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Mladen Mirko Tepuš

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The opinions presented in this paper are those of the author and are not necessarily identical to those officially held by the Croatian National Bank.

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#### **Summary**

Housing issues are a part of economic, financial and social policies of every country, as well as the Republic of Croatia. Legal conditions for implementation of various housing finance models have been created in order to find accessible solutions that would enable average citizens to solve their housing problem. Four housing finance models currently existing in Croatia are separately analysed in this paper (banking finance, contract savings for housing, the Fund for the Long-Term Financing of Residential Construction with Government Subsidy and the Publicly Subsidised Residential Construction Program – PSRC). The most important home loan lenders are universal banks, whereas more intense lending activities of housing savings banks are still expected. The Fund for the Long-Term Financing of Residential Construction with Government Subsidy has never gotten under way, and the most recent government model – PSRC has raised strong interest of citizens. However, existing models have not provided an adequate solution to the housing finance problem. This paper offers a comparative analysis and evaluation of present housing finance models and, on the basis of the results and conclusions of the conducted research, hints at solutions that may improve the present situation and foster the development of the national housing finance market.

JEL: E51, G12, G21, R31

**Key words**: housing finance, banks, housing savings banks, primary/secondary home loan market, creditworthiness, Croatia

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# An Analysis of Housing Finance Models in the Republic of Croatia

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#### 1 Introduction

Providing housing to citizens and housing finance models are the area of general public interest in any social system regardless of the degree of its development. Inadequate housing situation in a society is almost always the main cause of social dissatisfaction and civil disturbances. Every individual and every family aspires to owning a home and places this wish/need at the top of the priority and needs list. Due to this, but also owing to many other social elements related to housing quality, governments and their bodies are often actively involved in addressing housing problems by promoting the development of models to facilitate financing/acquisition of a housing space. Housing and housing policy are among the basic problems of the social, economic and political development of any country, as well as Croatia where legal conditions for implementation of various housing finance models have been created in order to find accessible solutions that would enable average Croatian citizens to solve their housing problem. However, housing finance in Croatia provided through present models is inadequate.

The purpose of this paper is to analyse existing housing finance models in Croatia, present their advantages and disadvantages, and suggest measures to improve the situation.

The data analysed herein have been gathered from relevant professional literature, primary and secondary research, obtained in numerous direct contacts with representatives of domestic and foreign professional institutions, by searching on the Internet, etc.

### 2 Housing Finance in Croatia

As a newly independent country, Croatia goes through a complex process of transition to a market economy. The main objective is to create a welfare state, which requires the best possible efficiency on a macroeconomic and microeconomic level, a higher standard of living and reduction in inequalities among citizens. Housing and housing policy are one of the basic problems of the social, economic and political development of any country. Therefore, this area is a part of the development strategy of the Republic of Croatia as well. The data in the following tables refer to residential construction activity in Croatia.

Table 1 Completed Residential Buildings in the Republic of Croatia

Unit of measurement	1996	1997	1998	1999	2000	2001	2002
Number	3,518	3,376	2,330	1,389	955	1,439	1,872
Floor area, m <sup>2</sup>	600,818	559,437	477,349	347,926	253,961	343,269	389,769
Volume, m <sup>3</sup>	1,730,421	1,637,053	1,378,526	990,704	734,716	1,000,706	1,130,097

Source: Central Bureau of Statistics

Table 2 Completed Flats for Permanent Residence in the Republic of Croatia

Year	Number of completed flats	Floor area, 000 m <sup>2</sup>
1990	18,596	1,495
1991	12,626	996
1992	7,767	623
1993	8,343	691
1994	9,710	820
1995	7,359	624
1996	12,624	1,047
1997	12,496	1,029
1998	12,557	1,040
1999	12,175	1,043
2000	15,988	1,302
2001	12,580	1,082

Source: Central Bureau of Statistics.

The table above shows that 12,580 flats with a total useful floor area of 1,082,000m<sup>2</sup> were completed in 2001, which is a decrease of 21% compared with 2000. The increase in the number of flats since 1996 has largely been the result of renewal of the housing stock damaged in the war. Recent war destruction led to the demolition of a substantial part of the housing stock so that providing housing to the Homeland War victims and renewal of the demolished housing stock have been given priority in dealing with the housing crisis.

In 2003, the average price of 1m<sup>2</sup> of a flat in Croatia ranged between HRK 7,033 and HRK 10,241, whereas the average net wage per employee stood at HRK 3,940.<sup>1</sup> The comparison of the stated amounts shows that an average Croatian citizen needs 1.8 – 2.6 average monthly wages to buy 1m<sup>2</sup> of a flat, i.e. his/her regular income is not sufficient to finance a purchase of a flat or a house alone.

<sup>1</sup> Source: Central Bureau of Statistics.

Table 3 Average Prices of Flats Sold per 1m<sup>2</sup>, in HRK

Place	1999	2000	2001	2002	2003
Zagreb	9,936	9,489	9,317	9,296	10,241
Other settlements	7,442	7,141	6,863	7,397	7,033
Total	9,004	8,688	8,306	8,366	8,569

Source: Central Bureau of Statistics

For want of own funds, a housing space may be purchased by borrowing on the domestic financial market. Still, a great number of average Croatian citizens cannot meet the present lending conditions of commercial banks – the only market lenders that immediately provide long-term home loans. A situation where an average citizen cannot obtain a home loan on the market under acceptable conditions requires active government participation in finding new housing finance models. In this context, it should be borne in mind that a purchase of a housing space is a primary goal of any individual, but one should also take account of the ability to finance its maintenance.

Table 4 Ratio of Outstanding Home Loans to GDP

	1999.	2000.	2001.	2002.	2003.	30 June 2004
Outstanding home loans in million USD	976.70	1,012.64	1,132.31	1,742.96	2,792.20	3,086.38
% change	-	3.68	11.82	53.93	60.20	10.54
Share of banks, %	100.00	99.99	99.88	99.27	98.90	98.55
Share of housing savings banks, %	0.00	0.01	0.12	0.73	1.10	1.45
GDP, in million USD	19,906	18,427	19,863	22,436	28,335	-
Outstanding home loans to GDP ratio, %	4.91	5.50	5.70	7.77	9.85	_

Source: Croatian National Bank.

At the end of 2003, the ratio of outstanding home loans to GDP was 9.85% in Croatia, which is relatively low compared with the EU average<sup>2</sup> of some 40% in the same period. This ratio is especially high in Denmark (over 70%), the Netherlands (over 60%), Germany and England (over 50%).

New housing finance models that have been introduced in Croatia in order to develop a housing finance market are explained under separate subheadings in the text below.

<sup>2</sup> At the 8th Central European Covered Bond Conference, held on 18-19 October 2004 in Copenhagen, Denmark, Croatia was mentioned as one of the countries in the region with a very low ratio of outstanding home loans to GDP.

#### 2.1 Institutions and Models of Housing Finance in Croatia

After World War II, housing problems in Croatia were mostly addressed in two ways: 1) by building family houses with own funds and work (the so-called self-help) and by purchasing flats from building firms and housing cooperatives; and 2) by allocation of publicly-owned flats through firms, institutions or other organisations<sup>3</sup>. After the fall of Yugoslavia, Croatia enacted laws regulating housing issues, thereby starting a housing reform that has not yet been finished. The 1990-1994 period was a time of major changes in the housing status. In this period, 57% of publicly-owned (state-owned) flats became private property of citizens (by end-1997, 299,136 or 76% of publicly-owned flats were privatised).4 Privatisation of these flats is associated with numerous dilemmas and questions regarding the justification of prices (i.e. are they realistic?) and the foundation of other conditions under which they are sold. Problems have also occurred concerning the maintenance and management of residential buildings. Owing to the housing reform, living in own flats has become the dominant housing status in Croatia. However, problems have occurred in registering many of the purchased publicly- and privately-owned (new and old) flats in the land registry and a new problem is foreseeable concerning former publicly-owned flats that are still being paid on an instalment plan because the payment of instalments for a certain number of flats is overdue or has been completely suspended, which has not been sanctioned. Illegal construction is an even bigger problem with regard to the land registry and planned construction. In view of this, possibilities of trading in flats, as well as mortgage financing of residential construction, have been limited. Concrete steps in the development of housing finance models are discernible after 1997, which saw the adoption of the Act on the Fund for the Long-Term Financing of Residential Construction with Government Subsidy, the Act on Housing Savings and Government Incentive to Housing Savings and the Publicly Subsidised Residential Construction Program.

