

# DEVELOPMENT OF GOVERNMENT BONDS MARKET IN CROATIA

**Zdenko PROHASKA**

*Faculty of Economics, University of Rijeka*  
Ivana Filipovića 4, 51000 Rijeka, CROATIA  
Phone: ++ 385 51 355 111; Fax: ++ 385 51 675 750

zdenko.prohaska@ri.t-com.hr

**Bojana OLGIC DRAZENOVIC**

*Faculty of Economics, University of Rijeka*  
Ivana Filipovića 4, 51000 Rijeka, CROATIA  
Phone: ++ 385 51 355 111; Fax: ++ 385 51 675 750

bolgic@inet.hr

## **Abstract:**

*Bond markets are essential for a country to enter a sustained phase of development driven by market-base capital allocation and increased avenues for raising debt capital. Development of domestic bond markets can increase the resilience of a country's financial system and protect it from external shocks and reduction of available sources of financing in the international capital markets.*

*Therefore, it seemed reasonable to investigate the financial market in the Republic of Croatia, as a transition economy, and, especially, the long-term government bonds. In the focus of our research will be the size and composition of government debt, primary and secondary markets including market infrastructure, the base of investors and other relevant factors for the development of national debt market. There is a question what are the measures that can be applied in order to ensure a more developed and efficient government bond market in the conditions of domestic, shallow and underdeveloped financial market?*

*The aim of this paper is to discuss the development of government bonds market in Croatia, to address obstacles for development and especially to emphasis key measures for strengthening the government bond market in Croatia.*

**Key words:** financial market, government bonds, public debt, strategy, Croatia

**JEL code:** G10

## **Introduction**

The development of domestic bond markets deserves high priority on the financial sector development agenda (IMF and World Bank, 2001). Debt markets in the emerging economies have expanded considerably since the beginning of the transition process, but still remain small compared to those in industrial countries. As national economies become increasingly open and interlinked with a market-oriented global financial architecture, it is of major importance that domestic bank-based financial sectors of the transition countries become market-based as well.

In this context, an overview of the policy framework and prerequisites that are necessary to develop a government bond market will be presented. The second section provides insight of the development situation of the long-term government debt market in the Republic of Croatia, debt management strategy and review of measures that had to be taken for strengthening Croatian government bonds market.

Development of a long-term government bonds market is one of possible ways to accelerate the growth of financial market. Government bonds are the debt long-term securities issued by the Ministry of Finance or some other government agency. They represent a financial instrument with highest rating and security among all the instruments that are identical in terms of maturity. They are the backbone of the most fixed-income markets as they provide a benchmark yield curve and help establish the overall credit curve. Therefore, they should serve as a lever of the further development of the domestic financial market.

### **Importance of government bonds market**

Development of a government securities market is a complex undertaking that depends on the development degree of financial and market systems in each country (The World bank, 2001). Efficient government bond markets are characterised by a sophisticated market structure, low transaction costs, a robust and safe market infrastructure and a high level of heterogeneity among market participants.

Prerequisites for establishing an efficient government domestic securities market include a credible and stable government, sound fiscal and monetary policies, effective legal, tax and regulatory infrastructure, smooth and secure settlement arrangements and a liberalized financial system with competing intermediaries.

Development of efficient and transparent government bond market provides a number of important benefits:

- it is a source for financing government deficits at lower costs,
- strengthening the transmission and implementation of central bank's monetary policy,
- reducing exposure to interest rate, currency and other financial risks,
- increasing of financial stability,
- improving the financial intermediation.

Nevertheless, lack of liquidity remains a major obstacle for the most of the domestic bond markets in emerging market economies. Some of the macro policy issues that have implications for liquidity and that are promoting efficiency in the government bond market are coordinating debt management and monetary policy, broadening the investor base and developing money markets (Mohatny, 2002).

