government of India, (1993). *Report of the Tax Reform Committee*. New Delhi: Ministry of Finance, Government of India.

Government of India, (2002). *Report of the Task Force on Indirect Taxes*. [online] New

Delhi: Ministry of Finance, Government of India. Available at:

[http://finmin.nic.in/kelkar/final\\_idt.htm](http://finmin.nic.in/kelkar/final_idt.htm).

Government of India, (2016a). [online] Incometaxindia.gov.in. Available at:  
<http://www.incometaxindia.gov.in/charts%20%20tables/tax%20rates.htm>

Government of India, (2016b). *Frequently Asked Questions: Empowered Committee of State Finance Ministers, constituted by Government of India*. [online] Empcom.gov.in. Available at: [http://www.empcom.gov.in/content/20\\_1\\_FAQ.aspx](http://www.empcom.gov.in/content/20_1_FAQ.aspx)

Greco, A. (2004). *Flat Tax — The British Case*. [online] Adam Smith Institute. Available at:  
<http://adamsmith.org/sites/default/files/images/uploads/publications/flattax.pdf>

Green Fiscal Commission, (2009). *The Case for Green Fiscal Reform*. [online] London: Green Fiscal Commission. Available at:  
[http://www.greenfiscalcommission.org.uk/images/uploads/GFC\\_FinalReport.pdf](http://www.greenfiscalcommission.org.uk/images/uploads/GFC_FinalReport.pdf).

Hindustan Times, (2015). *Jewellers worried over mandatory PAN on purchases worth Rs 2 lakh*. [online] Hindustan Times. Available at:  
<http://www.hindustantimes.com/punjab/jewellers-worried-over-mandatory-pan-on-purchases-worth-rs-2-lakh/story-h79IYxGCcw8tNk9e2Ci9wK.html>.

HMRC, (2016). *Statistics at HMRC - HM Revenue & Customs - GOV.UK*. [online] Gov.uk. Available at: <https://www.gov.uk/government/organisations/hm-revenue-customs/about/statistics>.

Inland Revenue, (2015). *GST guide- Working with GST*. IR375 October 2015. [online] New Zealand. Available at:

<http://www.ird.govt.nz/resources/f/2/f24f29004ba3d52fb085bd9ef8e4b077/ir375.pdf>.

Jha, R. (2011). *Routledge handbook of South Asian economics*. Abingdon, Oxon: Routledge.

Kakwani, N. (1977). Measurement of Tax Progressivity: An International Comparison. *The Economic Journal*, 87(345), p.71.

Kumar, A. (2002). *The black economy in India*. New Delhi: Penguin Books.

Kumar, A. (2011). *India Sees Growth Imperiled With Greek-Like Tax Evasion*. [online] Bloomberg.com. Available at: <http://www.bloomberg.com/news/articles/2011-07-18/india-government-sees-growth-imperiled-with-rising-greek-like-tax-evasion>

Lam, R. and Wingender, P. (2015). China: How Can Revenue Reforms Contribute to Inclusive and Sustainable Growth?. *IMF Working Papers*, 15(66), p.1.

Law Ministry, (2016). *DEPARTMENT OF LEGAL AFFAIRS (VIDHI KARYA VIBHAG)*. [online] Lawmin.nic.in. Available at: <http://lawmin.nic.in/legalcon.htm>.

Mahamallik, M., Sahu, P. and Mahapatra, S. (2014). The Paradox of Fiscal Imbalances in India. *SSRN Electronic Journal*, [online] Quaderni - Working Paper DSE N°969. Available at: <http://www2.dse.unibo.it/wp/WP969.pdf>.

Mansour, M. (2014). *A Tax Revenue Dataset for Sub-Saharan Africa: 1980-2010*. Working Paper I19 - Development Series. [online] fondation pour les études et recherches sur le développement international. Available at:

[http://www.ferdi.fr/sites/www.ferdi.fr/files/publication/fichiers/i19\\_mario\\_mansour\\_papier.pdf](http://www.ferdi.fr/sites/www.ferdi.fr/files/publication/fichiers/i19_mario_mansour_papier.pdf).

Mazzotta, B., Chakravorti, B., Bijapurkar, R., Shukla, R., Ramesha, K., Bapat, D. and Roy, D. (2014). *The Cost of Cash in India*. [online] Tufts Fletcher School. Available at:

<http://fletcher.tufts.edu/CostofCash/India>.

Ministry of Finance, (2012). *Black Money*. [online] White Paper. Available at:

[http://finmin.nic.in/reports/whitepaper\\_backmoney2012.pdf](http://finmin.nic.in/reports/whitepaper_backmoney2012.pdf). Mirrlees, J. and Adam, S.

(2011). *Tax by design*. Institute for fiscal studies.

Ministry of Social Development, (2015). *Household Incomes in New Zealand: trends in indicators of inequality and hardship 1982 to 2014 - Ministry of Social Development*.

[online] Msd.govt.nz. Available at: <https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/monitoring/household-incomes/>.

Mirus, R., Smith, R. and Karoleff, V. (1994). Canada's Underground Economy Revisited: Update and Critique. *Canadian Public Policy / Analyse de Politiques*, 20(3), p.235.

Mukherjee, S. (2015). Present State of Goods and Services Tax (GST) Reform in India.

*NIPFP working paper*. [online] Available at:

[http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2694349](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2694349).

Mukherjee, Sacchidananda and Rao, R. Kavita "Designing GST for India inclusive of Petroleum, Natural Gas and Electricity: Policy Options" *NIPFP One Pager No. 006* (2014)

Available at: [http://works.bepress.com/sacchidananda\\_mukherjee/64/](http://works.bepress.com/sacchidananda_mukherjee/64/)

National Treasury, (2015). *Tax Statistics*. [online] Pretoria: National Treasury and South African Revenue Service. Available at:

<http://www.treasury.gov.za/publications/tax%20statistics/2015/TStats%202015%20Inside%20WEB.pdf>.

Nayar, B. (2014). *Globalization and economic integration in India*. Washington, D.C.: Georgetown University Press.

NSS, (2014). *Household Consumption of Various Goods and Services in India*. 68th Round.

[online] New Delhi: National Sample Survey Office. Available at:

[http://mospi.nic.in/Mospi\\_New/upload/Report\\_no558\\_rou68\\_30june14.pdf](http://mospi.nic.in/Mospi_New/upload/Report_no558_rou68_30june14.pdf).

NSS, (2014). Level and pattern of household consumer expenditure 68th Round. [online]

New Delhi: National Sample Survey Office. Available at:

[http://mospi.nic.in/Mospi\\_New/upload/nss\\_rep\\_555.pdf](http://mospi.nic.in/Mospi_New/upload/nss_rep_555.pdf).

NSS, (2015). *Public Distribution System and Other Sources of Household Consumption*

2011-12. NSS 68th Round. [online] New Delhi: National Sample Survey Office. Available at:

[http://mospi.nic.in/Mospi\\_New/upload/report\\_565\\_26june2015.pdf](http://mospi.nic.in/Mospi_New/upload/report_565_26june2015.pdf)

NSS, (2016). *Employment and Unemployment Situation Among Major Religious Groups in India*. NSS 68 th Round. [online] New Delhi: National Sample Survey Office. Available at: [http://mospi.nic.in/Mospi\\_New/upload/nss\\_report\\_568\\_19feb16.pdf](http://mospi.nic.in/Mospi_New/upload/nss_report_568_19feb16.pdf).

Oates, W. (1999). An Essay on Fiscal Federalism. *Journal of Economic Literature*, 37(3), pp.1120-1149.

OECD, (2006). *Consumption Tax Trends*. Paris: Organisation for Economic Co-operation and Development.

OECD, (2011). *Revenue Statistics in Latin America 1990 - 2010*. [online] OECD. Available at: [https://www.oecd.org/ctp/tax-global/Brazil%20country%20note\\_EN\\_final.pdf](https://www.oecd.org/ctp/tax-global/Brazil%20country%20note_EN_final.pdf).

OECD, (2011). *Tax Policy Conclusions*. [online] Organization for Economic Cooperation and Development. Available at: <https://www.oecd.org/slovakia/37154675.pdf>

Pechman, J. (1985), *Who Paid the Taxes: 1966-85?* (Brookings, Washington DC).

Piketty, T. and Qian, N. (2009). Income Inequality and Progressive Income Taxation in China and India, 1986–2015. *American Economic Journal: Applied Economics*, 1(2), pp.53-63.

Pomerleau, K. (2015). *Sources of Government Revenue across the OECD, 2015*. FISCAL FACT. [online] Washington, DC: The Tax Foundation. Available at: [http://taxfoundation.org/sites/taxfoundation.org/files/docs/TaxFoundation\\_FF465.pdf](http://taxfoundation.org/sites/taxfoundation.org/files/docs/TaxFoundation_FF465.pdf).

PRS Legislative research, (2016). *PRS | Bill Track | The Constitution (122nd Amendment) (GST) Bill, 2014*. [online] Prsindia.org. Available at: <http://www.prsindia.org/billtrack/the-constitution-122nd-amendment-gst-bill-2014-3505/>.

Purohit, M. and Purohit, V. (2014). *The Oxford handbook of tax system in India*. New Delhi: Oxford University Press.

Ragin, C. (1994). *Constructing social research*. Thousand Oaks, California: Pine Forge Press.

Rajkumar, D. and Krishnasamy, R. (2015). Surge in Union Government Revenues. *Economic and Political Weekly*, [online] 50(50), pp.7-8. Available at: <http://www.epw.in/journal/2015/50/economic-notes/surge-union-government-revenues.html>

Ramesh, J. (2015). *Carbon tax to meet climate concerns*. [online] The Hindu. Available at: <http://www.thehindu.com/opinion/op-ed/comment-carbon-tax-to-meet-climate-concerns/article6815835.ece>

Rao, G. and Rao, K. (2005). *Trends and Issues in Tax Policy and Reform in India*. [online] New delhi: National Institute of Public Finance and Policy. Available at: [http://www.nipfp.org.in/media/medialibrary/2013/04/wp05\\_nipfp\\_037.pdf](http://www.nipfp.org.in/media/medialibrary/2013/04/wp05_nipfp_037.pdf).

Rao, G. and Singh, N. (1998). *Intergovernmental Transfers: Rationale, Design and Indian Experience*. [online] Stanford.edu - Working Paper No . 30c. Available at:

<http://scid.stanford.edu/sites/default/files/publications/30cwp.pdf>

Rao, K. (2012). *1 STUDY ON UNACCOUNTED INCOME / WEALTH BOTH INSIDE AND OUTSIDE THE COUNTRY U*. [online] Central Board of Direct Taxes (CBDT) Ministry of Finance, Government of India. Available at:

[http://static.financialexpress.com/frontend/fe/pdf/Black\\_Money.pdf](http://static.financialexpress.com/frontend/fe/pdf/Black_Money.pdf)

Rao, K. and Cjakraorty, P. (2010). *REVENUE IMPLICATIONS OF GST AND ESTIMATION OF REVENUE NEUTRAL RATE : A STATE WISE ANALYSIS*. [online]

NIPFP. Available at:

[http://www.nipfp.org.in/media/medialibrary/2013/08/Empowered\\_Committee\\_GST\\_Report\\_January\\_2013.pdf](http://www.nipfp.org.in/media/medialibrary/2013/08/Empowered_Committee_GST_Report_January_2013.pdf)

Rao, M. Govinda & Sen, Tapas K., 2011. "[Federalism and fiscal reform in India](#)," [Working Papers](#) 11/84, National Institute of Public Finance and Policy

Refaqat, S. (2003). Social Incidence of the General Sales Tax in Pakistan. *IMF Working Papers*, 03(216),

Reserve Bank of India, (2016). *STATE FINANCES : A STUDY OF BUDGETS*. [online]

Mumbai: Reserve Bank of India. Available at:

<https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=State%20Finances%20:%20A%20Study%20of%20Budgets>.



Richardson, D. (1999). *The Proposed GST: Impact on the Distribution of Income – Parliament of Australia*. [online] Aph.gov.au. Available at: [http://www.aph.gov.au/About\\_Parliament/Parliamentary\\_Departments/Parliamentary\\_Library/Publications\\_Archive/CIB/cib9899/99cib07](http://www.aph.gov.au/About_Parliament/Parliamentary_Departments/Parliamentary_Library/Publications_Archive/CIB/cib9899/99cib07).

Rodden, J. (2002). The Dilemma of Fiscal Federalism: Grants and Fiscal Performance around the World. *American Journal of Political Science*, 46(3), p.670.

Rodden, J., Eskeland, G. and Litvack, J. (2003). *Fiscal decentralization and the challenge of hard budget constraints*. Cambridge, Mass.: MIT Press.

Shanmugam, (2015). *Liquor sales through TASMAL in Tamil Nadu to touch Rs 29,672 crore in 2015-16*. [online] Business-Standard. Available at: [http://www.business-standard.com/article/politics/liquor-sales-through-tasmal-in-tamil-nadu-to-touch-rs-29-672-crore-in-2015-16-115032500563\\_1.html](http://www.business-standard.com/article/politics/liquor-sales-through-tasmal-in-tamil-nadu-to-touch-rs-29-672-crore-in-2015-16-115032500563_1.html).

Spiro, P.S., (1993). Evidence of a post-GST increase in the underground economy. *Canadian Tax Journal*, 41.

