DEVELOPING SECONDARY MORTGAGE MARKETS IN SOUTHEAST EUROPE

ASSESSMENT OF THE MORTGAGE MARKET IN CROATIA

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EXECUTIVE SUMMARY

Mortgage lending in Croatia is dynamic and growing, market-based and increasingly competitive. Bank privatization in Croatia is largely complete, and spreads have begun to fall as a result of strong competition. Commercial bank policies and market forces have, together, established a structure of mortgage lending (loan terms, interest rates, etc.) and underwriting standards, including the LTV (loan-to-value ratio), borrower cash flow, and guarantor system, that is clearly appealing to Croatian households. Thus, as a proportion of GDP, mortgage lending in Croatia is among the leaders in the region.

The basic enabling laws for a primary market in mortgage finance are in place. Concerns remain, however, with certain aspects of the legal infrastructure, especially foreclosure, and with the guarantor and mandatory deposit systems that often serve as substitute collateral for the mortgaged property. Most mortgage loans, at least until recently, have been secured by third-party guarantee and by other property of the borrower as well as with a lien on the subject property. Foreclosure and eviction require a court procedure and are extremely slow and uncertain. A second legal impediment to development of the market results from the fact that many properties are not legally registered in the property records.

In addition, despite longer-term mortgage loans being offered, no movement has yet taken place with regard to longer-term funding of mortgages from the capital market. The ingredients for a successful secondary market in mortgages are partially present. There is an ample supply of mortgages, sufficient demand, and a permissive legal and regulatory framework for the development of this market. Capital market funding of mortgages is likely to develop in Croatia, however, as more Croatian bankers become fully aware of the financial and fiduciary benefits of a secondary mortgage market; they are not now convinced that the sale of their mortgage portfolios is financially attractive under current market conditions.

1.0 OVERVIEW OF THE PRIMARY MORTGAGE MARKET

1.1 Overview of the Banking Sector and Economic Environment

The banking sector in Croatia, having already gone through several stages of privatization, foreign investment, and consolidation, is now well established [1]. Major restructuring occurred during 1999, which witnessed a banking crisis and the closure of a number of smaller private banks. Privatization of large state-owned banks has been completed; together with bank consolidation, mergers, and bank closures, the banking structure that has emerged appears to be appropriately restructured and stabilized. The new owners are primarily Austrian, Italian and German banks.

The Croatian Bankers Association notes that there are seven major banking groups, as viewed from the perspective of ownership structure. The two largest banks—Zagrebacka and Privredna—have been particularly active in the acquisition of smaller regional banks and now control roughly 50 percent of the

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[1] See “ECRA Housing Project: Financial Sector Analysis”, Leslie Matthews Sulenta, The Urban Institute, July 2001.

market and a similar proportion of total bank assets. 5 other major groups roughly divide the remaining portion of the market. The Croatian Bankers Association has concluded that this new structure is now much more conducive to robust competition. With the increased foreign investment in both large and medium banks, the share of the total assets of the banking system now owned by foreign investors reached 76 percent by the end of 2000. This compares with a figure of 40 percent at the end of 1999.[2] Based on the substantial increase in deposits, it appears that public confidence in the banking system has been restored. This now also appears to be the situation for mortgage lending.

Finally, the economic environment is stable and inflation remains at modest levels, making borrowing affordable and predictable from the perspective of Croatia's households. Indeed, Croatia has had very good economic policies for some years, resulting in high rates of growth, a stable exchange rate, and rates of inflation in the single digits.

1.2 Overview of Consumer and Mortgage Lending

Both mortgage lending and consumer lending are rapidly growing in importance in Croatia. The National Bank of Croatia calculates that outstanding housing loans totaled HRK (Croatian Kuna) 12.1 billion (roughly $1.5 billion) at the end of November 2002. This is a sizeable portfolio for a country of Croatia's size and represents significant progress in a transition nation. The rate of growth in housing loans has accelerated steadily since 1999. Consumer loans have grown even more rapidly, and totaled about $3.7 billion at the end of November. Table 1 summarizes the growth in housing and other consumer lending (primarily credit cards and car loans) since 1999.

