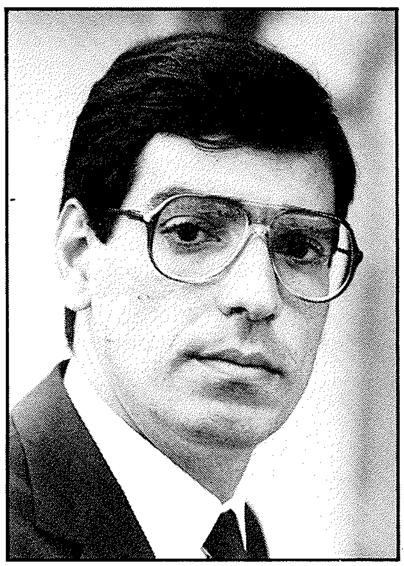
Housing finance subsidies in Brazil

Ricardo Fernandes Franco explains how Brazil's housing finance system is adapting to changing economic circumstances

IN a little over two decades, the Sistema Financeiro da Habitação (SFH), the Brazilian housing finance system, financed the production of dwellings for more than four million families. It would be able to continue this important task if it were not for the economic recession of the 1980s, when the combined effects of high inflation (over 200% per annum from 1983 to 1985), salary squeeze and unemployment have led to a crisis without precedent in the SFH and, consequently, in the property market.

Mortgage loan instalment adjustments — which were made according to monetary correction, which is supposed to reflect inflation — exceeded salary adjustments, so home purchasers, especially the middle class, found themselves in serious difficulties in honouring their financial commitments. Furthermore, it became so common to be in default that even those who could pay stopped doing so, thus benefiting, in a speculative way, from the insignificant default penalty determined by the Banco Nacional da Habitação (BNH), the national housing bank.

SFH mortgages started to be regarded by prospective home buyers as a very unattractive proposition. The high interest rates in the financial market and, in addition, the fear of assuming debts, mainly long-term ones, reduced the demand for property, causing prices to slump. The balances of the debts became greater than the market value of the properties, leading to more default



and amicable settlement by giving the property to the financial agent (housing credit companies, savings and loan associations, and State and Federal savings banks).

In an effort to reactivate the market, and in an attempt to compensate for the reduction that had occurred in real salaries, the government started to institute mechanisms by which borrowers, through reductions of the real value of their instalments, could afford to pay.

These were: (i) in July 1983, the option for instalment adjustment corresponding to the variation of the minimum wage; (ii) in July 1984, the option for instalment adjustment corresponding to 80% of the variation of the minimum wage and the option for changing the amortisation method; (iii) from October 1984 to September 1985, instalment discounts (up to 35% in some months); (iv) in July 1985, the option for a 112% instalment adjustment when the inflation rate in the period had been more than double, ie 246%.

The cumulative use of these palliatives, whose effect was to reduce instalments to about 45% of their original values, has severely damaged the equilibrium of the SFH, not only because of the subsidy they represent, but also because of the delay in the repayment of the loans, which could have been used for the finance of more dwellings.

In this study, with the aid of simulation of SFH loans, figures are presented referring to: (i) the process of generation of residual balances; (ii) the real cost to the borrower; and (iii) the return on mortgages for the financial agents. The impact of the government concessions, as well as of the preliminary injunctions served, is analysed for the three variables above. Some other important concepts of the system are also discussed.

Residual balance generation

The mathematics of finance demonstrates that no matter what repayment plan is used, the balance of a debt is zero after all instalments are paid. Such an assertion is valid even in indexed economies, provided that instalments and balances are

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equally adjusted in terms of index and periodicity.

In the case of the SFH, for the great majority of contracts, this basic rule has not been applied. While the balances were adjusted quarterly, the instalment adjustments were annual or bi-annual. In such conditions, residual balances at the end of the loans would be expected.

However, the SFH model determines the use of a multiplier for the instalment to increase. This multiplier is based on forecasts of future inflation, and has the aim of eliminating the effect of amortisation caused by the different adjustment periodicity of instalments and balances. Furthermore, the borrower pays a contribution to a fund, the Fundo de Compensação de Variações Salariais (FCVS), the Fund for the Compensation of Salary Variations, which has the responsibility to pay the financial agent in the event of there being a residual amount.

It is easy to infer that the SFH mortgagor does not have the responsibility for the payment of the whole debt, but only for the payment of the contracted instalments. In other words, in a 10-year loan, for instance, after the 120 instalments are paid, his responsibility ceases, no matter what the remaining balance.

To what extent it represents any advantage for the borrowers will depend on the generation of residues in the existing contracts. Contracts with nil or small residues mean that the borrower paid or almost paid the whole debt, while in those with a high residual amount they amortised only part.