Boosting bond market liquidity requires developing a dynamic primary market. Because the government bond market is characterised by a special type of market imperfection, where a monopoly seller meets oligopoly buyers, the government should set issuing policy in terms of encouraging investors to bid in a desirable way (Das and Sundaram, 1997). Choosing an auction technique that improves the price discovery process is important for improving market efficiency. Also, many countries have set up primary dealers to promote bond markets. The advantages of having a dedicated group of market-makers are that they can guarantee success of the auction, promote liquidity in the secondary market by providing two-way quotes and eliminate problem of conflicting objectives inherent in giving the responsibility of market-making to banks. But, primary dealers system also involves providing them certain privileges, which might create an unequal field and restrict competition. For this reason, countries may prefer not to have them (Mohatny, 2002:62).

A strong primary market in government securities is supported by a liquid and efficient secondary market.

## **Government bonds market in Croatia**

Since the beginning of the transition process in the Republic of Croatia, three types of long-term government bonds have been issued in the domestic capital market:

- a. bonds issued in the international capital market i.e. bonds issued in the foreign markets (Samurai bonds, denominated in JPY) and bonds issued in the euromarket (Eurobonds denominated in EUR, USD, ESP),
- b. marketable bonds issued on domestic capital market,
- c. non-marketable bonds issued on domestic capital market for the purpose of restructuring the economy (“Big bonds”), for the recovery of the banking system and for taking over the debt for personal foreign exchange savings accounts (so-called bonds for «old foreign exchange savings»).

Analysis will focus on long-term government bonds issued by the Croatian Ministry of Finance (MF) and listed in the domestic capital market i.e. in the Zagreb Stock Exchange (ZSE). The party under obligation by MF bonds is the Republic of Croatia, which will amortize them as their instalment fall due. The payment of annuities as well all the other clearing and settlement activities relating to exchange trades must be performed through the Central Depository and Clearing Company (CDCC).<sup>1</sup>

Bonds are issued for the purpose of financing budget deficit and refinancing the existing government debt, with a reduced dependency on foreign capital markets, and without a significant increase of foreign public debt. All issued bonds by the Ministry of Finance (MF bonds) are listed for public trading within the first quotation (“Official Market”) of the Zagreb Stock Exchange, which at the end of 2007 listed a total of 12 MF bonds.

### ***MF bonds primary market in Croatia***

The government bond market in Croatia is characterised by the plain-vanilla bond issues with a fixed coupon and principle repayment at the maturity. The Republic of Croatia issued bonds with the maturity of 3, 5, 7, 10, or 15 years with the range of semi-annual paid coupon from 3,875%-6,875%. Borrowing orientation toward the domestic capital market started in the 2001 by the first issue of the domestic government bonds with the highest issue price of 6,875%. Only three years later MF bonds were issued with lowest interest of 3,875%.

As regards to the currency structure of the central government debt at the end of 2006, in the domestic market there is a prevailing share of euro-linked bonds (54%), whereas the debt denominated in Kuna amounts to 33% of the total central government debt. By the 2007 in the domestic capital market there were 5 issues of MF bonds denominated in Kuna. The foreign currency borrowing share has decreased in the recent years, whereas the debt share denominated in Kuna has increased, due to a stronger orientation toward the domestic capital market and higher demand of the pension funds and other institutional investors (MF, 2007).

