

NOTES

Effective Cost of Small Savings

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Small saving schemes involve both an explicit and implicit cost to the government. The implicit cost, which arises from several tax concessions offered on these investments not only introduces distortion to the relative return of various assets in the financial market but also gives rise to high effective cost of borrowing for the government. This paper examines the nature and extent of hidden cost of small savings and explores the possibility of reducing these costs in India.

Introduction

Over the years, small savings have emerged as an important source of borrowing for the government. Two decades ago their contribution to the centre's gross fiscal deficit was about 13 per cent. Today they constitute about 20 per cent of the borrowing requirement of the central government. Given the present scheme of devolution, 75 per cent of net small saving collections are transferred to the states as part of their loans from the centre. Resource mobilisation from small savings witnessed a steady growth in 1980s with the growing need to finance a large part of the fiscal deficit through issue of non-marketable bonds in the face of limited possibility in accessing funds from the market. The outstanding liabilities of the central government on account of small savings stood at 8.8 per cent of GDP at end March 1998, which is only second to government dated securities at 15.4 per cent of GDP. So, the small saving instruments have acquired a prominent place in public finance. Interest rates offered on them are as competitive as those on market loans. There is, however, more to what small savings can offer to investors. These instruments enjoy an enviable position as far as their attractiveness to investors is concerned. They combine competitive nominal returns with several tax saving features. What implication does this have for the government budget and the financial market? This question needs to be addressed from two specific viewpoints : First, small savings imply a hidden cost to the government. The effective cost of borrowing to government from small savings is far higher than their interest cost. Second, these saving schemes have certain implications for the market since the effective return on them is higher than that on the marketable debt of the government. Thus, they pose a market distortion problem.

Keeping the above objectives in view, this note examines the nature and extent of the hidden cost of small savings and explores the possibility of reducing the implicit costs without adversely affecting their position in the budget. The note is organised into three sections viz., tax status, estimates of effective cost and linking return on small savings to market interest rate.

I. Tax Status

Most small savings instruments passing through the budget viz., post office deposit schemes, National Saving Schemes (NSS) and National Savings Certificate (NSC) involve substantial hidden cost to the budget compared to other borrowing instruments. These hidden costs represent the foregone revenue that would have normally accrued to the budget had these borrowings been contracted without conferring fiscal privilege to their investors. Under the current provisions of income tax, investment in small savings enjoys two types of tax concessions; first, the interest income from these instruments along with many other saving

schemes are exempt from tax upto a maximum limit of Rs. 12,000 in one financial year (U/S 80L) and second, investment in some of these instruments also qualify for tax rebate at the rate of 20%, upto a maximum rebate amount of Rs. 12,000 in a financial year (U/S 88).

Between these two forms of tax concessions, Section 80L applies equally to certain other debt instruments passing through the budget, viz, government dated securities, treasury bills and bank deposits; while the benefit of Section 88 has been an exclusive privilege of post office cumulative time deposits, NSS and NSCs and provident funds, among the government debt instruments. Consequently, the implicit cost of borrowing through small saving schemes is higher than that of dated securities and treasury bills.

II. Estimates of Effective Cost

The effective cost of small savings (excluding the administrative cost) should therefore comprise two elements; the nominal interest cost and the implicit cost on account of fiscal concessions. While small savings imply hidden costs to the budget, they also benefit government budget by way of easy borrowing from the households. Effective cost should, therefore, represent the net additional cost i.e. the discounted value of the costs net of discounted value of benefits over the maturity period of bonds. Assuming that government borrows Re. 1 through small savings with tax rebate to the investors (as under Section 88), the cost to the budget in the initial period equals the tax rebate (d) while the benefit is represented by the amount of borrowed fund i.e. Re. 1. In the second period, government pays back to investors the borrowed amount with interest of Re. $1(1+i)$, which constitutes the cost in this period. The benefit in this period equals the tax collected by the government on interest income (it), where ' t ' is the marginal tax rate. The discounted net additional cost for a one-year maturity bond therefore equals :

$$(d-1) + \frac{i(1-t)}{1+r} + \frac{1}{1+r} \quad \dots (1)$$

where ' r ' is the discount rate representing the time preference of the government.