Srivastava, A. (2016). *Twenty Crore Bank Accounts Opened: Where Does Jan Dhan Yojana Go From Here? An Explainer*. [online] The Wire. Available at: <http://thewire.in/2016/05/03/twenty-crore-bank-accounts-opened-where-does-jan-dhan-yojana-go-from-here-an-explainer-33272/>.

Srivastava, D. and Kavi Kumar, K. (2014). *Environment and fiscal reforms in India*. New Delhi: SAGE India.

Srivastava, D. and Rao, C. (2010). *Reforming Indirect Taxes in India: Role of Environmental Taxes*. [online] Econpapers.repec.org. Available at:  
<http://econpapers.repec.org/paper/madwpaper/2010-050.htm>

Stiglitz, J. and Rosengard, J. (2015). *Economics of the public sector*. 4th ed. W. W. Norton & Company.

Subramanian, A. (2015). *Report on the Revenue Neutral Rate and Structure of Rates for the Goods and Services Tax (GST)*. [online] New Delhi: Ministry of Finance. Available at:  
[http://www.finmin.nic.in/the\\_ministry/dept\\_revenue/report\\_revenue\\_neutral\\_rate.pdf](http://www.finmin.nic.in/the_ministry/dept_revenue/report_revenue_neutral_rate.pdf).

Tax Research, (2010). *Tax Briefing*. [online] Is VAT regressive and if so why do the IFS deny it?. Available at: <http://www.taxresearch.org.uk/Documents/VATRegressive.pdf>.

The Hindu, (2015a). *GST: finmin looking to prune central exemptions list to the States' level*. [online] The Hindu Business Line. Available at:  
<http://www.thehindubusinessline.com/economy/gst-finmin-looking-to-prune-central-exemptions-list-to-the-states-level/article8000705.ece>.

The Hindu. (2015b). *Ten things to know about the GST Bill*. [online] Available at:  
<http://www.thehindu.com/business/Industry/ten-things-to-know-about-the-gst-bill/article7137615.ece>.

The Hindu, O. (2016a). *Uncollected tax, arrears up at ₹8.9-lakh crore in FY15*. [online] The Hindu Business Line. Available at: <http://www.thehindubusinessline.com/economy/uncollected-tax-arrears-up-at-89lakh-crore-in-fy15/article8342690.ece>.

The Hindu. (2016b). *Farms grow massive incomes for select few*. [online] Available at: <http://www.thehindu.com/news/national/fincome-tax-departments-reveals-agriculture-sector-figures/article8371424.ece>.

The Hindu, (2016c). *Krishi Kalyan Cess on services from tomorrow*. [online] The Hindu Business Line. Available at: <http://www.thehindubusinessline.com/economy/krishi-kalyan-cess-on-services-from-tomorrow/article8668737.ece>.

The Indian Express. (2015a). *Black money: Stung by poor response to compliance window, govt vows crackdown*. [online] Available at: <http://indianexpress.com/article/business/business-others/black-money-stung-by-poor-response-to-compliance-window-govt-vows-crackdown/>.

The Indian Express. (2015b). *India's economy grew at 7.3 per cent in 2014-15 fiscal*. [online] Available at: <http://indianexpress.com/article/business/economy/indian-economy-grows-at-7-3-per-cent-in-2014-15/>

The Indian Express. (2015c). *'High indirect tax mop-up reflects economic revival'*. [online] Available at: <http://indianexpress.com/article/business/business-others/high-indirect-tax-mop-up-reflects-economic-revival/>.

The Indian Express. (2016). *GST will become a reality soon, reiterates Finance Minister Arun Jaitley*. [online] Available at: <http://indianexpress.com/article/business/economy/gst-will-become-a-reality-soon-reiterates-finance-minister-arun-jaitley/>

Times of India, (2015). *Government looks to budget session for passing GST Bill - Times of India*. [online] The Times of India. Available at: <http://timesofindia.indiatimes.com/business/india-business/Government-looks-to-budget-session-for-passing-GST-Bill/articleshow/50205734.cms>

The Times of India. (2016a). *Over 24.37 crore PAN cards allotted in country, I-T department says - Times of India*. [online] Available at: <http://timesofindia.indiatimes.com/business/india-business/Over-24-37-crore-PAN-cards-alloted-in-country-I-T-department-says/articleshow/51124182.cms>.

The Times of India. (2016b). *Govt to push GST bill on 1st day of monsoon session - Times of India*. [online] Available at: <http://timesofindia.indiatimes.com/india/Govt-to-push-GST-bill-on-1st-day-of-monsoon-session/articleshow/52442233.cms>

UNDP, (2016). *Human Development Reports | United Nations Development Programme*. [online] Hdr.undp.org. Available at: <http://hdr.undp.org/en>.

Warren, A. (1980). *Would a Consumption Tax Be Fairer Than an Income Tax?*. *The Yale Law Journal*, 89(6), p.1081.

World Bank, (2014). *Financial Inclusion Data*. [online] Datatopics.worldbank.org. Available at: <http://datatopics.worldbank.org/financialinclusion/country/india>.

World Bank, (2015a). *Ease of doing business index (1=most business-friendly regulations) | Data | Table*. [online] Data.worldbank.org. Available at: <http://data.worldbank.org/indicator/IC.BUS.EASE.XQ>

World Bank, (2015b). *Goods and Services Tax Transport and logistics (T&L) sector*. [online] PWC. Available at: <https://www.pwc.in/assets/pdfs/publications/2015/goods-and-services-tax-transport-and-logistics-sector.pdf>

World Bank. (2016a). *Putting a Price on Carbon with a Tax*. [online] Available at: [http://www.worldbank.org/content/dam/Worldbank/document/SDN/background-note\\_carbon-tax.pdf](http://www.worldbank.org/content/dam/Worldbank/document/SDN/background-note_carbon-tax.pdf)

World Bank, (2016b). *Agriculture, value added (% of GDP) | Data | Table*. [online] Data.worldbank.org. Available at: <http://data.worldbank.org/indicator/NV.AGR.TOTL.ZS>.

Wyplosz, C. (2015). *The Centralization- Decentralization Issue*. [online] DISCUSSION PAPER 014 -European Commission's Directorate-General for Economic and Financial Affairs. Available at: [http://ec.europa.eu/economy\\_finance/publications/eedp/pdf/dp014\\_en.pdf](http://ec.europa.eu/economy_finance/publications/eedp/pdf/dp014_en.pdf)

## Appendix

### 1. Average Rural Food MPCE

| item code | item description                   | Value Spent (INR)/30 days | VAT Rate  | GST rate |
|-----------|------------------------------------|---------------------------|-----------|----------|
| (1)       | (2)                                |                           |           |          |
| 101       | rice – P.D.S.                      | 39.00                     | 0         | 0        |
| 102       | rice – other sources               | 96.50                     | 0         | 0        |
| 103       | chira                              | 0.06                      | 0         | 0        |
| 104       | khoi, lawa                         | 0.00                      | 0         | 0        |
| 105       | muri                               | 0.39                      | 0         | 0        |
| 106       | other rice products                | 0.59                      | 5         | 12       |
| 107       | wheat/atta – P.D.S.                | 3.54                      | 0         | 0        |
| 108       | wheat/atta – other sources         | 2.59                      | 0         | 0        |
| 110       | maida                              | 1.37                      | 5         | 12       |
| 111       | suji, rawa                         | 3.36                      | 5         | 12       |
| 112       | sewai, noodles                     | 0.85                      | 0         | 0        |
| 113       | bread: bakery                      | 0.64                      | 0         | 0        |
| 114       | other wheat products               | 0.19                      | 5         | 12       |
| 115       | jowar & its products               | 0.12                      | 5         | 12       |
| 116       | bajra & its products               | 0.20                      | 5         | 12       |
| 117       | maize & its products               | 0.02                      | 5         | 12       |
| 118       | barley & its products              | 0.01                      | 5         | 12       |
| 120       | small millets & its products       | 0.01                      | 0         |          |
| 121       | ragi & its products                | 1.81                      | 5         | 12       |
| 122       | other cereals                      | 0.06                      | 5         | 12       |
| 129       | cereal: sub-total                  | 151.33                    | 2.5       | 6.315789 |
| 139       | cereal substitutes                 | 0.16                      | 5         | 12       |
| 140       | arhar, tur                         | 18.72                     | 5         | 12       |
| 141       | gram: split                        | 3.04                      | 5         | 12       |
| 142       | gram: whole                        | 1.56                      | 5         | 12       |
| 143       | moong                              | 4.61                      | 0         | 0        |
| 144       | masur                              | 0.12                      | 5         | 12       |
| 145       | urd                                | 14.26                     | 5         | 12       |
| 146       | peas                               | 0.33                      | 0         | 0        |
| 147       | khesari                            | 0.04                      | 0         | 0        |
| 148       | other pulses                       | 2.04                      | 5         | 12       |
| 150       | gram products                      | 4.42                      | 5         | 12       |
| 151       | besan                              | 0.77                      | 0         | 0        |
| 152       | other pulse products               | 0.83                      | 5         | 12       |
| 159       | pulses & pulse products: sub-total | 50.75                     | 3.4615385 | 8.307692 |
| 160       | milk: liquid (litre)               | 85.80                     | 0         | 0        |
| 161       | baby food                          | 1.11                      | 5         | 12       |
| 162       | milk: condensed/powder             | 0.22                      | 5         | 12       |

|     |                                 |        |        |      |
|-----|---------------------------------|--------|--------|------|
| 163 | curd                            | 1.00   | 5      | 12   |
| 164 | ghee                            | 0.43   | 5      | 12   |
| 165 | butter                          | 0.03   | 0      | 0    |
| 166 | ice-cream                       | 0.22   | 14.5   | 18   |
| 167 | other milk products             | 0.32   | 5      | 12   |
| 169 | milk & milk products: sub-total | 89.13  | 4.9375 | 9.75 |
| 170 | salt                            | 2.62   | 0      | 0    |
| 171 | sugar – PDS                     | 6.05   | 5      | 12   |
| 172 | sugar – other sources           | 5.28   | 5      | 12   |
| 173 | gur                             | 1.09   | 0      | 0    |
| 174 | candy, misri                    | 0.06   | 0      | 0    |
| 175 | honey                           | 0.08   | 5      | 12   |
| 179 | salt & sugar: sub-total         | 15.18  | 2.5    | 6    |
| 180 | vanaspati/ margarine            | 0.40   | 5      | 12   |
| 181 | mustard oil                     | 0.00   | 5      | 12   |
| 182 | groundnut oil                   | 8.56   | 5      | 12   |
| 183 | coconut oil                     | 0.70   | 5      | 12   |
| 184 | refined oil                     | 22.74  | 5      | 12   |
| 185 | edible oil: others              | 8.91   | 5      | 12   |
| 189 | edible oil: sub-total           | 41.31  | 5      | 12   |
| 190 | eggs (no.)                      | 11.42  | 0      | 0    |
| 191 | fish, prawn                     | 23.41  | 0      | 0    |
| 192 | goat meat/mutton                | 27.36  | 0      | 0    |
| 193 | beef/ buffalo meat              | 5.40   | 0      | 0    |
| 194 | pork                            | 0.12   | 0      | 0    |
| 195 | chicken                         | 42.18  | 0      | 0    |
| 196 | others: birds, crab, etc.       | 0.57   | 0      | 0    |
| 199 | egg, fish & meat: sub-total     | 110.48 | 0      | 0    |
| 200 | potato                          | 8.30   | 0      | 0    |
| 201 | onion                           | 15.13  | 0      | 0    |
| 202 | tomato                          | 14.03  | 0      | 0    |
| 203 | brinjal                         | 6.96   | 0      | 0    |
| 204 | radish                          | 2.19   | 0      | 0    |
| 205 | carrot                          | 5.31   | 0      | 0    |
| 206 | palak/other                     | 6.97   | 0      | 0    |
| 207 | green chillies                  | 3.22   | 0      | 0    |
| 208 | lady's finger                   | 5.31   | 0      | 0    |
| 210 | parwal/patal, kundru            | 0.31   | 0      | 0    |
| 211 | cauliflower                     | 1.03   | 0      |      |
| 212 | cabbage                         | 4.24   | 0      | 0    |
| 213 | gourd, pumpkin                  | 1.33   | 0      | 0    |
| 214 | peas                            | 0.68   | 0      | 0    |
| 215 | beans, barbati                  | 4.44   | 0      | 0    |
| 216 | lemon (no.)                     | 2.36   | 0      | 0    |
| 217 | other vegetables                | 12.04  | 0      |      |
| 219 | vegetables: sub-total           | 93.89  | 0      | 0    |
| 220 | banana (no.)                    | 13.16  | 0      | 0    |
| 221 | jackfruit                       | 0.16   | 0      | 0    |