The enactment of these acts has marked the beginning of an active housing policy in Croatia that should bring concrete results in a few years. Results up to now have shown that commercial banks' lending activities in the area of housing finance have become intense and that saving with housing savings banks has become more attractive, which is observable in a continuous increase in the number of newly-concluded housing savings contracts and the collected amount of savings. The newest program, the Publicly Subsidised Residential Construction Program, has raised great interest of citizens, whereas the Fund for the Long-Term Financing of Residential Construction with Government Subsidy has stopped functioning in the meantime.

<sup>3</sup> Jelinić, 1994.

<sup>4</sup> Bežovan, 1998.

#### 2.1.1 Commercial Banks

At the beginning of the transition period, commercial banks in Croatia emerged from the transformation of oligopolistic banks of the former Yugoslavia, but were also established by public and private enterprises and individuals. Commercial bank development has gone through various phases, including two banking crises. The banking system has lately been characterised by consolidation (numerous bank mergers as well as mergers of banks and savings banks). The role of commercial banks in housing finance on the domestic financial market is explained in the text below.

#### 2.1.1.1 Legal Framework for Commercial Bank Operations

Parallel to its fight for independence, the Republic of Croatia started a reform aimed at building an efficient, market-based and internationally transparent financial system. The first step in this direction was the enactment of the Act on Banks and Savings Banks in October 1993,5 which provided for the establishment of banks and savings banks as joint-stock companies and limited liability companies, respectively. Until then, bank operations had been regulated by an act taken over from ex-Yugoslavia, which had initiated a limited-scope market-oriented reform of the banking system in 1989. The Act on Banks and Savings Banks adopted in October 1993, with minor amendments made in 1996, was in force until 1998 when it was replaced by the Banking Act.<sup>6</sup> A new Banking Act was enacted in 2002.<sup>7</sup> The first banking regulations were modelled after German regulations, but high quality regulations of other countries were also taken into consideration. However, the situation at the time did not allow complete "copying" of foreign models. Legal provisions should not have caused great "breaks" in the banking system, and simultaneously had to prompt banks to develop their operations in accordance with the market rules.8 Universal banks, which were established and developed in the Republic of Croatia after the enactment of the Act on Banks and Savings Banks in October 1993, are today the best developed domestic deposit-taking financial institutions.

According to the applicable Banking Act of July 2002, the main services of a bank are accepting monetary deposits and extending loans and other placements from these resources, in its own name and for its own account, as well as issuing means of payment in the form of electronic money. In addition to banking services, banks may provide other services if they obtain a prior authorisation from the Croatian National Bank. The minimum amount of share capital required for the establishment of a bank is HRK 40m and banks may be founded only as joint-stock companies. The stated Act stipulates in detail the conditions for the establishment and operations of banks, their supervision by the Croatian National Bank, grounds for revocation of operating licenses, etc. Savings deposits up to

<sup>5</sup> Official gazette Narodne novine, No. 94/1993.

<sup>6</sup> Official gazette Narodne novine, No. 161/1998.

<sup>7</sup> Official gazette *Narodne novine*, No. 84/2002.

<sup>8</sup> Leko, 1999.

HRK 100,000 held with commercial banks are fully insured by the State Agency for Deposit Insurance and Bank Rehabilitation. It is important to mention that depositors and not individual deposits are insured, which means that in the case of payout of insured savings, all deposits an individual depositor holds with a certain bank are added together.

Since 2003, the interest paid on home loans granted to individuals has been allowed as relief on income tax up to the amount of HRK 12,000.9

#### 2.1.1.2 Characteristics of Commercial Bank Operations

At the end of 2003, 41 commercial banks were operating in the Republic of Croatia, of which 19 were in foreign ownership and their share in the total assets of the

Table 5 Consolidated Balance Sheet of Commercial Banks in Croatia, end of selected period, in million HRK

Item	1993	1997	2000	2002	2003
ASSETS					
1. Reserves with the CNB	861	5,046	10,589	20,373	26,784
2. Foreign assets	6,212	16,186	19,710	25,978	35,383
3. Claims on central government and funds	19,972	15,239	19,055	21,918	21,544
4. Claims on other domestic sectors	20,262	48,592	60,364	96,218	110,374
4.1. Claims on local government	11	309	1,175	1,422	1,563
4.2. Claims on enterprises	18,348	35,487	35,891	51,723	53,810
4.3. Claims on households	1,902	12,796	23,298	43,073	55,001
5. Claims on other banking institutions	10	_	69	219	432
6. Claims on non-banking financial institutions	16	247	162	915	762
Total (1+2+3+4+5+6)	47,332	85,309	109,949	165,622	195,278
LIABILITIES					
1. Demand deposits	1,759	8,424	11,386	21,166	23,315
2. Savings and time deposits	1,466	5,599	7,651	13,001	18,371
3. Foreign currency deposits	5,412	31,278	46,902	72,055	76,035
4. Bonds and money market instruments	48	134	478	216	598
5. Foreign liabilities	12,066	13,807	17,810	35,023	49,932
6. Central government and funds' deposits	1,438	6,875	6,730	6,095	5,283
7. Credit from central bank	275	34	329	18	969
8. Restricted and blocked deposits	14,262	5,852	2,550	1,680	1,709
of which: Households' blocked f/c deposits	13,857	4,574	1,695	319	168
9. Capital accounts	11,203	17,027	24,953	26,323	27,389
10. Other items (net)	-597	-3,720	-8,839	-9,956	-8,324
Total (1+2+3+4+5+6+7+8+9+10)	47,332	85,309	109,949	165,622	195,278

Source: Croatian National Bank.

<sup>9</sup> Applicable regulations stipulate income tax rates of 15-45% (depending on the income amount) on an annual level.

system stood at 91.0%.<sup>10</sup> The two largest commercial banks according to the asset size (Zagrebačka banka d.d. and Privredna banka Zagreb d.d.) accounted for 42.7% of the total assets of the system. Commercial banks built an operating network, which consisted of 1,022 operating units (branches, sub-branches, etc.) and 1,611 ATMs at end-2003.<sup>11</sup>

The total consolidated assets of commercial banks stood at HRK 195.3bn at end-2003, which is an increase of 17.9% and 77.6% respectively, compared with end-2002 and end-2000. In view of the subject of this paper, it is interesting to note that claims on households grew by 27.7% in 2003 compared with 2002, and by 136.1% compared with 2000. Total placements to households include home loans, which are analysed and explained under a separate subheading in the text below.

There is no organised trading in home loans in Croatia, and banks approve such loans in their own name and for their own account (portfolio lenders). Commercial banks encounter numerous problems concerning home loans, among which the most important are asymmetric information, i.e. insufficient information on clients – citizens (a credit registry was established in 2003) and difficulties regarding evaluation and use of collateral<sup>12</sup> (bankers believe that property appraisers are not sufficiently oriented towards the market value, and the collection through foreclosure and sale of pledged property is hardly executed and often long-lasting).

#### 2.1.1.2.1 Home Loans Granted by Commercial Banks

Of 41 banks that were operating at the end of 2003, 33 engaged in granting home loans to citizens. This means that today almost all commercial banks in Croatia regularly offer long-term home loans, which are the fastest and simplest means of financing a purchase of a housing space on the domestic financial market. Eight small banks that do not provide home loans have assets below HRK 700m each, whereas their total assets account for 1.04% of the total assets of the banking system. At the end of 2003, the share of home loans approved by commercial banks accounted for 8.10% of their total assets. The volume and trend of home loans granted by commercial banks are presented in the table below.

The share of assets of banks in foreign ownership in the total assets of the system was only 6.7% in 1998, after which it started to grow, standing at 39.9% in 1999, 84.1% in 2000, 89.3% in 2001 and 90.2% in 2002.

<sup>11</sup> The publications of the Croatian National Bank *Annual Report 2003* and *Banks Bulletin*, No. 8, 2004 were used in data processing.

