Seba Grubisic, Mihaela. 2013. Financing policies of Croatian publicly listed firms.
UTMS Journal of Economics 4 (2): 127–141.

Preliminary communication
(accepted March 18, 2013)

FINANCING POLICIES OF CROATIAN PUBLICLY LISTED FIRMS

Mihaela Grubisic Seba[1]

Abstract:
Croatia is a typical bank-based transition economy whose capital market has been primarily used for secondary trading purposes since its re-establishment in 1990s. Except for a couple of exceptions, public offers of shares and corporate bonds have been rather rate. Private offerings of shares and short-term debt have been more frequent. However, due to secondary debt market illiquidity, the debt issues are signed up and either held until maturity or renewal, or they are traded exclusively between the institutional investors.
This paper provides evidence from the field on financing preferences of Croatian public companies regarding seasoned equity and corporate debt issuance. It questiones why public offerings of corporate securities in non-financial sector after initial, mostly mandatory shares' listing have been rare and whether making decisions on securities' offers depend on other financial instruments' sufficiency, costs of issunace or previous experience of companies in collecting funds in the capital market.

Keywords: corporate financing preferences, publicly listed companies, CFOs' survey, Croatian capital market, non-financial sector, bank-based financial system.

Jel Classification: G1

INTRODUCTION

The debt versus equity financing choice is one of the most important issues of corporate finance theory. However, most theoretical and empirical research on corporate choices is bound to the developed, market-based financial systems with liquid capital markets. The literature based on public companies' financing choices in developing, bank-based countries is scarce, particularly with regard to the evidence from the field. Yet, a lot of these developing economies have capital markets, which are often illiquid.

Two most influential capital structure theories applicable to real financing choices have been the trade-off and the pecking order theory. The first one stipulates that firms weigh between the costs and benefits of leverage share in their capital. Tax benefits of interest shield are opposed to possible bankruptcy costs highly-leveraged companies are faced with, and agency costs coming from the principal-agent problems between

[1] **Mihaela Grubisic Seba**, Ph.D., CFA, Institute of Economics, Zagreb, Croatia.

debt-holders and agents. This trade-off is reflected in the target ratio between debt and equity that each firm determines separately based on business, industry and economy conditions it operates in (Myers 1984). Pecking order theory was developed by Myers (1984) and Myers and Majluf (1984) who claimed that there is a hierarchy of financial instruments' preferences. Having agency problems in mind, internal financing is preferred to external, while borrowing is preferred to equity issuance. Due to asymmetric information, firms always choose short-term debt before long-term debt and privately placed debt before publicly issued debt and equity. According to the pecking order theory firms only choose more expensive financial instruments when they need to.

Most prominent theories developed in the context of corporate financing in capital markets are market timing theory and financial flexibility view. Market timing theory (Baker and Wurgler 2002) states that firms issue equity when their shares are overvalued by the market (have high market to book ratio of equity), while they issue debt when their shares are undervalued. Undervaluation (overvaluation) of shares was one of the most important considerations in making decision to issue equity for 67% of CFOs surveyed by Graham and Harvey (2001). Graham and Harvey (2001) confirmed that insufficient internal funds are more important for issuing debt for smaller firms. Their finding is in line with the pecking order theory under which, due to asymmetric information, smaller firms are more exposed to equity undervaluation. Financial flexibility refers to targeting the debt level with regard to firm's ability to respond in a timely and value-maximizing manner to unexpected changes in its cash flows or investment opportunity set in the future (Denis 2011). Setting debt at lower levels than optimal to preserve borrowing capacity is confirmed by Graham and Harvey (2001), Bancel and Mittoo (2004) and Brounen et al. (2004).

The research conducted by Gomes and Phillips (2012) showed that private equity issues are significant for smaller publicly-traded firms while the probability of public equity offers strongly increases with a firm's stock return in the past year relative to a benchmark portfolio. The probability of seasoned equity offerings decreases with the length of time passing from the initial public offering of shares. Eckbo et al. (2007) demonstrated that even in the US market only 53% of public companies entered capital market for issuing additional equity after the IPO. According to Denis and Mihov (2003), firms with public debt outstanding are likely to issue public debt again while firms that have not established reputation in credit markets are more likely to contract bank loans. These authors state that higher credit rating is the key to issuing public debt. And good credit rating is obtained when a firm proves by its financial statements and other business reports that its business results are sound, i.e. that it is liquid, solvent and profitable. On the large sample of US companies' data Denis and Mihov (2003) concluded that public companies of mild credit quality borrow from banks. Similarly, Houston and James (1996) stated that bigger, older, more profitable, but also more leveraged companies that have business relationships with several banks, have higher proportion of arm's length debt than bank loans in their balance sheets.

Relationship-based borrowing is the major source of external funds for firms in developing countries, while the capital market is reserved for larger firms (Beck, Demirguc-Kunt, and Maksimovic 2008). Firms in developing countries have higher proportion of net fixed assets to total assets and also use less long term debt financing than firms in developed countries (Demirguc-Kunt and Maksimovic 1999).

Among the emerging European markets, only Russia and Turkey have been able to establish relatively liquid stock markets, and domestic equity has become the second largest source of funding for the corporate sector after bank lending (Iorgova and Ong 2008, 9). Corporate bond market is undeveloped because of large transaction costs related to issue size, common practice of private placement of issues with institutional investors, ability of reputable companies to issue public debt in foreign, particularly Eurobond market, incomplete government bond yield curves, as well as because of absence of local credit rating agencies and reliable methodologies for pricing corporate public debt. As reported by Iorgova and Ong (2008), the most developed corporate bonds' markets of transition countries are present in Ukraine, Czech Republic and Russia, comprising between 2,5–3% of GDP.