The commercial banks are the major source of mortgage lending in Croatia.[3] Croatia has at least 17 major universal banks active in the consumer market, eight of which are major lenders for housing. The key housing lenders are Zagrebacka and Privredna, which together account for over one-half of the mortgage market. Competition between them for mortgage lending is keen, as well as among other major banks, including Splitska Bank, Raiffeisen, HVB Croatia, Erste Bank, Hypo Bank, and Dalmatinska Banka.

[2] Annual Report, Privredna Banka Zagreb, 2000.

[3] The Croatian Bank for Reconstruction and Development (HBOR) has played an important role in housing lending by providing incentives to commercial banks to make loans to those without adequate housing. Also, the housing savings banks, which are based on the German Bausparkassen model, may play a larger role in the future. They have only just now begun to lend; however, this is savings-based approach to mortgage finance that carries a Government subsidy.

Table 1
Consumer and Housing Lending

Type of Lending	1999	2000	2001	2002 November
Housing Loans	7.3	8.3	9.5	12.1
Other Consumer Loans	11.8	14.9	20.6	29.8
Grand Total	19.2	23.2	30.1	41.9
Percent change: Consumer	N/A	26.3%	38.3%	44.7%
Percent change: Housing	N/A	13.7%	14.5%	27.4%

(Billions of HRK)
Source: National Bank of Croatia

While Croatia has a strong market in real estate loans, weaknesses in the legal framework have caused the market to develop with certain distortions that distinguish it from the typical market-based model of risk management. These include the following:

- Foreclosure and eviction require a court procedure and are extremely slow and uncertain.
- Many properties are not legally registered in the property records.
- Lenders have until recently required third-party guarantors of loans, and relied on them to pay in case of the borrower's default rather than proceeding with foreclosure and sale of the mortgaged property.
- Loan-to-value ratios are relatively low, and to compensate for problems with foreclosure, lenders apply an additional "discount" to appraised value even before applying the LTV ratio.

These issues are discussed below and in Section 2.0.

1.3 Mortgage Loan Products

Mortgage lending practices in Croatia are becoming increasingly flexible and innovative, in response perhaps, to increasing competition among the lenders. Loans of all sizes are being provided, from small rehabilitation loans, to home purchase loans of nearly 2 million HRK. An average size loan from the major lenders ranges from 200,000 to 380,000 HRK (approximately $25,000 to $47,000). Terms may be as long as 20 to 25 years.

Loan-to-value (LTV) ratios are difficult to determine precisely. LTVs generally seem to be around 80 percent, or higher. However, if a mandatory deposit is required (see below), the *effective* LTV is actually much lower. In addition, when a deposit is required, banks must now state an "effective" rate that factors in the cost of tying up these "guarantee deposit" funds.

Interest rates range from about 7.5 percent to 10 percent, depending on factors such as borrower income and credit profiles, use of guarantors, use of mandatory deposits as collateral, and loan size and purpose. Interest rates have fallen, likely in response to falling rates within the economy; however, it may be the case that spreads have also fallen—indicative of a response to competitive pressure.

New mortgage loan products are being introduced; some banks now offer multiple products, with different underwriting rules and interest rates for different clients. This is so-called risk-based pricing, which is a methodology widely utilized in developed market. Thus, loan products exhibit a fair degree of sophistication in many attributes. As a result, a new degree of flexibility has appeared as the banks compete for market share.

