The Interest Rate Policies of Jamaica's NHT — A Rejoinder to Arrieta?

by Vincent George and Andrea Francis

In a lucidly argued article in *Housing Finance International* (September 1998), Gerardo M. Gonzales Arrieta presented the case for direct demand-side subsidies to make housing affordable to low-income families. His three main arguments in favor of direct subsidies, and against interest-rate subsidies, were that:

- Direct subsidies allow a better focus on the target population and, therefore, are more equitable.
- They are a more efficient mechanism since they do not introduce distortions in the operation of housing finance systems.
- The state incurs a smaller administrative burden in administering direct subsidies, as its responsibilities are limited "... to regulating the regime; to summon, process and select the beneficiaries; to publish the relationship of beneficiaries; and to pay the subsidies [to lending institutions]."

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Arrieta concluded that:

> ... it can be categorically asserted that direct subsidies to the demand for housing are not in any way in conflict with the pattern of a market economy, because they foster access to housing, focusing on a target population. From the state's point of view, they are transparent and clearly measurable, not hidden; the state knows who benefits and by how much. Such subsidies ... do not displace the private sector in the housing market, but conversely attract it by transforming the potential demand in housing into effective demand.

Jamaica's National Housing Trust (NHT) provides residential loans, finances housing construction and offers housing developers interim financing. It is funded by involuntary (statutory) deductions at source. An employee pays 2% of his wage bill, self-employed persons pay 3% of their assessed income, and employers pay 3% of their total wage bill as their contributions to the NHT. Amounts contributed by employees and self-employed persons are refundable seven years after the contributions are made. Employers' contributions are not refundable.

The NHT was established in 1976 as a response to the fact that increasing numbers of low-income persons were unable to secure housing on the market. The inevitable response was a mushrooming of informal settlements with all the attendant environmental and sociological problems. Consequently, and as contained in its mission statement, the NHT sees responsiveness "to the housing needs of the lower income groups in the society" as its major objective. The major strategy in effecting this bias is the use of below-market interest rate subsidies. Unwittingly, then, Arrieta's article constitutes a criticism of the NHT's approach to the problem of affordability.

The aim of this paper is to respond to the criticism. The contention is that, in the appropriate context, interest rate subsidies achieve some of the advantages of direct demand side subsidies and in some environments may be more suitable. The points are made that interest rate subsidies are measurable and, properly applied, can have the effect, not only of not displacing the private sector but also of "transforming the potential demand in housing into effective demand" while meeting Arrieta's requirements of equity. Each of Arrieta's major points is addressed before some concluding comments are made.

Direct subsidies allow a better focus on the target population and, therefore, are more equitable.

According to Arrieta, with interest rate subsidies, resources are rationed since there are no price allocation mechanisms. One consequence is that higher-income groups crowd out those who are most in need. Further, interest rate subsidies are highly inequitable in that those who receive the larger subsidies are those who need it least.

This possibility, however, is not inherent in an interest rate strategy. The National Housing Trust does not apply a single interest rate and, therefore, does not offer borrowers an even absolute subsidy. Rather, the degree of subsidy is inversely related to income—the lower the income, the lower the interest rate and, consequently, the higher the subsidy.

The unevenness of the subsidy offered by the NHT is indicated in the table below,

Table 1. Income Group and Associated Interest Rate, NHT[1]

Weekly Income (Ja$)	*Interest Rate (%)*
<1,500	2
1,500 – 4,500	4
4,500 – 9,000	8
> 9,000	12

which used conventional straight-line calculations[2] (see Table 2). For a loan of Ja$150,000, a person earning Ja$1,100 per week pays only 38% of what a borrower earning Ja$6,500 and more than per week would have to pay, and 31% of what a BSAJ member would have to pay for the same loan amount[3].

The effect of the sliding scale interest rates in maintaining equity is strengthened by the fact that the NHT offers a maximum loan for each benefit type, linked to the tenure status of the applicant. The NHT separates its loans into two broad types: homeowner and non-homeowner loans. The maximum value of the homeowner's loan is Ja$200,000. There are two types of non-homeowner's loan. The first can be used to purchase land on the open market at a maximum of Ja$350,000. The latter can be used to purchase units on the open market or to build on the applicant's land at a maximum value of Ja$800,000.