Besides credit institutions, transition countreis regulate establishement and operating of other institutional investors such as credit institutions, pension funds, mutual funds, insurance companies and venture capital funds. These financial institutions invest funds in certain types of securities either voluntarily or, more often, within legally prescribed limits. As a rule, the largest portion of institutional investors' portfolio comprises from government bonds followed by highly rated corporate bonds and officially quated shares. The demand-supply problems in the domestic capital market emerge if domestic issues do not comply with portfolio investment rules institutional investors need to obey to, meaning that in practice institutional investors do not support liquidity of domestic capital market. Foreign institutional investors cannot solve the demand-supply mismatch problem because their investment limits are usually related to securities' presence in major emerginag markets indices, which are out of reach for most corporate issuers from transition countries.

Publicly listed companies in developed economies finance their business by public and private issuance of financial instruments. However, despite access to capital market, financing policies of publicly listed firms in developing countries resemble private companies financing choices in developed economies. Often cited regulatory gap between developed and developing countries, primarily evidenced in corporate governance rules enforcement and financial reports disclosure, has been narrowing in transition countries of the CEE and SEE region following the adoption of the EU capital-market related directives. Yet it seems that regulatory convergence is not enough to stimulate more intensive reliance on capital market financing. Banks control the majority of savings which leads to high profit margins of CEE banks compared to their peers in developed markets (Orsag, Dedi, and Mihalina 2011).

Jindrichovska and Körner (2008) questioned Czech financial managers' proneness to certain financial instruments usage in companies with annual turnover approximately greater than 3 million euro. They concluded that bank loans and suppliers' credit are preferred among the short-term external financial instruments while bank loans and financial leasing take the lead among long-term external financial instruments. Overall, Jindrichovska and Körner (2008) confirmed pecking order theory-like corporate behaviour in short-term financing but not in long-term financing of Czech companies. As far as investors' interest is concerned, Milos (2004) confirmed domestic institutional investors' interest in subscribing corporate bonds' issues in Croatia.

This paper is organised into five sections. An overview of the literature on corporate financing choices in developed and developing financial systems is described in the introductory part. The second section gives a short background of the Croatian capital market development. The third section presents survey results on public

companies' financing practices in Croatia. The hypotheses on the likelihood of capital market financing by issuing equity or corporate debt by publicly listed companies from non-financial sector are developed and empirically tested in the fourth section. Last section concludes.

2. CROATIAN CAPITAL MARKET DEVELOPMENT OVERVIEW

Like in other European countries, and transition countries in particular, Croatian financial system is dominantly bank-based. The Croatian stock exchange, i. e. Zagreb stock exchange was re-established in 1991 after Croatia declared its independance from the former Yugoslavia. In the early 1990s the stock market barely existed. Public listing of companies was voluntary from 1995–2002 like in Estonia, Hungary, Latvia, Poland and Slovenia (Berglöf and Pajuste 2003) or it was caused by privatisation-related divestitures. The investor protection was law, companies were not obliged to publicly disclose their prospectuses and the obligation of financial reports' public disclosure existed only for companies in the prime market quotation. Since mutual funds' presence was allowed in 1995, and the pension reform based on individual capitalisation of savings began in 2002, public companies that wanted to fund its growth in the 1990s were forced to find investors in the foreign capital market, primarily in London. Two particularly active companies in public securities' issuance at that time were Pliva and Podravka, either in form of GDRs (Pliva) or in foreign currency denominated commercial papers (both). Until 2007 Croatia even had two stock exchanges — Zagreb stock exchange as the official market, and Varazdin stock exchange as the OTC market. Eventually they merged, and the site, name and organizational pattern of larger, Zagreb stock exchange, prevailed onwards.

Early 2000s were marked by mandatory shares' listing rule adopted in mid-2002. All companies having more than 30 million kuna (4 million euro) shareholders' capital or more than 100 shareholders needed to list their shares in the market. To fulfil the legal obligation, companies have published prospectuses and listed a small portion of their secondary shares in the market. The law was stronger than stock exchange listing rules and many companies listed their shares with free float less than 5% of total capital. Just like Iorgova and Ong (2008) described, the growth in stock market capitalization was a direct consequence of mandatory listing rule, while market liquidity remained thin due to small free float of listed companies' capital. The mandatory listing has not provoked secondary shares' offerings by public companies. Except for a couple of IPOs held from 2006–2008, that gained investors' interest on the wings of positive market sentiment caused by two publicly offered shares of state-owned companies (oil and gas manufacturer and trader — INA, and Croatian telecom), there have been no equity issues. The entire capital collected by public offers of equity of non-financial sector in Croatia was 206,5 million kuna (about 27,5 million euro) from 1997–2010, while equity collected by private offers, both with and without prospectus dissemination, stood at 9 billion kuna (1,2 billion euro) in the same period.[2]

Corporate bond market has been thin all the time, just like in other countries in the region. One reason lies in incomplete government bond curve until 2002 and others are probably the absence of official credit ratings and traditional bank-based borrowing

[2] The data calculated by the author according to official sources.

relationships. The short-term corporate public debt issues have been more frequent because companies with good financial results regarded them similar to bank loans. They valued possibility of issuing public debt in tranches, i.e. debt renewal with new tranche issuance on previous tranche maturity, and discretionary disposal with collected funds. A typical tranche size ranged from 5 million kuna (for smaller companies) to 50 million kuna (for larger, reputable companies), or from 0,67–6,67 millions in euro equivalents.[3] Both short-term and long-term corporate public debt markets were illiquid for the secondary trading, except ocassionally between large institutional investors. Since the institutional investors have been allowed to invest certain portion of their portfolio in domestic corporate debt, the corporate debt issues have mostly been subscribed by them and held by maturity.