Nearly all loans are variable rate loans—in actuality, they might be labeled " double-indexed loans". First, the vast majority of loans are now indexed to the Euro (and were previously indexed to the DM and other currencies). This is indexation of principle: if the Kuna changes in value , the outstanding principal is changed and thus all subsequent installment payments. Second, loan terms may also include a variable interest rate; in practice, however, banks do not change the rate frequently or according to preset rules. One problem is that there are no formalized internal indices, nor specific rules for the level and frequency of changes in interest rates. Instead, adjustments are made solely by the decisions of the banks, at any time of the banks' choosing. The ZBOR (Zagreb Interbank Offer Rate) is viewed as too heavily influenced by just two banks to be broadly used as an index. Cost of living indices are also not yet considered as appropriate for this purpose. (Clearly, this represents one of the areas of primary market development that might fall high on Croatia's list, as well as establishing specific rules rates of change in interest rates and annual ceilings on changes.)

1.4 Underwriting Criteria and Credit Risk

As further discussed in Section 2.0 below**,** foreclosure is extremely slow, expensive, and uncertain. Given these difficulties, relatively few defaulted loans go into formal foreclosure. Thus, one of the main pillars of mortgage lending in developed countries, the ability to obtain the housing collateral upon default, is currently compromised in Croatia.

A variety of methods are used to get around this problem. First and foremost, most mortgage loans require two (or even more) guarantors. The guarantors are essentially underwritten as if they were paying off the loan; employment in registered industries is often required. The guarantor approach, while substituting for lack of foreclosure, may constrain lending and cause banks to remain unduly conservative. Secondly, as noted, a mandatory deposit with the lending bank may be required, or a deposit of other valuable property. Up to 20 percent of the loan may be required as a deposit.

Third, in addition to mortgage loans secured by a registered lien on the borrower's property, Croatian law provides for a second type of mortgage arrangement—the fiduciary ownership model, in which the lender holds the borrower's ownership documents (the deed or title) to the property until the loan is paid (see Section 2.0 below). Fiduciary ownership was developed to address problems in the foreclosure process, but there is general agreement that it is not an effective alternative. As further discussed in Section 2.0, this approach does not alleviate the delays and difficulties in the foreclosure process.

In sum, the current approach to underwriting is a somewhat “second best” approaches, introducing a risk structure into lending with largely unknown dimensions. There is no central registry of guarantors; the guarantors may have undertaken multiple guarantees and/or face a large gross debt position themselves. Thus, lack of more effective foreclosure undermines the very concept of “mortgage” lending—that is, the use of the property as collateral.

It may now be the case that this situation is changing. The percentage of “true” mortgage loans (without other security such as guarantors) is now estimated to be 10 to 20 percent of the outstanding portfolio. Most existing “true” mortgage loans were made on new properties, where value is easily established and ownership records are clear and properly registered. According to one lender, true mortgage lending is also increasing in other segments of the market; in the last year 7,000 mortgage loans were made and only 2,000 loans required other security.

Delinquency and Default Information on Mortgage Lending—Banks are required to report delinquency and default information to the Central Bank for provisioning purposes. It is somewhat unusual, however, for banks to reveal delinquency and default rates publicly, and especially for a subclass of consumer loans such as mortgage loans. However, 4 of Croatia’s major mortgage lenders have provided this data, and there seems to be a wide range of delinquency and default rates among banks, ranging from one to 5 percent. The highest reported delinquency rate was 3.34 percent of the number of loans 90 days or more lately, which represents 3.95 percent of the value of outstanding mortgage loans. Another bank reported a similar rate—3.0 percent—of loans overdue; however, these are reported to account for only 1.5 percent of value. Loan defaults at a third bank account for 5.0 percent of the number of loans and 3.0 percent of value. In contrast, another large bank reported a quite low delinquency and default rate: less than one-half percent delinquency and a negligible default rate.

1.5 Other Aspects of the Primary Mortgage Market

Foreign Exchange Risk—Croatia potentially faces substantial foreign exchange risk. The Kuna floats on international markets and risk arises from indexation of HRK loans to foreign currencies. A recent example of the type of impact that can occur is the 1999 depreciation of the Kuna, leading to a negative repercussion on contracts indexed to DM. As a result, payments for consumer loans increased dramatically. The problem is mitigated by the fact that many deposits are also in foreign currency or indexed to foreign currency. Note that these types of “credit shock” foreign exchange problems are likely to be far more troublesome to modest income borrowers than to those with higher income, as even slight changes in the required monthly payments may cause difficulties.

