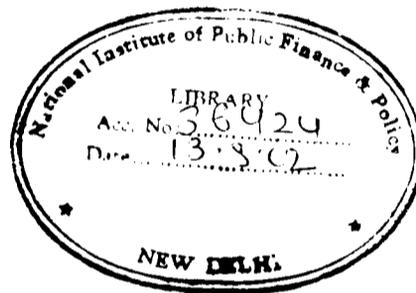


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**Harmonising Taxation of Inter-State Trade
Under a Sub-National VAT: Lessons
from International Experience**

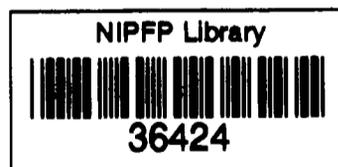
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HARMONISING TAXATION OF INTER-STATE TRADE UNDER A SUB-NATIONAL VAT Lessons from International Experience

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1. Introduction

VAT has been introduced in a large number of countries. However, it is no coincidence that it has not been possible to introduce a fully harmonised VAT in any of the federations. The key difference in introducing VAT in a unitary form of government and in a federal country lies in designing a 'destination based' sub-national VAT. Therefore, the important issue that needs to be addressed in designing a sub-national VAT relates to treatment of inter-state trade.

To understand the problems of introducing a harmonised VAT in a federation, this paper aims at presenting case studies of the structure of VAT in a few select federal countries, such as Brazil, Canada and India. It illustrates the case of the European Union (EU), drawing upon the harmonised federal features of its Member States. The paper also derives lessons from these case studies in order to recommend a suitable structure for a sub-national VAT in India.

2. Brazil

Brazil is one of the oldest federations having a comprehensive division of tax powers between different tiers of governments. The overall system of taxes on commodities and services is characterised by a variety of taxes. Besides taxes on income and property, it includes VAT at the federal level as well as at the state level. In addition, it has some cascade type taxes at the municipal level.

2.1. Federal VAT

Brazil's system of VAT at the federal level is known as IPI (*Imposto Sobre Productos Industrializados*). It is confined to the manufacturing sector only. It is levied on the value added by the industrial manufacturing sector. That is, the tax is

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levied on raw materials, intermediary products, packaging materials and finished goods with set-off for the tax paid at the earlier stage of transactions. Set-off is, however, not available on output exempted from IPI. Agricultural and mineral products are also excluded from the scope of IPI i.e. no credit is available whether used as input or as output. Capital goods, in general, are outside the creditable base but the tax on machinery and equipment produced in Brazil forming part of fixed assets and used solely in the industrial process is eligible for credit². As in most other countries, exports are zero-rated.

Imports are subjected to IPI but the products exempted from import duty are automatically exempt from IPI. Also, importation of specified machinery and equipment are exempt. Other exemptions under IPI include:

1. output of firms established in Manaus Free Zone – the ZFM (*Zona Franca de Manaus*) and approved by the proper authority,
2. a large number of notified products or projects, and
3. some specified inputs.

The structure of IPI indicates multiplicity of rates with considerable variations across commodities. In general, there are nine rate categories ranging from 4 to 333%.

More than half the revenue of IPI is generated from a few commodities. These include vehicles (16.2%), tobacco products (13.2%), beverages (10.1%), chemical products (8.1%), and the products of metal and mechanical industry (7.0%).

2.2. State VAT

The system of VAT at the state level, is known as ICMS (*Imposto Sobre Operacoes Relativas A Circulacao De Mercadorias E Servicos*). It replaced the sales/turnover taxes which prevailed in the sixties. It is levied on the sale of goods at all stages of the production and distribution process including the retail trade, agriculture and cattle raising sectors³.

Under ICMS there are five rate categories under ICMS, viz.: 7% on rice, beans, bread, salt, meat and food items; 8.8% on capital goods; 12% on the supply of electricity; 18% standard rate (applicable to most other items); and 25% for luxury consumption items, such as liquor, cigarettes, tobacco, electronic goods, video games, sports, communications, gas and alcohol.

² While the Ministry of Finance notifies the eligibility for such tax credit, the *Co-ordinator of the Tax System* approves additional items for such credit.

³ For details see Purohit, Mahesh (1997), "Value Added Tax in a Federal Structure: A Case Study of Brazil", *Economic and Political Weekly*, Vol. 32, No. 2, February 15, pp. 357-362.

Services are outside the scope of Brazilian ICMS⁴. Also, a large number of capital goods produced in Brazil are excluded. In addition, there are many exemptions for notified items. These include fertilisers and pesticides, goods for agricultural production, and specified products such as imports of intermediate goods, and the sale of agricultural equipment in the north-eastern states. Exports are zero-rated.

2.3. Harmonisation of Inter-State Transactions

Along with India, Brazil is the only other federal country that has adopted an 'origin' principle for taxation of inter-state transactions. Accordingly, ICMS is levied on inter-state transactions by the exporting state. However, the tax levied by the exporting state varies according to destination. While the general rate of tax on inter-state transactions is 12%, the rate is 7% for goods sent from south-eastern states to north-eastern states or to the central-western states⁵.

To neutralise the impact of tax on these transactions, the importing state gives set-off for the tax. In effect, by having a higher rate of 12% on exports from the south-eastern states (other than to the north-eastern and central-western states) and the lower rate of 7% on imports into that region and allowing rebate of both these taxes, the ICMS redistributes tax revenue between the states. The rate of tax on inter-state transactions is prescribed by the National Public Finance Council (CONFAZ)⁶. In addition, the CONFAZ grants exemptions to some notified products such as vegetables, eggs and domestic fish⁷. Exemptions also include the sale of agricultural equipment to the north-eastern states and to Para, Amapa, and Rondonia and agricultural exports. Sales to the ZFM area are zero-rated.

The features of Brazilian VATs described above indicate that there exists a system of a dual VAT: the IPI – a federal VAT on the manufacturing sector – and the ICMS – a state-VAT on agriculture and industry. The federal VAT is primarily a tax on selected commodities and restricted to the manufacturing sector with a plethora of exemptions. It is also beset with problems, such as non-neutrality. Besides, there is a tendency on the part of entrepreneurs to undervalue their output to reduce the tax liability. In addition, exemption from IPI is given to machinery produced in the country as against non-exempt imported machinery which creates distortions in the system. No attempt has been made to harmonise IPI and ICMS; both taxes are

⁴ Services are taxed separately by the local bodies. The tax on services levied by these bodies is a cascade type tax.

⁵ There are nine states in the north-east, four in the central-west and seven in the north. These states are regarded as less developed states. In all, six states are considered to be developed states.