The data from the US market reveal that the average corporate bond' issue is very large with longer maturities. For example, Datta et al. (2000) reported median corporate public debt issue size of 70,5 million USD and median maturity of public debt of 10 years. The data collected for Croatia revealed that corporate bonds' issues were from 115 million kuna, i.e. from around 15 million euro, upwards, with typical maturities from 5–7 years.[4] Even though there is no regulatory limit for corporate bonds' issue size, commercial papers are required to have a minimum issue size of 8 million kuna (approximately 1 million euro).

The Croatian capital market regulation was strongly influenced by the European acquis in the last decade. Since 2008 mandatory listing obligation was revoked but most companies remained publicly listed despite the financial crisis that significantly eroded the market value of stocks and caused market capitalisation decrease from 394 billion kuna at the end of 2007 to 171,6 billion kuna at the end of 2009, i.e. from 52,5–23 billion euro.[5]

EMPIRICAL DATA ON PUBLIC COMPANIES' FINANCING

The aim of this paper was to investigate financing preferences of Croatianpublicly listed companies from non-financial sector. For this purpose, a survey was targeted to financial managers of non-financial companies that had their shares publicly listed in the beggining of 2010. Only companies whose shares have not been traded in a three-year period and companies with negligible free float were excluded from the sample. The questionnaires were typed in and hosted by one of the available survey providers' on the internet for 6 weeks. The contact details of CFOs were found by means of Zagreb stock exchange data and via Business Croatia (Poslovna Hrvatska) database. Each CFO was tried to be reached by phone and kindly asked to participate in the survey. Unless the CFOs immediately declined to participate in the survey, they were asked to leave their e-mails to be sent the internet link with access to the questionnaire. The CFOs were questioned about current financing practice, experience in raising funds in the capital market, possibility of raising funds through corporate securities'

[3] Ibid.
[4] Author's own research.
[5] For comparison purposes, GDP size was recorded at 302 billion kuna in current prices in 2007. Data were obtained from the Croatian Chamber of Economy statistics (transfer from the Zagreb stock exchange data).

issues and selected factors they might weigh in coming to corporate securities' issuance decisions.

150 questionnaires were distributed in total and 48 companies responded (32%). 31% of companies whose CFOs responded to survey qestions were from the manufacturing sector, 21% from tourism, 8% from information technologies, while trnasport, trade and construction shared the fourth place with 6,3% share each. 35% of companies were registered in Zagreb, followed by Istrian (12,5%) and Split (10%) region. The mean age of firms was 58 years, with the youngest firm being 11 and the oldest 154 years old. 50% of firms had up to 500 shareholders while 38% had less than 5% free float and another 15% companies had less than 10% free float. Companies on avarage had business relationship with four banks, with only 4% having one bank only, and 29% having business accounts with more than six banks. In addition, about 54% companies prepared consolidated financial statements.

Figure 1 and 2 show evidence on nine financial instruments represented in public companies' capital structure (survey data). The companies were grouped into five subgroups, i.e. the companies that never, seldom, sometimes, often, or very often need funds. Figure 1 illustrates short-term financing instruments, while figure 2 depicts long-term financing instruments in public companies' capital structure at the time of surveying.

As expected, the first place in short-term financing belongs to short-term bank loans that are used by 77% companies in the sample. Only companies that do not have financing needs would not use it. Compensation and cession were hierarchically positioned before companies' own working capital (54%), trade credit (44%) and factoring (40%) in short-term financing instruments preferences. It was a surprise to the author since having the status of publicly listed firms in mind one would expect that compensation and cession were not so common. However, it was probably only a consequence of the overall illiquidity in the Croatian economy that reached 57,5% of transaction money in late 2009.[6] It may also suggest that the negotiating power of around 60% of public companies towards their buyers and suppliers is not very large, which is a pure characteristics of the small and medium enterprises. Financing by commercial paper issuance comes in the end and it is present in the capital structure of four companies only.

[6] According to the official data from the Croatian Chamber of Economy, Illiquidity of the economy reached 27,1 billion kuna (more than 4 billion euro) in December 2009.

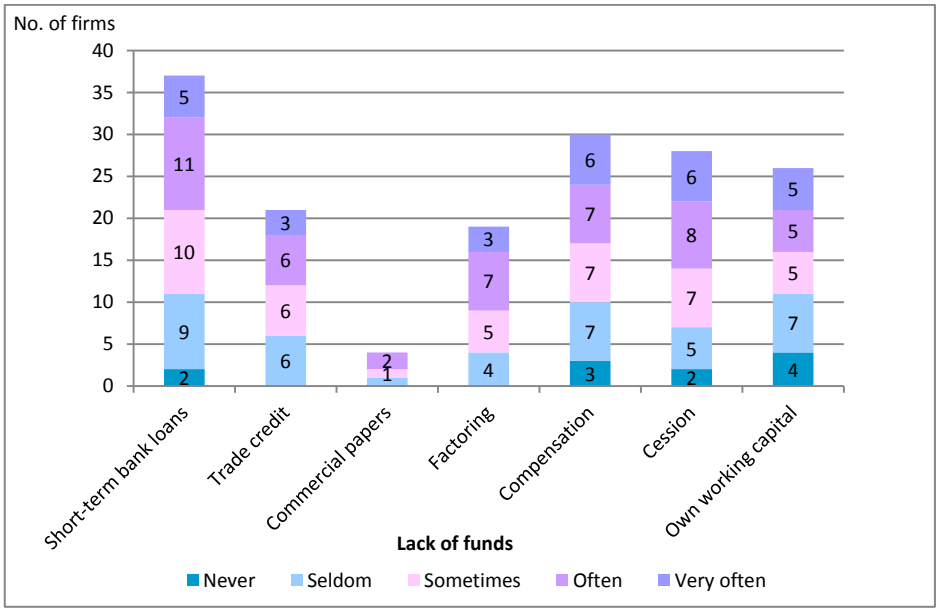

Figure 1. Short-term financial instruments' usage conditioned on lack of funds

Figure 2 shows that long-term bank loans are by far most used financial instrument, being present with 81% companies. 73% rely on their retained earnings while 69% use leasing. The capital coming from shares and corporate bonds issuance comes in the last place, being present in nine and five companies, respectively.