Titling and Registration—As further discussed in Section 2.0, uncertainties regarding title, inadequate registration, and a low percentage of properties that are legally registered remain other important problems. The problems are reputed to be particularly bad in Zagreb. Without title insurance, loans may be denied to questionable title situations, which is presumably constraining market growth.

Banks will not make mortgage loans on unregistered properties, so this limits the market. This problem is administrative rather than legal, however; efforts to computerize and upgrade the registration system are underway, but it will be many years before the system is fully functional. Croatia has recently closed a 26 million Euro World Bank loan for reform of the land registration and cadaster system. The project will begin in January 2003, and is expected to take considerable time to complete.

Lack of a Credit Bureau or Central Register of Guarantors—Another problem is lack of a central facility—such as a credit bureau—for assessment of the total debt position of would-be borrower. The Croatian Bankers Association has sought to persuade the banks that a credit bureau is in their mutual best interest, and this effort is still underway.

Some lenders are reportedly using the guarantor approach less frequently, at least partly because there is no central register of guarantors. Rather, each notary who prepares loan contracts with guarantors keeps his own records. As a result, it is difficult or impossible for a lender to know the extent of the liabilities of a guarantor—how many other loans he may have guaranteed or what his other debts might be. As the housing lending portfolio expands, this problem grows more serious.

Appraisal Policies—Each of the major banks has a real estate subsidiary to perform appraisals, not only of the subject property but also the borrower's business or other property that may be used as collateral or to evaluate the creditworthiness of the borrower. The appraisers are court-certified and so must meet independent standards. Appraisers are independent; they are certified and regulated by the courts.

Real Estate Industry—The real estate industry is thriving in Zagreb and Dubrovnik and other coastal resort cities, but is quite inactive in other areas because the property markets are reported to be depressed. There are over 20 commercial and residential real estate agencies in Zagreb. A number of realtors in Croatia have sophisticated databases of properties and sales prices, as well as web sites listing properties on the market. The web sites are not linked, however; there is no sharing of sales information among realtors and no "multiple listing service" per se.

2.0 THE LEGAL INFRASTRUCTURE OF MORTGAGE LENDING

2.1 Foreclosure

Although Croatia reports a rather wide range of default rates in mortgage lending, 1 to 5 percent as noted above, the incidence of foreclosure is very low. The poor legal framework for foreclosure may explain this apparent paradox. Because a court procedure is required, foreclosure is very slow and the outcome is uncertain. The borrower has many opportunities to appeal. There are also delays in completing auctions because of lack of court-qualified auctioneers.

As noted, Croatian bankers have required other security in addition to the mortgaged property in the form of third-party guarantees or deposit of other valuable property with the lender. Access to guarantors and other collateral has probably served as sufficient recourse in most cases of default so that foreclosure is rarely used.

The typical length of the foreclosure process ranges from 1 to 3 years, depending on the jurisdiction and the defenses or appeals that the borrower raises in court. Foreclosures are reportedly slowest in Zagreb, probably because the courts are most overburdened there. While the time periods are not necessarily much longer than those in a number of other countries, uncertainties in the process result in discounts in size of the loans that lenders are willing to make and also in the price achieved from the sale the property brings at auction after foreclosure.

Because of the requirement of a court procedure, legal costs are higher than necessary. There is also diminution in the value of the property because of uncertainties and delays in the process, particularly with regard to eviction. The salvage value of property after default is believed to be about 25 percent of ordinary market value.

As noted, the major problem is delays and uncertainty resulting from court procedures. This can be exacerbated with a fiduciary mortgage (see the explanation below), as eviction does not take place until after the foreclosure sale–probably the primary reason this procedure is not favored by lenders. Eviction then becomes the buyer's responsibility, which eliminates many potential buyers and lowers the price any buyer is willing to pay.