Table I. Mortgage Loans — Residual Balance (in %)

OPTION TAKEN	CONTRACTS SIGNED IN Dec '71	Dec '78	Dec '82
None	38.6	40.9	43.7
Adjustment corresponding to 100% of the minimum wage variation. (Decree-Law 2065/83 and CGP 225/83)	43.3	67.2	112.8
Adjustment corresponding to 80% of the minimum wage variation. (RC 04/84), with cumulative effect	46.4	86.9	146.1
112% adjustment corresponding to less than half the inflation rate. (RD 47/85), with cumulative effect	50.4	118.7	190.7
Court injunction	49.0	106.8	174.5

Unfortunately for the government, the actuarial calculations determining the instalment multiplier values and the FCVS contributions have been incompatible with the inflation levels, as is demonstrated here. Simulated results of loans contracted for a 15-year term and which started in December in the years 1971, 1978 and 1982 are presented in Table I.

For contracts that expired in December 1986, the residual debt was 38.6% of the amount financed. If the borrower had taken all the options open to him, this percentage would have risen to 50.4%. So, for instance, in a loan of 1,800 UPCs (the standard capital unit, corresponding to the variation in monetary correction in each calendar quarter), after paying all the 180 instalments he would have amortised less than half the debt, 892.8 UPCs, the remaining amount of 907.2 UPCs being the responsibility of the FCVS.

The situation becomes graver, even reaching alarming proportions, in cases of contracts started more recently, in which the concessions have had an impact since the first years of the contracts.

Loans begun in December 1978 will have accumulated, in December 1993, residues corresponding to 118.7% of the amount lent. For contracts signed in December 1982, which expire in December 1997, this percentage rises to 190.7%. For these situations to occur it is sufficient that the borrower had taken all the

High rise housing in Rio de Janeiro.

options cumulatively.

It should be noted that these results apply to 15-year loans. For longer terms the residues are still greater. 25-year loan contracts signed in December 1982, in which all the options have also been taken, have forecast residues for the year 2007 of 436.2%. Thus, a loan of 1,500 UPCs, for instance, will end up with a residual balance of 6,543 UPCs, despite the payment of all 300 contractual instalments.

Such distortions stem from a negative amortisation process, already common in the SFH ambit, in which the instalment is less than the interest calculated on the financing balance. In these cases the payment of the principal financed and even of the unpaid interest will be the FCVS's responsibility.

As the simulations assume zero inflation as from March 1986, and taking into account that the residual amount is also a function of the inflationary levels, it is possible to infer that the results presented are at least optimistic. Unless, of course, the instalments, via gains in real salary, start to be adjusted at a greater rate than the balance due, so the residues would tend to be less than those presented here.

The health of the FCVS is critical. It is enough to observe that for contracts started up to September 1984, the only contribution the borrowers used to make to the fund did not even reach 0.5% of the financed amount.

The widely publicised BNH deficit is nothing more than the sum of the residual balances of the remaining three million or more borrowers, minus the FCVS contributions collected and administered by that institution.

Borrower cost versus financial agent return

The existence of residual balances has as a corollary a cost to the borrower which is less than that stated in the contract. The greater the residue, the smaller the cost to the borrower. Annual real costs of the simulated contracts are presented in Table II.

Table II. Mortgage Loans — Annual Real Cost (in %)

OPTION TAKEN	CONTRACTS SIGNED IN Dec '71	Dec '78	Dec '82
None	12.7	9.9	7.1
Adjustment corresponding to 100% of the minimum wage variation. (Decree-Law 2065/83 and CGP 225/83)	12.5	8.6	3.9
Adjustment corresponding to 80% of the minimum wage variation. (RC 04/84), with cumulative effect	12.4	7.6	2.5
112% adjustment corresponding to less than half the inflation rate. (RD 47/85), with cumulative effect	12.2	5.5	−0.3
Court injunction	12.2	6.3	0.8

Note: The charges for opening credit taken into account for contracts signed in December 1971, December 1978 and December 1982 were the maximums according to the regulations on each date, ie 7.4%, 7.4% and 7.2% respectively.

Besides the instalments (calculated according to a maximum allowed annual interest rate of 10%) having been increased by the corresponding multiplier and reduced by the discounts (from October 1984 to September 1985), the calculations take into account the charge for opening credit — that the seller is supposed to pay but, in practice, is paid by the buyer — the collection and administration fee, the initial and subsequent insurance premium and, moreover, the FCVS contribution. The cost results — which correspond to the internal rate of return of the borrowers' deflated cash flows — are consistent with those found for the residual balances.

Contracts started in December 1971 present an annual cost ranging from 12.2% to 12.7%, depending on the combination of options taken. For contracts begun in December 1978, it was possible to reduce this cost to 5.5%, while for borrowers with contracts signed in December 1982, and who took all the options offered by the BNH, the annual real cost will be minus 0.3%, ie slightly less than monetary correction. The conclusion one reaches is that the real cost of these resources has been one of the lowest in the market.

Moreover, it should be noted that it is assumed that the instalments are always paid when due. Considering that the interest on deferred payment has constantly been less than monetary correction, the costs to the bad payer would be even less.