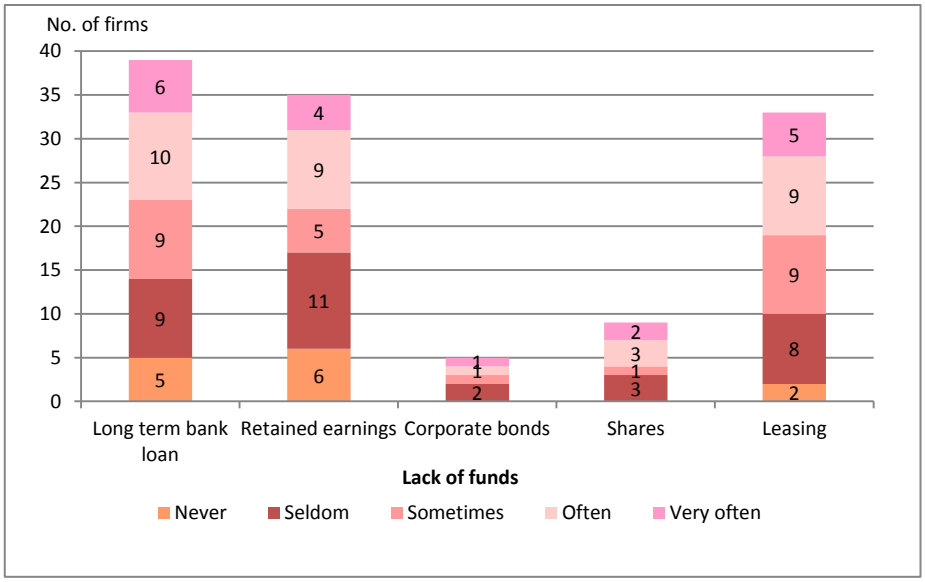

Figure 2. Long-term financial instrument usage conditioned on the lack of funds

Table 1. Ranking of financial instruments usage by public companies

Name of the financial instrument	Companies that never or seldom need funds			Companies that sometimes need funds			Companies that often need funds			Overall…		
	% within characteristics		Rank within chara-cte-ristics	% within characteristics		Rank within character-ristics	% within characteristics		Rank within characte-ristics	% within characteristics		Rank within charact eristics
	Yes	No	Yes/no	Yes	No	Yes/no	Yes	No	Yes/no	Yes	No	Yes/no
Long term bank loan	29,2	14,6	2	18,8	2,1	2/3	33,3	2,1	1/2	81,25	18,75	1
Retained earnings	35,4	8,3	1	10,4	10,4	6/7/8/9	27,1	8,3	5/6	72,92	27,08	3
Corporate bonds	4,2	39,6	11	2,1	18,8	10/11/12	4,2	31,3	11/12	10,42	89,58	11
Shares	6,3	37,5	10	2,1	18,8	10/11/12	10,4	25,0	10	18,75	81,25	10
Leasing	20,8	22,9	5/6	18,8	2,1	2/3	29,2	6,3	3/4	68,75	31,25	4
Short-term bank loan	22,9	20,8	3/4	20,8	0,0	1	33,3	2,1	1/2	77,08	22,92	2
Trade credit	12,5	31,3	8	12,5	8,3	6/7/8/9	18,8	16,7	9	43,75	56,25	8
Commercial papers	2,1	41,7	12	2,1	18,8	10/11/12	4,2	31,3	11/12	8,33	91,67	12
Factoring	8,3	35,4	9	10,4	10,4	6/7/8/9	20,8	14,6	7/8	39,58	60,42	9
Compensation	20,8	22,9	5/6	14,6	6,3	4/5	27,1	8,3	5/6	62,50	37,50	5
Cession	14,6	29,2	7	14,6	6,3	4/5	29,2	6,3	3/4	58,33	41,67	6
Own working capital	22,9	20,8	3/4	10,4	10,4	6/7/8/9	20,8	14,6	7/8	54,17	45,83	7

The overall rankings of financial instruments used by public companies are presented in table 1 (survey data), with yellow, orange and green colours used to facilitate the comparison across the subsets of companies that rarely, sometimes and often need funds. The presented data show that long-term and short-term bank loans take the lead, followed by retained earnings and leasing, that is practically a substitute for loans. Next come compensation and cession that take precedence over trade credit and factoring. Last on the list are capital market instruments, in order of frequency in usage: shares, corporate bonds and commercial papers. Although there are some nuances in the preferred order of financial instruments, the ranking of the capital market instruments is the same regardless of the companies' needs for funds. In other words, the companies do not perceive these instruments as possible sources of capital at all. The pecking order theory is the closest capital structure theory such behaviour of Croatian companies resembles to. It is especially true for the companies that never or seldom need funds. Overall ranking of financial instruments is dominantly influenced by the companies that do not have enough money, which causes them to put retained earnings and own working capital on lower positions of financing preference. The companies that are in need for funds choose primarily between bank loans, leasing, compensation and cession.