|     |  |       |           |      |
|-----|--|-------|-----------|------|
| 222 | watermelon                               | 0.19  | 0         | 0    |
| 223 | pineapple (no.)                          | 0.08  | 0         |      |
| 224 | coconut (no.)                            | 14.77 | 0         | 0    |
| 225 | green coconut (no.)                      | 1.48  | 0         | 0    |
| 226 | guava                                    | 0.94  | 0         | 0    |
| 227 | singara                                  | 0.03  | 0         | 0    |
| 228 | orange, mausami (no.)                    | 1.67  | 0         | 0    |
| 230 | papaya                                   | 0.12  | 0         | 0    |
| 231 | mango                                    | 3.83  | 0         |      |
| 232 | kharbooza                                | 0.01  | 0         | 0    |
| 233 | pears/nashpati                           | 0.00  | 0         | 0    |
| 234 | berries                                  | 0.00  | 5         | 12   |
| 235 | leechi                                   | 0.00  | 5         | 12   |
| 236 | apple                                    | 8.73  | 0         | 0    |
| 237 | grapes                                   | 2.62  | 0         | 0    |
| 238 | other fresh fruits                       | 2.75  | 0         | 0    |
| 239 | fruits, fresh: sub-total                 | 50.54 | 0.5555556 | 1.5  |
| 240 | coconut: copra                           | 0.00  | 5         | 12   |
| 241 | groundnut                                | 2.13  | 0         | 0    |
| 242 | dates                                    | 1.75  | 5         | 12   |
| 243 | cashewnut                                | 0.64  | 5         | 12   |
| 244 | walnut                                   | 0.05  | 14.5      | 18   |
| 245 | other nuts                               | 0.05  | 14.5      | 18   |
| 246 | raisin, kishmish, monacca                | 0.20  | 14.5      | 18   |
| 247 | other dry fruits                         | 0.11  | 14.5      | 18   |
| 249 | fruits, dry: sub-total                   | 4.92  | 9.125     | 13.5 |
| 250 | ginger (gm)                              | 2.95  | 0         | 0    |
| 251 | garlic (gm)                              | 7.86  | 0         | 0    |
| 252 | jeera (gm)                               | 6.92  | 0         | 0    |
| 253 | dhania (gm)                              | 7.83  | 0         | 0    |
| 254 | turmeric (gm)                            | 4.96  | 0         | 0    |
| 255 | black pepper (gm)                        | 8.63  | 0         |      |
| 256 | dry chillies (gm)                        | 10.76 | 0         | 0    |
| 257 | tamarind (gm)                            | 13.33 | 0         | 0    |
| 258 | curry powder (gm)                        | 5.23  | 0         | 0    |
| 260 | oilseeds (gm)                            | 3.05  | 5         | 12   |
| 261 | other spices (gm)                        | 7.10  | 5         | 12   |
| 269 | spices: sub-total                        | 78.55 | 0.9090909 | 2.4  |
| 270 | tea: cups (no.)                          | 34.70 | 5         | 12   |
| 271 | tea: leaf (gm)                           | 14.58 | 5         | 12   |
| 272 | coffee: cups (no.)                       | 0.91  | 5         | 12   |
| 273 | coffee: powder (gm)                      | 4.75  | 5         | 12   |
| 274 | mineral water (litre)                    | 0.35  | 0         | 0    |
| 275 | cold beverages (litre)                   | 0.70  | 14.5      | 18   |
| 276 | fruit juice and shake (no.)              | 0.35  | 5         | 12   |
| 277 | other beverages: cocoa, chocolates, etc. | 2.40  | 14.5      | 18   |
| 279 | beverages: sub-total                     | 58.74 | 6.75      | 12   |
| 280 | cooked meals purchased (no.)             | 34.89 | 5         | 12   |



|     |   |        |           |     |
|-----|---|--------|-----------|-----|
| 281 | cooked meals received free in workplace (no.) | 3.87   | 0         | 0   |
| 282 | cooked meals received as an assistance (no.)  | 17.32  | 0         | 0   |
| 283 | cooked snacks purchased                       | 22.19  | 0         | 0   |
| 284 | other served processed food                   | 1.08   | 5         | 12  |
| 289 | served processed food: sub-total              | 79.36  | 2         | 4.8 |
| 290 | prepared sweets, cake, pastry                 | 8.49   | 14.5      | 18  |
| 291 | biscuits, chocolates, etc.                    | 18.63  | 14.5      | 18  |
| 292 | papad, bhujia, namkeen                        | 14.57  | 5         | 12  |
| 293 | chips (gm)                                    | 2.58   | 5         | 12  |
| 294 | pickles (gm)                                  | 1.16   | 5         | 12  |
| 295 | sauce, jam, jelly (gm)                        | 0.08   | 5         | 12  |
| 296 | other packaged food                           | 1.68   | 5         | 12  |
| 299 | packaged processed food: sub-total            | 47.19  | 7.7142857 | 0   |
| 777 | total: food group                             | 871.55 |           | 0   |

## **2. Urban Food MPCE**

| item code | item description             | Value Spent (INR)/30 days | VAT Rate | GST rate |
|-----------|------------------------------|---------------------------|----------|----------|
| 101       | Rice- P.D.S                  | 29.89                     | 0        | 0        |
| 102       | rice – other sources         | 115.07                    | 0        | 0        |
| 103       | chira                        | 0.21                      | 0        | 0        |
| 104       | khoi, lawa                   | 0.01                      | 0        | 0        |
| 105       | muri                         | 0.21                      | 0        | 0        |
| 106       | other rice products          | 1.29                      | 5        | 12       |
| 107       | wheat/atta – P.D.S.          | 3.54                      | 0        | 0        |
| 108       | wheat/atta – other sources   | 9.09                      | 0        | 0        |
| 110       | maida                        | 1.98                      | 5        | 12       |
| 111       | suji, rawa                   | 4.73                      | 5        | 12       |
| 112       | sewai, noodles               | 2.30                      | 0        | 0        |
| 113       | bread: bakery                | 1.51                      | 0        | 0        |
| 114       | other wheat products         | 0.21                      | 5        | 12       |
| 115       | jowar & its products         | 0.01                      | 5        | 12       |
| 116       | bajra & its products         | 0.04                      | 5        | 12       |
| 117       | maize & its products         | 0.01                      | 5        | 12       |
| 118       | barley & its products        | 0.00                      | 5        | 12       |
| 120       | small millets & its products | 0.01                      | 0        |          |
| 121       | ragi & its products          | 0.90                      | 5        | 12       |
| 122       | other cereals                | 0.64                      | 5        | 12       |
| 129       | cereal: sub-total            | 171.65                    | 2.5      | 6.315789 |
| 139       | cereal substitutes           | 0.24                      | 5        | 12       |

|     |                                    |        |          |          |
|-----|------------------------------------|--------|----------|----------|
| 140 | arhar, tur                         | 20.10  | 5        | 12       |
| 141 | gram: split                        | 4.64   | 5        | 12       |
| 142 | gram: whole                        | 2.34   | 5        | 12       |
| 143 | moong                              | 6.21   | 0        | 0        |
| 144 | masur                              | 0.23   | 5        | 12       |
| 145 | urd                                | 16.67  | 5        | 12       |
| 146 | peas                               | 0.46   | 0        | 0        |
| 147 | khesari                            | 0.03   | 0        | 0        |
| 148 | other pulses                       | 2.04   | 5        | 12       |
| 150 | gram products                      | 4.49   | 5        | 12       |
| 151 | besan                              | 0.92   | 0        | 0        |
| 152 | other pulse products               | 1.07   | 5        | 12       |
| 159 | pulses & pulse products: sub-total | 59.20  | 3.461538 | 8.307692 |
| 160 | milk: liquid (litre)               | 134.83 | 0        | 0        |
| 161 | baby food                          | 1.93   | 5        | 12       |
| 162 | milk: condensed/powder             | 0.63   | 5        | 12       |
| 163 | curd                               | 2.53   | 5        | 12       |
| 164 | ghee                               | 4.70   | 5        | 12       |
| 165 | butter                             | 0.37   | 0        | 0        |
| 166 | ice-cream                          | 1.49   | 14.5     | 18       |
| 167 | other milk products                | 0.19   | 5        | 12       |
| 169 | milk & milk products: sub-total    | 146.67 | 4.9375   | 9.75     |
| 170 | salt                               | 2.79   | 0        | 0        |
| 171 | sugar – PDS                        | 5.89   | 5        | 12       |
| 172 | sugar – other sources              | 7.90   | 5        | 12       |
| 173 | gur                                | 1.16   | 0        | 0        |
| 174 | candy, misri                       | 0.04   | 0        | 0        |
| 175 | honey                              | 0.44   | 5        | 12       |
| 179 | salt & sugar: sub-total            | 18.22  | 2.5      | 6        |
| 180 | vanaspati/ margarine               | 0.13   | 5        | 12       |
| 181 | mustard oil                        | 0.04   | 5        | 12       |
| 182 | groundnut oil                      | 3.78   | 5        | 12       |
| 183 | coconut oil                        | 1.55   | 5        | 12       |
| 184 | refined oil                        | 32.81  | 5        | 12       |
| 185 | edible oil: others                 | 11.03  | 5        | 12       |
| 189 | edible oil: sub-total              | 49.35  | 5        | 12       |
| 190 | eggs (no.)                         | 16.24  | 0        | 0        |
| 191 | fish, prawn                        | 29.05  | 0        | 0        |
| 192 | goat meat/mutton                   | 30.77  | 0        | 0        |
| 193 | beef/ buffalo meat                 | 2.62   | 0        | 0        |
| 194 | pork                               | 0.21   | 0        | 0        |
| 195 | chicken                            | 47.61  | 0        | 0        |
| 196 | others: birds, crab, etc.          | 0.25   | 0        | 0        |
| 199 | egg, fish & meat: sub-total        | 126.76 | 0        | 0        |
| 200 | potato                             | 9.69   | 0        | 0        |
| 201 | onion                              | 17.06  | 0        | 0        |
| 202 | tomato                             | 16.20  | 0        | 0        |
| 203 | brinjal                            | 6.71   | 0        | 0        |

|     |                           |        |          |      |
|-----|---------------------------|--------|----------|------|
| 204 | radish                    | 2.19   | 0        | 0    |
| 205 | carrot                    | 8.90   | 0        | 0    |
| 206 | palak/other               | 7.36   | 0        | 0    |
| 207 | green chillies            | 3.77   | 0        | 0    |
| 208 | lady's finger             | 6.68   | 0        | 0    |
| 210 | parwal/patal, kundru      | 0.48   | 0        | 0    |
| 211 | cauliflower               | 2.03   | 0        |      |
| 212 | cabbage                   | 4.96   | 0        | 0    |
| 213 | gourd, pumpkin            | 1.17   | 0        | 0    |
| 214 | peas                      | 0.85   | 0        | 0    |
| 215 | beans, barbati            | 6.79   | 0        | 0    |
| 216 | lemon (no.)               | 3.40   | 0        | 0    |
| 217 | other vegetables          | 10.48  | 0        |      |
| 219 | vegetables: sub-total     | 108.77 | 0        | 0    |
| 220 | banana (no.)              | 22.27  | 0        | 0    |
| 221 | jackfruit                 | 0.05   | 0        | 0    |
| 222 | watermelon                | 0.33   | 0        | 0    |
| 223 | pineapple (no.)           | 0.28   | 0        |      |
| 224 | coconut (no.)             | 17.36  | 0        | 0    |
| 225 | green coconut (no.)       | 2.50   | 0        | 0    |
| 226 | guava                     | 1.18   | 0        | 0    |
| 227 | singara                   | 0.00   | 0        | 0    |
| 228 | orange, mausami (no.)     | 4.47   | 0        | 0    |
| 230 | papaya                    | 0.33   | 0        | 0    |
| 231 | mango                     | 5.56   | 0        |      |
| 232 | kharbooza                 | 0.11   | 0        | 0    |
| 233 | pears/nashpati            | 0.00   | 0        | 0    |
| 234 | berries                   | 0.00   | 5        | 12   |
| 235 | leechi                    | 0.01   | 5        | 12   |
| 236 | apple                     | 19.15  | 0        | 0    |
| 237 | grapes                    | 5.22   | 0        | 0    |
| 238 | other fresh fruits        | 2.81   | 0        | 0    |
| 239 | fruits, fresh: sub-total  | 81.63  | 0.555556 | 1.5  |
| 240 | coconut: copra            | 0.03   | 5        | 12   |
| 241 | groundnut                 | 1.75   | 0        | 0    |
| 242 | dates                     | 3.32   | 5        | 12   |
| 243 | cashewnut                 | 2.16   | 5        | 12   |
| 244 | walnut                    | 0.26   | 14.5     | 18   |
| 245 | other nuts                | 0.05   | 14.5     | 18   |
| 246 | raisin, kishmish, monacca | 0.38   | 14.5     | 18   |
| 247 | other dry fruits          | 0.42   | 14.5     | 18   |
| 249 | fruits, dry: sub-total    | 8.37   | 9.125    | 13.5 |
| 250 | ginger (gm)               | 3.57   | 0        | 0    |
| 251 | garlic (gm)               | 8.16   | 0        | 0    |
| 252 | jeera (gm)                | 7.40   | 0        | 0    |
| 253 | dhania (gm)               | 8.02   | 0        | 0    |
| 254 | turmeric (gm)             | 4.96   | 0        | 0    |
| 255 | black pepper (gm)         | 10.20  | 0        |      |

|     |   |        |          |          |
|-----|---|--------|----------|----------|
| 256 | dry chillies (gm)                             | 11.19  | 0        | 0        |
| 257 | tamarind (gm)                                 | 13.11  | 0        | 0        |
| 258 | curry powder (gm)                             | 5.93   | 0        | 0        |
| 260 | oilseeds (gm)                                 | 3.41   | 5        | 12       |
| 261 | other spices (gm)                             | 6.67   | 5        | 12       |
| 269 | spices: sub-total                             |        | 0.90909  | 2.4      |
| 270 | tea: cups (no.)                               | 34.64  | 5        | 12       |
| 271 | tea: leaf (gm)                                | 15.48  | 5        | 12       |
| 272 | coffee: cups (no.)                            | 2.71   | 5        | 12       |
| 273 | coffee: powder (gm)                           | 8.99   | 5        | 12       |
| 274 | mineral water (litre)                         | 2.36   | 0        | 0        |
| 275 | cold beverages (litre)                        | 1.12   | 14.5     | 18       |
| 276 | fruit juice and shake (no.)                   | 1.58   | 5        | 12       |
| 277 | other beverages: cocoa, chocolates, etc.      | 6.02   | 14.5     | 18       |
| 279 | beverages: sub-total                          | 72.90  | 6.75     | 12       |
| 280 | cooked meals purchased (no.)                  | 72.84  | 5        | 12       |
| 281 | cooked meals received free in workplace (no.) | 13.15  | 0        | 0        |
| 282 | cooked meals received as an assistance (no.)  | 11.97  | 0        | 0        |
| 283 | cooked snacks purchased                       | 31.42  | 0        | 0        |
| 284 | other served processed food                   | 1.04   | 5        | 12       |
| 289 | served processed food: sub-total              | 130.41 | 2        | 4.8      |
| 290 | prepared sweets, cake, pastry                 | 11.70  | 14.5     | 18       |
| 291 | biscuits, chocolates, etc.                    | 27.29  | 14.5     | 18       |
| 292 | papad, bhujia, namkeen                        | 14.87  | 5        | 12       |
| 293 | chips (gm)                                    | 3.86   | 5        | 12       |
| 294 | pickles (gm)                                  | 1.75   | 5        | 12       |
| 295 | sauce, jam, jelly (gm)                        | 0.53   | 5        | 12       |
| 296 | other packaged food                           | 2.56   | 5        | 12       |
| 299 | packaged processed food: sub-total            | 62.55  | 7.714286 | 13.71429 |
| 777 | <b>total: food group</b>                      |        |          | 0        |