This simple one period model can be generalised for more than one period case by the following formula :

$$(d-1) + \frac{i(1-t)}{(1-r)} + \frac{i(1+i)(1-t)}{(1+r)^2} + \frac{i(1+i)^2(1-t)}{(1+r)^3} + \dots + \frac{i(1+i)^{n-1}(1-t)}{(1-r)^n} + \frac{1}{(1-r)^n} \quad (2)$$

or

$$(d-1) + \frac{i(1-t)}{(1-r)} \left[1 + \frac{(1+i)}{(1+r)} + \frac{(1+i)^2}{(1+r)^2} + \dots + \frac{i(1+i)^{n-1}}{(1+r)^{n-1}} \right] + \frac{1}{(1-t)^n} \quad (3)$$

Now let $\frac{1+i}{1+r} = K < 1$

that is, the case where the discount rate exceeds the interest rate, ($r > i$). The formula can be then reduced to :

$$(d-1) + \frac{i(1-t)}{(1+r)} \frac{(1-K^n)}{(1-K)} + \frac{1}{(1-t)^n}$$

where $K = \frac{1+i}{1+r} < 1$... (4)

Given the values for tax rebate (d), interest rate (i), maturity period (n), the marginal tax rate for interest income (t) and some assumed value of discount rate (r), equation (4) can be applied to generate estimates of effective cost of various borrowing instruments. In principle, discount rate should represent the market interest rate and should be kept constant over the range of instruments. A constant discount rate should not affect the comparability of costs across the borrowing instruments. For the purpose of generating estimates in this paper we assume the value of 'r' at 12.15 per cent which was the yield at cut-off price for 10-year government bonds issued at auction in March 1998. Alternative estimates are also generated for lower discount rates by tapering off the rate by one percentage point i.e., to 11.15 per cent and 10.15 per cent. Presently, a majority of the active borrowing instruments of Government of India enjoy tax benefits under Section 80L of IT Act. Therefore, 't' could be assumed zero, although with a caveat that the interest income of tax payers remains within the limit of Rs. 12,000 in a financial year and that this income is solely derived from the saving instrument under consideration. We also generate the estimates of effective cost for three values of marginal tax rates, i.e. 10%, 20%, 30%, to get an idea about the variability of effective cost across the tax rates.

The estimates of effective cost generated for various borrowing instruments of the government are presented in [Table 1](#). It may be observed from the table that effective costs of NSS and NSCs are higher than those of other instruments for any values of 't'. When 't' is zero, that is for full tax exemption of interest income, the effective cost is as high as 34.24 per cent for NSC and 20.02 per cent for NSS, respectively, for 'r' values of 12.15 per cent. Compared to these, the effective cost of dated securities is placed at 10.9 per cent, lower than the actual nominal interest rate. For the 364-day treasury bills the cost is negative at (-)3.29 per cent even

with tax exemption on interest income. This primarily shows the impact of discount rate, which exceeds the interest rate on the instrument. [Table 1](#) also shows that the effective cost is sensitive to tax rate for interest income. For the tax rate of 10 per cent for interest income, the effective cost for NSCs declines to 27.84 per cent and tapers off with successively higher tax rates, reaching 15.05 per cent for 30 per cent tax rate. The position remains more or less similar for NSS. In the case of other small saving schemes, such as Post Office Recurring Deposits and Post Office Monthly Income Schemes, the effective cost turns to benefit, as the marginal tax rate reaches the maximum. The effective cost of Kisan Vikas Patra (KVP) and Indira Vikas Patra, which enjoy no tax concession but offer higher nominal rate of interest, is almost identical to the interest cost at the marginal tax rate of 20 per cent. For higher tax rates, effective cost is lower than the nominal interest rate and vice-versa. The effective cost is only 7.14 per cent in the case of KVP for the tax rate of 30 per cent, which rises to 22.54 per cent for tax rate of 10 per cent. If the interest income of dated securities is brought under progressive marginal taxation, government stands to gain in the long run. The analysis showed that effective costs can be brought down substantially if the interest income is brought under the tax net even when allowing for onetime tax rebate on investment. From this view point, a flat tax rate of, say, 20 per cent on interest income should look attractive to bring down the presently high effective cost of small savings in the budget. The two other scenarios with alternative discount rates of 11.15 per cent and 10.15 per cent go to reinforce the results obtained above. A low discount rate increases the absolute value of effective costs for all instruments without a substantial change in the dispersion of costs across various instruments. The effective cost of NSCs (VIIIth issue) increases to 39.06 per cent and 44.16 per cent, respectively, with 'r' value of 11.15 per cent and 10.15 per cent. Under the assumption of a low discount rate, the effective costs of dated securities go up to 15.60 per cent for the discount rate of 11.15 per cent and 20.58 per cent for the discount rate of 10.15 per cent. 364-day treasury bills still emerge as a net gainer for the budget.