RESEARCH DESIGN AND HYPOTHESES

A couple of research hypotheses emerged in this section from previous discussion and data collected. They were used to reveal why public companies are not prone to capital market financing.

H1: Other available financial instruments are sufficient.
H2: Companies are better acquainted with out-of-capital market financing.
H3: Securities' issuance procedure is slow and demanding.
H4: Firms are too small to have benefits from securities' issuance.
H5: There are no enough investors in the Croatian capital market.
H6: Market is illiquid and the prices of securities are unrealistic.
H7: Securities' issuance brings only costs.
H8: Experience in raising funds in the capital market increases chances for subsequent securities' issuance.

Hypothesis 1 is self-explanatory. Firms that have easy access to finance would probably not engage into securities' issuance in any market, if not for other reasons than certainly due to more complex and time consuming procedure. The hypotheses 2-7 were set in light of direct and indirect costs of securities' issuance. The direct costs of securities issuance are the costs of underwriters and other advisors, regulatory and listing costs. The indirect costs represent opportunity costs of securities' issuance such as market undervaluation that hampers sale of securities at expected prices, illiquidity of the secondary market as well as extra time management needs to separate for the securities' public offering process. The hypothesis that there are no enough investors addresses the fear of possible failure of public offer of securities, i.e. opportunity costs of time and money invested into preparing the issue for public offering. Firms are often too small to recover from transaction costs' related to small issues. For example Datta et al. (2000) stated that corporate bonds' issues have a large fixed component that distract smaller companies from approaching corporate bond market more frequently. The seventh hypothesis relates to the perception of some issuers that, due to mandatory listing rule, they had only regulatory costs of preparing and making financial reports public. Last hypothesis supposes that more experienced issuars would not weigh too much before making decision to enter the market again.

All the hypotheses are tested for capital market instruments in question. The dependent variable is the possibility of particular securities, i.e. commercial paper, corporate bonds' or shares' issuance, that takes value 1 (if the probability of issuance is likely) or 0 (if the probability of securities issuance is not likely). The difference between the likely-to-issue and not-likely-to-issue companies is measured by the Pearson chi-square statistic as well as with ANOVA and Levine's test for equality of variances. The latter two values are reported in the parentheses.

The data presented in table 2 show that only nine out of 48 respondents (19% of the sample) confirmed that they think of issuing either debt or equity securities in the market, of whom five think that securities' issuance procedure is very demanding, three that their firms are too small to gain benefits from securities' issuance and two regard that there would be no investors to subscribe their public debt issue. The most significant differences (highlighted for easier overview) between likely-to-issue and not-likely-to-issue groups of companies were recorded for these three statements: "too small a firm to get benefits from securities' issuance", "there are no enough investors" and "issuance procedure is slow and demanding". 31% of total negatively leaned CFOs towards shares' issuance stressed the size of the company as a limiting factor for issuance compared to 23% for public debt issuing. Likewise, 36% of such CFOs think that there are no investors to subscribe equity issue, while 31% give little chances to find adequate investors for public debt subscription. Regardless of the security in

question, financial managers agree on the slowness and complexity of issuing procedure. This feature together with the no-need-for-funds splits the sample of willing-to-issue financial managers in those who really tried it in practice and those who were just thinking of such possiblity.

The results presented in the table 2 (survey results) reveal that financial managers who are not prone to the securities' issuance are mostly undecided regarding the statements on securities' issuance they were asked to comment. It holds true for all statements except for market illiquidity and unrealistic prices of securities.

35% of financial managers answered that other sources of funds, contracted out of the capital market, are not sufficient to fulfil their financing needs, 23% disagreed that their firms choose out-of-capital market financing due to better acquaintance with the relationship-based financing procedure. Up to 90% of financial managers that claimed the procedure of issuance is not complex would not issue any securities, probably because they do not need external funds at all. If 40% of financial managers agreed that securities' issuance does not bring costs only, than the most important limiting factor for securities' issuance remained is market illiquidity (56%), followed by no need for funds (33%).

The results of univariate statistics therefore confirmed that illiquid market is the main obstacle for more frequent capital market financing, while it is not true that securities' issuance brings only costs for the issuers. A third of listed companies had sufficient capital and they were not candidates for subsequent securities' issuance. Firms are better acquainted with out-of-capital market financing (31–77%). Prevailing perceptions among potential issuers are: the issuance procedure is slow and demanding for all types of securities' issuance (31–77%), there are no enough investors (29-75%) and firms are too small to gain benefits from securities issuance (25–73%).[7] However, according to the affirmatively leaned CFOs towards securities' issuance are not limitations for securities issuance, particularly not for equity issues. Experience in securities' issuance after the initial shares' listing increases the possibility for further securities issuance (75% for shares' and corporate bonds issuance and 50% for commercial papers).

Table 2. Possiblity of securities issuance, conditioned on CFOs' attitudes towards financing in the capital market

Statement	CFOs attitude	Possiblity of commercial paper' issuance				Possibility of corporate bonds issuance				Possibility of shares' issuance			
		No	Yes	Total	Pearson χ^2 (ANOVA/Levine's test for equality of variances)	No	Yes	Total	Pearson χ^2 (ANOVA/Levine's test for equality of variances)	No	Yes	Total	Pearson χ^2 (ANOVA/Levine's test for equality of variances)
Other financial instru-ments are sufficient	Strongly disagree	6	3	9	7,521 (0,046 /0,132)	8	1	9	4,476 (0,046 /0,132)	6	3	9	6,591 (1,511 / 1,452)
	Disagree	8	0	8		5	3	8		5	3	8	
	Undecided	14	1	15		14	1	15		15	0	15	
	Agree	6	4	10		7	3	10		8	2	10	
	Strongly agree	5	1	6		5	1	6		5	1	6	
	Total	39	9	48		39	9	48		39	9	48	
	Mean	2,90	3,00	2,92		2,90	3,00	2,92		3,03	2,44	2,92	

[7] Smaller percentage takes only agree and strongly agree stances, while larger percentage takes undecided answers into account as well.