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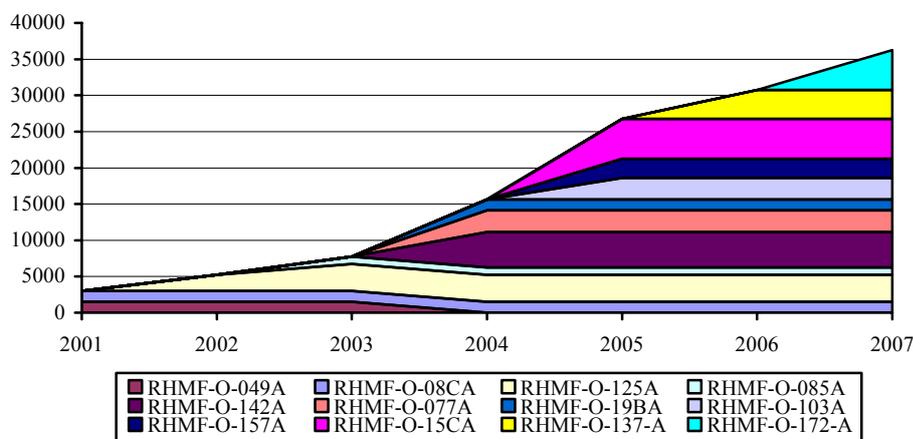
<sup>1</sup> The Croatian Central Depository Agency (SDA) is the central depository for Croatia and the clearing organisation for all trades that take place on Croatian Stock Exchanges.

The process of issuing the MF bonds has been leaning on syndication by some of the five biggest domestic banks as lead managers. Primary dealers system with an obligation to quote binding bid and ask prices in the Croatian secondary market doesn't exist yet.

A prevailing share of domestic government bonds is held by the institutional investors, particularly pension funds and banks to a lesser extent insurance companies, foreign investors and investment funds.<sup>2</sup>

The government orientation toward borrowing through issuing long-term securities in the domestic market, enables realization of the budget determined financing. With an aim of further encouraging the domestic financial market development, there were a number of government bond issues with two break-through issues. Until 2003, in Croatian government bonds market there were only dual currency bonds i.e. bonds denominated in Euro, but payable in Kuna at the Central Bank's fixing rate. In May 2003, Ministry of Finance created the first pure Kuna bond in an effort to reduce foreign debt (RHMF-O-0085A). That was an additional instrument for investments by institutional investors, issue of reducing the exchange risk and the risk of refinancing, and the contribution to the currency stability. In 2005 Ministry of finance issued first ten-year government bond (RHMF-O-15CA) denominated in Kuna, and one additional 5-year pure Kuna bond, which extent Kuna curve. Therefore, through issuing pure Kuna bonds since 2003, a benchmark long-term yield curve has been established in national currency.

Figure 1 Review of MF bonds listed at the Zagreb Stock Exchange for the period from 2001-2007 (in 000 000 kuna)

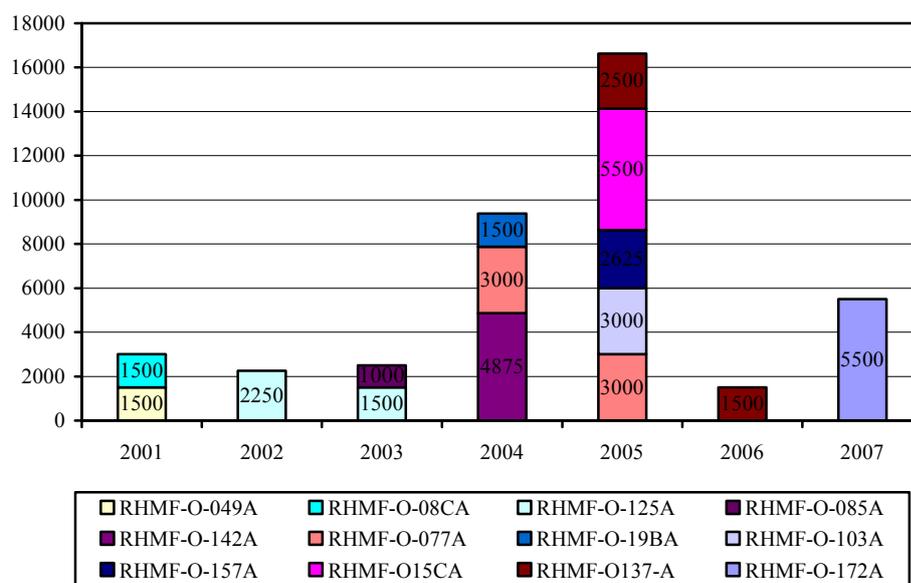


Source: author's calculation according to [www.mfin.hr](http://www.mfin.hr), [www.zse.hr](http://www.zse.hr)

Domestic government bonds are issued randomly depending on liquidity needs of the Ministry of Finance, which lead to market segmentation. Still, cumulative number and amount of issues increased over the years, as is shown in the Figure 1.