<sup>12 &</sup>quot;Collateral" refers to assets by which a borrower (a person taking a loan) guarantees the loan/credit repayment

<sup>13</sup> Home loans contracted by commercial banks in Croatia are mostly linked to the euro.

Table 6 Commercial Bank Loans by Institutional Sectors, end of selected period, in million HRK

Item	1993	1997	2000	2002	2003
LOANS IN KUNA					
1. Loans to central government and funds	135.7	74.6	2,196.9	3,894.6	5,513.5
2. Loans to local government	11.4	293.2	996.8	1,202.9	1,485.1
3. Loans to enterprises	4,575.6	22,925.8	25,328.0	36,708.1	39,777.4
4. Loans to households	1,901.2	12,752.2	23,242.1	42,976.6	54,819.3
of which: Home loans	-	-	8,257.8	12,363.4	16,896.2
5. Loans to other banking institutions	10.0	_	33.5	17.6	82.3
6. Loans to non-banking financial institutions	4.1	166.6	105.5	521.3	427.9
A. Total (1+2+3+4+5+6)	6,638.0	36,212.4	51,902.8	85,321.1	102,105.4
Item	1993	1997	2000	2002	2003
LOANS IN F/C	1993	1997	2000	2002	2003
	<b>1993</b> 796.0	<b>1997</b> 679.9	<b>2000</b> 779.1	<b>2002</b> 1,544.9	<b>2003</b> 1,634.7
LOANS IN F/C					
LOANS IN F/C  1. Loans to central government and funds		679.9	779.1	1,544.9	1,634.7
LOANS IN F/C  1. Loans to central government and funds 2. Loans to local government	796.0 –	679.9 13.1	779.1 171.6	1,544.9 152.3	1,634.7 47.1
LOANS IN F/C  1. Loans to central government and funds 2. Loans to local government 3. Loans to enterprises	796.0 - 10,137.7	679.9 13.1 8,382.3	779.1 171.6 6,284.0	1,544.9 152.3 10,308.3	1,634.7 47.1 9,649.4
LOANS IN F/C  1. Loans to central government and funds 2. Loans to local government 3. Loans to enterprises 4. Loans to households	796.0 - 10,137.7	679.9 13.1 8,382.3	779.1 171.6 6,284.0	1,544.9 152.3 10,308.3 96.0	1,634.7 47.1 9,649.4 182.1
LOANS IN F/C  1. Loans to central government and funds 2. Loans to local government 3. Loans to enterprises 4. Loans to households 5. Loans to other banking institutions	796.0 - 10,137.7	679.9 13.1 8,382.3	779.1 171.6 6,284.0 56.3 –	1,544.9 152.3 10,308.3 96.0 1.2	1,634.7 47.1 9,649.4 182.1 174.3

Source: Croatian National Bank.

The share of home loans in the total amount of household loans shows that such loans have progressively grown in absolute terms, together with their relative value in the portfolio. The reasons for such trends in home loans within commercial banks' portfolios are: a stable growth in long-term savings deposits, a decline in interest rates on home loans, a higher standard of living, safety of placements (citizens are the best payers), promotion of property rights and judicial practice (e.g. fiduciary contracts), etc.

If we observe bank lending for the purposes of home loan financing, it is interesting to note that the 8 largest banks according to the size of assets approved 88.65% of total home loans reported at the end of 2003, which indicates their dominance on the national market and the importance that "capital strength" assumes for this type of bank products.

The domestic financial market currently offers home loans with a nominal interest rate of 6.45-8.50% (the effective interest rate of 6.84-9.50%) at the annual level, and various conditions regarding the provision of evidence of creditworthiness. <sup>14</sup> The main criteria for obtaining a home loan are client's income (salary amount), and the quality of the firm where he/she works (continuity of stable

<sup>14</sup> Interest rates refer to home loans linked to the euro because such loans dominate the market.

operations is appraised). Depending on these criteria, additional requirements have to be fulfilled (a downpayment, solidarity debtors and/or guarantors with adequate income, specific type and value of collateral – most often residential real estate at least in the value of the approved loan, <sup>15</sup> a debtor's life insurance policy vinculated in favour of the bank, etc.). In view of the variety and quantity of required instruments of repayment security we may speak of excess insurance of home loan repayment. Still, this practice has been introduced as a form of self-regulation by the banking industry itself, at the beginning of the transition period in conditions of high inflation and unemployment, war uncertainties, slow and inefficient judicial system, asymmetric information and incomplete land registry. Although the present situation is considerably better in all areas of life, banks are reluctant to give up on additional instruments of loan repayment security, especially since these instruments have proved themselves very successful in practice.

**Table 7** Commercial Banks' Interest Rates on Kuna Loans Not Indexed to Foreign Currency and Kuna Loans Indexed to Foreign Currency, weighted averages of monthly interest rates, in % on an annual basis

Item	1995	1997	2000	2002	2003
Long-term household loans in kuna	14.38	13.75	12.97	7.88	10.69
Long-term home loans in kuna indexed to foreign currency	-	_	_	7.42	6.02

Source: Croatian National Bank.

In contracting home loans commercial banks mostly do not take account of whether or not a client actually lives in a flat for which the loan has been approved, and the loan conditions do not change depending on this. However, living in a residential real estate financed by a loan is one of the conditions for the allowance of tax relieves on income tax.

Table 8 Survey of Home Loan Conditions in Selected Commercial Banks

Daul	Interest rate	)	Effective interest	Repayment	
Bank -	%	Туре	rate — EIR (%)	period	
Zagrebačka banka d.d., Zagreb	6.80 - 7.50	variable	6.84-7.86	up to 30 years	
	7.49	fixed	7.54	up to 25 years	
Privredna banka Zagreb d.d., Zagreb	6.98 - 7.48	variable	7.82-8.84	up to 30 years.	
Raiffeisenbank Austria d.d., Zagreb	7.50 - 8.50	variable	9.22-9.50	up to 25 years	
Erste & Steiermärkische Bank d.d., Zagreb	$(4.99^{a}) 6.45 - 6.95$	variable	(5.64a) 7.38-7.28	do 30 god.	

<sup>&</sup>lt;sup>a</sup> The interest rate refers to approved home loans linked to the Swiss franc, whereas all other interest rates refer to loans linked to the

Source: Internet, searched on 8 August 2004.

<sup>15</sup> Pledged real estate must be insured against fire, natural hazard, etc., at least in the amount equal to the loan amount (the so-called hazard insurance).

Almost half of commercial banks did not regularly offer long-term loans<sup>16</sup> in early 2000. By contrast, long-term home loans are today available at most banks and interest rates on such loans are the most favourable since Croatia's gaining of independence and the beginning of the transition period.

Unfortunately, many Croatian citizens still cannot meet the market conditions for obtaining home loans required by certain banks and often opt for completely unacceptable solutions. An example is financing through short-term loans (often obtained at several banks) that are by their nature more expensive than home loans, which additionally increases the costs and final price of a housing space.

Notwithstanding the (un)acceptability of market conditions for home loans within the regular offer of domestic commercial banks, intense bank activity in the area of home loans, which has been observed since 1997, has been primarily boosted by lower interest rates, longer repayment periods and a higher standard of living.

Some banks have recently started to approve home loans indexed to the Swiss frank, thereby promoting lower interest rates. Such banks conclude loan contracts stipulating that only interest is repaid during the repayment period, whereas a portion allocated for the repayment of principal (which comes due at the end of the repayment period) is paid into an investment fund (repayment-free model). Such products are a novelty on the domestic home loan market and their offer is limited.<sup>17</sup>

Refinancing of home loans from more favourable sources is still of a negligible scope in Croatia, although home loan contracts contain clauses regulating this issue and mostly provide for the payment of a certain fee. This situation is certainly affected by the common practice of domestic banks whereby, prior to home loan approval by a certain bank, a citizen is required to open a current account in the stated bank, through which he/she receives his/her whole salary (or other regular income) and is granted a loan only after a certain period (most often three months). Hence, the choice of a bank at which one applies for a home loan does not depend exclusively on loan conditions, which is also evident in the manner in which banks approach clients. Bank competition, among others, consists of activities whereby banks promote the attractiveness of their current accounts since citizens, in conditions where loan approval depends on the question of where and for how long they have their current accounts, will apply for a loan in that bank, whereas loan conditions will be pushed into the background. Liberalisation of loan conditions related to this issue has also been lately observed and will certainly continue in the future.