⁶ The CONFAZ consists of all states' representatives with 27 councillors. Unanimity is required for any resolution to go through. The 1988 Constitution strengthened the legislative role of the CONFAZ. It now promotes treaties on tax benefits and harmonises rates.

⁷ It is, of course, important to note that although CONFAZ harmonises inter-state trade, some of the states try to grant concessions (such as grant of payment deferrals to attract industries) that are not permissible.

independent of each other. In addition to IPI and ICMS on goods, the local taxes on services in general levied by local authorities on a gross sales basis are not integrated with the taxes on goods. The main source of revenue is, however, the state VAT (ICMS).

3. Canada

Canada is an example of a federal country where better harmonisation of VAT between federal VAT and state sales tax/VAT has been achieved⁸.

3.1. Federal VAT

At the federal level a comprehensive VAT known as goods and services tax (GST) has been in force since 1991. It covers all sales of goods and services. The tax is levied at the rate of 7%.

While having comprehensive coverage, GST provides for exemption of specified goods and services. Sales made by small traders with annual taxable turnover of less than CAD 30,000 and occasional sales by private individuals (such as the private sale of a used car) are exempt. Residential rents (other than temporary accommodation), most health and dental services, financial services⁹, day care services, and educational services are also exempt. In addition, the resale of private dwellings is exempt. Some individuals and agencies are exempt because of constitutional immunity granted to them. Supplies to Aboriginal Indians living in reserve areas are also exempt.

Certain items including basic groceries (excluding snack foods, non-food beverages, prepared foods and restaurant meals), prescription drugs, and medical devices are zero-rated. All supplies made to provincial and territory governments are zero-rated either through mutual agreements or through treaties. Supplies to farmers are also generally zero-rated. These include seeds and fertilisers bought in large quantities. Exports also fall in the category of zero-rated transactions. Individuals and organisations having diplomatic immunity are eligible to buy goods under zero-rating.

GST has a provision for granting a rebate of tax paid on inputs to some specified institutions as follows:

- Municipalities¹⁰ 57.14%
- Universities and public colleges - 66%

⁸ See for details, Purohit, Mahesh C. (2001), "Structure and Administration of VAT in Canada: Lessons for India", *International VAT Monitor*, November-December, pp. 311-323.

⁹ These include interest on loans, charges for accounts, credit card fees and commission on transactions in stocks or other securities.

¹⁰ Municipalities, academic institutions, schools and hospitals are known as MASH sector.

- Schools - 68%
- Public hospitals - 83%
- Government registered charities and non-profit organisations - 50%

3.2. Provincial Sales Tax/VAT

In addition to the imposition of GST by the federal government, all provinces except Alberta levy a provincial tax on the sale of tangible personal property¹¹. The different forms of sales tax in the provinces are as follows:

First, a retail sales tax, known as provincial sales tax (PST), is levied by five provinces viz. British Columbia, Ontario, Manitoba, Prince Edward Island, and Saskatchewan. Of these, Prince Edward Island levies PST on the GST inclusive base. The rest of the provinces impose PST on the price exclusive of GST. The PSTs levied by these five governments vary considerably in terms of coverage.

Second, VAT is levied at the provincial level by Quebec. It is known as Quebec sales tax (QST). Quebec collects its own QST and the GST levied by the federal government. Quebec applies zero-rating of QST on inter-provincial sales and exports. It remits GST yield net of the cost of collection to the federal government.

Efforts were made by the federal government to harmonise GST and the provincial sales taxes since the introduction of GST in 1991. After protracted negotiations, eventually in 1996, the federal government entered into an agreement with three provinces, namely, Newfoundland, Nova Scotia, and New Brunswick, to introduce a harmonised sales tax (HST) to replace GST and PST.

Effective 1 April 1997, HST is a VAT imposed by the federal government at 15% consisting of two parts – the federal tax component at 7% and the provincial tax component at 8%. HST is legislated and administered by the federal government. The provinces receive their share (8%) from the federal government. The share is allocated primarily on the basis of consumption although other variables are also included in the distribution formula. In addition, the provinces received adjustment assistance to compensate for the loss of revenue due to the reduction in the tax rate. The grant of CAD 961 million was payable over a period of four years.

In the Canadian system, there is no effective tax on inter-provincial transactions. In the provinces that have a retail sales tax, the tax is not imposed on inter-provincial transactions. In the other provinces, such transactions are zero-rated under VAT.

¹¹ Alberta has considerable revenue from gasoline.

From the above description of the Canadian system of VAT and sales tax, it can be seen that the Canadian federation has succeeded in fashioning a system that is essentially rational from the economic point of view. That is to say there is no element of cascading and inter-provincial transactions are not taxed. However, there is no perfect or near perfect harmonisation. It has three interesting but distinct features:

1. separate federal and provincial VATs administered provincially (QST);
2. joint federal and provincial VATs administered federally (HST); and
3. federal GST and provincial retail sales taxes (PSTs) administered separately.

4. European Union

The VAT structure of the EU could also be considered an illustration of VAT under a federal system, wherein VAT is levied by all the Member States (MSs).

The EU has ensured that the domestic trade taxes levied by the MSs would be rational by insisting that any country which wishes to be part of the Union should adopt a VAT and must refrain from levying any effective tax on intra-Community transactions. Prior to the abolition of internal fiscal frontiers within the Union (1st January 1993), this objective was achieved by zero-rating exports of goods from the MS of origin and taxing their importation in the MS of destination. As from the abolition of fiscal internal frontiers, the concept of zero-rated exports of goods was replaced by zero-rated intra-Community supplies of goods and the concept of taxed importation of goods was replaced by taxed intra-Community acquisitions of goods. From 1st January 1993, the concept of zero-rated export was restricted to the movement of goods from one MS to non-EU countries and the concept of taxed importation of goods was restricted to imports into the EU from non-EU countries.

Coverage of VAT in the EU includes both goods and services. The basis of assessment was substantially harmonised in 1979 through the entry into effect of the Sixth Directive. Further, a degree of rate harmonisation was achieved by the Union stipulating that there shall be a minimum standard rate of 15%, with one or two reduced rates on a few specified items, with a minimum of 5% following the removal of border controls. The standard rate ranges from 15 to 25%. Agreement to this effect was reached by the Finance and Economic Ministers of the Member States (MSs) in 1992.

Thus the EU has succeeded in preserving the common market with a harmonised VAT. In order to achieve this, it proposed two systems. The first relates to the origin principle, that requires a clearing house mechanism and the second relates to the traditional destination principle.