Essentially, two major points emerge from the analysis:

- (1) Effective cost of borrowing instruments is very sensitive to tax rate on interest income. For a fixed value of tax rebate, the lower the tax rate on interest income the higher is the effective cost. For the zero value of tax rate effective cost reaches the maximum. This underlines the importance of bringing interest income under taxation for any strategy to reduce the effective cost of borrowing for the budget.
- (2) Tax rebates on small savings schemes, such as NSC and NSS, create a large difference in costs compared to unrebated borrowing instruments such as dated securities and treasury bills. The cost difference between 6 year NSC and 6 year dated securities is as much as 23 per cent. This is a major source of distortion in yields from financial instruments.

The analysis presented above provided an idea about the magnitude of effective cost involved in small saving schemes without accounting for the administrative costs of management of small savings. A rough estimate of administrative cost for small savings can be generated from the available information in the Union Budget. The cost on account of management of small savings in 1997-98 was placed at Rs. 996.5 crore. Assuming that cost across the various small saving instruments is uniformly distributed, the unit cost of

management may be estimated at 4.16 paise on gross small saving collection of Rs. 23,975 crore in 1997-98. This is an additional cost for small savings over the effective cost estimated above. The relative position of dated securities is far different. Government pays a commission charge of Rs. 2,000 to Reserve Bank towards the management of every crore of dated securities. The unit cost of management of dated securities therefore works out very low, i.e. 1/50th paise for every rupee of borrowing.

III. Linking Interest Rate Changes in Small Savings Instruments to Market Interest Rate

Small savings constitute a part of the non-marketable debt of the government, primarily because there is hardly any secondary market activities for these instruments. Consequently, they are less liquid compared to dated securities or bank deposits. Nonetheless, these instruments are sovereign debts, free from default risk, unlike non-government debt instruments, which are not completely risk free. Further, small savings cater to the tastes and needs of certain target groups, mainly dominated by salaried class, who have used them as a tax saving device. In a market related interest rate system, the tax wedge on saving instruments - if it is not uniformly distributed - adds to imperfections in the market, giving rise to problems of market segmentation. Currently, the tax rebates conferred on small saving schemes are the major source of variation of yield across financial instruments, as these concessions create a large wedge between the pre-tax and post-tax return on the financial savings. If tax benefits for small saving instruments are sufficiently brought down, investor's preference for these instruments would purely depend on their nominal pre-tax yield, relative to other competing instruments. In this situation interest rate changes on small saving instruments should be linked to some market determined 'reference rate'. The choice of 'reference rate' should base on the market-representative nature of the instrument. With the introduction of auction system and consequent freeing of interest rates on government securities, the gilt-edged market has been largely led by demand and supply conditions. The cut-off yields at auctions for dated securities and treasury bills are, therefore now market related. The choice of a 'reference rate' for linking the small savings rate to market rate would, therefore have to be with reference to the yield rate of government securities, as these two forms of borrowings constitute a part of the same sovereign debt.

While the interest rate on small savings could be related to the yield rate on gilt, the preference for either dated security or 364-day treasury bills is not very clear. Benchmarking the small saving rate to the yield rate on 364-day treasury bills would amount to frequent changes in the interest rate. Small savings are long-term instruments and their interest rate should correspond to the rate on marketable bonds with comparable maturity. This could be more appropriately achieved if the changes in interest rate on small savings are linked to the cut-off yield on Government of India dated securities of comparable maturity. The estimated implicit cost of various small saving instruments showed that the government could make substantial budgetary savings by eliminating tax incentives, even if it pays higher nominal interest rate than the market rate.