<sup>16</sup> See Kraft, Dolenec, Duliba, Faulend, Galac, Šošić and Tepuš, 2001, p. 5.

<sup>17</sup> The author expects that Croatian banks will soon offer home loans indexed to the Japanese yens, similar to those approved in Germany and Austria, with the interest rate of some 2%. Since developments in the Japanese yens are less predictable than that in some other currencies (e.g. the US dollar, euro, etc.), banks should provide internal refinancing models, which their clients could activate when interest rates exceed some 4%, and pay special attention to providing clients with information on this specific product.

Although high interest rates on most types of bank loans have been discussed by the domestic public for some time, it has not led to their reduction. Loan demand is obviously still soaring and the connection between a citizen and an individual bank, i.e. a complex and uncertain procedure of switching banks, somewhat limits citizens in choosing where and under what conditions to borrow.

Banks' main distributive channel for home loans is a network of own operating units (branches and sub-branches), whereas the Internet is mostly used to inform clients on loan conditions and documentation requirements. Banks' agents in the field that engage in finding (counselling) clients (the so-called loan brokers) have still not developed as a distributive channel although some banks have decided in favour of such arrangements. Hence, it may be expected that this distributive channel will be further sophisticated in the future.<sup>18</sup>

As home loans approved by Croatian commercial banks have very similar characteristics, we may speak about the standard of primary housing financing that is set by the banking industry and applied throughout the country. There are currently no home loans whose characteristics are adjusted to specific population groups (the so-called hybrid home loans and the like<sup>19</sup>), although there is sufficient room for such products (e.g. private renters of villas in residential parts of cities and numerous room and apartment renters along the Adriatic coast, etc.).

In view of a multiple effect of bank products used to finance private housing projects (as components in costs, factors of the project feasibility, etc.), within the subject analysed in this paper it should be stressed that the characteristics of such products (repayment period, documentation requirements, loan repayment security, etc.) are often not adjusted to the needs of entrepreneurs, which finally goes at the expense of the buyer since it increases the price of a housing space.

2.1.1.2.2 Commercial Bank Sources of Funds for Housing Finance Commercial banks in Croatia do not issue long-term securities that would correspond to mortgage bonds (European model) or mortgage-backed securities

<sup>18</sup> Traditional financial institutions engaged in housing finance have for a long time been using their networks of operating units (territorially distributed) as the main distributive channel. As a network of operating units is an expensive distributive channel, financial institutions often adopt alternative solutions. Real estate agents and agents in the field are financial intermediaries often involved in housing finance operations and are the next most important distributive channel. England and the Netherlands are the countries where, following the American practice, intermediaries engaged in finding optimal solutions to housing finance problems play a prominent role. In 2000, there were 10,470 financial intermediaries registered in England, whereas they had a market share of some 30% in the Netherlands. The main deficiency as regards financial intermediaries is a reduced ability to supervise their operations. Nevertheless, they have asserted themselves as indispensable partners to traditional mortgage banks. Other important distributive channels used worldwide are post, phone, Internet, etc. Still, up to now nothing has severely disturbed the established hierarchy of distributive channels of financial institutions engaged in housing finance.

<sup>19</sup> A hybrid home loan is an instrument that makes housing finance attractive to certain population categories that earn predictable income on the basis of a real estate in their ownership. In contracting such loans a lender, in the name of more favourable loan conditions (lower interest rates or a smaller downpayment), negotiates: an option to acquire joint ownership of the real estate, a part of earnings made on the basis of the price increase achieved in the sale of the real estate and/or acquires a part of income earned on the stated real estate. An additional example is a US model adjusted to senior citizens (Equity Release Mortgage).

(Anglo-Saxon model) nor do in any other way collect special-purpose funds<sup>20</sup> for financing home loans. The main sources of their funds for home loan financing are deposits and own capital. One should also mention earmarked deposits of the European Bank for Reconstruction and Development (EBRD) that are used by several banks. An analysis of savings with commercial banks in Croatia is provided below.

 $\textbf{Table 9} \ \, \textbf{Savings and Time Deposits with Commercial Banks in Croatia, end of selected period, in million HRK and \%$ 

Item	199	93	199	97	200	00	200	2	200	13
1. Savings deposits	215.2	100%	1,115.7	100%	1,676.1	100%	2,236.2	100%	2,527.9	100%
1.1. Households	215.2	100%	1,115.7	100%	1,348.3	80%	1,996.3	89%	2,288.8	91%
1.2. Others	0.0	0%	0.0	0%	327.7	20%	239.9	11%	239.1	9%
2. Time and notice deposits	1,250.8	100%	4,483.2	100%	5,975.0	100%	10,764.9	100%	15,842.9	100%
2.1. Households	408.1	33%	1,962.1	44%	1,789.8	30%	3,793.8	35%	6,194.5	39%
2.2. Others	842.8	67%	2,521.2	56%	4,185.2	70%	6,971.1	65%	9,648.4	61%

Source: Croatian National Bank.

**Table 10** Foreign Currency Deposits with Commercial Banks, end of selected period, in million HRK and %

Item	199	93	199	)7	200	00	200	2	200	)3
1. Savings deposits	3,843.4	100%	10,750.3	100%	14,566.3	100%	21,074.4	100%	21,547.0	100%
1.1. Households	2,533.7	66%	8,616.2	80%	12,041.5	83%	17,537.3	83%	17,690.2	82%
1.2. Others	1,309.7	34%	2,134.1	20%	2,524.8	17%	3,537.1	17%	3,856.8	18%
2. Time deposits	1,568.9	100%	20,527.8	100%	32,335.3	100%	50,980.3	100%	54,488.4	100%
2.2. Households	1,308.0	83%	18,849.8	92%	29,097.2	90%	44,159.2	87%	46,805.1	86%
2.2. Others	260.9	17%	1,678.0	8%	3,238.1	10%	6,821.1	13%	7,683.3	14%

Source: Croatian National Bank.

On the basis of the data in tables 8 and 9 it may be concluded that the largest part of savings with commercial banks is held in foreign currency (foreign currency deposits account for 39% of total liabilities in the consolidated balance sheet of commercial banks) and is mostly deposited by households (more than 80% are savings and time deposits in foreign currency). Although households account for a considerable share in kuna savings deposits as well (over 80% in all observed

According to the European Mortgage Federation, 20% of outstanding home loans in the EU at the end of 1998 were financed by issued mortgage bonds and/or mortgage-backed securities. A model of housing finance by means of issued mortgage bonds is dominant in Denmark, Sweden and Austria (and plays an important role in Germany, Norway and Spain), whereas a model based on issued mortgage-backed securities is dominant in the US (in Europe, it is mostly present in Ireland, the Netherlands, Spain and England).

periods), a comparison of absolute amounts by items shows that foreign currency time deposits of households are the dominant source of commercial bank funds.

There exists certain asymmetric information in Croatia between debtors and creditors, which will be diminished once the credit registry starts to exercise all its functions and creditors begin to approach clients in a transparent manner, i.e. when they start applying European codes of conduct/standards for housing finance. Since individual banks are users of earmarked deposits of the EBRD and since the EBRD has compiled its own manual that sets the standards concerning lending from their earmarked deposits, domestic banks that use these deposits will have to adhere to its provisions. Banks in England, Denmark and other countries adhere to housing finance standards. Such standards ensure similarity of approved home loans on the primary market, which facilitates their subsequent grouping into credit pools and, on the basis of these pools, the issuance of long-term securities on the capital market (i.e. secondary home loan market). Approval of home loans in conformity with the EBRD manual will be the first step towards unification of loan application processing in domestic banks, which will boost the development of the secondary home loan market.