Table 2. (*continued*)

Statement	CFOs attitude	Possiblity of commercial paper' issuance				Possibility of corporate bonds issuance				Possibility of shares' issuance			
		No	Yes	Total	Pearson χ^2 (ANOVA/Levine's test for equality of variances)	No	Yes	Total	Pearson χ^2 (ANOVA/Levine's test for equality of variances)	No	Yes	Total	Pearson χ^2 (ANOVA/Levine's test for equality of variances)
Firm is better acquainted with out-of-capital-market financing	Strongly disagree	1	1	2		2	0	2		2	0	2	
	Disagree	6	3	9		7	2	9		5	4	9	
	Undecided	20	2	22	5,068	18	4	22	0,626	19	3	22	5,101
	Agree	8	1	9	(0,293	7	2	9	(0,032	8	1	9	(0,822 /
	Strongly agree	4	2	6	/0,022)	5	1	6	/0,022)	5	1	6	0,008)
	Total	39	9	48		39	9	48		39	9	48	
	Mean	3,21	3,00	3,17		3,15	3,22	3,17		3,23	2,89	3,17	
Issuance procedure is slow and demanding	Strongly disagree	0	1	1		0	1	1		0	1	1	
	Disagree	9	1	10		8	2	10		8	2	10	
	Undecided	20	2	22	11,403**	21	1	22	10,133**	21	1	22	10,133**
	Agree	10	4	14	(1,028 /	9	5	14	(0,012 /	9	5	14	(0,012
	Strongly agree	0	1	1	5,938**)	1	0	1	5,938**)	1	0	1	/5,938**)
	Total	39	9	48		39	9	48		39	9	48	
	Mean	3,03	3,33	3,08		3,08	3,11	3,08		3,08	3,11	3,08	
Too small a firm to have benefits from issuing securities	Strongly disagree	3	5	8		4	4	8		4	4	8	
	Disagree	5	0	5		5	0	5		3	2	5	
	Undecided	22	1	23	16,285***	21	2	23	8,298*	20	3	23	9,871**
	Agree	6	3	9	(4,133**	7	2	9	(0,927	9	0	9	(10,66***
	Strongly agree	3	0	3	/8,077***)	2	1	3	/8,077***)	3	0	3	/0,111)
	Total	39	9	48		39	9	48		39	9	48	
	Mean	3,03	2,22	2,88		2,95	2,56	2,88		3,10	1,89	2,88	
There are no enough investors	Strongly disagree	2	2	4		2	2	4		2	2	4	
	Disagree	3	3	6		3	3	6		2	4	6	
	Undecided	22	2	24	9,053*	22	2	24	9,053*	21	3	24	15,453***
	Agree	8	2	10	(4,821**	8	2	10	(4,821**	10	0	10	(12,948***
	Strongly agree	4	0	4	/1,315)	4	0	4	/1,315)	4	0	4	/0,273)
	Total	39	9	48		39	9	48		39	9	48	
	Mean	3,23	2,44	3,08		3,23	2,44	3,08		3,31	2,11	3,08	
Market is illiquid and securities prices are unrealistic	Disagree	3	0	3		3	0	3		3	0	3	
	Undecided	15	3	18		14	4	18		15	3	18	
	Agree	17	5	22	0,977	17	5	22	2,217	16	6	22	2,946
	Strongly agree	4	1	5	(0,566 /1,947)	5	0	5	(0,044 /1,947)	5	0	5	(0,073 /3,26*)
	Total	39	9	48		39	9	48		39	9	48	
	Mean	3,56	3,78	3,60		3,62	3,56	3,60		3,59	3,67	3,60	
Securities' issuance brings only costs	Strongly disagree	4	3	7		6	1	7		5	2	7	
	Disagree	10	2	12		7	5	12		7	5	12	
	Undecided	20	2	22	5,120	21	1	22	8,210*	20	2	22	7,543
	Agree	4	2	6	(1,025	4	2	6	(0,387	6	0	6	(5,114**
	Strongly agree	1	0	1	/2,815*)	1	0	1	/0,089)	1	0	1	/1,673)
	Total	39	9	48		39	9	48		39	9	48	
	Mean	2,69	2,33	2,63		2,67	2,44	2,63		2,77	2,00	2,63	
Sub-sequent experience in securities' issuance	Yes	2	2	4		1	3	4	9,063***	1	3	4	
	No	37	7	44	2,797*	38	6	44	(10,707***	38	6	44	9,063***
	Total	39	9	48	(2,847* /	39	9	48	/	39	9	48	(10,707***
	Mean	-	-	-	10,333***)	-	-	-	47,620***)	-	-	-	/47,620***)