Origin principle: The European Commission's initial idea of harmonising VAT in the EU was based on the origin principle necessitating the establishment of a clearing house. The Commission's idea was that supplies of goods removed from one MS to another would be taxed in the MS from which the goods were supplied ('MS of origin') and the customer in the Member State of destination would be entitled to a tax credit. To make the destination principle work, the exporting state would remit the VAT collected on exports to the administration of the importing state. Only net balances would have to be settled, through a mechanism of a *central clearing house*. It was thought that each Member State would calculate its total VAT sales and purchases for intra-Community trade for the month by aggregating all VAT charged and claimed by registered traders on sales and purchases to EU Member States. The net position would be calculated *vis-à-vis* the EU and not against each individual state. So each country would create a monthly statement showing its total VAT input and output figures for intra-Community trade. The statement would establish a claim or payment. Under this system, clearing would be a perpetually on-going process.

While the benefits of the clearing house mechanism were clearly recognised, the members of the EU anticipated problems relating to the accuracy of likely claims involving large flows of money. The Commission proposed to tackle this through the mechanism of standardised audit trails, improved control and co-operation between MSs. Subsequently, the Commission proposed clearing on the basis of estimates of consumption in MSs.

However, considering the enforcement asymmetry in the working of the clearing house¹², the MSs were not ready politically or administratively to implement the system of clearing house mechanism.

Destination principle: The EU subsequently adopted a transitional regime to deal with the treatment of intra-Community transactions in goods. In conjunction with this, a VAT information exchange system (VIES) was set up to monitor intra-Community trade of goods¹³. As per the 'transitional regime' the taxable event in cross border transactions takes place in the country of destination. For example, a manufacturing firm producing finished goods, located say in France, 'imports' raw material worth EUR 500 from the UK where this transaction is subject to 17.5% VAT. When the transaction involves the movement of goods from UK to France, the transaction is taxed at the zero rate in the UK provided the sale is made to a registered trader in France. With a view to ensuring that non-registered traders do not benefit from this zero rate, the registration number of the French customer would have to be mentioned on the invoice of the UK supplier. Thus, the supplier who sends goods to other EU countries will need to obtain the VAT registration number of its foreign customer and quote it with his own VAT number on the sales invoice. Thus, the

¹² See Lee, Pearson and Smith (1988).

¹³ See for details Purohit (2001a) and Cnossen (2001).

'exports' to France would effectively be free of UK tax, but the French customer has to account for French VAT on the intra-Community acquisition (19.6% of EUR 500). The French customer pays the same amount of VAT on goods purchased from suppliers in other Member States as he would have to pay to French suppliers.

In addition, when the UK supplier dispatches goods, there is no paperwork to present to customs officials because for VAT purposes fiscal frontiers have been abolished. Apart from spot checks for drugs, anti-terrorism measures etc. there would be no delays in the transportation of goods from one MS to another.

Similarly, the French dealer is not required to clear the goods into France; neither is he required to pay French VAT to French customs officials at the time the goods enter the country. When the goods arrive at his premises, the French dealer accounts for French 'acquisition' VAT on his VAT return. If he has acquired these goods for resale, he is entitled to deduct the acquisition VAT on the same VAT return. The same procedure applies in reverse if the goods are moving from France to the U.K.¹⁴. In this regime, taxation of intra-Community transactions in goods takes place in the consuming state.

This scheme was originally scheduled to apply only from 1993 through 1996¹⁵. However, there has been no consensus among the MSs about changing to the new regime. Hence, the transitional regime still continues¹⁶.

5. The "Little Boat Model"

While the above systems relate to those existing in some federations, some proposals have been set out in public finance literature, which need serious consideration.

One such proposal based on dual VAT has been proposed by Varsano¹⁷. It is called a "little boat model". It is a destination-based consumption type dual VAT without zero-rating of inter-state exports.

Using the analogy of a *riverboat*, it suggests that tax levied by the state of origin from where goods are exported may not cross the border (say, a river).

¹⁴ Buckett, Alan (1992), *VAT in the European Community*, London, Butterworths

¹⁵ The EC Commission was supposed to report to the EcoFin Council before December 31, 1994 on the workings of the regime and submit proposal for a final system. However, as of today the same transitional system is in vogue.

¹⁶ See European Community (1987), *Completing the Internal Market—The Introduction of a VAT Clearing Mechanism for Intra-Community Sales*, pp. 7.

¹⁷ Varsano, Ricardo (2000), Sub-national Taxation and Treatment of Inter-state Trade in Brazil: Problems and a Proposed Solution, in S. J. Burki and G Peary, (Eds.), *Decentralization and Accountability of the Public Sector*, Washington, DC, World Bank.

regardless of how many times this border is crossed. If goods cross a border, a tax credit must exist, to avoid double taxation in the next transaction; however, the state of origin cannot provide the credit to the importer, who is a taxpayer in another jurisdiction.

To make the system destination based, a dual VAT system is required: a federal VAT levied in all states and a supplementary state-VAT levied in each state. It further asserts that for the purpose of the federal part the state borders are irrelevant because it is levied all over the federation. But the tax jurisdiction of state VAT ends when the commodity moves out of the state. Hence, the exporters and importers, who are federal taxpayers, transport the state tax across the border embodied in the federal tax. That is, the federal government collects both the state VAT and the federal VAT and enables the corresponding credits to the importer. The result is that sub-federation VAT reaches the other bank of the river free from previous tax collections and ready to follow its course as a tax of the state of destination.

This simple procedure would cover, automatically and practically at no cost, registered traders subject to the normal tax regime i.e. the bulk of inter-state trade. Where the importer is an identifiable household (distance selling), a non-registered trader or a small registered trader not subject to the VAT legislation a different scheme must be used. Both the federal tax and the state tax are remitted to the federal government but separately, so that total state tax collection may be known. The proceeds of the state tax are distributed among the states in proportion to their respective contributions¹⁸.

The "little boat model" requires registered traders to distinguish four components of their total sales:

1. Intra-state sales, including those to non-registered residents of other jurisdictions (cross-border shopping), to which the federal and the state rates apply;
2. Inter-state sales to registered taxpayers, except small traders subject to special simplified tax regimes, in which case the state tax is zero-rated and the federal tax is assessed at a rate equal to the sum of the federal and the state rates;

¹⁸ Prof. McLure called the tax corresponding to the proposed scheme a compensating VAT (CVAT), which is an adequate technical name. It should be noted, however, that two different CVATs are collected, one embodied in the federal tax, and the other explicitly, as described in this one. Embodied, but not explicit, CVAT gives rise to a tax credit against the federal tax.