## 2.1.2 The Fund for the Long-Term Financing of Residential Construction with Government Subsidy

The Fund for the Long-Term Financing of Residential Construction with Government Subsidy was established within the Croatian Bank for Reconstruction and Development (CBRD) on the basis of an act adopted in 1997.<sup>23</sup> The Fund did not have a status of a legal person and dealt in financing home loans to citizens by use of funds provided in the government budget (as a rule, 1% of current revenues). The right to obtain a home loan from the Fund's resources was given to citizens who had not solved or had not adequately solved their housing problem, with priority given to young families (both a husband and a wife had to be under 35).

In accordance with the Act on the Fund for the Long-Term Financing of Residential Construction with Government Subsidy, adequate housing for spouses meant a flat with a useful floor area of  $30m^2$ , which is increased by  $12m^2$  for each additional family member.

A loan from the resources of the Fund for the Long-Term Financing of Residential Construction with Government Subsidy could be used to finance: 1) a purchase of a real estate: flats and family houses, 2) construction of flats and family houses, 3) reconstruction, renovation and repair of flats and family houses, 4) a purchase of a construction plot without a construction or with a partly built construction and 5) public utility connections at the construction plot.

<sup>21</sup> On 5 March 2001, pursuant to an initiative of the European Mortgage Federation and a consumer organisation, European Credit Sector Association concluded with them the European Agreement on a Voluntary Code of Conduct for Pre-contractual Information on Home Loans.

<sup>22</sup> Home loans granted under certain standards that are the basis for issuing securities make together the so-called home loan/mortgage-pool, which is also called a credit pool or joint mortgages.

<sup>23</sup> The Act on the Fund for the Long-Term Financing of Residential Construction with Government Subsidy, official gazette *Narodne novine*, No. 109/1997.

The Act on the Fund for the Long-Term Financing of Residential Construction with Government Subsidy provides that a home loan for the above stated purposes may be obtained for a period of up to 30 years. Also, the Fund's resources could be used to subsidise long-term home loans approved by commercial banks from their own sources. Subsidies helped to achieve more favourable loan conditions since they were used to subsidise interest payments, which rendered an instalment more acceptable/lower. Banks chosen through a public tender process participated in the model of subsidising home loans offered by commercial banks and the Fund covered the difference between interest rates on such loans and market interest rates.

The Fund for the Long-Term Financing of Residential Construction with Government Subsidy started to accept applications on 1 January 1998 and by the year-end received almost 11,000 applications by young families. All applications were ranked and the results were published in daily newspapers. In the same year, HRK 150m was set aside from the government budget for the purposes of the Fund and a commercial bank – partner was chosen through the public tender (Privredna banka Zagreb d.d.). The bank set aside HRK 200m for housing finance through the Fund. Over 1,500 home loans at a fixed interest rate of 6% and with the repayment period of 20 years were approved within this housing finance model.<sup>24</sup> Still, since 50% of the funds earmarked for subsidies were unused, further payouts of budget funds were suspended in 1999.

This model has never gotten under way in Croatia although similar housing finance models are known around the world (e.g. the Czech Republic), as are various government funds for stimulating residential construction and housing provision (e.g. home loans are approved in Finland and loan guarantees are provided in the Netherlands, etc.). The reasons are as follows: insufficient amount of subsidised interest payments for the targeted population group, limitations regarding the size of an "adequate" housing space, the limitation on the maximum price of 1m² to HRK 8,000 and a complicated bureaucratic procedure for submitting applications.

#### 2.1.3 Contract Savings for Housing – Housing Savings Banks

As in many other countries at the beginning of the transition process, a model has been introduced in Croatia to develop housing finance, which supports the use of citizens' funds to solve housing issues, i.e. a model of contract savings for housing through housing savings banks that is modelled after housing savings banks in Germany and Austria (German *Bausparkassen*).<sup>25</sup>

The adopted Act on Housing Savings and Government Incentive to Housing Savings, which came into force on 1 January 1998, was aimed at developing a model of contract savings for housing. This Act provides for the establishment of specialised financial institutions for housing finance – housing savings banks.<sup>26</sup>

<sup>24</sup> According to papers by Njavro, 2000, p. 207 and Tica, 2002, p. 102.

<sup>25</sup> The first housing savings banks in transition countries of the region were founded in Slovakia (1992), the Czech Republic (1993) and Hungary (1997).

<sup>26</sup> The Act on Housing Savings and Government Incentive to Housing Savings was published in the official gazette Narodne novine, No. 109 on 20 October 1997 and came into effect on 1 January 1998.

The first housing savings banks were set up shortly after this Act came into effect in anticipation of a favourable market response and good business results. Three housing savings banks were founded in the first year the Act was in effect and one was founded later.

On 30 June 2004, the following housing savings banks had an operating license in Croatia:

- 1. PBZ stambena štedionica d.d.<sup>27</sup>
- 2. Prva stambena štedionica d.d.
- 3. Raiffeisen stambena štedionica d.d.
- 4. Wüstenrot stambena štedionica d.d.

#### 2.1.3.1 Legal Framework for Housing Savings Bank Operations

The Act on Housing Savings and Government Incentive to Housing Savings stipulates the conditions for the establishment of housing savings banks and the method of their operations, the terms and conditions of housing savings and home loans, the criteria and procedure of disbursement and use of government incentives for housing needs of citizens, as well as penal provisions.

Under the Act on Housing Savings and Government Incentive to Housing Savings, housing savings are special-purpose savings defined as collection of monetary deposits from domestic natural and legal persons with a view to satisfying housing needs of Croatian citizens by extending government subsidised loans for residential construction on the territory of the Republic of Croatia. Savers with housing savings banks and loan users may be Croatian citizens, municipalities and cities (if they use these funds to build flats aimed at satisfying housing needs of persons at the lower end of the income scale), which conclude a housing savings contract with one of the existing housing savings banks in the market. Article 13 of the Act on Housing Savings and Government Incentive to Housing Savings stipulates the compulsory provisions of a housing savings contract, whereas Article 20, paragraph 2 of the same Act stipulates the compulsory provisions of a home loan contract.

In concluding a housing savings contract everyone should realistically determine his/her saving abilities, as well as the purpose of the loan (if he/she intends to take it). A housing savings contract stipulates a contract amount<sup>28</sup> and a prescribed saving period. The contract amount consists of housing savings and a housing savings bank loan. Housing savings comprise own saved/deposited funds, a government incentive and interest earned on these funds. Depending on the saving period, which may not be shorter than two years, housing savings banks offer various saving options – types or tariffs (e.g. fast, regular and slow;

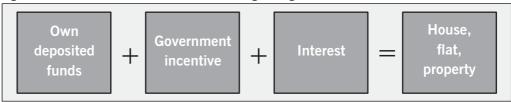
<sup>27</sup> PBZ stambena štedionica d.d. began operations in early 2003. Until then, there was Hrvatska stambena štedionica d.d. whose portfolio was in its entirety taken over by Prva stambena štedionica d.d., Zagreb.

<sup>28</sup> A contract amount is set in concluding a housing savings contract. It comprises own funds (own savings, a government incentive and interest earned on these funds). A loan is an amount obtained as the difference between the contract amount and own funds.

prime, basic and gold, etc.). Housing savings may be contracted with monthly, quarterly or annual payments, as well as a single payment. Savers' adherence to the contracted method of payment is important since the saving period needed for obtaining a loan in the planned amount is directly prolonged if payments are overdue.<sup>29</sup> Deposits with housing savings banks are guaranteed by housing savings banks and are subject to the obligatory deposit insurance with the State Agency for Deposit Insurance and Bank Rehabilitation.<sup>50</sup>

Stimulation of housing savings of Croatian citizens is observable in direct incentives (hence the term "a government incentive"), i.e. the allocation of budget funds to all savers with housing savings banks in the amount of 25% of own funds deposited in savings accounts with housing savings banks in the preceding calendar year. The base on which a 25% government incentive is added is limited by law to HRK 5,000, which means that the maximum amount of a government incentive that a saver may obtain is HRK 1,250. In view of interest rates and incentives given on own deposited funds, housing savings are extremely attractive for savings deposits up to HRK 5,000 per citizen.

Figure 1 Usual Illustration of the Effect of Housing Savings



Housing savings banks in Croatia operate in accordance with the applicable Banking Act and other regulations of monetary and public authorities that provide for operations of banks and savings banks, whereas their operations are supervised by the Croatian National Bank, the Ministry of Finance and the State Audit Office.