The implications of offering market related interest rate on small savings could be several. The return on small savings would become sensitive to the expectation about the future

changes in interest rate and thereby inflation rate. The impact of this on the market for small savings would depend on many factors. Small savings are generally attractive when the interest rate is low and tax rates are high. To put it differently, investor's interest in them tend to decline when interest rates are high and taxes rates are low. As a part of the tax reform process initiated since 1991-92, both the average and marginal tax rates for personal income tax payers have been brought down substantially by now. Some rationalisation of tax benefits for small savers have also been attempted in the form of merger of Sections 80C and 80CC with Section 88 and reduction of disparity of 80L benefits across various financial instruments. The interest rate on savings in the economy has been relatively high. With these changes in place the attractiveness of small saving instruments which enjoyed Section 88 tax benefits, viz., NSS, NSCs etc. has seen some decline, compared to others such as Kisan Vikas Patras (KVP) which offered higher nominal return but no tax saving incentives. While, the outstanding amounts under NSS and NSC VIIIth issue as on March 31, 1997 are estimated at Rs. 768 crore and Rs. 18,478 crore, respectively, those under KVPs are placed at Rs. 46,296 crore. This shows that even without tax benefits, small savings could be made attractive through provision of higher nominal return. Nevertheless given the fact that market for small savings stand highly segmented - tax saving schemes, such as NSS and NSCs being more popular with salaried class than rural investors who prefer higher interest earning KVP - some adverse impact on small saving collection, particularly from NSCs cannot be avoided. This loss in collection can be compensated, if small investors shift their preference in favour of government securities which give promise of interest income and capital gains. But, to the extent that interest rates on small savings have to be kept higher than the government security rate, primarily to compensate their less liquid character, they would still be preferred in the investor's portfolio because of their promise of a relatively stable high nominal return. Perhaps the attractiveness of small savings instruments to households, pensioners and institutional investors such as provident funds and trusts could be enhanced, if such instruments could be made to provide a guaranteed real return to investors. This would be possible if interest rates on small savings are indexed to some measure of inflation, providing the possibility of hedge against future price rises to their investors. This may emerge as an attractive way to promote savings and nurse the social objectives, without introducing tax induced distortions to the financial market in the nature of tax rebates and exemptions. Moreover, indexing of small saving instruments, with appropriate benchmarking of real return, might be expected to impart efficiency to the existing market conditions, to the extent that it would reflect the market perception on inflation expectations and the extent of hedge. At the same time, this would have protected the interests of the small investors who tend to have a long planning horizon and a saving target in real term.

Table 1 : Estimated Effective Cost on major Borrowing Instruments of Government of India

Borrowing Instrument	Maturity Period	Nominal Interest Rate (%)	Tax Concessions		Estimated Effective Cost Based on Tax Concessions (%)			Tax Brackets
			Tax Rebate U/S 88 (%)	Tax Exemption on Interest Income U/S 80L	r = 12.15	r = 11.15	r = 10.15	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

National Saving Certificate (VIII Issue)	6 Years	12	20	Upto Rs. 12,000	34.24	39.06	44.16	Full tax exemption of interest income
					27.84	32.46	37.34	10%
					21.45	25.86	30.53	20%
					15.05	19.25	23.71	30%
National Saving Scheme	Assumed as 6 year (no definite maturity period. 3 year lock-in period)	11	20	Upto Rs. 12,000	20.02	22.47	25.02	Full tax exemption of interest income
					17.10	19.51	22.00	10%
					14.19	16.54	18.98	20%
					11.28	13.58	15.96	30%
Kisan Vikas Patra/Indira Vikas Patra	5½ Years	14.87	Nil	Nil	22.54	27.32	32.36	10%
					14.84	19.39	24.18	20%
					7.14	11.45	16.00	30%
Post Office Recurring Deposit Account	5 Years	12.5	Nil	Upto Rs. 12,000	12.44	16.56	20.88	Full tax exemption of interest income
					6.83	10.80	14.96	10%
					1.23	5.04	9.04	20%
					-4.38	-0.73	3.12	30%
Post Office Monthly Income Scheme	6 Years	13	Nil	Upto Rs. 12,000	21.14	26.19	31.54	Full tax exemption of interest income
					14.05	18.88	23.99	10%
					6.96	11.56	16.43	20%
					-0.13	4.25	8.88	30%
Government of India Dated Security	6 Years	11.5 (cut-off yield at auction during 1997-98)	Nil	Upto Rs.15,000	10.90	15.60	20.58	Full tax exemption of interest income
					4.83	9.34	14.12	10%
					-1.23	3.09	7.66	20%
					-7.29	-3.17	1.20	30%
364-day Treasury Bills	1 Year	8.46 (weighted average cut off yield so far during 1994-95)	Nil	Upto Rs. 15,000	-3.29	-2.42	-1.53	Full tax exemption of interest income
					-4.04	-3.18	-2.30	10%
					-4.80	-3.94	-3.07	20%
					-5.55	-4.70	-3.84	30%

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