

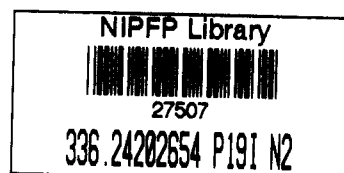
INCOME TAX AND HOUSING

386

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**NATIONAL INSTITUTE OF PUBLIC FINANCE AND POLICY
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PREFACE

The National Institute of Public Finance and Policy is an autonomous non-profit organisation established for carrying out research, undertaking consultancy work and imparting training in the field of public finance and policy

To promote house ownership, the Indian Income Tax Act provides certain tax concessions. Tax concessions have the effect of increasing the net financial return from housing which has implications for the demand for housing. Further, under most tax provisions, since the extent of tax relief that different categories of tax payers can avail of is not readily apparent, unintended tax relief to some investors is therefore a possibility.

The study aims at estimating the net present value of investment in housing to different categories of taxpayers. From the net present value structure that emerges an attempt has been made to draw some inferences about the following:

1. Effect of concessions on demand for housing;
2. Effect of concessions on the progressivity of the personal income tax;
3. Revenue implications for the exchequer; and
4. Tenure choice.

This study has been carried out by Dr. Rita Pandey, Senior Economist at the Institute.

The Governing Body of the Institute does not take responsibility for any of the views expressed in this report.

Raja J. Chelliah
Chairman

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1. Introduction

Housing in India is subject to two categories of direct taxes: Taxes which enter into the cost of construction such as registration fee and stamp duty, and taxes on income derived from housing including the income tax and municipal tax or property tax.

To promote house ownership, the personal income tax in India provides certain concessions. Tax concessions reduce the after tax price of housing services to taxpayers or increase the net financial return from housing which tends to induce people to invest more in housing. These tax incentives, however, also have implications for the government budget, private saving behaviour apart from housing investment, the progressivity of the tax system and demand for housing.

The objective of this study is to analyse the implications of current tax treatment of investment in housing for the price of housing services to homeowners and to analyse the consequences for:

- i. the quantity of housing services demanded;
- ii. tenure choice;
- iii. revenue implications for the exchequer; and
- iv. the progressivity of the personal income tax.

The layout of the study is as follows. In section 2 we discuss the concessions available to housing under the personal Income tax Act. Section 3 examines the tax subsidies given to investment in housing through direct taxes. An analysis of the effect of tax concessions on the choice of tenure is presented in section 4. Section 5 undertakes an analysis of the impact of tax

provisions on the demand for housing. The next section describes the variables used in the analysis. Results are presented in section 7. A comparison of financial returns to housing under the current tax systems, vis-a-vis, tax provisions existing before the amendments of the Finance Act 1992-93 is given in section 8. The study closes with recommendations, which comprise section 9.

2. Concessions to Housing Under the Income Tax Act

Various concessions are given to investment housing under the Income tax Act. The Sections of the Income tax Act under which tax concessions are given to housing are Sections 23, 24, 54, 54F, 71(4), 88, 88A and 80L. Briefly, concessions are of three main types: Tax concessions on incomes from house property [Sections 23, 24 and 71(4)]; tax concessions to long-term capital gains from housing or other asset sales re-invested in housing (Sections 54 and 54F); and tax concessions on investment in housing or the housing sector (Sections 88 and 80L). These concessions are available directly to homeowners in self occupation, owners of rental dwellings or as concessions for equity or loan investment in housing construction or finance companies. A description of these sections as they apply to housing, is given below.

(a) Section 23(2) and Section 24

Sub-section (2) of Section 23 was substituted by the Finance Act, 1986 w.e.f. 1.4.87. According to this amendment, the Annual Value of a house occupied for his residence by the taxpayer (and which has not been let out nor any benefit derived from there) is to be taken as nil. If a property is partially let out or let out for a part of the year and the rest is used for residential purposes, a pro rata deduction is given for self-occupation. If the taxpayer utilises more than one house as his residence, the concession will be applicable to one house specified by him. Income from the other properties will be determined as if they had been let. Sub-section (2) of Section 24, substituted by the same Act with effect from 1.4.87 provides that deductions under Section 24(1) (for repairs, insurance premia against risk, ground rent, land revenue, collection charges, etc.) will not be admissible for a self-occupied property. However, an exception was made in the

case of interest on funds borrowed for constructing, repairing, renewing or reconstructing the property. Such interest is deductible subject to a ceiling of Rs. 5,000 (Section 24(i)(vi) and proviso below Section 24(2)). It may be mentioned that till AY 1986-87, deductions under Section 24 were permissible in the computation of income from a self-occupied property. In particular, interest on borrowed funds was fully admissible under Section 24(1)(vi). Under the provisions of Section 71(4) as amended by the Finance Act, 1992, the loss from let out house property is not allowed to be set off against income under any other head of income. However, provisions under this section do not apply to owner occupied property, that is, losses from owner occupied property are allowed to be set off against income under any other head of income.

(b) Capital gains

- i. Section 54 exempts capital gains arising from the transfer of a residential house to the extent that they are re-invested in another residential house; and
- ii. Section 54F exempts capital gains to the extent that the net sale proceeds from long term capital assets other than housing are invested in residential housing. This concession is not available to an assessee who owns any other residential house on the date of transfer, or who within two years (three years) purchases (constructs) another residential house.

(c) Section 88

Under this section, payment of instalments due under a self-financing scheme of a housing development authority or due to a company or cooperative society of which the assessee is a member or a shareholder towards the cost of the house allotted to him, or repayments of amounts borrowed for purchase of construction of a

house is eligible for tax rebate. The limit on qualifying instalments is Rs 10,000 per year. Income from the property should be chargeable to tax unless self-occupied.

(d) Section 80L

Interest on deposits with Statutory Housing Boards and interest on deposits or dividends from a company registered in India with the main objective of carrying on the business of providing long-term finance for construction or purchase of residential houses in India are eligible for a deduction, subject to a limit of Rs. 7,000, under this section.

3. Subsidies to Investment in Housing Through the Tax Provisions

Income tax treatment of housing has already been discussed in Section 2; property taxes are generally levied on the basis of the rateable value of a house as assessed by local bodies. For rental housing, actual rental realised is assessed.

Briefly, owner-occupied housing in India is allowed deduction from taxable income in respect of payments of mortgage interest and mortgage repayments upto a specified limit in any financial year. Imputed rent from a single house is also excluded from taxable income and the long-term capital gain from a house sale is taxed at 20% (currently the minimum marginal tax rate). If comprehensive income were the tax base, net imputed rent would be included in taxable income.

If income from investment in housing was taxed like income from other investments, say investment in plant and machinery, homeowners would have to report as income, the gross imputed rent on their house. Like other investors, they would be allowed deductions for maintenance, depreciation, interest and property taxes as expenses incurred in earning this income¹. The difference between gross imputed rent and these expenses, that is the net rent, would be included in taxable income.

It is useful to express the difference between 'normal' and existing tax treatment algebraically. Let NI be the net imputed rent, GI be the gross imputed rent, M be maintenance costs, D be depreciation for tax purposes, T equal the property tax and MI be the mortgage interest. Then

$$NI = GI - M - D - T - MI \quad (1)$$

If the houseowner's income tax rate is t , then, with a comprehensive tax base, the tax payment on net imputed rent is $t(NI)$. Under the current tax regime the individual has a tax payment of

$$(T) - (t MI' + u' MR). \quad (2)$$

In (2), u' is the rate of tax credit on mortgage repayment (MR) and MI' is the amount of mortgage interest which is deductible. It may be noted, further, that the income tax component in (2) is negative. The limits on MI' and MR are respectively Rs 5,000 and Rs. 10,000 in a financial year under current tax provisions.