<sup>2</sup> Pension reform in 2001 introduced mandatory and voluntary pension funds, which have to invest at least 50% of their assets in domestic government bonds. Insurance companies have to invest 70% of life reserves and 40% of non-life reserves in domestic government bonds. Foreign investors are active in Croatian government bonds market since 2005.

Figure 2 MF government bonds for the period from 2001-2007 (in 000 000 kuna)



Source: author's calculation according to [www.mfin.hr](http://www.mfin.hr), [www.zse.hr](http://www.zse.hr)

Figure 2 outlines that 2005 year has been the best year in terms of both number and value of new government bonds issues.

### MF bonds secondary market in Croatia

Secondary government bond market is underdeveloped, even the last past years there has been made some improvements. Impediments are underdeveloped money market and non-transparent public-debt management strategy. There is non-official system of market makers (Zagreb fixing) but without enough power to enhance the development of public debt market. The top three commercial banks, which account for some 50% of overall bank assets, voluntarily provide daily two-way price quotation, which in turn contribute liquidity to the secondary market. The strongest incentives to the market development were made by the strong development of institutional investors, primarily pension funds and investment funds and by the government orientation to the issues on domestic capital market. Also, a strong impulse for the efficiency and liquidity of government bond market was made by the start of central bank's open-market operations.

Turnover volume of Croatia's government bonds began to rise after 2001. At that moment the investors focus moved from share markets to bond markets because of the lack of prospective share issues. This increase in turnover on the secondary market was especially significant during 2002 and 2003 due to the implementation of the pension reform in Croatia and increasing public debt on the domestic capital market.

Considering relatively small financial system and restricted number of non-formal market makers, secondary market is relatively liquid, especially in terms of small and medium transactions. Liquidity of big orders is reduced, especially for orders of obligatory pension funds. Liquidity can be fostered by lower transaction costs and by more effective clearing and settlement procedures. Namely, in Croatian capital market government bonds are dematerialized at the Central Depository and Clearing Company and settled by book entry. Government bonds are transferred by "Delivery versus Payment" (DvP) or by "Free of

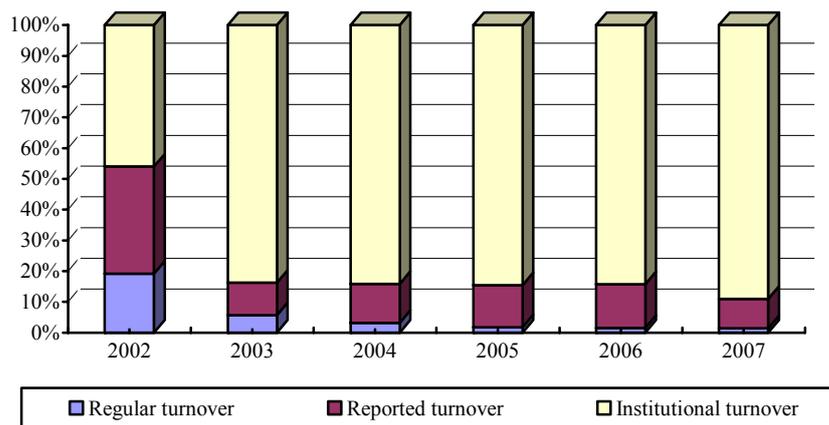
Payment” method (FoP). Most of the trades are covered by less effective FoP method and settlement date for DvP isn’t on a real time basis.

