61

TAXATION, NON-TAX POLICY AND THE ECONOMICS OF EQUIPMENT LEASING

ARINDAM DAS-GUPTA

NO. 6 JULY, 1990

The author wishes to thank Shri K.N. Balasubramanian for comments on an earlier draft. The usual disclaimers apply.

ABSTRACT

In this paper the relative merits of options to finance the purchase of capital equipment by a business are analysed. Self finance, loan finance, instalment purchase, hire purchase and finance through a financial lease are compared. Genuine benefits from lease finance and other benefits induced by tax and non-tax policy in India are identified. It is recommended that existing non-tax policy benefits should be removed. An appropriate tax policy - allowing tax related depreciation and investment allowance in the hands of lessees rather than lessors - which is neutral across financing options both in terms of investor choice and tax revenue from different contracts, is identified. Possible legal obstacles to the implementation of such a policy are examined in the light of experience in India, the USA and Canada. Brief remarks are made on appropriate policy for other types of leases.

TAXATION, NON-TAX POLICY AND THE ECONOMICS OF EQUIPMENT LEASING

1. Introduction

The leasing industry in India and the business of equipment leasing/lease finance of durables has grown significantly during the past decade in India. According to an estimate by the Equipment Leasing Association (India), aggregate leasing in 1987 was Rs 700 crore with fresh leases during the year 1987 alone amounting to Rs 250 crore. Lease financing organisations in India include many private sector non-bank financial companies, some private sector manufacturing companies, the Industrial Credit and Investment Corporation of India and capital market subsidiaries of leading nationalised banks. Lessee companies include many leading corporations in both public and private sectors. While there has been some easing of growth in leasing business since 1987, the scope for growth is still immense. To cite one suggestive statistic fully 33 per cent of fresh capital formation in the USA in 1986 was lease financed.

In view of the growing importance of leasing and its likely continuation as a mode of capital finance, it would be useful to examine the economics of leasing and rational principles for taxing lease transactions. In order to identify the benefits from leasing, pros and cons of leasing, in contrast with other modes of financing capital purchases or consumer durables, in a zero tax situation may be discussed first. Rational taxation and non-tax policy requires that the advantages/disadvantages of lease finance as compared to other forms of finance be left unaffected by applicable taxes unless there is an overriding social reason for encouraging or discouraging lease finance.

An analytical overview of lease finance benefits to the lessor and lessee, given current tax practice, is presented next. It is clear from this overview that tax treatment of leasing transactions make this form of finance significantly more attractive relative to other forms of finance for some firms in contrast with the no tax case though non-tax benefits may actually be more significant.

The rationale for special encouragement of leasing finance is next examined. It is concluded that, whatever be the merits of lease finance, special treatment to encourage leasing, over and above the level that would exist in the absence of policies identified, is unjustified. If at all leasing is to be encouraged, other non-tax instruments are available with greater benefits.

In the light of the foregoing examination the rectification of certain non-tax measures is recommended and it is proposed that the principle that should govern taxation of leases is neutrality: Tax policies should not confer additional benefits or entail additional costs for lease finance as compared to other modes of finance. Furthermore, from the point of view of the exchequer, there should be no positive or negative revenue implications of lease finance as against other modes of finance. A way of achieving neutrality of tax policy is discussed and some relevant international experience presented. Finally, some comments are made on non-financial leases which are not addressed in depth in the paper.

2. Financing Options

Before discussing the pros and cons of leasing, alternative financing options and different types of leases will have to be described. The general term ´purchaser´ will be used for the entity who will use the capital asset when more precise terms are not used. Likewise the general term 'financier' will be used for the entity supplying finance for the purchase of the capital asset.

We concentrate on leasing of capital equipment. Leasing of consumer durables have the same alternatives but the evaluation of these options rests on different considerations since the primary gain from purchase of consumer durables is through their use value to the consumer. Considerations of obsolescence and risk reduction will have less force.

The main options to leasing are the following:

(a) Outright Purchase: This may either be from own or borrowed funds. In the former case, the purchaser will need to cover his expected normal profit on the capital outlay and, in the latter case, interest payment will need to be covered. Clearly, the cheaper of the two methods will be used if the capital good is bought. The main point about outright purchase is that the title to the capital good and the entire benefits/drawbacks from its purchase accrue directly to the purchaser (and only indirectly, in some cases, to his creditor).

b) Hire Purchase (HP): The title passes to the hire-purchaser only when all hire purchase instalments have been paid.

(c) Instalment Sale: The title passes to the purchaser on payment of the first instalment itself. The balance is treated as a secured loan (Pandey, 1986).

(d) Leasing: The distinguishing feature of a lease is that the ownership remains with the financier (or lessor). The main types of leases are as follows:

(i) The financial lease: Here the lessor recovers the cost of the leased equipment from the lessee in addition to a normal return on his funds during the currency of the lease. The lease contract is non-cancellable and may have a clause embodying an option for the lessee to purchase the leased equipment or operate it in perpetuity at a prearranged price on expiry of the lease/"primary" lease period. In all usage aspects, the lessee is effectively the owner from the inception of the lease. This kind of transaction is currently most prevalent in India.

(ii) The operating lease: Here the lessor does not recover the entire cost of the asset from the lessee during the lease period and takes back the capital asset on expiry of the period. It is, in effect, a simple hiring transaction. Normally, to safeguard his interest, the lessor maintains and services the leased equipment. The lease contract is usually cancellable. This kind of lease has not yet made much headway in India.