Subtracting (2) from $t(NI)$ the element of subsidy is seen to be

$$t(NI) - [T - (tMI' + u' MR)] \quad (3)$$

Owners of let out houses are allowed to deduct local property or house taxes. The balance so obtained, would be the 'annual letting value' of house. From the annual letting value, the houseowner is allowed to deduct an amount equal to 1/6th of the 'annual letting value' towards expenses incurred on maintenance and repair, rent collection charges, insurance premium paid, etc. In addition to this, houseowners are allowed the deduction for mortgage repayments as with self-occupied property. Thus, the owner of a tenant occupied house pays in tax

$$T + t (NI') - (u' MR), \quad \text{where} \quad (4)$$

$$NI' = GI - T - M - MI \quad (5)$$

Subtracting (2) from (4), the element of subsidy for owner-occupied housing, vis-a-vis, tenant-occupied housing is:

$$[T + t(NI') - u'MR] - [(T) - (t.MI' + u'MR)]$$

On rearrangement of the expression above, we get

$$t (MI' + NI'). \tag{6}$$

In such a situation, there will be an incentive for households to invest more in self occupied housing rather than rental housing.

While algebraic expressions are useful in forming an idea of the structure of tax favour to owner-occupied housing, vis-a-vis, tenant occupied housing and other assets, empirically relevant numerical estimates of tax saving are necessary to quantify the impact of tax concessions on the cost of and demand for housing. Following Leeuw and Ozanne (1981), net present value calculations are used to assess the impact of tax provisions on the price of owner occupied and tenant-occupied housing. The procedure for calculating the net present value is discussed in section 5.

4. Owning Vs Renting – The Question of Choice of Tenure²

In the previous section it has been argued that exclusion of imputed rent from taxable income makes income tax treatment of owner-occupied housing more favourable than treatment of rental housing. This is likely to adversely affect the supply of rental housing and the level of rent in the rental housing market. Further, this will also have a bearing on the choice of tenure. This section attempts to analyse the effect of tax concessions on the choice between owning and not owning a house.

Factors influencing the choice between owning and renting can be divided into two groups: economic and non-economic variables (Gupta, Kaul and Pandey, 1990 and NIUA, 1989). Important economic variables are:

- i. income and wealth of the household;
- ii. availability of credit and credit terms;
- iii. the relative price of owning versus renting;
- iv. tax concessions available to ownership and rental housing and other government policies relating to the two types of housing;
- v. the expected rate of inflation of house prices;
- vi. uncertainty relating to future levels of rents and to frequency of relocation; and
- vii. the prevalence of practices such as 'key' money.

Since likely influence of each of these factors, except (ix),³ on the owning versus renting decision is obvious, no attempt has been made to elaborate on them.

Besides economic factors, there are non-economic considerations due to which a premium exists for homeownership in most societies including India. Among these, the more important ones are social status attached to ownership and the security that ownership of a house confers.

All factors mentioned above, except for those relating to affordability tilt the households' decision in favour of owning a house to renting.

If non-economic considerations which favour ownership of housing are ignored, households would make the decision to own or rent on the basis of financial considerations alone comparing the cost of owning to that of renting. Why should differences in costs of the two types of tenures exist? Theoretically, in the event of differences between the cost of owning and renting, households and prospective renters would have the incentive to arbitrage between market segments by changing tenure. But this is unlikely to occur rapidly in developing countries due to long lags in housing markets, which are faced with severe supply side constraints such as lack of infrastructure, and a poor financial system. Even otherwise, arbitrage is not costless. Thus, differences in costs are likely to persist.

Financial considerations apart, a premium exists for the ownership right of housing. Hence, generally individuals are likely to prefer owning to renting if they can manage the financial aspects of ownership. In our view, tax concessions would have a limited role in the decision making process about the choice of tenure⁴. For this reason and also because of the limited scope of this study, comparison of costs of renting and owning is not attempted here. However, two considerations which may tilt household decisions in favour of rental housing are now briefly discussed.

Unlike ownership, relatively low initial cost is involved in renting. In the absence of 'key' money or "pugree", the initial cost is near zero.

Expectations of rising inflation would generally boost the demand for ownership. However, empirical evidence suggests the opposite (Follain, 1982). In periods of rapid inflation homeownership is negatively affected even though the after tax cost of housing services declines as inflation goes up. This is because demand for homeownership is more sensitive to the operating cost than to the accrued capital gains. This would, however, tilt the balance in favour of rental housing. Due to the paucity of similar studies for developing countries, the empirical validity of alternative hypotheses cannot be verified. However, for many households in India, who view housing as one of the basic necessities of life and normally do not indulge in it for speculation, the decision to own a house should be more sensitive to the operating cost than to the accrued capital gains of owning a house.

Since a large percentage of population in urban India lives in rental housing⁵ and since the demand for rental housing will not decrease in the foreseeable future, supply side problems in the rental housing market should receive attention in policy making for urban housing. Schemes that focus on increasing the rental stock should be given due weightage. One way of increasing the rental stock can be through fiscal concessions. We now study income tax concessions available to owners of self-occupied as well as rental housing.

5. The Present Value of Housing Investment

Financial flows in each time period of an investment are discounted using appropriate discount factors for each item of cash inflow and outflow. The year-by-year net financial flows are used to arrive at present values. The major advantage which the net present value method has over the rental cost of capital method (Jorgenson, 1963) is that it allows a distinction between short-run and long-run price effects to be made.

Consider the case of investment in a owner-occupied house. The benefits and costs of investment in an owner-occupied house accrue in three stages. In the first stage, there is full payment of the price of the house and certain transaction costs; in the second phase imputed rental income accrues while operating costs, property taxes, mortgage interest, mortgage repayment and certain taxes less tax saving allowed under current tax law have to be borne. In the final phase, when the house is sold, sale proceeds net of transaction costs and certain taxes are received. To compute present values, the following assumptions have been made.

<u>Assumptions Item</u>	<u>Value</u>
1. Initial cost of the house or price received by the seller (Rs.)	2,50,000
1.1 Break up of the cost into	
a. Land	40 per cent
b. Construction	60 per cent
2. Ratio of imputed rent to initial cost	12 per cent
3. Ratio of operating costs to initial cost	1.5 per cent
4. Holding period (years)	25
5. Ratio of loan to initial cost	0.40

6.	Terms of loan	
	a. interest rate	16 per cent
	b. Term (years)	15 years
7.	Expected annual rate of increase in	
	a. imputed rent	10 per cent
	b. Land	16 per cent
	c. Structure	Depreciates at 2 per cent ⁶
	d. Operating cost	8 per cent
8.	Individuals' marginal income tax rate	30 per cent
9.	Owner's real after tax rate of return or opportunity cost	3 per cent
10.	General inflation rate	8 per cent

The contribution of outflows in the first period to the present value of the house may be represented as

$$- [1 - m + (1-u')c] V_0 \quad (7)$$

where V_0 is the purchase price of the property, m is the percentage of borrowed funds used to finance house purchase, c refers to transaction costs as a fraction of purchase price and u' represents the rate of tax credit allowed under Section 88. Clearly, (7) represents investor's equity.

During the holding period the contribution of total cash inflows and outlays both actual and imputed to present value can be represented as the sum of the following terms:

$$\frac{R_i}{(1+p)^i(1+r)^i} - \frac{Q_i}{(1+r)^i} - \frac{PT_i}{(1+r)^i(1+p)^i} \quad \text{for } i=1, \dots, 25, \text{ and}$$

$$\frac{-MI_i}{(1+r)^i(1+p)^i} + \frac{-MR_i}{(1+r)^i(1+p)^i} + \frac{tq}{(1+r)^i(1+p)^i} + \frac{u'B}{(1+r)^i(1+p)^i}$$

for $i=1, \dots, 15,$

where:

- R = Imputed rent
- Q = Operating cost
- PT = Property tax
- MI = Mortgage interest

- MR = Mortgage repayment
- t = Marginal income tax rate of the houseowner
- q = Amount of Mortgage interest on which deduction is allowed
- u = Rate of tax credit
- B = Amount of mortgage repayment on which tax credit is allowed
- r = houseowner's real discount rate
- p = general inflation rate.