3. Inter-state sales to unregistered traders, small traders, and households domiciled in other jurisdictions (distance-selling), to which the federal and the state rates are applied, but the state tax, is paid to the federal government (explicit CVAT); and
4. Exports to countries outside the federation, which are zero-rated.

At the end of the VAT assessment period, each registered trader is liable for three pieces of information on tax:

- a. The net state tax liability (difference between its state liabilities, except the explicit CVAT, and state credits);
- b. The net federal tax liability (difference between its federal liabilities and credits); and
- c. The explicit CVAT paid to the federal government, which distributes the proceeds among the states¹⁹.

The proposed procedure is superior to both the approaches suggested in the EU. First, its administrative costs are insignificant compared to those of the EU methods. For the taxpayer, accounting and administrative procedures would be less expensive and less effort-consuming than with the present tax arrangements [transitional regime]. For the public sector no new institution is required to administer the procedure; even sharing of explicit CVAT between states can be managed automatically by the banks collecting the tax. All the banks need to know is the distribution of state VAT revenue. Furthermore, this is the only statistical requirement of the method, so that distribution may be based on almost contemporary information.

In contrast, the clearing house method on a transaction basis, though providing an accurate distribution of revenue between states based on almost contemporary data, bears a very high cost of collecting and processing information shown on invoices. On the other hand, when the method is based on aggregates, information to process revenue sharing is always lagged. Moreover, no reliable statistics on consumption might exist in a federation. As the value of trade flows from one state to another, as informed by the former, will equal that obtained from the latter, the differences mean potential conflicts in the federation.

¹⁹ It should be noted that, regarding piece 2, both federal tax liabilities and credits include the value of the embodied CVAT; and, concerning piece 3, no credit for previously paid taxes corresponds to the explicit CVAT liabilities; credits are netted out against state tax liabilities.

6. India

India's indirect tax system is unique in that under the Constitution, the union government has the authority to impose a broad spectrum of union excise duties (UEDs) on production or manufacture while the state governments are assigned the power to levy tax on sale of goods. In addition, states are empowered to levy tax on many other goods and services in the form of entertainment tax, electricity duty, motor vehicles tax, passengers and goods tax, entry tax, octroi, and so on. Due to this dichotomy of authority under the Constitution, India has been rather slow to adopt a unified value added tax (VAT).

With the given distribution of tax powers between the union and the states, VAT/sales tax is levied by both the tiers of governments. The union government levies CenVAT (which has replaced the basic UEDs) along with other excise duties (the details of which are given subsequently). The state governments levy state sales taxes on domestic sales with partial input credits. The authority to levy tax on inter-state transactions rests with the union government, which has assigned it to the states, who administer it and levy on the basis of origin.

UEDs/Central VAT

The union government initially levied basic UEDs on a few items which raised a small proportion of its total tax revenue. With the passage of time, the rates were raised, the base was enlarged, and more and more items were brought within its scope. It was then levied mainly on finished goods but also covered raw materials, intermediate goods and capital goods.

In 1986, for the first time, reforms were initiated in the basic UEDs through the introduction of modified value added tax (ModVAT)²⁰. This provided for set-off for the taxes paid on inputs. The scheme was extended in 1987 to some additional commodities. Beginning in 1991, with the adoption of the policy of liberalisation and globalisation²¹, ModVAT was further extended to a large number of commodities. Gradually, more and more items were brought within the scope of ModVAT. It now covers almost all items except gas oil/diesel, motor spirit (gasoline) and match-boxes. The procedures of ModVAT have also been overhauled resulting in converting the then existing basic UEDs in to a full system of Central VAT (CenVAT).

CenVAT allows instant credit for all tax (CenVAT) paid on inputs. Input credit is also given for additional customs duty, known as countervailing duty

²⁰ This was based on the Report of the Jha Committee. See, Government of India (1978), *Report of the Indirect Taxation Enquiry Committee*, Ministry of Finance, New Delhi.

²¹ Government of India (1991-93), *Report of the Tax Reforms Committee, Vol. I to III*, Ministry of Finance, New Delhi.

(CVD)²² collected at the time of importation. For capital goods, however, only 50% of the duty can be claimed as input credit in a financial year; the remaining credit can be claimed in the next financial year, provided the goods are still in use (except for spares and components). Manufacturers producing only exempt final products are not allowed to take this credit. However, it is fully permissible for a manufacturer who produces both dutiable and exempted final products in the same factory²³.

The existing rate under CenVAT is 16%. In addition, eight commodities pay SED, at the rate of 16%, which is levied over and above CenVAT. This makes the effective rate of CenVAT on commodities covered under SED: 32%. In the years to come the union government aims at having one rate category for all items under CenVAT.

In addition, the union government levies an additional excise duty in lieu of sales tax (AEDILST), an additional excise duty on textiles and textile articles and a cess²⁴ on specified commodities.

AEDILST is levied on tobacco, textiles and sugar under a tax rental²⁵ arrangement between the union and the states. According to this arrangement the union government levies AEDILST and the states refrain from levying sales tax on these items. The net proceeds of this duty were being distributed among the states until the Eleventh Finance Commission gave its Report, which recommended inclusion of revenue from AEDILST under the pool to be shared. In view of this, it has now been proposed that AEDILST be merged with CenVAT and the states be allowed to levy sales tax (VAT) on these items.

Cess on specified commodities and additional excise duty on textiles are primarily meant to raise resources for the development of the industries concerned. The union revenue department administers it but other union departments also help in this endeavour.

State Sales Tax/VAT

All the states levy State Sales Tax. It is the most important tax yielding almost two-third of the state own tax revenue²⁶. Initially, states have adopted different

²² This is levied as per the provisions of the Customs Act wherein this is referred to as Additional Duty of Customs. However, this is popularly known as countervailing duty (CVD). The rate of tax of CVD on imported goods is equivalent to the tax rate of CenVAT levied on indigenously manufactured goods.

²³ This is subject to certain conditions *viz.*, maintenance of separate records in respect of inputs used to manufacture exempted products or payment of 8% of the total price (excluding taxes) of the exempted final products or in the case of a few specified items, on reversal of the credit availed.

²⁴ Cess is levied for a specific purpose. See IBFD (1988), *International Tax Glossary, Amsterdam*.

²⁵ Tax rental refers to the amount paid for the transfer of the right to levy a particular tax.