### **3. Rural Non-Food MPCE**

| item code | Item description         | Value Spent (INR)/30 days | VAT rate | GST rate |
|-----------|--------------------------|---------------------------|----------|----------|
| 300       | pan: leaf (no.)          | 4.35                      | 30       | 30       |
| 301       | pan: finished (no.)      | 0.33                      | 30       | 30       |
| 302       | ingredients for pan (gm) | 3.73                      | 5        | 12       |
| 309       | pan: sub-total           | 8.41                      | 21.66667 | 24       |
| 310       | bidi (no.)               | 6.97                      | 14.5     | 18       |
| 311       | cigarettes (no.)         | 5.15                      | 30       | 30       |
| 312       | leaf tobacco (gm)        | 0.87                      | 30       | 30       |
| 313       | snuff (gm)               | 0.11                      | 30       | 30       |
| 314       | hookah tobacco (gm)      | 0.66                      | 30       | 30       |

|     |  |        |          |          |
|-----|--|--------|----------|----------|
| 315 | cheroot (no.)                            | 0.04   | 30       | 30       |
| 316 | zarda, kimam, surti (gm)                 | 0.03   | 30       | 30       |
| 317 | other tobacco products                   | 1.75   | 30       | 30       |
| 319 | tobacco: sub-total                       | 15.58  | 27.78571 | 28.5     |
| 320 | ganja (gm)                               | 0.00   | 0        | 0        |
| 321 | toddy (litre)                            | 0.22   | 0        | 0        |
| 322 | country liquor (litre)                   | 2.13   | 58       | 58       |
| 323 | beer (litre)                             | 3.99   | 58       | 58       |
| 324 | foreign/refined liquor or wine (litre)   | 26.15  | 58       | 58       |
| 325 | other intoxicants                        | 0.51   | 58       | 58       |
| 329 | intoxicants: sub-total                   | 33.01  | 38.66667 | 38.66667 |
| 330 | coke (kg)                                | 0.00   | 5        | 12       |
| 331 | firewood and chips (kg)                  | 42.18  | 0        | 0        |
| 332 | electricity (std. unit)                  | 18.24  | 10       | 10       |
| 333 | dung cake                                | 0.09   | 0        | 0        |
| 334 | kerosene – P.D.S. (litre)                | 7.42   | 5        | 12       |
| 335 | kerosene – other sources (litre)         | 2.20   | 25       | 25       |
| 336 | matches (box)                            | 1.33   | 14.5     | 18       |
| 337 | coal (kg)                                | 0.01   | 5        | 12       |
| 338 | L.P.G. (kg)                              | 26.63  | 5        | 12       |
| 340 | charcoal (kg)                            | 0.00   | 0        | 0        |
| 341 | candle (no.)                             | 0.99   | 0        | 0        |
| 342 | gobar gas                                | 0.11   | 5        | 12       |
| 343 | petrol (excl. conveyance) (litre)        | 0.00   | 27       | 27       |
| 344 | diesel (excl. conveyance) (litre)        | 0.00   | 21.43    | 21.43    |
| 345 | other fuel                               | 1.31   | 0        | 0        |
| 349 | fuel and light: sub-total                | 100.52 | 8.780714 | 10.762   |
| 350 | dhoti (no.)                              | 4.51   | 0        | 0        |
| 351 | sari (no.)                               | 17.19  | 0        | 0        |
| 352 | cloth for shirt, pyjama, kurta etc. (m.) | 7.92   | 0        | 0        |
| 353 | cloth for trousers, suit, etc. (m.)      | 4.16   | 0        | 0        |
| 354 | coat, jacket, sweater etc.               | 0.33   | 0        | 0        |
| 355 | shawl, chaddar (no.)                     | 0.89   | 0        | 0        |
| 356 | school/college uniform: boys             | 3.70   | 0        | 0        |
| 357 | school/college uniform: girls            |        | 0        | 0        |
| 358 | kurta-pajama suits: males (no.)          |        | 0        | 0        |
| 360 | kurta-pajama suits: females (no.)        |        | 0        | 0        |
| 361 | kurta, kameez (no.)                      |        | 0        | 0        |
| 362 | pajamas, salwar (no.)                    |        | 0        | 0        |
| 363 | shirts, T-shirts (no.)                   |        | 0        | 0        |
| 364 | shorts, trousers, bermudas (no.)         |        | 0        | 0        |
| 365 | frocks, skirts, etc (no.)                |        | 0        | 0        |
| 366 | blouse, dupatta, scarf, etc (no.)        |        | 0        | 0        |
| 367 | lungi (no.)                              |        | 0        | 0        |
| 368 | other casual wear                        |        | 0        | 0        |
| 370 | baniyan, socks, other hosiery (no.)      |        | 0        | 0        |
| 371 | gamchha, towel, handkerchief (no.)       |        | 0        | 0        |
| 372 | infant clothing                          |        | 0        | 0        |

|     |  |  |          |      |
|-----|--|--|----------|------|
| 373 | headwear, belts, ties (no.)                    |  | 5        | 12   |
| 374 | knitting wool (gm)                             |  | 5        | 12   |
| 375 | clothing, first-hand: other                    |  | 0        | 0    |
| 376 | clothing, second-hand                          |  | 0        | 0    |
| 379 | clothing: sub-total                            |  | 0.416667 | 0.96 |
| 380 | bed sheet, bed cover (no.)                     |  | 5        | 12   |
| 381 | rug, blanket (no.)                             |  | 5        | 12   |
| 382 | pillow, quilt, mattress (no.)                  |  | 5        | 12   |
| 383 | cloth for upholstery, etc (m.)                 |  | 5        | 12   |
| 384 | mosquito net (no.)                             |  | 5        | 12   |
| 385 | bedding: others                                |  | 5        | 12   |
| 389 | bedding, etc.: sub-total                       |  | 5        | 12   |
| 390 | leather boots, shoes (pair)                    |  | 5        | 12   |
| 391 | leather sandals, chappals, etc. (pair)         |  | 5        | 12   |
| 392 | other leather footwear (pair)                  |  | 5        | 12   |
| 393 | rubber/ PVC footwear (pair)                    |  | 5        | 12   |
| 394 | other footwear (pair)                          |  | 5        | 12   |
| 395 | footwear, second-hand                          |  | 0        | 0    |
| 399 | footwear: sub-total                            |  | 4.166667 | 10   |
| 400 | books, journals, first hand                    |  | 0        | 0    |
| 401 | books, journals, etc., second hand             |  | 0        | 0    |
| 402 | newspapers, periodicals                        |  | 5        | 12   |
| 403 | library charges                                |  | 0        | 0    |
| 404 | stationery, photocopying charge                |  | 5        | 12   |
| 405 | tuition and other fees (school, college, etc.) |  |          |      |
| 406 | private tutor/ coaching                        |  |          |      |
| 407 | educational CD                                 |  | 5        | 12   |
| 408 | other educational expenses                     |  |          |      |
| 409 | education: sub-total                           |  | 2.5      | 6    |
| 410 | medicine                                       |  | 5        | 12   |
| 411 | X-ray, ECG, pathological test, etc.            |  | 0        | 0    |
| 412 | doctor's/surgeon's fee                         |  | 0        | 0    |
| 413 | hospital & nursing home charges                |  | 0        | 0    |
| 414 | other medical expenses                         |  | 0        | 0    |
| 419 | medical, institutional: sub-total              |  | 1        | 2.4  |
| 420 | medicine                                       |  | 5        | 12   |
| 421 | X-ray, ECG, pathological test, etc.            |  | 0        | 0    |
| 422 | doctor's/ surgeon's fee                        |  | 0        | 0    |
| 423 | family planning devices                        |  | 0        | 0    |
| 424 | other medical expenses                         |  | 0        | 0    |
| 429 | medical, non-institutional: sub-total          |  | 1        | 2.4  |
| 430 | cinema, theatre                                |  | 12.24    | 18   |
| 431 | mela, fair, picnic                             |  | 12.24    | 18   |
| 432 | sports goods, toys, etc.                       |  | 5        | 12   |
| 433 | club fees                                      |  | 12.24    | 18   |
| 434 | goods for recreation and hobbies               |  | 5        | 12   |
| 435 | photography                                    |  | 14.5     | 18   |

|     |  |          |          |
|-----|--|----------|----------|
| 436 | VCD/ DVD hire (including instrument)       | 12.24    | 18       |
| 437 | cable TV                                   | 12.24    | 18       |
| 438 | other entertainment                        | 12.24    | 18       |
| 439 | entertainment: sub-total                   | 10.88222 | 16.66667 |
| 440 | spectacles                                 | 5        | 12       |
| 441 | torch                                      | 14.5     | 18       |
| 442 | lock                                       | 0        | 0        |
| 443 | umbrella, raincoat                         | 5        | 12       |
| 444 | lighter (bidi/ cigarette/ gas stove)       | 14.5     | 18       |
| 445 | other minor durable-type goods             | 14.5     | 18       |
| 449 | minor durable-type goods: sub-total        | 8.916667 | 13       |
| 450 | toilet soap                                | 14.5     | 18       |
| 451 | toothpaste, toothbrush, comb, etc.         | 14.5     | 18       |
| 452 | powder, snow, cream and perfume            | 14.5     | 18       |
| 453 | hair oil, shampoo, hair cream              | 14.5     | 18       |
| 454 | shaving blades, shaving stick, razor       | 14.5     | 18       |
| 455 | shaving cream, aftershave lotion           | 14.5     | 18       |
| 456 | sanitary napkins                           | 5        | 12       |
| 457 | other toilet articles                      | 14.5     | 18       |
| 459 | toilet articles: sub-total                 | 13.3125  | 17.25    |
| 460 | electric bulb, tubelight                   | 5        | 12       |
| 461 | electric batteries                         | 14.5     | 18       |
| 462 | other non-durable electric goods           | 14.5     | 18       |
| 463 | earthenware                                | 4        | 12       |
| 464 | glassware                                  | 14.5     | 18       |
| 465 | bucket & other plastic goods               | 5        | 12       |
| 466 | coir, rope, etc.                           | 5        | 12       |
| 467 | washing soap/ soda/ powder                 | 14.5     | 18       |
| 468 | other washing requisites                   | 14.5     | 18       |
| 470 | incense (agarbatti), room freshener        | 0        | 0        |
| 471 | flower (fresh), all purposes               | 0        | 0        |
| 472 | mosquito repellent, insecticide, acid etc. | 5        | 12       |
| 473 | other petty articles                       | 14.5     | 18       |
| 479 | other household consumables: sub-total     | 8.53846  | 12.9231  |
| 480 | domestic servant/cook                      | 12.24    | 18       |
| 481 | attendant                                  | 12.24    | 18       |
| 482 | sweeper                                    | 12.24    | 18       |
| 483 | barber, beautician, etc.                   | 12.24    | 18       |
| 484 | washerman, laundry, ironing                | 12.24    | 18       |
| 485 | tailor                                     | 12.24    | 18       |
| 486 | grinding charges                           | 12.24    | 18       |
| 487 | telephone charges, landline                | 12.24    | 18       |
| 488 | telephone charges, mobile                  | 12.24    | 18       |
| 490 | postage & telegram                         | 12.24    | 18       |
| 491 | miscellaneous expenses                     | 12.24    | 18       |
| 492 | priest                                     | 12.24    | 18       |
| 493 | legal expenses                             | 12.24    | 18       |
| 494 | repair charges for non-durables            | 12.24    | 18       |