The subscript i denotes the year and runs from 1 to n , the holding period for investment. In the example above, a 15 year repayment and 25 years holding period is assumed.

The contribution of the year in which the house is sold is given by

$$\frac{(1-s)V_n - at' - Nl}{(1+r)^n(1+p)^n}$$

where

- s = ratio of selling costs to sale price
- V_n = sale price
- a = capital gains
- t' = tax rate applicable to capital gains
- N = amount liable to surcharge
- l = rate of surcharge inforce

Present value calculations are also carried out for tenant-occupied housing. The division of cash inflows and outflows into three periods is the same for tenant-occupied housing as for owner-occupied housing. The tax calculations for tenant-occupied housing during the holding period, however, are more complex as incomes flowing from rental housing are subjected to tax under the current laws. The net present value (npv) expression for such housing is found by summing up the following terms:

$$\begin{aligned}
& - [1-m+(1-u')c]v_0 + \frac{R_i}{(1+r)^i(1+p)^i} - \frac{Q_i}{(1+r)^i} - \frac{PT_i}{(1+r)^i(1+p)^i} \\
& - \frac{t(NI)}{(1+r)^i(1+p)^i} \quad \text{for } i=1, \dots, 25; \\
& \frac{-MI_i}{(1+r)^i(1+p)^i} + \frac{-MR_i}{(1+r)^i(1+p)^i} + \frac{u'B}{(1+r)^i(1+p)^i} \quad \text{for } i=1, \dots, 15; \text{ and} \\
& \frac{(1-s)V_n - at' - NI}{(1+r)^{25}(1+p)^{25}} ,
\end{aligned}$$

where NI is net taxable income from house property.

Assumptions for tenant-occupied or rental housing are the same as for owner-occupied housing.

Net present value is calculated for each income tax bracket separately. Major assumptions to which results could be sensitive such as for the interest rate, discount factor, rate of land appreciation, land/structure ratio and the proportion of loan in the total cost of the house have been varied for NPV calculations of both owner-occupied and tenant-occupied housing. Investment of black income (hereafter referred to as tax evaded income) and Home Loan Account Scheme of the National Housing Bank are also analysed.

For a given discount rate a zero NPV would imply that the value of the house to the owner equals the initial cost or price of the house including transaction costs. The sum of the price of the house and the NPV (whether positive or negative) would be the maximum price which the investor would be willing to pay for the house. Let us call this price his 'demand price'. For a positive (negative) NPV the 'demand price' would be higher (lower) than the price of the house by an amount equivalent to the present value of the net benefits (costs). The 'demand price' measures the short-run asset price effects of tax concessions.

Let us examine what happens in the long-run if NPV is positive in the short run. To a positive NPV, the market would respond in the following way if it functioned with reasonable efficiency. Market forces would lead to growth in investment in housing, resulting in growth of the stock of housing. The increase in the stock of housing will have the effect of lowering the price of housing services. As a result, the return on housing will also decline. Similarly, a negative NPV implies the value of the house to the owner/investor falling below the cost/price. This would effectively mean a disincentive to investment in housing. Decrease in investment in housing will have the effect of disturbing the demand/supply equations. Eventually this will lead to an increase in the price of housing services.

NPV calculations can also be used to find out the required change in rent for a given discount rate and also the rent at which the present value equals zero under varied tax regimes. The long-run rent/cost ratio so obtained is used to estimate the effect of a change in the price of housing services on quantities of housing demanded. To do this, estimates of price elasticities of demand for housing are required. These estimates have been taken from Mehta and Mehta (1989).

It must be noted that in the above framework of NPV calculations two types of tax concessions, namely; tax concessions on incomes from house property; and tax concessions on investment in housing are analysed. However, provisions under Sections 80GG and 10(13A)⁷ of the Income tax Act which provide for tax concessions on expenditure incurred in payment of rent in respect of any accommodation occupied by the assessee also have a bearing on the net present value of investment in ownership housing. Though it is possible to incorporate these sections into the

model, however, it is not attempted here. Nevertheless a discussion on the direction of their likely impact on net present value calculations carried out in this study is in order.

As it is clear from the description of Sections 80GG and 10(13A) (see foot note 7) an assessee can avail of only one of these Sections. Also, provisions under Section 80GG are not applicable to assessees who own a house either at the place of their employment or where they ordinarily reside. Further, Section 10(13A) can be availed of only in cases where expenditure is actually incurred towards the payment of rent. In other words, provisions under Section 10(13A) shall not apply to owner occupied housing.

Case I

Let us consider a case of an assessee who is entitled to avail of Section 10(13A). Now assume that he decides to own a house and also self occupy it for his residence. As per the provisions under Section 10(13A) he will be denied tax concessions under the above Section no sooner he becomes landlord cum tenant. To the extent he will have to forego tax savings under Section 10(13A), NPV of self occupied housing reported in the study will be upward biased.

Case II

Where an assessee (entitled to Section 10 (13A) decides to let his own house. In this case reported net present value of tenant occupied housing is biased downwards.

Case III

Consider a case where an assessee is entitled to avail of tax concessions under Section 80GG. If he owns a house at the place of his employment, he is denied benefits available under the above Section. Our NPV computations in this case are biased upwards.

Case IV

As per the provisions under Section 80GG an assessee who owns a house at a place other than where he ordinarily resides shall be entitled to tax concessions under the above Section. Consider the case of such a landlord. In this case our NPV computations of tenant occupied housing would be an underestimate.

6. Interpretation of Variables used in Net Present Value Computations

a) The initial cost, V_0 , is taken to be the price received by the seller - let it be a development authority, housing board, etc. Clearly, this is not the price prevailing in the market for similar housing. We now bring the question of tax evaded wealth into NPV calculations. In housing, tax evaded wealth is interpreted in terms of under-reporting of the value of the property or house. It is associated with both undervaluation of new private construction and with under-reporting of the sale proceeds of the old or new house. Such wealth is introduced into the model in the following way.

For new private construction, valuation is problematic and the value reported by the owner cannot be taken to be its true value since, in most cases, tax evaded incomes which cannot be put on record are invested in housing. A lower value is normally declared⁸ to evade several taxes - wealth tax, income tax on incomes corresponding to housing, property tax and registration expenses - the chance of detection of black income being low. At the same time investment in housing is expected to earn a relatively high return compared to safe financial assets. Identifying tax evaded income generated through sale of houses is relatively less problematic.

Assume that there are individuals who are willing to sell new houses recently allotted to them by some housing authority. Let us also consider that there are buyers in the market for these houses and that these houses command a premium in the market. If both sellers and buyers are dishonest, which implies that some fraction of sale proceeds must go unrecorded, both buyers and

sellers will have the incentive to underreport the true sale proceeds. Buyers' incentives to declare a lower price on the sale deed have been discussed above.

Sellers' incentives include - 1) evasion of capital gains taxation and 2) access to tax evaded money which may be used for investment in assets where such funds are necessary or where chances of detection are minimal. Information on the true sale price of a sample of houses in one colony in Delhi was obtained by interviewing brokers and households⁹. For the undeclared component of these prices we have relied on available estimates of reported and unreported wealth in real estate. According to one estimate,¹⁰ the proportion of declared and undeclared wealth in real estate is 60:40. Using these estimates the component of white wealth in the true sale price of property is calculated. This is then used to split the owner's equity (V_0) into declared and undeclared components.

b) Land and construction components of the initial cost are taken as 40 per cent and 60 per cent respectively¹¹.

c) Annual imputed rent is taken to be 12 per cent of the value of property¹². The rental stream during the holding years begins at 12 per cent of the initial cost and it increases during subsequent years by 10 per cent per annum¹³. In terms of the model described earlier, the increase in the value of house (capital appreciation) is notional till the house is sold and the gain is actually realised.