Table 2. Benefit-Type, Loan Limits and Weekly Income Required — NHT and BSAJ

LOAN LIMIT[1] *Ja$*	*WEEKLY INCOME REQUIRED*							
	NHT							*BSAJ*[2]
	2%	*4%*	*6%*	*8%*	*10%*	*12%*	*14%*	*19%*
150,000[3]	580	1,008	1,103	1,205	1,313	1,427	1,546	1,883
400,000	—[4]	1,221	1,517	1,843	2,191	2,557	2,936	4,896
800,000	—	—	—	3,997	4,694	5,426	6,184	9,641

1. In descending order, the amounts shown are maximum loan amounts for different types of loan offered by the NHT.
2. Members of the BSAJ apply a DSR of 33.3% compared to the NHT's 40%.
3. At the time of writing, this loan amount was the maximum for homeowners and was repayable over 15 years. All other calculations were based on a loan term of 30 years.
4. Dashes indicate that individuals in this income/interest group cannot, by themselves, afford the maximum loan in this category, using the straight-line method.

Two important effects follow from the correlation between loan amount and tenure. Because they are tied to smaller loans, homeowners subsidize non-homeowners and, to the extent that owners are likely to be better off, more lower-income persons are likely to access home acquisition loans than would be the case if all applicants could have borrowed the same amount. The other effect is that, because NHT loans are capped, the value of the relative subsidy is inversely correlated with the value of the unit/solution being acquired.

For the truly low-income person, NHT funds can represent the full value of the benefit, i.e., none of the funds attract market rates. But for these persons, the benefit is likely to be a serviced lot or a modest studio unit. The higher income professional who accesses an NHT loan has to mix these funds with higher cost (market rate) money from building societies or other lenders to purchase a more expensive unit on the market. For him, the subsidized portion is small. For example, at present in Jamaica, a moderately priced two-bedroom unit in a "reasonably good" location will cost between Ja$5million and Ja$7million. A loan of Ja$800,000 represents between 16% and 11% of these figures; and even if two persons combine their NHT loans, the subsidized portion would increase to between 32% and 22%.

Another strategy that minimizes the inequity of a pure interest-rate regime is the use of a "points" system by the NHT. To be eligible for a loan from the NHT, a person must be a current contributor to the Trust and must have been awarded a minimum number of points. Points are earned through weeks of savings at the rate of 20 points for each 52 weeks of contribution. Until recently, contributors could have purchased an additional maximum 100 points by way of a savings instrument with the NHT. In addition, at the time of application, a person is ascribed between 70 and 100 points on the basis of income, in a reverse order.

What this means is that, ceteris paribus, a low-income person will have earned more points over the same period than someone in a higher income band, tilting the probability of securing a loan in his favor. This tilting affects "daily intake" benefits but only slightly.

A daily intake benefit is one for which a person can apply once he meets the minimum criteria—he has the minimum number of points, he is a current and up-to-date contributor and is employed. At present, the NHT has enough resources to satisfy all daily applications so the only advantage is that, at best, the lowest income person may qualify for a loan about a year or so earlier than a person in the highest income group. However, the tilting becomes important in the award of scheme benefits.

Scheme benefits are finished units or serviced lots, developed or financed by the NHT. Especially in the case of finished units, the demand for these benefits is always greater than the supply, so applicants have to be filtered. The first filter is number of points, giving an initial edge to lower-income persons, although affordability does affect the final outcome.

Finally, the NHT offers mortgagors who receive their whole loan from the NHT a debt service ratio (DSR), Chiquier's effort ratio, of up to 40%. The industry norm in Jamaica for residential loans is 33%. A higher-income applicant who wants a unit that requires a Combined Mortgage Program (CMP) loan cannot enjoy this higher DSR as private sector lending agencies are unwilling to take the risk of above-average-effort ratios on shared, though pari passu, mortgages. As a result, the deposit requirements for such persons are higher than for NHT mortgagors.

The essence of Arrieta's point about equity is that subsidies should be given only to those persons who cannot be served by the market, wholly or in part. Since the NHT does not use means tests and does not exclude any eligible contributor, its lowest income contributors could well be subsidizing those who are in the highest income bracket. Table 4 shows the relative contribution to contributors, mortgagors and contributions for 1996, by income group.