Also very interesting are the results found for the case of borrowers that, as from July 1983, had obtained court injunctions to make their annual instalment adjustments less than the UPC variations (the indices used were those stated in the case of most borrowers, ie 109% in 1983, 131% in 1984 and 194% in 1985).

Whatever the period of analysis, the cost of these loans will be greater than that found for those who took all the options. In this context, it can be asserted that, from the borrowers' point of view, the legal action taken was not worthwhile. Greater benefits would have been obtained by mere adherence to the governmental concessions.

It should also be noted that no final decision has been reached in the legal action, and that in the case of the outcome being unfavourable, this group of borrowers will have not only missed the chance of enjoying a significant reduction in the cost of their loans but, moreover, will have to settle accounts with the financial agents by making up the difference of the past few years.

It would be convenient at this point to show the results referring to the return on loans for the financial agent. As the borrower does not have to pay the whole debt, but only the

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contractual instalments, obviously the cost to him differs from the financial agent's return.

To determine these figures, we should, with reference to the borrowers' cash flows, exclude the amounts referring to insurance premium and FCVS contributions — which are collected by the financial agent and transferred to the government — but add both the instalment discount reimbursement (made by the government as from January 1986, over a 48-month period, at a 7% maximum annual interest rate) and the FCVS reimbursement (as from the end of the contract, over a 48-month period, at the contractual interest rate).

As expected, the rates of return presented in Table III are higher than the corresponding costs to the borrowers. However, they are modest in comparison to the financial market rate. It should further be noted that the variations among these rates, stemming from the use or non-use of the options, are very small, which can be explained by the compensation that is obtained from the FCVS coverage.

For contracts signed in December 1971, the rates of return are 13%, whereas for those signed in December 1978 and 1982, the maximum rates are found to be 11.3% and 11.6% respectively.

Obviously, the difference between the return for the mortgagee and the cost to the mortgagor — excluding the insurance and FCVS costs, which were taken into account only in the cost calculations — is equivalent to the subsidy granted.

Final comments

From the mistakes of the past we can learn some important lessons, one of which is that no housing finance system, no matter how sophisticated it may be, can survive a salary squeeze policy combined with high inflation. The subsidies given to the borrowers — especially as they were excessive and given indiscriminately to both rich and poor — severely exacerbated the FCVS situation, as the effects of the instalment underadjustments are spread over the whole remaining period of the contracts.

Hence instalment discounts, whose effects are limited to the concession period, would have been more appropriate. After the crisis was over, the instalments could have returned to their original levels and would not correspond, as they usually do at the moment, to less than a third of the rent of the property.

With the aim of not aggravating the FCVS deficit even further, the financial agents, mainly the private ones, decided to stop granting new housing finance loans until the government changed the rules.

After a wait of about two years, a decree came into force in July 1987 making a distinction between mortgages with social aims and those which are financial. Loans up to 2,500 UPCs will continue to be subsidised by the FCVS. For amounts above this, up to a maximum of 5,000 UPCs, the mortgagor will have to pay the whole debt, by means of refinancing the residue at the end of the contract.

With these measures, the financial agents can now resume their role of providing mortgages, leaving the social sector to be catered for mainly by the savings banks and savings and loan associations. The private housing credit companies will probably limit such operations to the compulsory minimum of 25% of their savings account balances.

The latest rules apply only to new contracts. It remains to be seen how the potential deficit of the existing contracts can be covered. To this end, some measures to stimulate advance settlement or transfer of the debt have been put into practice, since both take into account the whole debt, thus eliminating the residue generated up to the date of the operation.

These incentives are by means of a discount to the borrower or transferee, a guarantee of a new loan to the transferor, a guarantee of supplementary finance to the transferee, fiscal exemption of property sales profit, and so on.

Whether they will or will not have the desired effect, only time will tell. ■

Table III. Mortgage Loans — Annual Real Return for the Financial Agent (in %)

OPTION TAKEN	CONTRACTS SIGNED IN Dec '71	Dec '78	Dec '82
None	13.0	10.8	10.8
Adjustment corresponding to 100% of the minimum wage variation. (Decree-Law 2065/83 and CGP 225/83)	13.0	10.9	11.2
Adjustment corresponding to 80% of the minimum wage variation. (RC 04/84), with cumulative effect	13.0	11.1	11.4
112% adjustment corresponding to less than half the inflation rate. (RD 47/85), with cumulative effect	13.0	11.3	11.6
Court injunction	13.0	11.2	11.5

Note: The charges for opening credit taken into account for contracts signed in December 1971, December 1978 and December 1982 were the maximums according to the regulations on each date, ie 7.4%, 7.4% and 7.2% respectively.

RICARDO FERNANDES FRANCO is vice-president of four housing credit companies controlled by Banco Nacional SA, vice-president of Abecip (the Brazilian Association of Housing Credit and Savings Institutions) and president of Arecip-5 (the Association of Housing Credit and Savings Institutions for the States of Minas Gerais, Espírito Santo, Goiás and Distrito Federal).