²⁶ States own tax revenue refers to revenue generated by the states through the taxes allocated to them as per the Indian Constitution. The total tax revenue of the states comprise their own revenue and tax

structures of sales tax, such as first-point tax, last-point tax, double-point tax and multi-point tax. Over the years, except for Delhi, Haryana and Rajasthan which have some commodities under last-point tax (retail sales tax), and Karnataka and Kerala that have a multi-point turnover tax on items falling under residuary entry (i.e. levied on goods not covered under different rate categories) most of the states have gradually switched over to a first-point tax. In this system the tax is levied on the sale by the first registered vendor within the state. All the other registered vendors buy 'tax-paid' goods from the first-point vendor. Owing to this feature of the first-point tax, most of the revenue in all the states is collected from a small number of vendors selling at first-point in the state. The rest of the vendors in the chain of transactions do not pay any tax to the government.

In addition, many of the states levy other sales tax related levies such as additional sales tax, turnover tax or surcharge on the first-point sales tax. Considerable variations exist in these levies between the states.

The prevailing system of first-point sales tax suffers from many weaknesses such as cascading and uncontrolled incidence of tax, multiplicity of rates, vertical integration of firms and lack of neutrality and efficiency in the tax system.

In view of the above deficiencies in the existing structure of sales tax, efforts have been made to replace the existing State Sales Taxes by a system of State VATs. The Committees of State Finance Ministers (in 1995²⁷ and 1998²⁸, respectively) and of the Chief Ministers (in 1999)²⁹ made recommendations to replace sales tax by a State VAT. This was ratified by the conference of Chief Ministers and Finance Ministers on 16th November 1999. The states are now planning to introduce State VATs to replace their existing State Sales Tax from April 2003.

Prior to the plan to introduce State VATs, states attempted to rationalise their existing State Sales Tax systems by adopting two major reforms. The first reform relates to the adoption of a four-rate structure (i.e. zero, 4%, 8% and 12%) into the existing State Sales Tax. These rates are in addition to two special rates of 1% and 20% for a few specified items. The recommended rates are a minimum; the states

share revenue received from the union government. The latter is allocated to them on the basis of the recommendation of the Finance Commission of India.

²⁷ See the *Report of the Committee of State Finance Ministers on Sales Tax Reform*, August 1995.

²⁸ See the *Report of the Committee of State Finance Ministers for Charting a Time Path for Introduction of VAT*, August 1998.

²⁹ See the *Report of the Committee of Chief Ministers on Value Added Tax and Incentives to Backward Areas*, 1999.

have the freedom to apply higher rates to any of the commodities on the list. This has checked rate war and diversion of trade among the states³⁰.

The second reform pertains to abolition of sales tax-related incentives. In the past, all the states granted such incentives to new industries. These were given in one or the other form of exemption from tax on the purchase of inputs as well as on the sale of finished goods. Incentives were also available in the form of sales tax loans and/or tax deferral. Various studies and committee reports³¹ have already argued against such incentives. In terms of loss of revenue, all the states put together sacrifice about 25% of the sales tax base. In addition, the incentives take the form of tax competition or *harmful tax practices in a federation*³². In this context, it is important to note that to begin with all the sub-national governments have stopped granting sales tax related incentives to new industrial units. The concessions already granted to the existing units are continued. However, when VAT is introduced, those incentives will also be converted into a system of tax deferral³³ or remission³⁴. This would allow the chain of VAT transactions to be continued³⁵.

Harmonisation of Inter-state Tax (CST)

The Indian sales tax system, as stated earlier, empowers the states to levy tax on the intra-state transactions only. Inter-state transactions fall within the purview of the union government. However, under the Central Sales Tax Act 1956, enacted by

³⁰ Here it is important to indicate that when the states started implementing the four-rate categories many of them found it difficult to follow the floor rates in some commodities. Either the classification had some problem or there were administrative difficulties in implementing the floor rates. Hence, a few changes were made in the items falling under exempt list. Some changes were made in the items falling in other categories as well. This was necessitated due to the fact that the *Report of the Finance Ministers Committee (1995)* had suggested that "*fine tuning of this classification would have to be done by a special group*". As this was not done prior to the adoption of floor rates, it has now been revised. However, under the VAT regime the states would have three rate categories as 0, 4 and 12.5% (or some rate category which could be revenue neutral for the state concerned).

³¹ See especially the Report of the *Finance Ministers Committee to Chart a Time Path for the Introduction of VAT* (August 1998) and the Report of the *Committee of Finance Secretaries for Identification of Backward Areas* (November 1999).

³² The empirical studies attempted for the NCR Region indicate that the concessions of sales tax do not affect the location of industry. The concession could be relevant, if at all, when given by one state alone. Similar results are seen from the other studies as well. When all the states give such concessions, such concessions result in zero sum game. No state benefits from these concessions. See for details, Purohit, Mahesh C *et. al.* (1992). *Fiscal Policy for the NCR Region*, Vikas Publishing House, New Delhi.

³³ Deferral refers to collecting tax on sale but not paying to the government immediately. Payment is deferred for a certain period.

³⁴ Remission signifies that the tax on the sales is collected by the dealer and paid to the government. However, the government remits the tax back to the dealer and continues the situation as if the dealer is not liable to pay tax.

³⁵ To attract investment in the state, the states have given sales tax exemption to new industries on purchase of inputs as also on their sales. This has reduced the sales tax base of the states by 25 percent of their potential. The states have now decided to stop incentive to a new unit. 'Deferral' or 'remission' schemes would be a via media for the commitments already made.

the union government, the tax is levied when goods are sold to another state. While the authority to levy the tax remains under the jurisdiction of the union government, the tax has been assigned to the states. Thus, the power to administer, collect and retain the revenue earned from the Central Sales Tax (CST) lies with the exporting state, on the basis of 'origin'. The rate of tax on such transactions is 4% when the goods are sold to a registered dealer and 10% when sold to a non-registered trader or to a consumer. The higher rate of tax is charged to the registered trader to prevent the registered trader from entering into inter-state trade for any competitive advantage.

In addition, there are certain documentation procedures to prove that the goods have actually been sold to a dealer in another state. Officers of the sales tax department in the destination state manage this through the issue of Form C which must be submitted to the officer of the state of origin to enable a dealer to charge tax at the lower rate of 4%.

Assessment of the Existing System of CST

The existing 'origin' based system constitutes a serious impediment to the free flow of goods and to the formation of a unified market within the Indian federation. It is inimical to competition and efficiency and militates against the established principles of inter-jurisdictional equity. Data on distribution of revenue from CST (Table 1) indicate that six high income states account for 55% of the CST revenue, while the low income states receive a meager 18% of it.

CST on inputs levied at an earlier stage cascades and results in higher price (Table 2). The producing states use this measure to 'export' their tax to the consumers in other states. Such a tax also encourages consumers to buy locally produced goods at the expense of the national economy.