Based on the figures in the table, and using the percentage of contributors as the denominator and percentage of mortgagors as the numerator, the location quotients[4] for contributors in the "Less than $1,100" and the "$1,100–$2,000" groups were less than unity. The quotients for the groups earning between Ja$2,000 and Ja$6,500 were all above unity and that for the "More than $6,500" group was 0.70. These figures seem, then, to be prima facie evidence that the lowest income groups are underrepresented among mortgagors and, therefore, that they subsidize the higher income groups. But George (1991) has argued that, in discussing the matter of subsidy, the denominator used is of some importance as it may determine the conclusions reached. When the denominator used is percentage of total contributions, the picture changes dramatically.

The highest income group was severely underrepresented among mortgagors, with just over 33% of their "expected" mortgagors. It is this group that provides the

Table 3. Number of Points Ascribed to Applicant by Income Group

Income Ja$	*Points Ascribed*
Less than 2,000	100
2,000 – 4,000	90
4,001 – 6,500	80
More than 6,500	70

Table 4. Percentage Share of Contributors, Mortgagors and Contributions by Income Group, 1996

Weekly Income (Ja$)	*Percentage Share of* Contributors (A)	Mortgagors (B)	Contributions (C)	*Location Quotient* B/A	B/C
< 1,100	21	11	7	0.52	1.57
1,100 – 2,000	22	19	10	0.86	1.90
2,000 – 3,000	12	18	9	1.50	2.00
3,000 – 4,000	9	16	9	1.78	1.78
4,000 – 5,000	6	10	8	1.67	1.25
5,000 – 6,500	6	8	10	1.33	0.80
> 6,500	23	16	49	0.70	0.33

greatest financial subsidy to all the other groups, and it is this subsidy that has enabled the location quotient for the five lowest income groups to be greater than unity.This distortion must have been partly the result of policies that have had an impact similar to a means test.

Other evidence can be seen in the top five occupations of NHT mortgagors over the years (Table 5). There have been changes upwards but, even in 1998, the top occupations were not high-income occupations. In any case, the changes were primarily a function of a rate of inflation higher than wage increases. What this caused was a de facto redefinition upwards of "low income" to include some supervisory personnel, for example, and a pushing downwards and out of occupations such as "office attendant."

Direct subsidies are a more efficient mechanism as, unlike interest rates below market, they do not introduce distortions in the operation of housing finance systems.

The activities of the NHT do not distort the housing market to the degree implied by Arrieta. Table 5 shows upwards movement in the type of occupation. However, according to the strategic plan for 1998-2002, there was, too, evidence of inertia so that, in the later years in particular, clerical and sales jobs were mixed with businessmen and directors. The Plan concluded that: "This mixture of low- and high-income occupations suggests that the NHT might be serving at least two niches, which could be differentiated on the basis of benefit type (and degree of subsidy)." When the two niches were compared, they were found to be statistically significantly different in terms of mean age, number of points and weekly income.

The Plan had concluded, ". . . there are 'scheme occupations' as distinct from 'open market occupation occupations'. . . Doctors, lawyers, businessmen and merchants [Group 2] bought on the open market. Laborers, factory workers, clerks and security personnel [Group 1] depend on [fully funded NHT] schemes."

Self-evidently, a large fraction of Group 1 persons, whose entire loans are met by the NHT, would not have been able to afford any housing solution on the market. The NHT's activities in respect of these persons cannot, therefore, be said to be distorting the market. On the contrary, it is the NHT subsidies that have converted the need in this niche to demand. As Altmann et al. (1992:11) put it:

> Regardless of the need to quantify these evident partial effects (i.e., the claim that NHT rates distort the market and hence no secondary mortgage market can emerge), it must again be stressed that the low-income groups are in any case excluded from borrowing for housing purposes, quite irrespective of how high the interest rates are, because the absolute sum of the pure building costs as a whole overstretch their financial resources.
>
> In view of the utter absence of direct and indirect income subsidies, interest subsidies, then, would be an approach to at least partially alleviate the financial burden in housing construction.

However, what about those mortgagors in Group 2, some of whom use cheaper NHT funds to mix with loans on the market, i.e., who used the CMP? The point has been made already that, by putting caps on loan amounts, the relative subsidy enjoyed declines with the cost of the unit. Secondly, some persons in this group would have remained below the affordability line were it not for the NHT subsidy.