Additional variants of leases - leveraged leases, sales-aid leases, sale and lease-back arrangements and consortium leases need not detain us here though they are important for tax saving or risk spreading in practice. Our main interest here is the financial lease which is, in effect, a pure financial transaction. Operating leases have their own peculiar benefits and are only distantly substitutes to hire-purchase or outright purchase.[1]

3. Advantages and Disadvantages of Leasing in the Absence of Taxes

To analyse the benefits from leasing, we first identify conditions under which leasing has no special benefits. Accordingly, suppose all contract forms are equally risky to both contracting parties. Also assume that financiers for different options and the purchaser require the same risk adjusted minimum return. It should then be clear that payments under loan/instalment/HP finance can be structured to make contractual cash flows identical in all three cases. If the purchase or perpetual lease option is exercised, the same is true for a financial lease. If, in addition, both lessor and lessee have the same expectation as to the market value of the asset on the expiry of the ´primary´ lease period, the terms can be structured so that both are indifferent between exercise or non-exercise of the purchase option. Again, if the purchase price under the self finance option is deemed to be financed by a net inflow from shareholders and all contracting parties face the same purchase price for the capital asset, then dividend payouts can also be so planned that cash flow implications are identical with the other options. Finally assume that availability of finance is not a constraint with any form of finance and that neither internal (retained earnings) nor equity finance are disadvantageous. Under these seven conditions all modes of finance will clearly be equivalent. This is the substance of the `lease-finance equivalence theorem´ of finance theory.[2]

Clearly, differences in the required risk free return, finance availability under different contracts, purchase price differences and differential expectations could go in any direction. A priori, these factors impart no systematic advantage or disadvantage to any financing option. Thus, differences in the riskiness of finance options and differences in retained earnings and equity finance have to be explored further to discover systematic differences in the attractiveness of financing options. Before discussing the specific factors which lead to differences in riskiness of different contract forms, a sketch of the way in which risk differences influence cash flows and the attractiveness of financing options may be presented.

Typically, a risk averse financier will be willing to accept a lower `price´ for a contract which is less risky. Consequently, for a given risk aversion level of the financier, purchasers will sort themselves into `risk classes´ with the less risk averse opting for the risky contract and the more risk averse being prepared to trade-off higher risk against higher expected cash flows. Similarly, if purchasers face differential risk under each contract form, then further sorting into risk classes will occur. Finally, if financiers have differing risk attitudes, their price structures will ensure that some specialise in one contract form and others in another.[3] To identify the specifics of formation of these sub-markets, in which different risk classes of sellers and buyers are matched, such sources of risk will have to be examined.

(a) <u>Default/bankruptcy risk and asset ownership</u>: Under lease/HP finance, the financier owns the asset till all contracted payments are made. The asset reverts to the financier in case of default/bankruptcy or in case the lessee chooses not to exercise the purchase or perpetual lease option at the end of the primary lease period. A secured creditor cannot repossess the capital asset but is not entirely at risk if the purchaser defaults or faces bankruptcy. Shareholders and unsecured creditors have no safeguards. Consequently, loan finance and self finance will tend to be more expensive than lease or HP finance. Greater `front-loading´ of the payment stream through margin money or collateral will also be more prevalent with loan finance. In fact - if, for example, a purchaser has a high debt-equity ratio - loan finance may not be forthcoming at all even if the viability of the project is assured.[4]

(b) Salvage value risk: The entire risk of obsolescence/capital appreciation of the capital asset is borne by the purchaser except in the case of lease finance with a purchase/permanent lease option.[5] By appropriate structuring of lease payments, salvage risk can be apportioned between lessor and lessee so that the more risk averse bears a smaller share of the salvage risk. This insurance element is a definite advantage for leasing over other modes of finance for some risk classes of contracting parties.

(c) Takeover risk: For some purchasers (usually newer firms) with insufficient retained earnings, fear of loss of control of the firm by current shareholders may make debt finance preferable to the issue of equity to finance the capital asset.

(d) Regulatory risk: Frequently (as under the MRTP Act in India) regulation of firms varies with the size of the firm. When, as in India, fixed assets are one of the criteria used, firms at the threshold of tighter government control will prefer one or another mode of debt finance. Since, in India large (`MRTP') firms are subjected to tighter scrutiny, threshold firms may find lease finance advantageous.[6]

These are the major sources of risk related benefits which accrue to `debt' finance, especially leasing. Three other benefits enjoyed by leasing in the Indian context need to be mentioned.

(e) Commercial bank credit policy and interest rate differentials: Due to rationed loans by the banking system at below market clearing interest rates, private sector (informal) commercial rates are generally higher than bank rates of interest.[7] For credit of the duration usually required for equipment finance,[8] private financiers typically prefer safer loans such as under HP or leasing.[9] Since commercial bank and public sector financial sources have only limited leasing business, private sector HP and leasing currently have an assured demand from credit constrained firms despite high private sector financing costs.

(f) Formal sector evaluation of borrowers and the debt-equity ratio: The general impression all over the world is that financial evaluation of loan applications by lending agencies (in India, by formal agencies) is inaccurate in that contingent and other off-balance-sheet liabilities such as lease obligations are not correctly evaluated in assessing debt repayment ability.[10] If true, then leasing becomes an attractive source of finance for highly leveraged firms desiring to take on additional debt. Given that low formal sector interest rates cannot provide for much of a risk premium, this argument, if true, is all the more perplexing in the Indian case. Much of the attention given to lease accounting, both in India and abroad,[11] stems from the failure of financial statements to give a true picture of firm finances in the presence of off-balance-sheet items. However, an additional accounting problem also needs to be addressed in the Indian case.