MF bonds are listed in the first quotation of Zagreb Stock Exchange (ST market, bonds segment). The majority of the transactions occurred on the over-the-counter market in the direct trading between institutional investors, especially pension funds, investment funds and banks. Institutional trades in OTC market are required to be reported to the official organised stock exchange (ZSE).

Reported bonds trading in the Zagreb Stock Exchange are divided in three segments:

1. regular turnover –trading on exchanges and regulated public market (ZSE),
2. reported turnover - block trades with bonds greater then 3 mil Kuna in accordance with the Zagreb Stock Exchange Rules,
3. institutional turnover – OTC trades reported to the Exchange by institutional investors in accordance with Securities Law. The existence of the last two secondary markets is a significant obstacle for liquidity of the secondary market since that narrowing the possibilities for freely trading among all interested participants.

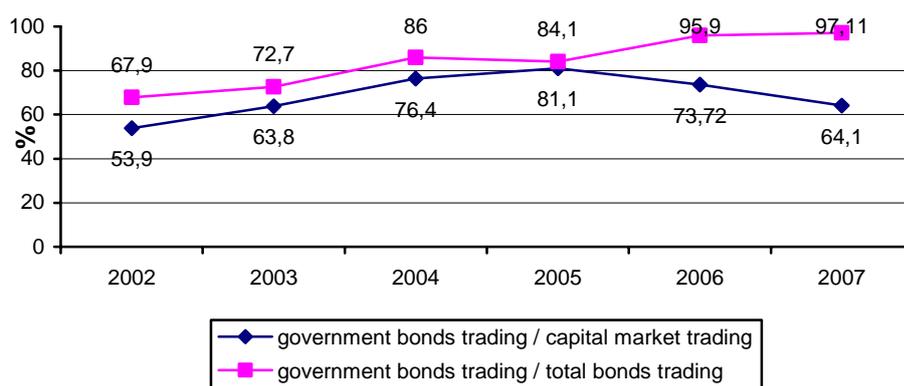
Figure 3 Structure of bonds trading in the Zagreb Stock Exchange from 2002-2007



Source: author’s calculation according to [www.mfin.hr](http://www.mfin.hr), [www.zse.hr](http://www.zse.hr)

Figure 3 shows that the volume traded in ZSE market (regular turnover) is significantly lower than that in the OTC market. In 2007, institutional trades posted 89.0% of the total bond turnover, while the corresponding figures for block and regular trades on exchanges were 9.5 percent and 1.5 percent, respectively. Possible reasons include high transaction costs due to thinness of markets and a low degree of market transparency.

Figure 4 Share of government bonds trading in bonds and trading of domestic capital market



Source: author's calculation according to [www.mfin.hr](http://www.mfin.hr), [www.zse.hr](http://www.zse.hr)

Trading in the government bonds market is a dominant in the bonds segment<sup>3</sup> and in the whole capital market. In the last two years a negligible part of turnover is made by issues of corporate and municipal bonds, which are mostly held up to maturity.

### Measures for strengthening the Croatian government bonds market

The legal and institutional framework for Public Debt Management is set by the State Budget Act (96/2003). The act defines the coverage of public debt, the objectives of public debt management, the conditions and authorities for borrowing as well as the reporting obligations (Ministry of Finance, 2006:5).

Therefore, as an effort to contribute to development of government bonds market Ministry of Finance announced and published "Annual Debt Report and Public Debt Management Strategy" in 2007 (for 2006). That step represents a breakthrough in the process of Croatian capital market development but that advisable practice wasn't continued in the following years.

The primary goal of borrowing and public debt management is providing for financial requirements of the state budget while minimizing, over the medium to long term, the financing cost at a prudential level of risk. An additional objective is the development of the domestic government securities market. A developed market represents the basic precondition for an efficient debt management, i.e., for an efficient borrowing costs and liquidity management, as well as diversification of the debt portfolio.