The performance of the Combined Mortgage Program (CMP) can be used, therefore, as a crude indicator of the degree to which loans from the NHT have stimulated activity in the housing sector. The indicator is crude because the fraction of CMP mort-

Table 5. Top Five Occupations for NHT Mortgagors, 1976–1998

1976–79	*1980–84*	*1985–89*	*1990–94*	*1995–98*
Civil Servant	Teacher	Teacher	Teacher	Teacher
Factory worker	Policeman	Policeman	Policeman	Secretary
Clerk	Factory worker	Clerk	Secretary	Supervisor
Office Attendant	Clerk	Secretary	Supervisor	Policeman
Teacher	Secretary	Nurse	Nurse	Clerk

Table 6. Mean Values for Age, Points and Mean Weekly Income by Niche

	Mean Value for:		
Niche	*Age*	*Total Points*	*Weekly Income (Ja$)*
Group 1	47.1	310	1,185
Group 2	41.1	273	3,816

gagors who could have afforded their entire mortgage on the market is not known. The table shows the contribution of the CMP to number of mortgages since 1987 when the program was introduced. It also shows the contribution of open market (OM) purchasers.

The impact of CMP has fluctuated with a sharp increase after the introductory years and an equally sharp decline in recent years. This decline began in 1995, the year in which the NHT modified its lending policies and introduced an "Individual Benefit Policy."

This policy allows up to three persons to use the same security for their individual loans, i.e., to co-apply. At the same time, the NHT increased the loan ceiling to Ja$800,000 from Ja$600,000: co-applicants can now each get the individual maximum of Ja$800,000, thus doubling the maximum possible loan from $Ja1.8 million to Ja$2.4 million.This suggests that some units bought on the open market and which would have required a CMP loan a year ago can now be fully financed by the NHT, so that the interest rate subsidy provided by the NHT may now be reaching further upmarket than in the past. If this is so, these units would represent those middle-income persons who are fully subsidized by the NHT's interest rates.

The decline in the number of CMP loans in the latter years, therefore, may well represent a reduction in the level of private sector financial activity stimulated by the Trust, a conclusion supported by the behavior of OM loans. In the last five years, i.e., since the introduction of individual benefits, the movements of CMP and OM have been exactly complementary though in an inverse fashion (rs = -1).

According to the NHT's Legal Conveyancing department, only about 5% of OM borrowers request pari passu mortgages with other lending institutions, i.e., stimulate private sector lending for housing. And while there is anecdotal evidence that other OM mortgagors borrow from institutions such as credit unions for down payment, without using the property as security, these numbers are also very small. The new policies do seem to have taken subsidies further upmarket.

Table 7. Percentage Contribution of CMP and Open Market Mortgages to Total Portfolio

	Percentage Contribution to Total Mortgagors by	
Year	*CMP*	*OM*
1987	1.13	12.20
1988	7.15	17.20
1989	13.86	12.37
1990	9.31	9.27
1991	27.85	10.16
1992	21.26	13.14
1993	29.97	12.17
1994	18.14	6.18
1995	11.25	12.98
1996	7.62	14.76
1997	6.83	15.34
1998	5.71	17.75
Total	11.95	13.09

The state incurs a smaller administrative burden in administering direct subsidies as its responsibilities are limited "... to regulating the regime; to summon, process and select the beneficiaries; to publish the relationship of beneficiaries; and to pay the subsidies."

On the face of it, this is Arrieta's most trenchant point. Establishing a mortgage granting institution locks that institution into managing its mortgage portfolio, although the task does not have to be self-administered: it may be outsourced to commercial institutions. However, over time, and with increasing inertia as the portfolio expands, outsourcing of what is seen as the "core" business of a lending institution becomes more and more difficult to implement. Is the NHT in this position?

A lower cost should accrue to the state under a direct subsidy scheme. However, since the NHT does more than issue residential loans, the cost of servicing and accounting for its loan portfolio is a small fraction of the institution's total operational cost. Larger costs derive from collection of contribution inflows, selection of mortgagors and other administrative support mechanisms. Servicing staff accounted for a mere 4% of the wage and salary bill for 1998.