(g) Accounting of lease payments received: Unlike with other forms of debt finance, no distinction is made between the interest and amortisation components of lease payments under current accounting practice. The entire payment is treated as income in the lessor's account.[12] This leads to artificially inflated profits for leasing firms. If potential investors are inaccurate in their assessment of true leasing profits - due, say, to lack of information - then leasing companies will have access to cheap finance. Fly-by-nighters can, in the short run, pay dividends out of capital trusting to growth - or an eventual declaration of bankruptcy - to bail them out eventually. Clearly, since the demand for lease finance is likely to be elastic in view of the availability of close substitutes (HP), it will pay such leasing firms to lower lease rentals below what would normally have been charged, thus contributing to the leasing boom.[13]

To sum up, default, salvage and takeover risk confer benefits on leasing. Accounting and other policy induced features also make leasing attractive.

4. Leasing Benefits and Current Tax Practice

In the current situation in India - and elsewhere - it is alleged that none of the benefits of leasing outlined above play as great a role in encouraging lease finance as tax avoidance opportunities. Tax avoidance opportunities are available to both lessor and lessee and "Trading in Tax Shields" is alleged to be the chief determinant of lease rentals (Pandey, 1986). Table 1 lists tax liabilities and tax saving under various modes of finance.[14]

As is shown in Table 1, the depreciation benefit, interest deductibility of a loan/HP agreement and investment allowance are substituted by the deductibility of lease payments for a lease agreement. Clearly, since the lessor must recover the cost of the asset, the lease payment will include both "capital cost" and interest. The capital amortisation portion will typically exceed the depreciation benefit under alternative modes of finance unless this is accelerated. However, the loss of investment allowance and additional sales tax payable have to be weighed against this. Turning to the lender, only lease finance allows him to offset profits against depreciation benefits and the investment allowance. Thus, clearly, he may be in position to offset a portion of the lessee's tax liability through lower lease payments. The recently introduced sales tax on leases in some States in India in the wake of the insertion of clause (29A) of Article 366 of the Constitution through the 46th Amendment to the Constitution in 1982 (most notably and first in Maharashtra), offsets, to some extent, the tax saving benefits from leasing. From a narrow perspective, such a tax is unjustified since the capital asset in question would already have borne sales tax once when purchased by the lessor. Set off of sales-tax paid against sales-tax on lease rentals is not currently allowed in all States.

TABLE 1

Modes of Finance and Tax Implications under Current Indian Tax Laws

Mode of finance	To the Purchaser	To the Financier
1. Loan finance	Profit tax; depreciation benefit; interest deductible; investment allowance	Tax on interest received through profit tax
2. Equity finance	Profit tax; depreciation benefit; investment allowance	
3. HP finance	Profit tax; depreciation benefit; interest part of HP payment deductible; investment allowance; sales tax on HP payment	Tax on interest received through profit tax
4. Lease finance	Profit tax; lease payment deductible; sales tax on lease rentals	Tax on lease payment received through profit tax; depreciation benefit; investment allowance

Notes: 1. Investment "Allowance" was available to lessors under the Investment Deposit Scheme Under Section 32AB of the Income Tax Act, 1961, prior to the Finance Act, 1990.
2. Sales TAx is applicable in some States only.

A brief discussion of sales taxes on lease rentals is here in order. The original intent of the 46th Amendment to the Constitution was to permit taxation of film lease rentals since, in this case, leases were seen to be a tax avoidance measure. However, no sales tax levied by States in the wake of the Amendment covers film lease rentals! There is also some confusion among sales tax administrations as to what constitutes a lease and what does not.[15] In States where sales tax is levied on lease rentals, it is levied over a threshold and only for specified assets or assets not specified as exempt. Tax jurisdictions are not uniform, with some States (e.g. Maharashtra) levying tax on rentals if the place of use is within the State, while others levy the tax on rentals if the lease agreement was concluded within the State and still others (e.g. Andhra Pradesh) levy taxes on both principles. Clearly, a uniform jurisdictional norm will have to be followed by all States if the sales tax continues. Given that not all States levy sales tax on lease rentals, there is scope for avoidance of the sales tax. If the tax is based on the place at which the agreement was signed the simple expedient of concluding lease agreements outside the State is sufficient. Under the Maharashtra pattern capital flight to avoid lease rental taxes may become a reality. Balasubramanian and Sarkar (1990) have discussed the issue of sales taxation of leasing in India in some detail, taking special note of different treatment required for transport and other assets, and make recommendations for its reform.

Regardless of the relative position of different financing options in the absence of taxation we can draw two specific conclusions about tax effects on their relative position.

(a) Under current Indian tax law, sales taxation of hire payments and lease rentals (with no set off of earlier tax paid on the purchase of the capital asset) render leasing and HP less attractive than in the no tax case.

(b) If the lessor faces a higher marginal tax rate on income than the lessee and if the sales tax on leasing is absent, then both financier and purchaser will find leasing more attractive than other forms of finance given that they would have been indifferent in the absence of taxation.[16]

The sales tax disadvantage offsets to an extent the advantage available to lessor and lessee, so that the difference between the lessor's tax rates would have to be more than without sales taxation to make tax shield trading worthwhile.

Clearly, given contracts which are equally attractive in the absence of taxes, the government will collect more tax revenue from HP but less from leasing (if the lessor's tax rate is sufficiently high compared to the lessee's). The wedge between lessor and lessee tax rates required for the government to lose revenue is, however, further increased by the accounting "irregularity" in the case of the lessor's profit accounting.[17] Consequently, for lease contracts executed in States with sales taxation of lease rentals and no offset of earlier sales tax paid, government revenue loss due to tax avoidance will be less than otherwise.