Auction process—Before an auction can be held, there must be a court-issued Decree on Execution. Then the court orders an appraisal to determine the market value of the property. The debtor has an opportunity to appeal the valuation if he thinks it is too low. The minimum sales price must be 80 percent of the valuation. If no bids are received at that price, another auction is held at least 30 days later, with a minimum sales price of 50 percent of the valuation. After three 3 sales, the bank can buy the property, and then try to sell it for a higher price (presumably closer to true market value).

2.2 Fiduciary Mortgage

In addition to mortgage loans secured by a registered lien on the borrower's property, Croatian law provides for a second type of mortgage arrangement—the fiduciary ownership model. Fiduciary ownership was developed to address problems in the foreclosure process, but there is general agreement that it is not an effective alternative. Under fiduciary ownership, the lender holds the borrower's ownership documents (the deed or title) to the property until the loan is paid. The loan contract stipulates that if the borrower defaults, the lender may sell the property without going through a court procedure.

Under fiduciary ownership, title or legal ownership is not actually transferred to the lender and the lender does not have possessory rights, however. If the borrower does not willingly vacate the property, the lender must go to court for an eviction procedure, or sell the property subject to the occupant's possessory rights and let the buyer deal with the eviction. Because of these problems—the requirement to go to court for eviction or to sell the property at a severely depressed price because it is not vacant—fiduciary ownership mortgages are falling out of favor in general and some of the larger banks will not use them at all.

2.3 Basic Enabling Laws

Title and ownership rights in real property—The basic law is the Law on Possession and Other Real Property Rights of 1996. While the property and ownership rights are adequately set out in the Law, in practice ownership rights are often unclear because the registration records are incomplete.

In addition to incomplete and inadequate registration records, there are two other problems with establishing ownership rights. There are conflicting claims to ownership in areas affected by population displacements during the war, and some properties are affected by restitution claims under the Law on Compensation for Properties taken during Yugoslav Communist Rule (1996). The restitution law provides that in some cases the property itself will be returned to the former owner, while in others the former owner will be entitled to compensation through bonds issues by the state but not return of the property. This adds further uncertainty to the title for those properties.

Law on use of real estate as collateral for loan—The Croatian Law on Ownership, Article 304, defines types of mortgages and specifies that real property may be used as security for a loan. It also requires that a court procedure must precede foreclosure of mortgaged property. As discussed above, until recently most loans were secured by other collateral as well as the subject property and by third-party guarantors. Lenders will not make loans on property that is not properly registered.

Property Registration Law—The basic laws are the Land Registration Act of 1996, the Regulations on Land Registration Procedures of 1997, and Book of Ordinances of the Land Register of 2000. While Croatia has an adequate legal framework for registration, in practice many properties are not registered. This results from the failure to register or include on cadaster maps all the state- or enterprise-owned properties built during the socialist years, and more recently because of administrative delays, particularly in larger urban areas. For example, it is estimated that in Zagreb only about 50 percent of the properties are registered.

This problem is exacerbated by the manner in which registration of privatized apartments is regulated—all apartments in a building must be registered at the same time. In Zagreb, 90 percent of the population lives in privatized apartments. Banks will not consider making mortgages on properties that are not registered. There are also reports that the registration records are not accurate; in other words, even in cases where properties are registered, the records cannot be trusted. This problem has not been quantified.

To help address the problem of unregistered properties, the courts maintain Books of Deposited Contracts. This can be used for apartments in buildings that have not yet been registered but where the owner has a valid sales contract proving that he purchased the property. While this procedure does not afford the same legal protection as the land books or legal registers, and therefore banks will not accept it in lieu of registration of the collateral property. It does recognize the ownership status of the depositor and is often used for purposes buying and selling real estate.

Real property registration is managed by the municipal courts—The Croatian Geodetic Institute manages the property survey procedures and the real estate cadaster.