|     |   |  |          |          |
|-----|---|--|----------|----------|
| 495 | pet animals (incl. birds, fish)               |  | 0        | 0        |
| 496 | internet expenses                             |  | 12.24    | 18       |
| 497 | other consumer services excl. conveyance      |  | 12.24    | 18       |
| 499 | consumer services excl. conveyance: sub-total |  | 11.52    | 16.94118 |
| 500 | air fare                                      |  | 12.24    | 18       |
| 501 | railway fare                                  |  | 12.24    | 18       |
| 502 | bus/tram fare                                 |  | 12.24    | 18       |
| 503 | taxi, auto-rickshaw fare                      |  | 12.24    | 18       |
| 504 | steamer, boat fare                            |  | 12.24    | 18       |
| 505 | rickshaw (hand drawn & cycle) fare            |  | 0        | 0        |
| 506 | horse cart fare                               |  | 0        | 0        |
| 507 | porter charges                                |  | 0        | 0        |
| 508 | petrol for vehicle                            |  | 27       | 27       |
| 510 | diesel for vehicle                            |  | 21.43    | 21.43    |
| 511 | lubricants & other fuels for vehicle          |  | 29       | 29       |
| 512 | school bus, van, etc.                         |  | 14.5     | 18       |
| 513 | other conveyance expenses                     |  | 12.24    | 18       |
| 519 | conveyance: sub-total                         |  | 12.72077 | 15.64846 |
| 520 | house rent, garage rent (actual)              |  | 12.24    | 18       |
| 521 | hotel lodging charges                         |  | 12.24    | 18       |
| 522 | residential land rent                         |  | 12.24    | 18       |
| 523 | other consumer rent                           |  | 12.24    | 18       |
| 529 | rent: sub-total                               |  | 12.24    | 18       |
| 539 | house/garage rent (imputed)                   |  | 0        | 0        |
| 540 | water charges                                 |  | 0        | 0        |
| 541 | other consumer taxes & cesses                 |  | 14.5     | 18       |
| 549 | consumer taxes and cesses: sub-total          |  | 4.833333 | 6        |
| 550 | bedstead                                      |  | 5        | 12       |
| 551 | almirah, dressing table                       |  | 5        | 12       |
| 552 | chair, stool, bench, table                    |  | 5        | 12       |
| 553 | suitcase and other travel goods               |  | 5        | 12       |
| 554 | foam, rubber cushion                          |  | 5        | 12       |
| 555 | carpet, daree & other floor mattings          |  | 0        | 0        |
| 556 | paintings, drawings, engravings, etc.         |  | 0        | 0        |
| 557 | other furniture & fixtures                    |  | 5        | 12       |
| 559 | furniture & fixtures: sub-total               |  | 3.75     | 9        |
| 560 | radio, tape recorder, 2-in-1                  |  | 5        | 12       |
| 561 | television                                    |  | 14.5     | 18       |
| 562 | VCR/VCD/DVD player                            |  | 14.5     | 18       |
| 563 | camera & photographic equipment               |  | 14.5     | 18       |
| 564 | CD, DVD, audio/video cassette, etc            |  | 5        | 12       |
| 565 | musical instruments                           |  | 0        | 0        |
| 566 | other goods for recreation                    |  | 14.5     | 18       |
| 569 | goods for recreation: sub-total               |  | 9.714286 | 13.71429 |
| 570 | stainless steel utensils                      |  | 5        | 12       |
| 571 | other metal utensils                          |  | 5        | 12       |



|     |  |        |          |          |
|-----|--|--------|----------|----------|
| 572 | casseroles, thermos, thermoware                |        | 5        | 12       |
| 573 | other crockery & utensils                      |        | 14.5     | 18       |
| 579 | crockery & utensils: sub-total                 |        | 7.375    | 13.5     |
| 580 | electric fan                                   |        | 14.5     | 18       |
| 581 | air conditioner, air cooler                    |        | 14.5     | 18       |
| 582 | inverter                                       |        | 14.5     | 18       |
| 583 | lantern, lamp, electric lampshade              |        | 5        | 12       |
| 584 | sewing machine                                 |        | 5        | 12       |
| 585 | washing machine                                |        | 14.5     | 18       |
| 586 | stove, gas burner                              |        | 14.5     | 18       |
| 587 | pressure cooker/ pressure pan                  |        | 5        | 12       |
| 588 | refrigerator                                   |        | 14.5     | 18       |
| 590 | water purifier                                 |        | 14.5     | 18       |
| 591 | electric iron & other elec. heating appliances |        | 14.5     | 18       |
| 592 | other cooking/ household appliances            |        | 14.5     | 18       |
| 599 | cooking & household appliances: sub-total      |        | 12.125   | 16.5     |
| 600 | bicycle  |        | 5        | 12       |
| 601 | motorcycle, scooter                            | 18.47  | 14.5     | 18       |
| 602 | motor car, jeep                                | 1.33   | 14.5     | 18       |
| 603 | tyres & tubes                                  | 1.33   | 14.5     | 18       |
| 604 | other transport equipment                      | 0.24   | 14.5     | 18       |
| 609 | personal transport equipment: sub-total        | 23.63  | 12.6     | 16.8     |
| 610 | contact lenses, hearing aids, etc.             | 0.27   | 5        | 12       |
| 611 | other medical equipment                        | 0.00   | 5        | 12       |
| 619 | therapeutic appliances: sub-total              | 0.27   | 14.5     | 18       |
| 620 | clock, watch                                   | 0.11   | 14.5     | 18       |
| 621 | other machines for household work              | 0.00   | 14.5     | 18       |
| 622 | PC/ laptop including software                  | 0.99   | 5        | 12       |
| 623 | mobile phone handset                           | 1.96   | 5        | 12       |
| 624 | telephone (landline) instrument                | 0.02   | 5        | 12       |
| 625 | any other personal goods                       | 0.00   | 14.5     | 18       |
| 629 | other personal goods: sub-total                | 3.07   | 9.222222 | 14.66667 |
| 630 | bathroom and sanitary equipment                | 0.86   | 14.5     | 18       |
| 631 | plugs & other electrical fittings              | 0.78   | 14.5     | 18       |
| 632 | residential building & land (repairing cost)   | 11.89  | 12.24    | 18       |
| 633 | other durables                                 | 0.87   | 14.5     | 18       |
| 639 | repair of res. building, land, etc.: sub-total | 14.40  | 13.935   | 18       |
| 640 | gold ornaments                                 | 22.20  | 1        | 4.5      |
| 641 | silver ornaments                               | 2.21   | 1        | 4.5      |
| 642 | jewels, pearls                                 | 1.27   | 1        | 4.5      |
| 643 | other ornaments                                | 0.19   | 5        | 12       |
| 649 | jewellery/ornaments: sub-total                 | 25.88  | 2        | 6.375    |
| 659 | durable: total                                 | 76.59  | 0        | 0        |
| 888 | total: non-food group                          | 821.38 | 0        | 0        |

## 4.Urban Non-Food MPCE

| item code | item description                         | Value Spent (INR)/30 days | VAT rate | GST rate |
|-----------|--|---------------------------|----------|----------|
|           |  |                           |          |          |
| 300       | pan: leaf (no.)                          | 1.85                      | 30       | 30       |
| 301       | pan: finished (no.)                      | 0.22                      | 30       | 30       |
| 302       | ingredients for pan (gm)                 | 1.32                      | 5        | 12       |
| 309       | pan: sub-total                           | 3.39                      | 21.66667 | 24       |
| 310       | bidi (no.)                               | 4.14                      | 14.5     | 18       |
| 311       | cigarettes (no.)                         | 10.27                     | 30       | 30       |
| 312       | leaf tobacco (gm)                        | 0.21                      | 30       | 30       |
| 313       | snuff (gm)                               | 0.06                      | 30       | 30       |
| 314       | hookah tobacco (gm)                      | 0.02                      | 30       | 30       |
| 315       | cheroot (no.)                            | 0.00                      | 30       | 30       |
| 316       | zarda, kimam, surti (gm)                 | 0.02                      | 30       | 30       |
| 317       | other tobacco products                   | 0.39                      | 30       | 30       |
| 319       | tobacco: sub-total                       | 15.11                     | 28.0625  | 28.5     |
| 320       | ganja (gm)                               | 0.00                      | 0        | 0        |
| 321       | toddy (litre)                            | 0.00                      | 0        | 0        |
| 322       | country liquor (litre)                   | 1.17                      | 58       | 58       |
| 323       | beer (litre)                             | 3.87                      | 58       | 58       |
| 324       | foreign/refined liquor or wine (litre)   | 16.54                     | 58       | 58       |
| 325       | other intoxicants                        | 0.06                      | 58       | 58       |
| 329       | intoxicants: sub-total                   | 21.64                     | 38.66667 | 38.66667 |
| 330       | coke (kg)                                | 0.01                      | 5        | 12       |
| 331       | firewood and chips (kg)                  | 9.78                      | 0        | 0        |
| 332       | electricity (std. unit)                  | 53.78                     | 10       | 10       |
| 333       | dung cake                                | 0.01                      | 0        | 0        |
| 334       | kerosene – P.D.S. (litre)                | 4.99                      | 5        | 12       |
| 335       | kerosene – other sources (litre)         | 7.39                      | 25       | 25       |
| 336       | matches (box)                            | 1.05                      | 14.5     | 18       |
| 337       | coal (kg)                                | 0.00                      | 5        | 12       |
| 338       | L.P.G. (kg)                              | 61.04                     | 5        | 12       |
| 340       | charcoal (kg)                            | 0.00                      | 0        | 0        |
| 341       | candle (no.)                             | 1.58                      | 0        | 0        |
| 342       | gobar gas                                | 0.00                      | 5        | 12       |
| 343       | petrol (excl. conveyance) (litre)        | 0.00                      | 27       | 27       |
| 344       | diesel (excl. conveyance) (litre)        | 0.00                      | 21.43    | 21.43    |
| 345       | other fuel                               | 1.53                      | 0        | 0        |
| 349       | fuel and light: sub-total                | 141.16                    | 8.195333 | 10.762   |
| 350       | dhoti (no.)                              | 4.22                      | 0        | 0        |
| 351       | sari (no.)                               | 24.03                     | 0        | 0        |
| 352       | cloth for shirt, pyjama, kurta etc. (m.) | 7.90                      | 0        | 0        |
| 353       | cloth for trousers, suit, etc. (m.)      | 5.16                      | 0        | 0        |
| 354       | coat, jacket, sweater etc.               | 0.31                      | 0        | 0        |
| 355       | shawl, chaddar (no.)                     | 1.21                      | 0        | 0        |

|     |  |        |   |    |
|-----|--|--------|---|----|
| 356 | school/college uniform: boys                   | 4.05   | 0 | 0  |
| 357 | school/college uniform: girls                  | 3.68   | 0 | 0  |
| 358 | kurta-pajama suits: males (no.)                | 1.20   | 0 | 0  |
| 360 | kurta-pajama suits: females (no.)              | 4.06   | 0 | 0  |
| 361 | kurta, kameez (no.)                            | 0.47   | 0 | 0  |
| 362 | pajamas, salwar (no.)                          | 2.82   | 0 | 0  |
| 363 | shirts, T-shirts (no.)                         | 15.15  | 0 | 0  |
| 364 | shorts, trousers, bermudas (no.)               | 11.79  | 0 | 0  |
| 365 | frocks, skirts, etc (no.)                      | 2.91   | 0 | 0  |
| 366 | blouse, dupatta, scarf, etc (no.)              | 1.36   | 0 | 0  |
| 367 | lungi (no.)                                    | 4.38   | 0 | 0  |
| 368 | other casual wear                              | 3.05   | 0 | 0  |
| 370 | baniyan, socks, other hosiery (no.)            | 8.63   | 0 | 0  |
| 371 | gamchha, towel, handkerchief (no.)             | 3.04   | 0 | 0  |
| 372 | infant clothing                                | 1.16   | 0 | 0  |
| 373 | headwear, belts, ties (no.)                    | 0.61   | 5 | 12 |
| 374 | knitting wool (gm)                             | 0.00   | 5 | 12 |
| 375 | clothing, first-hand: other                    | 0.44   | 0 | 0  |
| 376 | clothing, second-hand                          | 0.01   | 0 | 0  |
| 379 | clothing: sub-total                            | 111.62 | 0 | 0  |
| 380 | bed sheet, bed cover (no.)                     | 2.81   | 5 | 12 |
| 381 | rug, blanket (no.)                             | 0.22   | 5 | 12 |
| 382 | pillow, quilt, mattress (no.)                  | 0.77   | 5 | 12 |
| 383 | cloth for upholstery, etc (m.)                 | 0.24   | 5 | 12 |
| 384 | mosquito net (no.)                             | 0.08   | 5 | 12 |
| 385 | bedding: others                                | 0.19   | 5 | 12 |
| 389 | bedding, etc.: sub-total                       | 4.31   | 0 | 0  |
| 390 | leather boots, shoes (pair)                    | 4.82   | 5 | 12 |
| 391 | leather sandals, chappals, etc. (pair)         | 2.79   | 5 | 12 |
| 392 | other leather footwear (pair)                  | 2.19   | 5 | 12 |
| 393 | rubber/ PVC footwear (pair)                    | 6.12   | 5 | 12 |
| 394 | other footwear (pair)                          | 2.55   | 5 | 12 |
| 395 | footwear, second-hand                          | 0.05   | 0 | 0  |
| 399 | footwear: sub-total                            | 18.53  | 0 | 0  |
| 400 | books, journals, first hand                    | 12.70  | 0 | 0  |
| 401 | books, journals, etc., second hand             | 0.64   | 0 | 0  |
| 402 | newspapers, periodicals                        | 5.46   | 5 | 12 |
| 403 | library charges                                | 0.39   | 0 | 0  |
| 404 | stationery, photocopying charge                | 9.41   | 5 | 12 |
| 405 | tuition and other fees (school, college, etc.) | 138.44 |   |    |
| 406 | private tutor/ coaching                        | 2.90   |   |    |
| 407 | educational CD                                 | 0.07   | 5 | 12 |
| 408 | other educational expenses                     | 1.43   |   |    |
| 409 | education: sub-total                           | 171.44 |   |    |
| 410 | medicine                                       |        | 5 | 12 |
| 411 | X-ray, ECG, pathological test, etc.            |        | 0 | 0  |
| 412 | doctor's/surgeon's fee                         |        | 0 | 0  |