However, the current State of regulatory, taxation and accounting measures appears to be in urgent need of reform since the combined effect of the various uncoordinated measures is most likely to be one which induces inefficient finance of capital projects with attendant social loss. Before taking up an examination of policy reform, two remaining issues on taxation and leasing need to be addressed.

Firstly, though financial management experts (e.g. Pandey, 1986) have expressed the view that trading for tax shields is the main benefit from leasing in India, there is reason to doubt this. The fact is that many private sector leasing firms are too small or too new to be in a higher tax bracket than many of their clients.[18] Such a paradoxical situation can only be due to the dominance of short term gains due to profit accounting practices for lessors. Little wonder that several `leasing' companies have gradually moved out of the leasing market recently (Dass, 1987).

Secondly, the special case of sale and lease-back needs to be dealt with. Under this form of lease, the purchaser sells capital equipment (new or existing) to another firm and leases it back. Economic justification for this can be given in the case of new equipment since the potential user may enjoy a purchase price advantage and will certainly find it easier to identify the right type of equipment than the lessor. However, even if the contract is at prevailing fair market prices, lessees will gain from some of the policy induced advantages of leasing not to mention risk spreading benefits. If furthermore the lessor is a sister concern (Howick, 1986) or if the equipment is sold at a book loss, this may provide a way to the lessee of avoiding tax in years of high profitability. There is a presumption that the latter is the main reason for such deals in India.

5. Appropriate Policy for Leasing Transactions

Before embarking on an examination of appropriate policy, one recommendation with regard to non-tax measures can straightway be made. It should be clear that the policy induced advantages of leasing identified in items (d), (f) and (g), (and perhaps even (c)) are inadvertent. Consequently, steps to nullify these advantages should be taken as soon as is feasible.

The question that is addressed first is whether leasing deserves special encouragement or not. As with many - but not all - components of capital markets, further financial development is required and rational government assistance to financial markets in this period of infancy is to be applauded. This holds with special force in the case of leasing business since this is one of the youngest segments of the financial market and since leasing does have genuine advantages for some firms. It should be clear that rational policy at this stage would require the government to undertake measures to enhance lease finance, give a boost to leasing expertise and act as a watchdog over leasing and other financial markets. Once the leasing industry comes of age, the third role is possibly the only one that the government need undertake.

If this view is acceptable, then it will be recognised that the government is already providing proper support, if indirectly, to the leasing industry! Enhancement of finance for leasing is already taking place with the ICICI and commercial bank subsidiaries moving into the leasing market. Public sector involvement also helps to lessen the chances of concentration of market power with some private sector units from emerging. Also, as part of regular government policy, new firms do benefit from special taxation and other benefits. The suggestion by Vasan (1985) for a specialised leasing refinance body deserves serious consideration on its merits as an additional measure to boost leasing markets.

There appears, however, to be nothing positive to be said for the continuation of distortionary tax benefits. Indeed, the potential for social loss has already been alluded to. Consequently, the imposition of sales tax on lease rentals (without offset) appears to be a measure, though imperfect, in the right direction since it partially removes private gains from lease transactions at the expense of the exchequer. As a temporary measure it may therefore be justified though, needless to say, anomalies in current sales tax practice should be removed. The same cannot be said of sales taxation of HP transactions. However, it would be preferable if a tax policy could be designed which removed the tax shelter benefit of financial leases (without actually penalising such leases) but allowed it to resume the risk sharing role it would play in the absence of taxes.[19]

In fact such a measure exists. By simply disallowing the investment allowance and depreciation related tax benefits in the hands of the lessor and allowing them in the hands of the lessee in the case of financial leases restoration of <u>tax neutrality</u> between different financing options could be effected. Of course, sales tax (on both leasing and HP) would have to be discontinued. If feasible, this is the most appropriate tax policy. But would such a reform stand up in the courts? And would States agree to give up there new constitutional powers to tax HP and leasing? Ideally, Centre-State revenue sharing arrangement would take care of the latter problem.

For the former problem, the question of ownership is important since the lessor is the owner of the capital equipment and the lessee is just the renter. Ownership <u>per se</u> cannot be the key issue since taxing assets in the hands of the hire purchaser, though the HP firm still has title to the equipment, is well accepted. The key difference between HP and the financial lease is that in the former case the purchaser is contractually certain to acquire title to the asset on completely paying HP instalments. For a lease, the purchaser has a genuine option not to acquire the asset on the expiry of the lease period. It is for legal experts to say whether such a distinction is material or not under Indian law.[20] However, even if legal experts are of the opinion that such a distinction is material, there is still the need to prevent HP contracts from masquerading as lease contracts to avoid tax. Thus an appropriate test of what constitutes a `true´ lease and what does not could be instituted as a second best measure. The one that would serve the needs of economic logic is a test which examines if the cash flows in a lease rental are at least equal to the cost of the capital asset to the lessor plus a normal return on funds employed by the lessor and defines such a lease to be an HP transaction ineligible for tax benefits available to true leases. Such a test is in use, de facto, in the USA (Howick, 1986). The Canadian position[21] approaches this and is of some interest in the event that even the proposed test is considered infeasible.

The test used by Revenue Canada to determine if a transaction is considered to be a purchase is as follows:

"a. The lessee automatically acquires title to the property after payment of a specified amount in the form of rental,

b. the lessee is required to buy the property from the lessor during or at the termination of the lease or is required to guarantee that the lessor will receive the full option price from the lessee or a third party.......,

c. the lessee has the right during or at the expiration of the lease to acquire the property at a price which at the inception of the lease is substantially less than the probable fair market value of the property at the time or times of permitted acquisition by the lessee.....,

d. the lessee has the right during or at the expiration of the lease to acquire the property at a price or under terms or conditions which at the inception of the lease is/are such that no reasonable persons would fail to exercise the said option."