Tax Treatment of Transaction Fees and Mortgage Interest—There are no tax benefits resulting from transaction fees or interest paid on mortgage loans.

3.0 SECONDARY MARKET AND FUNDING ISSUES

3.1 Bank Funding Strategies

While bank assets stretch out as far as 20 years, banks' HRK funding is principally short term, based mostly upon demand deposits and time deposits with maturities of one year or less. Some funding through parent bank loans also occurs. This maturity mismatch has several consequences, 2 of which are pertinent: 1) bank portfolios have an imbalance between liabilities and assets, and 2) insurance companies and pension funds are denied the opportunity to match their long-term obligations with long term financial investments such as mortgage-backed debt. Notably, however, several banks, including the fastest growing institutions, are actively considering asset sales/securitization, so the situation may ultimately change.

3.2 Capital Market Profile

The Government has made a conscious decision not to develop its domestic debt market, and to source most of its public debt abroad, where funds have generally been cheaper. As a result, most of Croatia's $7.2 in public debt is external and in hard currencies.

The domestic debt market consists almost entirely of Government securities. Domestic issues are mostly short term Euro-indexed but Kuna denominated floating notes. The $2.1 billion in domestic debt is in two parts: approximately USD $600 million in short -term paper, and $1.5 billion in special purpose instruments (such as frozen foreign exchange bonds, privatization 'big bonds', and "special issues" such as bank rehabilitation issues and health insurance organization issues). Pricing on these 'special issues' has typically been well above market; there have been sufficient quantities of "special" government paper (issued both at home and abroad) to discourage the emergence of market priced private debt issues, though a few corporate and municipal bonds have been issued. As noted, no mortgage bonds or MBS have yet been issued.

The Government of Croatia is free of constraints from international institutions (such as the IMF and World Bank), which would restrict government borrowing. As a result, the supply of government paper is quite elastic. (By contrast, countries such as Bulgaria and Serbia operate under tight constraint, which, when combined with pension reform (as in Bulgaria) leads to growing pressure from the capital markets to provide alternative sources of high-grade securities). This elasticity of supply does little to encourage the growth of mortgage-backed bonds.

Medium and long term HRK denominated paper is not currently available either from government or private issuers. There is currently some discussion regarding the Ministry of Finance extending the yield curve to include one year and longer issues, but no concrete plans now exist. (One 'exception' is the recent ten-year bond issue for the pension funds, which is Euro-denominated but settled in HRK).

The current secondary market infrastructure, by all accounts, is more than adequate to permit the growth of a market in MBS. There is an efficient, functioning stock exchange where bonds could be traded, and the Central Depository Agency has the technical capacity to ensure prompt and effective settlement of trades.

A corporate bond market has begun developing recently, but it is still in its infancy. A few commercial paper and longer-term issues have been launched, sold as private placements, mostly to the underwriting banks. All of the issues were either denominated in or indexed to the Euro. The main reason for the lackluster development of the corporate bond market is that Croatian corporations are accustomed to borrowing directly from banks, and the interest rates on corporate bank loans in Croatia are currently very low by historical standards. In most cases, the costs of doing an issue would outweigh the company's possible savings on the interest rate.

3.3 Bank Risk Management

At present, Croatian bank managers are not yet overly concerned with the maturity-matching dimension of risk management. Matching assets and liabilities, especially if it means the possible sacrifice of current profits for longer-term security, appear to hold little interest at present.

Banks have managed currency risk by indexing most loans—including mortgages—to the Euro. Although solid data are lacking, there would appear to be a pervasive mismatch of the maturities of assets and liabilities in the Croatian banking system, and an absence of regulations mandating this form of risk management.

As noted, while there appear to be no legal or regulatory barriers to issuing mortgage bonds, Croatian banks have demonstrated little current interest in selling their mortgages. There is currently no secondary market in Croatian mortgages, nor any other type of asset backed security. Banks consistently state that they have more than sufficient liquidity with which to satisfy consumer demand. The idea that 'turning' their portfolio could increase market share was not understood, nor that the sale of assets would increase shareholders' return on equity. Due to overall market conditions and increased competition amongst lenders, mortgage interest rates are falling. Thus, sale of their mortgage assets to generate additional cash and re-lend at lower rates is not a cost-effective option at present.