|     |  |  |       |    |
|-----|--|--|-------|----|
| 413 | hospital & nursing home charges            |  | 0     | 0  |
| 414 | other medical expenses                     |  | 0     | 0  |
| 419 | medical, institutional: sub-total          |  |       | 0  |
| 420 | medicine                                   |  | 5     | 12 |
| 421 | X-ray, ECG, pathological test, etc.        |  | 0     | 0  |
| 422 | doctor's/ surgeon's fee                    |  | 0     | 0  |
| 423 | family planning devices                    |  | 0     | 0  |
| 424 | other medical expenses                     |  | 0     | 0  |
| 429 | medical, non-institutional: sub-total      |  |       | 0  |
| 430 | cinema, theatre                            |  | 12.24 | 18 |
| 431 | mela, fair, picnic                         |  | 12.24 | 18 |
| 432 | sports goods, toys, etc.                   |  | 5     | 12 |
| 433 | club fees                                  |  | 12.24 | 18 |
| 434 | goods for recreation and hobbies           |  | 5     | 12 |
| 435 | photography                                |  | 14.5  | 18 |
| 436 | VCD/ DVD hire (including instrument)       |  | 12.24 | 18 |
| 437 | cable TV                                   |  | 12.24 | 18 |
| 438 | other entertainment                        |  | 12.24 | 18 |
| 439 | entertainment: sub-total                   |  | 0     | 0  |
| 440 | spectacles                                 |  | 5     | 12 |
| 441 | torch                                      |  | 14.5  | 18 |
| 442 | lock                                       |  | 0     | 0  |
| 443 | umbrella, raincoat                         |  | 5     | 12 |
| 444 | lighter (bidi/ cigarette/ gas stove)       |  | 14.5  | 18 |
| 445 | other minor durable-type goods             |  | 14.5  | 18 |
| 449 | minor durable-type goods: sub-total        |  | 0     | 0  |
| 450 | toilet soap                                |  | 14.5  | 18 |
| 451 | toothpaste, toothbrush, comb, etc.         |  | 14.5  | 18 |
| 452 | powder, snow, cream and perfume            |  | 14.5  | 18 |
| 453 | hair oil, shampoo, hair cream              |  | 14.5  | 18 |
| 454 | shaving blades, shaving stick, razor       |  | 14.5  | 18 |
| 455 | shaving cream, aftershave lotion           |  | 14.5  | 18 |
| 456 | sanitary napkins                           |  | 5     | 12 |
| 457 | other toilet articles                      |  | 14.5  | 18 |
| 459 | toilet articles: sub-total                 |  | 0     | 0  |
| 460 | electric bulb, tubelight                   |  | 5     | 12 |
| 461 | electric batteries                         |  | 14.5  | 18 |
| 462 | other non-durable electric goods           |  | 14.5  | 18 |
| 463 | earthenware                                |  | 4     | 12 |
| 464 | glassware                                  |  | 14.5  | 18 |
| 465 | bucket & other plastic goods               |  | 5     | 12 |
| 466 | coir, rope, etc.                           |  | 5     | 12 |
| 467 | washing soap/ soda/ powder                 |  | 14.5  | 18 |
| 468 | other washing requisites                   |  | 14.5  | 18 |
| 470 | incense (agarbatti), room freshener        |  | 0     | 0  |
| 471 | flower (fresh), all purposes               |  | 0     | 0  |
| 472 | mosquito repellent, insecticide, acid etc. |  | 5     | 12 |
| 473 | other petty articles                       |  | 14.5  | 18 |

|     |   |        |       |       |
|-----|---|--------|-------|-------|
| 479 | other household consumables: sub-total        |        | 14.5  | 18    |
| 480 | domestic servant/cook                         |        | 12.24 | 18    |
| 481 | attendant                                     |        | 12.24 | 18    |
| 482 | sweeper                                       |        | 12.24 | 18    |
| 483 | barber, beautician, etc.                      |        | 12.24 | 18    |
| 484 | washerman, laundry, ironing                   |        | 12.24 | 18    |
| 485 | tailor  |        | 12.24 | 18    |
| 486 | grinding charges                              |        | 12.24 | 18    |
| 487 | telephone charges, landline                   |        | 12.24 | 18    |
| 488 | telephone charges, mobile                     |        | 12.24 | 18    |
| 490 | postage & telegram                            |        | 12.24 | 18    |
| 491 | miscellaneous expenses                        |        | 12.24 | 18    |
| 492 | priest  |        | 12.24 | 18    |
| 493 | legal expenses                                |        | 12.24 | 18    |
| 494 | repair charges for non-durables               |        | 12.24 | 18    |
| 495 | pet animals (incl. birds, fish)               |        | 0     | 0     |
| 496 | internet expenses                             |        | 12.24 | 18    |
| 497 | other consumer services excl. conveyance      |        | 12.24 | 18    |
| 499 | consumer services excl. conveyance: sub-total |        | 0     | 0     |
| 500 | air fare                                      |        | 12.24 | 18    |
| 501 | railway fare                                  |        | 12.24 | 18    |
| 502 | bus/tram fare                                 |        | 12.24 | 18    |
| 503 | taxi, auto-rickshaw fare                      |        | 12.24 | 18    |
| 504 | steamer, boat fare                            |        | 12.24 | 18    |
| 505 | rickshaw (hand drawn & cycle) fare            |        | 0     | 0     |
| 506 | horse cart fare                               |        | 0     | 0     |
| 507 | porter charges                                |        | 0     | 0     |
| 508 | petrol for vehicle                            |        | 27    | 27    |
| 510 | diesel for vehicle                            |        | 21.43 | 21.43 |
| 511 | lubricants & other fuels for vehicle          |        | 29    | 29    |
| 512 | school bus, van, etc.                         |        | 14.5  | 18    |
| 513 | other conveyance expenses                     |        | 12.24 | 18    |
| 519 | conveyance: sub-total                         |        |       | 0     |
| 520 | house rent, garage rent (actual)              |        | 12.24 | 18    |
| 521 | hotel lodging charges                         |        | 12.24 | 18    |
| 522 | residential land rent                         | 0.00   | 12.24 | 18    |
| 523 | other consumer rent                           | 0.00   | 12.24 | 18    |
| 529 | rent: sub-total                               | 237.65 | 0     | 0     |
| 539 | house/garage rent (imputed)                   | 385.98 | 0     | 0     |
| 540 | water charges                                 | 6.62   | 0     | 0     |
| 541 | other consumer taxes & cesses                 | 9.61   | 14.5  | 18    |
| 549 | consumer taxes and cesses: sub-total          | 16.23  |       | 0     |
| 550 | bedstead                                      | 0.75   | 5     | 12    |
| 551 | almirah, dressing table                       | 0.60   | 5     | 12    |
| 552 | chair, stool, bench, table                    | 0.42   | 5     | 12    |
| 553 | suitcase and other travel goods               | 0.10   | 5     | 12    |

|     |  |       |      |    |
|-----|--|-------|------|----|
| 554 | foam, rubber cushion                           | 0.00  | 5    | 12 |
| 555 | carpet, daree & other floor mattings           | 0.01  | 0    | 0  |
| 556 | paintings, drawings, engravings, etc.          | 0.00  | 0    | 0  |
| 557 | other furniture & fixtures                     | 0.25  | 5    | 12 |
| 559 | furniture & fixtures: sub-total                | 2.13  | 0    | 0  |
| 560 | radio, tape recorder, 2-in-1                   | 0.03  | 5    | 12 |
| 561 | television                                     | 1.80  | 14.5 | 18 |
| 562 | VCR/VCD/DVD player                             | 0.31  | 14.5 | 18 |
| 563 | camera & photographic equipment                | 0.03  | 14.5 | 18 |
| 564 | CD, DVD, audio/video cassette, etc             | 0.34  | 5    | 12 |
| 565 | musical instruments                            | 0.04  | 0    | 0  |
| 566 | other goods for recreation                     | 0.02  | 14.5 | 18 |
| 569 | goods for recreation: sub-total                | 2.57  | 0    | 0  |
| 570 | stainless steel utensils                       | 1.01  | 5    | 12 |
| 571 | other metal utensils                           | 0.35  | 5    | 12 |
| 572 | casseroles, thermos, thermoware                | 0.03  | 5    | 12 |
| 573 | other crockery & utensils                      | 0.11  | 14.5 | 18 |
| 579 | crockery & utensils: sub-total                 | 1.50  | 0    | 0  |
| 580 | electric fan                                   | 0.67  | 14.5 | 18 |
| 581 | air conditioner, air cooler                    | 1.02  | 14.5 | 18 |
| 582 | inverter                                       | 1.16  | 14.5 | 18 |
| 583 | lantern, lamp, electric lampshade              | 0.00  | 5    | 12 |
| 584 | sewing machine                                 | 0.13  | 5    | 12 |
| 585 | washing machine                                | 1.64  | 14.5 | 18 |
| 586 | stove, gas burner                              | 0.44  | 14.5 | 18 |
| 587 | pressure cooker/ pressure pan                  | 0.30  | 5    | 12 |
| 588 | refrigerator                                   | 2.26  | 14.5 | 18 |
| 590 | water purifier                                 | 0.37  | 14.5 | 18 |
| 591 | electric iron & other elec. heating appliances | 0.50  | 14.5 | 18 |
| 592 | other cooking/ household appliances            | 0.55  | 14.5 | 18 |
| 599 | cooking & household appliances: sub-total      | 9.05  | 0    | 0  |
| 600 | bicycle  | 1.78  | 5    | 12 |
| 601 | motorcycle, scooter                            | 18.01 | 14.5 | 18 |
| 602 | motor car, jeep                                | 24.06 | 14.5 | 18 |
| 603 | tyres & tubes                                  | 1.38  | 14.5 | 18 |
| 604 | other transport equipment                      | 0.00  | 14.5 | 18 |
| 609 | personal transport equipment: sub-total        | 45.24 | 0    | 0  |
| 610 | contact lenses, hearing aids, etc.             | 0.05  | 5    | 12 |
| 611 | other medical equipment                        | 0.06  | 5    | 12 |
| 619 | therapeutic appliances: sub-total              | 0.10  | 14.5 | 18 |
| 620 | clock, watch                                   | 0.13  | 14.5 | 18 |
| 621 | other machines for household work              | 0.00  | 14.5 | 18 |
| 622 | PC/ laptop including software                  | 2.68  | 5    | 12 |
| 623 | mobile phone handset                           | 2.42  | 5    | 12 |
| 624 | telephone (landline) instrument                | 0.00  | 5    | 12 |
| 625 | any other personal goods                       | 0.01  | 14.5 | 18 |

|     |  |         |       |     |
|-----|--|---------|-------|-----|
| 629 | other personal goods: sub-total                | 5.24    | 0     | 0   |
| 630 | bathroom and sanitary equipment                | 0.03    | 14.5  | 18  |
| 631 | plugs & other electrical fittings              | 0.61    | 14.5  | 18  |
| 632 | residential building & land (repairing cost)   | 16.86   | 12.24 | 18  |
| 633 | other durables                                 | 0.16    | 14.5  | 18  |
| 639 | repair of res. building, land, etc.: sub-total | 17.66   |       | 0   |
| 640 | gold ornaments                                 | 44.86   | 1     | 4.5 |
| 641 | silver ornaments                               | 1.96    | 1     | 4.5 |
| 642 | jewels, pearls                                 | 1.16    | 1     | 4.5 |
| 643 | other ornaments                                | 2.00    | 5     | 12  |
| 649 | jewellery/ornaments: sub-total                 | 49.98   | 0     | 0   |
| 659 | durable: total                                 | 133.48  | 0     | 0   |
| 888 | total: non-food group                          | 1502.88 | 0     | 0   |