(Howick, 1986, p. 260).

Even a test on the Canadian pattern would clearly counteract the most flagrant cases of tax avoidance.

6. Other Types of Lease Transactions: Some Closing Remarks

It should be clear that financial leases of consumer durables should be subject to the same tax measures. Besides restoring tax neutrality, there is no justification for tax concessions to encourage consumption expenditure and consumption loans for luxury items in a capital scarce economy. Special needs, if any, can be encouraged on a case by case basis by cash subsidies against purchase.

Operating leases and sales-aid leases serve genuine short-term needs or are packaged along with technical expertise to which there is no easy substitute. These forms of leasing, still relatively unknown in India, have benefits quite apart from tax avoidance, or taking advantage of faulty policy. They cannot be thought of as genuine financing options. Trading in tax shields is, at best, of secondary importance. Consequently such leases should be subjected to the normal treatment accorded to capital inputs and the lessor should be considered the owner of the capital asset.

NOTES

1. For a detailed discussion of forms of leasses see Hampton (1979).

2. See Haley and Schall (1979) for a rigorous discussion. The equivalence theorem is actually an extension of the Modigliani-Miller theorem on the equivalence of debt and equity finance. Besides the conditions required for this theorem to be true (costless, competitive markets; equal access; homogenous expectations; no regulatory risk; costless information; costless financial distress) the lease equivalence theorem requires additional conditions on equal purchase price and expected salvage value to lessors and lessees. Haley and Schall (1979) show that the equivalence is true even with taxes if tax rates are identical and there are no `personal tax biases´ due to differences in such things as income, expenditure, wealth or debt. In our discussion we ignore problems associated with imperfect markets and costly information per se as they do not impart any systematic bias to particular contract forms.

3. It should be noted that risk classes are not immutable but depend on existing finances, the size of the new investment and portfolio diversification concerns. Thus a purchaser (or financier) in a given risk class for one project may be in another risk class for a different project.

4. See Stiglitz and Weiss (1981) for an interesting discussion on this.

5. With an operating lease, the risk is borne by the lessor. As stated earlier, we are not concerned with operating leases here since other technological and service considerations are important for these leases.

6. Under current Indian accounting practice, assets acquired under HP are required to be shown as part of fixed assets - and are also eligible for investment and depreciation related tax benefits. Thus the advantages of debt finance from the point of view of this paragraph do not extend to HP in India.

7. This may change in view of the recent decontrol of bank interest rate ceilings.

8. An 8 year lease period was the minimum period before investment allowance was available which contributed to extended lease periods in India.

9. It would not be legitimate to take the prevalence of these forms of finance in India as supporting evidence without further statistical analysis.

10. While this seems strange and while we have no evidence on the issue, see for example, Balasubramanian and Bajaj (1989), Howick (1986), Copeland and Weston (1983), Hampton (1979), Fawthrop (1986) and FICCI (1983).

11. See for example Gyan Chandra (1985), Economic Times, November 7, 1986 (article by Sanghvi), Fawthrop (1986) and Ostfield (1981).

12. Furthermore, lessors in India can set off the entire depreciation or investment allowance against total lease income for tax purposes without lease by lease restrictions.

13. For discussion see Balasubramanian and Bajaj (1989) and Update (1986).

14. The Finance Act, 1990 has abolished both the investment allowance and the Investment Deposit Scheme. However, the discussion here nevertheless indicates the impact of investment allowance for completeness.

15. E.g. Bank Lockers are, conceptually incidental to the provision of a service: safe keeping of valuables. Their rental cannot, therefore, be considered a lease transaction unless the sale of services become subject to State sales taxation generally. However an attempt to tax locker rentals as lease payments was made in Andhra Pradesh. It was subsequently struck down by the Courts. See State Bank of India and Others V. State of Andhra Pradesh (1988). See Balasubramanian and Sarkar (1990) for a careful discussion on the correct meaning of a `lease´.

16. Both (a) and (b) are actually statements about fiscal privilege. HP is less fiscally privileged than is loan finance when the lessee has the lower tax rate and sales taxes are absent. Lease finance enjoys greater fiscal privilege than loan finance in some cases. In the case of (b), it should be mentioned that the reverse tax differential would lead to government revenue gains.

17. Financial evaluation of capital equipment finance options is complicated under conditions of imperfect markets so that true benefits and revenue loss are difficult to assess. A sketch of relevant finance theory, including short cuts in use for financial evaluation, is in the appendix.

18. See Dass (1986 and 1987) and Update (1986).

19. An alternative, equally imperfect, tax measure which could be justified using the same shelter offset argument as for sales taxation is the abortive minimum tax on book profits - but applied to leasing companies alone.

20. The definition of sale in section 2(1) of the Maharashtra Sales Tax on the Transfer of the Right to Use any Goods for any Purpose Act, 1985, appears to be broad enough to allow for the recommended policy. This is relevant since this was one of the sections upheld in the recent 20th Century

Finance Corporation case in the Bombay High Court (Mehta, 1989). The section defines sale as the transfer of the right to use any goods for any purpose (whether or not for a specified period) for cash, deferred payment or any other valuable consideration.

21. As laid down in Interpretation Bulletin IT-233R issued by Revenue Canada (See Howick, 1986). For the US position the Lockhart Leasing Company and Northwest Acceptance Corporation cases cited in the bibliography are of relevance.