3.4 Potential Investors—Pension Funds and Insurance Companies

There is clear pressure on the demand side for new sources of high quality domestic securities with attractive yields. At the moment there is an excess of liquidity in the financial sector, with Government of Croatia bonds the principal product now available. Respondents indicated a clear desire to diversify into other products.

By far the biggest pool of liquidity is in the banking system. Assets in the banking system total about $20 billion. The largest source of securities remains the Government of Croatia (GoC). Yields on GoC paper are attractive, and banks participate freely in the purchase of externally issued GoC and Government Agency paper. Smaller banks, which represent approximately one third of banking assets, have considerable buying power, as do insurance companies. Assets in the insurance sector are less transparent, but substantial.

A growing, but still modest source of demand is from Croatia's seven licensed pension funds. Estimates vary of the purchasing power of the pension funds. Official (and optimistic) projections suggest accumulations at the rate of $350 million per annum. Estimates based on actual accumulation rates suggest an accumulation rate of $225 to $250 million this year, and $300 million in 2003. Investable funds may then total between USD $525 and 700 million within the next 18 months, and between $1.6 and $1.75 billion by the end of calendar 2006.

Pension fund managers have been increasingly vocal with respect to their need for products to purchase with their investable funds. However, the ability of Croatian pension funds to acquire MBS will depend upon the form in which they appear. The asset allocation rules detailed in the Pension Act will prevent, for the moment, the absorption of large issues from any single source. Up to 30 percent of a fund's assets can be invested in some combination of corporate and municipal bonds and local equities traded on the Zagreb Stock Exchange (Article 69, Act on Compulsory and Voluntary Pension Funds). However, the Pension Act restricts a fund from holding more than five percent (5 percent) of its assets in the securities of a single issuer. (Government securities are an exception). As one pension fund manager estimated, this means that this year the total pension fund absorptive capacity for a single issuer will be $12.9 million, or about $65 million over the next next 5 years.

If Croatia follows the German model for mortgage bonds, pension funds will have limited capacity to absorb such bonds, due to the limited number of eligible issuers, and the 5 percent concentration limits imposed by the Pension Law. Alternatively, use of the US model permits greater flexibility with respect to issuing institutions (for instance, banks might devise strategies to permit greater absorption by the pension funds, such as sale of their mortgages to Special Purpose Vehicles). Under this scenario the absorptive capacity of the pension funds for MBS may be as large as $500 million, or 30 percent of the funds' assets. However, a cautionary note is in order, as none of these provisions of the Pension Act have been subject to either regulatory or court review.

It is not self-evident, furthermore, that the demand for new products will be sufficient to induce mortgage owners to securitize them.

3.5 National Bank and other Regulatory Policy Impacting Investor Rules

The Croatian National Bank imposes strict loan provisioning and reserve requirements. The National Bank is also increasingly concerned about the risks associated with the recent sharp increase in consumer lending; this puts into question the adequacy of the risk management policies of the banking sector, especially with regard to management of the potential duration gap emerging from a large volume of long-term mortgage loans.

The National Bank has also been reviewing the idea of revising loan loss provisioning requirements for rapidly growing banks. One possible effect of this might be to reverse the release of capital anticipated by several of Croatia's top banks under the new International Accounting Standard 39. Under this scenario asset sales become slightly more attractive.

Croatia has adopted the Basle Accord on capital adequacy, which is international best practice. Under these rules, mortgage loans on the bank's books are 50 percent risk weighted and must be backed by at least 4 percent in bank capital. Loans that are sold without recourse to the bank, on the other hand, require no capital allocation. Thus, sold and securitized loans enable the bank the take on more business with the same capital.