Note: *** significant at 1%, ** significant at 5%, * significant at 10%

Table 3. Binomial regression models' results

Independent variables /model specific characteristics	Dependent variables															
	Commercial paper issuance						Corporate bonds issuance						Shares' issuance probability			
	Model 1		Model 2		Model 3		Model 1		Model 2		Model 3		Model 1		Model 2	
	Coef (st. dev.)	Odds	Coef. (st. dev.)	Odds	Coef. (st. dev.)	Odds	Coef. (st. dev.)	Odds	Coef. (st. dev.)	Odds	Coef. (st. dev.)	Odds	Coef. (st. dev.)	Odds	Coef. (st. dev.)	Odds
Other available financial instruments are sufficient	,972 (,610)	2,643	1,298* (,717)	3,662	1,235* (,724)	3,439	-,019 (,438)	,981	,315 (,545)	1,370	,538 (,560)	1,712	-,776 (,722)	,460	-2,650 (2,775)	,071
Better acquaintance with out-of-capital market financing	-1,918* (1,000)	,147	-2,379** (1,179)	,093	-2,371* (1,242)	,093	,167 (,617)	1,182	-,200 (,711)	,819	-,699 (,815)	,497	-,086 (,809)	,917	,654 (1,395)	1,922
Issuance procedure is slow and demanding	2,183** (,954)	8,899	2,718** (1,141)	15,151	2,848** (1,218)	17,260	,502 (,692)	1,652	1,336 (,999)	3,802	,951 (,899)	2,587	1,477 (,931)	4,382	3,748 (2,772)	42,434
Firm is too small to have benefits from securities' issuance	-,664 (,516)	,515	-,452 (,547)	,636	-,590 (,627)	,554	,102 (,480)	1,107	1,018 (,765)	2,767	,963 (,826)	2,619	-,577 (,558)	,562	-,381 (,664)	,683
There are no investors	-1,543** (,782)	,214	-1,371* (,758)	,254	-1,460* (,778)	,233	-1,334* (,682)	,263	-1,637 (1,001)	,194	-1,421 (1,083)	,242	-2,258** (,970)	,105	-4,174 (3,232)	,015
Market is illiquid and prices of securities are unrealistic	1,304 (,829)	3,684	1,445 (,973)	4,243	1,446 (1,012)	4,248	,049 (,624)	1,051	-,640 (,808)	,527	-,822 (,956)	,440	1,426 (,914)	4,162	2,753 (2,559)	15,690
Securities issuance brings only costs	,065 (,785)	1,067	-,187 (,733)	,829	-,096 (,796)	,908	,142 (,710)	1,153	-,120 (,860)	,887	,451 (1,317)	1,570	-,364 (,958)	,695	-1,814 (2,026)	,163
Subsequent securities issuance			2,416 (1,897)	11,199	2,339 (2,068)	10,367			4,307** (1,957)	74,248	5,119** (2,043)	167,105			7,933 6,184)	2787,973
Availability of bank loans					,455 (,493)	1,577					3,052 (1,999)	21,165				
Corporate bonds are a replace for bank loans									1,497 (1,242)	4,469	-1,131 (,752)	,323				
Constant	-4,352 (2,787)	,013	-6,969* (4,030)	,001	-7,843* (4,299)	,000	-,530 (2,086)	,571	-3,310 (3,052)	,037	-1,342 (3,756)	,261	-,543 (2,615)	,581	-2,925	
Negelkerke R square		,483		0,534		,556		,207		,418		,502		,615		,718
Correctly predicted "no"		97,4		94,9		97,4		97,4		97,4		94,4		94,9		100,0
Correctly predicted "yes"		44,4		55,6		66,7		22,2		33,3		44,4		55,6		77,8
Correctly predicted "overall"		87,5		87,5		91,7		83,3		85,4		85,4		87,5		95,8
Test of model coefficients		17,473**		19,276**		20,242**		6,590		14,355		17,879*		22,982***		28,097***
H-L test value		2,016		1,120		7,961		10,417		7,909		2,329		1,632		3,889

Note: *** significant at 1%, ** significant at 5%, * significant at 10%

A binomial regression results shown in table 3 reveal to what extent the selected variables are significant when combined together. Three models with graduate inclusion of variables are presented for commercial paper and corporate bonds' issues while two are presented for shares' issuance likelihood. Like in univariate tests, the dependent variable is the likelihood of securities' issuance. Availability of bank loans and the stance of managers' on whether the corporate bonds could be a replace for bank loans are added for the purpose of testing the increase of presented models significance for commercial paper and corporate bonds issuing likelihood.

The selected independent variables appear to be most significant for the probability of commercial paper issuance. Experience in securities' issuance is the most important factor for corporate bonds' issuance, increasing the odds of issuance by 167 times. Although experience in securities' issuance is not significant with shares' issuance possibility, such experience increases the probability of shares' issuance by as many as 2788 times. In models that disregard the influence of experience, the perception that there are no enough investors has been proved to be significant for all capital market instruments in question. However, the presence of investors has not been confirmed in the odds for issuance. If the procedure of securities' issuance had not been perceived as complicated and slow, the odds for securities' issuance would have been increased from 2,6 times for corporate bonds to 42 times for shares. Market liquidity would improve the likelihood of shares issuance by over 15 times, and the likelihood of commercial paper issuance by more than four times. Other factors such as availability of bank loans, size of the company and costs' of issuance perception seem to prevail with the likelihood of corporate bonds' issuance.

Although not significant, the availability of bank loans is the second important factor that determines the corporate bonds' issuance probability. The attitude on whether corporate bonds are a replace for bank loans is not important, except for the significance of the test of model coefficients. As it can be seen in the lower part of the table 3 the most significant models are these that describe shares' issuance possibility, which can be seen from the percentage of correctly predicted likelihood of shares' issuance. The models predicting the likelihood of commercial paper issuance follow, while the models that try to describe the important factors in corporate bonds' issuance are least reliable. The limitations of all regression models employed are sample size and small number of affirmative answers regarding corporate securities' issuance possibility. However, despite these limitations, all models offer significant improvement compared to the base model (with constant only).