Experiences of other federations presented above also suggest that the principle of 'origin' may not be the best way to tax inter-state sales. The different models available from the international experience suggest that India could adapt many of the aspects from these illustrations.

Desirable Features of a Rational System

Before we look for a suitable solution in the Indian scenario, it is useful to keep in mind the desirable features that one should be looking for in a rational system of inter-state taxation. Along with the other objectives of reforms viz. neutrality, efficiency, transparency, lack of vertical integration of firms and autonomy of states, it is important to consider the aspects of administrative expediency for any solution that is recommended.

The Recommended Options

Taking into account the desirable features for a rational solution to the problem of taxation of inter-state trade and the given provisions under the Indian constitution, one could draw some lessons from the treatment of inter-state taxation by the different federal formations discussed above.

Firstly, as indicated by the international experience, there should be no cascading and escalation of cost, as is the case with Canada and the EU. Even in Brazil where the origin base is adopted for inter-state taxation, it ensures that no cascading takes place as a result of set-off in the consuming state.

Secondly, three alternative solutions emerge from the international experience:

1. the clearing house mechanism,
2. zero-rating of inter-state sales, and
3. carrying state VAT along with federal VAT to the consuming state.

The advantage of the clearing house mechanism is that the rate of tax for a transaction will be the same for any given state. Thus, it is not necessary to differentiate between inter-state and intra-state transactions. The important problem in the clearing house mechanism, however, relates to transfer of amount to the central pool and redistribution of the collected money by the central pool to the concerned states according to their respective imports. In a country like India, this would be an impossible task given the state of computerisation in different states. In fact, this is one of the reasons why this mechanism has not been adopted in the EU.

It is, however, important to note that the 'little boat model' could be implemented only when federal VAT as well as state VAT has the same coverage. In the Indian context, the federal VAT is levied only up to the manufacturing level. It is, therefore, difficult to adopt the Varsano model in the Indian system. Given the above limitations, the three alternative proposals for a rational solution to the problem of inter-state trade are given below:

⇒ *Zero-Rating of State-VAT and reducing CST to Zero:* The first solution is to have zero-rating of state-VAT and to reduce CST to zero. This would convert the state VAT into a destination based VAT. The tax would be levied in a state until the commodity is exported. When exported, all the state tax already levied would be refunded. The rate of CST on such transactions would be zero. However, Form C would still be required for the sake of cross-checking and verification. This would, in effect, mean that all the taxes would be levied in the consuming state only.

- ⇒ *Prepaid VAT*: The second plausible solution is to have a prepaid VAT³⁶ (PVAT). That is, dealers in the importing state would pay VAT of the importing state on imports into the state. The importing dealer would then provide a proof of this payment to the dealer in the exporting state. On submission of this proof (e.g., in the form of a copy of the tax deposit receipt), the sale is zero-rated in the state of origin. In this case, the dealer in the importing state who is a VAT dealer would have a strong incentive to pre-pay the tax, which would then be creditable against his output tax in the state of destination. Unregistered dealers or consumers would have the choice of paying the local tax or the destination tax. The proposed system would not place any additional burden of administration on dealers in exporting or importing states.
- ⇒ *Destination Based Central Purchase Tax (DBCPT)*: Another solution could be to have a DBCPT. The main features of the DBCPT would be as follows: First, the importer would pay the tax into the bank account of the destination state. That is, while the tax on intra-state sales is paid to the dealer, the tax on inter-state purchases would be paid to the bank account of the destination state. The rate of tax would be the same as for the existing CST with its attendant rules. The importer would supply the receipt of payment of tax to the exporter³⁷. The receipt would thus serve as proof of export. Alternatively, the existing mechanism of Form C with reversal of the rules could be implemented. When the receipt of the tax paid in the exporting state or the Form C originating in the importing state is issued on the strength of the payment of tax received by the importer, no tax would be charged by the exporter on the basis of 'origin'. The dealer in the exporting state would refund the tax already borne by the commodity. This would be done on the strength of the proof of the tax paid on inter-state purchases. The DBCPT paid by registered dealers would be eligible for input tax credit in the state of destination. These procedures would be almost similar to those for VAT on intra-state sales. If the proof of payment of DBCPT is missing, the VAT of the exporting state would be levied as if the commodity has been sold within the state. DBCPT would be collected at a low rate from the registered dealers, as is the case with the CST today.

³⁶ See for details, NIPFP (1994), *Reform of Domestic Trade Taxes in India: Issues and Options*, New Delhi. This idea has recently been reiterated. See Poddar, Satya (2001), "Zero-Rating of Inter-State Sales under a Sub-National VAT: A New Approval", paper presented at the 94th Annual Conference of NTA, Baltimore, November 8-10.

³⁷ It may be noted that such provisions exist even today when the dealers export commodities to countries like Bhutan or Nepal. As per the treaties between India and these countries, the exporters get refund of the taxes paid in India when they pay the tax in these countries. Generally, the dealers pay their tax in these countries and submit the proof for refund of tax paid in India on the strength of the receipt of the respective countries.

However, for the non-registered dealers in the importing state the rate of the DBCPT would be equivalent to the local VAT. That is, unregistered dealers or the consumers having a direct sale or entering into mail order would pay the local VAT. Such a system would not require any clearing house mechanism. Also, it would not be based on integrated inter-state or national coordination although states of origin as well as destination would have incentives to monitor the authenticity of payments made under DBCPT. For the state of 'origin' this would be important for refund of input tax and for the importing state it would be important for zero-rating under the local tax

7. Revenue Implications

The above solution to the taxation of inter-state trade would have the effect of reducing states' revenue from CST to zero. That would have some implications for all the states but would be felt more by those who are receiving a major proportion of revenue from this source.

Therefore, the states have to be given some time for making necessary adjustments. They should, however, be helped to augment their revenues from other sources.

Some measures have already been implemented and are producing results such as:

1. The adoption of minimum rates agreed upon by the Conference of Chief Ministers and Finance Ministers on 16th November 1999 by almost all states has already served to increase revenue from local sales taxes considerably because of the elimination of rate competition. Similarly, phasing out of sales tax incentives to industries will soon lead to a substantial increase in revenue to most states.
2. The adoption of new minimum rates for VAT viz. 0%, 4% and a revenue neutral rate for all states, and application of VAT would also mean a reduction in the number of exempted items³⁸. This step increases the neutrality of the tax system and serves to increase revenue buoyancy of the system.
3. Adoption of VAT would mean that the base of the tax would include not only the value at the manufacturing stage as under the first-point tax but

³⁸ With the introduction of VAT, exemption from tax of a particular commodity would only mean exemption from tax of a very small part of value added at that particular stage. Moreover, every exemption creates a break in the chain of VAT credit and, therefore, puts the concerned dealers to disadvantage (as those who purchase the exempted commodity from them would not be able to claim input tax in their tax return).

the entire value added to commodities, right down to retail level. Hence, VAT would yield in the medium term much higher revenue than the first-point tax. Further, the introduction of VAT would also bring down undervaluation at the manufacturing stage considerably.