Bibliography

(A) Newspaper Reports

1. Bhattacharya, S. (1986), Tax Aspects of Equipment Deals, Economic Times, Special Section on Leasing and Finance, November 7.

2. Durai, T.N.P. (1983), Leasing: High Potential in India, Economic Times, June 18.

3. Gyan Chandra (1985), Leasing Business: Some Unresolved Issues, Economic Times, March 23.

4. Kapasi, Pradeep (1985), Is Leasing Profitable, Financial Express, March 14.

5. Leasing and Finance (Special Section) Economic Times, November 7, 1986.

6. Mehta, N.C. 91989), Sales Tax on Lease: Bombay High Courts Judgement, Economic Times, November 1.

7. Supplement on Leasing, Economic Times, June 18, 1983.

8. \`Vasan´ (1985), Case for Leasing Refinance Body, Financial Express, May 29.

(b) Books/Periodical Articles/Seminar Papers

1. Anon, A Step Forward, Update, April 4-17, 1986.

2. Anon, (1983), Concepts and Types of Leases, Background Paper, Workshop on Leasing Business in India, Federation of Indian Chambers of Commerce and Industry.

3. Athanosopoulos, P. and P. Bacon (1980), The Evaluation of Leveraged Leases, Financial Management, Spring, pp. 76-80.

4. Balasubramanian, K.N. and Alka Bajaj (1987/89), Sales Taxation of Works Contracts, Hire Purchase and Leasing - Need for a Model Law (Draft Report), Mimeo, New Delhi, National Institute of Public Finance and Policy.

5. Balasubramanian, K.N. and Pallab Sarkar (1990), Levy of Sales Tax on Leasing of Goods, Mimeo, New Delhi, National Institute of Public Finance and Policy.

6. Bower, F. (1973), Issues in Lease Financing, Financial Management, Winter, pp. 25-33.

7. Clark, T.M. (1978) Leasing, McGraw Hill, U.K.

8. Copeland, T.E. and J.F. Weston (1982), A Note on the Evaluation of Cancellable Operating Leases, Financial Management, Summer, pp. 60-67.

9. Copeland, T.E. and J.F. Weston (1983), Financial Theory and Corporate Policy, 2nd Edition, Reading, Mass: Addison-Wesley Publishing Co.

10. Dass, Basudev (1986), Exploding Leasing Myths, Update, March 7-20, pp. 22-31.

11. Dass, Basudev (1987), Leasing Companies: Skating on Thin Ice, Business India, June 29-July 12.

12. Department of National Revenue, Canada (1975), Interpretation Bulletin IT-233, Govt. of Canada.

13. Department of National Revenue, Canada (1983), Interpretation Bulletin IT-233R, Govt. of Canada.

14. D'souza, Dolphy (1990), Equipment Leasing - Cost Benefit Analysis, Chartered Secretary, January, pp. 25-32.

15. Dyl, E. and S. Martin, Jr. (1977), Setting Terms for Leveraged Leases, Financial Management, Winter, 20-27.

16. Equipment Leasing Association (India) (1984-1989) Annual Reports.

17. Fawthrop, R. (1986), Equipment Leasing, in M. Firth and S.M. Keane (Eds.), Issues in Finance, New Delhi: Heritage Publishers.

18. Flath, D. (1980), The Economics of Short-Term Leasing, Economic Inquiry, pp. 247-259.

19. Franks, J. and S. Hodges (1978), Valuation of Financial Lease Contracts: A Note, Journal of Finance, pp. 647-669.

20. Goyal, R.P. (1984), Leasing - Need for Regulations, State Bank of India Bulletin, April.

21. Haley, C.W. and L.D. Schall (1979), The Theory of Financial Decisions, Tokyo, McGraw-Hill Kogakusha.

22. Hampton, J.J. (1979), Financial Decision Making Concepts, Problems and Cases, Reston, Virginia: Reston Publishing Co.

23. Howick, W.A. (1986), Leasing, in Income Tax Considerations in Corporate Financing, Corporate Management Tax Conference, 1986, Toronto: Canadian Tax Foundation.

24. Johnson, R. and W. Lewellin (1972), Analysis of the Lease or Buy Decision, Journal of Finance, pp. 815-823.

25. Kamath, K.V. (1984), Leasing Opportunities and Risks, Paper prepared for the IFMR Seminar on Leasing, Madras.

26. Kim, E., W. Lewellin and J. McConnell (1978), Sale-and-Leaseback Agreements and Enterprise Valuation, Journal of Financial and Quantitative Analysis, pp. 871-883.

27. Levy, H. and M. Sarnat (1979), Leasing, Borrowing and Financial Risk, Financial Management, Winter, pp. 47-54.

28. Lewellin, W., M. Long and J. McConnell (1976), Asset Leasing in Competitive Capital Markets, Journal of Finance, pp. 787-798.

29. Long, M. (1977), Leasing and the Cost of Capital, Journal of Financial and Quantitative Analysis, pp. 579-598.

30. Miller, M. and C. Upton (1976), Leasing, Buying and Cost of Capital Services, Journal of Finance, pp. 799-819.

31. Ofer, A. (1976), The Evaluation of Lease Versus Purchase Alternatives, Financial Management, Summer, pp. 67-72.

32. Ostfield, E.A. (1981), Income Tax Considerations of Leasing: An Update, in Income Tax Aspects of Corporate Finance, Corporate Management Tax Conference, 1980, Toronto: Canadian Tax Foundation.

33. Padmanabhan, T.N. (1986), The Indian Leasing Market - Problems and Prospects, Madras: Equipment Leasing Association (India).