#### 2.1.3.2 Characteristics of Housing Savings Bank Operations

The operation of housing savings banks in Croatia since their establishment may be divided into two periods: the first period, in which it was not possible to conclude a housing savings contract with a protective monetary clause (often referred to as "a currency clause"), and the second period, starting from 8 July 1999, in which it has been possible to conclude such contracts, which is the main

<sup>29</sup> After a certain period of saving, a saver earns a right to obtain a home loan. This moment is often called "allocation", which means that a home loan was allocated under a housing savings contract.

<sup>30</sup> In the Republic of Croatia, deposits up to HRK 100,000 are guaranteed by the State Agency for Deposit Insurance and Bank Rehabilitation (in accordance with the Act on the State Agency for Deposit Insurance and Bank Rehabilitation, official gazette *Narodne novine*, Nos. 44/1994, 79/1998, 19/1999 and 35/2000, and the Decision on the Amount of Insured Deposits, official gazette *Narodne novine*, No. 88/1998). The Croatian National Bank supervises the operation of banks and savings banks in the Republic of Croatia.

reason of a substantial upturn in savings with housing savings banks in the years following 1999.

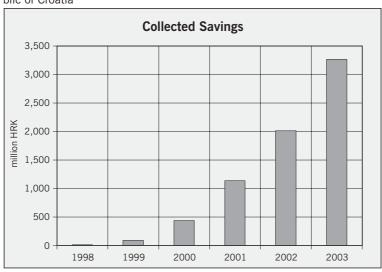
Table 11 Housing Savings Banks' Aggregated Balance Sheet, end of period, in million HRK

Item	1998	1999	2000	2001	2002	2003
ASSETS						
1. Reserves with the CNB	2.4	8.6	7.6	15.5	19.1	0.0
2. Claims on central government and funds	49.7	81.4	497.6	1,208.8	1,983.9	3,033.5
3. Claims on other domestic sectors	-	5.3	1.1	11.6	93.3	187.9
of which: Claims on households	-	-	0.6	11.6	91.3	187.9
4. Claims on banks	54.2	57.0	7.6	18.1	37.2	247.2
5. Claims on other banking institutions	-	-	-	-	-	-
Total (1+2+3+4+5)	106.3	152.3	513.8	1,254.0	2,133.6	3,468.6
LIABILITIES						
1. Time deposits	8.7	87.6	437.8	1,137.5	2,012.9	3,265.2
2. Bonds and money market instruments	0.4	-	10.0	10.0	-	11.1
3. Capital accounts	108.3	117.4	112.5	124.0	141.1	159.7
4. Other (net)	-11.0	-52.7	-46.5	-17.5	-20.4	32.6
Total (1+2+3+4)	106.3	152.3	513.8	1,254.0	2,133.6	3,468.6

Source: Croatian National Bank.

A saving period begins with the conclusion of a housing savings contract and lasts until contractual obligations on the required amount and saving period are met, after which a saver who wants to obtain a loan enters a loan period. However, savers who do not wish to obtain a home loan may either continue to save or withdraw their deposited funds, increased by the corresponding interest, a government incentive, bonuses, etc.

Figure 2 Total Savings Collected by Housing Savings Banks in the Republic of Croatia



To attract new savers, housing savings banks use the following distributive channels: 1) a network of agents in the field — organised according to various multilevel principles and motivated by commissions on concluded contracts, 2) own and private licensed sales offices, 3) contracts on cooperation and use of distributive channels of a housing savings bank's founder bank (e.g. counters and sub-branches), 4) the Internet, etc.

Since approval of a home loan requires a minimum two-year saving period, housing savings banks were able to approve their first home loans only in 2000, and more intense credit activity in terms of the number and total amount of approved loans is expected in the future.

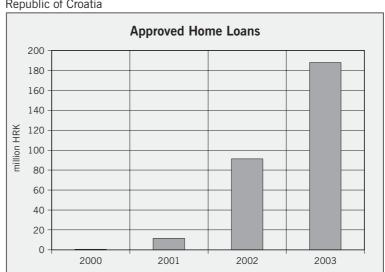


Figure 3 Total Home Loans Approved by Housing Savings Banks in the Republic of Croatia

**Table 12** Survey of Basic Conditions of Savings with Housing Savings Banks in the Republic of Croatia

Housing savings bank	Interest r	_ Loan repayment	
nousing savings bank	on savings	on loans	period
PBZ stambena štedionica d.d.	1.50 - 3.33ª	$4.44 - 5.88^a$	up to 20 years
Prva stambena štedionica d.d.	3	6	up to 13 years
Raiffeisen stambena štedionica d.d.	$3 - 3.5^{b}$	6	up to 16 yrs and 5 m.
Wüstenrot stambena štedionica d.d.	2 – 3°	5 – 6°	up to 15 yrs and 8 m.

<sup>&</sup>lt;sup>a</sup> Various interest rates are calculated depending on the period (type) of housing savings chosen by a saver.

<sup>&</sup>lt;sup>b</sup> A higher interest rate (by 0.5%) is applied to savers that do not take a home loan after 5 years of saving.

<sup>&</sup>lt;sup>c</sup> Higher interest rates are applied to housing savings contracts concluded without a currency clause. Source: Internet, searched on 11 August 2004.

<sup>31</sup> Article 20, paragraph 2, item 2 of the Act on Housing Savings and Government Incentive to Housing Savings stipulates that a housing savings bank may contract an interest rate on an approved loan that is not more than 3% higher relative to the interest rate applied to the saved amount.

Table 13 Comparison of Conditions for Housing Savings in Selected Transition Countries

Characteristic	The Czech	Slovakia	Hungary	Croatia
Onaracteristic	Republic	Olovania	Trungury	Oroutiu
Government premium (in percent of the calculation base)	25%	30%b	30%	25%
Base for the calculation of a government premium (in	CZK 18,000	SKK 20,000	HUF 120,000	HRK 5,000
original currency and kuna equivalent) <sup>a</sup>	HRK 4,232	HRK 3,716	HRK 3,512	
Maximum amount of a government premium (in original	CZK 4,500	SKK 6,000	HUF 36,000	HRK 1,250
currency and kuna equivalent) <sup>a</sup>	HRK 1,058	HRK 1,115	HRK 1,054	
Saving period	5 years	6 years	4 years	5 years
Free use of funds after the saving period	YES	YES	after 8 years	YES
Interest rate on deposits in housing savings banks	3-4.5%	3-4.5%	3%	1.5-3.5%
Interest rate on home loans	6%	6%	6%	4.44-6%
Required own funds (in percent of the contract amount)	50%	50%	50%	30-50%
Minimum period of waiting for a loan	2 years	2 years	4 years	2 years
Loan repayment period	up to 21 year	up to 18 years	around 8 years	up to 20 years
Option of inter-financing	immediately	immediately	after 2 years	NO

<sup>&</sup>lt;sup>a</sup> Kuna equivalent is calculated according to the midpoint exchange rate of the CNB on 31 December 2003.

The following material was used in compiling the table: Diamond (1998), pp. 13-14, Dübel (2003), pp. 4 and 21 and Marikova Leeds (1996), p. 11.

When a saver fulfils the basic saving terms (a certain period and amount) and applies for a home loan, a housing savings bank approves a home loan if it positively assesses the saver's creditworthiness and the loan purpose. Savers have to go through an almost identical process in collecting various documentation for the purpose of proving their creditworthiness as if they applied for a loan in a domestic commercial bank.<sup>32</sup>

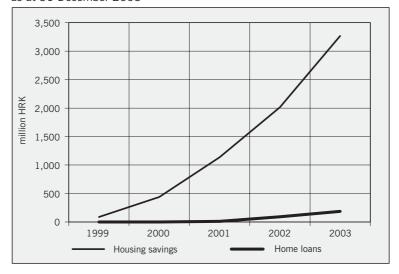
Figure 4 illustrates the gap between housing savings collected by housing savings banks and the amount of approved loans in the observed period, as well as their trend. Since many loans have not yet reached the stage of "allocation", in conditions of large demand for home loans, housing savings banks place funds in other instruments as provided by law.<sup>33</sup> Since the basic idea behind the foundation of housing savings banks in Croatia is to encourage and develop housing finance of citizens, it may be advisable to provide for direct inter-financing of savers and the performance of some other banking services (e.g. approval of consumer loans whose purpose is related to housing, sale of insurance policies and investment in real estate), as is the case with other similar institutions in the region (see Table 13). Although the Act on Housing Savings and Government Incentive to Housing

<sup>&</sup>lt;sup>b</sup> A government premium was 40% before 1997.