Apart from the above, the states would gain in revenue growth through strengthening the administration of VAT by computerisation and other measures. It has been suggested that in the medium term the union government should promote and effect measures that would enable the state governments to raise more revenues through an enhancement of the tax space available to them.

There is general agreement that the following measures would be considered³⁹.

- The union government should at the earliest amend the CST Act to the effect that the 'declared goods' could be taxed at more than one stage by those states that provide for full set-off for taxes on all goods used as inputs and on purchases for resale, i.e., the states which adopt a full system of VAT⁴⁰. Without such amendment in the CST Act, a state VAT cannot be implemented satisfactorily.
- If the system of zero rating is adopted or if the states agree to a system of central purchase tax, Form C would be a condition for claiming set-off of inputs paid in the exporting state. However, if the states adopt the system of pre-paid destination based tax, such a form may not be required.
- Under an agreement entered into by the union and the state government in 1956, an additional excise duty in lieu of sales tax (AEDILST) was levied on sugar, textiles and tobacco in 1957. As a measure of augmenting resources the states should be allowed to levy state VAT on these items in addition to the AEDILST, which has now become part of the overall pool to be shared.
- Since the devolution formula has been changed by the 89th Constitutional amendment, the revenue from the central tax on services also becomes available for sharing and as the centre extends the scope of the service tax, the states will receive correspondingly additional revenue. In addition, as

³⁹ These have been considered at several conferences of the State Chief Ministers and Finance Ministers held to discuss sales tax reform.

⁴⁰ Under the existing provisions of CST the states are not allowed to tax all the goods "declared of special importance for interstate trade" under their state sales tax regime at a rate exceeding CST rate (4%) and at more than one point. The list of these goods is quite extensive covering all raw materials, inputs, and goods falling under the purview of Essential Commodities Act. See for details, Purohit, Mahesh C (2001), *Sales Tax and VAT in India*, Gayatri Publications, New Delhi-110052.

recommended by a Committee of Central Government and as resolved by the Empowered Committee of State Finance Ministers, it is likely that if and when VAT is adopted by the states, the centre would delegate the power to collect the tax on a number of services to the state governments, which would compensate them for the loss of revenue due to zero-rating of CST.

- In addition, the Terms of Reference of the next Finance Commission should contain a specific Term to evolve a scheme to compensate the states for loss of revenue due to abolition of CST.

Conclusion

As in most federations, India also faces the problem of harmonising tax on inter-state trade in the context of introducing VAT. The examples of Canada and the EU suggest that there should be no tax on the basis of 'origin'. The case study of Brazil suggests that if the tax is levied on the basis of 'origin' the set-off needs to be given in the importing state, which in addition to making the tax destination based serves as an 'equalising mechanism' in a federal structure. The other models available in the literature suggest that the central and state VATs could corroborate each other in carrying the tax of the origin state to the destination state. However, under the Indian system of CenVAT, the power to tax extends up to the manufacturing sector only. Hence, the co-ordination of CenVAT and state VAT for carrying the tax burden to the exporting state is not feasible. However, the other two models are quite useful i.e. prepaid destination VAT and destination based central purchase tax.

In all the models discussed above, the revenue of the CST becomes 'nil' as the tax becomes destination based. The states need to be compensated for the loss of revenue through various measures including the power to tax services and compensation to the states through the Finance Commission.

References

Bird, Richard M. (1993), "Federal-Provincial Taxation in the 1990s: Should Taxes be Reassigned?" in Hogg, Ray D. and Jack M. Mintz (Eds.) (1993), *Tax Policy for Turbulent Times*, John Deutsch Institute for the Study of Economic Policy, Ontario, Policy Forum Series - 28, pp. 33-56.

-- (1994), "Where Do We Go From Here? Alternatives to the GST", *KPMG*, Toronto, April.

-- and Pierre-Pascal Gendren (1998) Dual VATs and Cross Border Trade: Two Problems One Solution?, *International Tax and Public Finance*, 5, 429-442.

-- (2000), "CVAT, VIVAT and Dual VAT: Vertical "Sharing" and Inter-State Trade (mimeo), (Revised).

-- "VATs in Federal Countries: International Experience and Emerging Possibilities", *International Bureau of Fiscal Documentation*, July 2001: 293-309.

Buckett, Alan (1992), *VAT in the European Community*, London, Butterworths

Canada, (1996), *Harmonised Sales Tax*, Technical Paper, Department of Finance, Ottawa.

Cnossen, Sijbren (2001), *Tax Policy in the European Union: A Review of Issues and Options*, Erasmus University, Rotterdam.

Ebrill, Liam P.; Keen, Michael J.; Bodin, Jean-Paul and Summers, Victoria P. (2001), *The Modern VAT*, IMF, Washington, D.C.

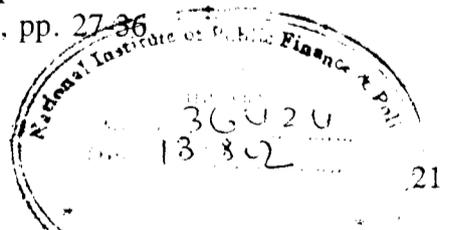
European Community (1987), *Completing the Internal Market—The Introduction of a VAT Clearing Mechanism for Intra-Community Sales*

Gendron, P. P., J. Mintz and T. Wilson (1996), "VAT Harmonization in Canada: Recent Developments and the Need for Flexibility", *International VAT Monitor*, 7, 332-342.

Keen, Michael Smith. "VIVAT, CVAT and All That: New Forms of Value-Added Tax For Federal Systems". *Canadian Tax Journal* 48, 2000: 409-424.

Mintz, Jack M., Thomas A. Wilson and Pierre-Pascal Gendron (1994), "Canada's GST: Sales Tax Harmonisation is the Key to Simplification", *Tax Notes International*, Tax Analysts.

Mintz, Jack M. and Thomas A. Wilson (1994), "Options for the Goods and Services Tax". *Canadian Business Economics*, Vol. 3, No. 1, pp. 27-36.