34. Pandey, I.M. (1986), Myths and Realities about Leasing, Vikalpa, (11), pp. 273-286.

35. Parchure, R. and N. Ashok Kumar (1988), Introduction to Lease Financing, Bombay: Times Research Foundation.

36. Perg, W. (1978), Leveraged Leasing: The Problem of Changing Leverage, Financial Management, Autumn, pp. 47-51.

37. Raghunathan, V. (1986), Leasing - An Investment or a Financing Decision, The Chartered Accountant, May 1, pp. 956-958.

38. Saha, A. (1983), Leasing: Problems and Perspectives in the Indian Contest, Prajnan, (12).

39. Schall, L.D. (1974), The Lease-Or-Buy and Asset Acquisition Decisions, Journal of Finance, pp. 1203-1214.

40. Schall, L.D. and C.W. Haley 91979), Introduction to Financial Management, Tata McGraw Hill, Bombay.

41. Snyder, N. (1976), Financial Leases, in J.F. Weston and M. Goudzwaard (Eds.), The Treasurer's Handbook, Homewood, Illinois: Dow-Jones Irwin.

42. Stiglitz, J.E. and A. Weiss (1981), Credit Rationing in Markets with Imperfect Information, American Economic Review, pp. 912-927.

43. Sundarakrishnan, D. (1984), Structural Lease Terms and Lessee Evaluation, paper prepared for the IFMR Seminar on Leasing, Madras.

44. Vanderwicken, P. (1973), Powerful Logic of the Leasing Boom, Fortune, November.

45. Venkiteswaran, N. (1984), Financial Evaluation of Lease, Paper prepared for the IFMR Seminar on Leasing, Madras.

Case Law

1. Builders Association of India v. Union of India (1989) 73 STC 370 (SC).

2. First Leasing Co. v. ITO (1983) 3 ITD 808. (ITAI permitted First Leasing to avail of investment allowance u/s 32A of the Income Tax Act, 1961).

3. Lockhart Leasing Company v. CIR 54 TC 301 (1970) (USA) (Identifying features of a "True Lease").

4. Lipper v. The Queen, 79 DTC 5246 (FCTD) (Canada).

5. Mandel v. The Queen, 80 DTC 6148 (SCC); (Canada) (leveraged Leasing; Film Industry).

6. McKee v. The Queen, 77 DTC 5345 (FCTD) (Canada).

7. Northwest Acceptance Corporation v. CIR 500 F.2d 1222 CA-4 (1974) (USA) [As for (2)].

8. Paquin v. MNR, 74 DTC 1142 (TRB); (Canada).

9. State Bank of India and Others v. State of Andhra Pradesh (1988) 6 AP STJ, 184.

10. The Queen v. Lagueuz & Freres Inc. 74 DTC 6569 (FCTD) (Leases with a "bargain purchase element" (sic) are instalment purchases).

11. United Geophysical Co. of Canada v. MNR 61 DTC 1099 (Ex.Ct.) (Canada) (Tests for what constitutes 'rental').

12. 20th Century Finance Corporation Ltd. v. State of Maharashtra (1989) 75 STC 217 (Bom) (upheld the validity of Section 2(10) and accompanying explanation of the Maharashtra Sales Tax on the Transfer of the Right to Use any Goods for any Purpose Act, 1985).

APPENDIX

Evaluation of Financing Options: An Outline

Given imperfect markets, the proper approach is to determine State-contingent net cash inflow streams from different financing options and formalise beliefs about the liklihood of different States occuring in a (possibly multivariate) probability distribution or diffusion process. The expected discounted utility of alternative financing options should then be calculated using the shareholders required post-dividend-tax risk free return as the discount rate. These should be compared with the status quo and the best option chosen. This rule is appropriate for both purchaser and financier, who will, of course, have different State contingent cash flows. In case either or both parties has market power and is able to specify finance charges, maximisation with respect to these finance charges under appropriate assumptions about the other party's actions will be required.

Since such analysis is difficult to perform, short cut methods which are strictly appropriate only under stringent market perfection and information availability conditions are applied. Thus Pandey (1986) recommends the use of the \`Net Advantage of Leasing' method using the after tax borrowing rate of the firm as the discount rate, in making a lease/buy/do neither decision. A simple pair of present value formulae, using expected cash flows and the shareholders required risk-adjusted return as the discount rate, which may be used by the lessee for evaluating lease transactions is presented here (adapted from Haley and Schall, 1979).

The firm's planning horizon is taken to be n periods which is equal to the period for which financing contracts run assumed to be equal across contracts. If cash flows which are no longer applicable are set to zero and if it is understood that the sales tax rate in case of loan or self finance is zero, then the variables involved in specifying all but lease finance cash flows are identical. Let W(L) be the value of lease finance and W(A) be the value of the best alternative financing option. then

$$W(L) = \sum_j [[(1-t)R_j-L_j)-SL_j]/(1+i)^j+[h-t(H-K)]/(1+i)^n$$

and

$$W(A) = \sum_j [[(1-t)R_j+tD_j+tI_j-(1+S)P_j/(1+i)^j+tIC/(1+i) + [H-t(H-K)]/(1+i)^n$$

Here, t is the corporate profit tax rate; R_j is gross profit from the capital project at time j; L_j is lease payment at time j; D_j is depreciation for tax purposes; I_j is deductible interest (=0 for self finance); P_j is payment to the financier ($P_2 \ldots P_n$ are zero for self finance);' IC is the investment allowable for the

investment allowance; H is the salvage value and H-K is the capital gain; S is the sales tax rate. If allowing the asset to revert to the seller is expected to be more profitable, then $L_n H+t(H-K)$ is set equal to zero.