CONCLUSION

Evidence from the field suggests that the major part in publicly listed companies in Croatia belongs to relationship-based contracting. Even if they engage into securities' issuance, the private placement is highly preferred method of collecting funds. Frequency of compensation and cession usage in corporate financing shows that public firms are more concerned with working capital than with growth financing that might be a consequence of overall illiquidity in the economy but also signs of internal weaknesses of public companies.

Overall, only 19% of financial managers of publicly listed firms would be prone to issue corporate securities while 35% of firms had problems with insufficient funds

from other sourccs. Issuers who had experience in securities' issuance after initial listing of shares are more likely to issue corporate securities again which is in line with other authors' research such as Eckbo et al. (2007). With regard to financing by public offer of corporate securities, the most significant limiting differences between likely-to-issue and not-likely-to issue companies are evidenced in the stances on the (too small) size of the issuers, lack of investors and sloweness and complexity of issuance procedure as well as of the perceived complexity of issuing procedure regardless of the security in question. The perception on the lack of investors is in contrast with an earlier research conducted by Milos (2004) that proved institutional investors' interest in corporate debt subscriptions. However, the willing-to-issue companies do not believe that there is a lack of investors in the market, particularly not when it comes to equity issuance. It might also mean that reputable companies with sound financial track record do not have problems with finding investors, while financially struggled companies have problems with access to all financial instruments. In addition, all public companies' financial managers agreed that market illiquidity is the main obstacle for more frequent securities' issuance.

Although the sample size is small, particularly with regard to affirmative stances of financial managers towards corporate securities issuance, research results confirmed that the availability of other funds, better acquaintance with out-of-capital market issuance procedure, perception on the complex and lengthy issuance procedure and lack of investors are significant with making decisions on commercial paper issuance. Previous experience in collecting funds by public issues of coporate bonds and shares seemed to be the most important factor when deciding to issue these corporate securities again.

REFERENCE

Bancel, Franck, and Usha R. Mittoo. 2004. Cross-Country Determinants of Capital Structure Choice: A Survey of European Firms. *Financial Management* 33 (4): 103–132.

Baker, Malcolm, and Jeffrey Wurgler. 2002. Market Timing nad Capital Structure. *Journal of Finance* 57 (1): 1–32.

Beck, Thorsten, Asli Demirguc-Kunt, and Vojislav Maksimovic. 2008. Financing Patterns Around the World: The Role of Institutions. *Journal of Financial Economics* 89 (3): 467–487.

Berglof, E., and A. Pajuste. 2003. Emerging Owners, Eclipsing Markets? Corporate Governance in Central and Eastern Europe. In *Corporate Governance and Capital Flows in a Global Economy*, ed. P. K. Cornelius and B. Kogut, 267–304. New York: Oxford University Press.

Brounen, Dirk, Abe de Jong, and Kees Koedijk. 2004. Corporate Finance in Europe: Confronting Theory with Practice. *Financial Management* 33 (4): 71–101.

Datta, S Sudip, Mai Iskandar-Datta, and Ajay Patel. 2000. Some Evidence on the Uniqueness of Initial Public Debt Offerings. *Journal of Finance* 55 (2): 715–743.

Demirguc-Kunt Asli, and Vojislav Maksimovic. 1999. Institutions, financial markets and firm debt maturity. *Journal of Financial Economics* 54 (3): 295–336.

Denis, David J. 2011. Financial flexibility and corporate liquidity. *Journal of Corporate Finance* 17 (3): 667–674.

Denis, David J., and Vassil T. Mihov. 2003. The choice among bank debt, non-bank private debt, and public debt: Evidence from new corporate borrowings. *Journal of Financial Economics* 70 (1): 3–28.

Eckbo, E. B., R. W. Masulis, and Ø. Norli. 2007. Security Offerings. In *Handbook of Corporate Finance: Empirical Corporate Finance*, ed. E. B. Eckbo, Vol. 1, chap. 6. North-Holland: Elsevier.

Gomes, Armando, and Gordon Phillips. 2012. Why do public firms issue private and public securities. *Journal of Financial Intermediation* 21: 619–658.

Graham. John R., and Campbell R. Harvey. 2001. The Theory and Practice of Corporate Finance: Evidence from the Field. *Journal of Financial Economics* 60 (2–3): 187–243.

Houston, Joel, and Christopher James. 1996. Bank Information Monopolies and the Mix of Private and Public Debt. *Journal of Finance* 51 (5): 1863–1889.

Hrvatska gospodarska komora. 2011. *Gospodarska kretanja* 2. Zagreb: Hrvatska gospodarska komora.

Iorgova, S., and L. L. Ong. 2008. *The Capital Markets of Emerging Europe: Institutions, Instruments and Investors*. WP/08/103. International Monetary Fund.

Jindrichovska, I., and P. Körner. 2008. *Determinants of corporate financing decisions: A survey evidence from Czech firms*. Working paper. Prague: Institute of Economic Studies, Faculty of Social Sciences Charles University in Prague.

Milos, Danijela. 2004. Perspektive razvoja hrvatskog trzista korporacijskih obveznica. [The Outlook for the Development of the Croatian Corporate Bonds Market]. *Financijska teorija i praksa* 28 (4): 417–434.

Myers, Stewart C. 1984. The Capital Structure Puzzle. *Journal of Finance* 39 (3): 575–592.

Myers, Stewart C., and Nicholas S. Majluf. 1984. Corporate Financing and Investment Decisions When Firms Have Information the Investors Do Not Have. *Journal of Financial Economics* 13 (2): 187–221.

Orsag, Silvije, Lidija Dedi, and Emil Mihalina. 2011. Banks in Transition Countries as one of Most Attractive Investments. *UTMS Journal of Economics* 2 (1): 1–20.