Thus, in effect, increases in rent do not keep pace with the increase in value of the house to the full extent¹⁴. This implies that the major gain then comes from capital appreciation rather than from rentals¹⁵.

d) The annual operating cost is taken to be 1.5 per cent of the initial cost. This includes expenditure on repair and maintenance and house insurance premium.

e) The house is expected to be held for 25 years. That is, the legal transfer of the property will take place at the end of the twenty fifth year from the date of possession.

f) Quite apart from the problem of assessing the potential profile of rental income from a given house, there are knotty questions regarding land appreciation. Because of variation in individual preferences for various housing attributes - important among them being location and size - determination of appreciation in land value becomes very difficult. Data on land prices in Delhi is available from two sources; one of them is the New Delhi Municipal Corporation (NDMC) and the other source is a study by the Town and Country Planning Organisation (TCPO) for the period 1980 to 1982. The average land price for the period 1970-71 to 1988-89 as reported by the NDMC has shown about a 22 per cent growth per annum. The latter source puts the minimum increase in land prices at 16 per cent per annum. Given the long data series used by the NDMC, we would have preferred to rely on this data. It may, however, be mentioned that none of these data reflect the true market prices of land. While the TCPO estimates, which are based on data obtained mostly from government agencies (and therefore reflect either predetermined or controlled prices, or prices reported on sale deeds), would be lower than market prices and, at best, represent the price paid in white money, the NDMC prices would be quite close to the market value of land. The reported component of land value (taken to appreciate at 16, 18 or 20 per cent in alternative simulations) given in the NIPFP (1986) study is used to compute the market price of land. This is then used to calculate the market rate of land appreciation. The former

rate of appreciation is likely to be observed when both buyer and seller are honest whereas the latter would prevail when both parties are dishonest.

g) Mortgage terms of the Housing Development and Finance Corporation (HDFC) are used here. Accordingly, the range of interest rates is taken to be 16 per cent to 16.5 per cent and the repayment period is set at 15 years¹⁶. The Home Loan Account scheme of the National Housing Bank (NHB) is also discussed and incorporated in NPV calculations.

h) It is assumed that all investors are able to raise a mortgage loan equivalent to at least 40 per cent of the initial cost.

i) The registration fee, stamp duty and other such levies at the time of buying and selling the house are taken to be 2 per cent of initial cost and 8 per cent of the sale proceeds respectively.

j) The property tax, income tax, capital gains tax and surcharge on capital gains are taken as statutory tax rates. As is well known, at the individual level, increase in the marginal tax rate occurs if inflation pushes taxpayers into higher brackets. The effect of inflation on individuals' marginal income tax rates is, however, ignored though, in principle, it can be incorporated into the model.

k) The inflation rate, p , is taken to be the change in the wholesale price index.

l) The discount factor, or investor's opportunity cost, r , is proxied by the after tax real rate of return on investment with the same risk as investment in housing. This is taken to be 3 per

cent. The opportunity cost could vary across income tax brackets and is likely to be higher (lower) for low (high) income bracket households. Therefore simulations are also carried out with a 5 per cent discount rate.

m) Some parameters to which results are sensitive - expected rate of land appreciation, cost of house to loan ratio, structure to land ratio, discount factor and the investors' marginal tax rate are varied for NPV computations. Computations are carried out with:

- i. land appreciation at 16 per cent, 18 per cent and 20 per cent,
- ii. a loan to total cost ratio of 40 and 50 per cent,
- iii. land to structure ratios of 60:40 and 40:60,
- iv. discount factors at 3 per cent and 5 per cent and
- v. the owners' marginal income tax rates from 0 to 40 per cent.

Simulations are also done with alternative tax treatment of housing.

7. Results

We first discuss the results for owner-occupied housing. Results for tenant-occupied housing are discussed later.

7.1 Tax concessions and owner-occupied housing

Computed results for owner-occupied housing are displayed in Tables 1 to 3. Estimates of the effects of changes in the price of housing services on the quantity of housing demanded are in Tables 4 and 5. The following important features of the results are apparent.

- i. Tax concessions currently available to investment in housing have increased the net return from this form of investment.
- ii. The tax favour to upper income brackets is higher than that to lower bracket tax payers: The difference between the NPV with no tax concessions and the actual post tax NPV increases with the tax bracket.
- iii. As is obvious a priori interest deductibility under Section 24(2) reduce the progressivity of the tax system by giving more generous concessions to house-owners in higher tax brackets than non-tax payers or taxpayers in low income brackets.
- iv. Both mortgage interest deductibility and concessions for housing under Section 88 introduces a bias in favour of debt financing.
- v. Tax concessions via Section 24(2) are found to be relatively more generous than tax concessions available under Section 88, in terms of loss in revenue (see section 7.2).
- vi. In the case analysed in section 7.4 the effective interest rate on mortgage loan falls, in real terms, from about 27.7 per cent to about 10.49 per cent on account of tax concessions. For the more liberal HLA scheme of the NHB, however, the impact of tax concessions is to lower the real effective interest rate from 9.7 per cent to (-) 12.03 per cent.

- vii. A relatively low interest rate, long repayment period and high rate of land appreciation result in making investment in housing more attractive.
- viii. Investment in land is found to be more profitable than investment in construction of structure (housing).
- ix. If capital gains are removed from the NPV calculations, the effective return from investment in housing would fall substantially¹⁷. Under the current tax laws investment in rental housing would especially be badly hit.

As is apparent from Table 4, the demand price and consequently the value of the house to the investor is more than the cost of the house under the current tax laws as well as in the absence of tax concessions. On comparing the demand price with the cost of the house, the former is found to be higher by 43.19 per cent and 35.9 per cent under the current tax laws and in the absence of tax concessions respectively. The long-run rent/cost ratio for the given opportunity cost of the investor is computed to be 6.76 per cent which is nearly 44 per cent lower than the initial rent/cost ratio. This implies the existence of downward pressure in the price per unit of housing services (rent) upto a point where the demand price equals the cost of the house and the investors' real after tax return of 3 per cent is also restored. Such rent would be 6.76 per cent of the cost. As expected, the long-run rent/cost ratio increases in the absence of tax concessions. The 8th row of Table 4 presents percentage changes in the amount of housing per household as a result of changes in long-run rent/cost ratios. Estimates underlying row 8, column 1 imply that a 43.6 per cent decrease in the rent would be accompanied by about a 17.5 per cent increase in the quantity of housing demanded. Estimates in row 10 imply that in the long-run, while disallowance of mortgage interest would cause a 3 per cent decrease in the amount of housing per household, withdrawal of Section 88 would be accompanied by a 2.24 per cent decrease in the quantity of housing demanded per household.

Table 5 presents estimates of the long-run rent/cost ratio and short-run demand price when the investor's opportunity cost increased from 3 per cent to 5 per cent. As expected, this results in a lower demand price implying a much higher increase in the long-run rent/cost ratio in the absence of tax concessions than with a 3 per cent discount rate.

The main conclusions to be drawn from this analysis are: First, tax concessions are favourable to owner-occupied housing as they increase their NPV. The tax advantages, however, vary under alternative conditions such as the investors' discount rate, rate of land appreciation, loan/cost ratio, and the investor's marginal income tax rate. Second, under current tax laws, the owner-occupant needs to earn a rental of 6.76 per cent of the initial cost of the house for the investment to be viable at a discount rate of 3 per cent. However, with no tax concessions, he will be required to earn a rent of 7.65 per cent of the initial cost of the house which is lower than the assumed rent/cost ratio of 12 per cent.