## 4. Food and Non Food MPCE of Rural Sector – Fractile classes

| Table 6C-R: Value of consumption (Rs) of broad groups of food and non-food items per person for a period of 30 days for each fractile |                               |               |               |               |               |               |               |               |                |                |                |                |
|---|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|----------------|----------------|
| Rural   | fractile class of MPCE (MMRP) |               |               |               |               |               |               |               |                |                |                |                |
| item  | 1                             | 2             | 3             | 4             | 5             | 6             | 7             | 8             | 9              | 10             | 11             | 12             |
| (1)   | (2)                           | (3)           | (4)           | (5)           | (6)           | (7)           | (8)           | (9)           | (10)           | (11)           | (12)           | (13)           |
| <b>Tamil Nadu</b>   |                               |               |               |               |               |               |               |               |                |                |                |                |
| cereal  | 81.65                         | 100.50        | 108.34        | 132.54        | 126.44        | 145.68        | 149.39        | 162.27        | 168.78         | 197.38         | 220.81         | 242.95         |
| gram  | 1.26                          | 3.50          | 3.36          | 4.35          | 4.38          | 6.09          | 6.29          | 7.77          | 7.71           | 8.56           | 8.90           | 9.16           |
| cereal substitutes  | 0.47                          | 0.03          | 0.18          | 0.06          | 0.13          | 0.04          | 0.43          | 0.09          | 0.08           | 0.17           | 0.00           | 0.34           |
| pulses & pulse products   | 19.78                         | 26.14         | 30.02         | 37.74         | 41.18         | 47.43         | 45.40         | 46.01         | 48.39          | 58.90          | 68.91          | 70.67          |
| milk & milk products  | 29.33                         | 60.67         | 52.74         | 65.26         | 68.38         | 81.03         | 97.27         | 95.33         | 100.22         | 131.19         | 144.22         | 167.21         |
| sugar   | 6.18                          | 8.63          | 7.88          | 9.69          | 10.30         | 12.76         | 12.87         | 13.32         | 14.08          | 17.45          | 17.69          | 22.22          |
| salt  | 1.90                          | 2.03          | 2.21          | 2.27          | 2.52          | 2.78          | 2.47          | 2.69          | 2.93           | 3.11           | 3.12           | 3.35           |
| edible oil  | 13.52                         | 19.66         | 27.62         | 32.76         | 35.82         | 39.70         | 40.93         | 43.64         | 47.96          | 62.83          | 60.71          | 69.90          |
| egg, fish & meat  | 38.16                         | 40.02         | 71.43         | 68.48         | 85.12         | 90.89         | 119.82        | 125.36        | 126.67         | 179.95         | 157.71         | 237.18         |
| vegetables  | 37.26                         | 49.82         | 60.50         | 73.06         | 80.15         | 91.86         | 98.90         | 110.73        | 112.27         | 129.40         | 135.94         | 141.59         |
| fruits (fresh)  | 8.18                          | 15.60         | 22.12         | 27.71         | 33.79         | 40.82         | 50.96         | 56.27         | 64.61          | 77.26          | 94.72          | 145.30         |
| fruits (dry)  | 1.57                          | 0.84          | 1.27          | 2.48          | 4.46          | 4.07          | 3.70          | 5.44          | 5.97           | 7.77           | 7.91           | 17.63          |
| spices  | 37.34                         | 43.62         | 57.07         | 65.05         | 79.25         | 80.94         | 78.87         | 83.93         | 91.78          | 100.05         | 108.45         | 107.87         |
| beverages etc.  | 57.77                         | 79.35         | 90.37         | 108.86        | 125.41        | 147.00        | 174.57        | 188.64        | 234.65         | 257.38         | 290.19         | 623.60         |
| <b>total : food</b>   | <b>334.36</b>                 | <b>450.40</b> | <b>535.12</b> | <b>630.32</b> | <b>697.33</b> | <b>791.08</b> | <b>881.88</b> | <b>941.50</b> | <b>1026.10</b> | <b>1231.42</b> | <b>1319.30</b> | <b>1858.99</b> |
| pan   | 7.96                          | 4.54          | 5.76          | 4.85          | 9.64          | 6.31          | 10.15         | 9.14          | 10.69          | 13.59          | 7.77           | 7.40           |
| tobacco   | 7.83                          | 10.91         | 8.64          | 7.84          | 10.52         | 9.80          | 17.21         | 23.21         | 20.02          | 20.22          | 31.21          | 27.03          |
| intoxicants   | 3.14                          | 11.36         | 7.65          | 15.29         | 14.07         | 17.61         | 26.61         | 42.53         | 66.05          | 56.97          | 71.23          | 81.27          |
| pan, tobacco &  | 18.93                         | 26.80         | 22.06         | 27.97         | 34.23         | 33.72         | 53.98         | 74.88         | 96.76          | 90.78          | 110.22         | 115.70         |
| fuel and light  | 48.52                         | 68.44         | 79.43         | 85.74         | 86.55         | 94.05         | 100.87        | 110.86        | 118.27         | 124.94         | 144.39         | 148.35         |
| clothing  | 45.66                         | 52.13         | 55.48         | 67.04         | 71.09         | 73.36         | 77.09         | 90.49         | 98.27          | 105.41         | 132.17         | 170.42         |
| footwear  | 5.43                          | 5.59          | 6.60          | 9.10          | 8.98          | 9.06          | 9.91          | 12.05         | 12.44          | 14.74          | 17.54          | 24.41          |
| education   | 11.52                         | 6.50          | 19.05         | 25.91         | 40.94         | 30.43         | 38.35         | 63.61         | 78.10          | 135.86         | 255.80         | 488.11         |
| medical (inst.)   | 0.09                          | 0.10          | 5.47          | 10.97         | 13.26         | 14.92         | 11.39         | 13.55         | 33.37          | 38.11          | 97.62          | 271.03         |
| medical (non-inst.)   | 28.84                         | 23.94         | 24.25         | 27.31         | 45.16         | 50.07         | 40.94         | 65.40         | 75.05          | 108.65         | 144.21         | 250.72         |
| entertainment   | 14.88                         | 16.81         | 21.44         | 21.01         | 27.29         | 25.43         | 26.06         | 28.78         | 37.38          | 33.54          | 44.10          | 60.13          |
| minor durable-type  | 0.05                          | 1.29          | 1.02          | 0.83          | 1.50          | 1.51          | 3.50          | 2.82          | 1.85           | 3.40           | 7.83           | 17.99          |
| toilet articles   | 17.16                         | 21.17         | 28.44         | 33.20         | 34.47         | 38.19         | 39.76         | 45.58         | 47.43          | 54.29          | 64.80          | 76.38          |
| other hh. consumables   | 16.14                         | 16.47         | 24.96         | 32.73         | 34.69         | 37.82         | 41.13         | 47.15         | 51.52          | 61.75          | 80.28          | 102.56         |
| consumer services   | 16.79                         | 27.25         | 33.43         | 43.20         | 46.91         | 54.38         | 58.60         | 67.95         | 77.82          | 99.61          | 137.20         | 208.54         |
| conveyance  | 24.97                         | 39.38         | 44.38         | 52.46         | 70.32         | 68.82         | 94.62         | 94.66         | 128.18         | 175.39         | 245.34         | 326.84         |
| rent  | 0.02                          | 0.00          | 1.57          | 1.59          | 3.66          | 19.27         | 13.32         | 9.81          | 28.25          | 28.79          | 89.58          | 65.33          |
| taxes and cesses  | 1.79                          | 2.94          | 2.42          | 3.82          | 4.23          | 3.48          | 4.08          | 4.84          | 5.58           | 6.47           | 8.47           | 10.73          |
| durable goods   | 2.03                          | 7.11          | 9.96          | 13.35         | 20.26         | 34.66         | 26.87         | 37.46         | 55.47          | 131.76         | 271.25         | 590.08         |
| <b>total : non-food</b>   | <b>252.84</b>                 | <b>315.92</b> | <b>379.97</b> | <b>456.25</b> | <b>543.53</b> | <b>589.16</b> | <b>640.47</b> | <b>769.90</b> | <b>945.73</b>  | <b>1213.48</b> | <b>1850.79</b> | <b>2927.35</b> |





## 5. Food and Non Food MPCE of Urban Sector – Fractile classes

**Table 6C-U: Value of consumption (Rs) of broad groups of food and non-food items per person for a period of 30 days for each fractile class of MPCE<sub>MMRP</sub>**

| Urban                             |                               |                |                |                |                |                |                |                |                |                |                |                |                |
|-----------------------------------|-------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| item                              | fractile class of MPCE (MMRP) |                |                |                |                |                |                |                |                |                |                |                |                |
|                                   | 1                             | 2              | 3              | 4              | 5              | 6              | 7              | 8              | 9              | 10             | 11             | 12             | all classes    |
| (1)                               | (2)                           | (3)            | (4)            | (5)            | (6)            | (7)            | (8)            | (9)            | (10)           | (11)           | (12)           | (13)           | (14)           |
| <b>Tamil Nadu</b>                 |                               |                |                |                |                |                |                |                |                |                |                |                |                |
| cereal                            | 99.45                         | 119.94         | 127.66         | 143.86         | 162.56         | 162.13         | 177.66         | 185.80         | 208.81         | 219.03         | 213.29         | 225.31         | 171.65         |
| gram                              | 2.81                          | 3.71           | 5.24           | 5.76           | 6.93           | 6.83           | 7.19           | 8.78           | 7.89           | 7.97           | 8.68           | 8.23           | 6.83           |
| cereal substitutes                | 0.08                          | 0.28           | 0.10           | 0.43           | 0.08           | 0.15           | 0.14           | 0.21           | 0.20           | 0.56           | 0.12           | 0.55           | 0.24           |
| pulses & pulse products           | 29.08                         | 37.35          | 38.28          | 38.93          | 48.67          | 48.15          | 52.41          | 56.04          | 67.40          | 67.11          | 71.12          | 75.86          | 52.37          |
| milk & milk products              | 51.54                         | 65.88          | 87.64          | 107.75         | 127.95         | 123.96         | 138.96         | 159.35         | 183.02         | 209.94         | 253.64         | 285.08         | 146.67         |
| sugar                             | 8.84                          | 10.46          | 10.45          | 12.88          | 14.25          | 14.47          | 14.63          | 16.57          | 18.42          | 19.52          | 19.94          | 27.02          | 15.43          |
| salt                              | 2.17                          | 2.08           | 2.34           | 2.60           | 2.77           | 2.90           | 2.99           | 2.95           | 3.19           | 3.06           | 3.03           | 2.92           | 2.79           |
| edible oil                        | 25.29                         | 28.16          | 35.89          | 35.84          | 42.56          | 45.60          | 52.27          | 59.93          | 62.81          | 62.96          | 71.25          | 66.55          | 49.35          |
| egg, fish & meat                  | 50.14                         | 67.27          | 76.05          | 91.40          | 109.93         | 110.85         | 135.47         | 153.77         | 170.07         | 173.31         | 175.07         | 201.07         | 126.76         |
| vegetables                        | 59.48                         | 68.80          | 80.53          | 81.86          | 103.98         | 109.92         | 119.53         | 121.75         | 129.51         | 126.86         | 142.03         | 157.15         | 108.77         |
| fruits (fresh)                    | 21.20                         | 30.10          | 35.84          | 39.47          | 49.22          | 56.22          | 72.64          | 88.04          | 108.77         | 134.28         | 172.58         | 239.79         | 81.63          |
| fruits (dry)                      | 0.61                          | 1.59           | 2.38           | 2.59           | 4.62           | 4.35           | 6.05           | 7.23           | 10.22          | 12.56          | 23.00          | 42.17          | 8.37           |
| spices                            | 58.78                         | 65.81          | 67.68          | 71.56          | 82.66          | 82.74          | 92.56          | 91.91          | 90.69          | 88.66          | 96.77          | 93.23          | 82.58          |
| beverages etc.                    | 86.87                         | 102.82         | 111.76         | 148.58         | 160.91         | 194.80         | 229.36         | 268.96         | 296.21         | 390.93         | 659.99         | 863.83         | 265.87         |
| <b>total : food</b>               | <b>496.35</b>                 | <b>604.25</b>  | <b>681.85</b>  | <b>783.51</b>  | <b>917.08</b>  | <b>963.09</b>  | <b>1101.86</b> | <b>1221.29</b> | <b>1357.20</b> | <b>1516.75</b> | <b>1910.52</b> | <b>2288.75</b> | <b>1119.31</b> |
| pan                               | 5.25                          | 3.48           | 2.51           | 2.33           | 3.66           | 2.53           | 5.43           | 1.06           | 6.46           | 3.35           | 2.76           | 1.69           | 3.39           |
| tobacco                           | 5.37                          | 5.49           | 10.84          | 11.90          | 11.03          | 12.29          | 14.99          | 20.82          | 17.91          | 18.12          | 31.14          | 24.43          | 15.11          |
| intoxicants                       | 9.75                          | 8.83           | 14.09          | 17.52          | 14.50          | 16.66          | 15.31          | 27.10          | 24.44          | 32.84          | 27.82          | 61.43          | 21.64          |
| pan, tobacco &                    | 20.37                         | 17.81          | 27.44          | 31.75          | 29.19          | 31.48          | 35.72          | 48.98          | 48.80          | 54.31          | 61.72          | 87.55          | 40.14          |
| fuel and light                    | 69.14                         | 87.88          | 94.32          | 105.71         | 124.37         | 128.80         | 132.59         | 149.47         | 166.63         | 180.20         | 212.94         | 288.90         | 141.16         |
| clothing                          | 45.54                         | 57.93          | 69.38          | 82.37          | 84.86          | 98.80          | 104.11         | 112.93         | 132.19         | 161.45         | 223.04         | 299.76         | 115.93         |
| footwear                          | 6.42                          | 8.88           | 9.57           | 10.90          | 11.41          | 13.73          | 15.75          | 18.15          | 20.85          | 25.81          | 37.88          | 64.96          | 18.53          |
| education                         | 13.04                         | 24.71          | 37.32          | 49.19          | 65.05          | 117.85         | 126.70         | 128.36         | 201.82         | 272.96         | 390.66         | 1001.70        | 171.44         |
| medical (inst.)                   | 2.20                          | 3.64           | 7.95           | 11.53          | 18.56          | 27.38          | 37.08          | 46.29          | 60.86          | 131.75         | 146.95         | 327.06         | 58.14          |
| medical (non-inst.)               | 20.56                         | 31.35          | 36.88          | 44.75          | 51.18          | 58.09          | 81.94          | 97.58          | 114.63         | 143.85         | 238.64         | 268.47         | 90.85          |
| entertainment                     | 20.33                         | 24.11          | 25.12          | 26.87          | 30.06          | 29.66          | 32.66          | 39.44          | 37.19          | 60.21          | 71.73          | 157.28         | 41.80          |
| minor durable-type                | 0.83                          | 0.54           | 2.01           | 2.68           | 2.89           | 2.67           | 3.47           | 6.24           | 6.07           | 19.42          | 5.97           | 33.37          | 6.58           |
| toilet articles                   | 26.25                         | 32.84          | 35.11          | 38.58          | 44.25          | 50.62          | 52.41          | 57.35          | 68.03          | 73.45          | 91.53          | 122.67         | 55.64          |
| other hh. consumables             | 22.17                         | 29.20          | 33.31          | 35.15          | 42.84          | 47.22          | 51.10          | 54.94          | 66.46          | 78.72          | 95.41          | 109.92         | 53.81          |
| consumer services                 | 30.94                         | 38.33          | 46.73          | 57.48          | 61.83          | 77.29          | 89.86          | 109.04         | 151.95         | 225.41         | 347.06         | 716.78         | 138.63         |
| conveyance                        | 25.33                         | 44.55          | 64.76          | 84.62          | 96.67          | 100.52         | 141.18         | 163.09         | 216.38         | 287.94         | 453.48         | 823.37         | 182.88         |
| rent                              | 16.70                         | 28.38          | 45.09          | 82.67          | 123.70         | 149.51         | 142.78         | 263.65         | 289.61         | 420.93         | 542.19         | 1128.81        | 237.65         |
| taxes and cesses                  | 4.50                          | 7.31           | 7.57           | 9.25           | 9.47           | 11.08          | 13.91          | 15.12          | 20.53          | 23.23          | 34.53          | 57.86          | 16.23          |
| durable goods                     | 11.71                         | 8.89           | 17.29          | 28.34          | 23.35          | 49.68          | 57.81          | 68.81          | 119.01         | 188.77         | 359.87         | 1182.33        | 133.48         |
| <b>total : non-food</b>           | <b>336.01</b>                 | <b>446.36</b>  | <b>559.85</b>  | <b>701.85</b>  | <b>819.70</b>  | <b>994.39</b>  | <b>1119.06</b> | <b>1379.45</b> | <b>1721.02</b> | <b>2348.38</b> | <b>3313.60</b> | <b>6670.79</b> | <b>1502.88</b> |
| <b>total expenditure</b>          | <b>832.35</b>                 | <b>1050.61</b> | <b>1241.67</b> | <b>1485.32</b> | <b>1736.76</b> | <b>1957.46</b> | <b>2220.93</b> | <b>2600.76</b> | <b>3078.22</b> | <b>3865.11</b> | <b>5224.16</b> | <b>8959.49</b> | <b>2622.18</b> |
| cooked meals                      | 1.35                          | 3.23           | 2.88           | 1.11           | 0.69           | 1.44           | 17.93          | 18.16          | 12.05          | 15.20          | 104.11         | 15.18          | 13.15          |
| free in workplace*                |                               |                |                |                |                |                |                |                |                |                |                |                |                |
| cooked meals recd. as assistance* | 25.36                         | 17.19          | 10.63          | 22.88          | 19.96          | 12.20          | 18.31          | 10.89          | 2.37           | 0.86           | 0.35           | 0.00           | 11.97          |
| clothing & footwear hand)**       | 0.00                          | 0.01           | 0.01           | 0.01           | 0.08           | 0.04           | 0.03           | 0.13           | 0.24           | 0.00           | 0.07           | 0.00           | 0.06           |
| books, etc. (2nd                  | 0.02                          | 0.07           | 0.26           | 0.00           | 0.36           | 0.18           | 0.09           | 0.78           | 0.93           | 1.36           | 0.52           | 4.32           | 0.64           |
| durables (2nd hand)\$             | 0.13                          | 0.00           | 0.01           | 0.10           | 0.20           | 3.21           | 3.64           | 0.15           | 0.14           | 8.19           | 46.66          | 3.92           | 4.10           |
| imputed rent (urban)              | 114.78                        | 158.52         | 158.38         | 185.34         | 207.82         | 250.14         | 320.11         | 323.95         | 483.29         | 605.34         | 887.25         | 1489.99        | 385.98         |