There is another, practical consideration. The NHT loan portfolio has close to 50,000 active mortgages, the largest single portfolio of any mortgage granting institution on the island and the fact that the NHT contributed between 35% and 58% of total formal sector loans between 1990 and 1996. Individual lending agencies may well be smothered by the NHT portfolio. They would incur significant cost increases to service these loans and would pass these costs on to borrowers, making loans more expensive. The savings in administration costs envisaged by Arrieta may not arise.

A better picture is obtained by comparing the cost to the NHT (and the state) of direct write-offs, via external agencies with the cost of granting mortgages in-house at below market rates. Three scenarios were considered: the cost of current NHT policy; the cost of a direct subsidy which enables all borrowers to access the maximum NHT loan of Ja$800,000, with another mortgage institution granting the loan; and the cost of a direct subsidy, with all loans again equal to Ja$800,000 but with NHT granting the loan.

It was assumed that the NHT would not provide a loan or write-off of more than Ja$800,000; the cost of the NHT loan consists of the servicing cost and the decline in the real value of the mortgage repayments over the life of the loan; the cost of the write-off is the amount needed to make the mortgagor afford Ja$800,000 from BSAJ institutions; inflation would average 9% over the life of the mortgage; mortgages were granted for 30 years.

Scenario I outlines the current NHT position, which indicates that granting a mortgage of Ja$406,000 at 2% costs the NHT Ja$ 241,000 while the Trust receives net real inflows of Ja$348,600 from loans granted at 14% interest. Thus, the NHT's interest rates constitute a continuum along which the Trust moves from negative to real, positive returns on its mortgage portfolio. This is in sharp contrast to Scenario II in which the NHT provides funds for the write-off only and a private sector agency provides the balance at market rates. In this case, the NHT incurs costs on all its loan types.

Another way of implementing direct demand subsidies is for the NHT to grant both the write-off and the loan (Scenario III). This is the middle ground of the three scenarios with respect to the cost to the organization and the one that the NHT would prefer if it went the route of direct subsidy provision and equalizing of loan value.

Based on the calculations, the NHT incurs the lowest net cost with its current policy, mainly because lowest income borrowers cannot access a value of Ja$800,000. If this were done, Scenario III would be cheaper than Scenario II. As has been pointed out, the NHT receives its funding from mandatory statutory deductions, part of which are refundable, with interest. Consequently, the Trust must earn an income in order to meet mortgage targets and repay contributions, meaning that the option outlined in Scenario II is highly unlikely. Nevertheless, the analysis in all three scenarios substantiates the need for further subsidies to individuals in the lowest income groups, if the value of their benefit is to increase to that of the minimum studio unit. At an interest of 2%, these persons are interest-rate insensitive and further subsidies must be by way of write-offs.

Arrieta's Necessary Conditions for Success

Arrieta himself seems to have realized that direct subsidies cannot be applied under any and all conditions. According to him, certain conditions should prevail for direct demand subsidies to be successful. Subsidy programs must be implemented in the context of identifiable strategies to give the middle- and higher-income groups simultaneous access to housing finance, and the programs must be sustainable and credible.

Scenario I. The cost of current NHT policy

Item		*Value*
Weekly Income Ja$	*$1,100*	*$6,500*
Interest rate	2%	14%
Outflows		
Mortgage Funds	$406,000*	$800,000**
Servicing Cost	$20,000	$20,000
Real Mortgage Inflows	$185,000	$1,168,600
Net Inflows	($241,000)	$348,600

* Maximum affordable NHT loan with weekly income of Ja$1,100 and no write-off

** Maximum NHT loan

Scenario II. Cost to the NHT of direct demand subsidies with loan granted by a BSAJ member at 19%, to enable borrower access value of Ja$800,000

Item		*Value*
Weekly Income Ja$	*$1,100*	*$6,500*
Outflows		
Mortgage Write-off [Direct Subsidy]	$720,000	$265,000
Origination Cost	$10,000	$10,000
Real Mortgage Inflows	$0	$0
Net Inflows	($730,000)	($275,000)

Scenario III. Cost to the NHT of direct demand subsidies with loans granted by the NHT at 19%, to enable borrower access value of Ja$800,000

Item		*Value*
Weekly Income $Ja	*$1,100*	*$6,500*
Outflows		
Mortgage Write-off [Direct Subsidy]	$720,000	$265,000
Mortgage Loan	$80,000	$535,000
Servicing Cost	$20,000	$20,000
Real Mortgage Inflows	$156,700	$1,048,000
Net Inflows	($663,300)	$228,000