7.2 Revenue Impact of Tax Concessions to Owner Occupied Housing

The annual tax sacrifice, in rupees, per rupee of investment in housing or the annual tax saving to the house-owner is given in Table 6. The most important finding is that, in this model, 30 per cent income tax bracket investors recover an amount equivalent to nearly 41 per cent of the mortgage loan while a 40 per cent income tax bracket investors recover about 47 per cent of the mortgage loan through tax saving due to interest deductibility and under Section 88. Further, an investment of Rs. 100 in self-occupied housing results in a total nominal tax saving of Rs. 16.27 over 15 years. Tax saving due to interest deductibility and Section 88 are

respectively Rs. 21.38 and Rs. 19.29 per rupees 100 of mortgage loan or Rs. 8.5 and Rs. 7.7 per Rs. 100 of investment in housing. Clearly, this will increase with a higher loan/cost ratio. Tax saving due to interest deductibility rises with the marginal tax rate of the investor. For instance, for the 40 per cent tax bracket and a 40 per cent loan/cost ratio it is about Rs. 28.5 per rupees 100 of mortgage loan or Rs 11.4 per rupees 100 of investment in housing. This suggests that the structure of these tax concessions has an adverse impact on income distribution.

7.3 The Effect of the Home Loan Account Scheme (HLA) of the National Housing Bank on the Price of Owner Occupied Housing

With an HLA, the NPV of self-occupied housing is found to be 13.9 per cent higher than the NPV in the absence of the above scheme.

In brief, the HLA requires a member to save regularly (monthly or quarterly or annually) for a minimum period of five years. Deposits earn interest at 10 per cent per annum. After the subscription period, the member is entitled to a loan equal to a multiple of accumulated savings at concessional interest.

In this exercise we have assumed that the individual saves a constant amount annually. As the cost of house is taken to be Rs. 2.5 lakh, the person plans his savings in such a way that he gets Rs. 2.5 lakh after 5 years. The NHB advises an individual to save Rs. 1040 per month if the cost of the house is Rs. 2 lakh. Accordingly, he saves Rs. 15600 per annum for 5 years. His contributions and interest thereon are eligible for tax concession under Section 88 of the scheme. Therefore, his gross return on deposits would be interest plus tax saving under Section 88.

Now assume that his after tax nominal rate of discount is 11 per cent. The difference between gross return on an alternative investment and the gross return on HLA deposits is taken to be the subsidy to HLA deposits. This may be subtracted from the present value of interest paid on the loan. Adding repayments and deducting tax saving under Section 88 and tax saving due to interest deductibility, gives the effective cost of the HLA loan. In real terms the effective cost of funds works out to 9.7 per cent in the absence of tax concessions, lower than the effective cost of 27.7 per cent in the general situation examined earlier because the effective rate of interest to be paid on loans is lower in the HLA scheme. The actual post tax effective cost is around -12.03 per cent with the HLA scheme against 10.49 per cent in the absence of this scheme. Distortion in the cost of funds is to a large extent caused by, besides tax concessions, the fixed payment mortgage. These distortions have implications for the size of the mortgage loan market.

7.4 Effect of Tax Evaded Wealth on the Net Present Value of Owner Occupied Housing and its Implications for Revenue Loss to the Government.

We now discuss two cases of investment in housing where tax evaded wealth is involved both in buying and selling the house and where such wealth is generated when the house is sold. Other assumptions of section 5 continue to be applicable. In line with the discussion in section 6, Rs. 7.5 lakh is taken to be the actual (market determined) sale price. Of this Rs. 4.5 lakh, is assumed to be white. This is, roughly the situation for houses sold at Rs. 2.5 lakh by housing authorities according to real estate brokers. The property tax and also the income tax (if the house is let) are based on the reported price of house. It may be mentioned that, since the rate of appreciation of rents lags behind the rate of appreciation of property, this house will earn rent lower than 10 per cent of the market value. We assume that

this house can earn only as much rent as other similar houses. In such a scenario the rental earned would be 6.6 per cent (4 per cent) of the reported value of the house (the true purchase price). This, implies a reduction in inflows during the operating years. However, the net gain will increase in the terminal year when the house is sold, given that the true sale price of the house is under-reported. If 16 per cent is the reported appreciation in land value, untaxed unreported appreciation would be 40 per cent of the total sale price. The present value of housing investment in this case is Rs. 1.23 lakh for a 30 per cent bracket taxpayer compared to Rs. 0.56 lakh for an all white sale.

Under-reporting of the sale price by 40 per cent is found, in this case, to result in evasion of tax of a little more than Rs. 5.6 lakh which is about Rs. 75 per Rs. 100 of investment.

Consider next the case where a dishonest person gets a house from a public housing authority. He sells it after holding it for 25 years as in the earlier case. Since he is dishonest, he does not declare the full capital gains earned from the sale of the house. The net present value of his investment in housing is computed to be about Rs. 1.41 lakh. In this case evasion of tax is even higher than in the previous case at Rs. 137 per Rs. 100 of investment.

7.5 The Effect of Tax Concessions on Tenant-occupied or Rental Housing

Tables 7 to 9 present the computed results for short run price effects of tax concessions on rental housing. The main conclusions drawn are:

- i. Taxation is less favourable to investment in rental housing than to investment in owner-occupied housing.

- ii. Under similar economic conditions while investment in self-occupied housing is profitable, investment in rental housing is found to be making losses. (see Tables 5 and 11)
- iii. Taxation is biased in favour of debt financing.

We now analyse the computed results of a specific case of investment in tenant-occupied housing as described in section 5. On comparing Tables 1 and 7, it can be seen that under similar economic conditions the rate of return from investment in self-occupied housing is more than investment in rental housing. Further, Tables 4 and 10 show that investors under 30 per cent income tax bracket, other things being the same, investment in self-occupied housing is more profitable than investment in rental housing. On comparing the difference between actual post tax NPV with pre-tax NPV for both types of housing, the difference is seen to be lower for rental housing which indicates that the tax system accords greater favour to investment in owner-occupied housing.

Table 10 indicates that the demand price and consequently the value of the house to the investor is more than the cost of the house under the current tax laws as well as in the absence of provisions under Section 88. The demand price is found to be about 33 per cent higher than the cost of house under the actual tax terms. Long-run rent/cost ratio is lower than the initial rent/cost ratio implying an upward movement in the quantity of housing demanded. Estimates in row 9 imply that in the long run withdrawal of Section 88 would be accompanied by 2.24 per cent decrease in the quantity of housing demanded.

Table 11 presents computed results for a discount factor of 5 per cent instead of 3 per cent. As expected, the NPV falls to Rs. (-) 7,098.04 and the long run rent/cost ratio goes up to 12.52 per cent which is 4.34 per cent more than the initial rent/cost ratio assumed in this study. When Section 88 is withdrawn the value of the house to the investor falls further by more than Rs.

6,836. Given the likely fall in housing supply, the long run equilibrium rent/cost ratio worked out to 13.02 per cent (row 6, column 2) which is 8.5 per cent more than the initial rent/ cost ratio. However, the increase in rent would eventually lead to a reduction in the quantity of housing demanded per household (row 8, column 2).

7.6 Revenue Impact of Tax Concessions to Rental Housing

On examination of the estimates in Tables 12 and 13, it is apparent that an investment of Rs. 100 results in a tax saving equivalent to Rs. 17.7 or Rs. 2.7 in present value terms over 15 years. Tax saving per Rs. 100 of loan amount works to Rs. 19.29 and Rs. 6.8 in nominal and real terms respectively.