## VAT%MPCE

| item                | fractile class of MPCE (MMRP) | 1              | 2              | 3              | 4              | 5              | 6              | 7              | 8              | 9              | 10             | 11             | 12             | all classes    |
|---------------------|-------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                     |                               | (1)            | (2)            | (3)            | (4)            | (5)            | (6)            | (7)            | (8)            | (9)            | (10)           | (11)           | (12)           |                |
| <b>Tamil Nadu</b>   |                               |                |                |                |                |                |                |                |                |                |                |                |                |                |
| cereal              | 0.025                         | 2.48625        | 2.9985         | 3.1915         | 3.5965         | 4.064          | 4.05325        | 4.4415         | 4.645          | 5.22025        | 5.47575        | 5.33225        | 5.63275        | 4.29125        |
| gram                | 0.05                          | 0.1405         | 0.1855         | 0.262          | 0.288          | 0.3465         | 0.3415         | 0.3595         | 0.439          | 0.3945         | 0.3985         | 0.434          | 0.4115         | 0.3415         |
| cereal substitutes  | 0.05                          | 0.004          | 0.014          | 0.005          | 0.0215         | 0.004          | 0.0075         | 0.007          | 0.0105         | 0.01           | 0.028          | 0.006          | 0.0275         | 0.012          |
| pulses & pulse      | 0.035                         | 1.0178         | 1.30725        | 1.3398         | 1.36255        | 1.70345        | 1.68525        | 1.83435        | 1.9614         | 2.359          | 2.34885        | 2.4892         | 2.6551         | 1.83295        |
| milk & milk         | 0.049375                      | 2.544788       | 3.252825       | 4.327225       | 5.320156       | 6.317531       | 6.120525       | 6.86115        | 7.867906       | 9.036613       | 10.36579       | 12.52348       | 14.07583       | 7.241831       |
| sugar               | 0.025                         | 0.221          | 0.2615         | 0.26125        | 0.322          | 0.35625        | 0.36175        | 0.36575        | 0.41425        | 0.4605         | 0.488          | 0.4985         | 0.6755         | 0.38575        |
| salt                | 0                             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| edible oil          | 0.05                          | 1.2645         | 1.408          | 1.7945         | 1.792          | 2.128          | 2.28           | 2.6135         | 2.9965         | 3.1405         | 3.148          | 3.5625         | 3.3275         | 2.4675         |
| egg, fish & meat    | 0                             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| vegetables          | 0                             | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              | 0              |
| fruits (fresh)      | 0.005556                      | 0.117787       | 0.167236       | 0.199127       | 0.219295       | 0.273466       | 0.312358       | 0.403588       | 0.48915        | 0.604326       | 0.74606        | 0.958854       | 1.332273       | 0.453536       |
| fruits (dry)        | 0.09125                       | 0.055663       | 0.145088       | 0.217175       | 0.236338       | 0.421575       | 0.396938       | 0.552063       | 0.659738       | 0.932575       | 1.1461         | 2.09875        | 3.848013       | 0.763763       |
| spices              | 0.009091                      | 0.534369       | 0.598279       | 0.615279       | 0.650552       | 0.751462       | 0.752189       | 0.841463       | 0.835554       | 0.824463       | 0.806008       | 0.879736       | 0.847554       | 0.750735       |
| beverages etc.      | 0.0675                        | 5.863725       | 6.94035        | 7.5438         | 10.02915       | 10.86143       | 13.149         | 15.4818        | 18.1548        | 19.99418       | 26.38778       | 44.54933       | 58.30853       | 17.94623       |
| <b>total : food</b> |                               | 496.35         | 604.25         | 681.85         | 783.51         | 917.08         | 963.09         | 1101.86        | 1221.29        | 1357.2         | 1516.75        | 1910.52        | 2288.75        | 1119.31        |
| <b>Total VAT</b>    |                               | <b>14.2504</b> | <b>17.2785</b> | <b>19.7567</b> | <b>23.838</b>  | <b>27.2277</b> | <b>29.4603</b> | <b>33.7617</b> | <b>38.4738</b> | <b>42.9769</b> | <b>51.3388</b> | <b>73.3326</b> | <b>91.142</b>  | <b>36.487</b>  |
| <b>VAT% MPCE</b>    |                               | <b>2.87103</b> | <b>2.8595</b>  | <b>2.89751</b> | <b>3.04247</b> | <b>2.96895</b> | <b>3.05893</b> | <b>3.06406</b> | <b>3.15026</b> | <b>3.16659</b> | <b>3.38479</b> | <b>3.83836</b> | <b>3.98218</b> | <b>3.25978</b> |

## 5.2

## GST% MPCE

| item                  | fractile class of MPCE (MMRP) | 1               | 2               | 3               | 4               | 5               | 6             | 7              | 8               | 9               | 10              | 11              | 12              | all classes     |
|-----------------------|-------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                       |                               | (1)             | (2)             | (3)             | (4)             | (5)             | (6)           | (7)            | (8)             | (9)             | (10)            | (11)            | (12)            |                 |
| <b>Tamil Nadu</b>     |                               |                 |                 |                 |                 |                 |               |                |                 |                 |                 |                 |                 |                 |
| cereal                | 0.063158                      | 6.28            | 7.58            | 8.06            | 9.09            | 10.27           | 10.24         | 11.22          | 11.73           | 13.19           | 13.83           | 13.47           | 14.23           | 10.84           |
| gram                  | 0.12                          | 0.34            | 0.45            | 0.63            | 0.69            | 0.83            | 0.82          | 0.86           | 1.05            | 0.95            | 0.96            | 1.04            | 0.99            | 0.82            |
| cereal substitutes    | 0.12                          | 0.01            | 0.03            | 0.01            | 0.05            | 0.01            | 0.02          | 0.02           | 0.03            | 0.02            | 0.07            | 0.01            | 0.07            | 0.03            |
| pulses & pulse        | 0.083077                      | 2.42            | 3.10            | 3.18            | 3.23            | 4.04            | 4.00          | 4.35           | 4.66            | 5.60            | 5.58            | 5.91            | 6.30            | 4.35            |
| products              |                               |                 |                 |                 |                 |                 |               |                |                 |                 |                 |                 |                 |                 |
| milk & milk           | 0.0975                        | 5.03            | 6.42            | 8.54            | 10.51           | 12.48           | 12.09         | 13.55          | 15.54           | 17.84           | 20.47           | 24.73           | 27.80           | 14.30           |
| products              |                               |                 |                 |                 |                 |                 |               |                |                 |                 |                 |                 |                 |                 |
| sugar                 | 0.06                          | 0.53            | 0.63            | 0.63            | 0.77            | 0.86            | 0.87          | 0.88           | 0.99            | 1.11            | 1.17            | 1.20            | 1.62            | 0.93            |
| salt                  | 0                             | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00          | 0.00           | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
| edible oil            | 0.12                          | 3.03            | 3.38            | 4.31            | 4.30            | 5.11            | 5.47          | 6.27           | 7.19            | 7.54            | 7.56            | 8.55            | 7.99            | 5.92            |
| egg, fish & meat      | 0                             | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00          | 0.00           | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
| vegetables            | 0                             | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00          | 0.00           | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            | 0.00            |
| fruits (fresh)        | 0.015                         | 0.32            | 0.45            | 0.54            | 0.59            | 0.74            | 0.84          | 1.09           | 1.32            | 1.63            | 2.01            | 2.59            | 3.60            | 1.22            |
| fruits (dry)          | 0.135                         | 0.08            | 0.21            | 0.32            | 0.35            | 0.62            | 0.59          | 0.82           | 0.98            | 1.38            | 1.70            | 3.11            | 5.69            | 1.13            |
| spices                | 0.024                         | 1.41            | 1.58            | 1.62            | 1.72            | 1.98            | 1.99          | 2.22           | 2.21            | 2.18            | 2.13            | 2.32            | 2.24            | 1.98            |
| beverages etc.        | 0.12                          | 10.42           | 12.34           | 13.41           | 17.83           | 19.31           | 23.38         | 27.52          | 32.28           | 35.55           | 46.91           | 79.20           | 103.66          | 31.90           |
| <b>Total : food</b>   |                               | 496.35          | 604.25          | 681.85          | 783.51          | 917.08          | 963.09        | 1101.86        | 1221.29         | 1357.2          | 1516.75         | 1910.52         | 2288.75         | 1119.31         |
| <b>Total GST paid</b> |                               | <b>29.87</b>    | <b>36.17</b>    | <b>41.26</b>    | <b>49.13</b>    | <b>56.24</b>    | <b>60.30</b>  | <b>68.80</b>   | <b>77.97</b>    | <b>86.98</b>    | <b>102.38</b>   | <b>142.13</b>   | <b>174.18</b>   | <b>73.43</b>    |
| <b>GST% MPCE</b>      |                               | <b>6.017843</b> | <b>5.986096</b> | <b>6.050723</b> | <b>6.270611</b> | <b>6.132931</b> | <b>6.2607</b> | <b>6.24436</b> | <b>6.384176</b> | <b>6.408641</b> | <b>6.749773</b> | <b>7.439162</b> | <b>7.610065</b> | <b>6.560207</b> |

-----X-----