Given the macro-economic environment in which the NHT operates, both conditions listed above are difficult, if not impossible, to achieve without the help of an institution like the Trust. As noted, some income earners who may be classified as "middle-income" need a subsidy to afford a basic studio unit. Members in this group cannot purchase a home solely through the market-driven mortgage institutions. A further point needs to be made – the building societies in the island lend funds at below other commercial loan rates and, until recently, below the inflation rate also, in the absence of any government regulations on the matter, recognizing that the great majority of their customers would not have been able to borrow at higher rates. In fact, they have been hard pressed to stimulate demand for their funds and, to earn an overall reasonable return on their investments, have invested significant portions of their funds in government paper.

A subsidy program dependent on government subventions for funding must wax and wane with the fortunes of the economy. It is arguable that this is desirable but, with such an approach, it is inevitable that the lowest level of subsidies would be provided when they are most needed. As an indicator of what would happen, in recent times in Jamaica, there have been significant declines in public expenditure in critical (social) areas such as health and education in response to a shrinking economy. Housing would not be exempt.

While this has been happening, the NHTs mandatory savings approach, stringently opposed in many quarters, has allowed the country to accumulate a pool of funds specifically for housing. These funds have helped to finance housing development at concessionary rates of interest, which, in turn, have reduced the cost of housing.The building societies and other mortgage granting financial institutions are not in a position to do this.

COMMENT

This note took the position that Arrieta's arguments in favor of direct demand-side subsidies, as against interest-rate subsidies, are germane but only when interest rate subsidies are offered without accompanying policies and practices designed to mitigate the dysfunctions that are possible. As a practical matter, the source of funding raises ethical questions and imposes constraints on the degree to which means tests can be applied to completely exclude particular income groups. This is perhaps the most important consideration in any assessment of the strategies used by the NHT to make housing affordable. Because the NHT is funded by involuntary deductions at source from all wage earners and employers and not by commercial nor foreign funds nor by voluntary savings, it cannot completely exclude any contributor.

What it has done, given this constraint, is to tailor its policies in favor of the lower income contributor. And, the policies have worked with results similar to direct demand-side subsidies. Sometimes very high inflation rates have affected the outcomes in "real" terms as they have forced re-definitions of "low income." This is a macroeconomic factor, exogenous to the NHT. However, inflation rates have begun to decrease and if they remain low and house prices respond, there ought to be a lowering of the affordability floor once more. In fact, if the official statistics are correct and inflation is now below 10%, NHT borrowers in the 10% to 14% groups are borrowing at positive, real rates and are receiving rate subsidies only in relation to the more expensive lenders on the open market.

It is possible, then (and necessary in situations where the market simply cannot accommodate low income persons), for interest rate subsidies to be used, not as a second best alternative to direct subsidies, but as the more appropriate strategy. However, given what Arrieta rightly understood to be the danger of mere interest rate subsidies, this strategy needs to be complemented by others designed to reduce the effect of below market interest rates upstream.

Using such strategies, the NHT has become the largest residential loan institution in Jamaica serving two segments, and with different degrees of subsidy. But there may be some room for fine-tuning how it applies its interest rates. The dilemma inherent in the modified individual benefit policy has been noted. Another shortcoming is that the NHT does not follow what might be called the basic rule of subsidized housing—as the mortgagor's economic condition improves the degree of subsidy should decrease.

The NHT uses fixed-rate, conventional straight-line mortgages. As a result, all its mortgagors enjoy massive capital gains since, despite increases in their nominal incomes, their interest rates and loan balances remain unadjusted over the mortgage term. On the one hand, the normal mechanisms used to share these gains between lender and borrower could not be used in an undiluted fashion in Jamaica, precisely because of persistently high rates of inflation until recently. As Megbolugbe (1996) has observed, the efficacy of the tools used to preserve value for lenders—Dual Indexed Mortgages (DIM), Price Level Adjusted Mortgages (PLAM), constant-payment-factor variable-rate—is quickly diminished in high-inflation economies. Another consequence of current policy is that, in addition to the uneven subsidy among income groups, early mortgagors are more highly subsidized than later mortgagors who have to pay significantly more (nominally) for "smaller" benefits. However, greater equity and a reduction (not elimination) of both kinds of subsidy is possible by as simple a mechanism as increasing the rate by one or two percentage points every two or three years until the maximum rate is reached.