8. Financial Returns to Housing under the Current Tax System vis-a-vis Tax Provisions Existing Before the Amendment by the Finance Act 1992-93.

8.1 One of the major modifications in the Finance Act 1992-93 relates to capital gains taxation. This has been effected through the withdrawal of Section 53¹⁸ and amendment of Section 48(2)¹⁹ of the Income tax Act. A new Section 112 has been inserted to provide that long term capital gains will be subject to a flat rate of income tax. The rate of tax is 20 per cent in the case of individuals.

Under similar economic conditions for a 30 per cent bracket individual, existing provisions of capital gains taxation increase financial returns to housing by 9 per cent when compared to financial returns under the earlier provisions of capital gains taxation. As is obvious a priori 40 per cent bracket house owners are also better off under the existing provisions of capital gains. However, NPV for a 20 per cent bracket individual decreases by 4.1 per cent when compared to his NPV under the earlier provisions of capital gains taxation.

8.2 Withdrawal of new construction allowance Section 23(1) has resulted in decreasing the NPV of let out housing, consequently, increasing the existing bias of tax provisions in favour of owner - occupied housing.

8.3 Provisions under Section 71(4) and Section 71(A) as amended by the Finance Act 1992-93 provide that the loss from house property is not allowed to be set off against income under any other head of income. The carry forward of loss of any year from house property can be set off only against income from house

property of subsequent years. However, owner occupied house property is exempted from the provisions under these sections. This has further increased the bias of tax provisions in favour of self occupied housing.

9. Recommendations

To encourage home ownership, the income tax system provides various tax concessions. Based on the analysis in section 7 the following observations have been made.

- i. Tax concessions which accord greater favour to upper income groups are unjustified. This particular feature of the present tax system needs rectification.
- ii. There is no apparent reason for relatively heavy taxation of rental housing vis-a-vis self-occupied housing especially when the supply of rental stock needs to be enhanced in view of the considerable financial barriers to entry for most potential home owners.
- iii. There is need to remove the bias in favour of debt financing, vis-a-vis, equity financing in the tax system.

On the basis of these observations the following recommendations can be made.

- i. Insofar as tax concessions increase with the marginal tax rate, they necessarily provide larger subsidies to high bracket households. In order to correct this, it is suggested that concessions in the form of tax credits rather than tax deductions be given under Section 24(2).
- ii. Our results show that rental housing yields relatively low returns, vis-a-vis, self occupied housing. Further, there are situations where rental housing is unprofitable even though similar self-occupied housing is profitable. This calls for measures which would improve the return from this form of investment. In the majority of OECD countries, rental housing is provided depreciation which can be set against gross rental income. However, rules of depreciation differ across countries.

India and the UK are unusual in treating housing (offered by households in the rental market) as an asset with an infinite life for tax purposes and allowing no deductions for depreciation, though depreciation is allowed for both residential and non-residential buildings in India, if these happen to be industrial and commercial assets. A 10 per cent

depreciation rate is applied for non-residential buildings and a 5 per cent rate for residential buildings. A 20 per cent rate is admissible on buildings with dwelling units each with plinth area not exceeding 80 square meters. In order to correct this inconsistency, it is suggested that depreciation at the rate of 5 per cent to individual owners of rental housing be permitted. A more generous depreciation allowance may be considered for Low Income Group (LIG) housing.

- iii. However, as our results show, the HLA scheme of the NHB is unduly generous. Concessions to the scheme should be reduced by limiting the benefit of Section 88 only to contributions to the HLA as opposed to both contributions and the interest earned on contributions.
- iv. Section 54F provides for exemption from capital gains tax if sale proceeds of any long-term asset, not being a residential house, are invested in the purchase or construction, within a stipulated period, of a residential house. However, this concession is not available to an assessee who owns any other residential house on the date of transfer or who purchases another residential house within the stipulated period. This condition appears to be needless and may be withdrawn.
- v. Due to the fact that tax subsidy is skewed toward the higher end of the income distribution it is necessarily biased against the households in the lower end of the income distribution. Therefore, tax subsidy may not be an appropriate policy to improve house ownership opportunity for most households in India. An alternative approach may be interest subsidy rather than tax subsidy. This suggestion must, however, be treated with caution in a situation where access to housing loan from the formal sector housing institutions is highly restrictive in general and especially more restrictive for non-taxpayers.

TABLE 1

Net Present Value of Self Occupied Housing Under Actual Tax Legislation

Loan and Interest terms (per cent per annum)	Land app- reciation (per cent per annum)	Land component 40 per cent of total cost				Land component 60 per cent of total cost				Col. 5 as % of Col. 1
		Rs. lakh	As percentage of Col. 1			Rs. lakh	As percentage of Col. 5			
		Marginal Tax Rates (per cent)				Marginal Tax Rates (per cent)				
		0	20	30	40	0	20	30	40	
		1	2	3	4	5	6	7	8	9
I <u>Loan 40 per cent of the cost</u>										
1. Interest 16 per cent	16	0.90	116	120	124	1.93	108	109	111	167.44
2. Interest 16 per cent	18	1.98	107	109	111	3.55	103	105	106	160.58
3. Interest 16 per cent	20	3.61	104	105	106	6.0	102	103	104	156.65
II <u>Loan 50 per cent of the cost</u>										
1. Interest 16.5 per cent	16	0.80	120	124	129					
2. Interest 16.5 per cent	18	1.88	108	110	112					
3. Interest 16.5 per cent	20	3.51	104	105	106					

TABLE 2

Net Present Value of Self Occupied Housing Under Actual Tax Legislation and Alternative Tax Terms
(Land Component 40 Per cent of the Cost)

Loan and interest terms	Appre- ciation (per cent per annua)	Actual tax legislation				Interest deductibility disallowed			In the absence of tax credit		
		Block 1 (Rs lakh)				As a percentage of Block 1			As a percentage of Block 1		
		0	20	30	40	20	30	40	20	30	40
I. Loan 40 per cent of the cost											
1. Interest 16 Per cent	16	0.90	1.05	1.08	1.11	93.35	90.35	87.54	92.5	92.75	92.97
2. Interest 16 Per cent	18	1.98	2.13	2.16	2.20	96.74	95.19	93.69	96.32	96.38	96.44
3. Interest 16 Per cent	20	3.61	3.76	3.79	3.83	98.15	97.25	96.37	97.91	97.94	97.95
II Loan 50 Per cent of the cost											
1. Interest 16.5 Per cent	16	0.80	0.95	0.99	1.02	92.6	89.34	86.28	90.85	91.18	91.48
2. Interest 16.5 Per cent	18	1.88	2.04	2.07	2.10	96.55	94.9	93.34	95.72	95.79	95.86
3. Interest 16.5 Per cent	20	3.51	3.67	3.70	3.73	98.1	97.15	96.24	97.62	97.64	97.66
III Loan 40 Per cent of the cost*											
1. Interest 16 Per cent	16	0.014	0.14	0.18	0.21	57.09	47.0	39.94	52.79	61.1	66.97
2. Interest 16 Per cent	18	0.69	0.82	0.85	0.88	92.38	88.92	85.8	91.62	91.93	92.21
3. Interest 16 Per cent	20	1.70	1.82	1.85	1.89	96.59	94.97	93.4	96.25	96.3	96.37

- Notes: 1. All Computation assume a 3 per cent discount rate.
 2. NPV for zero marginal tax rate is not repeated since it is same for each block.
 * Estimates are for a 5 per cent discount rate.