NIPFP WORKING PAPER SERIES : 1989-90

Working paper	Title	Author's name
1/89	Aggregate Demand with Parallel Markets	Arindam Das-Gupta Shovan Ray (March)
2/89	The Exemption Limit and the Personal Income Tax: An International Comparison	Pulin B Nayak Pawan K Aggarwal (May)
3/89	A Model of Local Fiscal Choice	Shyam Nath Brijesh C Purohit (May)
4/89	Tax Evasion and Income Distribution	Shekhar Mehta (May)
5/89	Optimal Mix of Urban Public Services: A Game Theoretic Approach	Partha Ganguli Shyam Nath (July)
6/89	Personal Income Tax in India: Alternative Structures and Their Redistributive Effects	Pulin B Nayak Satya Paul (July)
7/89	Income Inequality and Elasticity of Indian Personal Income Tax	Pawan K Aggarwal (August 1989)
8/89	Shifting Fiscal Frontiers of the Central Sales Tax: An Approach Towards Equity	Mahesh C Purohit (October 1989)
9/89	Panel Data Models and Measurement of States' Tax Effort in India	J V M Sarma (November 1989)
10/89	Tax Reform in an Unconventional Economy - A Case Study of Somalia	Mahesh C Purohit (December 1989)
11/89	Fiscal Policy and the Growth of Firms: A Study of India Engineering Companies	B N Goldar (December 1989)

Working Paper No.	Title	Author´s Name
1/90	Economic Reforms in China and their Impact : an overview	Amaresh Bagchi (February, 1990)
2/90	A Note on the Measurement of Import Substitution	Hasheem N. Saleem (March, 1990)
3/90	Regional Pattern of Development in India	Uma Datta Roy Choudhury (June, 1990)
4/90	Growth of Manufacturing in India 1975-76 To 1985-86: A Disaggregated Study	Sahana Ghosh (June, 1990)
5/90	Intergovernmental Fiscal Transfers in India:Some Issues of Design and Measurement	M.Govinda Rao Vandana Aggarwal (June, 1990)

NATIONAL INSTITUTE OF PUBLIC FINANCE AND POLICY
NEW DELHI

LIST OF PUBLICATIONS

1. **Incidence of Indirect Taxation in India 1973-74** R.J. Chelliah & R.N. Lal (1978) Rs 10.

2. **Incidence of Indirect Taxation in India 1973-74** R.J. Chelliah & R.N. Lal (Hindi version) (1981) Rs 20.

3. **Trends and Issues in Indian Federal Finance*** R.J. Chelliah & Associates (Allied Publishers) (1981) Rs 60.

4. **Sales Tax System In Bihar*** R.J. Chelliah & M.C. Purohit (Somaiya Publications) (1981) Rs 80.

5. **Measurement of Tax Effort of State Governments 1973-76*** R.J. Chelliah & N. Sinha (Somaiya Publications) (1982) Rs 60.

6. **Impact of the Personal Income Tax** Anupam Gupta & P.K. Aggarwal (1982) Rs 35.

7. **Resource Mobilisation in the Private Corporate Sector** Vinay D. Lall, Srinivas Madhur & K.K. Atri (1982) Rs 50.

8. **Fiscal Incentives and Corporate Tax Saving** Vinay D. Lall (1983) Rs 40.

9. **Tax Treatment of Private Trusts** K. Srinivasan (1983) Rs 140.

10. **Central Government Expenditure: Growth, Structure and Impact (1950-51 to 1978-79)** K.N. Reddy, J.V.M. Sarma & N. Sinha (1984) Rs 80.

11. **Entry Tax As An Alternative to Octroi** M.G. Rao (1984) Rs 40 Paperback, Rs 80 Hardcover.

12. **Information System and Evasion of Sales Tax in Tamil Nadu** R.J. Chelliah & M.C. Purohit (1984) Rs 50.

13. **Evasion of Excise Duties in India: Studies of Copper, Plastics and Cotton Textile Fabrics (1986)** A Bagchi et. al (1986) Rs 180.

14 **Aspects of the Black Economy in India** (also known as "Black Money Report") Shankar N. Acharya & Associates, with contributions by R.J. Chelliah (1986) Reprint Edition Rs 270.

15. **Inflation Accounting and Corporate Taxation** Tapas Kumar Sen (1987) Rs 90.

16. **Sales Tax System in West Bengal** A. Bagchi & S.K Dass (1987) Rs 90

17. **Rural Development Allowance (Section 35CC of the Income-Tax Act, 1961): A Review** H.K. Sondhi & J.V.M. Sarma (1988) Rs 40 Paperback.

18. **Sales Tax System in Delhi** R.J. Chelliah & K.N Reddy (1988) Rs 240.

19. **Investment Allowance (Section 32A of the Income Tax Act, 1961): A Study** J.V.M. Sarma & H.K. Sondhi (1989) Rs 75 Paperback Rs 100 hardcover.

20. **Stimulative Effects of Tax Incentive for Charitable Contributions: Study of Indian Corporate Sector** Pawan K Aggarwal (1989) Rs 100.

21. **Pricing of Postal Services in India** Raghbendra Jha, M.N. Murty & Satya Paul (1990) Rs 100.

---

* Available with respective publisher Publications sent against draft/ pay order. Postage Rs 10 p

NATIONAL INSTITUTE OF PUBLIC FINANCE AND POLICY
18/2, Satsang Vihar Marg
Special Institutional Area
New Delhi-110067.