<sup>32</sup> More data on the operation of housing savings banks in Croatia may be found in Tepuš, 2002.

<sup>33</sup> The policy concerning placements by housing savings banks is stipulated in Article 10 of the Act on Housing Savings and Government Incentive to Housing Savings, which states that funds may be used for: financing home loans of citizens, financial market investments with blue chip guarantees (deposits), purchase of blue chip government securities and other securities backed by a government or bank guarantee, and placements with safe credit institutions.

**Figure 4** Comparison between the Amount of Housing Savings and the Amount of Home Loans Approved by Housing Savings Banks in Croatia, as at 31 December 2003



Savings does not allow direct inter-financing of savers,<sup>34</sup> all housing savings banks have developed a form of cooperation with commercial banks so that the market offers a product with similar characteristics. Still, this form of indirect inter-financing leads to additional costs and hampers the development of this product, as well as of the whole area of business policy of housing savings banks. Due to this, instead of financing home loans to citizens, the credit potential will be redirected to financing the government and its institutions through investment in their bonds.

#### 2.1.4 The Publicly Subsidised Residential Construction Program

The Publicly Subsidised Residential Construction Program (or Publicly Subsidised Residential Construction – PSRC) is the most recent market-oriented housing model in Croatia, which has been implemented since the adoption of the Act on Publicly Subsidised Residential Construction on 11 December 2001.<sup>35</sup> The publicly subsidised residential construction model should solve/improve housing needs/status of citizens by engaging public (government, city, municipal), commercial bank and citizens' funds. It is implemented through construction of flats and residential buildings, organised in a way that: provides for purposeful

<sup>34</sup> Inter-financing is an option that a saver may obtain a home loan from a housing savings bank prior to the expiry of the required saving period. In this model, a loan approved for inter-financing is refinanced from a home loan that is approved after a saver fulfils all regular conditions (the required amount and saving period). The option of inter-financing shortens the period of waiting for a home loan from a housing savings bank. A saver is a gainer because he/she solves his/her housing problem faster, a loan application is processed only once, the underlying loan costs occur only once, and the instalment amount may, but does not need to, be affected by refinancing the loan for inter-financing. This is due to the fact that housing savings banks offer models of refinancing loans for inter-financing in which a client pays equal instalments throughout the entire repayment period (German Mischrate Bauspardarlehen/Zwischendarlehen). The option of inter-financing is offered by housing savings banks in Germany, Austria, the Czech Republic, Slovakia and Hungary.
35 Official gazette Narodne novine, No. 109/2001.

use of public and other funds to cover expenses, ensures the repayment of these funds and provides for financing a purchase of a flat by instalments under conditions more favourable than the market conditions as regards interest rates and repayment periods. The publicly subsidised residential construction model provides for construction of flats only if their sale price does not surpass EUR 910 per m<sup>2</sup> of the net useful floor area.

To encourage residential construction the government provides within its budget the funds for the construction-related costs in the amount of 25% of total construction costs per 1 m<sup>2</sup> of the useful floor area of a flat (the so-called reference price of construction)<sup>36</sup> and makes these funds payable to the investment project manager.

The model does not imply construction of flats for socially handicapped citizens alone. Instead, it involves organised residential construction based on market principles, which provides acceptable housing finance to Croatian citizens without a housing space or with inadequate housing space.

Local self-government units assess housing needs and interest in buying flats on their territory and are obliged to provide adequate construction sites and public utility infrastructure for that purpose. These units also determine the conditions, criteria and procedure for determining priority lists for purchasing flats through this model.

The manager of investment projects related to construction and sale of flats is the Real Estate Agency (REA), which operates in accordance with operating rules of non-profit organisations, in its own name and for the account of the Republic of Croatia. As an investor, the REA plans the scope of residential construction in accordance with earmarked public funds and housing needs, formulates an implementation program of publicly subsidised residential construction with prior approval of the minister in charge of public works and construction, and obtains funds needed for construction pursuant to that plan. In construction of flats, the REA uses public funds and funds obtained on the capital market from commercial banks, housing savings banks and other financial institutions, citizens – buyers of flats and other persons. The REA maintains the data on financial operations related to financing of an individual building in a separate sub-account. It is obliged to establish a reserve fund with the government budget funds in order to ensure the building financing until its completion (if certain participants in construction do not fulfil their contractual obligations or if a part of the building is not sold on time or for other unpredictable circumstances). A portion of funds needed for construction is obtained on the capital market from commercial banks, housing savings banks and other domestic financial institutions.

<sup>36</sup> Once a year, a minister in charge of public works and construction determines the reference price of construction on the basis of average construction prices of 1m2 of the useful floor area of a flat in Croatia according to the data published in Statistical Yearbook of the Republic of Croatia of the Central Bureau of Statistics, and its value is linked to the euro. The reference price of construction cannot be different from the reference price of construction used for various calculations in other laws.

If a purchase of a flat from the publicly subsidised construction program is financed by instalments, a buyer is obliged to make a downpayment amounting to 15% of the preliminary estimate of the flat's value, 45% of the flat's value is financed by a commercial bank loan, whereas the remaining 40% is financed by a loan provided by the Ministry of Public Works, Reconstruction and Construction (MPWRC) and local self-government units (SGUs). A person who finances the purchase of a flat by instalments must satisfy the conditions related to creditworthiness that are set by the REA and a commercial bank approving the loan funds, and the purchased flat is used as security for the repayment of the entire debt together with the accompanying interest. When a flat is purchased by instalments, a commercial bank loan is repaid first, and then the remaining portion is paid to the Ministry of Public Works, Reconstruction and Construction and the local self-government unit. The annual interest rate on the bank's part of the loan is 7.85% and is linked to the six-month EURIBOR, whereas the interest rate on funds of the MPWRC and SGUs (40% of the flat's value) is not charged in the first 16 years, in which stead only an interest rate of 2% (the so-called compound interest) is paid. In the next 15 years, a loan is repaid at the interest rate of 5% a year. In purchasing a flat by instalments, the total repayment period may not exceed 31 year, counting from the date of a purchase contract. A monthly instalment is determined in such a way that its amount is equal throughout the repayment period, but it may not be less than 0.25% of the flat's sale price.

**Table 14** Comparison of a Loan within the PSRC Project and a Commercial Loan on an Example of a Flat Priced at DEM 80,000

Item	PSRC loan	Loan at 9% interest
Monthly instalment	320	624
Effective interest rate	4.30% <sup>37</sup>	9.00%
Total principal amount repaid	80,000	80,000
Total interest paid	66,378	144,491
Total amount repaid	146,378	224,491

Source: Ministry of Environmental Protection, Physical Planning and Construction.

The social dimension of this model is observable in provisions according to which the priority in purchasing a flat is given to citizens without an adequate housing space, which means a flat of  $35m^2$  per person (with adequate infrastructure), increased by  $10m^2$  per each additional person.

Within the publicly subsidised residential construction program public funds may be used to stimulate construction, renovation and reconstruction of buildings, family houses, as well as carrying out of other construction works aimed at

<sup>37</sup> An effective interest rate on a loan within the PSRC program is derived from three rates: a rate of 7.85% (according to the six-month EURIBOR) on a commercial loan in the first 15 years and a combination of a 2% compound interest during the grace period, which is charged on a government loan, and a 5% interest charged during the repayment of the government loan.

improving housing quality of citizens. These funds are used to settle a part of construction costs – up to 25% of their amount. Public funds, linked to the euro, must be repaid within 15 years counting from the date of concluding the contract, including a possible grace period of up to 5 years. To stimulate the stated works, the REA may use up to 15% of the funds earmarked in the budget of the Republic of Croatia for the purposes of this model.