TABLE 3

Net Present Value of Self Occupied Housing under Actual
Tax Legislation and with No Tax Concessions
(Land Component 40 per cent of the cost)

Land and interest item	Land appreci- ation (per cent)	Actual tax legislation				No concessions		
		Block 1 (Rs lakh)				As a percentage of Block 1		
		Marginal tax rates				Marginal tax rates		
		0	20	30	40	20	30	40
		1	2	3	4	5	6	7
I. Loan 40 Per cent of the cost								
1. Interest 16 Per cent	16	0.90	1.05	1.08	1.11	86	83	81
2. Interest 16 Per cent	18	1.98	2.13	2.16	2.20	93	92	90
3. Interest 16 Per cent	20	3.61	3.76	3.79	3.83	96	95	94
II. Loan 40 Per cent of the cost*								
1. Interest 16 Per cent	16	0.014	0.14	0.18	0.21	9.87	8.1	6.91
2. Interest 16 Per cent	18	0.69	0.82	0.85	0.88	84	80.92	78.05
3. Interest 16 Per cent	20	1.70	1.82	1.85	1.89	92.8	91.3	89.78
III. Loan 50 Per cent of the cost								
1. Interest 16.5 Per cent	16	0.80	0.95	0.99	1.02	83.5	80.5	78
2. Interest 16.5 Per cent	18	1.88	2.04	2.07	2.10	92	91	89
3. Interest 16.5 Per cent	20	3.51	3.67	3.70	3.73	95.7	94.8	93.9

Note: Computed results are for 3 per cent discount rate except those marked *.

TABLE 4

Effects of the current tax law and of changes
in the tax terms on owner-occupied housing

(Rupees)

Item	Tax Terms			
	Actual Tax treatment	Mortgage deductibility not allowed	Concessions under Section 88 withdrawn	No Concession
	(1)	(2)	(3)	(4)
1. NPV	107983.97	97571.76	100151.09	89738.89
2. Demand Price	357983.97	347571.76	350151.09	339738.89
3. Per cent difference from initial cost	43.19	39.03	40.06	35.90
<u>Long Run</u>				
4. Demand Price	0	0	0	0
5. Per cent difference from initial cost	0	0	0	0
6. Rent/cost ratio(%)	6.76243	7.26746	7.14235	7.64737
7. Per cent diff- erence from initial rent/ cost ratio	-43.65	-39.44	-40.48	-36.27
8. Effect of long- run change in rent on the amount of hous- ing per household	+17.46	+15.78	+16.19	+14.51
9. Per cent diff- erence from 6.76243%	0	+7.5	+5.6	+13.09
10. Effect of long run change in rent on the amount of housing per household	0	-3.0	-2.24	-5.24

Note: Estimates are for a discount rate of 3 per cent.

TABLE 5

**Effects of the Current Tax Law and of Changes
in the Tax Terms on Owner-Occupied Housing**

(Rupees)

Item	Tax Terms			
	Actual Tax treatment	Mortgage deductibility not allowed	Concessions under Section 88 withdrawn	No Concession
	(1)	(2)	(3)	(4)
1. NPV	17587.747	8266.28	10751.39	1429.926
2. Demand Price	267587.747	258266.28	260751.39	251429.93
3. Per cent difference from initial cost	7.04	3.31	4.3	0.57
<u>Long Run</u>				
4. Demand Price	0	0	0	0
5. Per cent difference from initial cost	0	0	0	0
6. Rent/Cost ratio (%)	11.01875	11.53881	11.40016	11.92022
7. Per cent difference from initial rent/cost ratio	+8.18	+3.84	+4.99	+0.66
8. Effect of long run change in rent on the amount of housing per household	-1.54	-1.536	-1.996	-0.264
9. Per cent difference from 11.01875	0	+4.72	+3.5	+8.19
10. Effect of long-run change in rent on the amount of housing per household	0	-1.89	-1.4	-3.28

Note: Estimates are for a 5 per cent discount rate.

TABLE 6

**Annual Tax Saving from
Self-Occupied Housing**

(Figures are in Rupees)

Year	Section 88	Due to Tax Credit on Mortgage Repayments under Section 88	Due to Interest deductibility	Sum of columns	Annual total tax gain per Rs.100
0	1000			1000	0.4
1		400	1500	1900.00	0.76
2		464	1500	1964	0.79
3		538.24	1500	2038.24	0.82
4		624.24	1500	2124.24	0.85
5		724.3584	1500	2224.36	0.89
6		840.1366	1500	2340.14	0.94
7		974.5585	1500	2474.56	0.99
8		1130.487	1500	2630.49	1.05
9		1311.365	1500	2811.37	1.12
10		1521.184	1500	3021.18	1.21
11		1764.574	1500	3264.57	1.30
12		2000	1500	3500	1.4
13		2000	1500	3500	1.4
14		2000	1268	3268	1.31
15		2000	607.4	2607.4	1.04
Total		19293.16	21376	40669.16	16.27

TABLE 7

Net Present Value of Tenant Occupied Housing Under Actual Tax Legislation

Loan and Interest terms (per cent per annum)	Land app- reciation (per cent per annum)	Land component 40 per cent of total cost				Land component 60 per cent of total cost				Col. 5 as % of Col. 1		
		Rs. lakh	As percentage of Col. 1			Rs. lakh	As percentage of Col. 5					
			Marginal Tax Rates (per cent)				Marginal Tax Rates (per cent)					
			0	20	30		40	0	20		30	40
1	2	3	4	5	6	7	8	9				
I <u>Loan 40 per cent of the cost</u>												
1. Interest 16 per cent	16	0.95	94	86	79	1.98	96.48	93	89	208		
2. Interest 16 per cent	18	2.03	97	94	90	3.61	98	96	94	178		
3. Interest 16 per cent	20	3.66	98	96.5	94.5	6.06	99	98	96.4	165		
II <u>Loan 50 per cent of the cost</u>												
1. Interest 16.5 per cent	16	0.84	100.2	95.12	90.04							
2. Interest 16.5 per cent	18	1.93	100.1	98	96							
3. Interest 16.5 per cent	20	3.56	100.4	99	98							

TABLE 8

Net Present Value of Tenant Occupied Housing under Actual
Tax Legislation and Alternative Tax Terms
(Land Component 40 per cent of the cost)

Land and interest item	Land appreci- ation (per cent) per annum)	Actual tax legislation				In the absence of tax credit		
		Block 1 (Rs lakh)				As a percentage of Block 1		
		Marginal tax rates				Marginal tax rates		
		0	20	30	40	20	30	40
	1	2	3	4	5	6	7	
I. Loan 40 Per cent of the cost								
1. Interest 16 Per cent	16	0.95	0.88	0.82	0.75	91.71	90.00	89.2
2. Interest 16 Per cent	18	2.03	1.97	1.9	1.83	96.04	96.00	95.8
3. Interest 16 Per cent	20	3.66	3.6	3.53	3.46	97.82	97.8	97.8
II. Loan 50 Per cent of the cost*								
1. Interest 16 Per cent	16	0.84	0.85	0.80	0.76	89.2	89.42	88.5
2. Interest 16 Per cent	18	1.93	1.93	1.89	1.84	95.50	95.30	95.50
3. Interest 16 Per cent	20	3.56	3.56	3.52	3.47	97.5	97.44	97.60
III. Loan 40 Per cent of the cost								
1. Interest 16.5 Per cent	16	0.03	(-)0.01	(-)0.07	(-)0.13	-830.70	-199.06	-150.47
2. Interest 16.5 Per cent	18	0.70	0.60	0.60	0.54	89.06	88.95	88.02
3. Interest 16.5 Per cent	20	1.71	1.66	1.61	1.55	96.10	95.6	95.7

Note: * Computed results are for a 5 per cent discount rate.