A strategy of forced savings by many that benefits only a few provides more ammunition for a critique of the Trust. However, the view that the forced savings represented by NHT contributions remove the contributor's choice in the use of these funds has to be examined, first in the context of the quantum of funds involved and in the context of sociology. Using Ja$4,500 as the island's mean weekly income (Source: *Employment earnings and hours worked in Large Establishments 1995 to 1996,* STATIN), on average, a contributor will pay about Ja$4,700 or less per year or a little more than Ja$93 per week. For the bulk of contributors then, the amounts retained by the NHT are small and are likely to have gone into "unproductive" uses. Also, the logical extension of the objection would mean that an even larger percentage of persons' incomes would have to go to the NHT, if the ratio between contributors and mortgagors were to be reduced.

The objection that interest rate subsidies are untidy because they cannot be measured can be answered in two ways. Almost trivially, "... interest subsidies can be posted in a budget just as well as income subsidies. We need only to look at government housing subsidies in Germany" (Altmann et al., 1993:11). Also, because of the associated loan maxima, the cost of the subsidy can be (and has been) calculated for each loan type relative to the market rates, relative to inflation and even relative to other intra-NHT borrowers. The subsidies which are problematic to measure are the non-interest rate ones—concessions on the cost of land, services not charged to final consumers and so on.

That employers are required, by law, to remit contributions to the NHT on behalf of their employees, is a mechanism of forced savings. None of these funds can be used as part of the downpayment required for any type of loan, requiring households to save independently of contributions towards home acquisition. However, at the point when an applicant becomes a mortgagor, all savings due to him/her at that time are credited to his/her principal balance. The person looking ahead to an NHT loan has an interest, therefore, in leaving all due contributions with the NHT so as to reduce the balance. These mechanisms avoid Arrieta's "paternalistic assistance practices" and do reward "... the amount, the age and the permanence, as well as the consistent nature of the previous effort at saving."

Where the authors agree with Arrieta is that savings put aside for housing ". . . should enjoy a positive profitability in real terms that not only protects against their depreciation but also makes them preferable to other options." At 3% simple interest for the first seven years and 8% if savings are left for more than eight years, contributors lose value rapidly on savings held by the NHT, a practice sharply criticised by Altmann et al (1993:9-10).

The retort may well be that the NHT deposit (contribution) rate is determined by its lending rate and that, in terms of its savings and lending rates, the institution is operating a system similar to the Bausparkassen[5] plan. This was a plan used in Germany in which savings deposits in Bausparkassen attracted very low rates of interest but with the corollary that the saver was granted a residential loan at a certain date, also at a low interest rate. However, given that the NHTs weighted lending rate is about 9%, even with the Bausparkassen argument, the institution could offer well above 3% simple interest on savings.

The use of interest rate subsidies has been routinely criticized by housing finance specialists. This paper has argued that some of these criticisms can be blunted, depending partly on the source of funding and given the policy mix in which the rate subsidies are located. The position in this paper, however, ought not to be taken as a blanket condemnation of direct demand-side subsidies but more as a reminder that, in the matter of housing subsidies, too, one size does not fit all.

NOTES

[1] At the time of writing, the NHTs Board of Directors had agreed to a reduction in the number of income bands, the widening of bands that this implied, and a lowering of the weighted interest rate by a little over one percentage point.

[2] On the grounds of affordability, low-income persons can access graduated payment mortgages (GPM). This plan, however, is a variant of the conventional straight-line mortgage.

[3] Building societies are private sector institutions. Their rates are normally regarded as "market" rates although there is some rate discrimination by them between members and non-members. Also, in the face of high, double-digit inflation up to about 1997, they were lending at real but not positive below-inflation rates.

[4] A location quotient is calculated by dividing an actual percentage by an expected one, with the denominator or "expected" value based on a stated premise. In this case, the premise was that the expected number of mortgages was the same as the percentage of contributors. The LQ was, therefore, percentage of mortgagors/percentage of contributors. In terms of the premise, a value less than unity indicates "undersupply" and vice-versa.

[5] Bausparkassen = building and loan associations.

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