Mintz, Jack and Thomas Wislon (1993), "Alternatives to the Goods and Services Tax". *Policy Options*, Vol. 14, October, pp. 40-43

McLure, Charles E. "Implementing Sub-national Value Added Taxes on Internal Trade: The Compensating VAT (CVAT)". *International Tax and Public Finance*, 7(6) 2000: 732-740.

NIPFP (1994), *Reform of Domestic Trade Taxes in India: Issues and Options*, National Institute of Public Finance and Policy, New Delhi.

Poddar, Satya (2001), "Zero-Rating of Inter-State Sales under a Sub-National VAT: A New Approach", paper presented at the 94th Annual Conference of NTA, Baltimore, November 8-10.

Purohit, Mahesh C. (1997), Value Added Tax in a Federal Structure: A Case Study of Brazil, *Economic and Political Weekly*, Vol. 32, No. 2, February 15, pp. 357-362.

----- (2000), "Road Map for National and Sub-National VATs in India", paper presented at *India States Forum* on 23-25 November 2000. See also National and Sub-National VATs: A Road Map for India, *Economic and Political Weekly*, March 3, 2001, pp. 757-772.

-- (2001), *Value Added Tax: Experiences of India and Other Countries*, Gayatri Publications, New Delhi-110052.

----- (2001), *Sales Tax and Value Added Tax in India*, Gayatri Publications, New Delhi-110052

-- (2001), "Structure and Administration of VAT in Canada: Lessons for India", *International VAT Monitor*, November-December, pp. 311-323

Spiro, Peter S. (1993), "Evidence of a Post-GST Increase in the Underground Economy", *Canadian Tax Journal*, Vol. 41, No. 2, pp. 247-58.

Tait, Alan A. (1988), *Value Added Tax: International Practice and Problems*, International Monetary Fund, Washington, DC.

Varsano, Ricardo. "Sub-national Taxation and the Treatment of Interstate Trade in Brazil: Problems and Proposed Solutions". In S. J. Burki et al. (eds.) *Decentralization and Accountability of the Public Sector*. Washington DC: World Bank, Proceedings of the Annual Bank Conference on Development in Latin America and the Caribbean, 2000: 339-56.

Table 1

Distribution of Revenue from CST among Indian States

States	1990-91	1995-96	1998-99	1999-2000	2000-01 (RE)	2001-02 (BE)
Andhra Pradesh	226.78	520.54	448.77	562.01	667.3	756.19
	(5.51)	(10.64)	(7.27)	(6.05)	(5.75)	(5.56)
Assam					159.8	126.11
					(1.38)	(.93)
Bihar	215.16		335.21	421.66	17.39	115
	(5.23)		(5.43)	(4.54)	(.15)	(.85)
Chhattisgarh					120.29	287.59
					(1.04)	(2.12)
Goa	5.28	15.84	19.01	28.19	20.96	20.96
	(.13)	(.32)	(.31)	(.3)	(.18)	(.15)
Gujarat	309.76	555.26	749.88	956.81	1000	1160
	(7.53)	(11.35)	(12.15)	(10.3)	(8.61)	(8.54)
Haryana	177.74	451.22	483.67	613.46	821.16	905.76
	(4.32)	(9.23)	(7.83)	(6.6)	(7.07)	(6.66)
Himachal Pradesh	6.91	17.61	24.05	31.14	37.06	54.48
	(.17)	(.36)	(.39)	(.34)	(.32)	(.4)
Jharkhand						259.93
						(1.91)
Karnataka	228.6	240.65	448.49	550.75	689.31	810.5
	(5.55)	(4.92)	(7.26)	(5.93)	(5.94)	(5.96)
Kerala	96.67	166.89	273.66	287.31	335.57	421.23
	(2.35)	(3.41)	(4.43)	(3.09)	(2.89)	(3.1)
Madhya Pradesh	198.45	341.94	453.06	474	616.01	570.38
	(4.82)	(6.99)	(7.34)	(5.1)	(5.31)	(4.2)
Maharashtra	621.85	1154.13	1334.88	1655.18	1806	1986
	(15.11)	(23.6)	(21.62)	(17.81)	(15.55)	(14.61)
Meghalaya	9.39	15.74	28.57	19.33	28.59	17.74
	(.23)	(.32)	(.46)	(.21)	(.25)	(.13)
Orissa	17.94			45.81	335.89	254
	(.44)			(.49)	(2.89)	(1.87)
Punjab	152.99	201.33	259.72	387.35	484.39	
	(3.72)	(4.12)	(4.21)	(4.17)	(4.17)	
Rajasthan	37.17	81.9	134.25	144.69	155	180.07
	(.9)	(1.67)	(2.17)	(1.56)	(1.33)	(1.32)
Tamil Nadu	278.08	701.34	714.45	830.09	1208.41	1389.92
	(6.76)	(14.34)	(11.57)	(8.93)	(10.41)	(10.23)
Uttaranchal						(20.)
						(.15)
Uttar Pradesh	119.98		182.25	424.07	425	502.32
	(2.92)	(.)	(2.95)	(4.56)	(3.66)	(3.7)
West Bengal	246.97	426.01	283.75	270.38	315.4	350
	(6.)	(8.71)	(4.6)	(2.91)	(2.72)	(2.58)
All states	4115.82	4890.4	6173.67	9292.16	11611.54	13590.58
	(100.)	(100.)	(100.)	(100.)	(100.)	(100.)

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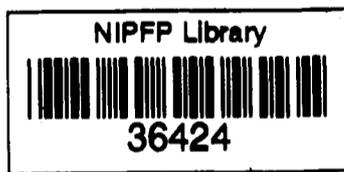
Table 2

Cascading Effects of Central Sales Tax in Consuming States

(Figures in Rs.)

	Origin Based CST 4%	Destination Based CST 0%
State A Producing Raw Materials		
Purchase price of raw materials	100.00	100.00
Value added	50.00	50.00
Value of output	150.00	150.00
CST collected	6.00	0
State B Producing Intermediate Goods		
Purchase price from State A including CST	156.00	150.00
Value added	78.00	75.00
Value of output sold to State C	234.00	225.00
CST collected	9.36	0
Purchase Price of Intermediate Goods in State C	243.36	225.00
Value added	121.80	112.50
Value of Finished Goods in State C when Sold to State D	365.16	337.50
CST collected	14.60	0
Purchase Price of goods in State D	379.76	337.50
Value added	189.88	168.75
Value of output	569.64	506.25
GST collected by consuming State D @10%	56.96	50.62
Total CST collected by exporting States	29.96	0
Total tax burden on consumer	86.92	50.62

Note: The calculations given above assume forward shifting of the tax.



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