TABLE 9

Net Present Value of Tenant Occupied Housing under Actual
and with no Tax Concession
(Land Component 40 per cent of the cost)

Land and interest item (per cent) per annum)	Land appreci- ation (per cent) per annum)	Actual tax legislation				No concession		
		Block 1 (Rs lakh)				As a percentage of Block 1		
		Marginal tax rates				Marginal tax rates (per cent)		
		0	20	30	40	20	30	40
	1	2	3	4	5	6	7	

I. Loan 40 Per cent of the cost

1. Interest 16 Per cent	16	0.95	0.88	0.82	0.75	92	90	89
2. Interest 16 Per cent	18	2.03	1.97	1.90	1.83	96	96	96
3. Interest 16 Per cent	20	3.66	3.6	3.53	3.46	98	98	98

II. Loan 40 Per cent of the cost*

1. Interest 16 Per cent	16	0.03	(-)0.01	(-)0.07	(-)0.13	565	196	154
2. Interest 16 Per cent	18	0.70	0.66	0.60	0.54	89	88	87
3. Interest 16 Per cent	20	1.71	1.66	1.61	1.55	96.8	95.6	95.5

III. Loan 50 Per cent of the cost

1. Interest 16.5 Per cent	16	0.84	0.85	0.80	0.76	89.4	89.3	88.15
2. Interest 16.5 Per cent	18	1.93	1.93	1.89	1.84	95.3	95.2	95.6
3. Interest 16.5 Per cent	20	3.56	3.56	3.52	3.47	97.47	97.44	97.41

Note: * Computed results are for a 5 per cent discount rate.

TABLE 10

Effects of the Current Tax Law and of Changes
in the Tax Terms on Tenant-occupied Housing

(Rupees)

Item	Tax Terms	
	Actual tax terms	Concessions under Section 88 withdrawn
(1)	(2)	(3)
1. NPV	81631.31	73798.44
2. Demand Price	331631.3	323798.4
3. Per cent difference from initial cost	32.65	29.51
<u>Long-Run</u>		
4. Demand Price	∅	∅
5. Rent/cost ratio (%)	7.239371	7.6461
6. Per cent difference from initial rent/cost ratio	(-)39.67	(-)36.28
7. Effect of long-run change in rent on the amount of housing per household	(+)15.86	(+)14.51
8. Percent difference from 7.239371	∅	(+) 5.62
9. Effect of long-run change in rent on the amount of housing per household		(-) 2.25

Note: Estimates are for a discount rate of 3 per cent.

TABLE 11

**Effects of the Current Tax Law and of Changes
in the Tax Terms on Tenant-occupied Housing**

(Rupees)

Item	Tax Terms	
	Actual tax terms	Concessions under Section 88 withdrawn
(1)	(2)	(3)
1. NPV	(-)7098.04	(-)13934.3
2. Demand Price	242901.9	236065.7
3. Per cent difference from initial cost	(-) 2.8	(-) 5.6
<u>Long-Run</u>		
4. Demand Price	0	0
5. Per cent difference from initial cost	0	0
6. Rent/ Cost ratio (%)	12.52106	13.02292
7. Per cent difference from initial rent/cost ratio	4.34	8.5
8. Effect of long-run change in rent on the amount housing per household	-1.74	-3.4
9. Per cent difference from 12.52106	0	4.04
10. Effect of long-run change in rent on the amount of housing per household		-1.60

Note: Estimates are for a discount rate of 5 per cent.

TABLE 12

Annual Tax Saving From Tenant Occupied Housing

Year	Section 88	Due to Tax credit on mortgage re-payments under section 88	Sum of columns 2 and 3	Annual total tax gain per Rs.100
(1)	(2)	(3)	(4)	(5)
0	1000			0.4
1		400		0.16
2		464		0.19
3		538.24		0.22
4		624.24		0.25
5		724.3584		0.29
6		840.1366		0.34
7		974.5585		0.39
8		1130.487		0.45
9		1311.365		0.52
10		1521.184		0.61
11		1764.574		0.71
12		2000		0.8
13		2000		0.8
14		2000		0.8
15		2000		0.8
Total	1000	18293.16	19293.16	7.7

NOTES

1. Investment in plant and machinery is also allowed certain tax concessions. This is only for illustration.
2. For a detailed and lucid discussion of this question see NIUA (1989).
3. This is discussed in section 5.
4. This, however, should not be taken to mean that taxation has no impact on the demand for ownership housing. More important to the individual is the change in the absolute price of ownership rather than the relative prices of owning and renting. Another way of looking at it is this: If tax concessions result in declining prices, demand would increase to the extent that the earlier prices inhibited effective demand for ownership housing. This relationship is, however, expected to be more evident in the case of low or middle income group housing and less important for high income group and luxury housing. Furthermore, other factors like locational advantages are likely to intervene to modify the relationship described.
5. See NIUA (1989).
6. The useful life of the structure is assumed to be 50 years.
7. **Section 10(13A)**: Provisions of Section 10(13A), provide for a deduction of an amount equivalent to the least of the following, in computation of assessee.
 - i. Actual amount of any allowance received by the assessee from his employer to meet expenditure actually incurred on payment of rent in respect of residential accommodation occupied by him; or
 - ii. the amount by which the expenditure actually incurred by the assessee in payment of rent exceeds 10% of the amount of salary; or
 - iii. 50% of the amount of salary where such accommodation is situated at Bombay, Calcutta, Delhi or Madras.

Section 80GG: Under the provisions of Section 80GG any expenditure towards payment of rent, in respect of any accommodation occupied by the assessee for the purpose of his residence, in excess of 10% of the total income of the assessee (not being an assessee having any income falling within clause 13A of Section 10) is deductible subject to a maximum of Rs 10,000 per month or 25% of total income

whichever is less. Provisions of this Section shall not apply to an assessee where any residential accommodation is owned by the assessee or by his spouse or minor child at the place where he ordinarily resides.

8. See Acharya and Associates (1986).
9. This may not necessarily be a representative sample. Market price of similar houses may be lower or higher elsewhere - even in the same city.
10. Acharya and Associates (1986).
11. See NCAER (1967) and Gupta (1985).
12. Rent to value ratio may be higher for luxury houses or those at prime locations. Given the cost of house assumed here, 12 per cent imputed rent is justified.
13. The value of structure declines over time in the absence of any replacement of the depreciated value of structure. As a result, rentals also decline over time. It may be recalled that the useful life of the house is assumed to be 50 years.
14. The rent is taken to be 12 percent of the initial cost. Further, the rent increases annually by 10 percent. Growth in rent is taken to be a little less than the average growth in rent, 12.5 percent per annum for MCD area of Delhi, to make it representative for Class I cities, where the level of and growth in rent is lower than that in Delhi.
15. Alternatively, an increase in rent roughly proportionate to the increase in the value of the house can be hypothesised if the houseowner calculates the rate of return, not on his equity or the initial price paid, but on the new higher market value of the house. Most recurring costs such as the property tax, cost of maintenance and repair will also have to increase with the increasing value of the house, which may also be added to the rent. However, available data on average rent for the MCD area in Delhi does not support the latter view of rent determination. For instance, while the average rate of growth in rent per square foot has been 12.50 percent per annum, growth in land prices and construction cost per unit were reported to be about 22 percent and 10 percent respectively for the period 1970-71 to 1988-89.
16. Repayment schedule used in NPV computations is taken from the brochures released by the HDFC and the NHB.

17. In the case of many households in India, who view housing as one of the basic necessities of life and do not indulge in it for speculation, the decision to own a house is likely to be more sensitive to the operating cost than to the accrued capital gains of the house.
18. Section 53 provided for total exemption from tax on total capital gains arising out of transfer of a residential house property where the full value of consideration is upto Rs. 2 lakh and proportionate exemption where the full value of the consideration exceeds Rs. 2 lakh.
19. Section 48(2) provided that only 50 per cent of the long term capital gain exceeding Rs. 10,000 from the sale of a house property is taxable.

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