The main objectives of public debt management strategy are further reduction of public debt growth and decrease of risks connected to public debt, mainly the exchange rate risks, increased transparency of the issuance policy and further development of domestic capital market (Ministry of Finance, 2006:5).

In the context of further developing the domestic government securities market, the Ministry of Finance considered a realization of several operational goals related to the improvement of trading and development of infrastructure. These measures were announced in the 2007, but they weren't realized until 2009.

<sup>3</sup> The Croatian long-term debt securities market includes government bonds, bonds with government guarantee, corporate bonds and municipal bonds.

These measures are:

#### 1. Building the Reference Domestic Yield Curve

In the next medium-term period the Ministry of Finance intends to build a reference Kuna yield curve from 3 to 10 years, which will contribute to a reduction of costs of interests and easier setting of the price of other instruments on the market.

#### 2. Implementation of auction for issuing Bonds

Even the syndication of bigger bond issues is a standard issuing technique for the Croatian primary government bond market, the auctions are considered to be more flexible and appropriate since they promote liquidity. Also, the auction is the standard practice in EU Member States for issuing of Government securities. Over the medium term, the Ministry of Finance plans to combine auctions and syndication for the issuance of Bonds in the domestic market; new Bonds will be issued through syndication while reopening will be auctioned.

#### 3. Publication of issuance calendar and quarterly borrowing plans

With a view in increasing the transparency and predictability of the issuance of Government securities, the Ministry of Finance plans to publish each quarter a calendar detailing the amount of debt to be issued as well as the amount for the next month and indicative target for the two following ones. In addition, the Ministry of Finance plans to publish a yearly calendar indicating the dates of auctions and anticipated dates of syndicated issues.

#### 4. Implementation of Primary Dealers System

The Ministry of Finance plans to initiate the implementation of a primary dealer system during 2007. The selected Primary Dealers will have the monopoly of participation in auctions; Primary Dealers will also have the obligation to quote binding bid and ask prices in the secondary market. This will promote the liquidity in the market and contribute to the building-up of a reference yield curve and eventually to the reduction of the borrowing costs of the Ministry of Finance.

## Conclusions

Borrowing orientation toward the domestic capital market shall contribute to reducing of exposure to exchange rate risks and at the same time encourage the domestic capital market development by creating a benchmark yield curve.

The development of government bonds market in Croatia is hampered by a number of impediments. As a result, the segment of Croatian capital market for long-term government securities is characterized by lack of liquidity and transparency, presence of market segmentation, random issuance of not standardized government securities

Still, since 2001, some improvements have been made:

1. increasing demand for government securities due to pension reform,
2. introduction of central banks open market operations and development of an active repo market, in order to enhance liquidity in the underlying securities,
3. improvements in the transparency of the government securities primary market due to public disclosure of Public Debt Management Strategy of the Ministry of Finance in 2006,

4. deeper secondary market for HRK debt and increased liquidity because of the strong development of the institutional investors.

Therefore, it is important to continue with development an integrated debt issuance strategy by strengthening the cooperation between the Ministry of Finance and Croatian National Bank. Namely, in 2006 was announced the first and the last issuance calendar and other data concerning debt management strategy of Ministry of Finance. Recommendations for new issues are standardization of instruments and issuance only a few benchmark instruments. In developing efficient and transparent primary market MF should promote benchmark issues in key maturities, implement automated auction system instead of syndication and primary dealer group with market making obligation in order to strengthen secondary market. Liquidity in the secondary market can be enhanced by improving clearing and settlement procedures and introduction of DvP method of settlement (T+0).

Up to 2009, Croatian Ministry of Finance was oriented to the domestic market and has been successful in meeting financing needs. However, taking into account capacity limitations of domestic capital market and narrowed demand due to financial crises, next issues of government bonds would turn on international markets.

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