In addition to many positive elements (stimulating residential construction with controlled costs and the final price of flats, speeding up of various bureaucratic procedures, insurance of credit lines for citizens, the social dimension in allocating rights to purchase a flat, etc.), the PSRC model has the following deficiencies: 1) it is based on considerable budget subsidies, which is primarily observable in the fact that the responsible ministry and local self-government units ensure financing of 40% of the flat's value in their budgets, on this amount a commercial bank charges a 2% compound interest during the loan repayment period and, after the repayment of the bank loan, the buyer returns the public funds by repaying funds to the REA at the interest rate of 5% (a subsidy is the difference between the compound interest and costs of funds' resources together with opportunity costs of the public authorities); 2) local self-government units must provide adequate construction sites for construction of flats and public utility infrastructure and connections, i.e. they bear the costs related to infrastructure and public utility connections (these costs are also subsidies) that are not included in the established reference price of construction; 3) citizens having adequate creditworthiness to repay home loans but without funds needed for a 15% downpayment are rejected without considering other options (e.g. a lower downpayment requirement for certain categories of citizens, higher loan instalments, recognition of additional insurances of other family members, and the like), even in cases when interest in such flats is limited;<sup>38</sup> 4) in view of the present market conditions for home loans, but also other characteristics of the loan relations in this model (e.g. the amount of the debtor's downpayment), one may also discuss the acceptability of the type and level of interest rates, and a choice should be provided between several loan products offered on the market; 5) private projects at similar terms (or the option of a partnership with private investors) are not considered and stimulated in practice; 6) renovation/reconstruction of family houses at similar terms is not stimulated; 7) problems have been observed with regard to adequate design of buildings and flats, oversight of contracted projects and adherence to the quality standards and construction completion dates (numerous complaints regarding quality of completed construction works); 8) the REA, as the manager of investment projects, is in full government ownership (from a long-term perspective, joint ownership with private capital should be considered and the REA may be engaged in activities concerning assurance of timely repayment of home loans used to purchase flats within the PSRC project); and 9)

<sup>38</sup> Amendments to the Act on Publicly Subsidised Residential Construction of June 2004 provide that Croatian veterans – volunteers in the Homeland War and buyers with three or more children do not have to make a downpayment when they purchase a flat by instalments.

the entire PSRC model bears a substantial political burden since it is presented as one of the main projects of one political party, which has made it the subject of political battles and quibbling. It is not insignificant that the model does not encourage/require the use of domestic building materials, equipment and services, which would additionally boost the development of construction activity and related industrial activities, and enable the maximum use of multiplicative effects, whereby the government would decrease (by collecting larger amounts of the VAT and other duties) the net result of substantial subsidies granted within this project.

By July 2004, 1,521 flats within the PSRC program were completed and handed over to tenants, and additional 1,834 flats were in various stages of construction. According to the published data, 5,696 flats are in the design stage, and there is obvious interest in further construction of such flats.<sup>39</sup> The new Croatian government, which was elected at the last elections held in November 2003, has announced improvement of this housing finance model.

### 3 Concluding Remarks

On the basis of this comparative analysis of housing finance models it can be concluded that, notwithstanding the development of new models and products over the recent years, a housing finance model that has been traditionally dominant in Croatia is the deposit-based model in which commercial banks are the main lenders. The Act on the Fund for the Long-Term Financing of Residential Construction with Government Subsidy, the Act on Housing Savings and Government Incentive to Housing Savings and the Publicly Subsidised Residential Construction Program have been recently adopted with a view to facilitate the provision of housing to citizens. Croatian citizens have shown special interest in housing savings banks' products and the Publicly Subsidised Residential Construction Program, whereas the Fund for the Long-Term Financing of Residential Construction with Government Subsidy has never gotten under way.

The ratio of outstanding home loans by commercial banks and housing savings banks to GDP has been continuously growing over the last few years (it was 9.85% at end-2003) and may be expected to continue growing in the future mostly owing to a higher standard of living and more acceptable financing conditions.

Commercial banks account for 98.6% of total home loans approved in Croatia, whereas housing savings banks account for only 1.4%. Banks with assets over HRK 5bn are in the forefront with regard to home loans, accounting for 88.65% of total outstanding home loans by banks at the end of 2003. Commercial banks and housing savings banks in Croatia mostly extend home loans indexed to

<sup>39</sup> According to the data published on the web site of the Ministry of Environmental Protection, Physical Planning and Construction, http://www.mzopu.hr/default.aspx?ID=5221 (searched on 3 November 2004).

the euro. Still, banks mostly extend loans at variable interest rates, whereas housing savings banks extend loans at fixed interest rates.

As in many other countries, the operation of housing savings banks in Croatia primarily depends on direct government incentives (a premium) that are remitted to accounts of individuals – savers with housing savings banks. A further development of the model of housing savings would be enabled by deregulation of housing savings bank operations, which would provide for inter-financing of savers and the performance of some other banking services.

The most recent housing finance model (PSRC) has certain similarities with the public housing programs in Finland (it requires that citizens make a downpayment in the amount of 15%) and France (responsibility for the program is divided between the central and local governments in a way that local governments are responsible for urban and residential planning and preparation of construction sites). Still, PSRC is substantially subsidised by the government, which is its major deficiency, in addition to its "political burden". The development of this model could be aided by structural changes that would provide for investment and initiative of the private sector and reduce government outlays for this model. One of the instruments that may play an important role in the development of this model is assurance of timely home loan repayment.

Although assurance of timely repayment of the loans approved to citizens is very common and popular worldwide, only a few Croatian insurers offer or design such products. Nevertheless, it is certain that these products will be refined in the future, and the government may start to set the required standards and perhaps introduce such instruments through its institutions.

In stimulating housing finance, it is important to pay attention to the volume of construction works and the capacity of domestic construction firms and improve the accompanying administrative procedures because stimulating measures on the demand side, with the same supply, will lead to an increase in prices of flats. The stated data indicate an increase in prices of flats, whereas beginning costs of construction and other costs have not changed to the extent that would justify this price growth. However, when the purchase of a flat is mostly financed by loan products of financial institutions as it is the case in Croatia (often up to 100%), one has a right to ask are these prices realistic, is the price balloon being created and what will happen once it bursts? This outcome may cause a financial system crisis, and should certainly be taken into consideration in the adoption of housing policy measures.

Problems concerning housing finance have not been completely solved through models presented herein. Hence, it seems justified to launch an initiative to design a national model that would collect housing finance funds through capital market intermediation. For this purpose, it would be necessary to set standards for home loan approval in the primary market, establish an efficient and comprehensive credit registry and a unified registry of pledged property, encourage the development of the system that would ensure that obligations related to home loans are fulfilled (not necessary), amend individual acts (depending on the type of the model to be developed) so that they precisely regulate issues of who and under what

conditions may trade in loan portfolios, regulate the issues of licensing and establishment of legal bodies that would participate in the model (such as Special Purpose Vehicle – SPV in the Anglo-Saxon system), adopt an act on national mortgage bonds (or mortgage-backed securities), and assess and review the fulfilment of minimum conditions for securities issued on the basis of credit pools.

Since home loan providers of developed countries strive to extend their operations to foreign markets (internationalisation of business), we may expect that sooner or later they will decide to enter the markets of transition countries, which also means the Croatian housing finance market. In this case, one may expect a wave of refinancing of existing loan obligations from more favourable resources, as well as mergers and acquisitions among national home loan providers.

In view of the fact that dealing with housing finance problems is a complex task that depends on numerous national characteristics, in determining measures of the national housing strategy and policy, conclusions should be made on the basis of the situation in the housing sector and the current fiscal policy (especially as regards tax relieves, subsidies, government guarantees, etc.). Comprehensive studies for many countries (e.g. Poland, Slovakia, Romania, etc.) have been made by expert United Nations teams (UNECE Committee on Human Settlements). If Croatia intended to conduct reforms aimed at cutting budget outlays for existing housing finance models (primarily the PSRC program) and if new models were to be designed (based on market principles), it would be advisable to involve international institutions (UN, World Bank, EBRD, etc.). The starting point for negotiations could be a comprehensive study conducted by domestic and foreign experts. The study would also be useful for understanding Croatian housing finance practice, which is required to assess the need to participate in regional and other projects aimed at establishing standards for primary and secondary home loan markets.

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